

## **A data exchange standard for our vehicles tuning using data science**

The PROMETHEA project, led by the main automotive industry players, deploys a standard to promote the measurement data exchange between manufacturers and suppliers.

This standard promotes the use of databases with Data Science and Artificial Intelligence methods.

These methods are very effective levers for accelerating the convergence of vehicle parts and services conformity.

Resulting from the work of the VALDriv PLM program of the Automotive Platform (PFA) and carried by the Group for the Improvement of Liaisons in the Automotive Industry (GALIA), the PROMETHEA project is part of the structuring of the digital transformation of the automotive industry. It will allow all players to communicate essential information to ensure product conformity as well as greater satisfaction of final customer.

Led by experts from automakers, equipment manufacturers and service providers (Renault, Stellantis, Valeo, Faurecia, DeltaMu), this project has developed a process and a standard for exchanging technical data on parts. The use of data from customers, designers, factories and suppliers will help decision-making in order to meet the quality, cost, deadline and performance objectives of vehicle projects.

Indeed, robust product/process design and a guaranteed level of quality through measurable and exploitable technical requirements are at the heart of the issues. Large volumes of data from measurements can be exchanged and processed, facilitating their exploitation by data science and AI methods

These exchanges from one end of the chain to the other can only be easily implemented thanks to standards that allow measurements to be traced. This accelerates their exploitation and their reconciliation with the design requirements in order to set up a virtuous loop of tolerance refinement and choice of the adapted metrology.

The benefits of the project are numerous:

- Product/Process quality
- Robustness of the design
- Compliance with regulations including market surveillance and improved traceability

All the stakeholders and partners of PROMETHEA attest the interest of the approach:

"Thanks to the VALDriv PLM program, the PFA is pleased to have enabled the realization of the PROMETHEA project, in line with the objective of the Contrat Stratégique de Filière (Strategic Contract for the Industry) to improve the performance of companies in the industry and to help them in their digital revolution" (Marc Mortureux, General Manager of the PFA)

"Data exploitation and Artificial Intelligence are at the heart of the transformation of the automotive industry, to meet our challenges of connectivity, electrification, safe and sustainable mobility, and to improve the efficiency and quality of our products.

In this context, the collaborative project PROMETHEA proposes a data model for the improvement of our products. It standardizes the exchange of product and process measurements, an essential governance prerequisite in an AI project, which allows a strong added value of data science to optimize our specifications at the right time.

The PROMETHEA Project by facilitating the use of Artificial Intelligence brings benefits for all actors, from the supplier to the customer: it is a formidable accelerator and a standard that must be generalized." (Gerhard Habla, Global VP Engineering Quality Core Function, STELLANTIS)

"The PROMETHEA collaborative project seems to us to reveal what the power of digitalization of data and its processing by Artificial Intelligence can bring to the automotive industry.

This is also fully in line with Valeo's technological roadmaps. Indeed, data processing and AI are already at the heart of all our intelligent systems dedicated to propulsion, safety and comfort.

This project, which focuses on product dimensions, will enable our data scientists to establish new specifications that are less constraining, while increasing quality for the end customer.

This will improve production, which is also a benefit for our tier 2 suppliers.

In short, the PROMETHEA project is a real opportunity for the automotive industry. (Michel Forissier, Chief Engineering and Marketing Officer VALEO)

"For Renault and its partners in the XCEED project, the PROMETHEA data model and Blockchain technology will guarantee the conformity of geometric characteristics of safe and regulatory parts."

(Odile Panciatici, VP Blockchain Renault)

"The Industry 4.0 revolution is now underway and it is established that data will be its energy, its oil.

Therefore, the PROMETHEA protocol is the pipeline that allows to transport data from the place of production (the factory in general) to the place of its exploitation. PROMETHEA is therefore the central actor that offers the capacity to centralize structured data to allow all analyses, and in particular those proposed by Artificial Intelligence algorithms " (Jean-Michel Pou, President, Deltamu)

"GALIA contributed to the success of this project by bringing together, in a non-competitive context, the industrial members of the sector to help them define together their needs and to elaborate a common solution that can benefit any company whether it belongs to the automotive sector or not, in France or abroad." (Alexandre Loire, former VALDriv PLM Program director and GALIA project manager)

About the PFA: The Automotive Platform (PFA) brings together the automotive industry in France. It defines and implements, on behalf of all partners (manufacturers, suppliers, subcontractors and mobility players), the industry's strategy for innovation, competitiveness, employment and skills. It is the voice and expression of the industry's common positions. It is also the project manager of the Mondial de l'Auto.

About GALIA: The GALIA (Groupement pour l'Amélioration des Liaisons dans l'Industrie Automobile) is an association created in 1984 by and for the actors of the automotive industry. Representing the interests of its members in international bodies, GALIA develops and publishes recommendations and standards for data exchange in the fields of Logistics, B-to-B and Engineering, accessible to industrial partners as well as to software editors and service providers worldwide.

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