



Manufacturing Production Data Collection

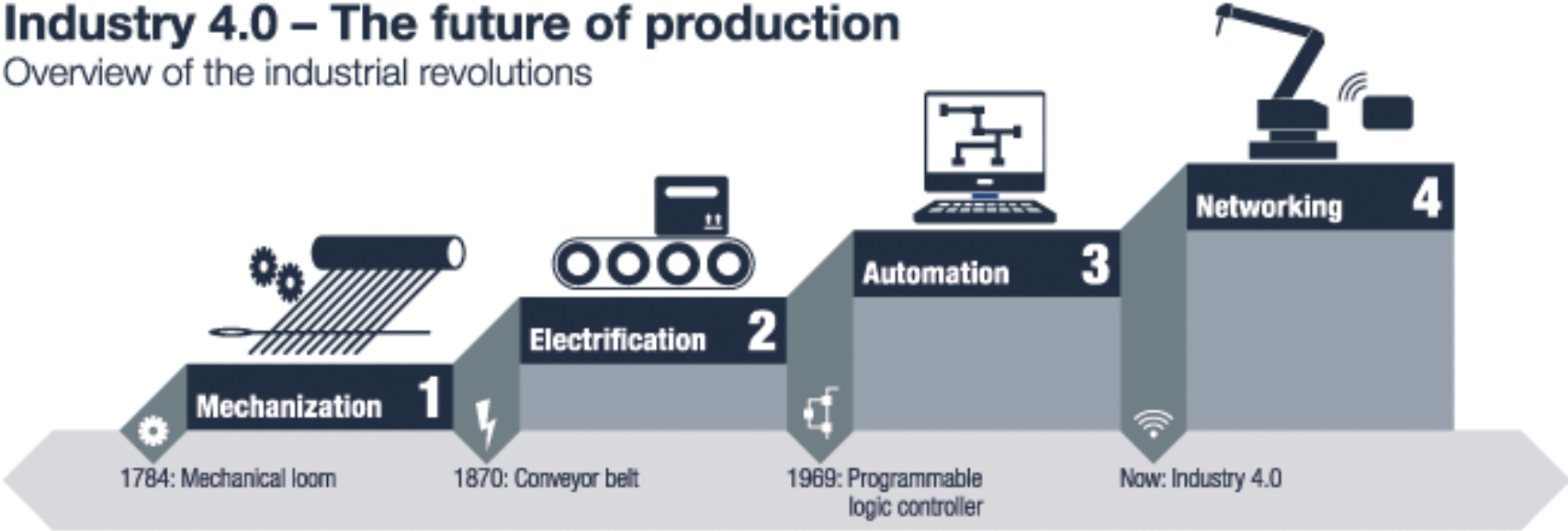
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- *Managing Complex Operations*
- *Competitive Advantage*
- *Elimination of Waste*
- *Cost Reduction*
- *Optimisation*
- *Trending Information*
- *Industry 4.0*

Industry 4.0 – The future of production

Overview of the industrial revolutions



“Industry 4.0 represents the fourth industrial revolution in manufacturing and industry. Industry 4.0 is the current industrial transformation with automation, data exchanges, cloud, cyber-physical systems, robots, Big Data, AI, IoT and (semi-) autonomous industrial techniques to realize smart industry and manufacturing goals in the intersection of people, new technologies and innovation.”

The effective (networked) collection and transfer of Data is a key fundamental of Industry 4.0

- ***JPH – Jobs per Hour***
 - ***Measuring Machine Throughput***

- ***OEE – Overall Equipment Efficiency***
 - ***Availability***
 - ***Performance***
 - ***Quality***

- ***Performance Analysis***
 - ***Why? - Identification of Losses***

- ***Cost Reduction***



Advantages of Machine Data Collection

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- *Real time information*
- *Accuracy of data enabling targeted action*
- *Automatic data collection and report formatting*
- *Lower ongoing cost for collection of data*
- *Ability to see operational overview and drill down for detail*



Challenges of Automatic Data Collection

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- *Initial cost – system, networking, machine setup / programming*
- *Effective data analysis*
- *Data Integrity*
- *Impact on data metrics*
- *System Security*