

DS D2.6 – Methodology for the development of data specifications: Comments and Resolutions Table

(Comments are related to the D2.6 version 2.0)

Comm#	ID	LMO/SDIC	1	2	3	4	5 - Comment	6 - Proposed change	7 - Resolution
Progressive comment numb.	LMO/SDIC ID	LMO/SDIC	Comment ID	Chapter, section or clause no./ Subclause No./ Annex	Paragraph /Figure /Table /Note	Type of comment	Comment (justification for change)	Proposed change	Final combined resolution (Drafting Team DS, Comment Resolution Workshop, JRC)
1	State Agency for Information Technologies and Communications (SAITC)	LMO	4		Figures 15,29,31,35,36,42,43,44,47,48,49,50,51,52,53,54	E	Figures are not named neither referred within the text		A - add titles and references
2	Geonovum	LMO	12			G	How will the level of knowledge in each TWG be managed? I can imagine that different TWG's will be working on comparable items. Will there be an exchange of information between the different TWG's?		A/R - clarify that this harmonisation *must* be an active role and the feature concept dictionary and the consolidated UML model are mechanisms to facilitate this process; the details of how this will be organised in practice need to be clarified by the CT before the TWG work starts. This will include clear responsibilities for roles that maintain the common registers and require an active participation in the process and not "just" an editorial role. In addition, the Work Programme also includes coordination activities related to the TWGs work by a team composed of the European Commission, DT DS and EIONET.
3	Geonovum	LMO	24			G	Maintenance is very important, what will happen after 2014? How do we make sure that INSPIRE will keep working?		A - agreed; while 5.4.6 contains some idea about this, more thought will need to be put into this; DT DS assumes that the CT will be in charge of this. One aspect to consider in the drafting of the final IR documents should be to capture in the IR itself only requirements that have a long term validity; it would be good if most parts of the data

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									specifications could in fact be referenced from there *normatively*, but managed outside in the registers so that a new spatial object type to support a new environmental use case does not require to go through the comitology procedure. / JRC: A with DS DT importance of registers & take it into account
4	National Survey and Cadastre, Denmark	LMO	KMS-2			G	The document should be divided into two documents. One document for the methodology and one for the data specification	Split the document into two	NA - Annex C contains just an example and is best kept with the document. The study for testing the methodology is expected to deliver a separate document for use by the TWGs.
5	National Survey and Cadastre, Denmark	LMO	KMS-1			G	The document is very difficult to read for the reader not experienced in the use and reading of standards from ISO 19100 series	Try to make the document more readable for the unexperienced reader	Ap - we will see what can be done in a review, but it is a fact that the use of the modelling framework will require deep knowledge about the ISO 19100 series in every drafting team (not necessarily by every expert though); also, the DT simply did not and does not have the necessary, significant resources available to write a self-standing document that could be understood without knowledge about the normative references.
6	AGI - Association for Geographic Information	SDIC	1			G	This document contains a lot of useful information and guidance. However, it is rather over-prescriptive, and meeting all the requirements and following all the recommendations will be very onerous.	Consider reducing the requirements. See later comments.	Ap - see individual comments
7	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	1			G	This document will be very useful for the experts of the Thematic WG as it is very detailed and covers many aspects of the data specification process. This process will require a strong support to help experts as large knowledge is expected (modeling, ISO standards, the Generic Conceptual Model...). Some points should be clarified as indicated in the following comments.		Ap - see individual comments

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8	IDEE Working Group of the Commission on Geomatics (National Geographic High Council)	LMO	1			G	<p>This methodology considers use cases as the unique tool for obtaining user requirement. At the present stage of the INSPIRE process, a more detailed and reviewed catalogs of users and user requirement should be obtained and spread. LMOs, SDICs and EIONET are fundamental actors for this process, but those explicit catalogs should be documented and disseminated for a posterior review at each Member Countries LMOs and SDICs, to ensure principal users and requirements are well documented.</p> <p>Also, after the use cases are obtained, it is necessary to make a careful analysis to elaborate the Class Analysis document, with attributes, relationships, and responsibilities, identifying class entities (information manipulated in each use case), user interface classes (interaction between systems and user interchanging information) and control classes (control of the transactions between actors and objects in a use case).</p>	<p>Include these techniques in the data specification methodology:</p> <ul style="list-style-type: none"> -Cataloguing of users -Cataloguing of user requirements -Class Analysis 	<p>NA/R - We have to be careful not to overload the process and the TWG work not with too many requirements and constraints (see other comments). Still, it would be good to have a list of users and user requirements as a synthesis of the use case analysis. For the requirements, it is implied in the methodology that the requirements are captured, but to reduce work it is not a separate deliverable and in particular it is not planned to send this for review by SDIC/LMO. Similar with the "class analysis".</p> <p>Some additional remarks: The user requirements have to originate from environmental policies and should be derived from relevant use cases identified - in principle by the CT - after the user requirements survey results are available. These results in fact do provide such a catalogue, the issue will be how to facilitate the process so that all relevant use cases are submitted in the survey period. Note that the list of user requirements will develop during the creation of INSPIRE data specifications.</p>
9	National Assembly of the Land Cover and Use Information System of Spain (SIOSE)	SDIC	1	-		G	<p>This methodology considers use cases as the unique tool for obtaining user requirement. At the present stage of the INSPIRE process, a more detailed and reviewed catalogs of users and user requirement should be obtained and spread. LMOs, SDICs and EIONET are fundamental actors for this process, but those explicit catalogs should be documented and disseminated for a posterior review at each Member Countries LMOs and SDICs, to ensure principal users and requirements are well</p>	<p>Include these techniques in the data specification methodology:</p> <ul style="list-style-type: none"> -Cataloguing of users -Cataloguing of user requirements -Class Analysis 	d

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							documented. Also, after the use cases are obtained, it is necessary to make a careful analysis to elaborate the Class Analysis document, with attributes, relationships, and responsibilities, identifying class entities (information manipulated in each use case), user interface classes (interaction between systems and user interchanging information) and control classes (control of the transactions between actors and objects in a use case).		
10	Geonovum	LMO	23			G	Who is handling important issues like the security of the network (privacy, or danger in the field of terrorism etc.), prices of the data, finance, etc?		R - This is handled by the documents on Network Services
11	BRGM	LMO	1	-		G	This document will be very useful for the experts of the Thematic WG as it is very detailed and covers many aspects of the data specification process. This process will require a strong support to help experts as large knowledge is expected (modeling, ISO standards, the Generic Conceptual Model...). Some points should be clarify as indicated in the following comments.		d
12	United Kingdom Hydrographic Office	LMO	1		Purpose of the Document / Important notice / second paragraph (bottom of p6)	T	"harmonisation" here is described as providing access through network services. Reference discussion at comment resolution on 2.5 - INSPIRE requires harmonised data, and requires it to be made available over a network, but it does not seem correct that "harmonisation" = providing access. The last sentence of this paragraph suggest that this is "interoperability", which seems nearer.	Reconcile this paragraph with the outcome of discussion harmonisation & harmonised data at the D2.5 comment resolution workshop.	A
13	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	2			Q	Once the TWG for Annex I themes have finished to specify their data models, is it forseen to update this document according to their		- Yes, the documents D2.5, D2.6 and D2.7 will need to be maintained and revised during the data specification development process /

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							experience? How this experience will be shared with TWG for annexes II and III?		JRC: A with the DT DS resolution.
14	BRGM	LMO	2	-		Q	Once the TWG for Annex I themes have finished to specify their data models, is it foreseen to update this document according to their experience? How this experience will be shared with TWG for annexes II and III?		d
15	Bundesanstalt für Geowissenschaften und Rohstoffe (BGR)	LMO	12		Figure 7		The figure does not show how data specifications refer to the product and the data set. Metadata also can describe both.		- This figure is taken from ISO 19131 which has been adopted for INSPIRE data specifications. In principle, a number of approaches are possible and the one from ISO 19131 is the one that was agreed upon in the standardisation process. Unless it is known that the model does not support any specific requirement from INSPIRE no need is seen to change it.
16	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	28		Figure 7		The figure does not show how data specifications refer to the product and the data set. Metadata also can describe both.		d
17	OMSz - Hungarian Meteorological Service	LMO	14	Annexes	whole	E	Lot of figures in the annexes lack of any title, or description of the figure content. It makes the document heavy in interpretation.	Give titles to each figure.	A
18	LMV - Lantmateriet, National Land Survey of Sweden	SDIC	1	Whole document		E	The language is inconsistent	Use same terms throughout the text and improve the English	A - a review will be done, but if more specific information could be provided this could help to correct the cases that caused the comment
19	Institut Géographique National	LMO	2	Whole document		E	Most figures are readable in black and white but not all of them (e.g. figure 22). I guess most of the people reading the document will print it in black and white.	remove colors from figures whenever possible	A
20	Institut Géographique National	LMO	3	Whole document		E	Readability would be increased if examples are visually separated from comments.	put all the examples in italics or grey, or in a different font	Ap, R (CT) - this should be harmonised across all INSPIRE documents
21	Met Office	LMO	MO_1	all		G	Congratulations on creating a very useful document. The information here is useful beyond the limitations		- noted with thanks

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							of INSPIRE.		
22	Federal Office of Topography (Switzerland) - swisstopo	LMO	5	document		G	Considering the listed requirements and recommendations we see the risk of a process, which is asking too much and will last too long.		Ap - see #6
23	Federal Office of Topography (Switzerland) - swisstopo	LMO	2	document		G	everything is based on the model-driven approach, which is positive.		- noted
24	OMSz - Hungarian Meteorological Service	LMO	1	whole document		G	In our view, the "Methodology for the development of data specifications" document has reached its goal, in the sense that it provides useful and applicable information on the data specification process. We want to thank the Drafting team for their work, and special thanks for including meteorological examples in the Annexes. We consider it very important in our future work.		- noted with thanks
25	AGI - Association for Geographic Information	SDIC	2	Throughout		G	It would be useful to have a summary of all requirements and recommendations, perhaps in a new annex. At the moment, they are scattered throughout the document, making them hard to read together	Add a new section to the document summarising the requirements and recommendations	Ap, R (CT) - this should be harmonised across all INSPIRE documents
26	EA - Environment Agency for England and Wales	SDIC	1	Throughout		G	It would be useful to have a summary of all requirements and recommendations, perhaps in a new annex. At the moment, they are scattered throughout the document, making them hard to read together.	Add a new annex to the document summarising the requirements and recommendations.	d
27	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	61	document		G	The contents or general approach of the document based on use cases seems to contradict the thematic approach of the INSPIRE directive.	At least do this: specify what is the goal of the use cases: to make choices when there needs to be made a compromise between existing (national) data models? To prioritize between data harmonisation components?	NA - No contradiction is seen with the Directive. Articles 1 and 7(1), for instance, highlight the requirement that the IR must be based on the needs from environmental use cases. This was also highlighted to all DTs from the beginning. The role of the use cases as the main mechanism to identify the requirements is explained in the document, see 5.1.2.2, for example.

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									It is true, that the selection and definition of Annex themes already constitutes a result of a requirements analysis. The environmental use cases will in general cover several themes, and may result in contradictory requirements. It is in the responsibility of the TWGs to discover and resolve contradictions. Add a clarification in the document.
28	Federal Office of Topography (Switzerland) - swisstopo	LMO	8	document		G	The document appears to be very ambitious and discouraging. There should be a shorter and clearer version, mentioning clearly what is mandatory and what is only eligible.		Ap, but the number of people in the target group (i.e. the TWGs) is small and resources in DT DS are limited. Therefore, the DT DS will concentrate on improving the document as a whole, while some of the concerns of the SDICs may be resolved with the intended clearer description of the step-wise methodology.
29	Federal Office of Topography (Switzerland) - swisstopo	LMO	1	document		G	The document contains undeniable informations and a methodology which is very useful for the GI domain. The document is to difficult to provide more detailed comments on one of the chapters.		d
30	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	62	document		G	The document contains useful guidelines and hints, but it presupposes a large amount of extra knowledge to understand a number of important sections. Partly this knowledge is in D2.5, but not all.	Check whether core concepts or acronyms (feature catalogue, application schema, profiled UML, ...) have been introduced properly before they are used.	A
31	Federal Office of Topography (Switzerland) - swisstopo	LMO	7	document		G	The document should be more pragmatic. The example in Annex C contains a lot of text, which does not specify anything sufficiently or is even redundant.		- The annexes are specifically added to make the document more pragmatic. The structure of Annex C is directly derived from the ISO 19131 (data product spec) and therefore more or less given. There is redundancy in the different sections; e.g. 1.6.2 application schema and 1.6.3 feature catalogue. However, they should be consistent (but presenting different angles). In the future, the

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									'production' of these parts though be derived from the same source.
32	Met Office	LMO	MO_4	all		G	The recommendations in this (and D2.5) to use UML, GML, OCL, ISO 191xx and Web Services - particularly where those skills do not exist, and where other skills do to deliver existing data services, seems to be delivering a consultant's bean feast. Training costs particularly for Annex III themes will be enormous and fall on individual organisations and SDICs not on MS.	We see no real recognition of training and development costs in these documents, particularly for mature data and service delivery communities.	R (CT) / JRC: The process of the cost benefit considerations is included in the D2.6 version 3.0. The stakeholders that will be included in the testing of the draft data specifications will be able to provide input to cost benefit considerations.
33	Royal Netherlands Meteorological Institute (KNMI)	LMO	1	all		G	The recommendations to use ISO standards (19100 series), UML, GML, OCL and web services will require training as the skills are not always available in all organizations (e.g. KNMI or other meteorological offices). KNMI follows WMO international standards which have been in use for years. Please also mention or refer to these standards where appropriate.	Please refer to WMO standards where appropriate	Ap. See D2.5 and the D2.5 comment resolutions for a discussion about the issue raised by the comment. It is expected that WMO standards will be reference specifications for the relevant spatial data themes. However, in general the ISO 19100 series as the series of international standards for geographic information has been selected as the baseline for INSPIRE data specifications.
34	Federal Office of Topography (Switzerland) - swisstopo	LMO	10	document		G	The scope of the document is not clear. It contains information on software development processes but very little on data specification processes. Annex A contains many useful examples on actual data harmonisation, which do not occur at all in data specification processes.		AwM/NA - The reference to "software development processes" is misleading and will be removed (this is about data specification processes). The examples in Annex A do occur in data specification processes.
35	Federal Office of Topography (Switzerland) - swisstopo	LMO	9	document		G	There is still too much freedom for the TWGs to do their data specifications. It will not be possible to receive harmonised data specifications over the 34 themes on the basis of this document.		Ap - As this is a very general comment, more specific comments and change proposals would be required. On the general level: The freedom for the TWG is by intention, at least at the time they start their work. Specifications will have to be consolidated as the work progresses. This needs to be described in more detail in D2.6, and

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									<p>responsibilities how to manage this process need to be defined clearly. Still it is clear and agreed that this will not just happen without an active role in the harmonisation of the draft TWG results. This active role will be supported by means of the consolidated registers which need active management (consolidated UML model, common feature dictionary) and review by other TWGs, DT DS, CT and EIONET.</p> <p>It also has to be noted that each time it has been tried to restrict flexibility in the Generic Conceptual Model, this has implied significant issues for some communities.</p> <p>Another approach would have been to outline core content / core spatial object types a priori. Based on experience this was considered to be very difficult if not impossible, and certainly a challenge for the already existing tight time schedule.</p>
36	AGI - Association for Geographic Information	SDIC	40	Annexes		G	These are described as "informative" as if they are in a standard and yet in the Purpose of this document it states: "It is important to note that this document is not a draft Implementing Rule, but a document that is targeted to help in the process of developing harmonised data specifications that will eventually become the Implementing Rules (IR) It does not create direct obligations to the Member States." Surely the whole document is "informative"?	Delete references to "Informative".	NA - the document is normative for the data specification development process and creates obligations to the TWGs and the EC
37	Met Office	LMO	MO_2	all		G	This document has requirements and recommendations (as does D2.5) which could form the basis for Implementing rules. In fact these documents, which form a requirement to develop	The CT and Commission should reconsider and justify delaying IRs until the TWGs deliver. Prevarication as well as delaying transposition, will cause more costs, and the result - that specific data	R (CT) - while this should be addressed by the CT, two comments from the DT DS perspective: a. DT DS was tasked with the deliverables D2.3, D2.5, D2.6, D2.7 (the modelling framework), but not

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							specifications are a far better foundation for IRs than specific data specifications because data specs MUST CHANGE, whereas the model and methodology should not change. We are exceedingly uncomfortable with the idea that specific data specifications, or specific data models should be IRs, but that the mechanisms to do so are not. The impression here is that the DSDT has decided not to fulfill its raison d'être to develop the IRs but has devolved that responsibility to the TWGs. This also serves to delay the development of IRs and to delay the MS transposition.	specifications should become IRs is unworkable - certainly for our community.	with the development of the IRs; in particular there has been no decision of DT DS to change the scope of their work (not that it would have been their remit). b. The discussion in comment #3 may be relevant. / JRC: The work of the TWGs is scheduled to respect the deadline provided by the Directive for the adoption of the IRs.
38	Institut Géographique National	LMO	1	Whole document		G	I guess this is normal for this kind of document, but there are many repetitions. For example, the fact that the directive do not require collection of new spatial data, and that the feasibility is an important issue, is said many times.	State clearly at the beginning of part 6 that "feasibility is an important issue, all recommendations and requirements in the document must be understood with this in mind", and then remove the repetitions	Ap
39	ESB Working group on INSPIRE Implementation	SDIC	9	Whole document		G	The document makes extensive reference to ISO standards which are not known for every SDIC or LMO		See comment #5 and the related comments to D2.5
40	Department for Environment, Food and Rural Affairs (Defra)	LMO	49	Annex		T	Include a template for the creation of Feature Concept Dictionary entries	Add an extra annex relating to feature concept dictionaries	A
41	EA - Environment Agency for England and Wales	SDIC	2	Throughout		T	Throughout the document there are frequent references to "user requirements". Who exactly are the users, who are they giving requirements to, and why? Are the LMO and SDICs meant to create these requirements, and to whose benefit? Are the requirements not those of the EC?	Clarify what is meant by "user requirements".	Ap - The term is stated, for example, in Article 7(1) and is understood to mean requirements that result from "Community environmental policies and policies or activities which may have an impact on the environment" (Article 1). The CT will launch a user requirements survey soon. / JRC: A - with the DT DS resolution. The User Requirements Survey was launched and it's explained there.
42	AGI -	SDIC	3			T	Throughout the document there are	Clarify what is meant by "user	d

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	Association for Geographic Information			Throughout			frequent references to "user requirements". Who exactly are the users, who are they giving requirements to, and why? Are the LMO and SDICs meant to create these requirements, and to whose benefit? Are the requirements not those of the EC?	requirements".	
43	Federal Office of Topography (Switzerland) - swisstopo	LMO	6	document		G/Q	The fact that everything has to be in English will cause additional effort for non-anglophone countries. Moreover, there is the risk that only anglophone countries will propose existing data specifications. What will be the legal implications, if the Implementing Rules contain only English data specifications?		R (CT) - from a DT DS point of view the only practical way is to use a common language (where English seems to be the best option); this seems to work reasonably well in other contexts / JRC: IRs when adopted will be translated in all official EU languages.
44	Met Office	LMO	MO_3	all		Q	With the likely delays as TWGs develop detailed specifications, might there not be considerable delays towards implementation? If the Directive cut-off points are passed, would this be a reason to stop harmonisation in that theme as having failed? Might there need to be a cut-off point at which implementation cannot be achieved in the time limits? As SDIs begin to implement them, should there be a requirement to change the spec, will this still be a failure to meet the Directive?	The Commission should declare clear time scales and contingency dates should there be even further delays due to TWG delivery.	R (CT) / JRC: Timelines are declared in the Workprogramme of the Transposition phase (2007-2009). The work should follow the timeframe as tightly as possible.
45	Institut Géographique National	LMO	5	Foreword	P 6 2nd paragraph last line	E/T	"or data quality requirements" This example is not really well-chosen as requirement 24 in this document states that an INSPIRE DPS shall not prescribe minimum quality requirements.	Choose another example (e.g. coordinate reference system, delivery, ...)	A
46	OMSz - Hungarian Meteorological Service	LMO	2	Foreword	para8	G	Even if the purpose of the D2.6 document is to assist the Technical Working Groups, its guidelines might be equally useful for data providers, when they are getting acquainted with the INSPIRE .	This might be also stated here.	A
47	Bundesanstalt	LMO	1			G	It would be helpful to state in clear	example: D2.5 presents the	changes to introductory clauses: Ap -

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	für Geowissenschaften und Rohstoffe (BGR)			Forword/Purpose of the Document/Introduction			words the general approach taken for data specification; and then refer to the harmonization components, and where the reader can find general explanations and examples	Generic Conceptual Model with all of its components, and explains them. D2.6 directly takes up the harmonization components, and then attempts to provide very generic and general guidelines as how to address to each of these components. That is the idea, and, in fact, only after reading both reports twice, and repeating many chapters, the reader could receive this idea. D2.6 should be written more clearly in a cook book form, allowing the user to always realize, at which stage, with which component one is dealing with in the text. The harmonization levels should be appearing repeatedly, so that the requirements for the implementation are always clear.	see also #49 rewrite in "cook book" form - see #52
48	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	3	Forword/Purpose of the Document/Introduction		G	It would be helpful to state in clear words the general approach taken for data specification; and then refer to the harmonization components, and where the reader can find general explanations and examples	example: D2.5 presents the Generic Conceptual Model with all of its components, and explains them. D2.6 directly takes up the harmonization components, and then attempts to provide very generic and general guidelines as how to address to each of these components. That is the idea, and, in fact, only after reading both reports twice, and repeating many chapters, the reader could receive this idea. D2.6 should be written more clearly in a cook book form, allowing the user to always realize, at which stage, with which component one is dealing with in the text. The harmonization levels should be appearing repeatedly, so that the requirements for the implementation are always clear.	d
49	AGI - Association for Geographic Information	SDIC	4	Foreword, Purpose		G	These introductory sections are overlap and are repetitive. The Purpose of the Document is superfluous. Some paragraphs from the Foreword and Purpose of the	Restructure the opening sections. Confine the Foreword to the background to the development of the document and how it came to be prepared. The last three paragraphs	AwM - The general proposal will be adopted, however, as all INSPIRE document have the "purpose of document" clause it is expected that it will remain.

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							Document should be in the Scope.	of the Foreword are part of the scope i.e. what the document sets out to do and applicability. The first paragraph of the Purpose of the Document repeats the last part of the Foreword (and should be part of the Scope anyway) and the latter paragraphs belong in the Foreword. The "important notice" largely repeats what is in the Foreword. Overall the Purpose of the Document should be removed and the purpose is expressed in the Scope	
50	Bundesanstalt für Geowissenschaften und Rohstoffe (BGR)	LMO	2	Forward/Purpose of the Document/Introduction		G	While comment 1 refers to the structure, this comment asks to revise the language. The writing style is very abstract. Only after learning and developing a feeling for the author's very abstract view on the subject, and after slowly inhaling the generic approach to harmonization, one is able to understand. It seems that especially D2.6 is blown up because the writer looks for different ways trying to explain the concept, thus describing similar aspects with different words, repeatedly, still abstract, now at a different location in the document, thus some confusion and fast-reading without understanding for the text.	It would be advisable to have partners from the application (theme-specific) side to go through the document chapter by chapter, and re-write the document together	Ap - anything that helps to make the document easier to understand while keeping it general would be appreciated; note though that the document is a group effort and already involves authors with different perspectives (including data providers for a number of themes)
51	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	5	Forward/Purpose of the Document/Introduction		G	While comment 1 refers to the structure, this comment asks to revise the language. The writing style is very abstract. Only after learning and developing a feeling for the author's very abstract view on the subject, and after slowly inhaling the generic approach to harmonization, one is able to understand. It seems that especially D2.6 is blown up because the writer looks for different ways trying to explain the concept, thus describing	It would be advisable to have partners from the application (theme-specific) side to go through the document chapter by chapter, and re-write the document together	d

Comm#	ID	LMO/ SDIC	1	2	3	4	5 - Comment	6 - Proposed change	7 - Resolution
							similar aspects with different words, repeatedly, still abstract, now at a different location in the document, thus some confusion and fast-reading without undersatdning for the text.		
52	Lenkungsgremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	1	Foreword/ Purpose of the Document/ Introduction	page 5 ff.	G	<p>The structure of D2.6 is not sufficiently clear. It would be helpful to state at the beginning, in clear words, the general approach to be applied for data specifications, and then refer to the harmonisation components, and where the reader can find general explanations and examples.</p> <p>One example: D2.5 presents the Generic Conceptual Model with all of its components, and explains them. That's ok. D2.6 directly begins with the harmonisation components, and only then attempts to provide very generic and general guidelines as how to address each of these components. That is the general idea, but only after reading both reports twice, and repeating many chapters, the reader can receive this idea.</p>	D2.6 should be written more clearly, in a cook book form, allowing the user always to realize, at which stage, which of the components is addressed in a particular part of the text.	Ap. The Drafting Team finds it difficult to apply a cook book because of the complexity of the issue, but it accepts to restructure the clause 5 in a way that the subclauses relate with the harmonisation steps (rather than the harmonisation components). Subclause 5.1 will be kept as overview, subclauses 5.2 ff will describe the individual steps, the description of the INSPIRE context will be folded into 5.2 ff, and background information will be moved to an informative annex.
53	Lenkungsgremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	2	Foreword/ Purpose of the Document/ Introduction	page 5 ff.	G	<p>The writing style and language used is very abstract. Only after learning and developing a feeling for the authors' very abstract view on the subject, and after slowly apprehending the generic approach to harmonisation, one is able to understand the text. It seems that D2.6 is blown up because the authors look for different ways trying to explain the concept, thus describing similar aspects with different words repeatedly. All this still in an abstract language, at different locations in the document,</p>	<p>This comment asks to revise the language used.</p> <p>It would be advisable to have partners from the (theme-specific) application side to go through the document chapter by chapter, and re-write the document together.</p>	d

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							resulting in some confusion and no understanding of the text.		
54	Institut Géographique National	LMO	4	Foreword	4th paragraph	Q	"An IR shall be adopted.... This IR," Will there be only one IR for all data specifications or one IR for each theme? As the calendar is not the same for Annex I and (Annex II and III) themes, the second option seems more likely.	Clarify and correct, if necessary.	R (CT) - but it cannot just be one, it must be at least one per Annex based on the roadmap / JRC: The INSPIRE Directive in Article 7 refers to the "Implementing rules" (in plural). The time schedule to adopt IRs for Annex I, II, III has to be respected. The number of the IR is in the responsibility of the Commission.
55	Institut Géographique National	LMO	6	Purpose of the document	First paragraph	E	"facilitators, editors and experts" As it is the beginning of the documents, roles have not yet been defined. So, it may be confusing.	Replace by "Thematic Working Groups" (already quoted in previous chapter)	A
56	Institut Géographique National	LMO	8	Purpose of the document	2nd paragraph of "important notice", penultimate sentence	E	"in generic Conceptual Model"	"in the Generic Conceptual Model"	A
57	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	4	Purpose	Important Notice, para 2	G	text is "described in details in generic Conceptual Model." In fact the GCM identifies components but does not propose required methodologies.	change to "described in the Generic Conceptual Model and subject to ongoing development of a methodology for harmonisation."	NA - the data harmonisation components are described in the GCM and the methodology is the subject of this document
58	BRGM	LMO	4	Purpose	Important Notice, para 2	G	text is "described in details in generic Conceptual Model." In fact the GCM identifies components but does not propose required methodologies.	change to "described in the Generic Conceptual Model and subject to ongoing development of a methodology for harmonisation."	d
59	Institut Géographique National	LMO	7	Purpose of the document	Important notice Second paragraph	T	""harmonisation" is understood as providing access to data ..." This understanding is not consistent with the definition given in 3.1"process of developping a common set of DPS in a way that allows the provision of access to spatial data ..."	Replace by the definition given in 3.1	Ap - adapt to updated definition from D2.5
60	Institut Géographique National	LMO	9	Purpose of the document	2nd paragraph of "important notice"	T	the term "harmonisation" is somehow defined but the expressions "harmonisation of data" or "harmonisation of specifications" are not.	Add the definition for "harmonized data" and "harmonized specifications"	A - adapt from D2.5 revision

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61	Met Office	LMO	MO_5	Purpose	first para	Q	Does the change of role for D2.3 need this rephrased? We use this opportunity to deplore that D2.3, D2.5 and D2.6 will not be IRs.	please consider rephrasing comment on D2.3	A - adapt to situation after processing comments on D2.3
62	Department for Environment, Food and Rural Affairs (Defra)	LMO	1	Introduction	5	E	Move (e.g data specifications for elevation data) to end of sentence to improve readability	It is also worth noting that the methodology includes provisions to develop theme specific data specifications incrementally so that new user requirements from a new application is used to amend the existing data specification (e.g. data specifications for elevation data)	A
63	Bundesanstalt für Geowissenschaften und Rohstoffe (BGR)	LMO	3	Introduction	Fig. 1 and 2	E	The figures do not demonstrate the effect of harmonization on the basis of clear data specifications. The figures should refer to the D2.5 components, and demonstrate, how data from different sources and themes must be managed in order to be interoperable in distributed systems and services.		NA - the data harmonisation components are simply a means to facilitate the process, but they are not relevant for these figures
64	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	6	Introduction	Fig. 1 and 2	E	The figures do not demonstrate the effect of harmonization on the basis of clear data specifications. The figures should refer to the D2.5 components, and demonstrate, how data from different sources and themes must be managed in order to be interoperable in distributed systems and services.		d
65	Lenkungsgrremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	8	Introduction	Legend box, Figure 2, page 8	E	Grammar: "Data set or process based on a INSPIRE data specifications"	Change to: "Data set or process based on one or more INSPIRE data specifications"	A
66	Lenkungsgrremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial	LMO	3	Introduction	first paragraph, page 7	E	Much of the following text can be taken for granted: "The intent of the proposed methodology in the context of applications that support Community environmental policies and policies or activities which may	Change to: "The proposed methodology can be illustrated as follows:"	AwM - "The intent of the methodology can be illustrated as follows:"

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	Data Infrastructure Germany)						have an impact on the environment can be illustrated as follows:"		
67	Lenkungsgremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	7	Introduction	Fig. 1 and 2, pages 7 and 8	E	The figures do not demonstrate the effect of harmonisation on the basis of clear data specifications.	The figures should refer to the D2.5 components, and then demonstrate, how data from different sources and themes must be managed in order to be interoperable in distributed systems and services.	d
68	Lenkungsgremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	9	Introduction	Figure 2, page 8	E	The legend colour (grey) for "Data set or process based on a INSPIRE data specifications" is too weak. As this is the focal area for data harmonisation, the colour should be more intense, e.g. red.	Change colour.	Ap - but see #19
69	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	1	Introduction	paragraph 3	G	The document does not contain a methodology, but a list of requirements and recommendations for the description of data specifications.	"This document aims at a better understanding...."	NA - the document does describe a methodology
70	Lenkungsgremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	10	Introduction	Figure 2, page 8	G	As the (green) "Area of scope of this methodology" is too widely defined, Figure 2 does not show correctly, what is described in the INSPIRE Directive. Rationale: As the scope of INSPIRE does not comprise additional data, but concerns existing data only (see Recital (13) of the INSPIRE Directive), the data of the member states are not affected by this methodology. The INSPIRE harmonisation methodology starts at a data set or process based on a data specification used in and	Change Figure 2 as follows: 1) The "grey" area of harmonisation shall not comprise a "blue" or "beige" data set of a Member State, but it should start at the lower end of each "blue" or "beige" data set. 2) The "green" area ("scope of this methodology") should then comprise the resulting, smaller "grey" areas only. It should not comprise the "blue" or "beige" data sets within the Member States.	NA - the areas are shown correctly; note also that the existing data sets remain unchanged by their integration into INSPIRE (by creating a "grey" INSPIRE wrapper)

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							specific to a Member State.		
71	Lenkungsgremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	11	Introduction	Figure 2, page 8	G	In this context it is not clear what "virtual INSPIRE data sets" actually means. Does this mean that the data on the implementation level will be the same prior to INSPIRE and a mapping to the external data schema will be provided by the member states? But even doing this we come up with physical and not virtual data sets.	Explain "virtual data set" or delete the note.	A - transformation may be done on the fly and not require a new physical data set
72	Lenkungsgremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	4	Introduction	page 7, 3rd paragraph	G	Quote: "The methodology described in this document aims at a better understanding of the (common) user requirements for data in INSPIRE." Following the requirements of the directive, this document should basically aim at interoperable data sets based on harmonised data models and not mainly at a better understanding of the user requirements.	Change to: "The methodology described in this document aims at interoperability for data in INSPIRE. Therefore it is necessary to understand the user requirements. Based on the user requirements....."	A
73	Lenkungsgremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	5	Introduction	page 7, 5th paragraph	G	The text "... from a new application is ..." refers to a possibility.	Change to: "... from a new application can be ..." to express the possibility.	A
74	Lenkungsgremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	6	Introduction	page 7, last paragraph	G	The wording "updated figure" in the text is misleading, as Figure 2 is no update of Figure 1, but a new conception of what to do.	Change to: "Figure 2 shows the target situation, where INSPIRE-conformant data specifications are to be applied in the highlighted area. These data specifications shall be developed using the proposed methodology of this document:"	A
75	Met Office	LMO	MO_7	Intro	last para	T	This statement on Read Only (here and elsewhere) was misinterpreted by several experts. After discussion,	Clarify Read-Only - here in short but elsewhere in full. Perhaps in section 3 terms.	A - the intent was to emphasise that INSPIRE does not foresee any arrangements in the Implementing

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							we presume you mean that the INSPIRE end-user is not intended to have the capability to modify the data permanently at the repository. Many repositories will use the same mechanisms for data maintenance as for data querying, and this will involve user authorisations. At some point please clarify the statement on Read Only. Even in the class of end-user (who have no data modification rights) there may need to be the right to store complex queries or data retrieval/combination operations for repeat requests.		Rules to manipulate/change data
76	Institut Géographique National	LMO	10	Introduction	Third paragraph after Figure 1	T	"It is worth noting that the methodology includes provision to develop theme specific data specifications, e.g. data specifications for elevation data , incrementally ..." The example is probably ill-chosen : it is likely that specification for elevation will be a DEM with a given grid size and accuracy. This DEM will fulfill a lot of use cases at once and in my understanding, it would be difficult to add something to it, to develop its specifications incrementally .	Choose another example, preferably with vector data (e.g. transport) where it is quite more likely to have to add new features and attributes, for a new use case.	A
77	Met Office	LMO	MO_6	Intro	all	Q	This section implies to us that the emphasis is on processing at the client. In fact most raw data processing (particularly high volume data) should be at the data producer. Most users need information upon which to make decisions, rather than raw data which they may not understand even with documentation. Can you clarify please?	Can you clarify please?	A - we agree with the stated understanding; the question at what step in the data processing chain data becomes usable/required by applications that are within scope of INSPIRE needs to be identified by the TWGs
78	AGI - Association for	SDIC	5	1		E	The scope needs to include applicability, who is meant to use	Enlarge the scope statement to include any relevant material from	A

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	Geographic Information						this document and in what context	Foreword and Purpose of Document which does not repeat the existing content of the Scope e.g. last three paragraphs of Foreword.	
79	Institut Géographique National	LMO	11	1	3rd sentence	E	"the process is specified how this should be achieved" : sentence construction cannot be understood	rewrite	A
80	Lenkungsgrremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	12	1	NOTE, page 9	E	The deliverables should be listed at the normative references. Doing this, the note can be deleted. D2.5 is already mentioned there. D2.7 should be added with an annotation that the document is still to be published.	Delete the note, add D2.7 as a normative reference.	A
81	AGI - Association for Geographic Information	SDIC	6	1		G	Including the document structure in the Scope detracts from the scope statement.	Consider moving to the Introduction.	A
82	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	7	1	paragraph 1	G	Scope of this document is dependent on interpretation of INSPIRE transposition (scenario 1). It is not clear whether D2.6 applies to this scenario, and this has major implications for understanding relevance of D2.6	Make clear intention of adoption vs development of specifications.	R (CT) - without having checked this in detail: all requirements on the resulting data specification and the registers need to be fulfilled / JRC: Adoption of specification is possible in frame of scenario 1. The document mainly relates to scenario 2 and 3, where specifications are developed.
83	National Survey and Cadastre, Denmark	LMO	KMS-3	1		G	The scope describe only how to handle annex 1 and 2 data. It is doubtful if annex 3 themes is covered by the scope	Allow annex 3 themes to be described by using the methods applied by subject areas	NA - Concerning this topic the CT has issued a clarification that is included in 4.1.1 under Article 8
84	BRGM	LMO	7	1	paragraph 1	G	Scope of this document is dependent on interpretation of INSPIRE transposition (scenario 1). It is not clear whether D2.6 applies to this scenario, and this has major implications for understanding relevance of D2.6	Make clear intention of adoption vs development of specifications.	d
85	Institut Géographique National	LMO	12	1	First paragraph Last line	T	"or data quality requirements" This example is not really well-chosen as requirement 24 in this document states that an INSPIRE DPS shall not prescribe minimum	Choose another example (e.g. coordinate reference system, delivery, ...)	A

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							quality requirements.		
86	Institut Géographique National	LMO	13	1	Clause 5 Third bullet	T	"the two typical implementation patterns" It is not very clear.	Might be useful to say which patterns 5.3 is about	A
87	State Agency for Information Technologies and Communications (SAITC)	LMO	3	Chapter 2	ISO/IEC 19501:2005	E	Language (UML) Version 1.4.2	Language (UML) Version 2.0 or later	Ap - align with current revision of ISO/TS 19103 once the UML 2 version of the ISO 19100 harmonised model is available; this will also affect D2.5
88	AGI - Association for Geographic Information	SDIC	7	2		E	Since this is neither a Standard nor a set of Implementing Rules these can not be "Normative" references.	Change heading to "References" with a short explanatory note saying why these are cited.	NA - see #36
89	National Survey and Cadastre, Denmark	LMO	KMS-4	2		E	There is some inconsistency between the way the ISO standards is referred in the document and the way the same standards is referred in chapter 2. In chapter 2 all the ISO standards that have been made EN as well have an EN prefix. However this is not the case in the text in the rest of the chapters.	Add EN in front of all the referred ISO standards if they also have become a European standard	A
90	LMV - Lantmateriet, National Land Survey of Sweden	SDIC	2	2		E	Wrong year of publication of ISO 19108.	Correct to EN ISO 19108:2002.	NA - the year is the year of the publication as EN (which we agree is very confusing, but this is the rule made by CEN)
91	Flemish government - Environment, Nature and Energy Department - Land and Soil Protection, Subsoil, and Natural Resources Division	LMO	1	3	term 6)	E	incomplete description	Add the end of the statement, starting with "EXAMPLE ..." the following text 'bbb'	N/A - cannot find this in v2.00
92	National Survey and Cadastre, Denmark	LMO	KMS-5	3		G	Some terms in the chapter 3 appears only in chapter 3	Check if all the terms in the chapter 3 is used in the document other than in chapter 3	A
93	Institut Géographique National	LMO	14	3	none	G	some terms could be added	add terms : consolidation, recital (vs article), interoperable/harmonised specifications (used in 4.1.1, the	A & N/A - most of these are all common dictionary terms and do not qualify in a technical glossary - the

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								sentence after article 7)	exception being harmonised specifications
94	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	2	3.1	33	E	"multiple representations" are not the relations	"different representations of homologous ..."	AwM - technically correct, but the suggested replacement the important point about relationships is lost, rephrase to capture this
95	AGI - Association for Geographic Information	SDIC	8	3.1	16	E	Abbreviation	Use the expanded term.	A
96	PASI - Polish Association for Spatial Information	SDIC	2	3.1	term (16)	E	Define also INSPIRE	add at the end ... 'synonymous with INSPIRE'.	NA - unnecessary here
97	United Kingdom Hydrographic Office	LMO	4	3.1	definition 26	E	grammar	replace "point of views" with "points of view"	A
98	PASI - Polish Association for Spatial Information	SDIC	3	3.1	term (43)	E	In this document the feature is not a cartographic feature	suggestion:'dimensions on a map and the corresponding dimensions on '..	NA - ambiguous proposal
99	PASI - Polish Association for Spatial Information	SDIC	1	3.1	term (1), note	E	Make the example more clear	suggestion: ...'the topographic data on road network are considered '...	NA - the suggestion is ambiguous
100	National Survey and Cadastre, Denmark	LMO	KMS-11	3.1	Term (42)	E/T	The definition is too weak.	Use the following definition: "The minimum distance between distinguishable object [ISO 6709]" and the add the present definition as a note.	NA - the ISO words do not reflect the intention of the use of the word in this document. While the definition is a little long it is close to that intent.
101	PASI - Polish Association for Spatial Information	SDIC	5	3.1	term (43), note	E	The last sentence is not clear	delete it	A - in fact the entire note related more to paper mapping than visualisation of a database on the screen (where the scale is rarely a round figure). Consider deleting the entire note.
102	National Survey and Cadastre, Denmark	LMO	KMS-6	3.1	Term (2)	E	There is a normative reference to ISO 19101. However, this standard is not included in chapter 2	Add EN ISO 19101 to chapter 2 as a normative reference	A
103	PASI - Polish Association for Spatial	SDIC	4	3.1	term (43), note	E	This note must refer to spatial data not data in general	please replace 'data' with 'spatial data' twice	A but see #103

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	Information								
104	Lenkungsgrremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	14	3.1	page 13	E	"gml application schema" is missing in glossary	add "gml application schema" to the glossary and explain the difference to "application schema"	A
105	Institut Géographique National	LMO	17	3.1	(29) interoperability NOTE	E	"that each member state maintains their own infrastructure"	Replace by "that each member state maintains its own infrastructure"	A
106	Institut Géographique National	LMO	16	3.1	(16) ESDI NOTE	E	"the ESDI is expected to include, for example , additional content..." "for example" sounds curious	replace by "the ESDI is expected to include additional content..."	A
107	Lenkungsgrremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	15	3.1	page 15	E	"virtual data sets" is missing in glossary	add "virtual data sets" to the glossary.	N/A as it is not used in the document
108	Lenkungsgrremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	13	3.1	terms (35) and (52)	E	It seems that both definitions are equal.	Delete term (35) or explain the difference.	A - not clear why now we had object identifier alone - so delete unless D2.5 requires this
109	OMSz - Hungarian Meteorological Service	LMO	3	3.1.	whole	G	among the definition of the terms, EXAMPLEs are very useful elements. If it is possible, it would be good to have examples also for each term like e.g. for (14) data set series.	Provide examples where possible.	A
110	National Survey and Cadastre, Denmark	LMO	KMS-9	3.1	Term (34)	G	Since it is stated in the Directive that this work should be using international standards i.e. CEN and ISO standards it should also be the	In the actual case this goal could be achieved by using the term as defined in EN ISO 19107 (also a normative reference in this	Add statement (omitted from D2.6) that outlines the provenance of the terms and defns we have used.

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							terminology from these standards that is used within this context.	document) through out this document. I order to bridge the gap between the Directive and the standards a mapping of term between the Directive and the standards could be part of either the legal IR or in the foreword of the document in question. Given the more general nature of this comment it might a question that should be raised at CT-level because this comment will also be valid other drafting teams	
111	EA - Environment Agency for England and Wales	SDIC	3	3.1	23	T	A gazetteer is a directory, not a dictionary. "Dictionary" implies that definitions are provided, which is not necessarily the case.	Replace "dictionary" with "directory".	A - also a D2.5 comment - check consistency
112	AGI - Association for Geographic Information	SDIC	9	3.1	23	T	A gazetteer is a directory, not a dictionary. "Dictionary" implies that definitions are provided, which is not necessarily the case.	Replace "dictionary" with "directory".	d
113	LMV - Lantmateriet, National Land Survey of Sweden	SDIC	3	3.1	term 25, Geographic Identifier	T	Example 2 is in some countries not a geographic identifier, because post code areas are not geographically defined. There can also be post codes that are not at all geographic	Change to a better example.	Amend - either reflect this to "any postcode covering a geographic area" or replace as suggested
114	PASI - Polish Association for Spatial Information	SDIC	7	3.1	term (49), example	T	It can be confusing, these codes may function as geographic ids	improve	A - descriptive is unhelpful - as parcel UOID is not usually descriptive nor is an andmin code
115	United Kingdom Hydrographic Office	LMO	2	3.1	definition 10	T	Reconcile with revised 2.5 after comment resolution workshop		A
116	United Kingdom Hydrographic Office	LMO	3	3.1	definition 11	T	Reconcile with revised 2.5 after comment resolution workshop		A
117	Department for Environment, Food and Rural Affairs (Defra)	LMO	2	3.1 (11)		T	Should there be a distinction between data harmonisation and harmonisation? As harmonisation defined on page 6 describes harmonisation as "providing access to data through network services in a representation that allows for	Create separate definitions of harmonisation and data harmonisation	N/A - harmonisation is generic word and we are not seeking harmonisations but "harmonisation through interoperability"

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							combining it with other INSPIRE data in a coherent way". However, data harmonisation is much more complicated than this as it can refer to the mechanisms required to convert an input dataset to conform to the harmonised data specification which may be achieved either through network transformation services (e.g. semantic transformation, coordinate transformation). However, for some datasets this may not be achievable as it requires more complicated processing before the input dataset conforms to the harmonised data specification and may require the generation of a "new" dataset which will then be made accessible through network services		
118	National Survey and Cadastre, Denmark	LMO	KMS-12	3.1	Term (46)	T/G	Since it is stated in the Directive that this work should be using international standards i.e. CEN and ISO standards it should also be the terminology from these standards that is used within this context.	If comment is accepted. Then delete the term.	N./A - see D2.5 comments on this
119	PASI - Polish Association for Spatial Information	SDIC	6	3.1	term (47)	T	Spatial object type is not classification	clarify the meaning	N?A - not attempting to make it so.
120	National Survey and Cadastre, Denmark	LMO	KMS-10	3.1	Term (36) and term (38)	T	The definition of these two terms is circular because term (36) is referring to term (38) and vice versa, without any solution to break the circle.	Rephrase the two definition so they stop being circular	No alternative offered - suggest retain.
121	National Survey and Cadastre, Denmark	LMO	KMS-7	3.1	Term (27)	T	The term application schema (term 2) has been defined and since this INSPIRE specialisation does not add anything new to the definition this new term is at best unnecessary and in the worst case confusing	Delete the term	N/A it is present for ease of reading and to ensure consistency in understanding in the documents
122	Stanli - Geographic Information	SDIC	1	3.1	Terms	T	There are several terms used for similar phenomena throughout the document. Some are defined in 3.1.	Look through the terms used for these kinds of phenomena. Use, where applicable, ISO/TC 211	N/a see item #110 above

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	Standards Initiative in Sweden						The terminology needs to be consistent. Examples of terms for similar phenomena are: • conceptual model • application schema • GML application schema • UML Application schema • Model of feature types • Conceptual UML Model • consolidated UML model • consolidated UML model of the application schema • Implementation UML Model for GML • theme-specific application schema • application schema package • foundation schema	terminology	
123	National Survey and Cadastre, Denmark	LMO	KMS-8	3.1	Term (28)	T	This term should be more general so it can be used outside the INSPIRE community	In order to achieve this goal delete the word INSPIRE	N/A - the terms are actually for use inside the INSPIRE community - we are not trying to write a complete dictionary for everyone
124	Institut Géographique National	LMO	18	3.1	(30) level of detail	T	"level of detail" = "quantity of information that portrays the world": the definition is ambiguous. You can have a huge quantity of redundant information to portray the word, in which case the details are purely formal and not world-related.	Write at least : "minimum quantity of information that is used to portray the real world as it was meant to be portrayed".	A
125	Institut Géographique National	LMO	19	3.1	(42) resolution	T	"Resolution is also limited because geo-spatial databases are intentionally generalised. Resolution affects the degree to which a database is suitable for a specific application". It is not really part of definition.	Might be better to move this text to a note.	A
126	Institut Géographique National	LMO	15	3.1	(8) coordinate reference system NOTE 3	T	"temporal reference systems are understood as covered by the term ..." Might be useful to say where this understanding applies.	If it is the case, replace by "temporal reference systems are understood in this document as covered by the term ..." And add a link to the definition (48)	A but check D2.5
127	Institut Géographique National	LMO	20	3.1	(49) thematic identifier	Q	As thematic identifiers (e.g. administrative codes) are the same for all features representing the same entity (e.g. for features in different data bases), should they be considered as identifying the feature or the entity?	Change the definition, if appropriate.	N/A
128	United Kingdom	LMO	5	3.1	Note to		contradicts note to definition 18. At	decide to live with "spatial" as in the	N/A

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	Hydrographic Office				definition		18, "spatial" is used because "geographic" is too limited; at 44, "spatial" is "unfortunate" because it is more generic than "geographic"	directive. Keep the explanation at 18, and therefore remove this note.	
129	IDsW: Dutch standardisation organisation for water management information	SDIC	1	3.1.8	Example 1	T	datum without further reference	change text to: "the <i>geodetic</i> datum ETRS89"	A
130	LMV - Lantmateriet, National Land Survey of Sweden	SDIC	4	3.2	abbreviations	E	"DPS" is missing in the list. ("DPS" is used in figure 14 in 6.3.1)	Add "DPS" to the list.	A
131	Royal Netherlands Meteorological Institute (KNMI)	LMO	2	3.2		E	Missing abbreviations: WMO, GRIB, BUFR (are mentioned in Annex D)	Add WMO, GRIB, BuFR abbreviations	A
132	Met Office	LMO	MO_8	3.2	all	E	There are missing abbreviations. E.g. WMO, GRIB, BUFR are mentioned in Annex D.	After rewriting add missing abbreviations and check that listed ones are actually used.	A
133	LMV - Lantmateriet, National Land Survey of Sweden	SDIC	5	3.2	abbreviations	E	Typo	Unified Modeling Language	A
134	Lenkungsgrremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	16	3.2	abbreviations	E	English explanations of the acronyms are missing.	Add: AFIS Official Information System for Geodetic Reference Points (in Germany); ALKIS Official Cadastre Information System (in Germany); ATKIS Official Topographic and Cartographic Information System (in Germany).	A
135	Institut Géographique National	LMO	21	3.2		E	Some acronyms are missing.	Add at least ICAO.	A
136	AGI - Association for Geographic Information	SDIC	10	3.3		G	This is not a standard or a set IRs. Its stated purpose is to act as guidance so why is formal language being used?	Remove this clause.	N/A - it is the formal language used in this document
137	Geonovum	LMO	2	3.4		E	Harmonisation of the Implementing Rules. In the implementing rule for	Make a choice between clause or chapter and change where	A

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							metadata the word chapter is used instead of clause	necessary the Implementing Rules.	
138	Department for Environment, Food and Rural Affairs (Defra)	LMO	3	4.1.1	Article 8 (3)	E	remove as described in the Generic Conceptual Model as is repeated later in sentence	The use of object referencing and the guidelines on data consistency and multiple representation as described in DS-D2.5 Generic Conceptual Model and in this document can help with establishing and maintaining consistency between data,.....	A
139	EA - Environment Agency for England and Wales	SDIC	4	4.1.1	1st paragraph	E	The first sentence does not read correctly.	Replace first sentence with "This subclause provides an overview of the articles in the Directive that are relevant to this document."	A
140	AGI - Association for Geographic Information	SDIC	11	4.1.1	1st paragraph	E	The first sentence does not read correctly.	Replace first sentence with "This subclause provides an overview of the articles in the Directive that are relevant to this document."	d
141	Institut Géographique National	LMO	22	4.1.1	First paragraph	E	"an overview, which of the articles in the Directive which are relevant..." too many "which"?	Replace by "an overview of the articles in the Directive which are relevant..."	Ap - see #140
142	Flemish government - Environment, Nature and Energy Department - Land and Soil Protection, Subsoil, and Natural Resources Division	LMO	2	4.1.1	last paragraph on Article 10	E	Missing full stop at the end of last sentence	add '.'	A
143	Institut Géographique National	LMO	28	4.1.1	Article 10 Last sentence	E	Point is missing at the end of the sentence.	Add point.	A
144	United Kingdom Hydrographic Office	LMO	6	4.1.1	last paragraph under Article 7, item 1	G	In the Directive the phrase "if appropriate" applies to referencing the "existing technical means". This paragraph changes the meaning by moving that phrase so that it appears to apply to the decision whether to use the existing	Remove the phrase "if appropriate" from this paragraph, so that it reads "The use of relevant standards adopted by organisations established under international law is addressed by ..."	NA, R (CT) - The CT has clarified previously that "if appropriate" refers to the existing standards / JRC: A with DS DT resolution.

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							international standards; this should not be done.		
145	United Kingdom Hydrographic Office	LMO	7	4.1.1	Article 8, item 1	G	Note Article 8.1 allows that a dataset can correspond to more than one theme - how will this be handled?	Include a comment on how the process and/or the theme specifications will address this article item, i.e. how a dataset will be able to satisfy (part or all of) more than one thematic specification.	A
146	Met Office	LMO	MO_9	4.1.1	para 4	G	The lack of a user requirement by which to judge these IRs has considerably affected our response to them and affected our costs and effort so far. In the absence of detailed URs, our interpretation of what is required reflects what we do already, and so reflects potentially huge costs. Our response to a call for URs will be positive, but we point out that it is normally the user who defines the UR and the producer who responds to the UR, perhaps defining more detail, but certainly declaring what is possible at what cost.	Please convey to the CT our objections to a lack of existing UR.	R (CT) / JRC: URs survey is in place and on going. Users are requested to reply, like the Meteo community having the opportunity to state which their requirements are on that context.
147	Met Office	LMO	MO_10	4.1.1	para 5	G	The meaning of 7.1 which these documents interpret, directed by the CT is at odds with natural interpretation and the understanding our community had during Conciliation. WMO already deliver huge amounts of interoperable data to EU and commercial organisations and the public completely in the spirit and ethos of INSPIRE. Requiring us to change will cost our community more than any other, dwarfing INSPIRE expected gains.	We ask again that a natural interpretation of 7.1 is adopted. Not doing so has cost our community already, and looks still to cost us considerably in the future	R (CT) / JRC: This provision of the Directive guarantees that standards developed by international organisations are considered and, if appropriate, used for purposes of INSPIRE. It should be noted that interoperability is necessary in cross data theme context. Met community is more than welcome to participate in this work and help to develop INSPIRE.
148	Geonovum	LMO	9	4.1.1	Article 8(3)	G	When relations between objects of different themes will be derived geometrically, the right interpretation of the quality of both themes is very important. Conversions as mentioned in 5.2.4 can have influence on the results of relating objects at the "same"		Ap, R (TWGs) / JRC: R to TWG

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							location. In 6.3.2 it is stated that "Due to the heterogeneity of data sources in Europe it may be difficult in an INSPIRE data specification to determine resolution in exact figures.". This however is (as also stated) one of the most important issues. This must have full attention of the TWG's.		
149	Met Office	LMO	MO_11	4.1.1	p 18 last bullet on page	G	Which review of documents? This review? We need clarification. If so then our comments to D2.3, D2.5 and D2.6 express deep concern about costs affecting our community from not recognising our huge range of interoperable data exchange.	Clarify which review of documents. Our expected costs from INSPIRE are far too extensive to miss and review opportunity. We expect a clear response on our costs from these reviews.	R (CT) as the Commission is responsible for the analysis of cost and benefits; (the reference was to all SDIC/LMO reviews of data specification related documents - including this one) / JRC: This statement relates to the review of the first drafts of data specifications that is expected to take place in October-November 2008. Met community is more than welcome to participate in the open and participative process of INSPIRE.
150	Institut Géographique National	LMO	23	4.1.1		G	Add the Article 4(4) "This Directive does not require collection of new spatial data" : this is important for the "as-is analysis" step	Add the Article 4(4)	A
151	National Survey and Cadastre, Denmark	LMO	KMS-13	4.1.1.	Article 10(2)	T	Inconsistent use of terminology. Two different terms is used for the same concept. In this case it is the terms feature used in article 10(2) whereas the term spatial object is used elsewhere	Use consistent terminology. In this case use the term feature as in the international standards	NA - we cannot change the Directive even though it indeed uses terminology inconsistently
152	Institut Géographique National	LMO	24	4.1.1	Article 7 (1)	T	"Article 7(1) is mainly addressed by D2.5" It is not really true : - user requirements are recommended in this document (D2.6) - existing initiatives are in the work programme (scenario 1) - international standards (ISO ones) are effectively recommended in D2.5	Correct the current text	A
153	Institut Géographique	LMO	25	4.1.1	Article 7(4)	T	"Article 7(4) is mainly addressed by D2.5 "	Correct the current text	A

Comm#	ID	LMO/ SDIC	1	2	3	4	5 - Comment	6 - Proposed change	7 - Resolution
	National						It is not really true, as definition and classification of spatial objects will be done mostly in the future DPS developed for each theme by TWG ; these DPS will be based on D2.5 and D2.6		
154	Institut Géographique National	LMO	26	4.1.1	Article 8 (2)	T	"Article 8(2) a-d is not addressed by this document, but by D2.5" It might be worth to add "and by the future DPS developed by TWG" as key attributes and relationship between spatial objects will be specified in these future DPS	Add "and by the future DPS developed by TWG"	A
155	Institut Géographique National	LMO	27	4.1.1	Article 8 (2)	T	"The INSPIRE Consolidation Team has confirmed ... without regarding the aspects listed in article 8 (2)" It is not acceptable to extend the requirements of the Directive for the annex III. But it is possible to propose to answer to additional user requirements with optional solutions.	Add a sentence to explain that the extension will be optional or explain how it is possible to extend the requirements of a directive.	NA - the requirements for such an extension are stated in the resolution of the CT; this is sufficient; any attempt to reword this additionally may cause confusion
156	Geonovum	LMO	8	4.1.1	Article 7(2)	Q	How will the process be organised that the total of all themes will remain feasible? I can imagine that each TWG will work enthusiastically on the Data Specifications. How do we keep control of the total impact of all themes together?		- by using the mechanisms referred to in comment #2, the first level review by CT, DT DS, EIONET and the subsequent SDIC/LMO reviews / JRC: A with DT DS resolution.
157	Met Office	LMO	MO_12	4.1.2	last para	G	this mentions International Standards yet again in the recitals. International Standards - particularly for data and services does not just mean ISO and OGC. WMO as a standards organisation is older than ISO, and ISO and WMO have had mutual recognition as standards organisation since the late '60s. ISO and WMO this year have agreed to cross adopt each others' standards to avoid duplication.	How can the DSDT and the CT not recognise WMO international standards?	R (CT) - see also comment #10 of D2.5 v2.0 / JRC: Already answered in D2.3
158	Department for Environment, Food and Rural	LMO	4	4.1.2	3	T	Not sure why object referencing has been highlighted here as it does not actually form part of the body of	Remove this sentence. Object referencing is useful but its promotion here is not warranted.	A

Comm#	ID	LMO/ SDIC	1	2	3	4	5 - Comment	6 - Proposed change	7 - Resolution
	Affairs (Defra)						this document for creating data specifications.		
159	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	8	4.2	paragraph 3	G	D2.6 references descriptions in D2.5 that in turn raise unresolved methodology issues, eg (B). "The ESDI needs to select a common terminology from all of the existing terminologies and/or their translations.", (K) "some form of management system will be required". In general, D2.5, section 4.3.2 implies that the details "need to be addressed in the data harmonisation process". D2.6 however merely back-references D2.5.	Identify process by which data harmonisation methodologies will be developed and applied, against the requirements identified in D2.5. This may be an unresolved process, and beyond the scope of this version of the document, but it needs to be explicit.	A
160	BRGM	LMO	8	4.2	paragraph 3	G	D2.6 references descriptions in D2.5 that in turn raise unresolved methodology issues, eg (B). "The ESDI needs to select a common terminology from all of the existing terminologies and/or their translations.", (K) "some form of management system will be required". In general, D2.5, section 4.3.2 implies that the details "need to be addressed in the data harmonisation process". D2.6 however merely back-references D2.5.	Identify process by which data harmonisation methodologies will be developed and applied, against the requirements identified in D2.5. This may be an unresolved process, and beyond the scope of this version of the document, but it needs to be explicit.	d
161	Lenkungsgremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	17	4.2	figure 3, page 22	T	In the figure the data harmonisation components are referenced. The corresponding text says: "For each of these components, a separate clause in document D2.5 specifies how...". However, "Portrayal model" and "Data Transformation" are not addressed in D2.5. In D2.5 is stated: "the Portrayal model is an unresolved issue" and "Data transfer will be specified in D2.7"	Please check and possibly modify the figure. Please take care that the important components "Portrayal model" and "Data transformation" are covered by INSPIRE.	NA - the statements in D2.5 and in this clause are consistent; however, a statement should be added here on the use of the components in the methodology R (CT,DT NS) - for portrayal and data transformation / JRC: In the D2.6-version 3.0 the references are more precise.
162	Integrated Administration and Control System (Common	SDIC	1	4.2.1	paragraph 1	T	it is not clear from the text what do 'recitals' mean	please insert more clear reference - Article/subarticle/point	NA - recital is a well-defined term and refers to the part of the Directive before the Articles

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	Agricultural Policy)								
163	Department for Environment, Food and Rural Affairs (Defra)	LMO	5	5	All	E	Capitalise Member States consistently throughout document	change all member states to Member States	A
164	PASI - Polish Association for Spatial Information	SDIC	8	5	document	G	Congratulations! Some improvements are needed, but it is a very good document.		- noted with thanks
165	Institut Géographique National	LMO	30	5		G	Section 5 is verbose and difficult to read. One of the reasons may be that the methodology to reach the goal (how to build specifications) is described before the goal itself (specifications). For example 1, it is difficult to clearly understand discussions about feature catalogues and schemas (5.2.3 and 5.4.4) before understanding clearly what is in a feature catalogue and the difference with an application schema (6.2.2, 6.2.3). For example 2, section 5.2.4 states that specifications require "additional information" compared to the schema but the 'additional information' is only described later on, and thus the discussion of 5.2.4 is hard to follow. For example 3, there are many forward references, even in a requirement (see requirement 4, 5.4.4), which complicate the understanding of the text.	Exchange sections 5 and 6	Proposal: NA. Chapter 5 (the process) comes logically before chapter 6 (the result). Justification: Ap, some parts of chapter 6 on the role on feature catalogue and schema will be moved into D2.5 where they fit better.
166	LMV - Lantmateriet, National Land Survey of Sweden	SDIC	8	5		T	Glossary and conceptual modelling is missing. The need for an conceptual approach is stated in D2.5 (Generic Conceptual Model) and the "Inspire Glossary", but it is not focussed upon in the spiral development process.	Add glossary and conceptual modelling to the spiral development process.	Ap - they are already part of it; see e.g. 5.1.2.1.
167	LMV - Lantmateriet, National Land	SDIC	7	5		T	It is, according to our experience, difficult to start with "use cases" in a development process.	Add objective modelling and analysis (to access the scope) and process modelling to the spiral	NA - the use cases are needed to define the scope in more detail; this is inline with other IT process

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	Survey of Sweden							development process.	models
168	LMV - Lantmateriet, National Land Survey of Sweden	SDIC	6	5		T	The use of the term "application schema" is not enough to specify a stage in a development process.	Improve the text by using specific terms for different (types of) application schemas according to the stages in the spiral development process.	? comment unclear, which types of application schemas does the comment refer to?
169	Department for Environment, Food and Rural Affairs (Defra)	LMO	19	5 & 6	4	T	Throughout both sections when there is inconsistency when discussing transformation of input data to generate the datasets that conform to the harmonised data specifications. The definition of harmonisation states that this will be achieved through network transformation services (e.g. coordinate reference transformation, schema transformation, semantic transformation services). However, there are several paragraphs that state that in reality harmonisation of certain datasets will not be a simple task that cannot be achieved through automated transformation services as they may require some geo-processing (e.g. creation of river centrelines, generalisation) or data fusion to create "new" datasets.	There is a need for greater clarity of what is required for harmonisation where more complex processing may be required resulting in the creation of a "new" dataset rather than a "virtual" dataset	A - also align with revised definitions from the D2.5 revision
170	Department for Environment, Food and Rural Affairs (Defra)	LMO	6	5 and 6		T	When reading both these sections there is a lot of repetition of information throughout and was left with lots of questions initially that although finally got answered if these sections were better structured between background information relating to the development process, roles and responsibilities for developing harmonised data specifications and detailed description of the methodology (preferably in that order rather than current structure) I think readers would be left with fewer questions	Section 5 should provide only the high level background information for the methodology - i.e. process model (section 5.1.1) and high level description of the various steps (section 5.1.2), roles and responsibilities (section 5.4.1, 5.4.2, 5.4.3, 5.4.6) only. The more detailed technical information relating to data specification development (section 5.2), implementation (section 5.3), plus sections 5.4.4, 5.4.5 should be integrated with section 6. This would then remove a lot of repeated information and ensure that all the recommendations and requirements are all in a single section.	Ap - see #165

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171	Integrated Administration and Control System (Common Agricultural Policy)	SDIC	2	Chapter 5		T	text of the chapter is copy-paste from RISE project, there is no extra contribution of the drafting team	please elaborate text where possible to bring up specifics of INSPIRE (see also comments 3-6)	NA - the text was adapted to INSPIRE (and made more specific), where appropriate, but in general the text from RISE applies to INSPIRE, too
172	Institut Géographique National	LMO	29	5		T	The difference between "conceptual schema", "feature catalogue" and "feature concept dictionary" is very difficult to understand without reading section 6, and still difficult to understand after. This is, to my mind, the main bottleneck to understand the whole document.	Clarify clearly the differences between the concepts	A
173	Institut Géographique National	LMO	31	5.1	Figure 4, Figure 5, and Table 5.1.2.1	E	Terms used on Figure 4, Figure 5, and Table 5.1.2.1 are not coherent (e.g. "Cost Benefit Analysis" is missing on Table 5.1.2.1 and Figure 5)	use the same list of terms between the 3 paragraphs.	A
174	LMV - Lantmateriet, National Land Survey of Sweden	SDIC	9	5.1-5.3, 5.4 and 6		E,G,T	Purpose and content of the chapters are not clear and consistent.	Clarify the purpose of the chapters: 5.1-5.3, 5.4 and 6 respectively. Harmonise the methodology.	Ap - see #165
175	AGI - Association for Geographic Information	SDIC	15	5.1.1	Figure 4	E	Ensure that the text and diagram tie-up.	Number the steps on the diagram and also ensure that the steps are given the same names.	A
176	Royal Netherlands Meteorological Institute (KNMI)	LMO	4	5.1.1	page 24, figure 4	E	From the image it is hard to recognize the described iterative process. Please consider making a Plan-Do- Act-Check figure (as defined by ISO) and make the iteration process (especially the Check part) more clear in the text surrounding the figure.	Create a new figure 4	Ap - this subclause and the figure were intended to provide an overview; however the general point is well taken and should be addressed in a revision
177	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	4	5.1.1.	paragraph 2	E	Not the spiral model emphasises the need to participate of all stakeholders	"All relevant stakeholders must participate in the"	NA - in essence this is not different from the current text; also it is not possible to force stakeholders to participate
178	AGI -	SDIC	13	5.1.1	Paragraph 6	E	Number rather than bullet steps for	Number steps.	A

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	Association for Geographic Information						ease of reference		
179	AGI - Association for Geographic Information	SDIC	12	5.1.1	Paragraph 4	E	States that it is important to distinguish two aspects - not clear from the text what these are.	Restructure the paragraph and use bullets or numbered sub-paragraphs to make clear what the two aspects are. Should be a lower case after a colon "...aspects: the set....	A
180	Geonovum	LMO	25	5.1.1	Figure 4	E	The arrow in the spiral goes from the inside to the outside. IMHO this indicates a process that keeps on diverging and leads nowhere.	Redraw the figure with a reversed direction of the arrow.	NA
181	Department for Environment, Food and Rural Affairs (Defra)	LMO	7	5.1.1	Figure 4	E	The steps in the text do not match 1:1 the steps indicated in the diagram. Need to amend both the text and diagram so that the same steps are indicated in both	Step 1: User requirements (undertaken by CT and others and provided to TWG); Step 2 generation of use cases and definition of spatial object types (i.e. initial draft data specification) (TWG); Step 3 - "as is" analysis; Step 4 - Gap Analysis; Step 5 - draft data specification; Step 6 Pilot implementation and testing; Step 7 - Cost Benefit analysis; Step 8 - INSPIRE data specification (this step is currently absent)	Ap - steps have been aligned with text
182	Department for Environment, Food and Rural Affairs (Defra)	LMO	8	5.1.1	"The steps (bulleted list - bullet 4)	E	where subclauses are referred to can you actually state the number of the subclause so that the reader cannot get confused to where they should potentially go to	Therefore, this is a core activity of the data specification development processes and is discussed in more detail in subclause 5.1.2??)	A
183	Ordnance Survey	LMO	1	5.1.1	First paragraph and figure 4	E	Characteristics of a "spiral" development process should be explained.	Shift Figure 4 to the beginning of the paragraph and explain "spiral development processes".	AwM - consider to remove the term spiral as it seems more confusing than helpful; whether or not the development process is called "spiral" or not is probably not important
184	Integrated Administration and Control System (Common Agricultural Policy)	SDIC	3	5.1.1	parag 4	E	it is not clear in the two last sentences (i) do they speak about the same or (ii) they contradict	(I)only one sentence is enough (ii) clarify meaning	A - clarify meaning of second sentence
185	Lenkungsgremium GDI-DE	LMO	19	5.1.1	paragraph 4, page 23	E	The text is difficult to understand: "In INSPIRE, it is important to	Change to: "INSPIRE Data Specifications will be structured	Ap - Wording changed along the lines of the comment

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	(Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)						distinguish two aspects: The set of INSPIRE Data Specifications will be before the development of theme specific data specifications can start."	according to the 34 Annex themes. As the development of data specifications will start from environmental use cases which typically contain data from several Annex themes, we need to know the use cases first. The respective set of use cases must be clearly defined, before the development of theme specific data specifications can start."	
186	Geonovum	LMO	3	5.1.1		G	Detail will be specified in document D2.7 (data encoding guidelines). Data encoding guidelines is not the right word considering that this will become an IR.	Change "data encoding guidelines" in "IR for data exchange"	NA - D2.7 will not become an IR / JRC: D2.7 will not be an IR, but parts of the content may be included in the IRs for data specifications.
187	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	5	5.1.1.	paragraph 4	G	It is confusing: Thematic working groups should specify use cases, which "typically will" overlap the themes, derive from these use cases theme-relevant requirements and elaborate with these requirements data specifications for their theme. This is not a useful but even a contradictory approach!	Skip the use case approach for thematic working groups. The choice of themes already included a use case analysis. Now thematic experts have to perform the data modelling task per theme based on their experience and based on candidate data models.	NA - see #27
188	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	3	5.1.1.	paragraph 1	G	The cyclic approach is not described in the following text, anchor points are not described	Align the paragraph with the rest of the chapter	A
189	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	8	5.1.1.	Figure 4	G	The representation of the steps should not be a spiral - there is no reason for this - this is contradictory to Figure 5 and the descriptive text.	If a spiral is chosen as graphical representation for the process, it should be used in the correct way, which means, that the steps back should end at the correct points in the spiral	A - see also #183
190	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service	SDIC	7	5.1.1.	step 4	G	The section (about UML, profiled by ISO, the GCM, feature catalogue etc.) presupposes knowledge from D2.5 and might be difficult to understand for non-experts.	Refer to D2.5, and/or leave out a number of details.	A

Comm#	ID	LMO/ SDIC	1	2	3	4	5 - Comment	6 - Proposed change	7 - Resolution
	Integration								
191	Federal Office of Topography (Switzerland) - swisstopo	LMO	3	5.1.1.	Figure 4	G	The spiral development process seems to be very complete and much longer than we are doing the same thing. Maybe it is even "too complete", meaning we are risking to avoid "simple specifications".		? please explain, why does a complete/complex process necessarily result in complex specifications?
192	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	6	5.1.1.	The steps	G	The steps described are "standard steps" for application (software) engineering. Data modelling is usually a part of the application engineering approach but not simply the same thing!	Either drop the steps or define them suitable to data modelling: not based on use cases, but on existing domain/Theme knowledge	NA - see #27
193	Geonovum	LMO	10	5.1.1		G	Working with use cases seems very good to me. Important is to keep relating the use cases with the feasibility: who asks the question of the use case and how often does this question arise?		- The CT will initiate a survey soon; the TWGs will assess based on the gap analysis (as-is vs requirements) about the feasibility of supporting the identified requirements; this assessment will eventually be reviewed by all stakeholders / JRC: The user requirements survey has been launched and the survey is available for the TWGs' work.
194	Flemish government - Environment, Nature and Energy Department - Land and Soil Protection, Subsoil, and Natural Resources Division	LMO	3	5.1.1	paragraph 1	G	always use the same terms	use 'bbb' instead of 'aaa'	? comment not understood
195	Lenkungsgremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	21	5.1.1	Figure 4, page 24	G	Cost-benefit analysis is explicitly referred to article 21 paragraph 2 of the directive.	Cost-benefit analysis should be a superior step (parallel to the other steps).	NA - cost/benefit analysis is important as stated in the comment, but can conclude only after the testing / JRC: The figure has been removed in the D2.6-version 3.0.

Comm#	ID	LMO/ SDIC	1	2	3	4	5 - Comment	6 - Proposed change	7 - Resolution
196	Institut Géographique National	LMO	38	5.1.1 , 5.1.2.7, 5.3		G	Implementing and testing are presented as an integral part of the process. As D2.6 is for the future TWG, it may be confusing: - I guess that TWG are not going to do implementing and testing (in 5.4.5.4, it is said it is Commission responsibility) - time will probably miss for tests, specially for themes in Annex I	Add some warning at beginning of chapter 5 to say that the methodology is a general, ideal one and that not every step has to be done by TWG. Define more clearly responsibilities in 5.4	JRC: A.
197	Institut Géographique National	LMO	39	5.1.1 and following		G	Same issue with the cost-benefit analysis: it is presented as an integral part of the process. As D2.6 is for the future TWG, it may be confusing as I guess that TWG are not going to do this cost-benefit analysis (in 5.4.5.4, it is said it is Commission responsibility)	Add some warning at beginning of chapter 5 to say that the methodology is a general, ideal one and that not every step has to be done by TWG. Define more clearly responsibilities in 5.4	A - see #196
198	Lenkungsgremiu m GDI-DE (Steering Committee GDI- DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	18	5.1.1	Text and Figure 4	G	The method of using an iterative process for the development of data specifications can be explained very briefly. Figure 4 is extremely confusing. Starting from specific use cases (satisfying requirements from the policy, from land owners, etc.), products have already been developed. Unfortunately, clearly elaborated design and development principles of the products are often missing. As with data base management, structures of the available and processed data are needed here. Its implementation follows data specifications. Thus they are needed rather soon and not just after a whole range of iterations, etc. way up in the spiral cycle. A remark to the "modelling of user requirements on the conceptual level": In INSPIRE we mostly deal with existing data. It is not sure whether this approach (use cases)	Start the development process of data specifications from existing data.	NA - a similar comment was raised in the DT before (mainly because the use cases are not known today) and was discussed also with the CT; as a result, it was decided to stick with a user requirements driven approach based it is mandated by the Directive. See also comment #27 and other related comments. Regarding the comment about many iterations before a data specification could be adopted, this is not the intention. The iterations also refer to an approach that starts with a smaller scope and may be enlarger in future iterations. I.e., the first adopted versions of the specification could have a smaller scope to address scheduling, feasibility and cost concerns.

Comm#	ID	LMO/ SDIC	1	2	3	4	5 - Comment	6 - Proposed change	7 - Resolution
							can be understood.		
199	EA - Environment Agency for England and Wales	SDIC	5	5.1.1	Figure 4, and the bullet above it	T	A cost benefit analysis takes place, but whose cost is it, and for whose benefit? It is felt that proper implementation of INSPIRE may cost an organisation much more than the benefit that will be returned.	Explain more about the cost benefit analysis part of the process.	JRC: The section on cost benefit considerations is included in D2.6-version 3.0 with mote details.
200	AGI - Association for Geographic Information	SDIC	14	5.1.1	Figure 4, and the bullet above it	T	A cost benefit analysis takes place, but whose cost is it, and for whose benefit? It is felt that proper implementation of INSPIRE may cost an organisation much more than the benefit that will be returned.	Explain more about the cost benefit analysis part of the process.	d
201	Department for Environment, Food and Rural Affairs (Defra)	LMO	9	5.1.1	The steps bulleted list	T	Is encoding a separate step or is this simply just a part of the data specifications as the process is to define the conceptual and implementation schemas for each theme.	Roll encoding into a single data specification step. The paragraph beneath Figure 4 can then also be removed. This paragraph should be removed from this section as it is covered in the more technical sections later in the document	A
202	AGI - Association for Geographic Information	SDIC	16	5.1.1	Figure 4	T	One of the characteristics of the spiral approach is that there are review or check points after key stages or steps. These are absent.	Include review points in the process model.	A - make review points explicit
203	National Survey and Cadastre, Denmark	LMO	KMS-14	5.1.1	Paragraph 7 (bullet 1)	T	The concept "universe of discourse" should be defined in chapter 3.1	Insert the following definition in chapter 3.1 "Universe of discourse. view of the real or hypothetical world that includes everything of interest [EN ISO 19101]	A
204	Stanli - Geographic Information Standards Initiative in Sweden	SDIC	2	5.1.1	Figure 4	T	This figure is not very good. We fail to see the process as a spiral	Replace the figure with one that corresponds better to the table in 5.1.2.1	A - see other related comments
205	Institut Géographique National	LMO	34	5.1.1	The steps Second bullet	T	"An as-is analysis ... is carried out in paralel " There is some contradiction with chapters 5.2 and 5.4 where it is recommended to develop a first draft of application schema before the as-it analysis (and this recommendation seems relevant, as	Delete "in paralel"	Ap - there are inconsistencies in different parts of the document that need to be fixed; related to #198, the sequence (or paralel) may depend on decision to that comment

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							it is easier to make an as-it analysis on a selected set of features and attributes than an exhaustive one).		
206	Institut Géographique National	LMO	35	5.1.1	p 24 First paragraph	T	"The following sections are optionnal elements of a DPS : maintenance, data capture, ..." It may be confusing: - data capture is optionnal in ISO 19131 - but requirement 92 of D2.5 makes it mandatory for an INSPIRE DPS	Add a note saying that "requirement 92 of D2.5 makes data capture a mandatory element for an INSPIRE DPS"	Ap - use D2.5 as the basis, not 19131
207	National Assembly of the Land Cover and Use Information System of Spain (SIOSE)	SDIC	4	5.1.1	8	T	Class Analysis document should be produced, as explained in general comment 1	Include following clause before paragraph 8: - After the use cases are obtained, it is necessary to make a careful analysis to elaborate the Class Analysis document, with attributes, relationships, and responsibilities	NA - this seems to be the same as the specification of the (initial) application schema
208	IDEE Working Group of the Commission on Geomatics (National Geographic High Council)	LMO	4	5.1.1	8	T	Class Analysis document should be produced, as explained in general comment 1	Include following clause before paragraph 8: - After the use cases are obtained, it is necessary to make a careful analysis to elaborate the Class Analysis document, with attributes, relationships, and responsibilities	d
209	Lenkungsgremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	20	5.1.1	paragraph 4, page 23	T	If we want to come up first with the cross-section themes "user requirements" and "use cases" it might be appropriate to improve the methodology itself. For example it could be appropriate to achieve common, similar views on the data or group specific themes first - and only then start to develop cross-section theme data specifications.	Consider this point and allow for the grouping of themes for the data specifications.	Ap - grouping of themes is possible and will be done by the CT, whenever appropriate
210	Institut Géographique National	LMO	37	5.1.1 and 5.1.2.1		T	Only in those subsections, I quoted the words "universe of discourse", "agreed terminology", "glossary", "feature concept dictionary", "data dictionary", "feature catalogue", "glossary common to all Inspire DS" (as well as "ontology", "register", "feature concept dictionary register" later on...). I can not understand all	Clarify clearly the differences between the concepts, and check if there are no useless use of different words.	A

Comm#	ID	LMO/ SDIC	1	2	3	4	5 - Comment	6 - Proposed change	7 - Resolution
							the differences between those words... I'm already lost.		
211	National Assembly of the Land Cover and Use Information System of Spain (SIOSE)	SDIC	2	5.1.1	4	T	Previous Catalog of participants and final users, catalog of Standards and legal regulations (european and national), and user requirement catalog should be elaborated and spread previously to prepare use cases. Existing SDICs and LMOs are already such users, but it should not be so easily assumed that the main users for each Theme has been wholly considered.	Change paragraph: In INSPIRE, it is important to distinguish two aspects: The set of INSPIRE Data Specifications will be structured based on the themes defined in the annexes of the Directive. However, the data specification development process will be driven by environmental use cases which typically will involve data from several themes, i.e. specified in several INSPIRE Data Specifications. As a result, a catalog of participants and final users, a catalog of Standards and legal regulations (european and national), and initial requirement catalog, and finally the general set of use cases / user requirements need to be available, before the development of theme specific data specifications can start. In the process of developing an INSPIRE Data Specification, it is assumed that the use cases will be sufficiently detailed to clarify the user requirements regarding the data by the specific themes.	NA - see #8 and other comments related to this sub-clause
212	IDEE Working Group of the Commission on Geomatics (National Geographic High Council)	LMO	2	5.1.1	4	T	Previous J215 should be elaborated and spread previously to prepare use cases. Existing SDICs and LMOs are already such users, but it should not be so easily assumed that the main users for each Theme has been wholly considered.	Change paragraph: In INSPIRE, it is important to distinguish two aspects: The set of INSPIRE Data Specifications will be structured based on the themes defined in the annexes of the Directive. However, the data specification development process will be driven by environmental use cases which typically will involve data from several themes, i.e. specified in several INSPIRE Data Specifications. As a result, a catalog of participants and final users, a catalog of Standards and legal regulations (european and national),	See #211

Comm#	ID	LMO/ SDIC	1	2	3	4	5 - Comment	6 - Proposed change	7 - Resolution
								and initial requirement catalog, and finally the general set of use cases / user requirements need to be available, before the development of theme specific data specifications can start. In the process of developing an INSPIRE Data Specification, it is assumed that the use cases will be sufficiently detailed to clarify the user requirements regarding the data by the specific themes.	
213	National Assembly of the Land Cover and Use Information System of Spain (SIOSE)	SDIC	3	5.1.1	7	T	Previous cataloguing of users and user requirements should be made and disseminated for review.	Include following clause before paragraph 7: - Elaboration and review of catalog of main users and user requirements by LMOs and SDIC at national level, and by EOINET and any other national or European institution considered main actor in the INSPIRE process. These catalogs are the bases for elaborating the use cases.	See #8
214	IDEE Working Group of the Commission on Geomatics (National Geographic High Council)	LMO	3	5.1.1	7	T	Previous cataloguing of users and user requirements should be made and disseminated for review.	Include following clause before paragraph 7: - Elaboration and review of catalog of main users and user requirements by LMOs and SDIC at national level, and by EOINET and any other national or European institution considered main actor in the INSPIRE process. These catalogs are the bases for elaborating the use cases.	d
215	National Assembly of the Land Cover and Use Information System of Spain (SIOSE)	SDIC	5	5.1.1	Figure 4	T	Previously explained in general comment 1	Change Figure for to include previous clauses.	See #8
216	IDEE Working Group of the Commission on Geomatics (National Geographic High Council)	LMO	5	5.1.1	Figure 4	T	Previously explained in general comment 1	Change Figure for to include previous clauses.	d

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Comm#	ID	LMO/ SDIC	1	2	3	4	5 - Comment	6 - Proposed change	7 - Resolution
	Council)								
217	Institut Géographique National	LMO	33	5.1.1	figure 4	T	the notion of spiral is not obvious on the figure, as well as the label 'methodology' in the middle of the spiral	remove 'methodology' (methodology is the whole figure). Put instead 'specification'.. And add on the left of the figure a label 'Usage' and on the right of it a label 'Data' to show that the spiral move is to move from usage to data (?)	A - remove
218	Integrated Administration and Control System (Common Agricultural Policy)	SDIC	4	5.1.1	figure 4	T	the order and context of steps 'Conceptual schema' and 'Data specification' are confusing. According to chapter 3, conceptual schema is formal description of conceptual model - which is already a part of Data specification in terms described in this and the following chapter	please address explicitly the step 'Conceptual schema' and explain the difference between this and the next step	Ap - remove step
219	Institut Géographique National	LMO	36	5.1.1	p 24 second paragraph	T	This paragraph talks about a GML application schema but it is not clear from D2.6 where this GML application schema should be provided by TWG. From 5.1.2.1 , it seems it must be in in the DPS ; but, in annex C, structure of DPS and examples do not include the GML application schema.	Clarify.	A - see also #201
220	Federal Office of Topography (Switzerland) - swisstopo	LMO	4	5.1.1.	Figure 4	Q	Information about what is a mandatory process step and what is simply "nice to have" is missing. Are all the steps in the spiral mandatory or can we skip one or the other?		- all are mandatory
221	Royal Netherlands Meteorological Institute (KNMI)	LMO	3	5.1.1	page 23	Q	Who will define the Use Cases where the requirements will be based on? Use case should be defined by the users of the system, i.e. not the TWG/CT		- agreed, the CT will soon launch a user requirements survey to collect the use cases from the users / JRC: The User Requirements Survey is permanently open to the registered SDICs/LMOs to provide information on existing or planned applications.
222	Institut Géographique National	LMO	32	5.1.1	First paragraph	Q	"a repeatable spiral development process model. It is based on a cyclic approach for incrementally growing ..." This approach seems quite nice but is it realistic for the TWG who will develop the DPS for themes in	clarify how to apply this approach on the work of the TWG	A - see also #198

Comm#	ID	LMO/ SDIC	1	2	3	4	5 - Comment	6 - Proposed change	7 - Resolution
							Annex I, as they will have a very tight calendar to do so?		
223	IDsW: Dutch standardisation organisation for water management information	SDIC	2	5.1.1	Figure 4	Q	The spiral figure does not do justice to the incremental development proposed in further paragraphs	Change figure to reflect incremental process	Ap
224	Bundesanstalt für Geowissenschaften und Rohstoffe (BGR)	LMO	4	5.1.1	Text and Fig. 4		That the development of data specifications is an iterative process, can be explained shortly. The Figure 4 is extremely confusing, and not of help. Coming from specific use cases (requirements from the policy, from land owners, etc.), products have been developed. Unfortunately, in many cases, clearly elaborated design and development principles of the products are often missing. As with data base management, structures of the available and processed data are needed. Its implementation follows data specifications. Thus they are needed rather soon and not just after a whole range of iterations, etc. way up in the spiral cycle. The "modelling of user requirements on the conceptual level": in INSPIRE we mostly deal with existing data. I am not sure whether this can be understood.		d
225	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	9	5.1.1	Text and Fig. 4		That the development of data specifications is an iterative process, can be explained shortly. The Figure 4 is extremely confusing, and not of help. Coming from specific use cases (requirements from the policy, from land owners, etc.), products have been developed. Unfortunately, in many cases, clearly elaborated design and development principles of the products are often missing. As with data base management, structures of the available and processed data		d

Comm#	ID	LMO/ SDIC	1	2	3	4	5 - Comment	6 - Proposed change	7 - Resolution
							are needed. Its implementation follows data specifications. Thus they are needed rather soon and not just after a whole range of iterations, etc. way up in the spiral cycle. The "modelling of user requirements on the conceptual level": in INSPIRE we mostly deal with existing data. I am not sure whether this can be understood.		
226	Met Office	LMO	MO_13	5.1.1.1	2nd bullet Checklist	G	The checklist, Annex F is a very useful tool on its own. Congratulations.		- noted with thanks
227	Met Office	LMO	MO_14	5.1.1.1	figure 4	T	This spiral does not fully follow the text. The CBA at the end does not recognise p23 3rd bullet recognition that cost decisions should be made at different stages of the iterations (In fact Project Management declares that conscious decisions to go ahead or not should be made at every stage. Or does the CBA refer to the formal CT CBA discussed elsewhere?	Please clarify the figure 4 or explain more fully the role of decisions to proceed or not, and the role of the final CBA.	A - it was understood as the cost/benefit analysis referred to in the Directive; in general it seems common sense that decisions at all steps will be based on an analysis of their feasibility and costs vs benefits; however, a requirement to formally document all decisions from these aspects seemed "too much"
228	Met Office	LMO	MO_15	5.1.1.1	note page 24	T	We applaud that WFS and WCS are recognised not to be the only solutions. In fact for our community they could not be even major solutions, even if they were fully defined and workable. In fact Directive Article requires INSPIRE to be built upon existing services in the community.	Is it not appropriate to recognise Article x(x)here?	NA - reference to outstanding work by DT NS as in the current note seems sufficient
229	Department for Environment, Food and Rural Affairs (Defra)	LMO	10	5.1.2		E	Shouldn't this section and the steps referred to in section 5.1.1 be consolidated so the reader does not have to re-read information they have just read albeit in a slightly different format.	merge the steps in 5.1.1 with section 5.1.2	A - the idea was to provide an overview first, but we now have two overviews, 5.1.1 and 5.1.2.1; i.e. there is room make the document structure clearer (this is also related to other comments)
230	Bundesanstalt für Geowissenschaften und Rohstoffe (BGR)	LMO	5	5.1.2	Table xy	E	Title: do we harmonize data specifications, or do we try to develop data specifications to harmonize data?	The table should be numbered so that one can reference back to it	A
231	EuroGeoSurveys	SDIC	10	5.1.2	Table xy	E	Title: do we harmonize data	The table should be numbered so	d

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Comm#	ID	LMO/ SDIC	1	2	3	4	5 - Comment	6 - Proposed change	7 - Resolution
	- European Geological Surveys SDIC						specifications, or do we try to develop data specifications to harmonize data?	that one can reference back to it	
232	Institut Géographique National	LMO	41	5.1.2	row "Step", cell 2	E	"Identification user"	"Identification of user"	A
233	Integrated Administration and Control System (Common Agricultural Policy)	SDIC	5	5.1.2	table X	E	caption for tables is missing	add caption	A
234	Institut Géographique National	LMO	40	5.1.2	all subtitles	E	It is not always straightforward to make the link between the subtitles and the steps of figure 4 (eg. "5.1.2.3. initiating the data specification development" and box "Requirements" of figure 4)	Replace all subtitles by the exact content of the boxes of figure 4	Ap - align figure, name of steps and subtitles
235	Lenkungsgremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	22	5.1.2	Title, page 25	E	Title reads: "Steps in the development of a harmonised data specification". Do we harmonise data specifications, or do we try to develop data specifications to harmonise data?	Change title.	NA - harmonised data specifications are developed to enable harmonisation and interoperability of data; perhaps we need to state this (again) in the beginning of the subclause?
236	Bundesanstalt für Geowissenschaften und Rohstoffe (BGR)	LMO	7	5.1.2	Overview	G	It has not yet been demonstrated what the benefit of these components really is (although 5.3 provides the idea). What makes data to be harmonized, if they are described according to these data specifications using the D2.5 components? I think that the data specifications provide the information about products, which can be harmonized applying harmonization methods. the questions should demonstrate that the language and the concept is so highly abstract that the data specification demands are very close to meta data demands.		Ap - these concepts should be more clear from the revised definitions (see #57 of the D2.5 v2.0 comments), but as there have been several comments about this issue, a separate discussion about the topic should be included in the document ? The reference to metadata has not been understood.

Comm#	ID	LMO/ SDIC	1	2	3	4	5 - Comment	6 - Proposed change	7 - Resolution
237	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	12	5.1.2	Overview	G	It has not yet been demonstrated what the benefit of these components really is (although 5.3 provides the idea). What makes data to be harmonized, if they are described according to these data specifications using the D2.5 components? I think that the data specifications provide the information about products, which can be harmonized applying harmonization methods. the questions should demonstrate that the language and the concept is so highly abstract that the data specification demands are very close to meta data demands.		d
238	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	10	5.1.2.	Figure 5	G	mismatch with the spiral from figure 4. - not clear. Very unclear is the role of the as-is analysis: what role does it play in creating the data specification(s) for that Theme		A - mismatch is in the different sequences The role of the as-is analysis is described in 5.1.2.4.
239	Bundesanstalt für Geowissenschaften und Rohstoffe (BGR)	LMO	6	5.1.2	Overview	G	The overview provides an abstract scheme to develop a data specification. D2.5 provides the components. What is needed here is how to get to the components.		Ap - these are orthogonal aspects, but this must be made clear; see comments on subclause 4.2
240	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	11	5.1.2	Overview	G	The overview provides an abstract scheme to develop a data specification. D2.5 provides the components. What is needed here is how to get to the components.		d
241	AGI - Association for Geographic Information	SDIC	17	5.1.2		G	This sub-section tends to mix techniques e.g. use cases with steps. An iterative approach is described and illustrated in Figure 5 (see later comment). The table, Figure 5 and the text do not really hang together	Describe the techniques needed then show how they fit together using consistent descriptors of the techniques and steps.	A - text, figure and table have been made consistent
242	Integrated Administration and Control System	SDIC	6	5.1.2	table X	T	steps 'Harmonization' and 'Conceptual schema' are missing in the table, instead harmonization is used to explain 'gap analysis' step -	please harmonize table with picture 4	Ap - table has been removed

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	(Common Agricultural Policy)						in this case it is one step!?		
243	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	9	5.1.2.	table (5. row)	Q	the GML application schema is mentioned as data specification component. Is this the correct?		- yes, the encoding is part of the data specification
244	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	13	5.1.2	Overview, 4th parag. 3rd bullet	Q	How will be managed the integration of all application schema in one consistent model as for some object they could be defined in the same time (but with different structure/attributs) by various TWG?		- see response to #156 and #2
245	BRGM	LMO	13	5.1.2	Overview, 4th parag. 3rd bullet	Q	How will be managed the integration of all application schema in one consistent model as for some object they could be defined in the same time (but with different structure/attributs) by various TWG?		d
246	Met Office	LMO	MO_17	5.1.2.1	footnote 12	E	"the terms in 3.1 is"	"The terms in 3.1 are"	A
247	Institut Géographique National	LMO	46	5.1.2.1	table	E	2d line : Identification of user requirements	Identification of user requirements	A
248	Department for Environment, Food and Rural Affairs (Defra)	LMO	12	5.1.2.1	Checklist bullet	E	Include a reference to the checklist intended to be used	a checklist for data harmonisation aspects (Annex F) (i.e. aspects	A
249	Department for Environment, Food and Rural Affairs (Defra)	LMO	11	5.1.2.1	Use case template bullet	E	Include a reference to the use case template	a use case template that contains information typically provided in use cases (Annex E)	A
250	LMV - Lantmateriet, National Land Survey of Sweden	SDIC	10	5.1.2.1	Table, Use case description	E	ISO/TS 19103 does not comprise use cases.	Replace by reference to UML Notation Guide or any UML tutorial.	A
251	AGI - Association for Geographic Information	SDIC	18	5.1.2.1	Table	E	Number steps (see earlier comment)	Harmonise previous text diagram and table - ensure all steps set out and named consistently.	A
252	EA - Environment	SDIC	6	5.1.2.1	1st paragraph	E	The first sentence is very difficult to understand.	Reword sentence to "It is important to note that the implementation of a	Ap - text has been removed

Comm#	ID	LMO/ SDIC	1	2	3	4	5 - Comment	6 - Proposed change	7 - Resolution
	Agency for England and Wales				after Figure 5			use case may typically involve multiple data specifications; and also that each data specification may address user requirements for multiple use cases."	
253	AGI - Association for Geographic Information	SDIC	22	5.1.2.1	1st paragraph after Figure 5	E	The first sentence is very difficult to understand.	Reword sentence to "It is important to note that the implementation of a use case may typically involve multiple data specifications; and also that each data specification may address user requirements for multiple use cases."	d
254	AGI - Association for Geographic Information	SDIC	20	5.1.2.1	Table	E	There is a mismatch between the clauses in column 3 and the actual clauses e.g. 5.1.2.3 is said to relate to the identification of user requirements but the clause itself is headed, "Initiating the data specification development".	Rationalise table and headings.	A
255	AGI - Association for Geographic Information	SDIC	19	5.1.2.1	Table	E	Typo in second step	"Identification of user requirements....."	A
256	LMV - Lantmateriet, National Land Survey of Sweden	SDIC	11	5.1.2.1, 5.4.4 etc.		E	UML model is not an unambiguous term. The term should express what it contains, not its schema language.	A better term could be "The INSPIRE (consolidated) information model". Otherwise, use a term like conceptual schema, application schema or UML class diagram. Check the document for other instances of the term UML model.	Ap - resolved by new version of D2.5 from which the results are used
257	Lenkungsgrremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	34	5.1.2.1	Table, 5th step	E	On this level the data specification should be independent from the data encoding and should use just conceptual standards.	Delete the reference to ISO 19136 (GML).	NA - see #243
258	Ordnance Survey	LMO	13	5.1.2.1	Results column of Gap Analysis record in table	E	Simplification of sentence to make it easier to understand	Suggest changing "ameliorate" to "reduce"	A
259	Ordnance Survey	LMO	14	5.1.2.1	First	E	Simplification of sentence to make it	Suggest changing sentence to	A

Comm#	ID	LMO/ SDIC	1	2	3	4	5 - Comment	6 - Proposed change	7 - Resolution
					sentence after table.		easier to understand	"There is no specific mandatory model for how to create and analyse use cases, and turn them into an application schema for the data harmonisation process."	
260	Ministère des transports, de l'équipement, du tourisme et de la mer	LMO	15	5.1.2.1	Table	E	table shall be numbered	"table 1 : overview of steps leading to harmonised data specification"	A
261	Lenkungsgrremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	23	5.1.2.1	Table (without number), page 25	E	The table should be numbered so that one can refer to it.	Number the table.	A
262	Lenkungsgrremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	25	5.1.2.1	Overview	G	<p>It has not yet been demonstrated what the benefit of these components really is (although 5.3 provides the idea).</p> <p>What makes data to be harmonized, if they are described according to these data specifications using the D2.5 components? I think that the data specifications provide the information about products, which can be harmonized applying harmonization methods. The questions should demonstrate that the language and the concept is so highly abstract that the data specification demands are very close to metadata demands.</p>	-	d
263	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	11	5.1.2.1.	paragraph 9	G	<p>paragraph starting "In the process..."</p> <p>The handling of these drafts of data models is not clear, esp. the integration into the process.</p>		- the point is that this will depend on the situation in the specific theme; the development of a set of general rules that applies to all situations does not seem feasible, in particular within the current time frames, and would probably be "overkill" (note, it is assumed that "drafts of data models" is meant as existing

Comm#	ID	LMO/ SDIC	1	2	3	4	5 - Comment	6 - Proposed change	7 - Resolution
									specifications); related to #314. A conclusion is that the data specification development process will require skilled experts to be successful.
264	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	14	5.1.2.1	last paragraph	G	Practical experience suggests that significant effort will be required to achieve a ESDI-wide UML model, and that the internal packaging and reuse of common concepts will difficult without common enablers.	Create a model template that extends the General Conceptual Model with packaging strategies for different meta-levels of a domain model. See attached paper "Cross domain modelling methodologies" for discussion on requirements and possible solutions.	<p>A, R (CT) - the issue that appropriate tool support is needed to develop the theme specifications in a coordinated and synchronised way has been raised and is on the list of topics to be addressed by the CT; any input on what needs to be taken care of in this effort to develop the required tooling is very helpful.</p> <p>Based on comments received and the discussion in the comment resolution workshop a new subclause needs to be added to the document describing the model management of the consolidated UML model and the relationship to governance/responsibilities. In the UML model, packaging is used to implement governance, i.e. UML packages (in the Generic Conceptual Model) is an implementation of governance and responsibilities (in the methodology). This linkage must be described explicitly and the importance of having clear governance boundaries should be emphasized. In this context, recommendations have to be added how to bridge domains / act at theme boundaries.</p> <p>Independent of the UML packaging, the feature concept dictionary has an important role as a key mechanism and basis for spatial object types in the consolidated model. Its role may need to be explained in more detail. The submitted document from Rob Atkinson should be taken into</p>

Comm#	ID	LMO/ SDIC	1	2	3	4	5 - Comment	6 - Proposed change	7 - Resolution
									<p>account in this process, too.</p> <p>Another topic for which a sub-clause needs to be added is a discussion about how to manage changes to the consolidated model. Initially this will be only a general discussion, but over time (i.e. before the first revision of an adopted schema) very clear and explicit rules need to be specified. This is a topic ISO/TC 211 is also starting to deal with due to revisions to standards and we may learn from this process, too.</p> <p>It also has been discussed whether the feature concept dictionary could be replaced by a set of abstract, high level spatial object types. However, this approach was not used for two reasons:</p> <ul style="list-style-type: none"> - The feature concept dictionary not only contains spatial object types, but also related concepts like nominal values (to be used, e.g., in enumerations) or properties. Mapping all this to UML might cause problems. In all submitted reference material, no community seems to be using UML to manage a feature concept dictionary. - This approach would also create additional requirements on theme-specific application schemas that should be avoided as it complicates the reuse of existing schemas, e.g. the use of mandatory supertypes. / JRC: The common UML repository will be the tool to identify common elements and build the consolidated UML model. The UML repository is based on ISO 211 model and the model from the GCM. Details about the tooling are available in a separate document that doesn't influence D2.6 at this stage. From

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									the UML model it will be possible to automatically generate the feature catalogue and all the documentation.
265	Royal Netherlands Meteorological Institute (KNMI)	LMO	5	5.1.2.1	page 27, 4th paragraph	G	The themes Atmosphere, Meteorology, Ocean and Sea regions have global dimensions, member states may have MoU or obligations which INSPIRE should recognize	Please add bullet If international standards already exist, they will form the basis for the INSPIRE data specifications	A
266	Met Office	LMO	MO_20	5.1.2.1	p 27 4th para	G	There are International dimensions to INSPIRE themes. Atmosphere, Meteorology, Ocean and Sea regions are normally neither national nor just european but international and global. Where there are international dimensions to the themes, Member States may have treaty or MOU obligations which INSPIRE by Article 7.1, must recognise.	Add a bullet point: "where international standards already exist, these will form a basis for INSPIRE data specifications."	A
267	Met Office	LMO	MO_18	5.1.2.1	3rd ara above Figure 5	G	This is a suitable point to recognise cost benefit and feasibility decisions	Add a comment on reflecting costs, benefits and feasibility	A
268	Met Office	LMO	MO_21	5.1.2.1	2nd last para	G	This sentence needs rephrasing. Use cases are usually not developed after AsIs or Gap analysis. How does one do a Gap Analysis without a use case or requirement unless it is done on a 2nd iteration? In fact the sentence should reflect the 3rd bullet of page 23 and reflect the feasibility of accepting or proceeding with the use-case.	rephrase	A - agree with the text of the comment, but it is not really clear to which paragraph the comment refers to; probably 5.1.2.2 p6.
269	BRGM	LMO	14	5.1.2.1	last paragraph	G	Practical experience suggests that significant effort will be required to achieve a ESDI-wide UML model, and that the internal packaging and reuse of common concepts will difficult without common enablers.	Create a model template that extends the General Conceptual Model with packaging strategies for different meta-levels of a domain model. See attached paper "Cross domain modelling methodologies" for discussion on requirements and possible solutions.	d
270	Lenkungsgremium GDI-DE	LMO	24	5.1.2.1	Overview, page 25	G	The overview provides an abstract scheme to develop a data	Describe here how to get to the components.	d

Comm#	ID	LMO/ SDIC	1	2	3	4	5 - Comment	6 - Proposed change	7 - Resolution
	(Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)						specification. D2.5 provides the components. What is needed here is how to get to the components.		
271	Ordnance Survey	LMO	2	5.1.2.1	First paragraph after the table	G	Though it may be useful to look at software development processes for best practice guidance, it should be made clear that this is a data development/specification process which may have different requirements than a software development process. (same applies to 5.2.3.1 2nd paragraph)	Clarify that software development process are used as best practice guidance for data specification developments.	Ap - remove "software development process"
272	National Assembly of the Land Cover and Use Information System of Spain (SIOSE)	SDIC	9	5.1.2.1		T	A previous whole section is required to address the elaboration and review of catalog of main users and user requirements by LMOs and SDIC at national level, and by EOINET and any other national or European institution considered main actor in the INSPIRE process. These catalogs are the bases for elaborating the use cases.	Add a new section describing the cataloguing procedure of user and user requirements. Change section numeration accordingly.	See #8 and other comments referring to it
273	IDEE Working Group of the Commission on Geomatics (National Geographic High Council)	LMO	9	5.1.2.1		T	A previous whole section is required to address the elaboration and review of catalog of main users and user requirements by LMOs and SDIC at national level, and by EOINET and any other national or European institution considered main actor in the INSPIRE process. These catalogs are the bases for elaborating the use cases.	Add a new section describing the cataloguing procedure of user and user requirements. Change section numeration accordingly.	d
274	Met Office	LMO	MO_16	5.1.2.1	Table	T	The table does not reflect the text, in that a decision should be taken at every stage to proceed based on costs and benefits, but particularly after the Gap and Asis.	Insert a decision step after Gap and Asis or reflect this in the table text.	A - decision points will be inserted in general
275	AGI - Association for Geographic Information	SDIC	21	5.1.2.1	Figure 5	T	This appears to offer a different approach to that implied in Figure 4. Figure 4 is essentially a "waterfall" approach whereas Figure 5 is much	Suggest that including both figures is confusing. Overall the iterative approach is the more pragmatic and more likely.	A - figure 4 is also not meant to imply a waterfall approach, but could be understood as such; see other comments about figure 4

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							more iterative. Which is it to be.		
276	Department for Environment, Food and Rural Affairs (Defra)	LMO	13	5.1.2.1		T	When reading this section I had a lot of questions most of which related to who is to be responsible for doing this. So it may be useful to move the roles and responsibilities section to before the detailed description of what is involved in each of the steps.	Restructure section 5.1.2 to 5.1.2.1 High level overview description of the various steps; 5.1.2.2. description of who is responsible for achieving each of the steps and who else may need to be involved in each of the steps; 5.1.2.3 detailed description of each of the steps	Ap - see #196
277	Institut Géographique National	LMO	43	5.1.2.1	First paragraph after table	T	"No specific formal software development process model" TWG are not supposed to develop a software.it should not be a software development process model.	Delete "software"?	A - see also #271
278	Institut Géographique National	LMO	50	5.1.2.1	paragraph 6	T	not clear at all ('it is important to note that typically [...] until the end of this paragraph)	if figure 5 is more detailed these things could appear on it.	Ap - see #252
279	Institut Géographique National	LMO	45	5.1.2.1	table	T	not very clear, especially the as-is analysis result ("description fo a situation..."), and the data specification result 'per spatial data theme'	be more explicit and use something else than 'description' when possible. For instance, the 'first cut application schema' could be put there. Add an example of each result (part of)	NA - there is no formal template for a result of the as-is analysis so far, it is unclear whether effort should be spend to develop such a template; it is important that the TWG develops an understanding of the as-is situation to develop a feasible proposal, but it should be avoided to overload the process with too much formalism - it is complex enough to execute all required steps
280	Institut Géographique National	LMO	49	5.1.2.1	paragraph following fig.5	T	one or several data specification for one theme ? Unclear... Is this the notion of "specification scope" described in ISO19131 ?	Give an example of use case where several DP are necessary.	NA - this is about the opposite, the possible grouping of themes
281	National Assembly of the Land Cover and Use Information System of Spain (SIOSE)	SDIC	6	5.1.2.1	Table	T	Previously explained in general comment 1	Change Table for to include previous clauses.	See #8 and other comments referring to it
282	IDEE Working Group of the Commission on Geomatics (National Geographic High	LMO	6	5.1.2.1	Table	T	Previously explained in general comment 1	Change Table for to include previous clauses.	See #8 and other comments referring to it

Comm#	ID	LMO/ SDIC	1	2	3	4	5 - Comment	6 - Proposed change	7 - Resolution
	Council)								
283	IDEE Working Group of the Commission on Geomatics (National Geographic High Council)	LMO	7	5.1.2.1	Figure 5	T	Previously explained in general comment 1	Change Figure for to include previous clauses.	See #8 and other comments referring to it
284	National Assembly of the Land Cover and Use Information System of Spain (SIOSE)	SDIC	7	5.1.2.1	Figure 5	T	Previously explained in general comment 2	Change Table for to include previous clauses.	See #8 and other comments referring to it
285	Ministère des transports, de l'équipement, du tourisme et de la mer	LMO	8	5.1.2.1	table (not numbered) cells L3C1 (line "Identification user..." column "Step") and L3C2 (line "Identification user..." column "Result")	T	The foot note attached to cell L3C1 is so important that it should not appear as a foot-note	add foot note 13 in cell L3C2 after the parenthesis « this includes also the identification of the required level of details and harmonisation at the European level »	A - (unless this is stated in the relevant subclause 5.1.2x - to be checked)
286	Institut Géographique National	LMO	42	5.1.2.1	Table Row Gap analysis Column result Second paragraph	T	the gap analysis should also/first lead to choose harmonisation approach, if any.	Add "Choice of harmonisation approach" in column result and "Annex A" in last column	A
287	Institut Géographique National	LMO	47	5.1.2.1	figure 5	T	the process model is not always very clear (consistency between the figure and the text and precision of the description).	Would it be possible to enlarge the figure and put the exchanged objects/informations between the activities, even if it anticipates on the following (eg put 1st cut application schema, feature types etc)	NA - this was attempted but did not work. The table should be sufficient.
288	Institut Géographique National	LMO	44	5.1.2.1	table	T	the table has no caption.	add a title to the Table xxx	A
289	Ministère des transports, de	LMO	45	5.1.2.1	table (not numbered)	T	The use case description is an opportunity to collect information on	add a sentence in cell L2C2 "use case description shall include	? - unclear how cost/benefit information can be captured already

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	l'équipement, du tourisme et de la mer				cell L2C2 (line "Use case description" column "Result")		cost-benefits/business model elements. Therefore an emphasis could be made on that important issue (as the directive explicitly define that "implementatio rules ... should not result in excessive costs for member states")	information on cost-benefit analysis / business model relevant to the use case"	in the use case
290	National Assembly of the Land Cover and Use Information System of Spain (SIOSE)	SDIC	8	5.1.2.1	Paragraph 15	T	UN FAO is not a land cover classification. It's a classification system, able to produce multiple thematic classifications, so it a meta-language or classifier descriptor language.	Change paragraph to: In some themes, no data specification is available on a European level (only national specifications), in some cases there may already be a single European specification while yet in others there may be multiple (e.g. land cover CORINE nomenclature and UN FAO classification system meta-language).	AwM - reference ISO 19144-2 which is the land cover specific part of LCCS developed by UN FAO
291	IDEE Working Group of the Commission on Geomatics (National Geographic High Council)	LMO	8	5.1.2.1	Paragraph 15	T	UN FAO is not a land cover classification. It's a classification system, able to produce multiple thematic classifications, so it a meta-language or classifier descriptor language.	Change paragraph to: In some themes, no data specification is available on a European level (only national specifications), in some cases there may already be a single European specification while yet in others there may be multiple (e.g. land cover CORINE nomenclature and UN FAO classification system meta-language).	d
292	Institut Géographique National	LMO	48	5.1.2.1	paragraph after figure 5	Q	I do not understand this paragraph		Ap - see #252
293	Stanli - Geographic Information Standards Initiative in Sweden	SDIC	3	5.1.2.1	Terms		The checklist in annex F is a helpful tool for the development of data specifications	Make references to annex F in 5.1.2.1, in 5.1.2.4 and in 5.1.2.5	A
294	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	16	5.1.2.2	paragraph 6	E	During a use case development both 'as-is' analyses ...	Replace with "During a use case development both 'as-is' analysis	Ap - remove
295	National Survey and Cadastre, Denmark	LMO	KMS-16	5.1.2.2	Paragraph 1	E	The concepts "Use Case" and "Actor" is use at many places. Because of this they should perhaps	Add the definition of "Use Case" and "Actor" to chapter 3	A

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							be defined in chapter 3		
296	National Survey and Cadastre, Denmark	LMO	KMS-15	5.1.2.2	Paragraph 1	E/T	There is a reference to "UML 1999, pp. 2.113-2.123" but this reference can not be found anywhere	Add the reference to either chapter 2 or the Bibliography	A
297	Institut Géographique National	LMO	52	5.1.2.2	Third paragraph	E	"A use case is initiated ... and completes"	Replace by "A use case is initiated ... and completed"	AwM - resolved by other changes
298	BRGM	LMO	16	5.1.2.2	paragraph 6	E	During a use case development both 'as-is' analyses ...	Replace with "During a use case development both 'as-is' analysis	d
299	Bundesanstalt für Geowissenschaften und Rohstoffe (BGR)	LMO	8	5.1.2.2	Use cases	G	"it describes the sequence of interactions between actors and the system necessary to deliver the service that satisfies the goal". This is simple, but why is it necessary to read this several times before it can be understood. It means: start at the beginning, end at the end. A use case methodology is proposed.		? - comment has not been understood
300	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	15	5.1.2.2	Use cases	G	"it describes the sequence of interactions between actors and the system necessary to deliver the service that satisfies the goal". This is simple, but why is it necessary to read this several times before it can be understood. It means: start at the beginning, end at the end. A use case methodology is proposed.		d
301	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	12	5.1.2.2.		G	The chapter as well as the Annex E describe how to work with use cases in general. It must be explained how to derive a use case for the data modelling approach (if the data modelling has to be based on use cases, which can be debated. As stated previously: For the specific, theme-related work in INSPIRE use cases do not seem a necessary approach.)		See #198
302	LMV - Lantmateriet, National Land Survey of Sweden	SDIC	12	5.1.2.2 etc.		G	This document should not be focusing on software development.	Consider Business use cases to replace /System/ use cases in the context of this document.	Ap - but it must be possible to detail the use case descriptions so that the data requirements can be understood on the data specification level
303	United Kingdom Hydrographic	LMO	8	5.1.2.2	last sentence of last	G	This states that user requirements will be documented within the Data		See #8

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	Office				paragraph		Product Specification, but where? They don't seem to fit.		
304	Met Office	LMO	MO_19	5.1.2.2	p 27 2nd para	G	This we found unclear. If there are existing standards with full documentation, then changing the standards to reflect the GCM will require reverse engineering too. Or are you expecting generally only to use the documentation? Documentation in practice ALWAYS has infelicities or subtleties that are not explained, but cross testing with the existing implementation should show up..	Please clarify the role of documentation and implementations in conforming to the GCM.	A - the GCM is still considered mandatory. The general topic was also discussed in the D2.5 discussion. Currently, the following is stated in the proposed resolution to comment #10 to D2.5 v2.0: "INSPIRE is an ambitious initiative and a lot of effort is going into its establishment. Therefore, it is important to implement it with a long-term perspective. I.e., it is considered preferable *in principle* to accept a more limited, but interoperable initial set of data and services than to sacrifice a common framework. This is in particular true, as all organisations currently seem to converge with respect to their conceptual and technical foundations for spatial information. This convergence is important and should be the subject to further collaboration."
305	Lenkungsgremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	26	5.1.2.2	Use cases	G	"A use case is initiated by a user with a particular goal in mind, and completes successfully when that goal is satisfied. It describes the sequence of interactions between actors and the system necessary to deliver the service that satisfies the goal." The issue itself is simple, but why is it necessary to read this several times before it can be understood? It means: start at the beginning, end at the end. A use case methodology is proposed.	State clearly that a use case methodology is proposed. And describe it in proper sequence, e.g. placing the more general idea of the second sentence first.	d
306	Ordnance Survey	LMO	3	5.1.2.2	Seventh paragraph	G	The suggestion to apply a methodology to develop use cases is welcomed. A reference to proven methodologies and associated material may be useful in addition to the template.	Add reference to other proven methodologies and associated material for use case development (if anything is known).	Ap - add references to bibliography

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307	Lenkungsgremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	35	5.1.2.2	chapter	G	Theoretically the object-oriented approach promotes the definition of use cases in a first step. However, from our experience use cases are not really an appropriate instrument to identify the spatial object types if you already have a good understanding of what information you need. We assume that the EC had good reasons to identify the themes in Annexes I to III in the directive. In many cases the themes already represent object types (e.g. parcel, building, address). The definition of use cases would have made sense before defining the themes of the directive. Now we should focus on developing pan-European specification for these themes/objects types.	It is not worth all the effort to define use cases.	See #198
308	Royal Netherlands Meteorological Institute (KNMI)	LMO	6	5.1.2.2. also 5.1.2.6	page 27, last paragraph, page 29 first paragraph	T	The data specification will also contain the non-functional requirements which can be derived from the UC? Is the Domain expert the user defining the use case? As far as we can judge it, a data specification is not the same as a user requirements document. A data specification can be part of the user requirements.		- The "users" will define the use cases, they have to be input to the TWGs. However, it would be expected that the domain experts will often have a general understanding of the the theme-related requirements from the use cases.
309	Institut Géographique National	LMO	53	5.1.2.2	Last paragraph	T	"a discussion between a GI expert and a domain expert" In my understanding, the discussion is mainly between a data harmoniser (for INSPIRE, a TWG member) and a data user ; but, it is true that the first one will be generally a GI expert and the second one a domain expert.	Replace "GI expert and domain expert" by something like "data harmoniser (or TWG member) and data user"	NA
310	Institut Géographique National	LMO	51	5.1.2.2	paragraph 6	T	this paragraph is confusing ('during a use case development both 'as is' etc...) and seems inconsistent with figure 5	delete paragraph or clarify	A - delete, see #268
311	EA - Environment	SDIC	7	5.1.2.3	1st paragraph	E	The second sentence does not read correctly.	Replace "...to carried out..." with "...to carry out...".	Ap - see #313

DS D2.6 – Methodology for the development of data specifications: Comments and Resolutions Table (Comments are related to the D2.6 version 2.0)

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	Agency for England and Wales								
312	AGI - Association for Geographic Information	SDIC	23	5.1.2.3	1st paragraph	E	The second sentence does not read correctly.	Replace "...to carried out..." with "...to carry out..."	d
313	Ordnance Survey	LMO	15	5.1.2.3	First paragraph, second sentence.	E	Simplification of sentence to make it easier to understand	Suggest removing the phrase "to carried out the use cases"	A
314	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	17	5.1.2.3	paragraph 2	G	initial analysis is vague, a methodology is required for this critical activity	Establish criteria, similar to checklist provided elsewhere.	See #263
315	Bundesanstalt für Geowissenschaft en und Rohstoffe (BGR)	LMO	9	5.1.2.3	As-is analysis	G	The text becomes clearer compared to the previous chapter. Give the components of the as-is analysis in bullets, and decide then, which of these bullets need more text. Add notes to these bullets, where specific frame conditions or experiences exits. and that gives the fowing text some structure, and demonstrates where it can be shortened.		? - comment has not been understood
316	BRGM	LMO	17	5.1.2.3	paragraph 2	G	initial analysis is vague, a methodology is required for this critical activity	Establish criteria, similar to checklist provided elsewhere.	d
317	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	19	5.1.2.4	paragraph 3	E	first sentence does not parse well.	In general, it will not be required to apply the "tools" and standards that are used to describe the harmonised data specifications to the management of existing data sets.	A
318	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	13	5.1.2.4	paragraph 3	E	It would be very useful to describe the existing data sets in a (conceptual) data model - this would really improve the definition of the target models as well as facilitate the harmonisation process. So, no "must" but it would be a useful recommendation.	Add a recommendation to apply the tools and standards to existing data sets, wherever possible.	NA - we have to be realistic and also understand that this is for the TWGs; in general the recommendation is supported
319	EuroGeoSurveys - European	SDIC	20	5.1.2.4	paragraph 5	E	syntax, missing comma after "in principle"	"in principle,"	A

Comm#	ID	LMO/ SDIC	1	2	3	4	5 - Comment	6 - Proposed change	7 - Resolution
	Geological Surveys SDIC								
320	BRGM	LMO	19	5.1.2.4	paragraph 3	E	first sentence does not parse well.	In general, it will not be required to apply the "tools" and standards that are used to describe the harmonised data specifications to the management of existing data sets.	d
321	Lenkungsgremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	27	5.1.2.4	As-is analysis	E	Inadequate structure of text.	Suggested method: Put the components of the as-is analysis in bullets, and decide then, which of these bullets need more text. Notes to these bullets may be added where specific framework conditions or experiences exist. This will give the text some structure, and demonstrates where it can be shortened.	d
322	Ordnance Survey	LMO	17	5.1.2.4	Fourth paragraph, second sentence.	E	Modify sentence to improve understanding.	Suggest adding "for" between "rules" and "how".	A
323	BRGM	LMO	20	5.1.2.4	paragraph 5	E	syntax, missing comma after "in principle"	"in principle,"	d
324	Met Office	LMO	MO_22	5.1.2.4	ist para	G	Does the DT expect that there will be a single national standard within each MS. In practice may there not be many different local sub-national standards (not we emphasise in Met)?	Comment on the potential situation that National standards may not exist in MSs, but fragmented data standards.	A
325	Geonovum	LMO	5	5.1.2.4		G	The results of the as-is analysis are important for the description of the quality in C.1.8.		? - comment not understood
326	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	18	5.1.2.4	As-is analysis	G	The text becomes clearer compared to the previous chapter. Give the components of the as-is analysis in bullets, and decide then, which of these bullets need more text. Add notes to these bullets, where specific frame conditions or experiences exists. and that gives the fowing text some structure, and demonstrates where it can be shortened.		d
327	Ordnance Survey	LMO	6	5.1.2.4	Fifth	G	"Support from the CT will be	Outline possible support by the CT.	Ap - add note, however, this will only

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					paragraph		required": Given the tight time frames, it would make sense to indicate what kind of support is envisaged (rather than waiting until the problem crops up in a TWG).		be examples (translation of document, invite experts that can consult on specific topics, etc)
328	Institut Géographique National	LMO	56	5.1.2.4	paragraph 4	G	I do not agree with the end of the paragraph: "(...)but would only be a temporary result to support the gap analysis". Such documentation may be useful to define the translation from input datasets to INSPIRE datasets. So this documentation can be considered as an "end result"	Suppress the end of the sentence or explain it.	Ap - replace "temporary" by "intermediate"
329	EA - Environment Agency for England and Wales	SDIC	8	5.1.2.4		T	As-is model generation is a huge task which is undersold in this section.	Give estimate of time and effort. How many themes and how many member states?	NA - It should be clear that the as-is analysis is a significant task, but at least the DT is not in a position to provide sound estimates for the level of effort required in the many different themes
330	Department for Environment, Food and Rural Affairs (Defra)	LMO	16	5.1.2.4	5	T	Not sure of the relevance of this paragraph to this section. This is actually a requirement of feature catalogues and should be stated in section 6.2.4.??	Remove this paragraph and move the relevant information into section 6.2.4 as this relates to multilingual feature catalogues also the need for access to local experts to assist translation should be included in a roles and responsibilities section	NA - this is about understanding the current models
331	Department for Environment, Food and Rural Affairs (Defra)	LMO	14	5.1.2.4	1	T	Throughout the rest of the document there has been no distinction of spatial datasets into reference and application data (this is only required when object referencing is to be undertaken) and is not required for this sentence as application data could be interpreted as PDF, word, excel etc	Change reference and application to spatial datasets to ensure simple distinction between spatial and non-spatial data	Ap - remove distinction between reference and application data (see D2.5 revision) and use "spatial data" instead
332	Department for Environment, Food and Rural Affairs (Defra)	LMO	15	5.1.2.4	4	T	Where data providers in Member States do not have adequate documentation pre-prepared for the datasets are they going to have to provide resource to aid the TWG to complete the checklist/data specifications document templates? Also it states elsewhere in the document that the TWG will only(??) have access to data	This paragraph needs more clarity and definitely needs the reader to have already understood the different scenarios before reading this. As this requirement may only be required in scenario 2 situations??	Ap, R (CT) - reference material to be considered will have to be registered. TWGs are only obliged to consider specifications that have been submitted as reference material via the official channels. It is at the discretion of the TWG to use additional material, but the TWG can not be expected to perform an inventory on the situation in all

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							specifications that have been submitted by SDICs and LMOs (section 5.4.1) so if an SDIC or LMO does not submit this reference material then how will the TWG get this information - are they to contact each MS to find out what data they have for each theme?		Member States. If the TWG needs support in understanding reference material they will raise this with the CT and they will organise the required support. It is not unreasonable that support from the relevant data providers may be requested. See also #327, #333, #336 - #339. / JRC: A with DS DT resolution.
333	Institut Géographique National	LMO	57	5.1.2.4	5th paragraph	T	"Therefore, in principle local experts from all MS are required to participate in the harmonisation process" "This would require the involvement of large number of high-profile experts ..." It is in contradiction with the work programme which talks about a small team composed by members from 3-5 SDICs and so, may be confusing.	At least, add a note to say that, from work programme, TWG won't include large number of experts	A, R (CT) - see also #332 / JRC: The TWGs will be set up of different numbers of domain experts that often have international expertise (projects, consultancy work) depending on the data theme. The size of TWGs have been decided in a pragmatic way allowing representation of users, data providers from different Member States.
334	Institut Géographique National	LMO	54	5.1.2.4	1st paragraph	T	<i>general</i> database = <i>non spatial</i> database ?	clarify what is a general database	Ap - remove "general"
335	Institut Géographique National	LMO	55	5.1.2.4	last sentence of first paragraph	T	I do not understand what brings this sentence in this section	Remove this sentence	NA - this highlights that many datasets contain spatial data, but will not contain geometries
336	Royal Netherlands Meteorological Institute (KNMI)	LMO	7	5.1.2.4		Q	How will the 'as is' analysis be coordinated among all member states?		See #332, etc
337	OMSz - Hungarian Meteorological Service	LMO	4	5.1.2.4.	para1	Q	It is a good question whether the user requirements will be evaluated in each member states (if they contain data relevant for each member state), or just in a few selected member states.	More detailed process for As-is analysis is required, with precision from this point of view.	A - note that the analysis is in principle required *for* each MS, not necessarily *in* each MS. But see #332 etc
338	Ordnance Survey	LMO	5	5.1.2.4	Fourth paragraph	Q	If only limited documentation exists, will the necessary level be created by the TWG or the data owner in the member country?	Clarify if the additional documentation will be created by TWG or the data owner in the member state.	See #332, etc
339	Ordnance Survey	LMO	4	5.1.2.4	First paragraph	Q	To what is every member state obliged to deliver this information or an expert to explain? A complete	Add paragraph to indicate how the support through experts or information is envisaged.	See #332, etc

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							description of this probably falls outside of the scope of this document but it would be good to clarify the current thinking.		
340	Ordnance Survey	LMO	16	5.1.2.4	Third paragraph, first sentence.	Q	What is this trying to say?	Clarify.	A - see #317
341	Institut Géographique National	LMO	59	5.1.2.5	1st paragra	E	evaluates, if the identified sources'	evaluates if the identified sources'	Ask native speaker
342	Ordnance Survey	LMO	8	5.1.2.5	Fifth paragraph	E	Modify sentence to improve understanding.	Replace "The gap analysis is useful at 2 steps:" with "Two different gap analyses should be performed:"	A
343	Ordnance Survey	LMO	18	5.1.2.5	Fourth paragraph, third sentence.	E	Modify sentence to improve understanding.	Suggest changing "capturing new data set," to "the capture of a new data set," and "central axis" to "centre line".	A
344	Institut Géographique National	LMO	60	5.1.2.5	figure 6	E	the label 'UML Application schema' stresses to much the notion of 'UML'	replace with label ' Application schema (in UML) '	A
345	State Agency for Information Technologies and Communications (SAITC)	LMO	1	5.1.2.5.	paragraph 4, line 3	G	... "or the provision of new data" (it is not according to the main principles of INSPIRE)	... "or "missing data" to be specified"/"or depending of the user requirements"	Ap
346	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	22	5.1.2.5	section	G	Reference to "best harmonisation approach", but there is a general lack of detail about harmonisation mechanisms (at best a methodology for creating a data specification harmonises the documentation style and governance, but not the technicality of implementations)	Provide reference to a work program to develop detailed harmonisation approaches. See attached paper for identification of key issues and technical proposals.	JRC: Ap/R (CT) - A work program to develop detailed harmonisation approaches beyond the guidelines and examples in Annex A seems out-of-reach from the schedule of the INSPIRE Work Programme. Cross-themes harmonisation is part of the TWGs work.
347	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	21	5.1.2.5	section	G	Scope of methodology is unclear. This section is inconsistent with later discussion about using externally defined models as a starting point.	This section needs to either identify when the an alternative process is to be used, or to be significantly reworked to address the criteria for adoption and integration of various possible components of an externally governed domain model or interoperability approach.	The issue has been explained and discussed at the Comment Resolution Workshop with respect to GeoSciML (as an "externally defined model"). This will be described in D2.5 and D2.6 more clearly.
348	Bundesanstalt für	LMO	10	5.1.2.5	Figure 6	G	The figure demonstrates that the application schema is key. The		d

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	Geowissenschaften und Rohstoffe (BGR)						examples in Annex D help a lot, and demonstrate that clearly defined, indexed and specified data base elements are systematically organized following the objective to provide consistent data. Why should an application schema present more than data provide? Role of gaps? Doesn't the schema represent a design model which explains how the data were produced, and which components are there, and how they are linked? the reader gets confused again.		
349	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	23	5.1.2.5	Figure 6	G	The figure demonstrates that the application schema is key. The examples in Annex D help a lot, and demonstrate that clearly defined, indexed and specified data base elements are systematically organized following the objective to provide consistent data. Why should an application schema present more than data provide? Role of gaps? Doesn't the schema represent a design model which explains how the data were produced, and which components are there, and how they are linked? the reader gets confused again.		d
350	Geonovum	LMO	6	5.1.2.5		G	The results of the gap-analysis are important for the description of the quality in C.1.8.	Change data dictionary in Feature concept dictionary	A (note that the proposal does not seem to be related to the comment?)
351	EA - Environment Agency for England and Wales	SDIC	10	5.1.2.5		G	Vagueness of "User Requirements" - users are largely defined as the data providers - their requirements may well not align well with those of the CT.	Provide further governance detail.	Ap - see other comments, user requirements are *not* the requirements of data providers
352	BRGM	LMO	22	5.1.2.5	section	G	Reference to "best harmonisation approach", but there is a general lack of detail about harmonisation mechanisms (at best a methodology for creating a data specification harmonises the documentation style and governance, but not the technicality of implementations)	Provide reference to a work program to develop detailed harmonisation approaches. See attached paper for identification of key issues and technical proposals.	d

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353	BRGM	LMO	21	5.1.2.5	section	G	Scope of methodology is unclear. This section is inconsistent with later discussion about using externally defined models as a starting point.	This section needs to either identify when the an alternative process is to be used, or to be significantly reworked to address the criteria for adoption and integration of various possible components of an externally governed domain model or interoperability approach.	d
354	Lenkungsgremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	28	5.1.2.5	Figure 6	G	The figure shows that the application schema is focussed. The examples in Annex D help a lot, and demonstrate that clearly defined, indexed and specified data base elements are systematically organized following the objective to provide consistent data. Why should an application schema contain more than data can provide? Showing gaps? Doesn't the schema represent a design model which explains how the data were produced, and which components are there, and how they are linked? The reader gets confused again.	Please explain why an application schema should be more comprehensive than existing data.	Ap - this is not intended, it does not make sense to specify types that noone can provide; gaps are also cases where it is difficult or impossible to map existing data to a proposed application schema although the information in principle exists
355	Department for Environment, Food and Rural Affairs (Defra)	LMO	18	5.1.2.5	4	T	Art 4(2) states that the Directive does not require collection of new spatial data. However, this paragraph suggests that in some MS there will be a need to create/capture new datasets as they cannot transform (automatically or through more complex methods) their existing data to create "virtual" datasets to the harmonised data specification	This paragraph needs to be amended so that better reflects the Directive (i.e. Art 4(2) and the definition of harmonisation	A
356	EA - Environment Agency for England and Wales	SDIC	9	5.1.2.5		T	GAP analysis is huge piece of work, underestimated here.	Give better estimate of effort.	NA - It should be clear that the gap analysis is a significant task, but at least the DT is not in a position to provide sound estimates for the level of effort required in the many different themes
357	OMSz - Hungarian Meteorological	LMO	5	5.1.2.5.	para4	T	If cost benefit analysis is required in this step, it should also appear on the in Figure 4 in 5.1.1.	Precision on role and types of the cost benefit analysis.	Ap - see #227

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	Service								
358	Department for Environment, Food and Rural Affairs (Defra)	LMO	17	5.1.2.5	Figure 5	T	where there are references to geodata (base or thematic) can they all be changed to refer to spatial data to ensure consistency with the rest of the document	change geodata to spatial data in figure	Ap - align with terminology from D2.5 revision (use "spatial data" only)
359	Institut Géographique National	LMO	58	5.1.2.5	all §	T	It may happen that several "as-is" candidates are quite similar with respect to user requirements. The issue of how to choose between data (or between sources) from different data sources to check them against the specification (for analysing the gap) in order to pick up the best (data here and data there, or whole datasource) is missing. Or is this gap analysis only a 1-1 analysis? (one datasource, 1 application?)	Consider addressing this issue.	NA, R (CT) - deciding which dataset to choose is not within the remit of the TWG, but is a decision of the MS / JRC: The TWG in the specification development process should perform the as-is analysis in relation of the specifications submitted as reference material. From implementation point of view the Member States are free to decide which dataset fits the best for the purposes of INSPIRE.
360	Lenkungsgremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	36	5.1.2.5	Figure 6	T	The Directive does not define basis geodata or reference data and does not distinguish between reference data and thematic data.	Use the expression "geodata" only.	Ap - "spatial data", see #358
361	Institut Géographique National	LMO	61	5.1.2.5	figure 6	T	the services don't appear on the figure	add services (wrapper, transformation, adaptation, etc) between sources and the application schema	AwM - remove figure
362	Flemish government - Environment, Nature and Energy Department - Land and Soil Protection, Subsoil, and Natural Resources Division	LMO	4	5.1.2.5	Figure 4	T	The text is not correct.	please replace with 'bbb'	? reference and proposal not understood
363	Ordnance Survey	LMO	7	5.1.2.5	Third	Q	While the application schema	Clarify.	- yes (if "carry out" is meant as

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					paragraph		should be designed to ensure easy mapping from the schemas in every country, does the responsibility to carry out the mapping lie in the responsibility of each member state rather than the TWG?		"implement")
364	National Survey and Cadastre, Denmark	LMO	KMS-18	5.1.2.6	Paragraph 3	E	"modelled in UML" is already mentioned earlier in the sentence.	Delete the word "modelled in UML"	A
365	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	14	5.1.2.6	paragraph 1	E	Add reference to "the checklist"	".. the checklist (-> Annex E)	Ap - checklist template is Annex F
366	National Survey and Cadastre, Denmark	LMO	KMS-17	5.1.2.6	Paragraph 2	E	Substitute the relative reference with a specific reference and move the parenthesis to the text related to fig. 7.	The text should be: "Figure 7 shows the sequence from a data.....". The parenthesis should be moved to figure 7.	A
367	Geonovum	LMO	26	5.1.2.6	Figure 7	E	The presented UML is not correct. The association names (specifies, implemented as and described by) are presented as rolenames. They should be presented by association names that is, without the + sign. Furthermore I found in an old 2003 version of the ISO 19131, this figure presented as B.2. So varify the numbering.	Redraw the UML model with correct use of association names. Check figure B1 or B.2 in ISO 19131	NA - in ISO 19131:2007 it is figure B.1 and role names are used
368	Lenkungsgrremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	29	5.1.2.6	first paragraph, page 29	E	"The results from the use cases and the analysis according to the checklist are formalised into data specifications. ..." What is referred here? Data specifications describe products and the way they were produced in a systematic manner, so that harmonisation becomes possible, and thus, the products can be used in an interoperable manner. What is this paragraph actually saying?	1) Please add a reference to the word "checklist", like "checklist (Annex F)" on every occurrence in D2.6. 2) Please explain clearly, in which steps an application schema shall be developed..	A
369	Institut Géographique	LMO	62	5.1.2.6		E	applying the rules defined in ISO...		A

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	National								
370	Ordnance Survey	LMO	19	5.1.2.6	Second paragraph (before Figure 7).	E	Modify sentence to improve understanding.	Suggest changing "implemented as a data set described by metadata." to "to its implementation as a data set described by metadata."	A
371	Ordnance Survey	LMO	20	5.1.2.6	Fifth paragraph (one before Note).	E	Modify sentence to improve understanding.	Suggest changing "defines" to "defined"	A
372	Lenkungsgremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	30	5.1.2.6	Figure 7, page 30	E	The figure does not show how data specifications refer to the product and the data set. Metadata can describe both, too.	Please explain.	d
373	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	25	5.1.2.6	paragraph 5	T	Experience shows that ISO 19136/GML Annex E is not sufficient, in particular it does not support the binding of domain semantics to common patterns (the profile pattern)	Add technical detail on the relationships between the application schema and implementation profiles required by data product specification, with particular regard for the (necessary) role of the profile mechanism to support cross-domain harmonisation. See attached paper.	R (D2.7) - encoding topics are out-of-scope for this document, add reference to D2.7 in this sub-clause
374	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	26	5.1.2.6	paragraph 5	T	Experience shows that ISO 19136/GML Annex E is not sufficient, in particular it does not support the binding of domain semantics to common patterns (the profile pattern)	Identify work program to develop detailed methodology for defining, implementing and testing profiles.	See #373
375	Geonovum	LMO	27	5.1.2.6	Figure 7	T	Metadata can be assigned as soon as the product is specified and available, at least located. It need not yet be converted into a dataset (= fixing attribute variables into values, particularly where attributes are functions).	Thus metadata should be located in the schema between "product" and "set". Advantage: data can be identified even before they are formalised and be "ordered" beforehand (before "fixed" in a set.	NA - see #15; also the data set is already a data set even if it does not conform to the data specification
376	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	24	5.1.2.6	paragraph 3	T	This clause does not sufficiently specify the UML profile. Section 5.2.2 and 5.2.5.2 is more explicit, but this is the first reference and the commonality of approach needs to	Add reference to specific UML profile. Note that the General Conceptual Model uses a mixed approach - e.g. in some cases using multiple inheritance and in others	R (D2.5) - the UML profile is out-of-scope for D2.6 and is specified within D2.5. If a change will be made to UML 2 it would be formally defined (UML 1.4 does not provide

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							be identified here, as well as where it is discussed in detail.	using OCL constraints. This needs reconciling against the requirements of Profiling use cases. Research, testing and methodology development is required, and the results adopted within an international context.	the mechanisms for a formal definition). ? the reference to a "mixed approach" has not been understood
377	BRGM	LMO	25	5.1.2.6	paragraph 5	T	Experience shows that ISO 19136/GML Annex E is not sufficient, in particular it does not support the binding of domain semantics to common patterns (the profile pattern)	Add technical detail on the relationships between the application schema and implementation profiles required by data product specification, with particular regard for the (necessary) role of the profile mechanism to support cross-domain harmonisation. See attached paper.	d
378	BRGM	LMO	26	5.1.2.6	paragraph 5	T	Experience shows that ISO 19136/GML Annex E is not sufficient, in particular it does not support the binding of domain semantics to common patterns (the profile pattern)	Identify work program to develop detailed methodology for defining, implementing and testing profiles.	d
379	BRGM	LMO	24	5.1.2.6	paragraph 3	T	This clause does not sufficiently specify the UML profile. Section 5.2.2 and 5.2.5.2 is more explicit, but this is the first reference and the commonality of approach needs to be identified here, as well as where it is discussed in detail.	Add reference to specific UML profile. Note that the General Conceptual Model uses a mixed approach - e.g. in some cases using multiple inheritance and in others using OCL constraints. This needs reconciling against the requirements of Profiling use cases. Research, testing and methodology development is required, and the results adopted within an international context.	d
380	Bundesanstalt für Geowissenschaften und Rohstoffe (BGR)	LMO	11	5.1.2.6	Data Specification		"The results from the use cases and the analysis acc. to the checklist are formalised into data specifications." What do you refer to? Checklist? The data specifications describe products and the way they were produced in a systematic manner, so that harmonization becomes possible, and thus, the products can be used in an interoperable manner. What is this paragraph actually saying?		- this simply states that a formal specification (the data specification) is developed on the basis of the results of the previous steps

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381	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	27	5.1.2.6	Data Specification		"The results from the use cases and the analysis acc. to. the checklist are formalised into data specifications." What do you refer to? Checklist? The data specifications describe products and the way they were produced in a systematic manner, so that harmonization becomes possible, and thus, the products can be used in an interoperable manner. What is this paragraph actually saying?		d
382	Geonovum	LMO	4	5.1.4		E	Figure 4 is not sharp	Copy the figure again	? reference unclear, there is no 5.1.4 and figure seems to be ok
383	Geonovum	LMO	7	5.1.5.1			In the table by step data specification development there are two terms used. Data dictionary and Feature concept dictionary. Data dictionary is not defined in 3.1 Terms. From our viewpoint these terms are the same.		A - replace dd by fcd
384	AGI - Association for Geographic Information	SDIC	24	5.2		E	The theoretical approach described in this sub-section should precede 5.1 to provide the conceptual basis for what follows.	Move 5.2 to before 5.1	See #165
385	Geonovum	LMO	28	5.2	Fig 8	G	A fundamental distinction in GI models is made between separate entities (features, objects) and continuous fields (see for instance Burrough & McDonnell). In a continuous field model the attribute value varies and boundaries are rather fuzzy (iso lines, grids, TINs), while attribute values for a feature (its variables) are fixed.	The distinction should be identified in the specification and modelled in Fig. 8	NA - the concepts of features/spatial objects and fields/coverages are not separate; this will be clarified further in the revision of D2.5
386	Federal Office of Topography (Switzerland) - swisstopo	LMO	9	5.2.		Q	What means exactly "conceptual model", "UML", "GFM", "GCM", "Application Schema", "encodings for GML", "GML application Schema", "UML Model for GML"??		Ap - check that D2.5 and D2.6 are consistent and that duplicate descriptions are avoided; provide references to specific subclauses where needed
387	Institut Géographique National	LMO	64	5.2.1	Second paragraph	E	"It is worth repeating that interoperability ..." As the definition of interoperability is not the same in the glossary, there is no repetition on this topic in the	Delete "it is worth repeating"	A

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							document.		
388	Institut Géographique National	LMO	65	5.2.1	paragraph 2	E	is what is to be harmonised'	needs to be harmonised'	A
389	EA - Environment Agency for England and Wales	SDIC	11	5.2.1		T	There is no "Interoperability" between datasets per se' There is and can be interoperability within datasets.	Remove.	NA - the statement is considered correct as it is (as data sets do not interact themselves)
390	EA - Environment Agency for England and Wales	SDIC	12	5.2.1		T	Wrappers, as suggested, will not overcome all (or many) of the differences between datasets.	Remove inference that "wrappers" can overcome differences in conceptual interoperability.	NA - the intent is that the specifications are developed so such wrapper are in many cases possible
391	Institut Géographique National	LMO	63	5.2.1	2nd §, 1st line	T	"autonomous entities" seems to refer to autonomous real world phenomena (according to definition of entity in 3). If this is meant indeed, it disagrees with the definition of "entity" in 3	Check whether "entity" was meant in its sense defined in Terms and definitions, and whether it is consistent with the definition of interoperability in Terms and definition	Ap - "entity" has a different meaning here (as it comes from a definition from an external source), change text to avoid misunderstanding
392	ESB Working group on INSPIRE Implementation	SDIC	1	5.2.1	Paragraph 2	T	It is worth repeating that interoperability is the ability of two or more autonomous entities to communicate and co-operate among themselves in a meaningful way despite differences in language, context or content.....	The "Entity" can be replaced or better defined as Data, Map, Graph, etc	Ap - see #391
393	LMV - Lantmateriet, National Land Survey of Sweden	SDIC	13	5.2.2	paragraph 5	E	"...and the UML methodology is used. "	Change to "...and UML. "	AwM - "UML is used"
394	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	31	5.2.2	paragraph 4	E	"... and within the 19100 series of standards and the UML ..."	Replace by "... and within the 19100 series of standards the UML ..."	Ap - see #393
395	LMV - Lantmateriet, National Land Survey of Sweden	SDIC	14	5.2.2	paragraph 7	E	"The next step from the conceptual schemas will then typically to generat a GML ..."	Change to "...will then typically be to generate ..."	A
396	Department for Environment, Food and Rural Affairs (Defra)	LMO	21	5.2.2	2	E	consistency - generic conceptual model	Change to Generic Conceptual Model	Ap - not found

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397	Department for Environment, Food and Rural Affairs (Defra)	LMO	22	5.2.2	6	E	missing word	The next step from the conceptual schemas will then typically be the generation of a GML application schema.....	Ap - see #395
398	Department for Environment, Food and Rural Affairs (Defra)	LMO	20	5.2.2	Figure 6	E	Spelling mistake - describibg	correct to describing	A
399	National Survey and Cadastre, Denmark	LMO	KMS-19	5.2.2	Paragraph 3	E/T	The concept ought to be defined in chapter 3.1 especially because the concept "conceptual model" is defined in chapter 3.1 and there is a strong relation between the two concepts	Add a definition of conceptual model to chapter 3.1. The following definition can be found in EN ISO 19101: "set of modelling concepts used to describe a conceptual model"	A
400	LMV - Lantmateriet, National Land Survey of Sweden	SDIC	15	5.2.2	Figure 9	E	Typo: "Feature concept Dictionary" is misspelled	Correct.	A
401	Met Office	LMO	MO_23	5.2.2	last para	E	verb missing	"will typically to be to generate"	A
402	BRGM	LMO	31	5.2.2	paragraph 4	E	"... and within the 19100 series of standards and the UML ..."	Replace by "... and within the 19100 series of standards the UML ..."	d
403	Institut Géographique National	LMO	67	5.2.2	4 th paragraph under Figure 8	E	"An application schema will be described ... and the UML methodology is used" The sentence sounds curious	Find a better wording, e.g. use future in both parts of the sentence..	Ap - see #393
404	Institut Géographique National	LMO	76	5.2.2	4th paragraph under Figure 8	E	"An application schema...": there are 2 "and"s in the sentence which make it hard to understand	rewrite (second "and" probably excessive)	Ap - see #393
405	Institut Géographique National	LMO	69	5.2.2	p 32 Third paragraph	E	"and how the user is supported by data or services related to other data" Not very clear.	Clarify, if possible	A
406	Institut Géographique National	LMO	66	5.2.2	figure 9	E	label 'model of feature types'	replace by 'conceptual model (feature types)'	NA - base figure taken from ISO 19109
407	Institut Géographique National	LMO	72	5.2.2	Figure 8	E	Misprint	Under the middle arrow, use 'describing' instead of 'describibg'	A
408	Ordnance Survey	LMO	21	5.2.2	Seventh paragraph	E	Modify sentence to improve understanding.	Suggest changing " then typically" to "then be typically".	A
409	Lenkungsgrmiu m GDI-DE (Steering	LMO	32	5.2.2	Figure 9, page 32	E	The figure should show the "Universe of discourse" in the same graphic shape and context as in	Put "Universe of discourse" in a multi-pointed star and "Real World" in the cloud, as in Figure 8.	NA - figures taken from ISO 19101 and ISO 19109

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	Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)						Figure 8.		
410	Institut Géographique National	LMO	70	5.2.2	p 32 Last paragraph	E	Third and fourth bullets might require further explanations: - which are the known issues common in data harmonisation efforts - how the reference model and the architecture will influence the specifications ?	Give examples about these 2 topics (or delete them)	A
411	Institut Géographique National	LMO	77	5.2.2	6th paragraph under Fig 8, first sentence	E	verb is missing	rewrite	A
412	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	15	5.2.2		G	The complete chapter is difficult to understand for non-experts		- noted; hopefully taking the specific comments into account will improve the readability
413	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	16	5.2.2.	paragraph after figure 9	G	The sentence about user requirements is too vague		Ap - however, no clearer statement is possible right now as this is the statement from Article 1 and the use cases are not yet available
414	Lenkungsgrremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	31	5.2.2	page 32 ff.	G	The reader receives again the impression that actually the principle is easy, but what is the conclusion for each paragraph?	Please state the conclusions more clearly.	Ap - this is mainly a description to explain the context, but it should be reviewed to state the requirements and recommendations
415	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	33	5.2.2	last paragraph	T	Missing issues of cross-domain harmonisation and external governance of standards	Add points: - need to reference entities defined in related domains - need or opportunity to adopt externally defined components of	Ap - but adapt terms to INSPIRE terms

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								the domain model	
416	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	30	5.2.2	paragraph 2	T	see issue #11, also Ref Generic Conceptual Model Clause 13 NB Figure 10 implies this approach, but it is not clear the process or governance requirements for the creation of the intermediate UML implementation schema.	Add technical detail on the relationships between the application schema and implementation profiles required by data product specification, with particular regard for the (necessary) role of the profile mechanism to support cross-domain harmonisation. See attached paper.	? reference unclear and paper not available; note that encoding topics are out-of-scope for this document
417	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	32	5.2.2	paragraph 6	T	This turns out to be oversimplified. In practice, it is necessary to create the simplest common conceptual model, and then model implementation profiles suitable for particular services. This is exactly analogous to decoupling a database schema from the application through logical views. The alternative is a large number of similar technology-specific implementations of related aspects of the model with no formal commonality of semantics.	Provide discussion and examples of common domain models with multiple implementations through services. (For example 2d and 3d versions of the same object, or road as a network vs. a simple cartographic feature)	Ap. In principle we agree with the proposal, in practise we consider it not feasible for INSPIRE. We do not promote the creation of a base application schema in the beginning. Instead we provide the capability in the Generic Conceptual Model, where common patterns and classes will be defined and maintained as INSPIRE evolves. More explanation will be added to D2.5
418	Institut Géographique National	LMO	68	5.2.2	p 32 First paragraph	T	"(using the working assumption that the download service will include the WFS interface)" What about coverages? Is this chapter also relevant for coverages ?	Clarify if coverages are included or not in this chapter. If yes, WCS should probanly be included.	Ap - coverages are included, but text has been removed
419	Institut Géographique National	LMO	74	5.2.2	2nd sentence	T	"the first step is..." I would say the first step is to identify the Universe of Discourse.	Explain how one can identify the Universe of Discourse before everything else, before shaping it into a conceptual model.	- The UoD "exists" independent of and before the conceptual model
420	Institut Géographique National	LMO	73	5.2.2	1 sentence	T	"the general process" : of what ?	specify the name of the process ("geographic information modelling"?)	A
421	Lenkungsgremiu m GDI-DE (Steering Committee GDI- DE) (explanation: GDI-DE = Spatial Data Infrastructure	LMO	37	5.2.2	Figure 8	T	Does the IR also define or promote a lexical schema language? In D2.5 only UML is recommended.	Delete "lexical languages"	NA - this figure is based on a figure from ISO 19109 (add reference to clarify)

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	Germany)								
422	Institut Géographique National	LMO	71	5.2.2	Figure 9	T	Figure 9 helps to start to understand the what are the feature catalogue and feature concept dictionary, but not their difference.	Clarify the link beetwen those two things.	Ap - see #386, #172
423	Institut Géographique National	LMO	79	5.2.2	Figure 8 and Figure 9	T	How the UoD-Data branch and the UoD-conceptual schema branch relate is not clear	The concepts of the 2 figures should be brought into 1 figure (with 2 possible poles : the UoD and the GCM, and then the conceptual branch and the data branch)	NA - it is the same UoD in both cases; it also is not a different branch - figure 9 is just more specific (application context, thus application schema instead of conceptual schema)
424	BRGM	LMO	33	5.2.2	last paragraph	T	Missing issues of cross-domain harmonisation and external governance of standards	Add points: - need to reference entities defined in related domains - need or opportunity to adopt externally defined components of the domain model	d
425	National Assembly of the Land Cover and Use Information System of Spain (SIOSE)	SDIC	10	5.2.2	Figure 9	T	Previously explained in general comment 1	Change Figure for to include cataloguing of users and user requirements, and Classes Analysis.	See #8
426	IDEE Working Group of the Commission on Geomatics (National Geographic High Council)	LMO	10	5.2.2	Figure 9	T	Previously explained in general comment 1	Change Figure for to include cataloguing of users and user requirements, and Classes Analysis.	See #8
427	BRGM	LMO	30	5.2.2	paragraph 2	T	see issue #11, also Ref Generic Conceptual Model Clause 13 NB Figure 10 implies this approach, but it is not clear the process or governance requirements for the creation of the intermediate UML implementation schema.	Add technical detail on the relationships between the application schema and implementation profiles required by data product specification, with particular regard for the (necessary) role of the profile mechanism to support cross-domain harmonisation. See attached paper.	d
428	Institut Géographique National	LMO	78	5.2.2	Figure 8 and Figure 9	T	The use of a cloud in figure 8 for Real World, in figure 9 for Universe of Discourse is confusing	Redraw the Figures with similar symbols	d
429	BRGM	LMO	32	5.2.2	paragraph 6	T	This turns out to be oversimplified. In practice, it is necessary to create the simplest common conceptual	Provide discussion and examples of common domain models with multiple implementations through	d

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							model, and then model implementation profiles suitable for particular services. This is exactly analogous to decoupling a database schema from the application through logical views. The alternative is a large number of similar technology-specific implementations of related aspects of the model with no formal commonality of semantics.	services. (For example 2d and 3d versions of the same object, or road as a network vs. a simple cartographic feature)	
430	Institut Géographique National	LMO	75	5.2.2	5th sentence	T	Why do you need to classify views of the real world? Is it view "of" the world or "on" the world?	Explain why classes on the views of the world are needed.	Ap - check with native speaker
431	Bundesanstalt für Geowissenschaften und Rohstoffe (BGR)	LMO	13	5.2.2, 5.2.3			The reader receives again the impression that actually the principle is easy, but what is the conclusion for each paragraph?		d
432	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	29	5.2.2, 5.2.3			The reader receives again the impression that actually the principle is easy, but what is the conclusion for each paragraph?		d
433	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	34	5.2.3	paragraph 6	E	"One of the purpose of a feature catalogue in is ..."	Replace by "One of the purpose of a feature catalogue is ..."	A
434	EA - Environment Agency for England and Wales	SDIC	13	5.2.3	1st paragraph	E	The first sentence does not read correctly.	Replace "The semantics is captured..." with "The semantics are captured..."	A
435	EA - Environment Agency for England and Wales	SDIC	14	5.2.3	6th paragraph	E	The first sentence does not read correctly.	Replace "...feature catalogue in is to have..." with "...feature catalogue is to have..."	A
436	AGI - Association for Geographic Information	SDIC	25	5.2.3	1st paragraph	E	The first sentence does not read correctly.	Replace "The semantics is captured..." with "The semantics are captured..."	A
437	AGI - Association for Geographic Information	SDIC	26	5.2.3	6th paragraph	E	The first sentence does not read correctly.	Replace "...feature catalogue in is to have..." with "...feature catalogue is to have..."	A

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438	EA - Environment Agency for England and Wales	SDIC	15	5.2.3	7th paragraph	E	The second sentence does not read correctly.	Replace "...application schema draws it spatial object types..." with "...application schema draws its spatial object types...".	A
439	AGI - Association for Geographic Information	SDIC	27	5.2.3	7th paragraph	E	The second sentence does not read correctly.	Replace "...application schema draws it spatial object types..." with "...application schema draws its spatial object types...".	A
440	National Survey and Cadastre, Denmark	LMO	KMS-21	5.2.3	Paragraph 6	E	There is an "in" too many	The paragraph should start in the following way: " One of the purposes of a feature catalogue is to have...."	A
441	Department for Environment, Food and Rural Affairs (Defra)	LMO	23	5.2.3	All	E	This section repeats information in previous sections and does not add any new information so can be removed	Remove section 5.2.3.	See #165
442	Institut Géographique National	LMO	85	5.2.3	6th paragraph, 1st sentence	E	"in is to have" : words are missing or there are too many of them	Rewrite	A
443	BRGM	LMO	34	5.2.3	paragraph 6	E	"One of the purpose of a feature catalogue in is ..."	Replace by "One of the purpose of a feature catalogue is ..."	A
444	Institut Géographique National	LMO	84	5.2.3	6 th paragraph	E	"One of the purpose of a feature catalogue in is to have"	Replace by ""One of the purpose of a feature catalogue is to have"	A
445	Ordnance Survey	LMO	22	5.2.3	Note paragraph second sentence.	E	Modify sentence to improve understanding.	Suggest changing "draw it spatial" to "draw its spatial".	A
446	Institut Géographique National	LMO	90	5.2.3		E	one of the purpose of a feature catalogue <i>in</i> is to...	remove "in"	A
447	Ministère des transports, de l'équipement, du tourisme et de la mer	LMO	91	5.2.3	§6 1st line	E	suppress the word "in"	sentence should read "One of the purposes of a feature catalogue in is to have a catalogue of well defined spatial object"	Ap - see #446
448	Institut Géographique National	LMO	81	5.2.3	2nd paragraph	E	the full list of authorised types "surface, accuracy...." will be very useful for TWG I guess	Repeat the full list here, or better in D2.5 (if it is already the case, refer it here)	Ap - the full list is too long, but add reference to types referenced in 19109 plus those from additional standards (eg ISO 19123)
449	Institut Géographique National	LMO	89	5.2.3	6th paragraph	E	Typo error	remove "in" from the first sentence	A
450	Lenkungsgreriu	LMO	33	5.2.3	page 33	G	The reader receives again the	Please state the conclusions more	d

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	m GDI-DE (Steering Committee GDI- DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)						impression that actually the principle is easy, but what is the conclusion for each paragraph?	clearly.	
451	LMV - Lantmateriet, National Land Survey of Sweden	SDIC	16	5.2.3	Note	T	The most important thing for a feature catalogue is to provide clear semantic definitions of the features and their properties. Those are not contained in an application schema, so the catalogue can not be fully derived therefrom.	Reword the first sentence.	NA - The feature concept dictionary is used for this purpose (it is noted that there seems to be some unresolved confusion about the roles of feature catalogues and feature concept dictionaries with the development of ISO 19126 and the amendment to ISO 19110)
452	Met Office	LMO	MO_24	5.2.3	para 3	T	This is only a special case that views can be related by object referencing. It is NOT generally true. To be true it requires a strong 2-way mapping. Even apparently homologous objects can be very different. For example: to map different thematic measurements of Sea Surface Temperature requires that they measure the same thing. In oceanography this may be a layer several metres thick. In a ship observation it is the temperature of a bucket of seawater. Measuring it by satellite it is an even thinner skin layer. These are usually very different, and often poorly related values.	Rephrase with a stronger caveat. E.G. "In some cases these views may be related by object referencing but it may be that the objects have sufficiently different properties that they should not be combined." (perhaps two examples?)	A
453	National Survey and Cadastre, Denmark	LMO	KMS-20	5.2.3	Paragraph 2	T	This paragraph raises a very important question. The work should according to the Directive be based on international standards. However, in some case the same definition applies different terms if one look at the international standards versus the Directive. This situation is very unfortunate because it might lead to confusion.	In order to avoid the confusion it might an idea to include a chapter in the beginning of the relevant documents where a mapping between the terms used in the Directive and the terms used in the international standards is made.	Ap - this should be addressed in the glossary and the reference to the glossary should be annotated
454	Institut Géographique	LMO	86	5.2.3	Last but one sentence of	T	"data types without any identity" does not mean anything	Write at least : "data types without any geographical identity"	Ap - remove "without any identity", which is redundant

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	National				last paragraph				
455	Institut Géographique National	LMO	82	5.2.3	3rd paragraph	T	"the same entity in the real word" is a tautology, it is dangerous as it suggests entities might be otherwise.	Rewrite (something like : "one entity may be represented...")	Ap - "the same real-world phenomena"
456	Lenkungsgrremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	38	5.2.3	paragraph 2	T	A further aim should be the definition of profiles of the base types that are used within INSPIRE or within a domain-specific data model. At the end of the data modelling process we can come up with a data product specification for one or more themes that use specific subsets of base standards. That will definitely increase interoperability.	Add the possibility to define profiles of ISO and OGC standards.	- this is already possible with the current wording
457	Institut Géographique National	LMO	87	5.2.3		T	Again, hard to follow the difference between schema and catalogue	Split this subsection in 2: 1/ schema, 2/feature catalogue. It may help to clarify the differences	A
458	Institut Géographique National	LMO	83	5.2.3	3rd paragraph	T	How can a spatial object "HAVE" a "VIEW" ?	Rewrite or explain - i.e. clarify	A - "represent"
459	Institut Géographique National	LMO	80	5.2.3	NOTE	T	The content of this NOTE is true but may be confusing as, for INSPIRE, only the first solution (deriving Feature Catalogue from application schema) is recommended (cf 5.4.4)	Clarify	Ap - see #172, it should be stated only once where the different concepts are explained
460	Institut Géographique National	LMO	88	5.2.3	4th paragraph	T	This paragraph is unclear. It seems to suggest that one may represent the application schema (or the feature concept dictionary??) as an ontology in OWL, which is not the case (ontologies seem more adapted to the feature concept dictionary of this kind of general things describing the world if I understand well)	Clarify or remove	Ap - perhaps move such informative discussions to an annex
461	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	35	5.2.3		Q	At which level the feature catalogue will be managed? (At the European level if there is only one feature catalogue for INSPIRE, or at the Member State level if there are many?)	Clause 6.2.4, last paragraph indicates only that the responsible will be the CT	- at the European level (but there will be more than one feature catalogue)
462	BRGM	LMO	35	5.2.3		Q	At which level the feature catalogue	Clause 6.2.4, last paragraph	d

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							will be managed? (At the European level if there is only one feature catalogue for INSPIRE, or at the Member State level if there are many?)	indicates only that the responsible will be the CT	
463	Institut Géographique National	LMO	92	5.2.3.1	2nd paragraph (top of page 34), last sentence	E	Misprint	Write "an application" rather than "a application"	A
464	Ordnance Survey	LMO	23	5.2.3.1	Second sentence	E	Modify sentence to improve understanding; not clear if it is mandatory or not.	Suggest changing sentence to "As has been stressed before, recognising the fact that different approaches are being used successfully in practice, a specific formal software development process model is not mandatory for the data harmonisation process with regard to the conversion of the use cases into spatial types (i.e. identifying classes in terms of object-orientated analysis and design), or creation of an application schema."	Ap - take other relevant comments into account (remove "software" etc)
465	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	17	5.2.3.1.	paragraph 1	G	It is not *precisely* defined in 5.2.2	drop the sentence	NA - the sentence is still correct
466	Institut Géographique National	LMO	93	5.2.3.1	last paragraph	G	the example is not clear (e.g. data types without any identity) and it is confusing rather than helping.	remove the example	A
467	Institut Géographique National	LMO	91	5.2.3.1	Second paragraph	T	"No specific formal software development process model" I don't understand why it should be a software development process model, as the aim is not to develop a software, but rather a method (I guess TWG are not supposed to develop software, just data specifications).	Delete "software"?	A
468	Institut Géographique	LMO	94	5.2.3.2	Q	Q	This paragraph seems to give, at last, the distinction between schema	move this information backward	NA - "schema = fc + properties and relations" is not correct

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	National						and feature catalogue (Schema = FC + properties and relations). If it is the case it should be brought before		
469	National Survey and Cadastre, Denmark	LMO	KMS-22	5.2.4	Paragraph 2 bullet 1	E/T	In some cases the outcome of could also be conditional	Add conditional as a possibility	A
470	EA - Environment Agency for England and Wales	SDIC	16	5.2.4	2nd paragraph, 1st bullet	E	The first sentence does not read correctly.	Replace "...application schema it must be agreed..." with "...application schema must be agreed...".	NA - it is correct as it is
471	AGI - Association for Geographic Information	SDIC	28	5.2.4	2nd paragraph, 1st bullet	E	The first sentence does not read correctly.	Replace "...application schema it must be agreed..." with "...application schema must be agreed...".	d
472	OMSZ - Hungarian Meteorological Service	LMO	6	5.2.4.	para5	E	This is also the fear of our Met Service: the view of the INSPIRE data specifications will be most probably different from the existing use purposes of our data. Therefore, considerable modifications to the data structure may be required. This implies cost which is not yet treated in details by the INSPIRE data specification process.	Although it is clear that D2.6. Is a technical document, it might raise also functional questions as well. So the details of conversions between already existing databases and data specifications should be emphasized.	Ap - this is emphasised in several places in the document
473	Department for Environment, Food and Rural Affairs (Defra)	LMO	26	5.2.4	3	E	This paragraph relating to data harmonisation repeats statements about the need to transform existing datasets rather than create new harmonised datasets and that some changes to existing datasets will be required. Need to consolidate these statements rather than keep repeating them as they are sometimes inconsistent. This section seems to focus on fact that there will be a need to convert existing data which again focuses on issue that to conform to an INSPIRE data specification may require additional effort by data providers which they be responsible for?	This paragraph is related more to the "as is" and gap analysis or implementation sections as these address the issues around harmonisation so maybe should be revised to better relate to section topic - compiling and evaluating the data specification. There is little in this section that relating to compiling and evaluating the data specification	NA - as-is and gap analyses are part of the development of the eventual data specifications
474	Institut	LMO	103	5.2.4	Last	E	"This has also to be taken into	Replace, for instance, by "We may	A

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	Géographique National				paragraph		account that often the existing data will contain much more detailed content ..." This is an assumption and should we presented as such.	assume that"or "it is likely that ..."	
475	Institut Géographique National	LMO	97	5.2.4	Second bullet in the list	E	Endpoint missing after (ISO 19136), as well as capital to "This"	correct	A
476	Ordnance Survey	LMO	24	5.2.4	Final paragraph, second sentence.	E	Modify sentence to improve understanding.	Suggest removing the word "it".	A
477	Institut Géographique National	LMO	95	5.2.4	First bullet in the list	E	not "agreed, if" but...	"agreed whether" (and no comma)	A
478	Flemish government - Environment, Nature and Energy Department - Land and Soil Protection, Subsoil, and Natural Resources Division	LMO	11	5.2.4.	paragraph 1	E	suggestion for a correction of the first sentence. (K. Boel)	The application schema is only part of the required harmonisation effort and also only a part of the dataspecification (see 6.3) and the required harmonisation effort	A
479	Institut Géographique National	LMO	99	5.2.4	Third bullet in the list	G	Does the issue addressed here mean that a dataset that already handles multi-representation is excluded from Inspire?	Clarify	A - no
480	Institut Géographique National	LMO	98	5.2.4	Third bullet in the list	G	It is not clear whether several geometries are allowed for 1 spatial object (ie. for one entity in the dataset). I hope it is so.	Clarify	A - yes
481	Department for Environment, Food and Rural Affairs (Defra)	LMO	25	5.2.4	bullet 3	T	Surely within a dataset the same entity can be represented by different spatial objects for example, a land parcel boundary can be represented by polylines or it could be represented as a polygon at the same scale. Or the same entity may be represented by different spatial objects, for example a species location may be represented as a	This bullet needs to be revised. Should it state that each entity should be represented by a single spatial object type. This spatial object type may be represented by multiple geometries at different scales, levels of detail (e.g. security related) etc.	Ap. Most examples are really different "entities", perhaps with the exception where a dataset has a spatial object for a pond at different LoDs. We recommend one application schema per theme, but this may not be feasible in some cases. To avoid confusion, all text after the " - but" will be removed.

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							point or its location may be aggregated to a 1km2 grid polygon as different users may be allowed access to only the grid representation or both depending on their security status. A small pond entity within a topographic dataset may be represented as a polygon or polyline object at 1:1,2500 scale but as a point object at 1:25,000 scale. Therefore these different representations may exist within the same dataset and these may or may not be cross referenced to each other		
482	Department for Environment, Food and Rural Affairs (Defra)	LMO	24	5.2.4	1	T	The additional specification beyond the application schema are not adequately described in this sentence so unclear what these are meant to be and how these are to captured.	Briefly list what the additional specifications are from the data harmonisation components to add clarity	? is the reference to 6.3 not sufficient
483	Institut Géographique National	LMO	102	5.2.4 (and following)	Last paragraph	T	"but also at the conversion rules required to map from the existing application schemas to the INSPIRE application schemas". It seems quite unreasonable to ask TWG to do this work : - The definition of conversion rules can be only the data producer responsibility. - it would be a terrible overload of work for TWG. Probably, the TWG responsibility should be to check if the information is available ; the data producers will have to say if the mapping may be done easily or not.	Add some warning at beginning of chapter 5 to say that the methodology is a general, ideal one and that not every step has to be done by TWG. Define more clearly responsibilities in 5.4	Ap - as stated elsewhere, the responsibilities will be clarified; the definition of conversions rules is, for example, not a task for the TWG
484	Lenkungsgremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	39	5.2.4	paragraph 2	T	A further point to check a data specification could be the consequent application of the requirements and recommendations mentioned in this document.	Add a corresponding bullet point.	A

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485	ESB Working group on INSPIRE Implementation	SDIC	2	5,2,4	last paragraph	T	Add more bullets	add 3 more bullets: - Conversion due to different projection for spatial data, - Conversion due to different data stores, - Conversion due to different semantic representations (Polygon or line is not used in the same way by everybody)	Ap - add: - Conversion due to different coordinate reference systems The second item in the proposal is part of the first item in the current list, the last item in the proposal is part of the second item in the current list.
486	Lenkungsgruppe GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	41	5.2.4	paragraph 2	T	Do the different views also include different levels of detail? It could be possible that different levels of detail come up with different spatial object types for the same real world entity. In this context it is not clear what a data set actually represents (a theme specific data set, a set of data from a specific database?).	Please avoid this (as it could be possible that different levels of detail come up with different spatial object types for the same real world entity). Clarify the expression "within a data set".	A
487	National Assembly of the Land Cover and Use Information System of Spain (SIOSE)	SDIC	11.1	5.2.4	Paragraph 5	T	Finally, it should be recommended, when possible, try to define spatial objects able to reflect the variety of the real world phenomenon to be represented. We must remember the INSPIRE Directive should apply to spatial data held by or on behalf of public authorities and to the use of spatial data by public authorities in the performance of their public tasks, so in many cases the identification of the legal responsible of the data is easy, and when different data aspects are maintained by different institution, a strong effort to harmonize datasets and avoid duplicity of data should be made in the development of data specification. This will avoid in future, for instance, different geometries of the same real world phenomena.		Ap
488	National Assembly of the Land Cover and Use Information System of Spain (SIOSE)	SDIC	11	5.2.4	Paragraph 5	T	It is certain that certain entities may be represented in different data sets by different spatial objects – but also it is necessary to stress that: In the INSPIRE Annexes, and more specifically in the Annex I, certain entities of the real world should not	Add explanation to clarify this paragraph.	NA. Our understanding is that INSPIRE accepts more than one national dataset per theme. To be verified: R to CT / JRC: Depending on the user requirements the same real world entity can be specified in frame of different themes. However

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							<p>be represented in different datasets, such as Geographical grid systems, Administrative units, Cadastral parcels, etc., which should be obtained only from a specific dataset maintained by the responsible institution.</p> <p>In other cases, several views of the same reality can be reflected in different spatial objects in different dataset. But it may be recommendable to differentiate these 'thematic' views very clearly, for example, with prefixes or suffixes in the class names in each data specification. For example, soil information could be different in Geology Theme datasets, and Soil Theme datasets. In this example, GEO_Soil and SO_Soil could be an easy way to differentiate this issues, adding also very detailed information of the meaning and attributes of these classes, and information of the related objects with the other themes objects.</p>		<p>this multiple representation way should be well justified.</p> <p>It is the competence of the Member States to decide which data set is best fit for the purposes of INSPIRE. The conformity requirement will ensure that data are comparable from all sources.</p>
489	IDEA Working Group of the Commission on Geomatics (National Geographic High Council)	LMO	11	5.2.4	Paragraph 5	T	<p>It is certain that certain entities may be represented in different data sets by different spatial objects – but also it is necessary to stress that: In the INSPIRE Annexes, and more specifically in the Annex I, certain entities of the real world should not be represented in different datasets, such as Geographical grid systems, Administrative units, Cadastral parcels, etc., which should be obtained only from a specific dataset maintained by the responsible institution.</p> <p>In other cases, several views of the same reality can be reflected in different spatial objects in different dataset. But it may be recommendable to differentiate these 'thematic' views very clearly,</p>	Add explanation to clarify this paragraph.	d

Comm#	ID	LMO/ SDIC	1	2	3	4	5 - Comment	6 - Proposed change	7 - Resolution
							for example, with prefixes or suffixes in the class names in each data specification. For example, soil information could be different in Geology Theme datasets, and Soil Theme datasets. In this example, GEO_Soil and SO_Soil could be an easy way to differentiate this issues, adding also very detailed information of the meaning and attributes of these classes, and information of the related objects with the other themes objects. Finally, it should be recommended, when possible, try to define spatial objects able to reflect the variety of the real world phenomenon to be represented. We must remember the INSPIRE Directive should apply to spatial data held by or on behalf of public authorities and to the use of spatial data by public authorities in the performance of their public tasks, so in many cases the identification of the legal responsible of the data is easy, and when different data aspects are maintained by different institution, a strong effort to harmonize datasets and avoid duplicity of data should be made in the development of data specification. This will avoid in future, for instance, different geometries of the same real world phenomena.		
490	Integrated Administration and Control System (Common Agricultural Policy)	SDIC	7	5.2.4	paragraph 1	T	last sentence refers to paragraph 5.4.5 - but the is no further explanations added in 5.4.5;	please harmonize text of pr 5.2.4 and 5.4.5	A
491	Lenkungsgremium GDI-DE (Steering Committee GDI-	LMO	40	5.2.4	paragraph 2	T	Second bullet point: What is a normative encoding and how will it be specified?	Explain or add a reference to D2.7 where it finally should be defined	A - add reference to D2.7 and the delivery clause of the data specification

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	DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)								
492	Institut Géographique National	LMO	101	5.2.4	Second paragraph Third bullet	T	The example for object referencing seems curious : - why species (wild life) should respect ownership property (e.g. parcels)? - it is in contradiction with D2.3 where example of species are given, using grids	Find a better example (e.g. 7.11 Area management/ ... by parcels)	A
493	Integrated Administration and Control System (Common Agricultural Policy)	SDIC	8	5.2.4	paragraph 2	T	What does 'model element' mean in this context? Is it synonym to spatial object type?	consistently use the same terms or add synonyms to chapter 3	A
494	Institut Géographique National	LMO	100	5.2.4	Second bullet in the second list	T	What is a view ? Is that a universe of discourse?	Explain the concept of "view" (in relation to figures 8 & 9)	A
495	National Survey and Cadastre, Denmark	LMO	KMS-23	5.2.4	Last sequence of bullet points	Q	Conversion can be fine. But the conversion can give some problems if the differences in the either the object definitions or the classification of object types. E.g. a road might be classified one way in one country and another way in the neighbouring country.	This is just something the DT should consider	Ap - see also examples in Annex A
496	Institut Géographique National	LMO	96	5.2.4	paragraph after the first list of bullets	Q	"In looking at possible...". I do not understand this paragraph		A - reword paragraph
497	Department for Environment, Food and Rural Affairs (Defra)	LMO	27	5.2.5		E	Consistency - standardise the terminology used relating to conceptual and implementation levels. In this section terminology used includes conceptual <=> abstract and system <=> implementation	standardise terminology used	A
498	Department for Environment, Food and Rural Affairs (Defra)	LMO	28	5.2.5	All	E	Create cohesive paragraphs rather than have individual sentences as paragraphs	Join paragraphs 1 and 2. Join paragraphs 3, 4, 5. Join paragraphs 7 & 8.	A

DS D2.6 – Methodology for the development of data specifications: Comments and Resolutions Table (Comments are related to the D2.6 version 2.0)

Comm#	ID	LMO/ SDIC	1	2	3	4	5 - Comment	6 - Proposed change	7 - Resolution
499	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	19	5.2.5.	paragraph 1	E	This paragraph can only be a metaphor, since OGC is dealing with interface specifications, whereas this chapter should explain data specifications.	Rewrite the paragraph	NA - OGC standards are not limited to interface specifications
500	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	18	5.2.5.		G	This chapter is a mixture between correct remarks related to data modelling and incorrect examples and explanations from software development (here: interface specification)	Rewrite the chapter. Use standard data base development (data specifications) literature as basis to explain the difference between the conceptual and the physical level. Use OMG documentation for the explanation of the usage of UML and GML in this context.	AwM - review subclause to use consistent terminology (and examples)
501	LMV - Lantmateriet, National Land Survey of Sweden	SDIC	18	5.2.5.1 paragraph 7 Annex A A.7		E, T	Cannot find recommendations for multilingual vocabulary by means of the application schema in D2.5 or elsewhere.	Include recommended method. The method should include semantic concept modelling (to be distinguished from conceptual information/data modeling).	AwM - reference the feature concept dictionary (and feature catalogue) which will contain the multi-lingual names and definitions
502	OMSz - Hungarian Meteorological Service	LMO	7	5.2.5.1.	para9	E	same comment as no6		d
503	Ordnance Survey	LMO	25	5.2.5.1	Sixth paragraph, second sentence	E	Modify sentence to improve understanding.	Suggest adding a comma after "UML".	A
504	Ordnance Survey	LMO	26	5.2.5.1	Seventh paragraph, second sentence.	E	Modify sentence to improve understanding.	Suggest changing sentence to "Nevertheless, it must be taken into account that the gap between the internal schema of today's applications and the common schema still needs to be bridged."	A
505	Ordnance Survey	LMO	28	5.2.5.1	Final paragraph.	E	Modify sentence to improve understanding.	Suggest adding commas after "is" and after "as".	A
506	Lenkungsgrremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	42	5.2.5.1	paragraph 5, second sentence	E	Position of the word "will"	change to: "Only in the clause on data delivery in the INSPIRE data specifications, implementation level specifications will be defined."	A

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507	Institut Géographique National	LMO	110	5.2.5.1	last paragraph	E	The word "that" is repeated four times in the first sentence, which is difficult to understand.	rephrase	A
508	Institut Géographique National	LMO	109	5.2.5.1	8th paragraph, 1st sentence	E	what is the meaning of the word "already" here ?	Clarify ("already" = "already made"? = "as soon as"?)	A
509	Institut Géographique National	LMO	107	5.2.5.1	7th paragraph, 2nd sentence	E	what is the meaning of the word "still" here?	Clarify ("still" = "only" ?)	A
510	National Assembly of the Land Cover and Use Information System of Spain (SIOSE)	SDIC	12	5.2.5.1	Paragraph 10	T	As mentioned in comment 11, a strong effort to model each real world phenomenon in a spatial object (or an harmonized set of spatial objects), when possible, should be addressed, to will avoid future different geometries of the same real world phenomena.	Delete the following sentence: "Finally, it must be emphasised that it is considered unlikely that it is achievable that every real-world phenomenon can be modelled by single spatial object type that addresses all use. At the same time a traditional bulk transfer of data(sets) is often too inflexible and will not meet the requirements of the users".	NA - it may be intentional that the same real-world phenomenon is represented by different spatial object types for different purposes (different abstractions), e.g. a certain building may be a Building in one dataset (theme Buildings) and a Risk in some other theme.
511	IDEE Working Group of the Commission on Geomatics (National Geographic High Council)	LMO	12	5.2.5.1	Paragraph 10	T	As mentioned in comment 11, a strong effort to model each real world phenomenon in a spatial object (or an harmonized set of spatial objects), when possible, should be addressed, to will avoid future different geometries of the same real world phenomena.	Delete the following sentence: Finally, it must be emphasised that it is considered unlikely that it is achievable that every real-world phenomenon can be modelled by single spatial object type that addresses all use. At the same time a traditional bulk transfer of data(sets) is often too inflexible and will not meet the requirements of the users.	d
512	Institut Géographique National	LMO	105	5.2.5.1	1st sentence	T	"between the two levels" : what are these two levels?	Make it explicit that the two levels are "conceptual" and "system"	A
513	Institut Géographique National	LMO	108	5.2.5.1	7th paragraph	T	"Establishig and documenting a common, multilingual vocabulary by means of a conceptual schema ..." Might be confusing as requirement 47 in D2.5 imposes English for application schemas	Clarify , e.g. by adding "and by associated Feature Catalogue"	Ap - see #501
514	Institut Géographique National	LMO	111	5.2.5.1	Last paragraph	T	"Finally, it must be emphasised that" This sentence is not really clear and its link with the following sentences	Delete the sentence or give an example to explain it.	Ap - add example

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							is even more unclear.		
515	Institut Géographique National	LMO	106	5.2.5.1	4th paragraph	T	"it is crucial that implementations specifications used in Inspire are conformant to..." : does that mean that implementations specifications in inspire could not be built from the abstract Inspire specifications (definition given in paragraph 2), but only assessed afterwards for their conformance to the Inspire abstract specifications?	The sentence should be rewritten in order to explain that Inspire implementation specifications are built from the Inspire abstract specifications, and not otherwise (if this is what is really meant as I guess). If this interpretation is wrong, a figure should be brought to help understand what Inspire conformance is expected from the Implementation/Abstract specifications on the one hand, and from the Inspire Implementation/Abstract specifications on the other hand	A
516	Institut Géographique National	LMO	104	5.2.5.1	1st paragraph	Q	Can "abstract" be replaced by "conceptual", that is the word you use in the remaining of the document?	replace abstract with conceptual	A
517	Ordnance Survey	LMO	27	5.2.5.1	Ninth paragraph, first sentence.	Q	Not clear what this is saying; it may need to be two sentences or punctuated.	Clarify.	A
518	LMV - Lantmateriet, National Land Survey of Sweden	SDIC	19	5.2.5.2	figure 10	E	The text in figure 10 is in German. Even if the text is only intended to be illustrative, the language should remain the same through the document.	Change to English.	A
519	Ordnance Survey	LMO	29	5.2.5.2	Second paragraph, second sentence.	E	Modify sentence to improve understanding.	Suggest removing "too;".	A
520	Institut Géographique National	LMO	114	5.2.5.2	3rd bullet	E	NCName is not in the list of abbreviations	add NCName in the list of abbreviations	A
521	Lenkungsgreru m GDI-DE (Steering Committee GDI- DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	43	5.2.5.2	paragraph 2, 3rd bullet	E	What does "NCName" mean?	Add an explanation	A

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522	Institut Géographique National	LMO	112	5.2.5.2		T	This sub-clause gives quite practical input or explanations for future TWGs, whereas other parts of 5.2 just give general considerations about data specification development.	Move this part to 5.4?	NA - it does not belong to 5.4. It could be removed from D2.6 completely and just covered in D2.7?
523	Institut Géographique National	LMO	113	5.2.5.2	1st paragraph	Q	is the GCM really more complex than ISO model?	If yes, just mention the differences.	NA - it allows for a more complex profile than the one defined by ISO 19136 Annex E, not more complex than the one defined by ISO/TS 19103 and ISO 19109
524	Lenkungsgremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	45	5.3, and especially 5.3.2		E	5.3 contains many hidden connections with the Introduction, especially with Figure 1 and Figure 2, which are incomprehensible without knowing 5.3.	Add a reference to 5.3 in the introduction.	A !!!
525	Lenkungsgremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	44	5.3		G	There are illustrative examples in the literature showing how distributed systems can communicate if harmonised data exist; and also, what requirements are needed to apply transformation models to make data communicate in an interoperable manner.	Add examples.	!!!
526	Department for Environment, Food and Rural Affairs (Defra)	LMO	29	5.3		T	Many of the comments raised may be best addressed in this section.	All discussions relating to harmonisation should be addressed here	?
527	Bundesanstalt für Geowissenschaften und Rohstoffe (BGR)	LMO	14	5.3			There are illustrative examples in the literature showing how distributed systems can communicate if harmonized data exist; and also, what requirements are needed to apply transformation models to make data communicate in an interoperable manner.		duplicate comment, see 524
528	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	36	5.3			There are illustrative examples in the literature showing how distributed systems can communicate if harmonized data		duplicate comment, see 524

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							exist; and also, what requirements are needed to apply transformation models to make data communicate in an interoperable manner.		
529	Met Office	LMO	MO_26	5.3.1	bullet i.	T	On-the-fly... WMO members do all sorts of real-time manipulation, and this seems an inadequate specification of what the DT means by on-the-fly. It is used elsewhere (e.g. p 142)	A fuller description is needed to specify what the DT means by "on-the-fly". Perhaps in terms and abbreviations?	for discussion. There have been several comments on the implementation clause. Perhaps it should be aligned with the INSPIRE Architecture overview? See also 530 to 534, 543, 544, 549, 550, 552, 566
530	Met Office	LMO	MO_25	5.3.1	bullets	T	Surely 1) is As-is - no conversion needed.	add 1) AS-is - no conversion needed	!!!
531	Met Office	LMO	MO_27	5.3.1	para 4	T	We have two objections to this para which reflect thematic differences. 1) Read - Only - comment MO-4 applies 4) Update. Update means different things in the Geographic community to the Meteorological community. If there is a Gale or Flood warning out, then we ONLY want updated data.	As with "Read-Only", "Update" requires a definition for this document. Probably in section 3 Terms.	!!! explain read-only and update
532	Institut Géographique National	LMO	115	5.3.1	Note, last sentence of 1st paragraph	T	"impact on the data itself" does not show the full complexity of the issue.	Make the sentence complete : "impact on the data itself and on the metadata of the data that results from the matching and other transformation processes"	!!!
533	Institut Géographique National	LMO	117	5.3.1	Paragraph after NOTE	T	"multi-lingual thesauri" are quoted here but are not described neither in D2.5, nor D2.6	Delete "multi-lingual thesauri" or describe them somewhere in the INSPIRE documents	!!!
534	Institut Géographique National	LMO	116	5.3.1		T	In the SDIGER project, 3 approaches are quoted : - data reorganisation - using views (if relational database management) - reorganise the data in real-time One solution seems to be missing in D2.6.	Add the "view solution" in this sub-clause or at least, in annex A for component "Data transformation model / guidelines"	!!!
535	Institut Géographique National	LMO	118	5.3.2 and 5.3.3		G	why are these sections in this document (rather than on a document on services). They do not bring anything on the issue of building specifications.	remove these sections	NA. Specifications in INSPIRE shall describe not the source data but the result of a harmonisation process. Therefore the Drafting Team considers these sections important for the TWGs to understand the context.
536	Royal	LMO	8	5.3.2	figure 11	T	Figure 11 is unclear to us. Please	Please revise figure 11	A

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	Netherlands Meteorological Institute (KNMI)						consider redrawing it or add more descriptive text around the figure, explaining the arrows.		
537	EA - Environment Agency for England and Wales	SDIC	17	5.3.2	Figure 11	T	It may be better to reverse the arrows in this diagram, thereby showing the flow of data from the Data Repository up to the Users/Applications. At the moment it seems to indicate a data entry process with the data flowing down from the Users into the Repository. (Possibly double-ended arrows could be used to show that data flows both ways.)	Clarify or amend the arrows in the diagram.	see 537
538	AGI - Association for Geographic Information	SDIC	29	5.3.2	Figure 11	T	It may be better to reverse the arrows in this diagram, thereby showing the flow of data from the Data Repository up to the Users/Applications. At the moment it seems to indicate a data entry process with the data flowing down from the Users into the Repository. (Possibly double-ended arrows could be used to show that data flows both ways.)	Clarify or amend the arrows in the diagram.	duplicate comment, see 537
539	Met Office	LMO	MO_28	5.3.2	figure 11	T	These are neither a UML diagram nor a data flow diagram. It looks like a data flow diagram, but the arrows are all wrong.	Either change the arrow direction or explain the diagram more fully - particularly the arrow directions.	see 537
540	Ordnance Survey	LMO	34	5.3.2	Figure 11	T	It is not clear from the figure where the on-the-fly transformation(s) should happen - user/application, INSPIRE service or data holder end.	Please provide clarity as to where these transformation services need to be developed and be located.	Transformation is in the responsibility of the Member State. INSPIRE specifies the interface. The download service provides the functionality. The transformation is in the responsibility of the Member State, which is responsible and free to choose the transformation method (on-the-fly or other). It is important to consider the Network Services IR regarding this subject. / JRC: The figure and the associated section has been removed in D2.6 version-3.0.
541	Institut Géographique	LMO	119	5.3.2	Figure 11	T	The "transformation" does not appear on the figure. Where does it	Show where the Inspire Transformation takes place	see 540

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	National						take place?		
542	ESB Working group on INSPIRE Implementation	SDIC	3	5,3,2	Figure 11	T	The figure is not appropriate and I don't understand the concept		see 537
543	Ordnance Survey	LMO	35	5.3.2	Figure 11	T	There may be an accuracy versus 'time taken to carry out a coordinate transformation' trade-off for large datasets which will need to be considered.	Emphasise the time versus accuracy trade-off with an on-the-fly coordinate transformation service	see 529
544	Institut Géographique National	LMO	120	5.3.3	all §	G	The paragraph doesn't take into account the following issue: what is to be done when there are different evolution rates for the internal specifications (bound to change over time) and the Inspire specifications (also bound to change)	Provide a few guidelines as to how to take into account the different evolution rates for internal specifications and Inspire specifications	see 529
545	Met Office	LMO	MO_29	5.3.3	figure 12	T	Fig 12 "Conversion" arrow is inconsistent with the rest.	Either change the arrow direction or explain the diagram more fully - particularly the arrow directions.	see 537
546	EA - Environment Agency for England and Wales	SDIC	18	5.3.3	Figure 12	T	As for Figure 11, the arrows are confusing as they indicate the flow of data from the Users to the Repositories, and not the other way. The arrow through the Conversion box, however, is shown correctly, with the data flowing into the Secondary Data Repository.	Clarify or amend the arrows in the diagram.	see 537
547	AGI - Association for Geographic Information	SDIC	30	5.3.3	Figure 12	T	As for Figure 11, the arrows are confusing as they indicate the flow of data from the Users to the Repositories, and not the other way. The arrow through the Conversion box, however, is shown correctly, with the data flowing into the Secondary Data Repository.	Clarify or amend the arrows in the diagram.	duplicate comment, see 546 and 537
548	Department for Environment, Food and Rural Affairs (Defra)	LMO	32	5.3.3		T	This section needs to address how these more complex types of conversion will be achieved through network services (as per previous definitions of harmonisation). Data providers will want to know whether it will be their responsibility to do this or would this be achieved		see 540

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							through a third party? This would have to be evaluated during the gap analysis and testing phases.		
549	Department for Environment, Food and Rural Affairs (Defra)	LMO	31	5.3.3		T	This section needs to address the use cases where a data provider may be required to alter their dataset in to allow conformance to the INSPIRE harmonised data specification (e.g. geo-processing algorithms needed: generalisation, creation of centrelines, etc)		Ap. Add clarification that the conversion to a derived dataset is about automated process as well.
550	Department for Environment, Food and Rural Affairs (Defra)	LMO	30	5.3.3		T	This section needs to be made more clear to allow readers to better understand what generic use case is being described as this doesn't seem to fit easily with many data providers issues in UK. Don't understand the need for a secondary data repository.	Section needs slight revision to allow readers to more easily understand this section.	A. Add motivation for the two typical patterns to the overview
551	OMSz - Hungarian Meteorological Service	LMO	8	5.3.3.	last para	Q	This is good that the potential complexity and difficulty of the conversion is stated here.	Will any document on analysis of the INSPIRE implementation process deal with such difficult issues?	The TWG need to take into account the complexity and difficulty when creating their data specifications, and they need to explain their harmonisation approach in terms of feasibility and benefits/costs. (in the supporting documentation)
552	ESB Working group on INSPIRE Implementation	SDIC	4	5,3,3	last paragraph	Q	What is the Secondary Data Repository?	It is not explained anywhere. Is it a TEMPORARY file?	!!! see 550
553	LMV - Lantmateriet, National Land Survey of Sweden	SDIC	20	5.3.4	word missing	E	"The results shall then used to improve the data specification", "be" is missing.	Change to "The results shall then be used to improve the data specification"	A
554	Met Office	LMO	MO_31	5.3.4	para 2	E	verb missing	"then be used"	A
555	Institut Géographique National	LMO	121	5.3.4	2nd paragraph	E	"be" is missing	add "be"	A
556	Ordnance Survey	LMO	10	5.3.4	First bullet point following "In a successful test"	E	Earlier in the paragraph it is stated that "a representative set" is used. The current phrase "the spatial data from the member states" suggests that data from all 27 countries is tested.	Replace "from the member states" with "from the member states participating in this test".	A

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557	Institut Géographique National	LMO	123	5.3.4		E	the result shall then be used	add "be"	A
558	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	21	5.3.4	third "successful test"	G	If "seamless" is understood as a requirement for the integration of data instances, then the third test is about harmonisation of data instances, which is not within the scope of this document.		NA. Testing the data specifications is part of the methodology.
559	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	22	5.3.4.	fourth "successful test"	G	The test for an application to fulfill the use case is not within the scope of the data specification.		NA. Testing the data specifications is part of the methodology.
560	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	37	5.3.4	paragraph 4	T	accessing data implies the operations that can be supported by the data product. This is inadequately covered in this methodology or the GCM, to the extent that the need to identify what operations can be performed is crucial for testing, but not covered until this point. For example, the extent to which feature relationships can be traversed - e.g. find countries that contain catchment of River Oder.	Insert a section (earlier) on the relationship between the Application Schema and the operations that can be performed.	Ap. We will add a comment to the testing that it needs the whole INSPIRE Infrastructure including Metadata and Network Services.
561	Royal Netherlands Meteorological Institute (KNMI)	LMO	9	5.3.4	complete chapter	T	Testing will be a very important, especially when integration of services on this scale is involved. Please add more information on how this is foreseen and who will be responsible and who has which role. The testing at all levels should be explicitly mentioned, the documents which form the test acceptance basis should be mentioned. Please use and refer to international testing standards (IEEE, ISTQB/IESEB)	Add more information on how testing will be implemented	R to CT / JRC: Testing will start when the first draft of the theme specification is delivered. (September 2008). One of the aim of the testing process is to measure how the specifications work in other use cases than that selected for the specification development process.
562	Institut Géographique National	LMO	122	5.3.4	2nd list, 1st item	T	"the draft INSPIRE data specifications" : what is this? Is it planned that only draft specification	Make it clear what the "draft INSPIRE data specifications" are, or suppress it.	NA. The INSPIRE Work Programme refers to the deliverables from Drafting Teams as 'Draft IR' until

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							will be ready at testing time?		v3.0 which is presented to the INSPIRE Committee. We apply this terminology on data specifications because these deliverables are IRs. Testing should happen before voting in the Committee.
563	BRGM	LMO	37	5.3.4	paragraph 4	T	accessing data implies the operations that can be supported by the data product. This is inadequately covered in this methodology or the GCM, to the extent that the need to identify what operations can be performed is crucial for testing, but not covered until this point. For example, the extent to which feature relationships can be traversed - e.g. find countries that contain catchment of River Oder.	Insert a section (earlier) on the relationship between the Application Schema and the operations that can be performed.	duplicate comment, see 560
564	Met Office	LMO	MO_30	5.3.4	all	Q	Are you ruling out test-driven development?	Perhaps emphasise at the beginning that testing is iterative and that testing is use-case dependent and is intended to prove compliance with the use-case.	see 5.4.5. for testing of INSPIRE data specifications
565	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	20	5.3.4		Q	The test described is a test for the specification of a data model based on a use case analysis - Can this be applied to a thematic application schema, which does not belong to one use case?		R to CT, as testing is performed under the responsibility of the CT., At the comment resolution workshop, The SDIC explained that it expects difficulties when use cases cover two and more themes. In this case all specifications for the themes need to be available before the testing can start / JRC: See reply to comment no. 561.
566	ESB Working group on INSPIRE Implementation	SDIC	5	5,3,4	last paragraph, Bullet 3	Q	Can you explain better the single data set?	Will be an intergrated product? A joined database?...etc?	!!!
567	Ordnance Survey	LMO	9	5.3.4	First paragraph	Q	Where does the testing resource come from? Is the testing part of the work of the TWG or does it happen after/outside the TWG. The skills and resources are different from the current call for experts for the TWGs. Testing is very important to	Clarify how the specification is tested.	see 565

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							produce a usable result. The questions are partly answered by 5.4.2 and 5.4.5 though it is not detailed how the Commission will test the specifications under real world conditions.		
568	Geonovum	LMO	29	5.4 & E		G	According to the Directive (7.1) "relevant user requirements and Cost benefit analysis should be taken into account". Annex E is the place where one would expect (harmonised) methods / methodology for that purpose. According to 5.1.2.2 "the use case describes the user requirement". That is however meagre. Contrary to "international standards " for these aspects or components deserve special treatment and are generally location specific. Moreover 5.4.3 is not specific about what means "taking into account". Probably for each data product / set a list of user requirements could be established and not made available beforehand.	Inclusion of user requirements and cost-benefit derives to be added as an INSPIRE principle (component A) and requirement 2 derives reconsideration.	Ap, no action necessary. The Drafting Team can not modify the INSPIRE principles. However, the INSPIRE Directive already recognises the role of user requirements. The tasks of user requirement survey and cost/benefit study have been assigned to the CT and will not be described in D2.6. The TWG shall analyse and amend the user requirements presented by the CT, as described in requirement 2.
569	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	38	5.4	section	G	Cross domain references and use of common patterns is not contemplated, but will be important for efficiency of process, successfully modelling some domains and semantic harmonisation required to integrate data across domains.	Identify cross-domain harmonisation strategy	Ap. This is addressed in 5.4.4 (requirement 4) , and more detailed in 6.2. See also D2.5
570	BRGM	LMO	38	5.4	section	G	Cross domain references and use of common patterns is not contemplated, but will be important for efficiency of process, successfully modelling some domains and semantic harmonisation required to integrate data across domains.	Identify cross-domain harmonisation strategy	duplicate comment, see 569
571	Department for Environment, Food and Rural Affairs (Defra)	LMO	34	5.4		T	This section does not adequately explain how the user requirements will be generated. SDICs and LMOs submit reference material and	clarify how user requirements will be generated to support all 3 scenarios	NA. Collecting user requirements is a task of the CT which will not be described in D2.6

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							candidate data specifications to contribute to the development and analysis steps but they don't appear to be involved in generating user requirements		
572	Department for Environment, Food and Rural Affairs (Defra)	LMO	33	5.4		T	This section needs to come earlier in section 5 preferably before the detailed description of what is required in each step as this describes who needs to be involved in the various steps.	Move to section 5.1.2	Ap - --> 5.3
573	LMV - Lantmateriet, National Land Survey of Sweden	SDIC	17	5.4.1 / 5.4.3		E	TWG - ambiguous meaning. It is sometimes referred to as "Technical Working Group"	Change to "Thematic ... "throughout the text.	A
574	Institut Géographique National	LMO	128	5.4.1	entry #1 in list	E	"In case when" cannot be understood	Rewrite	Ap, R to CT. The case when user requirements can not be provided to the TWG needs more advice from the CT. Sentence will be removed. / JRC: A.
575	Met Office	LMO	MO_34	5.4.1	all	G	If the IRs result in a static Dspec which cannot be implemented, then conforming to the IR will require kludges. Such work will negate true interoperability which also benefits the data providers..	A statement on the data specification update process through detailed changes or high level modification to the IRs is required.	R to CT. see also comments 577, 634, 638, 641, 669. The development procedure includes one cycle of testing (see 5.4.5.4) which may result in an improved version by the TWG, while the maintenance of INSPIRE IRs after adoption by the Committee is an open issue (see 5.4.6). There will be a CT activity on the maintenance issue. DT DS accepts to explain the issue in D2.6 but we cannot provide a solution. The CT is also addressing the boundary between an IR and a guidance document in INSPIRE. / JRC: After the adoption of the IRs, the maintenance procedure will be the responsibility of the Commission and it will be done with the participation of the stakeholders.
576	Met Office	LMO	MO_32	5.4.1	all	G	our legal team express extreme doubt that this can work legally. In the UK the responsible is waiting for	The decision to delay IRs to TWG development should be revisited.	R to CT. The current process has been the plan from the beginning of the IR process (see WP).

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							the IRs to be complete before transposition can occur. We understand that the legal opinion is that the Directive is "too vague" to translate into law. The work programme and assigning the tasks to generate specialised data specifications by the TWGs will cause havoc with timescales.		
577	Met Office	LMO	MO_33	5.4.1	last para	G	Translating a stable data specification into a formal Implementing Rule - (and then to 27 languages) requires that the specification is static - or that mutable detail is NOT included. Specifications are live things in the Met Community. We had ~ 200 data specification changes last year. How will the INSPIRE process ensure prompt updating of data specification changes through the IR process? We point out that WMO has 4 base languages and after experience with specification changes over 50 years we ONLY write our standards in English.	A statement on the data specification update process through detailed changes or high level modification to the IRs is required.	R to CT, see comment 575. While we accept that specifications needs updating to follow the progress in technology and procedures, we do not see that the high frequency in the Met community applies the INSPIRE IRs. The IRs shall be based on the GI requirements from existing European laws. That laws should be stable. Furthermore, with the need to implement INSPIRE specifications in all Member States the IR should be as generic as possible. / JRC: See reply to comment no. 575.
578	Institut Géographique National	LMO	124	5.4.1		G	The document may be confusing as responsibilities are defined in different places of the document and as there are sometimes contradictions.	At the beginning of chapter 5.4, define the (main) responsibilities for each step in the data specification development. Define clearly the scope of TWG	NA. For proper definition of responsibilities, refer to the ToR and the work programme. The tasks will be split between TWG, CT , DT DS and projects. Many issues are not settled in every detail yet.
579	LMV - Lantmateriet, National Land Survey of Sweden	SDIC	22	5.4.1		T	It is not specified how to proceed when there are more than one data specification for a theme.	If there are a several "agreed data specifications" in Europe, try then to find the lowest common denominator. The second step is to find easily transformed data into common features without deformation.	NA. That situation has been discussed. The DT DS is concerned that a "least common denominator" approach might not always satisfy user requirements which stem from European legislation such as WFD. We leave it to the TWG to propose a feasible solution in case of conflicts, based on the methodology described in this document.
580	LMV - Lantmateriet, National Land Survey of	SDIC	21	5.4.1 / 5.4.3		T	To much focus on existing specifications	The focus should be on end user requirements, communities "agreed data specifications" has often focus on "what we have" requirements.	NA - The stepwise methodology which is described in D2.6 starts from user requirements. The requirement analysis according to

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	Sweden							There are a lot of new wide fields of applications. The suggestion is not against article 4(2), the recommendation increase the future utilities for geospatial information. The requirement analyses according to clause 5.1.2 should be included.	5.1.2 has been proposed to the CT as a model for this first step in the process. Furthermore, INSPIRE is about existing data, not about capture of new data.
581	Institut Géographique National	LMO	125	5.4.1	5th paragraph Bullet 1	T	" the TWG are in charge to develop an appropriate use case". There may be several use cases for one theme.	Replace by "the TWG are in charge to develop appropriate use case(s)".	Ap - sentence removed, see #574
582	Institut Géographique National	LMO	126	5.4.1	Requirement 1	T	Might be useful to list the deliverables expected from TWG.	List the deliverables expected from TWG	R to CT. This list shall be part of the ToR for the TWGs. See detailed description of steps / JRC: The main deliverable of the TWG is the data specification of the theme. In addition, the main steps of the development process should be documented: analysis of user requirements and the reference material, the use case behind the specification process, and the processing the comments received from the SDICs and LMOs. Further documentation that helps to understand the choices between different alternatives, guidelines for implementations, etc are welcome and will be published together with the draft data specifications.
583	Institut Géographique National	LMO	127	5.4.1	p 41 First sentence	T	Why is the document "Methodology to develop data specifications" not included ? It is part of INSPIRE expertise.	Include the document "Methodology to develop data specifications"	A
584	Flemish government - Environment, Nature and Energy Department - Land and Soil Protection, Subsoil, and Natural Resources	LMO	12	5.4.1	paragraph 3	Q	We think that in case of geology (including aquifers), soil, ... (all the themes that are covered by DOV in Flanders-Belgium) scenario 2 will be applied. We support such a choice. However, is it possible to be more clear about the timing that will be followed by the drafting team for the drafting of the data specifications of those themes so that we can prepare useful and clear input? (M.		R to CT. The exact timeline for Annex II and III has not been decided yet / JRC: Generally specification of Annex II and III will follow specification of Annex I. It will start after May 2009. However new European initiatives may require anticipated start of specification development. SDICs/LMOs will be notified in due time so that they can consider their participation.

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	Division						Van Damme)		
585	National Survey and Cadastre, Denmark	LMO	KMS-24	5.4.2	Paragraph 2 bullet 2	E	OpenGis has received a new name	Replace OpenGIS with Open Geospatial Consortium	AwM, use 'OGC'
586	Ordnance Survey	LMO	11	5.4.2	Second bullet point	E	Modify sentence to improve understanding.	Clarify meaning of "service interface"	A. replace with 'network services', which is a common INSPIRE term
587	Flemish government - Environment, Nature and Energy Department - Land and Soil Protection, Subsoil, and Natural Resources Division	LMO	5	5.4.2	Figure 12	E	the quality of the figure is not good - text is not readable	provide image in better quality	NA. quality of figure 12 is perfect in our pdf copy.
588	Lenkungsgrremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	46	5.4.2	page 40 ff	G	It is not clear if the use-cases have already been developed or if this is a task that still has to be done by the Thematic Working Groups.	Please describe the process of developing use-cases in a general way or reference to an existing description.	NA. It is task of the CT to provide the Technical Working Group with an initial list of user requirements (see 5.4.3). The method will not be prescribed in D2.6
589	Ordnance Survey	LMO	12	5.4.2	Paragraph starting with "According to the terms..."	T	The TWGs will comprise 3 roles: domain experts, facilitators and editors. GI and modelling expertise is highlighted as very relevant earlier in 5.4.2. Should GI and information modelling expertise form a fourth role in a TWG?	State that "GI information modelling experts" need to be present in the TWGs as part of one of the existing roles or as a dedicated role in its own right.	NA, out-of-scope for D2.6, see ToR. The ToR states that the three roles 'domain experts', 'facilitator' and 'editor' have to cover all the areas of expertise listed in D2.6, including the GI modelling expertise.
590	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	23	5.4.2.	INSPIRE expertise	Q	Is there additional "INSPIRE expertise" apart from what is in the INSPIRE Drafting Team documents?	Clarify	Yes - for instance the experience from the many discussions where the Drafting Team documents present the conclusions, but do not describe all options that were considered.
591	Department for Environment, Food and Rural Affairs (Defra)	LMO	37	5.4.3		E	It would be better to have all the subclauses where recommendations and requirements are stated all in the same section		NA. We have considered this option, but as we think that the context is important to understand the recommendations and requirements

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									we leave it as it is.
592	Department for Environment, Food and Rural Affairs (Defra)	LMO	39	5.4.3	para after req 4	E	remove "for"	In case of conflicts the DT DS and TWG will seek solutions.....	A
593	Department for Environment, Food and Rural Affairs (Defra)	LMO	38	5.4.3	Requirement 4	E	remove comma between D2.6 6.2.2	D2.6 6.2.2	A
594	Department for Environment, Food and Rural Affairs (Defra)	LMO	35	5.4.3.		E	This section or information in this section needs to be explained earlier as it answers comment 34.	move section	NA. The structure of chapter 5.4 reflects the sequence of the step-wise procedure from chapter 5.1, moving the section would disturb the sequence.
595	Institut Géographique National	LMO	130	5.4.3	p 42 NOTE	E/T	"the data product specifications comprise the metadata for use" From this sentence, I understand that the DPS includes (contains a chapter about) metadata for use. From 6.3.7, I understand that metadata for use includes the DPS	Find a better wording. Might be more clear if replacing "comprise" by "constitute"?	AwM. amend sentence: ...metadata for use together with the metadata for evaluation.
596	Federaal Platform voor Geo-Informatie / Plate-forme Fédérale de l'Information Géographique	SDIC	1	5.4.3.	Recommendation 1	E, T	Missing: - the data accuracy (it's not the same as the data quality)	Adding: - the data accuracy	NA. According to ISO 19100 we consider accuracy (positional, temporal,...) an element of data quality
597	General Administration of Patrimonial Documentation	LMO	1	5.4.3.	Recommendation 1	E, T	Missing: - the data accuracy (it's not the same as the data quality)	Adding: - the data accuracy	duplicate comment, see 596
598	Met Office	LMO	MO_35	5.4.3	Req 2	G	Surely TWGs cannot reject URs, they can recommend rejection.	change to "They may recommend rejection of user requirements with justification"	A
599	Met Office	LMO	MO_36	5.4.3	Req 3	G	This illustrates that the TWG is an expansion of the DTs. This is a huge expansion of the task. What about experts costs? Clarification is needed on the routes to seek change through the TWGs for each theme, how to maintain consistency and how the general problem can be modified.	The role of the TWGs and its relationship to the DT and CT is not sufficiently clear. There are no statements about costs or timescales and the expected commitment of SDICs	NA, out-of-scope for D2.6. This issue is addressed in the INSPIRE Work Programme 2007-2009
600	LMV -	SDIC	23	5.4.3		T	A recommendation or a	Add a recommendation or a	No action necessary. ISO 19131

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	Lantmateriet, National Land Survey of Sweden				Recommend ation 1		requirement to give a detailed definition or description of all features/concepts, attributes and all their values in the value tables is missing.	requirement to give a detailed definition or description of all features/concepts, attributes and all their values in the value tables. It's a risk even within a language for misunderstandings. A real analysis of concepts makes the user requirements talk the same language. (Experiences from EuroRoadS and standardisation work in Sweden)	already requires the TWG to provide definitions for features, attributes and values.
601	LMV - Lantmateriet, National Land Survey of Sweden	SDIC	24	5.4.3	List of sources	T	The requirements derived from use cases according to 5.1.2.2 are missing.	Add the requirements.	JRC: The list of sources basically covers the use cases.
602	Department for Environment, Food and Rural Affairs (Defra)	LMO	36	5.4.3		T	Will EIONET also be involved in the creation of the user requirements?	Include EIONET?	R to CT. DT DS supports the proposal to include EIONET. / JRC: EIONET has been/is being encouraged to participate in the user requirement survey
603	Institut Géographique National	LMO	131	5.4.3	Paragraph after requirement 3	T	"The analysis of user requirements should result in defining the typical use cases" I understood it should be the other way (from the spiral in 5.1.1)	Rephrase to make it consistent with 5.1.1	A
604	Flemish government - Environment, Nature and Energy Department - Land and Soil Protection, Subsoil, and Natural Resources Division	LMO	6	5.4.3	paragraph 5	T	Not clear what you mean here.	Clarify the meaning of 'aaa'	?? Could not find aaa in section 5.4.3. For the German 'AAA'-model which is mentioned in the Annex, see list of abbreviations.
605	ESB Working group on INSPIRE Implementation	SDIC	6	5,4,3	Last Paragrph	T	The bullet list may be incomplete	Add Scientific Networks (for Example European Soil Bureau Network) or inputs from various Working Groups established for technical themes	NA. Such groups should register as SDICs and LMOs to be recognised by INSPIRE, or act via registered SDICs / LMOs
606	National Survey and Cadastre,	LMO	KMS-25	5.4.3	Recommend	Q	What is the practical implication of this statement? - Is it a new task for		The DT Metadata has forwarded this task (specification of metadata for

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	Denmark				ation 1, bullet point no 7		the metadata DT, because there has not been defined metadata for evaluation.		evaluation) to the TWGs
607	Institut Géographique National	LMO	129	5.4.3	btw requirement 3 and recommandation 3	Q	"The TWG shall deliver...". Is that a requirement?	add this requirement in formal "Requirement 1"	AwM. The sentence will be removed, it is adressed already implicit in requirement 2
608	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	24	5.4.4.	Requirement 4	E	It is not useful to formulate a requirement based on an explanation (the consolidated UML Model), which is not yet is available.	Move or even drop the requirement	NA, see 616. The consolidated UML model will be developed in parallel with the theme specifications. It is composed from the theme-specific models. In practise, new entries to the consolidated model will be checked for compliance with the parts that already exist in the consolidated model, which may result in changes to the new entries as well as existing elements.
609	Institut Géographique National	LMO	137	5.4.4	last sentence	E	"styled into a human-readable form" : such as ?	Provide an example (dictionary ? Codex?)	A. Add example: 'text in pdf file'
610	Institut Géographique National	LMO	136	5.4.4	NOTE	E	The note cannot be understood. One cannot understand whether "the approach", "this approach" "this methodology" refers to the ISO general view or to the Inspire decision.	Rewrite to make distinctions between ISO and Inspire views clearer	A. 'This approach' and 'the approach' refers to ISO 19110. We can replace 'approach'by 'ISO 19110 approach' to make it clear.
611	United Kingdom Hydrographic Office	LMO	10	5.4.4		G	Here, as often, there is a single application schema per theme. I'm sure this was discussed at the D2.5 Comment Resolution Workshop, with the conclusion that it isn't necessarily the case; however, the I can't see that in the minutes of that meeting.		There might be different sub-packages within a theme, but they have to fit into a seamless schema for the theme, and into the consolidated UML model which constitutes a seamless cross-theme schema for INSPIRE.
612	EA - Environment Agency for England and Wales	SDIC	19	5.4.4		T	A feature catalogue should be prepared for each schema, rather than assuming it will be automatically derived.	Do not suggest automatic derivation of feature catalogue.	NA. For clarification: The feature catalogue will be prepared for each theme as part of the application schema in UML. A separate feature catalogue in text format (pdf, MS Word, ..) will be derived automatically from the application schema in UML.

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613	Met Office	LMO	MO_37	5.4.4	1st para below bullets	T	Feature catalogues are specifically a geographic concept. WMO has a well developed set of tables defining what is essentially a FC (~ 5 thousand simple and complex features components), but it is not in such a form, and needs work to develop into. Other themes will be less well developed and require work to create a FC. This para assumes FCs are complete and no work will be done.	Must explain how App Schemas will be developed If Feature Catalogues do not exist.	If Feature Catalogues do not exist, then an initial list of spatial object types may be derived from the analysis of user requirements. There is a hint in the description of the step-wise procedure in chapter 5.1, but we can not prescribe a generic method that applies to all themes (and preconditions).
614	Department for Environment, Food and Rural Affairs (Defra)	LMO	40	5.4.4		T	It has never been stated anywhere clearly whether the Implementing Rules for Harmonised Data Specifications will be a single Implementing Rule or whether it will be made up of a set of Implementing Rules one for each theme?	Clarify how the Implementing Rule for Data Specifications is to be formed. Is the Implementing Rule for Data Specifications to be a document explaining the generic requirements for conformance across all themes with each of the draft data specifications containing the detailed requirements (mandatory and optional) as it is not entirely transparent or is each data specification to be deemed an individual implementing rule as I would imagine that data specifications for different themes will come into force at different times as they will have different timescales for development depending on the maturity of the user requirements	R to CT. The Directive requires one Implementing Rule for each theme. This Methodology for data specifications proposes the concept of a consolidated UML model to harmonise the specifications for the individual themes. It is not defined yet how the data specification IR will look like after the legal services of EC have transformed the proposal from the TWGs into legal text. The Implementing rule might be very short referring to another normative document e.g. CEN. There is an open issue: Once the IR for Annex I are adopted it will be difficult to modify them if we discover conflicts with upcoming specifications for Annex II and III. / JRC: see 575
615	United Kingdom Hydrographic Office	LMO	11	5.4.4		T	This states that there will (may) not be an explicit Feature Catalogue (or that it is automatically generated from the Application Schema). D2.5 contains a lot about Feature Catalogues - which document takes the lead?	Ensure consistency between D2.5 & D2.6 on the role of Feature Catalogues	No conflict. The Feature Catalogue is derived from the Application Schema. All requirements concerning Feature Catalogue have to be met by the parts of application schema (in UML) where the feature catalogue (in text format such as pdf or MS-Word) is derived from.
616	Institut Géographique National	LMO	133	5.4.4	Requirement 4	T	"the theme specification shall fit in the consolidated UML model ..." What do you mean by "shall fit"?	Give further explanations and/or examples to explicit the concept.	Ap. The open issues in governance and maintenance of consolidated models, registries and data specifications need to be highlighted to the TWGs, while at the time the TWGs start their work the document

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									D2.6 may only contain placeholders for the procedures. See also D2.5.
617	Institut Géographique National	LMO	135	5.4.4	Last paragraph	T	A tool will probably be required to produce "well-defined machine-readable" feature catalogues	Such a tool should be recommended in Annex G	R to CT. Tooling remains on open issue, / JRC: See #264.
618	Institut Géographique National	LMO	132	5.4.4	all	T	difference of use between "feature catalogue" and "feature concept dictionary" unclear	Explain why both the dictionary and catalogues are necessary. Maybe an example ? What if a conflict occurs ?	A Feature catalogue includes binding of attributes to feature types (thus referring to a specific spatial resolution and area of application), while the feature concept dictionary simply lists and defines the feature types and attribute types. Both concepts are required in INSPIRE - feature concept dictionary at the generic cross-theme level where the semantics are defined, feature catalogue at the level of applications and exchange of data. The feature concept dictionary shall be compliant with the consolidated UML model, the feature catalogue will be derived from the UML model. See D2.5.
619	Institut Géographique National	LMO	134	5.4.4	4th paragraph	Q	"It is the responsibility...". Is that a requirement?	add a requirement for this sentence	NA. this requirement is addressed by 'Requirement 4'
620	Institut Géographique National	LMO	138	5.4.5	Recommendation 3	T	There is some inconsistency about bullet 4 (assessment of efforts and costs): - whereas the third first bullets are developed in a sub-clause having their name (as-it analysis, gap analysis, harmonisation approach), the fourth sub-clause is about test and validation ; of course, assessment of costs may be done through test but it is not exactly the same - last sentence in 5.4.5.4 says that cost and benefits assessment is under Commission responsibility	Delete fourth bullet about assessment of costs and efforts, if appropriate. If not, some guidelines should be given on this topic.	AwM, add a clarification that Cost & benefit study is a CT task. But kept in the list as this is an important step.
621	Met Office	LMO	MO_38	5.4.5	3rd para	Q	This is very late in the process to do a CBA, or is the final CBA in the spiral the CT CBA? This section promises more delay.		JRC: Information needed for the cost benefit considerations will be collected on a permanent basis from the MS contact points and

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									stakeholders.
622	Institut Géographique National	LMO	140	5.4.5.1	NOTE	E	MS (member State I guess) is not in the list of abbreviations	add MS in the list of abbreviations	A
623	Institut Géographique National	LMO	139	5.4.5.1	Requirement 5 and NOTE	T	The req. 5 is limited to reference material submitted (the submission is closed for annex I) and the NOTE proposes to select representative MS. It is not consistent with 5.1.2.4 where the requirement is higher : "analysing the information in each member state". And how to deal with data not sufficiently documented (as mentioned in 5.1.2.4)?	Transform the last sentence of 5.4.5.1 as a recommendation to be sure to have a good as-is analysis.	NA. The obligation to analyse documents is restricted to the reference material which has been submitted by SDICs and LMOs via the official channels in time. It is at the discretion of the TWG to request additional material from countries which they find are not properly documented. But we can not expect from the TWGs to be proactive and assess the situation in those Member States which have not yet reacted on the calls from INSPIRE. Countries which find out that they have not submitted sufficient reference material can comment on the draft specifications during the review by SDICs and LMOs.
624	Institut Géographique National	LMO	142	5.4.5.2	Second paragraph	T	"It should be possible to extract information from the sources by automatic services..." Some issues (e.g. edge-matching) may require human decision.	Moderate the sentence, e.g. by adding "in most cases"	A
625	Institut Géographique National	LMO	141	5.4.5.2	last paragraph	Q	"The TWG shall document...". Is that a requirement?	add a requirement for this sentence	A
626	EA - Environment Agency for England and Wales	SDIC	21	5.4.5.3	Requirement 6	E	For a mandatory requirement, the term "shall consider" is not strong enough. It implies that the TWG must look at the recitals and articles, but does not have to do what they say.	Replace "consider" with a stronger term, perhaps "acknowledge" or "respect".	A
627	AGI - Association for Geographic Information	SDIC	31	5.4.5.3	Requirement 6	E	For a mandatory requirement, the term "shall consider" is not strong enough. It implies that the TWG must look at the recitals and articles, but does not have to do what they say.	Replace "consider" with a stronger term, perhaps "acknowledge" or "respect".	duplicate comment, see 626
628	EA - Environment	SDIC	20	5.4.5.3	Requirement 6	G	Recital 16 - "implementing rules shall not result in excessive costs"	As a potential data provider we still have no clear direction on whether	Actually INSPIRE assumes that services are provided by the existing

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	Agency for England and Wales						and Article 7(3) - "Spatial datasets shall be made available in conformity with implementing rules". These still seem to be contradictory. The integration, whether through services or data restructure, will be very, very expensive.	we should expect to do a great deal of work on integration and standardisation or not. All Inspire specifications suggest so, yet Recital 16 promises no excessive costs. Is this actually possible?	or emerging national spatial data infrastructures, while restructuring of data should be avoided if this puts excessive costs on the data producer. A very sensible issue nevertheless, as we have to find a balance between costs and the requirements.
629	Institut Géographique National	LMO	143	5.4.5.3	Requirement 6 and 7	T	It is a good idea to remind these articles from the Directive but I do not think they may be requirements for TWG. It extends too much the TWG responsibility. For instance, how will it be possible to check if the TWG work (mainly DPS) is conform to these requirements ?	Keep it as guidance principles, not as requirements.	NA with Modifications. If these fundamental INSPIRE principles are downgraded to recommendations, few other issues would qualify as requirement. It is true that conformance can not be checked easily, but TWGs should at least proof that they have considered the principles for their decisions on the harmonisation approach. These decisions should be based on the reference material but do not require an inventory on the whole of Europe. For clarification, add to requirement 7: ... based on the results of the as-is analysis....
630	Department for Environment, Food and Rural Affairs (Defra)	LMO	41	5.4.6	bullet 4	E	add to	In order to support the goals of INSPIRE.....	A
631	Institut Géographique National	LMO	150	5.4.6		E	in order to support the goals...	add "to"	A
632	Integrated Administration and Control System (Common Agricultural Policy)	SDIC	9	5.4.6	paragraph 2	E	Tthe Directive and the EU legal framework specifies the procedure for adoption of new revisions of IR'	Please reference to particular article in INSPIRE Dir. or other legislative documents if exist.	R to CT / JRC: The paragraph will be changed. The procedure of the adoption of the revisions of IRs is not described in the Directive, but it will be defined in the cooperation with EC legal services.
633	Institut Géographique National	LMO	145	5.4.6		G	In my understanding, this chapter contains rather recommandations for CT than for future TWG.	To be said clearly.	A
634	Royal Netherlands Meteorological Institute (KNMI)	LMO	10	5.4.6 (also chapter 6)	4th paragraph	T	We consider the first bullet to be a high risk. The maintenance of the IR will be important and challenging, therefore clear procedures on how	Add more information on maintenance of the IR, especially describe the procedure on how to update the IRs.	R to CT, see 575 / JRC: See 575

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							changes are to be proposed, reviewed and implemented should be defined now and described or referred to in this paragraph.		
635	Institut Géographique National	LMO	148	5.4.6	4 th paragraph First bullet	T	<p>“establish a similar process”</p> <p>The process for adoption of IR is very heavy; I am not sure that any modification would require such a complex procedure (it may be just small changes).</p> <p>CT will probably have to distinguish 2 extreme cases :</p> <ul style="list-style-type: none"> - new specification are required (e.g. another level of detail or a sub-package for a specific application in case of a new Environmental Directive for instance) : in this case, a similar process is relevant - only small modifications are required (e.g. add an attribute or move it from optional to mandatory): in this case, a similar process is definitively too heavy , some questionnaire may be enough to solve the issue 	Make difference between cases.	R to CT / JRC: see 575
636	Institut Géographique National	LMO	146	5.4.6	3rd paragraph	T	It is a bit simplistic to say that the process for updating specs would be the same than the one for building them. There are some additionnal constraints, like preferring adding things rather than modifying existing things whenever possible.	modulate and reformulate this sentence 5.4.6 in general: new drafts, one on technical aspects, one on procedural aspects.	Ap. The process refers to the step-wise procedure as described in 5.1, which applies to updating of specification as well although the efforts invoked may be much less. However, the clause on maintaining data specifications will be modified, to reflect the discussions at the Comment Resolution Workshop. One of the issues to be highlighted is the separation between Implementing Rules and other normative content, which is a CT issue.
637	Ministère des transports, de l'équipement, du tourisme et de la mer	LMO	1	5.4.6	"A key aspect in this direction is the establishment of 19135 conformant	T	Lack of example	Please clarify by giving more precise examples - If there are already some examples in the annexes, point to them	Chapter on the maintenance of data specifications will need to be re-written, but with many open issues it will remain a placeholder for now.

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					registers...Rules that allows for changes of the registers without changing the Implement Rules"				
638	Institut Géographique National	LMO	149	5.4.6	4 th paragraph Second bullet	T	The advice seems wise, but : - how to distinguish "core" requirements and other aspects, as the DPS is rather exhaustive? - as the DPS is supposed to be the IR, it seems difficult to change only registers : if an attribute or a possible value of an attribute is added, it should appear in the DPS. If not, the DPS won't be really useful for users.	To be clarified	see 637
639	Institut Géographique National	LMO	144	5.4.6	Second paragraph	T	There is some contradiction between first part of the sentence "The Directive specifies procedures for revision" and the first bullet in paragraph 4 "limited to the first version of data specification IR"	If the first part is correct, quote the articles related to revision of IR. If not, correct it	see 637
640	Institut Géographique National	LMO	147	5.4.6	2nd bullet	Q	"As the adoption of..., it is recommended...". Is that a recommendation?	add a recommendation for this sentence	NA. this may be recommendation but not like the others highlighted in the text. It rather addresses general issues to be decided and handled by the CT
641	Met Office	LMO	MO_39	6_	all	G	Although the overview describes how the system will be set-up, and envisions changes in the formative stage, there is no real recognition of the maintenance task beyond the initial development. This is an open-ended process - especially across the many INSPIRE themes. WMO's experience is that this is a continuing and expensive process. WMO uses voluntary Member State effort and primary funding to doing this but has specific support funding for WMO Secretariat and T&S.	Please at least comment on how the DT and CT see the ongoing maintenance task. With WMO experience, we think that will be a significant cost to SDICs and LMOs as well as INSPIRE.	see 637

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642	Malta Environment and Planning Authority	LMO	1	6		G	Best practices from the National Mapping Agencies should be consulted in the implementation process. Refer to the guidelines on implementation the ISO 19100 quality standards in the NMCAs published by Eurogeographics. http://www.eurogeographics.org/eng/documents/Guidelines_ISO19100_Quality.pdf	Refer to the guideline in the implementation process.	Ap. The document has been submitted as official reference document. As such it will be considered by the TWGs, but we do not explicitly list reference material in D2.6
643	EuroGeographics - EuroGeographics	SDIC	1	6		G	Best practices from the NMCAs should be used in the implementation process. Eurogeographics has published a guidelines on implementation the ISO 19100 quality standards in the NMCAs. http://www.eurogeographics.org/eng/05_quality_reports.asp	Utilize or refer to the guideline in the implementation process.	Ap. The document has been submitted as official reference document. As such it will be considered by the TWGs, but we do not explicitly list reference material in D2.6
644	AGI - Association for Geographic Information	SDIC	32	6		G	The whole of this section is written as if this is a standard. This is in contradiction to that which is stated in the Foreword and Purpose of the document:" It is important to note that this document is not a draft Implementing Rule, but a document that is targeted to help in the process of developing harmonised data specifications that will eventually become the Implementing Rules (IR) It does not create direct obligations to the Member States."	If these are requirements in the GCM then this needs to be made clear - many appear to be so although reworded. Further, it needs to be made clear in this guidance that these requirements will need to be met.	The documents D2.5 and D2.6 are restructured, with several requirements from D2.6 moved to D2.5. We kkep only those requirementst and recommendations in D2.6 that describe the methodology. The requirements are adressed to the TWGs, not the Member States.
645	Institut Géographique National	LMO	151	6		G	shouldn't part 6 be before part 5 ?	describe the goal before the methodology to reach it.	NA. The goal is set by the Directive. D2.6 first describes a generic methodology to reach the goal, and then puts it in the INSPIRE context. Clause 6 is part of the latter.
646	Geonovum	LMO	30	6.1	Figure 13	E	Capitalization is not consequent and not in line with text		A. Names of specific registries to be written in capitals e.g. The INSPIRE Feature Concept Dictionary. Else: lower case - e.g. feature concept dictionaries according to the ISO 19100 series of standards.
647	HUMBOLDT -	SDIC	28	6.1.	Requirement	E	The feature catalogue register is		A. The description of the registers

DS D2.6 – Methodology for the development of data specifications: Comments and Resolutions Table (Comments are related to the D2.6 version 2.0)

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	HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration				12		not defined yet		and the overall specifications will be improved, and moved to D2.5
648	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	26	6.1.	Requirement 9	E	The feature concept dictionary is not defined yet (- in fact it would be good to have a more clear explanation/description of this later on)	Move or even drop the requirement	see 647
649	Geonovum	LMO	31	6.1		E	This overview clause does not give an overview of the chapter and the goal of the chapter is unclear to me. The overall procedure of the specification/harmonization process is unclear	(1) Add a paragraph above 6.1 with an overview and goal of the chapter (2) Rename 6.1 to 'Overview of the data specification' (3) Add a clause that describes the process	Ap. Comment taken into account as document was restructured
650	Met Office	LMO	MO_40	6.1_		G	A consolidated UML model for all the INSPIRE themes, either has to be simplified below the level of utility, or it is an attempt at a "Theory of Everything". Unless the consolidation is simplified in a way which references and is directed towards a more detailed data specification, then the concept is not understood here, and it will probably not be understandable as a whole. The maintenance task of maintaining such a Consolidated model also seems impossible.	Explain how levels of detail will be handled by the Consolidated model. Explain who will use it and how. Explain how it will be maintained - because this review team doesn't understand how from Chapter 6.	A. Better explanation of the consolidated model will be provided, in D2.5
651	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	25	6.1.	figure 13	G	The term "framework" can be misunderstood: the INSPIRE framework, or a software framework, or a national SDI framework ...		NA. The meaning of 'Framework' is obvious from the sentence below the figure.
652	Department for Environment, Food and Rural Affairs (Defra)	LMO	42	6.1	All requirements	T	All the requirements in this section should be moved into the relevant subclauses	Req 9 should move into subclause 6.2.3; Req 10 should move into 6.2.2; Req 11 should move into 6.2.1; Req 12 should move into 6.2.4 Req 13 should be split	A

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								between 6.2.5 and 6.2.6	
653	National Survey and Cadastre, Denmark	LMO	KMS-26	6.1	Requirement 11, paragraph 3	T	In order be able to import types that are managed outside the INSPIRE process there might be a need for some clear defined interfaces within the Generic Conceptual Model to allow this import	Define clear interfaces in the Generic Conceptual Model to allow import of types managed outside of the INSPIRE	this will be adressed in the revision of D2.5 / JRC: The UML repository in place at JRC stores the INSPIRE consolidated UML model. It allows for the referencing (and importing) of types defined outside the GCM (e.g., defined within ISO). Currently all ISO models are part of the INSPIRE consolidated UML model
654	Malta Environment and Planning Authority	LMO	2	6.1	Consolidated registers	T	Suggest there is a Quality Measure register included with the consolidated registers. This will allow for common quality measures and levels facilitating the comparison of quality levels across and between themes. This is necessary in judging fitness of use and is especially relevant to reference data in Annexes I & II.	Include a Quality Measure register for reference data in Annexes I & II.	Proposal will be considered in the process of data specification development, but INSPIRE should not be overloaded. / JRC: R to TWG
655	Stanli - Geographic Information Standards Initiative in Sweden	SDIC	4	6.1	Requirement 10	T	The wording is not entirely clear	Replace model with include, or something along those lines. Define what an application schema package is	A. replace 'model' with 'include'.
656	EuroGeographics - EuroGeographics	SDIC	2	6.1.	Consolidated registers	T	There is a need to use common quality measures among certain theme specifications. This will enable comparison of the quality conformance quality levels and results between themes. We would like to suggest to add a Common Quality measure register to the consolidated registers. More information about the reason why this in needed can be found from Eurogeographics position paper on quality. http://www.eurogeographics.org/eng/documents/jakobsson_tsoulos_ver3.doc	Add a common quality measure register that should be used in reference data themes (mainly Annexes 1 and 2). Add a new requirement that states: Every INSPIRE data specification shall propose quality measures for a common quality measure register.	R to TWG. Proposal may be considered, but INSPIRE should not be overloaded. / JRC: R to TWG
657	Institut Géographique National	LMO	156	6.1	Requirement 12	T	"shall create a feature catalogue" It is strongly recommended in 6.3.1 to create only one Feature	Add "at least"	A

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							Catalogue, where possible , but it might be not always possible. There may be several ones.		
658	Institut Géographique National	LMO	153	6.1	NOTE (after Requirement 10)	T	"This need to fit together ... to be incorporated in the consolidated UML model" What do you mean by "fit"?	Give further explanations and/or examples to explicit the concept.	See 637
659	Institut Géographique National	LMO	154	6.1	Requirement 11	T	The rules given in this requirement are not so clear. Might be useful to give some examples to explicit them.	Give some examples to make the rules more explicit.	See 637
660	Institut Géographique National	LMO	152	6.1	Requirement 11, 1st & second paragraphs	T	There is a risk here that in moving to the GCM types that seem to be common to several or many application schemas small differences (but important for the specific applications) will be erased.	Explain the methodology that will be used during the consolidation process to ensure that no damageable effects are introduced when specifications are moved from specific to generic models	see 637
661	British Geological Survey (Natural Environment Reseach Council)	LMO	1	6.1	Requirement 10	T	When, through BGS LMO, Clemens Portele received examples of the GeoSciML UML design for this document it became immediately apparent that the INSPIRE Generic Conceptual Model as currently understood requires internationally developed schemas like GeoSciML (promoted by the IUGS), which INSPIRE wishes to use, to redesign themselves to import elements of the 'regional' European context of the INSPIRE UML model. The GeoSciML Consortium believes this may be the wrong way round - a European model should import an internationally (wider) agreed model and an internationally agreed schema should not be asked to support a possible second 'regional' schema with the support costs that might entail. This fundamental issue of the design of the INSPIRE conceptual model needs to be discussed by Clemens with Simon Cox and Rob Atkinson who are both familiar with the top-level design issues relevant here.	Possible radical changes required to the INSPIRE Generic Conceptual Model	At the comment resolution workshop, Clemens Portele and Simon Cox discussed on the comment and agreed that a solution can be achieved. · DT DS has accepted to remove some requirements in GCM (such as abstract types) which might have been an issue for GeoSciML. ·

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662	Royal Netherlands Meteorological Institute (KNMI)	LMO	11	6.1	requirement 11	Q	Please provide a clarifying example explaining what is meant here. Our review team did not understand it.		see 659
663	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	27	6.1.	Requirement 11	Q	Term "Generic Conceptual Model" is used similar to "Consolidated UML Model"?	Use "Consolidated UML model"	See 647
664	Ministère des transports, de l'équipement, du tourisme et de la mer	LMO	28	6.1	Requirement 9	Q	A new data specification may induce some changes in an already existing one. How to manage data consistency with the old specification ?	Define some rules to help to manage the effects of specifications changes, or give examples, best practices, patterns ...	R to CT. open issue with specifications that are not developed in parallel timelines. e.g Annexes 2 and 3 that come years after Annex 1. / JRC: There are the following situations foreseen: 1) grouping of more than one data themes in a TWG, 2) enlarging the scope of a particular TWG and addition of experts to cover any missing expertise; 3) create in the UML model placeholders for packages coming from other TWGs.
665	Ministère des transports, de l'équipement, du tourisme et de la mer	LMO	29	6.1	Requirement 9	Q	A TWG may elaborate concepts which are not exactly an evolution or a clarification of already existing ones ; some incompatibilities or contradictions may appear. How to manage this kind of situation ? If an arbitrage is needed : who will take it ?	Define some rules to reconcile incompatible concepts, or give examples, best practices, patterns ...	The consolidated UML model will be developed in parallel with the theme specifications. It is composed from the theme-specific models. In practise, new entries to the consolidated model will be checked for compliance with the parts that already exist in the consolidated model, which may result in changes to the new entries as well as existing elements. / JRC: The consolidated UML model is composed of the theme specific models, the GCM, and ISO models.
666	Institut Géographique National	LMO	155	6.1	Req. 11	Q	I do not understand the requirement 11. I guess this is still because the difference between schema, catalogue, dictionary is still not clear for me at this point.		see 659
667	HUMBOLDT - HUMBOLDT-EU	SDIC	29	6.2.		G	The difference between Generic Conceptual Model and Consolidated		See 647

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	Project on Spatial Data Harmonisation and Service Integration						UML Model is not clear		
668	Met Office	LMO	MO_42	6.2.1	p48 2nd para below bullets	E	...if user requirements for changes will be identified	verb tense - "are"	A
669	Geonovum	LMO	32	6.2.1		G	The consolidated model will be huge. If TWGs are allowed to refer to features from different TWGs (eg. Waterbody points to Cadastral owner) maintenance of the model will be almost impossible. To overcome this problem there should be strict maintenance of which package refers to which other package.		Ap, rules and procedures to be introduced and tested as the development starts. This will come too late for D2.6
670	Met Office	LMO	MO_41	6.2.1	all	G	We think that the refactoring of the GCM described here is an area of high risk. In Project Management, refactoring of the basic design is always a high risk - high cost action. If an example does arise whereby the basic model needs augmented, then it may not be a simple task, and may require adopting the new example wholesale - which may require refactoring all specs based on the original. The alternative may be to adopt two solutions, which goes against the ethos of the GCM.	recognise risks inherent in modifying GCM.	Ap. the risk is recognised. But not allowing the updating of the GCM on experience from the Drafting process is an equal risk.
671	Institut Géographique National	LMO	157	6.2.1	list	G	the "spatial" and "temporal" issues are included in the framework, why not the "thematic" issues?	Explain why the thematic representation of objects across different level of detail or the thematic relationships between spatial objects are not included in the GCM, or include the word "thematic" in addition to "spatial" and "temporal"	spatial' and 'temporal' refers to the profiles in ISO19100. There is not yet a 'thematic' profile in ISO10100, as this is considered to be covered by feature catalogues/fetaure concept dictionaris.
672	Institut Géographique National	LMO	158	6.2.1	p 48 Third paragraph	T	"if user requirements for change will be identified" Might be confusing as "users" of GCM won't be the same as users of DPS.	Find a better wording.	NA. the term 'user requirements' refers to a step in the Data specifications development and is used throughout the document. It always refers to the users of DPS. Such user requirements may

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									become obvious during the drafting process and have an influence on the GCM.
673	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	39	6.2.1	paragraph 3	Q	How might changes/refinements be propagated to changes or more detail in the methodology?	Extend process to include update and review of methodology.	see 637
674	Geonovum	LMO	11	6.2.1		Q	It is stated that "It is expected that the Generic Conceptual Model will be updated during the Data Specification". How do you manage the influence of changes of the Generic Conceptual Model on the different themes. I can imagine that the work of one TWG will lead to a change in the GCM, and that this change will have effect on another TWG, how to manage this?		Ap. the risk is recognised. But not allowing the updating of the GCM on experience from the Drafting process is an equal or even bigger risk.
675	BRGM	LMO	39	6.2.1	paragraph 3	Q	How might changes/refinements be propagated to changes or more detail in the methodology?	Extend process to include update and review of methodology.	duplicate comment, see 673
676	National Survey and Cadastre, Denmark	LMO	KMS-28	6.2.2	Paragraph 8, the note	E	The note should be added to the list of bullet point (status) and the note can then be deleted here	Move the content of the note to the last bullet points and delete the note.	?
677	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	40	6.2.2	paragraph 2	G	Where does common patterns required for cross-domain harmonisation get managed?	Suggest that 4 parts are required, to include proven but non-mandatory implementation patterns. Alternative is to mandate specific cross-domain harmonisation patterns in an extended GCM	Common patterns may go into any of the three proposed parts, while the GCM is the most obvious candidate for cross-domain issues.
678	BRGM	LMO	40	6.2.2	paragraph 2	G	Where does common patterns required for cross-domain harmonisation get managed?	Suggest that 4 parts are required, to include proven but non-mandatory implementation patterns. Alternative is to mandate specific cross-domain harmonisation patterns in an extended GCM	duplicate comment, see 677
679	Department for Environment, Food and Rural Affairs (Defra)	LMO	43	6.2.2	Bullet list no. 2	T	Are these bullet points for the modelling of data specification status not a requirement	Make the modelling of data specification status a requirement	NA. As expressed in the note, the status is not yet mature enough to qualify for a requirement. However, this needs to be agreed as part of the maintenance procedure as soon as possible.
680	Geonovum	LMO	33	6.2.2		T	For deriving application schemas from the consolidated UML model two methods can be handled:	Make clear the advantages and disadvantages of these methods.	Ap, but this needs to be explained in the context of the approach proposed by the DT DS. We will

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							extending by subclass (inheriting) or extending by pattern (copying). Our experience is that using the method of inheriting the GML schemas for exchange will be very complex and unreadable.		start by having redundant copies. Common properties and patterns will be identified in the process, and moved to to the GCM or generic parts of the consolidated UML schema. Description of the approach will be provided in D2.5 and D2.6.
681	LMV - Lantmateriet, National Land Survey of Sweden	SDIC	25	6.2.2	Status of item	T	Lack of "rejected" as a status value	Add "Rejected" with definition: item decide not to be implemented. This value is needed when the same "user requirement" comes back. Some work will not be done again. We hope the specifikation will live a long life and will be maintained by or next generation.	Ap, but It is not decided yet if the rejected items of a data specification are kept in the UML model, or in the supporting textual description. We tend to the latter because this would allow us to add explanations and reasoning.
682	National Survey and Cadastre, Denmark	LMO	KMS-27	6.2.2	Paragraph 4	T	The list of bullet contains a number of possible status, but rejected does not seem to be an option. The DT should perhaps consider the possibility of having rejected. Another options that also is missing is superseded. This option might be handy to have in order to be able to keep track of changes in the model	Add and define the define the status condition rejected and superseded	see 682
683	Institut Géographique National	LMO	159	6.2.2	p 49 5 th paragraph Second bullet	T	What about the public review? As DPS will be IR, I guess everybody will be allowed to comment, not only SDIC/LMO.	Add the public review to be taken into account.	A
684	Institut Géographique National	LMO	161	6.2.2		T	what does "consolidated" mean ?	remind the definition	see 637
685	Institut Géographique National	LMO	160	6.2.2	7th paragraph	Q	"in the modelling...draft/proposed/adpoted" . Is that a requirement?	add a requirementfor this sentence	see 679
686	Department for Environment, Food and Rural Affairs (Defra)	LMO	44	6.2.3	NOTE 1	E	Remove NOTE as this is covered in the footnote of section 3.4 references and the status of this standard will have changed by time this document is finally published	remove note	A
687	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service	SDIC	30	6.2.3.		G	The role of the feature concept dictionary is not clear, neither is the difference between fcd and glossary, and between fcd and feature catalogue (in this text)	Clarify	see 647

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	Integration								
688	Institut Géographique National	LMO	164	6.2.3	list	G	As described here, the content of the dictionary is incomplete. The dictionary should include sections to document differences between features that might seem to refer to a same entity, but which is considered from different points of views or "world of discourse" for different applications (which makes different feature concepts).	Add to the dictionary a section on "differences between seemingly similar features", so that users of the dictionary better understand the definition of the features. The consolidation team should be able to write these sections.	? Comment not understood. Is the LMO demanding for an INSPIRE ontology?
689	Institut Géographique National	LMO	162	6.2.3	Third paragraph	T	Operations seem to have been forgotten. They are quoted in third paragraph of 6.2.4 as coming from Feature Concept Dictionary.	Add operations.	A
690	Institut Géographique National	LMO	163	6.2.3	7th paragraph	T	This paragraph is confusing as, in 5.4.4 only the first solution (deriving Feature Catalogue from application schema) is recommended.	Be consistent on this issue in the whole document	A
691	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	31	6.2.4.	paragraph 1	E	..., the generic conceptual model requires that all ...	"The document D2.5 "Generic Conceptual Model" defines the requirement that all ..."	A
692	Department for Environment, Food and Rural Affairs (Defra)	LMO	45	6.2.4	NOTE	E	Need to number as more than 1 Note in subclause	number NOTES	A
693	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	32	6.2.4.	paragraph 8	G	It would help the TWG to have a (minimum) conformance level for the feature catalogue instead leaving it to thematic working groups	Add a recommendation about minimum content/conformance of a feature catalogue (or drop, in the GCM, the feature catalogue as one of the core elements of the data specification)	NA. It will be difficult to define a minimum content, as the requirements do differ quite much between themes.
694	Institut Géographique National	LMO	165	6.2.4		T	The difference between feature concept dictionary (6.2.3) and feature catalogues is not sufficiently clear. In particular, the examples are more notes/comments than examples, and thus do not help to understand	add a true concrete example	see comment 618

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695	Ministère des transports, de l'équipement, du tourisme et de la mer	LMO	166	6.2.4	UML model must be reflected in both application schema and feature catalogue	Q	Give examples for tools able to help to do this	Give examples for tools able to help to do this	Ap: The tooling issue may be addressed in the description of procedures for the registries and consolidated models, but a preselection or even decision on specific tools is not expected in time for the next version of D2.6. / JRC: See #264. Enterprise Architect is used for UML modelling.
696	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	33	6.2.5.		Q	Why are codelists handled outside the application schema?		Because codelists are by definition outside of the Application schema. You can change codelists without changing the Application schema.
697	Met Office	LMO	MO_43	6.2.6	all	T	WMO coordinate systems are very changeable - the specification in GRIB, for example, is included as a mathematical object with the data. These can change frequently, and for example weather forecast CRSs may change in the time scale of a year. These cannot be registered. Some model CRSs (e.g. Lagrangian CRS) change with the wind!	There needs to be a specific exclusion for variations in meteorological model CRS.	R to TWG on Coordinate Reference Systems. / JRC: R to TWG RS
698	Institut Géographique National	LMO	166	6.2.6	First paragraph	T	What is the difference between "coordinate reference systems" and "coordinate systems"?	If both terms are required, define "coordinate system". If not, delete "coordinate system"	A. ISO 19111 defines both terms
699	EA - Environment Agency for England and Wales	SDIC	22	6.2.7	Requirement 14	E	The description of this requirement states that there may be reasons why it wouldn't be followed. Therefore, it seems more like an optional recommendation than a mandatory requirement.	Downgrade the requirement to a recommendation.	A. change to recommendation
700	Stanli - Geographic Information Standards Initiative in Sweden	SDIC	6	6.2.7	Requirement 14	T	ISO definitions should be given a higher status than OGC and other	Reword the requirement so that it is clear that ISO terminology has the highest priority	A, R to CT. Make clear in D2.6 that our proposal for the ranking of sources is: INSPIRE, CEN, ISO, OGC, other. / JRC: INSPIRE Directive, European and international standards for geographic information, OGC terms and definitions, other.
701	Stanli - Geographic	SDIC	5	6.2.7	Requirement 14	T	It is not much of a requirement if it starts with generally.	Remove the word generally	See 699

DS D2.6 – Methodology for the development of data specifications: Comments and Resolutions Table (Comments are related to the D2.6 version 2.0)

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	Information Standards Initiative in Sweden								
702	Royal Netherlands Meteorological Institute (KNMI)	LMO	12	6.2.7	requirement 14	T	Missing are existing definitions from other International Standards, e.g WMO, IHO.		NA. The statements says 'ISO or OGC or other'
703	AGI - Association for Geographic Information	SDIC	33	6.2.7	Requirement 14	T	The description of this requirement states that there may be reasons why it wouldn't be followed. Therefore, it seems more like an optional recommendation than a mandatory requirement.	Downgrade the requirement to a recommendation.	duplicate comment, see 699
704	Met Office	LMO	MO_44	6.2.7	req 14	T	What about existing definitions in other International Standards e.g. ITU, WMO, IHO?	Need to be explicit about other International Standards. Where they are different from ISO/OGC it is fully necessary to list those differences.	see 702, 700
705	National Survey and Cadastre, Denmark	LMO	KMS-29	6.2.7	Paragraph 1	T	When can the procedures be expected to be published and in what form will it be? - Will it be something like ISO 19104 and 19135?	Publish a plan for when the procedures will be public available from the CT and harmonize the procedures already in use within ISO/TC211.	R to CT / JRC: Building the glossary is the continuous process. The document with the procedures and roles for the INSPIRE Glossary will be published in 2008. The CT, DT DS and TWGs will participate in defining the procedures.
706	National Survey and Cadastre, Denmark	LMO	KMS-30	6.2.7	Requirement 14	T	Will there in the procedures be described some methods to solve contradictions in how to define a term or concept? - The INSPIRE project should by all means avoid developing their own terminology. The should use the terminology developed and maintained in the standardisation fora in order to ensure interoperability.	Develop procedures to solve contradiction in how to define terms and concepts.	R to CT, see 700 / JRC: See #705. The procedure for resolving the conflicting terms will be described in a document.
707	IDsW: Dutch standardisation organisation for water management information	SDIC	3	6.2.7	Paragraph 3	Q	It is stated that the Glossary is managed during the data specification development. Nothing is said about managing / maintaining it afterwards. Since the glossary forms the basis of the application schema provisions for maintenance should be made.	Explicitly include (or refer) to 5.4.6	A
708	Maa-amet (in Estonian),	LMO	1	39119			The Glossary should be managed in all official languages of EU from	Add a new paragraph under 6.2.7: The Glossary is managed	NA, R to CT. From experience, the glossary can not be managed

Comm#	ID	LMO/ SDIC	1	2	3	4	5 - Comment	6 - Proposed change	7 - Resolution
	Estonian Land Board (in English)						the very early stages: - that will help SDICs and LMOs in preparing their documents, communication, etc. - that will help translating of other documents	simultaneously in all official languages of EU.	simultaneously in all EU languages, as it is a work document changing all the time. However, it might be published simultaneously in all EU languages at some milestones (e.g. after annex I theme specification development, after annexes II and III theme specification development). Translation has to be done very carefully, A bad translation creates rather than removes problems in communication between the Drafting Team and national experts. / JRC: A with the DT DS resolution.
709	Institut Géographique National	LMO	168	6.3		G	Gazetteers are included in D2.5 but not in D2.6. Where should they be specified?	Clarify issue of gazetteers.	Open issue. The gazetteers may be excluded from D2.5 and put under the responsibility of the TWG on geographical names / JRC: The gazetteers are introduced in D2.5 and can be further specified by the TWGs.
710	Institut Géographique National	LMO	167	6.3		G	The two first themes of Annex I (coordinate reference system and geographical grid system" are not really "data". Do this chapter also apply to these 2 themes?	Clarify what has to be done for the 2 first themes of Annex I, which parts of the document are relevant for them.	JRC: Originally it was planned to not establish a TWG for the two themes but to define and describe the concepts in D2.3. As the issue proved to become more complex than expected, and due to formal requirements from the Directive demanding for IR for both themes it was decided to adopt the same procedure as for the other Annex I themes. The Drafting Team considers the step-wise methodology (user requirements, as-is analysis etc.) applicable to Coordinate Reference Systems and Geographical Grid Systems as well.
711	Met Office	LMO	MO_46	6.3.1	2nd para	E	"dot not"	"do not"	A
712	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	34	6.3.1.	Recommendation 4, 5, 6	E	Recommendations 6 and 5 are not clear in relation to recommendation 4 (is their overlap or not?)	Check whether there is overlap between these 3 recommendations; if yes, combine recommendations, if no, clarify/rewrite	NA. These recommendations refer to concepts defined in ISO 19131. Combining the issues of multiple data specifications, partitions and specification scope in one recommendation would not add very much to the understanding.

DS D2.6 – Methodology for the development of data specifications: Comments and Resolutions Table (Comments are related to the D2.6 version 2.0)

Comm#	ID	LMO/ SDIC	1	2	3	4	5 - Comment	6 - Proposed change	7 - Resolution
713	EA - Environment Agency for England and Wales	SDIC	23	6.3.1	2nd paragraph	E	Spelling mistake.	Replace "dot" with "do".	A
714	AGI - Association for Geographic Information	SDIC	34	6.3.1	2nd paragraph	E	Spelling mistake.	Replace "dot" with "do".	A
715	Institut Géographique National	LMO	172	6.3.1	2nd paragraph, 1st sentence	E	"dot not map"	"do not map"	A
716	Institut Géographique National	LMO	169	6.3.1	Title	E	"General Remarks": this normative part seems to me more than "Remarks" as stated in the title		A. Reword to 'General aspects'
717	Institut Géographique National	LMO	173	6.3.1	2nd paragraph, 2nd sentence	E	"INSPIRE data product specification aim": does that mean : "... specifications aim" or "specification aims"?	Solve and make correction	A. specifications aim.
718	Institut Géographique National	LMO	170	6.3.1	btw rec.4 and 5	E	"we strongly recommend...". Is that a recommendation?	add a recommendation for this sentence	NA This would not qualify for a separate recommendation because it is redundant with rec. 5, explaining it with respect to rec 4.
719	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	35	6.3.1.	Requirement 17	G	In the 19131 template (annex C) there is the (UML) application schema as well as the redundant feature catalogue - this might result in sync problems for the user or SW developer.	If both UML application schema and feature catalogue are required in the data specification, supply hints to the TWG how to deal with the synchronisation problem. (When this is already in D2.5, then refer to D2.5)	NA. Some hints are in 5.4.4, more details can not be provided before a decision on tools.
720	OMSz - Hungarian Meteorological Service	LMO	9	6.3.1.	recommendation 4 comments	T	If this means that every data should be represented on the same scale, it implies a lot of work from the meteorological services, because even gridded forecast data is e.g. provided on different grids for different numerical models.	This should be clarified, and the considerable amount of work should be recognized if this is the case.	This does not mean that every data should be represented on the same scale, but that the same conceptual model (or at least different models with a common core) are used for data at different scales.
721	Stanli - Geographic Information Standards Initiative in Sweden	SDIC	7	6.3.1	Requirement 17	T	The requirement makes a references to annex C, which contains a template for a data specification as a text document. Is this the only way a data specification is to be presented? Are the data specifications meant to be readable for humans, for machines,	Clarify if data specifications are meant to be machine-readable, human-readable, or both	see 5.4.4 The INSPIRE Draft Implementing Rules must be human readable (for lawyers and members of the INSPIRE Committee, at least...). For implementation in SDIs, they need to be machine-readable as well.

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							or both?		
722	Met Office	LMO	MO_45	6.3.1	2nd para	T	The statement here that "several data providers in any MS" reflects an INSPIRE view that data is MS specific. In Meteorology data and services can be provided by multiple Member States. This is not an arcane point, because in many cases in the DT documents, the assumptions of national responsibility to deliver national data causes problems in interpretation for trans-national services.	Add "For some themes which aren't restricted to individual Member States, data and services may be provided by several MS."	NA. The example of several data providers in a member state is mentioned to illustrate that there is no 1:1 relationship between a data specification and a data provider.
723	Institut Géographique National	LMO	175	6.3.1	Paragraph after recommendation 4	T	"we strongly recommend that the conceptual schema is established independent from scale and resolution where possible" As the methodology recommends data specifications to be based on user requirements, this recommendation sounds a little strange. It might be quite possible for instance to have for transport a use case at european level requiring detailed navigation information on main roads and a use case at local level requiring just basic information on all roads in order to have a road network geometrically compliant with addresses, parcels, ... The issue is the same for the as-is analysis: features and attributes are not always the same at any LoD. The point should be rather to have common parts (overlapping features and attributes) between different LoD defined in the same way.	Reconsider this recommendation.	NA. Interoperability between data at different scale/resolution is required by the Directive. This can only be achieved by a cross-scale conceptual schema. In case the user requirements can not be satisfied by a single application schema the TWG shall at least identify and describe the common elements.
724	Institut Géographique National	LMO	176	6.3.1	Recommendation 6 and figure 14	T	Figure 14 illustrates what TWG should not do: use specification scope. It might be more useful to illustrate how they can do when some partition is required (e.g. in case of several levels of detail).	Think about an example for next version.	A
725	Institut Géographique	LMO	171	6.3.1	figure 14	T	This figure, that is the core of what is recommended in this document,		see 724, the figure will be removed or modified.

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	National						would benefit from some explanation.		
726	Institut Géographique National	LMO	174	6.3.1	2nd paragraph	T	Wouldn't it be clearer if the Inspire Annex themes were considered as ISO Products?	Consider this issue	a data product (e.g. a topographic map, a DEM coverage) is not equivalent to an Annex theme
727	Institut Géographique National	LMO	177	6.3.2	2nd paragraph, 2nd sentence	E	"an important criteria"	"an important criterion"	A
728	Institut Géographique National	LMO	178	6.3.2	2nd paragraph, last but one sentence	E	"it turned out that these classes"	"it turned out these classes"	AwM: However these classes
729	Ordnance Survey	LMO	30	6.3.2	Second paragraph, fourth and fifth sentences.	E	Combine and modify sentences to improve understanding.	Suggest changing to "As it turned out that these classes may be used incoherently, the Drafting Team"	A
730	Ministère des transports, de l'équipement, du tourisme et de la mer	LMO	31	6.3.2 - 6.3.12	chapter structure	E	ISO 19131 model for DPS shown in figure 14 gives a structure for various sections (identification information, content and structure, maintenance, ...). For an easier understanding of 6.3, please enumerate sections in the same order as they are shown in fig. 14	Change order of paragraphs	Ap. We may change the order to comply with the structure of ISO 19131 where figure 14 does not fit either.
731	Ordnance Survey	LMO	31	6.3.2	Recommendation 7	E	Modify sentence to improve understanding.	Suggest changing "In case" to "In cases".	A
732	RVDI - Regionalverband Donau-Ilser	SDIC	1	6.3.2	Recommendation 7	G	the terms local and regional are confusing	If all TWGs identify the different levels for each domain (regional and local), it will cause troubles, because the term regional is then one time used from scale 1:25000 to 1:100.000 and the other time from 1:100.000 to 1:200 000. The term regional and local is always used differently, so we think, it would be better to use large, medium and small.	The Drafting Team had a long discussion on this issue, as we found that terms large, medium and small are not used in a coherent way either.
733	Flemish government - Environment, Nature and Energy Department - Land and Soil	LMO	13	6.3.2.	chapter	G	suggestion to integrate our concept of "documented object" in the GCM (K. Boel)	The identification of most types of geospatial objects in DOV is extended by a separate object named "Documented Object". This object describes not only the identification information but includes also extra information	? check the cited document! The proposed concept resembles metadata about objects. We offer the possibility to add this as object-related metadata. There is no justification from the Directive to add this information to the Generic

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	Protection, Subsoil, and Natural Resources Division							concerning the ownership, the security, the history, alternative names, archive numbers, remarks etc... Detailed information will be provided as reference document.	Conceptual Model.
734	National Assembly of the Land Cover and Use Information System of Spain (SIOSE)	SDIC	13	6.3.2	Paragraph 2	T	It is important to clarify that, even there is no need to establish in this document the resolution in exact figures, the geometric and thematic precision must be considered in the specification of information	Replace these sentences: "The identification information allows for the description of spatial resolution. Resolution is an important criteria for the usefulness of data. Due to the heterogeneity of data sources in Europe it may be difficult in an INSPIRE data specification to determine resolution in exact figures," with the following text: "The identification information allows for the description of spatial resolution. Resolution is an important criteria for the usefulness of data. Due to the heterogeneity of data sources in Europe it may be difficult in an INSPIRE data specification to determine resolution in exact figures, but it can be inferred from the geometric precision (considering the confidence level, equivalent scale and the appropriate accuracy depending on the level of detail) and thematic precision based on statistical sampling and/or validation."	NA, R to TWG. It may be true for many spatial objects that resolution can be inferred from geometric precision, but this does not apply to all data under the jurisdiction of the Directive. / JRC: R to TWG
735	IDEA Working Group of the Commission on Geomatics (National Geographic High Council)	LMO	13	6.3.2	Paragraph 2	T	It is important to clarify that, even there is no need to establish in this document the resolution in exact figures, the geometric and thematic precision must be considered in the specification of information.	Replace these sentences: "The identification information allows for the description of spatial resolution. Resolution is an important criteria for the usefulness of data. Due to the heterogeneity of data sources in Europe it may be difficult in an INSPIRE data specification to determine resolution in exact figures," with the following text: "The identification information allows for the description of spatial	duplicate comment, see 734

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								resolution. Resolution is an important criteria for the usefulness of data. Due to the heterogeneity of data sources in Europe it may be difficult in an INSPIRE data specification to determine resolution in exact figures, but it can be inferred from the geometric precision (considering the confidence level, equivalent scale and the appropriate accuracy depending on the level of detail) and thematic precision based on statistical sampling and/or validation."	
736	LMV - Lantmateriet, National Land Survey of Sweden	SDIC	26	6.3.2		Q	Is the "Thematic resolution" a part of resolution?	Clarify. Thematic resolution is another way to describe resolution and has do do with information about the object. E.g. a road surface can be described with the values paved and unpaved or the values asphalt, concrete, Y1G, bitumen and so on. The first example fits for navigation and the other fits for maintenance.	Yes, see definition (42) in the D2.6 document.
737	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	36	6.3.2.	Recommendation 7	Q	Unclear. Does it mean, that there should be resolution ranges which form subspecifications like in Recommendation 6?		A, modify text: link it with a measure of scale/resolution
738	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	37	6.3.3.	Requirement 18	E	Explanation/citation of clause 22 and the references would increase readability.		NA. To avoid redundancy, we tried to avoid duplication of recommendations/requirements between D2.5 and D2.6.
739	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	38	6.3.3.	Recommendation 8	Q	Explanation of implementation examples - What is implemented?		implemented is: e.g. the harmonisation approach for cross-border topology between the national contributions to EuroRegionalMap, which comprises of edge matching rules and an agreement between NMCAs on the

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									operational procedure.
740	Geonovum	LMO	34	6.3.4		E	After reading the whole clause I read in the last line that the real requirements are in another document	Move the last line of the clause to the top	A
741	Institut Géographique National	LMO	179	6.3.4	title	E	reference system' is ambiguous here (covers more than the section content)	replace by 'coordinate reference systems'	NA. 'Reference system' is the generic term used in ISO 19131, and it covers more than just coordinate reference systems. For instance, temporal reference systems are mentioned later in this section.
742	Institut Géographique National	LMO	180	6.3.4	2nd paragraph, last sentence	T	"impact on the requirement on data quality" : is incomplete. There are also impacts on the way to report metadata (eg. scale, or the metric unit used to report a precision measure, or the portrayal of symbols if their own geometry is also converted etc.)	add : "and on the reporting of the metadata"	AwM. we will indicate that the data quality is just one (of many) impacts that the TWG needs to take into account.
743	National Survey and Cadastre, Denmark	LMO	KMS-31	6.3.5	Paragraph 1	E	Typographic error. ISI should be replaced with ISO.	Replace ISI with ISO.	A
744	Brussels Region Informatics Center (BRIC)	LMO	1	6.3.5.	paragraph 1	E	"ISI" instead of "ISO" at the beginning of the sentence	convert "ISI" into "ISO"	A
745	Institut Géographique National	LMO	181	6.3.5	paragraph 1	E	Typo: "ISI" instead of "ISO"	ISI -> ISO	A
746	National Survey and Cadastre, Denmark	LMO	KMS-32	6.3.6	Paragraph 1 bullet 1	E/T	Completeness can be two things, either omission or commission. It should be clear which of the two possible kind of completeness that is chosen.	Choose between either omission or commission.	NA. The TWGs need to make that decision for their use cases. The generic term will be kept in D2.6
747	National Survey and Cadastre, Denmark	LMO	KMS-33	6.3.6	Paragraph 4	T/E	It is stated that the most important data quality elements are positional and temporal accuracy, but what about completeness?	Add completeness to the list of important data quality elements.	Ap. We will remove the sentence and leave the prioritisation of quality elements open to the TWGs, to be decided on the user requirements. The inclusion of the various data quality elements is already required by ISO19131. See 750, 754, 757, 758, 760, 764
748	Institut Géographique National	LMO	186	6.3.6	NOTE 3	T/E	"INSPIRE data specifications will not be supported ...or user requirements only"	Find a better wording to explain that data, even if not of the recommended quality, may	A

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							This sentence is in contradiction with the whole methodology (as data specifications must be based on user requirements"	nevertheless be useful.	
749	RVDI - Regionalverband Donau-Iller	SDIC	2	6.3.6	Requirement 23	G	Missing term: "thematic accuracy"	add "the list of data quality elements and sub elements shall include thematic accuracy. These elements should be specified as mandatory in an Inspire data specification.	See 736
750	EuroGeographics - EuroGeographics	SDIC	4	6.3.6.	paragraph 5	T	"From the quality element positional accuracy and temporal accuracy are considered most important" . There is no explanation why this statement is made. We feel that it is not valid because other quality elements are also important. Especially it is difficult to understand why temporal accuracy is more important than completeness or thematic accuracy. Eurogeographics expert group on quality has investigated the use of quality elements in the NMCAs and according a study on quality elements already in 1999 (Jakobsson, Vauglin, 1999 Status of Data Quality in European National Mapping Agencies) indicated that completeness was used by 52% of the NMCAs, logical consistency 62%, positional accuracy 62%, temporal accuracy 38%, thematic accuracy 43%.	Change requirement 24 to following: Data specifications should state the different conformity levels on data quality based on the quality of existing datasets in Europe. There should be at least following conformity levels: Level 0 no indication of conformity, Level 1 meets the minimum requirements (data quality level of the majority of data producers), Level 2 meets the requirements of EU harmonization, Level .. meets requirements of a certain user requirements	Ap. The priority on positional accuracy and temporal accuracy will be removed. Requirement 24 will be changed into to a recommendation.
751	EuroGeographics - EuroGeographics	SDIC	3	6.3.6.	Requirement 22	T	Conformity against a set quality requirement can be reported already using an appropriate quality element. There is no need to add an additional metadata element for conformity. The proposed conformity element is not need for quality.	Report conformity to the logical consistency rules using logical consistency element. E.G. Logical consistency "conforms to the requirements of the INSPIRE"	NA. This metadata element is required by the IR on metadata, addressing an article from the Directive.
752	Stanli - Geographic Information Standards Initiative in Sweden	SDIC	8	6.3.6	Requirement 23	T	Positional accuracy should not be mandatory	Remove the second paragraph	see 747.

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753	Malta Environment and Planning Authority	LMO	5	6.3.6	Requirement 24	T	Suggest that conformity to the recommended data quality requirements is reported. This will assist in data harmonisation.	Change Requirement 24 to include levels of conformity to the recommended data quality requirements.	A
754	Malta Environment and Planning Authority	LMO	3	6.3.6	Requirement 23	T	The sentence preceding Requirement 23 reads: "From the quality elements, positional accuracy and temporal accuracy are considered most important". This statement can be questioned on the grounds that other quality elements are also important. For many users completeness and thematic accuracy are as important as positional and temporal accuracy. For this reason data quality elements and sub-elements for all quality elements should be included in Requirement 23.	Remove sentence preceding Requirement 23. Change requirement 23 to include data quality elements and sub-elements for all quality elements.	see 747
755	EuroGeographics - EuroGeographics	SDIC	5	6.3.6.	Requirement 24	T	The statement in the requirement 24 is in conflict with the objectives of the directive. In data specifications there should be a different conformity levels on data quality and conformity to these levels should be reported. Countries might provide data that does not meet any conformity levels which might be acceptable in the first years of implementation of the directive. However, if there is no conformity levels in the long run there is a considerable risk that countries will not ever produce better data quality and therefore the INSPIRE process will fail because data can not be used together. Data quality is very important in the process of harmonization and it essential to set a harmonized quality levels so that data will meet the most important user requirements.	Give examples how to use thematic accuracy. These can be found the the ISO/TS 19138	Ap, see 747
756	AGI - Association for Geographic Information	SDIC	35	6.3.6		T	There is no mention of data quality scopes i.e. extent or characteristic of the data for which quality information is reported. There	Add	Ap. Data specification 'scopes' are mentioned under 6.3.1. We do not recommend to use them as we found in many discussions that

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							seems to be no acknowledgement here or elsewhere that a dataset can have several layers, themes or resolutions present each of which have different qualities		readers of the specifications are confused when they find the ISO 19131 term 'scope' in this context. However, you will find in recommendation 5 that we suggest 'partitioning' of specifications, which means the same thing.
757	Institut Géographique National	LMO	184	6.3.6	before req;23	T	"From the quality elements, positional accuracy and temporal accuracy are considered the most important". Who considers that? This might be the point of view of reference data producers, but it does not represent the point of view of users (Completeness for example seems as much important).	remove this sentence	see 747
758	Institut Géographique National	LMO	185	6.3.6	Requirement 23	T	A survey done by the EuroGeographics Expert Group has shown that for themes in annex I and II, NMCAs give mainly as quality information up-to-dateness and positional accuracy. Nevertheless, the experts have agreed that up-to-dateness is not really a quality element and should rather be included in data maintenance.	to discuss	Ap. INSPIRE Metadata for discovery already includes the date of the last update. The Comment is redundant as requirement 23 will be modified.
759	Institut Géographique National	LMO	182	6.3.6	First paragraph	T	Are these elements also relevant for coverages?	Add a note on this topic.	NA. The ISO 19100 quality elements apply to all kind of spatial information. We think a NOTE is required only if we exclude some data from requirements or recommendations.
760	Institut Géographique National	LMO	187	6.3.6	requirement 23	T	Why temporal accuracy considered more important than completeness or semantic accuracy? In ISO 19113, it is defined as the accuracy of temporal attributes and temporal relationships of features. But many themes won't include temporal elements (whereas they will include semantic ones). In all the examples given in ISO 19113, this quality element gets the answer "not applicable" or "no".	Reconsider the importance of "temporal accuracy". Generally, users are mainly interested by data currency (e.g. date of last update).	see 747

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761	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	40	6.3.6.	Requirement 23 and 24	Q	The quality for the data (the instances) of the data model cannot be the content of the data specification; which is coping mainly with the data structure. Will it really provide a quality recommendation?	Drop the requirement to specify general data quality rules	Ap. ISO 19131 requires data quality to be specified. However, INSPIRE data specifications are about publishing existing data so data quality may be reported but not modified. Recommendations 23 and 24 will be modified to address this issue.
762	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	39	6.3.6.	Requirement 22	Q	What is a conformance class? It is not described in the preceding paragraph.		conformance class refers to the IR on metadata and to ISO 19100
763	Institut Géographique National	LMO	183	6.3.6	requirement 22	Q	Is it the most relevant choice to have only one conformance class to mandatory elements?	to discuss	We say 'typically one class for mandatory elements', while we see no obvious reasons to introduce several classes a priori.
764	Flemish government - Environment, Nature and Energy Department - Land and Soil Protection, Subsoil, and Natural Resources Division	LMO	14	6.3.6.	paragraph 2 under requir. 22	Q	What is "the best source" concerning positional accuracy, see comment ID 8 (K. De Nil)?		see 747
765	RVDI - Regionalverband Donau-Ilher	SDIC	3	6.3.7	Requirement 25	E	add a specification to the term metadata elements	add "metadata elements for the evaluation, which are specified in a core set of mandatory elements, should be..." If otherwise all TWGs have the possibility to edit new metadata elements, it will be very difficult to create a metadata editor for all annex themes. This won't be very useful.	Ap. If it turns out that there are common metadata elements, these may be put in the D.F.T box of the Consolidated UML model, or in the Generic Conceptual Model or (best) into an amended Metadata Implementing Rule.
766	Met Office	LMO	MO_47	6.3.7	req 27	E	The way how metadata	The way that metadata	A
767	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	41	6.3.7		G	This requirement should be more highlighted as it is not mentioned before that (some) experts of TWG will have also to think to more	Suggest to add a sentence about this in the clause "5.4.2 Roles"	see 765

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							metadata		
768	BRGM	LMO	41	6.3.7		G	This requirement should be more highlighted as it is not mentioned before that (some) experts of TWG will have also to think to more metadata	Suggest to add a sentence about this in the clause "5.4.2 Roles"	duplicate comment, see 767
769	Stanli - Geographic Information Standards Initiative in Sweden	SDIC	9	6.3.7	Requirement 26	T	The reference to these standards is not clear	Make it clear what standards that are referred to	Ap. 'the ISO 19100 family of standards'
770	Institut Géographique National	LMO	189	6.3.7	NOTE 2	T	"and the information published in the registry" which registry?	Say which registry is concerned.	A. The INSPIRE Registry (which contains all the registers)
771	Institut Géographique National	LMO	188	6.3.7	6.3.8, 6.3.9, 6.3.10	T	These parts are already free text (that can be very short), without any subparts to be filled in the template. Considering them as optional makes them look as very unimportant.	Do not consider these parts as optional	NA. 'optional' is the status as defined in ISO 19131. But see 772
772	AGI - Association for Geographic Information	SDIC	36	6.3.8		T	Maintenance information is an essential part of a data specification, why is it proposed that this is optional? The GCM, Clause 19 states that maintenance requirements should be stated in all data specifications.	Delete "(Optional)" and propose a structure for the recording of this information	NA. Maintenance information is not a mandatory but a conditional element - to be included if such information exists.
773	Institut Géographique National	LMO	190	6.3.8		T	Requirement 24 is quite wise for data quality. A similar requirement might be relevant for maintenance.	Add a similar requirement as requirement 24 about maintenance, specially for update frequency.	NA. Requirement 24 has been modified and downgraded to a recommendation. A requirement on maintenance is already included in D2.5.
774	Geonovum	LMO	13	6.3.8		Q	What is the principle in INSPIRE? Will users always get the data by a real time question tot the INSPIRE portal? Or do data have to be updated by sending messages that data has changed? Are there minimum demands on the availability of national portals, does a question have to be answered real time 24 hours per day, 7 days a week?		R to DT Network Services. / JRC: The INSPIRE portal acts as a general entry point linking the users to the network services of the member states. It is up to the services in the member states to define the update strategy. At most, the INSPIRE portal will act as a catalogue for discovery metadata. In this case, the metadata catalogues are updated by the responsible authorities for these catalogues and

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									their internal policies. The comment refers to Section 6.3.8 of D2.6-ver.2.0 on maintenance, as described in a data product specification (based on ISO 19131). This section is no longer part of the INSPIRE data specifications, but information on the maintenance of spatial data sets (spatial data) might be described in metadata for evaluation of the INSPIRE data specification. The draft NS IR publicly available since December last year contain availability requirements, for example: "The probability of the Discovery Service to be up shall be 99% of the time, no more than 15 minutes downtime per day during working hours".
775	Institut Géographique National	LMO	191	6.3.9	Title	T	Data capture is optional in ISO 19131 but not in D2.5	Delete "(optional)"	AwM. downgrade requirement 92 in D2.5 into a recommendation,.... where known rules exist, in particular for several levels of resolution ... / JRC: Data capture can be relevant for raster data. Spatial/spectral resolution of orthoimagery depend on the data acquisition
776	Geonovum	LMO	14	6.3.10		G	I think portrayal has to be separated from the data specification. Both can be important, but it is a really different problem.		This question has been put to the DT Network Services. INSPIRE data specifications shall deal with portrayal only if there is a requirement from the Viewing Services. But if the TWGs can specify a default symbolisation, the data specifications are the proper place to define it for INSPIRE.
777	Flemish government - Environment, Nature and Energy Department - Land and Soil Protection, Subsoil, and	LMO	15	6,3,10	chapter	G	portrayal suggestion, see comment ID 7 (K. De Nil)		???? The LMO's comment 7 suggests deletion of A.17 and A.18 ?

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	Natural Resources Division								
778	EuroGeoSurveys - European Geological Surveys SDIC	SDIC	42	6.3.10		Q	Is there any recommendation to capture how a spatial object should (must?) be portrayed? Define a SLD for each object type? SLDs taht could be registered at European level and used by view services?		see comment 776
779	BRGM	LMO	42	6.3.10		Q	Is there any recommendation to capture how a spatial object should (must?) be portrayed? Define a SLD for each object type? SLDs taht could be registered at European level and used by view services?		duplicate comment
780	EA - Environment Agency for England and Wales	SDIC	24	6.3.11		E	The first sentence does not read correctly.	Replace "...requirements that is not..." with "...requirements that are not..."	A
781	AGI - Association for Geographic Information	SDIC	37	6.3.11		E	The first sentence does not read correctly.	Replace "...requirements that is not..." with "...requirements that are not..."	duplicate comment, see 780
782	EA - Environment Agency for England and Wales	SDIC	25	6.3.11		T	Metadata must include legal information such as copyright, usage licensing, charges, etc. It may be useful to mention that in this section.	Mention that legal information must be included in the metadata.	NA. IR on discovery metadata already includes this kind of information.
783	AGI - Association for Geographic Information	SDIC	38	6.3.11		T	Metadata must include legal information such as copyright, usage licensing, charges, etc. It may be useful to mention that in this section.	Mention that legal information must be included in the metadata.	duplicate comment, see 782
784	Institut Géographique National	LMO	192	6.3.11		T	"use case / business models" Not clear.	Clarify (e.g. by giving examples)	AwM. Delete Business models, keep use cases which are explained in the chapters above.
785	Department for Environment, Food and Rural Affairs (Defra)	LMO	46	6.3.12		E	Remove section as this isn't referred to anywhere else in the document and is actually the responsibility of the DT NS as stated so doesn't add anything to the document by its inclusion	Remove section	NA. We think it is important for the TWGs to know that specifications may be created fro Services as well, by another Drafting Team.
786	Institut Géographique	LMO	193	6.3.12	paragraph 1	T	Additional, complementary spatial data services may be specified'. It is	Replace with : 'Possibly, complementary services not	Awm: amend sentence: may be specified including the definition of

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	National						dangerous regarding the network service effort to be so general. It could lead to services that cannot be catalogued easily.	described in the DIR may be specified using the formalism (procedure?) provided by the DIR.'	service metadata for publishing in discovery services.
787	AGI - Association for Geographic Information	SDIC	39	7		G	Given that this document is for guidance why are there "Conformance" clauses as if it were a standard?	If these are the clauses that it is proposed will go into the final IR then this should be made clear - and the title amended to proposed Conformance clauses.	The conformance clauses will not go into the final IR. They are part of the methodology and define a test that the TWGs should perform on their draft IR, to verify that the requirements and recommendations in D2.6 have been considered. / JRC: A with DT DS resolution.
788	Met Office	LMO	MO_48	7.1_	1st para	E	Clauses 5 to 7 of his document	"this"	A
789	OMSz - Hungarian Meteorological Service	LMO	11	7.1.	para1	E	not "his", but "this"		A
790	EA - Environment Agency for England and Wales	SDIC	26	7.1	1st paragraph	E	Spelling mistake.	Replace "his" with "this".	A
791	AGI - Association for Geographic Information	SDIC	41	7.1	1st paragraph	E	Spelling mistake.	Replace "his" with "this".	A
792	EA - Environment Agency for England and Wales	SDIC	27	7.1	Requirement 28	E	The first part of the requirement is superfluous - it's unnecessary to say that it's a requirement to conform to mandatory requirements.	Simplify the Requirement to "Every INSPIRE data specification shall pass all relevant test cases of the Abstract Test Suite, Clause 7.2.".	A
793	AGI - Association for Geographic Information	SDIC	42	7.1	Requirement 28	E	The first part of the requirement is superfluous - it's unnecessary to say that it's a requirement to conform to mandatory requirements.	Simplify the Requirement to "Every INSPIRE data specification shall pass all relevant test cases of the Abstract Test Suite, Clause 7.2.".	duplicate comment, see 792
794	Institut Géographique National	LMO	194	7.1	First paragraph	T	"for INSPIRE data specifications and spatial data sets" Are there rules for spatial data sets?	Check if there are rules for spatial data sets. If not, delete the expression.	A
795	Met Office	LMO	MO_49	7.2.1	2nd bullet	E	"..results check its against.."	remove "its"	A
796	Ordnance Survey	LMO	32	7.2.1	Heading	E	Modify heading to improve understanding.	Suggest changing "Requirements to" to "Requirements for".	A
797	Ordnance Survey	LMO	33	7.2.1	Second bullet point	E	Modify sentence to improve understanding and to be consistent with second bullet points of 7.2.2 and 7.2.3.	Suggest changing "reflect the data specification" to "inspect the data specification".	A

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798	Institut Géographique National	LMO	195	7.2.1	Second bullet	T	How will it be possible to check conformance to requirements 6 and 7?	Change requirements 6 and 7 to ordinary text.	JRC: Ap. All of the requirements will be removed from this document, the requirements are addressed in D2.5 Generic Conceptual Model. Cost benefit considerations and feasibility will be part of the testing phase. TWGs will consider the results from as-is analysis, gap analysis and the results of the testing.
799	Institut Géographique National	LMO	196	7.2.1	Second bullet	T	It is not obvious why requirements 23 and 27 are included in this test (they are also included in test 7.2.2)	Reconsider this decision.	A. add requirement 24 to test 7.2.2, , delete 23 and 27 from 7.2.1
800	LMV - Lantmateriet, National Land Survey of Sweden	SDIC	27	7.2.1	no. 4	Q	What is meant by "Test type: Basic Test"?	Explain "basic Test".	A. Definition for "basic test" from ISO 19105: "initial capability test intended to identify clear cases of non-conformance".
801	Institut Géographique National	LMO	197	7.2.2		T	Why is requirement 24 excluded?	Include requirement 24	A. see comment 799
802	LMV - Lantmateriet, National Land Survey of Sweden	SDIC	29	Annex A		E	The recommendations should not be in the annex	Move the relevant parts to the main document.	NA. We did consider this option, but we find it easier for the reader when the recommendations remain in the proper context. Only requirements have been restricted to the main document. !!! see also 804, 805
803	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	41	Annex A		G	Most of Annex A is dealing with harmonisation problems, which occur *only* when harmonising data sets. They do not occur when specifying harmonised data models. Annex A may be very useful later in the INSPIRE processes but is not within the scope of this document!		NA Most of the recommendations are useful for designing harmonised data product specifications. Facilitate the mapping between the existing data and the common data specification has to be taken into account early in the process.
804	National Survey and Cadastre, Denmark	LMO	KMS-34	Annex A and Annex B		G	The document as a whole is rather wordy. The outline of what is important and what is not so important is hard to get. A rather hard differentiation between "need to" and "nice to" have in terms of description of the paradigm of the data specification would be necessary.	Long text book paragraphs should be avoided. That goes for Annex A Harmonisation Guidelines and Annex B Guidelines on Edge Matching. They could appear in a separate document.	NA As "harmonisation approach" is one of the step included in the methodology, it has to be present in the document. It is in an annex as it is mainly based on examples. Data consistency at international boundaries is explicitly required by the Directive, so TWG will generally have to give some guidelines about

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									edge-matching along the boundaries. This chapter may help them.
805	Institut Géographique National	LMO	198	Annex A		G	Recommandations of part A, if they are not the more strictly normative, seems to me the most important one in practice. Typically, recommendations 11 and 12 are just recommendations, but they are what will make the developed specifications really effective. I'm afraid that recommendations in Annex could be considered only as "second-order recommendations" and thus ignored.	Move Annex A in the core of the document. OR repeat the recommendations of Annex A in the core of the document (e.g. as a subpart of section 5)	AwM "Harmonisation approach" is a step in the recommended methodology, which should be considered equally with other steps (requirement survey, as-it analysis, ...). The recommendations and examples given in the "harmonisation guidelines" constitute a kind of zoom on this step and it is why it is better to keep it as an annex. This step has to be added in clause 5 and reference to Annex A has to be done. As the recommendations may help to solve conflicts between requirements and existing data, DT DS does not think they will be ignored.
806	OMSZ - Hungarian Meteorological Service	LMO	12	A.1.	para1, bullet2	Q	Where this whole process fits into the process of data specification described in previous chapters?		In the process of data specification described in previous chapters, there is a step called "harmonisation approach". (e.g. figure 4 in 5.1.1). The aim of annex A is to give some possible solutions/examples of harmonisation approach.
807	Department for Environment, Food and Rural Affairs (Defra)	LMO	47	A.2		E	Remove double period at end of section	remove double period	A
808	Institut Géographique National	LMO	199	A2	Last sentence	E	2 points at the end of the sentence	delete one.	A
809	Met Office	LMO	MO_50	AnnexA.2	all and fig 15	G	We challenge the assumption that there is always a linear continuous connection between Simple and Complex. The thematic domains may be too diverse, and in practical terms there may be only complex applications or very simple applications. Simplifying the data specification for the complex	The model itself is simplistic and definite. At least recognise this in a caveat.	Ap A note has been added to illustrate this case.

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							application may be only lobotomising it. Another way of stating this is that the spectrum of users for the data may cluster strongly into expert and end-user, and there are few users in the middle ground.		
810	Lenkungsgremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	47	A.2	page 62	G	Quote: "Based upon these principles, one is informed that the application schemas should neither be too simple, nor too complex." Comment: This conclusion cannot be derived logically from the mentioned principles.	Omit quoted sentence.	Ap
811	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	43	A5	Sentence before Recommendation 11	E	"Semantic models" are not defined in the document	Use "data model" or "information model"	AwM Will be replaced by "application schema" ("data model" or "information model" are not defined neither in the document)
812	LMV - Lantmateriet, National Land Survey of Sweden	SDIC	28	A.5	example 2	E	It might not be certain for everyone that "state" means a German state.	Add "German" : "... every German state ..."	A
813	EA - Environment Agency for England and Wales	SDIC	30	A.5	1st paragraph after Recommendation 12	E	Spelling mistake.	Replace "exisitng" with "existing".	A
814	AGI - Association for Geographic Information	SDIC	45	A.5	1st paragraph after Recommendation 12	E	Spelling mistake.	Replace "exisitng" with "existing".	A
815	EA - Environment Agency for England and Wales	SDIC	29	A.5	Example 5, 1st paragraph	E	The text refers to Figure 3.3A. This is incorrect.	Replace "Figure 3.3A" with "Figure 16".	A
816	AGI - Association for	SDIC	44	A.5	Example 5, 1st paragraph	E	The text refers to Figure 3.3A. This is incorrect.	Replace "Figure 3.3A" with "Figure 16".	A

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	Geographic Information								
817	Institut Géographique National	LMO	203	A5	Paragraphe after recommendation 12	E	"Data providers with little existng information"	Replace by "Data providers with little existing information"	A
818	Flemish government - Environment, Nature and Energy Department - Land and Soil Protection, Subsoil, and Natural Resources Division	LMO	16	A.5	under Recommendation 12	E	little existng (==>existing) information (K. De Nil)	replace "existng" by "existing"	A
819	Institut Géographique National	LMO	204	A.5	example 4	E	the example is hard to understand.	Add a figure / schema?	AwM The example has been removed
820	Institut Géographique National	LMO	201	A.5	all exemples	E	there are differences between the display of exemples : some feature types are numbered (recommendation 12 ex 1), some are not, some attributes are in a table (recommendation 10 ex 5). This is unclear whether the author is considering an application schema, a feature catalogue or another classification.	Systematically mention the nature of the exemple. Use "feature type" and "attribute type". Choose an unified style (the same bullet for feature types, the same other bullet for attribute types, etc.). Or, if different styles were kept on purpose, mention it at the beginning of A.5.	Ap Nature of the examples will be mentioned. As the examples come from existing documents, it is better to keep them as they are.
821	Geonovum	LMO	16	A.5	Example 4	G	I think it is really important to make a difference between kinds of features. I think we should keep in mind that objects are "modelled phenomena" and attributes belong to these phenomena. In my opinion in example 4, the road is an object (a modelled real world phenomena) and the speed limit or turn restriction is a real attribute. That in ICT solutions this speed limit will be modelled as a feature can be handy, but in a data specification I think this has to be an attribute.		Ap This example has been deleted

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822	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	42	A 5	Recommendation 9	G	The application schemas should not be arbitrarily flexible - esp. for the "lists of possible attribute values" it is not useful (and can be very unpractical) to allow flexibility. (Flexibility is better achieved e.g. by defining optional classes/attributes or by using subtypes/inheritance.)	Drop this recommendation or specify more precisely the "some" flexibility	NA - see also 1041. Using sub-types/inheritance does not seem a good idea. At least, use of an attribute (generally "type", "nature", "category") may allow the "void" value, which is not the case with sub-types. The use of extensible code list may be difficult to implement. A note will be added for TWG to find a balance between flexibility and implementation issues. / JRC: R to TWG
823	Malta Environment and Planning Authority	LMO	6	A. 5		G	The application schemas should take into consideration levels of scale and resolution brought about by the absolute size of the country. Example: In the CORINE data the minimum polygon size is 25ha, this results in a meaningless dataset in Malta where the country's total area is approx: 31,500ha.	Maintain a level of flexibility in the common application schema that do not prescribe resolutions of detail.	AwM This comment is more relevant for the "data capture" component. A note has been added on this topic in component A (S).
824	State Agency for Information Technologies and Communications (SAITC)	LMO	2	A.5.	Recommendation 9, at the end	G	to add new manner to ensure flexibility in the application schema:.....	- by allowing of list of "default" values for an attribute(s)	R to D2.5 The case of void value is considered in the Generic Conceptual Model.
825	Institut Géographique National	LMO	202	A.5	recommendation 14 example 1 and 2	G	In example 1, it appears clearly that the user requirement is a topological consistency. What is the user requirement in example 2 ?	An introduction in example 2.	AwM The EuroRoadS choice is based on a balance between existing data and on user requirements.
826	EA - Environment Agency for England and Wales	SDIC	28	A.5	2nd paragraph, 1st bullet	T	One example given is that constraints are mandatory if they are available almost everywhere. "Almost everywhere" implies that there are some situations where they're not available - in which case they cannot be mandatory.	Remove the clause "(or almost everywhere)".	AwM INSPIRE being based on existing data, features and attributes have to be provided only if available.
827	AGI - Association for Geographic Information	SDIC	43	A.5	2nd paragraph, 1st bullet	T	One example given is that constraints are mandatory if they are available almost everywhere. "Almost everywhere" implies that there are some situations where they're not available - in which case they cannot be mandatory.	Remove the clause "(or almost everywhere)".	d see 826

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828	Institut Géographique National	LMO	200	A.5	example between recommendation 11 and 12	T	Feature Type shouldn't be used for "Line" but for "Warecourse".	Rather use geometry type = Line ?	A
829	National Assembly of the Land Cover and Use Information System of Spain (SIOSE)	SDIC	14	A.5	Recommendation 12	T	Pyramidal classifications are in many cases too rigid, it is better to include these existing hierarchical and pyramidal classifications and nomenclatures in data specifications using Object Oriented Methodology to define class entities and their attributes, because it allows keeping backward comparability with previous inventories, but also integrating and harmonizing other data models and data sets.	Delete the "Recommendation 12: Use pyramidal classifications". and replace with the following recommendation: "Recommendation 12: Use Object Oriented Data Modelling techniques to include existing pyramidal classifications and nomenclatures"	NA The example about Corine is given just to explain what a pyramidal classification looks like ; the purpose is not to impose a way for modelling land cover. This task definitively belongs to the future TWG. A note will be added to explain that. Moreover, the recommendation will be written in a more cautious way, in order to explain when it is relevant or not to use pyramidal classifications.
830	IDEE Working Group of the Commission on Geomatics (National Geographic High Council)	LMO	14	A.5	Recommendation 12	T	Pyramidal classifications are in many cases too rigid, it is better to include these existing hierarchical and pyramidal classifications and nomenclatures in data specifications using Object Oriented Methodology to define class entities and their attributes, because it allows keeping backward comparability with previous inventories, but also integrating and harmonizing other data models and data sets.	Delete the "Recommendation 12: Use pyramidal classifications". and replace with the following recommendation: "Recommendation 12: Use Object Oriented Data Modelling techniques to include existing pyramidal classifications and nomenclatures"	d See 829
831	National Assembly of the Land Cover and Use Information System of Spain (SIOSE)	SDIC	15	A.5	Paragraph 37	T	The same comment as in previous point (comment_id 14)	Delete paragraph after the 'Recommendation 12' "Data providers with little existing information will fill the first level (the most generic) as a priority; later, they will fill the other level(s) perhaps after upgrading their data. Data providers with rich information will fill all the levels (even the most specific)." and replace it with this paragraph: "Data providers with little existing information will fill the mandatory information (entities and attributes) in the data set, according to a	NA See comment 826

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								standardized data model core o profile, and data providers with rich information will be able to extend the previous one"	
832	IDEE Working Group of the Commission on Geomatics (National Geographic High Council)	LMO	15	A.5	Paragraph 37	T	The same comment as in previous point (comment_id 14).	Delete paragraph after the 'Recommendation 12' "Data providers with little existing information will fill the first level (the most generic) as a priority; later, they will fill the other level(s) perhaps after upgrading their data. Data providers with rich information will fill all the levels (even the most specific)." and replace it with this paragraph: "Data providers with little existing information will fill the mandatory information (entities and attributes) in the data set, according to a standardized data model core o profile, and data providers with rich information will be able to extend the previous one"	See comment 829
833	Ministère des transports, de l'équipement, du tourisme et de la mer	LMO	16	A.5	Recommendation 10	T	When several options are available, the one which should be privileged should be indicated	add : "indicate which one should be privileged"	Ap
834	Geonovum	LMO	15	A.5	Example 1	Q	This might be too difficult for the user? The user then has to look in the meta-data each time for each country to be able to understand the meaning of for example "5". In one country this might be the highest, in an other country this might be in the middle? Isn't it easier to transform this to a "european" standard?		"-" The idea of an european standard is probably good but goes further than the scope of D2.6 and even TWG It is an example from EuroRoadS and EuroRoadS aimed at business users (not at end users), who can deal with some difficulties. A note will be added on this issue.
835	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	45	A6	Example 1	E	despite to the rest, the OCL example is quite specific and hard to read.	Drop the example or at least the OCL syntax	NA OCL is required by Generic Conceptual Model, so it is nice to have examples in this annex. Even harder to read that the rest, this example is nevertheless understandable

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836	EA - Environment Agency for England and Wales	SDIC	31	A.6	Last paragraph after Recommendation 13	E	The first sentence does not read correctly.	Replace "Another member states use another set of interpolation types" with "Other member states use different sets of interpolation types".	A
837	AGI - Association for Geographic Information	SDIC	46	A.6	Last paragraph after Recommendation 13	E	The first sentence does not read correctly.	Replace "Another member states use another set of interpolation types" with "Other member states use different sets of interpolation types".	d see 836
838	EA - Environment Agency for England and Wales	SDIC	32	A.6	Recommendation 14, Example 2	E	The text refers to Figures 1 and 2. These are incorrect.	Replace "fig 1" with "Figure 17" and replace "fig 2" with "Figure 18".	A
839	AGI - Association for Geographic Information	SDIC	47	A.6	Recommendation 14, Example 2	E	The text refers to Figures 1 and 2. These are incorrect.	Replace "fig 1" with "Figure 17" and replace "fig 2" with "Figure 18".	A
840	Institut Géographique National	LMO	206	A.6	example 1	E	it is difficult to read the constraint expressed in a formal language	put the specific constraint in natural language next to the formal description (instead of writing 'the constraint on spatial bject types with surface geometry' which is not very detailed)	!!! The example will be removed or OCL syntax will be removed or OCL syntax will be explained in natural language
841	Institut Géographique National	LMO	205	A6	Example 2	E	Wrong references to figures	Replace: - fig 1 by fig 17	A
842	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	44	A6	Recommendation 13	G	For the informational guideline, with the intention to help and esp. for the guidelines in this annex, it would be good to provide an explicit first profile (which can be extended)		Ap A recommendation is already given in D2.5 (Simple Feature). A note to remind this recommendation has been added in annex A
843	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	46	A6	Example 2	Q	What is the reason for the example? It is not explained (the two representations?).		A Reason will be added (based on existing data)
844	Lenkungsgremium GDI-DE (Steering	LMO	48	A.8	Example, page 70	E	Typo: "lost"	Change to: "loss"	A

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	Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)								
845	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	47	A8	Recommendation 15	G	It is unclear, what the content of the positional accuracy is, and how it should be derived (see comments on Requirement 23 and 24)		!!!
846	OMSz - Hungarian Meteorological Service	LMO	13	A.8.	para2	T	Emphasis should be put on the transformation methods, and the responsibilities for the transformations. Although it is also important how it affects data quality, but the first question is here that who will have the task to transform data on different coordinate systems? Will any compulsory methodology be provided for this?	Name the responsible and the methods for such transformations.	R to DT NS D2.6 may give, in annex A, some examples of transformation methods to illustrate this component. But generally, transformation methods are rather in the scope of DT Network Services. See comment 540 about responsibilities / JRC: The IR on coordinate reference systems and geographical grids will specify the coordinate reference systems and the projections that are acceptable for the harmonized INSPIRE data. The task to transform the data from national to INSPIRE coordinate systems or frames is the responsibility of the transformation services implemented by the member states.
847	Institut Géographique National	LMO	207	A8	Recommendation 15	T	"when defining requirements about positional accuracy" As requirement 24 in D2.6 prohibits quality requirements, " requirements " must be replaced by "recommendations"	Replace "requirements" by "recommendations"	NA Requirement 24 has changed and in the new version of the document, there may be requirements about quality.
848	Ordnance Survey	LMO	36	A.8	Recommendation 15	T	The user of a service needs to be made very aware of the accuracy implications of different coordinate transformations on offer.	Should make it clear to a 'transformation service' user that there is this trade-off (with actual accuracy statements on the coordinate transformations) and different transformation options given if necessary.	R to DT NS Transformation services are not in the scope of DT Data Specification but may have to be considered by DT Network Services / JRC: This accuracy issue is being addressed by the thematic working group on

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									coordinate reference systems and geographical grid systems.
849	NESDIC - Natural Environment	SDIC	1	A8	Recommendation 15	Q	coordinate transformations do indeed need to be considered especially the inevitable shift in accuracies. Is it possible to define a single acceptable solution?		R to DT NS Transformation services are not in the scope of DT Data Specification but may have to be considered by DT Network Services / JRC: This issue is being addressed by the TWG on coordinate reference systems and geographical grids.
850	Institut Géographique National	LMO	210	A9		T	A thesis, from IGN staff, has just been published about this topic and may provide input for this component.	IGN can provide the thesis	Ap The main results of this thesis has been added as example.
851	Institut Géographique National	LMO	211	A.9		T	ambiguous topic (could be address identifiers or feature association types...)	copy the first paragraph of D2.5 clause 13.1	R to D2.5 Issue about object referencing have to be considered in D2.5
852	Institut Géographique National	LMO	208	A9	Example about RISE	T	As the RISE test is now done, this example should probably be updated	Update this example.	A
853	Institut Géographique National	LMO	209	A9		T	The SDIGER project might provide input about this topic, as it has tested some solutions.	identify a contact in SDIGER	A An example about SDIGER has been added.
854	Geonovum	LMO	35	A.10		E	In the clause 'schema tranformation' and 'model transformation' are mixed.	Make clear that there is a difference between the two	Ap
855	Institut Géographique National	LMO	212	A.10	recommenda-tion 16	T	"the model needs to facilitate". What does <i>model</i> mean ? Application schema ot transformation model ?	precise vocabulary.	A
856	Institut Géographique National	LMO	216	A.10	Recommendation	T	facilitating the transformation process does not depend on the model only but especially on the way it is described (the language + metadata)	replace with : 'The development of application schemas should take into account that both the model and its documentation need to facilitate (easy) transformation processes, as far as possile.	A
857	Institut Géographique National	LMO	213	A.10	paragraph following recom. 16	T	implement common data model = populate the common application schema ?	precise vocabulary.	A
858	Institut Géographique National	LMO	214	A.10	paragraph following recom. 16	T	the 2 alternatives look equivalent	1) on the fly conversion to a derived dataset 2) preliminary conversion to a derived dataset	NA The first option does not include "to a derived dataset".
859	Institut Géographique National	LMO	215	A.10	NOTE	T	what is this study ?	precise when the result of the study can be taken into account	JRC: The scope of the transformation study has been changed. Initially the outcome was foreseen to be used as input to the

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									TWG during their work, but it is now seen as outside the scope of the TWG work to deal with transformations. Transformations are relevant in the testing phase of the data specifications. A range of transformation tools exist, and it is open for the SDICs and LMOs to apply any tool in the testing phase. The reference to the study will be removed from the document.
860	Geonovum	LMO	21	A.11		G	I think portrayal has to be separated from the data specification. Both can be important, but it is a really different problem. Also the way data is collected should be separated of the data specification. As stated in A.11 the watercourse is the object. By registering the object every INSPIRE user knows about this watercourse. That is (in my opinion) the most important of INSPIRE. Besides that, it is important that when you make a map of these objects, that this map will look good, therefore you need the portrayal rules (when >125 m, then area, when <125 m. then line), but that is in my opinion an aspect of the attribute geometry of the object watercourse.		Portrayal (symbolisation) is required for view services in INSPIRE : at least, a default legend has to be provided and may be defined by the future TWG. The "portrayal rules" (when > 125m, then area, ...) are not considered here but in the data capture component. / JRC: The data specifications will include default rules for portrayal. If agreed portrayal rules exist, TWGs may propose them.
861	NESDIC - Natural Environment	SDIC	2	A11	Recommendation 18 & 19	G	Thoroughly agree		Thanks
862	Met Office	LMO	MO_51	A.11	rec 19	G	We are pleased to see the pragmatic recommendation. There are legally required portrayal rules dictated for example by ICAO, and de jure standard portrayal rules for WMO.		Fine
863	Flemish government - Environment, Nature and Energy Department -	LMO	17	A.11	exemple 2	G	We have tried to adopt the ICS stratigraphy chart for the geological mapping of the Brabant Massif. However, the color charts does not provide more subdivisions of geological ages, as this is on a		"_" It is just an example.

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	Land and Soil Protection, Subsoil, and Natural Resources Division						regional scale mostly the case. One has to choose a range of the mastercolor. If the ICS gives directions or guidelines for problems (e.g. a standardised calculation method in RGB, CMYK, e.g. +3 units) new subdivisions), the colors could be adopted by INSPIRE, (K. De Nil)		
864	National Survey and Cadastre, Denmark	LMO	KMS-35	A.11	Recommendation 19	T	It might considered to investigate if ISO 19117 can be used for portrayal	Consider using ISO 19117.	JRC: NA Portrayal is only to define a default symbology for view services.
865	EA - Environment Agency for England and Wales	SDIC	33	A.11	Recommendation 17	T	The use of the term "legend" is inappropriate. A legend is an index of style/symbology used on a map - it is not the symbology itself. NB This term appears in the recommendation box and the first paragraph after Figure 21; the usage of "legend" under Recommendation 18 is correct.	Replace "legend" with "symbology" or "style".	A Will be replaced by "symbology"
866	AGI - Association for Geographic Information	SDIC	48	A.11	Recommendation 17	T	The use of the term "legend" is inappropriate. A legend is an index of style/symbology used on a map - it is not the symbology itself. NB This term appears in the recommendation box and the first paragraph after Figure 21; the usage of "legend" under Recommendation 18 is correct.	Replace "legend" with "symbology" or "style".	d see comment 865
867	Lenkungsgrremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	49	A.11	recommendation 19	T	How shall the portrayal rules be described? Also in UML? Or SVG?	Give a hint on this	A template will be provided by DT NS.
868	Institut Géographique National	LMO	217	A.11		T	Is there any formal thing foreseen in the general conceptual model for modeling portrayal informations (SLD or other)		A template will be provided by DT NS.
869	HUMBOLDT - HUMBOLDT-EU	SDIC	48	A11		Q	Is Portrayal part of the data specification?		For INSPIRE, a default symbology is required for view services. One way

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	Project on Spatial Data Harmonisation and Service Integration								is to provide it in the data product specification of each theme. / JRC: See #860
870	Met Office	LMO	MO_52	A.12	below rec 20	E	"practise" misspelt	"practice"	A
871	EA - Environment Agency for England and Wales	SDIC	34	A.12	Recommendation 20, Example 1, 2nd paragraph	E	Spelling mistake.	Replace "...gets and end..." with "...gets an end...".	A
872	AGI - Association for Geographic Information	SDIC	49	A.12	Recommendation 20, Example 1, 2nd paragraph	E	Spelling mistake.	Replace "...gets and end..." with "...gets an end...".	A
873	EA - Environment Agency for England and Wales	SDIC	37	A.12	Figure 23	E	The figure's description does not read correctly.	Replace with "Application of the overlap rule. Where the new object has an overlap with more than half of the area of the old object, then the new object gets the old TOP10_ID. Here this is the case with object 1012 (but not with object 1011)."	A
874	AGI - Association for Geographic Information	SDIC	52	A.12	Figure 23	E	The figure's description does not read correctly.	Replace with "Application of the overlap rule. Where the new object has an overlap with more than half of the area of the old object, then the new object gets the old TOP10_ID. Here this is the case with object 1012 (but not with object 1011)."	d See 873
875	EA - Environment Agency for England and Wales	SDIC	38	A.12	Figure 24	E	The figure's description is confusing.	Replace with "Application of the aggregation rule. The size of the new object is more than 200% of the size of the original object with TOP10_ID 0011, so it does not use this ID. However, the size of the new object is less than 200% of the size of the original object with TOP10_ID 0012, so it keeps this ID."	A
876	AGI - Association for Geographic	SDIC	53	A.12	Figure 24	E	The figure's description is confusing.	Replace with "Application of the aggregation rule. The size of the new object is more than 200% of	d See 875

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	Information							the size of the original object with TOP10_ID 0011, so it does not use this ID. However, the size of the new object is less than 200% of the size of the original object with TOP10_ID 0012, so it keeps this ID.	
877	EA - Environment Agency for England and Wales	SDIC	39	A.12	Recommendation 20, Splitting Rule	E	The first sentence of this paragraph does not read correctly.	Replace with "This rule prevents several new objects from getting the same TOP10_ID after splitting up an object."	A
878	AGI - Association for Geographic Information	SDIC	54	A.12	Recommendation 20, Splitting Rule	E	The first sentence of this paragraph does not read correctly.	Replace with "This rule prevents several new objects from getting the same TOP10_ID after splitting up an object."	d See 877
879	EA - Environment Agency for England and Wales	SDIC	36	A.12	Recommendation 20, Overlap Rule	E	The last sentence does not read correctly.	Replace with "However, to prevent a new object from getting more than one TOP10_ID, the ID of the largest overlapping object is used."	A
880	AGI - Association for Geographic Information	SDIC	51	A.12	Recommendation 20, Overlap Rule	E	The last sentence does not read correctly.	Replace with "However, to prevent a new object from getting more than one TOP10_ID, the ID of the largest overlapping object is used."	d See 879
881	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	49	A 12	Recommendation 20	E	The Requirement is clear and gives a preference to not changing object identifiers. So drop the sentence "... so the requirements ... should be as flexible as possible"	drop the sentence in the requirement	AwM The requirement has not been understood (so, is not so clear). Clarification will be given about what has to be supplied in the common DPS and what has to be supplied in the dataset metadata.
882	EA - Environment Agency for England and Wales	SDIC	40	A.12	Recommendation 20, Other examples	E	This paragraph does not read correctly.	Replace "...from 'unpaved' in 'paved or metalled'..." to "...from 'unpaved' to 'paved or metalled'..."	A
883	AGI - Association for Geographic Information	SDIC	55	A.12	Recommendation 20, Other examples	E	This paragraph does not read correctly.	Replace "...from 'unpaved' in 'paved or metalled'..." to "...from 'unpaved' to 'paved or metalled'..."	d See 882
884	Lenkungsgremium GDI-DE (Steering Committee GDI-DE) (explanation:	LMO	50	A.12	Caption of Figure 23, page 73	E	Typo "note" (2nd occurrence)	Change to: "not"	A

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	GDI-DE = Spatial Data Infrastructure Germany)								
885	NESDIC - Natural Environment	SDIC	3	A12	Recommendation 20	G	I am pleased to see that flexibility is being considered here. Getting persistent object identifiers are present and maintained.		"_"
886	NESDIC - Natural Environment	SDIC	4	A12	Examples	G	The examples are very useful, although may not represent best practise.		"_"
887	NESDIC - Natural Environment	SDIC	5	A12	Examples	G	Thematic identifiers are very important for cross border harmonisation and the structure/format/issue/maintenance of such identifiers needs to be agreed. I'd have expected more detail here to help us ensure conformity and thus ease of harmonisation of data.		TWG will have to deal more in detail with thematic identifiers. As thematic identifiers depend on each theme, it is not really easy to give general rules on this topic.
888	Institut Géographique National	LMO	218	A.12	Recommendation 20	G	"Object" here doesn't seem to be taken in the definition given in 3. Terms and abbreviations. If it is, replace "object" by "feature" to be consistent with the rest of the document. If not, make it quite clear.	Solve this issue (which to me may point to an even more fundamental issue not treated in the document : is there identity between a feature from a geographic point of view and a feature from a database administration point of view?)	AwM The INSPIRE terminology will be used, i.e."object" will be replaced by "spatial object"
889	Institut Géographique National	LMO	220	A.12	Recommendation 20	G	How the lifecycle of features is modelled should be part of the specifications	Consider extending the ISO-based specifications fields or the application schema structure in order to describe the modelling of the feature's lifecycles	NA Only text is required, there is formal way to structure this information as there is nothing in ISO on this topic and as DT DS has to build on existing standards.
890	Institut Géographique National	LMO	219	A.12	Recommendation 20	G	It seems there is a confusion between lifecycles of data due to database processings, lifecycles of the entities in the real world, and lifecycles of the features in the Universe of Discourse.	Make the recommendation clearer	Ap The recommendation is about "features" (or "spatial objects").
891	Institut Géographique National	LMO	221	A.12	all section	G	The whole section shows that no safe concepts have been used for modelling identifiers and that many different issues are confused.	Consider structuring the recommendations on the relation of identifiers to lifecycles on the following basis: - lifecycles of data in data production and database	Ap This section is only for the spatial objects which will be published in INSPIRE.

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								maintenance - lifecycles of features in the Universe of Discourse - lifecycles of features in the application schema - lifecycles of entities in the real world	
892	EA - Environment Agency for England and Wales	SDIC	35	A.12	Figure 22	T	What's happening in this diagram is not immediately obvious. It may be a good idea to show another example where the change stays within the buffer and the IDs therefore remain unchanged.	Show a second example of a smaller change where IDs remain unaltered.	A Figure 28 will be moved as it illustrates the other case.
893	AGI - Association for Geographic Information	SDIC	50	A.12	Figure 22	T	What's happening in this diagram is not immediately obvious. It may be a good idea to show another example where the change stays within the buffer and the IDs therefore remain unchanged.	Show a second example of a smaller change where IDs remain unaltered.	d See 892
894	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	50	A 12	Recommendation 21	G/Q	What are thematic identifiers? Maybe there are better ways than concatenations? E.g. adding attributes, so also other aspects like usergroups etc. can be added?		NA Thematic identifiers are attributed by managers, not by user communities.
895	EA - Environment Agency for England and Wales	SDIC	41	A.13	2nd paragraph	E	The last sentence does not read correctly.	Replace with "...spreadsheets displaying either the proposal for the feature catalogue or the matching tables with existing data."	A
896	AGI - Association for Geographic Information	SDIC	56	A.13	2nd paragraph	E	The last sentence does not read correctly.	Replace with "...spreadsheets displaying either the proposal for the feature catalogue or the matching tables with existing data."	d See 895
897	EA - Environment Agency for England and Wales	SDIC	42	A.13	1st bullet below the example matching table	E	This bullet refers to "Annex A, recommendation 6". Recommendation 6 is not in Annex A.	Correct the reference to Recommendation 6.	A It is recommendation 10
898	AGI - Association for Geographic Information	SDIC	57	A.13	1st bullet below the example matching table	E	This bullet refers to "Annex A, recommendation 6". Recommendation 6 is not in Annex A.	Correct the reference to Recommendation 6.	d See 897

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899	Institut Géographique National	LMO	222	A.13	before recom. 22	E	"...then enumeration"	then -> than	A
900	Institut Géographique National	LMO	223	A13	First example after matching table	E	Wrong reference	Replace "recommendation 6" by "recommendation 10"	A
901	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	51	A 13	1. Section (- Example 1)	G	In the first part, the use of feature catalogues is described, there is also the example on this. The second part is about the way to model enumerations or codelists. This does not fit.		Ap The second part with the 2 examples will be moved to in D2.5 to give an illustration of recommendation 4 (of the GCM).
902	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	52	A13	Recommendation 22	G	This is not useful - too vague	drop recommendation	NA The recommendation may be too vague but is illustrated by an example.
903	National Survey and Cadastre, Denmark	LMO	KMS-36	A.13	Recommendation 22	T	In order to ensure a common understanding and interoperability, terms and definition must whenever possible originate from international standards i.e. standards from ISO, CEN and OGC.	Reformulate the recommendation so that it become clear that terms and definition whenever possible originates from ISO, CEN and OGC.	NA Recommendation 22 is not about the terms defined by ISO, CEN or OGC. These terms are the general concepts which will be registered in the glossary. Recommendation 22 is about the "thematic" terms . These terms will be registered in the Feature Concept Dictionary
904	Lenkungsgrremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	51	A.13	headline	T	The content of this chapter deals with feature catalogues. Why does the headline say "Register and Registries" ?	Reword the headline	NA The title comes from the data harmonisation component (see figure 3). This chapter deals with Feature Catalogues and with Feature Concept Dictionaries, which are examples of registers and/or registries
905	Lenkungsgrremium GDI-DE (Steering Committee GDI-DE) (explanation:	LMO	52	A.13	Example 1, page 78	T	The list of values seems to be not complete: There may be partly functional dams in a disaster situation (holding water to a limited height).	Add "partly functional" as additional value.	AwM Adding "partly functional" does not seem relevant (as after, it is required to say what is functional and what is not). May be better to give another

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	GDI-DE = Spatial Data Infrastructure Germany)								example (days of the week as suggested by a comment in D2.5).
906	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	53	A14		G	The section is on the description of attributes, not on metadata in the ISO 19115 context. Does not fit to 6.3.7.		The common DPS may allow options; these options have to be described in the metadata of each data provider, as recommended in 6.3.7.
907	Institut Géographique National	LMO	225	A.14	example	T	relevant example ?	This is a new example of a feature catalogue. Suggestion : an example comparing EuroRoads with the INSPIRE feature catalogue (or dictionary) would be more appropriate	The INSPIRE feature catalogue still does not exist.
908	Institut Géographique National	LMO	224	A.14	Example	T	The table given doesn't really belong with metadata	It belongs with specifications	NA See comment 906
909	EA - Environment Agency for England and Wales	SDIC	44	A.16	Last paragraph of 2nd example	E	Percentage is wrong.	Replace "±60%" with "±5%".	A
910	AGI - Association for Geographic Information	SDIC	59	A.16	Last paragraph of 2nd example	E	Percentage is wrong.	Replace "±60%" with "±5%".	d See 909
911	EA - Environment Agency for England and Wales	SDIC	46	A.16	Topological Consistency, 3rd paragraph	E	This paragraph refers to Appendix V. There is no such appendix in this document.	Remove the reference to Appendix V.	A
912	AGI - Association for Geographic Information	SDIC	61	A.16	Topological Consistency, 3rd paragraph	E	This paragraph refers to Appendix V. There is no such appendix in this document.	Remove the reference to Appendix V.	d See 911
913	EA - Environment Agency for England and Wales	SDIC	45	A.16	Table 3.5.4	E	This table number does not fit in with the numbering of the rest of the document.	Renumber the table.	A
914	AGI - Association for	SDIC	60	A.16	Table 3.5.4	E	This table number does not fit in with the numbering of the rest of the	Renumber the table.	d See 913

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	Geographic Information						document.		
915	NESDIC - Natural Environment	SDIC	7	A16	Examples	G	Completeness - I agree it needs to be defined if useful, but I believe a completeness statement is essential for users, even a simple yes/no (or is this stated in discovery metadata?)		? DT DS does not understand what is the issue as the example is compliant with the proposal contained in the comment. Completeness is not stated in discovery metadata.
916	NESDIC - Natural Environment	SDIC	8	A16	Recommendation 25	G	Essential		"_"
917	NESDIC - Natural Environment	SDIC	6	A16	Recommendation 23	G	Positional accuracy is not easy for data providers to supply if only quoted once in (discovery) metadata. It rather depends on the source data and that can be many and varied, even within a single polygon. I'd expect users might want accuracy statements on line segments or on segments of polygon edges.		Ap The sentence about "positionnal accuracy easy to provide" will be removed. Positionnal accuracy is not required by discovery metadata (only resolution is required). If detailed accuracy information is required at feature level in INSPIRE, TWG will have to add metadata attributes in the application schema.
918	Met Office	LMO	MO_53	A.16	p 81	T	Here is another example where Geographic concepts of consistency clash with Meteorological consistency. An example describing Met consistency is needed. For meteorological ensembles, there may be 50+ forecasts from the initial dateTime. The ensembles can be viewed as a monte-carlo simulation and exploration of the atmospheric chaotic attractor. In which case the consistency or LACK of consistency between forecasts may be the important property to recognise.	Suggest section on Meteorological consistency - as an example of multicultural misunderstanding.	AwM A.16 is about logical consistency, i.e. adherence to application schema, so it applies also for meteorological data. But, the issue is relevant for component A.18 Consistency between data where the proposed example may be added.
919	EuroGeographics - EuroGeographics	SDIC	6	A.16	Recommendation 25	T	There are several options how to report currency. It is important part of the metadata (e.g. update frequency or date of the last update). However, currency is not a quality subelement and it is not part of the temporal accuracy. Errors in currency can be seen in	Add discussion on the data currency from the "Guidelines how to implement ISO 19100 quality standards in the NMCAs" Chapter 3.4.1 and especially the Table 3.2 Possible measure of currency.	Ap Data currency has been moved to component "Maintenance" as currency is not considered as a quality element by ISO. Examples of data currency measures (from the proposed document) have been added.

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							completeness (omission or comission). However error in completness is not the same as currency. See discussion on this topic in "Guidelines how to implement ISO 19100 quality standards in the NMCAs Chapter 3.4.1. http://www.eurogeographics.org/eng/05_quality_reports.asp		
920	EA - Environment Agency for England and Wales	SDIC	43	A.16	2nd paragraph	T	This bullet says that positional accuracy is easy to consider. This is not necessarily the case - gross inaccuracies can be easily considered, but for smaller errors it may be much harder (how do you know that they're wrong?). Also it states that positional accuracy is easy for data providers to supply. Again, this is not true - they may be able to give an estimated error rate (e.g. "5% of points may be incorrect"), but they may not know about all errors (if they do they should fix them before supplying the data!). Perhaps there has been some confusion here between the terms "accuracy" and "precision". Precision is a measure of how detailed the data is (e.g. "points given to nearest 10m") and would be easier to consider and supply.	Either replace "accuracy" with "precision", or reword this section.	Ap The sentence about positionnal accuracy easy to provide will be removed.
921	AGI - Association for Geographic Information	SDIC	58	A.16	2nd paragraph	T	This bullet says that positional accuracy is easy to consider. This is not necessarily the case - gross inaccuracies can be easily considered, but for smaller errors it may be much harder (how do you know that they're wrong?). Also it states that positional accuracy is easy for data providers to supply. Again, this is not true - they may be able to give an estimated error rate (e.g. "5% of points may be incorrect"), but they may not know about all errors (if they do they	Either replace "accuracy" with "precision", or reword this section.	d See 920

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							should fix them before supplying the data!). Perhaps there has been some confusion here between the terms "accuracy" and "precision". Precision is a measure of how detailed the data is (e.g. "points given to nearest 10m") and would be easier to consider and supply.		
922	Institut Géographique National	LMO	227	A16	Bullet about positional accuracy	T	"will be compliant with the quality required (at least desirable)" As requirement 24 in D2.6 prohibits quality requirements, "quality required (at least desirable)" must be replaced by "recommended quality"	Replace "quality required (at least desirable)" by "recommended quality"	NA As requirement 24 has changed, requirements about quality are now possible in the new version of D2.6.
923	Institut Géographique National	LMO	226	A.16	First bullet after list	T	positional accuracy is not the easiest Quality element	delete brackets and content	A
924	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	55	A16	Recommendation 23, 24	Q	The Accuracy section is used to define the minimum requirements for datasets?		It may be. The general requirement about quality is requirement 24 in clause 6 : there may be minimum quality requirements for data sets if strong user requirements on this topic.
925	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	54	A16	Recommendation 23	Q	Whom to ask?		To data providers.
926	Flemish government - Environment, Nature and Energy Department - Land and Soil Protection, Subsoil, and Natural Resources Division	LMO	7	A.17	paragraph 1	T	this paragraph is confusing	Delete paragraph and add the following paragraph: fff	?
927	HUMBOLDT -	SDIC	60	A18	"The	E	redundant	drop sentence	?

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	HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration				possible levels of detail .."				DT DS does not see where is the redundance. But the sentence about definition in the glossary has been removed.
928	EA - Environment Agency for England and Wales	SDIC	47	A.18	Example 4	E	Some of the scales are incorrectly written, e.g. "200000" instead of "1:200000".	Ensure all scales are preceded by "1:".	A
929	AGI - Association for Geographic Information	SDIC	62	A.18	Example 4	E	Some of the scales are incorrectly written, e.g. "200000" instead of "1:200000".	Ensure all scales are preceded by "1:".	A
930	Lenkungsgrremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	53	A.18	paragraph 1	E	The meaning of the bullets "yes" and "no" is not clear.	Please explain the context	AwM Example has been removed.
931	NESDIC - Natural Environment	SDIC	9	A18	Recommendation 26	G	It is encouraging to note that the wildlife conservation agencies for UK agreed some years ago to use the OS MasterMap version of the land boundary between England/Wales and England/Scotland (along with the seaward boundaries as described in statute between England, Scotland, Wales and Northern Ireland.) This agreement allows cross border data of identical theme (eg SAC) to be joined without overlaps and slivers (harmonised)		"_"
932	Malta Environment and Planning Authority	LMO	7	A. 18		G	National and local scales are also dictated by the size of the country.	National and local scales are also dictated by the size of the country.	A This sentence will be added.
933	HUMBOLDT - HUMBOLDT-EU Project on Spatial	SDIC	58	A18	Listing (yes, no)	G	The listing does not have any content - must be explained at least		AwM This example will be deleted.

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	Data Harmonisation and Service Integration								
934	Institut Géographique National	LMO	229	A.18	all §	G	I cannot understand why "consistency between data" is limited in this example to "consistency across scales". The geographical system as shown by the data juxtaposed must be coherent with the geographical system of the entities in the real world such issues include the geographical consistency of the consistency elements in the ISO 1913 standard).	Complete A.18	AwM Logical consistency is considered in component A16. It is true that this component does not deal with all aspects of consistency between data. A note will be added saying that consistency across the boundaries is considered in Annex B and that consistency between themes has to be modelled in the application schema by constraints (example will be given in annex C)
935	Institut Géographique National	LMO	228	A.18	Recommendation 26, example 4	T	"Most cartographers would agree..." : this is subjective and should not be used to justify the choice of the classification.	Rewrite without involving unduly attributed cartographers opinions.	NA The paragraph is written rather carefully (e.g. "no consensus" "a classification may be defined"). Moreover, it is just an example.
936	Institut Géographique National	LMO	230	A.18	after recom. 26	T	"the possible levels of detail are...". This seems to me important and should be stated as a formal recommendation	add a recommendation for this sentence	A
937	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	59	A18	paragraph 1	Q	Are there different feature catalogues for different scales?		Yes, there may be, if required See comment 937
938	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation and Service Integration	SDIC	56	A18	Heading	Q	What means "consistency between data"?		Consistency between data will be explained (from extract of D2.5)
939	HUMBOLDT - HUMBOLDT-EU Project on Spatial Data Harmonisation	SDIC	57	A18	paragraph 1	Q	What means "semantic consistency between different levels of detail"?		The example will be deleted.

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	and Service Integration								
940	EA - Environment Agency for England and Wales	SDIC	48	A.19	1st paragraph under Figure 30	E	The abbreviation "NUTS" does not appear in the abbreviation list, 3.2.	Include "NUTS" in section 3.2.	A
941	AGI - Association for Geographic Information	SDIC	63	A.19	1st paragraph under Figure 30	E	The abbreviation "NUTS" does not appear in the abbreviation list, 3.2.	Include "NUTS" in section 3.2.	A
942	EA - Environment Agency for England and Wales	SDIC	49	A.19	Point 1 under Constraints	E	This sentence does not read correctly.	Replace with "The aggregated units retain logical consistency throughout".	A
943	AGI - Association for Geographic Information	SDIC	64	A.19	Point 1 under Constraints	E	This sentence does not read correctly.	Replace with "The aggregated units retain logical consistency throughout".	A
944	Institut Géographique National	LMO	233	A.19	"A road example"	E	The example is about the Seine river, not a road	"A river example"	A
945	Institut Géographique National	LMO	231	A19	Example 2	T/E	The example is rather long and not everything is directly related to multiple representation. For instance, the paragraphs about "capture, maintenance and publication" and about the "statistical example" are reasons to use multiple representations and these reasons are linked with the INSPIRE principles.	Consider moving these parts to A2 INSPIRE principles.	AwM The first paragraph will be shortened.
946	Institut Géographique National	LMO	234	A.19	all §	E	The whole § isn't very clear, and seems contradictory (eg. Dynamic generalisation isn't OK in the intro but is OK in Constraints 3)	Rewrite A.19 more clearly and to the point	Ap "Constraints" are not general constraints but apply only in the example given by Ordnance Survey.
947	Lenkungsgremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure	LMO	55	A.19	Example 2, paragraph 3, page 84	E	The word "disconnects" does not fit in context.	Use a better fitting word instead.	AwM The full sentence has been removed, in order to shorten the example.

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	Germany)								
948	Lenkungsgrremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	54	A.19	Example 1, page 84	E	Typo: "picks"	Write "pick".	A
949	NESDIC - Natural Environment	SDIC	10	A19	Example 2	G	Agree entirely with comment from OS "capture at largest resolution" as this (in most cases) allows for thinning for smaller scale uses. The term "generalisation" is often misused by GI people as it is often a simple weeding or thinning process, rather than a true cartographic generalisation (with deliberate object displacement).		"_"
950	Institut Géographique National	LMO	235	A.19		G	Only examples. Is there any recommendation ?	add a recommendation or state that A.19 is a general discussion	Ap There is no specific recommendation, only the general one which applies to all component (balance between user requirements and feasibility).
951	Institut Géographique National	LMO	232	A19	NOTE 2	T	Might be interesting to have "the general guidance contained in the workshop report" included in this document.	Include "the general guidance contained in the workshop report" in this document or give a link to it, if publicly available.	A
952	EA - Environment Agency for England and Wales	SDIC	50	A.20	Example 1 under Recommendation 27	E	This section refers to the horizontal guidance on the application of the term "water body". That isn't in this document.	Remove the reference to the horizontal guidance.	A
953	AGI - Association for Geographic Information	SDIC	65	A.20	Example 1 under Recommendation 27	E	This section refers to the horizontal guidance on the application of the term "water body". That isn't in this document.	Remove the reference to the horizontal guidance.	A
954	NESDIC - Natural Environment	SDIC	11	A20	General	G	as above "lineage information" is important as it clarifies the source, the currency of the source, the positional accuracy of the source and so on. This could mean a polygon dataset is accompanied by		AwM "which information has to be captured" is in the scope of INSPIRE and there are requirements and recommendations on this topic.

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							a line dataset. Given many people capture directly as polygons, this may not be possible for many.		"how this information has been captured" may have to be given by data providers as lineage information, but only if it seems necessary for users. An example has been added to illustrate a case.
955	Institut Géographique National	LMO	237	A.20		G	The notion of "selection rules" seems very important. Research in geographic data integration show that this is even a key bottleneck for integration (see works of A. Comber for example). For example, different producers may have the same definition of "Forest" (groups of trees...), but they may capture the forest with very different selection rules (height of trees, minimum % of area covered by trees, minimum size of forests...). If those rules are not at least fully described in metadata, the combined products will mix apples and oranges without saying it: they will be useless (NB: a full harmonisation of selection rules in practice is not feasible in the Inspire context, but there documentation is necessary).	Transform recommendation 27 in a requirement, especially for the part "...they will have to be registered". Change the title "Data capture" to a more explicit one, like "describing selection and representation principles"	NA Annexes should not contain requirements. The title has been chosen because it is part of ISO 19131 (Data product specification) But the example may be added to illustrate the interest of publishing the selection rules in metadata.
956	National Survey and Cadastre, Denmark	LMO	KMS-37	A.20	Recommendation 27, bullet point no. 3	T	One must be aware that this recommendation might have some impact on the metadata IR. If it happens to be so, then some addition might be necessary.	Make the necessary adjustment to the metadata IR document.	NA Metadata IR is only about discovery metadata. The metadata about selection criteria are rather at use level.
957	Institut Géographique National	LMO	236	A.20	Example 3 under recommendation 28	T	"diameter X shall be stored in metadata"	Why not in the specifications?	Because the diameter will probably not be the same for every data provider. So, it can not be stored in the harmonised data product specification.
958	Institut Géographique National	LMO	238	A.21	recom. 30	Q	where and in what form should that information be defined ? In the textual descriptions of feature types in the feature catalogue ?		It may be in the feature catalogue but it may also concern other elements. The future DPS should contain a conformance chapter.
959	AGI -	SDIC	66	Annex B		E	Title needs to be modified to reflect	Guidelines on spatial objects (sic)	Ap

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	Association for Geographic Information						content.	across state boundaries. Current title implies matching across tile edges.	
960	Federaal Platform voor Geo-Informatie / Plate-forme Fédérale de l'Information Géographique	SDIC	3	Annex B / B.6	Paragraph 1	E, T	Correct, but exception for the EuroBoundaries project.	Exception: the EuroBoundaries points - they must agree individually for each pair of corresponding spatial objects.	Ap A note has been added to illustrate this case.
961	General Administration of Patrimonial Documentation	LMO	3	Annex B / B.6	Paragraph 1	E, T	Correct, but exception for the EuroBoundaries project.	Exception: the EuroBoundaries points - they must agree individually for each pair of corresponding spatial objects.	d see 960
962	Geonovum	LMO	17	Annex B		G	I think the matching has to be seperated from the data specification. After specifying the data and thereafter collecting the data, then a matching has to be done.		d See also 964, 965, 971
963	Institut Géographique National	LMO	239	B	Title and whole part	G	"Data matching" may be often understand as "the process for identifying corresponding objects" rather than "the management of connections". Thus, one do not understand why this annex is in the document. It is the same for some subsection (e.g. section B.3.1 "how to match spatial objects" is more on "how to represent the word at the frontier" than "how to recognise the corresponding objects")	Change the title to "Management of connections at the frontiers" or something like that. I would also try, if possible, to use in the Annex different words for the "process" (at least "the process of data matching") and the result ("objects connection" or other).	Ap
964	Institut Géographique National	LMO	240	B		G	This annex is surprising in a document about data specifications. Isn't edge matching rather related to implementation ?		The INSPIRE Directive explicitly requires consistency at international boundary ; so, some guidelines will have to be supplied for each theme in the DPS.
965	National Survey and Cadastre, Denmark	LMO	KMS-38	Annex B	The entire annex	T	The content of the annex is common textbook material	Delete the annex	NA The INSPIRE Directive explicitly requires consistency at international boundary ; so, some guidelines will have to be supplied for each theme in the DPS.
966	Federaal Platform voor	SDIC	4	Annex B / B.6	Paragraph 1	T	Dangerous!!! It's better to formulate this sentence in another way.	Edge-matching in INSPIRE should be done, using mostly manual	NA DT DS thinks it should be the other

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	Geo-Informatie / Plate-forme Fédérale de l'Information Géographique							interventions but there might be cases that require automatic procedures.	way : automatic when possible, manual if not. But of course, it will also depend on theme (e.g. probably the procedures won't be the same for vector data and for coverages).
967	General Administration of Patrimonial Documentation	LMO	4	Annex B / B.6	Paragraph 1	T	Dangerous!!! It's better to formulate this sentence in another way.	Edge-matching in INSPIRE should be done, using mostly manual interventions but there might be cases that require automatic procedures.	d see 967
968	Federaal Platform voor Geo-Informatie / Plate-forme Fédérale de l'Information Géographique	SDIC	2	Annex B	Recommend ation 35	T	In some cases boundaries in dispute owing to technical or administrative reasons cannot be solved immediatelly.	Boundaries in dispute for geopolitical, technical or administrative reasons can be maintained separately.	NA It is a recommendation not a requirement.
969	General Administration of Patrimonial Documentation	LMO	2	Annex B	Recommend ation 35	T	In some cases boundaries in dispute owing to technical or administrative reasons cannot be solved immediatelly.	Boundaries in dispute for geopolitical, technical or administrative reasons can be maintained separately.	d see 968
970	ESB Working group on INSPIRE Implementation	SDIC	7	Annex B, B2,2	Whole Section	T	What is proposed for GRID CELLS which belong to more than one countries? For example a grid cell of 1km x 1km is transboundary and belongs to 2 or more Entities (Countries). Which Attribute value will have?		In fact, nothing is proposed, this chapter only deals with the issue. TWG may have to propose solutions.
971	LMV - Lantmateriet, National Land Survey of Sweden	SDIC	30	Annex B		Q	Is it appropriate to have annex B in this document?	Please consider if it should be part of another document or a separate document.	d See comment 965
972	Geonovum	LMO	18	Annex B		Q	Who will manage the matching? I can imagine that after collecting the data from the different member states the items which have to be matched will be identified. Ofcourse the memberstates have to discuss it with each other, but an committee who looks at the status would be good.		R to CT / JRC: Edge matching is always within the compentence of the responsible organisations of the meber states. They have to take measures to fulfill the eventual requirements specified for the theme. No central organisational measures are foreseen at the moment.
973	Institut Géographique National	LMO	243	B2.1	NOTE 1	E	"taking in account"	Replace by "taking into account"	A

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974	NESDIC - Natural Environment	SDIC	12	B 2.1	Recommend ation 31	G	It is encouraging to note that the wildlife conservation agencies for UK agreed some years ago to use the OS MasterMap version of the land boundary between England/Wales and England/Scotland (along with the seaward boundaries as described in statute between England, Scotland, Wales and Northern Ireland.) This agreement allows cross border data of identical theme (eg SAC) to be joined without overlaps and slivers (harmonised)		Nice
975	EA - Environment Agency for England and Wales	SDIC	51	B.2.1		T	On several occasions the text refers to "accuracy", but it should refer to "precision".	Replace "accuracy" with "precision".	NA This document refers to "accuracy". It may be an estimated one. / JRC: CT: ref to Terminology WG. Precision is related to the measuring technology (number of meaningful digits).
976	AGI - Association for Geographic Information	SDIC	67	B.2.1		T	On several occasions the text refers to "accuracy", but it should refer to "precision".	Replace "accuracy" with "precision".	d See 875
977	Institut Géographique National	LMO	241	B.2.1	Second blank bullet under second black bullet below Recommend ation 31	T	"having the same geographical name" : usually the spatial objects won't have the same names, because of linguistic issues ; they may also not have the same meaning or importance for two countries, because of cultural issues	Add a few realistic considerations on these issues	Ap "Having the same name" : a note will be added to take exonyms into account "same meaning or importance" : this expression is not included in the text
978	Institut Géographique National	LMO	242	B.2.1	example 1	T	Identification is not as easy as presented. What about several point objects in dataset 1 and several point objects in dataset 2?	Explain the issues by encompassing more cases than the simplistic examples here	"Mont-Blanc" and "XXX" are considered as identifiers, so, there should be a 1:1 correspondance between objects in dataset 1 and dataset 2.
979	Flemish government - Environment, Nature and Energy Department - Land and Soil Protection,	LMO	8	B.2.1	Recommend ation 29	T	Recommendation "aaa" does not make sense! Use proposed change	Delete the recommendation "aaa" and replace with the following recommendation: "bbb"	? Recommendation 29 is in A20 not in B2.1

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	Subsoil, and Natural Resources Division								
980	EA - Environment Agency for England and Wales	SDIC	52	B.2.2	Example about DEM	E/T	The first paragraph does not read correctly, and the second paragraph refers to "accuracy" where it should say "precision".	Replace "Only in case the original measurements..." with "Only in cases where the original measurements...". Replace "accuracy" with "precision".	A for first part d - See comment 875 for second part
981	AGI - Association for Geographic Information	SDIC	68	B.2.2	Example about DEM	E/T	The first paragraph does not read correctly, and the second paragraph refers to "accuracy" where it should say "precision".	Replace "Only in case the original measurements..." with "Only in cases where the original measurements...". Replace "accuracy" with "precision".	d see comment 980
982	Met Office	LMO	MO_54	B2.2	all	T	Would an example of radar rainfall be useful? Radar edge matching occurs on the overlap between circular radar images. The edge matching is dependent on different radar properties and even on the specific weather. Here data exchange mechanisms happen as frequently as every 2 minutes, while the European Composite Radar is delivered every 30 minutes. This has to be a centralised service due to the data exchange overload and obviously that delays are totally unacceptable.	Consider the example of radar rainfall edge matching (if only because it contrasts problems in different thematic paradigms).	A Yes, this example may be useful and has been added.
983	Institut Géographique National	LMO	244	B.2.2	2nd paragraph	T	coverages are harmonised : is also the function providing a value in a cell harmonised?	Discuss the issue of the harmonisation of the radiometric or altimetric models used (is it also performed, and edge-matching is made once the functions are harmonised? Or is there no harmonisation of functions/models?)	NA It will be up to each TWG to decide if harmonisation of the altimetric or radiometric model is required or not. This point has to be considered in the application schema and not in the annex about edge-matching.
984	NESDIC - Natural Environment	SDIC	13	B3	General	G	I am not keen on ANY geometric displacement - I prefer to see neighbouring countries agreeing on a maintenance schedule that deals at source with the issues in B.3		"-" Consistency across international boundaries is an explicit requirement of the INSPIRE Directive. It may imply lots of data, so we have to be pragmatic and not exclude any geometric displacement.
985	Institut Géographique	LMO	245	B.3	First sentence	G	"open issue" : another issue, to be related to 5.2.4, bullet 3 (on same	If there is 1 entity there should be 1 spatial object in the view of data that	It is said in B1 that we are in the case of harmonised specifications

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	National						entities), is the following: are their two entities or 1 entity when a border is crossed?	follows the harmonized specification (5.2.4 bullet 3), yet there might be separate entities if the countries do not agree that they have tried to represent the same phenomenon	(the edge-matching must be done after having converted the data from two neighbour countries in a common application schema).
986	EA - Environment Agency for England and Wales	SDIC	56	B.3.1	Figure 39	E	One of the nodes in the left-hand diagram, and the node in the right-hand diagram are not shown to fall on the boundary. Is this deliberate, or an error?	Show the nodes lying on the boundary, or explain why they do not.	A It is an error, to be corrected.
987	AGI - Association for Geographic Information	SDIC	72	B.3.1	Figure 39	E	One of the nodes in the left-hand diagram, and the node in the right-hand diagram are not shown to fall on the boundary. Is this deliberate, or an error?	Show the nodes lying on the boundary, or explain why they do not.	d See 987
988	EA - Environment Agency for England and Wales	SDIC	54	B.3.1	1st paragraph under Recommendation 33	E	Spelling mistake.	Replace "obejcts" with "objects".	A
989	AGI - Association for Geographic Information	SDIC	70	B.3.1	1st paragraph under Recommendation 33	E	Spelling mistake.	Replace "obejcts" with "objects".	d see 988
990	National Assembly of the Land Cover and Use Information System of Spain (SIOSE)	SDIC	16	B.31	Figure 41	E	The quality of the figure is not good and there is a mistake in it	Provide image in better quality and solve a mistake in the figure: In the graphic examples relatives to the lines (second row) it is necessary to interchange the figure of "changing the blue data" for the figure of "changing the red data"	Ap The mistake has been corrected.
991	IDEE Working Group of the Commission on Geomatics (National Geographic High Council)	LMO	16	B.31	Figure 41	E	The quality of the figure is not good and there is a mistake in it.	Provide image in better quality and solve a mistake in the figure: In the graphic examples relatives to the lines (second row) it is necessary to interchange the figure of "changing the blue data" for the figure of "changing the red data"	d See 990
992	Institut Géographique National	LMO	246	B.3.1	figure 41	E	the right reference is "Khentache and Mustière" (Lamine is the first name of Lamine Khentache)	Correct the reference in the caption of figure 41 and in the bibliography	A
993	Flemish government - Environment,	LMO	18	B.3.1.	recommenda tion 33	G	What is "the best source"? The moving of spatial objects is not that simple. For example: a borehole is		To decide which is "the best source" may let place for long discussions in some cases, specially between two

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	Nature and Energy Department - Land and Soil Protection, Subsoil, and Natural Resources Division						made in the past, and a localisation plan is made on paper, on an old topographical map. In the past one has given these points an X and Y coördinate. Now some one looks at the plan, and gives different X and Y coördinates based on digital GIS. Which one has the best quality? (K. De Nil)		countries. Nevertheless, the recommendation is valid. Let's hope that an agreement will generally be possible.
994	EA - Environment Agency for England and Wales	SDIC	53	B.3.1	Recommendation 33	T	Reference is made to data sources of different quality levels. How is quality defined in this instance? Does it mean more detailed (i.e. higher precision)?	Define what is meant by "higher quality" data.	Ap Higher quality genearily refers to more detailed data but other criteria may have to be taken into account (e.g. up-to-dateness)
995	AGI - Association for Geographic Information	SDIC	69	B.3.1	Recommendation 33	T	Reference is made to data sources of different quality levels. How is quality defined in this instance? Does it mean more detailed (i.e. higher precision)?	Define what is meant by "higher quality" data.	See 994
996	EA - Environment Agency for England and Wales	SDIC	55	B.3.1	Figure 38	T	The caption on the right-hand diagram states that the most accurate node is selected. But how do you know which is most accurate? Perhaps this should read "most precise".	Replace "accuracy" with "precision", or clarify what is meant by "most accurate".	d See comment 875
997	AGI - Association for Geographic Information	SDIC	71	B.3.1	Figure 38	T	The caption on the right-hand diagram states that the most accurate node is selected. But how do you know which is most accurate? Perhaps this should read "most precise".	Replace "accuracy" with "precision", or clarify what is meant by "most accurate".	d See comment 875
998	EA - Environment Agency for England and Wales	SDIC	57	B.3.1	Paragraph above Figure 41, example of EGM and example of ERM	T	The text refers to "accuracy", but it should refer to "precision".	Replace "accuracy" with "precision".	d See comment 875
999	AGI - Association for Geographic Information	SDIC	73	B.3.1	Paragraph above Figure 41, example of EGM and example of ERM	T	The text refers to "accuracy", but it should refer to "precision".	Replace "accuracy" with "precision".	d See comment 875
1000	EA - Environment	SDIC	58	B.3.2	Example 2	E	Since this is the first example in B.3.2 it should not be called	Rename the example.	A

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	Agency for England and Wales						"Example 2".		
1001	AGI - Association for Geographic Information	SDIC	74	B.3.2	Example 2	E	Since this is the first example in B.3.2 it should not be called "Example 2".	Rename the example.	d
1002	National Assembly of the Land Cover and Use Information System of Spain (SIOSE)	SDIC	17	B.3.2	Example 2	E	There is a mistake in the numeration of the example	Rename "Example 2" to "Example 1"	A
1003	IDEE Working Group of the Commission on Geomatics (National Geographic High Council)	LMO	17	B.3.2	Example 2	E	There is a mistake in the numeration of the example	Rename "Example 2" to "Example 1"	d
1004	Geonovum	LMO	19	B.3.2		G	I think it can be wise to give a general direction, that INSPIRE advises to do this or that, and that the TWG can decide to do it different if needed. In that way it can be tried to handle this the same in the different TWG's.		"_"
1005	Met Office	LMO	MO_55	B3.2	example	T	Another example which may be informative is the rather esoteric task of defining Sea Regions - which INSPIRE has chosen as a distinct theme. The responsibility belongs to IHO in Monaco, but the documentation is only in paper form. The difficulties arise because in the normal case there is little requirement for high precision. Sea regions are often locally agreed between nations rather than internationally, but imprecisions arise because the points are defined usually between land promontories and islands. Promontories erode, and the sea region border may go through islands or skirt the coasts	In the light of the INSPIRE Sea Region Theme, consider the example of defining sea regions.	AWM Example has been added under B 3.1

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							without any consistency.		
1006	EA - Environment Agency for England and Wales	SDIC	59	B.4	1st paragraph.	E	The bullets do not read correctly - the word "implies" is used inappropriately.	Replace "This implies mainly the line features and the point features" with "This occurs mainly with line and point features." Replace "This implies mainly the line features and the area features" with "This occurs mainly with line and area features".	A
1007	AGI - Association for Geographic Information	SDIC	75	B.4	1st paragraph.	E	The bullets do not read correctly - the word "implies" is used inappropriately.	Replace "This implies mainly the line features and the point features" with "This occurs mainly with line and point features." Replace "This implies mainly the line features and the area features" with "This occurs mainly with line and area features".	d
1008	NESDIC - Natural Environment	SDIC	14	B4	General	G	This seems to be happening already within the GI teams in the UK wildlife conservation agencies		Nice
1009	Institut Géographique National	LMO	247	B.4.1	2nd paragraph	Q	What would you recommend in this case "Rhin/Rhein"? This will be a common issue that would worth a recommendation	add a recommendation	R to TWG on geographical names / JRC: R to TWG GN
1010	EA - Environment Agency for England and Wales	SDIC	60	B.5	Paragraph above Recommendation 35	E	The last sentence does not read correctly.	Replace with "The representations of national boundaries in EurpBoundaryMap are not legally agreed...".	A
1011	AGI - Association for Geographic Information	SDIC	76	B.5	Paragraph above Recommendation 35	E	The last sentence does not read correctly.	Replace with "The representations of national boundaries in EurpBoundaryMap are not legally agreed...".	A
1012	Institut Géographique National	LMO	248	B5	p 99 Last bullet	E	The sentence "the administrative theme contains agreed rep)" is incomplete and redundant with the following one.	Delete this sentence.	A
1013	NESDIC - Natural Environment	SDIC	16	B5	Recommendation 36	G	Agree - but then there are issues over data capture resolution (ie a Euro-wide national boundary dataset at 1:1M is not good to us).		"_"
1014	Geonovum	LMO	20	B.5		G	I think it is important that all member states should use the same national boundaries from the beginning of the collection of data for INSPIRE. Be from the beginning clear in which		I fully agree with your first statement. But, it is not so obvious to give an absolute rule for the following reasons : - the boundaries to use will depend on the level of detail recommended

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							boundaries the member states are expected to use.		by the DPS and of the consistency rules to considered - until EuroBoundaries is completely achieved, there will be a remaining issue for local level
1015	NESDIC - Natural Environment	SDIC	15	B5	Recommend ation 34	G	It is encouraging to note that the wildlife conservation agencies for UK agreed some years ago to use the OS MasterMap version of the land boundary between England/Wales and England/Scotland (along with the seaward boundaries as described in statute between England, Scotland, Wales and Northern Ireland.) This agreement allows cross border data of identical theme (eg SAC) to be joined without overlaps and slivers (harmonised)		Nice
1016	EA - Environment Agency for England and Wales	SDIC	61	B.5	1st bullet below Recommend ation 35	T	The text refers to "geometric resolution accuracy", but it should refer to "precision". Just "geometric resolution" would be adequate.	Remove the word "accuracy".	d See comment 875
1017	AGI - Association for Geographic Information	SDIC	77	B.5	1st bullet below Recommend ation 35	T	The text refers to "geometric resolution accuracy", but it should refer to "precision". Just "geometric resolution" would be adequate.	Remove the word "accuracy".	d See comment 875
1018	EA - Environment Agency for England and Wales	SDIC	62	B.6	1st paragraph	E	Spelling mistake.	Replace "ondce" with "once".	A
1019	AGI - Association for Geographic Information	SDIC	78	B.6	1st paragraph	E	Spelling mistake.	Replace "ondce" with "once".	A
1020	Institut Géographique National	LMO	250	B6	p 101 First paragraph	E	"resolve ondce..."	Replace by "resolve once..."	A
1021	Institut Géographique National	LMO	249	B.6	1st paragraph	E	few typo erros in the two last sentences	ondce -> once, remove "by"	A
1022	National Assembly of the	SDIC	18	B.6	Paragraph 1	E	There is a grammatical mistake	Replace in the last sentence the word "ondce" for "once".	A

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	Land Cover and Use Information System of Spain (SIOSE)								
1023	IDEE Working Group of the Commission on Geomatics (National Geographic High Council)	LMO	18	B.6	Paragraph 1	E	There is a grammatical mistake	Replace in the last sentence the word "ondce" for "once".	A
1024	EA - Environment Agency for England and Wales	SDIC	63	C	Note 2	E	The first sentence does not read correctly.	Replace with "The following sections will be part of every data specification...".	A
1025	AGI - Association for Geographic Information	SDIC	79	C	Note 2	E	The first sentence does not read correctly.	Replace with "The following sections will be part of every data specification...".	duplicate comment, see 1024
1026	Institut Géographique National	LMO	296	C and D		T/E	Might be nice to have some consistent rule on how apply different colours in an application schema.	Have some guidelines on on how apply different colours in an application schema	discussed 2008-02-07 CPO, DLA, AIL: NA, with modifications. The Drafting Team finds it difficult to define general rules for colours in application schema. If colours are used they shall be explained at the examples. This has been done in C and D except for Geology, where the colours will be removed.
1027	Ministère des transports, de l'équipement, du tourisme et de la mer	LMO	297	C	chapter structure	E	same remark as # 79	Change order of paragraphs in the template to be the same as in ISO 19131	A
1028	Flemish government - Environment, Nature and Energy Department - Land and Soil Protection, Subsoil, and Natural Resources	LMO	9	C	chapter	E	use of colour coding not appropriate	use font styles instead of colours	? There are different font styles (generic text in italics, sample text in normal font)

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	Division								
1029	General Directorate for Cadastre	LMO	1	C	annex	G	It is OK if this example is not intended as proposal for the future cadastral parcel specifications	It would be necessary to clarify many aspects of the content of the example, but we have understood that it is not now the intention of this call	yes, this shall serve as an example for the structure of a data specification. The content will be defined by the TWG
1030	National Survey and Cadastre, Denmark	LMO	KMS-39	Annex C		G	The Annex C containing the two samples of Cadastral Parcels and Digital Elevation Model (DEM) are necessary. But it is vital that they are representative and illustrate the content and the granularity of the description. Maybe another example could be a better one. And all fields should be filled in.	Try to use another sample to illustrate the concepts. E.g. Administrative Units and Geographical Names.	Simple examples do not address all elements of a data specification, complex examples require too much work from the DT. Please accept the example as is.
1031	ESB Working group on INSPIRE Implementation	SDIC	8	Annex C	Whole Annex	G	Is the UML the most appropriate language to represent relationships and application Schemas?	I propose a simpler representation	UML is a requirement from ISO 19100
1032	Department for Environment, Food and Rural Affairs (Defra)	LMO	48	Annex C		T	If a feature catalogue is to be automatically generated from the Application Schema and the Feature Concept Dictionary should this section not include the feature concept dictionary entries for this example data specification	Add feature concept dictionary into examples as these would also be supplied as an Annex?	an example would help, but DT DS now simply runs out of time and personal resources
1033	Met Office	LMO	MO_56	Annex C	C.1 and C.2	T	Our technical experts query how one would use these examples. They seem very lightweight, even considering they are only an illustration of what a data specification might look like. Perhaps the missing detail is what is required.	We do not understand how these examples would be used in practice at a technical level. We suggest that the examples are expanded with an outline of how they would be used technically.	These examples shall serve as an example for the structure of a data specification. The content will be defined by the TWG. It may be much more detailed.
1034	Institut Géographique National	LMO	251	C		Q	I do not see any figure in the example (except the schema). Are they allowed?	clarify if figures are allowed	JRC: Figures are allowed and welcome in the INSPIRE data specifications. It will be clarified if figures can be used in the IRs.
1035	Institut Géographique National	LMO	253	C1		G	The definition of "cadastral parcels" is not the one coming from INSPIRE directive "areas defined by cadastral registers or equivalent"	I suggest either to call this example "cadastre" rather than "cadastral parcels" or to keep the example closer to the INSPIRE definition.	NA, example based on D2.3 (section 5.6) of the short INSPIRE 'definition' of cadastral parcels
1036	Institut Géographique National	LMO	252	C.1	C.1.3.4 and C.1.5	T	There is a strange effect in having the titles addressing the data product and the example-text	Explain why you identify product with specification, and assess the risk of confusion between the two	"-" the actual title is cadastral parcels, but to stress the fact that this is just

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							addressing the specifications		an example in the context of the INSPIRE data specification this was added to the 'working title'
1037	Institut Géographique National	LMO	254	C1.3.2	Attribute : use	T	The list is not complete ; it is not clear which other values may be added.	Clarify.	JRC: The list in the example is not shown as the complete list for brevity reasons. INSPIRE data specifications will specify the complete list. The Data Specification template and the example will be moved to separate documents, published on the INSPIRE web site.
1038	Institut Géographique National	LMO	255	C1.3.2	attribute : taxAmount	T	There may be restrictions for publishing this information (for privacy reasons) in national laws.	Delete this attribute or make it only optional	A
1039	Institut Géographique National	LMO	259	C1.3.5	temporal extent	E	1 opening parenthesis 2 closing parenthesis	Correct	A
1040	Institut Géographique National	LMO	261	C.1.3.5	4th paragraph	E	Misprint	write "more than one year" instead of "more then one year"	A
1041	Institut Géographique National	LMO	260	C.1.3.5	2nd paragraph	E	Unappropriate example : links to rights and links to persons should not appear in the data content	Delete "links to rights, links to persons"	NA. This is synchronized with content of D2.3: rights and persons are outside the scope, but "links to rights, links to persons" are inside the scope.
1042	Institut Géographique National	LMO	258	C1.3.5	data content	T	The data content is not consistent with the UML schema (e.g. boundaries are not included in the UML schema)	Delete boundaries from data content. Survey points may be added.	A Survey points must be added (and some explanation should be added that boundaries map to topological primitives as in the included the part of ISO 19107)
1043	Institut Géographique National	LMO	257	C1.3.5 and following	First paragraph	T	The definition of cadastral parcel is confusing, as in the application schema: - there is no feature type called "cadastral parcel" - there are 2 feature types "immovable" and "parcel" having more or less the definition of "cadastral parcel"	Ensure consistency between general explanations and UML schema.	A the theme is called cadastral parcels, but not the individual features. However, in the context of this theme parcels and cadastral parcels are equivalent. This statement will be added to the text.
1044	Institut Géographique National	LMO	256	C.1.3.5		T	The notion of "servingParcel" does not exist (with the given definition) in French legislation and maybe in other countries, which will make it impossible to provide.	Make this feature optional (or delete it)	"-" On optional feature is a feature class without instances (so, this is already covered). With additional constraints it might be specified that a class is

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									mandatory and should have at least 1 (or more) instances. Also see comment resolution 1060.
1045	Institut Géographique National	LMO	267	C.1.5	Topic categories	E	I do not see the interest of the enumerated values spelt in "java programming style": "planningCadastre" instead of "Planning cadastre"	rewrite the enumerated list	NA This list originates from the "Topic Category" in ISO 19115 standard
1046	Institut Géographique National	LMO	263	C.1.5	7th line content (Spatial representation type)	E	The sentence "One option is to register the resulting property, is the use of 3D volume cadastral parcels" is not clear	Clarify it.	A Will refer to book on 3D Cadastre (as listed in Supplemental information)
1047	Institut Géographique National	LMO	266	C1.5	spatial resolution type	T	Indicate very clearly the possible options. The point is for metadata on this topic : - for data providers, easier to say option A, B or C than to tell the full story -for users, guarantee to have a standardised way of providing this information	Indicate clearly the possible options: - option A : 2D vector data with planar partition for countries where public domain is considered as cadastral parcels - option B: 2D vector data with no overlap between parcels but possible "holes" for other countries - option C: 3D volume cadastral parcels	A Agreed with the proposed extension of the text, but instead of putting this in C.1.5 under spatial resolution, it fits better in C.1.6.1 under profiles of spatial ... schema
1048	Institut Géographique National	LMO	264	C.1.5	abstract	T	The abstract is not consistent with the UML schema (e.g. boundaries are not included in the UML schema)	Delete boundaries from data content. Survey points may be added.	d1042
1049	Institut Géographique National	LMO	265	C1.5	spatial resolution type	T	The use of 3D volume is in contradiction with recommendation 10 of D2.5 about the restriction to Simple Feature.	As the main aim of this example is to illustrate what should be done in INSPIRE, reconsider the option of 3D volumes.	NA In many European countries 3D parcels are already relevant. So it is not good to ignore this. In the current example it does not get much attention, but is mentioned as an option (which should be harmonized)
1050	Geonovum	LMO	22	C.1.5	p.106	Q	Are there maximum specifications? I can imagine that not all users can handle 3D information. It might be wise to make a restriction here?		"-" If a class has no instances (e.g. 3D parcels) then this still fits (kind of optional class: if not needed, then it is also not used, but if it is needed then it is also clear how include this). With additional constraints it might be specified that a class is mandatory and should have at least 1 (or more) instances,

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									this might be related to defining product levels/profiles see comment resolution 1047 and 1060. The annex is just an example, it is up to the TWG do decide on the actual specs.
1051	Institut Géographique National	LMO	262	C.1.5	5th line content, Alternative title	Q	What does "n/a" mean	An explanation would be necessary	A. add footnote explaining the abbreviation n/a (not applicable)
1052	Institut Géographique National	LMO	269	C.1.6.1	Informal description	G	"An exception to this rule may be government land (or public domain) not registered within the Cadastre (though it is not recommended practice) " I think that this remark is inappropriate, as it carries a negative opinion on the practices in some Member States (included France) ; moreover, it is said several times in INSPIRE documents, that data producers are not supposed to change their internal data (and so, neither their practices, even if not recommended), just to provide them in a harmonised way	Delete "(though it is not recommended practice)"	NA. As it is a recommendation it would possible to be conforming to the spec without full coverage (e.g. not including government land)
1053	Institut Géographique National	LMO	271	C1.6.1	identifier management	T	"Alternatively, there could be explicit associations between predecessors and successors" I do not see any of these associations in the UML schema.	Delete this sentence to make explanations consistent with UML schema	NA. The fact that it is labeled as an alternative is the reason why it is not included in the current UML schema.
1054	Institut Géographique National	LMO	270	C.1.6.1	identifier management	T	"cadastral parcels" As there are no "cadastral parcel" in the UML schema, it is not clear to which feature type(s), these recommendations apply.	Clarify ; ensure consistency between general explanations and UML schema.	d1043
1055	Institut Géographique National	LMO	268	C1.6.1	informal description	T	The part "irrespective to of the legal system ... in order to protect the personal information" is not really related to the data content and structure.	Delete this part or move it to C15 purpose	A
1056	General Directorate for Cadastre	LMO	2	c.1.6.2.	Figure 45	E	This figure is not totally clear because it is a simplified version of the CCDM. This version can give course for mistakes of	Add the original version instead of the simplified one.	NA In the previous draft of D2.6 a more complete (CCDM-based) set of UML class diagrams was included, but

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							interpretation		within the drafting team this was considered to elaborate for an example. Therefore this compromise (it is up to the TWG to make the complete data spec, with complete set of UML diagrams).
1057	Institut Géographique National	LMO	274	C.1.6.2		T	why are "Movable", "RRR", "Person" and "PersonType" included in the application schema? if they are not part of the theme "cadastral parcels", they are not going to be included in any other INSPIRE theme. So, what is their use in INSPIRE?	Delete these 3 feature types in the UML schema and everywhere in the example.	NA It is indicated that these are outside the theme cadastral parcels, but they are needed (for the definition of a cadastral parcel and for reference purpose).
1058	Institut Géographique National	LMO	272	C.1.6.2		T	the arrow between "TP_Primitive" and "SurveyPoint" should be between "TP_Primitive and "Parcel"	Check this arrow.	NA Parcel has attribute SpatialRepresentation, which is a union of TP_Face and TP_Solid (both specializations of TP_Primitive). There is no association between TP_primitive and Parcel. The current UML is correct.
1059	Institut Géographique National	LMO	273	C.1.6.2	Attribute:use	T	This kind of information is overlapping with the land use theme.	Keep this information away from cadastral parcels.	NA Agreed there are links between land use theme, but in many countries also a (limited) indication of the main use of the parcel is included. Up to the TWG to decide what to do for the final data spec.
1060	Institut Géographique National	LMO	275	C.1.6.3		T	Some elements in this application schema are not strong requirements and may be difficult to provide (e. g. SurveyPoint, ServingParcel). So, it could be a good opportunity to apply recommendation 5 of Annex A : "the application schema should allow some flexibility".	Define which features/attributes are mandatory and which are optional.	NA. Agreed that it is good to explicitly indicate which features and attributes are mandatory/optional (may also depend on the used profile; see comment 1047). For attributes it is already indicated if it is optional (via cardinality), for feature this is not clear how to model this UML. Two options might be used to make this explicit in the model: 1. with additional constraints it might be specified that a class is mandatory and should have at least 1 (or more) instances, 2. by adding explicit collection classes (with aggregation association to the

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									relevant class with an explicit cardinality). It is up to the TWG to make the right decisions.
1061	Institut Géographique National	LMO	277	C.1.6.3.2	Attribute "TaxAmount"	E	Unappropriate example	delete it	d1038
1062	Institut Géographique National	LMO	278	C.1.6.3.2	Associaton role	E	Unappropriate example	delete it	d1041
1063	Institut Géographique National	LMO	276	C.1.6.3.2	Definition	Q	Which movable objects may be contained by the RegisterObject	If there are some, give an example, if there is none, replace "Contains movable and immovable" by "Contains immovable"	NA. As Movable objects are outside INSPIRE cadastral parcel (and this is indicated by yellow color in UML class diagram). However, it is relevant context as it is a sibling of Immovable. Further, in practice many cadastral organizations are also involved in the registration of one or more types of Movables (e.g. ship, airplane, train or even car). Again, this is outside scope of INSPIRE and therefore not further elaborated in the example.
1064	Institut Géographique National	LMO	279	C1.6.3.6		T	Two operations are included in the feature type "Parcel". D2.5 allows operations to be included in an INSPIRE application schema but does not recommend their use. This example should probably respect rules and recommendations from D2.5	Delete the two operations	NA The use of operations has been minimized in the example model, but a the spatial representation of a parcel is based on topology primitives, it is important to show how geometry primitives can be obtained
1065	Institut Géographique National	LMO	280	C.1.6.3.7		T	The definition of "LegalSpaceBuilding" is not really clear. The link between "LegalSpaceBuilding" and "SurveyPoint" is even more unclear : does it mean that there may not be survey points for parcels without buidings?	Clarify	A. The definition of LegalSpaceBuilding will be clarified (current sentence has syntax error). It will be modified to 'legal space (in the 3D case) or legal surface (in the 2D case) around building. The association with SurveyPoint is clear: they are used to define the spatial description of LegalSpaceBuilding (independent of parcels; they are related to SurveyPoint via the TP_primitive in the SpatialRepresentation).
1066	Institut	LMO	283	C.1.6.3.8	Feature	T	I am doubtful about the	Delete these 2 attributes or ask the	A

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	Géographique National				attribute: locationTrans Feature attribute: transformatio n		requirements about SurveyPoints and even more doubtful about the requirements for these 2 attributes, except, may be, if the CRS is ETRS89.	second reference system to be ETRS89 – geodetic coordinates	Indeed, it will be added that the second references system should be ETRS89.
1067	Institut Géographique National	LMO	281	C.1.6.3.8		T	Information about SurveyPoints is not always available in France, as digital information. I do not think it is a strong requirement in INSPIRE	Make this feature optional (or delete it).	"-" see also 1060
1068	Institut Géographique National	LMO	282	C.1.6.3.8	locationOrig locationTrans	T	It is not really useful to get the coordinates of a point, without knowing the coordinate reference system.	Clarify this point.	A Indeed, the first coordinate will most likely be in the national references system and the second one in ETRS (see also comment 1066). This will be added to the description.
1069	Ordnance Survey	LMO	37	C.1.7	Table	T	Some countries do not use normal heights.	Add orthometric heights to the options of height systems.	AwM. Only the vertical coordinate reference system: EVRF2000 will be mentioned (without explicit statement of normal heights)
1070	Geonovum	LMO	1	C.1.8		G	What will be the relation between the Data Specification and the meta-data? This question is because of the following: a user will in the future get data from the INSPIRE portal. This user must be able to make the right interpretation. If he wants to combine data out of two themes to make decisions, he must be aware of the quality of both data sets of both themes. For example: the quality of theme 1 and theme 2 in member state A might be very good, and the quality of theme 1 and 2 in member state B might be less good. The interpretation by the user has therefor to be different. In member state A the conclusions must be interpreted diferent than the conclusions in member state B. Where does this user find this information? And where will we make the user aware of the importance of this interpretation? Will we state in C.1.8. the level of the "worst" quality? Or will we in		R to CT Good set of questions related to the granularity of data quality reporting / meta-data / JRC: TWG can define data quality elements as part of data (product) specifications for INSPIRE. If the quality is really an issue, minimal quality measures can be defined.

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							C.1.8 sum up the quality of each member state?		
1071	EuroGeographics - EuroGeographics	SDIC	7	C.1.8	Template for data quality	T	We agree with the statement that "a template needs to be defined and needs to be added". Template should not only contain the description of measure but also the quality conformance levels. Actually a template should be seen as a quality model for each theme specification. According to ISO 19131 it is mandatory to give quality requirements as conformance quality levels in data specification.	Add quality conformance levels to the template.	A
1072	Institut Géographique National	LMO	285	C1.8		T	As requirement 24 in D2.6 states that TWG shall only ask for recommendations about quality, the very detailed table proposed for quality elements seems too much detailed.	Think about something more simple.	NA. Point taken, but another comment even asked for an extension of this table (comment #1071) and the template is being based in ISO 19131, so the flexibility is limited. An option is to use 'not applicable' or 'not known' in certain places. The amount of quality descriptions should be user requirement driven and has to be decided by the TWG, but current template is an attempt to provide some level of harmonization between themes (of their data specs).
1073	Institut Géographique National	LMO	284	C1.8		T	The EuroGeographics Expert Group agreed on the fact that completeness is quite significant quality element for cadastral parcels.		A
1074	Institut Géographique National	LMO	286	C1.9		T	Some proposed metadata are not relevant as the elements are (no longer) in the application schema.	Ensure consistency with application schema.	A. remove the sentence '- CRS used for field sketch (or include it in the application schema).'
1075	Institut Géographique National	LMO	287	C1.11		T	The "not applicable" is surprising. Generally, the purpose is to have all cadastral parcels captured.	Replace "not applicable" by "All cadastral parcels have to be captured"	A
1076	Institut Géographique National	LMO	288	C1.12		T	Probably, users will expect a recommended minimum update frequency (e. g. ech year)		A, R to TWG. Add a note to the text (users might even expect updates every month or day) and that a balance between user requirements and availability of updates has to be

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									found by the TWG / JRC: R to TWG
1077	Institut Géographique National	LMO	289	C2.3.5		T	Most of the content is not about the product but about the RISE project	May be, just say that the product is a DEM and may be used for the computation of IDPR Add also that this product is suitable for scales around 1/50 000, for applications at regional level.	DLA !!!! It has to be made clear to the reader that this example has been developed for an artificial use case where the purpose was testing of methodology (i.e. the RISE project) rather than creating the data set.
1078	Institut Géographique National	LMO	290	C2.4		T	The information is very poor. Why are abstract, purpose, spatial resolution type and spatial resolution not provided for this example. They are key elements to understand a product.	Fill the missing information.	see comment 1077.
1079	Flemish government - Environment, Nature and Energy Department - Land and Soil Protection, Subsoil, and Natural Resources Division	LMO	10	C.2.4.1.1	paragraph 2	Q	what is the meaning of 'aaa'?	add explanation	??? there is no section C 2.4.1.1
1080	Institut Géographique National	LMO	291	C2.6.1	Consistency between spatial data sets	T	"or is captured in a lake which is an artefact of the DEM and not a real-world phenomena" - this part is not clear : is it allowed or not ? - how to check this rule, as it refers to real-world phenomena?	The best solution is probably to delete this constraint.	AwM. Direction of flow is kept, second part of the sentence on lakes will be deleted. CPO to check the OCL
1081	Institut Géographique National	LMO	292	C2.6.3.2	Definition	T	Definition is missing, whereas it is a key information	Add a definition	A
1082	Ordnance Survey	LMO	38	C.2.7	Table	T	Some countries do not use normal heights.	Add orthometric heights to the options of height systems.	R to TWG. This is just an example, not a draft specification for the theme 'elevation'! / JRC: R to TWG
1083	Institut Géographique National	LMO	293	C2.8		T	For DEM, IGN France provides vertical positionnal accuracy as quality element.		R to TWG. This is just an example, not a draft specification for the theme 'elevation'! / JRC: R to TWG
1084	Institut Géographique	LMO	294	C2.8 C2.9		T	Users would like to have quality information (at least, vertical	Add something on this topic.	R to TWG. This is just an example, not a draft specification for the

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	National						accuracy) in the specifications and/or in the metadata.		theme 'elevation'! / JRC: R to TWG
1085	Institut Géographique National	LMO	295	C2.11		T	Might be relevant to explain (here or in C2.6.3.2), which "elevation" has to be captured : is it elevation at the ground level or elevation of the landscape (ground level + forests, buidings, ...) ?	Explain (here or in C2.6.3.2), which "elevation" has to be captured : elevation at the ground level or elevation of the landscape (ground level + forests, buidings, ...)	R to TWG. This is just an example, not a draft specification for the theme 'elevation'! / JRC: R to TWG
1086	Lenkungsgremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)	LMO	56	Annex D1	paragraph 1, page 125	E	The sequence of the example themes mentioned in the text should be the same as the following examples D.2 to D.5. A reference to the example number ("D.x") may be helpful.	Change to: "cadastral parcels" (D.2), "elevation" (D.3), "meteorology" (D.4), and "geology" (D.5).	A
1087	Met Office	LMO	MO_57	Annex D.4	all	T	Congratulations to Andrew Woolf on creating a good illustration which has some degree of complexity. Consulting with our BUFR standards experts, we may have to have diverge with multiple representations, one of which must reflect the BUFR tableset better. BUFR tables are essentially an elaborate feature catalogue with 20 top level classifications based on instrumentation and usage, ~1200 primary simple features and several hundred complex features which together have ~4000 simple feature components. There are feature modifiers (e.g. statistical moment modifiers) and ~150 distinct code tables and enumerations. The GRIB table-set as a feature catalogue is a lot simpler (simpler than NetCDF). The feature catalogues are intrinsically linked to a data exchange standard of the same name. This will not be easy to document in ISO/GML style, but as an existing feature catalogue under an existing WMO standard (and likely to be adopted as an ISO standard), this is		- The examples are illustrative and not intended to replace work that will need to be undertaken by the TWG(s) for meteorology and atmospheric conditions. However, the general point of section 5.2.1 should be noted - that data specifications are intended to act on service outputs, not the inputs (database schemas or file formats). Also, a feature catalogue is intended to apply at the theme level, not an individual database or file level. Detailed issues of the best approach to integrating GRIB will need to be determined by the TWG.

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							likely to be a requirement. As a further comment on the examples in C, here our experts understand the details which are missing and which need reverse-engineered, but which are needed to use the outline data specification.		
1088	Met Office	LMO	MO_58	D.4	2nd para	T	We feel that the introduction doesn't reflect the WMO standards well. We suggest augmenting with this statement:	Change second para to: "The models are based on information elements contained in the WMO standards, GRIB and BUFR. The GRIB and BUFR standards refer to, without clearly distinguishing function: classification tables (feature catalogues); table elements (feature collections and coverages); code tables (discrete coverage values); coding methods (data exchange formats); packing methods (data compression) and WMO "messages" (datasets which contain feature instances). GRIB and BUFR messages constitute the bulk of millions of datasets collected new each day and exchanged between and within WMO Member States. The models in this example have been factored to conform to the OGC ..."	NA - This would pre-empt conclusions that properly should be determined by the TWG.
1089	Met Office	LMO	MO_59	D.4.1	title	E	SynopticObservations - shouldn't use camelCase in titles unnecessarily.	Synoptic observations.	A - insert spaces
1090	OMSz - Hungarian Meteorological Service	LMO	16	D.4.1.2.	Figure 49	T	Among MetSoundingParameters, wind data is also mentioned. So it should be mentioned in paragraph 1 also.		A - add 'wind' to par 1.
1091	OMSz - Hungarian Meteorological Service	LMO	15	D.4.1.2.	para1	T	Meteorological satellite profiles like ATOVS are also assimilated to the numerical models	It should be clarified that soundings are not the only source of profiles for forecast models.	A - Modify first sentence to "Some types of sounding observations...", and add additional sentence: "(Other types of soundings are made through satellites (e.g. ATOVS), lidars, sodars, drop sondes, etc.)"
1092	Met Office	LMO	MO_60	D4.1.2	1st para	T	Sounding observations aren't only made by radiosode - in fact WMO members are trying to reduce them	Some types of sounding observation ..	d - see Comment #1091

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							because of cost. E.g. satellites, lidars, sodars, drop sondes etc. They also measure refractivity, radio oscillation.		
1093	Institut Géographique National	LMO	297	D.4.1.2	fig 49	T	ReferencableSpatialObject	Can you explain in what cases ReferencableSpatialObjects/Spatial Objects are chosen ?	NA - The principle is already outlined in D2.5 Requirement 24 ("All spatial object types whose instances may participate in feature associations or that may be used as targets in object referencing (see Clause 13) shall inherit from ReferencableSpatialObject").
1094	OMSz - Hungarian Meteorological Service	LMO	17	D.4.1.3.	para2	T	What does "current weather" mean? It is not clear what kind of data will be specified for this feature.	"current weather" should be defined, or given example.	A - replace "current weather" with "current meteorological conditions (wind, temperature, humidity, visibility, weather)".
1095	OMSz - Hungarian Meteorological Service	LMO	18	D4.2.	para1	T	GRIB format is not applied at the moment for satellite and radar data. So it might cause problems if we apply the GRIB-conformant application data for satellite data. It depends also what kind of satellite information will be required for the INSPIRE themes.	It should be taken into account in further steps of the TWGs that not all meteorological data is stored in GRIB or BUFR format, also they are the used widely in meteorology. Here a statement referring to the special case of satellite and radar data should be added.	A - Change final sentence to "They are one type of gridded product. Satellite and radar data are also gridded, but generally not stored in GRIB format."
1096	Flemish government - Environment, Nature and Energy Department - Land and Soil Protection, Subsoil, and Natural Resources Division	LMO	19	D.5.1	NOTE	G	"It currently is not common practice in geology to assign identifiers to spatial objects". What is meant by this? In our database (DOV - http://dov.vlaanderen.be) are the geological elements on the maps all identified by a unique name, such as: borehole named after localisation, or given a specific name in a database, faults have a unique id, subcrops are mostly given a name,,,, (see also comment ID 2 and 3) (K. De Nil)		Ap - check with EuroGeoSurveys, this was based on GeoSciML
1097	Institut Géographique National	LMO	298	D5.2	Figure 53 and 54	T	The meaning of the colors used in these UML schemas is not explained.	Explain it	AwM - remove colours
1098	Met Office	LMO	MO_61	Annex E	p 134 part 1	E	diagram "o"provide	"will" possibly?	AwM. 'to'
1099	EA - Environment Agency for England and	SDIC	64	E	Part 1	E	Spelling mistake.	Replace "o" with "to".	A

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	Wales								
1100	AGI - Association for Geographic Information	SDIC	82	Annex E	Part 1	E	Spelling mistake.	Replace "o" with "to".	A
1101	OMSz - Hungarian Meteorological Service	LMO	19	Annex E	para1	E	The expression "goal-oriented" can not be understood at first reading. Who sets up the goal?	It should be clarified due to the importance of the User Requirements.	A. Remove first paragraph completely, but add the following sentences at the end of the current paragraph 2: "Actors are parties outside the system that interact with the system. An actor may be a class of users, roles users can play, or other systems." This should clarify the question related to whose "goal" we are talking about.
1102	AGI - Association for Geographic Information	SDIC	81	Annex E	Paragraph 4	G	Is this (reference to ISO/TS 19103) really relevant or useful to this annex?	Consider removing this paragraph	A
1103	AGI - Association for Geographic Information	SDIC	80	Annex E		G	This would benefit from a use case example	Add a worked example	beyond capacity of DT DS. The example from RISE would require a lot of editing and explanations. For interested parties, we refer to the public RISE deliverables.
1104	Stanli - Geographic Information Standards Initiative in Sweden	SDIC	10	Annex E		T	This annex is copied straight from the RISE spec. It should be described better, especially why the data sources are included.	Describe why the use case descriptions need to include the information described in the annex	JRC: The Use case template has been included in D2.6 to illustrate the generic methodology.
1105	Institut Géographique National	LMO	300	E		T	It is more or less said that this use case template is for a software development process. But TWG will develop data specifications and not software. The main aim of this template seems to be to identify actions (steps), whereas in data specification development, the main aim is to identify features, attributes, LoD, CRS, ...	Clarify this point.	see comment 1104
1106	Institut Géographique National	LMO	299	E		T	The use case template seems well adapted when users have already existing data they can build their application on.	Consider this case (at least by adding a note saying when it is relevant to use this template).	see comment 1104. INSPIRE is about harmonisation of existing data!

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							It may not so relevant if it is not the case (e.g. if they have some new reporting to do and do not know yet how they will proceed)		
1107	Met Office	LMO	MO_62	Annex F	p137 Asis	E OR T	as good as possible - as well as possible? Or is the intent to mean the available data service which best matches the use-case?	Correct English or clarify.	A "as well as possible"
1108	Met Office	LMO	MO_64	Annex F	p142	E	gazette	gazette	AwM "gazetteer service"
1109	Met Office	LMO	MO_63	Annex F	p 137 harmon..	E	investigate "on" suitable	delete "on"	A
1110	AGI - Association for Geographic Information	SDIC	83	Annex F	Title	E	Title needs to state the type of checklist	Checklist for data harmonisation	A
1111	OMSz - Hungarian Meteorological Service	LMO	20	Annex F	whole	G	This Annex is very exhaustive and surely will form the basis of the evaluation of User Requirements. It is very good that it have been provided.		thanks
1112	Stanli - Geographic Information Standards Initiative in Sweden	SDIC	11	Annex F					"_"
1113	EA - Environment Agency for England and Wales	SDIC	65	F.1		T	It may be useful to reiterate some of the text from the last paragraph of 5.1.2.2 about who will use the checklist.	Expand on who will use the checklist, reiterating some of the text from 5.1.2.2.	AwM
1114	AGI - Association for Geographic Information	SDIC	84	F.1		T	It may be useful to reiterate some of the text from the last paragraph of 5.1.2.2 about who will use the checklist.	Expand on who will use the checklist, reiterating some of the text from 5.1.2.2.	d
1115	EA - Environment Agency for England and Wales	SDIC	66	F.2	Last paragraph	E	Spelling mistake in the second sentence.	Replace "been" with "being".	A
1116	AGI - Association for Geographic Information	SDIC	85	F.2	Last paragraph	E	Spelling mistake in the second sentence.	Replace "been" with "being".	A

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1117	EA - Environment Agency for England and Wales	SDIC	67	F.3	(H) Object referencing model	E	Spelling mistakes.	Replace "gazette servicer" with "gazetteer service".	A
1118	AGI - Association for Geographic Information	SDIC	86	F.3	(H) Object referencing model	E	Spelling mistakes.	Replace "gazette servicer" with "gazetteer service".	A
1119	Institut Géographique National	LMO	302	F.3	Column "Gap analysis"	G	The Gap is not only "what is missing in what I have to make it consistent with Inspire?", but also : "what is in contradiction?"	Consider the contradiction issue between the as-is and Inspire requirement	A
1120	EA - Environment Agency for England and Wales	SDIC	68	F.3	(O) Data quality	T	The text refers to "accuracy", but it should refer to "precision".	Replace "accuracy" with "preceision".	d See comment 875
1121	AGI - Association for Geographic Information	SDIC	87	F.3	(O) Data quality	T	The text refers to "accuracy", but it should refer to "precision".	Replace "accuracy" with "preceision".	d See comment 875
1122	Institut Géographique National	LMO	301	F.3	row (B)	T	"Gap analysis" is empty here	"Gap analysis" should contain : "Which concepts do not match between use case and Inspire harmonisation?"	Ap
1123	Institut Géographique National	LMO	303	G		T	Would be interesting to know more about Enterprise Architect : which are its functionalities? Why was it chosen ?	Explain why EA has been chosen and what it does.	Ap, but the proposal from DT DS may become obsolete as responsibilities and decisions on tools are assigned to the CT.
1124	Institut Géographique National	LMO	304	G	NOTE 1	T	Would be useful to identify the tools which will be required during the data specification development.	To be considered for next version	R to CT, open issue / JRC: See #264, #695. CT will provide the tools for the data specifications development to the TWGs.
1125	Digital Norway		SK1	5.4.3		G	This clause lists the major sources for the user requirements, like community environmental policies, reference material, D2.3, studies by JRC and EuroStat , EU funded initiatives and projects. All this sources are important references, but is (in most cases) not the outcome of any use case methodology as described in this methodology. And much of the	Clarify that the user requirements will be stated during one or more use case scenarios, as specified in this document, taking the identified requirements listed in 5.4.3 into consideration. It should also be stated that the methodology is an iterative process, also taking into consideration the result from test implementation and the cost benefit analyse, possibly ending up with	Ap, R to CT. The collection of user requirements is a task of the CT which will not be defined in D2.6. The iterative process in mentioned in clause 5, description of the generic methodology, while DT DS has doubts that this can be executed in INSPIRE because of the tight schedule for the development of data specifications and the position of the CBA at the far end of the

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							reference material submitted by SDIC's and LMO's is based upon what exists of data and services, not what is required in an environmental context. To follow the methodology described in this document requires that use case scenario(s) are executed for the different annexes, applying the template and checklist. This process will certainly identify new requirements that has not been identified earlier and which must be taken into account. It is not clear how the CT will participate in this iterative process.	slightly revised user requirements and data specifications.	timeline. / JRC: CT agrees that the tight timeframe for Annex I does not allow many iterations. The TWGs should follow a feasible methodology. However if strong requirements are raised (mainly stemming from European environmental legislation) the CT will put forward these issues which may comprise even the revision of an adopted Implementing Rule.
1126	Digital Norway		SK2	5.4.3	2nd para 1st bullet	G	It is stated that one of the major sources for the user requirements are the community environmental policies. It is not clear if this means EU policies or the environmental policies of the member states.	Clarify	community' policies means 'EU' policies
1127	Digital Norway		SK3	5.4.3	first paragraph after Req. 3	G	It is stated that the analysis of the user requirements should result in defining the typical use-cases. This is not exactly correct. It is the analysis of the use cases that identifies the user requirements.	Rewrite to: The analysis of the use cases identifies the the user requirements and the corresponding data requirements.	A
1128	Digital Norway		SK4	5.4.3	Requirement 4	G	This is very important. Requirement 4 should not be modified.	No action	we have recognised your statement
1129	Digital Norway		SK5	5.4.5.1	Requirement 5	G	It is stated that the as-is analysis shall be based on the reference material submitted by the INSPIRE stakeholders. Since the as-is analyse is an important part of the methodology (which is an iterative process) it is important to state that the as-is analysis should not be restricted to the reference material submitted. The process should be free to consider any reference material in this process.	Rewrite to: The as-is analysis shall be based on the reference material submitted by the INSPIRE stakeholders and all other material that the TWG considers to be relevant.	A
1130	Digital Norway		SK6	5.4.5.3	Requirement 6	G	It may be a mismatch between the LMO and SDIC's willingness to invest in data and the support of real user requirements, ending up in	Clarify	There is no general advice on this situation. D2.6 only requires the decisions by the TWG to be justified and explained, so that SDICs and

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							generalised specifications that does not fulfill any important user requirements. This is a well known situation from many national SDI's. It should be clear what the TWG is supposed to do if this situation occurs.		LMOs can learn of the reasoning.
1131	Digital Norway		SK7	6.1	Requirement 9	G	It is stated that "Every INSPIRE data specification shall propose new concepts for the feature concept dictionary". But it is not enough to propose. It must be stated when it shall be proposed and the further process related to it. When is the concept mature enough to be submitted. How shall other TWG's apply and possible propose changes to the concept.	Rewrite to: Every INSPIRE data specification shall propose new concepts for the feature concept dictionary when it has reached a significant level of maturity and is not intended to be modified by the TWG submitting it. In addition, a data specification may propose, where appropriate, changes and clarifications on existing items in the feature concept dictionary. However, a change in the description of a concept must not be changed unless it is accepted by the TWG's that apply this concept. A secretariat to ensure this harmonisation will be provided by the commission.	The guidelines for maintenance of registries and consolidated models are under development and will not be ready for D2.6 v2.1, but the proposal will be considered.
1132	Digital Norway		SK8	6.1	Requirement 9	G	It is not fully documented the sequenc of processes that is related to the provision of the harmonised data specifications related to the feature cataalogue and the feature concept dictionary	Add a paragraph explaining that the outcome of the use case is (among other infomation elements) a UML model. Based upon the UML model, the feature catalogue is automatically derived. This implies that the UML model contains all information that is required in the feature catalogue, except from the multilinguality requirements which will be added later. When a UML model is considered to be reasonable mature, the concepts will be proposed for the feature data dictionaries, considered by a secretariat.	see 1131
1133	Digital Norway		SK9	6.1	Requirment 11	G	This requirement identifies a consolidation process. It is not clear what this consolidation process is, and what will be the outcome of this process.	Describe the consolidation process	see 1131. This deficit of the methodology has been highlighted in the Comment Resolution Workshop. Solutions are required, not for D2.6 v2.1 but at least until the TWGs

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									submit their first drafts.
1134	Digital Norway		SK10	6.1	Requirement 11	G	This requirement applies both the term 'type' and 'spatial object type'. Are there different rules of 'types' and 'spatial object types' Is it only allowed to subtype/supertype 'spatial object types' and not 'types' in general. From a UML modeling point of view, it is possible to supertype both codelists and data types, probably others as well. Is this defined in the generic conceptual model??	clarify	see 1131
1135	Digital Norway		SK11	6.1	Requirement 12	G	Who will develop this register. If such registers should be applied during the process of Annex I, an implementation is required immediately.		DT DS has forwarded this issue to the CT with D2.6 v1.0 / JRC: In the data specifications development process the feature catalogues will be developed from the UML models (see #264). CT is working on the procedures for the registers.
1136	Digital Norway		SK12	6.1	Requirement 13	G	It should be added that these proposals will be handled by the consolidation process.	The outcome of the proposed changes should be defined.	see 1131
1137	Digital Norway		SK13		Requirement 17	G	Why is annex C informative when it is a requirement to use the template in Annex C in the Data Specification work.	Change Annex C from informative to normative or change requirement 17 to a recommendation .	A. Change Annex C to normative
1138	Digital Norway		SK14	6.3.3	Note after requirement 19	G	It is stated that to achieve consistency between themes, all spatial object types, property types and listed values that are defined in the application schema shall be introduced to the INSPIRE Feature Concept Dictionary register.	Add a reference to requirement 9 that states the requirements for feature concept dictionary	see 1131
1139	Digital Norway		SK15	6.3.5	requirement 24	G	The INSPIRE directive require information on the quality and validity of the data. An INSPIRE Data Specification may therefore prescribe some minimum data quality requirements such as the Positional Accuracy.	Change to the following: An INSPIRE Data Specification may prescribe minimum data quality requirements if this is important to fulfill the user requirements.	NA. INSPIRE is about existing data - it can force data producers to describe the accuracy of their data with the metadata, it may recommend data quality levels, but it should not establish a legislation that requires Member States to improve their data to quality levels that they actually do not meet. The requirements on data content should be defined by dedicated legislation,

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									e.g. the Water Framework Directive.
1140	Digital Norway		SK16	6.3.5	Note 3 under requiremt 24	G	What is stated here is not only valid for quality, but also for other parts of the data specifications, like maintenance, portrayal, and even the content of the application scheme. The iterative process aims to state the user requirements, and specify these according to ISO 19131. It is also stated that an INSPIRE data specification will not be developed to support user requirement only. Where are the other requirements described. Are they political, technical, organisational, etc.	Delete this Note, it contradicts the general methodology. If it is not deleted, it must be stated in the methodology part what other requirements that needs to be taken into consideration	Ap. rewrite the NOTE, taking into account the resolution to comment 1139
1141	Digital Norway		SK17	6.3.7	Requirement 25	G	It is not up to the TWG to define what metadataelements that should be mandatory. The first paragraph states that "The Draft Implementing Rules for Metadata v2.0 concentrates on metadata for discovery and for first level evaluation of a data set or data series as required by the Directive. Requirement 25 could be misunderstood to not be in alignment with this text.	Rewrite to: The implementing rule on Metadata leaves it open to each Thematic Working Group / community to define which additional metadata elements should be made mandatory or mandatory by condition based on theme specific requirements and practises, in addition to the INSPIRE core set of mandatory elements already outlined for discovery. This shall be specified as part of the INSPIRE data specifications based on user requirements.	A
1142	Digital Norway		SK18	6.3.7	Requirement 26	E	Use the full name on the standard EN ISO 19115:2003 and Corrigendum 1 2006	Use the text from ISO19131 as follows: The core metadata elements as defined in EN ISO 19115:2005 and Corrigendum 1 2006 shall be used with the data product. Any additional metedata items that need to be supplied shall be stated in the data product specification. The format and encoding of metadata shall be stated in the product spcification..	A
1143	Digital Norway		SK19	6.3.7	Requirement 27	G	It is difficult to understand the meening of the requirement. (what kind of options?). If the above changes is made to	If the SK/ND comment on changes to requirement 26(SK18) is accepted, consider if requirement 27 could be deleted.	That requirement has been moved from Annex A to the main body, it needs more explanation. See A.5, recommendation 10

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							requirement 26, then requirement 27 c an be deleted.		
1144	Digital Norway		SK20	6.3.7	Requirement 27	G	How shall chosen options be indicated in the data set metadata, according to specifications in the data specifications. The clause on metadata in ISO 19131 Data Product specifications states that "the core metadata elements as defined in ISO 19115 shall be included with the data product. Any additional metadata items that need to be supplied shall be statet in in the data product specification. The format and encoding of the metadata shall be stated in the data product specification." It is not stated how optional elements shall be indicated in the data set metadata. Probably this is something that may be covered under additional metadata, but in this case a structure or template for this kind of information should be provided.	Clarify the intention of this clause. Specify how options should be described in the data product specification.	!!! copy Examples/explanations from A.5 ?
1145	Digital Norway		SK21	7.1	Requirement 28	G	Are there requirements that are not mandatory?. Are there requirements that not relate to INSPIRE data specifications in this document?	Clarify	Ap. delete phrases 'mandatory' and 'that relate to INSPIRE data specifications'
1146	Digital Norway		SK22	A.5	Recommendation 9	G	This recommendation states that to adapt to various existing data, the common application schema should have some flexibility. It is clear that since INSPIRE shall be build on existing national infrasgtructure (existing data) some flexibility is required. On the other hand, the use cases may identify requirements that are essential.	Add a statement that this flexibility should not take presedence over fulfilling absolut requirements according to the use cases.	NA - Flexibility is not a purpose, it is just a tool to help future matching between existing data and INSPIRE specifications. The general point is to have a "right" balance between user requirements and existing data (as INSPIRE is about existing data, user requirements have no presedence on existing data). Of course, what is the "right" balance is not known and will have to be estimated, case by case, by the future TWG.
1147	Digital Norway		SK23		Recommendation 18:		Recommendation 18 states that If there is some tradition about data portrayal, it is better to respect this tradition. The problems is that the	Consider to sharpen the recommendation on Portrayal, stating that is must be up to the TWG to consider if a predefined	Ap Recommendation 18 will be rephrased to mean "use common European cartographic experience

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							tradition is mainly adopted at the national level, and by respecting this tradition the challenges will not be resolved. Harmonisation in a European context also requires some harmonisation on portrayal, for example SLD for WMS.	portrayal should be required, and that existing pan European experience and traditions should take precedence. Could be merged with recommendation 19.	when it exists".
1148	Digital Norway		SK24		Recommendation 16		It is stated that "Object lifecycle rules will likely vary from member state to member state, so the requirements stated in INSPIRE should be as flexible as possible". If the technology components for the life cycle management also is related to incremental updates and the usage of unique identifiers, some requirements should be added. Our understanding is that INSPIRE will not lead to free or inexpensive data. Due to this, incremental update should be a requirement to prevent users from buying the full dataset from the original source over and over again.	Separate the requirements to life cycle rules between internal data management rules and the components of the life cycle management that is related to incremental updates of data.	NA Internal data management rules may have an impact on incremental updates ; e.g. if a spatial object is considered as modified (the modification coming from evolution in the real world or coming from some data management processing), this information has to be provided to the user. Moreover, the issue of incremental update has to be separated from the price issue. For instance, in IGF, we sell the update 15% of initial price whereas we provide the update not as incremental one, but as snapshot (the full database).

Doubled comments

*	EA - Environment Agency for England and Wales
*	AGI - Association for Geographic Information
**	IDEE Working Group of the Commission on Geomatics (National Geographic High Council)
**	National Assembly of the Land Cover and Use Information System of Spain (SIOSE)
***	Bundesanstalt für Geowissenschaften und Rohstoffe (BGR)
***	EuroGeoSurveys - European Geological Surveys SDIC
***	Lenkungsgremium GDI-DE (Steering Committee GDI-DE) (explanation: GDI-DE = Spatial Data Infrastructure Germany)

Abbreviations and codes

Abbreviations and names of the Thematic Working Groups (TWG) for data specifications

TWG code	Name of the TWG	TWG Abbreviation	Annex Spatial Data Themes
RS	Coordinate reference systems and Geographical grid systems	TWG-RS	Annex I Spatial data themes referred to in articles 6(A), 8(1) and 9(A) of the INSPIRE Directive (2007/2/EC)
GN	Geographical names	TWG-GN	
AU	Administrative units	TWG-AU	
AD	Addresses	TWG-AD	
CP	Cadastral parcels	TWG-CP	
TN	Transport networks	TWG-TN	
HY	Hydrography	TWG-HY	
PS	Protected sites	TWG-PS	
EL	Elevation	TWG-EL	
LC	Land cover	TWG-LC	Annex II Spatial data themes referred to in articles 6(A), 8(1) and 9(B) of the INSPIRE Directive (2007/2/EC)
OR	Orthoimagery	TWG-OR	
GE	Geology	TWG-GE	
SU	Statistical units	TWG-SU	Annex III Spatial data themes referred to in articles 6(B) and 9(B) of the INSPIRE Directive (2007/2/EC)
BU	Buildings	TWG-BU	
SO	Soil	TWG-SO	
LU	Land use	TWG-LU	
HH	Human health and safety	TWG-HH	
UT	Utility and governmental services	TWG-UT	
EF	Environmental monitoring facilities	TWG-EF	
PF	Production and industrial facilities	TWG-PF	
AF	Agricultural and aquacultural facilities	TWG-AF	
PD	Population distribution, demography	TWG-PD	
AM	Area management/restriction/regulation zones and reporting units	TWG-AM	
NR	Natural risk zones	TWG-NR	
AC	Atmospheric conditions	TWG-AC	
MF	Meteorological geographical features	TWG-MF	
OF	Oceanographic geographical features	TWG-OF	
SR	Sea regions	TWG-SR	
BR	Bio-geographical regions	TWG-BR	
HB	Habitats and biotopes	TWG-HB	
SD	Species distribution	TWG-SD	
ER	Energy resources	TWG-ER	
MR	Mineral resources	TWG-MR	

Options for Comment resolution

A	Accepted as proposed
Ap	Accepted in principle - some changes to the proposal are necessary
AwM	Accepted with modifications - only parts of the proposal were accepted
R	Referred - this comment needs to be addressed by another party (R to CT - Consolidation Team or JRC; R to TWG - Thematic Working Group)
NA	NA
!!!	Discussion required
?	comment unclear, needs explanation by SDIC/LMO
d	Duplicate comment,
-	no action necessary, i.e. a comment that does not propose any changes

Type of comment

E	Editorial
G	General
Q	Question
T	Technical