

French Gaia-X Hub

**POSITION PAPER**  
*GT GREEN DEAL*

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# POSITION PAPER

## *GT GREEN DEAL*

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## 1 MISSION AND GOALS OF THE GREEN DEAL DATA SPACE

The European Commission renewed its commitment to tackle climate and environmental-related challenges. The European Green Deal has the ambition to address these challenges. It integrates a growth strategy while aiming to protect, conserve and enhance the EU's natural capital, and protect the health and well-being of citizens from environment-related risks and impacts.

The Green Deal Dataspace positions itself as an enabler to rethink policies for clean energy supply across the economy, industry, production and consumption, large-scale infrastructure, transport, food and agriculture, construction, taxation, and social benefits. It will also provide support to increase the value given to protecting and restoring natural ecosystems, to the sustainable use of resources and to improving human health.

The scope of the Green Deal working group is broad as it concerns all sectors of the economy, encompasses several sub-themes and can take various forms such as supporting innovation in industry, improving the energy efficiency of buildings, investing in environmentally friendly technologies and equipment or optimizing urban transport. Addressing the European Green Deal issues, the working group reflection is broken down into several sub-themes that have been identified by the French Ministry of Ecology: Environmental-Health, Energy and Energy Efficiency, Circular Economy, Building and Sustainable City, Transport and Mobility, Industrial Decarbonisation, Risk Prevention, Biodiversity and Ecosystems, Agriculture and Digital Sobriety.

Data, its sharing and pooling, as well as inter-company collaboration around data within a **secured and trusted digital ecosystem**, is part of the answer to the Green deal challenges. It is necessary to have clear rules leading to a **trusted and secured digital ecosystem**, based on existing solutions, but giving data owners a full control. That is, to:

- depend on a European jurisdiction
- decide on data location
- decide who can process data, and for what purposes.

Indeed, the Green deal data space **expect strong benefits and tangible outcomes from the creation of the Gaia X ecosystem, and actively support the emergence of federated service & data platforms. We see Gaia X as a European-wide accelerator of innovation**, scaling up open innovation and co-construction by providing secured data sharing and artificial intelligence services at scale, in a compliant and secured way.

The Green Deal working group fits within the GAIA-X's vision of developing a trusted European cloud market, respectful of the European Union's common values (openness, interoperability between clouds, transparency of the technical and contractual characteristics of tenders, trust, reversibility of infrastructures, portability of applications and services) driven by European players and focused on meeting the needs of enterprises and public administrations using cloud solutions and services.

Through an approach focused on user's needs, the working group aims to raise awareness of Gaia-X and to develop the involvement of French companies and experts, to federate players in ecosystems or cross-cutting areas in order to carry out use cases and actions [which are consistent with the national and European funding opportunities].



## 2 PRESENTATION OF THE GREEN DEAL WORKSHOP'S APPROACH

During this three-month period, the user perspective has been represented by many private and public actors, including operators from the Ministry of Ecology with the aim of addressing issues in terms of public policy and thus complement the field vision of users and suppliers of data and cloud solutions. To do so, the working group has brought together the participants in a collective intelligence process to identify synergies and relevant use cases to make data a gas pedal of the ecological transition, in a secure and trusted environment. These collaborative sessions' goal was to identify, analyse, and evaluate use cases regarding the use of data and cloud solutions, for the purpose of consolidating requirements towards Gaia-X (in terms of data storage, data sharing, AI solutions etc.). Furthermore, the group's work transversality implies the coordination with other related working groups - such as Industry, Mobility, Health and Agriculture - in order to identify potential synergies and collaborations.

In the coming months, the working group's work will focus on a solution-oriented reflection phase. This reflection will allow the refinement of the use cases with the concerned and involved actors, to reflect collaboratively on the implementation of solutions to address the selected use cases and thus contribute to the definition and construction of the Gaia-X infrastructure. During this second phase, the reflections will be carried out with the participants of the Green Deal working group - and related French working groups - but also at the European level, with the data spaces addressing the European green deal issues (e.g.: circular economy working group in Germany and Slovenia).



### 3 IDENTIFIED USE CASES

#### PRIORITISATION TIMELINE

The Use cases have been prioritized according to:

- The availability of the data needed,
- The impact of the use case,
- The identification of partnerships and future stakeholders

#### Short-term Use Cases - 2021-2023:

- (2) Providing organisation with data cloud-based services giving them the opportunity to monitor their overuse of energy and impact
- (3) Create a label for Cloud providers
- (4) Develop a referential and common labels on environmental impact of digital. Anticipate all granularity levels from computers to servers including cooling systems
- (6) Improve products recycling measurements: take into account the origin of recycled product, know the real capacity to recycle and level of loss in the process and the environment cost of recycling process
- (9) Developing data & AI cloud-based services to encourage organisations to monitor their employees' compute travels
- (10) Developing a digital platform which plans a journey based on the carbon emitted and using all available opportunities (charging stations, self-service bicycles and cars, peripheral car parks, tramway and public transport)
- (11) Improving the data basis for green policy decisions, through the optimisation of the information base for green deal policy (improve the empirical data basis) and the use of AI




#### Long-term Uses Cases - 2023-2025:

- (1) Reduction of the environmental impact of digital products at the design stage (by design)
- (5) Use IoT together with decarbonation of energy sources, electrification, energy efficiency as well as re-use energy produced (heat, mechanical energy ...) to improve energy impact and greenhouse gas emission of commercial and industrial companies
- (7) Developing a 'Yuka-like' carbon score, measuring the life cycle of a product and its impact on biodiversity
- (8) Creating an open database focused on communication about green hydrogen metrics






## LIST OF IDENTIFIED USE CASES

## 1. Digital Sobriety – Reduction of the environmental impact of digital products at the design stage (by design)

| USE CASE NAME: Digital Sobriety – Reduction of the environmental impact of digital products at the design stage (by design)  |   |   |   |
|--|---|---|---|
| USE CASE   | ADDRESSED PAIN POINTS:  | SOLUTION:   | MAIN DATA EMBEDDED IN THE UC:   |
|  | <p>Today, the growth of our digital systems is unsustainable - +9% of energy consumed per year - and is built around business models that make the increase in the volume of content consumed and terminals and infrastructures deployed profitable.</p> <p>On the other hand, our digital uses are built today around automatisms, attention-grabbing designs and economic models that make the continuous consumption of ubiquitous content profitable. Technologies are not simple tools but an additional and structuring dimension of our daily lives, in our professional, academic, family, individual and even intimate spheres and in public spaces.</p> | <p>Deploying digital sobriety means steering our technological choices and the deployment of associated infrastructures and uses in order to preserve the essential contributions of digital technology. This means moving from instinctive or even compulsive digital use to controlled digital use. A whole field of public actions needs to be developed and implemented, from initial digital education to the conceptualization and design of frugal innovations.</p> <p>The combination of the two following approaches are needed to identify a comprehensive set of mitigation actions. A "use-based" approach: focused on uses and close to the business actors, with the objective of reducing the footprint of identified uses (e.g., "sending email", "sharing documents" or the actual use of a business application as a whole). An "infrastructure-based" approach whose objective is to reduce the footprint of IT systems identified as resource and data intensive (and potentially carrying several uses).</p> | <p> At a macro level</p> <p> Indicators of the environmental impact of the digital component(s) of a product (at every stage)</p> <p> On specific processes (will require to increase the measurement equipment's - IoT)</p> |
| CONNECTIONS WITH OTHER DATA SPACES OR OTHER USE CASES AND PARTNERSHIPS:  |   | EXPECTED BENEFITS:  |   |
| <ul style="list-style-type: none"> <li>• Institut du Numérique Responsable - INR, DG Connect, DINUM.</li> <li>• Collaborating with the data space business committee and working closely with potential solutions providers of GAIA-X would definitely be a significant enabler.</li> <li>• Collaborating with every data space which is sharing this problematic</li> </ul> |   | <p>The following non-exhaustive benefits can be expected:</p> <ul style="list-style-type: none"> <li>- Reduce GHG emissions and resource usage</li> <li>- Improve operational efficiency, reduce IS costs by being more sober, more concerned about minimizing low value-added digital resources</li> <li>- Be ready the day legislation is binding on these subjects - which is imminent in France and in Europe</li> <li>- Be ready when rare metals run out and IT equipment is impacted</li> <li>- Be attractive to recruit and motivate employees by allowing them to put their professional action at the service of a strong social concern</li> <li>- To propose to customers, shareholders and employees a vision and an approach in line with their social concerns</li> </ul>  |   |





## 2. Digital Sobriety – Create a label for Cloud providers

| USE CASE NAME: Create a label for Cloud providers   |   |   |   |
|---|---|---|---|
| USE CASE  | ADDRESSED PAIN POINTS:  | SOLUTION:   | MAIN DATA EMBEDDED IN THE UC:   |
|   | <p>As part of a Green IT approach, users must take the Cloud providers' word for it when they ask them for their carbon impact report, in particular the real energy consumption of the data centers.</p> | <p>Developing a European label based on the transparency of a Cloud provider's life cycle analysis of their servers will help to develop an environment of trust and consolidate the statistics.</p>  | <p>The data that will be used will enable users to cross-check the information given by supplier:</p> <ul style="list-style-type: none"> <li> Location and PUE of the data centers</li> <li> Carbon footprint of the electrical energy</li> <li> Depreciation of the servers...</li> </ul> |
| CONNECTIONS WITH OTHER DATA SPACES OR OTHER USE CASES AND PARTNERSHIPS:   |   | EXPECTED BENEFITS:  |   |
| <ul style="list-style-type: none"> <li>• Working group Industry 4.0</li> </ul> <p>Working closely with potential solutions providers of GAIA-X would definitely be a significant enabler.</p> |   | <p>Users can expect an important improvement in their monitoring, and have a clearer vision on their impact, in order to drive their green roadmaps in the most result-oriented and valuable way.</p> |   |






### 3. Digital Responsibility – Develop a referential and common labels on environmental impact of digital. Anticipate all granularity levels from computers to servers including cooling systems

USE CASE

| USE CASE NAME: Digital responsibility – Develop a referential and common labels on environmental impact of digital. Anticipate all granularity levels from computers to servers including cooling systems  |  |  |
|--|--|--|
| <b>ADDRESSED PAIN POINTS:</b><br><br>All organizations (companies, associations, institutions, etc.) use digital tools in their activities. Their development, optimization or transformation strategies are massively based on digital projects without any measurement or forecasting of their environmental footprint.<br><br>Indeed, there is a lack of shared data on the environment impact of digital including computers, servers, networks, data centers (including cooling systems), mobile devices, ... There is also a lack of shared data on the impact of algorithms in digital tools and energy-intensive programming ways. | <b>SOLUTION:</b><br><br>Accelerate the adoption of best practices in terms of digital sobriety, to industrialize existing approaches, converge towards a common reference framework and become a referential of digital impact on the environment in terms of infrastructure as well as usage - by:<br>- Creating a repository of best practices that will lead to a consensus<br>- Having a common basis to assess the maturity and the digital responsible performance of the organizations in a standard way - in particular in order to identify the most important areas of progress<br><br>To do so, the solution will be based on the existing data (published or not) and independent measurements on the equipment and measure the energy consumptions of | <b>MAIN DATA EMBEDDED IN THE UC:</b><br><br> Data published by equipment manufacturer / existing standards and labels<br><br> Data on equipment usage<br><br> ?<br><br> ?                  |
| <b>CONNECTIONS WITH OTHER DATA SPACES OR OTHER USE CASES AND PARTNERSHIPS:</b><br><br><ul style="list-style-type: none"><li>• Institut du Numérique Responsable - INR which is developing a responsible digital service design repository in collaboration with DINUM.</li><li>• Collaborating with the data space business committee and working closely with potential solutions providers of GAIA-X would definitely be a significant enabler.</li><li>• Collaborating with every data space which is sharing this problematic (Energy, Smart Manufacturing)</li></ul>  |  | <b>EXPECTED BENEFITS:</b><br><br><ul style="list-style-type: none"><li>- Have a proofed measure of the digital environmental impact and integrate it in the greenhouse effects of the industries, cities,...</li><li>- Be able to monitor this impact and take all the possible measure to improve it.</li><li>- Be ready the day legislation is binding on these subjects - which is imminent in France and in Europe</li><li>- Consolidate feedback from users in a unique repository and thus avoid reinventing the wheel</li></ul> |

### 4. Industry decarbonation – Use IoT together with decarbonation of energy sources, electrification, energy efficiency as well as re-use energy produced (heat, mechanical energy, ..) to improve energy impact and greenhouse gas emission of commercial and industrial companies




USE CASE

|   |   |   |
|---|---|---|
| USE CASE NAME: Industry decarbonation – Use IoT together with decarbonation of energy sources, electrification, energy efficiency as well as re-use energy produced (heat, mechanical energy, ..) to improve energy impact and greenhouse gas emission of commercial and industrial companies |   |   |
| ADDRESSED PAIN POINTS:<br><br>There is a lack of measurements for all types of industries (usage of energy, impact of production, etc.) on their level of CO2 or more generally greenhouse gas involved.  | SOLUTION:<br><br>We will start with the industries known to produce the most greenhouse gas, gather existing data and initiate additional data collection. With these, <ul style="list-style-type: none"><li>• Within each industry each actor will be able to compare itself with the others,</li><li>• Improve their emissions (greenhouse gas footprint),</li><li>• Monitor their emissions with time, with processes evolution, ...</li></ul> | MAIN DATA EMBEDDED IN THE UC:<br><br>  For energy sources and certain processes<br><br> On specific processes (will require to increase the measurement equipment's - IoT) |
| CONNECTIONS WITH OTHER DATA SPACES OR OTHER USE CASES AND PARTNERSHIPS:<br><br><ul style="list-style-type: none"><li>• Energy</li><li>• Smart Manufacturing</li></ul>   |   | EXPECTED BENEFITS:<br><br>With the analysis of the gathered data within each industry each actor will be able to: <ul style="list-style-type: none"><li>• compare itself with the others,</li><li>• improve their emissions (greenhouse gas footprint),</li><li>• monitor their emissions with time, with processes evolution, ...</li></ul>  |








## 5. Digital Sobriety – Providing organisation with data cloud-based services giving them the opportunity to monitor their overuse of energy and impact

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|---|---|---|---|
| USE CASE  | <b>USE CASE NAME: Digital Sobriety – Providing organisation with data cloud-based services giving them the opportunity to monitor their overuse of energy and impact</b>  |   |   |
|   | <b>ADDRESSED PAIN POINTS:</b><br><br>To date, very few organizations have taken into account a holistic view of the information system, integrating outsourced services, the impact of digital infrastructure hardware manufacturing, and the electrical performance of manufacturing and operating sites. Without this global viewpoint, the choice of solutions and the arbitration of uses are made with blind spots that can hide very significant impacts that can redirect decisions. | <b>SOLUTION:</b><br><br>Measuring the environmental impact of digital solutions is the way to drive quantitative reduction. Tools must be developed to monitor, measure progress and effectively reduce the environmental impact of digital solutions throughout the life cycle of hardware components.<br><br>Once the measurement of greenhouse gas emissions has been established for the technical components, it must then be broken down into the major functions of the organization in order to identify the professions with the greatest impact, which will make it possible to | <b>MAIN DATA EMBEDDED IN THE UC:</b><br><br> At a macro level<br><br> - Based on consumption measurements, it is possible to establish a PUE (Power Usage Effectiveness) diagnosis<br>- A greenhouse gas emissions assessment<br><br> - Attributional Life Cycle Assessment (LCA-A)<br>On specific processes |
| <b>CONNECTIONS WITH OTHER DATA SPACES OR OTHER USE CASES AND PARTNERSHIPS:</b><br><br><ul style="list-style-type: none"> <li>• Institut du Numérique Responsable - INR, DG Connect, ADEME, DINUM.</li> <li>• Collaborating with the data space business committee and working closely with potential solutions providers of GAIA-X would definitely be a significant enabler.</li> <li>• Collaborating with every data space which is sharing this problematic</li> </ul> |   | <b>EXPECTED BENEFITS:</b><br><br><ul style="list-style-type: none"> <li>- Reduce GHG emissions and resource usage</li> <li>- Be ready the day legislation is binding on these subjects - which is imminent in France and in Europe</li> <li>- Be attractive to recruit and motivate employees by allowing them to put their professional action at the service of a strong social concern</li> <li>- To propose to customers, shareholders and employees a vision and an approach in line with their social concerns</li> </ul>   |   |

## 6. Circular Economy – Improve products recycling measurements: take into account the origine of recycled product, know the real capacity to recycle and level of loss in the process and the environment cost of recycling process

|   |  |  |  |
|---|--|--|--|
| USE CASE  | <b>USE CASE NAME: Industry decarbonation – Use IoT together with decarbonation of energy sources, electrification, energy efficiency as well as re-use energy produced (heat, mechanical energy, ..) to improve energy impact and greenhouse gas emission of commercial and industrial companies</b> |  |  |
|   | <b>ADDRESSED PAIN POINTS:</b><br><br>There is a lack of measurements for all types of industries (usage of energy, impact of production, ...) on their level of CO2 or more generally greenhouse gas involved.   | <b>SOLUTION:</b><br><br>We will start with the industries known to produce the most greenhouse gas, gather existing data and initiate additional data collection. With these, <ul style="list-style-type: none"> <li>• Within each industry each actor will be able to compare itself with the others,</li> <li>• Improve their emissions (greenhouse gas footprint),</li> <li>• Monitor their emissions with time, with processes evolution, ...</li> </ul> | <b>MAIN DATA EMBEDDED IN THE UC:</b><br><br>  For energy sources and certain processes<br><br> On specific processes (will require to increase the measurement equipment's - IoT) |
| <b>CONNECTIONS WITH OTHER DATA SPACES OR OTHER USE CASES AND PARTNERSHIPS:</b><br><br><ul style="list-style-type: none"> <li>• Energy</li> <li>• Smart Manufacturing</li> </ul> |  | <b>EXPECTED BENEFITS:</b><br><br>With the analysis of the gathered data within each industry each actor will be able to: <ul style="list-style-type: none"> <li>• compare itself with the others,</li> <li>• improve their emissions (greenhouse gas footprint),</li> <li>• monitor their emissions with time, with processes evolution, ...</li> </ul>  |  |



## 7. Energy – Creating an open database focused on communication about green hydrogen metrics



|          |  |  |  |
|----------|--|--|--|
| USE CASE | <b>USE CASE NAME: Creating an open database focused on communication about green hydrogen metrics</b>  |  |  |
|          | <b>ADDRESSED PAIN POINTS:</b><br><br>There is lack of consumer, business and community trust in hydrogen energy. It is difficult to understand the difference between all different types of hydrogen. Indeed, if hydrogen remains a by-product of fossil fuels, driving on hydrogen or using it to produce heat reduces local pollution, but does not reduce CO2 emissions. The first challenge of the hydrogen revolution is to switch to non-carbon production and secure usages. | <b>SOLUTION:</b><br><br>The solution could include a platform that gathers key information on green hydrogen in order to communicate. This could take the form of a European access point for environmental and sustainable development information in the Energy field. | <b>MAIN DATA EMBEDDED IN THE UC:</b><br><br>Users will be granted access to: <ul style="list-style-type: none"> <li>✓ Aggregated reports and data visualisation from a plurality of institutions, companies and communities.</li> </ul> <small>N.B. To lean on existing reports produced by organisations such as the European Distribution System Operators could be a game changer. E.DSO is the key-interface between the leading electricity distribution system operators and the European institutions and stakeholders.</small> |
|          | <b>CONNECTIONS WITH OTHER DATA SPACES OR OTHER USE CASES AND PARTNERSHIPS:</b><br><br><ul style="list-style-type: none"> <li>Working group Energy</li> </ul>   | <b>EXPECTED BENEFITS:</b><br><br>Communication and acculturation are highly important factors to enable a greater impact and accelerate a sensible and less painful ecological transition.   |  |

## 8. Mobility – Developing data & AI cloud-based services to encourage organisations to monitor their employees' compute travels.



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| USE CASE | <b>USE CASE NAME: Developing data &amp; AI cloud-based services to encourage organisations to monitor their employees' compute travels.</b>   |   |  |
|          | <b>ADDRESSED PAIN POINTS:</b><br><br>Transport accounts for a large part of France's carbon emissions. Among them, professional transport (daily home-office travel and one-off trips) accounts for a large share of emissions (in France, 7 out of 10 employees go to work by car). Companies have a role to play in reducing emissions related to the transport of their employees. This is even becoming a constraint, with the 2019 Mobility Guidance Law which requires companies to address the issue of home-office journeys in their annual m | <b>SOLUTION:</b><br><br>Develop a data-based B2B service enabling companies to monitor the carbon emissions of their employees in their work journeys in order to limit them and generate economic incentives to promote good practices | <b>MAIN DATA EMBEDDED IN THE UC:</b><br><br><ul style="list-style-type: none"> <li>✓ Data on all the available journey opportunities of the employees (public transport, car, bike, etc.)</li> <li>✗ Data on the carbon emission of every of these journeys</li> </ul> |
|          | <b>CONNECTIONS WITH OTHER DATA SPACES OR OTHER USE CASES AND PARTNERSHIPS:</b><br><br><ul style="list-style-type: none"> <li>Working group Mobility</li> </ul>  | <b>EXPECTED BENEFITS:</b><br><br><ul style="list-style-type: none"> <li>Reducing carbon emissions generated</li> <li>Improving the employer brand</li> </ul>  |  |



## 9. Mobility – Developing a digital platform which plans a journey based on the carbon emitted and using all available opportunities (charging stations, self-service bicycles and cars, peripheral car parks, tramway and public transport)...

|          |   |  |  |
|----------|---|--|--|
| USE CASE | USE CASE NAME: Developing a digital platform which plans a journey based on the carbon emitted and using all available opportunities (charging stations, self-service bicycles and cars, peripheral car parks, tramway and public transport)...   |  |  |
|          | <p>ADDRESSED PAIN POINTS:</p> <p>A huge part of the global carbon emissions are due to transportation (38% in France in 2017), with a huge difference between each way of transportation (car, bus, bike etc.)</p> <p>Current solutions compare possible options according to the duration of the journey, without taking into account the carbon emission of the trip.</p> | <p>SOLUTION:</p> <p>Developing a digital platform which compares every possible journey based on the carbon emission of the trip and considering every type of transportation : bus, car, bike, walking.</p> <p>For each possibility, we'll know the exact amount of carbon emitted.</p> | <p>MAIN DATA EMBEDDED IN THE UC:</p> <ul style="list-style-type: none"> <li> Data on all the available journey opportunities (public transport, car, bike, etc.)</li> <li> Data on the carbon emission of every of these journeys</li> </ul> |
|          | <p>CONNECTIONS WITH OTHER DATA SPACES OR OTHER USE CASES AND PARTNERSHIPS:</p> <ul style="list-style-type: none"> <li>Working group Mobility</li> </ul> <p>Working closely with the actors developing similar use cases (RATP, Citymapper etc.) is essential.</p>   | <p>EXPECTED BENEFITS:</p> <p>Users can expect</p> <p>Reduce carbon emissions</p> <p>Involve enterprises</p>  |  |

## 10. Multi-sector – Improving the data basis for green policy decisions, through the optimisation of the information base for green deal policy (improve the empirical data basis) and the use of AI

|          |   |   |  |
|----------|---|---|--|
| USE CASE | USE CASE NAME: Multi-sector - Improving the data basis for green policy decisions, through the optimisation of the information base for green deal policy (improve the empirical data basis) and the use of AI  |   |  |
|          | <p>ADDRESSED PAIN POINTS:</p> <p>The European Climate Law enshrines the EU's commitment to reaching climate neutrality by 2050 and the target of reducing net greenhouse gas emissions by at least 55% by 2030. By June 2021, the EU will present legislative proposals to implement the new target, including revising the scope of the EU ETS. It includes a commitment to engage with sectors to prepare sector-specific roadmaps. The manufacturing industry (energy, raw materials, transportation...) requires more data to monitor its greenhouse emissions. Plus, the EU will face adoption and application issues.</p> | <p>SOLUTION:</p> <p>A digital platform built to facilitate green regulatory compliance assessment. It facilitates exchanges between operators, manufacturers certification agencies and European governments. The platform allows the pooling and tracking of all information provided by stakeholders on their carbon emissions, justifications provided, data, workflow, etc. In the long term, the platform will provide guidance and will allow everyone to write all the documentation required by the regulation with confidence and to progressively automate its edition.</p> | <p>MAIN DATA EMBEDDED IN THE UC:</p> <ul style="list-style-type: none"> <li>  Data provided by the stakeholders : carbon emissions, justifications provided etc</li> </ul> |
|          | <p>CONNECTIONS WITH OTHER DATA SPACES OR OTHER USE CASES AND PARTNERSHIPS:</p> <ul style="list-style-type: none"> <li>Working group Industry 4.0</li> <li>Working group Automotive industry</li> </ul>  | <p>EXPECTED BENEFITS:</p> <p>Facilitating the work of European regulators or the authorized agency (which will eventually lead to a reduction of the time required to obtain certificates of conformity for example).</p> <p>Helping organisations, companies and <u>collectivities</u> to reach compliance with future green regulation and sector-specific roadmap. Manufacturers will be on the front line.</p>  |  |



## 11. Multi-sector – Developing a ‘Yuka-like’ carbon score, measuring the life cycle of a product and its impact on biodiversity

|          |   |   |   |
|----------|---|---|---|
| USE CASE | USE CASE NAME: Developing a ‘Yuka-like’ carbon score, measuring the life cycle of a product and its impact on biodiversity  |   |   |
|          | <p><b>ADDRESSED PAIN POINTS:</b></p> <p>There is a lack of common standards for measuring a company's impact on biodiversity. "Impact" policies most of the time includes the carbon footprint dimension without considering the whole environmental picture?</p>   | <p><b>SOLUTION:</b></p> <p>The carbon score for services and products will be co-developed by users. Companies will then have access to a secured platform where they will be able to compute the life cycle of their products, displaying their impact on biodiversity. They will also be able to compare themselves to the rest of the industry, thanks to a common standard.</p> | <p><b>MAIN DATA EMBEDDED IN THE UC:</b></p> <p>Data solicited during :</p> <ul style="list-style-type: none"> <li>• Life cycle analysis</li> <li>• Encompassing extraction and processing of the raw materials</li> <li>• Manufacturing, distribution, use, recycling and final disposal</li> </ul> |
|          | <p><b>CONNECTIONS WITH OTHER DATA SPACES OR OTHER USE CASES AND PARTNERSHIPS:</b></p> <ul style="list-style-type: none"> <li>• Working group Energy</li> <li>• Existing initiatives mentioned during workshops include WWF, working on data acquisition chains; Schneider, who was the first to calculate the biodiversity footprint; Ecoact (Atos), that offers a CSR service to analyse the life cycle of a project.</li> </ul> | <p><b>EXPECTED BENEFITS:</b></p> <p>Users can expect an important improvement in their monitoring, and have a clearer vision on their impact, in order to drive their green roadmaps in the most result-oriented and valuable way.</p>  |   |



**Other Use Cases to be developed:**

- 12. Facilitating the consolidation and supervision of data related to urban services (street lighting, air quality, safety)**
- 13. Anticipating grid reliability by monitoring trends in mix change (renewable/non-renewable)**
- 14. Designing European frameworks for the interchange of multimodal data in order to facilitate their inter-operability**
- 15. Defining a governance for the data generated by connected cars**
- 16. Using climate predictions to assess energy production**



#### **4 CHALLENGES TO BE ADRESSED AND IDENTIFIED REQUIRED ENABLERS**

To guarantee the development of the use cases, we expect from Gaia-X to ensure its strategy enabling access to aggregated, federated, and interoperable trusted cloud services, data spaces and AI services through the setting of common policy rules that will ensure data and services protection, interoperability, and portability.

A challenge that the Green Deal data space will have to face is to ensure the most valuable collaboration with other data spaces. Connectivity, data flows and governance will have to be secured and integrated in the strategy of the sovereign hub, as most of the use cases related to Green Deal are inevitably and strongly linked with the different sectors. We expect the Gaia-X consortium to take the highly transversal aspect of the Green Deal data space into consideration.



## 5 GREEN DEAL DATA SPACE'S POSITION REGARDING OTHER GAIA-X DATA SPACES

The eminently cross-cutting nature of the issues it covers makes the working group very specific. The connections between dataspaces will have to be considered in the development of use cases in parallel with the platform. As an illustration, we can mention a project about the wave exposure consequences, on which the French Culture & Creative Industry working group is developing, that fits in the Green Deal dimension "Health and Environment". Likewise, the French Finance working group has dedicated a team to sustainable issues. The French Agriculture working group has been working with the Gaia-X on data accessibility.

Thus, sessions at national hub level have been organised, and it has been established that a clear comitology will be put in place, to be able to formalise rules, share transversal insights, some use cases' maturity and arbitration on the owner of a given project. Indeed, the philosophy of the Green Deal working group is not to be too collegial in the organisation of the work, but to adapt in a pragmatic way to move forward in an efficient way the projects that have the most value for Europeans. In this way, arbitration on the Green Deal leadership regarding new project will be done on case-by-case basis, after considering all the factors (available experts, financial resources, maturity of teams' competencies, ecosystem...) and after consulting other working groups of the French Gaia-X hub.

Finally, the Green Deal working group expects a great collaboration with the Gaia-X Policy Rules team, regarding the regulatory, governance and harmonisation issues, up to the technical completion of projects.



## 6 IDENTIFIED NEXT STEPS

We have outlined below the identified next steps in the short and medium-term:

- Defining and refining main use cases for products and services around data, which will be validated by the executives and business of the members of this endeavour
- Enlarging the working group to partners which are willing to contribute to the development of use cases.
- Assigning a project leader for each use case identified
- Securing access to funds and governance with other dataspace

