Arthur D. Little conducted the Digital Transformation Study globally and cross-industry. The key findings are summarized in this document.

120 hrs
Expert interviews with management representatives

1+7
Sections have been assessed

100+
Global players have participated

7
Major industry clusters have been covered

Source: Arthur D. Little Digital Transformation Study 2015
1) EPC = Engineering, Procurement & Construction
Turning Digital has become a well-understood imperative. Although Digital has commonly found its way into corporate strategies, the path to transforming adequately remains unspecified.

60% of surveyed companies are digital adaptive only.

Progress in Digital Transformation is measured via the Digital Transformation Index (DTI)\(^1\) 3.92 DTI

50% perceive lack of digital knowledge across the value chain as their major challenge to overcome.

15% have dedicated central units for Digital strategy development and implementation.

Digital Strategies are defined but not yet drilled down to implementable plans or implemented in the Product Portfolio, Operations and Supply Chain.

Source: Arthur D. Little Digital Transformation Study 2015
\(^1\) Logic: The higher, the better. Measured on a scale from 0 to 10
Some of the below key findings we anticipated beforehand, whereas others have been surprising and astonishing

1. Digitization will change the competitive environment of all industries significantly
2. Most industries are already affected by digital disruption or realize that they will be soon
3. Few companies yet follow a consistent digitization approach for their whole business model
4. Companies underestimate opportunities in Operations and in Business Model Redesign
5. A huge backlog demand for the majority of participating companies is observed
6. No industry can claim to be a digital front-runner; however, each industry has its outperformers
7. Most companies are either not aware of or ignore potential threats from digital disruptors
8. Companies are too slow in transformation, though facing rapidly evolving digital competition
9. Third-party integration is often underrated as companies still try to solve problems on their own
10. The usage of “smart data”, and thus also personalized offerings, lag behind

Source: Arthur D. Little Digital Transformation Study 2015
1 Also too little imagination for a renewal resp. overhaul of their business model in a future digital world
Arthur D. Little conducted this cross-industry study with the ambition to identify the areas “where to transform” and to provide inspiration on “how to transform”

Digitalization has **arrived in all industries** and become a **high-priority topic** on almost every CxO’s agenda.

Thorough **analysis of business models** is required to **evaluate the chances and risks** throughout digital transformation.

With our **interview-based cross-industry survey** we have gathered data and insight from **100+ participants**.

We developed a **comprehensive framework** to **identify your position** against best practice with clear indications regarding your way forward.

We do not only provide answers to the question **“where to transform”**, but also give inspiration on **“how to transform”**.

Source: Arthur D. Little Digital Transformation Study 2015
Digital Transformation is everywhere and impacts everything and everyone

Our biggest challenge is to understand the customer and his new behaviors.

Clients are pushing us towards digital transformation: If we don’t transform they will move to our competitors.

The market is changing: partners are becoming competitors.

Products and services need to undergo a digital transformation: we cannot just take physical products and put them online.

New entrants and fast-moving competitors increasingly capture digital opportunities, indicating the potential of “digital” in the market.

Our world has been changed by the expectations of our customers, while our basic service continues to be the same: We need to transform in order to maintain customer satisfaction.

Productivity related to new technologies such as cobots, predictive analytics and additive manufacturing will increase by a factor of 100 over the next 5–8 years, while costs will be reduced by a factor of 100.

Source: Arthur D. Little Digital Transformation Study 2015
Some major digital trends change yesterday’s realities – these “game changers” facilitate great opportunities and will inevitably generate some highly digitized champions.

<table>
<thead>
<tr>
<th>Yesterday’s Realities</th>
<th>Digital Disruption</th>
<th>Digital Trends</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical product</td>
<td></td>
<td>Product-as-a-service</td>
</tr>
<tr>
<td>Consumption</td>
<td></td>
<td>Active creation</td>
</tr>
<tr>
<td>Points of usage</td>
<td></td>
<td>Service everywhere</td>
</tr>
<tr>
<td>Mass production</td>
<td></td>
<td>Personalization</td>
</tr>
<tr>
<td>Ownership</td>
<td></td>
<td>Shared across community</td>
</tr>
<tr>
<td>Disconnected</td>
<td></td>
<td>Embedded into ecosystem</td>
</tr>
<tr>
<td>No updates</td>
<td></td>
<td>Continuous improvement</td>
</tr>
<tr>
<td>Vertical integration</td>
<td></td>
<td>Value chain disintegration</td>
</tr>
</tbody>
</table>

Source: Arthur D. Little Digital Transformation Study 2015

1 EPC = Engineering, Procurement & Construction
The Arthur D. Little Digital Transformation study covers leading companies across all industry segments.

<table>
<thead>
<tr>
<th>Volkswagen</th>
<th>P&amp;G</th>
<th>Telekom</th>
<th>Allianz</th>
<th>yoigo</th>
</tr>
</thead>
<tbody>
<tr>
<td>TeliaSonera</td>
<td>AIRBUS</td>
<td>SANOFI</td>
<td>ERSTE Bank</td>
<td>RWE</td>
</tr>
<tr>
<td>Bank Austria</td>
<td>Implenia</td>
<td>Transdev</td>
<td>swisscom</td>
<td>+ ...</td>
</tr>
<tr>
<td>Siemens</td>
<td>Zurich</td>
<td>DB Mobility Networks Logistics</td>
<td>BMW</td>
<td></td>
</tr>
</tbody>
</table>

Source: Arthur D. Little Digital Transformation Study 2015
Prominent examples of digitalization can be found in every industry. By nature, each trend’s impact varies and so does the industry-specific progress on digital transformation.
The survey followed a holistic approach to analyze the relevant sections for digitalization; the questions raised have been mapped to these sections.
The majority of participating companies are digital adaptive only

Source: Arthur D. Little Digital Transformation Study 2015
1 DTI calculated as average of scores for each section
The Arthur D. Little Digital Transformation Index (DTI) shows that today few firms can be considered “digital oriented” or “digital centric”.

Source: Arthur D. Little Digital Transformation Study 2015

1 DTI calculated as average of scores for each section
Average DTI is most advanced in the section “Strategy & Governance” as well as “Information Technology”, with a score of 5 – however, it still lags behind the virtual star performance.

Executive Summary – Cross-Industry DTI per Sections

Digital Transformation Index (DTI) per Section

Source: Arthur D. Little Digital Transformation Study 2015
The different progresses of industries in Digital Transformation can be investigated when looking at the radar charts, reflecting the 7 sections of the model.

Executive Summary – DTI Views per Industry

The different progresses of industries in Digital Transformation can be investigated when looking at the radar charts, reflecting the 7 sections of the model.

Cross-industry

- Financial Institutions: Ø 3.92
- Automotive Industry: Ø 5.02
- Telecom & Media Industry: Ø 4.20
- Energy & Utilities Industry: Ø 4.11

Source: Arthur D. Little Digital Transformation Study 2015
1) EPC = Engineering, Procurement & Construction

[Diagram showing radar charts for various industries]
On average, all industries are “digital adaptive” only; however, each industry contains “digital-oriented” companies, whereas two industries contain one “digital-centric” company.

<table>
<thead>
<tr>
<th>Industry</th>
<th>Min</th>
<th>Max</th>
<th>Avg</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automotive</td>
<td>4.06</td>
<td>6.52</td>
<td>5.02</td>
<td>0.92</td>
</tr>
<tr>
<td>Telecom &amp; Media</td>
<td>1.54</td>
<td>6.62</td>
<td>4.20</td>
<td>1.18</td>
</tr>
<tr>
<td>Energy &amp; Utilities</td>
<td>2.13</td>
<td>7.73</td>
<td>4.11</td>
<td>1.30</td>
</tr>
<tr>
<td>Overall average</td>
<td>1.07</td>
<td>7.73</td>
<td>3.92</td>
<td>1.38</td>
</tr>
<tr>
<td>Financial institutions</td>
<td>1.52</td>
<td>7.55</td>
<td>3.86</td>
<td>1.54</td>
</tr>
<tr>
<td>Consumer &amp; Life science</td>
<td>1.84</td>
<td>6.16</td>
<td>3.71</td>
<td>1.24</td>
</tr>
<tr>
<td>EPC &amp; Manufacturing</td>
<td>1.07</td>
<td>5.30</td>
<td>3.53</td>
<td>1.09</td>
</tr>
<tr>
<td>Travel &amp; Transport</td>
<td>2.24</td>
<td>6.62</td>
<td>3.51</td>
<td>1.51</td>
</tr>
</tbody>
</table>

On average most companies (~60%) are in the Digital-adaptive area.

All industries are impacted by Digital Transformation and show ability to play in the higher leagues of the DTI.

Most industries show an extreme spread: Participants score among the weakest and best at the same time.

Source: Arthur D. Little Digital Transformation Study 2015
\[ \sigma = \text{Standard Deviation}; \bar{X} = \text{Average} \]
Examples from failures as well as success stories show: Some key rules help to navigate through the digitalization journey

**Five Core Messages to Benefit from Digital Disruption**

1. **Today, Digitalization is a strategic imperative** for corporates: It cannot be avoided!

2. Digitalization is not the final goal, but a **capability** and a **way** to achieve business objectives

3. The **Digital Transformation** entails challenges and opportunities for all parts of the company

4. Every company needs to find its own ideal **Digital Transformation approach**

5. For a **proper Digital Transformation** a company has to be aware of its **own capabilities and competences**; new models of sourcing evolve

Source: Arthur D. Little Digital Transformation Study 2015
Please let us know which case examples you would like to learn more about.

Source: Arthur D. Little Digital Transformation Study 2015