

Reference:

E. Consoli, *Updates from the Aerospace & Defence Industry Association on chemical legislation*, 7th ESA REACH Workshop, ESA ESTEC, Noordwijk, the Netherlands, 2nd June 2026

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Aerospace & Defence industry work on chemical legislation

2 June 2026

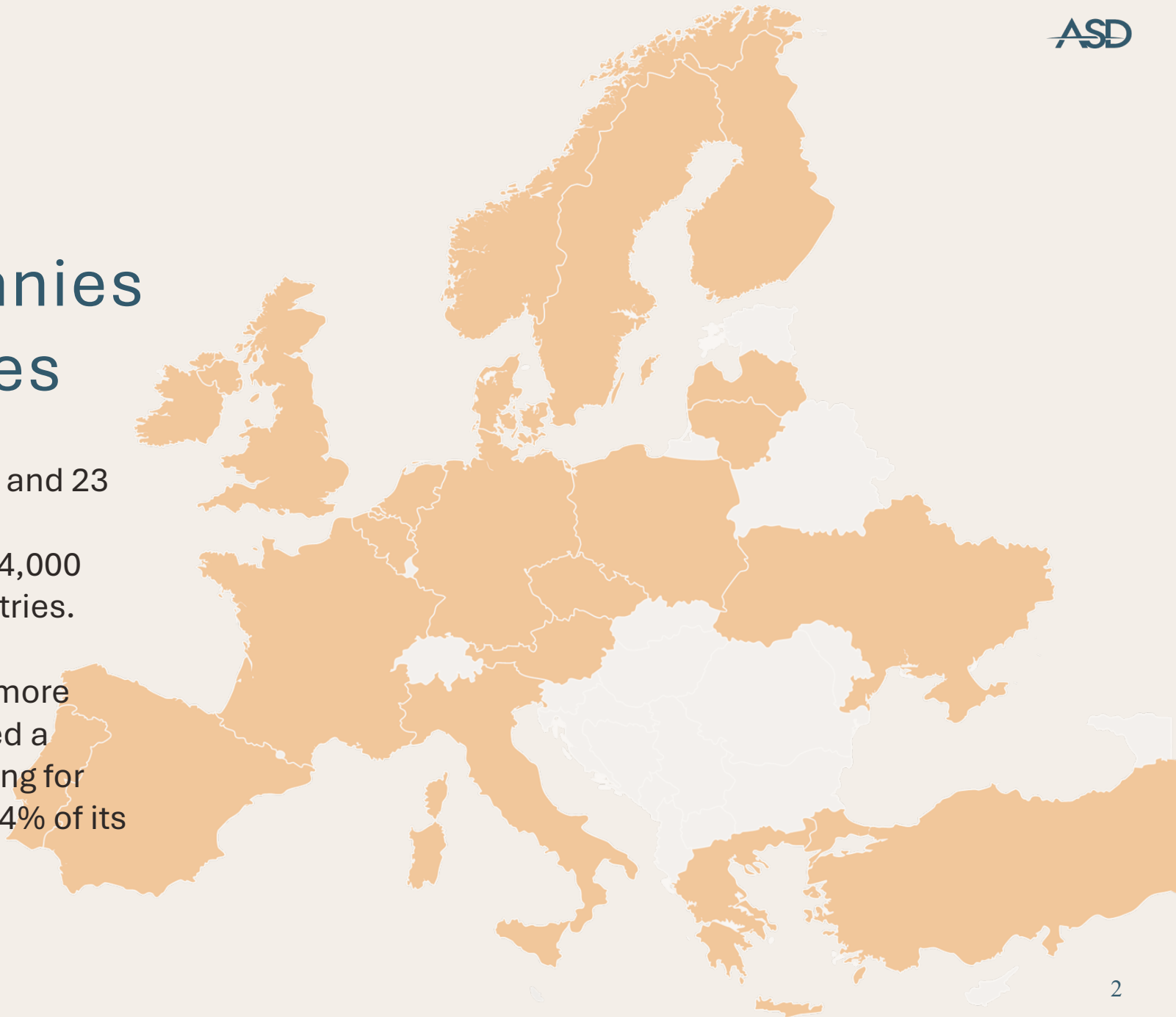
Elisa Consoli, REACH and Chemicals Manager, ASD



Over 4,000 companies across 21 countries

With 28 major European companies and 23 national associations, the overall representation adds up to more than 4,000 companies across 21 European countries.

Our members collectively employed more than 1.1 million people and generated a turnover of €326 bn in 2024, accounting for 99% of industry's total turnover and 94% of its total employment in Europe.



REACH in numbers 2023

REACH-related costs

€1 billion

Overall REACH-related costs & investments, 2020-2022

REACH-related costs and investments between 2020-2022 by the 28 surveyed companies.

€293 million

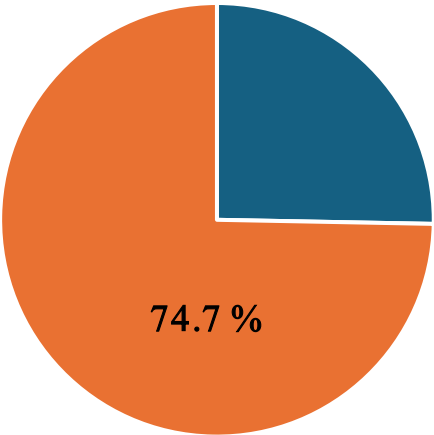
Annual REACH related costs and investments

REACH related costs and investments have been reported to be over 293 million EUR per year between 2020 and 2022. Companies reported additional costs for Registrations and Authorisations of above 32 million EUR accumulated until 2022.

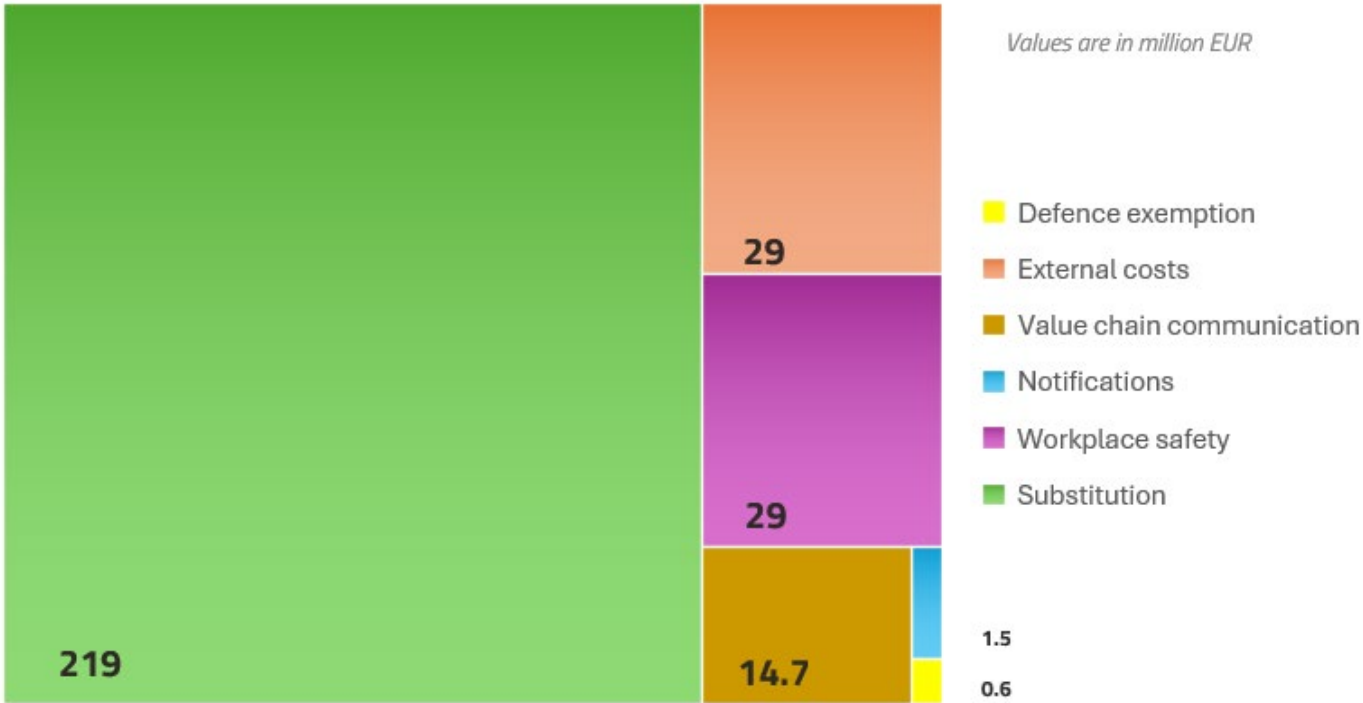


surveyed companies expect an overall increase in REACH related costs → expected additional operational requirements and substitution efforts linked to the upcoming EU legislation covering both Chromates and PFAS

Overall yearly costs reported: 293.8 million EUR



■ other costs ■ Substitution



Performance Requirements & Standards

- Aerospace and defence applications demand materials that can withstand extreme conditions, such as high temperatures, pressure, and environmental exposure.
- The A&D sector operates under rigorous industry standards and sectorial regulations that dictate specific material properties and performance criteria. Materials that meet these stringent standards are often hazardous chemicals, making their use necessary for compliance and certification.



- More information on the A&D value chain and substitution challenges available on the [ASD website](#)

The quest for alternatives

- Heavy dependance on formulators / chemical suppliers
- Strong focus on safety performance → no ‘acceptable loss of performance’



Aviation

- Critical to flight safety principle
- EASA certification

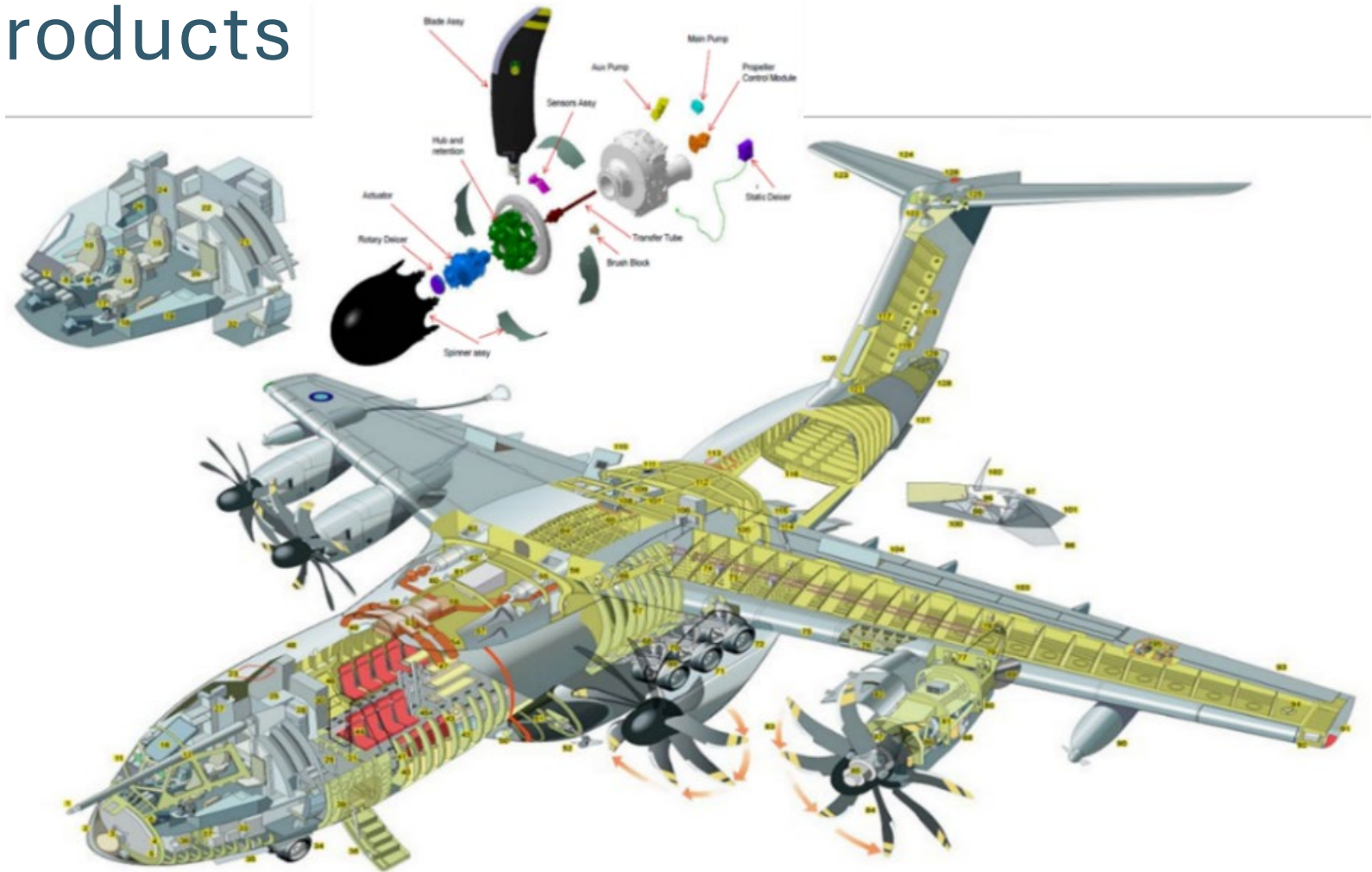


Defence

- Mission readiness principle
- MoDs qualifications / certifications

Highly complex products

- ~1 million Part Labels
(on OEM level)
- + N millions Part Labels
(on Supplier's level)
- ~ 100,000s Technical
drawings
- ~ 10,000s Technical
documentations/ manuals



Military Aircraft product breakdown example: A400M

Supply chain Specificities

Complex international supply chains

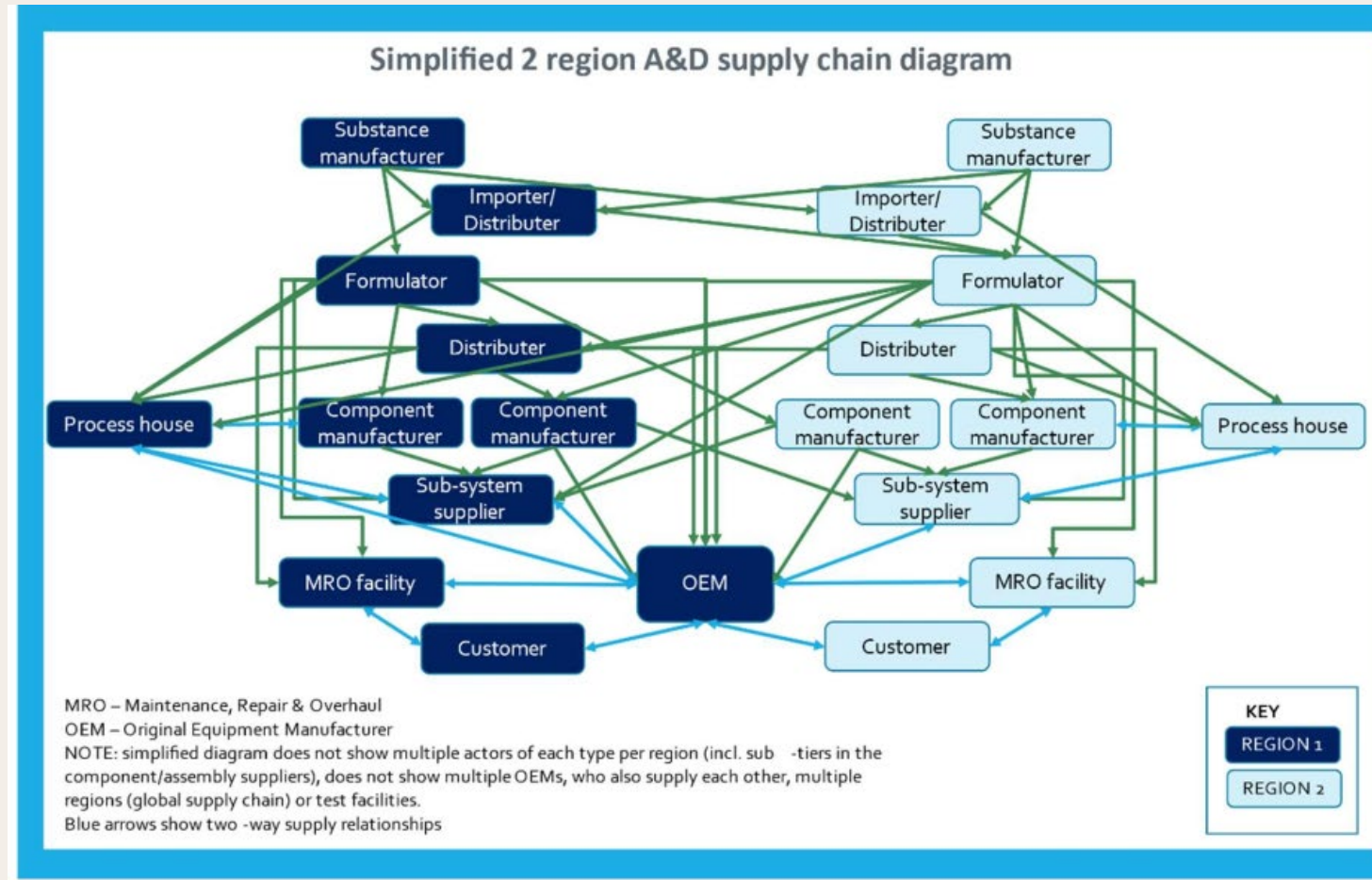
Including SMEs

Different local regulatory frameworks

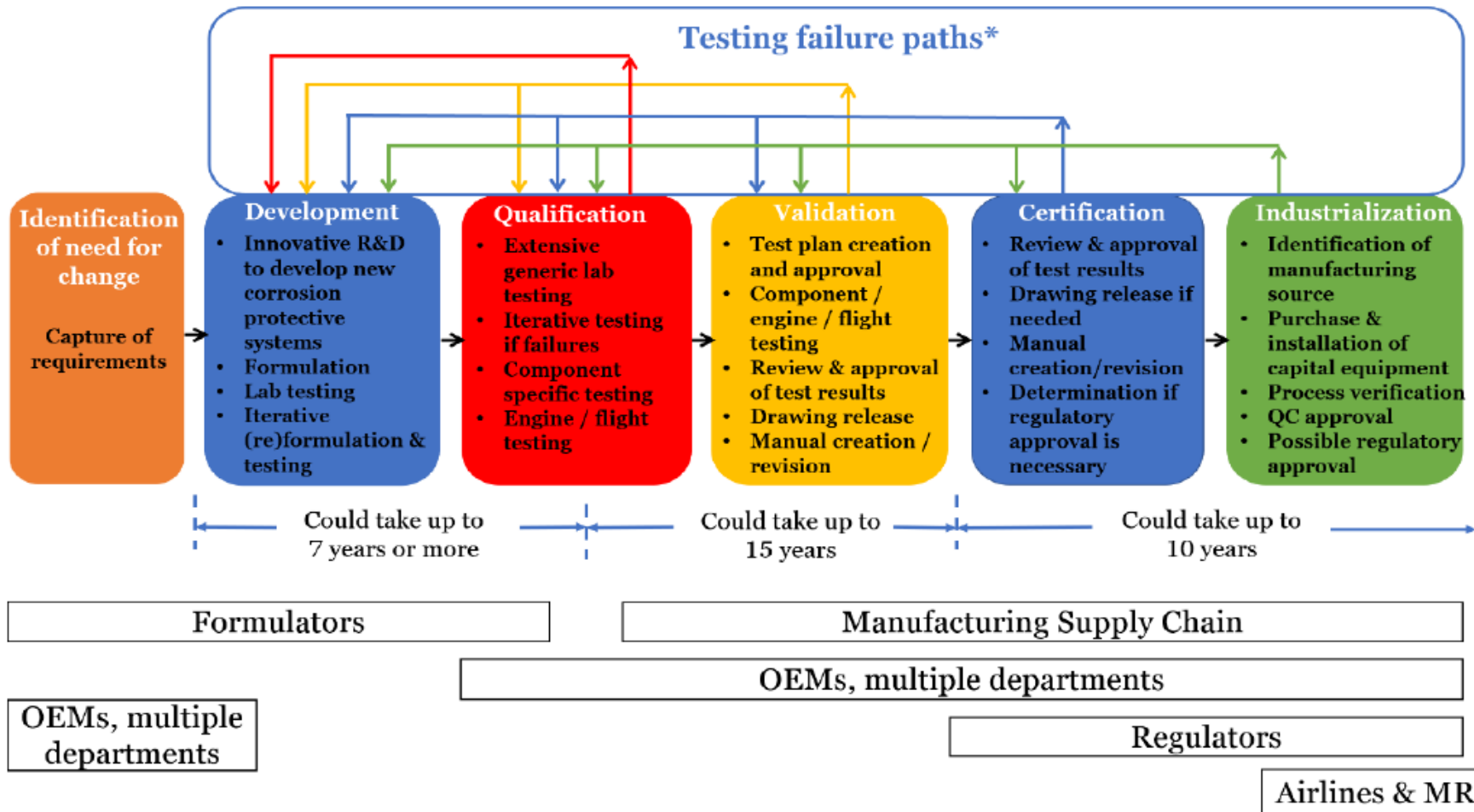
Niche applications

Very specialized parts with no 'consumer' use

Only a few specialized companies



Stringent Certifications and safety standards in A&D

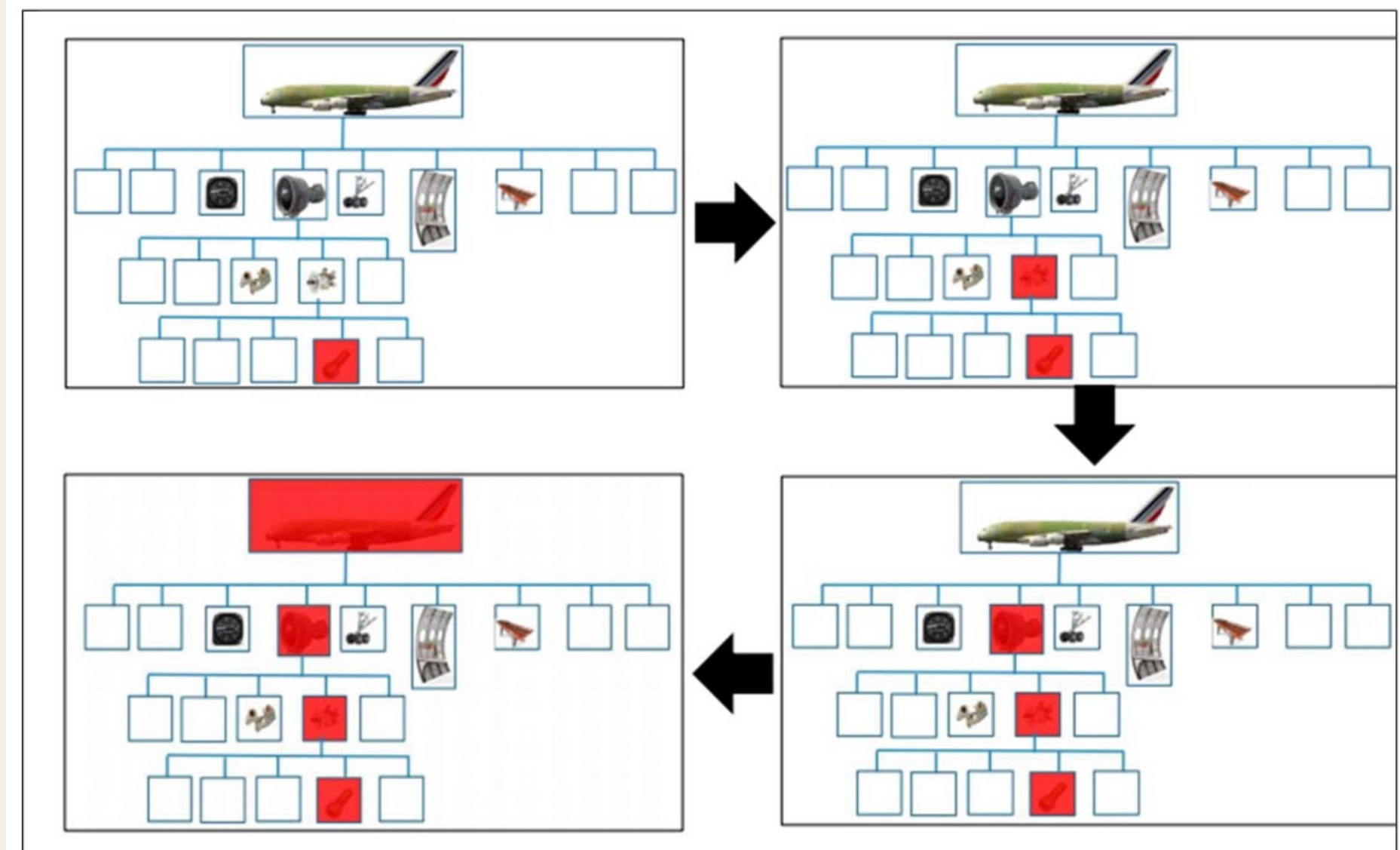


Innovative chemistry might not turn out to be a viable **real-life** alternative

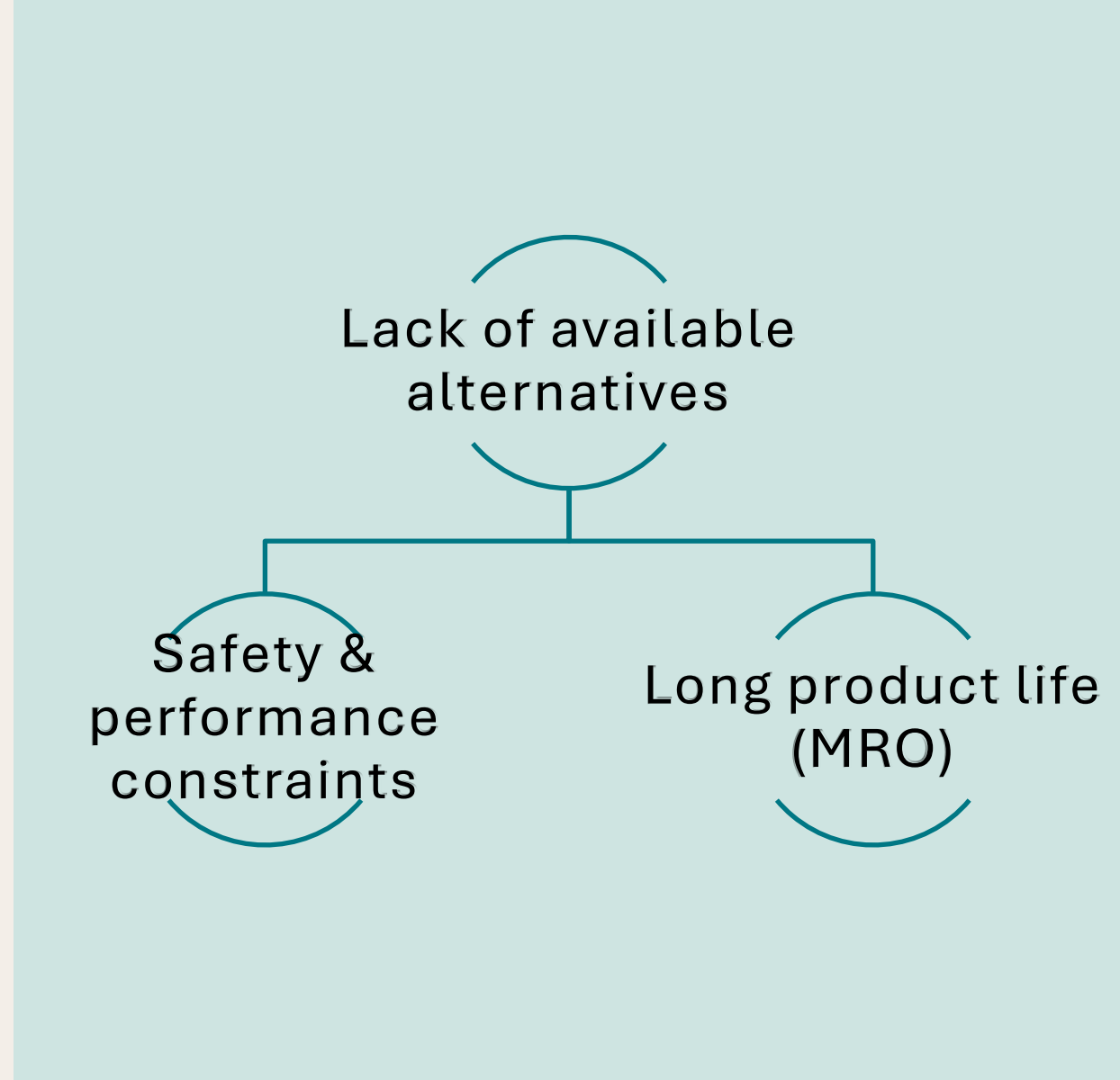
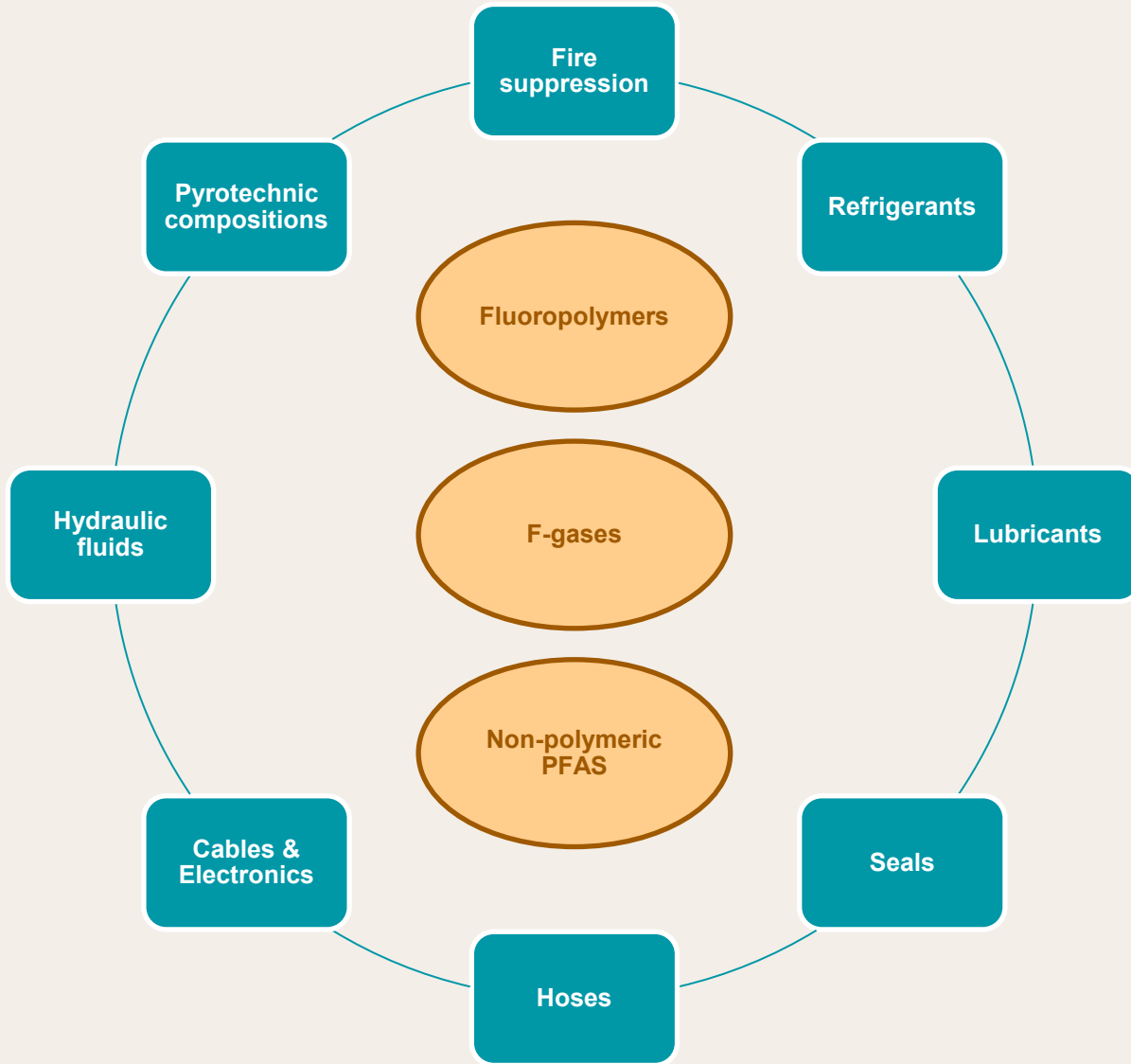
*Failure at any stage can take you back to the beginning of the process with a new potential alternative

Every little part counts

Interdependency
of component
availability in the
manufacture of
the final A&D
products



The PFAS example



ASD input to SEAC consultation

- We have submitted a response to the **general survey** as well as to the following **applications** identified as priorities:

[02. TULAC]

- 02.03.02.04.- PPE specifically designed for armed forces

[04. Metal plating]

- 04.02.01 - Nickel Plating

[10. Transport]

- 10.03.01 - Protective coatings and paints
- 10.03.03 - Cable liners and coatings for transport vehicles, including high-voltage insulators
- 10.03.04 - FEP based heat shrink sleeving
- 10.03.05 - Other uses of PFAS in coatings, liners and finishes
- 10.04.01 - Aerospace hoses
- 10.05.01 - Hydraulic fluids
- 10.06.02 - MAC - other vehicles
- 10.07.03 - Transport refrigeration - other uses

[14. Lubricants]

- 14.01 - Lubricants - industrial uses

[11. Electronics & Semiconductors]

- 11.01.02 - other applications of wires & cables (insulation high frequency)
- 11.01.02 - other applications of wires & cables (Sleeves & connectors)
- 11.04.01 - Printed circuit boards and antennas
- 11.08 - Vapor phase soldering

[12. Energy]

- 12.02.01.01 - PEM fuel cells

[08. Applications of fluorinated gases]

- 08.03 - Foam blowing agents in thermal
- 08.06.01.02 - 2-BTP used in hand-held extinguisher on-board of aircrafts
- 08.06.01.03 - Other applications of clean fire suppressants

19 uses

- Focus on known availability of alternatives and expected impact → **IMPORTANT: in real life none of these uses can be isolated; the response was based on a purely theoretical scenario**

General survey 1/2

Sector specificities

Neither the initial proposal nor the ECHA assessment take sufficiently into account the specificities of the A&D sector (safety and performance requirements, strategic connotation, etc.)

Aerospace uses are included under the sector of Transport alongside automotive and commercial naval

A&D should be considered as a standalone sector due to the overlaps in uses and value chain

Overall impact

A&D uses are scattered across different sectors (e.g. metal plating; uses of F-gases; sealing applications; ect.)

it is impossible for ASD to assess what would be the overall impact of this restriction on the sector.

In general, inability to use PFAS will have a catastrophic impact on defence capabilities, transport of people and goods, and access to space.

Request for derogation

Uses relevant to A&D are subject to different time-limited derogations

Impossible to assess which of our systems/components will be impacted and at which point in time.

To avoid this, A&D need a time unlimited derogation with a review clause

MRO should also be time unlimited given the long life of our products and the need to repair as produced.

Reporting requirements

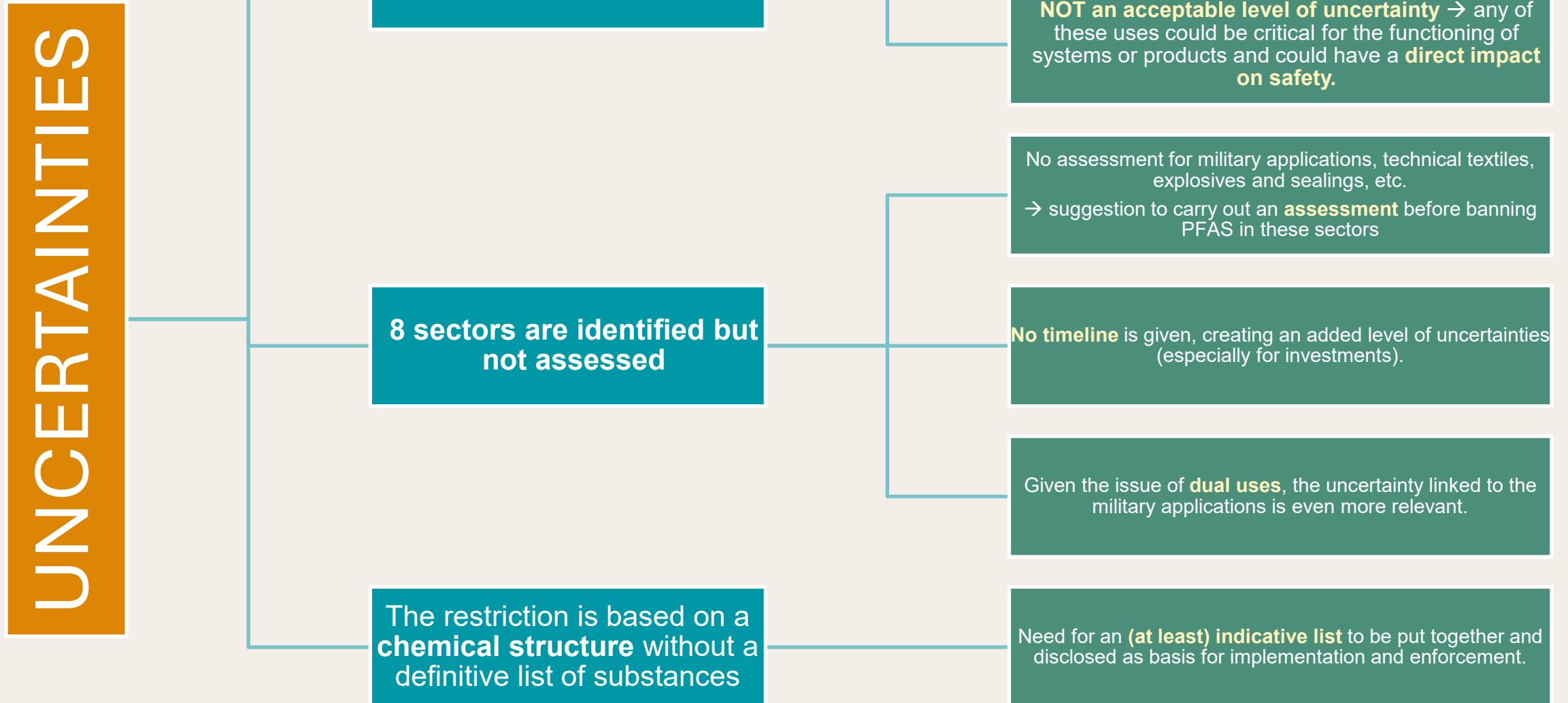
ASD agrees that this could be a useful tool but also raises concerns about the possible additional burden of excessive requirements.

Requirements that are proportionate and justified, and that reflect the structure of the value chain.

In the case of A&D, we are dependent on our suppliers in order to have visibility on the PFAS in our products;

Military should be exempted from public reporting

General survey 2/2



ASD key messages

Achieve a restriction that protects HH and ENV whilst being **workable in real life and not jeopardizing the EU strategic objectives**

→ coherent and supportive policy environment and a harmonised regulatory approach

Proposal is too complex; subject to interpretation, impossible to implement and enforce

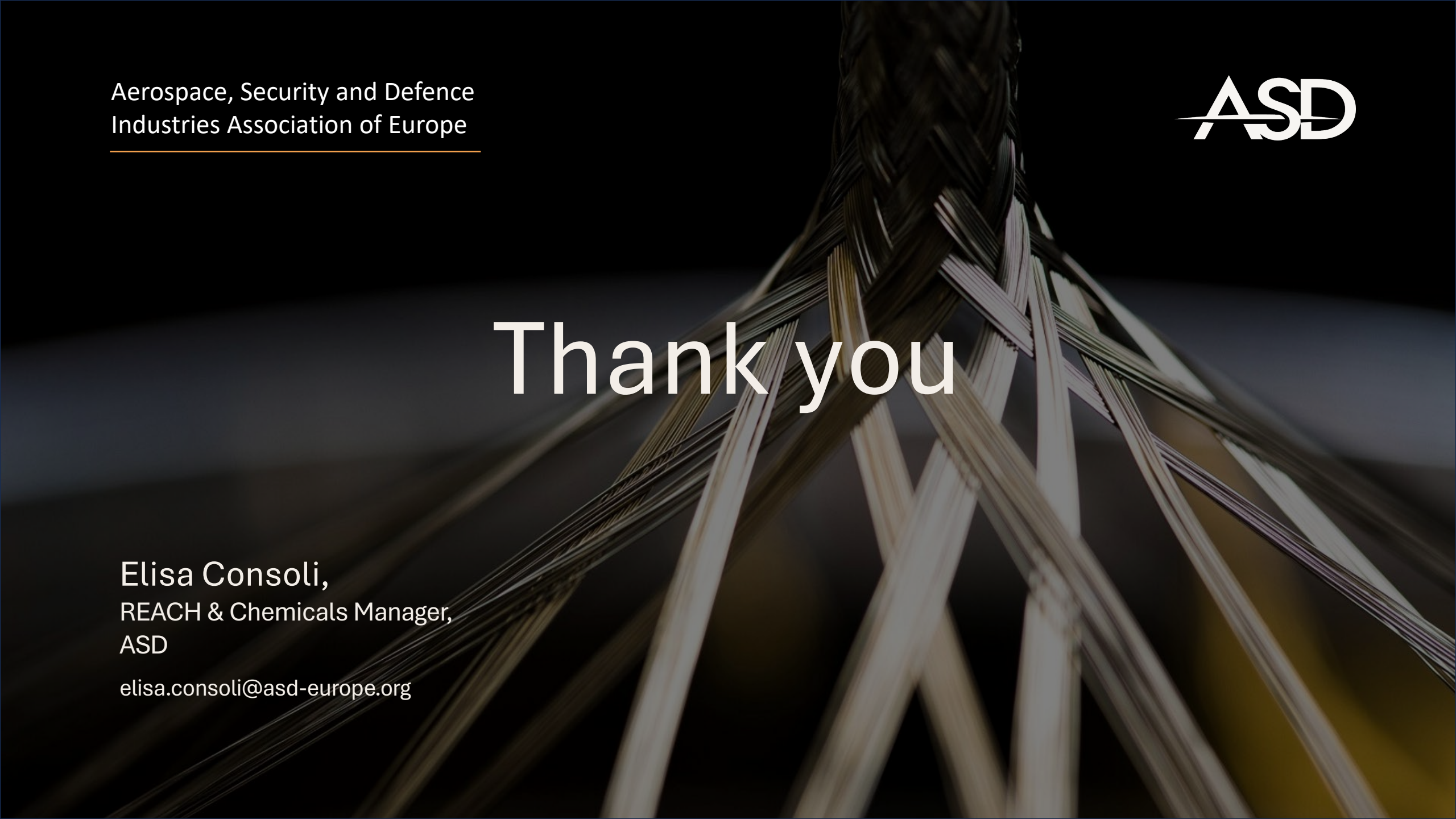
Consider **A&D as a sector** in order to address specificities
Time unlimited derogation for A&D with an appropriate review clause (at least 15 years)

→ Including missed uses in order to avoid business disruption

The decision-making process should **draw on the expertise** from technical agencies such as **EASA, EDA, and ESA**

Time-unlimited derogations are necessary for **maintenance, repair, and overhaul (MRO)** due to the extremely long service life

Develop **proportionate and clear reporting requirements** (keeping in mind Defence limitations)

The background of the slide is a close-up photograph of a braided cable. The cable is made of many thin, light-colored strands that are woven together in a complex, diagonal pattern. The lighting is dramatic, with the strands catching the light and creating a sense of depth and texture. The overall color palette is dark, with the white text and logo providing a strong contrast.

Thank you

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