



STM
Space Traffic Management

Safeguarding
space operations

Supporting standardisation in the field of Space Traffic Management

EU Space Label – Final Event

- *Wednesday 6 March 2024*
- *Conference Centre Albert Borschette (CCAB) and online (WebEx)*

This document is the result of a study and does not reflect the official position of the European Commission



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Programme

1. Opening remarks

2. Presentation of the EU Space Label

- Aim of the study and process
- EU Space Label concept
- Space Safety Label
- Environmental Space Label
- Dark and Quiet Skies Label

Coffee break

3. Panel discussion with stakeholders

4. Exchanges with audience

5. Closing remarks





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Opening Remarks – European Commission

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**Presentation of the EU Space Label –
European Commission**

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Aim of the study – context

- **Joint Communication on Space Traffic Management (STM)**

- proposes an EU approach for STM
- relies *inter alia* on regulatory aspects and soft-law measures such as standards and guidelines, and accompanying incentive measures

- **Action 6:** The Commission, in close collaboration with Member States, will:
 - by end of 2023 identify possible incentive measures and a certification mechanism towards the implementation of STM standards and guidelines and
 - by end of 2024 establish a certification mechanism and implement incentive measures.

5.3 Incentivise STM standards and guidelines

In order to foster the use by EU operators of the guidelines and standards recommended at the EU level, **incentive measures will be put in place**. For instance, the EU will consider:

- use a **‘safe space’ label** similar to the concept of the eco-label. Those companies and operators using the label could increase their share in the market by acceding to clients sensitive to safe and sustainable space operations;
- adapt **award criteria** to promote the use of recommended guidelines and standards within relevant EU instruments (Horizon Europe, Space Programme Regulation, InvestEU, European Defence Fund, and other space initiatives, etc.),
- establish a **list of companies and operators** which implement STM guidelines or standards.

Any incentive tool would require establishing a **mechanism to supervise the implementation of the recommended guidelines and standards**. The EU, in close cooperation with Member States, will consider the development of a **certification mechanism for STM** in order to be able to verify the implementation by companies of the recommended guidelines and standards.

Aim of the study – purpose

- **EU Space Label study (Deloitte/KU Leuven/GMV) is the first step to**
 - implement action outlined in Joint STM Communication
 - explore options on what such a space label could entail
- **EU Space Label study serves as a basis for**
 - exchanging views and collecting feedback
 - involving stakeholders early in the process and in full transparency
 - developing the label according to stakeholder needs
 - creating a scalable and agile system that works for stakeholders

Aim of the study – objectives



Study objective: “Contribute towards the overall policy aim of **ensuring long-term, open, sustainable and safe use of space** while fostering **European space ecosystems** and ensuring **Europe’s strategic autonomy**”

The study aims to **explore options** for establishing a **voluntary instrument** to **promote common standards, guidelines and best practices**, and **develop incentive measures** that allow to

1

access and use
space in a safe
environment

2

maintain a
competitive space
industry in the EU

3

enhance EU
strategic autonomy



Process of the study – Advisory Board*

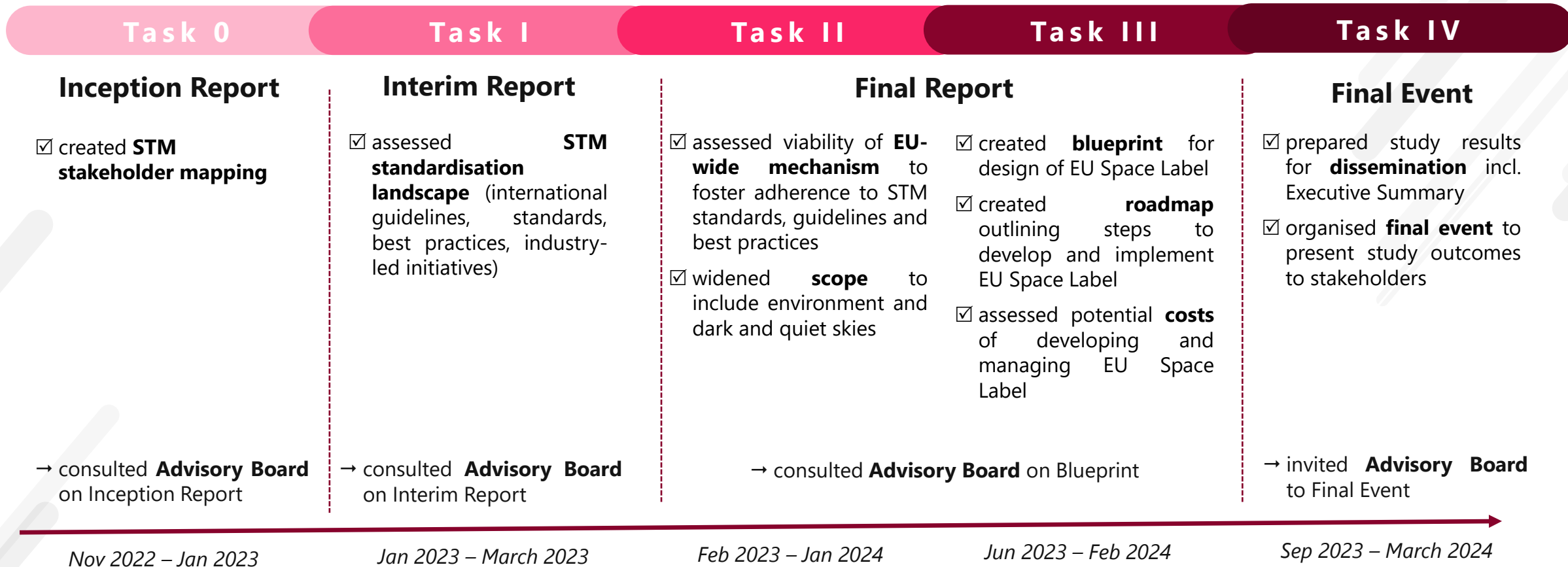


Globally leading experts in technical and legal STM and standardisation aspects as well as industry and national representatives complemented the study team:

- Mr Lorenzo Bitetti – Head of Discipline RAMS: CH, D, F, UK **Thales Alenia Space**
- Dr Pascal Faucher – Chair, **EU SST Partnership**
- Ms Daniela Genta – Head of European Union and Agencies Affairs, **Airbus Defence and Space**
- Ms Aarti Holla-Maini – Secretary General, **Global Satellite Operators Association** (until January 2023), independent consultant (until July 2023)
- Mr Brice Lançon – Director, European Affairs, **Safran Group**
- Mr Olivier Lemaitre – Secretary General, **ASD Eurospace**
- Dr Martha Mejia-Kaiser – Member of the Board of Directors, **IISL**
- Dr Elena Vellutini – Project Engineer, **Agenzia Spaziale Italiana (ASI)**

****Advisory Board members acted in their own personal capacity and they did not represent their organisation in this study***

Process of the study – timeline, tasks and deliverables



Process of the study – stakeholder consultation



○ Stakeholder interviews and focus groups

conducted interviews and focus group sessions with various stakeholders to gather data and insights, and validate assumptions

○ In-depth analysis

carried out in-depth analysis of EU Ecolabel and ENISA Cybersecurity Certification framework as reference points for EU Space Label

○ Feedback implementation

incorporated insights and feedback from interviews, focus groups, workshops, in-depth analysis, expert interviews and Advisory Board workshops into relevant deliverables

○ Workshops

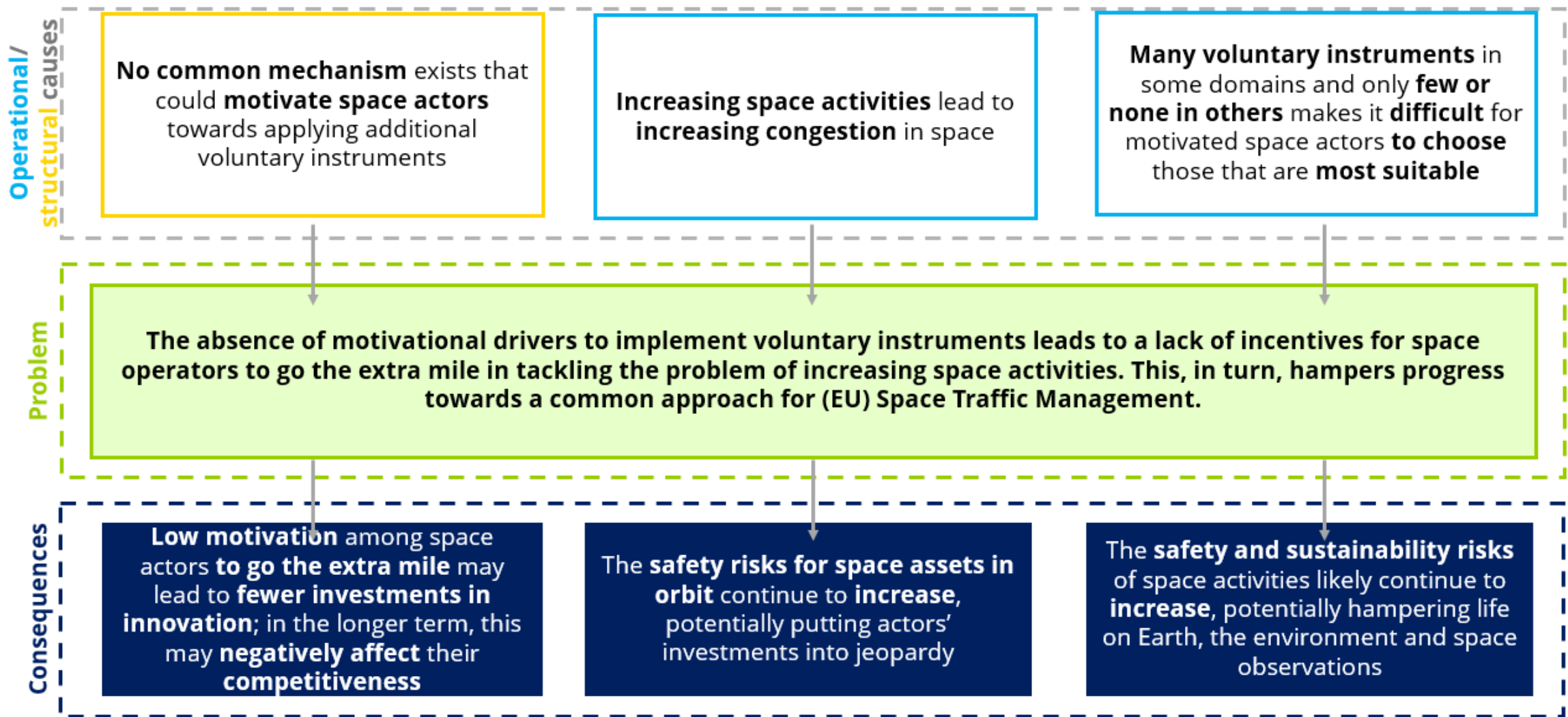
held several workshops between DG DEFIS and study team to collect inputs and feedback for development of EU Space Label

○ Expert interviews

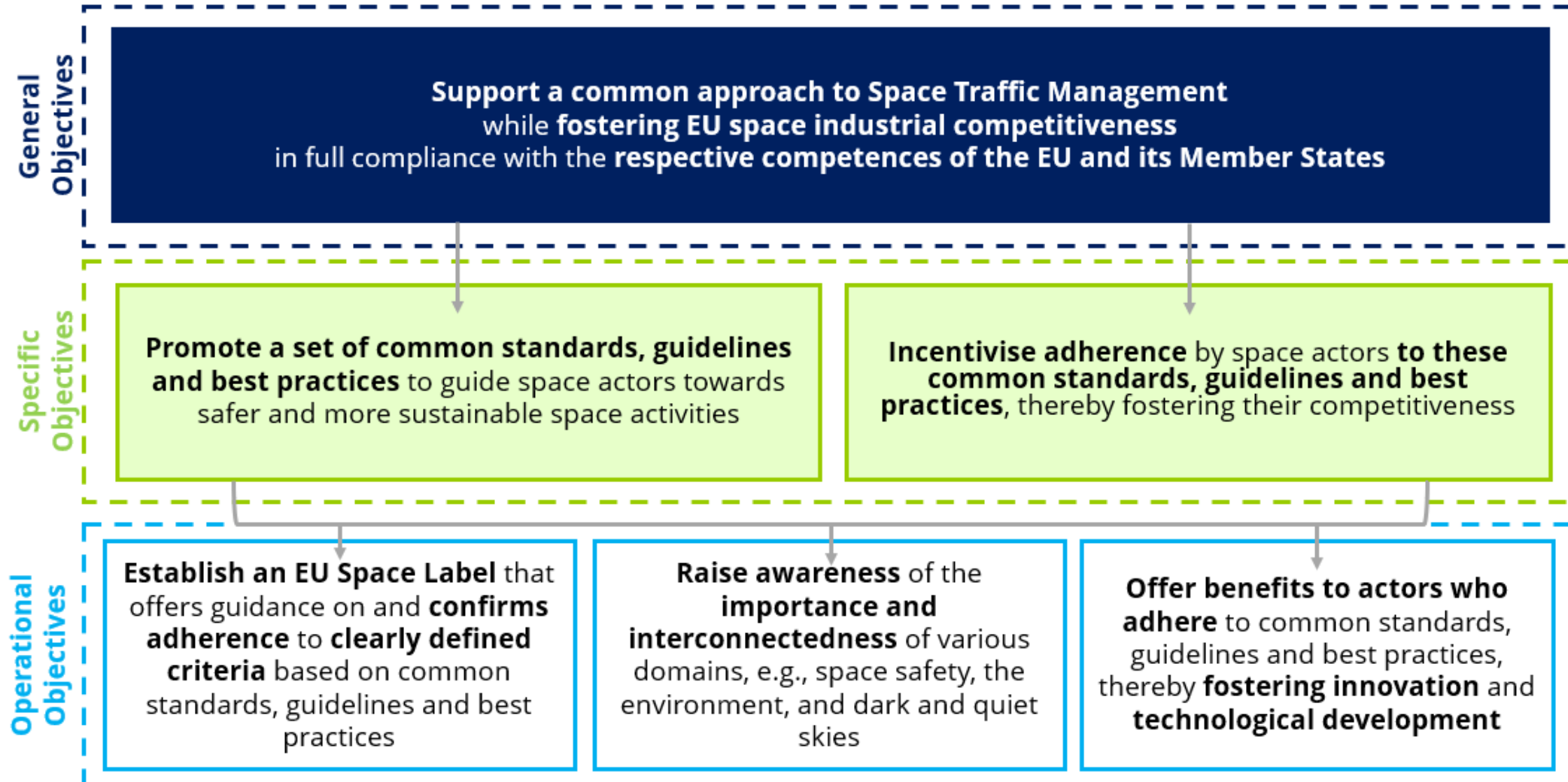
carried out interviews with external stakeholders to understand how specific labelling schemes could be designed to address relevant issues (i.e. dark and quiet skies)



EU Space Label concept – problem assessment



EU Space Label concept – policy objectives



What are the main elements assessed for the design of the EU Space Label?

1 Key principles and concepts of effective labelling

- ### **3** Assessment and certification
- Assessment methods
 - Conformity assessment procedures
 - Requirements for conformity assessment bodies
 - Conformity assessment and awarding of the label

- ### **2** Development of the label
- Scope and objectives
 - Criteria
 - Governance structure
 - Label development and adoption

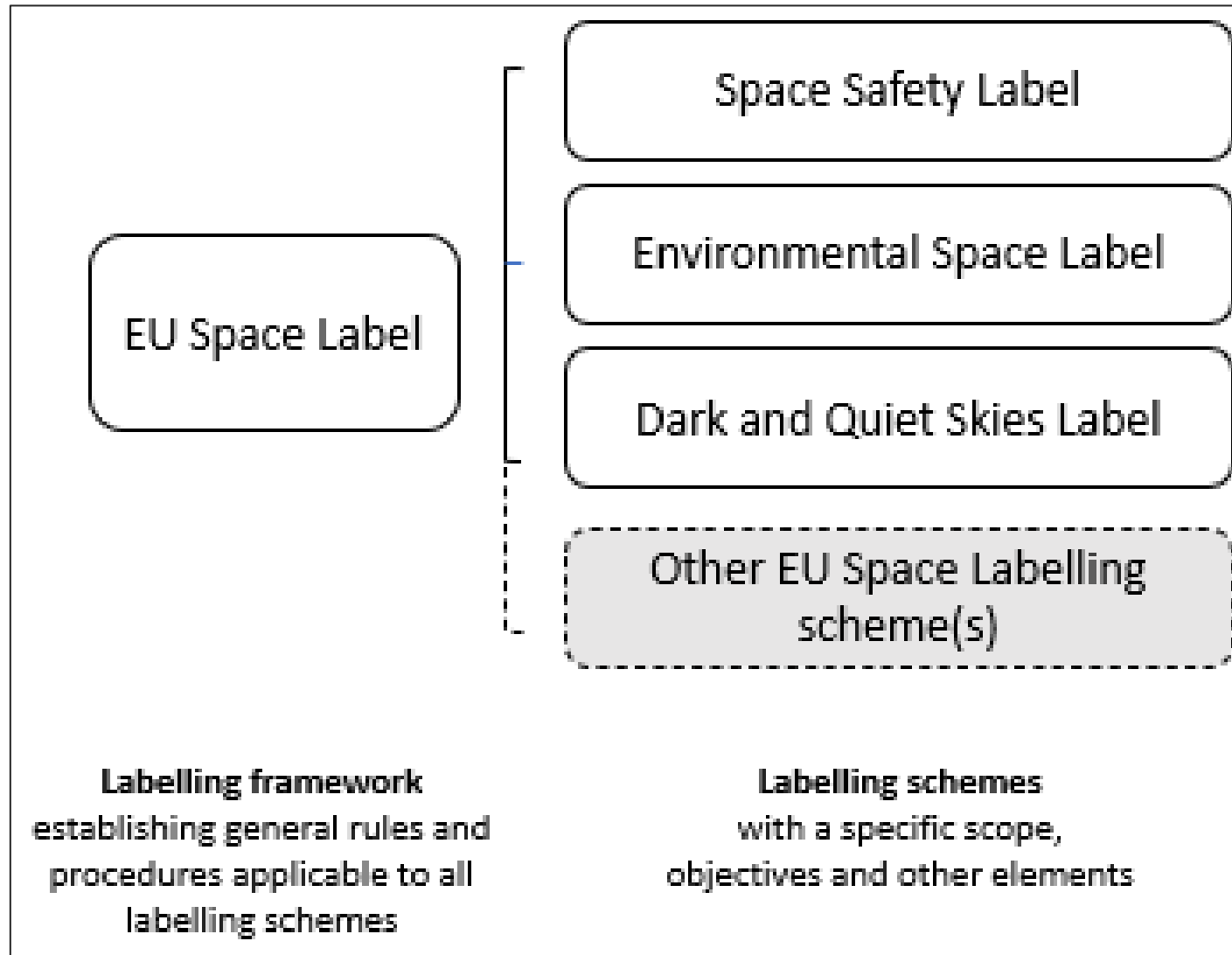
- ### **4** Use and maintenance of the label
- Promoting the label
 - Misuse of the label
 - Revision of the label

EU Space Label concept – key principles and concepts



- **Principles:** voluntary, multi-criteria, third-party verification
- **Definitions:** ISO/IEC 17000 conformity assessment (certification, labelling programme, conformity assessment, etc.)
- **Structure:**
 - overarching labelling framework defining elements applicable to *all* labelling schemes
 - specific labelling schemes under overarching framework defining elements applicable to *specific area*
- **Transparency:** strong stakeholder involvement and clear criteria based on existing instruments
- **Scalability:** include future domains of interest; target e.g. missions as well as companies, etc.
- **Labelling schemes** identified so far: Space Safety and Sustainability, Environment, Dark and Quiet Skies

EU Space Label concept – key principles and concepts



EU Space Label concept – development of the label



SCOPE AND OBJECTIVES

At the level of the EU Space Label framework, what are the main scope and objectives?

CRITERIA

At the level of the specific labelling schemes, what are the main criteria to be considered for assessing conformity?

GOVERNANCE STRUCTURE

What is the governance structure for developing and implementing the EU Space Label?

LABEL DEVELOPMENT AND ADOPTION

What is the process for developing and adopting the EU Space Label?





ASSESSMENT METHODS

Which conformity assessment methods can be applied to assess that criteria are met by applicants?

CONFORMITY ASSESSMENT PROCEDURES

Who is responsible for carrying out the conformity assessment?

REQUIREMENTS FOR CONFORMITY ASSESSMENT BODY

What are the requirements that conformity assessment bodies should meet?

CONFORMITY ASSESSMENT AND AWARDING OF THE LABEL

What is the process for conformity assessment and awarding of the EU Space Label?

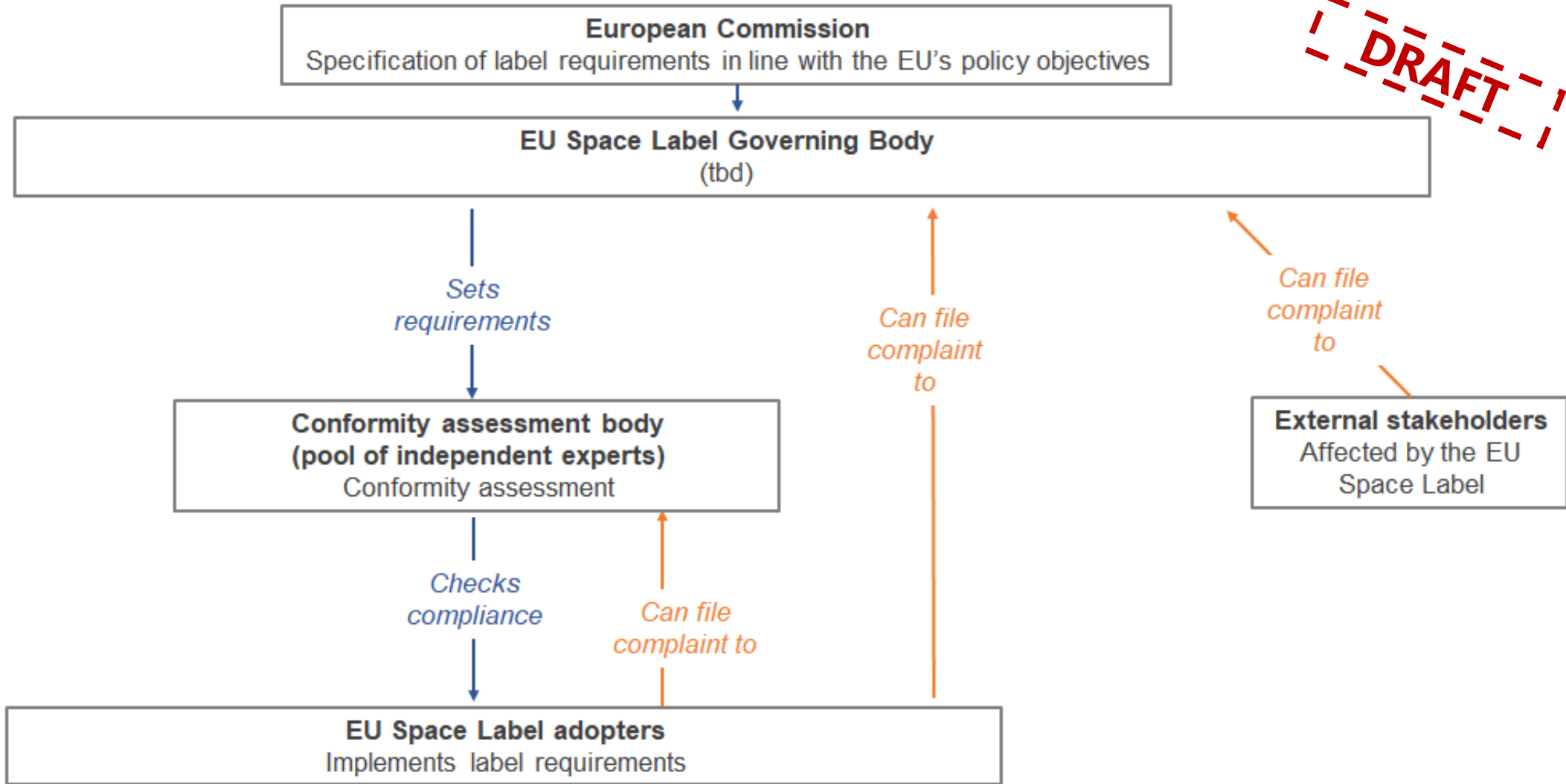
EU Space Label concept – assessment and certification



Top-down (ex ante) compliance assessment

Bottom-up (ex post) compliance assessment

DRAFT



EU Space Label concept – use and promotion



PROMOTING THE LABEL

How will the EU Space Label be promoted to incentivise potential applicants?

MISUSE OF THE LABEL

How will the correct use of the EU Space Label be monitored and what will be the consequences in case of misuse?

REVISION OF THE LABEL

How will the EU Space Label be revised and updated to remain fit for purpose and aligned with latest developments in the field?



Space Label on safety and sustainability in space

Scope	General objective	Specific objectives	Possible criteria domains
<ul style="list-style-type: none">✓ Focus on the space mission, with a focus on the design phase but covering all phases✓ Not at component level	<ul style="list-style-type: none">✓ minimise the risk of collisions and the generation of debris in all activities carried out throughout the lifecycle of a space mission	<ul style="list-style-type: none">✓ Avoid collisions during launch, in-orbit and re-entry through appropriate mission design, development and operations.✓ Avoid the creation of debris	<ul style="list-style-type: none">✓ disposal✓ collision✓ OOS

Space Label on the Environment

Scope	General objective	Specific objectives	Possible criteria domains
<ul style="list-style-type: none">✓ covers environmental impact of space missions✓ avoid labelling individual components to circumvent practical challenges	<ul style="list-style-type: none">✓ reduce impacts of space activities on the environment in line with EU Green Deal targets	<ul style="list-style-type: none">✓ mitigate carbon emissions originating from space activities✓ contribute to promotion of circular economy	amount of emissions <ul style="list-style-type: none">✓ reduced✓ removed

Space Label on Dark and Quiet Skies

Scope	General objective	Specific objectives	Possible criteria domains
<ul style="list-style-type: none">✓ covers light pollution from artificial sources and sunlight reflections off spacecraft✓ covers radio frequency interferences from in-orbit spacecraft	<ul style="list-style-type: none">✓ mitigate adverse effects of space activities on astronomical observations	<ul style="list-style-type: none">✓ encourage spacecraft operators to adopt practices in design and operational phases that minimise negative impacts on astronomical observations	<ul style="list-style-type: none">✓ publicly available and timely industry data (design, manufacturing, deployment)✓ engineering and operational aspects of individual satellites and overall mission design



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Coffee Break

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Panel discussion

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Panel discussion – panellists

DG DEFIS (moderator)

ASD-Eurospace

SME4Space

#YEESS

Friends of Europe





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Exchanges with audience

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Closing Remarks – European Commission

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Closing Remarks

First steps are made:

- **Action 6:** The Commission, in close collaboration with Member States, will:
 - by end of 2023 identify possible incentive measures and a certification mechanism towards the implementation of STM standards and guidelines and
 - by end of 2024 establish a certification mechanism and implement incentive measures.
- **first study** on possible incentive measures and certification mechanism **complete**
- **first stakeholder consultation** on voluntary mechanism (EU Space Label) **ongoing**

Closing Remarks

Next steps:

- **let us know what you think**
 - EU Space Label must be useful for YOU – so what do YOU need?
 - share your thoughts and ideas with us → DEFIS-STM@ec.europa.eu
- **we will**
 - analyse and take into account your feedback in further preparatory work
 - create a legal instrument to establish EU Space Label framework



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Thank you!

DEFIS-STM@ec.europa.eu



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