Digital Transformation of Industries

Frost and Sullivan Value Proposition

November 2017
Many organisations are currently on a Digital Transformation journey which encompasses their people, operations and customers.

To better understand how your approach scores against your peers and to gain greater insight into the “digital readiness level” of your industry peers, Frost & Sullivan has developed a proven project approach to deliver important intelligence and insight.

1. **Assess the digital strategies of your leading competitors/peers**
   - Key strategies
   - Examples related to operations, business and customers

2. **Benchmark the “digital readiness level” of each organisation**
   - Score and benchmark organisations according to key criteria
Digital Transformation will have a Profound Impact on Customer Interaction, Operational Performance and People

**Vision and Strategy**

**Digital Goals**

**Customers & Business Models**
- Customer Experience
  - Customer intelligence and understanding
  - Marketing communications and customer engagement

**Digital Channels**
- One to many
- Many to many
- Digital Self Service

**Digital Products & Services**
- New products and services
- Data-driven digital platforms
- Managed services

**Operational Processes**

**Industrial Internet of Things**
- Lean and efficient manufacturing
- Inventory management

**Digital Supply Chain**
- Supply chain management
- Logistics

**Business Operations**
- Operational Performance
- Disruption Management

**Research & Technology**
- Digital design and processes
- Prototyping

**Collaboration**
- Internal communication – working anytime, anywhere

**Culture**
- Talent acquisition
- Training

**Innovation**
- Incubators
- Partners
- M&A

**Employees & Partners**

**Digital Platforms**

**Cloud**

**Security**

**Mobile**
A mixed methodology to generate the required insight for your organisation

<table>
<thead>
<tr>
<th>T0</th>
<th>Kick-off</th>
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<tbody>
<tr>
<td></td>
<td>Kick-off meeting and Client information share</td>
</tr>
<tr>
<td></td>
<td>Secondary research and fact foundation</td>
</tr>
<tr>
<td></td>
<td>Developed story board and blank slides</td>
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<table>
<thead>
<tr>
<th>T12</th>
<th>Workshop</th>
<th>Updates</th>
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Kick-off:
- Kick-off meeting and Client information share
- Secondary research and fact foundation
- Developed story board and blank slides

Primary Research:
- Primary research with industry players, suppliers and partners. Targets will include digital transformation offices, IT, manufacturing, sales and HR functions

Analysis:
- Application of scoring to each category for each organisation to build relative benchmarks

Synthesis:
- Develop maturity levels, implications and benchmark against your business

Each organisation to be examined will be scored against all 12 segments enabling Frost & Sullivan to benchmark organisations.

The scoring is then supported by case studies, secondary information and anecdotal feedback from primary research.

The collective scoring developed through the analysis determined both a “Digital Maturity Level” and an overall “Digital Transformation Readiness Level” DTRL based on:
- (4) Fully Implemented
- (3) Advanced
- (2) Started
- (1) On the Radar
- (0) No progress
Methodology

The Digital Transformation Readiness Level (DTRL) Scoring is completed through synthesising data from multiple sources and is captured through the following:

Stage 1: Filtration of all information and synthesis of the information sources:
- **Secondary research** - any press releases or open source intelligence indicating DT plans.
- **Primary research** – Through interviews with personnel in the companies responsible for DT to understand road map
- **Conference Presentations** – Any specific presentations on DT plans
- **Recruitment indications** - recruitment of specific digital transformation roles, other roles that include DT aspects
- **Company Presentations** – Strategy documents or corporate presentations

Stage 2: Analysis of the relevant case studies for each company including scoring of DTRL level, maturity and strategy behind the digital implementation.

Stage 3: Internal Frost & Sullivan workshop with project team to debate and agree scoring for Customer, Operations and People through analysis of information and Frost & Sullivan knowledge of the customers’ market.

<table>
<thead>
<tr>
<th>Score</th>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Fully Implemented</td>
<td>Programme is part of everyday operations and has been fully rolled out</td>
</tr>
<tr>
<td>3</td>
<td>Advanced</td>
<td>Programme rolled out with investment made. Operation could be in early stages or not yet fully deployed.</td>
</tr>
<tr>
<td>2</td>
<td>Started</td>
<td>Strategy has been approved but further planning or investment required. This could be with regard to reorganisation within a unit or prototyping a new digital product.</td>
</tr>
<tr>
<td>1</td>
<td>On the radar</td>
<td>DT is being discussed and considered. Products or internal process may be at concept stage.</td>
</tr>
<tr>
<td>0</td>
<td>No Progress</td>
<td>No specific mention or consideration within the company</td>
</tr>
</tbody>
</table>
Methodology (Case Studies)

The methodology to give a DTRL score to each case study is determined on a case by case basis. This was based on whether the DT case study was changing internal operations and processes or was externally focused on customers or partners. The DT segments could be broadly split as follows:

**Internal** – Customer Understanding, Operations, Collaborative Workplace, Digital Talents, Digital Culture

**External** - Customer Engagement, Digitally Enhanced Products, New Business Models, Partner Eco System

The table below outlines the description for each level which is in line with the overall DTRL scoring.

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<thead>
<tr>
<th>Score</th>
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<th>Internal</th>
<th>External</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Fully Implemented</td>
<td>• Programme is part of everyday operations and has been fully rolled out within the division or across the company.</td>
<td>• New digital products/services / business models has been marketed and sold to customers.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Partnership / Acquisition is complete and operations and offerings have been merged.</td>
</tr>
<tr>
<td>3</td>
<td>Advanced</td>
<td>• Programme rolled out with investment made, early operation</td>
<td>• New digital products/services / business models has been marketed and ready, but no indication of a sale to customers.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Partnerships and acquisitions in advanced stages with completion expected.</td>
</tr>
<tr>
<td>2</td>
<td>Started</td>
<td>• Strategy has been approved but further planning or investment required.</td>
<td>• Product/service / business model in concept stage.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Discussion of partnerships / acquisitions</td>
</tr>
<tr>
<td>1</td>
<td>On the radar</td>
<td>• DT is being discussed and considered</td>
<td>• New digital products/services / business models or partnerships being explored</td>
</tr>
<tr>
<td>0</td>
<td>No Progress</td>
<td>• No specific mention or consideration within the company</td>
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## Digital Transformation Challenges

<table>
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<tr>
<th>Vision and Strategy</th>
<th>Digital Goals</th>
<th>Technology Strategy</th>
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<tbody>
<tr>
<td>How will mega trends shape my digital future?</td>
<td>What are my goals?</td>
<td>What is my technology roadmap to support the business requirements?</td>
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<tr>
<td>What is my vision?</td>
<td>What is my roadmap?</td>
<td>Who do I partner with?</td>
</tr>
<tr>
<td>What is the organisational roadmap?</td>
<td>What is best practice?</td>
<td>What do I partner with?</td>
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<tr>
<td>What are my digital KPI’s</td>
<td>What are my competitors doing?</td>
<td>How do I implement?</td>
</tr>
<tr>
<td>What are my investment priorities?</td>
<td>Who do I partner with?</td>
<td>What’s the ROI on my investment?</td>
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<tr>
<td>What’s the ROI on my investment?</td>
<td>How do I implement?</td>
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</table>
How do we help clients?

Frost & Sullivan Knowledge, Tools and Experience

Strategic Challenges

Organisational Questions

Frost & Sullivan Services

Market Positioning

Digital Audit and Benchmark

Strategic Planning

Implementation

Communication and Awareness

What is industry best practice and how do we rank?

How do we structure our business?

How do I raise my profile as a digital company?

What innovation hub and accelerators do we need?

How do I raise my profile as a digital company?

Opportunity identification

Audit of internal digital status

Opportunity prioritisation

Internal alignment

Thought leadership communication

Competitive intelligence

Competitive Benchmarking

Business case development

Program roll-out

Customer requirements

Industry Best Practice

Visioning

Internal training

Technology roadmaps

Roadmaps

Implementation

Customer engagement
Recent Research Titles and our Digital Transformation Consulting Expertise
Digital Transformation of Industries Programme
Example 2016 Published Deliverables

- Digital Transformation in the Global Education Sector
- Digital Transformation in the Global Food & Agriculture Market
- Digital Disruption in the Global Financial Services Sector
- Growth Opportunities in the APAC Fintech Market
- ICT Spending in Connected Industries: A European SME Perspective
- Internet of Things in Connected Agriculture
- Analysis of Asia-Pacific Internet of Things in the Home
- Blockchain Applications in the Healthcare Industry
- Blockchain Applications in the Energy Sector
- Convergence of Artificial Intelligence (AI) and Agriculture
- Convergence of Artificial Intelligence (AI) and the Finance Industry
- Navigating an Era of Digital Transformation in Europe: A Customer Perspective
- Navigating Digital Transformation in Vertical Markets: A Customer Perspective. Specific studies for:
Digital Transformation of Industries Programme
Example 2016 Published Deliverables (continued)

• Big Data Analytics in Europe's Public Sector
• Wearable Technologies in Sports
• Digital Transformation of Industries Insight: ICT Opportunities in the Global Building Automation Market
• Digital Transformation of Industries Insight: ICT Opportunities in Industrial Automation Industry
• Global Public Safety Networks Market, Forecast to 2020
• Real-time Cities: Second Wave Cities
• Real-time Cities and Open Data 2.0—A Step towards Tangible Outcomes and Viable Economic Models
• Open Data Strategies in Real-time Cities—Cambridge (UK) and Kazan (Russia)
• Executive Analysis of Self-learning Artificial Intelligence in Cars, Forecast to 2025
• Autonomous Robotics, Artificial Intelligence (AI), Blockchains, Drones, Augmented and Virtual Reality Disrupting Industries Worldwide
## Digital Transformation of Industries Programme

**Example Planned 2017 Deliverables, Europe**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Details</th>
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<tbody>
<tr>
<td>Digital Transformation in the Automotive Sector</td>
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<tr>
<td>Digital Transformation in the Retail Sector</td>
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<tr>
<td>Game Changing Technologies: A Vertical Market Perspective</td>
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<td>Growth Opportunities in Artificial Intelligence</td>
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<td>Blockchain Start-up Activity Heat Map</td>
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<td>2017 Virtual Reality Landscape</td>
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<td>2017 Augmented Reality Landscape</td>
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<td>ICT Spending by Industries in Europe - Updating ICT Adoption Trends in Europe</td>
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<tr>
<td>Digital Transformation Insight Series: ICT Opportunities in the Healthcare Sector</td>
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<td>Real-Time Cities: Further Waves Building Up - 3 European Capitals</td>
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<td>Real-time Cities - Deployment Heat Map 2016</td>
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<td>The Role of Artificial Intelligence in the Retail Sector</td>
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<tr>
<td>Outlook for New Business Models and Consumer Driven Strategies in Digital Consumer Lifestyle</td>
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<td>Tracking Utilities’ Journey to Data Centric Energy Service Companies</td>
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<tr>
<td>Name</td>
<td>Position</td>
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</tr>
<tr>
<td>Andrew Thorndyke</td>
<td>Vice President, Business Development</td>
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<tr>
<td>Adrian Drozd</td>
<td>Research Director, Digital Transformation</td>
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<tr>
<td>Livio Vaninetti</td>
<td>Director of the Accelerator</td>
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