

PART II:

Big Data Business Framework and benchmarking tooling support



DataBench

Session 3.

The DataBench framework: a compelling offering to measure the impact of Big Data Technologies



Panelists



Gabriella Cattaneo

Associate VP, IDC EMEA – EU
Government Consulting



Chiara Francalanci

Professor, Politecnico di Milano



Erica Spinoni

Research Analyst, IDC EMEA –
Digital Transformation and
Software



Pierluigi Petrali

Operation Excellence Manager –
Manufacturing R&D, Whirlpool
EMEA



Harald Sehrschön

Teamleader R&D, Fill



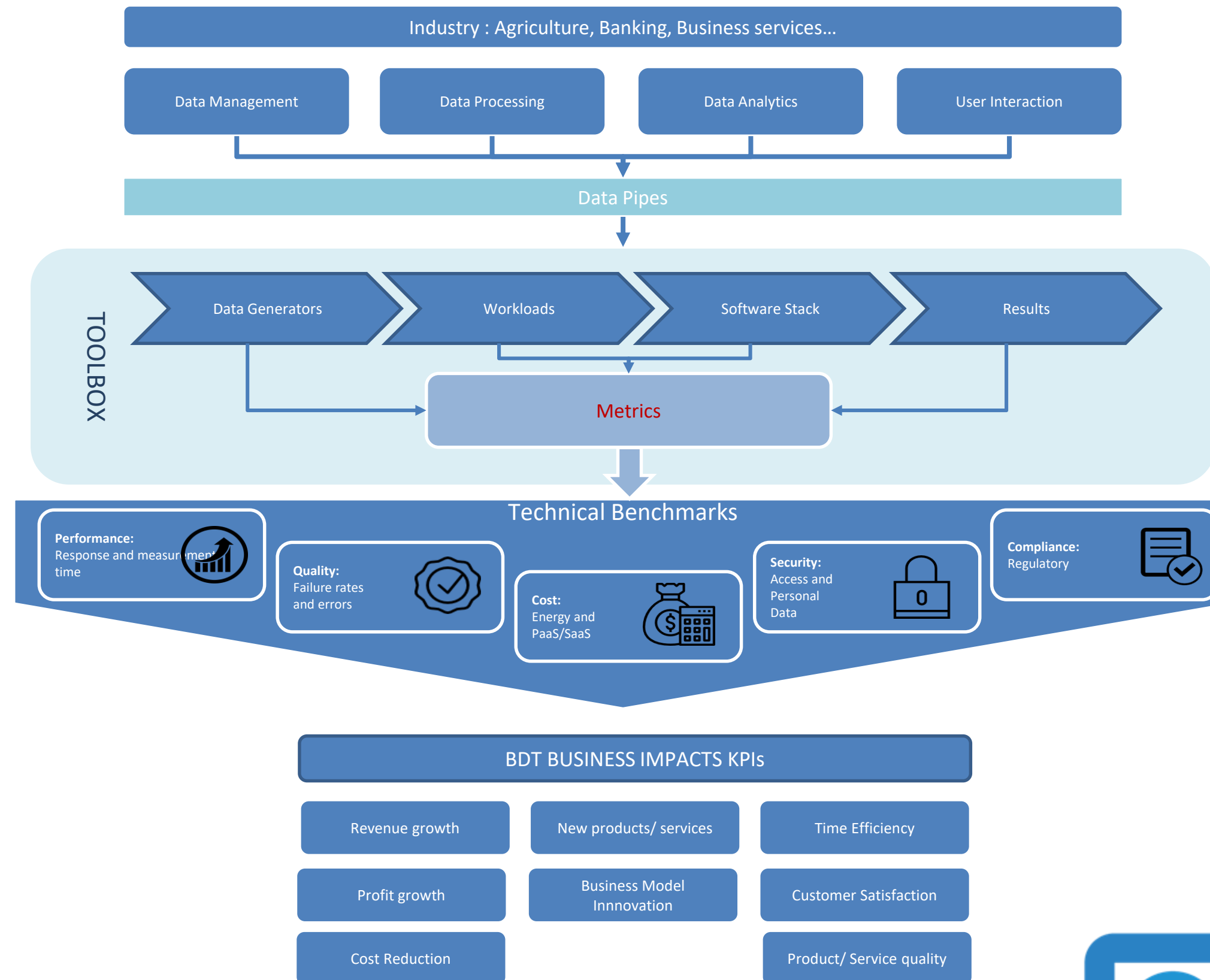
Agenda

- Benchmarking Big Data: the DataBench Approach, Gabriella Cattaneo, IDC
- Overview of main benchmarks, Erica Spinoni, IDC
- In-depth analysis: the case studies, Chiara Francalanci, Polimi
- Pilot Industry experiences:
 - Whirlpool – Pierluigi Petrali
 - Fill – Harald Sehrschön



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Benchmarking the Business Impact of Big Data Technologies (BDT): the DataBench approach

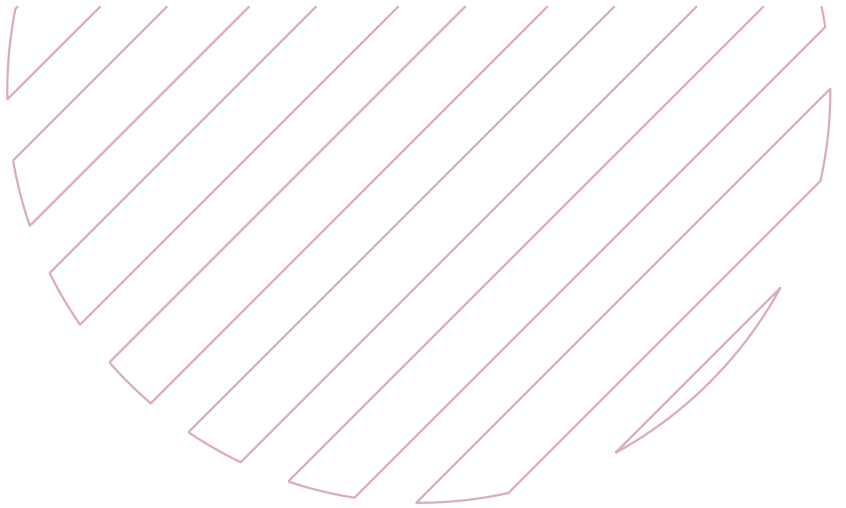


Source: DataBench D.1.1 Industry Requirements with Benchmark Metrics and KPIs, December 2018



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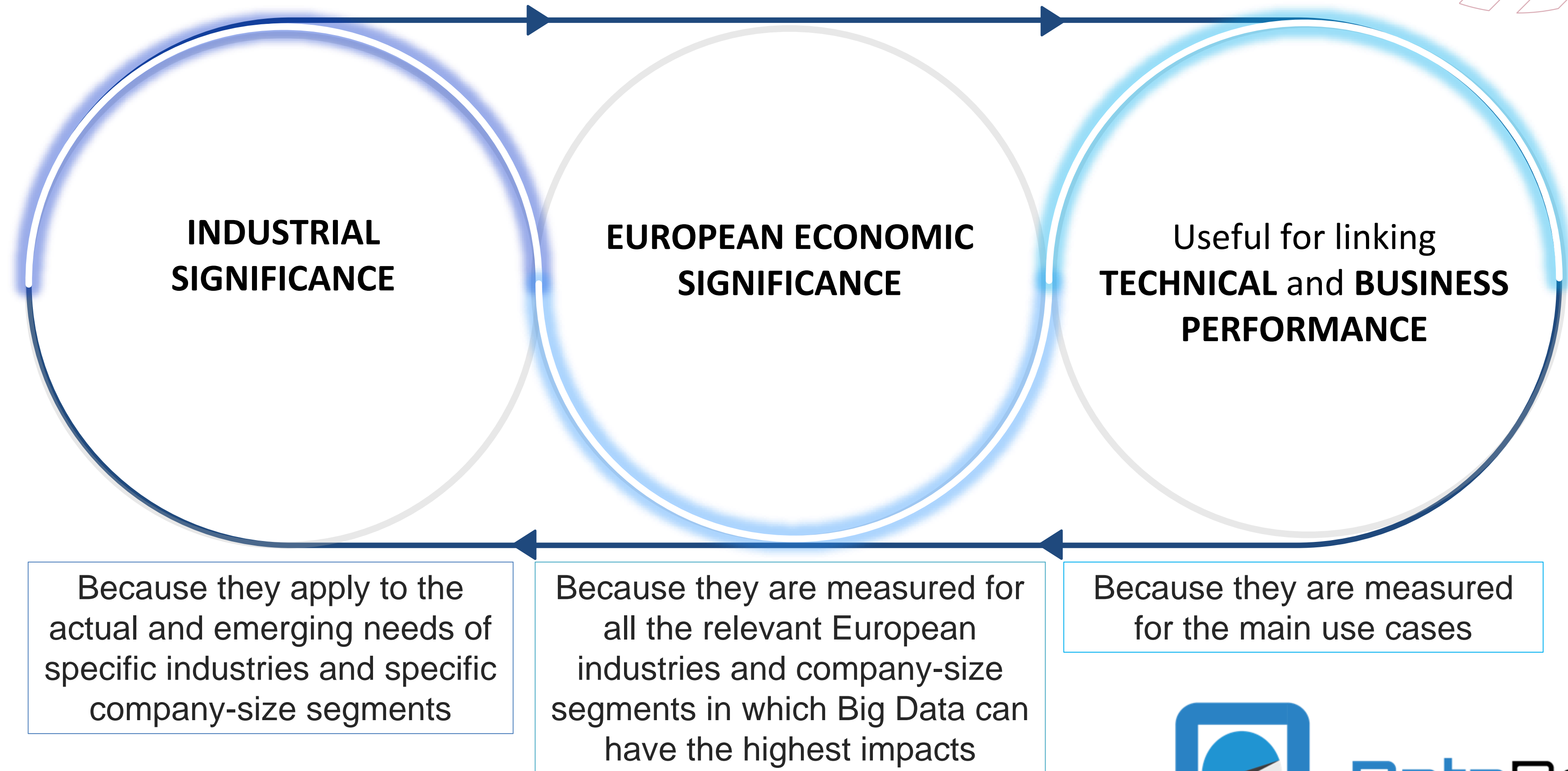
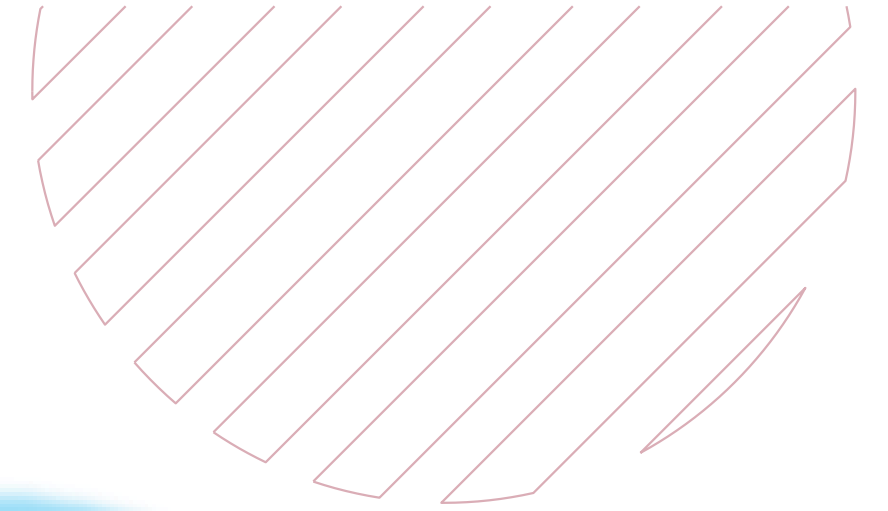
From KPIs to Benchmarks



KPI	Definition	Metrics
Revenue increase	Increase in company revenues thanks to the adoption of BDA	Benchmark: % increase measured as median of the sample
Profit increase	Increase in company profit thanks to the adoption of BDA	
Cost reduction	Reduction in process costs thanks to the introduction of BDA	
Time efficiency	Efficient use of time in business processes	Benchmark: average rating on a scale of 1–5 based on the following ratings: <ul style="list-style-type: none">• Less than 5% improvement = 1• 5–9% = 2• 10–24% = 3• 25–49% = 4• 50% or more = 5
Product/Service quality	Product/Service features corresponding to users’ implied or stated needs and impacting their satisfaction	
Customer satisfaction	A measure of customers’ positive or negative feeling about a product or service compared with their expectations	
New Products/ Services launched	A measure of the number of new products and/or services enabled by data-driven innovation and launched by the company after engaging in the Big Data investment	
Business model innovation	Novel ways of mediating between companies' product and economic value creation (for example, moving from traditional sales to service subscription models)	



Why DataBench KPIs can be used as Industry Benchmarks of BDT performance

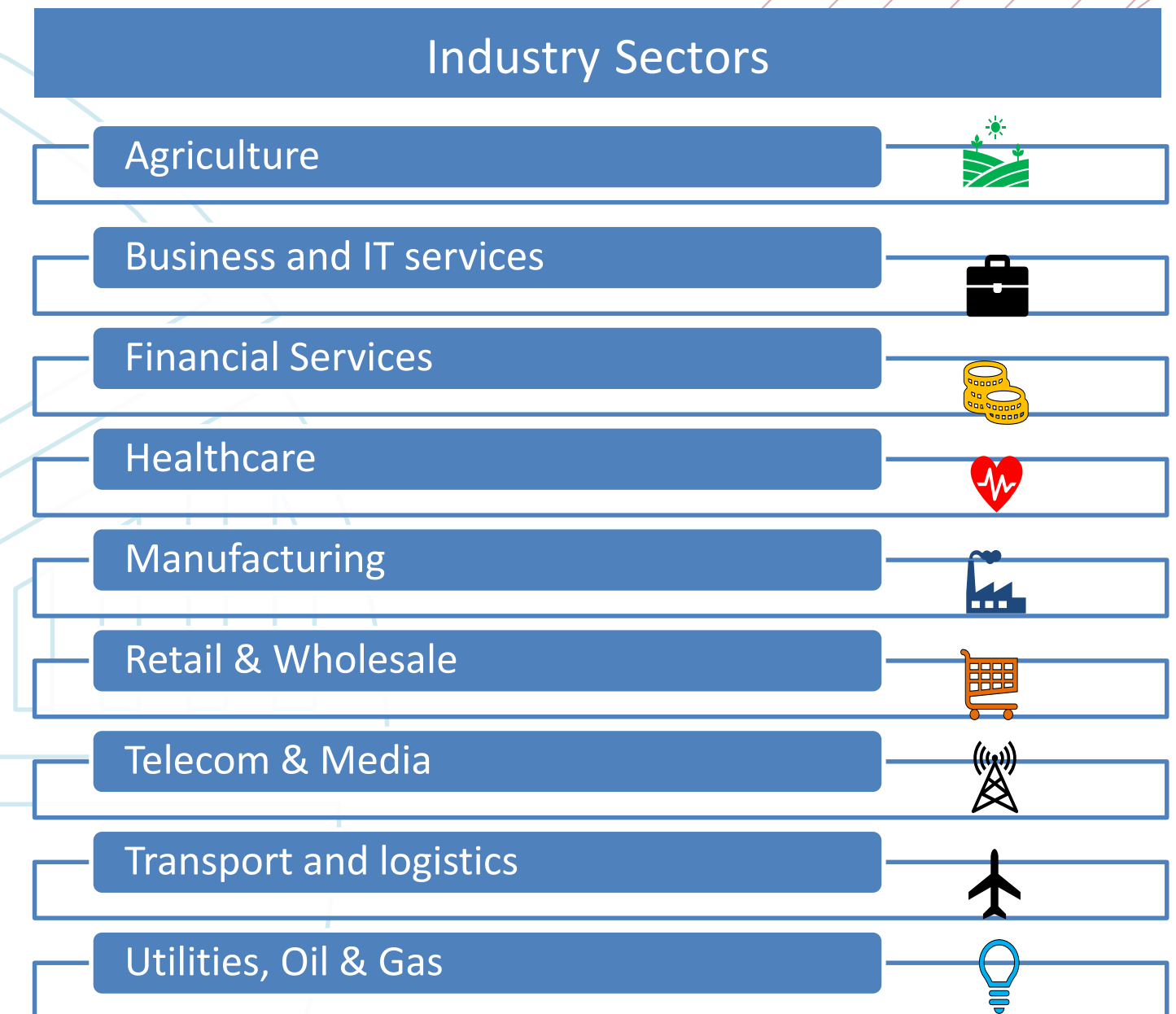


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A sound base of evidence about industrial users' needs

Data collection:

- A survey with European organizations from **9 industries** and **5 company size classes** (700 interviews)
- A survey of Big Data **business pilots** in H2020 ICT projects (30 interviews)
- **22 case studies**
- Mapping **35 BDA use cases** by industry and company size

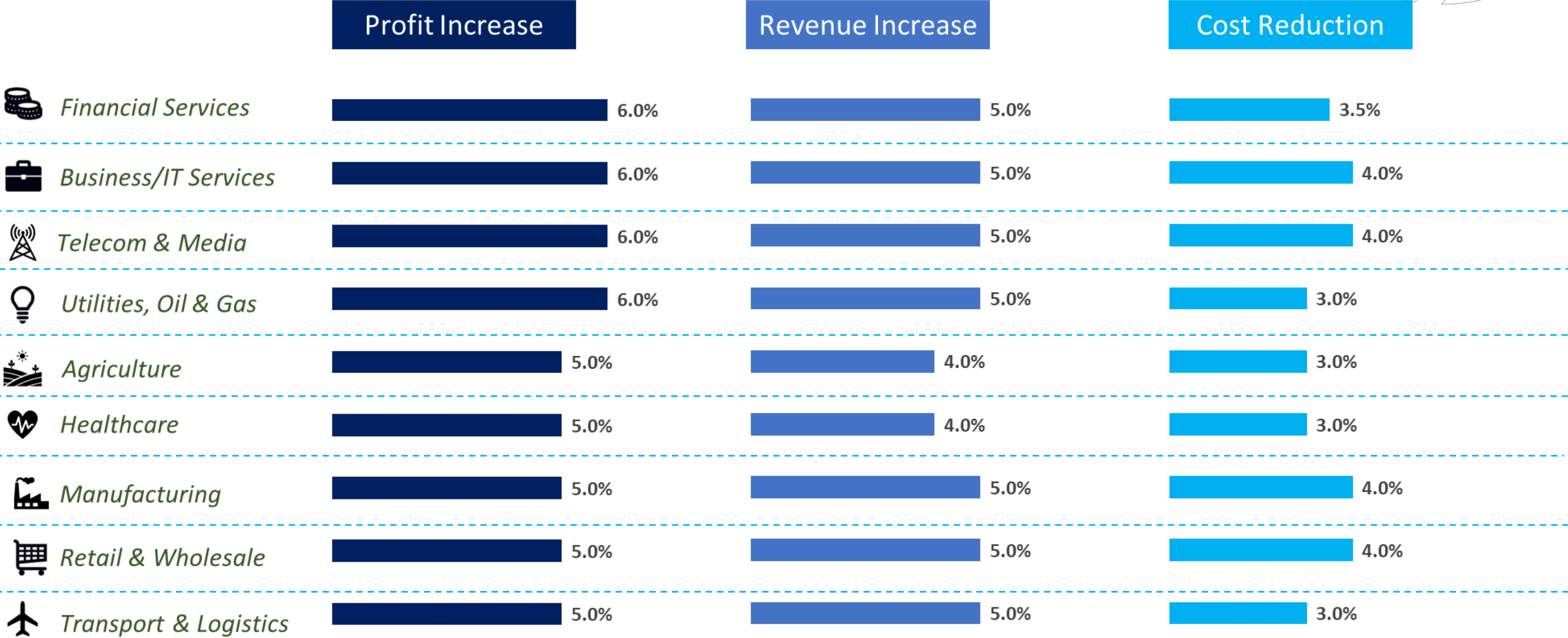


Benchmarking the business impacts of Big Data technologies is relevant for 90% of European enterprises






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BDT Benchmarks for Profit/Revenue increase and Cost reduction by Industry...



Source: DataBench D2.4 – Benchmarks of European and Industrial Significance (December 2019)

Innovation Benchmarks for leading industries

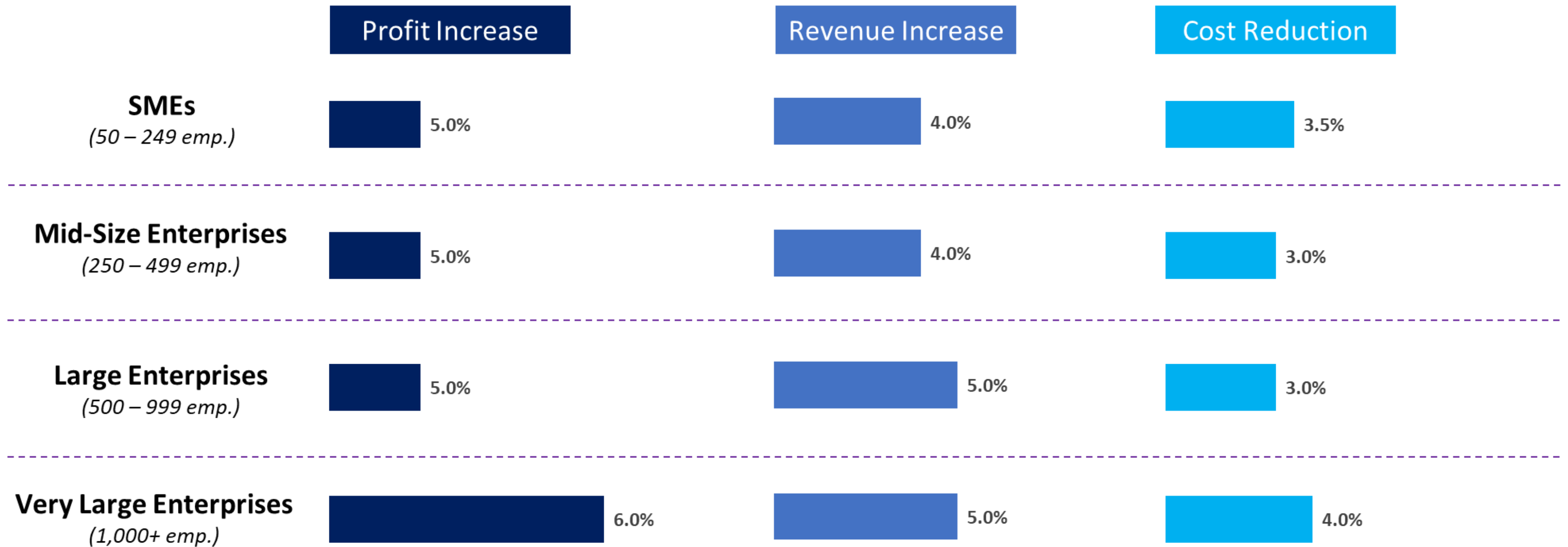
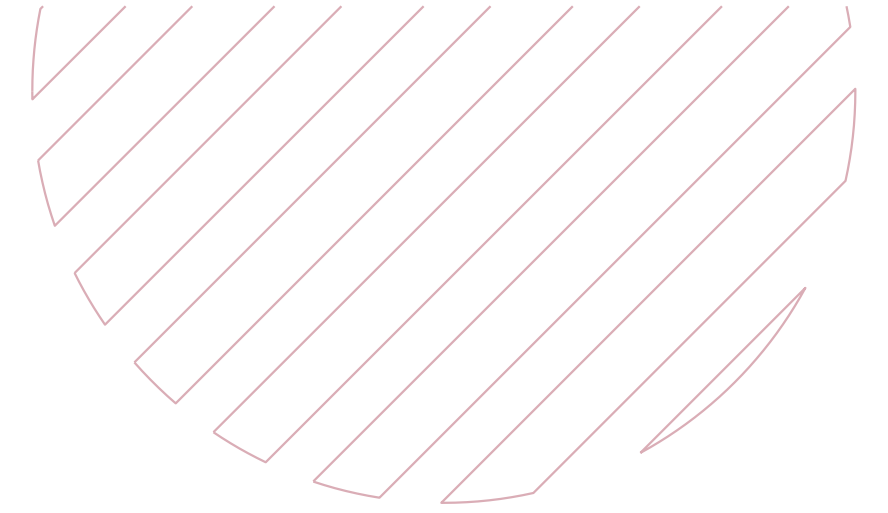
			
Median Rating 4 25% – 49% Improvement		Product/Service Quality Customer Satisfaction	Product/Service Quality Customer Satisfaction # of New Product/Service Launched
Median Rating 3 10% – 24% Improvement	# of New Product/Service Launched Customer Satisfaction Product/Service Quality	Time Efficiency # of New Product/Service Launched	Biz Model Innovation Time Efficiency
Median Rating 2 5% – 9% Improvement	Time Efficiency Biz Model Innovation	Biz Model Innovation	
	Manufacturing	Business/IT Services	Utilities, Oil & Gas

Source: DataBench D2.4 – Benchmarks of European and Industrial Significance (December 2019)



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...and by Company Size



Source: DataBench D2.4 – Benchmarks of European and Industrial Significance (December 2019)

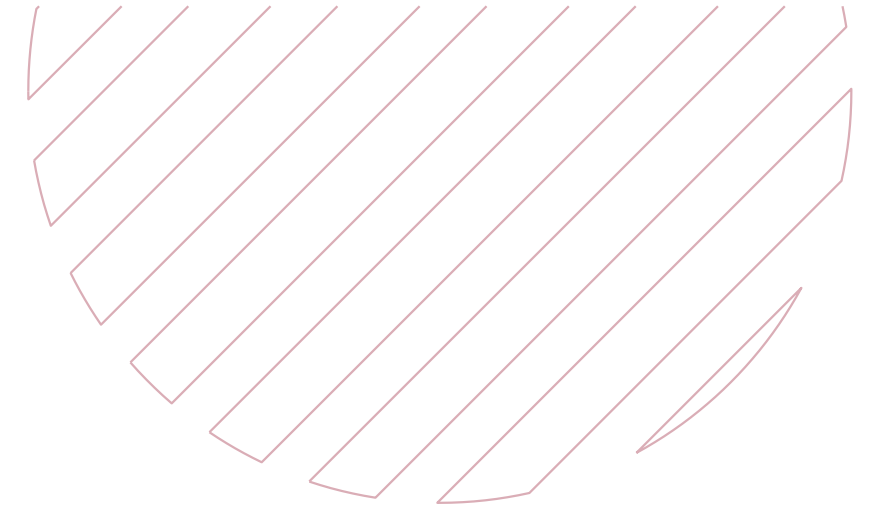
DataBench in-depth analysis of BDT business impacts: the case studies

22 Case studies from 8 Industries



Source: D.4.3 Data Collection Results, October 2020

Insights from case studies



- Evidence from case studies is aligned with KPIs and positions business impact in the 4-8% range for profit and revenue improvements
- A new approach to business intelligence: prescriptive and real-time analytics enable the delegation of decision-making to computers
- High awareness of opportunities
- Data are the starting point, data quality and governance are the main concerns
- Only a few projects reach deployment stage
- Most companies believe that it is important to make technical choices that can support long-term change
- IT benchmarking is critically important, but complex



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Fireside Chat: the Case Studies



Pierluigi Petrali

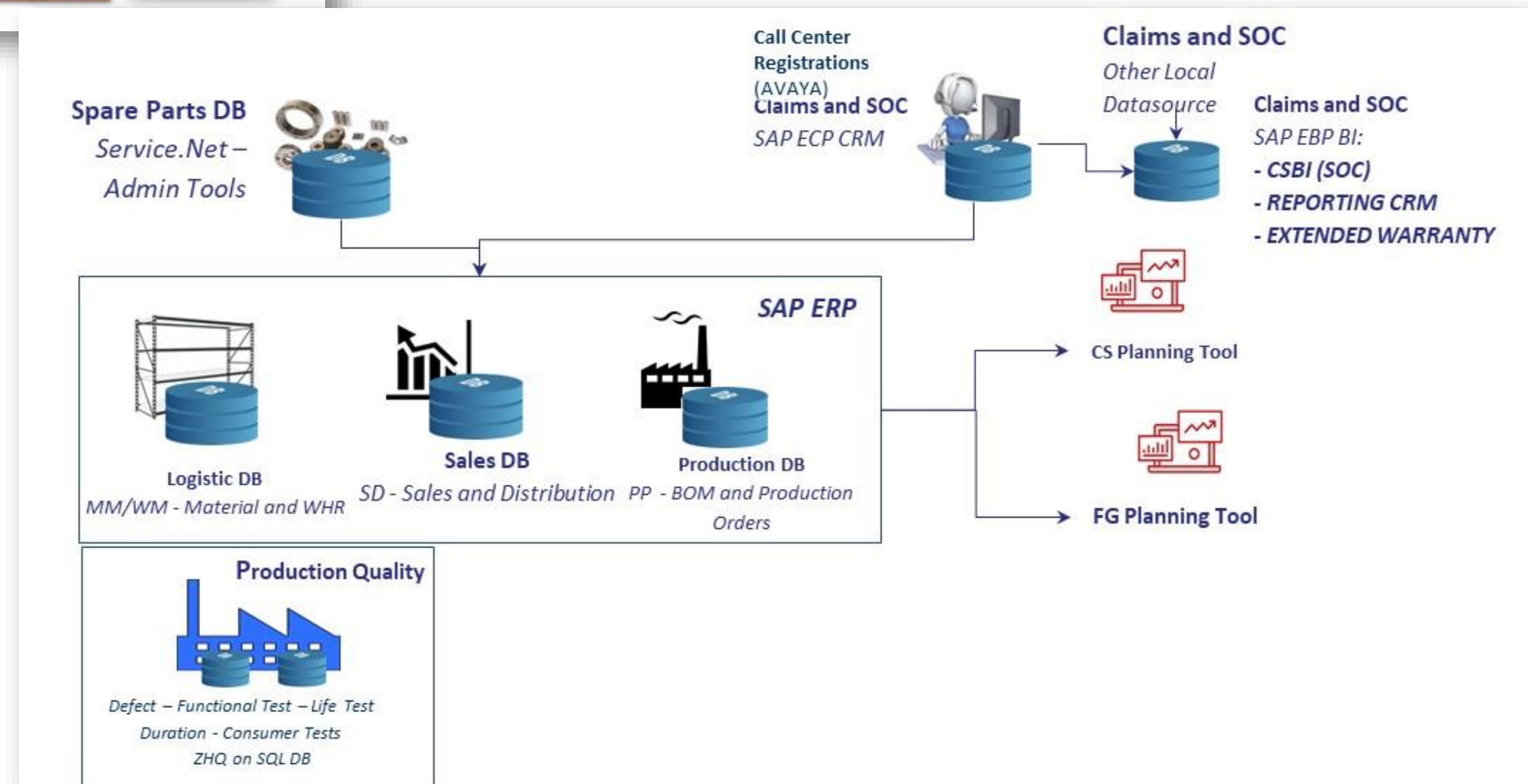
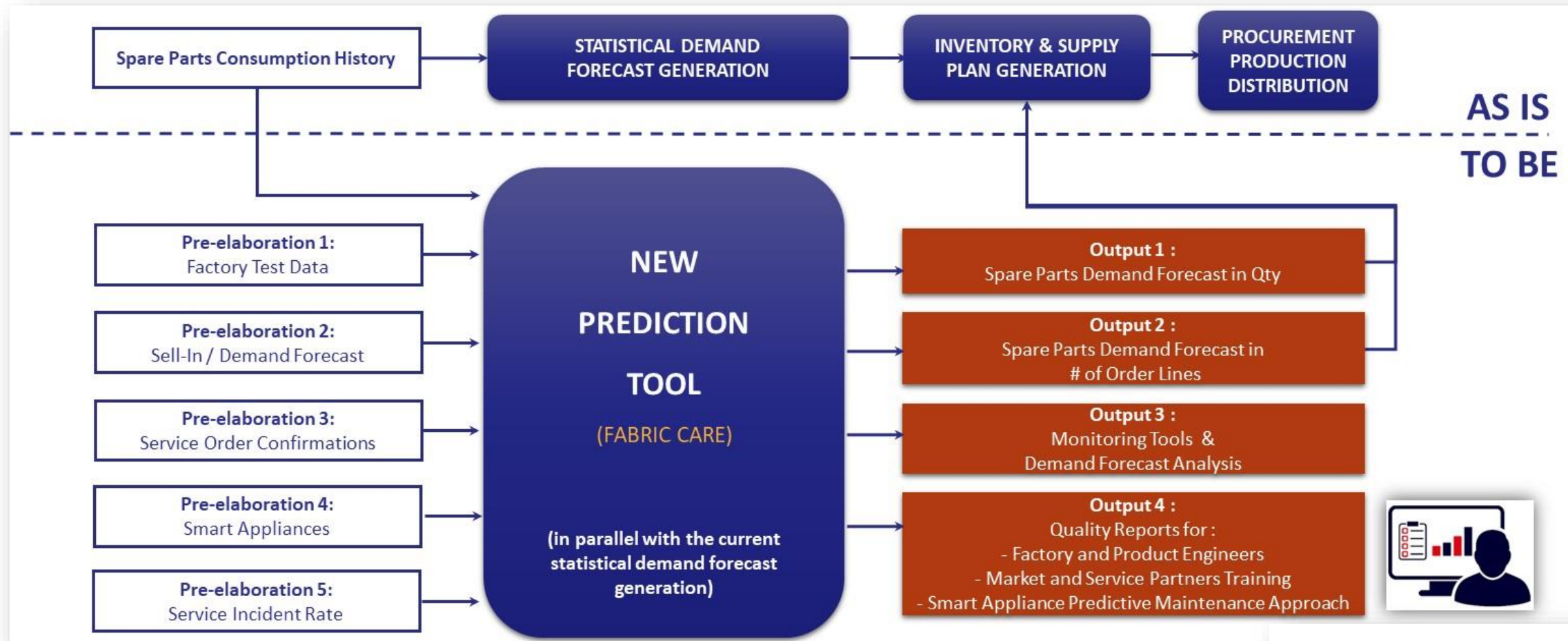
Operation Excellence Manager –
Manufacturing R&D
Whirlpool EMEA



Harald Sehrschön

Teamleader R&D
Fill

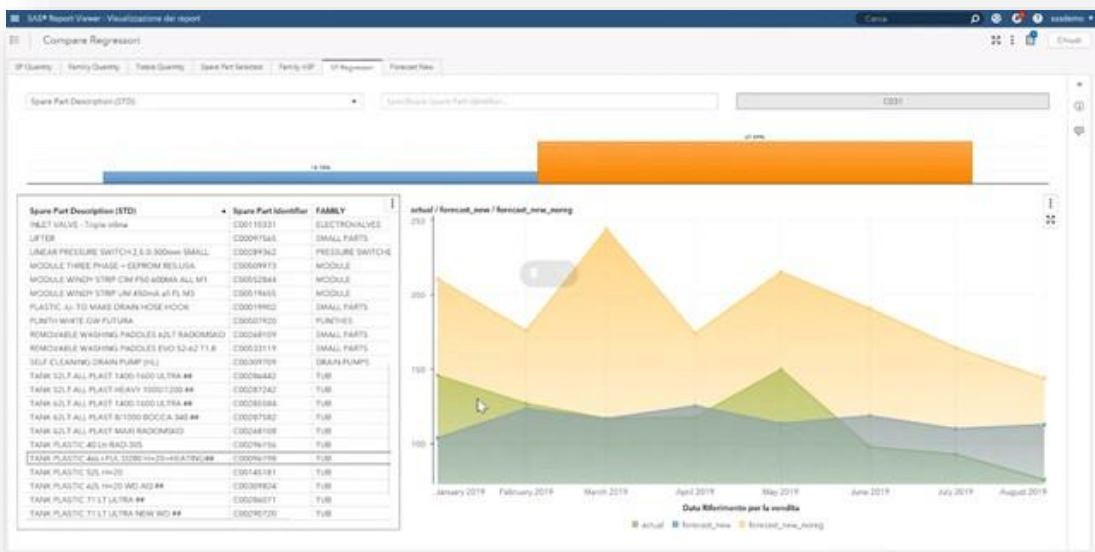
Whirlpool use case



KPIs definition and results

OPERATIONAL

- Demand Forecast Error
- Human Effort for Planning
- Quality of user experience



TACTICAL

- Spare Part Stock Value
- Plant Service Level



STRATEGICAL

- Lead Time to Consumer
- Inventory Turnover

FILL TECHNOLOGIEPARK IN GURTEN



Contacts



www.databench.eu



info@databench.eu



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**BIGDATA
VALUE** FORUM

**BERLIN + VIRTUAL
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