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Subject : **PREPARATION OF THE COUNCIL (ENVIRONMENT) MEETING ON
24 JUNE 2005**
Proposal for a Directive of the European Parliament and of the Council
establishing an infrastructure for spatial information in the Community
(INSPIRE)
– Political agreement

I. INTRODUCTION

1. At its meeting on 26 May, the Permanent Representatives Committee discussed the proposal for a Directive of the European Parliament and of the Council establishing an infrastructure for spatial information in the Community (INSPIRE) and instructed the Working Party on the Environment to focus further on the key issues.

In the light of the discussion in the Working Party meetings on 27 and 30 May and the meeting between the Presidency and the EP rapporteur, Ms F. Brepoels, the Presidency concluded at COREPER on 1 June, that a first-reading agreement with the European Parliament was not possible at this stage because of substantial divergences, in particular on the issues of limitation of public access to the data and sharing of the data between public authorities.

2. At its plenary session on 7 June, the European Parliament completed its first reading, adopting all the amendments of the Committee on the Environment, Public Health and Food Safety.
3. Also on 7 June, the Working Party on the Environment examined the proposal and made substantial progress toward reaching an agreement on the text
Many delegations maintained scrutiny reservations on the latest compromise proposals included in the annexed draft.
The Commission indicated serious concerns as regards Articles 7, 13, 14 and 17.

II. WORK OF COREPER

The Permanent Representatives Committee is invited to:

- examine the compromise text with a view to reaching political agreement;
- make an effort to lift reservations on the few remaining issues.

Proposal for a
DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
establishing an infrastructure for spatial information in the Community (INSPIRE) ¹

CHAPTER I
GENERAL PROVISIONS

Article 1

1. This Directive lays down general rules aimed at the establishment of an infrastructure for spatial information in the Community, for the purposes of Community environmental policies and policies or activities which may have an impact on the environment. *
2. The infrastructure for spatial information in the Community shall build upon infrastructures for spatial information established and operated by the Member States. ²

¹ DK/FR/MT/UK: parliamentary scrutiny reservation.

* The Presidency proposes the following recital: " The INSPIRE infrastructure would assist policy making in relation to policies and activities that may have a direct or indirect impact on the environment. Spatial management would also benefit from the infrastructure."

² Many delegations support the inclusion of EP draft amendment 7, which would add a reference to infrastructure at Community level. **DELETED**: add: "...and on any relevant infrastructure which already exists at Community or international level."

Cion proposes declaration in relation to Article I: "The Commission fully agrees that the INSPIRE infrastructure should cover spatial data sets and services at Community level, in order to ensure coherence between the infrastructure for spatial information established in the Member States and relevant information at Community level.

The Commission will make every effort to ensure this and will, if appropriate, come forward with a legislative proposal regulating the establishment of the components of INSPIRE within the relevant Community institutions and bodies."

Article 2

1. This Directive is without prejudice to Directive 2003/4/EC [...].
2. This Directive is without prejudice to Directive 2003/98/EC.³

Article 3

For the purposes of this Directive, the following definitions shall apply:

- (1) "infrastructure for spatial information" means metadata, spatial data sets and spatial data services; network services and technologies; agreements on sharing, access and use; and coordination and monitoring mechanisms, processes and procedures, established, operated or made available in accordance with this Directive;
- (2) "spatial data" means any data with a direct or indirect reference to a specific location or geographical area;
- (3) "spatial data set" means an identifiable collection of spatial data;
- (4) "spatial data services" means the operations which may be performed, by invoking a computer application, on the spatial data contained in spatial data sets or on the related metadata;
- (5) "spatial object" means an abstract representation of a real-world phenomenon related to a specific location or geographical area;

³ **DELETED**: add reference to Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonization of certain aspects of copyright and related rights in the information society.

- (6) "metadata" means information describing spatial data sets and spatial data services and making it possible to discover, inventory and use them;
- (7) "interoperability" means the possibility for spatial data sets to be combined, and for services to interact, without repetitive manual intervention, in such a way that the result is coherent and the added value of the data sets and services is enhanced;
- (8) "INSPIRE geo portal" means an internet site, or equivalent, providing access to the services referred to in Article 11(1);
- (9) "public authority" means:
- (a) any government or other public administration, including public advisory bodies, at national, regional or local level,
 - (b) any natural or legal person performing public administrative functions under national law, including specific duties, activities or services in relation to the environment, and
 - (c) any natural or legal person having public responsibilities or functions, or providing public services, relating to the environment under the control of a body or person falling within (a) or (b).

Member States may provide that when bodies or institutions are acting in a judicial or legislative capacity, they are not to be regarded as public authorities for the purposes of this Directive;

- (10) "third party" means any natural or legal person other than a public authority.

Article 4

1. This Directive shall cover spatial data sets which fulfil the following conditions:
 - (a) they are related to an area where a Member State has and/or exercises jurisdictional rights;
 - (b) they are in electronic format;
 - (c) they are held by or on behalf of any of the following:
 - (i) a public authority, having been produced or received by a public authority, or being managed or updated by that authority and falling within the scope of the public tasks.
 - (ii) a third party to whom the network has been made available in accordance with Article 12;
 - (d) they relate to one or more of the themes listed in Annex I, II or III;
 - (e) [...]
- 1a. In cases where multiple identical copies of the same spatial data set are held by or on behalf of various public authorities, this Directive only applies to the reference version from which the various copies are derived.
2. This Directive shall also cover the spatial data services relating to the data contained in the spatial data sets referred to in paragraph 1.
3. This Directive does not request collection of new spatial data.

4. In the case of spatial data sets which comply with the condition set out in point (c) of paragraph 1, but in respect of which a third party holds intellectual property rights, the public authority may take action under this Directive only with the consent of that third party.
5. By way of derogation from paragraph 1, this Directive shall cover spatial data sets held by or on behalf of a public authority operating at the lowest level of government within a Member State only if the Member State has laws or regulations requiring their collection or dissemination.
6. The technical description of the data themes referred to in Annexes I, II and III may be adapted in accordance with the procedure referred to in Article 22(2) to take into account the evolving needs for spatial data in support of Community policies that affect the environment.

CHAPTER II METADATA

Article 5

1. Member States shall ensure that metadata are created for the spatial data sets and services corresponding to the themes listed in Annexes I to III, and that those metadata are kept up to date.
2. Metadata shall include information on the following:
 - (a) the conformity of spatial data sets with the implementing rules referred to in Article 7(1);
 - (b) conditions applying to access to, and use of, spatial data sets and services and, where applicable, corresponding fees;
 - (c) the quality of spatial data, including whether they are validated;
 - (d) the public authorities responsible for the establishment, management, maintenance and distribution of spatial data sets and services;
 - (e) limitations on public access and the reasons for such limitations, in accordance with Article 13.
3. Member States shall take the necessary measures to ensure that metadata are complete and of a quality sufficient to fulfil the purpose set out in Article 3(6).
4. Rules for the implementation of this Article shall be adopted in accordance with the procedure referred to in Article 22(2) and within one year of the date of entry into force of this Directive. These rules shall take account of relevant, existing international standards and user requirements.

Article 6

Member States shall create the metadata referred to in Article 5 in accordance with the following timetable:

- (a) not later than 2 years after the date of adoption of implementing rules in accordance with Article 5(4) in the case of the spatial data sets corresponding to the themes listed in Annexes I and II;
- (b) not later than 5 years after the date of adoption of implementing rules in accordance with Article 5(4) in the case of the spatial data sets corresponding to the themes listed in Annex III.

CHAPTER III

INTEROPERABILITY OF SPATIAL DATA SETS AND SERVICES

Article 7

1. Implementing rules laying down technical arrangements for the interoperability and, where practicable, harmonisation of spatial data sets and services [...] shall be adopted in accordance with the procedure referred to in Article 22(2). Relevant user requirements, existing initiatives and international standards to harmonise spatial data sets, as well as feasibility and cost-benefit considerations shall be taken into account in the development of the implementing rules. Where organisations established under international law have adopted relevant standards to ensure interoperability or harmonisation of spatial data sets and services, [...] these standards shall be [...] integrated, and the existing technical means shall be referred to, if appropriate, in the implementing rules [...] mentioned in this paragraph.

2. As a basis for developing the proposals for such implementing rules [...], the Commission shall undertake an analysis of the feasibility and expected costs and benefits. Member States shall, on request, provide the Commission with information necessary to enable it to prepare this analysis. When [...]proposing such rules, the Commission shall consult Member States within committee referred to in Article 22(1) on the results of its analysis. The adoption of such rules shall not result in excessive costs to a Member State.

3. Member States shall ensure that all newly collected or updated spatial data sets and the corresponding spatial data services are brought into conformity with the implementing rules referred to in paragraph 1 within two years of their adoption, and that other spatial data sets and services are brought into conformity with the implementing rules within seven years of their adoption to the extent feasible.

4. Implementing rules referred to paragraph 1 shall cover the definition and classification of spatial objects relevant to spatial data sets related to the themes listed in Annex I, II or III and the way in which those spatial data are geo-referenced.
5. Representatives of Member States at national, regional and local level as well as other natural or legal persons with an interest in the spatial data concerned by virtue of their role in the spatial information infrastructure, including users, producers, added value service providers or any coordinating body shall be given the opportunity, in accordance with applicable procedures, to participate in preparatory discussions on the content of the implementing rules, provided for in paragraph 1, prior to consideration by the Committee.

Article 8

1. In the case of spatial data sets corresponding to one or more of the themes listed in Annex I or II, the implementing rules provided for in Article 7(1) shall meet the conditions laid down in paragraphs 2, 3 and 4.
2. The implementing rules shall address the following aspects of spatial data:
 - (a) solutions to ensure unambiguous identification of spatial objects, to which identifiers under existing national systems can be mapped in order to ensure interoperability between them;
 - (b) the relationship between spatial objects;
 - (c) the key attributes and the corresponding multilingual thesauri commonly required for policies which may have an impact on the environment;
 - (d) information on the temporal dimension of the data;
 - (e) updates of the data.

3. The implementing rules shall be designed to ensure consistency as between items of information which refer to the same location or between items of information which refer to the same object represented at different scales.
4. The implementing rules shall be designed to ensure that information derived from different spatial data sets is comparable as regards the aspects referred to in Article 7(4) and in paragraph 2 of this Article.

Article 9

The implementing rules provided for in Article 7(1) shall be adopted in accordance with the following timetable:

- (a) no later than 2 years after the entry into force of this Directive in the case of the spatial data sets corresponding to the themes listed in Annex I;
- (b) no later than 5 years after the entry into force of this Directive in the case of the spatial data sets corresponding to the themes listed in Annex II or III.

Article 10

1. Member States shall ensure that any information, including data, codes and technical classifications, needed for compliance with the implementing rules provided for in Article 7(1) is made available to public authorities or third parties in accordance with conditions that do not restrict its use for that purpose.
2. In order to ensure that spatial data relating to a geographical feature the location of which spans the frontier between two or more Member States are coherent, Member States shall, where appropriate, decide by mutual consent on the depiction and position of such common features.

CHAPTER IV NETWORK SERVICES

Article 11

1. Member States shall establish and operate a network of the following services for the spatial data sets and services for which metadata have been created in accordance with this Directive:
 - (a) discovery services making it possible to search for spatial data sets and services on the basis of the content of the corresponding metadata and to display the content of the metadata;
 - (b) view services making it possible, as a minimum, to display, navigate, zoom in/out, pan, or overlay viewable spatial data sets and to display legend information and any relevant content of metadata;
 - (c) download services, enabling copies of spatial data sets, or parts of such sets, to be downloaded and, where practicable, accessed directly;
 - (d) transformation services, enabling spatial data sets to be transformed with a view to achieving interoperability;
 - (e) services allowing spatial data services to be invoked.

Those services shall take into account relevant user requirements and shall be easy to use, available to the public and accessible via the Internet or any other appropriate means of telecommunication.

2. For the purposes of the services referred to in paragraph 1(a), as a minimum the following combination of search criteria shall be implemented:
 - (a) keywords;
 - (b) classification of spatial data and services;
 - (c) the quality of spatial data, including whether they are validated;
 - (d) degree of conformity with the implementing rules referred to in Article 7;
 - (e) geographical location;
 - (f) conditions applying to the access to and use of spatial data sets and services;
 - (g) the public authorities responsible for the establishment, management, maintenance and distribution of spatial data sets and services.

3. The transformation services referred to in paragraph 1(d) shall be combined with the other services referred to in that paragraph in such a way as to enable all those services to be operated in conformity with the implementing rules provided for in Article 7.

Article 12

Member States shall ensure that public authorities are given the technical possibility to link their spatial data sets and services to the network referred to in Article 11(1). This service shall also be made available upon request to third parties whose spatial data sets and services comply with implementing rules laying down obligations with regard, in particular, to metadata, network services and interoperability.

Article 13

1. By way of derogation from Article 11(1) of this Directive, Member States may limit public ⁴ access to spatial data sets and services through the services referred to in points (a) to (e) of Article 11(1), or to the e-commerce services referred to in Article 14(2), where such access would adversely affect any of the following:
 - (a) the confidentiality of the proceedings of public authorities, where such confidentiality is provided for by law;
 - (b) international relations, public security or national defence;
 - (c) 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;
 - (d) 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;
 - (e) intellectual property rights;
 - (f) the confidentiality of personal data and/or files relating to a natural person where that person has not consented to the disclosure of the information to the public, where such confidentiality is provided for by national or Community law;
 - (g) the interests or protection of any person who supplied the 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 information concerned;

⁴ **DELETED**: delete "public".

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

2. The grounds for limiting access, as provided for in paragraph 1, shall be interpreted in a restrictive way, taking into account for the particular case the public interest served by providing this access. In every particular case, the public interest served by disclosure shall be weighed against the interest served by the limiting or conditioning the access. Member States may not, by virtue of paragraph 1(a), (d), (f), (g) and (h) limit access to information on emissions into the environment.

However, when paragraph 1(d) or (f) is the grounds for limiting access, the preceding subparagraph shall apply only when the access referred to in paragraph 1 concerns environmental information as defined in Article 2(1) of Directive 2003/4/EC.

3. [...] Within this framework, and for the purposes of the application of subparagraph 1(f), Member States shall ensure that the requirements of Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data are complied with.

Article 14

1. Member States shall ensure that:

(a) the services referred to in Article 11(1)(a) are available to the public free of charge;

(b) the services referred to in Article 11(1)(b) are, as a rule, available to the public free of charge. However, in cases where charges and/or licences are an essential precondition to maintain the spatial data sets and services or to fulfil requirements of already existing international spatial data infrastructure in a sustainable way, Member States may apply charges and/or licences either to the person providing the service to the public, or, where the service provider chooses, to the public itself.

2. Data made available through the view services mentioned in Article 11(1)(b) may be in a form preventing their re-use for commercial purposes.
3. Where public authorities levy charges for the services referred to in Article 11(1)(b), (c) or (e), Member States shall ensure that e-commerce services are available. Such services may be covered by disclaimers, click-licenses or licenses.

Article 15

1. The Commission shall establish and operate an INSPIRE geo-portal at Community level.
2. Member States shall provide access to the services referred to in Article 11(1) through the INSPIRE geo-portal referred to in paragraph 1. Member States may also provide access to those services through their own access points.

Article 16

Rules for the implementation of this Chapter shall be adopted in accordance with the procedure referred to in Article 22(2), and shall in particular lay down the following:

- (a) technical specifications for the services referred to in Articles 11 and 12 and minimum performance criteria for those services, taking account of existing reporting requirements and recommendations adopted within the framework of environmental Community legislation, existing e-commerce services and technological progress;
- (b) the obligations referred to in Article 12.

CHAPTER V DATA-SHARING

Article 17

1. Each Member State shall adopt measures for the sharing of spatial data sets and services between its public authorities referred to in Article 3(9)(a) and (b). Those measures shall enable those public authorities to gain access to spatial data sets and services, and to exchange and use those sets and services, for the purposes of public tasks that may have an impact on the environment.
2. The measures provided for in paragraph 1 shall preclude any restrictions likely to create, at the point of use, practical obstacles to the sharing of spatial data sets and services. *
3. The provisions of paragraph 2 do not prevent public authorities that supply spatial data sets and services from licensing them to, and requiring payment from, the public authorities or institutions and bodies of the Community that use these spatial data sets and services.**

* The Presidency proposes a recital: "Public authorities need to have smooth access to relevant spatial data sets and services during the execution of their public tasks. Such an access can be hindered if it depends on individual ad hoc negotiations between authorities every time such access is required. Member States should take necessary measures to prevent such practical obstacles to the sharing of data, using for example prior agreements between public authorities."

** The Presidency suggests two additional recitals:
(1) "The mechanisms for sharing spatial data sets and services between government and other public administrations and natural or legal person performing public administrative functions under national law may involve laws, regulations, licensing or financial arrangements or administrative procedures, for instance to protect the financial viability of those public authorities that have a duty placed on them to raise revenue." [...]
(2) "The provisions of Articles 13(1)(e) and 17(1) should be implemented and applied in full compliance with the principles relating to the protection of personal data in accordance with Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and the free movement of such data."

4. The arrangements for the sharing of spatial data sets and services provided for in paragraph 1, 2 and 3 shall be open to public authorities referred to in Article 3(9)(a) and (b) of other Member States and to the institutions and bodies of the Community, for the purposes of public tasks that may have an impact on the environment.
5. The arrangements for the sharing of spatial data sets and services provided for in paragraph 1, 2 and 3 shall be open, on a reciprocal and equivalent basis, to bodies established by international agreements, to which the Community and Member States are party, for the performance of tasks that may have an impact on the environment.
6. Where the arrangements for the sharing of spatial data sets and services provided for in paragraphs 1, 2 and 3 are made available in accordance with paragraphs 4 and 5, these arrangements may be accompanied by conditions aiming to ensure that the laws and practices in the country of origin are respected. [...]
7. By way of derogation from this Article, Member States may limit sharing when this would compromise the course of justice, public security, national defence or international relations.
8. Without prejudice to paragraph 3, Member States shall provide the institutions and bodies of the Community access to spatial data sets and services in accordance with harmonised conditions. Implementing rules governing those conditions shall be adopted in accordance with the procedure referred to in Article 22(2).
9. This Article does not affect the existence or ownership of public sector authorities' intellectual property rights. [...]

CHAPTER VI

COORDINATION AND COMPLEMENTARY MEASURES

Article 18

Member States shall ensure that appropriate structures and mechanisms for coordinating the contributions of all those with an interest in their infrastructures for spatial information are designated.

These structures shall coordinate the contributions of, *inter alia*, users, producers, added-value service providers and coordinating bodies, concerning the identification of relevant data sets, user needs, the provision of information on existing practices and the provision of feedback on the implementation of this Directive.

Article 19

1. The Commission shall be responsible for coordinating the infrastructure for spatial information, as referred to in this Directive, in the Community at Community level and shall be assisted for that purpose by relevant organisations and, in particular, by the European Environmental Agency.
2. Each Member State shall designate a contact point, usually a public authority, to be responsible for contacts with the Commission in relation to this Directive.

Article 20

The implementing rules referred to in this Directive shall take due account of standards adopted by European standardisation bodies in accordance with the procedure laid down in Directive 98/34/EC, as well as international standards.

CHAPTER VII

FINAL PROVISIONS

Article 21

1. Member States shall monitor the implementation and use of their spatial data infrastructures. They shall make the results of this monitoring accessible to the Commission and to the public on a permanent basis.

2. No later than three years after the entry into force of this Directive, Member States shall send to the Commission a report including summary descriptions of:
 - (a) how public sector providers and users of spatial data sets and services and intermediary bodies are coordinated, and of the relationship with the third parties and of the organisation of quality assurance, as far as practicable;
 - (b) the contribution made by public authorities or third parties to the functioning and coordination of the infrastructure for spatial information;
 - (c) information on the use of the infrastructure for spatial information;
 - (d) data-sharing agreements between public authorities;
 - (e) the costs and benefits of implementing this Directive.

3. Every three years, and starting no later than six years after the entry into force of this Directive, Member States shall send to the Commission a report providing updated information in relation to the items referred to in paragraph 2.

4. Detailed rules for the implementation of this Article shall be adopted in accordance with the procedure referred to in Article 22(2).

Article 22

1. The Commission shall be assisted by a Committee.
2. Where reference is made to this paragraph, Articles 5 and 7 of Decision 1999/468/EC shall apply, having regard to the provisions of Article 8 thereof.

The period laid down in Article 5(6) of Decision 1999/468/EC shall be set at three months.

3. The Committee shall adopt its rules of procedure.

Article 23

The Commission shall present to the European Parliament and to the Council by 7 years after the date of entry into force and every six years thereafter a report on the application of this Directive based, *inter alia*, on reports from Member States in accordance with Article 21(2) and (3).

Where necessary, the report shall be accompanied by proposals for Community action.

Article 24

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by 3 years after its date of entry into force. *

When Member States adopt these provisions, they shall contain a reference to this Directive or be accompanied by such reference on the occasion of their official publication. Member States shall determine how such reference is to be made.

* The Presidency suggests the standard recital: "In accordance with paragraph 34 of the interinstitutional agreement on better law-making, Member States are encouraged to draw up, for themselves and in the interest of the Community, their own tables, which will, as far as possible, illustrate the correlation between the Directive and the transposition measures and to make them public."

2. Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.

Article 25

This Directive shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

Article 26

This Directive is addressed to the Member States.

Done at Brussels,

For the European Parliament

The President

For the Council

The President

SPATIAL DATA THEMES REFERRED TO IN ARTICLES 6(A), 8(1) AND 9(A)

1. Coordinate reference systems
Systems for uniquely referencing spatial information in space as a set of coordinates (x,y,z) and/or latitude and longitude and height, based on a geodetic horizontal and vertical datum
2. Geographical grid systems
Harmonised multi-resolution grid with a common point of origin and standardised location and size of grid cells.
3. Geographical names
Names of areas, regions, localities, cities, suburbs, towns or settlements, or any geographical or topographical feature of public or historical interest.
4. Administrative units
Units of administration, dividing areas where Member States have and/or exercise jurisdictional rights, for local, regional and national governance, separated by administrative boundaries.
5. Transport networks
Road, rail, air and water transport networks and related infrastructure. Includes links between different networks. Also includes the trans-European transport network as defined in Decision 1692/96/EC * and future revisions of that decision.

* Decision n° 1692/96/EC on Community guidelines for the development of trans-European transport network.

6. Hydrography

Hydrographic elements, including marine areas and all other water bodies and items related to them, including river basins and sub-basins. Where appropriate, according to the definitions in Directive 2000/60/EC* and in the form of networks.

7. Protected sites

Area designated or managed within a framework of international, Community and Member States' legislation to achieve specific conservation objectives.



* Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy, OJ L 327, 22.12.2000, p. 1.

SPATIAL DATA THEMES REFERRED TO IN ARTICLES 6(A), 8(1) AND 9(B)

1. Elevation
Digital elevation models for land, ice and ocean surface. Includes terrestrial elevation, bathymetry and shoreline.
2. Addresses
Location of properties based on address identifiers, usually by road name, house number, postal code.
3. Cadastral parcels
Areas defined by cadastral registers or equivalent.
4. Land cover
Physical and biological cover of the earth's surface including artificial surfaces, agricultural areas, forests, (semi-)natural areas, wetlands, water bodies.
5. Orthoimagery
Geo-referenced image data of the Earth's surface, from either satellite or airborne sensors.
6. Geology
Geology characterised according to composition and structure. Includes bedrock, aquifers and geomorphology.

SPATIAL DATA THEMES REFERRED TO IN ARTICLES 6(B) AND 9(B)

1. Statistical units
Units for dissemination or use of statistical information.
2. Buildings
Geographical location of buildings.
3. Soil
Soils and subsoil characterised according to depth, texture, structure and content of particles and organic material, stoniness, erosion, where appropriate mean slope and anticipated water storage capacity.
4. Land use
Territory characterised according to its current and future planned functional dimension or socio-economic purpose (e.g. residential, industrial, commercial, agricultural, forestry, recreational).
5. Human health and safety ⁵
Geographical distribution of dominance of pathologies (allergies, cancers, respiratory diseases, etc.), information indicating the effect on health (biomarkers, decline of fertility, epidemics) or wellbeing of humans (fatigue, stress, etc.) linked directly (air pollution, chemicals, depletion of the ozone layer, noise, etc.) or indirectly (food, genetically modified organisms, etc.) to the quality of the environment.

⁵ **DELETED** requests deletion of this theme.

6. Utilities and governmental services ⁶

Includes surface and where appropriate subsurface utility networks and facilities such as sewage, waste management, energy supply, telecommunication and water supply, administrative and social governmental services such as, public administrations, civil protection sites, schools and hospitals.

7. Environmental monitoring facilities

Location and operation of environmental monitoring facilities includes observation and measurement of emissions, of the state of environmental media and of other ecosystem parameters (biodiversity, ecological conditions of vegetation, etc.) by or on behalf of public authorities.

8. Production and industrial facilities

Industrial production sites, including installations covered by Directive 96/61/EC (IPPC) and water abstraction facilities, mining, storage sites.

9. Agricultural and aquaculture facilities

Farming equipment and production facilities (including irrigation systems, greenhouses and stables).

10. Population distribution – demography

Geographical distribution of people, including population characteristics and activity levels, aggregated by grid, region, administrative unit or other analytical unit.

⁶ **DELETED**: concerns about the extent of theme 6. "Utility and governmental services Includes [...] utility [...] facilities such as sewage, waste management, energy supply [...] and water supply, administrative and social governmental services such as, public administrations, civil protection sites, schools and hospitals.".....
have doubts about the need for, and concerns about the scope of, this theme.
Paragraphs 6 and 7 are broadly consistent with draft amendment 44.

11. Area management/restriction/regulation zones & reporting units
Areas managed, regulated or used for reporting at international, European, national, regional and local levels. Includes dumping sites, restricted areas around drinking water sources, nitrate-vulnerable zones, regulated fairways at sea or large inland waters, areas for the dumping of waste, noise restriction zones, prospecting and mining permit areas, river basin districts, relevant reporting units and coastal zone management areas.
12. Natural risk zones
Vulnerable areas characterised according to natural hazards (all atmospheric, hydrologic, seismic, volcanic and wildfire phenomena that, because of their location, severity, and frequency, have the potential to seriously affect society), e.g. floods, landslides and subsidence, avalanches, forest fires, earthquakes, volcanic eruptions.
13. Atmospheric conditions *
Physical conditions in the atmosphere. Includes spatial data based on measurements, on models or on a combination thereof and includes measurement locations.
14. Meteorological geographical features
Weather conditions and their measurements; precipitation, temperature, evapotranspiration, wind speed and direction.
15. Oceanographic geographical features
Physical conditions of oceans (currents, salinity, wave heights, etc.).

* The provision of Article 7(1), last sentence, referring to relevant standards adopted by organisations under international law, is of particular importance for themes 13, 14 and 15.

16. Sea regions
Physical conditions of seas and saline water bodies divided into regions and sub-regions with common characteristics.
 17. Bio-geographical regions
Areas of relatively homogeneous ecological conditions with common characteristics.
 18. Habitats and biotopes
Geographical areas characterised by specific ecological conditions, processes, structure, and (life support) functions that physically support the organisms that live there. Includes terrestrial and aquatic areas distinguished by geographical, abiotic and biotic features, whether entirely natural or semi-natural.
 19. Species distribution
Geographical distribution of occurrence of animal and plant species aggregated by grid, region, administrative unit or other analytical unit.
 20. Energy resources
Energy resources including hydrocarbons, hydropower, bio-energy, solar, wind, etc., where relevant including depth/height information on the extent of the resource.
 21. Mineral resources
Mineral resources including metal ores, industrial minerals, etc., where relevant including depth/height information on the extent of the resource.
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