



# Impacts of Directive 2014/95/EU on Environmental Impact Reporting by European Space Transportation Industry

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# Speakers & agenda of the session



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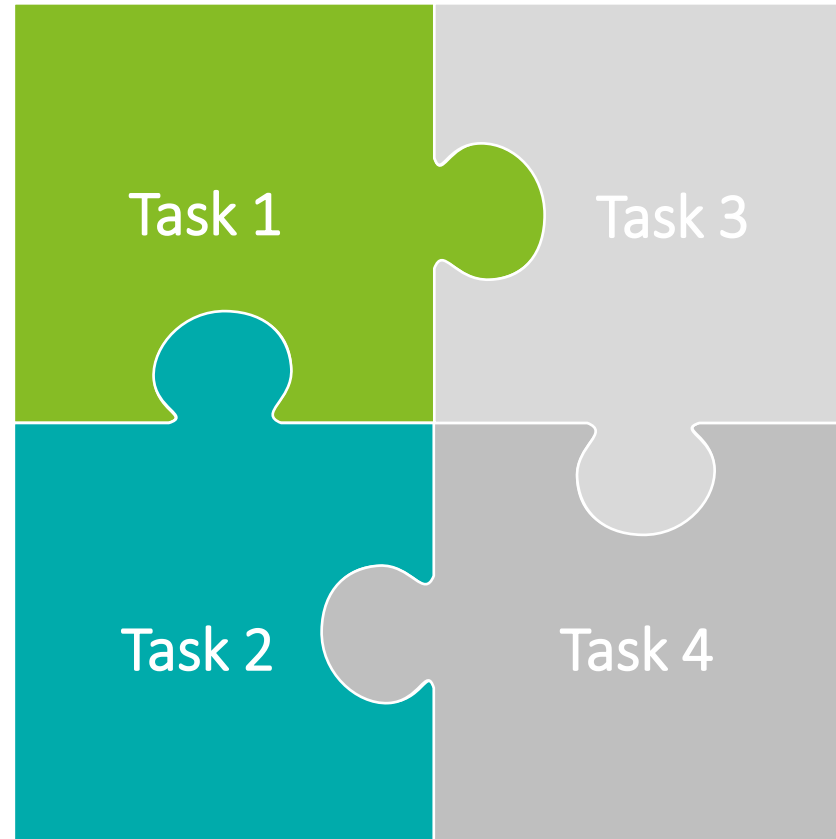
# Context of the mission

## Four main objectives of the mission

In the current context of increased climate change awareness, environmental legislation is evolving fast. That is the reason why ESA wishes to support the aerospace industry in its efforts to improve the disclosure of environmental data.

**Review of Directive 2014/95/EU**, its transposition in national legislation, and international guidelines and frameworks

**Provide suggestions** towards the European space transportation industry and the Agency for a more **efficient and transparent environmental-related reporting**



*European launchers LCA update and project finalisation*

*Statistical analysis of the environmental reporting of the European space transportation industry*

# Disclaimer

*Three key concepts to have in mind*

## Key concept #1: difference between LCA, PEF, OEF and annual reporting

Project perimeter covers two **different but complementary topics**: LCA and annual reporting. Before introducing key takeaways of the projects, it is therefore useful to define those terms and highlight their differences.

- **Life-Cycle Assessment (LCA)** is a **decision-making tool** used to **design and test technical choices**, to **identify hotspots** and to **communicate product-related performance** externally. LCAs are typically carried punctually.
  - **Product environmental footprint (PEF)** is a product-level LCA.
  - **Organizational environmental Footprint (OEF)** is an organization-level LCA. Still maturing, this tool can provide decision support (benchmarking, sourcing...)
- **Annual reporting** within the framework of Directive 2014/95/EU is a **transparency approach towards stakeholders**. It is based on yearly performance monitoring and communication. Importantly, **it goes beyond impact quantification** as it also describes company policies and risks.

From a **technical point of view**, LCAs, OEF and annual reporting have the following **complementarities**:

Topic	LCA - PEF	OEF	Annual reporting
Frequency	Punctual	Punctual	Yearly
Scope	Product-level	Organisation-level	Organisation-level
Perimeter	Upstream and direct impacts, sometimes downstream impacts	Upstream and direct impacts, sometimes downstream impacts	Mostly direct impacts (except for Scope 3 GHG emissions)

## Key concept #2: "stakeholders"

The notion of stakeholder as understood by the European Directive is very **broad** and include people and entities inside and outside the company.

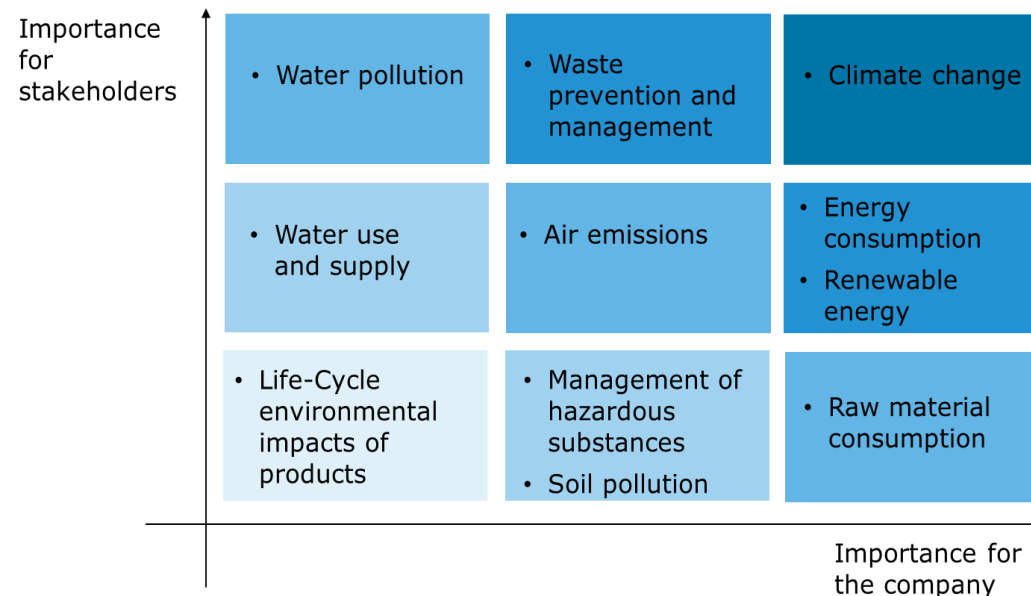


## Key concept #3: "materiality"

In the Directive 2014/95/EU and in the following presentation, the concept of materiality means what is important to stakeholders. This importance can be understood from two points of view:

- **From the point of view of the company (or internal stakeholders):** *What are the impacts of environmental topics on my operations?*
  - For example, will new regulations prevent me from carrying my operation? Will resource depletion disrupt my supply chain?
- **From the point of view of the external stakeholders:** *What are the impacts of the company's activities on the environment?*
  - For example, will company operation cause river pollution affecting local communities? Does the company significantly contribute to climate change to an extent that reduces stakeholder confidence?

This concept is key to the selection of environmental impacts to report and is usually illustrated with a **materiality matrix** as in the example below:





# Key takeaways

## *Task 1 – Review of Directive 2014/95/EU*

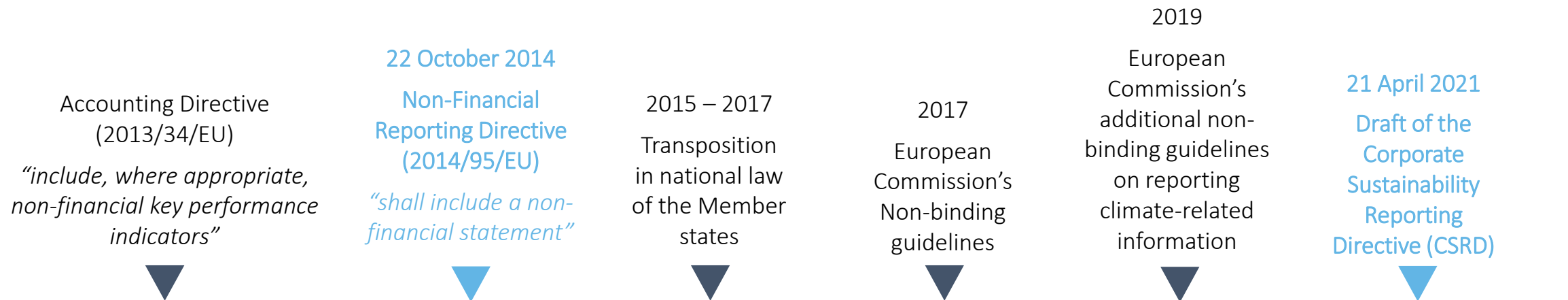
## Review of Directive 2014/95/EU

Background: the Non-financial reporting Directive which frames environmental reporting comes within a context of continuous improvement at the European Union scale.

Since the 2000s, environmental, social and financial crisis have driven stakeholders to demand **more transparency** from companies.

Environmental information was already published on a **voluntary basis** in sustainability reports, or **required by law** in a few countries (France, the UK, Denmark and Sweden).

**Too few companies** did disclose information. Moreover, this information was sometimes not satisfactory (not **relevant, balanced and accurate** enough).



With the Green Deal, the EU has launched a review process of the Directive 2014/95/EU which led to the CSRD proposal. It is part of the **"Sustainable Finance Package"** aiming to harmonize and strengthen ESG reporting across Europe.

# Review of Directive 2014/95/EU

## Overview of the legislation

The European Directive 2014/95/EU requires that “**Large undertakings** which are **public-interest entities** exceeding on their balance sheet dates the criterion of the **average number of 500 employees** during the financial year shall include in the management report a **non-financial statement.**”

**Large undertakings** exceed at least two of the three following criteria:

- (a) balance sheet total: EUR 20 000 000;
- (b) net turnover: EUR 40 000 000;
- (c) average number of employees during the financial year: 250.

**Public interest entities** are:

- Companies **listed** on a Member State’s regulated market
- Credit institutions and insurance undertakings
- Entities designated by Member States as public-interest entities

**5 parts :**

- Business model
- Policies
- Outcome of those policies
- Risks
- KPIs

Provide **context** for environmental, social and governance achievements and show balanced information (both **positive and negative impacts**)

**4 topics :**

- Environmental
- Social and employee matters
- Respect for human rights
- Anti-corruption and bribery matters.

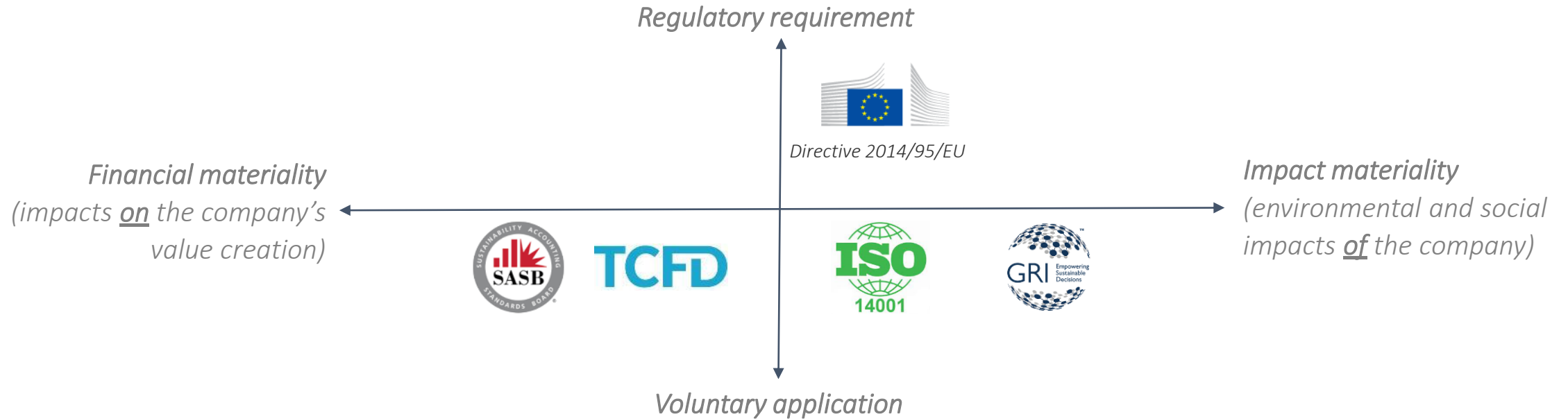
Select what is **material** for the company, e.g. **the topics at are the most important for the company and its stakeholders** (shareholders but also employees and the civil society).

- Full operational scope
- Direct impacts
- Annual values

Transposition in EU Member States (different thresholds, compulsory external assurance, list of environmental topics)

# Review of Directive 2014/95/EU

## Analysis of four reference standards in the field of environmental information disclosure



**Sustainability Accounting Standards Board:** industry-specific standards oriented to investor needs.

**Task Force on climate-related Financial Disclosure:** industry-led reporting initiative to allow investors and insurers to integrate climate issues in decision-making.

**ISO 14001:** wide-spread operational management standard related to Environmental Management Systems (EMS)

**Global Reporting Initiative:** body of standards covering a large number of Environmental, social and Governance aspects

## Review of Directive 2014/95/EU

A proposal for a new Directive has been adopted in 2021, it is now called the “Corporate Sustainability Reporting Directive” (CSRD). In order to be applicable, it will first have to be transposed by each of the member states.

### Scope:

- All large undertakings (i.e. companies fulfilling 2 of the 3 criteria: >250 employees, €20M balance sheet and >€40M turnover)
- Small and medium companies listed on European regulated markets with >10 employees, with adapted standards

### Structure:

#### From 5 to 9 sections:

1. Business model and strategy
2. Sustainability goals and progress
3. Role of governance bodies related to sustainability
4. Sustainability policies
5. Due diligence, value chain impacts and remediation actions
6. Sustainability risks and their management
7. KPIs
8. Intangibles (intellectual, human, social and relational capitals)
9. Process to identify the information

### Topics:

Restructuring around the 3 "ESG" pillars with a compulsory list of topics:

- **Environment** (aligned with the 6 EU Taxonomy objectives: *climate change mitigation; climate change adaptation; sustainable use and protection of water and marine resources; transition to a circular economy, water prevention and recycling; pollution prevention and control; and protection of healthy ecosystems.*)
- **Social**
- **Governance**



Precise content to be defined by the EFRAG standards in 2022

### External assurance:

- From voluntary to mandatory limited assurance

### Publication:

- Publication in the management report
- Digitization and « Tagging » of the sustainability information

## 2. Key takeaways

*Task 2 – Impacts of Directive 2014/95/EU on environmental impact reporting by European space transportation industry*

# Suggestions towards European Space transportation industry and ESA

## Methodology

### Objectives:

- Interview of a representative sample of 9 companies of the European space transportation industry
- Focus on maturity, needs and challenges in relation with environmental reporting



- Provide **suggestions to European space transportation industry** as to the environmental reporting to be performed
- Provide **suggestions to ESA** as to how it can best support the European space transportation industry in the disclosure of environmental information

### Selected companies:

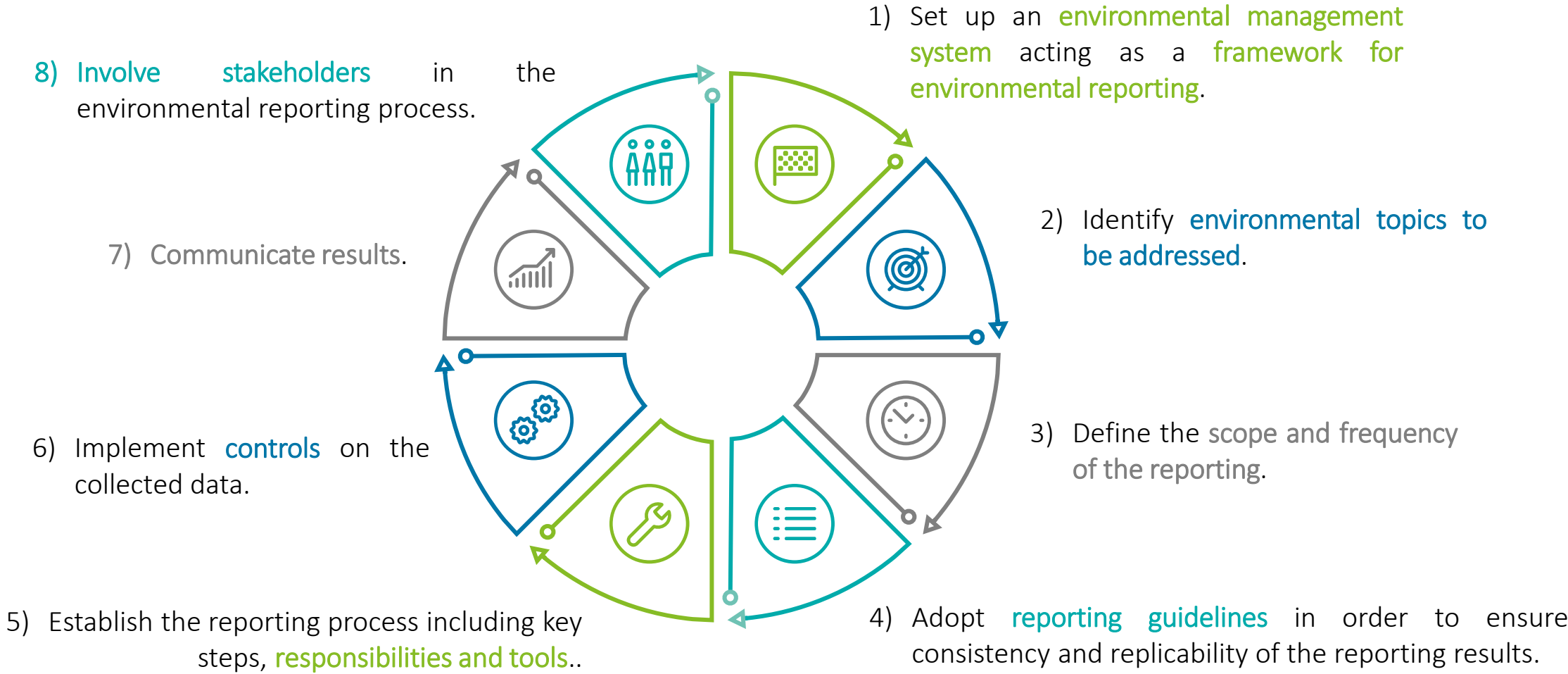
Company	Country	Launcher	Type of product	Other information
ArianeGroup	France	Ariane	Component	Joint venture of Safran and Airbus
Avio	Italy	Vega and Ariane	Component	
SABCA	Belgium	Vega and Ariane	Component	Subsidiary of Groupe Dassault
Regulus	French Guyana	Vega and Ariane	Propellant	Subsidiary of Avio
Airbus	Netherlands	Vega and Ariane	Component	
Air Liquide	France	Vega and Ariane	Propellant	
CRISA	Spain	Ariane	Component	Subsidiary of Airbus
Pyroalliance	Spain	Vega	Component	Subsidiary of Airbus Defense and Space
Thales Alenia Space	France	Ariane	Component	Subsidiary of Thales

### Key findings:

- Sector-specific
- Suited to both the primes and less mature companies
- Complement existing practices
- Build on existing LCA expertise

# Suggestions towards European Space transportation industry and ESA

Based on the analysis of the interviews, it was possible to identify a set of various organizational and technical recommendations split into 8 pillars, following the principles of continuous improvement set out in the ISO 14001 standard.






# Suggestions towards European Space transportation industry and ESA

## Action #1: Draft of a reporting guideline - Preselection of the main environmental issues and associated KPIs

Comparison between topics brought forward by:

- **Directive 2014/95/EU guidelines** and **national transpositions**.
- Cross-sectoral guidelines (**GRI**)
- Aerospace sectoral guidelines (**SASB, IAEG**)
- European space transportation industry specific feedback from **LCA and interviews**.



Shall have (will always be included)	Should have (will be included for most companies)	May have (will be included for relevant companies only)
<ol style="list-style-type: none"> <li>1. Energy consumption</li> <li>2. Raw material consumption</li> <li>3. Climate change</li> <li>4. Waste prevention and management</li> <li>5. Management of hazardous substances</li> <li>6. Renewable energy</li> <li>7. Water use and supply</li> </ol>	<ol style="list-style-type: none"> <li>1. Life-Cycle environmental impacts of products and services</li> <li>2. Air emissions</li> <li>3. Water pollution</li> <li>4. Soil pollution</li> </ol>	<ol style="list-style-type: none"> <li>1. General environmental policy</li> <li>2. Land use</li> <li>3. Biodiversity</li> <li>4. Noise or light pollution</li> <li>5. Actions to reduce food waste</li> <li>6. Development of green products and services</li> </ol>

**This topic pre-selection should only be used as a guidance.** Companies should assess the importance of topics depending on their activities. For example, launchers would also consider **stratospheric ozone depletion**.

Based on the company selection, topics can be prioritized thanks to internal and external (stakeholder) assessments with a **materiality matrix**. This is a common practice in non-financial reports.

## Suggestions towards European Space transportation industry and ESA

Action #2: Synthesis of main synergies between LCA and environmental reporting that could be discussed in a dedicated thematic taskforce

### Environmental reporting → LCA



*Ex: energy and water consumption...*

### LCA → Environmental reporting

- ✓ **Composite and multi-criteria indicators** based on upstream or downstream data (*water intensity of products, Scope 3 GHG emissions...*)
- x Integrating actual supplier data raises **confidentiality issues**
- x **Methodological differences** between approaches (frequency, scope) make it challenging to feed annual reporting with LCA.

### How can ESA promote synergies between the two approaches?

- Allow companies to compute their upstream impacts by acting as a **confidentiality buffer**.
- **Harmonize LCA rules** across companies to strengthen comparability and overall results.
- **Spur communication** and initiatives thanks to the creation of a Taskforce on LCA.
- Work towards **Single Score** standardization.

# Suggestions towards European Space transportation industry and ESA

Action #3: Facilitation of a thematic taskforce on regulatory compliance to discuss, among others, the following topics:

The **EFRAG standards** defining the precise content of the new non-financial report required by the CSRD should be released during 2022. The final delegated act should be adopted in 2022 and the transposition in Member States should take place in 2023, with first new reports published on fiscal year 2023 early in 2024. **These regulatory updates should be anticipated by companies** to ensure compliance.

**Corporate Sustainability Reporting Directive (CSRD)**



**REACH legislation**



**International Aerospace Environmental Group (IAEG)**

The association is not specifically targeted at companies in the space sector but provides some **interesting tools** that could be leveraged, such as the EMS Maturity Framework.



**Green Taxonomy**

The Green Taxonomy is a **European legislation** that will require companies under the scope of the NFRD to publish their Sales, Opex and Capex related so **“Green Activities”** defined as making a significant contribution to an environmental objective while no significantly harming progress towards other objectives.



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