



EU's Aerospace & Defence Ecosystem: strategic & high-tech

Industrial Ecosystems Workshop
17/07/2020 - DG GROW - BusinessEurope

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Industrial Ecosystems in Europe

- Social enterprises, associations and cooperatives aiming at generating a social impact, often proximity based

- Retail sales
- Wholesale connected to consumers

- Building of residential and non-residential estates
- Building of roads and railways,
- Building of utilities and civil engineering
- Associated activities

- Telecommunications
- Software publishing, computer programming and consultancy
- Data processing, hosting, web portals
- Manufacturing of computers, communication equipment and consumer electronics

- Pharmaceuticals and other medical products
- Personal protective equipment
- Medical services, hospitals, nursing homes, residential care

- Plant and animal production
- Processing of food

- Passenger transport and travel
- Hotels, short term accommodation
- Restaurants and catering
- Events, theme parks

- Newspapers, books and periodicals
- Motion picture, video and television
- Radio and music

- Aircraft production
- Space manufacturing and services
- Defence products and technologies

- Production of textiles, wearing apparel, footwear, leather and, jewellery

- Raw starting materials (semiconductor wafers)
- Semiconductor manufacturing tools
- Design and manufacturing of semiconductor components

- Production of motor vehicles, ships and trains, and accessories
- Their repair and maintenance
- Transport

- Raw materials
- Manufacturing of products with high environmental impact: chemicals, iron and steel, forest-based products, plastics, refining, cement, rubber, non-ferrous metals, fertilisers, etc.

- Electric motors, engines and turbines
- Electric power generation
- Manufacturing and distribution of gas

Aerospace & Defence ecosystem



1,6% of EU value added



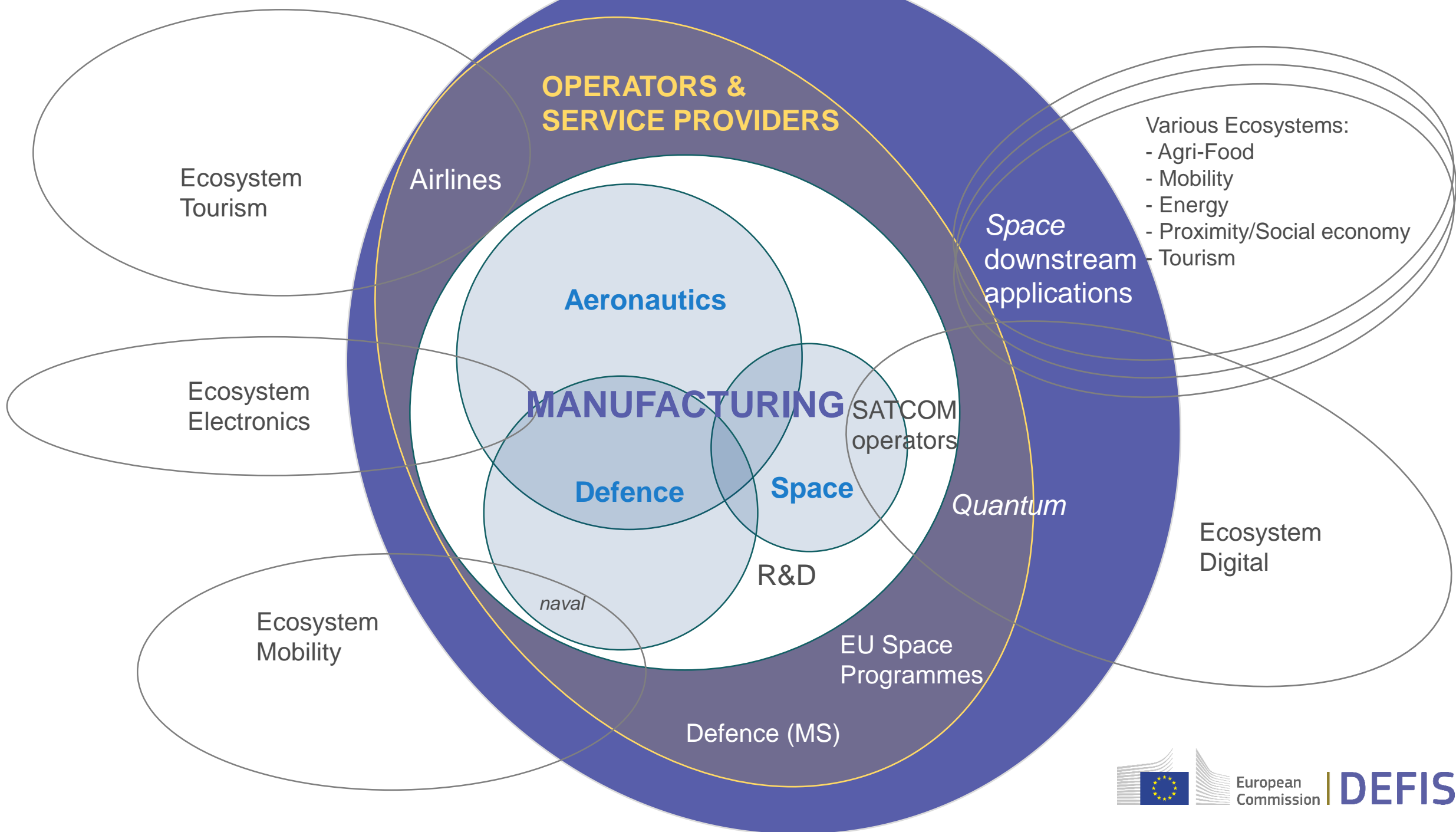
1,5 Mn employees



€376 billion
in turnover



44,000 companies



OPERATORS & SERVICE PROVIDERS

Ecosystem Tourism

Airlines

Aeronautics

Ecosystem Electronics

MANUFACTURING

SATCOM operators

Defence

Space

Space downstream applications

- Various Ecosystems:
- Agri-Food
 - Mobility
 - Energy
 - Proximity/Social economy
 - Tourism

Ecosystem Mobility

naval

R&D

Quantum

Ecosystem Digital

EU Space Programmes

Defence (MS)

COVID-19 impact : commercial aeronautics

- **Sudden and brutal collapse**

- Air traffic in Europe down by 90%
- > 16,500 of + 29,000 aircraft worldwide grounded
- 19 airlines went bankrupt, 4 airlines stopped activities
- €106 Bn estimated loss of revenue 2020-2022 (*source: ASD*)



COVID-19 impact : defence

- Significant impact on sales in 2020;
- Lower order intakes for the next 3 years, particularly in export markets;
- Adverse impact on productivity, costs structure, competitiveness, innovation, technological edge, private investment, and industrial performance/supply.

COVID-19 impact : space

- €1.2 Bn reduction of revenues and €1.4 Bn reduction of backlog (2020);
- Extended impacts over the next 5 years;
- Institutional customers (EU, ESA, national agencies) likely to maintain payment schedules despite production/delivery delays;
- Commercial and export customers (satellites): impacted if production and launch activities do not resume in full.

Outlook – stakes: the industry views

- Competitiveness of the whole European Aerospace and Defence industry;
- Loss of engineering capacities risks to permanently endanger technological leadership;
- US and China are heavily supporting their industry (loans to airlines, subsidies via space and defence budgets);
- Rapid resumption of commercial air traffic is crucial for recovery;
- Drivers for the development of global economies and emerging regions remain unchanged;
- **EU's strategic autonomy is at stake.**

Challenges - industry expectations



ASD sector to be considered as strategic in the EU and all MS

- **A Recovery Plan**
 - The way back to normality will be long.
- **A Union that delivers**
 - Mobilise sufficient resources to support Member States;
 - Deploy new and innovative instruments to meet the requirements of the crisis;
 - Focus investment on key technologies and strategic areas that will strengthen Europe's long-term competitiveness;
 - Appropriate legislative & regulatory measures to support trade, growth and employment.
- **An ambitious MFF – the centerpiece of the European recovery plan**
 - Focus investments on high-tech sectors (added-value & multiplier effects);
 - A budget commensurate to the challenges at stake: programmes that foster innovation and technological sovereignty are key drivers for the recovery and must be funded at least at the level initially proposed by the Commission.

Challenges - industry expectations

- **Review EU Policies and programmes**
 - Adapt policies, concepts and objectives; Strategic Value Chains and Technological Sovereignty;
 - Digital transformation a top priority. Technologies core to digitalisation (Cloud, HPC, Big Data, 5G, AI, space connectivity) are cross-sectorial and dual-use;
 - EU programmes such as Digital European Sky, European Defence Fund, Integrated Border Management Fund, Factories of the Future or Digital Europe, play a crucial role;
 - Duplications must be avoided, technological sovereignty in key areas must be fostered;
 - Security and continuity must be an integrated part of industrial digitalisation; competitiveness, level-playing-field and strengthen resilience.

Preliminary conclusions



- Aerospace and defence ecosystem strongly affected by the crisis;
- Major impact still likely to come (loss of demand, loss of skills);
- Risk for Europe to lose its technological leadership in a strategic sector;
- EU and MS need to join forces to tailor support to this ecosystem that is critical for EU's strategic autonomy.

Thank you