

Quality is a key enabler to succeed production ramp up and reduce manufacturing costs in the Aerospace & Defense industry

CONTEXT

Following COVID crisis and facing Ukraine war context, the industry is now **increasing volumes to meet and outperform previous production rates**. This context highlights the current limits of the quality system :

- Quality standards & processes are not fully adapted to productions rates needs (NC leadtime processing, volume of NCs, time to detect NCs, ...)
- Increased pressure on cost of Quality and cost of non-Quality
- Difficulties to protect internal & external customers
- Permeable Quality gate with suppliers
- Lack of Quality team capacity and skills (recruitment)

Therefore, the Quality performance is highly impacting the ramp up in terms of :

Volume of NCs /
concessions

NCs lead time &
backlog

Quality Gate
performance

Client
satisfaction

SECTOR CHALLENGES

- 1 **Empower Quality** within all levels of the organization & **take Quality out of its silo** especially with Production and ME
- 2 **Ensure a right set of skills** (product knowledge, data analysis tools, performance mindset, communication, ...) & **appropriate experience for Quality teams**
- 3 Guarantee **on time detection of all NCs** at each step of the manufacturing process
- 4 Secure **early anticipation of suppliers' Quality issues** to reduce associated disturbances and protect customers
- 5 Radically **shorten NCs & Concessions processing** to match with production rates
- 6 **Extremely reduce the volume of NCs** including concessions & **speed up the quality learning curve** on new programs

Maexinvent believes that the sector must transform its quality management by activating these 8 levers

Develop a robust quality system

1

Adapt Quality strategy with company objectives & sector maturity

Ensure sustainable quality management foundations before copy / paste automotive best practices

Align Quality strategy with program & manufacturing and promote it across the organization

2

Bring Quality organization closer to production / shopfloor teams

Organize multi functional teams including Quality at shopfloor level

Create a team skills matrix to map out potential needs (training, coaching, recruitment ...)

3

Set up efficient Quality control system

Reinforce inspections done by Quality with appropriate delegation

Clarify quality specifications & create understandable control check

Set up internal Quality feedback loops to track inspection performance, enrich Quality control procedures and manuf. processes

4

Enhance suppliers' Quality to avoid related internal disturbances

Establish strong incoming inspections with clear quality specifications aligned with suppliers

Install dynamic feedback loops with suppliers

5

Ensure reliable documentation & data on product Quality during the whole manufacturing process

Define clear content of Quality documentation

Leverage digital tools to ensure proper data tracking & management

6

Streamline the NC process to reduce interfaces between all involved functions

Follow the process performance with simple KPIs (leadtime, backlog, backlog per department, % return to task ...)

Map the current process & reduce the interfaces especially for concessions

Delegate right authorities

7

Align key departments on top Quality issues to ensure fast & sustainable eradication

List all Quality failures & prioritize them based on FMEA logic

Set up appropriate governance to tackle top quality issues

Anticipate process deviation from product control to quality assurance

8

Reduce engineering changes and speed up integration of them

Improve transparency & tracking of engineering changes with clear revisions status & dates of embodiment

Involve Quality & manufacturing at the design step to reduce changes

Maexinvent has a strong experience and expertise in improving Quality performance in Aerospace and Defense

OUR EXPERIENCES

We have an extensive track record of successfully addressing quality performance in the Aerospace & Defense industry :

Improvement of the overall Quality System with cross-functional approach (Quality, Production, ME, S/C ...) to increase Quality Gate performance



x 2
Quality Gate Perf.

Definition and deployment of the quality control strategy of a 4.0 factory by deploying SPC methodology



- 80%
CNQ

Boost Plan definition & implementation to speed up NCs and Concessions processing



- 20%
NC / Concession Leadtime

OUR STRENGTHS

- **Strong experiences** in supporting **transformations in Aerospace & Defense, in ramp-up context**
- **Extensive expertise** in Quality strategy, management & tools
- **Pragmatic approach and tailored solutions**, co-constructed with your teams
- **Alternative** to large consulting firms or usual consultants
- French German team with a mix of **experienced consultants and operational profiles**
- Value creation **“from analysis to action”** with **lasting results**

OUR EXPERTISES

Our consultants have extensive skills and expertises in all aspects of the Aerospace & Defense value chain, complementary to Quality Strategy & System expertise.

