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# Agile Manufacturing

## Video Transcript

**Off:** Shrinking product lifecycles, more diverse and demanding customers, unpredictable plant and equipment – manufacturers urgently need some help. Connected, intelligent devices can help them innovate more quickly and get to market faster.

**Jean Nicholas Brun:** Industrial equipment industry has experienced deep mutations over the past years in its manufacturing domain: first, Distributed upstream supply chains make on-time delivery to the assembly line complex to manage. Second a massive customization of systems and equipment with a broad variety of configurations. Third, more sophisticated software and

embedded technologies need to be tested and integrated in the products. Those challenges urge manufacturers to become agile in the way they design, optimize and execute their process planning.

**Jean-Christophe Ledoux:**

Accenture jointly built with Dassault Systèmes a demonstrator, to show how the combination of different digital technologies can enable agile manufacturing new capabilities, such as:

- The industrialization of tasks sequence creation & process planning by linking DELMIA routings with MES Shop floor Execution system
- Assisted re-planning capabilities

- on remaining production effort when new operational events raised

**Off:** DELMIA provides a powerful 3D-environment to visually convert the production design into a factory layout, the required assembly line and the single tasks to perform. In QUINTIQ, with the production orders coming in from the ERP system, the theoretical task sequence becomes operational, taking into account planning deadlines, availability of resources and production status. The data then is fed into the APRISO system, which now provides the workers on the shop floor with all information on which tasks need to be done, including

visualizations of the operations to be performed.

operators' autonomy and make the factory of the future a great place to work.

**Guillaume Vendroux:** Our collaboration with Accenture on this type of agile manufacturing scenarios already delivered productivity at our customers. Not only are we talking about double digit productivity, either in the engineering phase or on the shop floor, but most importantly it provides agility, that is the capability to react to unplanned events on the shop floor.

**Off:** For example: A missing part leads to delays in a production step, jeopardizing the production schedule. The production line manager now needs to act quickly and re-plan the tasks sequence in order to keep the schedule. QUINTIQ assists and instantly provides him with feasible alternatives and the interdependencies between single operations, integrating the process planning created in DELMIA. The new planning is then instantly available in APRISO to the team on the assembly line.

Future manufacturing will be agile manufacturing, and digital continuity will be the backbone of the industrial transformation. Operations will be monitored, executed, optimized in real-time and this is how the hyper-connected shop floor and the collaborative supply chains will unlock the power of data analytics. Future manufacturing will be human-centric. It will bring more value to the customer through Mass-customization, traceability, transparency, sustainability and time to market acceleration. And it will be workforce centric. The augmented worker will profoundly change the