

ConMoto Maintenance 4.0 HealthCheck[©]

How can you achieve optimum performance?

Compact analysis of your maturity level and identification of key activities for the development of Maintenance 4.0

Selected ConMoto design elements that elevate your maintenance to a new development level

Results and effects of ConMoto Maintenance 4.0



Inspiring solutions. **Implemented**.

How efficient is your maintenance and asset management in the era of Industry 4.0?

Technical evolution has created numerous possibilities to improve the quality of maintenance. Consequently, the productivity and system efficiency in production also increases. Still, the majority of companies does realize the potentials Maintenance 4.0 and predictive asset innovation offer. The ConMoto Maintenance 4.0 HealthCheck® supports you in assessing your Maintenance 4.0 maturity level. Our compact and feasibility-driven analysis provides key activities for your future-oriented progress.

Four-step health check

The Maintenance 4.0 HealthCheck® comprises four clearly defined steps:

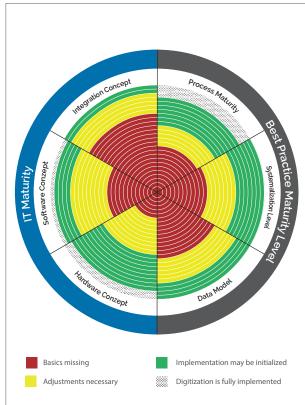
- 1. Data survey and systematic analysis of basic data (organization, replacement parts, maintenance key figures, costs, etc.)
- 2. Structured assessment of processes and IT infrastructure (mobile maintenance, plant optimization, organization development, budget management, etc.)
- 3. Presentation of the individual Maintenance 4.0 maturity level: How close is your company to the innovative optimum regarding the different performance criteria? Where is a need for action? (see Fig. 1)

4. Objectives, fields of action and effects: Identification of innovation priorities, systematic assessment of your potentials and derivation of target areas

By presenting the results and discussing them with your employees and the management, the ConMoto Project Team is giving the impulse for change in your company. Additionally, the joint Maintenance 4.0 core team is planning the necessary implementation steps.

The overall objective of all these efforts is to lift your maintenance to a new, sustainable level: Value orientation concerning maintenance implies taking full advantage of the efficiency gains that the digitization of production renders possible.

The mission statement of Maintenance 4.0 is "highest reliability at optimum costs", therefore providing maximum sustainability. An initial important lever is avoiding waste, especially regarding the new digital forms of waste such as missing data, too much data, manual data conversion and correction, data breaches and uncontrolled processes.



Classical design elements for valueoriented maintenance

- Risk- & availability-oriented maintenance strategy
- Integrative maintenance commission management, capacity planning and scheduling
- Indicators and visualization
- Organization development
- Autonomous maintenance
- External services management
- Replacement management
- Shutdown, outage & turnaround management

Design elements Maintenance 4.0

- Advanced analytics, predictive & preventive maintenance
- Mobile maintenance
- Asset innovation/life cycle costing
- Computerized Maintenance Management Systems
- Digitization/IT integration
- Qualification/organization

Figure 1: Maintenance 4.0 maturity level and design elements for systematic implementation

Selected design elements of ConMoto Maintenance 4.0

We enable you to reach a new maintenance level. Supported by our ConMoto design elements, it will be much easier to master the challenges both technology and market pose. Within the scope of a digitization process, the overall system must still be economic.

Predictive & preventive maintenance

Predictive maintenance provides maintenance strategies based on risk and availability, especially for your plant components with critical risks of failure and high system component costs. *Prevention is better (and cheaper) than repair.* Preventive maintenance transforms this creed into reality on the shopfloor achieving long-term cost savings.

Digitization & IT integration

Make digitization part of your employee's daily routine! Important elements are mobile maintenance and IT integration of all relevant systems, i.e. production data acquisition, CMMS, asset management databases, document management systems. Your employees use handhelds or tablets to efficiently control maintenance and asset management processes. Computerized Maintenance Management Systems (CMMS) are supporting all processes and generate

transparency. The combination with advanced analytics provides the best basis for informed decision-making of executives and employees alike.

Asset innovation & life cycle costing

We maximize the runtime of your equipment at minimal cost and risk when we start the planning process. Optimization is an integral part of planning, asset specification and plant start-up. Therefore, it is possible to save a multiple of the initial investments throughout the life cycle of your machines and production equipment.

Organization and qualification of employees

Support your company goals by creating a value-oriented organization of maintenance! Qualified and motivated employees are the hearts and brains of a maintenance organization. They profit from targeted Maintenance 4.0 training by individual progress, knowledge transfer and a systematic approach to knowledge management.

Beyond maintenance excellence: The advantages of ConMoto Maintenance 4.0

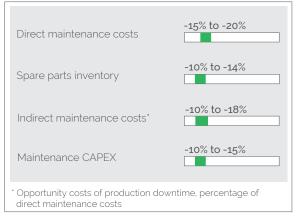


Figure 2: Results of the latest ConMoto Maintenance 4.0 pilot projects

Besides these measurable improvements, the implementation of ConMoto Maintenance 4.0 generates the following qualitative effects:

- Improvement of data quality and increase in data topicality; significant key figures and parameters (i.e. process parameters/counter status) are available in real time.
- Efficient, condition-based maintenance strategies and dynamic adjustment of maintenance schedules. Maintenance activities are predictable and plannable (prevention of failures and subsequent costs).
- Hands-on approach (coordination of maintenance workers, direct allocation of tasks to mobile devices and external service providers).
- Quick check-up on availability of spare parts and their simple allocation.



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business@conmoto-consulting.com +49 89 78066-138 www.conmoto-consulting.com Established in 1990, we are the management consultancy with clout when it comes to implementation.

In musical terms, "con moto" means "moved" or "with movement". We named ourselves ConMoto, because we are convinced that consulting is only successful, if it moves people to take action and results in verifiable improvements.

Our consultants have a wealth of manageral experience and adopt an entrepreneurial approach to create sustainable value enhancement for our customers. Using innovative methods and acting in a spirit of partnership, we systematically develop and implement solutions, efficiently change structures and processes and successfully motivate people.

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Inspiring solutions. Implemented.