Industry 4.0

For the Swiss mechanical and electrical engineering industries, there is huge economic potential in digital networking throughout value chains and the entire life cycle of market activities. This ranges from productivity increases and innovation in products and services through to new business models. Swiss industry is an excellent environment in which to successfully implement Industry 4.0. Together with three other industry associations, Swissmem is actively involved in the “Industry 2025” initiative, which aims to advance the theme in Switzerland and promote the lasting digital transformation of Swiss industry.

Digitalization

In the broadest sense of the term, digitalization impacts on almost all social and economic fields of life. New issues are becoming relevant in connection with this mega-trend, such as data security, data protection, cybercrime, management in a digital age, training and development, social media, and the sharing economy. Many of these themes also affect Switzerland as a location for industry and research, thereby also impacting on mechanical and electrical engineering. Swissmem is therefore getting involved in selected digitalization issues.

Industry 4.0

Industry 4.0 relates to industrial manufacturing. The term refers to the fourth industrial revolution, and was first used in Germany back in 2012. It is intended to convey the fact that mechanization, electrification and automation are now being followed by digitalization and networking.

Unlike previous technology-driven upheavals, digitalization does not involve one single technology, but instead encompasses a combination of different methods and digital technologies that are tapping in to the new potential generated by networking people, products, machines, systems and businesses.

Industry 4.0 should be seen as a concept. It is primarily implemented via individual “use cases” consisting of a combination of technologies, methods, data, models, services and processes. Optimization may therefore take place within different business areas or at the interfaces between customers, suppliers or partners. One key prerequisite for Industry 4.0 is streamlined processes. Systematically pursuing the lean philosophy is a good place for businesses to start from when transitioning to the digital age.

Conditions in Switzerland are ideal for exploiting the promising potential of Industry 4.0. It makes sense for companies to develop their own understanding of Industry 4.0, to suit both themselves and their market environment. Based on this understanding, they should then develop an overall digital strategy. Since Industry 4.0 entails a fundamental transformation, it is also important to prepare staff and particularly management for it and involve them in the process.

Swissmem has produced the following films (in German) to provide an initial insight into Industry 4.0.
Industry 4.0 is a complex interdisciplinary subject that has extensive repercussions on all areas of business. These are being addressed by the national «Industry 2025» initiative, which Swissmem launched in mid-2015 together with three other associations. Its objective is to firmly embed the vision and concept of Industry 4.0 in Switzerland. And it is helping to implement the initiative efficiently and effectively in industry. It is achieving this objective via defined action areas and appropriate tools.

Objectives -> Action areas -> Services