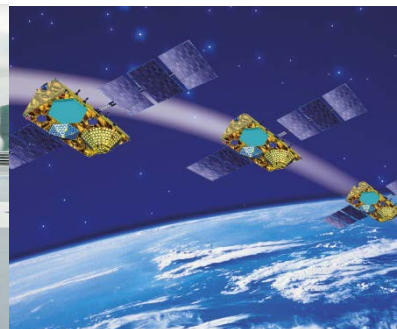


REACH Obsolescence management workshop

ESA/ESTEC 22nd April 2015

ASD RIWG presentation

Ian McNair Airbus Defence and Space





Contents

- ASD and REACH
- Supply Chain Complexity, Supply Chain Relationships and Design Control
- Change Control
- Authorisation Contexts – Spare Parts, MRO, Production



ASD Structure & Reporting - REACH Working Group



Jan Pie
Secretary General



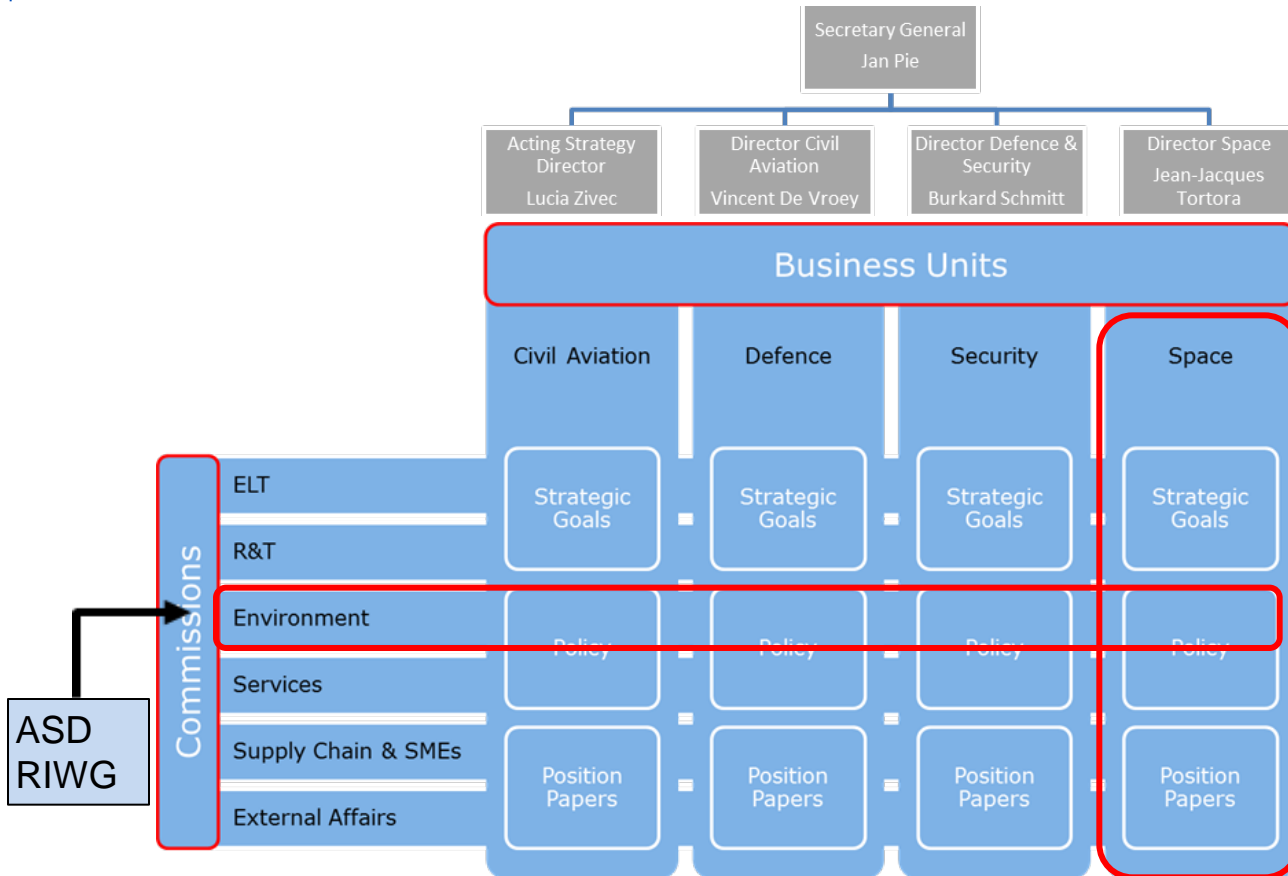
Anneli Weinholt
Environment
Officer



Steve George
Chair – REACH
Implementation
Working Group

Pierre-Stephane Benati
Vice-Chair – REACH
Implementation Working Gp

**Reports to Environment
Commission**





ASD-Eurospace

- Eurospace is the Space Group of ASD and a member of ASD RIWG (rep. Pierre Lionnet).
- Eurospace supports/monitors the activity of the RIWG with the following objectives:
 - Good information of the space/REACH community on sector relevant REACH issues arising at ASD RIWG
 - Awareness of RIWG members on all Space sector relevant issues
 - Co-ordination of ASD RIWG and Eurospace actions
 - Emergence of synergies across ASD sectors on REACH related issues

SWG2 Substance Reporting

- Issues associated with Article 33 and similar

SWG3 Authorisation

- Technical proposals regarding simplification
- Guidance Material

SWG4 Substance Intelligence

- Obsolescence monitoring
- Early warning for consultations and potential legislative intervention

SWG7 Biocides

- New Sub-working group launched
- Focus on BPR

SWG1 Lobbying

- ECHA / EC interface
- Coordination of REACH related position papers

SWG5 Defence Issues

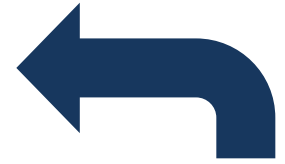
- Defence Exemption framework
- Ammunition issues

SWG6 Dissemination

- Events coordination
- Guidance Documents

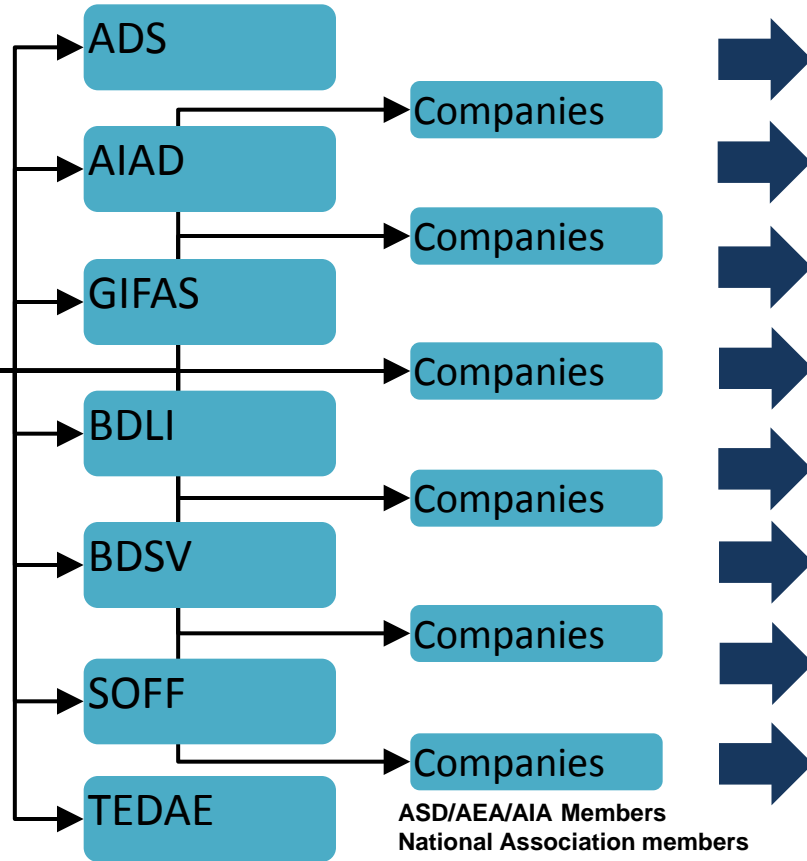


How we Coordinate Influence?



COMM

ECHA



ASD/AEA/AIA Members
National Association members

28 Member State Reps

Key contacts are technocrats, discussions are technical and process based

MEPs and national government ministers can gain attention, but not always helpful

Listening and engagement with EC/ECHA have been very successful



Some Key Successes

- ❑ **Effective cooperation between Industry and ECHA/EC:**
 - **Increased ECHA understanding of Aerospace specific DU difficulties**
 - Key messages in presentations address aerospace concerns
 - **Recognition of supply chain complexity and end-user impact**
 - **EASA's and ASD members' understanding increased and many misconceptions resolved**
 - **ECHA's committees are increasingly aware of the issues**

- ❑ **18 months extra time on Chromate Sunset Date**
 - **To allow Authorisation work to be managed**

- ❑ **Recognition of “life of type” needs for some Authorisations**
 - **“In some very particular and exceptional cases the Committees may propose a review period above 12 years.” [LINK](#)**



Key Salients relevant to REACH

- **Very low volume of chemicals compared to other industries**
- **Long production timelines**
- **Regulated certification process, focused on product safety, in Europe via EC216/2008 and EC748/2012**
- **A need to keep the products operational 30+ years**
- **Complex, international supply chains**
- **Manufacture of highly complex articles**
- **Dependence on some substances for product safety, including SVHC's**
- **Difficulty in making changes at short notice**

We expect that the consequences of REACH will be significantly higher than for other sectors

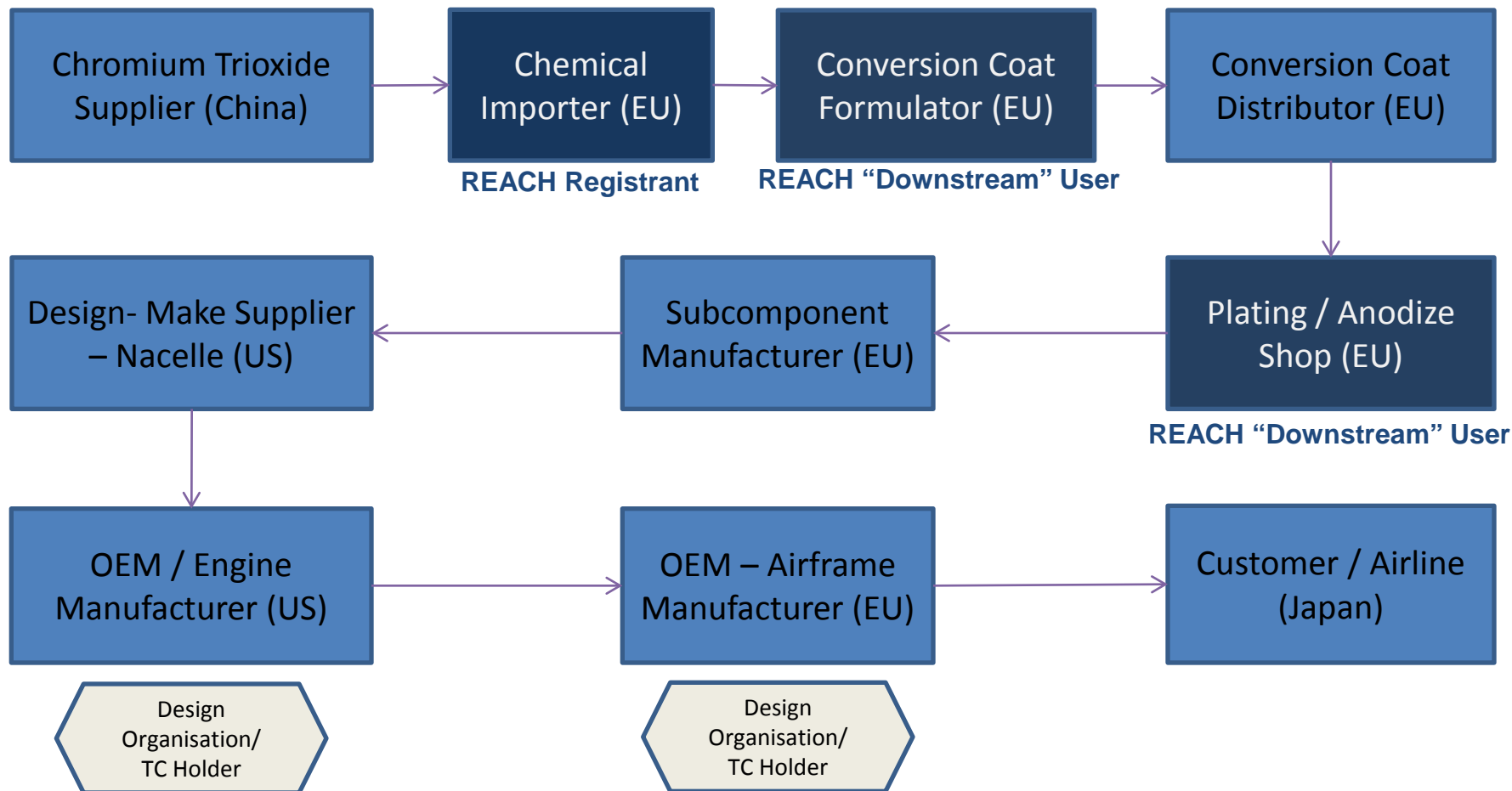
Aerospace Activities on Authorisation process, 2013-2014

- ❑ In 2013-2014 ASD worked with AEA, EASA and ECHA on various aspects of Authorisation
- ❑ Clarity that an Alternative is not “Available” until qualified for use by the design organisation with an established supply chain
- ❑ Who should apply for Authorisation
- ❑ Key arguments required for SEA/AoA
- ❑ Released April 2014



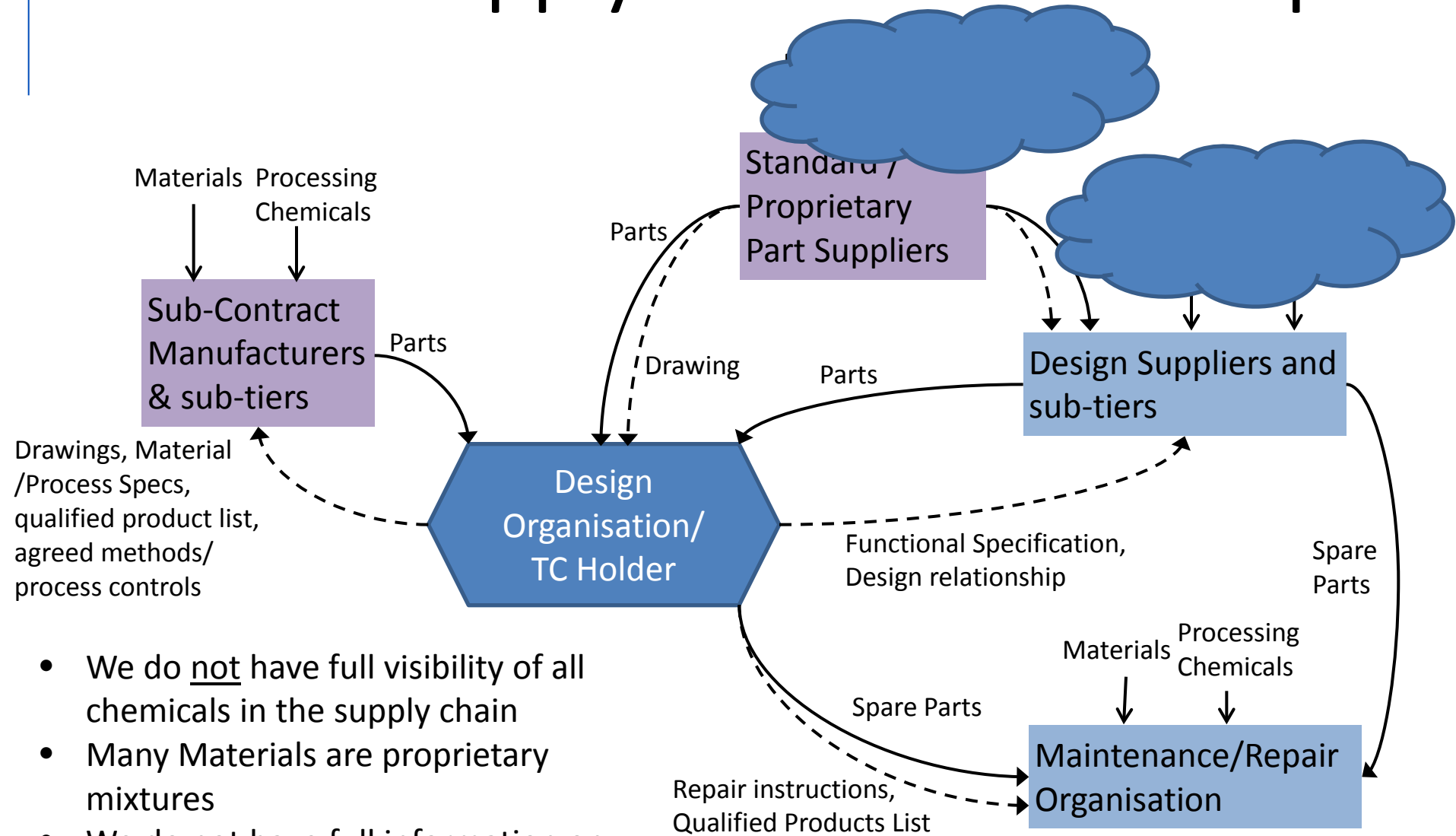


A Typical Real Supply Chain Map



Only the darker boxes have a direct role in REACH Authorisation

Supply Chain Relationships



- We do not have full visibility of all chemicals in the supply chain
- Many Materials are proprietary mixtures
- We do not have full information on routes of supply



Situations of Concern – Aero/Defence industries

- ❑ ASD supports simplification of Authorisation
 - With transitional relief via sunset date

- ❑ The following scenarios are of current concern:
 - Legacy spare parts
 - Maintenance and Repair of in-service products
 - Production of new parts in upstream supply chain where not covered by existing Authorisation activities



Authorisation Issues - Legacy Spare Parts

- ❑ Needed to return high-value long-life assets to service
- ❑ Component suppliers cannot define alternatives or substitute without approval
 - TC Holders must approve all materials used
- ❑ Often small quantities
- ❑ Chemical products sometimes different to current production programmes
- ❑ Cannot always be covered by Authorisation in production supply chains
 - Different chemical products, users, importer, or use cases
- ❑ Costs of Authorisation often grossly disproportionate given quantities involved



Authorisation Issues - Maintenance and Repair

- ❑ Use of Substances/Mixtures, not just Articles
- ❑ Repair of all in-service products, some of which are manufactured by non-EU companies
- ❑ Needed to return high-value long-life asset to service
- ❑ MRO Shops cannot define alternatives or substitute without approval
 - TC Holders must approve materials used, may be specified by design suppliers
- ❑ Often small quantities
- ❑ Chemical products sometimes different to production
- ❑ Cannot always be covered by Authorisation in production supply chains
 - E.g. Different use cases, importer, products, users, or non-EU production use
- ❑ Costs of Authorisation often grossly disproportionate given quantities involved

Case very similar to Legacy Spare parts scenario

Authorisation Issues - Production

- ❑ Design Organisations of sophisticated products do not know all chemicals used in their supply chains
 - E.g. in supplier-designed parts, proprietary items
- ❑ For many materials we have been leading industry activities on Authorisation, but we are concerned that we have not found every case
- ❑ For example, a proprietary coating containing DEHP and Strontium Chromate, discovered in Dec 2014
- ❑ No fast-track Authorisation route is available



Summary

- ❑ REACH Authorisation is “Mission Critical” for Aviation, Space and Defence
- ❑ All changes to design data require approval. The level of work relates to the risk from the change, not the product type
- ❑ “Repair as produced” principle logically extends to substance/mixtures used in repair of all products
 - Not just spare parts for legacy ones
- ❑ Production supply chains need some form of relief to mitigate supply chain uncertainty, since there is no “plan B”!



Back-Up - Verification of Alternative Materials

Examples of Material Properties

- Condition of supply
- Tensile, creep, fatigue
- Multi-axial properties
- Life data
- Corrosion properties
- Contamination resistance
- Flammability
- Compatibility (e.g. galvanic corrosion)
- Thermal conductivity
- Electrical conductivity

Potential Verification/Tests for Requalification (examples)

- Analysis (similarity, modelling)
- Materials testing (stress/strain)
- Fatigue testing
- Fire testing
- Corrosion (coupon) testing
- Component/sub-system rig testing
- Engine test (e.g. fan blade-off, bird ingestion, endurance)
- Flight testing
- Controlled Service Introduction