

Products and Services

1. Product customisation

- ☐ Product allows for no individualisation, standardised mass production
- ☐ Majority of products are made in large batch sizes with limited late differentiation
- ☐ Products can be largely customised but still have standardised base
- ☐ Late differentiation available for most maketo-order products (batch size 1)

2. Digital features of products

- ☐ Products show only physical value
- ☐ Products show value only from intellectual property licensing
- ☐ Products exhibit some digital features and value from intellectual property licensing
- ☐ Products exhibit high digital features and value from intellectual property licensing

3. Data-driven services

- ☐ Data-driven services are offered without customer integration
- ☐ Data-driven services are offered with little customer integration
- ☐ Data-driven services are offered with customer integration
- ☐ Data-driven services are fully integrated with the customer

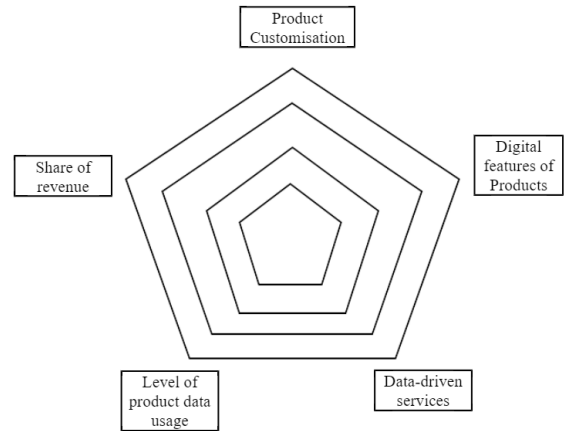
4. Level of product data usage

- ☐ Data is not used
- ☐ 0-20% of collected data is used
- ☐ 20-50% of collected data is used
- ☐ More than 50% of collected data is used

5. Share of revenue

- ☐ Data-driven services account for an initial share of revenue (<2.5%)
- ☐ Data-driven services account for a moderate share of revenue (2.5- 7.5%)
- ☐ Data-driven services account for a significant share of revenue (7.5- 10%)
- ☐ Data-driven services play an important role in revenue (>10%)

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Manufacturing and Operations

1. Automation

- ☐ Few machines can be controlled through automation
- ☐ Some machines and system infrastructures can be controlled through automation
- ☐ Most machines and system infrastructures can be controlled through automation
- ☐ Machines and systems can be controlled completely through automation

2. Machine and operation system integration (M2M)

- ☐ Machines and systems have no M2M capability
- ☐ Machines and systems are to some extent interoperable
- ☐ Machines and systems are partially integrated
- ☐ Machines and systems are fully integrated

3. Equipment readiness for Industry 4

- ☐ Significant overhaul required to meet Industry 4 model
- ☐ Some machines and systems can be upgraded
- ☐ Machines already meet some of the requirements and can be upgraded where required
- ☐ Machines and systems already meet all future requirements

4. Autonomously guided workpieces

- ☐ Autonomously guided workpieces are not in use
- ☐ Autonomously guided workpieces are not in use, but there are pilots underway
- ☐ Autonomously guided workpieces used in selected areas
- ☐ Machines and systems are fully integrated

5. Self-optimising processes

- ☐ Self-optimisation processes are not in use
- ☐ Self-optimising processes are not in use, but there are pilots in more advanced areas of the business
- ☐ Self-optimising processes are used in selected areas
- ☐ Self-optimising processes are widely used

6. Digital modelling

- ☐ No digital modelling
- ☐ Some processes use digital modelling
- ☐ Most processes use digital modelling
- ☐ Complete digital modelling used for all relevant processes

7. Operations data collection

- ☐ Data is collected manually when required, e.g. sampling for quality control
- ☐ Required data is collected digitally in certain areas
- ☐ Comprehensive digital data collection in multiple areas
- ☐ Comprehensive automated digital data collection across the entire process

8. Operations data usage

- ☐ Data is only used for quality and regulatory purposes
- ☐ Some data is used to control processes
- ☐ Some data is used to control and optimise processes, e.g. predictive maintenance
- ☐ All data is used not only to optimise processes, but also for decision making

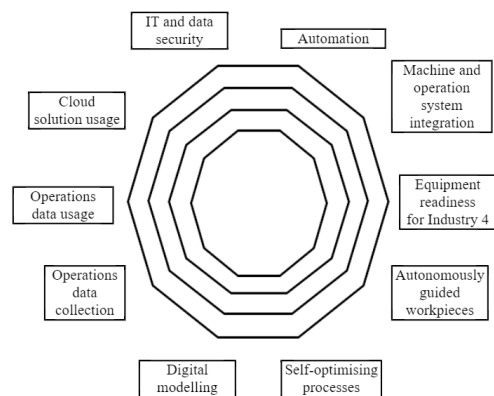
9. Cloud solution usage

- ☐ Cloud solutions not in use
- ☐ Initial solutions planned for cloud-based software, data storage and data analysis
- ☐ Pilot solutions implemented in some areas of the business
- ☐ Multiple solutions implemented across the business

10. IT and data security

- ☐ IT security solutions are planned
- ☐ IT security solutions have been partially implemented
- ☐ Comprehensive IT security solutions have been implemented with plans developed to close any gaps
- ☐ IT security solutions have been implemented for all relevant areas and are reviewed frequently to ensure compliance

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Strategy and Organisation

1. Degree of strategy implementation

- Industry 4 is recognised at departmental level but is not integrated into the strategy
- Industry 4 is included in the business strategy
- Industry 4 strategy has been communicated to the business and is widely understood
- Industry 4 strategy has been implemented across the business

2. Measurement

- KPIs are not focused around Industry 4
- Structured set of business metrics exist, with some measurement of Industry 4 drivers
- Industry 4 metrics are widely understood in the business and used in monthly reporting
- Business metrics and personal development plans are focused around Industry 4 objectives

3. Investments

- Initial Industry 4 investments in one business area
- Industry 4 investments in more advanced business areas
- Industry 4 investments in multiple business areas
- Industry 4 investments across the entire business

4. People capabilities

- Employees have little or no experience with digital technologies
- Technology focused areas of the business have employees with some digital skills
- Developed digital and data analysis skills across most areas of the business, e.g. production
- Leading edge digital and analytics skills across the business

5. Collaboration

- The business operates in functional silos
- There is limited interaction between departments, e.g. S&OP process
- Departments are open to cross functional collaboration
- Departments are open to cross company collaboration to drive improvements

6. Leadership

- Leadership team do not recognise the value of Industry 4 investments
- Leadership team are investigating potential Industry 4 benefits
- Leadership team recognise the financial benefits to be obtained through Industry 4 and are developing plans to invest
- Widespread support for Industry 4 within both the leadership team and across the wider business

7. Finance

- No sizeable Industry 4 investment
- No ongoing review of cost/benefit analysis for Industry 4 investment
- Annual cost/benefit analysis of Industry 4 investment
- Quarterly cost/benefit analysis of Industry 4 investment

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Supply Chain

1. Inventory control using real-time data management

- Inventory levels are understood
- Computer database is used which is manually updated with inventory levels
- Computer database used with smart devices updating inventory levels
- Real-time database which is updated by smart devices

2. Supply chain integration

- Ad hoc reactive communication with suppliers and customers
- Basic communication and data sharing where required with suppliers and customers
- Data transfer between key strategic suppliers/ customers (e.g. customer inventory levels)
- Fully integrated systems with suppliers/customers for appropriate processes (e.g. real-time integrated planning)

3. Supply chain visibility

- No integration with suppliers or customers
- Site location, capacity, inventory and operations are visible between first tier suppliers and customers
- Site location, capacity, inventory and operations are visible throughout supply chain
- Site location, capacity, inventory and operations are visible in real-time throughout supply chain and used for monitoring and optimisation

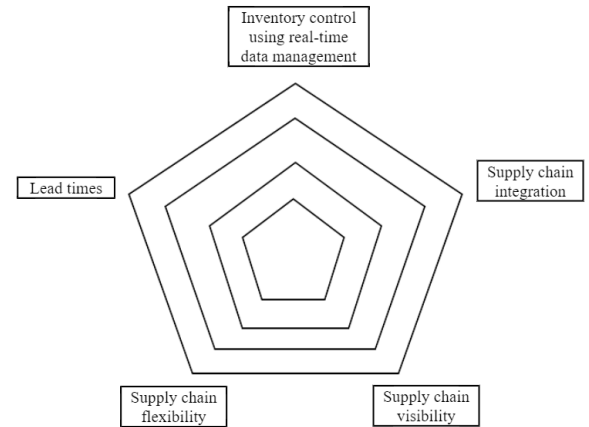
4. Supply chain flexibility

- Slow response to market changes
- Moderate response to market changes and general customer requirements shifts
- Moderate response to changes in market environment and individual customer requirements
- Immediate response to changes in market environment and individual customer requirements

5. Lead times

- Long materials lead time resulting in high inventory levels
- Improvements have been identified to reduce lead times for some materials
- Some improvements have been implemented to reduce lead times on key materials
- Differentiated stocking policies and lead times to meet make-to-order efficiently

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Business Model

1. 'As a service' business model

- ☐ No awareness
- ☐ Aware of concept with some initial plans for development
- ☐ High awareness and implementation plans are in development
- ☐ 'As a service' has been implemented and is being offered to the customer

2. Data driven decisions

- ☐ Data is not widely analysed
- ☐ Some data is analysed and features in key business reports to review performance
- ☐ Most data is analysed and the result is considered when making business decisions
- ☐ All relevant data is analysed and informs business decisions

3. Real-time tracking

- ☐ Limited product tracking
- ☐ Product can be tracked as it moves between manufacturing and internal distribution sites
- ☐ Product can be tracked through manufacturing and distribution until it reaches the customers distribution centre
- ☐ Product can be tracked along the complete lifecycle

4. Real-time and automated scheduling

- ☐ Equipment is manually maintained in line with the maintenance schedule
- ☐ Some machines alert operators of a performance issue which enables them to manually schedule a maintenance task
- ☐ Some machines are selfdiagnosing, automatically passing information to the maintenance scheduling system
- ☐ Machines are generally self-diagnosing and the maintenance schedule adjusts itself based on real time data inputs from the machine

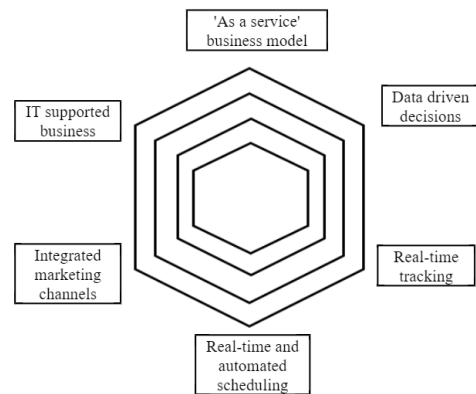
5. Integrated marketing channels

- ☐ Online presence is separated from offline channels
- ☐ Integration within the online and offline channels but not between them
- ☐ Integrated channels and individualised customer approach
- ☐ Integrated customer experience management across all channels

6. IT supported business

- ☐ Main business process supported by IT systems
- ☐ Some areas of the business are supported by IT systems and integrated
- ☐ Complete IT support of processes but not fully integrated
- ☐ IT systems support all company processes and are integrated

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Legal Considerations

1. Contracting models

- ☐ Contracting processes are linear and unchanged
- ☐ Some changes to contracting processes to reflect operational changes
- ☐ Some 'flagship' projects utilise new contracting models but it is not standard across the board
- ☐ All contracting is behavioural and incentivises all parties to achieve the best result

2. Risk

- ☐ New risks not identified or assessed
- ☐ New risks identified and/or assessed but no mitigations planned
- ☐ New risks identified and assessed, and limited mitigations put in place
- ☐ Working party has assessed the changing risk profile and has procedures in place to mitigate these

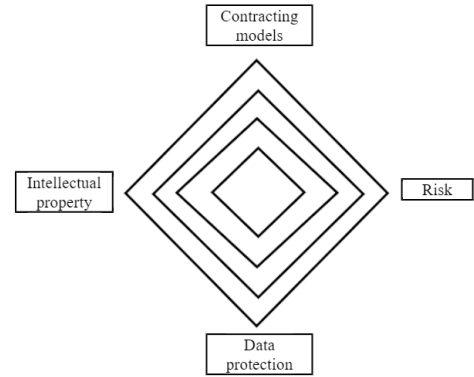
3. Data protection

- ☐ No data protection policies or procedures
- ☐ Have internal policies but do not ensure compliance in engagement with suppliers/customers
- ☐ Good understanding with robust policies and procedures but haven't updated for General Data Protection Regulation
- ☐ Conducted a recent General Data Protection Regulation audit and are confident of compliance including in light of Industry 4

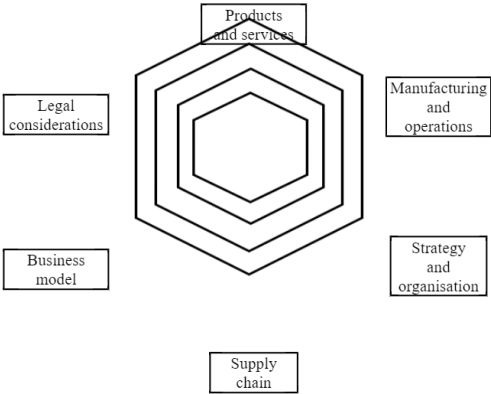
4. Intellectual property

- ☐ Intellectual property in new products and services is not identified or protected
- ☐ Awareness of intellectual property in new products and services, but no legal protections identified or applied for
- ☐ Intellectual property in products and services is identified and in part assessments made as to whether registrations/ contractual rights required, and if required, appropriate steps taken
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Here's your company's overall Industry 4 readiness:



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