Agile project management method - SCRUM at machinery and equipment engineering
More and more projects, more complex tasks and shorter development times - 
Projects in mechanical and plant engineering using agile methods, for a timely and 
cost-efficient way.

But how can obstacles be eliminated and escalated as quickly as possible? How do you 
create Team spirit for developers? When can a project be completed realistically?

Questions to which the agile project management method SCRUM answers.
SCRUM - a powerful method by a correct application.

The right application of SCRUM offers the following potential:
- Increase of adherence to deadlines
- Fast detection of deviations
- More efficient project work and shorter project durations
- Quickly identify issues relevant to the claim
- Quick initiation of measures and regular sustainability assessment
- Separation of inadequately clarified and workable content
- Early risk minimization

If SCRUM is correctly introduced and implemented in mechanical and plant engineering, 
a fundamental rethinking of the organization takes place, especially in terms of days and costs.

This requires the support of management as well as the qualification of employees in the company.

The challenge for companies in mechanical and plant engineering is to develop the machine in parallel with 
the product. Hence we from IMIG, support the perfect implementation.

In order to apply SCRUM correctly, the companies require a SCRUM Master. 
They are trained by IMIG in a practical method, including specially developed 
SCRUM Master Business Simulation.

This simulation is particularly suited to mechanical and plant engineering companies.
Three key success factors with SCRUM:

1. Transparency

Often, non-existent transparency in a project is the basis for wrong decisions. The status of the project is not visible, decision templates are missing or poorly worked out, escalations are superficial—often with regard to capacity.

With the agile project management method SCRUM, it becomes everyday current plan (Product Backlog), which indicates what is still to be done, what has already been completed and what obstacles (Impediment List) block the project. Thus, a transparent evaluation of the obstacles can be carried out. In the same way, the newly created transparency can be used to track how much time the remaining work will take to achieve milestone dates.

SCRUM also provides the framework to promote communication through various artefacts and has the potential to double the transparency in the project.

2. Adaptability

The use of SCRUM has also shown that it is imperative to be able to react directly to new information from the development departments, the line organization or the customer.

SCRUM offers possibilities with other elements such as Sprint Planning, Sprint and Daily SCRUM.

In the Sprint Planning jointly with the SCRUM team, a role in the SCRUM framework is, for example: to create functions and targets from the Product Backlog into the Sprint Backlog. The Sprint is a defined period of 2-4 weeks to achieve the goals set in the Sprint Planning.

A daily meeting, called Daily SCRUM, takes about 15 minutes to balance the processing status and if necessary, removes new obstacles. All Daily SCRUMs are moderated and organized by the SCRUM master.

It can, therefore, respond more quickly and efficiently to changes and problems. An essential advantage, which has a noticeable impact on time, employee satisfaction and costs.
3. Verifiability

Another problem of a project in a complex environment is, often none of the project participants is really aware of the time at which a partial objective have already been reached. This is most noticeable in software development. This is why it is immensely important to develop meaningful definitions of the goals in the sprint planning. It facilitates the cooperation between the project staff, creates transparency and simplifies the acceptance of partial objectives. At the same time, the project team notices at an early stage whether or not it can achieve the goals. For the project team as well as the stakeholders, it makes the project verifiable – clear goals lead to clear statements about the status. This increases planning security and helps management understand the phase of the project.

Already accomplished IMIG reference projects on the topic of agile project management method SCRUM in mechanical and plant engineering:

- **teamtechnik**
  Machinery and Equipment GmbH
  Planckstraße 40
  D-71691 Freiberg am Neckar

- **OPTIMA packaging group GmbH**
  Steinbeisweg 20
  D-74523 Schwäbisch Hall

Further information and materials about agile project management methods and SCRUM as well as our services can be found at: www.imig.com or via contact marketing@imig.com or scan:
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