

The 4th Industrial (r)Evolution

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> 4th Industrial (r)Evolution

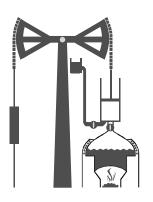
Digitalisation

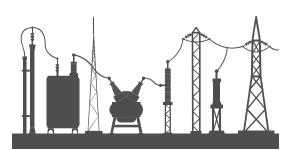
3rd Industrial Revolution

1st Industrial Revolution

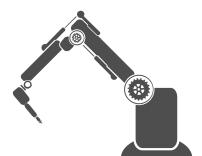
2nd Industrial Revolution

Water & Steam





Electrification



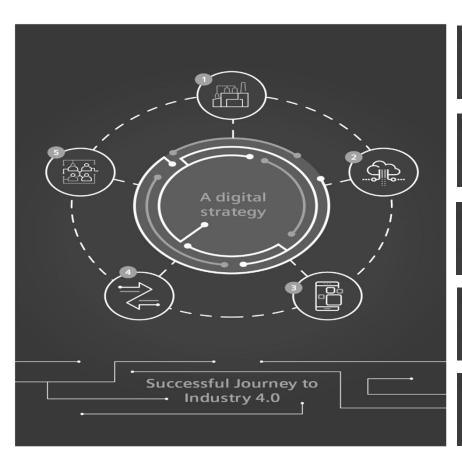
Automation

Digitalisation is the data (r)Evolution...

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Building blocks to complete digital transformation





Digitize the physical environment

Standardise data protocols

Invest in applications enabled by data

Data exchange to the upstream supply chain

Make the digital connection to customers



Congleton Chronicle

Rose queens reunited: p6



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Downturn strikes Siemens

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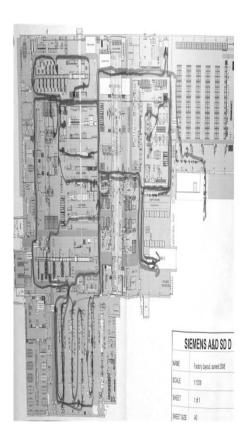


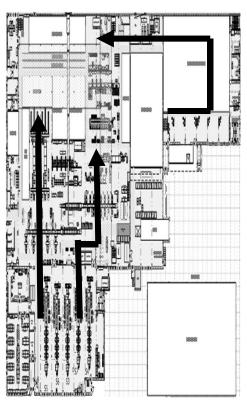
'Exciting opportunity' for mere watersports



Vision 2020: Siemens Congleton







Continuos improvement programme

Lean

EI(DSP1

Value stream mapping

Reduced manufacturing time

Increased quality

Higher employee engagement

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Slide 5

EI(DSP1

Elsby, Ian (RC-GB DF S-VS PRO), 06/03/2019

Vision 2020: Siemens Congleton



EI(DSP1



"Through utilisation of digital tools, we have revolutionised process improvements. Production time for one of our products reduced, 168 hours down to 2 "
'Siemens Congleton'

Customised production

Co-botics

Virtual reality modelling

Connected supply chain

Digital tools revolutionise production

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Slide 6

EI(DSP1

Elsby, Ian (RC-GB DF S-VS PRO), 06/03/2019

G120X VSD - Customised production



EI(DSP1



"Through agile manufacturing, innovation & supply chain collaboration, we now build customized products in similar time frames to single piece flows"

'Siemens Congleton'

High volume production

Complex products

17,000 variations

Batch size of 1

Kanban driven to customer orders

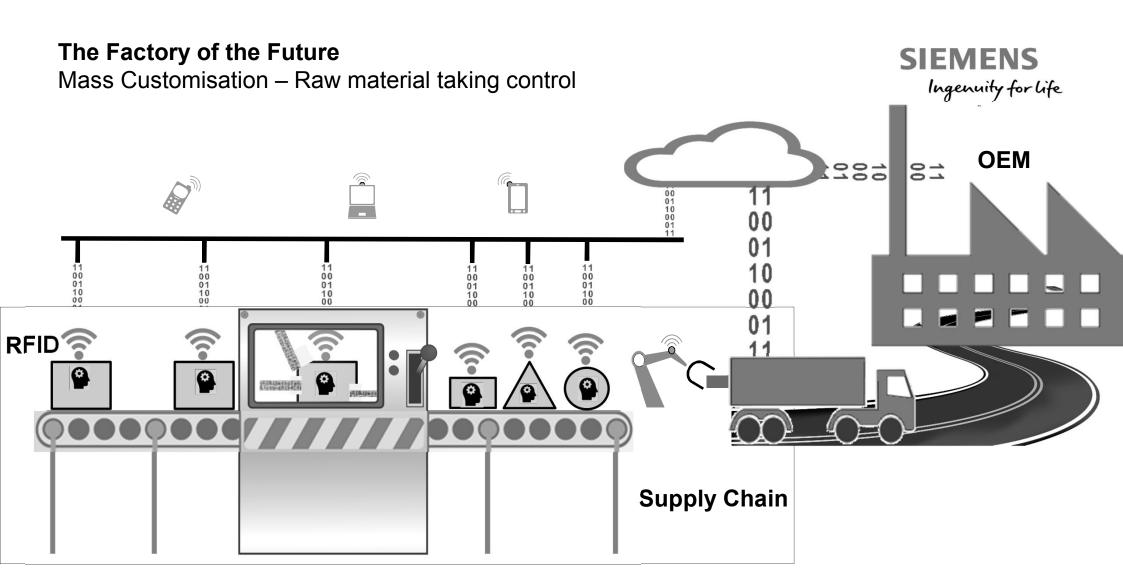
Reliance on supply chain

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Slide 7

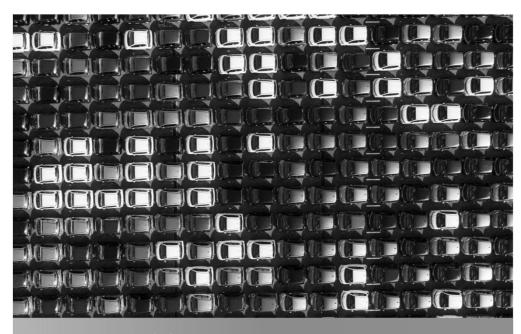
EI(DSP1

Elsby, Ian (RC-GB DF S-VS PRO), 06/03/2019



Data exchange to the upstream supply chain: Ford optimise inbound supply chain





"A transparent & functioning supply chain is a must in spare parts logistics. The cloud based platform AZ4 delivers end to end optimization and easy integration of all essential partners "

'Reiner Boltersdorf Supervisor European Inbound Operations (FCSD), Ford-Werke GmbH '

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All Supply partners integrated into single network

Total transparancy of spare parts procurement

Shipping data for monitoring of transport delays

Track goods at any point in transport chain

Dashboard to monitor and zoom in on locations



Make the digital connection to customers: Hosokawa Micron





Hosokawa Micron deployed Siemens Mindsphere IOT control systems with SIMATIC S7 hardware

Siemens IOT assist with driving digital business strategy

- Digitalisation in the chemical supply chain
- Analytics & decision making in the cloud
 Predictive MRO / process optimisation / quality

Digital (IIOT) Initiatives



Condition Monitoring

Operational Transparency

Predictive Maintenance

Perfomance Intelligence

Complete Digital Twin

