

DIGITAL FINANCE @BOSCH

– OVERVIEW, STRATEGY AND
CONCRETE EXAMPLES –

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Robert Bosch GmbH

Digital Finance@Bosch: Overview, Strategy and Examples

Agenda

- ▶ Bosch Group – Technology to enhance quality of life
- ▶ Finance Transformation @ Bosch
- ▶ Get ready for S/4HANA
- ▶ Example for Digital Finance @ Bosch – Advanced Analytics


BOSCH – A GLOBAL NETWORK





Four business sectors


Key Figures 2017

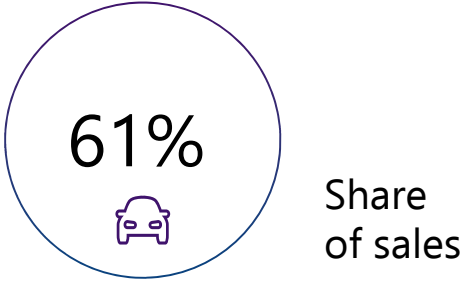
Bosch Group € 78.1 billion euros in sales 402,166 associates

 **Mobility Solutions** ▶ One of the world's largest suppliers of mobility solutions

 **Industrial Technology** ▶ Leading in drive and control technology, packaging, and process technology

 **Energy and Building Technology** ▶ One of the leading manufacturers of security and communication technology
▶ Leading manufacturer of energy-efficient heating products and hot-water solutions

 **Consumer Goods** ▶ Leading supplier of power tools and accessories
▶ Leading supplier of household appliances



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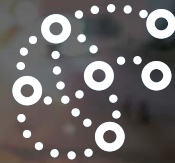
Shaping change: The facts Bosch creates



Business
transformation



New
business models



New
IT-tools



New forms
of leadership

Digital Finance@Bosch: Overview, Strategy and Examples

Purpose for Finance & Controlling

We
LEAD
Bosch

We live by our **values**.

We make the **purpose** of our business clear, and work **passionately** to make it a success.

We create **autonomy**, and remove any obstacles.

We prioritize, keep things **simple**, make decisions **quickly** and execute them **rigorously**.

We communicate **openly, frequently** and **across all levels**.

We achieve **excellence**.

We spark enthusiasm for **new things** and embrace change as an **opportunity**.

We learn from mistakes, and see them as part of our **innovation culture**.

We collaborate **across functions**, units, and hierarchies – always focusing on **results**.

We seek and give **feedback**, and lead with **trust, respect**, and **empathy**.

“We shape the (digital) future of Finance @ Bosch”



Digital Finance@Bosch: Overview, Strategy and Examples

Digitalization Drives the Change and Opens Opportunities



Controlling
the Digital Transformation



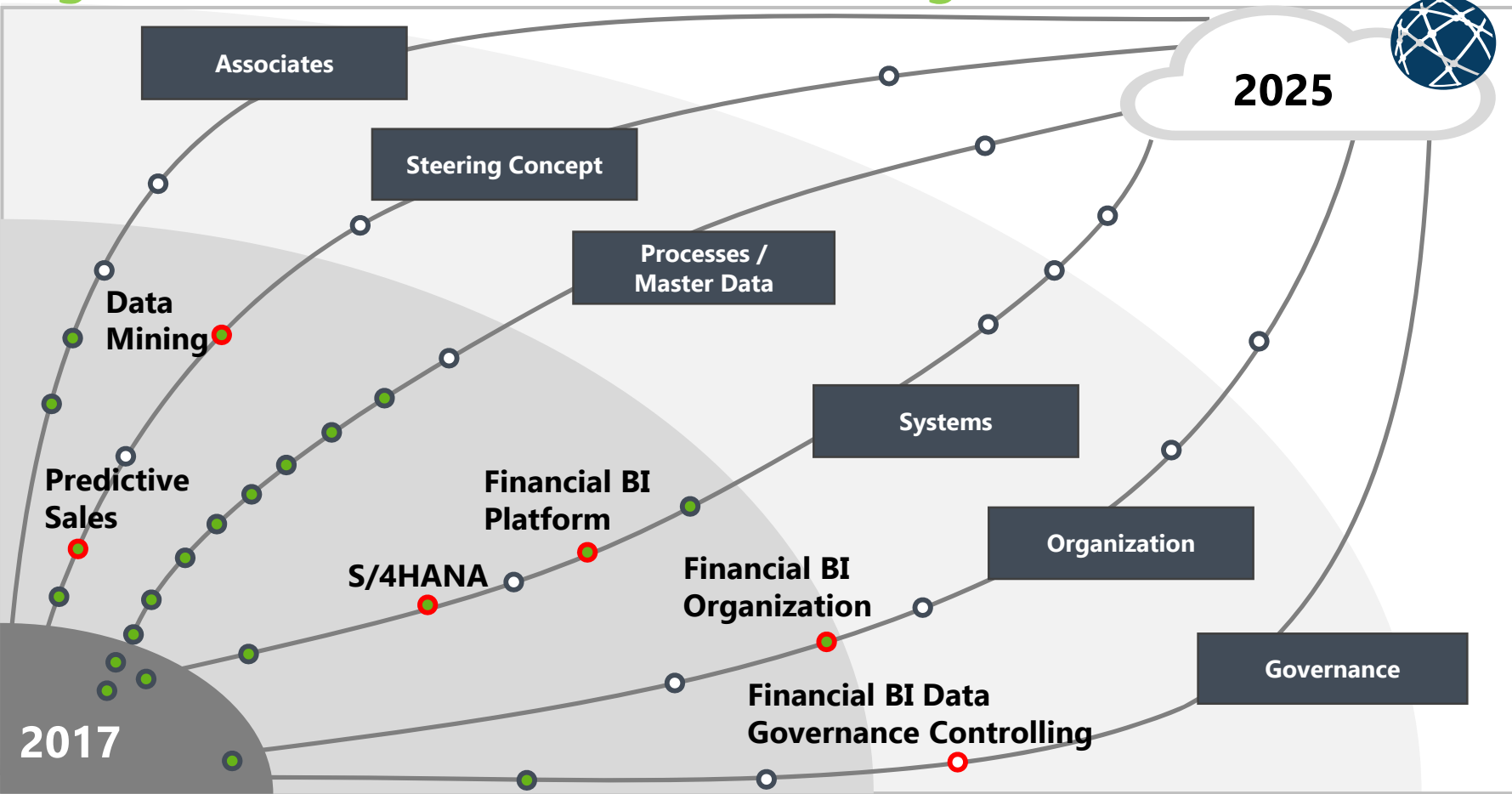
Digital Business:
Finance & Controlling



Digitalization within
Finance & Controlling

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Digital Radar Finance & Controlling @ Bosch



- Initiative not started
- Initiative started
- Example today

Legend

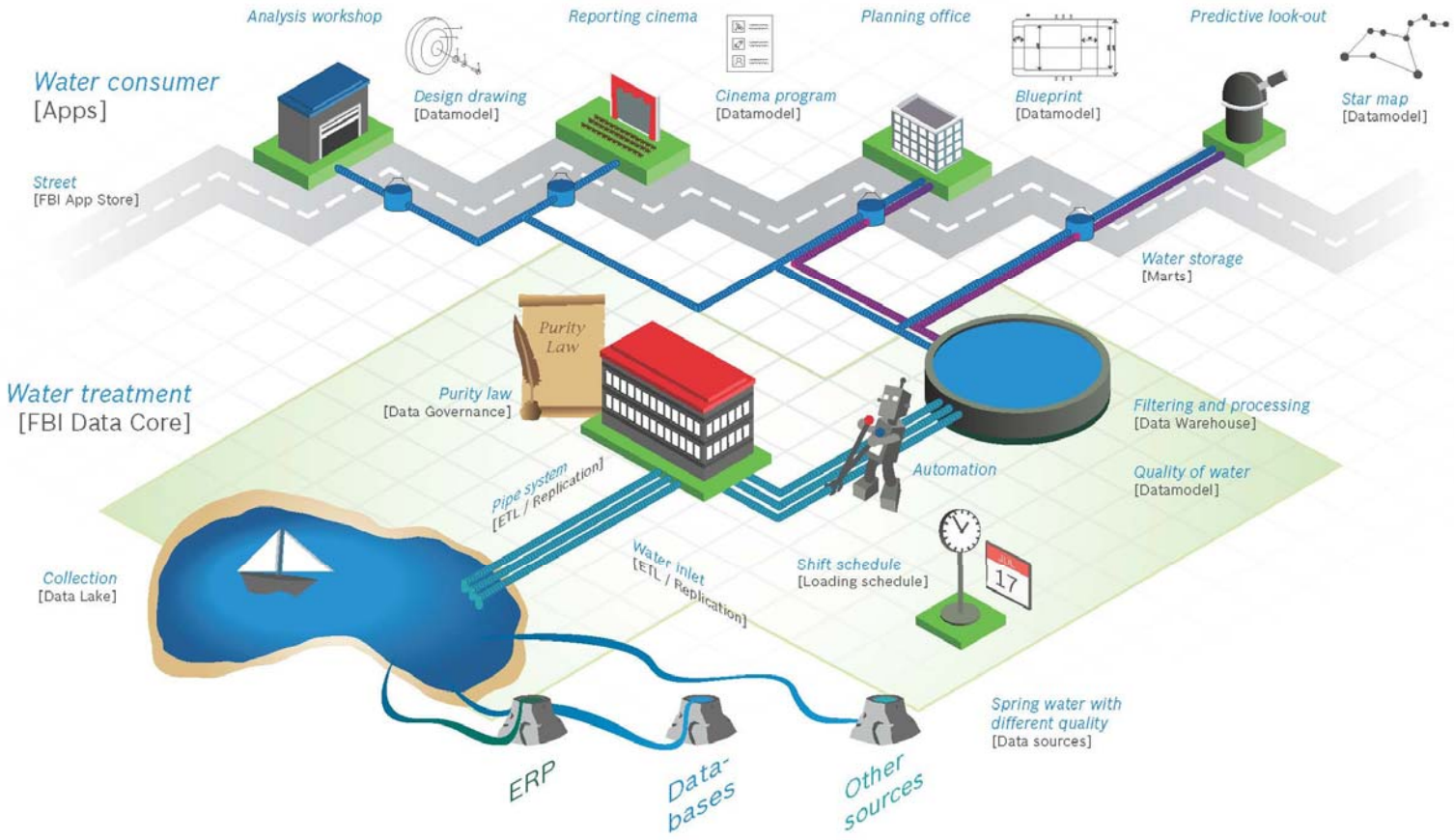
- 2018 - 2019
- 2020 - 2021
- 2022 - 2025

FBI



Digital Finance@Bosch: Overview, Strategy and Examples

FBI | Our Finance BI Platform



Digital Finance@Bosch: Overview, Strategy and Examples

Our Achievements



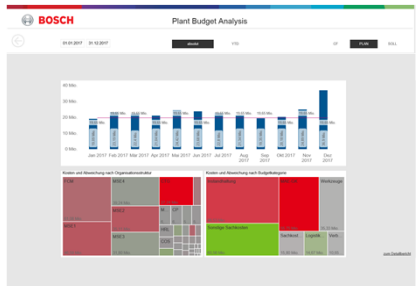
BI Platform and Use Cases

- Data lake concept developed, data lake realized
- Different use cases realized
- Back log based on customer feedback defined

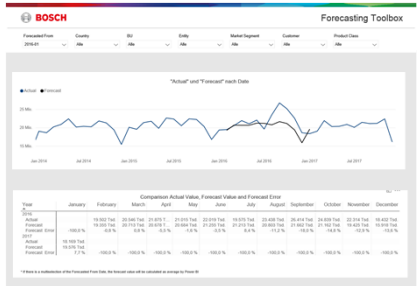
Current Use Cases



Management Dashboards



Flexible Analysis Tools



Predictive Forecast



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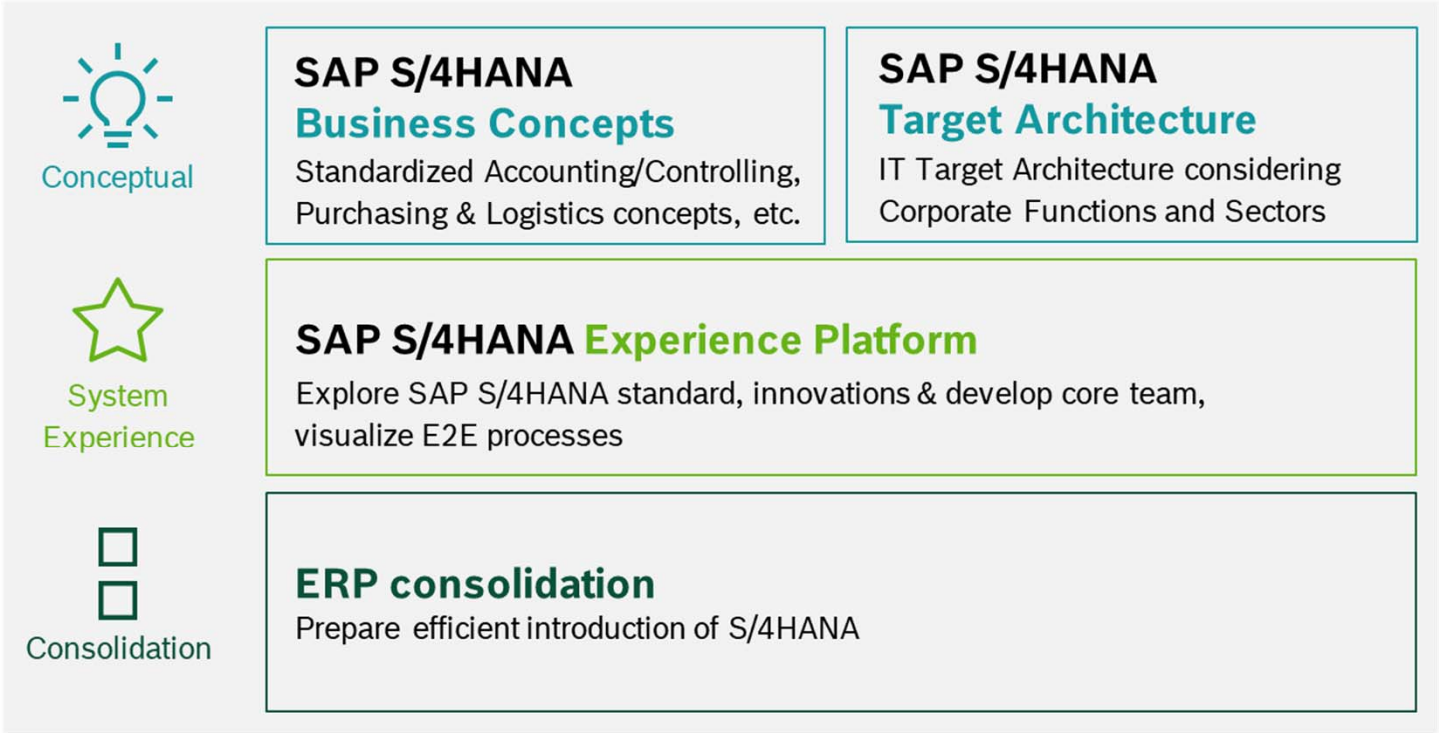
▶ Get ready for S/4HANA

▶ Example for Digital Finance @ Bosch – Advanced Analytics

Digital Finance@Bosch: Overview, Strategy and Examples

Essential step for a successful SAP S/4HANA implementation

Discovery & Preparation Phase



Design & Build Phase





Key to successful change:

FACTS@S/4

initiates the

Digital journey

in Finance & Controlling

WE CREATE
FUTURE.

WE LIVE
AGILITY.

WE RETHINK
CONCEPTS.

WE SUPPORT
**TRANSFOR-
MATION.**

WE DESIGN
STANDARDS.

FACTS

Decided Key Design Principles (Examples)

Key design principles as guidance for design of business concepts

Steering Model / Top KPI

Harmonized management & legal reporting

Profitability Analysis

Common IFRS based P&L

Product Costing

Product costing master data and governance

Functional Controlling

High Level of standardization

Accounting Treatments / Information Model

Standard Chart of Accounting (SCoA)

Allocation, Charging & Consolidation

Cost by Cause Principle

End-to-End Processes

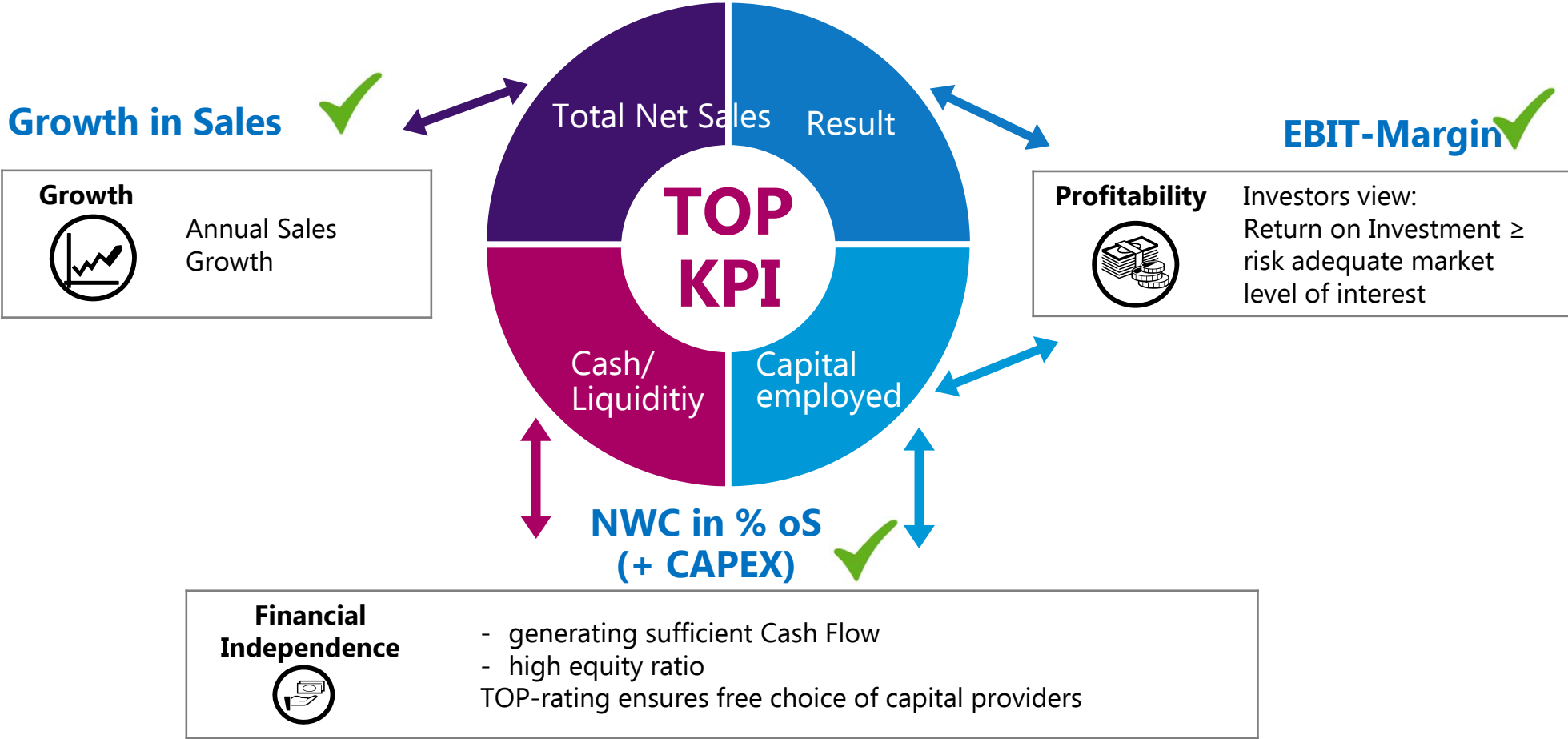
Process documentation/ governance, Global Process Landscape

IT Architecture and Implementation Roadmap

New GL: Use of ledger technology

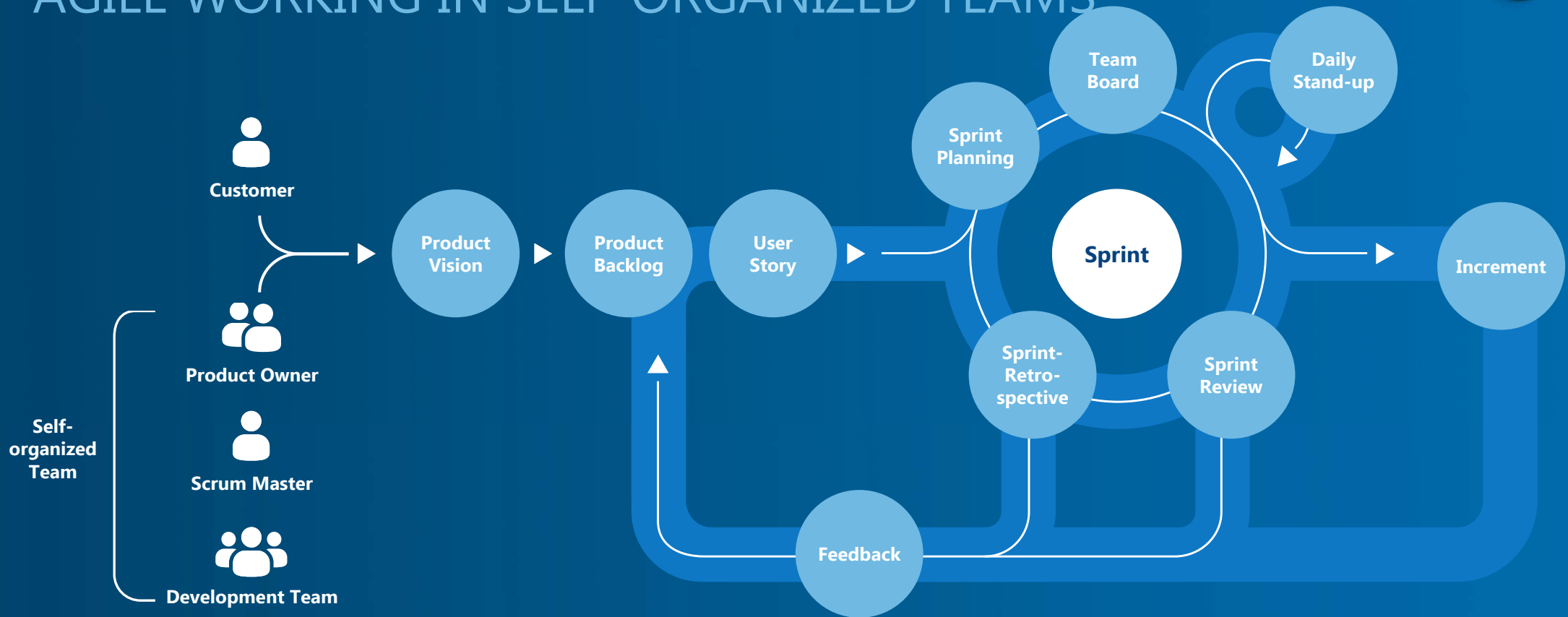
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FACTS | New **TOP-KPIs** Derived from Bosch Core Targets



FACTS

AGILE WORKING IN SELF-ORGANIZED TEAMS



LET'S CREATE

FACTS

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Powertrain Solutions

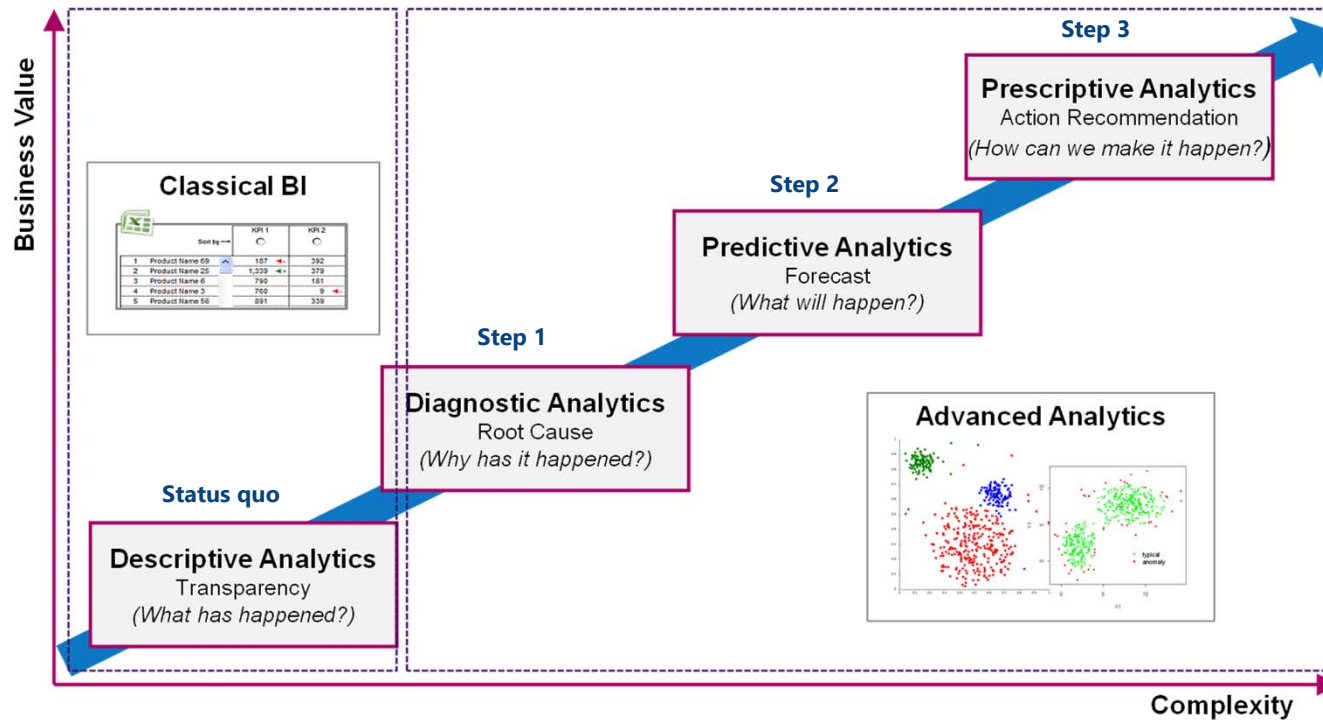
PASSION TO MOVE

Smart. Diversified. Sustainable.



Digitale Transformation

Big Data - Von der Visualisierung zu Advanced Analytics



- Visualisierungstools und Deskriptive Analytik sind wichtig als "Appetizer"
- Erst der flächendeckende Einsatz von Advanced Analytics Tools führt zur Controlling Excellence

* Classification according to Gartner Inc.; illustration based on "Gartner (2016): Magic Quadrant for Advanced Analytics Platforms, Gartner Report 2016"

Digital Transformation: Big Data in Controlling

Scope: Optimization of Net Working Capital



Existing Process for NWC control:

- Different teams analyse and control NWC elements and report separately to top management (Sales, Logistics, Purchasing, Finance)
- Little progress in NWC improvement
- Limit transparency
- High number of FTE involved in analysis

- Target approach via Big Data Tool

TOP KPIs @ Robert Bosch

- Performance Management with
 - Sales growth
 - EBIT-Margin

NWC in % of TNS

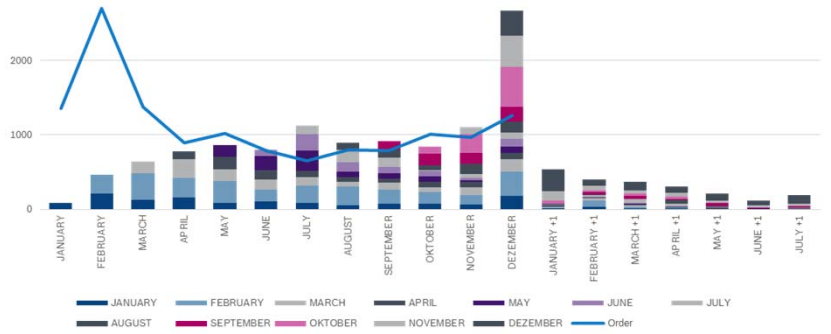
A photograph of a modern building at night, illuminated with lights. The Bosch logo is visible on the building. Light trails from a moving vehicle are visible in the foreground.

Big Data Analyses formerly and today

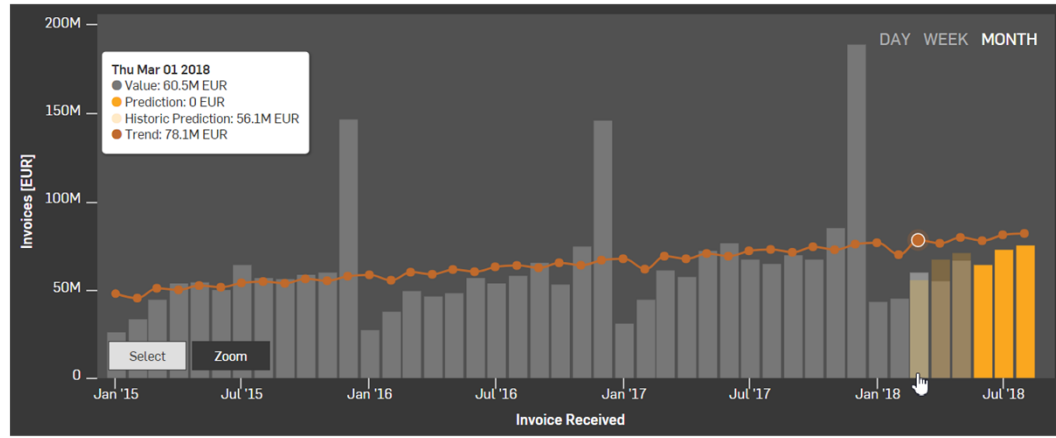
Use case: Spendings development and forecast



2016



2018



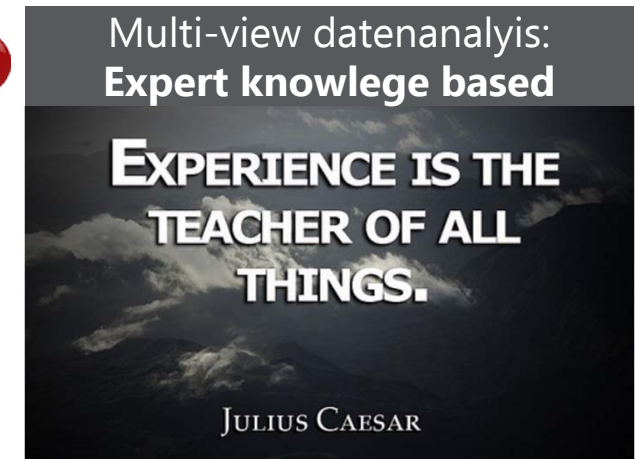
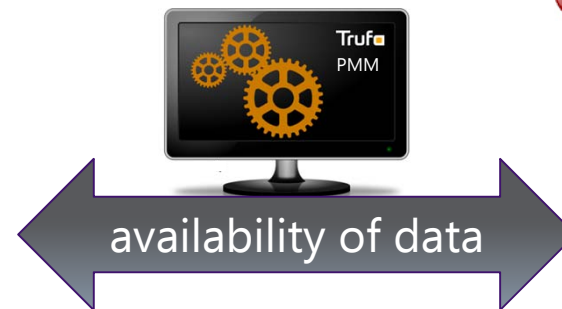
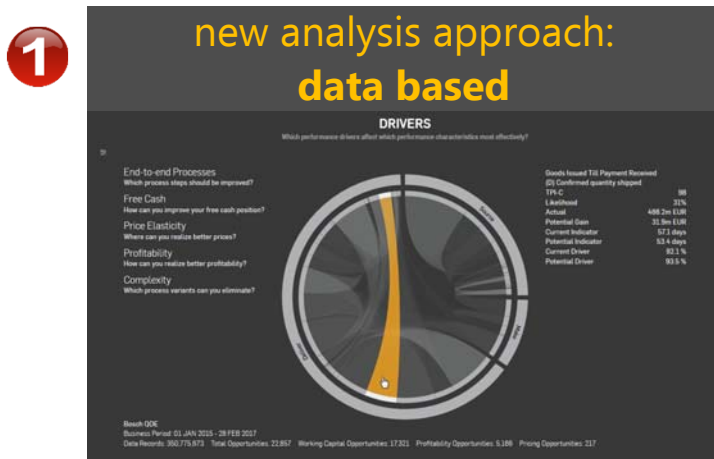
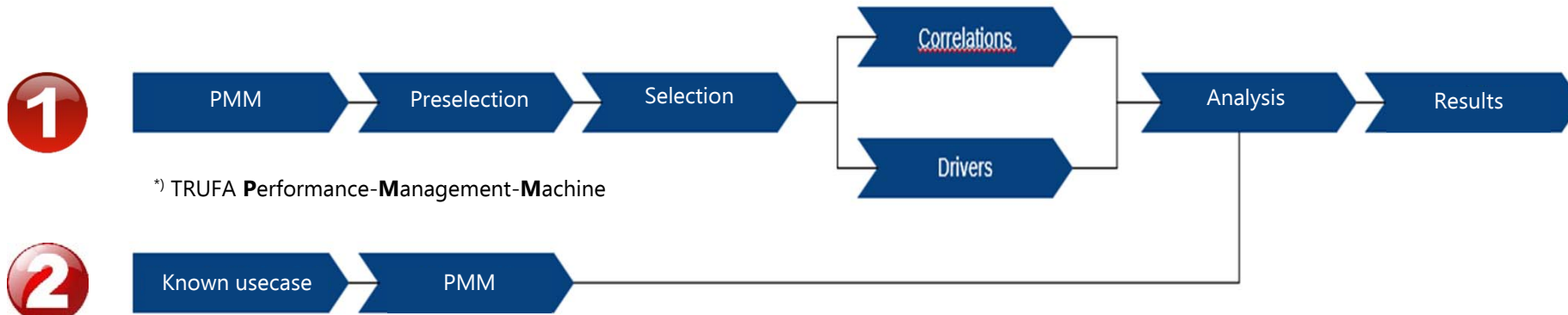
- Cost Prognosis Project @DS (2016)**
- Analysis of costs resulting from purchase or internal orders
 - Database created on basis 2008 – 09.2016 (@DS SGA Fe) (cost volume with cash out effect of 30 mEUR per year covered)
 - Investment: 180h Controlling + 60h PJ-DM

- TRUFA Performance Management Machine**
- Analysis of costs resulting from purchase or internal orders
 - Database incl. in downloaded Data POE
 - No additional investment
Analyze time in tool: 5min + 10h Development



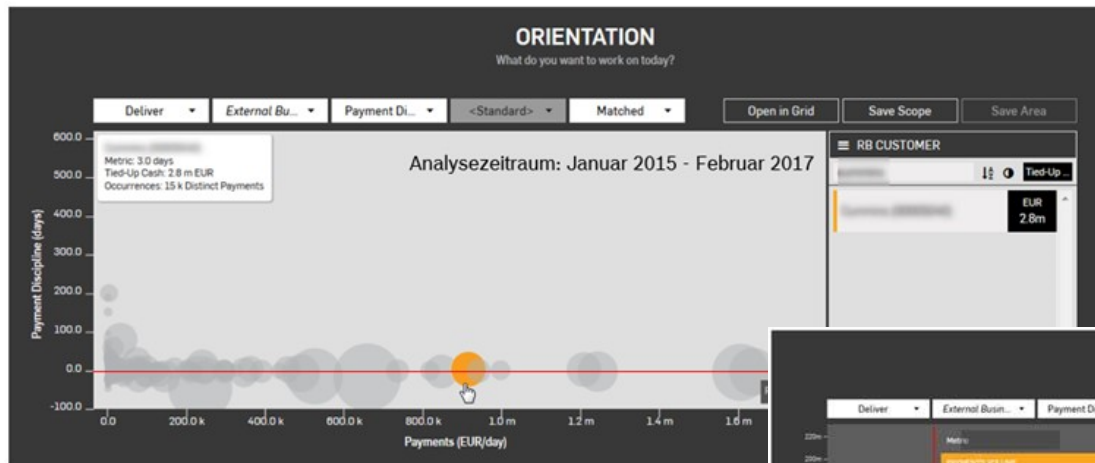
Prescriptive Analytics using Trufa

Data based analysis vs. personal knowlegde based analysis



Prescriptive Analytics using Trufa

Study Use Case I: Management of Receivables



Starting Point:

ABC analysis of defaulting customers (exceeded due date for payment) with highest working capital.

Analysis Result:

Different paying behavior within one customer concern. Accounts receivable management can initiate specific measures.



- ▶ Analysis of receivables showed pattern in different regions with **reduction potential of > 10 mEUR**
- ▶ One customer used **payment terms** to the disadvantage of Bosch; **potential 2,2 mEUR**

Data Mining using Trufa

Study Use Case II: Inventory



Source:
Big Data Tool

Source:
Reports from several Tools



Example: Potential for Inventory Reduction

	Products	Possible savings Trufa	Possible savings LOC	Plant reduction in planning
Trufa report (2016 data)	Rail	EUR 8.9m (160 PNs)		
1 st step (08.2017)	10 PNs / product		EUR 4.4m (30 PNs)	EUR 2.2m (30 PNs)
2 nd step (11.2017)	11 PNs		EUR 2.7m (11 PNs)	EUR 3.7m (11 PNs)

Potential for reduction of inventory also to be identified with known controlling instruments

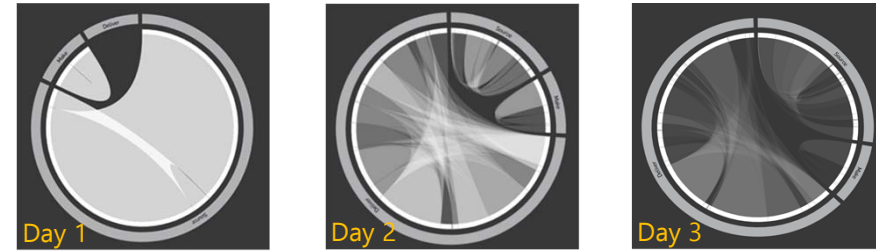
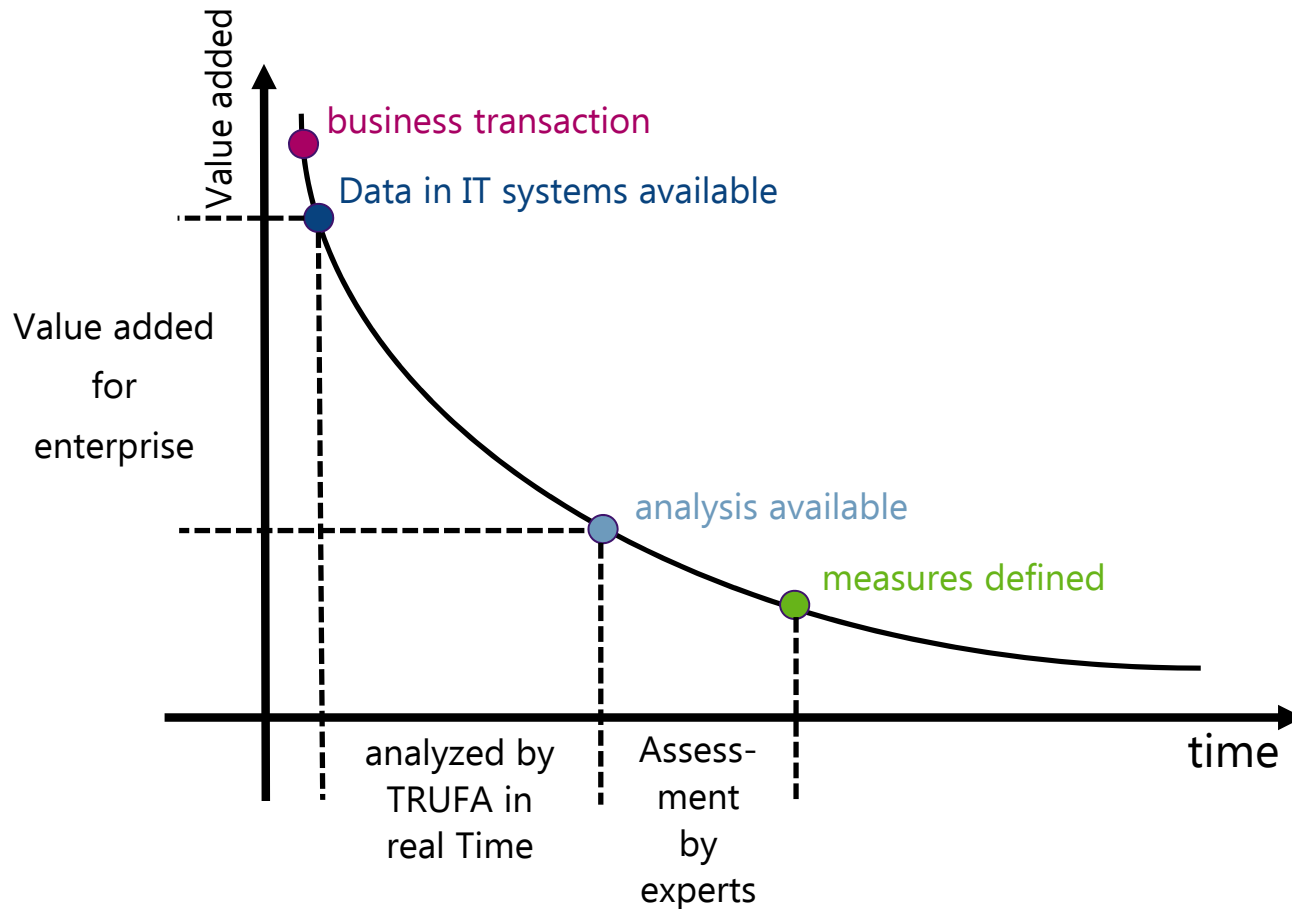
but:

- slow with high manual effort
- no single source of truth
- usually only view on effective date

► Inventory analysis of just a few products showed **reduction potential of 9 mEUR (Trufa) vs. 6-7 mEUR (current tools used within Bosch)**, faster and with less manual effort

Efficient controlling tools

Latency model



- ▶ Storage: ~ 1/2 TB on data (Bosch POE)
- ▶ Timeframe: 3,5 complete years (01.01.2015 – today)
- ▶ Line items: 1 611 241 911
- ▶ Information: 93 753 448 356
- ▶ Ideas from bots: >2m
- ▶ Calculated opportunities: 170 000 (increasing daily)
- ▶ Significant opportunities: 8 930 (increasing daily)
- ▶ Productivity of bots: 10 000 calculated opportunities / day
- ▶ w/o human input Bots are used to capacity for the next 250 days

The Odds

Typical statement from the organization

Big data report looks different to my existing data

There is no direct link between potentials and reporting figures

I am not an SAP process expert and not understanding the SAP language

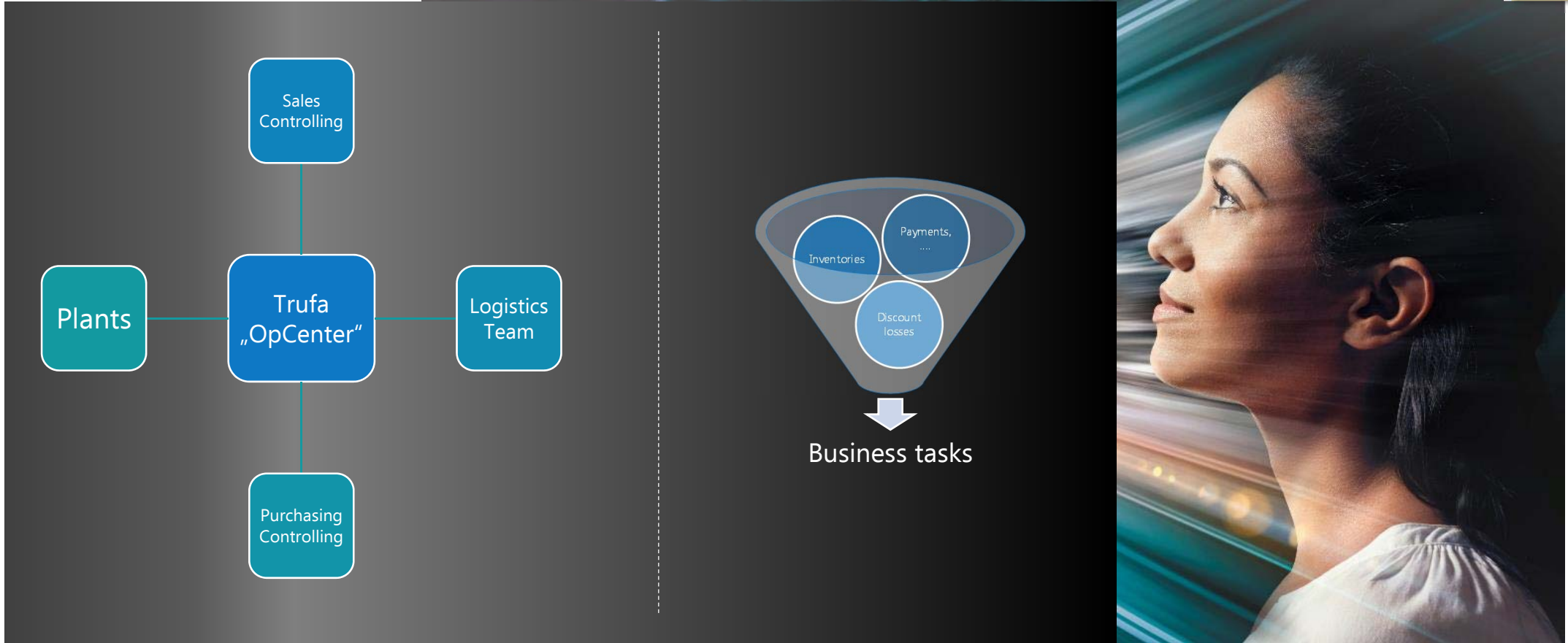
I do not have any budget and resources for this new approach

I do not believe the results of the tool, because I do not have the chance to recalculate

I am not familiar with the working process in logistics, sales and A/R

Prescriptive Analytics using Trufa

The organization behind it



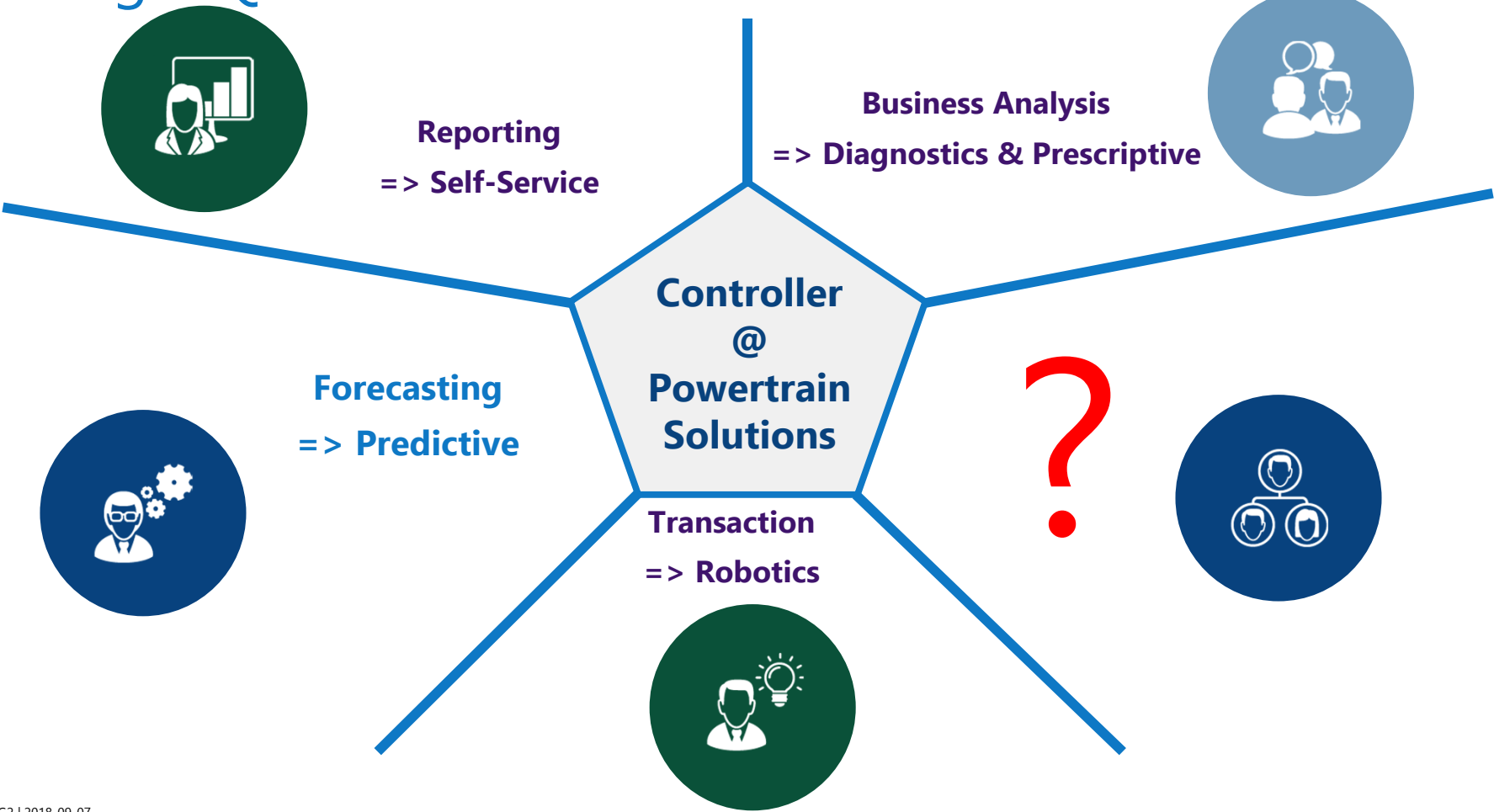
Prescriptive Analytics using Trufa

What we learned

- ▶ Don't invent the things you can buy on the market
- ▶ Don't lose yourself in the fascination for the tool
- ▶ Get the buy-in of your team
- ▶ Find the sweet spot where value is created and push hard
- ▶ Scale your success

Digital transformation in Finance and Controlling

Controlling – Quo Vadis ?

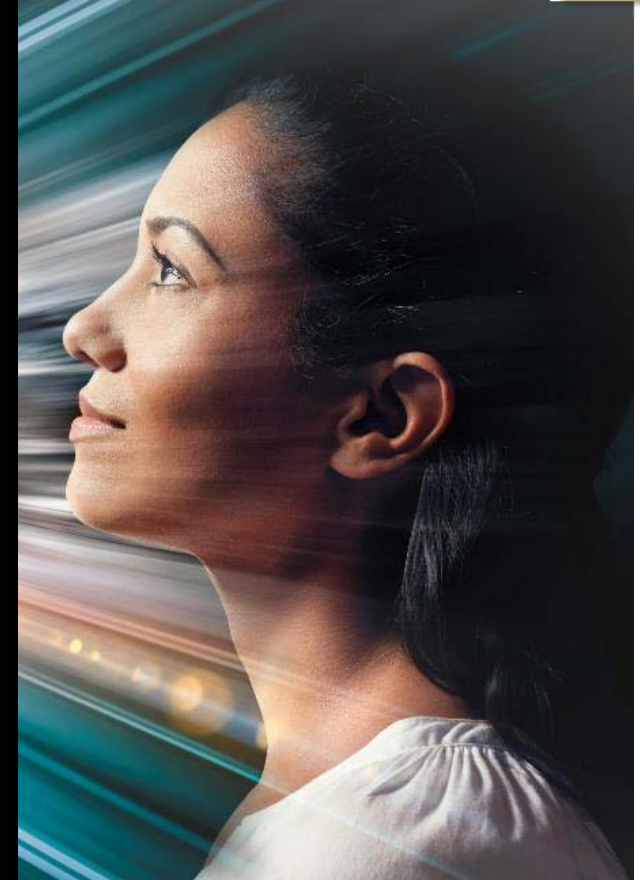


Digital Transformation in Finance and Controlling

Take away



- ▶ Digitization will fundamentally impact the role of the Controller
- ▶ Robotic Process Automation, Big Data Analytics and Prediction as well as Self-Service Reporting Platforms are the disruptors of our today's work
- ▶ Key for success is not up to the tool but the way it is implemented in the organization
- ▶ Look at it as a disruption, not as an improvement. Act different !
- ▶ Move now ! Learn while you are on the go ! Don't waste time !



Thank you for the attention

