

European Alliance Against Coronavirus

Friday 5th June 2020 at 8:30

Analysis of Disruptions in the Aerospace & Defence Ecosystem

Working format is based on “Gilles Rules”:

1. conceptual framework
2. needs and disruptions
3. solutions

Speakers:

- Krzysztof Krystowski, [European Aerospace Clusters Partnership \(EACP\)](#)
- Dr. Holger Lipowsky, [Roland Berger Consulting \(TBC\)](#)

Link to session’s recording

CONCEPTUAL FRAMEWORK

About EACP

EACP is a **unique network** of Aerospace clusters in Europe composed of 240+ public authorities, 5000+ companies and 500+ research institutes and universities. Moreover, this cluster partnership is **focused on establishing an international network** for fast and easy work exchange, **setting up business and research opportunities**, and **influencing EU policies** through the design of calls and funding requirements.

Impact on the aerospace sector

During his speech, Krzysztof Krystowski underlined why European aerospace is at risk due to measures taken to fight COVID-19. The aerospace sector was **down more than 90%** and there was a **huge negative impact on the cash flow**. In **short-term**, the **main goal is to survive** and restart the activity in the next few weeks with an **international coordination on a European scale**, while in the **medium-term** the effort is towards **renewing the sector** with a special focus on customers and on the value chains.

EU possible actions

The aerospace sector is hoping to be supported by the EU not only on the **legislative side** (to reactivate travel and tourism), but also with **financial support for R&D activities** in order to speed up investments and accelerate projects. It is important to put more **attention towards the position of SMEs** and to be particularly vigilant over foreign takeovers. Moreover, creating a “think tank” is important to exchange support ideas and measures and, over a longer period, to support commissions.

Shared experiences from Roland Berger Consulting

During his speech, Dr. Holger Lipowsky drafted **three potential scenarios for how global travel demand will recover**. These scenarios span the range from Rebound to Recession. The first of these scenarios assumed the duration of air travel restriction for other two months while the arriving of the “new normal” is supposed for this winter, but this case was considered not reliable. The second and the third scenarios present the duration of air travel restrictions respectively for **4 and 6 months** while **the arriving of the “new normal” is set for summer 2021 and summer 2022**. The impact of the measures will accompany the aerospace sector for a long time.

Preparing the “new normal” is now the priority. It is necessary to:

- **Review supply chain strategy** and configuration to fit with the defined corporate strategies, depending which one the aviation companies will follow
- **Assess and revise operating business models** (including the airplane models) in line with changes in safety and strategy
- **Monitoring health and longevity of business & supply chain operations**
- **Optimise existing footprint** in line with changes in industry demand

IDENTIFICATION OF DISRUPTIONS

Collapse of aviation sector: -90% of aviation travels

Source: Krzysztof Krystowski

Evidence: The global lockdown due to the pandemic crisis has forced governments to impose restrictive policies to reduce people movements. As a result, all the transport sectors suffered a sudden stop and among these, the aerospace sector suffered a very strong drop because of the airports closure and of the tourism sector decline. It is for sure the worst crisis that the sector has ever faced.

Geographical impact: Global

Stage of value chain: Final stage of the value chain, i.e. transport usage and use of the service by end consumers.

Character of the disruption: Travel demand drop

Time frame: short term

EU actions needed:

- **Coordination** in the short term to restart the activities
- **Coordination** of the new aviation processes to make the sector adequate to new customers behaviours and safe travel desires
- **Funding** to help companies restarting activities
- **Regulation:** support for national and regional agencies to harmonize the different measures: EU can help with Public and Personal Health Protection, shaping new.

Recommendation:

- The short-term goal is to survive, creating awareness of the current and future limitations due to the pandemic situation.
- Support SMEs, which represent 90% of the aerospace ecosystem, to stay/become more independent from foreign investments and develop the capacity of making critical mass

Strong reduction of cash flows and financial capabilities

Source: Krzysztof Krystowski

Evidence: The reduction of travels and airports closure generated the decrease of the income for travel businesses. Because of the aerospace sector shutdown, companies have to face issues of liquidity. The cash flow reduction leads to the inability to invest in R&D and to attract external investment; experts are pessimistic for future investment in aerospace sector. It is important to find new strategies like working with advanced payment or launching an EU support plan.

The expected number of new aircrafts to be build is decreasing. The shock for OEMs will be even bigger than expected. Taking the Boeing example: There is now an enormous pressure on the company, given the 737 Max crisis and the COVID crisis.

Geographical impact: Global

Stage of value chain: all stages

Character of the disruption: incoming cash flow reduced and consequent reduced financial capacity of the aviation sector

Time frame: short and medium term

EU actions needed:

- **Funding:** EU can help preventing the aviation sector collapse through: Financial support to customer and supplier
- **Funding:** cash flow liquidity support for SMEs to help them to survive (more attention since they are the most vulnerable)
- **Funding and coordination:** R&D funding to support innovation for recovery and growth in "New Normal"
- **Coordination:** supporting the reactivation of safe travel services

Recommendation:

- The reduction of the financial capacity generates a reduction of the investments, including the manufacturing of new airplanes as well as in research and development. In the long run, the sector's technological innovation will suffer greatly. There is a strong potential for technological innovation in the sector, both in the automation of manufacturing processes and in the automation of aviation (drones). The crises should push the technological evolution and the evolution of the regulatory progress, but the lack of liquidity represents a big barrier in this sense.

Strong reduction of staff

Source: *Krzysztof Krystowski*

Evidence: The cash flows and corporate liquidity reduction create difficulties for maintaining the staff. Companies have to lay off staff as they cannot afford them any longer. These employees are highly skilled, as the sector is a high-end tech sector requiring specialised knowledge. For these employees, the closest possibilities of similar tasks lay in the automotive sector, which is equally under pressure during the crisis.

Geographical impact: Global

Stage of value chain: Human Resources

Character of the disruption: lack of work and lay-off of employees

Time frame: short term

EU actions needed (legislation, coordination, funding):

- **Coordination:** cash flow liquidity support through staff retention (salaries and skills), capability protection, supply chain protection
- **Coordination:** New European solution for competences development, allowing a competitive advantage for EU in the long term

Recommendation:

- The innovation technology can help companies to face the crisis, also in the job environments.
- It is necessary to design and rethink safer workplaces and the automation of manufacturing processes can help in this sense. If this would happen, many other stakeholders in the supply chain could also benefit from it, such as specialized automation providers.
- The skills, competences and electronics and avionics profiles can boost the technology support for facing the crisis. They are strong profiles related to sub-sectors of aerospace, which will grow more and more in the coming years.

Strong reduction of supply chain continuity and competitiveness

Source: *Krzysztof Krystowski, Holger Lipowsky*

Evidence: The crisis is generating a widespread vulnerability along the entire supply chain, including the reduction of possible acquisitions. One of the main critical points is that most SMEs in the aerospace sector also work in the automotive sector, which is another sector that has suffered a lot. A competitive repositioning is needed, which implies a greater coordination among the stakeholders to face the crisis. Currently, China is rising the quickest, giving Chinese OEMs bigger opportunities on the market. In recent years, Chinese companies have invested heavily in Europe. One possibility for European players is to become suppliers of

Chinese programs rather than trying to rebuild everything on their own. This has pros and cons, as it would allow for a faster recovery but would create a long-term competitive disadvantage for Europe.

Geographical impact: EU

Stage of value chain: Design, Operations, Manufacturing, Logistics

Character of the disruption: lack of investments; potential Chinese influence

Time frame: mid-long term

EU actions needed:

- **Funding:** Incentives for SMEs and to OEMs

Recommendation:

- R&D investments and technological innovation can represent an advantage for the European value chains. However, cuts in national budgets have been made in many countries, including military budgets. Historically, technological innovation in the aerospace sector derives from innovation in the military sector and if the military budget suffers because costs cuts, the aerospace's innovative capacity is consequently reduced.
- The collaboration with China has pros and cons, and needs to be discussed.

IDENTIFICATION OF NEEDS

- Regulations: European intervention is needed in order to harmonize the different measures taken by governments

Source: *Krzysztof Krystowski*