Industry 4.0 – Challenge for the F&B industry in Greece, advantage or competitive disadvantage?
Roland Berger is the only strategic consultancy of European origin – We provide strategic advice to the world's top decision makers

Roland Berger: Company overview – Top global management consulting

Founded in 1967 in Germany by Roland Berger

50 offices in 36 countries, with approximately 2,400 employees

220 RB Partners currently serving

~1,000 international clients

Source: Roland Berger
Content

A. Industry 4.0: from global buzz to reality

B. Industry 4.0 readiness of F&B in Greece

C. Greece to prepare for Industry 4.0 – Next steps
The global manufacturing industry is gearing up for the next level of industrial revolution - Industry 4.0

Development stages of industrial manufacturing

<table>
<thead>
<tr>
<th>First industrial revolution</th>
<th>Second industrial revolution</th>
<th>Third industrial revolution</th>
<th>Fourth industrial revolution?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>2.0</td>
<td>3.0</td>
<td>4.0</td>
</tr>
</tbody>
</table>

- **1784**
  - Mechanical weaving loom
  - Introduction of mechanical production assets based on water and steam power

- **1923**
  - Introduction of a "moving" assembly line at Ford Motors
  - Introduction of mass production based on division of labor and electrical energy

- **1969**
  - First programmable logic controller (PLC)
  - Introduction of electronics and IT for higher automation of production

- **2014**
  - Real time, self optimizing connected systems
  - Introduction of intelligent machines, embedded cyber-physical sensors, collaborative technologies, and networked processes

Drivers of this development:
- Large amount of data available
- Rising demand for (mass) customized products
- Advanced algorithms allowing better real-time and large data analysis
- More affordable sensor/actor technologies
- Increasing prevalence of communication including wireless technology in the factory

Source: Bitkom/Fraunhofer, DFKI, Roland Berger
Industry 4.0 can be understood as the full integration and digitalization of the industrial value creation

Definition of Industry 4.0 (not exhaustive)

> Digital transformation refers to the changes associated with the application of digital technologies in all aspects of human society

> Industry 4.0 is the industrial application of the concepts applied in the digital transformation, key elements are:
  > Complete connectivity with real-time ability
  > Decentralized, intelligent and self optimizing / organizing
  > Modular and reconfigurable

> Assessment of Industry 4.0 impact needs to take analogies from digital transformation and specifics of the manufacturing industry into account

> The digital transformation in the consumer goods sector is much more advanced than the industrial application

Source: Plattform Industry 4.0, MIT Sloan Management Review, Roland Berger
Interlinking of real (physical) and virtual (cyber) world will lead to so called cyber-physical systems that determine Industry 4.0 solutions

Schematic interlinking of physical and virtual world - Examples

<table>
<thead>
<tr>
<th>Physical world</th>
<th>Cyber world</th>
<th>Industry 4.0 solutions</th>
<th>Characteristics/Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; Robotics</td>
<td>&gt; Advanced algorithms</td>
<td></td>
<td>&gt; Connectivity as the key factor is linking both worlds in each solution</td>
</tr>
<tr>
<td>&gt; Automation equipment</td>
<td>&gt; Machine learning</td>
<td>Self-learning robots</td>
<td>&gt; Enable</td>
</tr>
<tr>
<td></td>
<td>&gt; High-performance hardware</td>
<td></td>
<td>– Individualized or mass customized products</td>
</tr>
<tr>
<td></td>
<td>&gt; Traditional machinery</td>
<td>Predictive maintenance</td>
<td>– Highly flexible production</td>
</tr>
<tr>
<td></td>
<td>&gt; Traditional &amp; semiconductor based</td>
<td></td>
<td>– Integration of customers and value adding partner into value creation</td>
</tr>
<tr>
<td></td>
<td>machinery</td>
<td></td>
<td>– Coupling of production and high-value services</td>
</tr>
<tr>
<td></td>
<td>&gt; RFID</td>
<td></td>
<td>– Cost and efficiency benefits and quality improvements</td>
</tr>
<tr>
<td></td>
<td>&gt; Automation equipment</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt; Camera &amp; imaging systems</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>&gt; Visual sensors</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt; Traditional sensors</td>
<td></td>
<td></td>
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<tr>
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</tbody>
</table>

Source: Roland Berger
Industry 4.0 combines a wide set of technologies becoming well known.

1. **PRODUCT DESIGN / PROCESS**
   - Virtual industrialization
     - "virtual manufacturing plant" digitalized, production process simulation

2. **MONITORING / CONTROL**
   - Monitoring, command
     - Interconnected machines & plants
     - Active sensors
     - Automated logistics / Internet of Things
     - "Smart" machine (self-correction)

3. **MANUFACTURING OPERATIONS**
   - Flow management
     - Precision
     - MANUFACTURING OPERATIONS
   - "Smart" machine (self-correction)
     - Additive manufacturing
     - Cobots
     - Multi-support and multi-operation machines

4. **SERVICES (INTEGRATION, MAINTENANCE)**
   - Retrofits
     - Big data, télémaintenance
     - Big data, Intelligent Assist Devices

5. **WORK ORGANIZATION**
   - Learning organization
     - Augmented operator
     - Duty organization

Source: Roland Berger
Most industrial players have launched Industry 4.0 pilots to test those solutions in legacy plants – F&B industry is catching up

Smart production  Collaborative robotics  Conditional maintenance  Humanoid robotic

Intelligent logistic bins  3D food printing  Traceability  Augmented reality

Source: press review, companies websites, Roland Berger
The goal of 'Industry 4.0' is the intelligent factory which is characterized by adaptability, efficiency and a full digital integration.

Factory 4.0 – Overview

- **SENSORS**
  - Zero default / deviation
  - Reactivity
  - Traceability
  - Predictability

- **BIG DATA**
  - Give sense to complexity
  - Creativity
  - Collaborative manufacturing

- **ADVANCED MANUFACTURING SYSTEMS**
  - Cyber Physical Systems (CPS)
  - Numerical command
    - Full automation
    - Totally interconnected systems
    - Machine to machine communication

- **3D PRINTING / ADDITIVE MANUFACTURING**
  - Scrap elimination
  - Mass customization
  - Rapid prototyping

- **NANOTECHNOLOGY / ADVANCED MATERIALS**
  - Smart value added products
  - Technical differentiation
  - Connectivity

- **ROBOT**
  - Real time - Autonomy - Productivity
  - Full transparency on data reporting

- **AUTONOMOUS VEHICLE**
  - Flow optimization
  - Increased security
  - Lower costs

- **CLUSTER OF PLANTS**
  - Perfect coordination

- **PLANT OF THE FUTURE A**
  - On demand manufacturing

- **PLANT OF THE FUTURE B**

- **LOGISTICS 4.0**
  - Fully integrated supply chain
  - Interconnected systems
  - Perfect coordination

- **CLOUD COMPUTING**

- **CYBERSECURITY**
  - Stronger protection for internet based manufacturing
  - Technology products with longer life cycle

- **MASS CUSTOMIZATION**
  - Customer & marketing intimacy
  - Flexibility
  - Perfect match with customer’s needs with production mass efficiency
  - On demand manufacturing

- **INTERNET OF THINGS**
  - Object tagging
  - Internet-object communication via low power radio
  - Real time data capture
  - Optimized stocks
  - Reduced wastes

- **RESOURCES OF THE FUTURE**
  - Clean and renewable energies everywhere
  - Energy Storage
  - Alternative raw materials

- **WIND**
  - ALTERNATIVE / NON CONVENTIONAL
  - SOLAR
  - GEOTHERMIC

Source: Roland Berger
Data and communication will be the backbone of Industry 4.0 – Some players with already wide offering and new players entering

Positioning of different players for Industry 4.0 – Factory view

Players

1) Not exhaustive; examples only

Source: Roland Berger
Industry 4.0 is changing the paradigm of manufacturing strategy

<table>
<thead>
<tr>
<th></th>
<th>Industry 4.0 – Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>From mass production to mass customization</strong></td>
</tr>
<tr>
<td></td>
<td>Flexible production, short production lead time enabling new business models emergence and affordable customization</td>
</tr>
<tr>
<td>2</td>
<td><strong>From volume scale effect to localized &amp; flexible units</strong></td>
</tr>
<tr>
<td></td>
<td>From large factories specialized per product in LCC to smart factories with high technological equipment enabling to produce at competitive cost everywhere</td>
</tr>
<tr>
<td>3</td>
<td><strong>From planned make to stock to dynamic make to order</strong></td>
</tr>
<tr>
<td></td>
<td>From an organized production, based on planning and forecast and supported by stocks, to dynamic production and yield management, on demand</td>
</tr>
<tr>
<td>4</td>
<td><strong>From product to usage</strong></td>
</tr>
<tr>
<td></td>
<td>Integrated conception, services being a key element of the business model/decision factor</td>
</tr>
<tr>
<td>5</td>
<td><strong>From cost driven to ROCE driven</strong></td>
</tr>
<tr>
<td></td>
<td>Higher ROCE for lower Capital employed as complexity is transferred on numeric</td>
</tr>
<tr>
<td>6</td>
<td><strong>From taylorism to flexible work organization</strong></td>
</tr>
<tr>
<td></td>
<td>Remote work (augmented reality, permanent connectivity), Tasks parallelism, flexible organization and management</td>
</tr>
<tr>
<td>7</td>
<td><strong>From hard working conditions to attractive work space</strong></td>
</tr>
<tr>
<td></td>
<td>Development of complex artisanal production, with clean/highly connected work space, white collars intensive</td>
</tr>
</tbody>
</table>

Source: Roland Berger
A few projects and concepts are emerging and look extremely promising in the manufacturing world – Examples food & beverage

**Smart production**
- Integrate production units from different manufacturers via software interface to enable smart platforms
- Reduce machine integration costs through faster integration of production and packaging lines

**Collaborative robotics**
- Robots pick 2 waffles each based on visual line tracking and collision guard
- Number of waffles and their position on the conveyor belt is communicated to robots via camera
- Robot controller assigns an equal amount of waffles to each robot while avoiding collision when picking the waffles

**Traceability**
- Modern track-and-trace technology documents product flow and enables each item to be tracked back- and forwards
- Data stored in corresponding database, which can be connected to other IT systems e.g. SAP
- Example: Meat industry – identification of slaughtered animal to finished meat pack possible

**Industry 4.0 in the food & beverage industry**

**3D food printing**
- Personalize food based on selected ingredients, nutritional components, medication etc.
- Flexibly produce custom output (mass customization)
- Shape individual products creating new shapes, textures, etc.

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Source: Arla, ABB, TNO, RSW BV, Roland Berger
Industry 4.0 will significantly change business rules; It offers enormous opportunities to new winners but kills non-innovators…

Industry 4.0 – Expected benefits

1. **Design and manufacture better products** – Industry 4.0 will enable adaptation of manufacturing methods by region e.g. automated zero defect manufacturing

2. **Improve process efficiency and save costs** – It would connect digital and real processes to identify and address manufacturing issues in advance, e.g. a quality issue

3. **Create new business models** – Industry 4.0 would disintermediate value chains or change the business rules itself e.g. Value chain will become more visible and need for intermediaries might be eliminated

4. **Generate additional business** – New 'Industry 4.0' comers would be the future game changers e.g. 3D bio-printing for fabricating biological constructs to produce soft tissues and artificial bones would help in generating additional business

5. **Unleash innovation** – It would free up additional creativity to fully leverage digital potential e.g. demand for business-model innovation is currently rising

6. **Rethink organizations** – Industry 4.0 would make organizations more responsive and flexible e.g. R&D teams would be able to leverage on global expertise at a faster rate

Source: Roland Berger
...impacting the business model, the value creation system and the financial base of the companies

Additional value generation through Industry 4.0

**Industry 4.0**

![Diagram showing the impact of Industry 4.0 on productivity, increase of customer value, and business model enhancement.]

- **Productivity increase**
- **Increase of customer value**
- **Business model enhancement**

**Company**

- **Business model**
- **Value creation system**
- **Financial base**

**Framework of Roland Berger success pattern study**

- **Growth model**
- **Technology strategy**
- **Product positioning**
- **Go-to-market approach**
- **Value creation strategy**
- **Management concept**
- **R&D management**
- **Supplier management**
- **Operations management**
- **Sales management**
- **Service management**
- **Risk management**

Source: Roland Berger
Industry 4.0 brings also a new economical equation: increasing profitability and decreased capital employed.

**ROCE** = **Profitability** \times **Capital intensity**

- **Profitability**:
  - Customization of products
  - High value added products
  - Better availability
  - Low or Negative cost of complexity (numeric)
  - Less labor costs/low usage costs

- **Capital intensity**:
  - Reduced capital employed
  - Flexible assets
  - Cost of complexity transferred on numeric part
  - Improved TRS and utilization rate of assets
  - Lean flows, low scrap rate, high quality

Source: Roland Berger
But – 'Industry 4.0' is a long journey and technologies will take 10~15 years to reach maturity in the market

Industry 4.0 roadmap

Mainly showcases or laboratory solutions in development

In next years mainly technology driven isolated standalone /plug-in solutions will be developed

The penetration of the market with isolated solutions will lead to an interconnection of many solutions via existing connectivity channels

Along the lifecycle of most production machinery the transition to true Industry 4.0 will start to be more comprehensive once most machinery, infrastructure and employees are Industry 4.0 ready

Transition to "True Industry 4.0"

~2018

~2020

2020

2025

2025+

2030+
Countries have prioritized Industry 4.0 in their future plans as a key enabler for future growth – Greece to catch up

<table>
<thead>
<tr>
<th>Issuer</th>
<th>Program [content, funding volume]</th>
<th>Eligibility Greece</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMBF(^1)</td>
<td>Future Project Industry 4.0</td>
<td>Support German industry for future challenges EUR 200 m</td>
</tr>
<tr>
<td>Fund for Digital Society</td>
<td>Future Inventions</td>
<td>Monetary support for R&amp;D on embedded systems, big data and integrated objects EUR 150 m</td>
</tr>
<tr>
<td>University of Warwick</td>
<td>Warwick Manufacturing Group</td>
<td>Different research initiatives focused on automotive &amp; ICT EUR 229 m</td>
</tr>
<tr>
<td>Innovate UK</td>
<td>Catapult Centers</td>
<td>Double manufacturing contribution to GDP EUR 370 m</td>
</tr>
<tr>
<td>Cleantech Vlaanderen</td>
<td>MIP</td>
<td>Innovative cleantech and transition economy projects n.a.</td>
</tr>
<tr>
<td>Made different</td>
<td>Factories of the Future 4.0</td>
<td>Support the development of &quot;Factories of the future&quot; EUR 8 m</td>
</tr>
<tr>
<td>CFI</td>
<td>Intelligent factories clusters</td>
<td>Structure Italian manufacturing community to develop &amp; leverage research, with 4 projects EUR 41 m</td>
</tr>
<tr>
<td>European Commission</td>
<td>Factories of the Future</td>
<td>Financial resources for Research and Innovation dedicated to advanced manufacturing in the EU EUR 1.2 bn ✓</td>
</tr>
<tr>
<td></td>
<td>SPARC Robotics</td>
<td>Support from EU to the robotics industry from R&amp;D to production (part of Horizon 2020) EUR 700 m ✓</td>
</tr>
<tr>
<td></td>
<td>Digital Convergence</td>
<td>Foster the digital convergence throughout the EU (part of the European regional development fund ERDF) EUR 10 m ✓</td>
</tr>
<tr>
<td></td>
<td>Future Internet Technology</td>
<td>Advance future internet usage across EU countries EUR 300 m ✓</td>
</tr>
</tbody>
</table>

1) Federal Ministry of Education and Research

Source: European Commission, Roland Berger
B. Industry 4.0 readiness of F&B in Greece
Digital transformation is basis for implementing Industry 4.0 – the race in which Greece needs to come from behind (1/2)

Greece's ranking in "Business Usage Index"

<table>
<thead>
<tr>
<th>Category</th>
<th>&quot;Leader&quot;</th>
<th>&quot;Underperformer&quot;</th>
<th>Greece's ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Usage</td>
<td></td>
<td></td>
<td>#96</td>
</tr>
<tr>
<td>Technology absorption at company level</td>
<td></td>
<td></td>
<td>#74</td>
</tr>
<tr>
<td>Innovation capability</td>
<td></td>
<td></td>
<td>#109</td>
</tr>
<tr>
<td>International patents, apps/ million of people</td>
<td></td>
<td></td>
<td>#39</td>
</tr>
<tr>
<td>Internet usage for B2B</td>
<td></td>
<td></td>
<td>#102</td>
</tr>
<tr>
<td>Internet usage for B2C</td>
<td></td>
<td></td>
<td>#108</td>
</tr>
<tr>
<td>Employee training and development</td>
<td></td>
<td></td>
<td>#111</td>
</tr>
</tbody>
</table>

Source: WEF Global Information Technology Report 2015, Roland Berger
The manufacturing industry has lost importance due to the de-industrialization – Greece with comparatively low manufacturing share.

Manufacturing share of gross value added in selected countries, 2000 vs. 2014 [%]

Global Average
2000: 17%
2014: 16%

1) 2004 vs. 2014

Source: UNCTAD, Roland Berger
Manufacturing in the Food & Beverage segment in Greece with comparably high importance – Share increasing

Sector-wise contribution to GVA Greece [bn EUR, %]

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Food &amp; Beverages</td>
<td>2.3%</td>
<td>2.2%</td>
<td>2.5%</td>
<td>2.8%</td>
<td>3.0%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>11%</td>
<td>10%</td>
<td>7%</td>
<td>7%</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>Construction, Utilities, Mining &amp;</td>
<td>80%</td>
<td>81%</td>
<td>80%</td>
<td>80%</td>
<td>80%</td>
<td>80%</td>
</tr>
<tr>
<td>Quarrying</td>
<td>6%</td>
<td>3%</td>
<td>3%</td>
<td>4%</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Agriculture &amp; allied activities</td>
<td>6%</td>
<td>3%</td>
<td>3%</td>
<td>4%</td>
<td>4%</td>
<td>4%</td>
</tr>
</tbody>
</table>

Comments

> Manufacturing share of the Food & Beverage industry has grown by +0.7%-points since 2000

> Compared to other European countries, the F&B industry in Greece is particularly strong accounting for 3.0% of manufacturing GVA

Manufacturing share of the F&B segment\(^1\), 2013 [%]

<table>
<thead>
<tr>
<th>Country</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greece</td>
<td>3.0</td>
</tr>
<tr>
<td>Spain</td>
<td>2.9</td>
</tr>
<tr>
<td>France</td>
<td>2.3</td>
</tr>
<tr>
<td>Cyprus</td>
<td>2.0</td>
</tr>
<tr>
<td>Italy</td>
<td>1.7</td>
</tr>
<tr>
<td>Germany</td>
<td>1.6</td>
</tr>
</tbody>
</table>

\(^1\) Incl. tobacco

GVA = Gross Value Added = GDP + subsidies – taxes on products

Source: Eurostat, Roland Berger

21
Food & Beverages are a strong pillar of Greece's export strategy – Nevertheless sector can also exploit market potential within Greece

Food exports as % of merchandise exports; Food imports and exports [bn EUR]

<table>
<thead>
<tr>
<th>Country</th>
<th>F&amp;B exports¹ as a % of merchandise exports, 2014</th>
<th>F&amp;B import and export¹ revenues, 2012-2014 [bn EUR]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyprus</td>
<td>20.3</td>
<td>Imports 5.5, Exports 4.2, Deficit -1.3</td>
</tr>
<tr>
<td>Greece</td>
<td>17.5</td>
<td>Imports 5.7, Exports 4.2, Deficit -1.4</td>
</tr>
<tr>
<td>Spain</td>
<td>15.7</td>
<td>Imports 4.3, Exports 5.6, Deficit -1.3</td>
</tr>
<tr>
<td>France</td>
<td>12.8</td>
<td>Imports 4.2, Exports 4.2</td>
</tr>
<tr>
<td>Portugal</td>
<td>12.2</td>
<td>Imports 4.3, Exports 5.6, Deficit -1.3</td>
</tr>
<tr>
<td>Italy</td>
<td>8.3</td>
<td>Imports 4.2, Exports 4.2</td>
</tr>
<tr>
<td>Austria</td>
<td>7.5</td>
<td>Imports 4.3, Exports 5.6, Deficit -1.3</td>
</tr>
<tr>
<td>Germany</td>
<td>5.8</td>
<td>Imports 4.3, Exports 5.6, Deficit -1.3</td>
</tr>
</tbody>
</table>

¹) Including food, beverages and tobacco

Source: WTO, Hellenic Statistical Authority, Roland Berger
But Greece with currently a very low Industry 4.0 readiness Index – Approach to increase readiness to be defined…

Industry 4.0 readiness – Positioning European countries for Industry 4.0

Roland Berger
Industry 4.0
Readiness Index¹)

1) Based on industrial excellence (production process sophistication, degree of automation, readiness workforce and innovation intensity) and value network (focus on high value add, industry openness, innovation network, internet sophistication)

Source: Roland Berger
C. Greece to prepare for Industry 4.0 – Next steps
Greece will require an enhanced approach to prepare and increase its readiness for Industry 4.0 revolution – Increase manufacturing

Approach for Greece to take on Industry 4.0

<table>
<thead>
<tr>
<th>1</th>
<th>Government/Regional support</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Accelerate Innovation</td>
</tr>
<tr>
<td>3</td>
<td>Adoption of best Practices</td>
</tr>
<tr>
<td>4</td>
<td>Establish Infrastructure</td>
</tr>
<tr>
<td>5</td>
<td>Foster New Talent</td>
</tr>
<tr>
<td>6</td>
<td>Develop a Roadmap</td>
</tr>
</tbody>
</table>

- **Government/Regional support**: The Government would need to support in creating a suitable ecosystem by investing in infrastructure, power, data connectivity.

- **Accelerate Innovation**: Public and private partners have to collaborate closely to boost innovation. In Greece, industrial bodies need to take the lead in promoting innovation by providing avenues for stakeholders to come to a common forum.

- **Adoption of best Practices**: Industries need to adopt the global best practices in four major domains: Business Model, Value Chain, Financial Base, Knowledge base. Widespread adoption of global practices will ensure overall growth.

- **Establish Infrastructure**: The digital aspect has become mission-critical for many products and services. Therefore, "new" industry needs a competitive environment that fosters dynamic telecommunicazioni and Internet usage.

- **Foster New Talent**: Besides infrastructure, this dynamic digital environment also needs to foster new talent. Backward looking education policies and ancient content will need to be radically changed to enable adoption of Industry 4.0.

- **Develop a Roadmap**: Each company needs to identify the objective and potential of Industry 4.0 for their firm and develop a tailored strategy accordingly. Top down organization change is required to implement the strategy and generate buy in across all levels.

Source: Roland Berger
Roland Berger suggests a 4-step approach to define industry 4.0 vision, priorities and develop a tailor-made roadmap.

1. What is your company's objective?
2. What are the opportunities for your company?
3. What is the potential for your company?
4. Which way to excellence?

Key deliverables:
- Validated list of priority objectives to cover through the program
- Internal diagnosis of company current 4.0 performance
- Review of current initiatives
- Defined target for the company
- Gap analyses to target
- List of priority improvement levers
- Financial target impact on CAPEX, WCR, Gross margin
- Detail of impacts on job and skills (resource shift, new skills to capture)
- Operational roadmap including key milestones
- Adjusted budget including program financial impacts
- Governance structure

Implimentation roadmap and program governance:
- Customer needs / differentiation
- Internal performance diagnosis
- Disruptive new technological solutions
- Prioritization of levers
- Quantification of full potential (financial, skills ...)
- & impacts
- Mapping of building blocks (regulations, technology, cyber security, standards, ...)

Source: Roland Berger
Industry 4.0 will improve Greece F&B brand image as innovation driven, technologically advanced, high quality & safe manufacturing base

Impact on Greece's F&B brand image

How Industry 4.0 will upgrade "Made in Greece" brand

Source: Roland Berger
Your Roland Berger team Greece – Looking forward to your call/questions

<table>
<thead>
<tr>
<th>Position</th>
<th>Dr. Kai-Stefan Schober</th>
<th>Dr. Philipp Hoff</th>
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<tbody>
<tr>
<td></td>
<td>Senior Partner</td>
<td>Principal</td>
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<td>Head of Roland Berger</td>
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<td>Greece &amp; Cyprus</td>
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<th>Core competencies</th>
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<td>Engineering</td>
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<td>Machinery</td>
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<td>Infrastructure/Construction</td>
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<td>Construction materials/chemistry</td>
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<td>Industrial services</td>
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<td>Strategy/market analysis</td>
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<td>Production</td>
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<td>Restructuring</td>
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<td>Marketing efficiency/Sales-Up</td>
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<td>Improvement programs</td>
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<tr>
<th>Contact details</th>
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<tbody>
<tr>
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<td>Telephone: +49 160 7448 372</td>
<td>Telephone: +49 160 7446 193</td>
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Source: Roland Berger
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