SNOWBALL PROJECT

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MY ROLE AT AIRBUS

Airbus is a leading multinational aerospace corporation renowned for designing, manufacturing, and selling a diverse range of commercial and military aircraft, along with space systems and services.

My team **OMAO** is the **Technical Authority** supervising all questions related to our POA (Production Organization Approval) in front of EASA. As a **Data Analyst apprentice**, I provide analysis of production data to help my colleagues make advised decisions.

BACKGROUND CONTEXT

In the **FALs** (Final Assembly Line) and **plants**, a single **Non Conformity** at Section Handover can be the **root cause of missing the FOT** (FAL Operational Test Meeting) date and several hours of **Out Standing Work**.

MISSING GAP AND AIM

On the shop floor, workers couldn't **anticipate** and **reduce** the so-called **Snowball Effect** of certain tasks leading to lost hours in production. The aim of the project is to **provide a decision tool** that orders tasks to performed influenced by Non Conformities.

METHODOLOGY AND RESULTS

To make a decision, we model the impact of an NC by a score:

$$\text{Snowball Score} = (V + H) * B$$

V = **Predicted Vertical Lead Time** (Time to close the NC)
H = **Horizontal Theoretical Blocking Hours** (Expected impact of the NC down the value chain)
B = **Business Rules** (additional features based on shop floor and user expertise

To predict the current Snowball Score of an NC, we compute the previous existent Snowball Scores and use **Machine Learning**.

CONCLUSION

This Project has helped the workers **prioritize the most time efficient tasks**. A tool is now available to monitor the real time Snowball Score fluctuations.

NEXT STEPS

Missing parts are also slowing production down and sometimes stopping it. The next step of this project will aim at computing with Machine Learning the effects of missing parts to **prioritize orders in Procurement**.