

# Quest for a Global Standard for Geo-data Licenses\*

*Bastiaan van Loenen<sup>1</sup>, Katleen Janssen<sup>2</sup> and Frederika Welle Donker<sup>1</sup>*

<sup>1</sup>Delft University of Technology, the Netherlands

<sup>2</sup>Katholieke Universiteit Leuven, Belgium

b.vanloenen@tudelft.nl; katleen.janssen@law.kuleuven.be; f.m.welledonker@tudelft.nl

## Abstract

The ability to share geo-data is key to the success of spatial data infrastructures. A major barrier in sharing geo-data is the use of non-standard Licenses which are difficult to understand both for human beings and computers. This article compares existing (national and international) licensing frameworks as to the key components they share. It draws out common elements that can serve as a basis for a global set of model Licenses.

KEYWORDS: Licensing, geo-data, standard, development

## 1. Introduction

In the SDI (spatial data infrastructure) community, technical interoperability and standardization are considered a *condition sine qua non* for facilitating data sharing and re-use. For example, INSPIRE requires technical interoperability of geographic data allowing different data sets across Europe to be smoothly combined in new data sets and/or services (see European Parliament and Council, 2007). However, not only technical standards are necessary to achieve this, but also agreements establishing interoperability on an organizational or legal level. Such interoperability involves ensuring the compatibility of licensing conditions for the use of spatial data, so that

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data from different sources can be seamlessly combined. Non-transparent and inconsistent Licences have often been identified as a major barrier to the sharing of data across the geospatial community and a clear need for harmonized geo-Licences is increasingly being recognized (MICUS, 2008; Groot *et al.*, 2007; van Loenen *et al.*, 2007; National Research Council, 2004; Spatial Technologies Industry Association, 2001; RAVI Bedrijvenplatform, 2000; Meixner *et al.*, 1997). Currently, it is very difficult to readily assess and directly access geographic data and geographic information services, within one jurisdiction and particularly for cross-border and international use. Attention for legal interoperability and a standard for geo-information are starting to emerge, also influenced by the growing interest of the policy makers and public bodies in open data. For instance, in its proposal for amending the European Directive on the re-use of public sector information (PSI directive) (European Commission, 2011), the European Commission emphasizes the importance of licensing conditions and states its intention to create recommendations on licensing terms for the public sector bodies in the EU Member States. With regard to spatial data, there are already some promising initiatives the European Commission can draw inspiration from in the United States (National Research Council, 2004), Europe (INSPIRE DT Data and Service Sharing, 2010a), Italy (Garretti *et al.*, 2009), the Netherlands (Welle Donker, *et al.*, 2010), Australia (Fitzgerald, 2010) and at a global level (Onsrud *et al.*, 2010). While these initiatives address data sharing on a local level, calls are growing for licensing models that have a broader reach than just on a national or sector level, possibly based on existing models such as creative commons (see e.g. Group on Earth Observations, 2010; European Commission, 2011).

During its meeting at the GSDI 12 conference in Singapore in October 2010, the Legal and Socio-Economic Working Group of the Global Spatial Data Infrastructure Association decided to examine the possibility for a global licensing model for sharing geographic data. The Working Group felt that the differences between the national licensing traditions and practices might actually be smaller than generally assumed, making efforts to harmonize these traditions and practices worthwhile. A work plan was drawn up, consisting of different phases.

First, the Group collected existing material on (national and international) licensing frameworks, compared the key components thereof and categorized them in a number of 'common denominator' groups. In the second phase, a framework will be developed, based on these categories, of several types of Licences that could be used on a global level, and that will increase transparency of the conditions for obtaining and using geographic data. Such transparency is an important first step towards reaching legal interoperability. The licensing framework should avoid creating new licensing conditions if this is not necessary, but also accommodate possible differences between organizations, cultures, and financing models. This paper presents the first stage of the work, by showcasing some existing licensing models that can be considered good practices, and by discussing the comparison that was made between the licensing models that were examined.

## 2. Existing Licensing Models and Frameworks

In this paragraph, we discuss some existing initiatives with regard to reaching transparency in licensing conditions and legal interoperability. While there are several models in the geo-domain that can serve as an example, first some attention should be paid to Creative Commons, which is the first licensing framework that attempted to standardize licensing. While this framework was not developed for geographic data, it has had a great influence on any licensing models for geographic data and is often used as a basis for harmonising initiatives. Therefore, its main characteristics will be discussed below.

### 2.1 The Creative Commons Framework

It can be argued that the standardization of Licenses at a global scale started with the foundation of the Creative Commons organization in 2001 (Dulong de Rosnay, 2010). Many initiatives in the geo-sector build on the licensing framework that is created by Creative Commons. In this section, we describe the Creative Commons framework, and discuss some of its advantages and drawbacks with regard to the harmonization of geo-Licenses.

Creative Commons (CC) was founded as a non-profit organization to offer flexible copyright Licenses for creative works such as text articles, music and graphics (see <http://creativecommons.org>). It advocates a system whereby rightholders can make works available through the Internet without forfeiting their intellectual property rights (IPR). To facilitate this, CC has developed a system of so-called Creative Commons Licenses, that try to balance between the “all rights reserved” concept of traditional IPR and the “no rights reserved” concept of the Public Domain, by employing a “some rights reserved” approach (see also Dusollier, 2006; Dulong de Rosnay, 2010).

Creative Commons Licenses are based upon a number of pivotal aspects: attribution, copying and redistribution, commercial and non-commercial use, creating derivative products, and extending the same License conditions to derivative products. Six different Licenses were created, holding standard terms except for three aspects where the licensor can choose to impose restrictions: commercial use, derivative products, and the licensing terms for those derivative products. The possible restrictions on the use that can be made of the work are summarized in the Table below.





Creative commons License attribute	Layman text
 Attribution by	You let others copy, distribute, display, and perform your copyrighted work — and derivative works based upon it — but only if they give credit the way you request.
 Share Alike sa	You let others distribute derivative works only under a license identical to the license that governs your work.
 Non-Commercial nc	You let others copy, distribute, display, and perform your work — and derivative works based upon it — but for non-commercial purposes only.
 No Derivative Works nd	You let others copy, distribute, display, and perform only verbatim copies of your work, not derivative works based upon it.

Table 1. Creative Commons Attributes

The six licensing models are made up of the following combinations:

1. Attribution Non-Commercial No Derivatives (by-nc-nd)
2. Attribution Non Commercial Share Alike (by-nc-sa)
3. Attribution Non Commercial (by-nc)
4. Attribution No Derivatives (by-nd)
5. Attribution Share Alike (by-sa)
6. Attribution (by)

In addition, the Creative Commons Zero License (CC0) allows one to waive all copyrights and related or neighbouring rights in one’s work, such as moral rights (to the extent that these can be waived), publicity or privacy rights, rights protecting against unfair competition, and database rights and rights protecting the extraction, dissemination and reuse of data. Next, the Public Domain Mark (PDM) enables works that are no longer restricted by copyright to be marked as such in a standard and simple way, making them easily discoverable and available to others.

Creative Commons (CC) licenses have as an advantage that they are the result of a meticulous drafting process by leading legal scholars, they are well known and widely used across the globe, and they have been translated into numerous languages and adapted to numerous jurisdictions. Web search engines can automatically pick up embedded html code indicating that the returned sites contain CC licensed material (Onsrud *et al.*, 2010). The validity of the License has been upheld in various lawsuits

around the world (see for example *Curry v Audax Publishing*, the Netherlands; Spain: *Sociedad General de Autores e Editores*; Tribunal of Nivelles, *Lichôdmapwa*, Belgium).

However, CC Licenses also have a number of drawbacks. They may not be altered in any way (see J. Farchy, 2009), although others consider this a benefit: (Onsrud *et al.*, 2010; Dulong de Rosnay, 2010; Dusollier, 2006). Next, CC Licenses may not apply to some datasets in some jurisdictions. CC licenses are intended for “creative works” or those that meet the legal standard for “originality,” regardless of the jurisdiction. As this standard for originality differs between jurisdictions (Janssen *et al.*, 2007), using CC licenses in a cross-border context may sometimes be problematic. The different national versions that have been created of the CC Licenses, all applying terminology adapted to their national legal frameworks, may complicate this even further (Dulong de Rosnay, 2010).

In addition, all the available Licenses may give rise to problems of interpretation. This is for instance the case with the CC License that only allows non-commercial use. What exactly constitutes ‘commercial use’? What about a company representative visiting a client using a car navigation system, does this constitute commercial or internal use? The vagueness of the term ‘non-commercial’ has been criticized by several authors (Dulong de Rosnay, 2010; Welle Donker *et al.*, 2010; S. Dusollier, 2006; Rutledge, 2008), and while on a national level some consensus may be reached on the exact scope of the term ‘commercial’, on a cross-border or international level this will be much more difficult. Moreover, the use of only a non-commercial CC License may be a problem for geographic data stemming from the public sector in particular jurisdictions, e.g. in the European Union, where both non-commercial and commercial use of such geographic data should be allowed under the directive on the re-use of public sector information (van Eechoud *et al.*, 2007; Janssen, 2010). A separate License would still be possible for commercial use, but this would limit the harmonising potential of the use of the CC License in the first place.

Next, the CC License concept of ‘no derivatives’ may also pose a problem if the aim is to make datasets available for value-added products. If information (including geographic data) cannot be used to create derivative products, then it will only be suitable for internal business processes or for end users, and the addition of value by other users is not possible. A comparable problem rises with the share alike option. In a creative environment the concept of sharing works, adapting them, and making the derivatives available under similar conditions might be important to control potential free-riders who want to redistribute the work and their derivative works under a more strict License (see Lerner *et al.*, 2005). However, when geographic data is made available for the purpose of value adding, the requirement of making the value-added services and products available under the same open conditions would be counterproductive to the business model of many value-adders (see also Stewart *et al.*, 2006).

## 2.2 Licensing Frameworks in the Geo-domain

Even though the calls for standardization of licensing conditions are increasing, many public bodies providing geographic data are still hesitant to replace their own proprietary licensing system by a harmonized licensing policy (Janssen *et al.*, 2011). However, several recent initiatives aim at harmonising Licenses for public sector (geographic) data. In this section, we discuss three of these initiatives: Geo Shared in the Netherlands, Government Information Licensing Framework (GILF) in Queensland (Australia), and the INSPIRE basic and specific License. For an overview of some other initiatives, we refer to the INSPIRE Good Practice Guide (INSPIRE Drafting Team on Data and Service Sharing, 2010).

### 2.2.1 Geo Shared (Netherlands)

The Dutch Geo Shared licensing framework is embedded in the more general policy of the government to make available public sector information free of charge and without any (re-)use conditions (see Table 3): Van Boxtel, 2000; Donner, 2011. This policy applies to all information held by national government organizations and is endorsed by the Dutch provinces and water authorities. Most public sector information is envisioned to be available under a Creative Commons Public Domain Mark (see [http://creativecommons.org/licenses/publicdomain/deed.en\\_US](http://creativecommons.org/licenses/publicdomain/deed.en_US)). If a PDM is not possible, a Creative Commons Zero declaration is advised.

However, for the instances when PDM or CCO is not possible, because the public bodies concerned are still required to apply use conditions and/or charges, for example due to legal obligations, or because of costs that need to be recovered by the public organization, the Geo Shared (Dutch: geogedeeld) licensing framework was developed. This framework, created as part of the Dutch INSPIRE program builds on the Creative Commons concept, including symbols representing the various use conditions, a layman's text and a legal text. The data providers can choose the use conditions they want to apply to the dissemination of their geographic data from a limited list, shown in Table 2 below. The symbols representing the conditions of use are published in the Dutch national geo-register (see <http://www.nationaalgeoregister.nl/>). On 21 September 2010, the framework was accepted by the GI Council, the Dutch advisory council on geographic data.








	Attribution: Work can be used and reused if name of copyright holder and/or the date of the creation of the Work are mentioned on the Work.
	Derivative works only if: the Work can only be part of a Derivative works if the Work is not selectable from the Derivative Work.
	No redistribution: No redistribution of the Work is allowed.
	Time limitation: The license is valid for a limited period.
	Fee required: Use of the dataset requires a monetary payment.
	Purpose limitation: The Work can only be used for the purpose(s) specified in the license.
	Additional conditions: Other restrictions than the above apply.

Table 2. The Geo Shared Licensing Framework (see Van Loenen *et al.*, 2010)

### 2.2.2 Government Information Licensing Framework (Queensland, Australia)

The Queensland Government Information Licensing Framework (GILF), initiated by the Queensland Spatial Information Council (Australia) aims to make it easy for PSI users to understand the rights of use associated with the material they want to use. The GILF licensing framework consists of the six Creative Commons Licenses and a GILF Restrictive License (Fitzgerald, 2010). Originally only used in Queensland, it has now been taken up by the other Australian states and territories under the name of AUSGOAL, Australian Governments Open Access and Licensing Framework (see <http://www.ausgoal.gov.au/>).

Under GILF/AUSGOAL, the six Creative Commons Licenses are the preferred method for licensing government intellectual property. However, the restrictive License template can be used if the public bodies want to impose additional conditions. It has been developed specifically for material that contains personal or other confidential data, but it may also be used for other reasons, including for material that is licensed with limiting or restrictive conditions. In principle, the data obtained under this License can be used in Australia for the own internal purposes of the user. Possible restrictions the licensor can choose from include prohibitions to copy the data, to make it available, to transmit it electronically or to perform any act that is not explicitly allowed under the License. The License provides an appendix in which these standard restrictions can be overturned, and the making of copies, the online distribution, the electronic transmission, the distribution of hard copies or anything else can be allowed. Further, the GILF has an article and appendix on payment and in an appendix the License fee itself, and payment information is provided.

### **2.2.3 INSPIRE Drafting Team basic and specific Licenses**

In 2005, the INSPIRE Drafting Team on Data and Service Sharing was set up to prepare the Commission Regulation executing article 17.8 of the INSPIRE directive on access by the bodies and institutions of the European Community (now European Union) to spatial data sets and services from the Member States falling under the scope of the directive under harmonized conditions.

The drafting team provided a guidance document for the Member States and public authorities on how to share spatial data sets and services with the institutions and bodies of the European Union (INSPIRE DT Data and Service Sharing, 2010a). In this guidance, the Member States are encouraged to make upstream framework INSPIRE agreements for data sharing between multiple organizations and for multiple datasets, in this way preventing the need for a separate License for each request for data. However, if such agreements are not available, the Member States are encouraged to use a Basic or Specific INSPIRE License, (INSPIRE DT Data and Service Sharing, 2010a). While these Licenses were created specifically for the dissemination of spatial data and services towards the EU institutions and bodies, they can also be used *mutatis mutandis* for data sharing between other stakeholders.

The Basic INSPIRE License applies when spatial data sets or services can be used under INSPIRE conditions without significant further restrictions or conditions and the use is free of charge. These INSPIRE conditions hold that the data or service can be used for the performance of public tasks that may have an impact on the environment by the institutions and bodies of the Community, and by contractors on their behalf. The institutions and bodies can allow public access to the data or service, but they should avoid unnecessary duplication of the original data set or service from the data provider, or any data or service derived from it (INSPIRE DT Data and Service Sharing, 2010a). The License also contains standard provisions on warranties and security



measures, liability, the access and delivery methods, personal data, assignment and sub-licensing, conflict resolution and termination.

### 3. Towards the Development of Cross-Border and Global Standards for Licensing Geographic Data

#### 3.1 Objective and Methodology

As shown from the initiatives in the previous section, there are signs that ad hoc licensing policies from individual organizations will gradually be replaced by nationally or sectorally coordinated harmonized Licenses (see Figure 1). However, this does not solve the problems users are facing when they want to combine data from different sectors and across borders. The GSDI Legal and Socio-Economic working group wants to propose a global licensing model for geographic data that enables the users to license and use data from any source: see figure 1.

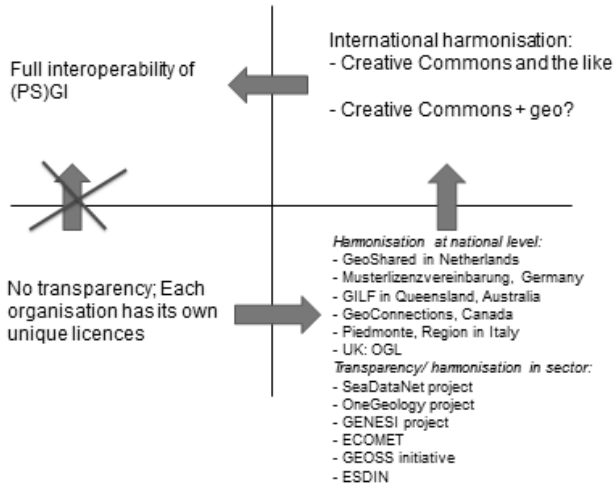


Figure 1. Suggested Stages of Development of a Standard for Geo-Licenses

The Group compared existing licensing frameworks and models, and categorized their key components in a number of groups. Based on the common denominators of these categories, in the future a licensing framework will be created that can be used globally and will increase transparency and support interoperability of the conditions for obtaining and using geographic data. The following licensing frameworks and models were examined (see Table 3).

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Topic	Location/Region	URL
APIE	France	<a href="https://www.apiefrance.fr/sections/actualites/des-conditions-generales-pour-la-reutilization-des-informations-publiques/view">https://www.apiefrance.fr/sections/actualites/des-conditions-generales-pour-la-reutilization-des-informations-publiques/view</a>
Creative Commons	Global	<a href="http://creativecommons.org">http://creativecommons.org</a>
ECOMET	Europe	<a href="http://www.ecomet.eu/index.php?option=com_content&amp;view=article&amp;id=2&amp;Itemid=3">http://www.ecomet.eu/index.php?option=com_content&amp;view=article&amp;id=2&amp;Itemid=3</a>
ESDIN	European Union	
GeoConnections	Canada	<a href="http://www.geoconnections.org/publications/Best_practices_guide/Guide_to_Best_Practices_Summer_2008_Final_EN.pdf">http://www.geoconnections.org/publications/Best_practices_guide/Guide_to_Best_Practices_Summer_2008_Final_EN.pdf</a>
Geo Shared	Netherlands	<a href="http://www.geonovum.nl/diensten/gebruiksvoorwaarden">http://www.geonovum.nl/diensten/gebruiksvoorwaarden</a>
Government Information Licensing Framework	Queensland, Australia	<a href="http://www.gilf.gov.au/">http://www.gilf.gov.au/</a>
INSPIRE basic & specific License	European Union	<a href="http://inspire.jrc.ec.europa.eu/documents/Data_and_Service_Sharing/DSSDraftGuidancedocument_v4.1.pdf">http://inspire.jrc.ec.europa.eu/documents/Data_and_Service_Sharing/DSSDraftGuidancedocument_v4.1.pdf</a>
Ministry of Justice	France	<a href="http://www.rip.justice.fr/1932-simplified-License-%C2%AB-conditions-of-the-reuse-of-public-information-that-is-freely-reusable">http://www.rip.justice.fr/1932-simplified-License-%C2%AB-conditions-of-the-reuse-of-public-information-that-is-freely-reusable</a>
OneGeology-Europe	European Union	<a href="http://www.law.kuleuven.be/icri/deliverables/2071G-E_WP7_D7.pdf?where=">http://www.law.kuleuven.be/icri/deliverables/2071G-E_WP7_D7.pdf?where=</a>
Open database License	Global	<a href="http://www.opendatacommons.org/licenses/odbl/">http://www.opendatacommons.org/licenses/odbl/</a>
Open license	Montevideo (Uruguay)	<a href="http://monolitos.montevideo.gub.uy/resoluci.nsf/de05340556872cf832575ae004f04677adaf8ec8d70033b832576d60041760f">http://monolitos.montevideo.gub.uy/resoluci.nsf/de05340556872cf832575ae004f04677adaf8ec8d70033b832576d60041760f</a>
Ordnance Survey (Open Government License)	United Kingdom	<a href="http://www.ordnancesurvey.co.uk/oswebsite/business/licenses/agreements.html">http://www.ordnancesurvey.co.uk/oswebsite/business/licenses/agreements.html</a>
SeaDataNet	Europe	<a href="http://www.seadatanet.org/content/download/3899/29604/version/2/file/SeaDataNet+Data+Policy+.pdf">http://www.seadatanet.org/content/download/3899/29604/version/2/file/SeaDataNet+Data+Policy+.pdf</a>

Table 3. Overview of Existing National or Sectoral Geo-license Harmonization Efforts analyzed the GSDI Legal and Socio-Economic Committee

As almost all of the licenses contained provisions on the same topics and the users are confronted with the same elements, it seemed relatively easy at first sight to ensure interoperability and possibly even harmonization. However, the content of the provisions might still be significantly different. Hence, harmonization would need three steps. The first one would involve including the same topics in each license, so that a user knows what types of terms and conditions to expect. However, this would only provide a small benefit to the user. In the second step, standard formulations should be developed for each provision, ensuring that, even though the conditions that are applied to different data sets may still vary, at least for each requirement and

condition a standard clause with harmonized wording would be available. Third, not only the formulation of the conditions and requirements should be harmonized, but the types of conditions that can be imposed would be limited. The Working Group realized that this final step would be difficult to achieve due to the many different legal and institutional factors that need to be taken into account, and therefore aimed to develop a licensing framework that provides a number of model licenses built from standard clauses, but that still allows for the data providers to choose the conditions they want to apply.

### **3.2 Overview of the Categories of License Terms**

The following categories of clauses were found in almost all of the licensing frameworks: definitions, grant of license, obligations, allowed use, use restrictions, term and termination, disclaimers (limitation on liability/warranties/indemnification), dispute resolution, governing law, jurisdiction, and form and effect of the agreement. For some of these categories, different options or subcategories could be found for particular conditions or requirements. As mentioned earlier, ideally the number of these options should be as limited as possible, but a first step in reaching interoperability or harmonization would already be that the different options and possibilities are formulated in a more uniform way, in this way creating more transparency and facilitating the combination of different types of geographic data by the user. In the next subsections, we discuss four examples of categories for which different clauses or clauses containing different options were found in the model licenses.

#### **3.2.1 Grant of License**

While all licenses contained a non-exclusive grant of use rights, some only allowed use within a certain territory (e.g. some of Queensland's GILF licenses), or required payment for using the data (e.g. the French APIE's licenses). Yet, many of the licensing frameworks that include multiple licenses include both royalty-free and charging license templates.

#### **3.2.2 Allowed Use**

The core element of a license is the kind of use the licensee can make of the data that he or she has obtained under the license. Understandably, the provisions on allowed use in the licensing frameworks held considerable variation in their level of restrictiveness, adapted to the specific needs of each framework and/or data provider. Generally, the types of allowed or restricted use included the following types (albeit formulated in many different wordings):

- Accessing
- Viewing
- Downloading
- Copying

- Distributing
- Making derivative works

### 3.2.3 Use Restrictions

Another part of the licensing frameworks that is essential are the acts that the licensee is *not* allowed to perform with the geographic data he or she obtained access to. The different licenses contained a wide variety of use restrictions, with each license within a particular framework holding a different combination of these restrictions. Possible restrictions can be divided into a number of main types:

- No sublicensing;
- No direct marketing;
- Viral clause: share-alike obligation
- No distribution or disclosure to third parties;
- Only internal use for legal persons or private use for natural persons;
- No derivative works, only non-copy derivative works, no changes or adaptations to the original information;
- Limitation on number of copies, number of views, number of users/computers;
- Only use for a particular activity, or for a particular purpose;
- Only use by a particular group of users.

The different types of user restrictions can have a greater or lesser impact on the possibilities of the licensees to use the geographic data for the purposes they need it. For instance, while a prohibition to sublicense the data only limits the user from acting as a licensor of the data he or she has obtained, the data can still be made public. Next, not being allowed to redistribute the data does not hinder the user from creating added-value products and disseminating those, while a restriction to internal use would also prevent the latter. Another example where the extent of the user restriction can make a great difference is the purpose: a license forbidding a particular type of use (e.g. no direct marketing) has much less impact than a license only allowing one type of use (e.g. only education).

### 3.2.4 Obligations of the User

The fourth category of license terms for which a number of different provisions and options were found in the model licenses and licensing frameworks that were studied is the obligations of the user. In the reviewed licensing frameworks the following obligations for the user were found:

- No misuse of the data or misrepresentation of the data provider;
- No use of any identifiers/ trademarks of the supplier;
- Attribution;
- Notification of any misuse of the data or any infringements of the license that were noticed by the user;

- Notifications of errors in the data found by the user;

#### **4. Discussion and Conclusions**

Obtaining interoperability or harmonization can be relatively easy for many of the license provisions. However, particularly with regard to the restrictions that can be imposed on the use of the data, considerable flexibility will need to be maintained, allowing data providers to determine their own requirements outside of any standard provisions that are provided. For instance, for two use restrictions, 'Only use for a particular activity, or for a particular purpose' and 'Only use by a particular group of users' a standard option may be problematic, as it is difficult to distinguish between e.g. commercial use and non-commercial use, or to define personal use or end use. Starting with the purpose of use is even more troublesome with an infinite number of possible purposes. How can a computer decide which purpose does not conflict with another when trying to integrate to different data sets or services? A pragmatic approach has been implemented by the Seadatanet project (see [www.seadatanet.org](http://www.seadatanet.org)). Seadatanet attributes four different roles to its users. Based on these roles a user profile dictates the conditions of access to the datasets. For some it is free without any restrictions, for other datasets it is not. This approach needs further investigation as far as meeting the full interoperability requirements.

Whatever problems may arise in harmonising some elements of licenses for geographic data, we do believe that a global framework of standard geo-licenses is a prerequisite to stimulate cross-jurisdictional use of geographic data and to successfully move towards a service oriented SDI in which multiple services can be integrated into new services without delay. The review of existing licensing frameworks shows that they have many elements in common, at least at the generic level of categories included in a license. Even the more detailed subcategories show possibilities for harmonization in most instances. The most troublesome from a harmonization perspective, are those licenses with conditions per user type, per activity and/ or specifying the purposes for which a data set can be used. For these licenses, transparency of terms and full and automatic interoperability will be a real challenge. In the next phase, based on the categories that were defined in the first stage of the work, a framework will be developed of several types of licenses that could be used globally and increase transparency of the conditions for obtaining and using geographic data.

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