Reuse of manufacturing experience in product and process definitions

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Research Approach

- Study of current practices
- Suggestion of improvement
- Implement improvement
- Evaluate Improvement

Background

To improve manufacturing processes it is essential to make use of knowledge, measurements and experiences already when defining the manufacturing process and even the governing product definition.
This work, titled “Reuse of manufacturing experience in product and process definitions”, focuses on methods and techniques to understand and develop methods for concurrent definition of the product and the corresponding manufacturing process.
It is recognized that the earlier aspects of manufacturability can be introduced the bigger impact on production readiness can be addressed. Validation of research will be conducted in close collaboration with Volvo and other parties within the MERA programme and in particular the DLP-E project in the same programme.

Research Question

How can the process of experience reuse from manufacturing phases be improved to have a greater impact in the earlier phases in PD?

Approach

Experiences and techniques existing in the domain of “Knowledge Based Engineering” are used as an initial approach to capture, formalize and realize experiences from manufacturing processes.

Expected results

Improved processes and tools capable to reduce recurrent manufacturing problems in product development.