

# European policies susceptible to drive the demand for climate services and pre-commercial procurement

## 1. Scope

The objective of this work is to present the findings of the comprehensive desktop research carried out within the framework of T1.1 on existing EU climate legislations and policies, with the primary goal of pinpointing areas where there is an emerging demand and necessity for Innovation Procurement. The research was conducted on the five priority domains identified by the project:

- Energy and utilities
- Sustainable urban communities
- Marine and coastal environment
- Agriculture, forestry, and other land use
- Civil security and protection
- This research is particularly relevant as European policies could significantly contribute to shaping the demand for EO-based climate services and pre-commercial procurement.

The research mainly focused on three types of policy instruments: regulations, directives and communications. These policy instruments were selected based on their relevance within the European Union's policy system.

Over recent years, the European Union has introduced numerous policies aimed at reducing greenhouse gas emissions and mitigating the impacts of climate change. These policies have generated a need for innovative solutions and services to help achieve climate objectives and adapt to the consequences of a shifting climate.

One crucial area where European policies are stimulating demand for climate services is Earth Observation. The European Union is at the forefront of Earth Observation, with numerous programs and initiatives centred on enhancing our comprehension of the planet's systems and monitoring the impacts of climate change. Through initiatives such as Copernicus, the European Union generates extensive Earth Observation data, opening doors for innovation in data processing, analysis, and visualisation. The uptake of Earth Observation data has also been supported by different policy instruments as well as several European projects which facilitate the integration of EO data into several application domains, and EO data has proven useful in various climate services applications.

Pre-commercial procurement can facilitate the development of novel EO and other products and services that utilise this data to tackle environmental challenges, ranging from predicting natural disasters to assessing the well-being of ecosystems.

This research is therefore focused on recent and current EU policies that hold relevance in the fields of climate services and Earth Observation. By examining these policies and their implications, we can identify potential opportunities and gaps in the market where Innovation Procurement can play a critical



role in fostering the growth of climate services and enabling the development of cutting-edge solutions to address climate change challenges.

## 2. Methodology

The aim of this section is to illustrate the methodology used to conduct the research and its relevance to pre-commercial procurement in the field of climate services and Earth observation. To identify the most impactful areas where pre-commercial procurement can generate innovative solutions to address unmet challenges, a comprehensive desktop research was conducted to map European-level policies that are relevant to Innovation Procurement. **For the purpose of said research, a policy was deemed to be relevant for PCP (and, in particular for PROTECT), when the policy was deemed capable of stimulating the development of novel EO-based climate services in one of the 5 PROTECT domains.** The selected policies were then analysed based on their typology, objectives, and relevance to the project, with a focus on identifying areas where pre-commercial procurement could be useful in the field of Earth Observation and climate services.

The mapping of different policy instruments was captured on a table characterising each policy element starting with the name of the policy instrument, followed by a summary of the assessed policy. The table also offered information about the type of policy instrument (communication, directive, regulation or other), the application domain to which it can be associated with and its geographical scope. The final elements of the table provided information about the, identified key performance indicators linked to the policy instrument as well its enforcement date and, relevance to the project (low, medium, and high). The table is available as the end of the document.

## 3. Results

Following an extensive review of more than 100 policy instruments, a subset of 50 elements has been chosen for in-depth analysis within the scope of this task. The preliminary examination of the diverse policy instruments showed that the *Energy and utilities* domain had the highest number of policies, directives, and communications reflected in the policy map. This was followed by the *Sustainable urban communities* and the *Agriculture, forestry, and other land use* domains. The *Civil security and protection*, along with the *Marine and coastal environment* domains, were found to have the least representation in the policy assessment.

The research conducted successfully identified measurable key performance indicators (KPIs) for each policy instrument. These KPIs serve as concrete targets for specific policy instruments, requiring action by member states to meet their requirements. Notably, the identified KPIs also highlight areas where pre-commercial procurement of climate services could play a significant role in supporting the process of achieving these indicators.

The larger representation of policy instruments dealing with Energy and utilities in this research can be explained by the following factors:

- **Emissions from energy production** - Energy production is a major contributor to greenhouse gas emissions, which are the primary drivers of climate change. Burning fossil fuels for energy, such as coal, oil, and natural gas, releases carbon dioxide (CO<sub>2</sub>) into the atmosphere, contributing to global warming. As a result, policies that focus on reducing greenhouse gas emissions from the energy sector are considered crucial in mitigating climate change.
- **Energy security and independence** - European countries have historically been reliant on imported fossil fuels for their energy needs. To enhance energy security and reduce dependence on external energy sources, European countries have prioritised policies that



promote renewable energy sources, energy efficiency, and domestic energy production. These policies aim to decrease reliance on fossil fuels and increase self-sufficiency in energy production, thereby reducing the geopolitical risks associated with energy imports.

- **Renewable energy potential** - Europe has significant renewable energy potential, including solar, wind, hydropower, and bioenergy resources. European countries have recognised the potential of these renewable energy sources to reduce greenhouse gas emissions and have implemented policies to promote their deployment. These policies include feed-in tariffs, renewable portfolio standards, and other incentives to promote renewable energy development.
- **Global leadership and international commitments** - European countries have been at the forefront of global efforts to combat climate change and have made commitments under international agreements such as the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement. As part of these commitments, European countries have implemented policies aimed at reducing greenhouse gas emissions, with a particular focus on the energy sector.
- **Economic opportunities** - European countries have recognised the economic opportunities associated with the transition to a low-carbon economy. Policies promoting renewable energy and energy efficiency have been seen as drivers of economic growth, innovation, and job creation. As a result, European countries have implemented policies that not only address climate change but also foster economic development.

The assessment of European policies further highlighted a range of policy instruments that are applicable to the five priority domains of the project. In the subsequent section, we will provide a concise overview of some of the key transversal instruments that offer significant opportunities for advancing the pre-commercial procurement of climate services.

European Green Deal - The European Green Deal, as defined by the European Commission, is a comprehensive and ambitious plan that sets out the strategic vision of the European Union (EU) for achieving climate neutrality by 2050 and promoting sustainable economic growth. It encompasses a wide range of policy areas, including but not limited to energy, transport, agriculture, circular economy, biodiversity, and more. The European Green Deal aims to transform Europe into a greener, more sustainable, and climate-resilient continent by promoting the efficient use of resources, reducing greenhouse gas emissions, protecting the environment, and fostering sustainable innovation and economic development, while ensuring a just and inclusive transition for all stakeholders.

European Climate Law - The European Climate Law is a regulation that sets binding targets for the European Union to achieve climate neutrality by 2050. It establishes the legal foundation for the EU's commitment to combat climate change and implement the objectives of the European Green Deal. The European Climate Law enshrines the EU's target of reducing net greenhouse gas emissions to at least 55% below 1990 levels by 2030, and achieving climate neutrality - i.e., balancing greenhouse gas emissions with removals - by 2050. It also establishes a framework for regular monitoring, reporting, and review of the EU's progress towards these targets, and provides a mechanism for adjusting the targets in light of scientific, technological, and socio-economic developments. The European Climate Law serves as a key policy instrument to drive the EU's efforts in addressing the urgent global challenge of climate change and transitioning towards a sustainable, low-carbon future.

Directive (EU) 2019/1024 of the European Parliament and of the Council of 20 June 2019 on open data and the re-use of public sector information (recast) - is a legislative act issued by the European Union that aims to promote the availability and re-use of public sector information as open data. The Directive replaces and recasts the previous Directive 2003/98/EC on the re-use of public sector information, with the goal of modernizing and harmonizing the legal framework for open data across EU member states. The Directive establishes principles for the re-use of public sector information, such as the presumption that public sector information should be made available for re-use as open data, unless exceptions apply. It sets out rules for non-discriminatory access, transparency, and fair competition in the re-use of



public sector information and promotes the use of standard licenses and formats to facilitate interoperability and reusability of data.

The wide-ranging diversity, extensive scope, and intricate granularity of the policy instruments identified in the policy map pose challenges when trying to pinpoint specific areas where pre-commercial procurement of climate services is more likely to occur.

However, the abundance of policy instruments in the energy sector indicates that member states must actively develop and seek technological solutions to meet the targets and indicators outlined in the policies. This context offers significant opportunities for exploring the development of such solutions through innovative approaches such as the pre-commercial procurement of climate services.

In the Agriculture, forestry, and other land use domain, policies like the Farm to Fork strategy aim to reduce greenhouse gas emissions in agriculture, fisheries, and aquaculture by over 50% by 2030. These policies provide a strong incentive for adopting and integrating more sustainable and efficient agricultural practices. The use of Earth Observation based solutions supporting farmers in crop monitoring, yield prediction, land use and land cover mapping, precision agriculture and many other applications can be enhanced by the co-developing approach offered by the pre-commercial procurement of climate services. Within the *Sustainable urban communities* domain, several policies have identified the necessity for more ambitious targets and actions in sub-sectors such as circular economy, mobility, air quality, and health.

In the domain of *Marine and coastal environment*, the exercise has identified relevant policies, including the *Common Fisheries Policy* (CFP), which has established harmonised provisions to ensure the sustainability of fisheries and aquaculture in EU waters. Pursuing pre-commercial procurement solutions can be an effective tool to support the CFP, as this policy emphasises the importance of adaptive management, involving regular updates and adjustments to management measures based on new information and changing environmental conditions. Climate services developed through PCP can contribute to adaptive management by providing EO-based real-time or near-real-time data and forecasts on climate-related variables such as sea surface temperature, ocean acidification, and changes in marine biodiversity. This information enables policymakers to make timely adjustments to fishing quotas, gear regulations, and other management measures, accounting for climate-related changes and ensuring the sustainability of fish stocks.

Finally, the *Civil security and protection* domain was sparsely represented on the policy map, which could be attributed to its cross-sectoral nature, with relevant elements often being mapped under other domains such as *Energy and utilities* or *Sustainable urban communities*. However, the limited entries on the policy map do not imply the insignificance of this domain in any way. In fact, climate services developed through PCP can provide advanced warning and risk assessment of climate-related hazards, such as extreme weather events, flooding, wildfires, and other natural disasters. These services can utilise predictive models, remote sensing data, and real-time monitoring to provide timely and accurate information on potential hazards, their severity, and their impacts. This information can help civil security and protection agencies to better understand and prepare for climate-related risks, take proactive measures to mitigate their impacts, and ensure the safety and well-being of communities and infrastructure.

## 4. Conclusions

The main conclusion of the research on European policies and their potential for influencing the pre-commercial procurement of EO-based climate services, is that there are numerous areas where Innovation Procurement can enable access to innovative solutions to tackle unmet challenges related to climate legislation, regulations and policies at the EU, regional and local levels.

Indeed, the procurement of EO climate services is an essential tool for supporting the implementation of EU climate policies. EO provides critical data and information on a wide range of climate-related



variables, including greenhouse gas emissions, atmospheric composition, sea level rise, and climate change impacts.

Innovation procurement can play a key role in enabling access to innovative solutions that leverage EO climate services to address unmet challenges related to climate policy implementation. For example, Innovation Procurement can enable the development of new tools and applications that use EO data to improve climate monitoring, modelling, and forecasting, as well as to support decision-making and risk management in areas such as disaster response, water resource management, and energy systems.

Innovation procurement can also support the development of new business models and service delivery models that leverage EO climate services to enable more sustainable practices in areas such as agriculture, forestry, and urban planning.

## ANNEX

The work of mapping the relevant policies is available on the pages to follow.

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Summary	Type of policy instrument	Application domain	KPIs	Enforcement date	Relevance to the project	Comments / Opportunities for PROTECT
<p>The strategy will contribute to achieving the EU's biodiversity objectives as well as greenhouse gas emission reduction target of at least 55% by 2030 and climate neutrality by 2050.</p>	<p>Communication</p>	<p>Agriculture, forestry, and other land use</p>	<p>The <b>EU Biodiversity Strategy for 2030</b> sets out a pledge to plant at least <b>3 billion additional trees by 2030 in full respect of ecological principles</b> with a long-term planning and monitoring.</p>	<p>2021</p>	<p>High</p>	<p>In this context, Earth Observation offers key status and temporal trend data on forest cover and composition, forest biomass and carbon stock, forest condition, forest disturbances, deforestation and forest degradation in Europe and the rest of the world. Additional key products EO offers in this domain support emergency management with respect to natural hazards affecting EU forests</p>

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<p>The Farm to Fork Strategy is at the heart of the Green Deal. It addresses comprehensively the challenges of sustainable food systems and recognises the inextricable links between healthy people, healthy societies and a healthy planet. The strategy is also central to the Commission's agenda to achieve the United Nations' Sustainable Development Goals (SDGs). All citizens and operators across value chains, in the EU and elsewhere, should benefit from a just transition, especially in the aftermath of the COVID-19 pandemic and the economic downturn. A shift to a sustainable food system can bring environmental, health and social benefits, offer economic gains and ensure that the recovery from the crisis puts us onto a sustainable path. Ensuring a sustainable livelihood for primary producers, who still lag behind in terms of income, is essential for the success of the recovery and the transition.</p>	<p><a href="#">Communication</a></p>	<p>Agriculture, forestry, and other land use</p>	<p>Farm to Fork 2030 targets</p> <ul style="list-style-type: none"> <li>* Increase agriculture, fisheries and aquaculture GHG reduction target to over 50%</li> <li>* 25% of agriculture land to be used for organic farming</li> <li>* 50% reduction in sales of antimicrobials used for farmed animals</li> <li>* 50% reduction of the use and risk of pesticides</li> <li>* 20% reduction in the use of fertilisers</li> </ul>	<p>2020 (May)</p>	<p>High</p>	<p>High relevance for the project: Agriculture Earth Observation enhances agriculture In agriculture, Earth Observation imagery and data analytics have revolutionised food production and supply chain management with the development of precision farming.</p>

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<p>Launched in 1962, the EU's common agricultural policy (CAP) is a partnership between agriculture and society, and between Europe and its farmers. support farmers and improve agricultural productivity, ensuring a stable supply of affordable food; safeguard European Union farmers to make a reasonable living; help tackle climate change and the sustainable management of natural resources; maintain rural areas and landscapes across the EU; keep the rural economy alive by promoting jobs in farming, agri-food industries and associated sectors.</p>	Other	Agriculture, forestry, and other land use	10 different 'general' objectives, and then related <b>country-specific objectives</b>	2021 (December last update)	High	Several areas of the Common Agricultural Policy (CAP) benefit from Copernicus data and services. These span from monitoring of agricultural market, the CAP control systems, environmental monitoring and farmer level support. Specific examples include improvement in environmental performance of farms, the Land Parcel Identification System, on-demand EO data, along with high resolution data to monitor agricultural practices, integration with modelling for yield forecasting and identifying exceptional circumstances which can support both environmental compliance measures and on-farm agronomic practices



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<p>The EAFRD aims to improve competitiveness for farming, protect the environment and the countryside, improve the quality of life and diversification of the rural economy, and support locally based approaches to rural development. Each EU country will design a CAP Strategic Plan, combining funding for income support, rural development, and market measures. When designing their strategic plans, EU countries will contribute to the nine specific objectives through a toolbox of broad policy measures provided by the Commission, which can be shaped around national needs and capabilities.</p>	Other	Agriculture, forestry, and other land use	The EAFRD priorities are in turn broken down into 18 specific focus areas. In their programmes, countries set out targets relating to their chosen priorities and focus areas, as well as a strategy for meeting their targets.	2021	High	<p>EO solutions are well established and extremely useful when it comes to the classification and monitoring of crops. Through the computation of vegetation indices from satellite data, the health, growth rate and projected yields of crops can be understood which can help decision making, and in particular, help to optimise resource utilisation, such as fertilizer application, irrigation or weed spraying.</p> <p>- Programme duration: 2021-2027</p>
<p>In 2012 EIP AGRI was launched to contribute to the EU's strategy for smart, sustainable and inclusive growth. EIP-AGRI brings together innovation actors (farmers, advisers, researchers, businesses, NGOs etc.) in agriculture. Its aim is to strengthen research and innovation to foster competitive and sustainable farming.</p>	Other	Agriculture, forestry, and other land use	The aim of EIP-AGRI in the new programming period shall be to stimulate innovation and improve the exchange of knowledge and contribute to achieving the specific objectives of the new European CAP Network.	2012	High	<p>Companies are using satellites to try to shed light on the sometimes tightly held secrets in the commodity trading world, from corn to barley to oranges. EO can help monitor the regional and international and trade of many agricultural commodities</p>

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<p>The European Green Deal presents a roadmap for making the EU's economy sustainable by turning climate and environmental challenges into opportunities across all policy areas and making the transition just and inclusive for all. The European Green Deal aims to boost the efficient use of resources by moving to a clean, circular economy and stop climate change, revert biodiversity loss and cut pollution. It outlines investments needed and financing tools available and explains how to ensure a just and inclusive transition. The European Green Deal covers all sectors of the economy, notably transport, energy, agriculture, buildings, and industries such as steel, cement, ICT, textiles, and chemicals. The European Green Deal provides an action plan, to boost the efficient use of resources by moving to a clean, circular economy and to restore biodiversity and cut pollution. It embraces various policy areas (compare timeline to the right)</p>	Other	All	<p>* Reducing net greenhouse gas emissions by at least 55% by 2030  * No net emissions of greenhouse gases by 2050</p>	2020 (year of approval of the set of policies)	High	<p>Earth observation is a key tool for the implementation of the European Green Deal, because it provides unique information, invisible down to earth.</p> <p>Timeline:  <a href="https://drive.google.com/file/d/1FWuBXyo6WwWfZfPEM6IUya3UA92CF3qL/view?usp=sharing">https://drive.google.com/file/d/1FWuBXyo6WwWfZfPEM6IUya3UA92CF3qL/view?usp=sharing</a></p>

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<p>The European climate law sets a binding Union climate target of a reduction of net greenhouse gas emissions (emissions after deduction of removals) by at least 55% by 2030 compared to 1990. It aims to put climate at the heart of all EU policy making, ensuring that future regulations support the emissions-cutting aims. This law also requires the creation of an independent expert body to advise on climate policies, and to develop a mechanism to calculate the total emissions the EU can produce from 2030-2050.</p>	Regulation	All	<p><b>The Climate Law includes:</b></p> <ul style="list-style-type: none"> <li>* an objective for the Union to reach climate neutrality by 2050</li> <li>* an ambitious 2030 climate target of at least 55% reduction of net emissions of greenhouse gases as compared to 1990, with clarity on the contribution of emission reductions and removals</li> <li>* recognition of the need to enhance the EU's carbon sink through a more ambitious LULUCF regulation, for which the Commission made a proposal in July 2021</li> <li>* a process for setting a 2040 climate target, taking into account an indicative greenhouse gas budget for 2030-2050 to be published by the Commission</li> <li>* a commitment to negative emissions after 2050</li> </ul>	2021	Medium	Clear climate target that could possibly be monitored through, among others, EO technologies

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<p>The European Green Deal Investment Plan, also known as the Sustainable Europe Investment Plan, aims to contribute to financing a sustainable transition, while supporting the regions and communities most exposed to its impact. By combining legislative and non-legislative initiatives, the plan addresses three aspects: 1) mobilising funding worth at least €1 trillion from the EU budget and other public and private sources over the next decade; 2) putting sustainability at the heart of investment decisions across all sectors; and 3) providing support to public administrations and project promoters to create a robust pipeline of sustainable projects</p>	Communication	All	<p>The plan will mobilise 25% of the EU budget for climate financing and invest in environmental objectives through several EU programmes.</p>	2021	High	<p>Very relevant for the project, as there is push for investments in the sustainability field</p>

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<p>The Arctic's fragile environment is a key indicator of climate change, which requires specific mitigation and adaptation actions as agreed with the global agreement at the COP-21 held in Paris in December 2015. To this end, the integrated EU Arctic policy has identified three priority areas: climate change and safeguarding the Arctic environment, sustainable development in and around the Arctic, and international cooperation on arctic issues.</p>	<p>Communication</p>	<p>Civil security and protection</p>	<p>One of the goals: contribute to improving maritime SAR, <b>making greater use of EU satellite systems and cooperation between coastguards</b>, in particular the Arctic Coast Guard Forum. Also, promote research and <b>collection of satellite data on the long-term implications of thawing permafrost</b>, to assess the potential impacts on communities, health and sustainable development and develop mitigation measures.</p>	<p>2021</p>	<p>High</p>	<p>Earth Observation -and Copernicus in particular- addresses these policy areas with a dedicated Arctic Ocean monitoring and forecasting centres that maintain long-time series of changes in the Arctic. Additionally, EO data for cryosphere monitoring, climate records on sea-ice and glaciers, and maritime surveillance services for Arctic fishing and shipping purposes also help shape action to safeguard the Arctic and polar areas.</p>

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<p>The Safe System includes demands for safer and improved infrastructure • Properly maintained roads are believed to reduce the probability of road traffic accidents</p>	<p>Other</p>	<p>Civil security and protection</p>	<p>The introduction of a first set of eight key performance indicators (KPIs) will enable a more targeted analysis of Member States' performances and identify deficiencies. The 8 KPI: DISTRACTION, DISTRACTION TARGET, VEHICLE SAFETY, VEHICLE SAFETY TARGET, INFRASTRUCTURE, INFRASTRUCTURE TARGET, POSTCRASH CARE, POST-CRASH CARE TARGET</p>	<p>2021</p>	<p>Medium</p>	<p>Remote sensing can be applied to map overground road networks, including a classification of road type and surface material. At the same time, characteristics associated with ageing of specific materials can be detected, revealing or even predicting damages in the surface. Radar is applied to detect anomalies such as ground movement and change detection, e.g. displacement of bridges or rails can be performed based on historical data, enabling action before failure.</p>

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<p>The EU emissions trading system (ETS)<sup>156</sup> sets a fixed amount (cap) of allowable GHG emissions for EU electricity generation and industry. It covers around 45 % of the EU's greenhouse gas emissions. Economic operators are required to acquire an EU emission allowance (EUA) for each tonne of CO<sub>2</sub>e that they emit. Allowances can be acquired at auction and traded between operators. This would lead to cost-effective emissions reductions, as operators would reduce emissions where this has lower costs than the market price of allowances. Emissions covered under the ETS must be reduced by 43 % by 2030, compared with the levels in 2005, the year when the EU ETS was set up. The Carbon Capture and Storage (CCS) Directive sets the legal framework for carbon capture and storage in the EU.</p>	Other	Energy and utilities	<p>The overall volume of greenhouse gases that can be emitted by power plants, industry factories and aviation sector covered by the EU Emissions Trading System (EU ETS) is limited by a '<b>cap</b>' on the number of <b>emission allowances</b>. Within the cap, companies receive or buy emission allowances, which they can trade as needed. <b>The cap decreases every year</b>, ensuring that total emissions fall</p>	2021 (phase 4)	High	<p>Satellite data could play a role in monitoring, reporting and verifying compliance with emissions trading systems also known as cap and trade. To date, satellite data has not been widely applied to the task of supporting those systems. This raises interest for pre-commercial procurement.</p>

Summary	Type of policy instrument	Application domain	KPIs	Enforcement date	Relevance to the project	Comments / Opportunities for PROTECT
<p>On 27 February 2018 the Council formally approved the reform of the EU emissions trading system (ETS) for the period after 2020. The revised ETS directive is a significant step towards the EU reaching its target of cutting greenhouse gas emissions by at least 40% by 2030, as agreed under the EU's 2030 climate and energy framework and fulfilling its commitments under the Paris Agreement.</p>	Other	Energy and utilities	<p>The long- term objective for 2050, agreed by the European Council in 2009, is an 80-95 % reduction in GHG emissions compared to 1990. In the medium term, the EU aims to reduce GHG emissions by 20 % by 2020, and by 40 % by 2030.</p>	2020	High	<p>Satellite data could play a role in monitoring, reporting and verifying compliance with emissions trading systems also known as cap and trade. To date, satellite data has not been widely applied to the task of supporting those systems. This raises interest for pre-commercial procurement.</p>
<p>The Fit for 55 package is a set of proposals to revise and update EU legislation and to put in place new initiatives with the aim of ensuring that EU policies are in line with the climate goals agreed by the Council and the European Parliament. The package of proposals aims at providing a coherent and balanced framework for reaching the EU's climate objectives, which:</p> <ul style="list-style-type: none"> <li>• ensures a just and socially fair transition</li> <li>• maintains and strengthens innovation and competitiveness of EU industry while ensuring a level playing field vis-à-vis third country economic operators</li> <li>• underpins the EU's position as leading the way in the global fight against climate change</li> </ul>	Other	Energy and utilities	Reduce greenhouse gas emissions by 55% by 2030.	Proposed: July 2021 (the plans may become law in 2022)	Medium	Relevant field, but no specific call for EO pre-commercial procurement



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<p>In July 2016, the European Commission presented a proposal for a regulation to limit post-2020 national emissions of greenhouse gases (GHG) in sectors not covered by the EU emissions trading system (ETS). These include transport, buildings and agriculture. The proposed regulation would be the successor of the Effort Sharing Decision that sets annual national GHG emission limits for the period 2013-2020. The proposed regulation is part of the EU's efforts to reduce its GHG emissions by at least 40% below 1990 levels by 2030. This target was set by the European Council in October 2014, and also constitutes the EU's international commitment under the 2015 Paris Agreement on climate change.</p>	Regulation	Energy and utilities	<p>The maximum limit that can be used annually in <b>2021-2030 is set at 2% of each country's emissions in 2005</b>, except for Ireland, Luxembourg and Iceland that are allowed up to a limit of 4%. The total maximum amount for all eleven eligible countries is limited to <b>107 million tonnes</b>.</p>	2018	High	<p>Advancements in satellite technology and imaging can support national emission reporting exercises under the Paris Agreement. It is possible to monitor the geologic storage of carbon dioxide using multicomponent SAR and optical interferometry. Interest for pre-commercial procurement of tools that can conduct this type of monitoring.</p>

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<p>The 2030 framework proposes new targets and measures to make the EU's economy and energy system more competitive, secure and sustainable. It includes targets for reducing greenhouse gas emissions and increasing use of renewable energies, and proposes a new governance system and performance indicators.</p>	Other	Energy and utilities	<p>The 2030 Climate and Energy Framework set three key targets for the year 2030:</p> <ul style="list-style-type: none"> <li>- at least 40% cuts in greenhouse gas emissions from 1990 levels</li> <li>- at least 27% share for renewable energy</li> <li>- at least 27% improvement in energy efficiency</li> </ul>	<p>2020 (These targets have since been revised again under the European Green Deal published in December 2019, the European Commission's 'Roadmap' for moving to a climate neutral economy by 2050)</p>	High	<p>Advancements in satellite technology and imaging can support national emission reporting exercises under the Paris Agreement</p>

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<p>In November 2017, the European Commission proposed a revision of Directive 2009/33/EC on the promotion of clean and energy-efficient road transport vehicles (the Clean Vehicles Directive), after an evaluation showed that the directive had yielded limited results. The proposed directive aims to promote clean mobility solutions in public procurement tenders and thereby raise the demand for, and the further deployment of, clean vehicles. The proposal provides a definition for clean light-duty vehicles based on a combined CO2 and air-pollutant emissions threshold; for heavy-duty vehicles, it gives a definition based on alternative fuels. The proposal is in line with the European Commission's energy union package, which plans action on the further decarbonisation of road transport in line with the 2030 climate and energy targets</p>	<p>Directive</p>	<p>Energy and utilities</p>	<p>The national targets are defined as a minimum percentage of clean vehicles in the aggregate public procurement across a Member State. This means, Member States have full flexibility in how they distribute the effort across different contracting authorities and contracting entities.</p>	<p>2021</p>	<p>Medium</p>	<p>Literature shows that satellite data can be used to track vehicles emissions. For example, cities and states may soon have a new high-tech tool in the battle against automotive air pollution, thanks to NASA satellite technology originally developed to track global greenhouse gases and the Earth's protective ozone layer. This raises interest in pre-commercial procurement for this type of technology. Nevertheless, this type of monitoring requires a very high-res solution (both temporal and spatial). I do not see it feasible in the short-mid term.</p>

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<p>On 30 November 2016, the European Commission presented a proposal for a revised Energy Efficiency Directive, as part of the Clean Energy package. This aims to adapt and align EU energy legislation with the 2030 energy and climate goals and contribute towards delivering the energy union strategy. The Commission initially proposed a 30 % binding EU energy efficiency target for 2030, to be achieved by means of indicative national targets and the extension beyond 2020 of the energy savings obligation scheme, which currently requires utility companies to help their consumers use 1.5 % less energy each year. The Commission proposal also aims to make the rules on energy metering and billing clearer for consumers. Trialogue negotiations started in February 2018 and resulted in a provisional agreement among the EU Institutions on 19 June 2018.</p>	<p>Directive</p>	<p>Energy and utilities</p>	<p>* The revised directive introduces a binding EU 30 % energy efficiency target, to be achieved by means of indicative national energy efficiency contributions            * The 1.5% annual energy savings obligation is extended from 2020 to 2030 and possibly beyond.</p>	<p>2018</p>	<p>Medium</p>	<p>EO has a growing importance in the field of energy saving. An example are the upcoming Sentinel missions, which are part of the Copernicus programme, that will aid in identifying potential sites for solar or wind power generation.</p>

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<p>The Directive aims to provide guiding principles on financial support schemes for RES, renewable energy self-consumption, energy communities and district heating. It seeks to enhance mechanisms for cross-border cooperation, simplify administrative processes, strengthen the sustainability and greenhouse gas emissions-savings criteria for biofuels, and mainstream the use of RES in the transport sector and in the heating and cooling sector.</p>	<p>Directive</p>	<p>Energy and utilities</p>	<p>The revised directive sets higher GHG emissions savings criteria for biofuels and bioliquids. New installations, from 2021, will need to reduce GHG emissions by 65 % (compared to equivalent fossil fuels), in order to be defined as a RES. Meanwhile, biomass for electricity, heating and cooling will need to reduce GHG emissions by 70 % from 2021, rising to 80 % reductions from 2026.</p>	<p>2018</p>	<p>High</p>	<p>High potential for the project Because it can provide high temporal and spatial resolution, remote sensing technology is already making available quality-controlled geodata and information. This now makes it possible to support the routine and standardized monitoring of biomass resources over large areas. This raises interest in pre-commercial procurement for this type of technology.</p>

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<p>This Communication proposes an EU strategy to make offshore renewable energy a core component of Europe's energy system by 2050. This requires taking a diversified approach tailored to different situations. Therefore the strategy presents a general enabling framework, addressing barriers and challenges common to all offshore technologies and sea basins but also sets out specific policy solutions adapted to the different state of development of technologies and regional contexts.</p>	<p>Communication</p>	<p>Energy and utilities</p>	<p>The strategy sets <b>targets for an installed capacity of at least 60 GW</b> of offshore wind and 1 GW of ocean energy by 2030, and <b>300 GW and 40 GW</b>, respectively, by <b>2050</b>.</p>	<p>The strategy sets targets for an installed capacity of at least 60 GW of offshore wind and 1 GW of ocean energy by 2030, and 300 GW and 40 GW, respectively, by 2050.</p>	<p>High</p>	<p>High potential for the project: The problem is there is hardly any offshore wind data available to industry. Furthermore, existing data record mainly extreme wind events. And to gather in-situ data from a single offshore meteorological mast can cost a million Euros a year, and provides data only for a small area.</p> <p>But using satellites enables a shift from a local to a global view. The sophisticated Synthetic Aperture Radar (SAR) instruments on board ESA's ERS-2 and Envisat can provide high-resolution 100-metre data on the wind field, and a decade-long data archive is available. There is therefore incentive for pre-commercial procurement, to get the right technology to built offshore energy stations.</p>

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<p>The Clean energy for all Europeans package consists of 8 new laws. Following political agreement by the EU Council and the European Parliament (finalised in May 2019) and the entry into force of the different EU rules, EU countries have 1-2 years to convert the new directives into national law. The new rules will bring considerable benefits for consumers, the environment, and for the economy. By coordinating these changes at EU level, the legislation also underlines EU leadership in tackling global warming and makes an important contribution to the EU's long-term strategy of achieving carbon neutrality (net-zero emissions) by 2050.</p>	Directive	Energy and utilities	n/a	2019	Medium	As mentioned above, there are several possible applications for pre-commercial procurement of EO technology in the field of energy

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<p>Sector integration means linking the various energy carriers - electricity, heat, cold, gas, solid and liquid fuels - with each other and with the end-use sectors, such as buildings, transport or industry.</p> <p>Linking sectors will allow the optimisation of the energy system as a whole, rather than decarbonising and making separate efficiency gains in each sector independently. The new EU strategy will involve various existing and emerging technologies, processes and business models, such as ICT and digitalisation, smart grids and meters and flexibility markets.</p>	Other	Energy and utilities	The strategy aims to ensure that the EU fully exploits its head-start and expertise in renewable and smart energy technologies	2020	High	Relevant for PROTECT, since a lot of what EO does for energy can feed into integrating the right sources together for this purpose
<p>This Regulation lays down rules for the timely development and interoperability of trans-European energy networks in order to achieve the energy policy objectives of the Treaty on the Functioning of the European Union (TFEU) to ensure the functioning of the internal energy market and security of supply in the Union, to promote energy efficiency and energy saving and the development of new and renewable forms of energy, and to promote the interconnection of energy networks.</p>	Regulation	Energy and utilities	Set of guidelines for the timely development and interoperability of energy infrastructure priority corridors and areas that contribute to ensuring climate change mitigation, in particular achieving the EU's 2030 energy and climate targets and overall climate neutrality by 2050.	2013	High	Earth Observation is key in reaching energy efficiency and energy saving and the development of new and renewable forms of energy. For this reason, there is a high potential for PROTECT and pre-commercial procurement in this field.



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<p>The EU Industrial Strategy is meant to support the twin transition to a green and digital economy, make EU industry more competitive globally, and enhance Europe's open strategic autonomy. As a primary vehicle of innovation in the various ecosystems, small and medium enterprises (SMEs) need to be borne in mind in all actions under this Strategy. This is reflected in a horizontal manner by increased attention to regulatory burdens for SMEs. New actions will strongly benefit SMEs and start-ups, whether it be from a strengthened Single Market, reduced supply dependencies or the accelerated green and digital transitions. The Strategy also includes some measures dedicated to SMEs such as on increased resilience, combating late payments, and supporting solvency.</p>	Communication	Energy and utilities	The 2020 Industrial Strategy included a list of actions to support the green and digital transitions of EU industry, many of which have already been adopted or launched.	2020	Medium	No clear link with EO, but there are several fields in which it would be relevant. Such as: energy intensive and renewable energy industries

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<p>To pursue this dual ambition of energy gains and economic growth, in 2020 the Commission published the strategy "A Renovation Wave for Europe – Greening our buildings, creating jobs, improving lives" to boost renovation in the EU. It aims to double annual energy renovation rates in the next 10 years. As well as reducing emissions, these renovations will enhance quality of life for people living in and using the buildings, and should create many additional green jobs in the construction sector.</p> <p>The Renovation Wave identifies 3 focus areas:</p> <p>Tackling energy poverty and worst-performing buildings Public buildings and social infrastructure Decarbonising heating and cooling</p>	Communication	Energy and utilities	It aims to double annual energy renovation rates in the next 10 years. As well as reducing emissions, these renovations will enhance quality of life for people living in and using the buildings, and should create many additional green jobs in the construction sector.	2020	Medium	No clear link with EO, but there are several fields in which it would be relevant. Such as: public buildings and infrastructure, decarbonising heating and cooling, and monitoring buildings' energy efficiency.
<p>REPowerEU is the European Commission's plan to make Europe independent from Russian fossil fuels well before 2030, in light of Russia's invasion of Ukraine. The REPowerEU plan sets out a series of measures to rapidly reduce dependence on Russian fossil fuels and fast forward the green transition, while increasing the resilience of the EU-wide energy system.</p>	Communication	Energy and utilities	<ul style="list-style-type: none"> <li>* 2/3 cut in Russian gas consumption by the end of 2022</li> <li>* Increase the binding 'Energy Efficiency Directive (EED)' target to 13% from 9%.</li> <li>* Increase the EU's headline 2030 target for renewables from 40% to 45%</li> </ul>	Published: 18-May-2022	Medium	This policy is relevant for PROTECT in at least two ways: first, through the push for more renewables will enable the use of EO for renewables. Secondly, since EO can be used for mapping energy efficiency of buildings.

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<p>As part of the REPowerEU plan, this strategy aims to bring online over 320 GW of solar photovoltaic by 2025 (more than doubling compared to 2020) and almost 600 GW by 2030 . These frontloaded additional capacities displace the consumption of 9 bcm of natural gas annually by 2027.</p>	<p>Communication</p>	<p>Energy and utilities</p>	<p>* 320 GW of solar photovoltaic by 2025 and almost 600 GW by 2030</p>	<p>2022</p>	<p>High</p>	<p>Accessible earth observation data can enhance clean energy projects by enabling monitoring energy capacity and maintenance status at scale. Incorporating satellite-based earth observation will help to fast track this by providing advanced insights that can be used for forecast models, information products and other tools to improve decision making – be it at an organisational or policy-making level. Earth Observation can be used for planning on where to deploy single PVs (solar atlas) and solar farms.</p>
<p>The EU Water Framework Directive 2000 (WFD) is arguably the most important, far-reaching, water legislation ever to emerge from the EU. It was transposed into law in EU Member States at the end of 2003. In addition to chemical water quality targets, ecological objectives have been set for each water body. A key aim of the WFD is for all water bodies to achieve 'good ecological and chemical status'. The original target for achieving good status was 2015, but further deadlines are set for 2021 and 2027.</p>	<p>Directive</p>	<p>Marine and Coastal environment</p>	<p>In addition to chemical water quality targets, ecological objectives have been set for each water body. A key aim of the WFD is for all water bodies to achieve 'good ecological and chemical status'. The original target for achieving good status was 2015, <b>but further deadlines are set for 2021 and 2027</b></p>	<p>2014</p>	<p>High</p>	<p>In this context, Earth Observation data from satellite are useful to integrate and coordinate different sources of information for decision-making, as well as to model for forecasting and alerts (these are services built on EOdata, so perfect for PROTECT). For instance, this includes the near real-time detection of pollution from satellite together with ship position from traffic monitoring systems at least for ship-based pollution (the union maritime information and exchange system - SafeSeaNet) and manned or unmanned aerial means from coastal states for verification and identification of polluters</p>

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<p>The Directive for Maritime Spatial Planning in Europe was adopted to reduce conflicts, encourage investments (blue economy), increase cross-border cooperation and protect the environment.</p>	<p>Directive</p>	<p>Marine and Coastal environment</p>	<p>Objectives: reducing conflicts and creating synergies between different activities  encouraging investment through predictability, transparency and legal certainty  increasing cross-border cooperation between EU countries to develop renewable energy, allocate shipping lanes, lay pipelines and submarine cables etc  protecting the environment by assigning protected areas, calculating impacts on ecosystems and identifying opportunities for multiple uses of space</p>	<p>2014</p>	<p>High</p>	<p>Part of such environmental information is provided by Copernicus through long-time series of ocean products necessary to produce atlas (European Atlas of the Seas). However, there is a need for additional Earth Observation services to identify and monitor man-made activities like shipping lanes, fisheries and aquaculture grounds along with land-sea consistent data and information products for coastal management.</p>

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<p>The aim of the European Union's ambitious Marine Strategy Framework Directive is to protect more effectively the marine environment across Europe.</p>	<p>Directive</p>	<p>Marine and Coastal environment</p>	<p>The new EU <b>Biodiversity Strategy for 2030 (adopted in May 2020)</b> aims to strengthen the <b>protection of marine ecosystems and to restore them to achieve “good environmental status”</b>, including through the expansion of protected areas and the establishment of strictly protected areas for habitats and fish stocks recovery</p>	<p>2017</p>	<p>High</p>	<p>Earth Observation supports a wide range of coastal and marine environment applications such as those on rising sea levels and sea surface temperature, but also with increasing emphasis on the “green” ocean aspects with products addressing coastal ecology, biogeochemistry and pollution/eutrophication. There is therefore a significant opportunity to develop new applications and services that would facilitate the implementation of this directive</p>
<p>The Common Fisheries Policy (CFP) Regulation has defined a set of harmonised provisions to ensure sustainability of fisheries and aquaculture in EU waters and for the EU fleet worldwide</p>	<p>Regulation</p>	<p>Marine and Coastal environment</p>	<p>Goal: to ensure sustainable fisheries and guarantee incomes and stable jobs for fishers.</p>	<p>2013</p>	<p>High</p>	<p>High relevance for PROTECT, as there is large potential for EO services in the field of sustainable fisheries. This includes. In fact, satellite data is already widely used to monitor the marine environment, support maritime safety and help manage fishing activities as well as detecting illegal fishing activities.</p>

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<p>The European Climate Pact is an opportunity for people, communities, and organisations to participate in climate action across Europe:</p> <ul style="list-style-type: none"> <li>• learn about climate change</li> <li>• develop and implement solutions</li> <li>• connect with others and maximise the impact of these solutions</li> </ul> <p>As part of the European Green Deal, the Pact aims to become a lively space to share information, debate, and act on the climate crisis, and offer support for a European climate movement to grow and consolidate.</p>	Other	All	the Pact is part of the European Green Deal and is <b>helping the EU to meet its goal to become climate-neutral by 2050.</b>	2019	High	As for the Green Deal, this policy is relevant for the project, as there is push for investments in the sustainability field. In this case, even more so due to the element of citizen engagement.

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<p>It strategy aims to support the financing of the transition to a sustainable economy by proposing action in four areas: transition finance, inclusiveness, resilience and contribution of the financial system and global ambition.</p>	<p>Communication</p>	<p>Sustainable urban communities</p>	<p>The strategy includes six sets of actions:</p> <ul style="list-style-type: none"> <li>(1)Extend the existing sustainable finance toolbox to facilitate access to transition finance</li> <li>(2)Improve the inclusiveness of small and medium-sized enterprises (SMEs), and consumers, by giving them the right tools and incentives to access transition finance.</li> <li>(3)Enhance the resilience of the economic and financial system to sustainability risks</li> <li>(4)Increase the contribution of the financial sector to sustainability</li> <li>(5)Ensure the integrity of the EU financial system and monitor its orderly transition to sustainability</li> <li>(6)Develop international sustainable finance initiatives and standards, and support EU partner countries</li> </ul>	<p>2021</p>	<p>High</p>	<p>Very relevant for the project, as there is push for investments in the sustainability field</p>

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<p>The EU ETS is a cornerstone of the EU's policy to combat climate change and its key tool for reducing greenhouse gas emissions cost-effectively. It is the world's first major carbon market and remains the biggest one.</p>	Directive	Sustainable urban communities	<p>The sectors covered by the EU Emissions Trading System (EU ETS) must reduce their emissions by 43% compared to 2005 levels. To increase the pace of emissions cuts, the overall number of emission allowances will decline at an annual rate of 2.2% from 2021 onwards, compared to 1.74% currently.</p>	2021	High	EO pre-commercial procurement is extremely relevant for the monitoring of emissions.
<p>It aims to protect the environment in the European Union (EU) from the adverse effects (such as eutrophication) of urban wastewater. It sets out EU-wide rules for collection, treatment and wastewater discharge. The law also covers wastewater generated by industries such as the agro-food industries (like food-processing and brewing).</p>	Directive	Sustainable urban communities	<p>By 2040 the new rules will (1) save almost EUR 3 billion per year across the Europe, (2) reduce greenhouse gas emissions by over 60% compared to 1990, (3) <b>decrease water pollution by more than 365 thousand tonnes</b>, (4) <b>cut microplastics emissions by 9%</b></p>	2021	Medium	Satellite imaging has potential for the monitoring of waste water treatment. Therefore there is a link with pre-commercial procurement and PROTECT



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<p>The EU Covenant of Mayors for Climate &amp; Energy brings together thousands of local governments voluntarily committed to implementing EU climate and energy objectives. The Covenant of Mayors was launched in 2008 in Europe with the ambition to gather local governments voluntarily committed to achieving and exceeding the EU climate and energy targets. Not only did the initiative introduce a first-of-its-kind bottom-up approach to energy and climate action, but its success quickly went beyond expectations.</p>	Other	Sustainable urban communities	<p><b>Goals for 2030:</b> Reducing CO2 (and possibly other greenhouse gas) emissions on the territory of our municipalities by at least 40% by 2030, namely through improved energy efficiency and the greater use of renewable energy sources; <b>Goal for 2050:</b> Decarbonised territories, thus contributing to keeping average global warming well below 2°C above pre-industrial levels. Universal access to secure, sustainable and affordable energy services for all, thus enhancing quality of life and improving energy security. Grant universal access to secure, sustainable and affordable energy services for all, thus enhancing quality of life and improving energy security.</p>	2008	High	<p>Adapting to climate change requires data and information from all Earth system components: the atmosphere, the land, the cryosphere and oceans. As an example, in order to adhere to Covenant of Mayors Sustainable Energy and Climate Action Plan (SECAP) commitments, it is imperative to have both reference time series (data demonstrating of changes and trends) and climate change indicators that cover composite or specific economic sectors impacted by regional and international policies</p>

<p>The Directive on open data and the re-use of public sector information provides common rules for a European market for government-held data.</p> <p>The Directive introduces the concept of high-value datasets. Defined as documents, the re-use of high-value datasets is associated with important benefits for the society and economy. They are subject to a separate set of rules ensuring their availability free of charge, in machine readable formats. They are provided via Application Programming Interfaces (APIs) and, where relevant, as a bulk download. The thematic scope of high value datasets is provided in an Annex to the Directive.</p> <p>The thematic categories of high-value datasets, as referred to in Article 13(1) of the Directive, are:</p> <ol style="list-style-type: none"> <li>1. geospatial</li> <li>2. earth observation and environment</li> <li>3. meteorological</li> <li>4. statistics</li> <li>5. companies and company ownership</li> <li>6. mobility</li> </ol>	Directive	All	n/a	2019	Medium	<p>Once fully transposed on the national level, the new rules will:</p> <ul style="list-style-type: none"> <li>- stimulate the publishing of dynamic data and the uptake of Application Programme Interfaces (APIs);</li> <li>- limit the exceptions which currently allow public bodies to charge more than the marginal costs of dissemination for the re-use of their data;</li> <li>- enlarge the scope of the Directive to: <ul style="list-style-type: none"> <li>*Data held by public undertakings, under a specific set of rules. In principle, the Directive will only apply to data which the undertakings make available for re-use. Charges for the re-use of such data can be above marginal costs for dissemination;</li> <li>*Research data resulting from public funding – Member States will be asked to develop policies for open access to publicly funded research data. New rules will also facilitate the re-usability of research data that is already contained in open repositories.</li> </ul> </li> <li>-strengthen the transparency requirements for public-private agreements involving public sector information, avoiding exclusive arrangements.</li> </ul>
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<p>The current proposal complements the Directive (EU) 2019/1024 of the European Parliament and of the Council of 20 June 2019 on open data and the re-use of public sector information (Open Data Directive) 6 . This proposal addresses data held by public sector bodies that is subject to rights of others and therefore falls outside the scope of this Directive. The proposal has logical and coherent links with the other initiatives announced in the European strategy for data. It aims at facilitating data sharing including by reinforcing trust in data sharing intermediaries that are expected to be used in the different data spaces. It does not aim to grant, amend or remove the substantial rights on access and use of data. This type of measures is envisaged for a potential Data Act (2021) 7 .</p>	Other	All	n/a	n/a	Medium	<p>The adoption of this proposal would facilitate the use of data which might lead to the development of additional and more diverse climate services.</p>

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<p>A key pillar of the European strategy for data, the Data Governance Act seeks to increase trust in data sharing, strengthen mechanisms to increase data availability and overcome technical obstacles to the reuse of data.</p> <p>The Data Governance Act will also support the set-up and development of common European data spaces in strategic domains, involving both private and public players, in sectors such as health, environment, energy, agriculture, mobility, finance, manufacturing, public administration and skills.</p>	Other	All	n/a	2022 (23 June)	Medium	The initiative aims to make more data available and facilitate data sharing across sectors and EU countries in order to leverage the potential of data for the benefit of European citizens and businesses.

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<p>The Taxonomy Regulation was published in the Official Journal of the European Union on 22 June 2020 and entered into force on 12 July 2020. It establishes the basis for the EU taxonomy by setting out 4 overarching conditions that an economic activity has to meet in order to qualify as environmentally sustainable.</p> <p>The Taxonomy Regulation establishes six environmental objectives</p> <ul style="list-style-type: none"> <li>Climate change mitigation</li> <li>Climate change adaptation</li> <li>The sustainable use and protection of water and marine resources</li> <li>The transition to a circular economy</li> <li>Pollution prevention and control</li> <li>The protection and restoration of biodiversity and ecosystems</li> </ul> <p>Different means can be required for an activity to make a substantial contribution to each objective.</p>	Regulation	All	n/a	2020	Medium	The systemic use of the taxonomy could foster the uptake of climate services.

<p>The EU's transport policy aims to increase mobility, remove major barriers in key areas and fuel growth and employment. Articles 90-100 of the Treaty on the Functioning of the European Union provide the legal bases for the EU's transport policy.</p>	<p>Directives</p>	<p>Sustainable urban communities</p>	<p>The European Commission's Sustainable and Smart Mobility Strategy together with an Action Plan of 82 initiatives, guide the work in the field of EU transport policy for the period 2021-2024. This strategy lays the foundation for how the EU transport system can achieve its green and digital transformation and become more resilient to future crises. The result will be a <b>90% cut in emissions by 2050</b>, delivered by a smart, competitive, safe, accessible and affordable transport system. The EU has also defined clear goals: the European Commission's current <b>"White Paper on Transport" calls for 30 percent of road freight transport to be transferred to other modes of transport such as rail or shipping by 2030, rising to more than 50 percent by 2050</b>. With regard to urban and private mobility, the share of <b>"conventionally fuelled" vehicles in city centres is to be halved by 2030</b> and reduced to the absolute minimum by 2050.</p>	<p>Common policy started in 1992, but new objectives set regularly</p>	<p>High</p>	<p>Evolving needs have shown that the sector has a need of Earth Observation data for a broad range of applications like topography (digital elevation models), geophysical and soil characteristics for civil engineering related to networks deployment, real-time monitoring and long-time records of known sites affected by ground motion or natural risks and more.</p>
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