Impact from data for high-tech industry pays off

Today, the TNO-led ITEA project Reflexion received the EUREKA award. The award recognises the impact of the project, the potential to strengthen competitiveness and the successful collaboration between SMEs and large companies. Earlier this week, the project was already rewarded with the ITEA Award of Excellence.

Impact on the production process

The project partners have succeeded in the real-time and continuous conversion of operational user data from industry into information, thereby gaining better control over the production process, the use of the product and the future design. This creates a so-called "digital loop" in which data is fed back to the ecosystem. ITEA Vice-Chairman, Philippe Letellier also emphasises the importance of this "digital loop": "Unique results are emerging at the very beginning of the industry chain, at the design level. But it is more revolutionary than that. There is no more start or end."

Overview in complex systems

Thanks to the emergence of cheap sensors and affordable large-scale data storage, terabytes of data are acquired daily from complex systems that are characteristic of the high-tech industry. Whether it is about intelligent equipment in operating rooms, sensors in industrial printing systems or smart energy meters, the trick is to filter the data in such a way that only relevant, valuable information remains that can be used to create overviews and insights. The partners of the Reflexion project have achieved exceptional results in this area and have been rewarded with the Eureka award today.

The challenge is to gain and maintain insight into the highly complex systems. "At ESI (TNO), we work with and in industry on a daily basis. We are specialised in high tech system development. Together with industry and SME partners in the consortium, we have developed a data analysis methodology that is applied throughout the entire production process," says TNO project leader Bas Huijbrechts.
Profit in time and money for the manufacturing industry

The application of data science in manufacturing is new; the focus is usually on engineering and mechatronics. The fact that so much added value is created with this methodology has already been proven in practice in the course of the project by the project partners.

The partners from the Netherlands (Axini, Océ Technologies, Philips, Synerscope en ESI (TNO)) and Belgium (Barco, Siemens Industry software en Yazzoom) gained insights which provide industry with a considerable time and economic gain. For example, data resulting from maintenance inspections provides not only an opportunity for accelerated troubleshooting and trouble-solving (and therefore a shorter production stop), but also input for improving product design.

More info on the Reflexion project: React to Effects Fast by Learning, Evaluation and eXtracted informatION

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