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Compendium on Licensing of Geospatial Information

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Compendium on Licensing of Geospatial Information

(E/C.20/2018/9/Add.2)

UN-GGIM | United Nations Committee of Experts on Global Geospatial Information Management

Foreword

The United Nations Global Geospatial Information Management (UN-GGIM) International Forum on Policy and Legal Frameworks for Geospatial Information (the "Forum") was held in Kuala Lumpur, Malaysia, from 18-19 October 2016. The Forum was the direct result of Decision 5/107 at the Fifth Session of UN-GGIM, which called for the convening of an international forum on legal and policy issues and frameworks. The Forum's purpose was for all stakeholders to exchange knowledge, experience and good practices, and to enhance cooperation towards better policy and legal frameworks in geospatial information management for sustainable development.

One of the recommendations from the Forum to UN-GGIM was to begin developing capacity within Member States on the policy and legal issues that impact the collection, use, storage and dissemination of geospatial information. Given the importance of licensing of geospatial information in the development of products and services to support sustainable development, UN-GGIM commissioned the Compendium in response to this recommendation. The goal is for the Compendium to serve as a foundation document for several other initiatives, including developing best practices.

Department of Economic and Social Affairs
Statistics Division
Global Geospatial Information Management Section
Secretariat for United Nations Committee of Experts on Global Geospatial Information Management

The United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM) as the apex intergovernmental body seeks to play the lead role in setting the agenda for global geospatial information management and to promote its use to address key global challenges. UN-GGIM is the forum to liaise and coordinate among Member States, and between Member States, international organizations and stakeholders.

New York
July 2018

Disclaimer

This Compendium contains general, condensed summaries of legal matters, statutes and opinions. It is intended for information purposes and should not be construed as legal advice. Advice on specific issues should be sought from competent legal counsel.

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Introduction

The geospatial information community (government agencies, industry, universities, non-governmental organizations (NGOs), etc.) are increasingly creating geospatial products and services by integrating and aggregating a wide range of geospatial-enabled datasets from different sources. This is particularly true with respect to value-added geospatial products. In the recent past, geospatial information was often sold from a data collector to a customer. However, the geospatial information market has evolved, and today geospatial information is primarily licensed from one party to another, rather than sold. In a licensing arrangement, the owner of the geospatial information (or the party with rights to license the geospatial information), commonly referred to as the “Licensor”, grants another party, generally referred to as the “Licensee”, certain rights in the geospatial information. The Licensor will retain rights in the geospatial information, including ownership. Since both parties will have ongoing legal rights and responsibilities in the geospatial information, the legal relationship can be more complicated than in a sale and purchase. Consequently, geospatial information licenses can be complex legal documents. The complexity increases as geospatial products and services are created using geospatial information from a multitude of sources, each with unique, and sometimes conflicting, licensing terms.

There are several important aspects to consider when discussing geospatial information licenses. First, many government agencies are making geospatial information "open". However, even if data is “open”, generally it is subject to a license agreement, unless governments are willing to give up their copyrights in the geospatial information by placing it into the public domain. While these open licenses generally have fewer restrictions than a commercial proprietary license, many do contain conditions or restrictions that a Licensee must follow. This Compendium is intended to help government agencies better understand the conditions and restrictions included in "open" geospatial information licenses.

It is also important to recognize that the purpose of a geospatial information license agreement is more than to grant rights (i.e. a license) from the Licensor to the Licensee. It also serves as a means to allocate certain operational and legal risks between the parties. In a geospatial information license agreement one such risk might be whether the Licensor has any legal responsibility to the Licensee if the geospatial information is of insufficient quality for the purpose for which the Licensee intends to use it. Another foreseeable risk is the liability of the Licensee should its use of the geospatial information violate local law or injure a third party.

Finally, geospatial information is not solely licensed through a stand-alone geospatial information license agreement. For example, a license for geospatial information may be included in the terms of a cloud hosting agreement, as the cloud provider will need certain rights in order to host or store the geospatial information. It is also increasingly common for businesses that offer Software as a Service (SaaS) to include geospatial information in their offerings. As a result, geospatial information licensing terms are often included in their Terms of Service (ToS) or similar type documents. The Compendium will refer to a geospatial information license agreement generally as any type of legal document in which geospatial information is licensed.

The Compendium on Licensing of Geospatial Information (the "Compendium") is intended for professionals within the geospatial ecosystem who do not have legal training and want a better understanding of geospatial information license agreements. Since many organizations within the geospatial community are both providers and consumers of geospatial information, it is written for both Licensors and Licensees. The Compendium is intended to help Licensors choose which licensing terms are best suited for their objectives. It is also intended to help Licensees understand the rights and obligations that they are agreeing to abide by when entering into a geospatial information license agreement. The goal is for both Licensors and Licensees of geospatial information to be better educated on these important issues so that they can make more informed decisions.

The Compendium is not intended to be a set of best practices for licensing geospatial information. It is the belief that it is still too early in the evolution of the geospatial ecosystem for best practices. However, the Compendium hopefully will serve as a foundation for the development of best practices in the future. A next edition of the Compendium could also provide guidance for national geospatial authorities so that they are able to engage in geospatial licensing processes. In addition, future editions could be used to help develop a common vocabulary and domain ontology. These will be required to support future on-demand knowledge applications that harvest data.

The Compendium begins with a general overview of a geospatial information license agreement. This includes a discussion of the unique aspects of a geospatial information license and key considerations when entering into a geospatial information license agreement. This is followed by a section on Open Data licenses and geospatial information. The next section will describe the main sections of a geospatial information license agreement. The Compendium will conclude with an analysis of the challenges in aggregating geospatial information from different sources, and how an evolving legal and regulatory environment concerning geospatial information will impact geospatial information license agreements.

1. Overview of A Geospatial Information License

1.1 Role of A License Agreement

A geospatial information license agreement is a legal document in which one party (the "Licensor") grants another party (the "Licensee") certain rights in geospatial information that the Licensor either owns or has rights to license or sub-license[1]. While a geospatial information provider gives up all rights in a sale, in a license agreement the Licensor retains the rights it does not grant to the Licensee, including ownership. Because both the Licensor and the Licensee have rights in the same geospatial information, the relationship between the parties is ongoing and therefore can be much more complex than in a sale. The geospatial information license agreement is critical in documenting the parties' respective rights and responsibilities.

One of the challenges in understanding geospatial information license agreements is that geospatial information is an intangible item. This can make it difficult to understand the applicability of certain legal principles. Fortunately, the licensing of geospatial information is similar in many ways to one person borrowing a tangible object, such as an automobile, from another person. The owner (i.e. the Licensor) is granting another person (i.e. the Licensee) certain rights to use the automobile. However, the automobile is not being sold, so the owner still retains rights. For example, the owner will want to make sure that the automobile is used properly and not damaged. The owner may also want to limit its responsibility to the person who borrows the automobile (and to others) if, for example, there is an accident.

The type of agreement the parties will enter into will depend upon a few factors, including the relationship between the parties, or how long the automobile is being used. For example, an automobile owner would not likely require his brother to sign a lengthy agreement to borrow the vehicle. Nor is the owner likely to require a written agreement for a neighbor to take a child to the hospital in an emergency. However, an auto leasing company will require the borrower to enter a lengthy written agreement if a customer asked to borrow the automobile for an extended period. This agreement would likely include certain conditions and restrictions, such as when the automobile is to be returned, the maximum number of miles it should be driven, a requirement that the automobile be properly maintained and that any driver comply with applicable laws. On the other hand, the customer

[1] For purposes of this Compendium, the term geospatial information shall mean any type of information that can be referenced to a location on the earth.[2] http://opendatahandbook.org/guide/en/what-is-open-data/ , which draws from the open definition at http://opendefinition.org/ (accessed December 26, 2016)

might expect details on the year and make of the automobile, as well as its condition and suitability for operation. The customer might also ask the owner to promise to fix or replace the automobile if it breaks down.

There are several similarities between a geospatial information license agreement and an agreement to borrow an automobile. The Licensor still retains rights in the geospatial information. Thus, the geospatial information license agreement generally will include several provisions that outline the respective responsibilities of the parties. The Licensor may want to include these provisions to protect its rights to license the geospatial information to another party. Alternatively, it may want to limit its liability in the event a third party is somehow damaged due to the use of the geospatial information. Similarly, the Licensee might ask for a promise regarding the quality and completeness of a database containing geospatial information and that the Licensor has all the necessary rights to enter the agreement.

1.2 Unique Aspects of Geospatial Information

There is a tendency to think about license agreements for geospatial information as if they are software licenses. However, there are several unique aspects of geospatial information, and the geospatial community, that makes a license agreement for geospatial information very different to a software license agreement. These differences include:

- Geospatial Information is More Diverse and Versatile. Software is typically tailored for a set of applications or customers. Geospatial information on the other hand is much more diverse, and can include addresses, electro-optical satellite imagery, LIDAR from mobile platforms and geo-tagged photos or posts from a social media applications. Each may be subject to different legal and regulatory regimes. For example, satellite images may be collected by a national mapping agency or a private company, while addresses often will be the domain of a nation's statistics or census agency or a local government agency. These differences must be considered in the context of a geospatial information license agreement, given that national mapping agencies often are subject to different regulations than statistic agencies.

  Moreover, the same geospatial information can be used in several very different applications. For example, a satellite image can be used by a business to determine where to locate a new store, by a customer to identify the best route to drive to the

store once it is opened, and by the local transportation department to place a traffic light to accommodate all the automobile traffic caused by the opening of new store. However, simply because one piece of geospatial information can be used for many different applications does not mean that it is suited for each such use. The geospatial information may not be complete, timely, accurate or precise enough for a certain application. Consequently, the Licensor may wish to place certain use restrictions in a geospatial information license agreement, or it may disclaim any damages that arise due to the use of the geospatial information in certain applications.

- Geospatial Information is Often Published for Third Parties to View or Use. Software is often licensed for an organization to use for internal purposes. Consequently, the Licensor has confidence in how the software will be used and who will use it. However, organizations often create geospatial products and services for third parties outside the organization to view or otherwise use. This publication of geospatial information for third parties to access will often raise additional legal issues that must be considered in a geospatial information license agreement. For example, the Licensor may wish to restrict how third parties can access certain geospatial information because they could be a potential customer or a competitor.

- The Geospatial Community is a Diverse and Growing Ecosystem. Geospatial information is regularly collected by government agencies, industry, universities and research institutions, non-governmental organizations (NGO's) and citizens around the world (commonly referred to as "crowdsourced information" or "voluntary geographic information" ("VGI")). While these same stakeholders use software, they are both producers and consumers of geospatial information. Consequently, geospatial information products and services are being created by aggregating geospatial information from each of these sources. These stakeholders often use or seek features in license agreements for very different purposes. For example, private industry may wish to limit the redistribution of geospatial information to maximize the number of licensees (i.e. customers). On the other hand, NGO's, and increasingly, government agencies, generally want geospatial information to be freely shared to achieve their respective missions. In addition, industry, government and NGO's often have different tolerances for the risks that they can, or are willing to, assume in a geospatial information license agreement.

- Laws and Regulations Pertaining To Geospatial Information Are Evolving. While the geospatial community has been working with geospatial information for many years, the technology to collect, use, store, and distribute geospatial information has become integrated into broader commercial (or private) applications within the past decade. Since legal and regulatory frameworks generally trail technological developments, lawmakers and regulators have only recently begun to consider the legal issues associated with the power of geospatial technology. The geospatial community should expect increased efforts to introduce laws, policies, and regulations that change the way geospatial information can be collected, used, stored, and distributed. Any such changes to law, policy, or regulation would likely have an impact on existing and future geospatial information license agreements.

1.3 Key Considerations Before Entering into a Geospatial Information License Agreement

It is important for both a Licensor and a Licensee to consider several matters before entering into any geospatial information license agreement. Each of these matters will be discussed in greater detail throughout the following pages but are worth noting now given their importance.

- A Geospatial Information License Agreement Serves Several Functions. The primary function of a geospatial information license agreement is to set forth the rights the Licensor is granting the Licensee in the geospatial information. However, a geospatial information license agreement is also a legal document that is used to allocate risks between the parties. For example, what responsibility does the Licensor have to the Licensee if there are errors in the geospatial information, or if the Licensor does not have legal authority to grant the Licensee rights in the geospatial information? Similarly, what obligations does a Licensee have to the Licensor if a third party is injured by a service offered by the Licensee that includes Licensor's geospatial information? The law may impose certain risks upon one party unless such risks are specifically waived in the geospatial information license agreement. Moreover, not addressing a potential risk in a geospatial information license agreement often means that the parties are leaving it to a third party (i.e. a court, regulator, etc.) to decide which party is responsible in the event of a dispute. While it is not possible to anticipate every potential risk in a license agreement, the parties should consider if there are certain risks associated with the geospatial information or the particular application that should be specifically addressed.

- Legal Issues Associated with Geospatial Information Vary. Geospatial information describes a wide range of data types. For example, the term can be used to describe an electro-optical image, a LiDAR point cloud, a database of points of interest (POIs), latitudes/longitudes or census data. In addition, geospatial information can be collected from a variety of sensors and platforms, including unmanned aircraft systems (i.e. drones) flown by a commercial enterprise, citizens using GPS-enabled mobile devices in their spare time and government surveyors mapping a forest. Each type of geospatial information could be subject to different legal or regulatory regimes.

  Geospatial information is also used for many different applications. For example, geospatial information is critical in providing turn-by-turn navigation, in understanding the impact of CO2 emissions around the globe, and in planning national infrastructure projects.

  Also, intellectual property rights in geospatial information products and services can vary. For example, while copyright generally does not apply to facts or "information" per se, maps, images and databases often are subject to such legal protections. However, it is not clear how courts will apply copyright to geospatial information collected from the various types of sensors that are becoming more commercially viable. It also is uncertain how such rights will apply to geospatial information that are generated automatically, such as through the Internet of Things. These issues become more complex when creating products and services by combining data sets that are treated differently under copyright law.

  Each of these factors could impact the terms of a geospatial information license agreement. For example, it is important for both the Licensor and Licensee to consider the geospatial information being licensed because it is an intangible asset, subject to diverse intellectual property protections around the globe. In Europe, for instance, legislation may protect the intellectual property rights of certain data bases of geospatial information. Such protection is generally more limited in the United States of America and many other countries. Similarly, the laws related to intellectual property rights in geospatial information products and services, such as the legality of "scraping" information from a website, are evolving. The parties to a geospatial information license agreement should consider whether there are unique intellectual property issues that should be addressed.

- A Geospatial Information License Can Take Many Forms. Geospatial information can be licensed in a variety of ways. The most common method is pursuant to a geospatial information license agreement, in which the licensing of the geospatial license is the primary purpose of the agreement. Such a document may also be titled a Data Sharing Agreement. Moreover, since geospatial information is increasingly being offered through products and services, such as Software as a Service (SaaS), geospatial information licenses are found in Terms of Service or similar legal documentation. Similarly, an organization may also need to grant certain rights in geospatial information when entering an agreement to host the geospatial information in the cloud. It is important for both parties to understand their respective rights in geospatial information in all such documents in order to comply with all legal and contractual obligations. For example, if the geospatial information being stored in the cloud was licensed from a third party, it is important to ensure that the third-party license agreement permits the granting of such rights to the cloud storage provider. It also is important for the parties to make sure that the terms of the license of geospatial information are enforceable regardless of the form of the agreement.

2. Open Data and Licensing of Geospatial Information

Government agencies generate tremendous amounts of information. Much of this information is geospatially-enabled. Industry, NGO's, intergovernmental organizations, universities, citizens, and other government agencies are consumers (and in some cases, creators) of government collected or generated geospatial information. Since in most cases citizens have paid for the collection or generation of this information, through taxes or fees, there is a growing demand to make geospatial and other types of information more "open."

While there is no single definition of what constitutes "open data," most definitions have similar elements. For example, the Open Data Handbook defines open data as "data that can be freely used, re-used and redistributed by anyone - subject only, at most, to the requirement to attribute and share alike."[2] The Open Data Institute defines open data as "data that anyone can access, use or share".[3] Open Canada defines it as "machine readable data that can be freely used, re-used and redistributed by anyone – subject only, at most, to the requirement to attribute and share alike."[4] Under most definitions, geospatial information must be made available for free (or the cost of reproduction) in order for it to considered "open".[5] However, the definitions do not exclude releasing the information under a license. In fact, the Open Knowledge Network recognizes several licenses which satisfy its requirement for openness.[6]

Thus, a wide range of geospatial information can be considered 'open data'. For example, much of the geospatial information collected or generated by the federal government of the United States of America is in the public domain because "copyright protection . . . is not available for any work of the United States Government."[7] Therefore, generally, anyone can use or copy this information for any purpose without a license.

While placing geospatial information in the public domain is a worthy aim, most governments publish geospatial information under a license. For example, while users have "free, full and open access" to the European Union's Copernicus Sentinel satellite geospatial information, such use is subject to the terms of the "Legal notice on the use of Copernicus Sentinel Data and Service

[2] http://opendatahandbook.org/guide/en/what-is-open-data/ , which draws from the open definition at http://opendefinition.org/ (accessed December 26, 2016)
[3] https://theodi.org/what-is-open-data (accessed January 14, 2017)
[4] http://open.canada.ca/en/frequently-asked-questions#faq17 (accessed January 14, 2017)
[5] In the geospatial community, open also means the ability to export the information in a format that can be easily used.
6 http://opendefinition.org/licenses/
7 17 U.S. Code § 105

Information found on the Copernicus webpage" (the "Legal Notice"). [8] The Legal Notice sets forth the user's rights (e.g. reproduction; distribution; communication to the public; and/or adaptation, modification and combination with other data and information) and includes conditions, (e.g. the use must be "lawful", the user acknowledges there are no warranties, the user waives any claims it may have against the European Union and the data providers and attribution is required). Similarly, Canada's Open Maps are published under the Open Government License – Canada[9], the Government of India's Open Government Data Platform publishes data under the Government Open Data License – India[10], and the Australian government publishes public data under a Creative Commons license.[11]

Several non-governmental organizations and research organizations make geospatial information available under open data licenses. For example, the popular mapping community OpenStreetMap (OSM) publishes its data under Open Database License (ODbL) v.1.0, which is included in the Open Knowledge Network list of open licenses.[12] The ODbL contains provisions, including that published derivative works (defined as a "Derivative Database" in the ODbL) must adopt a comparable open data license. This provision of the ODbL is commonly referred to as the "Share-alike Provision". A Derivative Database is defined as a database based upon the OSM database, including any translation, adaption, arrangement, modification, or alteration of the OSM database or a substantial part of its contents. The Share-alike Provision makes it difficult for some organizations to license OSM's geospatial information. For example, some commercial enterprises are reluctant to combine their proprietary geospatial information with OSM geospatial information for fear of creating a derivative work, as they would then need to make their geospatial information available under ODbL. Similarly, organizations that have by law, or by choice, placed their geospatial information into the public domain may not be able to create products or services using OSM geospatial information, for fear of creating a derivative work that would then have to be shared under ODbL, which is more restrictive than public domain.

It can also be challenging to combine datasets of geospatial information that are subject to different open data licenses. For example, it can be difficult to contribute geospatial information licensed under certain Creative Commons licenses, a type of license popular in the open data community, to OSM. The difficulty arises because OSM requires its contributors to grant OSM the right to sublicense the contributed data, as many Creative Commons open data licenses do not grant the

[8] https://sentinel.esa.int/documents/247904/690755/Sentinel_Data_Legal_Notice (accessed December 26, 2016)
[9] http://open.canada.ca/en/open-government-licence-canada (accessed January 17, 2017)
[10] https://data.gov.in/sites/default/files/Government_Open_Data_Use_Licence_India.pdf (accessed January 17, 2017)
[11] https://creativecommons.org/licenses/by/3.0/au/legalcode (accessed January 17, 2017)
[12] http://opendefinition.org/licenses/

Licensee the right to sublicense the geospatial information. Similarly, it can be a challenge to satisfy all the various attribution requirements common in open data licenses, as attribution can be significantly more complicated when developing geospatial information products and services than in a software project.[13]As a result, OSM may request a contributor to obtain a waiver from a data provider licensing geospatial information under another open license.[14]

Therefore, while creating open data is a policy decision that a number of governments around the globe have made or are considering, using open geospatial information requires an understanding of licensing agreements by both the Licensor and the Licensee. These licenses contain a wide range of conditions and restrictions that could impact the products and services being created by combining geospatial information. Examples of licenses used for open geospatial information can be found in Annex II.

[13] http://lu.is/blog/2016/09/14/copyleft-and-data-databases-as-poor-subject/ (accessed January 14, 2017)
[14] OSM has created a number of guidelines and mailing lists in an effort to address these issues. (See e.g. http://wiki.openstreetmap.org/wiki/Open_Data_License/Community_Guidelines)

3. Elements of a Geospatial Information License Agreement

The licensing of geospatial information can occur in many different types of agreements. However, regardless of the form, most geospatial information license agreements have a number of similar sections. The following is an analysis of the main sections contained in a geospatial information license agreement:

3.1 What Geospatial Information Is Being Licensed

A clear, complete, and accurate description of the geospatial information being licensed serves several important roles. For example, a number of provisions in a geospatial information license will be directly tied to the geospatial information being licensed. These provisions include certain representations, warranties and covenants. In addition, different types of geospatial information are subject to different legal and regulatory regimes. For example, some governments impose restrictions on imagery collected from unmanned aircraft systems (commonly known as drones) that do not apply to imagery collected from a manned aircraft or a satellite. As a result, a description might include the platform upon which the sensor collected the information. The description might set forth whether the information is raw or has been processed. Similarly, geospatial information may be conveyed in a several different forms, such as a database, a map or an image.

A complete and accurate description can also help reduce future disputes between the parties, particularly if the individuals entering into the geospatial information license are no longer available to answer questions that arise. In addition, if a dispute does arise between the Licensor and Licensee, it limits the role of lawyers and judges who often will have limited knowledge or expertise in geospatial technology or information.

Unfortunately, despite the importance of this section in a geospatial information license agreement, there is a tendency to not provide a complete description. There are likely several reasons why the geospatial information being licensed is not clearly or completely defined. The parties negotiating the geospatial information license agreement may be under pressure to get the agreement signed quickly and assume it is not important because they already know the subject of the license agreement. In some cases, the individuals drafting the geospatial information license agreement may not understand geospatial technology well enough to provide an accurate description, so they purposely use broad or vague terms. Alternatively, a Licensor may have generic language in a license agreement template that may be used with different types of geospatial information.

This description may be found in several places. In some agreements, it may be found at the beginning, under a Section head such as “Licensed Material”. In other cases, it may be included in the Definitions section. In some instances, the geospatial information may be described in a separate document, such as an order form, attachment or exhibit, referenced to and made part of the geospatial information license agreement. One of the benefits of including a description in a separate document is that it can be easier and quicker to revise or amend those documents than the geospatial information license agreement itself.

A description of what is being licensed can be very general or very specific. For example, a license might be of a specific database of “spatial information”, defined as “all data with a direct or indirect relationship with a specific location or geographic area”. Alternatively, it might be for copies of “Map Data”.[15] However, as is the case when borrowing or leasing an automobile, it is good practice to completely and accurately describe the geospatial information being licensed, so that there is no misunderstanding between the parties.

There are several key considerations when describing the geospatial information being licensed.

- Since geospatial information can be structured in different formats, it may be useful to describe the format in which the geospatial information is being conveyed.

- Since metadata is so critical to the value of geospatial information, it is good practice to describe whether any metadata is included as part of the licensed geospatial information.

- If the geospatial information being licensed is a database, the parties should consider including a reference to the data in the database as the intellectual property rights may differ between the data and the database.

- Since intellectual property rights in a database often are different than intellectual property rights in a map, the description might include the manner in which the geospatial information is conveyed.

[15] https://www.advantrack.com/map-data-license-agreement/ (accessed January 14, 2017)

A Licensor may also include a statement of its ownership in the geospatial information being licensed. In addition, a Licensor may describe any intellectual property rights it believes it has in the geospatial information, including copyright, database or some other right, such as a trade secret. This puts the Licensee on notice of the rights the Licensor asserts over the geospatial information. Similarly, a Licensor may wish to include an acknowledgement that it has expended significant resources in collecting and curating the geospatial information.

3.2 Rights Granted To the Licensee

Another critical section of a geospatial information license agreement is the section that describes the rights that the Licensor grants to the Licensee in the geospatial information. This section may be titled differently depending upon the type of document, but often it is titled "Rights Granted" or "Scope of License". Although there are a number of possible rights that a Licensor can grant a Licensee, particularly in geospatial information, the specific rights granted will depend upon a number of factors including:

- the type of geospatial information;
- the Licensor's intellectual property rights in the geospatial information;
- the Licensee; and
- how the geospatial information is going to be used.

The following is discussion of standard rights granted in a geospatial information license agreement.

A geospatial information license agreement might grant the Licensee the right to "use" the geospatial information. Alternatively, if the Licensor claims to have copyright protection in the geospatial information, it may grant some, if not all, of the bundle of rights associated with copyright. These rights differ among jurisdictions, but generally include the right to make a copy, the right to distribute, or display the geospatial information, and the right to make a derivative work. Other common rights granted include the right to "adapt", "exploit" or "transmit" the information, however these do not all receive equal legal recognition worldwide.

As the definitions of these terms can vary, it is helpful to define them in the agreement, to avoid any confusion between the parties. For example, one of the most difficult challenges when aggregating various types of geospatial information in creating products and services is determining when the Licensee has created a derived product subject to the Licensor's copyright, and when the Licensee has

created a completely new product. Unfortunately, there is very little law on this topic pertaining to geospatial information services and products. As a result, it often would be beneficial for the parties to include a definition of what constitutes a derived product for purposes of their geospatial information license agreement. For example, a Licensee of imagery may want clarification as to whether the Licensor asserts that tracing or digitizing an image creates a derived work under copyright law. A definition can also prove useful when the activity to be performed is unique to the geospatial community, such as geocoding.

A Licensee might want the right to sublicense the geospatial information. A sublicense grants the Licensee the right to license the geospatial information directly to a third party (but only to the extent of the rights given to them by the Licensor) without having to get the Licensor's approval.

A Licensor might grant the Licensee exclusive rights in the geospatial information, or it may retain the right to either use the geospatial information itself for the same purpose as the Licensee, or license the same rights in the geospatial information to other parties. A Licensor also may impose additional limitations on the rights that are granted. Such limitations can vary significantly, but may include:

- Not for commercial use;
- Only a limited number of users can access or use the geospatial information; or
- The rights granted in the geospatial information are only valid for use in certain geographic region(s) or are limited for the development of products and services for certain industries/markets.

A geospatial information license agreement will often include language that states that the Licensor retains all rights in the geospatial information not granted to the Licensee. However, in some instances it may be helpful for the Licensor to set forth specific rights it wishes to retain so as to avoid any confusion or dispute.

This section may also contain restrictions and obligations of the Licensee with respect to the geospatial information. For example, the Licensor may include a restriction on transferring the geospatial information in the form in which it is received, or using the geospatial information to compete with the Licensor, or from scraping the Licensor's website for additional information.

A Licensor also might choose to include in this section a statement of what rights in the geospatial information are not being licensed. Such a statement can serve two purposes. First, it can help clarify the rights in the event there is a dispute between the parties in the future. It can also focus each of the parties on making sure that they understand exactly what the geospatial information license agreement covers.

3.3 Payment/Fees

Most commercial geospatial information license agreements include a separate section that outlines the terms of payment for the right to license the geospatial information. A payment generally will not be included in an "open data" license, although some open licenses will allow the Licensor to charge a reasonable fee for the cost of reproduction. (However, if the geospatial information is being provided as part of a SaaS package, there may be a charge for the software and/or maintenance and support.) This section will generally include the amount of payment.[16] Payments may be due in one lump sum or in installments over time. The manner in which the term of the license and the payments are structured could have revenue recognition implications for Licensors, particularly those from industry. In an international transaction, the section should state the required currency of the payment. In some cases, payment may not be in cash, but rather in-kind, i.e. products or services. The products and services should be clearly described, as should terms for delivery and acceptance.

This section may also describe what happens if the Licensee fails to make the required payment upon the due date. For example, whether interest accrues upon late payments and at what rate? In addition, it also may describe at what point the Licensee's failure to make payment either terminates the Licensee's rights in the geospatial information or gives the Licensor the right to terminate the geospatial information license agreement. This issue is particularly important when open data is being provided by the Licensor for free as part of a SaaS or other agreement. The question the parties should consider is whether the Licensor has the right to terminate the rights in the geospatial information for failure to make payment for the software or service.

[16] In some cases, the amount may be described in a separate document referenced in the geospatial license agreement, such as an order form or price sheet.

3.4 Representations and Warranties

One consideration for parties considering entering into a geospatial information license agreement is what, if any, representation and warranties should they make to each other. Representations and warranties can be an important tool for allocating risk between the parties to a geospatial information license. In some cases, representations and warranties are combined in the same section of a geospatial information license agreement as a warranty. Alternatively, the agreement may include a separate section for each. In addition, as will be discussed further below, in some cases the Licensor affirmatively will state that it makes no representations and that it disclaims all warranties in an effort to avoid any liability.

Representations are statement of fact made by one party to induce the other party to enter into an agreement. For example, an owner of an automobile might represent that it was brand new in order to entice someone to borrow or lease their car. There are several types of representations that might be included in a geospatial license agreement. Standard representations that generally would apply to both parties to the geospatial information license agreement include that:

- each of the parties has the right to enter into the geospatial information license agreement;
- the geospatial information license agreement does not violate any other agreement the parties have entered into; and,
- each party is a valid legal entity and that the person executing the agreement has the requisite authority.

A Licensor might also be asked to make specific representations directly relating to the geospatial information. For example, a Licensor may be asked to represent that it owns the geospatial information (or that it has the right under an agreement with the owner to license the geospatial information to the Licensee for the purposes set forth in the geospatial information license agreement). A Licensee that is a government entity might be asked by a commercial Licensor to warrant that the information being licensed is not subject to Open Data or Freedom of Information Act laws.

A warranty on the other hand is more forward looking. It is essentially a promise by the Licensor to address problems that may arise in the future, generally for a defined period of time. For example, an owner might promise to replace a defective part of an automobile for the first sixty days. Warranties generally are made by the Licensor in a license agreement.

Warranties can be either expressed or statutory. Express warranties are written into the geospatial information license agreement, and in many instances, will relate directly to the geospatial information being licensed. There are several types of express warranties that a Licensee could request from a Licensor relating to the (i) accuracy, (ii) precision, (iii) completeness, (iv) timeliness, and/or (v) format of the geospatial information being licensed.

In some jurisdictions, certain statutory warranties apply in a commercial transaction, even if these warranties are not specifically set forth in the geospatial information license. These are considered implied warranties. For example, the Uniform Commercial Code, which has been adopted by many states in the United States of America, provides that in all sales of goods there are implied warranties of (i) merchantability and (ii) fitness for a particular purpose. An implied warranty of merchantability is a warranty that the item reasonably complies with an ordinary buyer's expectation. An implied warranty of fitness for a particular purpose will arise if the seller knows, or has reason to know of a particular purpose for which the item is being acquired. In those cases, the implied warranty is that the item is fit for that particular purpose. If a Licensor does not wish for these implied warranties to apply, they must be clearly and specifically waived in the geospatial information license agreement.

Licensors will try to limit the warranties they make in order to reduce their risks. As a result, many geospatial information license agreements will contain specific disclaimers that geospatial information is being provided "as is" and without warranties. However, if geospatial information is delivered upon a medium – such as a computer disk or a thumb drive – a Licensor often will make a specific warranty with respect to the medium of delivery. For example, the Licensor may agree to replace the thumb drive if there is a defect, although this is usually limited to a certain number of days after delivery.

3.5 Covenants

Covenants are promises that one party (or both parties) make to the other to either take some action in the future or to refrain from taking certain actions. They can vary widely in a geospatial information license agreement. For example, a Licensee might promise not to use the geospatial information in ways that are illegal or promote violence. Alternatively, a Licensee might covenant to notify the Licensor if it learns of any errors in the geospatial information, or if it learns of a third party

violating the Licensor's intellectual property rights in the geospatial information. A Licensee might also a covenant not to remove any copyright notice or to not improperly access the geospatial information.

3.6 Limitations on Liability

A party that breaches a geospatial information license agreement may have to pay damages to the other party. As a result, a party may seek to limit or cap its liability for such breaches. There are several ways for a party to limit its liability in a geospatial information license agreement. One is to exclude certain damages that may arise due to a breach, such as lost profits, damage to a business' reputation, indirect damages, or special, punitive, compensatory and consequential damages. Another means is to put a cap on the total amount of damages it is required to pay to the other party in the event of a breach.

If a geospatial information license agreement includes a cap on the amount of damages that either pay is required to pay in the event of a breach, the other party may seek to have the cap not apply under certain circumstances. For example, a Licensee may request that the cap not apply if the breach by Licensor results in personal injury or death, if the action that caused the damages were the result of intentional acts, gross negligence or willful misconduct of the Licensor or if the damages arise from an infringement of a third party's intellectual property rights. Alternatively, a Licensor may request that a cap not apply if the Licensee's breach is in regard to the confidentiality, privacy or data security provisions of the geospatial information license agreement.

3.7 Indemnification

The indemnification section is one of the least understood sections of a geospatial information license agreement. An indemnity is a "guarantee through a contractual agreement to repay another party for loss or damage that occurs in the future."[17] In a geospatial information license agreement, an obligation to indemnify will arise when one of the parties to the agreement receives a claim for damages from a third party that results from actions or inactions of the other party. For example, a Licensee might ask to be indemnified by the Licensor if the Licensee is sued because one of its customers claims to have suffered an injury as a result of an error in the geospatial information. Alternatively, a Licensor might ask to be indemnified by the Licensee if the Licensor is included in a lawsuit by a third party because the Licensee uses the geospatial information in a way that violates an individual's privacy.

[17] https://www.law.cornell.edu/wex/indemnify (last accessed January 21, 2017)

As previously mentioned in discussing other sections of a standard geospatial information license agreement, the need for and scope of an indemnification section will depend upon a number of factors. However, it is important for both the Licensor and Licensee to consider indemnification as part of their risk management in addition to such measures as insurance, quality control/quality assurance and geospatial information audits. A party's ability to pay an indemnify obligation is also a key consideration when negotiating this section of a geospatial information license agreement.

3.8 Term; Termination

A geospatial information license agreement often will include one or more sections that address the duration or term of the agreement, what events will give one or both of the parties cause to terminate the license agreement early, and the parties' obligations upon termination.

This section sets forth the length of the license. It can provide that the agreement ends on a certain date or renews automatically unless one of the other parties notifies the other of its intent to terminate the agreement.

There are a number of factors for the parties to consider when deciding what events should trigger early termination of a geospatial information license agreement. For example, should either party be able to terminate the license agreement "at will" (i.e. for no reason)? Or should a party's right to terminate be limited to certain triggering events, commonly defined as "cause". Common triggering events for terminating an agreement include the bankruptcy or change in control of one party or a party breaching a significant provision of the agreement. In some cases, an agreement will grant the breaching party a period to cure any breaches before the other party can terminate. Another consideration is how much notice a party must give the other party that it wishes to terminate due to breach.

This section typically also will address the parties' obligations upon termination. For example, is the Licensee obligated to return or destroy the geospatial information? Also, what are the Licensee's obligations with respect to any payments outstanding under the geospatial information license agreement, if any? For example, if a Licensee terminates the geospatial information license agreement due to a breach by the Licensor, is it still required to pay any outstanding fees to the Licensor?

3.9 Compliance with Law

Most license agreements contain a clause or section whereby one or both of the parties agree to abide by applicable laws, regulations, decrees, etc. For example, a geospatial information license agreement may have a section in which the Licensee agrees that it will only use the geospatial information in ways that comply with applicable law. This section serves a number of purposes. One purpose is to remind the Licensee that there may be laws it needs to consider before it uses the geospatial information. It is also a way for the parties to allocate the risk if the geospatial information is used in a way that violates applicable law. For example, if the Licensee infringes a third party's intellectual property rights it will have breached the geospatial license agreement. Similarly, in some jurisdictions it is illegal to use geospatial information that contradicts the applicable government's official position on a territory's name or boundary.

The importance of this section in a geospatial license agreement will likely increase as more laws and regulations develop around the collection, use, storage and distribution of geospatial information. If the geospatial information license agreement does contain a clause or section regarding compliance with laws, the parties may also wish to consider what happens if a party breaches this clause or section? For example, will the geospatial information license agreement immediately terminate if the Licensee fails to comply with a law or does the Licensee have a right to cure the breach?

3.10 Data Protection/Privacy

If the geospatial information being licensed contains (or might contain) personally identifiable information or other sensitive information, a geospatial information license agreement may include a section that outlines the responsibilities of both parties with respect to data protection/privacy laws[18]. For example, a Licensee might request that the Licensor state that the geospatial information was collected in accordance with applicable law and that all necessary consents have been obtained in order for the geospatial information to be licensed by the Licensor to the Licensee. Similarly, a Licensor might require the Licensee to promise to comply with all applicable privacy/data protection laws with respect to its use of the geospatial information. These laws will vary depending upon several factors, including the type of geospatial information that is being licensed, the geospatial products and services being developed and the potential applications for those products and services. For example, geospatial information being used in the health, financial and insurance industries will be subject to

[18] Alternatively, the parties may simply rely upon a compliance with law section or clause.

much greater regulation than geospatial information being used to assess carbon emissions. As a result, it is important for the Licensee to understand what laws and regulations will impact its intended use of the geospatial information.

In addition, if the geospatial information is particularly sensitive, a Licensee may be asked to implement appropriate data security policies and procedures and to remain compliant with applicable data security laws and regulations. A Licensor may also ask the Licensee to obtain insurance coverage in the event of a data breach, and require the right to periodically audit its data security procedures.

3.11 Taxes

A geospatial information license agreement may also include a clause or section on the obligations of the respective parties to pay any taxes that may arise from the transaction. Taxes on intangible assets, such as geospatial information can vary between jurisdictions and can include sales, use, value-added and property tax. As a result, it is important for the parties to understand, what, if any, taxes may apply, and which party is responsible for them.

3.12 Confidentiality

Parties to a geospatial information license agreement often will learn details about their respective business operations and plans. A party may also learn information that the other party considers to be a trade secret or otherwise wishes to protect. Therefore, a geospatial information license agreement will often include a section that obliges each party to take measures to protect confidential information that it has received from the other party through entering the agreement.

This section will typically include a statement that the parties will not disclose confidential information to third parties except in a limited number of circumstances. One common exception to this prohibition will include disclosures to a party's agents (e.g. lawyers, accountants, contractors, etc.) that are under an obligation (written or legal) to protect the confidentiality of the information. Another common exception is a disclosure to law enforcement, subject to legal protections appropriate for the jurisdiction.

Generally, there is not an obligation in the geospatial information license agreement for a party to protect information that (i) is already publicly known or available; (ii) was in the possession of the recipient of the confidential information prior to the receipt, (iii) is separately and properly received from a third party, or (iv) is independently developed by the recipient. A recipient may also be required to notify the disclosing party if the recipient learns of any disclosure of confidential information. A recipient may be asked to destroy or return confidential information upon the termination of a geospatial information license agreement.

3.13 Delivery/Inspection/Acceptance

A Licensor can deliver geospatial information to the Licensee in several ways. For example, geospatial information can be delivered electronically, in bulk or accessed as needed through an application program interface (API). It can also be delivered physically, on a medium such as a thumb drive, or in conjunction with software, installed pursuant to a shrink-wrap license agreement.

In each case, the parties should consider whether it is important to address how and when the Licensee "accepts" the geospatial information, and whether there is a certain period in which the Licensee can inspect the geospatial information and/or the medium of delivery prior to acceptance in order to determine if it conforms to what the parties agreed. If the geospatial information license agreement grants the Licensee an inspection period prior to acceptance, this section should also include what happens if the Licensee does not accept.

3.14 Updates/Modifications/Corrections

If the Licensor is obligated to provide the Licensee updates, modifications and/or corrections to the geospatial information being licensed (collectively "Updates"), the parties should consider how the terms of the geospatial information license agreement apply to these Updates. For example, when and how often is the Licensor required to provide the Updates and is the Licensee required to make additional payments? Does the term of the license remain the same or does the providing of an Update extend the term of the geospatial information license agreement? Also, do the representations and covenants that the Licensor make with regards to the geospatial information also apply to the Updates? These issues can be included in a separate section or addressed throughout the agreement.

3.15 Export Compliance

Some countries may restrict the export of certain types of sensitive geospatial information. For example, certain countries may restrict the export of geospatial information regarding the location of natural resources. Other countries may restrict all exports to a certain country or company. The penalties for noncompliance can be quite severe. As a result, a Licensor of geospatial information should be aware if any export laws or regulations pertain to a particular type of geospatial information, or geospatial information collected from a particularly platform or sensor. Licensor also may wish to include a specific provision in which the Licensee promises not to export geospatial information in violation of applicable law.

3.16 Government Contracts

In some countries, there are unique laws associated with the government's procurement of products and services from the private sector. Some of these laws are intended to protect against government agencies overpaying for commercial products and services. These laws may have not been updated in a number of years, and therefore may not adequately address intangible assets such as geospatial information or the delivery of services and geospatial information over the internet. For example, government procurement laws may automatically grant a government agency certain rights in the geospatial information that are not standard in a commercial transaction, unless these rights are specifically waived. In such instances, if the Licensee is a government agency, a Licensor may wish to include a clause or section in which the government entity waives such rights.

3.17 Force Majeure

Many legal documents include a clause that excludes the parties from most of their obligations in the event a catastrophic event, such as a war, terrorism or natural disaster. Typically, this permitted delay in performing an obligation is only for the duration of the catastrophic event.

3.18 Governing Law; Jurisdiction; Dispute Resolution

Many geospatial information license agreements include a section that outlines which jurisdiction's laws govern in the event of a dispute between the parties. The jurisdiction might be a country, state or other jurisdiction with its own set of laws. In addition, the section often will include a clause that states that any dispute between the parties can only be heard by the courts of a certain

jurisdiction. Parties often wish to designate the laws of the jurisdiction in which they are based to govern the geospatial information license agreement and that all disputes be heard in the courts of that jurisdiction. This section can be challenging when the parties are based in two jurisdictions that are geographically far apart and have different legal systems. In such instances the issue often becomes a negotiating point between the parties.

This section is standard in many different types of legal agreements. However, it will become of growing importance for geospatial information license agreements if the laws and regulations pertaining to geospatial information differ as they evolve.

Some geospatial information license agreements include that the parties agree to arbitrate or mediate any disputes rather than bring the dispute before a court. Arbitration is a popular method of alternative dispute resolution in which one or more arbitrators, selected through a procedure that the parties have agreed to, resolve a dispute after hearing evidence. Dispute resolution can be non-binding, in which case the parties can challenge the decision in a court of law, or binding.

3.19 Assignment; Transferability

Often a geospatial information license agreement includes a section that describes whether either party can assign the geospatial information license agreement (or some or all of its rights under the geospatial information license agreement) to a third party. This section can be important if one of the parties is business as it may want the ability to assign its rights to an affiliated company or in the event it is acquired by another company. Some geospatial information license agreements will not allow either party to assign the geospatial license agreement or its rights without the consent of the other party. Other geospatial information license agreements will allow one, or both parties, to assign, but will require the party that is assigning the agreement to continue to remain responsible to the other party for all obligations under the agreement. For example, a Licensor may ask for the right to assign the agreement to a related company, such as a subsidiary. The Licensee may agree, but request that the Licensor remain responsible for any failure of the related company to perform its obligations.

3.20 Survival

Many geospatial information license agreements include a survival clause. This clause or section is included because from a legal standpoint it is important to make clear that some (but not all) of the provisions of a geospatial information license agreement survive even after the agreement itself is terminated. For example, the parties often will want to make sure that the obligation to protect confidential information survives the termination of the agreement for a period of time. Certain covenants often will survive termination of the geospatial information license agreement. The governing law and jurisdiction sections also will often survive termination as well, in the event there is a future dispute between the parties under the agreement.

4. Considerations When Aggregating Geospatial Information

Increasingly, organizations are offering products and services to consumers, businesses and government agencies that are developed with geospatial information from a variety of sources. For example, a company may create an online mapping service combining fundamental layers from one or more national government agencies with traffic data from a private commercial business, local road and weather conditions from regional government authorities and points of interest (POI) from a web-based crowd-sourced platform. The company could then offer this service to customers for a fee.

Similarly, national, state and local governments are creating platforms of geospatially-enabled information for citizens, industry, intergovernmental organizations and NGOs to access and in some cases, download. These platforms can include geospatial information from the public domain, national, regional and local government agencies, publicly and privately funded research institutions and universities and NGOs. They will often include links to Terms of Service that the party accessing the platform must agree to follow. These Terms of Service include, or reference other legal provisions, such as geospatial information licenses and privacy policies.

Each of the datasets of geospatial information used to create the products or services may be licensed under different geospatial information license agreements. In the first example, the national government geospatial information may be subject to the national open data license, the traffic data subject to a commercial proprietary license, the road conditions subject to the Terms of Service of an NGO that collects the information from local sources through a smart phone app, and the crowd-sourced POI information subject to an open data license such as the ODbL.

As a result, an organization developing products and services that combine geospatial information from a variety of sources should consider:

- Intellectual Property Rights Vary Between Jurisdiction. Laws and regulations concerning the collection, use, storage, and distribution of geospatial information vary between jurisdictions, particularly with regard to intellectual property. In addition, geospatial information may be collected under the laws of one jurisdiction but used in another jurisdiction subject to a different legal and policy framework. Moreover, the laws and regulations are changing. This could impact products and services created by aggregating geospatial information in several ways. For example, under the laws of one jurisdiction the product might be considered a new work, and therefore not subject to

the intellectual property rights of the party that provided the geospatial information. However, the same product might be considered a derived product under the laws of another jurisdiction. Similarly, courts in different jurisdictions may reach different conclusions on the enforceability of the same term, for example in a standard open data license. It would be impractical to draft a geospatial information license agreement that specifically addresses all potential intellectual property issues, but it is important in reviewing such a license agreement that nothing important to that transaction has been left out.

- Conforming Terms of Back-to Back License Agreements. An organization that aggregates geospatial information to create products and services that are then licensed to a customer needs to ensure that the terms of its customer license conform to the terms of all of its vendor license agreements. This becomes much more complex when there are numerous geospatial information license agreements to consider. For example, before making a representation regarding the quality of the geospatial information in a product or service, an organization should determine if it received a similar representation from the supplier of the geospatial information. If an organization wishes to license geospatial information which it has licensed from a third party directly to a user of its products or services, it must confirm that it either has the right to sublicense the geospatial information or that a sublicense is not required.

- Privacy issues. The aggregation of geospatial information from a number of different sources can raise privacy concerns, even if the geospatial information being aggregated is not considered to have contained personally identifiable information and the geospatial information is otherwise available to the public. This risk is due to a number of factors, including vast amounts of other information that a party can add to an existing database, the speed and reduced cost of computing and because geolocation is a powerful tool in identifying an individual with a high degree of accuracy. Moreover, lawmakers are beginning to address the perceived privacy risks. For example, as of the writing of this Compendium, legislation was being considering in Australia that would make it illegal to re-identity an individual using government data that had been de-identified by government, prior to its publication.[19]

[19] http://www.aph.gov.au/Parliamentary_Business/Bills_Legislation/bd/bd1617a/17bd055 (last accessed June 10, 2017)

As a result, organizations that create products and services by combining a number of different datasets of geospatial information should develop clear policies and procedures for their employees regarding de-identification of geospatial information data sets and the lawful use of such information. In addition, Licensees may want to consider geospatial information license agreements that permit the Licensor to terminate or restrict access to geospatial information if it is used to violate data protection/privacy laws.

5. Evolving Nature of Laws and Regulations Related to Geospatial Information

Over the past decade there has been a significant increase in the types of platforms and sensors that can collect geospatial information. Soon, drones, autonomous vehicles and a wide range of internet-connected devices (i.e. the Internet of Things) will be collecting vast amounts of geospatial information. There has also been a sharp rise in applications that use geospatial information in new and innovative ways for commercial, societal and governmental purposes.

While these developments will have a positive impact on the geospatial community, they will raise additional challenges with regards to licensing geospatial information. These challenges include:

- Geospatial Information Will Become Subject to New Regulatory Regimes. Historically, any oversight on the collection and use of geospatial information has been limited to a small number of government agencies. Given the insular nature of the geospatial ecosystem, the geospatial community has been familiar with applicable laws and regulations and incorporated them into their workflows (and geospatial information license agreements). The growth of new platforms and sensors collecting and using geospatial information for new applications will subject many geospatial organizations to broader oversight and new regulations. For example, government agencies responsible for aviation across the globe are looking to regulate the use of drones. While many of these regulations will pertain directly to air safety, in some jurisdictions they will also address the collection of geospatial information from drones. Similarly, transportation agencies across the globe are considering developing regulations to address geospatial information collected from sensors mounted on and used by autonomous vehicles. These regulations could potentially address a wide range of legal issues, such as ownership rights in the geospatial information, privacy and data protection as well as data quality and liability. Certain elements of the geospatial community will want to license this information for applications that are not directly related to drone operations or autonomous vehicles. However, they may need to comply with regulations promulgated by these agencies through geospatial information license agreements.[20] It will be increasingly difficult for government agencies in particular to keep up with these new laws and regulations without additional resources or support.

[20] See. e.g. "European Commission, Commission staff working document on the free flow of data and emerging issues of the European data economy," accompanying the document Communication: Building a European data economy (January 10, 2017)

- Geospatial Information Will be Used in New Applications. New applications based upon geospatial information, such as those developed for smart cities, will present both a benefit and a challenge for the geospatial community. The developers of these applications will become consumers of geospatial information. However, they often they will not have the same background and experience as traditional consumers of geospatial information. As a result, they may plan on using geospatial information in ways that the Licensor did not contemplate when collecting or processing the geospatial information. Moreover, the geospatial information may not be suitable for such uses due to limitations in such attributes as accuracy, precision, completeness or timeliness. As a result, in the future Licensors may want to include protections in geospatial information license agreements that limit their risk if the information is improperly used.

- Licensing agreements will need to be clearer. The new stakeholders in the geospatial community may not understand terms commonly used in the geospatial community and referenced in geospatial information license agreement. In some cases, they may even assign a different meaning to terms commonly used in the geospatial community. Since a geospatial information license will be the primary document to set forth legal relationship between the Licensor and Licensee, it will become critical that there be no confusion or uncertainty between the parties. As a result, all critical terms in a geospatial information license agreement should be clearly defined.

- Addressing Metadata and Standards. The geospatial community understands the role of metadata and standards in the collection, use and distribution of geospatial information. As a result, parties do not always feel the need to include specific provisions on these issues in geospatial information license agreements. However, geospatial standards and metadata are likely to become even more critical in the future as new, non-traditional actors become providers (i.e. Licensors) and consumers (i.e. Licensees) of geospatial information, as these groups may have their own standards and data formats. Therefore, in the future the geospatial community should consider incorporating metadata and standards into geospatial information license agreements or an accompanying schedule, as these will become the primary legal protection in the event of a dispute.

6. Conclusion

Licensing of geospatial information has become a critical element in creating and distributing geospatial products and services. Geospatial information license agreements are legal documents that are critical for organizations that collect and use geospatial information. Such licenses can be particularly complex due to some unique aspects of both geospatial information and the geospatial ecosystem. Therefore, geospatial professionals need to have a general understanding of the structure and purpose of geospatial information license agreements. One method to achieve such an understanding is through workshops and training of geospatial professionals at all levels. In addition, the geospatial community should consider working with legal professionals to develop best practices on the licensing of geospatial information.

ANNEX I

Definitions[21]

Accuracy	The closeness of a location of a measured point to its actual location.
Attribution	The action of ascribing a work or remark to a particular author, artist, or person.
Assignment	The act by which one person transfers to another, or causes to vest in that other, the whole of the right, interest, or property which he has in any realty or personally, in possession or in action, or any share, interest, or subsidiary therein.
Breach	Failure to live up to a term or the terms of a contract.
Commercial	Making or intended to make a profit.
Compensatory damages	A sum of money to replace what was lost.
Consequential damages	Damages that can be proven to have occurred because of the failure of one party to meet a contractual obligation.
Copyright	A right granted by statute to the author or originator of certain literary or artistic productions, whereby he/she is invested, for a limited period, with the sole and exclusive privilege of multiplying copies of the same and publishing and selling them.
Covenant	Promise of two or more parties, which either of the parties pledges to the other that something is either done or shall be done, or stipulates for the truth of certain facts.

[21] Definitions were developed from several sources, including http://thelawdictionary.org/, http://legal-dictionary.thefreedictionary.com/ https://definitions.uslegal.com/r/representation/, and https://en.oxforddictionaries.com.

Derivative Work	A work taken from existing works that is copyrightable; also a derived work.
Exclusive Use	Use of the geospatial information is limited to the Licensee for the term of the license.
Force Majeure	An event that no human foresight could anticipate or which, if anticipated, is too strong to be controlled. Examples include earthquakes, tsunamis, lightning, or other events which make performance impossible or extremely impracticable
Indemnification	To guarantee through a contractual agreement to repay another party for loss or damage that occurs in the future.
Indirect damages	Damages that are the necessary and connected effect of the wrongful act.
Liability	Being responsible to pay or compensate for something by law, or to be otherwise legally responsible.
License	A permission, accorded by a competent authority, conferring the right to do some act which without such authorization would not be permitted.
Licensee	An entity to whom a license has been granted.
Licensor	An entity who gives or grants a license.
Metadata	A set of data that gives information about other data
Non-commercial	Not have a commercial objective, such as making a profit.
Precision	The closeness of two geolocated items to each other.
Product Liability	The legal liability a manufacturer or trader incurs for producing or selling a faulty product.

Public Domain	The state of belonging or being available to the public as a whole, especially through not being subject to copyright or other legal restrictions:
Publish	Communicating a work.
Punitive Damages	Damages exceeding simple compensation and awarded to punish a party.
Representation	A statement of fact made with the purpose of getting someone to become party to a transaction or contract.
Special Damages	Extra damages that are awarded to a plaintiff over the loss of his/her property after considerations of the circumstances.
Trade Secret	Intellectual property like know-how, formulas, processes and confidential information giving the owner a competitive advantage.
Warranty	A promise that something in furtherance of the contract is guaranteed by one of the contractors, especially the seller's promise that the thing being sold is as promised or represented.
Work	A literary, artistic or musical composition such as an image, audiovisual material, text, or sound.

ANNEX II

Examples of Open Licenses Used for Geospatial Information

Creative Commons licenses - https://creativecommons.org/licenses/

Database Contents License - http://opendatacommons.org/licenses/dbcl/1.0/

Open Data Factual Information License - http://www.opencontentlawyer.com/open-data/open-data-commons-factual-info-licence/

Open Data Use License – India - https://data.gov.in/sites/default/files/Government_Open_Data_Use_Licence_India.pdf

Open Database License v1.0 - http://opendatacommons.org/licenses/odbl/1-0/

Open Government License - Canada - http://open.canada.ca/en/open-government-licence-canada

Germany GeoLicenses - http://www.bmwi.de/Redaktion/DE/Artikel/Digitale-Welt/geolizenz.html

ANNEX III

Additional Reading

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