An interview with Mr. Étienne POURBAIX

Managing Director of the Skywin competitiveness cluster, and Mr. Stéphane GUALANDRIS, Project Manager at Skywin

A new chairman for Skywin!

In September 2023, François Lepot (SAB) succeeded Jacques Smal as Chairman of Skywin. François Lepot, CEO of Safran Aero Boosters, has been appointed Chairman of the Skywin Wallonie competitiveness cluster. A civil engineer with a degree in electromechanics and aerospace engineering from the University of Liege, Lepot spent a year working for Cockerill-Sambre after graduation. He then devoted his entire career to one of Wallonia's leading aerospace companies, Techspace Aero, now Safran Aero Boosters.

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More specifically, the future CEO started at Herstal in the Design Office in 1993, before becoming Project Manager for the development of the CFM56-7 engine two years later,

and then moving on to General Electric (US) and Snecma (France). In 1998, he became Technical Brand Manager for the General Electric and Pratt & Whitney engine programmes. In 2006, at the age of thirty-six, François Lepot was appointed Director of Operations, in charge of production, supply chain and investments. Finally, in 2019, he succeeded Yves Prete as CEO of SAB.

The Skywin cluster's strategy has been completely overhauled for 2022. Could you tell us more about it?

Étienne Pourbaix (E.P.).

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In 2022, the Walloon government reviewed its relationship with the 6 regional competitiveness clusters with the implementation of a multi-year contract of objectives and means that defines five missions. This was important for two reasons: the sustainability of the cluster is guaranteed in the medium term and its activity is both formalised and clarified. The conclusion of this contract was accompanied by internal

reflection within the cluster on the technical axes.

What are the 5 missions of the Skywin cluster?

E.P. The first mission is to support the government's regional strategy by producing among others technological and strategic roadmaps for the sectors that are relevant to our cluster. We will come back to this.

The second mission is innovation, based on two main areas: ensuring a technological watch for members (seminars, participation in fairs, etc.) to make them proactive, and organising two calls for projects per year in order to launch collaborative R&D projects to develop new technologies.

Third mission: to ensure the economic growth of the sectors covered by the cluster through scaling-up: this involves enabling SMEs that have been established for 2 to 3 years with a marketable product or service and a small number of employees to move up a gear by acting on several levers simultaneously (commercial aspect, marketing, personnel management, innovation, new financial resources from the Walloon Region, etc.) We are keen to act as growth accelerators for potential future "nuggets": we target them, define together the points to be improved and establish an appropriate action plan.

The fourth mission concerns the development of talent and training along two lines: the reduction of labour shortages in the sectors concerned and the technological innovation generated by R&D projects. Design offices should not be the only beneficiaries of these advances: it is also in the interest of industry to make use of them in their production processes.

Finally, our fifth and last mission relates to internationalization in close cooperation with AWEX. It is crucial to increase the visibility of our four sectors, which are international by definition. This requires the use of digital tools but also, and above all, in-person participation in the largest specialised trade fairs throughout the world. To conclude this subject, let us specify that each of these five missions has been broken down for each sector.

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Here we go!

E.P. The Skywin cluster has identified four sectors: aeronautics, space, drones and defence. In 2022 and 2023, we have produced the roadmaps for space, civil and military aerospace as well as drones. The aeronautics sector covers aircraft structures and engines thanks to the presence of a very dense industrial fabric in Wallonia. I am of course thinking of the two world leaders, Sonaca, which manufactures the leading edges of wings, and Safran Aero Boosters, which produces 60% of the boosters for the first stage of air compressors in aircraft. But there are also a great many SMEs, active in subcontracting or in direct access with the major contractors.

Skywin has defined 5 technological axes…

E.P. Indeed. These five technological axes or DAS were determined internally, in consultation with the project managers and member companies, and then approved in December 2021 by the cluster’s board.

The five technological axes:

- Flying substructures and subsystems, including new fuel types (synthetic, hybrid, hydrogen).
- Innovative materials and processes (composites, hybrids, metallic alloys).
- Embedded and communicating systems, with a focus on cybersecurity.
- The data economy and artificial intelligence, for real-time data analysis.
- Simulation and digital modelling, leveraging Wallonia's physical testing facilities.

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The health crisis and the WINGS project

E.P. The health crisis linked to Covid-19 brought the aeronautical sector to a sudden halt with a high risk: the erosion of R&D skills with the departure of engineers to other sectors...

Let's talk about the WINGS project!

Stéphane Gualandris (S.G.). This is an aerospace technological innovation partnership that was launched in the last quarter of 2020 to respond to a double

challenge: the health crisis and the grounding of the Boeing 737 Max.

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Project organization:

- 56-month project
- €146 million budget (75% public funding)
- 172 full-time equivalents mobilized
- Goal: low-carbon aircraft by 2035, carbon-neutral by 2050

Research themes:

- Aerostructure
- Propulsion
- Communication systems
- Materials and processes
- Digitalization and digital simulation
- Industry 4.0

Future prospects and sector insights

Results expected by 2025: 1 company created, 22 projects submitted, 29 patent applications, 20 scientific publications. The Skywin cluster continues to expand across the space, UAV, and defence sectors, with Wallonia standing out as a key European hub for aerospace innovation.

Key figures of the Skywin cluster

- 145 members
- 101 projects labelled since 2007
- More than €300 million of total project budget