

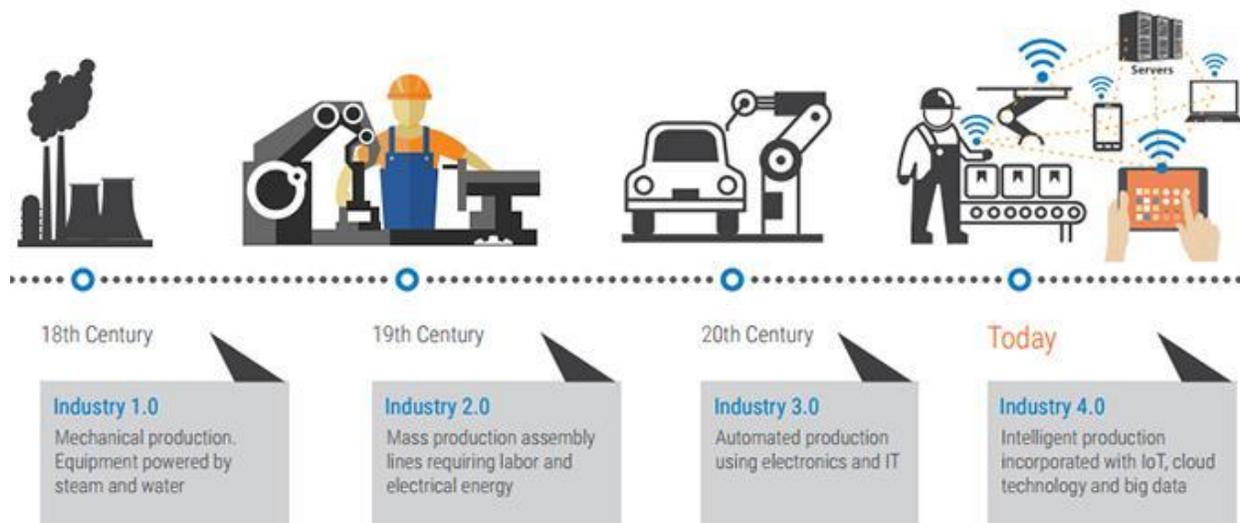


MENTORING IN INDUSTRY 4.0: A WIN-WIN SOLUTION FOR MENTORS AND COMPANIES

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Nowadays, in the IT and Manufacturing fields, there is a concept that resounds everywhere: every economist, politician, politic, journalist, analyst, expert, engineer talks about it.

We are talking about **Industry 4.0 (I4.0)**: the fourth Industrial Revolution.



After mechanisation (Industry 1.0), mass production (Industry 2.0) and automation (Industry 3.0), now the **Internet of Things** is becoming an integral part of manufacturing. Industry 4.0 technologies have the potential to create extraordinary growth opportunities and competitive advantages for industries of all sectors.

I4.0 is significantly influencing working environments: it changes processes in purchase, production, manufacturing, sales or maintenance by including concepts as smart manufacturing, smart maintenance, as well as a high degree of automation and integration in all enterprise processes. It has far-reaching implications on business value creation, business models, downstream services and work organization. As a consequence, employees have to deal with transformed work processes and business models as well as with new technologies.

I4.0 is not only affecting technology and production but the way we will work in all its dimensions. This transformation of the work environment is changing the job profiles, increasing the demand for employees outfitted with a wide range of competencies. The exploitation of digital technologies has a crucial role to play in Europe's future prosperity and well-being. The largest obstacle to harnessing the power of digital technologies and its transformation potential is a shortage of skills. In particular, there is a lack in digital technology experts.

Digital skills are essential to ensure that both business and individuals can take full advantage of modern technologies and of their potential for job creation. Likewise, digital skills are crucial for the successful digitisation of the industry and to reduce the level of unemployment in Europe.

Over the last years, the number of ICT (Information and Communication Technologies) jobs has been growing faster than any other job category. Notwithstanding this, Europe is faced with a significant shortage of people capable of filling existing and newly created digital jobs. Companies are facing a shortage of skilled employees in these areas as they do not have enough personnel with the skills necessary for the digital transformation. As a consequence, they should develop their own comprehensive training and mentoring programmes.

The importance of life-long learning is growing. The responsibility of employees for their own employability must be strengthened, backed by appropriate support. From the employer perspective, qualification is a key challenge and needs decisive action. The skills challenge in the manufacturing sector is becoming more pronounced as the industry becomes more digitalized. The digitalisation of products and of processes, as well as the digitalization of work organisation, is leading to changes in the demands in industries workforce skills and competencies.

It's important to ask how to deliver training that will meet the rapidly emerging demands, both in the existing workforce as well as in the education and training systems as a whole. As it stands, the educational systems around Europe are not fully prepared to meet the demands of new skills and emerging jobs. Companies need to increase investment in training existing employees to keep up with new processes. A major challenge is to increase the digital skills of current workers, and in particular older ones, which means creating an offer of training on digital skills.

The trend to acquire future skills through mentoring and work-based learning (WBL) will continue, with a focus on ensuring that training provision meets the changing demands of manufacturing in the future. Mentoring and WBL are also an effective way of getting digital skills into the workforce, not least by creating

bridges in companies between young learners with a high degree of digital literacy and their senior colleagues and instructors.

In terms of digital skills, intergenerational approaches (informal reverse mentoring) have started to emerge in industries whereby mentors who are currently training engineering apprentices are learning digital skills from those apprentices. One of the advantages of recruiting younger apprentices is their digital knowledge and therefore it is seen by some companies as a good way of transferring knowledge to existing employees. This is a good practice model which can be rolled out across a variety of companies and sectors. As a rule, employees and companies benefit equally from ongoing training.

Industry 4.0 represents the future as it will allow companies to combine productivity and quickness in responding to market but it is clear that they need to invest in their staff competencies if they don't want to be excluded from the global competition.