

**Cestovní zpráva ze zahraniční pracovní cesty  
do Rigy, Lotyšsko  
na plenární zasedání Q-KEN EuroGeographics ve dnech  
24. - 26. 10. 2011**

**1. Úvodní informace**

- a) Organizace vysílající pracovníka VÚGTK
  
- b) Termín a místo pracovní cesty, 23. - 26. 10. 2011, Riga
  
- c) přesné znění názvu akce plenární zasedání Q-KEN EuroGeographics
  
- d) Úkoly
  1. Účast na plenárním zasedání Q-KEN EuroGeographics
  2. Prezentace národního reportu ke kvalitě a k implementaci INSPIRE v ČR
  3. Informace o webinaru ze září tohoto roku a o přípravě prezentace na další internetový seminář
  4. Získávání nejnovějších poznatků z GIS a oblasti kvality geografické informace a INSPIRE
  5. Sledování vývoje norem ISO 19157 a ISO 19158
  
- e) Počet výtisků cestovní zprávy (rozdělovník) 2 x krát: 1 x knihovna VÚGTK, 1 x účastník cesty
  
- f) Účastníci cesty Ing. Tomáš Cajthaml
  
- g) Datum zpracování zprávy 28. 11. 2011
  
- h) Schválení cestovní zprávy

## 2. Časový přehled cesty

- 23. 10. 2011 odlet do Rigy,
- 24. - 25. 10. 2011 účast na plenárním zasedání,
- 26. 10. 2011 účast na závěrečném dnu plenárního zasedání a odlet do Prahy

## 3. Program - projednávané otázky

Program plenárního zasedání je uveden jako Příloha č. 1 této cestovní zprávy.

## 4. Průběh pracovní cesty - obsah zajímavých příspěvků, osoby se kterými bylo jednáno

Informace ohledně organizačních změn prezentovala na začátku plenárního zasedání Carol Agius. Slavko Lemajic se stal delegátem v JRC, bude navržen nový člen za chorvatskou stranu. Bylo upozorněno na Směrnici 2007/60/EC k povodním (Flood Directive) a byla deklarována potřeba sdílet zkušenosti z její implementace v členských státech např. při dalších plenárních zasedáních. Ze strany managementu je snaha o začlenění dalších členů do Q-KEN ze států, které podepsaly Memorandum o porozumění. Další mítinky jsou plánovány na přelom května a června na Island a na podzim by se mělo konat plenární zasedání v místě, které bude ještě upřesněno. Certifikátem „Quality Practitioner Certificate“ byl oceněn Antti Jakobson. V projektu EEA (GMES) by měla být použita data Eurogeographics jako referenční data. Skupina INSPIRE KEN spustila EuroGeoinfo, stránku s aktivitami státních mapovacích služeb v oblasti infrastruktury prostorových dat, INSPIRE a s produkty EuroGeographics. Je připravován projekt E.L.F., programovým manažerem byl ustanoven Antti Jakobson. Jde o projekt, který by měl realizovat implementační plán závěrů projektu ESDIN, projekt je otevřený také pro nečleny EuroGeographics. Ken Noble se stal spolupracovníkem EuroGeographics na částečný úvazek spolu s dalšími dvěma osobami. Dále podle programu Gunhild Lönnberg prezentovala národní reporty. Důležitou informací je, že při schvalování ISO 19157 Španělsko bude hlasovat proti přijetí této normy. Vzhledem k jejich nepřítomnosti byly požádáni o zaslání informací k odůvodnění – viz příloha č. 2. Nad národními reporty byla obvyklá diskuse k výběru dalších prezentací a k uskutečnění webinarů, včetně jejich obsahu. Byl potvrzen webinar k zajištění kvality v leteckém snímkování (7. 12. 2011 webinar „Quality in aerial photogrammetry“). Celkem bylo naplánováno pět dalších webinarů, první by se měl uskutečnit k diskusi nad připomínkami k ISO 19157 ze Španělska.

Dále proběhla diskuse k možnostem dalšího rozvoje v oblasti akreditace. Základní akreditační procesy budou založeny na normě ISO 19158, jejíž verze je očekávána k přijetí příští rok. První úroveň by měla ověřit, zda je dodavatel schopen splnit kritéria stanovená odběratelem produktu, měly by být identifikovány zdrojové datové sady, identifikován produkční proces, stanoveny požadavky na kvalitu. Dále by měla být nastavena úroveň shody, tj. minimální požadavky, které je nutné splnit. Finální evaluace potom rozhodne o dalších opatřeních či o přijetí kontrolovaného přejímané vzorku.

Druhý den zahájila Gunhild Lönnberg zprávou o výsledku dotazníků k využití norem řady ISO 19100 v jednotlivých členských státech. Toto dotazníkové šetření navázalo na průzkum z roku 2004 a bude doplněno ještě jednou otázkou v listopadu tohoto roku. Byl zdůrazněn progresivní vývoj využití těchto norem v období mezi lety 2004 a 2011 detailně k jednotlivým normám.

Jonathan Holmes představil novou definici Quality Modelu, která rozšiřuje definici z projektu ESDIN o dvě další úrovně: kontrolu a hodnocení.

Claude Luzet má na starosti přípravu akreditace a auditu ERM. Na mítinku byl diskutován a sestaven podrobný plán akcí, které by měl audit obsahovat:

- pracovní skupina – první seznam dotazů,
- členové QKEN – první rozhovory,
- Carol – shrnutí z prvních auditů,
- specifický program auditu (kdo, jak, otázky, questions),
- specifický audit,
- první návrh výsledků auditu ERM,
- zpětná vazba,
- závěrečná zpráva.

Jonathan Holmes prezentoval novinky ve správě dat s ohledem na kvalitu v Ordnance Survey Velké Británie – "Quality in new production environment". V řešení byly akcentovány požadavky na kvalitu, zejména vysoké požadavky na řešení pokročilého stupně integrity a synchronizace dat. Vývoj byl zaznamenán u procesu stanovení politiky kvality, kde byly nastaveny různé úrovně a akreditovány pro tyto procesy různí specialisté. Byla taktéž nově nastavena validační pravidla. Problém zůstává v editaci prvků s odstupem času, tj. v jakési formě časové synchronizace geoprvků (features).

David Overton prezentoval pomocí telekonference záměry projektu ELF. Budování evropské infrastruktury vyžaduje využití velkého množství standardů, Směrnice PSI, různých nástrojů (projekt ESDIN vyvinul nástroje a služby). Byly představeny klíčové benefity z účasti v projektu a důležité výsledky. Je nutné porozumět především uživatelským požadavkům a harmonizovat data. Kvalita bude vyžadována ve většině úrovní navrhovaných do E.L.F., nejdůležitější budou validační nástroje a kvalita dat. Dále budou implementovány principy pro zajištění souladu na hranici (edge matching), nástroje pro testování kompatibility dat a služeb podle technických pravidel infrastruktury. Státní mapovací služby tak budou moci spravovat a publikovat data a služby prostřednictvím jednotných nástrojů s garantovanou kvalitou.

Státní mapovací služby by měly strávit méně času validací, více času věnovat analýzám a zvýšit využití dat a služeb. K tomu jsou zapotřebí referenční data a služby. Projekt by měl být koordinován na celoevropské úrovni. Jako základní výhody pro správce dat – státní mapovací a katastrální služby, jsou proklamovány:

- snížení nákladů,
- lepší aktuálnost a úplnost dat,
- implementace konformní se směrnicí INSPIRE,
- zajištění přeshraniční bezpečnosti a kvality,
- zvýšení užití jejich dat a služeb, nalezení nových zákazníků.

Zajímavou prezentací bylo představení GUM (Guide to the expression of Uncertainty in Measurement) Clas-Goranem Perssonem ze švédské Lantmateriet, který prezentoval možnosti použití tohoto standardu při zajišťování kvality.

Závěrečný den následovali prezentace národní mapovací služby z Lotyšska, které prezentoval většinou člen Q-KEN Arvids Ozols. Státní geodetická síť obsahuje 11000 bodů, na kterých byly zaznamenány větší nejistoty na základě přesnějších měření v oblasti západní části Lotyšska. Byl vytvořen systém referenčních GPS stanic LatPos GS, který je budován postupně od roku 2005 a v současnosti čítá 22 referenčních stanic. V leteckém snímkování probíhá již čtvrtý cyklus aktualizace plánovaný na dva roky 2010-2011. Výrobní měřítko je 1:10000, což čítá přes 2000 mapových listů. Je také rozvíjen digitální model terénu pokrývající celé území Lotyšska, rozlišení mříže-gridu je 20 a více metrů. V posledních pěti letech jsou problémy s financováním. Jako software pro editaci datových sad je používán MicroStation a ArcGIS. Probíhá proces vyrovnání společné hranice se všemi čtyřmi okolními státy. Protože lotyšská agentura je v gesci tamního ministerstva obrany, má ve správě i vojenské mapy. V poslední době je velká důležitost věnována projektům EuroGeographics, jako např. ERM, EGM, EuDEM, EuROGeonames, SBE a Global Map.

Pro zajištění kvality v databázi pro měřítko 1:10 000 jsou používány oba uvedené softwarové nástroje, MicroStation DGN při tvorbě dat, jejich ukládání je potom ve formě Oracle ArcSDE nebo souborech shapefile. Formáty DGN a SHP jsou nejpoužívanější formáty v Lotyšsku. Polohová přesnost se pohybuje okolo 2 metrů. Pro exporty dat z databází je používán nástroj ESRI ArcGIS interoperability tools. Byl představen Geoportál lotyšské státní mapovací služby - karte.lgia.gov.lv – mapový portál. Prohlížení v rámci klienta je zdarma, ostatní služby jsou zpoplatněny.

Byly podány také informace o stavu implementace INSPIRE v Lotyšsku. Projekt započal v roce 2009, dokončení je plánováno na jaro 2012. Nyní je projekt ve fázi, kdy je vytvářen software pro zajištění konformity s INSPIRE. Zákon k transpozici Směrnice INSPIRE byl realizován zákonem o geoprostorových informacích, který vešel v platnost 13.1.2010 (uveden v anglické verzi jako příloha č. 4). Projekt je financován částkou 1 milion EUR přičemž 90% pochází z peněz EU a 10% je podíl lotyšského příspěvku. Katastr je v Lotyšsku spravován státní pozemkovou službou.

Na závěr mítinku byly diskutovány hlavní směry vývoje v Q-KEN, zejména jde o způsob implementace výsledků projektu ESDIN, co se týká kvality. Zprávu o kvalitě má na starosti Jonathan Holmes. Měl by být definován rámec pro řízení kvality a diskutován na nových webových stránkách EuroGeographics (Q-KEN basecamp). Důležité je také diskutovat možnosti implementace jednotného modelu kvality dat, založeného právě na výsledcích projektu ESDIN, jak může být realizován.

## **5. Technická dokumentace - příložit nebo odkaz, kde lze nalézt**

Vybrané prezentace jsou přístupné na stránkách Q-KEN pro členy EuroGeographics. Další dokumenty jsou uvedeny také v přílohách této cestovní zprávy.

## **6. Závěry z cesty a doporučení na využití poznatků**

Informovat o stavu návrhu projektu ELF (European Location Framework) v resortu. Doplnit dotazníky dle požadavků (listopad 2011).

## **7. Seznam příloh**

1. Program plenárního zasedání
2. Připomínky proti přijetí ISO 19157 ze Španělska
3. Zápis z plenárního zasedání s úkoly
4. Zákon o transpozici Směrnice INSPIRE do lotyšské legislativy v anglickém překladu



**Plenary meeting of the  
Quality Knowledge Exchange Network  
Riga, Latvia  
24<sup>th</sup> – 26<sup>th</sup> October 2011  
Agenda**

|                                | <i>Item</i>  | <i>Lead</i>               |
|--------------------------------|--|---------------------------|
| <b>24<sup>th</sup> October</b> | <b>Day 1</b>   |                           |
| 9:00 – 9:15                    | Opening of the meeting   | <i>LGIA</i>               |
| 9:15 – 9:45                    | Introduction, Main decisions from Warsaw - main objectives and outstanding actions, Report from CC meeting in Brussels, Future plenary meetings      | <i>Carol Agius</i>        |
| 9:45 – 10:00                   | Presentation of Quality Practitioner Certificates  |                           |
| 10:00 – 10:30                  | News from Head Office  | <i>Antti Jakobsson</i>    |
| <b>10:30 – 11:00</b>           | <b><i>Coffee break</i></b>   |                           |
| 11:00 – 12:00                  | National reports   | <i>Gunhild &amp; All</i>  |
| 12:00 – 12:15                  | National Reports ( <i>selection of future presentations</i> )  | <i>All</i>                |
| 12:15 – 12:30                  | ISO Update <i>ISO 19157 &amp; ISO 19158</i>  | <i>Antti Jakobsson</i>    |
| <b>12:30 – 14:00</b>           | <b><i>Lunch</i></b>  |                           |
| 14:00 – 14:30                  | Working between plenaries<br>- Webinars, gotomeetings, task-force, basecamp etc  | <i>Carol Agius</i>        |
| 14:30 – 15:00                  | Accreditation Of Data Producers Of EuroGeographics Products<br>- Presentation  | <i>Antti</i>              |
| <b>15:00 – 15:30</b>           | <b><i>Coffee break</i></b>   |                           |
| 15:30 – 16:30                  | Accreditation Of Data Producers Of EuroGeographics Products .... cont.<br>- Group discussion<br>- Results (conclusions, way forward, taskforce, etc) |                           |
| 16:30 – 17:30                  | ERM audit (Claude/Carol)   Terminology Ourania/Jonathan)<br>- Audit team discussion   - Definition of Quality model                                  |                           |
|                                | Wrap up  |                           |
|                                | <b><i>End of day</i></b>   |                           |
| <b>25<sup>th</sup> October</b> | <b>Day 2</b>   |                           |
| 9:00 – 9:45                    | Quality in a new production environment - OSGB   | <i>Jonathan</i>           |
| 9:45 – 10:30                   | Guidelines for implementing data quality relevant measures in NatureSDIplus project  | <i>Vilma</i>              |
| <b>10:30 – 11:00</b>           | <b><i>Coffee break</i></b>   |                           |
| 11:00 – 11:45                  | ESDIN & E.L.F.   | <i>Antti</i>              |
| 11:45 – 12:30                  | GUM  | <i>Clas-Göran Persson</i> |
| <b>12:30 – 14:00</b>           | <b><i>Lunch</i></b><br><b><i>Group Photo</i></b>   |                           |
| 14:00 – 16:00                  | Group Work: <i>Quality measures</i><br>- <i>Introduction</i><br>- <i>Discussion</i><br>- <i>Presentation of group work results</i>                   | <i>Jonathan</i>           |
|                                | <b><i>Coffee break during breakout session</i></b>   |                           |
| 16:00 – 16:30                  | ISO questionnaire – report on results  | <i>Gunhild</i>            |
| 16:30 – 17:00                  | Future webinars  | <i>Carol</i>              |
| 17:00 – 17:30                  | Pending actions – new website structure, document indexing, DEM questionnaire etc  | <i>Carol</i>              |
|                                | Wrap up  |                           |
|                                | <b><i>End of day</i></b>   |                           |
| <b>??</b>                      | <b><i>Official Dinner</i></b>  |                           |

|                                |   |                    |
|--------------------------------|---|--------------------|
| <b>26<sup>th</sup> October</b> | <b>Day 3</b>  |                    |
| 9:00 – 10:30                   | Host presentations                                    | <i>LGIA</i>        |
| <i>10:30 – 11:00</i>           | <i>Coffee break</i>                                   |                    |
| 11:00 – 11:30                  | Long term plan  | <i>Carol</i>       |
| 11:45 – 12:00                  | ESDIN Quality Report<br>- Introduce work and scope    | <i>Jonathan</i>    |
| 12:00 –12:30                   | QKEN Conclusions and agreed actions                   | <i>Carol Agius</i> |
|                                | <i>End of Meeting</i>                                 |                    |
|                                | <i>Opportunity to visit the War Museum Exhibition</i> |                    |

## REASONS FOR VOTING AGAINST THE REGISTRATION OF ISO/CD 19157 AS DIS

### 1. Background

The 27<sup>th</sup> of May, Spain voted against the registration of ISO/CD 19157 as DIS, although we had voted in favour with comments the previous time (211n2959\_CD\_19157). The present document tries to explain the reasons for this vote.

International Standards ISO/IS 19113, 19114 and 19138, are widely used around the world to identify quality elements and subelements, to identify quality measures, to evaluate it and finally to report data quality. ISO/IS 19157 that gather them in a new standard should increase legibility, usability and simplicity, but we consider that these objectives have not been fulfilled. There have been also some changes or eliminations that we consider very important.

On the other hand, the new International Standard improves other aspects as, structure, it includes UML models and the metaquality element, and there is also the possibility of giving the results spatially and descriptive.

### 2. Data quality overview elements

Data quality overview elements (*purpose*, *use* and *lineage*) provide general, non-quantitative information which is very illustrative for users and critical for assessing the quality of a dataset, especially in cases where it is used for a particular application that differs from the intended application.

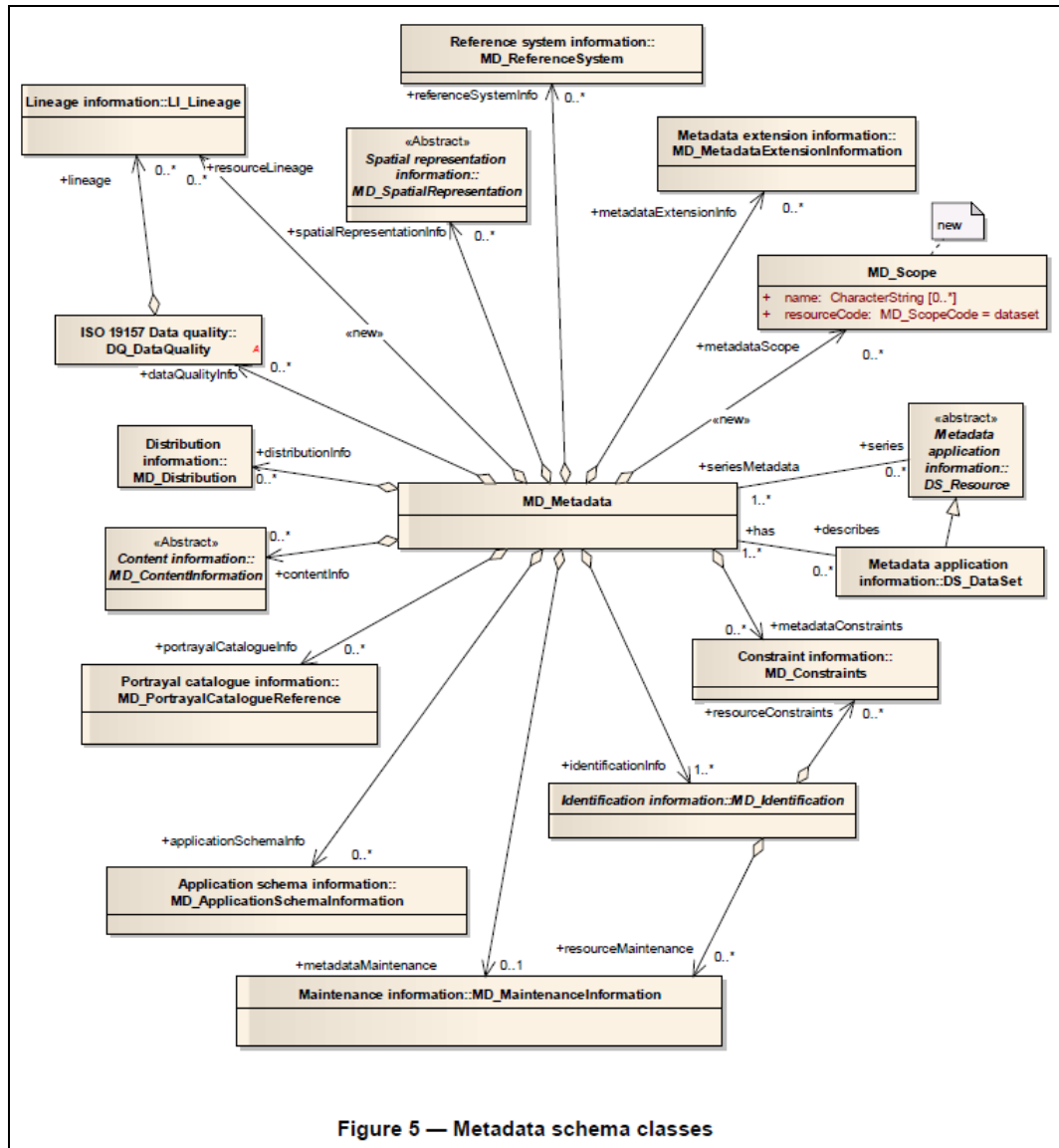
*Purpose* describes the rationale for creating a dataset and contains information about its intended use. It may not be necessarily the same as the actual use of the dataset. *Usage* describes the application(s) for which a dataset has been used, either by the data producer or by other, distinct, data users. Finally, *lineage* describes the history of a dataset and, in as much as is known, recount the life cycle of a dataset from collection and acquisition through compilation and derivation to its current form.

The mentioned data quality overview elements have been given a secondary role in ISO/DIS 19157 arguing that they are not a result of quality evaluation and therefore they are part of ISO 19115. Although the rationale for dissociating them from data quality evaluation as mere dataset metadata may be acceptable (omitting their significance when it comes to data quality), this is not clearly explained in the DIS. Furthermore, there are some inconsistencies – as for the *lineage* is concerned – between this document and the current draft of ISO/CD 19115-1 which need to be amended in order to keep backwards compatibility.



- **Link to ISO 19115-1 drafts**

Figure 5, section 6.6.1.1 of ISO/CD 19115-1 (*Metadata schema*) shows the generic MD\_Metadata class as an aggregation of different metadata classes.



The LI\_Lineage class has been directly associated with MD\_Metadata as one of these metadata classes by introducing a new aggregation relationship (of role name *resourceLineage*), in line with the approach taken in ISO/DIS 19157. Meanwhile, the aggregation relationship (of role name *lineage*) between the classes LI\_Lineage and DQ\_DataQuality (from ISO 19157 Data quality) is kept in the diagram in order to assure backwards compatibility with ISO 19115:2003.

- **Issues detected in ISO/DIS 19157**

Having this background in mind and coming back to ISO/DIS 19157, the following inconsistencies are found:

1. The quality package data dictionary included in section C.2 which describes the DQ\_DataQuality class (section C.2.1.1) does not include any entry in order to implement the aggregation relationship (of role name *lineage*) with the LI\_Lineage class.

This relationship is needed in order to keep backwards compatibility with ISO 19115:2003 – as explained above.

|    | Name / Role Name                   | Definition   | Obligation / Condition                 | Maximum occurrence                             | Data type                      | Domain  |
|----|------------------------------------|--|--|--|--------------------------------|---|
| 1. | DQ_DataQuality                     | quality information for the data specified by a data quality scope   | Use obligation from referencing object | Use maximum occurrence from referencing object | Aggregated Class (MD_Metadata) | Lines 2-4                                       |
| 2. | scope                              | the specific data to which the data quality information applies      | M                                      | 1  | Class                          | DQ_Scope <<DataType>> (C.2.1.6)                 |
| 3. | Role name: report                  | quantitative quality information for the data specified by the scope | M                                      | N  | Association                    | DQ_Element <<Abstract>> (C.2.1.2)               |
| 4. | Role name: standaloneQualityReport | reference to external standalone quality report                      | O                                      | 1  | Association                    | DQ_StandaloneQualityReportInformation (C.2.1.7) |

2. Neither Figure 2 in section 7.1 (which shows an overview of the components of data quality) nor Figure 15 in section 10.1, do include the LI\_Lineage class as component.

These omissions may lead to misunderstandings.

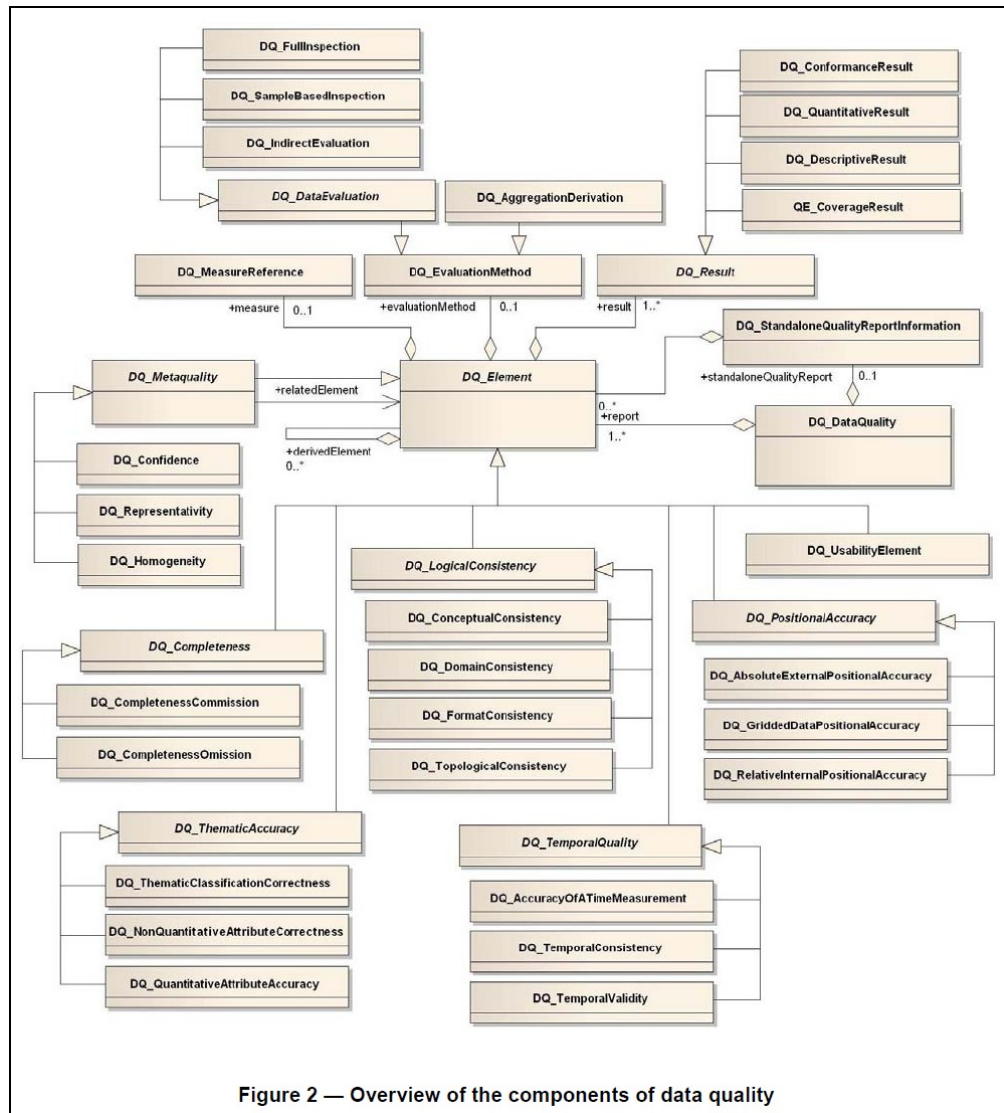
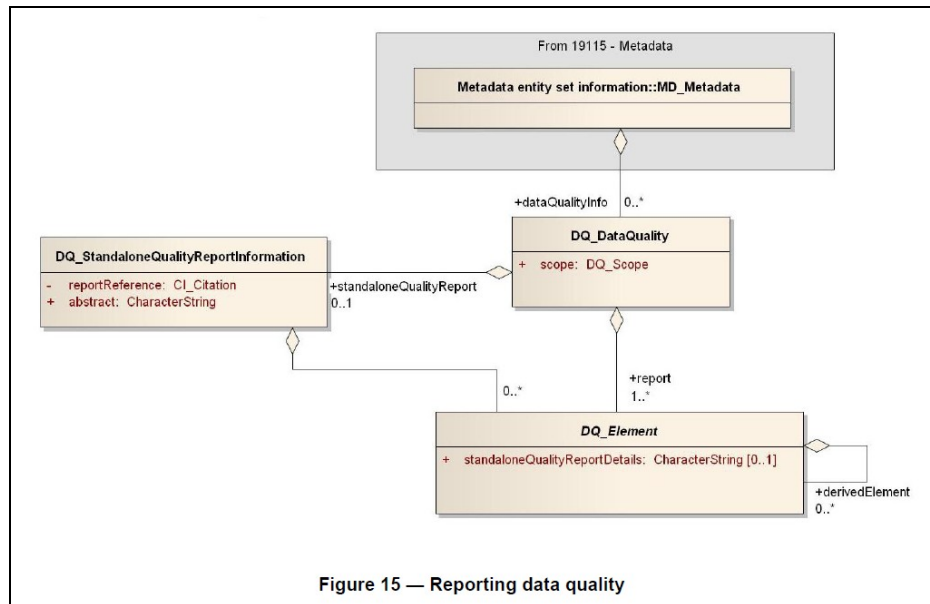


Figure 2 — Overview of the components of data quality



- **Solutions proposed to amend ISO/DIS 19157**

We propose the following amendments to clarify the approach taken and to keep consistency between ISO/DIS 19157 and the upcoming ISO 19115-1:

1. Include in the document a better explanation justifying the significance of data quality overview elements as far the data quality is concerned.
2. Maintain the LI\_Lineage class (i.e. the *lineage* data quality overview element) as a component of DQ\_DataQuality to keep backwards compatibility.

Explain in the document the approach taken in this new draft ISO standard: *lineage* is not going to be considered in the future as a data quality component, but it is going to be directly linked to MD\_Metadata in ISO 19115-1; The aggregation relationship between LI\_Lineage and DQ\_DataQuality is maintained just to keep backwards compatibility with existing implementations, so it has a *deprecated* condition and must receive the `<deprecated>` stereotype consequently.

The new standard should include an annex with guidelines for users on how to amend the existing metadata templates to assure their compliance.

3. As a consequence, include the LI\_Lineage class in the diagrams (Figure 2 and Figure 15), as a data quality component.

Clearly indicate in the diagrams that the aggregation relationship linking LI\_Lineage to DQ\_DataQuality has the `<deprecated>` stereotype.

4. Amend the data dictionary in section C.2.1.1 including an entry which implements the aggregation relationship (of role name *lineage*) between classes DQ\_DataQuality and LI\_Lineage.

Clearly indicate that this entry or element in the data dictionary has the `<deprecated>` stereotype.

### 3. Significance of creating new data quality elements

ISO 19113:2002 belongs to the first generation of ISO 19100 standards and has to be upgraded by ISO/DIS 19157. ISO/DIS 19157 has advanced greatly in the conceptualization of the model by means of the UML models, has a greater integration with ISO 19115, and has included new aspects (e.g. metaquality, usability, and so on).

ISO 19113 proposed a model for dealing with quality based on elements and sub elements (E&S). For people who had been applying this standard the E&S included were considered as a first proposal, something like the first step in a long way because the standard opened up the possibility of developing new E&S. Many aspects of the quality of spatial data were not covered by ISO 19113, for instance the quality of images. But at this time (2002) everybody could understand that ISO 19113 was the starting point for conceptualizing the quality of spatial data. So we were expecting a revision of ISO 19113 where new necessary E&S and measures would be introduced in order to overcome shortages, improve applicability, and so on. We thought that this improvement could be based on the world wide experience of dealing with the quality of spatial data of many leader organizations (e.g. OS{UK}, IGN{FR}, Eurogeographics, NLS{FI}, and many others).

Now, nine years after the approval of ISO 19113:2002, ISO/DIS 19157 has removed this possibility of creating new quality E&S -and usability cannot be used by everyone. This circumstance breaks down expectations and also backward compatibility. It is very strange that no new E&S has been proposed, no explanation has given and many questions arise:

- Does it mean that E&S are not of interest? (Perhaps also the standard has no interest?)
- Do people applying ISO 19113 not feel the necessity for new E&S?
- Did people applying ISO 19113 develop any kind of new E&S?
- Is the standard being applied in another way? Which way?
- Why have not the editors of ISO/DIS 19157 opened a questionnaire about this topic?

ISO/DIS 19157 has removed the possibility of creating new quality E&S, something we consider to be very important and a devaluation of the capabilities of the new standard. As an example, Tables 1 to 10 present new possible E&S about issues that are not well covered by ISO 19113 and ISO/DIS 19157. Our examples deal with very different topics in order to present the wide possibility of actuation. We are not looking for the direct inclusion of these examples in ISO/DIS 19157, but rather to open a general participation in order to propose new E&S based on experience. The ISO/TC 211 can drive this participation in order to extend the E&S (and also corresponding new measures) to be included in the future ISO 19157.

| Table 1                                      |  |
|--|--|
| <input type="checkbox"/> <b>New element:</b> | <input checked="" type="checkbox"/> <b>New subelement:</b><br><b>Hanging from:</b> Positional accuracy   |
| <b>Name:</b>                                 | <b>Geometric fidelity (correctness of geometry)</b>  |
| <b>Definition:</b>                           | Similarity between geometry registered in the data set and the actual geometry of the real world object.   |
| <b>Justification:</b>                        | Real world objects (e.g. buildings) can be registered in a dataset without their exact and true geometry, for instance as the result of photogrammetric restitution. It is necessary to have an assessment of the number of such kinds of objects in the dataset. This information is relevant for the producer (quality of processes or supplies) and for users.  |
| <b>Sources:</b>                              | OS (2007). TOPO-96 Data quality. Ordnance survey:<br><br><b>3.4 Positional accuracy</b><br><br><b>3.4.1 Definition</b><br><br>Positional accuracy is the degree to which the digital representation of a real world object agrees with its true spatial position on the earth's surface.<br><br><b>3.4.2 Measurables</b><br><br>The positional accuracy of a data point is assessed using three criteria: <ul style="list-style-type: none"> <li>• geometric fidelity, that is, the measure of the integrity of the relationships of real world objects to their digital representations;</li> <li>• relative accuracy, that is, the measure of the positional consistency of a data point in relation to others; and</li> <li>• absolute accuracy, that is, the exactness of the position of a data point relative to its actual position defined in terms of the National Grid (OSGB36).</li> </ul> <b>3.4.3 Geometric fidelity</b><br><br>The principle of geometric fidelity is that any real world alignment or shape, when viewed at the source survey scale, must be accurately reflected in the data to the required specification, for example: <ul style="list-style-type: none"> <li>• detail which is square on the ground must be represented as square in the data, and shapes must be accurate;</li> <li>• alignments which are straight in real life must be represented as straight lines within the data;</li> <li>• lines of sight, which pass through ground points should, when plotted at the scale of the original survey, pass through the plan positions of the corresponding points; and</li> <li>• adjacent features should be in sympathy with each other as regards alignment, distance and orientation.</li> </ul> |

| Table 2   |  |
|---|--|
| <input checked="" type="checkbox"/> <b>New element:</b> | <input type="checkbox"/> <b>New subelement:</b><br><b>Hanging from:</b>  |
| <b>Name:</b>  | <b>Interoperability</b>  |
| <b>Definition:</b>                                      | Degree of consistency achieved in the integration of different datasets.   |
| <b>Justification:</b>                                   | The integration of different datasets (e.g. coming from different providers) often results in inconsistencies. Nowadays this situation is very important because of the development of SDI. Interoperability is a kind of consistency that needs a specific element in order to envelop all the possible sub elements to be developed. This element can also be used in order to assess the degree of integration between different pieces of a compound product. Specific sub elements and measures are needed in order for these to be used in conflation processes. |

|          |  |
|----------|--|
| Sources: | See proposed sub elements in Tables 3 & 4.<br><br>INSPIRE Generic Conceptual Model (v.3.3). See Chapter 22 Consistency between data. |
|----------|--|

| Table 3                                      |  |
|--|--|
| <input type="checkbox"/> <b>New element:</b> | <input checked="" type="checkbox"/> <b>New subelement:</b><br>Hanging from: <b>Interoperability</b>  |
| Name:  | <b>Geometric discontinuity</b>   |
| Definition:                                  | Closeness of the positions of homologous features of two datasets in a common area.  |
| Justification:                               | When creating raster (image) or vector mosaics or when overlapping vector and image data, positions and geometries of homologous elements (points, lines and areas) are not coincident because of many different circumstances and reasons. This situation is undesirable. The presence of a geometric discontinuity is an aesthetic and an exploitation problem.  |
| Sources:                                     | <b>Ministère de l'équipement, des transports, du logement, du tourisme et de la mer.</b> Arrêté du 16 septembre 2003 portant sur les classes de précision applicables aux catégories de travaux topographiques réalisés par l'Etat, les collectivités locales et leurs établissements publics ou exécutés pour leur compte:<br><br><i>8.5. Qualité géométrique du mosaïquage</i><br><br>La classe de précision s'applique, conformément aux éléments définis précédemment et s'il y a effectivement eu un mosaïquage, aux distances entre les points en bordure d'une des images assemblées au sein du document final et les mêmes points tels qu'ils seraient représentés dans l'image voisine si elle était prolongée jusque-là, les points étant caractérisés par des coordonnées sous forme de pixels. Ces distances sont mesurées sur des points n'offrant aucune ambiguïté d'identification sur les deux images voisines concourant au document final. |

| Table 4                                      |   |
|--|---|
| <input type="checkbox"/> <b>New element:</b> | <input checked="" type="checkbox"/> <b>New subelement:</b><br>Hanging from: <b>Interoperability</b>   |
| Name:  | <b>Radiometric discontinuity</b>  |
| Definition:                                  | Closeness of the radiometric values of homologous pixels of two images in a common area.  |
| Justification:                               | When creating mosaics of images the presence of radiometric discontinuities is a common circumstance derived from many different circumstances and reasons. This situation is undesirable. The presence of a radiometric discontinuity is an aesthetic and an exploitation problem.   |
| Sources:                                     | <b>Ministère de l'équipement, des transports, du logement, du tourisme et de la mer.</b> Arrêté du 16 septembre 2003 portant sur les classes de précision applicables aux catégories de travaux topographiques réalisés par l'Etat, les collectivités locales et leurs établissements publics ou exécutés pour leur compte: |

|  |  |
|--|--|
|  | <p><b>8.4. Qualité radiométrique du mosaïquage</b></p> <p>S'il y a effectivement eu un mosaïquage, la classe de précision sera exprimée par la différence de valeur radiométrique par canal tolérée sur les raccords entre images ne correspondant pas à un linéament, divisée par la radiométrie maximale de l'image et exprimée sous forme de pourcentage.</p> |
|--|--|

| Table 5   |  |
|---|--|
| <input checked="" type="checkbox"/> <b>New element:</b> | <input type="checkbox"/> <b>New subelement:</b><br>Hanging from:   |
| <b>Name:</b>  | <b>Data security</b>   |
| <b>Definition:</b>                                      | Evaluation of relevant aspects (integrity and other aspects than can be proposed) that affect the faithfulness of data.  |
| <b>Justification:</b>                                   | This type of aspect is relevant for nautical and airspace security and can be of interest for future applications (e.g. unmanned aerial and terrestrial vehicles). Some organizations (e.g. International Civil Aviation Organization) are using aspects related to data security. |
| <b>Sources:</b>   | See proposed sub element in Table 6.   |

| Table 6.-                                    |   |
|--|---|
| <input type="checkbox"/> <b>New element:</b> | <input checked="" type="checkbox"/> <b>New sub element:</b><br>Hanging from: <b>data security</b>   |
| <b>Name:</b>                                 | <b>Integrity</b>  |
| <b>Definition:</b>                           | A degree of assurance that a datum (position, attributes and relations) has not been lost or altered since the data origination by the producer or responsible entity.  |
| <b>Justification:</b>                        | This aspect is of great relevance for nautical and airspace security. The data quality model of the International Civil Aviation Organization considers this issue. This issue can be of interest for other uses and purposes (e.g. homeland security, army, medical urgencies, fiscal data, etc.).       |
| <b>Sources:</b>                              | ICAO (2010). ANNEX 15 to the Convention on International Civil Aviation. Aeronautical Information Services:<br><br><b>Integrity (aeronautical data)</b><br>A degree of assurance that an aeronautical data and its value has not been lost or altered since the data origination or authorized amendment. |

|  |   |
|--|---|
|  | <p>Annex 15 – Aeronautical Information Services –including all amendments up to and including Amendment 33 applicable 25 November 2004, 20 November 2008 and 18 November 2010</p> <p>Contracting States shall ensure that integrity of aeronautical data is maintained throughout the data process from survey/origin to the distribution to the next intended user. Aeronautical data integrity requirements shall be based upon the potential risk resulting from the corruption of data and upon the use to which the data item is put. Consequently, the following classification and data integrity level shall apply:</p> <p>a) critical data, integrity level <math>1 \times 10^{-8}</math>: there is a high probability when using corrupted critical data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe;</p> <p>b) essential data, integrity level <math>1 \times 10^{-5}</math>: there is a low probability when using corrupted essential data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe; and</p> <p>c) routine data, integrity level <math>1 \times 10^{-3}</math>: there is a very low probability when using corrupted routine data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe.</p> |
|--|---|

| Table 7   |  |
|---|--|
| <input checked="" type="checkbox"/> <b>New element:</b> | <input type="checkbox"/> <b>New subelement:</b><br><b>Hanging from:</b>  |
| <b>Name:</b>  | <b>Image quality</b>   |
| <b>Definition:</b>                                      | Evaluation of relevant aspects (e.g. saturation, contrast, artifacts, etc.) that affect the visual quality and the exploitation of the image.  |
| <b>Justification:</b>                                   | Images are a very important type of spatial data (satellite images, photogrammetric images, etc.). The quality aspects of images are not completely covered by ISO 19113 and other standards of the ISO 19100 family. Because of the importance of the photogrammetric industry in our sector, the inclusion of specific elements and sub elements is necessary in order to expand the use of ISO models for spatial data. |
| <b>Sources:</b>   | The ASPRS manual of photogrammetry makes some remarks  |

| Table 8                                      |   |
|--|---|
| <input type="checkbox"/> <b>New element:</b> | <input checked="" type="checkbox"/> <b>New sub element:</b><br><b>Hanging from:</b> image quality   |
| <b>Name:</b>                                 | <b>Saturation</b>   |
| <b>Definition:</b>                           | Measure of the presence of saturated values   |
| <b>Justification:</b>                        | This is a common issue in photogrammetric quality assessments of images. ISO 19115-2 does not deal with quality of images, it is centered on sensors. |
| <b>Sources:</b>                              | The ASPRS manual of photogrammetry makes some remarks   |

| Table 9                                      |   |
|--|---|
| <input type="checkbox"/> <b>New element:</b> | <input checked="" type="checkbox"/> <b>New sub element:</b><br><b>Hanging from:</b> image quality   |
| <b>Name:</b>                                 | <b>Contrast</b>   |
| <b>Definition:</b>                           | Measure of the use of the available dynamic range.  |
| <b>Justification:</b>                        | This is a common issue in photogrammetric quality assessments of images. ISO 19115-2 does not deal with quality of images, it is centered on sensors. |
| <b>Sources:</b>                              | The ASPRS manual of photogrammetry makes some remarks   |



| Table 10                                     |   |
|--|---|
| <input type="checkbox"/> <b>New element:</b> | <input checked="" type="checkbox"/> <b>New sub element:</b><br><b>Hanging from:</b> image quality   |
| Name:  | <b>Artifacts</b>  |
| Definition:                                  | Measure of the presence of artifacts (scratches, hair, etc.) and external agents (clouds, smoke, aerosol, etc.) that degrade the legibility of the image and its records. |
| Justification:                               | This is a common issue in photogrammetric quality assessments of images. ISO 19115-2 does not deal with quality of images, it is centered on sensors.                     |
| Sources:                                     | The ASPRS manual of photogrammetry makes some remarks   |

#### 4. Significance of having a template for the quality report

In the resolution of comments to ISO/CD 19157 (ID = 563), we indicated that a template or structure for reporting quality was not given and that some kind of standardization will be needed because organizations could use this standard without applying ISO 19115; then, at least, a minimum structure will be needed. The answer was that the comment was not accepted because a template is out of scope, because is a complex and time consuming matter, that maybe could be handled as a new work item.

A standalone quality report should provide information about data quality evaluations, results and measures. According to ISO/DIS 19157, a standalone quality report **should** be provided if there are aggregated or derived results, nevertheless in the current ISO 19114 standard (section 8.2) a quality evaluation report **shall** be provided in these cases and its components shall be compliant with the annex I of this document (which is normative).

ISO/DIS 19157 neither mandates the provision of a standalone quality report (it is only recommended) nor predefines its contents. This makes abstract test suite A.4 out of context:

- What is the meaning of including sections on all appropriate aspects of quality?
- What shall be understood by relevant components?

Moreover, section B.4.3.2.3 states that “*The full structure of this standalone quality report has intentionally not been standardised so that each particular organisation is able to adapt it for its own needs*”.

In case that the template of the quality report given in ISO 19114 was considered too much restrictive, a list of recommended components for the standalone quality report should be summarized and related with the content of annex I (normative) of the previous document. The example from ISO 19114 annex F (Figure F.4) may be also added if it is duly updated.

## 5. Ambiguity of gridded data position accuracy

- **Background – Ambiguity of the definition and possible interpretations**

The *Gridded data position accuracy* data quality subelement is defined in ISO 19113:2002 as *closeness of gridded data position values to values accepted as or being true*.

This definition is quite ambiguous and it is not clear to readers how to use this subelement in the right way, so that it can lead to different interpretations, e.g.:

- a) Positional accuracy (usually vertical) of the variable values represented within the grid structure.

This interpretation is restrictive when it comes to the nature of the variables to which the data quality subelement can be applied, i.e. it is only applicable to positional variables like the height in a gridded DTM.

Since the estimation of the positional accuracy of a variable of this kind is obtained from grid cells (pixels), which may be considered as not totally well-defined points, the fact of considering this data quality subelement constitutes a warning emphasizing this peculiarity of the dataset to users.

In this case the need of providing this warning seems not necessary, but the data quality subelement should be kept to assure backwards compatibility.

Note also that this interpretation of gridded data position accuracy overlaps with the concept of quantitative attribute accuracy.

- b) Positional accuracy (usually horizontal) with which the grid structure (which is composed of a collection of grid cells) is georeferenced.

This interpretation would refer to the positional accuracy of the coordinates of each grid cell reference point, so that any positional discrepancy would be equivalent to an error in assigning a variable value to each grid cell reference point. This concept seems a little bit vague, as the position of the grid structures are normally predefined for these kind of datasets and the values of the variable are interpolated from a series of measures.

Note that this interpretation of gridded data position accuracy overlaps with the concept of (horizontal) absolute or external accuracy.

The mentioned subelement is kept in ISO/DIS 19157 with the same definition and without including any extra guidance on how to use it.

- **Inconsistency between ISO/DIS 19157 and those data quality standards in force**

1. The examples included in ISO 19114:2003 Table D.4 (*Examples of data quality positional accuracy measures*) as regards gridded data position accuracy (page 22)

indicate that this data quality subelement is applicable to the positional accuracy of the variable(s) stored within the grid structure (obviously positional variables).

This reinforces interpretation a.

2. In contrast, ISO/DIS 19157 specifies in section D.4.2 that this data quality subelement may be described using the same data quality measures as for the horizontal positional uncertainty, as specified in section D.4.1.3.

This reinforces interpretation b.

- **Solutions proposed**

The previous findings are inconsistent and do not help to understand what the right concept of gridded data position accuracy is. Therefore, the following amendments should be done:

1. Clarify the definition of the data quality subelement in order to help users to understand it properly, so that any possible misinterpretation may be avoided.
2. Remove the inconsistencies between ISO/DIS 19157 and the set of ISO standards currently in force which the former will replace (e.g. the one highlighted above).

## **6. Usability term**

Usability is proposed as a new element but only a general explanation is given. It seems to be a place for whatever the provider wants. Following the reasoning of 6.3.7 all new proposed elements/subelements should be included in usability. For this reason, the term usability is misunderstood and more over when it is widely extended used to indicate “easy to use”.

On the other hand, in 7.4.7 it is said that “the usability element shall be used to describe specific quality information about a dataset’s suitability for a particular application of conformance to a set of requirement” and in C.2.1.2 the term is defined as the “degree of adherence of a dataset to a specific set of requirements”

For these reasons we consider that applicability could be a proper term because is defined as “capable of or suitable for being applied; appropriate (e. g.: statutes applicable to the case)”

## **7. Significance of keeping the hierarchical relation between elements and subelements**

The relation element/subelement has been eliminated in ISO/DIS 19157, although we consider that the couple element/subelement is useful for several reasons: it provides a two level approach to quality issues, it keeps backward compatibility and it also increases legibility.

|           |                  |                 |          |
|-----------|------------------|-----------------|----------|
| File name | Riga_minutes.doc |                 |          |
| Version   | Author           | Date            | Comments |
| 1.0       | Jonathan Holmes  | 26 October 2011 |          |

|              |                       |                |                             |
|--------------|-----------------------|----------------|-----------------------------|
| Chairperson  | Carol Agius, Malta    |                |                             |
| Participants | <i>Name</i>           | <i>Country</i> | <i>Organization</i>         |
| Q-KEN        | Ourania Mavrantza     | Greece         | HEMCO / KLIMATOLOGIO S.A.   |
|              | Lies de Meulenaer     | Belgium        | IGN-B                       |
|              | Tomas Cajthaml        | Czech Rep      | COSMC                       |
|              | Claude Luzet          | France         | IGN-F                       |
|              | Carol Agius           | Malta          | MEPA                        |
|              | Arvids Ozols          | Latvia         | LGIA                        |
|              | Marcin Grudzień       | Poland         | GUGIK                       |
|              | Christina Wasström    | Sweden         | Lantmäteriet                |
|              | Gunhild Lönnberg      | Sweden         | Lantmäteriet                |
|              | Ken Noble             | Ireland        | OSi                         |
|              | Tamàs Palya           | Hungary        | FÖMI                        |
|              | Jonathan Holmes       | Great Britain  | Ordnance Survey             |
|              | Clas Goran Persson    | Sweden         | Lantmäteriet                |
|              |                       |                |                             |
|              |                       |                |                             |
| Excused      | Celia Sevilla Sánchez | Spain          | IGN-S                       |
|              | Antti Jakobsson       | Europe         | EGHO                        |
|              | Ioannis Kavadas       | Greece         | KLIMATOLOGIO S.A            |
|              | Heinz Bennat          | Germany        | BKG                         |
|              | Slavko Lemajc         | Croatia        | Croatian Geodetic Institute |
|              | Vilma Zmuidiene       | Lithuania      | AGI                         |
|              | Jordi Escriu          | Spain          | ICC                         |
|              | Georg Topf            | Austria        | BEV                         |

# 1 Decisions and Action Minutes

| Number     | Action / Finding  | Name & Date |
|------------|---|-------------|
| Day 1<br>1 | Harijs Baranovs welcomed the Q-Ken to Riga.   |             |
| 2          | <b>Remaining actions from Paris 2010</b>  |             |
| 2.1        | <p><b>7. National reports</b></p> <p>Proposed presentations at next plenary:<br/>           - Nordic group for quality issues related to cadastral (Magni). Christina will contact Magni. Action outstanding <b>Done</b></p>  |             |
| 2.2        | <p><b>9.7 Informal discussion and thoughts on DTM presentations</b></p> <p>How to improve quality control of EuroDEM? There has been no feedback sent to the different countries. The result should be distributed to the members. Lidar data will more and more be available to use for checking. <b>Carol has spoken to Michael.</b></p> <p>The study on DEM qualification principles and methods is ongoing. There are still questions, not all are answered. Those questions should be discussed at the Q-KEN forum.</p> <p>We should try to find best practice on the topic Lidar<br/>           - How to combine data at borders?<br/>           - How to check accuracy?</p> <p>To start finding best practices a questionnaire will be sent out to members to find out what is going on among the members concerning DEM and Lidar. The questionnaire will be circulated after the webinar by the end of this year. A voluntary group consisting of Lies (group leader) Claude and Ioannis will draft the questionnaire. <b>See 4.12 below</b></p> <p>What is ongoing in other countries related to flood directive, we should exchange experience. The question should be included in the questionnaire. <b>See 4.12 below</b></p> |             |
| 2.3        | <p><b>14. Group Work:</b><br/> <b>Data Quality in INSPIRE – Discussion Paper Data quality in INSPIRE: from requirements to Metadata</b></p> <p>The members were divided into two groups to discuss and answer the eight questions in the discussion paper. The result from the groupwork will be an important input to the national feedback to JRC. The result will also be sent to JRC as common comments from Q-KEN. Christina will send the result to Katalin at JRC and all members of Q-KEN <b>Done</b></p>   |             |
| 3          | <b>Update from the CC meeting in London March 2011</b>  |             |
| 3.1        | Antti is looking to invite members from organisations with which Euro-geographics have a Memorandum of Understanding to participate in Q-Ken activities. <b>Done</b>  |             |

|     |   |       |
|-----|---|-------|
| 4   | <b>Actions from Warsaw 2011</b>   |       |
| 4.1 | <p><b>8. Topic for the Next Plenary</b></p> <p>Proposal from Arvids that the next plenary is themed on generalisation. Their data is based on 1:10000 and generalised to 1:50000 or that it is themed on the adoption of the ESDIN quality model.</p> <p>Action to all to put forward requirements via the forum by June 15<sup>th</sup> 2011. <b>Done</b></p> <p>CC will then take this forward before the summer recess. <b>Done</b></p>  |       |
| 4.2 | <p><b>9. Future Meetings</b></p> <p>Spring 2012 – Carol is looking for a location <b>Next meeting will be in Iceland in May or June 2012. Date to be confirmed</b></p>  |       |
| 4.3 | <p><b>10. National Reports</b></p> <p>Gunhild presented the national reports</p> <p>It was agreed that the presentations for the next plenary would be as follows:</p> <p>Quality in a new production environment – OSGB (Jonathan) <b>Done</b></p> <p>Research of different ways to save metadata and quality results in a database (Belgium) – For spring 2012. – <b>Not ready yet</b></p> <p>Guidelines for implementing data quality relevant measures in NatureS-Diplus project (Lithuania) <b>For future webinar – see below</b></p> <p>Greece quality model and quality check. Greece (Spring 2012) <b>See 5.2</b></p> <p>Recommendations for creating metadata of services according to INSPIRE (Spain) NB. This may be better as a webinar. <b>Carol to check with Celia as to whether this is still a possibility</b></p> | Carol |
| 4.4 | <p><b>11. Selection of next webinar topics</b></p> <p>It was agreed that the next webinar topics would be</p> <p>“Embedding effective management systems in public sector organisations” from Ireland <b>Done</b></p> <p>And</p> <p>PRINCE project management methodology application in project of registries or quality evaluation process in eTOD database (Czech rep) <b>Done</b></p> <p>Date 13/09/11 10:00 CET (Allow 1½ hours) Carol to organise <b>Done</b></p>   |       |
| 4.5 | <p><b>12. Inspire Quality Discussion Paper</b></p> <p>Celia and Christina presented the outcome of the meeting held in Krakow earlier this year. (February)</p> <p>Carol to ask Antti if the INSPIRE Metadata and Quality paper had come back to HO. (with ESDIN as an example) <b>No sign of the paper so far</b></p>  | Carol |

|      |  |       |
|------|--|-------|
|      | <p>Carol to ask Katalin Toth as to the outcome of the meeting and where the paper is going. <b>C/F</b></p> <p>It is expected that there will be a version 3 of the document. Carol to let everyone know if and when it appears.</p>  | Carol |
| 4.6  | <p><b>13. Inspire Reports</b></p> <p>The Inspire reports were presented by Christina</p> <p>Christina will write a one page proposal as to how we can input to the Inspire Quality WG. This will be discussed with Antti before it goes forward. <b>Done</b></p>   |       |
| 4.7  | <p><b>16. Systematic audit of LSTM database of Malta</b></p> <p>Carol gave a fascinating presentation on the systematic audit of the large scale database in Malta looking primarily at thematic accuracy and logical consistency.</p> <p>CC to look at the idea of carrying out some sort of research / investigation on sampling procedures and the use of the ISO standards <b>Done</b></p>   |       |
| 4.8  | <p><b>17. Quality Audit of ERM</b></p> <p>Lies will talk to Natalie to get as much information as possible about the process and distribute to the rest of the BM group. This to include user feedback.</p> <p>This will be followed by a discussion / conference call. (Ideally May)</p> <p>There will then be a meeting with Natalie to agree the format of the audit. This will probably take place in Brussels with Lies, Claude, Antti and Natalie. (Ideally beginning of June)</p> <p>Date of audit to be defined after the meeting with Natalie. Ideally in early Sept (w/c 5/9 back to back with CC)</p> <p>Results will be presented at the next Plenary in Riga.</p> <p><b>All actions overtaken by events – see minutes below</b></p> |       |
| 4.9  | <p><b>21. ESDIN Project results and outputs</b></p> <p>Carol presented Antti's slides on the ESDIN project. There were many unexplained slides which, perhaps, only Antti could explain. Antti to present at the next plenary. <b>C/F</b></p> <p>It was noted that there was work done on generalisation rules and services. It was felt that it would be useful to know more about this as interest was expressed within the group. <b>This was discussed at the CC but not taken forward</b></p>   | Antti |
| 4.10 | <p><b>22. ESDIN Group Work</b></p> <p>Can everyone have access to the tables that were an output from ESDIN? <b>Done</b></p> <p>Definition of what should be in a quality model. CC to take this forward. <b>See below.</b></p>  |       |

|      |   |       |
|------|---|-------|
|      | <p>ERM would be a good example of how to implement ESDIN. Carol to feedback to EGHO <b>Done</b></p> <p>CC to look at the option of running some workshop / webinar activity related to ESDIN implementation. <b>Discussed at CC but not taken forward</b></p> <p>Christina to summarise the conclusions from the workgroups into a single side so that information could be circulated to the Permanent correspondents. <b>Done</b></p>   |       |
| 4.11 | <p><b>23. Host Presentations</b></p> <p>Possible thoughts for future discussion included:</p> <ul style="list-style-type: none"> <li>Revisiting the ISO 19100 series guidelines (for use with 19157)<br/><b>C/F</b></li> </ul>  | CC    |
| 4.12 | <p><b>24. DEM Questionnaire</b></p> <p>Questionnaire will be circulated by the end of June with a reminder sent out in early September. Comments to be received by end of September. First draft before the plenary in October with a presentation at the Plenary. <b>Activity put on hold. Whether this is taken forward depends on the results of the Eurogeographics marketing survey.</b></p>   |       |
| 4.13 | <p><b>25. Presentation templates</b></p> <p>Carol announced that there is a new Eurogeographic style with a new template. Carol to make available to all. <b>C/F</b></p>  | Carol |
| 4.14 | <p><b>26. Website document register</b></p> <p>Claude updated the group on the current thinking.</p> <p>Agreed that the work should continue once the website has been updated. Carol to inform Claude when this has been done.</p>   | Carol |
| 4.15 | <p><b>28. Changes to the Q-Ken pages on the website</b></p> <p>Carol updated the group on the changes that are being prepared for the Eurogeographics website. The other KEN's will replicate the format that the Q-Ken already has.</p> <p>It was agreed that it would be good to have a copy of the presentations given at the previous webinars available on the website. Carol to contact presenters to arrange. <b>C/F</b></p> <p>It was identified that there may be a problem with downloading certain types of files from the website *.pptx, *.xlsx etc. It is thought that this may be a browser problem. Carol to notify HO. <b>Done</b></p> | Carol |
| 4.16 | <p><b>30. Group work</b></p> <p>The CC will talk with Antti about any intentions to use basecamp. <b>Done</b></p>   |       |
| 5    | <b>Actions from Riga Meeting</b>  |       |
| 5.1  | <p><b>News from Head Office</b></p> <p>In Antti's absence Carol gave an update from Head Office</p> <p>General Assembly has agreed to wind up the French Association</p>  |       |



|     |  |  |
|-----|--|--|
|     | <p>ESDIN has been completed</p> <p>There has been an agreement for supply of Eurogeographics products for 2011 – 2014 with</p> <p>There is a new KEN – Inspire KEN which had its first meeting two weeks ago. The Policy KEN has also resumed activities.</p> <p>The new website is up and running and EuroGeoInfo has been initiated.</p> <p>A new pricing and licensing agreement for Eurogeographics products is close to being finalised. There is a meeting in November to hopefully finalise these.</p> <p>A study has been commissioned to look at the size of the GI market in Europe. An external firm of consultants will be doing the work.</p> <p>Brian Sexton from Ordnance Survey Ireland has joined HO on a part time basis. There are also two part time office staff.</p>   |  |
| 5.2 | <p><b>National Reports</b></p> <p>Gunhild had put together a PowerPoint presentation of all national reports; those members that were present at the meeting gave a short presentation on national news regarding quality. Gunhild did the presentation for those members that were not present.</p> <p>The following presentations were selected for the next plenary</p> <p>New Reporting tool for quality of cadastral datasets extending metadata editor from Poland</p> <p>Total revision of the Quality Management system from France</p> <p>Nordic group for quality issues related to cadastral from Norway (possibly for Autumn 2012.</p> <p>Greece quality model and quality check. Greece</p> <p><b>Webinars</b></p> <p><b>Carol to contact all presenters and finalise dates.</b></p> <p>The following were selected as future webinars</p> <p>Webinar 1 / Gotomeeting – <b>Proposed date 15 Nov 2011</b></p> <p>Spanish comments on ISO 19157</p> <p>Webinar 2 - <b>Proposed date 7<sup>th</sup> December</b></p> <p>Quality control of aerial photogrammetry (Greece and Czech Rep)</p> <p>Webinar 3 <b>Proposed date 24<sup>th</sup> January 2012</b></p> <p>Quality Assurance in spatial databases from Lithuania</p> <p>Quality Assurance of 25k database including semi automatic measure-</p> | <p>Marcin</p> <p>Claude</p> <p>Magni</p> <p>Ioannis</p> <p>Carol</p> |

|     |  |         |
|-----|--|---------|
|     | <p>ment of position from Spain</p> <p>Webinar 4 - <b>Proposed date 13<sup>th</sup> March 2012</b></p> <p>Summary of issues as seen by Poland from Marcin</p> <p>Quality of Services from IGN Spain</p> <p>Something from France – Claude to try and find someone to present.</p> <p>Webinar 5 - <b>Proposed date 10<sup>th</sup> May 2012</b></p> <p>Vilma's presentation on Guidelines for implementing data quality relevant measures in NatureSDIplus project</p> <p>Data quality of Land Cover in Inspire from Hungary</p>   |         |
| 5.3 | <p><b>Status of ISO standards</b></p> <p>Gunhild gave an update on the ISO standards</p> <p>ISO19157 is currently on review with a closing date for comments of 14<sup>th</sup> January. Target publication date of January 2013.</p> <p>ISO19158 is due out shortly.</p>  |         |
| 5.4 | <p><b>Working between plenaries</b></p> <p>Carol gave a demonstration of basecamp.</p> <p>Carol asked for feedback on the GotoMeeting software. Generally the feedback was positive.</p> <p>Discussion took place on having a review of what quality measures are in place in each organisation and perhaps producing a catalogue. It was agreed that this would be discussed on basecamp and then agreed at the next cc meeting. Lies to put together the first idea and post it on basecamp.</p>   | Lies    |
| 5.5 | <p><b>Terminology</b></p> <p>Ourania presented at update on the terminology.</p> <p>It was agreed that the unused fields could be removed. No other changes will be made.</p>  | Ourania |
| 5.6 | <p><b>Accreditation of data producers of Eurogeographics products</b></p> <p>Jonathan led a discussion on what the Q-KEN could do to support the accreditation of Eurogeographics products. The group concluded that they would like to assist but that their time was limited and that given that there were 50 producers to accredit this was likely to be something that Eurogeographics would have to pay for.</p> <p>The group built upon Antti's initial ideas and came up with a list of things that needed to be done or resolved as a part of accreditation. These were:</p> <ul style="list-style-type: none"> <li>• Are the specifications detailed enough and clear?</li> <li>• Does quality in the production process meet requirements?</li> </ul> |         |

|              |   |                               |
|--------------|---|-------------------------------|
|              | <ul style="list-style-type: none"> <li>• Are editors sufficiently trained?</li> <li>• Are new editors trained?</li> <li>• What happens if an editor is absent for some time?</li> <li>• Are managers given sufficient time to manage the product?</li> <li>• What's the process for working with non contributors? How is their data produced?</li> <li>• What are the known quality issues?</li> <li>• We probably need to accredit one country first as part of an audit. <ul style="list-style-type: none"> <li>○ The audit needs to inspect the process</li> <li>○ The flowline must be mapped</li> <li>○ This must be a national product that is accredited</li> <li>○ A checklist of questions must be prepared in advance.</li> </ul> </li> </ul> <p>This information was passed to the ERM audit team and will be taken forward by the group – see minutes below.</p> |                               |
| Day 2<br>5.7 | <p><b>ISO Questionnaire</b></p> <p>Gunhild gave a presentation on the results of the follow up ISO questionnaire. The presentation is available with the minutes.</p> <p>Gunhild will send out a question about ISO19119 and a reminder to those who has not yet answered the questionnaire</p> <p>Gunhild will also produce a final report and send it to CC</p>   | <p>Gunhild</p> <p>Gunhild</p> |
| 5.8          | <p><b>Definition of a quality model</b></p> <p>Jonathan presented a definition of a quality model</p> <p>It was agreed that Jonathan would distribute the definition on basecamp and there would be four weeks for review comments. If no major changes were made then the definition would be accepted and passed to Ourania for inclusion in the terminology document.</p>  | <p>Jonathan</p>               |
| 5.9          | <p><b>ERM Audit</b></p> <p>Claude led the discussion on the ERM audit continuing on the theme from yesterday.</p> <p>The group for the audit was confirmed as</p> <ul style="list-style-type: none"> <li>• Claude</li> <li>• Lies</li> <li>• Carol</li> <li>• Marcin</li> <li>• Ourania</li> </ul> <p>This group also need additional input and guidance from Antti, Nathalie and Anja.</p> <p>Initial activities were planned and posted on Basecamp. A new group was set up for this activity.</p> <p>The audit is to be completed by the next Plenary in Iceland.</p>  |                               |
| 5.10         | <p><b>Group Work</b></p> <p>The work on quality measures threw up some interesting scenarios that were debated amongst the group.</p>   |                               |

|               |   |   |
|---------------|---|---|
|               | <p>It concluded that the ISO standards should only refer to completeness at a feature level not at an attribute or relationship level as defined currently. This is best demonstrated in the following example.</p> <p>If there are 100 features in a dataset and the universe of discourse is those 100 features but each of the features is missing an attribute then the completeness is 0% (every feature is missing something). This is misleading. Every feature exists but not every feature has the correct attributes.</p> <p>Action to all to comment on ISO19157 with regards to this point. Either through Gunhild, Antti or your local review of the document. With this review underway it's an ideal time to raise this.</p>   | All   |
| 5.11          | <p><b>ESDIN and E.L.F</b></p> <p>David Overton presented an update on the ESDIN and E.L.F</p>   |   |
| 5.12          | <p><b>GUM</b></p> <p>Guide to the expression of Uncertainty of Measurement presented by Clas-Goran Persson</p>  |   |
| Day 3<br>5.13 | <p><b>LGIA geospatial products and services</b></p> <p>Arvids Ozols made an interesting host presentation about production, maintenance, quality assurance, practical use of spatial data for GIS and the challenges their organisation are facing.</p>   |   |
| 5.14          | <p><b>Long term plan</b></p> <p>Carol presented the updated long term plan. The plan is based on Euro-Geographics four goals.</p> <ul style="list-style-type: none"> <li>- Review action "investigates how NMCAs handle user requirements", did ESDIN cover this issue or do we have to restart that action?</li> <li>- Carol has contacted EuroSDR for cooperation. She will receive a proposal, which will be circulated by Q-KEN members.</li> <li>- Carol will send a link to 1Spatial cloud tools.</li> </ul>  | <p>CC</p> <p>Carol</p> <p>Carol</p>                         |
| 5.15          | <p><b>New website structure, document,etc</b></p> <p>Carol informed about the new layout on the web and where you can find different documents. Q-KEN is the archive for reports etc, draft documents can be uploaded on Base Camp.</p> <ul style="list-style-type: none"> <li>- Some adjustment has to be done on the web; <ul style="list-style-type: none"> <li>- There are some information on the public page which should be moved to members only (Q-KEN part of the meeting in Brussels)</li> <li>- Link to Inspire news from Warsaw is missing</li> </ul> </li> <li>- The public area should have more information.</li> <li>- Claude will be occupied with ERM audit. There is a need to reform the group who are will be responsible for the action to facilitate search of document on the web (index). <ul style="list-style-type: none"> <li>- Do the old links on the web still work?</li> </ul> </li> </ul> | <p>Carol</p> <p>CC</p> <p>Carol via Base Camp<br/>Carol</p> |
| 5.16          | <p><b>ERM audit</b></p>   |   |

|      |   |   |
|------|---|---|
|      | Claude presented the ERM audit work plan.   |   |
| 5.17 | <p><b>ESDIN Quality Report - Introduce work and scope</b></p> <p>Carol introduced the subject. Q-KEN had the benchmark to see if the ESDIN quality model was implementable. The result said 'yes', but is the model implemented in the organisations? If not, why? Is more support from Q-KEN needed?</p> <p>Potential questions to be posed include</p> <ul style="list-style-type: none"> <li>• Is the model being implemented in practice</li> <li>• Is the model being used at all?</li> <li>• How do we investigate this?</li> <li>• What are the problems / stumbling blocks</li> <li>• Is the documentation being read / understood</li> </ul> <p>Jonathan to launch the discussion and lead on this issue</p> <p>Add a question on the National Report "have you implemented the ESDIN quality model"</p> | Jonathan via Base Camp<br><br><br><br><br><br><br><br><br><br>Gunhild |
| 5.18 | <p><b>Q-KEN Conclusions and agreed actions</b></p> <p>Carol brought the meeting to a close by drawing conclusions and running through the agreed actions</p>  |   |

End

The *Saeima*<sup>1</sup> has adopted  
and the President has proclaimed the following Law:

## Geospatial Information Law

### Chapter I

#### General Provisions

##### Section 1. Terms used in this Law

The following terms are used in this Law:

1) **geodesy** – the scientific and manufacturing discipline, which researches the shape and dimensions of the Earth, as well as determines the mutual condition of objects created by natural elements and human beings on the surface of the Earth in any coordinate system related to the Earth. The measurements of gravitational field or magnetic field of the Earth and other geophysical measurements are used in geodesy;

2) **survey marker** – a mark fixed in an area, which has a constant centre and the maintenance of which is ensured, as well as at least one of the following characteristics whereof has been specified: co-ordinates, height, gravitational field value of the Earth or geomagnetic field value of the Earth;

3) **geodetic network** – an aggregate of survey markers with characteristics of one type;

4) **geodetic reference system** – theoretical, technological and administrative framework for the performance of geodetic activities;

5) **geospatial information** – any information, which directly or indirectly indicates towards a specific location of geographical area where a geospatial object is located;

6) **circulation of geospatial information** – acquisition, preparation, processing, maintenance, supply to the users and use of geospatial information;

7) **re-use of geospatial information** – the use of geospatial information at the disposal of an institution, which is performed for commercial or non-commercial purposes of a natural person or a legal person, which is not the initial purpose of use for which the geospatial information was acquired and prepared when fulfilling the duties of the institution. Exchange of geospatial information between institutions in implementing the administrative functions and tasks shall not be deemed re-use of geospatial information;

8) **infrastructure for geospatial information** – geospatial data sets specified in regulatory enactments, metadata thereof, conditions for joint use and re-use of geospatial information, geospatial data services, information and telecommunication technologies, by which the circulation of geospatial information and the provision of geospatial data services is ensured, and the procedures for co-ordination and supervision of activities of the institutions involved;

9) **joint use of geospatial information** – circulation of geospatial information between institutions in fulfilling the administrative functions and tasks thereof;

10) **geospatial data services** – technical processing of geospatial information and other activities for the provision of the circulation of such information;

11) **geospatial information portal (hereinafter – geoportal)** – a website or a resource equivalent thereto, which ensures access to geospatial data sets, services and metadata;

<sup>1</sup> The Parliament of the Republic of Latvia

12) **holder of geospatial information** – any natural person or legal person, which is the creator or commissioning party of the relevant geospatial information or which has at the disposal thereof the geospatial information, which is necessary for the provision of the functions specified for an institution and which may be arranged in a data base, including a holder of geospatial data set;

13) **geospatial data set** – an identifiable data base of geospatial information, which has been created with a specific purpose of use, has a specific holder and includes basic geospatial information data of an individual sector;

14) **holder of geospatial data set** – the responsible authority specified in regulatory enactments for the creation and maintenance of geospatial data set;

15) **interoperability of geospatial data sets and services** – the possibility for geospatial data sets to be combined, and for geospatial data services to interact, without repetitive manual intervention, in such a way that the result is coherent and the added value of the geospatial data sets and services is enhanced;

16) **geospatial object** – an abstract image of the real world, which is related to a specific location or geographical area;

17) **cartography** – the scientific and manufacturing discipline regarding the acquisition and processing of geospatial information with mapping methods, as well as regarding the drawing up, publishing and use of maps and plans;

18) **metadata** – structured information describing geospatial data sets and geospatial data services;

19) **sector** – an economic sector, provision of practical activities of which requires the acquisition, preparation, updating and use of geospatial information;

20) **orthophoto** – a photographic image of the surface of the Earth, which, after processing with photogrammetry methods, corresponds to the geometrical properties of the projection of map or plan;

21) **basic data** – such aggregate of geospatial information, which has been prepared according to a single specification and preparation and constant updating of which provides economic effect for the national economy and ensures functionally:

- a) unambiguous attraction of the location of other geospatial objects,
- b) creation of context for visualisation and analysis of other geospatial data,
- c) making of topographic and thematic maps;

22) **system of permanent global positioning base stations “Positioning System of Latvia”** – a component of the national geodetic support system, which ensures high precision determination of coordinates for terrain objects, using satellites of the Earth;

23) **thematic map** – a map, the content, scale, projection and arrangement of which has been created according to the requirements for representation of a specific sector (for example, geology, tourism, cadastre of immovable properties, transport) or a specific purpose (for example, air navigation, maritime navigation, spatial planning) only;

24) **topographic map** – representation of geospatial information in a plane with specific designations in visually perceptible form, in which the impact of the surface curvature of the Earth is taken into account according the scale of representation;

25) **topographic plan** – representation of geospatial information of a local geographical area in a plane with specific designations in visually perceptible form; and

26) **information regarding place names (toponyms)** – within the meaning of this Law: place names or geographical names combined with information characterising or explaining them, as well as specifying the geographical tie of the relevant place names to specific objects.

## Section 2. Purpose of the Law

The purpose of this Law is to specify the institutional system in the field of geospatial information, incorporating the conditions for the preparation, use, exchange and maintenance of geospatial information (including geodetic and cartographic basic data) in order to create an infrastructure for geospatial information in the Republic of Latvia.

### **Section 3. Scope of Application of this Law**

(1) This Law shall be applied to all natural persons and legal persons, the functions, tasks and activities of which are related to the circulation of geospatial information and joint use and re-use of such information.

(2) This Law shall apply to the circulation of geospatial information insofar as it is not in contradiction with the provisions for the circulation of geospatial information specified in special regulatory enactments and international contracts or to be implemented within the framework of international co-operation.

## **Chapter II**

### **Competence of State Administration in the Field of Geospatial Information**

#### **Section 4. Institutions for the Management of Geodetic, Cartographic and Geospatial Information and Co-ordination of Activities Thereof**

(1) The Ministry of Defence shall organise and co-ordinate the implementation of State policy in the field of geodetic, cartographic and geospatial information:

1) develop the State policy and development strategy, co-ordinate the circulation of geospatial information in the State in the field of geodesy and cartography, except for drawing up and publication of maritime navigation maps, which is determined by the Maritime Administration and Marine Safety Law;

2) ensure the development of draft regulatory enactments in accordance with legal acts of the European Union, the North Atlantic Treaty Organization and other international organisations;

3) plan and supervise the fulfilment of the acquisition, preparation and updating of geodetic and cartographic basic data, as well as the provision of geospatial data services of the State agency “Latvian Geospatial Information Agency” within the framework of annual State budget;

4) establish the Council of Geospatial Information Experts and ensure the operation thereof;

5) determine the procedures for the provision of geospatial information support for the fulfilment of the tasks of the National Armed Forces and participation in the North Atlantic Treaty Organization;

6) in co-operation with sectoral ministries ensure the development of standards and/or adaptation of international standards in the field of geospatial information; and

7) co-ordinate the entering into international agreements regarding the use of geospatial information, which has been acquired using the remote sensing method, for the fulfilment of the functions and tasks of all concerned ministries.

(2) The State agency “Latvian Geospatial Information Agency” shall be the managing authority in the implementation of the State policy in the field of geodetic, cartographic and geospatial information. It shall obtain, prepare and update the geodetic and cartographic basic data referred to in Section 12, Paragraph five, Section 17, Paragraph three and Section 18, Paragraph two of this Law for civil and military needs, provide geospatial data services and perform other tasks specified in this Law and special regulatory enactments of other sectors.

(3) The State agency “Latvian Geospatial Information Agency” may enter into agreements regarding the performance of the relevant services for the fulfilment of the tasks specified in



Section 12, Paragraphs five and six, Section 17, Paragraph three, Section 18, Paragraph two and Section 31, Paragraph two of this Law.

(4) Individual functions in implementation of the geodetic, cartographic and geospatial information policy shall be fulfilled, according to the competence thereof, by the Ministry of Environment, the Ministry of Agriculture, the Ministry of Justice, the Ministry of Transport, the Ministry of Regional Development and Local Government, the Ministry of Economics, the Ministry of the Interior, the Ministry of Health, the Ministry of Education and Science, the Ministry of Culture and territorial local governments, as well as associations and foundations, operation of which in the relevant field has been registered.

(5) The ministries referred to in Paragraph four of this Section, according to their State administrative functions, tasks and competence, sectors or sectoral groups covered by them and the international legal norms binding to the Republic of Latvia, shall:

1) include such measures in sectoral policy planning documents as to ensure the acquisition, preparation and updating of the geospatial information necessary for the development and implementation of the relevant sectoral policy and the provision of the relevant geospatial data services;

2) provide the following information in sectoral policy planning documents regarding the measures referred to in Clause 1 of this Paragraph:

a) specific geospatial data sets and services, which are planned to be ensured by the relevant measures,

b) deadlines for the implementation of measures,

c) the financing granted and additionally necessary for the fulfilment of measures,

d) the institutions responsible for the implementation of measures, and

e) the procedures for the provision of reports on the fulfilment of measures;

3) ensure the acquisition, preparation, updating and availability of geospatial data sets and metadata thereof of the relevant sector in the national uniform geoportal, observing the measures referred to in Clause 1 of this Paragraph and the requirements specified in this Law for the circulation of geospatial information.

(6) The ministries referred to in Paragraph four of this Section shall prepare and submit to the Ministry of Defence data regarding geospatial information, services and measures of the relevant sector in order to ensure efficient acquisition, preparation and updating of geospatial information and provision of the relevant geospatial data services in the State and the fulfilment of the tasks specified in Section 8, Paragraphs two and three of this Law.

## **Section 5. Competence of the Ministry of Regional Development and Local Government in the Field of Geospatial Information**

The Ministry of Regional Development and Local Government, in accordance with the State administrative functions, tasks and competence thereof, as well as with the international legal norms binding to the Republic of Latvia, shall:

1) organise and co-ordinate the development and implementation of the State policy in the field of electronic government, information society and information technologies for the creation of the national uniform geoportal and the provision of operation thereof within the framework of the annual funding from the State budget;

2) draw up draft regulatory enactments and policy planning documents for the creation and introduction of the national uniform geoportal;

3) co-ordinate the co-operation of sectoral ministries, the State administrative institutions subordinate thereto and local government authorities in the creation and introduction of the geospatial services available in the national uniform geoportal;

4) ensure the management of the creation and maintenance of the national uniform geoportal; and

5) ensure the interoperability of the national uniform geoportal with the geoportal of the European Community.

## **Section 6. Competence of Territorial Local Governments in the Field of Geospatial Information**

Territorial local governments, in accordance with the functions, tasks and competence thereof, as well as with the international legal norms binding to the Republic of Latvia, shall within the framework of the annual budget:

1) organise the acquisition and maintenance of the geospatial information necessary for the fulfilment of the functions thereof, determine the procedures for the financing and use of these functions and ensure co-operation with other institutions in the field of the circulation of geospatial information, for example, with the State agency “Latvian Geospatial Information Agency” and the State Land Service;

2) ensure timely updating and maintenance of the geospatial information and services necessary for the operation thereof; and

3) ensure the conformity in the subordinate bodies and institutions with the requirements of this Law in the field of the circulation of geospatial information.

## **Section 7. Competence of Associations and Foundations in the Field of Geospatial Information**

Associations and foundations or partnerships thereof, which unite natural persons and legal persons working in the field of geospatial information, may participate in the implementation of the State policy in the field of geospatial information, carrying out the discussion of regulatory documents and standards and providing opinions, carrying out the involvement of the society in the circulation of geospatial information, improving professional qualification and fulfilling other State administrative tasks delegated to associations and foundations or partnerships thereof.

## **Section 8. Representation of the Republic of Latvia in Institutions of the European Union and Provision of Information to the European Commission**

(1) The Ministry of Defence and the Ministry of Environment shall, within the framework of the competence thereof and upon mutual co-operation, ensure the representation of the Republic of Latvia in institutions of the European Union in issues related to the creation of the infrastructure for geospatial information of the European Community and the co-ordination and acceptance of draft provisions regulating the operation thereof in the institutions of the European Union.

(2) The Ministry of Defence shall, once in three years from 15 May 2010, prepare a report for the European Commission on the introduction of the infrastructure for geospatial information in the Republic of Latvia.

(3) The Ministry of Defence shall, upon the request of the European Commission, provide it with information in order to perform an analysis aimed at the establishment of such conditions for the creation of the infrastructure for geospatial information of the European Community, which would be possible from the practical point of view and proportionate to the anticipated costs and benefits thereof.

## **Section 9. Duties and Responsibility of the Owners, Legal Possessors and Users of Immovable Properties**

- (1) The owner, legal possessor or user of an immovable property shall not create obstacles for the access to survey markers in order to perform geodetic or cartographic activities and shall not limit the performance of geodetic or cartographic activities in the territory owned or possessed thereby.
- (2) The owner, legal possessor or user of an immovable property shall not perform activities, which are directed against continuous preservation and stability of geodetic marks or invariability of their construction, and shall observe the restrictions around survey markers specified in the Protection Zone Law.
- (3) The owner, legal possessor or user of an immovable property shall be held liable for the violation of the duties specified in Paragraph two of this Section in accordance with the law.

### **Chapter III**

## **Acquisition, Preparation, Processing and Maintenance of Geospatial Information**

### **Section 10. Performance of Geodetic and Cartographic Activities**

- (1) Geodetic and cartographic activities shall be the basis for the acquisition, preparation, processing and maintenance of geospatial information.
- (2) Geospatial activities shall include:
  - 1) the creation, maintenance and supervision of the geodetic reference system;
  - 2) the establishment and use of permanent global positioning stations; and
  - 3) the performance of geodetic works for sectoral needs.
- (3) Geodetic activities shall be carried out by the employees of State and local government authorities, who have been assigned such tasks in special regulatory enactments if the qualification of the relevant employees conforms with the profession standard included in the classification of occupations, or by certified persons who may enter into employment legal relations or other civil legal relations with a merchant.
- (4) Geodetic activities, which are related to the performance of geomagnetic or gravimetric measurements and other services provided in the field of geodesy, which should be available to the society, shall be ensured by the State agency "Latvian Geospatial Information Agency" according to the resources thereof. The referred to geodetic activities shall be carried out for a fee specified in accordance with the price list of public paid services of this State agency. The Cabinet shall issue regulations determining the price list of geodetic activities related to the performance of geomagnetic or gravimetric measurements and other services of the State agency "Latvian Geospatial Information Agency" and the procedures for application thereof.
- (5) Cartographic activities shall be carried out by employees of State and local government authorities or by persons who may enter into employment legal relations or other civil legal relations with a merchant and whose qualification conforms with the profession standard included in the classification of occupations.
- (6) Geodetic and cartographic activities, which result in the acquisition of basic data or data that within the meaning of this Law conform to the purpose of joint use and re-use of information, shall be carried out in accordance with the requirements of this Law and other regulatory enactments.
- (7) Geodetic and cartographic activities shall be carried out without damaging the immovable property in which they are being carried out.

### **Section 11. Geodetic Co-ordinate System of Latvia (1992) and Topographic Map System (1993)**

- (1) The geodetic co-ordinate system of Latvia (1992) shall be the national geodetic reference system.

- (2) The topographic map system (1993) is a mathematical system, which represents the division of topographic map sheets of the Republic of Latvia, using different scales.
- (3) The geodetic co-ordinate system of Latvia (1992), the topographic map system (1993) and the normal heights system of the Baltic States (1977) shall be used in the acquisition, preparation and maintenance of the basic data of geodetic information. The parameters of the referred to systems and the procedures for application thereof shall be determined by the Cabinet.
- (4) In international projects, as well as in co-operation with the North Atlantic Treaty Organization and Member States thereof, other international organisations and participants thereof have the right to use other geodetic reference systems and cartographic co-ordinate systems to be transformed to the geodetic co-ordinate system of Latvia.

## **Section 12. Geodetic Reference System**

- (1) The geodetic reference system shall include:
  - 1) the mathematical model of the geodetic reference system of the State territory; and
  - 2) a geodetic network, which ensures practical linking of the mathematical model to the State territory.
- (2) The components of the geodetic network of the geodetic reference system shall be:
  - 1) the national geodetic network;
  - 2) the system of permanent global positioning base stations "Positioning System of Latvia"; and
  - 3) the local geodetic network.
- (3) The creation and maintenance of the geodetic reference system shall be co-ordinated and supervised by the State agency "Latvian Geospatial Information Agency".
- (4) The Cabinet shall determine the procedures for the creation, use and maintenance of the geodetic reference system.
- (5) The State agency "Latvian Geospatial Information Agency" shall create and maintain a data base of the national geodetic network and markers thereof. The State agency "Latvian Geospatial Information Agency" shall be the manager of the State information system of the national geodetic network.
- (6) The State agency "Latvian Geospatial Information Agency" shall create and maintain the system of permanent global positioning base stations "Positioning System of Latvia", ensuring the use thereof for a fee. The State agency "Latvian Geospatial Information Agency" shall be the manager of the system of permanent global positioning base stations "Positioning System of Latvia". The Cabinet shall issue regulations regulating the price list for the use of the system of permanent global positioning base stations "Positioning System of Latvia" and the procedures for application thereof.
- (7) A local geodetic network shall be created, supplementing the national geodetic network up to such density of geodetic network markers, which conforms to the objective of the acquisition of information. The installation, maintenance and protection of the markers of the local geodetic network shall be ensured by the territorial local government, which shall provide the State agency "Latvian Geospatial Information Agency" with the current information regarding the markers of the local geodetic network located within the administrative territory thereof.
- (8) The Cabinet shall determine the procedures for the installation and maintenance of the markers of the local geodetic network, as well as for the provision of information.

## **Section 13. Topographic Information of High Detailed Elaboration**

- (1) Topographic information of high detailed elaboration shall be such geospatial information, the scale certainty of which is 1:5000 or more.

- (2) Topographic information of high detailed elaboration shall be stored in a data base.
- (3) The Cabinet shall determine the specification of topographic information of high detailed elaboration, the methodology for the acquisition, preparation and processing of the information, the general requirements for the preparation of a topographic plan, the general requirements for the co-ordination thereof, the elements to be represented therein, as well as the responsibility of the performer of geodetic work in the process of the acquisition and preparation of topographic information of high detailed elaboration.
- (4) The State Land Service shall accumulate topographic information of high detailed elaboration regarding the whole State territory in the central data base of the topographic information of high detailed elaboration and shall be the manager of the national information system of topographic information of high detailed elaboration.
- (5) The Cabinet shall determine the procedures for the creation and maintenance of the central data base of topographic information of high detailed elaboration, including the following requirements therein:
- 1) regarding the content of the information to be accumulated in the central data base of topographic information of high detailed elaboration;
  - 2) regarding exchange of information between the data base of a territorial local government and the central data base of topographic information of high detailed elaboration; and
  - 3) the procedures for the submission and acceptance, updating and distribution of topographic information of high detailed elaboration.
- (6) In order to ensure the fulfilment of the functions and tasks of a territorial local government, it shall create and maintain a data base of topographic information of high detailed elaboration regarding the administrative territory thereof in accordance with the specification of the topographic information of high detailed elaboration specified by the Cabinet, shall perform verification of the submitted information and ensure the interoperability of the data base with the central data base in accordance with the procedures specified by the Cabinet. The council of the local government shall determine the procedures for the submission and acceptance of topographic information of high detailed elaboration.
- (7) The territorial local government has the right to delegate the task referred to in Paragraph six of this Section by entering into a delegation contract in accordance with the procedures specified in the State Administrative Structure Law. If the referred to task of administration is delegated to the State Land Service, it shall maintain the topographic information of high detailed elaboration regarding the administrative territory of the territorial local government in the central data base in accordance with the procedures specified in Paragraph five of this Section.
- (8) The territorial local government and the State Land Service shall distribute the information accumulated in the data base according the amount of data accumulated in the data base thereof.

#### **Section 14. Protection of the Markers of the Geodetic Network**

- (1) Markers of the national geodetic network fixed in an area shall be the State property and shall be under the State protection.
- (2) Markers of a local geodetic network fixed in an area shall be the property of a local government and shall be under the protection of the local government.
- (3) Markers of the national geodetic network and a local geodetic network fixed in an area shall be specified protection zones in accordance with the Protection Zone Law.

#### **Section 15. Expert-examination of the Results of Geodetic Work**

- (1) An expert-examination of the results of geodetic work shall be ensured by the State agency "Latvian Geospatial Information Agency" upon a request. The expert-examination of the results of geodetic work shall be performed in accordance with the procedures specified by the Cabinet.
- (2) The Cabinet shall issue regulations, in which the price list of the expert-examination of the results of geodetic work provided by the State agency "Latvian Geospatial Information Agency" and the procedures for application thereof are specified.

## **Section 16. Cartographic Activities**

Cartographic activities shall include:

- 1) the acquisition, preparation, processing and maintenance of the basic data of geospatial information specified in Section 17 of this Law;
- 2) the acquisition and processing of aerial photographs, images from space and laser scanning of the surface of the Earth for the preparation of orthophoto and relief data;
- 3) the creation, maintenance and updating of digital area and surface models;
- 4) the drawing up and issuance of topographic maps;
- 5) the drawing up and issuance of air navigation and maritime navigation maps;
- 6) the drawing up and issuance of sectoral thematic maps, for example, cadastre, addresses, forest sections, agricultural land, amelioration, spatial planning, soil, geology, hydrology and other maps necessary for visualisation of the relevant sectoral information or – in the cases when the relevant sectoral thematic maps are not issued in polygraphic form – the preparation, publication and updating of data of the thematic maps of these sectors;
- 7) the drawing up and issuance of maps of administrative boundaries or the preparation, publication and updating of data of administrative boundaries;
- 8) the drawing up and issuance of survey and informative maps;
- 9) the drawing up and issuance of training maps;
- 10) the drawing up and issuance of national atlases; and
- 11) the preparation, publication and updating of information regarding place names, catalogues and dictionaries of geographic names.

## **Section 17. Basic Data of Geospatial Information**

- (1) Basic data of geospatial information shall be as follows:
  - 1) images of the surface, data of remote sensing and orthophotos of the Earth within the framework of the scale line 1:50 000 – 1:2000 or larger scale;
  - 2) digital models of area and surface, which are used in order to draw up topographic plans and topographic maps within the framework of the scale line 1:250 000 – 1:500 or larger scale;
  - 3) geospatial information, which is included in topographic plans and topographic maps within the framework of the scale line 1:250 000 – 1:500 or larger scale;
  - 4) geospatial information of the information system of the immovable property State cadastre;
  - 5) boundaries of administrative territories, descriptions thereof and geospatial information of the State Address Register;
  - 6) geospatial information of the boundaries of encumbered territories and objects causing protection zones;
  - 7) geospatial information regarding subterranean depths;
  - 8) geospatial information regarding the quality, fertility and degradation of soil;
  - 9) geospatial information of inventory and amelioration of land for agricultural use and forests;

- 10) geospatial information regarding airways, aircraft flight areas, objects and obstacles dangerous for the safety of aircraft flights;
  - 11) geospatial information regarding hydrographic measurements, geospatial information, which is included in maritime navigation maps of territorial waters and economic zone of the Republic of Latvia, geospatial information regarding waterways and means of navigation in order to ensure safe navigation;
  - 12) geographic information regarding the State border line, the border zone and boundary points;
  - 13) geospatial information regarding special areas of conservation;
  - 14) geospatial information regarding the actual and planned (permitted) use of territory;
  - 15) geospatial information regarding the infrastructure of land, maritime, air and pipeline transport and traffic junctions; and
  - 16) geospatial information of engineering communications.
- (2) The holders of the basic data of geospatial information shall be determined in this Law or in the special regulatory enactments of the relevant sector.
- (3) The State agency “Latvian Geospatial Information Agency” shall acquire, prepare and update the following basic data and shall be the holder thereof:
- 1) images of the surface, data of remote sensing and orthophotos of the Earth within the framework of the scale line 1:50 000 – 1:2000;
  - 2) digital models of area and surface, which are used for drawing up of topographic plans and topographic maps within the framework of the scale line 1:250 000 – 1:500;
  - 3) geospatial information, which is included in topographic plans and topographic maps within the framework of the scale line 1:250 000 – 1:2000; and
  - 4) the basic data of geospatial information in order to provide support for the fulfilment of the tasks of the National Armed Forces and the participation thereof in the North Atlantic Treaty Organization in accordance with the procedures specified by the Ministry of Defence.

## **Section 18. Information Regarding Place Names**

- (1) The Cabinet shall determine the procedures for the creation, assigning, approval, accumulation, publication, use, preservation and protection of place names.
- (2) Information regarding place names, which is necessary for the performance of geodetic and cartographic activities, shall be compiled in the Data Base of Place Names. The State agency “Latvian Geospatial Information Agency” shall be the holder of the Data Base of Place Names and the manager of the national information system of place names.

## **Section 19. Classification of Geospatial Objects Included in Geospatial Data Sets**

- (1) The uniform national classification system of geospatial objects shall be used for the preparation, maintenance and use of the basic data of geospatial information.
- (2) The code, name and description of the relevant geospatial objects shall be included in the uniform national classification system of geospatial objects.
- (3) The uniform national classification system of geospatial objects shall be developed, approved and introduced in accordance with the procedures for the introduction and use of the uniform classification system of economic information.
- (4) The Ministry of Defence shall develop and maintain the uniform national classification system of geospatial objects, as well as co-ordinate the introduction and use thereof.
- (5) The uniform national classification system of geospatial objects shall ensure interoperability with the uniform identification system of spatial objects of the infrastructure for geospatial information of the European Community.

## **Section 20. Acquisition, Preparation and Updating of Geospatial Information**

- (1) The basic data of geospatial information shall be acquired, prepared and updated in accordance with the requirements for updating specified in this Law and other regulatory enactments.
- (2) The basic data of geospatial information prepared in accordance with the procedures specified in this Law shall be used for the preparation and updating of sectoral geospatial data sets.
- (3) The holder of a geospatial data set shall be responsible for updating of geospatial information according to the latest available basic data of geospatial information.
- (4) The acquisition, preparation and updating of the thematic maps and data sets for sectoral needs shall be performed, taking into account the requirements specified in the special regulatory enactments of the relevant sector.
- (5) The geospatial information, which is prepared upon the request of an institution in order to ensure the fulfilment of the functions and tasks of the relevant institution, shall conform to the requirements for the circulation of geospatial information specified in this Law and other regulatory enactments.

## **Section 21. Metadata**

- (1) The holder of a geospatial data set shall ensure the creation of metadata of the relevant geospatial information and continuous updating thereof.
- (2) The Cabinet shall determine the mandatory content of metadata of geospatial data sets.

## **Chapter IV**

### **Certification of the Performers of Geospatial Work**

#### **Section 22. General Provisions for Certification of the Performers of Geodetic Work**

- (1) Geodetic work shall be performed by certified persons, whose civil liability regarding the professional activity has been insured.
- (2) A performer of geodetic work shall be issued a certificate by a certification authority accredited in the Latvian National Accreditation Bureau.
- (3) The certified person shall pay a State fee for the receipt of a certificate or extension of the term of validity thereof.

#### **Section 23. Issuance and Registration of the Certificate Necessary for the Performance of Geodetic Work and Supervision of Activities of the Certified Persons**

- (1) Information regarding the certified performers of geodetic work shall be included in the Register of the Persons Certified for Geodetic Work, Land Survey and Land Cadastral Survey. The Register of the Persons Certified for Geodetic Work, Land Survey and Land Cadastral Survey shall be maintained by a certification authority accredited in the Latvian National Accreditation Bureau.
- (2) The procedures for the issuance and registration of a certificate, extension of the term of validity and cancellation thereof, supervision of the activities of certified persons, as well as the State fee rate and the procedures for payment thereof, the procedures for the civil liability insurance and the minimum amount for an insurance contract shall be determined by the Cabinet.



## **Chapter V**

### **General Provisions for the Provision of Geospatial Information and Geospatial Data Services**

#### **Section 24. Provision of Geospatial Information and Geospatial Data Services**

(1) The holder of a geospatial data set shall ensure the provision of information via the infrastructure for geospatial information in accordance with the procedures specified in this Law.

(2) The holder of geospatial information shall provide geospatial information, as well as geospatial data services on the basis of a request of an institution, natural person or legal person in accordance with the procedures specified in the Law On Submissions and the Freedom of Information Law for the requesting of information at the disposal of an institution.

(3) The holder of geospatial information may reach an agreement with the requester of geospatial information or geospatial data service regarding permanent co-operation in the provision of geospatial information at the disposal thereof.

#### **Section 25. Protection of Copyright of Holders of Geospatial Information and of Holders of Geospatial Data Sets**

(1) Copyright to a data base of geospatial information or the protected work included therein and the possession of the rights of the data base creator shall be determined in accordance with the Copyright Law.

(2) Users of a geospatial data set shall receive a licence for the re-use of the geospatial data set or enter into a licence contract with the holder of the relevant geospatial data set. Provisions of the licence or the licence contract may be included in other contracts entered into by and between the holder of the geospatial data set and the user. The following shall not be allowed in the licence or licence contract referred to:

- 1) to discriminate the users of the geospatial data set;
- 2) to include such restrictions, which are in contradiction with Section 27, Paragraphs three and four of this Law; and
- 3) to limit competition.

(3) Holders of a geospatial data set shall enter into a co-operation contract for a joint use of this data set with the holder of the relevant geospatial data set or in an interdepartmental agreement. The text of the co-operation contract or the interdepartmental agreement shall include provisions in relation to the way of use of geospatial data sets. The following shall not be allowed in these provisions:

- 1) to discriminate the users of the geospatial data set; and
- 2) to include such restrictions, which are in contradiction with Section 27, Paragraphs three and four of this Law.

(4) If, in fulfilling the State administrative functions, the data base of geospatial information is used and the copyright to this data base or the protected work included therein or the right of creator of the data base belong to the third person, other persons shall be provided with access to such data base of geospatial information in conformity with the provisions for use of the data base.

(5) The provisions for the use of a data base referred to in Paragraph four of this Section shall not restrict the users of a data base of geospatial information in the fulfilment of State administrative functions and tasks specified thereto to a full extent.

(6) Users of geospatial data sets, which are involved in the disaster management, rescue operations or the liquidation of consequences caused by emergency situations, shall, in timely manner, provide themselves with a written permission of the holder of the geospatial data set

for the use of the data base in any of the ways referred to in Paragraphs two and three of this Section for the use of the relevant geospatial data set upon the request in cases of disasters, upon existence of threats of a disaster and in case of announcement of emergency situation.

(7) The holder of a geospatial data set shall provide free access to the information regarding the provisions for the joint use and re-use of the relevant geospatial data set. The Cabinet shall determine the mandatory content of the provisions for the use of geospatial data sets and the procedures for the receipt of a permit.

## **Section 26. Fee for Provisions of Geospatial Information and Geospatial Data Services**

(1) Metadata shall be free of charge.

(2) Acquisition, preparation and maintenance of the basic data of geospatial information for the performance of State administrative functions and tasks shall be ensured from the funds from the State or local government budget, if it has not been specified otherwise in regulatory enactments.

(3) A fee for the verification of topographic information of high detailed elaboration, registration in the data base, preparation and issuance thereof from the central data base referred to in Section 13, Paragraph four of this Law shall be made in accordance with the procedures specified by the Cabinet, but from a data base of territorial local government – in accordance with the procedures specified in the binding regulations of the territorial local government.

(4) Exchange of topographic information of high detailed elaboration between the data base of a territorial local government and the central data base shall take place free of charge.

(5) The holder of a geospatial data set shall ensure the provision of the basic data of geospatial information according to the amount of the funding granted from the State or local government budget.

(6) The fee for re-use of geospatial information and a geospatial data service shall be determined in accordance with the price list of public paid services of the holder of the relevant geospatial information or the provider of the geospatial data service. The Cabinet shall issue regulations determining the price list of re-use of geospatial information and geospatial data services and the procedures for the application thereof.

(7) The fee for the joint use of geospatial information, including the basic data of geospatial information, or the receipt of geospatial data services for the fulfilment of State administrative functions and tasks, if funding has not been provided for the acquisition, preparation and maintenance of the relevant geospatial information or for the provision of the relevant geospatial data service from the resources of the State budget granted for this purpose to the institution, shall be determined according to the price list of public paid services of the holder of the relevant information or the provider of the geospatial data service. The Cabinet shall issue regulations determining the price list of receipt of geospatial information and geospatial data services and the procedures for the application thereof.

(8) In providing the institutions and structures of the European Communities with a report in the field of environment in accordance with the procedures specified in regulatory enactments, geospatial information shall be provided free of charge.

(9) As an exception to the conditions of re-use of information provided for in the Freedom of Information Law, the fee for re-use of geospatial information shall not exceed the costs for the collection, making, reproduction and distribution of such information.

(10) The Cabinet shall issue regulations regulating the procedures for making of payment for the verification of topographic information of high detailed elaboration, registration in the data base, preparation and issuance thereof.

## **Section 27. Restrictions Specified for the Provision of Geospatial Information**

(1) A holder of geospatial information does not have a duty to create new geospatial information or to adapt the existing information in order to fulfil a request for re-use.

(2) A holder of geospatial information need not to fulfil a request for re-use if it is related to incommensurate consumption of resources, which exceeds simple processing of information.

(3) Holders of geospatial data sets may restrict the public access to geospatial data sets, using the services referred to in Section 28, Paragraph two of this Law, if such access has a negative impact on international relations, public security or national defence.

(4) Holders of geospatial data sets may restrict the public access to geospatial data sets, using the services referred to in Section 28, Paragraph two, Clause 2, 3, 4 or 5 of this Law, where such access would adversely affect any of the following:

1) the confidentiality of the proceedings of State or local government authorities, where such confidentiality is provided for by regulatory enactments;

2) the course of justice, the ability of any person to receive a fair trial or the ability of a public authority to conduct an enquiry of a criminal or disciplinary nature;

3) the confidentiality of commercial or industrial information, where such confidentiality is provided for by national or Community law to protect a legitimate economic interest, including the public interest in maintaining statistical confidentiality and tax secrecy;

4) intellectual property rights;

5) the confidentiality of files relating to a natural person where the relevant natural person has not consented to the disclosure of the information to the public;

6) the interests or protection of any person who supplied the geospatial information requested on a voluntary basis without being under, or capable of being put under, a legal obligation to do so, unless that person has consented to the release of the geospatial information concerned; or

7) the protection of the environment to which such geospatial information relates, such as the location of rare species.

(5) Holders of geospatial data sets shall not, on the basis of Paragraph four, Clauses 1, 3, 5, 6 and 7 of this Section, limit the access to information regarding emission in the environment.

(6) Geospatial information, which includes data of natural persons, shall be processed in conformity with the regulatory enactments regulating the data protection of natural persons.

(7) Holders of geospatial data sets, upon restricting the public access to data, shall provide a justified reply, specifying specific conditions and considerations, which forbid the issuance of information.

## **Chapter VI**

### **Creation and Operation of Infrastructure for Geospatial Information**

#### **Section 28. Infrastructure for Geospatial Information and National Uniform Geoportal**

(1) An infrastructure for geospatial information shall be created in electronic form for joint use of geospatial information among institutions and for re-use of geospatial information.

(2) In order to ensure the availability of the geospatial data sets included in the infrastructure for geospatial information and metadata thereof, a national uniform geoportal shall be created. At least the following geospatial data services shall be ensured in the geoportal:

1) discovery services making it possible to search for geospatial data sets on the basis of the content of the corresponding metadata and to display the content of the metadata;

2) view services making it possible, as a minimum, to display, navigate, zoom in/out, pan, or overlay viewable geospatial data sets, as well as to display legend information and any relevant content of metadata;

3) download services, enabling copies of geospatial data sets, or parts of such sets, to be downloaded and, where practicable, accessed directly;

4) transformation services, enabling geospatial data sets to be transformed with a view to achieving interoperability; and

5) services allowing geospatial data services to be invoked directly in information systems.

(3) The Ministry of Regional Development and Local Government shall be the manager of the geoportal. The functions and tasks thereof, the geospatial data sets to be included in the geoportal, the metadata, as well as the requirements to be put forward to the holders of geospatial data sets and their duties in order to ensure the availability of geospatial data sets and metadata thereof in the geoportal and use thereof, as well as the provisions for the use of geospatial information included in the geoportal shall be regulated by the Cabinet.

(4) The following provisions shall be determined for a joint use and re-use of the information included in the infrastructure for geospatial information, observing the general provisions for the provision of geospatial information and geospatial data services included in Chapter V of this Law and applying the exceptions to the conditions of re-use of information provided for in the Freedom of Information Law:

1) the discovery and viewing of geospatial data sets in the geoportal, without downloading, is free of charge;

2) a fee for viewing of a geospatial data set in the geoportal, without downloading, may be requested for such geospatial data sets, the maintenance of which is not fully ensured from the resources of the State budget and the holder of information of which must ensure extensive and frequent updating of geospatial information; and

3) viewing of geospatial data sets in the geoportal, without downloading, may be restricted for re-use for commercial purposes.

## **Section 29. Provision of Geospatial Information to the Geoportal of the European Community**

(1) The manager of the geoportal shall ensure the availability of the geospatial data sets included in the geoportal and metadata thereof to the geoportal of the European Community.

(2) The manager of the geoportal shall observe the technical specifications and interoperability requirements of geospatial data sets and metadata specified for the geoportal of the European Community.

## **Chapter VII**

### **Special Provisions for the Circulation of Geospatial Information**

#### **Section 30. Circulation of Geospatial Information in Case of Emergency Situations, Extraordinary States or Announcement of Mobilisation**

(1) In cases when an extraordinary state or mobilisation has been announced, geospatial information shall be transferred to the National Armed Forces and the authorities, which perform the tasks specified in the civil protection plans, upon the request free of charge.

(2) In case of a disaster or announcement of an emergency situation State or local government authorities shall receive or download geospatial information regarding the territory where the disaster has taken place or the emergency situation has been announced from the uniform geospatial information portal free of charge.

## **Section 31. Circulation of Geospatial Information Regarding Demarcation of the State Border of the Republic of Latvia**

(1) The Ministry of Foreign Affairs, pursuant to the State administrative functions, tasks and competence thereof and international legal norms binding to the Republic of Latvia, shall:

1) plan and ensure measures for demarcation of the State border in accordance with transnational contracts; and

2) ensure the keeping of original demarcation documents of the State border and the sending of copies to the competent authorities.

(2) The State agency "Latvian Geospatial Information Agency" shall, within the framework of demarcation work of the State border of the Republic of Latvia, ensure the specification of geodetic coordinates of the state border signs of the Republic of Latvia and representation thereof in maps in accordance with transnational contracts.

### **Transitional Provisions**

1. The Cabinet shall issue the regulations referred to in Section 11, Paragraph three, Section 12, Paragraph four, Section 12, Paragraph eight, Section 15, Paragraph one, Section 18, Paragraph one, Section 21, Paragraph two, Section 23, Paragraph two and Section 26, Paragraph ten of this Law by 31 December 2010.

2. The Cabinet shall issue the regulations referred to in Section 13, Paragraph three and Section 13, Paragraph five of this Law by 30 June 2011.

3. The Cabinet shall issue the regulations referred to in Section 25, Paragraph seven and Section 28, Paragraph three of this Law by 15 May 2010.

4. Until the day of the coming into force of the relevant Cabinet regulations, but not later than 31 December 2010, the following regulatory enactments shall be applicable:

1) Decision No. 172 of the Council of Ministers of the Republic of Latvia, *On the Procedures for the Issuance of Cartographic Materials*;

2) Decision No. 213 of the Council of Ministers of the Republic of Latvia, *On Transition to the Geodetic Co-ordinate System of Latvia*;

3) Decision No. 484 of the Council of Ministers of the Republic of Latvia, *On By-law Regarding the Procedures for the Establishment, Supervision and Protection of State Geodetic Support Points*;

4) Decision No. 254 of the Council of Ministers of the Republic of Latvia of 2 July 1992, *On the Assigning of Names and Renaming of Railroad Stations, Ports, Airports and Objects of Physical Geography*; and

5) Decision No. 257 of the Supreme Council of the Republic of Latvia of 6 June 1991, *On the Procedures for Assigning of Names and Renaming of Objects of Physical Geography and Other Objects*.

5. The licences for the performance of cartographic work issued up to 31 December 2007 shall cease to be in effect on the date of coming into force of this Law. Licences for the performance of geodetic work issued up to 31 December 2007 shall be in effect up to the period of time indicated in the licence, but not longer than until 31 December 2010.

6. The data base of topographic information of high detailed elaboration referred to in Section 13, Paragraph six of this Law shall be created or the delegation contract referred to in Section 13, Paragraph seven of this Law shall be entered into within six months after the date of coming into force of this Law.

7. Until the date of coming into force of the Cabinet regulations referred to Section 13, Paragraph three of this Law:

1) topographic survey of high detailed elaboration shall be performed in accordance with Cabinet Regulation No. 168 of 2 May 2000, *Regulations Regarding the Latvian Construction Standard LBN 005-99 "Provisions for Engineering Research in Construction"*, and the methodologies of the State Land Service issued on the basis thereof and in accordance with the binding regulations of territorial local governments, which have been co-ordinated with the State Land Service; and

2) the territorial local government shall create and maintain the data base referred to in Section 13, Paragraph six of this Law in accordance with Cabinet Regulation No. 168 of 2 May 2000, *Regulations Regarding the Latvian Construction Standard LBN 005-99 "Provisions for Engineering Research in Construction"* and the methodologies of the State Land Service issued on the basis thereof. Until the date of coming into force of this Law the territorial local government shall maintain the data base of topographic information of high detailed elaboration in accordance with the binding regulations thereof.

8. Until the date of coming into effect of the Cabinet regulations referred to in Section 13, Paragraph five of this Law the State Land Service shall maintain the central information system referred to in Section 13, Paragraph four of this Law in accordance with the Cabinet Regulation No. 168 of 2 May 2000, *Regulations Regarding the Latvian Construction Standard LBN 005-99 "Provisions for Engineering Research in Construction"*, and the methodologies of the State Land Service issued on the basis thereof, arranging the information in individual files according to the map sheet nomenclature of the scale 1:1000 of the topographic map system of 1993.

9. Until the date of coming into effect of the Cabinet regulations referred to in Section 13, Paragraph five of this Law the State Land Service shall enter into a co-operation contract regarding initial transfer of the topographic information of high detailed elaboration at the disposal thereof to a territorial local government in relation to the territory thereof and the territorial local government – regarding regular transfer of the topographic information of high detailed elaboration to the State Land Service for the maintenance of the central data base:

1) within three months after the date of coming into force of this Law – with territorial local governments, which have created a data base of topographic information of high detailed elaboration prior to the date of coming into force of this Law; and

2) within one month from the creation of the data base of topographic information of high detailed elaboration – with the territorial local governments, which create the data base of topographic information of high detailed elaboration after the date of coming into force of this Law.

10. Section 9, Paragraph three of this Law shall come into force after relevant amendments have been made to the Latvian Administrative Violations Code.

11. Within six months after the date of coming into force of this Law a territorial local government shall issue the binding regulations referred to in Section 13, Paragraph six of this Law, but the binding regulations previously issued by the territorial local government regarding the circulation of topographic information of high detailed elaboration shall cease to be in effect.

12. Until the creation of the data base of topographic information of high detailed elaboration referred to in Section 13, Paragraph six of this Law or entering into the delegation contract

referred to in Section 13, Paragraph seven of this Law, topographic survey information of high detailed elaboration regarding the administrative territory of a territorial local government shall be registered and accumulated and the data necessary for the performance of survey shall be issued by the State Land Service, except the case when the referred to information is maintained by the territorial local government according to the binding regulations thereof.

13. The Cabinet shall, within six months after the date of coming into force of this Law, issue the regulations referred to in Section 10, Paragraph four, Section 12, Paragraph six and Section 15, Paragraph two of this Law.

14. Section 25, Paragraphs two, three, four, five, six and seven of this Law shall come into force on 15 May 2010. The norms of Section 25 of this Law in relation the process of development of spatial plan shall be applied from 1 January 2014. The contracts entered into up to 15 May 2010 regarding the use of data base, if they are not in contradiction with the requirements of Section 25 of this Law, shall be effective in the term indicated in the relevant contract.

15. Section 28, Paragraphs one and two of this Law shall come into force on 15 May 2010.

#### **Informative Reference to European Union Directives**

This Law contains legal norms arising from:

1) Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE);

2) Directive 2003/98/EC of the European Parliament and of the Council of 17 November 2003 on the re-use of public sector information; and

3) Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information and repealing Council Directive 90/313/EEC.

This Law has been adopted by the *Saeima* on 17 December 2009.

President

V. Zatlers

Riga, 30 December 2009