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CREATING A CHANGE THAT ACTUALLY WORKS

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**ADVANCED
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A person wearing a white lab coat is shown from the chest down, holding a large white plastic jug. The background is a blurred industrial facility with various pipes, ladders, and structures. The entire image has a teal/cyan color overlay.

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There's a fundamental change going on. It's about the way industrial companies manufacture their products, develop related services, collaborate with their partners, and cater to their customers. In fact, it's an Industrial Revolution – Industry 4.0 – in which the next stages of digitalization are implemented: visibility, transparency, predictability, and adaptability. It's crucial to guide employees through this massive change successfully.

Industry 4.0 impacts virtually all functional areas, from development, manufacturing, maintenance, logistics, and services to marketing & sales. It involves the introduction of new, often disruptive concepts and technologies, including holistic twins, modularization, agile production (additive manufacturing, robotics), sensing and vision (drones), and RFID/GPS. Data-driven maintenance evolves from condition-based to predictive and prescriptive maintenance.

Removing the roadblocks

Industry 4.0 is an important driver to accelerate innovation and realize more sustainability. It promises higher flexibility in manufacturing, in terms of product requirements (specifications, quality and design), volume (small series), timing, efficiency, and costs. New revenue models can be introduced, based on use instead of ownership. Advanced technologies in a manufacturing environment help to attract young, highly educated employees. With Virtual Reality you can train them for possible scenarios; with Augmented Reality you can support technicians on-the-scene. No wonder that even seemingly conservative sectors are getting started with it.

Industry 4.0 is a major change

To take full advantage of Industry 4.0, it must be treated as a major change that must be actively managed from the start. Needless to say, it takes more than great technology to deliver on the promises of Industry 4.0. The most effective change programs engage the key stakeholders in the organization, including IT, in early, open, and direct communication. Of great importance is strong C-level sponsorship so that Industry 4.0 remains a priority and everyone is held accountable for achieving the company's ambitious goals. It also requires a workforce willing to make the change, adapting the new ways of working that come with new technologies and the new approaches to development, manufacturing, and marketing.

This brings a whole new profession to manufacturing companies: the data scientist, who works with the production manager to develop applications to improve production monitoring, equipment maintenance, and safety at work in ways that were simply not possible before.

21st Century Skills

In order to bring the change process to a successful conclusion, employees must build up a relevant skillset, the so-called 21st Century Skills. These include the learning skills of critical thinking, creativity, collaboration, and communication; the literacy skills of information, media, and technology; and the life skills of flexibility, leadership, initiative, productivity, and social skills.

We believe that most employees are quite willing to make necessary changes. That's why

we recommend approaches where they are empowered, especially if employees have sufficient command of the 21st Century Skills. Good communication, together with retraining programs, can help people start moving toward new career paths, including those within the same company.

PDM's project involvement

PDM is partner in two research projects, "SAMEN" and "The Digital Plant of the Future". SAMEN is a World Class Maintenance project that answers the question how a service provider can develop a technical innovation into an effective business model. In the "Autonomous Plant" Living Lab PDM validates knowledge regarding the autonomous control and maintenance of production facilities.

The second project was initiated by the Brabant Development Agency (BOM), TNO and Eindhoven University of Technology. It's about realizing an environment where companies can experience how data-driven innovations can be integrated in production facilities. Through the use case "Collection and application of machine data" PDM clarifies the impact of datafication on the packaging, sorting, and material handling industry.

Change is a challenge

The implementation of Industry 4.0 is particularly complex because full integration of business operations must be achieved. PDM is able to establish connections between the different departments within a manufacturing organization and between stakeholders in the industrial chain. PDM understands the challenge for the industry and offers propositions to have real impact. This makes PDM the right partner to realize Industry 4.0.

During the implementation of Industry 4.0, PDM pays attention to the following aspects:

- The modular structure of the products
- Digital documentation to replace paper
- The communication between all processes in the factory
- The installation and commissioning of relevant hardware (sensors, transmitters, networks, receivers, cloud, monitors, glasses, actuators, etc.).
- Analysis of available data, based on which new services can be developed.

Based on the current maturity level of a specific company, tailor-made action plans are developed to successfully implement the digital transformation on a step-by-step development path. PDM can help companies that strive for advanced manufacturing to make a change that really works.

Ask for a copy of the **PDM** white paper *Autonomous plant – Industry 4.0 Perspectives*

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We change minds so you don't mind changes

Change Management for high performance

Industrial optimization is very often depending on material and cultural change. PDM understands that adaption of these changes within a complete organization is key for the success of any optimization project.

By understanding the needs of our customers and their staff we avoid a cultural lag and progress trap. Thanks to a tailor made approach we deliver change acceptance on any level so your organization wants to change before it has to.

***PDM is active in change management since 1971. Contact us for more info:
www.pdm-group.com***

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