10th Operations Efficiency Radar
Thank you very much for 10 years of participation!

The Operations Efficiency Radar 2019 marks the 10th successive annual publication of this study by Roland Berger and the International Association of Controllers (ICV). Our anniversary edition has once again been a great success thanks to your participation. The results of the Operations Efficiency Radar now provide you with an additional perspective to use for tackling the challenges and setting your priorities in 2019.

Thank you very much for your trust in the last ten years!

Oliver Knapp
FH-Prof. Dr. Heimo Losbichler
Carmen Zillmer
Management summary

Background

> The anniversary edition of the Operations Efficiency Radar looks back at 10 years of a stable economic and political environment

> Currently, risks are on the rise, such as the decrease in political stability, the advent of new technologies and the financial environment reaching an inflection point

> Likewise, the 10th Operations Efficiency Radar shows that around 50% of the participants anticipate an economic downturn for 2019 (mixed picture by industry)

Core analysis

> Company priorities in 2019:
  – Over 70% of the companies focus their activities on the Product Portfolio – Other top priorities are Production, Controlling & Finance, Sales & Marketing and Procurement
  – As a further sign of a slowing economy, Working Capital Management gained importance
  – From an industry perspective the priorities vary significantly, e.g. Automotive (Production & Working Capital), Industrial Products (Product Portfolio & Procurement), Consumer Goods (Product Portfolio & Logistics)

> Top levers in 2019:
  – Development of future-proof product/service portfolio and customer-focused product/service features
  – Application of commercial procurement levers
  – Efficiency improvements in production

Hot topic: Digitalization

> 70% of study participants confirm the need for functions to reposition – 80% perceive new technologies as enablers
> Especially Logistics and Controlling & Finance see an opportunity to leverage new technologies

Recommendation

As a consequence of the fragile environment and the increasing economic challenges, we recommend using the results of the 10th Operations Efficiency Radar to

> Challenge priorities, levers and budgets in your organization &
> Review your early warning systems and prepare for a potential crisis
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</table>
A. Study background and objectives
In the last ten years, companies enjoyed a stable economic and political environment – However, risks are on the rise

Overview of major risks

1) **Decreasing political stability**
   - **Sovereign debt crisis**
   - **Uncontrolled BREXIT**
   - **European banking woes**
   - **Deteriorating Chinese outlook**
   - **Trade wars and tariffs**
   - **Smoldering Crimea conflict**
   - **Rise in populism**
   - **3.7% yield on govt. bonds**
   - **GDP risk of -4% (UK/IR)**

2) **New technologies and a VUCA\(^1\) environment**
   - **Digitalization**
   - **...but also significant risks for established players**

3) **Financial environment** reaching an inflection point
   - **Further interest rate rises in U.S. and Europe**
   - **3% interest rate exp. 12/19 (FED)**
   - **High share of speculative grade bonds**
   - **Oil price volatility**
   - **Emerging market debt**
   - **High share market valuations**
   - **Falling investor confidence**

---

1) VUCA = Volatility, Uncertainty, Complexity, Ambiguity  
2) GDP fall in % – according to IMF expectations  
3) Full year GDP growth, 2018: 6.4 percent year-on-year  
4) Acc. to IMF prognosis 09/18 – Risk by 2020  
5) Total speculative bond market USD 1.9 tn. Analysis excl. bonds without credit ratings, usually private placements or from smaller companies (c. 43% of bond market)  

First consequences of the fragile environment are already visible in a number of indicators

First indicators of fragile environment

- Increasing number of restructuring cases
- Increasing amount of profit warnings across industries
- Increasing volatility in the markets
- Declining early warning indicators

**1st HY profit warning trend (German Prime Standard)**

- Avg. EBIT correction: -39%

**VIX (Volatility index) S&P 500**

- Volatility increased again in 2018: +42%

**PMIs declined for the third time in a row**

**Global stock market**

- MSCI World Index, Bloomberg: -10%

**Interest rates on the rise**

- FED Fundrate, Bloomberg

In this environment, the 10th Operations Efficiency Radar provides additional guidance on prioritized efficiency levers for 2019 overall …

Study objectives

**Operations Efficiency Radar**

**CEO/CFO**
- Challenge functional priorities and budgets
- Synchronize priorities and budgets across functions
- Finetune and prioritize corporate budget and investments

**Functional heads**
- Benchmark functional trends
- Set functional priorities
- Align functional budget

Source: Operations Efficiency Radar 2019
... and for seven key industries, including Automotive, Industrial Products and Consumer Goods

Study perspectives

- Automotive
- Aerospace & Defense
- Industrial Products
- Chemicals/Pharma
- Consumer Goods and Retail
- Industrial Services and IT
- Financial Services

Source: Operations Efficiency Radar 2019
B. Study results
B.1 Economic expectations & key efficiency levers for 2019
In the 10th Operations Efficiency Radar, around 50% of participants anticipate an economic downturn for 2019 – The mood is shifting

Economic expectations – Overview

About half of study respondents anticipate a downturn for 2019 – Last year, a large proportion still expected a boom

Source: Survey results of Operations Efficiency Radar 2018 and 2019
Especially leaders from the Automotive industry (>90%) expect an economic downturn for 2019 – Other industries show a mixed picture

Economic expectations – Per industry

1) Industry perspective not available in prior issue
Source: Survey results of Operations Efficiency Radar 2018 and 2019
In terms of priorities for 2019, >70% of companies focus their activities on the Product Portfolio – Controlling & Finance is catching up

Company priorities in 2019

<table>
<thead>
<tr>
<th>Focus of the Operations Efficiency Radar 2019</th>
<th>Activities planned for 2019(^1)</th>
<th>Ranking last year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Product Portfolio</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>2) Production</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>3) Controlling &amp; Finance</td>
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<td>4</td>
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<tr>
<td>4) Sales &amp; Marketing</td>
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<td>5</td>
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<tr>
<td>5) Procurement</td>
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<tr>
<td>6) R&amp;D</td>
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<td>7</td>
</tr>
<tr>
<td>7) Logistics</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>8) Working Capital Management</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>9) Administration &amp; Overhead</td>
<td></td>
<td>11</td>
</tr>
<tr>
<td>10) Service &amp; After-Sales</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>11) Innovation</td>
<td></td>
<td>9</td>
</tr>
</tbody>
</table>

\(^1\) Average share of activities in 2019 for levers within value chain segments rated very certain or certain

Source: Survey results of Operations Efficiency Radar 2018 and 2019
The top 10 levers focus on areas such as cost improvement in the product portfolio, material cost reduction and efficiency in production.

Top 10 levers

- **Product Portfolio**: Development of a future-proof product/service portfolio
- **Innovation**: Optimization of network and management
- **R&D**: Application of commercial procurement levers
- **Procurement**: Efficiency improvements in production
- **Production**: Optimization of production planning and control
- **Logistics**: Cross-functional product/service cost reduction
- **Controlling & Finance**: Optimization/efficiency improvement of back-office services, incl. through digitalization
- **Working Capital Management**
- **Administration & Overhead**: Efficiency improvements in production

Focus areas for the Operations Efficiency Radar 2019

- Top lever (climbing – better ranking than in 2018)
- Top lever (falling – worse ranking than in 2018)
- New in the top 10 since last year

Source: Survey results of Operations Efficiency Radar 2018 and 2019
By contrast, companies deprioritized levers in areas like Administration & Overhead

### Flop 10 levers

<table>
<thead>
<tr>
<th>Product Portfolio</th>
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<tbody>
<tr>
<td>Innovation</td>
</tr>
<tr>
<td>Pushing innovations outside of the core business</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Controlling &amp; Finance</th>
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<tbody>
<tr>
<td>Optimization of staffing costs (overtime, headcount, etc.)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Working Capital Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimization and flexing of staffing costs (in/outsourcing, working time banking, etc.)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Administration &amp; Overhead</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimization of other costs (seminars, maintenance, etc.)</td>
</tr>
</tbody>
</table>

**Non-focus areas for the Operations Efficiency Radar 2019**

- **Flop lever (falling – worse ranking than in 2018)**
- **Flop lever (climbing – better ranking than in 2018)**
- **NEW** New in the flop 10 since last year

*Source: Survey results of Operations Efficiency Radar 2018 and 2019*
B.2 Hot topic: Digitalization
Many companies interpret digitalization as automation – It will ultimately dwarf many functions, thus, they must reposition.

Need for action

Function X today

- Automation of large parts of operational, tactical & strategic tasks
- Focus on efficiency

Function X tomorrow

- Reposition itself
- Define a new/extended value proposition

Source: Roland Berger
As all functions try to reposition, seizing the opportunities of industry disruption and technology development, …

Unprecedented opportunity

1. Mega-trends
   - Industry disruption & trends
   - Company success factors

Required tasks/performance of Function X?

2. How best to leverage technology to boost efficiency and effectiveness?
   - What are relevant scenarios?

Tomorrow: "The Value Generator"

"The Value Generator"

- New tasks
- Focus on efficiency & effectiveness
- Entrepreneurial
- Value oriented

Source: Roland Berger
... some will manage to position themselves as "Value Generators", others will not and end up as "Efficient Machines" – The race is on!

Future value add (selected examples)

Who will …

> Identify innovation?
> "Source" startups?
> Conduct pattern recognition in SC data?
> Drive the use of RPA & AI?
> Identify risks using internal and external data sources?
> …?

Digital endgame scenarios

"The Efficient Machine"
(lean & mean)

"The Value Generator"
(handsome & smart)

Finance
Sales & Marketing
Engineering/R&D
Procurement
Supply Chain Management
IT
...

Source: Roland Berger
70% of study participants confirm the need for functions to reposition – 80% perceive new technologies as enablers

Risks and opportunities of digitalization for corporate functions

**Risks**

For some corporate functions, an excl. focus on efficiency poses considerable risks because digitalization is seen as synonymous with automation

<table>
<thead>
<tr>
<th>Agree</th>
<th>Agree strongly</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>38%</td>
<td>17%</td>
<td>55%</td>
</tr>
</tbody>
</table>

Corporate functions must therefore reposition themselves and redefine their value add for the company as a whole

<table>
<thead>
<tr>
<th>Agree</th>
<th>Agree strongly</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>43%</td>
<td>27%</td>
<td>70%</td>
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</table>

**Opportunities**

My industry is changing permanently as a result of disruptive forces

<table>
<thead>
<tr>
<th>Agree</th>
<th>Agree strongly</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>30%</td>
<td>29%</td>
<td>59%</td>
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</tbody>
</table>

This gives rise to completely new tasks for some corporate functions

<table>
<thead>
<tr>
<th>Agree</th>
<th>Agree strongly</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>37%</td>
<td>24%</td>
<td>61%</td>
</tr>
</tbody>
</table>

New technologies enable not only efficiency improvements but improvements in effectiveness also

<table>
<thead>
<tr>
<th>Agree</th>
<th>Agree strongly</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>38%</td>
<td>42%</td>
<td>80%</td>
</tr>
</tbody>
</table>

This gives corporate functions the chance to add value for the company in terms of both efficiency and effectiveness

<table>
<thead>
<tr>
<th>Agree</th>
<th>Agree strongly</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>45%</td>
<td>33%</td>
<td>78%</td>
</tr>
</tbody>
</table>

If corporate functions spot the opportunities and exploit them, they will be able to position themselves as value generators in the company

Source: Survey results of Operations Efficiency Radar 2019
Especially Logistics and Controlling & Finance see an opportunity to leverage new technologies to reposition the function

Effects per corporate function

How do you assess the risk from digitalization being seen as synonymous with automation in the following functions?

How do you assess the opportunity from a new/changed positioning in the following functions?

Highlights per industry

- **Automotive**: Call for action in Production and Logistics and negative gap for Administration & Overhead and Service & After-Sales
- **Aerospace & Defense**: Lower scores for risks and opportunities in almost every function – Only Production, Logistics and R&D perceived comparably to other industries
- **Industrial Products**: Slightly above average in all functions, significantly higher opportunities perceived for Procurement
- **Chemicals/Pharma**: Production perceived to hold greater risks than opportunities – Call for action in R&D
- **Consumer Goods and Retail**: Greater opportunities perceived for Service & After-Sales
- **Industrial Services and IT**: In contrast to the average, negative gap for Controlling & Finance and call for action in Innovation and R&D
- **Financial Services**: Additional call for action in Procurement and Service & After-Sales

Source: Survey results of Operations Efficiency Radar 2019
B.3 Summary per industry & across industries
Please find your industry details on the following pages

<table>
<thead>
<tr>
<th>Industry</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automotive</td>
<td>25</td>
</tr>
<tr>
<td>Aerospace &amp; Defense</td>
<td>28</td>
</tr>
<tr>
<td>Industrial Products</td>
<td>31</td>
</tr>
<tr>
<td>Chemicals/Pharma</td>
<td>34</td>
</tr>
<tr>
<td>Consumer Goods and Retail</td>
<td>37</td>
</tr>
<tr>
<td>Industrial Services and IT</td>
<td>40</td>
</tr>
<tr>
<td>Financial Services</td>
<td>43</td>
</tr>
<tr>
<td><strong>Summary of priorities across industries</strong></td>
<td><strong>46</strong></td>
</tr>
</tbody>
</table>
In the Automotive industry, the focus in 2019 is on cross-functional realignment of value chain structures

Expert view on 2019 – Automotive

The Automotive industry is changing very dynamically – the switch from combustion to electric engines is irreversible. However, vehicles with both drive concepts will be produced in parallel for the next 20 years. This double burden increases the pressure to trim the operational areas to achieve greater efficiency, but also to boldly tackle the restructuring of the value chain:

> Consistently check the depth of value add for future relevance and its cost base – what is not relevant to competition must be put to the test
> Take greater account of manufacturability and manufacturing cost reduction in design phase as costs cannot be compensated for in production any longer
> Significantly increase efficiency in production and focus on sustainable process quality – providing a competitive advantage and relieving the organization
> Limit investments in traditional production structures to the bare essentials, seek cooperation with competitors to avoid investments and reduce logistics costs
> Develop efficient working models and harmonious task assignment in indirect structures as well as support process digitalization for agile working

More ambition, courage and cooperation will be key for OEMs and suppliers

Source: Roland Berger
In Automotive, Production has the highest priority in the value chain – Top lever: Efficiency improvement in Production

Value chain priorities and top 10 planned levers for 2019

**Value chain priorities**

<table>
<thead>
<tr>
<th>Priority</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Logistics</td>
</tr>
<tr>
<td>2</td>
<td>Production</td>
</tr>
<tr>
<td>3</td>
<td>Innovation</td>
</tr>
<tr>
<td>4</td>
<td>Controlling &amp; Finance</td>
</tr>
<tr>
<td>5</td>
<td>Procurement</td>
</tr>
<tr>
<td>6</td>
<td>R&amp;D</td>
</tr>
<tr>
<td>7</td>
<td>Administration &amp; Overhead</td>
</tr>
<tr>
<td>8</td>
<td>Product Portfolio</td>
</tr>
<tr>
<td>9</td>
<td>Marketing</td>
</tr>
<tr>
<td>10</td>
<td>Sales &amp; After-Sales</td>
</tr>
</tbody>
</table>

**Top 10 levers**

1. Efficiency improvements in Production
2. Optimization of product development process
3. Development of a future-proof product/service portfolio
4. Cross-functional cost optimization in the R&D process
5. Optimization of staffing costs
6. Cross-functional product/service cost reduction
7. Optimization of the global production network
8. Application of technical procurement levers
9. Development of category strategies
10. Optimization of inventories in the supply chain

Source: Survey results of Operations Efficiency Radar 2018 and 2019
90% of Automotive leaders confirm the need for functions to reposition – Highest potential in Production, Procurement & Logistics

Digitalization: Risks and opportunities

**Risks**

For some corporate functions, an exclusive focus on efficiency poses considerable risks because digitalization is seen as synonymous with automation ("whatever can be automated will be automated")

- Corporate functions must therefore reposition themselves and redefine their value add for the company as a whole
  - 50% Agree
  - 8% Agree strongly
  - 58% Risk

**Opportunities**

My industry is changing permanently as a result of disruptive forces (e.g. electrification, the sharing economy, digitalization)

- 40% Agree
- 60% Agree strongly
- 100% Opportunity

This gives rise to completely new tasks for some corporate functions

- 33% Agree
- 53% Agree strongly
- 87% Opportunity

New technologies enable not only efficiency improvements but improvements in effectiveness also

- 47% Agree
- 47% Agree strongly
- 93% Opportunity

This gives corporate functions the chance to add value for the company in terms of both efficiency and effectiveness

- 60% Agree
- 33% Agree strongly
- 93% Opportunity

If corporate functions **spot the opportunities and exploit them**, they will be able to position themselves as **value generators** in the company

- 40% Agree
- 47% Agree strongly
- 87% Opportunity

Source: Survey results of Operations Efficiency Radar 2019

How do you assess the **risk from digitalization being seen as synonymous with automation** in the following functions?

<table>
<thead>
<tr>
<th>Function</th>
<th>Risk from digitalization</th>
<th>Opportunity from a new/changed positioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales &amp; Marketing</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>Production</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>Admin. &amp; Overhead</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>R&amp;D</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>Controlling &amp; Finance</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>Service &amp; After-Sales</td>
<td>40%</td>
<td>60%</td>
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<tr>
<td>Procurement</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>Innovation</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>Logistics</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>Working Capital Mgmt.</td>
<td>40%</td>
<td>60%</td>
</tr>
</tbody>
</table>

Call for action:

- **Agree** = Agree
- **Agree strongly** = Agree strongly
- **Risk** from digitalization being seen as synonymous with automation
- **Opportunity** from a new/changed positioning

Source: Survey results of Operations Efficiency Radar 2019
We expect significant changes across the Aerospace & Defense industry driven by new programs, disruption and digitalization

Expert view on 2019 – Aerospace & Defense

We are expecting **significant change across the Aerospace & Defense industry** in the coming years

> In **civil aerospace** we will see **disruptions of the traditional value chains** as OEMs seek to rebalance industry profit pools between them and suppliers – look out for more insourcing from OEMs, which will lead to further strategic repositioning and consolidation on supplier side. In view of new program launches in the mid-2020s we expect fundamental reconfigurations of the value chain

> With **strong backlogs in defense**, execution excellence will be the key theme in the defense industry in the coming years. Due to a new push for European programs (fighters, tanks, drones) a new wave of European consolidation is likely to be triggered

> Reduced launch costs will continue to enable **new applications and business models in space**. Traditional suppliers will need to transform themselves as they are being challenged by startups and new entrants from other industries

> **Across all segments, digitalization** will continue to transform the industry – the main focus will be on further automating production processes and digitalizing the supply chain

Source: Roland Berger
In A&D, Production has the highest priority in the value chain – Top lever: Application of commercial procurement levers

Value chain priorities and top 10 planned levers for 2019

**Value chain priorities**

- Product Portfolio
- Innovation
- Procurement
- Production
- Logistics
- Sales & Marketing
- Service & After-Sales
- Controlling & Finance
- Working Capital Management
- Administration & Overhead

**Top 10 levers**

1. Application of commercial procurement levers
2. Optimization of production planning and control
3. Optimization of staffing costs
4. Optimization/efficiency improvement of back-office services incl. through digitalization
5. Optimization of value creation in Production
6. Optimization of product development process
7. Efficiency improvements in Production
8. Customer-focused optimization of product/service features
9. Cross-functional product/service cost reduction
10. Optimization of corporate structures and processes, procurement management and systems

Source: Survey results of Operations Efficiency Radar 2018 and 2019
73% of Aerospace and Defense leaders confirm the need for functions to reposition – Highest potential in Production & Logistics

Digitalization: Risks and opportunities

**Risks**

For some corporate functions, an exclusive focus on efficiency poses considerable risks because digitalization is seen as synonymous with automation ("whatever can be automated will be automated")

Corporate functions must therefore reposition themselves and redefine their value add for the company as a whole

- **Risk from digitalization being seen as synonymous with automation**:
  - Production: 18%
  - Admin. & Overhead: 9%
  - R&D: 36%
  - Inovation: 36%
  - Service & After-Sales: 18%
  - Sales & Marketing: 18%
  - Logistics: 27%
  - Controlling & Finance: 45%
  - Working Capital Mgmt.: 27%
  - Procurement: 50%

**Opportunities**

My industry is changing permanently as a result of disruptive forces (e.g. electrification, the sharing economy, digitalization)

This gives rise to completely new tasks for some corporate functions

New technologies enable not only efficiency improvements but improvements in effectiveness also

This gives corporate functions the chance to add value for the company in terms of both efficiency and effectiveness

- **Opportunity from a new/changed positioning**:
  - Production: 45%
  - Admin. & Overhead: 27%
  - R&D: 73%
  - Inovation: 45%
  - Service & After-Sales: 36%
  - Sales & Marketing: 36%
  - Logistics: 36%
  - Controlling & Finance: 27%
  - Working Capital Mgmt.: 18%
  - Procurement: 9%

If corporate functions **spot the opportunities and exploit them**, they will be able to position themselves as **value generators** in the company

- **Opportunity from a new/changed positioning**:
  - Production: 30%
  - Admin. & Overhead: 20%
  - R&D: 50%

Source: Survey results of Operations Efficiency Radar 2019

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Call for action

**Aerospace & Defense**

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The machinery industry is heavily challenged by the current "cooldown" and the technology change in the automotive industry

Expert view on 2019 – Industrial Products

We expect **challenging times for Industrial Products**. The ongoing political instabilities (Brexit, trade wars) and the **FED interest rate hike** might lead to a "cooling down" of the **investment climate**. Hence, despite strong order books and currently still high – but already falling – order income levels, the **industry expects low single-digit growth rates for 2019**

> **One of the key challenges** is driven by the **automotive industry** (as an end-customer industry) and its trend towards electrification. With "peak ICE" expected before 2025, **the machinery companies are heavily impacted and need to adapt their technology and product portfolio now**

> **Automation** and **Digitalization** are **key levers** to further optimize internal processes and cost position (mainly in Procurement, Production, and Logistics) but also offer growth opportunities, e.g. digitally enabled, **fully automated** and **integrated solutions** offering end-to-end support

> **This includes areas related to IoT** as well as **Service and After-Sales** (e.g. predictive maintenance). Machinery companies need to **build up software competencies, collaborate with the right external partners** and develop **new digital offerings** (in the most pragmatic way)

> Nevertheless, the **increasing unpredictability of demand** also calls for a proper contingency plan to be able to right-size and relocate capacities in time

Source: Roland Berger
In Industrial Products, Product Portfolio has highest priority in the value chain – Top lever: Application of commercial procurement levers

Value chain priorities and top 10 planned levers for 2019

**Value chain priorities**

<table>
<thead>
<tr>
<th>Product Portfolio</th>
<th>Innovation</th>
<th>R&amp;D</th>
<th>Procurement</th>
<th>Production</th>
<th>Logistics</th>
<th>Sales &amp; Marketing</th>
<th>Service &amp; After-Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>3</td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Top 10 levers**

1. Application of commercial procurement levers
2. Development of a future-proof product/service portfolio
3. Efficiency improvements in Production
4. Customer-focused optimization of product/service features
5. Optimization of inventories in the supply chain
6. Optimization of the global production network
7. Optimization of network and management
8. Development of sustainable, profitable service/after-sales expertise and establishment of a target-oriented service organization and management
9. Identification of growth opportunities
10. Optimization of product architecture and use of platform/modular concepts

Source: Survey results of Operations Efficiency Radar 2018 and 2019
~2/3 of leaders in Industrial Products confirm the need for functions to reposition – Highest potential in Controlling, Procurement & Logistics

Digitalization: Risks and opportunities

Risks

For some corporate functions, an exclusive focus on efficiency poses considerable risks because digitalization is seen as synonymous with automation ("whatever can be automated will be automated")

- Corporate functions must therefore reposition themselves and redefine their value add for the company as a whole

Opportunities

- My industry is changing permanently as a result of disruptive forces (e.g. electrification, the sharing economy, digitalization)
- This gives rise to completely new tasks for some corporate functions
- New technologies enable not only efficiency improvements but improvements in effectiveness also
- This gives corporate functions the chance to add value for the company in terms of both efficiency and effectiveness
- If corporate functions **spot the opportunities and exploit them**, they will be able to position themselves as **value generators** in the company

How do you assess the **risk** from digitalization being seen as synonymous with automation in the following functions?

<table>
<thead>
<tr>
<th>Function</th>
<th>Risk (Agree)</th>
<th>Risk (Agree strongly)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td>35%</td>
<td>19%</td>
<td>54%</td>
</tr>
<tr>
<td>Admin. &amp; Overhead</td>
<td>33%</td>
<td>27%</td>
<td>60%</td>
</tr>
<tr>
<td>R&amp;D</td>
<td>33%</td>
<td>27%</td>
<td>61%</td>
</tr>
<tr>
<td>Controlling &amp; Finance</td>
<td>42%</td>
<td>38%</td>
<td>79%</td>
</tr>
<tr>
<td>Service &amp; After-Sales</td>
<td>53%</td>
<td>29%</td>
<td>82%</td>
</tr>
<tr>
<td>Sales &amp; Marketing</td>
<td>44%</td>
<td>27%</td>
<td>71%</td>
</tr>
<tr>
<td>Logistics</td>
<td>44%</td>
<td>27%</td>
<td>71%</td>
</tr>
<tr>
<td>Working Capital Mgmt.</td>
<td>44%</td>
<td>27%</td>
<td>71%</td>
</tr>
</tbody>
</table>

How do you assess the **opportunity** from a new/changed positioning in the following functions?

- Agree
- Agree strongly

Source: Survey results of Operations Efficiency Radar 2019

Call for action
The cost pressure on the operations functions in Chemicals/Pharma will trigger numerous cost reduction programs in 2019

Expert view on 2019 – Chemicals/Pharma

The cost pressure in both industries, Chemicals and Pharmaceuticals, is significantly increasing in comparison to recent years. The reasons are very different, but the result is the same – an intensified focus on efficiency, effectiveness and adequacy will trigger initiatives like:

> Systematic challenging of the existing product portfolio to reduce complexity on all value-add levels from raw materials to finished product. This also includes the challenging of make-or-buy status to reduce complexity or to optimize asset utilization

> Critical review of site consolidation options to reduce structural costs and reduce complexity/costs without jeopardizing the strategic core elements (global footprint, proximity to key markets, etc.) needed for adequate market access

> Leveraging digital technology for the next wave of efficiency improvements mainly on site/plant level in addition to the traditional agile performance improvement programs

> Actively driving end-to-end supply chain thinking in a status beyond individual pilots to generate a visible impact on supply chain performance

Source: Roland Berger
In Chemicals/Pharma, Product Portfolio has highest priority in the value chain – Top lever: Development of a future-proof portfolio

Value chain priorities and top 10 planned levers for 2019

**Value chain priorities**

<table>
<thead>
<tr>
<th>Priority</th>
<th>Segment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Product Portfolio</td>
</tr>
<tr>
<td>2</td>
<td>Logistics</td>
</tr>
<tr>
<td>3</td>
<td>Sales &amp; Marketing</td>
</tr>
<tr>
<td>4</td>
<td>Controlling &amp; Finance</td>
</tr>
<tr>
<td>5</td>
<td>Procurement</td>
</tr>
<tr>
<td>6</td>
<td>Production</td>
</tr>
<tr>
<td>7</td>
<td>Innovation</td>
</tr>
<tr>
<td>8</td>
<td>R&amp;D</td>
</tr>
<tr>
<td>9</td>
<td>Working Capital Management</td>
</tr>
<tr>
<td>10</td>
<td>Administration &amp; Overhead</td>
</tr>
</tbody>
</table>

**Top 10 levers**

1. Development of a future-proof product/service portfolio
2. Optimization of network and management
3. Application of commercial procurement levers
4. Efficiency improvements in Production
5. Optimization of indirect costs
6. Optimization/efficiency improvement of back-office services, incl. through digitalization
7. Customer-focused optimization of product/service features
8. Improvements in sales and marketing effectiveness
9. Identification of growth opportunities
10. Improvement of performance and efficiency in Service

Source: Survey results of Operations Efficiency Radar 2018 and 2019
>80% of leaders in Chemicals/Pharma confirm the need for functions to reposition – Highest potential in Sales & Mktg., R&D, Innovation

Digitalization: Risks and opportunities

**Risks**

For some corporate functions, an exclusive focus on efficiency poses considerable risks because digitalization is seen as synonymous with automation ("whatever can be automated will be automated")

- Risk from digitalization being seen as synonymous with automation:
  - Production: 45%, Admin. & Overhead: 38%, R&D: 23%
  - Agreement levels: Agree (18%), Agree strongly (64%)

Corporate functions must therefore reposition themselves and redefine their value add for the company as a whole

- Agreement levels: Agree (36%), Agree strongly (45%), Total Agreement (82%)

**Opportunities**

My industry is changing permanently as a result of disruptive forces (e.g. electrification, the sharing economy, digitalization)

- Opportunity from a new/changed positioning:
  - Sales & Marketing: 38%, Production: 0%
  - Agreement levels: Agree (38%)

This gives rise to completely new tasks for some corporate functions

- Agreement levels: Agree (64%), Agree strongly (0%), Total Agreement (64%)

New technologies enable not only efficiency improvements but improvements in effectiveness also

- Agreement levels: Agree (23%), Agree strongly (69%), Total Agreement (92%)

This gives corporate functions the chance to add value for the company in terms of both efficiency and effectiveness

- Agreement levels: Agree (23%), Agree strongly (69%), Total Agreement (92%)

If corporate functions spot the opportunities and exploit them, they will be able to position themselves as value generators in the company

- Agreement levels: Agree (25%), Agree strongly (67%), Total Agreement (92%)

How do you assess the risk from digitalization being seen as synonymous with automation in the following functions?

<table>
<thead>
<tr>
<th>Function</th>
<th>Risk Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales &amp; Marketing</td>
<td>45%</td>
</tr>
<tr>
<td>Production</td>
<td>38%</td>
</tr>
<tr>
<td>Admin. &amp; Overhead</td>
<td>23%</td>
</tr>
<tr>
<td>R&amp;D</td>
<td>0%</td>
</tr>
<tr>
<td>Controlling &amp; Finance</td>
<td>23%</td>
</tr>
<tr>
<td>Service &amp; After-Sales</td>
<td>69%</td>
</tr>
<tr>
<td>Procurement</td>
<td>92%</td>
</tr>
<tr>
<td>Innovation</td>
<td>69%</td>
</tr>
<tr>
<td>Logistics</td>
<td>92%</td>
</tr>
<tr>
<td>Working Capital Mgmt.</td>
<td>25%</td>
</tr>
</tbody>
</table>

Source: Survey results of Operations Efficiency Radar 2019

Call for action

- Opportunity from a new/changed positioning
- Risk from digitalization being seen as synonymous with automation

= Agree
= Agree strongly
Further growth of e-commerce is THE challenge for retailers – CG producers will have to cope with millennials and B2C approaches

Expert view on 2019 – Consumer Goods and Retail (CGR)

E-commerce is expected to double in scale within the next five years. This development will be accelerated by ongoing digitalization of key processes at the customer frontline and in the backyards of production and supplier management. CG producers will be challenged in addition by the growing importance of millennial customers and their respective consumer preferences

> E-commerce has given rise to highly efficient online traders (among others: Amazon, Zalando, …) with superior and data-driven category management capabilities in real time – legacy retailers will be increasingly under pressure with a view to omni-channel management and overall cost efficiency

> Growing e-commerce supported by platform solutions is facing a growing logistics challenge in the last mile to the consumer. The key question for retailers and CG producers alike is how to efficiently set up fulfilment for online orders

> Advanced communication possibilities through social media open up new ways of target group oriented marketing and sales setup. A growing B2C orientation of so far pure-play B2C operators will result from this

> The budgets of the millennial generation are growing with increasing age and the fundamentally different consumer preferences they have in some cases will make many CG producers rethink their product portfolio strategy

Source: Roland Berger
In CG and Retail, Product Portfolio has highest priority – Top lever:
Development of a future-proof product/service portfolio

Value chain priorities and top 10 planned levers for 2019

**Value chain priorities**

<table>
<thead>
<tr>
<th>Top Priority</th>
<th>Controlling &amp; Finance</th>
<th>Product Portfolio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>R&amp;D</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Procurement</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Production</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>Logistics</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>Innovation</td>
<td>4</td>
</tr>
</tbody>
</table>

**Top 10 levers**

1. Development of a future-proof product/service portfolio
2. Optimization of network and management
3. Cross-functional product/service cost reduction
4. Identification of growth opportunities
5. Improvements in sales and marketing effectiveness
6. Optimization of indirect costs
7. Customer-focused optimization of product/service features
8. Optimization of production planning and control
9. Improvements in sales and marketing efficiency
10. Strengthening of Controlling

Source: Survey results of Operations Efficiency Radar 2018 and 2019
~80% of leaders in CG & Retail confirm the need for functions to reposition – Highest potential in Controlling, Service and Logistics

Digitalization: Risks and opportunities

Risks

For some corporate functions, an exclusive focus on efficiency poses considerable risks because digitalization is seen as synonymous with automation ("whatever can be automated will be automated")

- Corporate functions must therefore reposition themselves and redefine their value add for the company as a whole

Opportunities

- My industry is changing permanently as a result of disruptive forces (e.g. electrification, the sharing economy, digitalization)
- This gives rise to completely new tasks for some corporate functions
- New technologies enable not only efficiency improvements but improvements in effectiveness also
- This gives corporate functions the chance to add value for the company in terms of both efficiency and effectiveness

If corporate functions spot the opportunities and exploit them, they will be able to position themselves as value generators in the company

How do you assess the risk from digitalization being seen as synonymous with automation in the following functions?

- Sales & Marketing
- Production
- Admin. & Overhead
- R&D
- Controlling & Finance
- Service & After-Sales
- Procurement
- Innovation
- Logistics
- Working Capital Mgmt.

How do you assess the opportunity from a new/changed positioning in the following functions?

Source: Survey results of Operations Efficiency Radar 2019
As growth slows overall, IT and tech will need to strengthen growth segments while continuously automating operations

Expert view on 2019 – Industrial Services and IT (focus: IT, software and technology)

> The general market will cool down overall, with signs already visible in Q4/18 figures from tech leaders – 2019 growth will see significant differences among sub-segments. As seen at CES, the main growth areas continue to revolve around 5G, AR/VR, AI, autonomous vehicles, surveillance and IoT

> In IT services, cost pressure remains high and requires IT service providers to continuously work on delivery automation, e.g. in IT operations and service provisioning. With increasing automation via AI-driven platforms, however (e.g. data center operation, incident resolution, testing, cyber threat intelligence), the price advantages of global sourcing become less relevant while smart location strategies with regard to energy and connectivity become more dominant

> SW market segments continue to be driven by cloudification/XaaSification with growth areas in corporate automation, advanced analytics and AI. Sector innovation strongly driven by young companies, applying business models with XaaS metrics to formerly people-driven cost structures, reshaping industry segments

> The Industrial IoT markets are coming of age, increasing platform economics dominate the quest for standards – established large players have caught up via business model transformation but need to keep pace on innovation

Source: Roland Berger
In Industrial Serv. and IT, Product Portfolio has highest priority in the value chain – Top lever: Customer-focused optimization of features

Value chain priorities and top 10 planned levers for 2019

Value chain priorities

<table>
<thead>
<tr>
<th>Rank</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Product Portfolio</td>
</tr>
<tr>
<td>2</td>
<td>Sales &amp; Marketing</td>
</tr>
<tr>
<td>3</td>
<td>Procurement</td>
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<tr>
<td>4</td>
<td>Production</td>
</tr>
<tr>
<td>5</td>
<td>Innovation</td>
</tr>
<tr>
<td>6</td>
<td>R&amp;D</td>
</tr>
<tr>
<td>7</td>
<td>Controlling &amp; Finance</td>
</tr>
<tr>
<td>8</td>
<td>Working Capital Management</td>
</tr>
<tr>
<td>9</td>
<td>Administration &amp; Overhead</td>
</tr>
</tbody>
</table>

Top 10 levers

I  Customer-focused optimization of product/service features
II Cross-functional product/service cost reduction
III Improvements in sales and marketing effectiveness
IV Development of a future-proof product/service portfolio
V Optimization of product architecture and use of platform/modular concepts
VI Optimization of product development process
VII Efficiency improvements in Production
VIII Identification of growth opportunities
IX Optimization of back-office services
X Improvements in sales and marketing efficiency

Source: Survey results of Operations Efficiency Radar 2018 and 2019
Only ~40% of leaders in Industrial Services and IT see the need for functions to reposition – Highest potential in R&D and Innovation

Digitalization: Risks and opportunities

Risks
For some corporate functions, an exclusive focus on efficiency poses considerable risks because digitalization is seen as synonymous with automation ("whatever can be automated will be automated")

- Corporate functions must therefore reposition themselves and redefine their value add for the company as a whole

31% 25% 44%

Opportunities
My industry is changing permanently as a result of disruptive forces (e.g. electrification, the sharing economy, digitalization)

- This gives rise to completely new tasks for some corporate functions

40% 29% 64%

- New technologies enable not only efficiency improvements but improvements in effectiveness also

25% 63% 88%

- This gives corporate functions the chance to add value for the company in terms of both efficiency and effectiveness

40% 40% 80%

If corporate functions **spot the opportunities and exploit them**, they will be able to position themselves as **value generators** in the company

38% 50% 88%

How do you assess the risk from digitalization being seen as synonymous with automation in the following functions?

- Sales & Marketing
- Production
- Admin. & Overhead
- R&D
- Controlling & Finance
- Service & After-Sales
- Procurement
- Innovation
- Logistics
- Working Capital Mgmt.

How do you assess the opportunity from a new/changed positioning in the following functions?

Source: Survey results of Operations Efficiency Radar 2019

Call for action
Driven by low interest rates and regulation, an efficient operating model is more crucial than ever before

Expert view on 2019 – Financial Services

> In times of **low interest rates** and **increasing regulation efficiency is key** – this is true now more than ever in the Financial Services industry

> At the front end, **optimization and streamlining of the product portfolio** from a client-centric perspective is necessary

> **Digital end-to-end optimization of processes** leads to faster execution and fewer errors in further processing

> In addition to IT, **staff is still the biggest cost driver** – its efficient use determines the long-term profitability of operations

> **Changes in the business model** towards open banking solutions require the **efficient control of partners** – while occupying the customer interface remains the critical success factor

> The **financial and control processes** are subject to **significant changes** – and **digitalization of the interface to supervision** plays a decisive role

> To create a single source of truth on data, **far-reaching digitalization of the value chain** is necessary

Source: Roland Berger
In Financial Services, Product Portfolio has highest priority in the value chain – Top lever: Customer-focused optimization of features

Value chain priorities and top 10 planned levers for 2019

**Value chain priorities**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Product Portfolio</td>
</tr>
<tr>
<td>2</td>
<td>Controlling &amp; Finance</td>
</tr>
<tr>
<td>3</td>
<td>Innovation</td>
</tr>
<tr>
<td>4</td>
<td>Service &amp; After-Sales</td>
</tr>
<tr>
<td>5</td>
<td>Administration &amp; Overhead</td>
</tr>
</tbody>
</table>

**Top 10 levers**

1. Customer-focused optimization of product/service features
2. Optimization of network and management
3. Optimization of staffing costs
4. Streamlining of the product/service portfolio
5. Improvement of service sales and go-to-market

6. Development of a future-proof product/service portfolio
7. Improvements in sales and marketing effectiveness
8. Optimization/efficiency improvement of back-office services, incl. through digitalization
9. Optimization of product architecture and use of platform/modular concepts
10. Price optimization of spare parts and services

Source: Survey results of Operations Efficiency Radar 2018 and 2019


~80% of leaders in Financial Services confirm the need for functions to reposition – Highest potential in Service, Procurement and WCM

Digitalization: Risks and opportunities

### Risks

For some corporate functions, an exclusive focus on efficiency poses considerable risks because digitalization is seen as synonymous with automation ("whatever can be automated will be automated")

- Corporate functions must therefore reposition themselves and redefine their value add for the company as a whole
  - 44% Agree
  - 22% Agree strongly
  - 56% Disagree
  - 78% Disagree strongly

### Opportunities

- My industry is changing permanently as a result of disruptive forces (e.g. electrification, the sharing economy, digitalization)
  - 29% Agree
  - 57% Agree strongly
  - 86% Disagree

- This gives rise to completely new tasks for some corporate functions
  - 43% Agree
  - 57% Agree strongly
  - 100% Disagree

- New technologies enable not only efficiency improvements but improvements in effectiveness also
  - 44% Agree
  - 56% Agree strongly
  - 100% Disagree

- This gives corporate functions the chance to add value for the company in terms of both efficiency and effectiveness
  - 44% Agree
  - 56% Agree strongly
  - 100% Disagree

If corporate functions **spot the opportunities and exploit them**, they will be able to position themselves as **value generators** in the company

- 33% Agree
- 44% Agree strongly
- 78% Disagree

### How do you assess the **risk from digitalization being seen as synonymous with automation** in the following functions?

### How do you assess the **opportunity from a new/changed positioning** in the following functions?

<table>
<thead>
<tr>
<th></th>
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</tr>
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<tbody>
<tr>
<td>Low</td>
<td>High</td>
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<td></td>
</tr>
</tbody>
</table>

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Source: Survey results of Operations Efficiency Radar 2019

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Call for action
Summary of priorities across industries

Priorities in 2019 by industry (1/2)

<table>
<thead>
<tr>
<th>Automotive</th>
<th>Aerospace &amp; Defense</th>
<th>Industrial Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Production</td>
<td>Production</td>
<td>Product Portfolio</td>
</tr>
<tr>
<td>2. Working Capital Management</td>
<td>Controlling &amp; Finance</td>
<td>Production</td>
</tr>
<tr>
<td>3. Product Portfolio</td>
<td>Product Portfolio</td>
<td>Procurement</td>
</tr>
<tr>
<td>4. Controlling &amp; Finance</td>
<td>R&amp;D</td>
<td>Procurement</td>
</tr>
<tr>
<td>5. Procurement</td>
<td>Administration &amp; Overhead</td>
<td>Logistics</td>
</tr>
<tr>
<td>7. Logistics</td>
<td>Innovation</td>
<td>Sales &amp; Marketing</td>
</tr>
<tr>
<td>8. Administration &amp; Overhead</td>
<td>Logistics</td>
<td>R&amp;D</td>
</tr>
<tr>
<td>9. Sales &amp; Marketing</td>
<td>Sales &amp; Marketing</td>
<td>Controlling &amp; Finance</td>
</tr>
<tr>
<td>10. Innovation</td>
<td>Sales &amp; After-Sales</td>
<td>Service &amp; After-Sales</td>
</tr>
<tr>
<td>11. Service &amp; After-Sales</td>
<td>Service &amp; After-Sales</td>
<td>Administration &amp; Overhead</td>
</tr>
</tbody>
</table>

- **= Certain**
- **= Very certain**

Source: Survey results of Operations Efficiency Radar 2019
### Summary of priorities across industries

#### Priorities in 2019 by industry (2/2)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Category</th>
<th>Industry</th>
<th>Certain</th>
<th>Very Certain</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Product Portfolio</td>
<td>Chemicals/Pharma</td>
<td>78%</td>
<td>0%</td>
</tr>
<tr>
<td>2</td>
<td>Production</td>
<td>Chemicals/Pharma</td>
<td>74%</td>
<td>0%</td>
</tr>
<tr>
<td>3</td>
<td>Sales &amp; Marketing</td>
<td>Chemicals/Pharma</td>
<td>70%</td>
<td>0%</td>
</tr>
<tr>
<td>4</td>
<td>Controlling &amp; Finance</td>
<td>Chemicals/Pharma</td>
<td>67%</td>
<td>0%</td>
</tr>
<tr>
<td>5</td>
<td>Procurement</td>
<td>Chemicals/Pharma</td>
<td>61%</td>
<td>0%</td>
</tr>
<tr>
<td>6</td>
<td>Working Capital Management</td>
<td>Chemicals/Pharma</td>
<td>61%</td>
<td>0%</td>
</tr>
<tr>
<td>7</td>
<td>Logistics</td>
<td>Chemicals/Pharma</td>
<td>56%</td>
<td>0%</td>
</tr>
<tr>
<td>8</td>
<td>R&amp;D</td>
<td>Chemicals/Pharma</td>
<td>55%</td>
<td>0%</td>
</tr>
<tr>
<td>9</td>
<td>Service &amp; After-Sales</td>
<td>Chemicals/Pharma</td>
<td>46%</td>
<td>0%</td>
</tr>
<tr>
<td>10</td>
<td>Innovation</td>
<td>Chemicals/Pharma</td>
<td>42%</td>
<td>0%</td>
</tr>
<tr>
<td>11</td>
<td>Administration &amp; Overhead</td>
<td>Chemicals/Pharma</td>
<td>41%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consumer Goods and Retail</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Product Portfolio</td>
<td>Consumer Goods and Retail</td>
<td>79%</td>
<td>0%</td>
</tr>
<tr>
<td>2</td>
<td>Logistics</td>
<td>Consumer Goods and Retail</td>
<td>68%</td>
<td>0%</td>
</tr>
<tr>
<td>3</td>
<td>Sales &amp; Marketing</td>
<td>Consumer Goods and Retail</td>
<td>63%</td>
<td>0%</td>
</tr>
<tr>
<td>4</td>
<td>Production</td>
<td>Consumer Goods and Retail</td>
<td>62%</td>
<td>0%</td>
</tr>
<tr>
<td>5</td>
<td>Controlling &amp; Finance</td>
<td>Consumer Goods and Retail</td>
<td>56%</td>
<td>0%</td>
</tr>
<tr>
<td>6</td>
<td>Procurement</td>
<td>Consumer Goods and Retail</td>
<td>56%</td>
<td>0%</td>
</tr>
<tr>
<td>7</td>
<td>Working Capital Management</td>
<td>Consumer Goods and Retail</td>
<td>54%</td>
<td>0%</td>
</tr>
<tr>
<td>8</td>
<td>Logistics</td>
<td>Consumer Goods and Retail</td>
<td>53%</td>
<td>0%</td>
</tr>
<tr>
<td>9</td>
<td>R&amp;D</td>
<td>Consumer Goods and Retail</td>
<td>53%</td>
<td>0%</td>
</tr>
<tr>
<td>10</td>
<td>Innovation</td>
<td>Consumer Goods and Retail</td>
<td>45%</td>
<td>0%</td>
</tr>
<tr>
<td>11</td>
<td>Administration &amp; Overhead</td>
<td>Consumer Goods and Retail</td>
<td>45%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Industrial Services and IT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Product Portfolio</td>
<td>Industrial Services and IT</td>
<td>72%</td>
<td>0%</td>
</tr>
<tr>
<td>2</td>
<td>Sales &amp; Marketing</td>
<td>Industrial Services and IT</td>
<td>56%</td>
<td>0%</td>
</tr>
<tr>
<td>3</td>
<td>R&amp;D</td>
<td>Industrial Services and IT</td>
<td>53%</td>
<td>0%</td>
</tr>
<tr>
<td>4</td>
<td>Production</td>
<td>Industrial Services and IT</td>
<td>52%</td>
<td>0%</td>
</tr>
<tr>
<td>5</td>
<td>Innovation</td>
<td>Industrial Services and IT</td>
<td>50%</td>
<td>0%</td>
</tr>
<tr>
<td>6</td>
<td>Logistics</td>
<td>Industrial Services and IT</td>
<td>49%</td>
<td>0%</td>
</tr>
<tr>
<td>7</td>
<td>Administration &amp; Overhead</td>
<td>Industrial Services and IT</td>
<td>46%</td>
<td>0%</td>
</tr>
<tr>
<td>8</td>
<td>Service &amp; After-Sales</td>
<td>Industrial Services and IT</td>
<td>44%</td>
<td>0%</td>
</tr>
<tr>
<td>9</td>
<td>Controlling &amp; Finance</td>
<td>Industrial Services and IT</td>
<td>39%</td>
<td>0%</td>
</tr>
<tr>
<td>10</td>
<td>Working Capital Management</td>
<td>Industrial Services and IT</td>
<td>38%</td>
<td>0%</td>
</tr>
<tr>
<td>11</td>
<td>Procurement</td>
<td>Industrial Services and IT</td>
<td>33%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Financial Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Product Portfolio</td>
<td>Financial Services</td>
<td>82%</td>
<td>0%</td>
</tr>
<tr>
<td>2</td>
<td>Controlling &amp; Finance</td>
<td>Financial Services</td>
<td>75%</td>
<td>0%</td>
</tr>
<tr>
<td>3</td>
<td>R&amp;D</td>
<td>Financial Services</td>
<td>72%</td>
<td>0%</td>
</tr>
<tr>
<td>4</td>
<td>Service &amp; After-Sales</td>
<td>Financial Services</td>
<td>67%</td>
<td>0%</td>
</tr>
<tr>
<td>5</td>
<td>Administration &amp; Overhead</td>
<td>Financial Services</td>
<td>66%</td>
<td>0%</td>
</tr>
<tr>
<td>6</td>
<td>Sales &amp; Marketing</td>
<td>Financial Services</td>
<td>65%</td>
<td>0%</td>
</tr>
<tr>
<td>7</td>
<td>Production</td>
<td>Financial Services</td>
<td>50%</td>
<td>0%</td>
</tr>
<tr>
<td>8</td>
<td>Procurement</td>
<td>Financial Services</td>
<td>48%</td>
<td>0%</td>
</tr>
<tr>
<td>9</td>
<td>Working Capital Management</td>
<td>Financial Services</td>
<td>45%</td>
<td>0%</td>
</tr>
<tr>
<td>10</td>
<td>Logistics</td>
<td>Financial Services</td>
<td>41%</td>
<td>0%</td>
</tr>
<tr>
<td>11</td>
<td>Innovation</td>
<td>Financial Services</td>
<td>39%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Source: Survey results of Operations Efficiency Radar 2019

Legend: = Certain, = Very certain
C. Recommendation
We recommend using the results of the Operations Efficiency Radar to challenge the organization and prepare for a potential crisis.

**Recommendation**

- First consequences of the fragile environment are already visible in a number of indicators.

- Likewise, the 10th Operations Efficiency Radar shows that around 50% of the participants expect an economic downturn for 2019 – But mixed picture by industry.

- Therefore, we recommend using the results of the 10th Operations Efficiency Radar to:
  1. Challenge priorities, levers and budgets in your organization &
  2. Review your early warning systems and at least prepare for a potential downturn in your industry.

Source: Roland Berger
Company leaders should use the 10th Operations Efficiency Radar to challenge priorities throughout 2019

Leverage study results

**Operations Efficiency Radar**

- **CEO/CFO**
  - Challenge functional priorities and budgets
  - Synchronize priorities and budgets across functions
  - Finetune and prioritize corporate budget and investments

- **Functional heads**
  - Benchmark functional trends
  - Set functional priorities
  - Align functional budget

Source: Operations Efficiency Radar 2019
In addition, company leaders should review their early warning systems and consider three crisis preparation options:

**Roland Berger approaches for crisis preparation**

1. **Assess status on crisis curve**
   - Evaluate early enough in case of further deviation

2. **Select adequate intervention**
   - Monitor closely

3. **Monitor closely**
   - Adjust early warning systems and prepare for a potential crisis

### Crisis Stages

- **Ordinary course of business**
- **Strategic crisis**
- **Earnings crisis**
- **Liquidity crisis**
- **Insolvency/other**

### Crisis Response Strategies

- **A** Strategic Re-Assessment, Crisis Scenario Planning
  - Planning, controlling for potential disruptions
- **B** Performance Program
  - Budget Cuts: 1-5% cost cuts
  - Zero Based Budgeting: 5-7% cost cuts
  - 10-20% cost cuts
- **C** Restructuring/ Turnaround
  - >20% cost cuts

Source: Roland Berger
Crisis preparation ranges from having backup programs ready to implement to holistic performance programs for the company.

Details on crisis preparation approaches

<table>
<thead>
<tr>
<th>Crisis preparation options</th>
<th>A Strategic Reassessment, Crisis Scenario Planning</th>
<th>B Performance Program</th>
<th>C Restructuring/Turnaround</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Crisis scenario analysis</td>
<td>Proactive implementation of process and structure improvements in the close range (&lt;12 months)</td>
<td>Implementation of extensive functional &amp; cross-functional process and structure improvements (short and mid term)</td>
</tr>
<tr>
<td></td>
<td>Proactive definition of ready-to-implement levers</td>
<td>Enhancement of corporate efficiency, operational performance and financing structure</td>
<td>Enhancement of corporate efficiency, operational performance, financing structure and transformation of company</td>
</tr>
<tr>
<td></td>
<td>Definition of potential implementation plan, responsibilities and crisis communication as well as KPI thresholds for when to launch program</td>
<td>Anchoring of permanent control/readjustment process</td>
<td>Setup of transformation office</td>
</tr>
<tr>
<td></td>
<td>Implementation preparation</td>
<td>Increase of profitability level and efficiency (mid term)</td>
<td>Increase of profitability level and efficiency (mid and long term)</td>
</tr>
<tr>
<td></td>
<td>Backup program with specific levers according to extent of crisis</td>
<td>Increase of elasticity (short term)</td>
<td>Increase of elasticity (short, mid, and long term)</td>
</tr>
<tr>
<td></td>
<td>Preparations ready to implement as soon as KPI thresholds undercut</td>
<td></td>
<td>Sustainable transformation</td>
</tr>
</tbody>
</table>

Preparation of measures only — Proactive implementation with financial impact

Source: Roland Berger
D. Study design and our contact details
The Operations Efficiency Radar addresses CEOs/CFOs and functional heads

Focus of and response to the questionnaire for the 10th edition

| Target companies | > Manufacturing companies and service providers  
|                  | > SMEs and large companies |
| Target group     | > CFO/Commercial Director  
|                  | > Functional heads, e.g. Controlling, Procurement |
| Approach         | > Quick survey via e-mail/online tool in DACH region  
|                  | > Predefined levers to select  
|                  | > Levers based on the experience of the ICV and Roland Berger |
| Period           | > November 2018 |
| Participants     | > More than 300 respondents in leadership roles |

Function and industry of study respondents

Study respondents’ company size – 2017 revenues [EUR m]

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;500</td>
<td>58%</td>
<td></td>
<td>51%</td>
</tr>
<tr>
<td>50-500</td>
<td>35%</td>
<td>33%</td>
<td></td>
</tr>
<tr>
<td>&lt;50</td>
<td>8%</td>
<td>16%</td>
<td></td>
</tr>
</tbody>
</table>

1) The new GDPR provisions meant that about 30% of responses could not be allocated to a specific industry

Source: Survey results of Operations Efficiency Radar 2018 and 2019
The study builds on levers along the value chain – Hot topic for the radar 2019: Digitalization in corporate functions

Study design

Assessing the set of levers used along the value chain

Activity on the levers in 2019: Are you planning any special activities to improve your use of the levers in 2019?

Hot topic analysis for 2019: Digitalization in corporate functions along the value chain
What are the risks that are inherent in digitalization being viewed as synonymous with automation? Will the corporate functions manage to reposition themselves and redefine their value add for the company as a whole?
Your contacts

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**international association of controllers**
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International Association of Controllers
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Tel.: +43 50804 33710
As a leading strategy consultancy in the operations and industrial sectors, Roland Berger has published several studies on hot topics.

<table>
<thead>
<tr>
<th>Operations</th>
<th>Automotive</th>
<th>Aerospace &amp; Defense</th>
<th>Industrial Products</th>
<th>Chemicals/Pharma</th>
<th>Consumer Goods and Retail</th>
<th>Industrial Services and IT</th>
<th>Financial Services</th>
</tr>
</thead>
</table>

Source: Roland Berger
Appendix 1:
Results of levers per value chain segment
Growth and customer focus remain important issues for respondent companies

Individual levers for the Operations Efficiency Radar – Product Portfolio

<table>
<thead>
<tr>
<th>Rank</th>
<th>Levers</th>
<th>Activities&lt;sup&gt;1)&lt;/sup&gt; 2019</th>
<th>Trend&lt;sup&gt;2)&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Development of a future-proof product/service portfolio (existing and/or new products, adjustment of products/markets/prices/volumes, vertical growth/consolidation)</td>
<td>36% 47% 83%</td>
<td>→</td>
</tr>
<tr>
<td>2</td>
<td>Customer-focused optimization of product/service features (removing/adding functions)</td>
<td>41% 37% 78%</td>
<td>→</td>
</tr>
<tr>
<td>3</td>
<td>Cross-functional product/service cost reduction (consideration of all costs in the value chain)</td>
<td>34% 37% 71%</td>
<td>↑</td>
</tr>
<tr>
<td>4</td>
<td>Streamlining of the product/service portfolio (negative margin, complexity drivers, etc.)</td>
<td>35% 28% 63%</td>
<td>↓</td>
</tr>
</tbody>
</table>

<sup>1</sup> Share of companies planning activities on the lever for 2019 (certain or very certain)

<sup>2</sup> Change in the lever's ranking since last year

Source: Survey results of Operations Efficiency Radar 2018 and 2019
Efficiency improvements in Production are gaining relevance – A top 10 lever alongside optimization of production planning and control

Individual levers for the Operations Efficiency Radar – Production

<table>
<thead>
<tr>
<th>Rank</th>
<th>Levers</th>
<th>Activities(^1) 2019</th>
<th>Trend(^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Efficiency improvements in production (continuous improvement, Kaizen, Six Sigma, etc.)</td>
<td>36%</td>
<td>40%</td>
</tr>
<tr>
<td>2</td>
<td>Optimization of production planning and control</td>
<td>31%</td>
<td>37%</td>
</tr>
<tr>
<td>3</td>
<td>Optimization of indirect costs (automation, centralization, in/outsourcing, etc.)</td>
<td>38%</td>
<td>26%</td>
</tr>
<tr>
<td>4</td>
<td>Optimization of value creation in Production (core competencies, make-or-buy)</td>
<td>38%</td>
<td>24%</td>
</tr>
<tr>
<td>5</td>
<td>Optimization of the global production network (products/locations)</td>
<td>26%</td>
<td>31%</td>
</tr>
</tbody>
</table>

\(^1\) Share of companies planning activities on the lever for 2019 (certain or very certain)

\(^2\) Change in the lever's ranking since last year

Source: Survey results of Operations Efficiency Radar 2018 and 2019
Controlling topics continue to gain importance – Efficiency improvement of back-office services is the top lever

### Individual levers for the Operations Efficiency Radar – Controlling & Finance

<table>
<thead>
<tr>
<th>Rank</th>
<th>Levers</th>
<th>Activities¹) 2019</th>
<th>Trend²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Optimization/efficiency improvement of back-office services, incl. through digitalization (budgeting, reporting, etc.)</td>
<td>31%</td>
<td>37%</td>
</tr>
<tr>
<td>2</td>
<td>Strengthening of Controlling (greater transparency, controllers as business partners, centralization, etc.)</td>
<td>34%</td>
<td>32%</td>
</tr>
<tr>
<td>3</td>
<td>Optimization of project costs (consultants, IT systems, new projects, etc.)</td>
<td>34%</td>
<td>18%</td>
</tr>
<tr>
<td>4</td>
<td>Optimization of staffing costs (overtime, headcount, etc.)</td>
<td>31%</td>
<td>19%</td>
</tr>
</tbody>
</table>

¹) Share of companies planning activities on the lever for 2019 (certain or very certain)

²) Change in the lever's ranking since last year

Source: Survey results of Operations Efficiency Radar 2018 and 2019
Sales/marketing effectiveness and growth remain key issues for Sales & Marketing

Individual levers for the Operations Efficiency Radar – Sales & Marketing

<table>
<thead>
<tr>
<th>Rank</th>
<th>Levers</th>
<th>Activities 1) 2019</th>
<th>Trend 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Improvements in sales and marketing effectiveness (pricing policy, customer management, channel management, etc.)</td>
<td>41% Certain, 28% Very certain</td>
<td>69% ↑</td>
</tr>
<tr>
<td>2</td>
<td>Identification of growth opportunities (product/technology, customers, regions, etc.)</td>
<td>35% Certain, 33% Very certain</td>
<td>68% ↓</td>
</tr>
<tr>
<td>3</td>
<td>Sales push to exploit market opportunities (regaining lost customers, proactively exploiting competitors' weaknesses, etc.)</td>
<td>35% Certain, 22% Very certain</td>
<td>57% ↔</td>
</tr>
<tr>
<td>4</td>
<td>Improvements in sales and marketing efficiency (cross-functional reduction of other marketing costs)</td>
<td>38% Certain, 14% Very certain</td>
<td>52% ↑</td>
</tr>
<tr>
<td>5</td>
<td>Optimization of corporate structures and processes, control and systems (degree of centralization, incentivization, etc.)</td>
<td>35% Certain, 15% Very certain</td>
<td>50% ↓</td>
</tr>
<tr>
<td>6</td>
<td>Optimization of back-office services (promotions, marketing material, etc.)</td>
<td>34% Certain, 12% Very certain</td>
<td>46% ↓</td>
</tr>
</tbody>
</table>

1) Share of companies planning activities on the lever for 2019 (certain or very certain)
2) Change in the lever's ranking since last year

Source: Survey results of Operations Efficiency Radar 2018 and 2019
Commercial procurement levers have established themselves as top levers

Individual levers for the Operations Efficiency Radar – Procurement

<table>
<thead>
<tr>
<th>Rank</th>
<th>Levers</th>
<th>Activities(^1) 2019</th>
<th>Trend(^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Application of commercial procurement levers (price comparison, bundling, etc.)</td>
<td>41% 36% 77%</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Improvement of supplier management (risk management, involvement in processes, etc.)</td>
<td>37% 20% 57%</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Application of process levers in Procurement (e-procurement, online catalogs, etc.)</td>
<td>30% 24% 54%</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Development of category strategies (consideration of costs, quality, technology, availability)</td>
<td>34% 18% 52%</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Optimization of corporate structures and processes, procurement management and systems (degree of centralization, incentivization, etc.)</td>
<td>26% 25% 51%</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Application of technical procurement levers (value analysis, material substitution, etc.)</td>
<td>28% 22% 50%</td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) Share of companies planning activities on the lever for 2019 (certain or very certain)

\(^2\) Change in the lever’s ranking since last year

Source: Survey results of Operations Efficiency Radar 2018 and 2019
Network and cross-functional optimization remain areas of focus in R&D

Individual levers for the Operations Efficiency Radar – R&D

<table>
<thead>
<tr>
<th>Rank</th>
<th>Levers</th>
<th>Activities&lt;sup&gt;1) 2019&lt;/sup&gt;</th>
<th>Trend&lt;sup&gt;2)&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Optimization of network and management</td>
<td>43%</td>
<td>71%</td>
</tr>
<tr>
<td></td>
<td>(market proximity, costs, key performance indicators, etc.)</td>
<td>28%</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Cross-functional cost optimization in the R&amp;D process</td>
<td>33%</td>
<td>62%</td>
</tr>
<tr>
<td></td>
<td>(early involvement of procurement, use of available cost reduction</td>
<td>29%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>levers, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Optimization of product development process</td>
<td>38%</td>
<td>62%</td>
</tr>
<tr>
<td></td>
<td>(customer focused, short time-to-market, etc.)</td>
<td>24%</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Optimization of product architecture and use of platform/modular</td>
<td>30%</td>
<td>56%</td>
</tr>
<tr>
<td></td>
<td>concepts</td>
<td>26%</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Streamlining of project portfolio (balance between short/long term,</td>
<td>29%</td>
<td>46%</td>
</tr>
<tr>
<td></td>
<td>spreading of risk, product/technology/process/services)</td>
<td>17%</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Optimization of value creation in development</td>
<td>29%</td>
<td>45%</td>
</tr>
<tr>
<td></td>
<td>(in/outourcing, joint ventures, etc.)</td>
<td>16%</td>
<td></td>
</tr>
</tbody>
</table>

<sup>1)</sup> Share of companies planning activities on the lever for 2019 (certain or very certain)

<sup>2)</sup> Change in the lever’s ranking since last year

Source: Survey results of Operations Efficiency Radar 2018 and 2019
Logistics topics are becoming less relevant, especially warehouse cost optimization (which ranked highest of all in Logistics in 2018)

Individual levers for the Operations Efficiency Radar – Logistics

<table>
<thead>
<tr>
<th>Rank</th>
<th>Levers</th>
<th>Activities$^1$ 2019</th>
<th>Trend$^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Integrated supply chain management (demand planning, order and inventory management, supplier management, service level differentiation, etc.)</td>
<td>38%</td>
<td>23%</td>
</tr>
<tr>
<td>2</td>
<td>Optimization of transportation costs (routes, carriers, capacity utilization, delivery mode, etc.)</td>
<td>30%</td>
<td>26%</td>
</tr>
<tr>
<td>3</td>
<td>Optimization of inventory costs (MRP parameters, number of days' supply, cross-docking, etc.)</td>
<td>28%</td>
<td>27%</td>
</tr>
<tr>
<td>4</td>
<td>Optimization of warehousing costs (locations, staffing capacity, automation, etc.)</td>
<td>31%</td>
<td>22%</td>
</tr>
</tbody>
</table>

$^1$ Share of companies planning activities on the lever for 2019 (certain or very certain)

$^2$ Change in the lever's ranking since last year

Source: Survey results of Operations Efficiency Radar 2018 and 2019
Ranking of Working Capital Management levers remains unchanged again – Inventory optimization is the area with the most activity


<table>
<thead>
<tr>
<th>Rank</th>
<th>Levers</th>
<th>Activities¹) 2019</th>
<th>Trend²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Optimization of inventories in the supply chain</td>
<td>23%</td>
<td>39%</td>
</tr>
<tr>
<td>2</td>
<td>Optimization of accounts receivable</td>
<td>19%</td>
<td>37%</td>
</tr>
<tr>
<td>3</td>
<td>Optimization of accounts payable</td>
<td>22%</td>
<td>28%</td>
</tr>
</tbody>
</table>

¹) Share of companies planning activities on the lever for 2019 (certain or very certain)
²) Change in the lever's ranking since last year

Source: Survey results of Operations Efficiency Radar 2018 and 2019
Levers in Administration & Overhead continue to be of lesser relevance for study respondents

Individual levers for the Operations Efficiency Radar – Administration & Overhead

<table>
<thead>
<tr>
<th>Rank</th>
<th>Levers</th>
<th>Activities¹) 2019</th>
<th>Trend²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Optimization of corporate structures and processes, control and systems (degree of centralization, process optimization, system harmonization, etc.)</td>
<td>39% 19% 58%</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Optimization of back-office services (help desk, payroll, etc.)</td>
<td>36% 17% 53%</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Optimization and flexing of staffing costs (in/outsourcing, working time banking, etc.)</td>
<td>29% 14% 43%</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Optimization of other costs (seminars, maintenance, etc.)</td>
<td>26% 10% 36%</td>
<td></td>
</tr>
</tbody>
</table>

¹) Share of companies planning activities on the lever for 2019 (certain or very certain)  
²) Change in the lever's ranking since last year

Source: Survey results of Operations Efficiency Radar 2018 and 2019
Improvement of performance and efficiency are the most important levers in Service – Far fewer activities planned overall

<table>
<thead>
<tr>
<th>Rank</th>
<th>Levers</th>
<th>Activities¹) 2019</th>
<th>Trend²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Improvement of performance and efficiency in Service (service level performance, lean processes, international expertise, processing of inquiries, etc.)</td>
<td>38% 21% 59%</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Development of sustainable, profitable Service/After-Sales expertise and establishment of a target-oriented service organization and management</td>
<td>32% 22% 54%</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Improvement of service sales and go-to-market (fully exploiting the installed base, customer-focused service design, effective service network, dedicated service sales, etc.)</td>
<td>31% 17% 48%</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Price optimization of spare parts and services (price differentiation, alternative payment models, etc.)</td>
<td>24% 10% 34%</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Achievement of service lock-in with customers (alternative business/payment models, product &amp; service integration, etc.)</td>
<td>24% 9% 33%</td>
<td></td>
</tr>
</tbody>
</table>

¹) Share of companies planning activities on the lever for 2019 (certain or very certain)
²) Change in the lever’s ranking since last year

Source: Survey results of Operations Efficiency Radar 2018 and 2019
Fewer activities are planned on the Innovation levers – Optimization of the innovation system/process ranks highly in Innovation

Individual levers for the Operations Efficiency Radar – Innovation

<table>
<thead>
<tr>
<th>Rank</th>
<th>Levers</th>
<th>Activities¹) 2019</th>
<th>Trend²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Optimization of the innovation system/process (operating model, key performance indicators, agile innovation)</td>
<td>37%</td>
<td>22%</td>
</tr>
<tr>
<td>2</td>
<td>Development of a clear, transparent innovation strategy</td>
<td>34%</td>
<td>23%</td>
</tr>
<tr>
<td>3</td>
<td>Creating new innovation structures (incubators, startups, corporate ventures, open innovation, co-creation)</td>
<td>20%</td>
<td>18%</td>
</tr>
<tr>
<td>4</td>
<td>Pushing innovations outside of the core business (radical non-core)</td>
<td>17%</td>
<td>11%</td>
</tr>
</tbody>
</table>

¹) Share of companies planning activities on the lever for 2019 (certain or very certain)
²) Change in the lever's ranking since last year

Source: Survey results of Operations Efficiency Radar 2018 and 2019
Appendix 2: Evolution of the 10th Operations Efficiency Radar
A success story – In the last ten years, the Operations Efficiency Radar has supported many industry leaders

Timeline and participants

Source: Survey results of Operations Efficiency Radar 2010 - 2019
The Operations Efficiency Radar has provided a robust view of the priorities by function ...

Key facts

- 51 questions to be answered
- 10 surveys conducted in 10 years
- 7 different industries in the scope
- 11 corporate functions covered and assessed
- One hot topic addressed per year
- Record participation in 2019 with >300 participants

> More than 1 million data points
> Several hot topics to cover current market trends

Source: Survey results of Operations Efficiency Radar 2010 - 2019
… supplemented by a yearly deep dive on current hot topics

Hot topics addressed

"Quo vadis – Up- or downturn?"

Changes through digitalization

Value add through RPA and AI

Changes through Industry 4.0

Products for the emerging markets

Impact of digitalization on the business model

"Quo vadis – Euro?"