



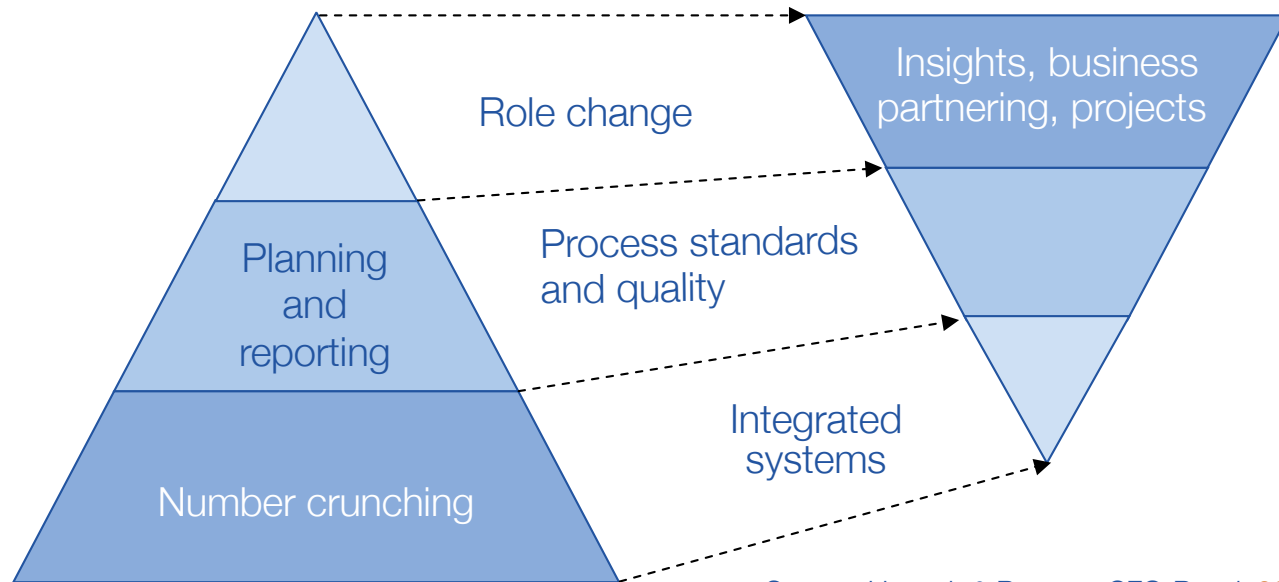
13.10.2022 | 10. Fachtagung Informationsmanagement - München | Heimo Losbichler

AUFGABEN UND KOMPETENZEN VON CONTROLLERN IM ANALYTICS ZEITALTER

# Outline

- Introduction
- Automated processes in controlling - the new normal?
- Artificial Intelligence - limits and opportunities
- The collaboration of controllers and data scientists – different roles in controlling
- Will the job of controllers change and will they gain or lose influence?

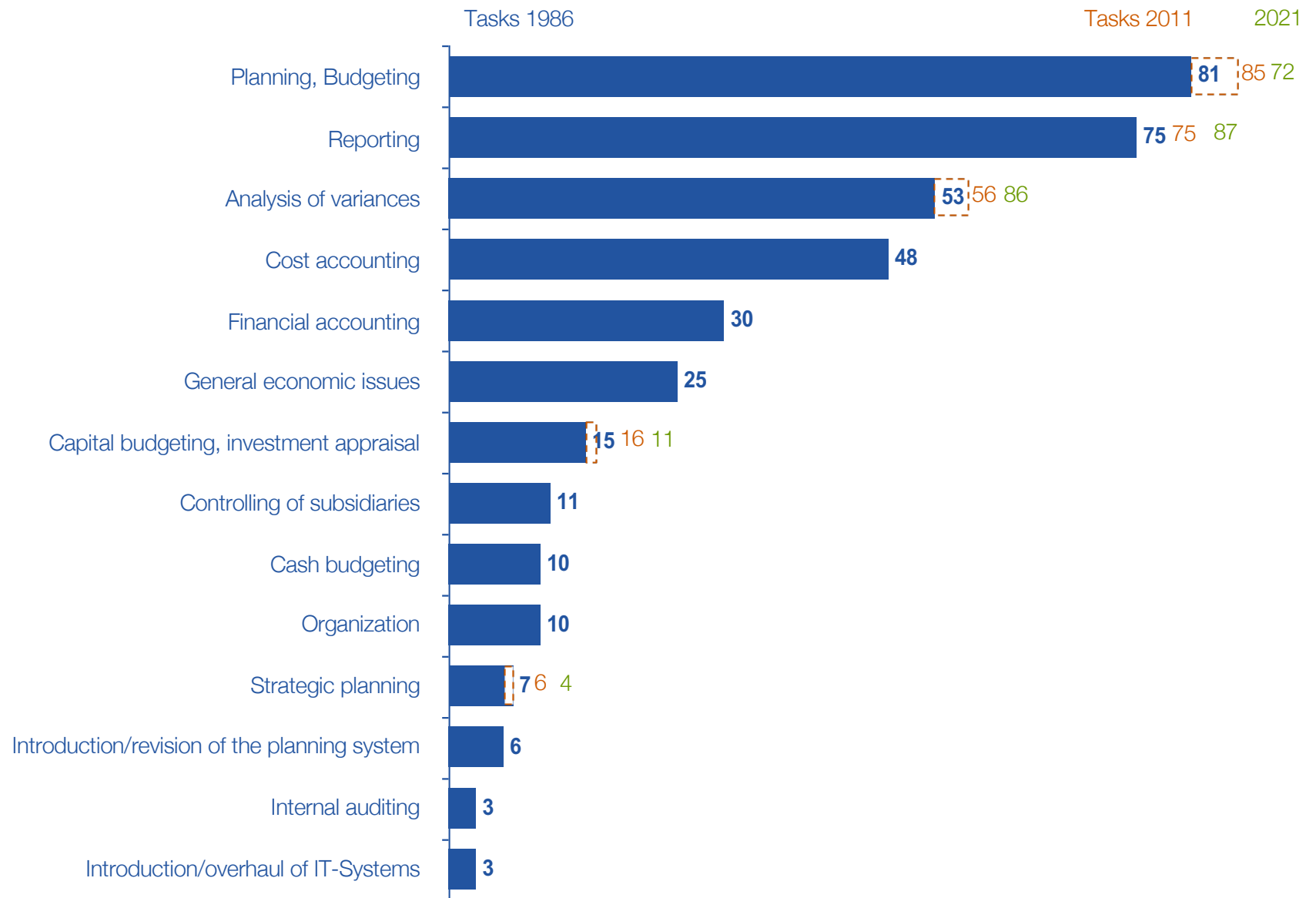
# The pace of change is slow



Source: Horvath & Partners CFO-Panel, 2005

More partnering, less number crunching, lower costs

# The tasks of controllers haven't changed much



Source: Bornemann, Controlling heute, S. 25, 1986; Mayr/Losbichler

# Will it be different this time?



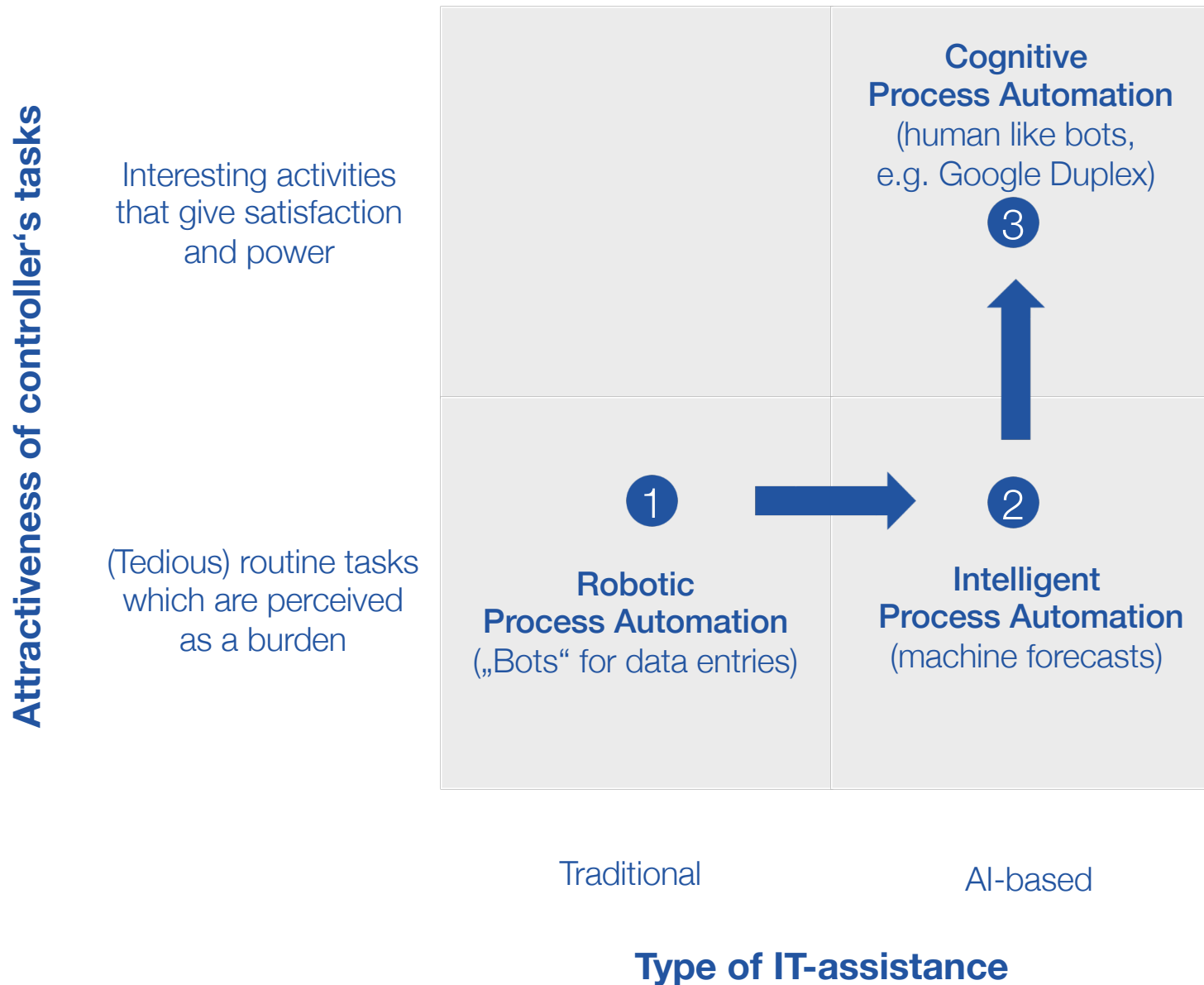
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# In many areas of life we actually love bots, so why do we care?



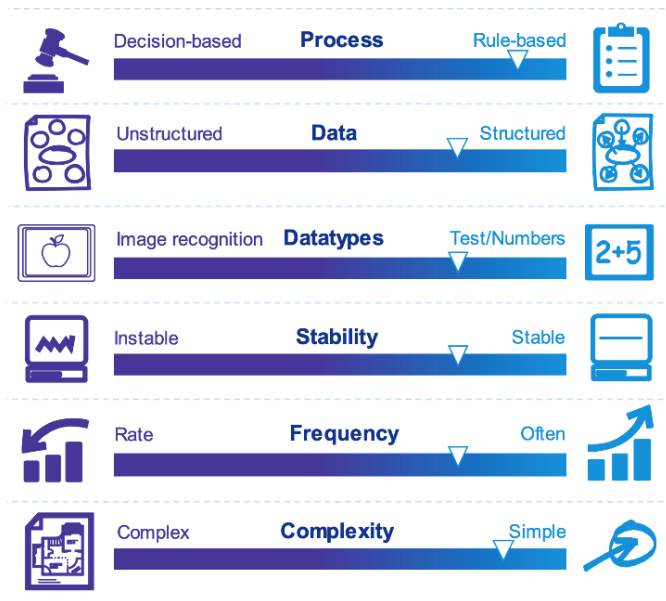
# Different levels of automation





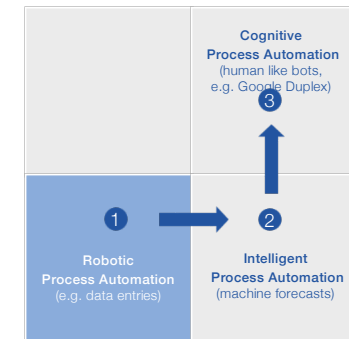
# RPA today: automating existing processes

- KPMG 2019: In September 2019, 53% of respondents admitted having started their RPA projects and this number should rise to 71% by 2021.
- Gartner 2020: 80% of finance leaders have implemented or are planning to implement RPA



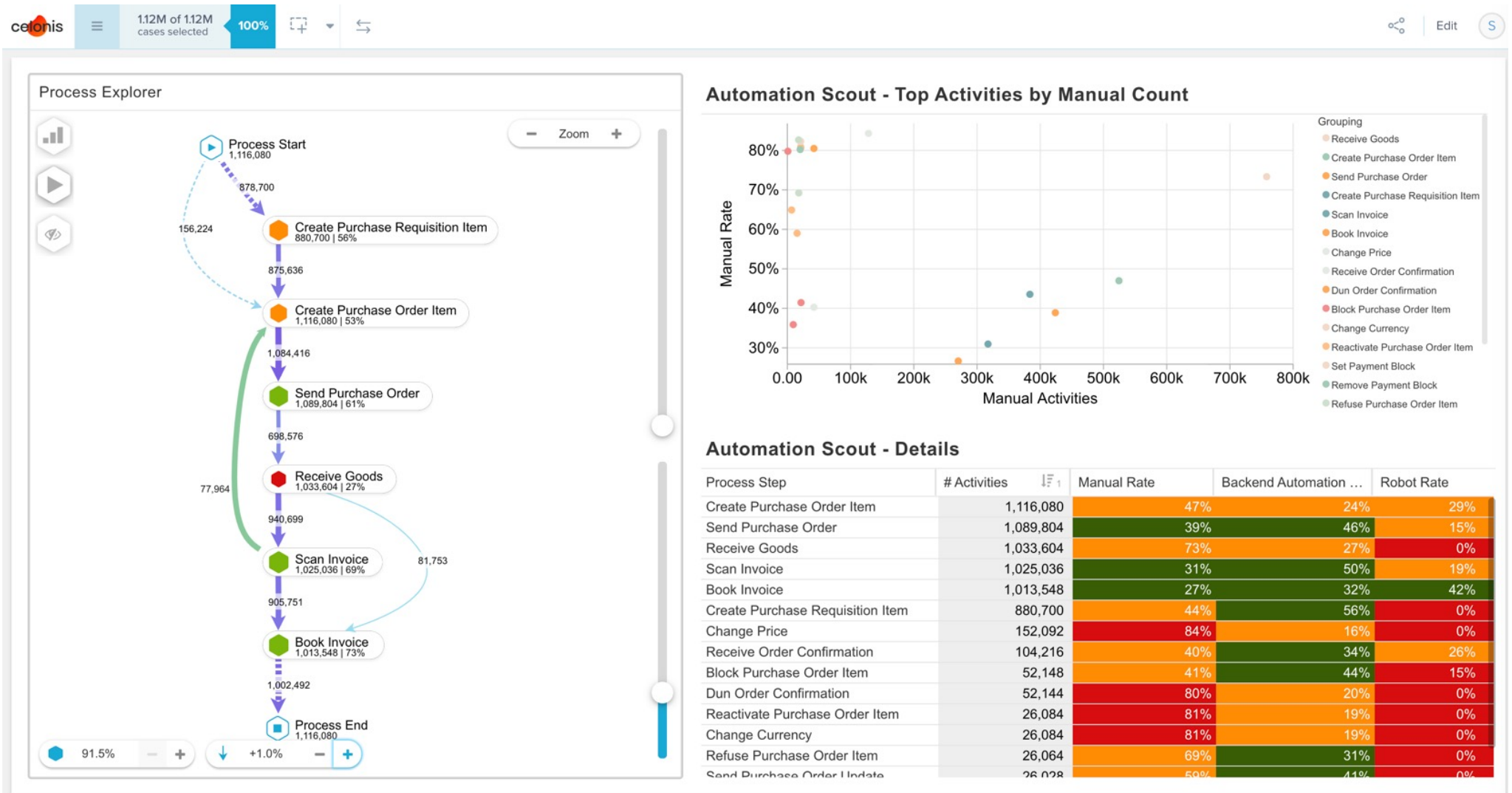
Source: KPMG

- RPA works best for tasks which are
  - simple, tedious and repetitive routines
  - rule-based and stable
  - manual and time consuming
  - high volume



- Objectives and impact
  - One bot can displace **up to 30x** the work of a human FTE
  - Only 1% are focusing on eliminating headcount
  - Quality, speed and growth are the primary objectives

# RPA today: process mining as driver and enabler of more efficient processes and automation

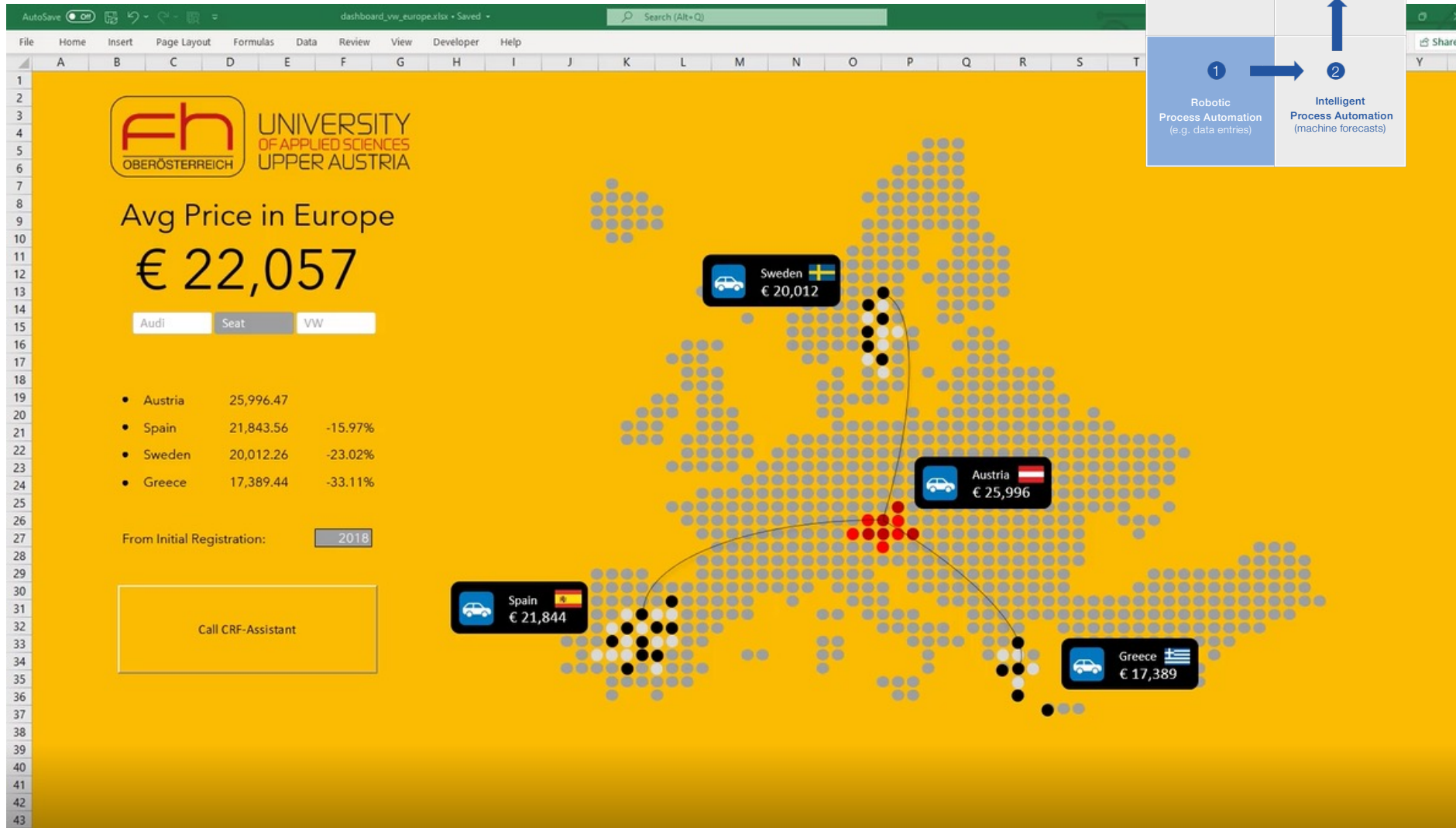
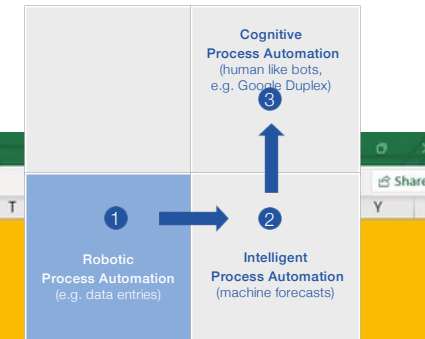


Source: Celonis

Automated “standard” processes become the new normal in controlling!

# RPA today: enabling new tasks, providing new insights

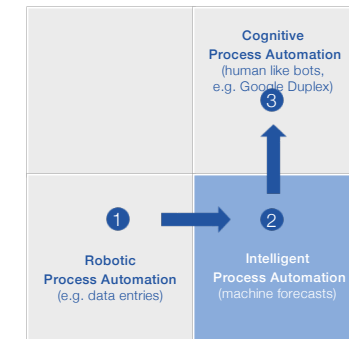
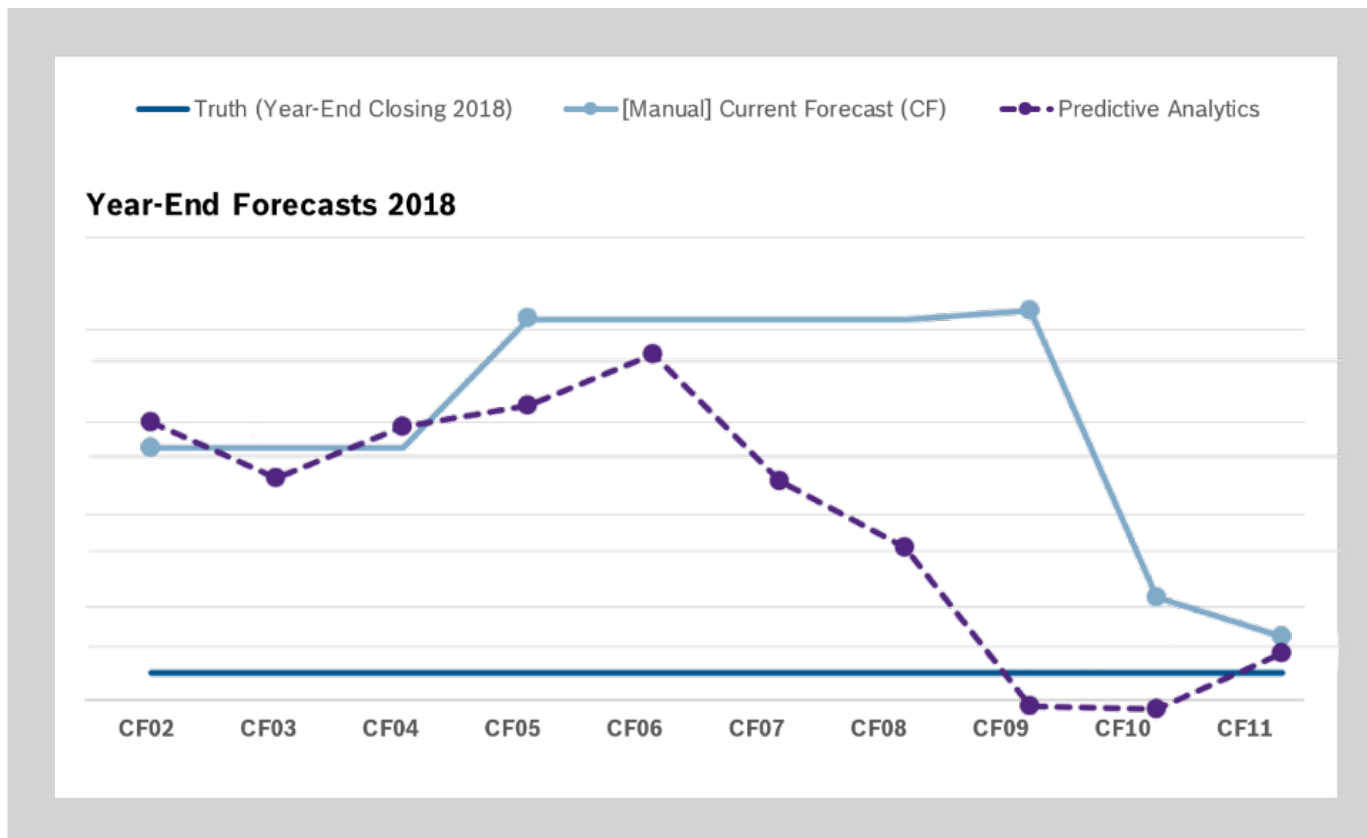
- Webcrawler



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# Predictive Analytics – AI-based forecast



## Opportunities


- Efficiency gains in the forecasting process
- 2<sup>nd</sup> opinion complementing the controller's forecast
  - data based, emotionless, unbiased, unintentional, forecast

## Risks

- Exaggerated expectations
  - Also AI-based forecasts are limited
- Blind faith
  - Quality is hard to verify
  - Bias

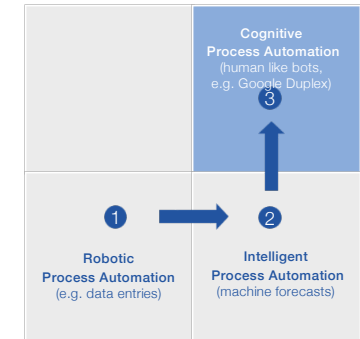
# Possible applications of AI and intelligent Bots in planning and forecasting

„Learning to love AI“

Prescriptive Analytics (How can we make it happen?)				Foresight
Predictive Analytics (What will happen?)	 <p><b>Focus of AI based planning and forecasting</b></p>			
Diagnostic Analytics (Why did it happen?)				Insight
Descriptive Analytics (What happened?)				Hindsight
	Assisted Intelligence	Augmented Intelligence	Autonomous Intelligence	



# Human like bots – is cognitive process automation the real threat?



**WATCH**

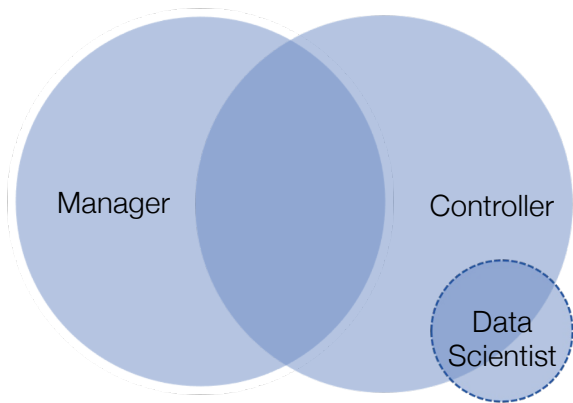
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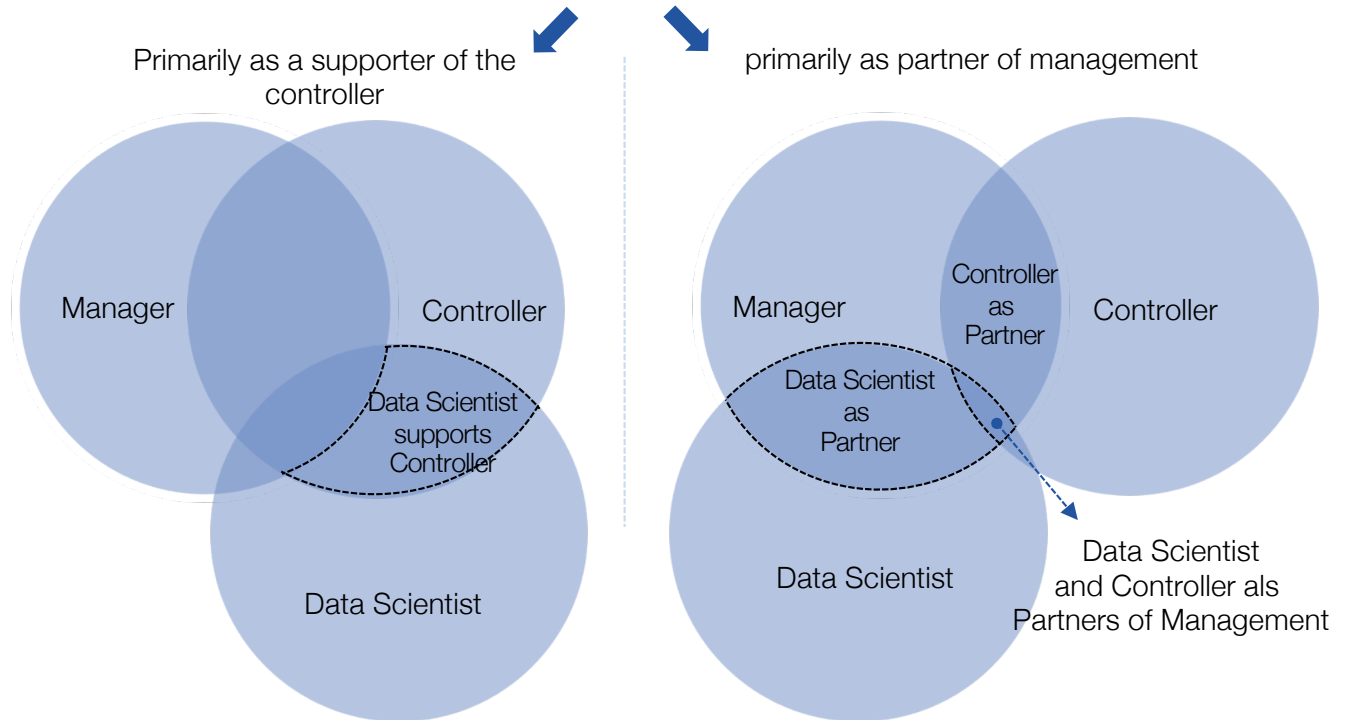


# Controller und Data Scientists

Data Scientist as  
enlargement of the role of controllers



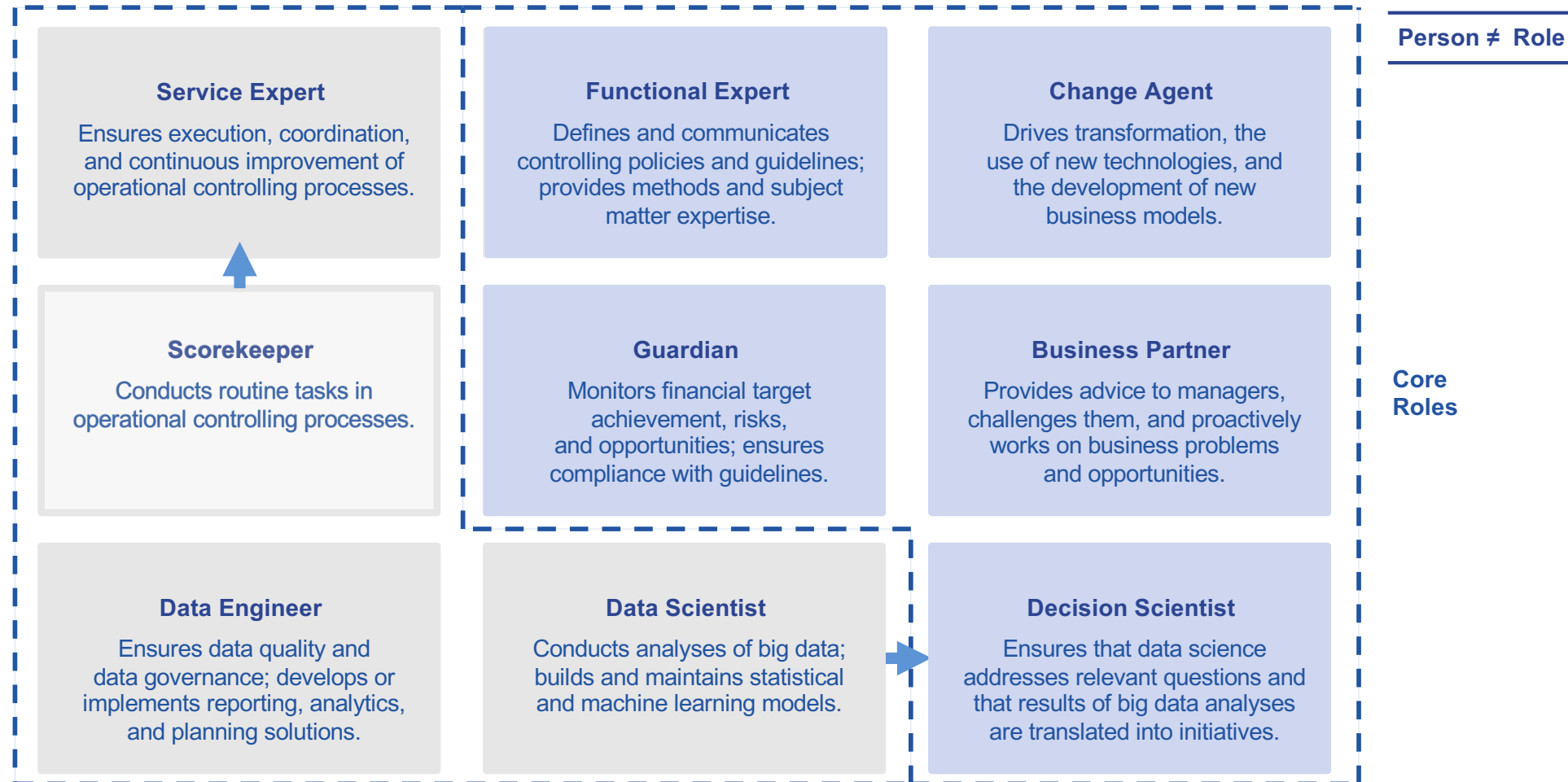
Data Scientist as independent role



Potential threat for Controllers

Data Scientist - the sexiest job of the world? I don't know any Data Scientist who feels sexy. It is a job mostly with sweat, blood, tears and a lot of frustration because the quality of data is so bad.

# The future roles of controllers

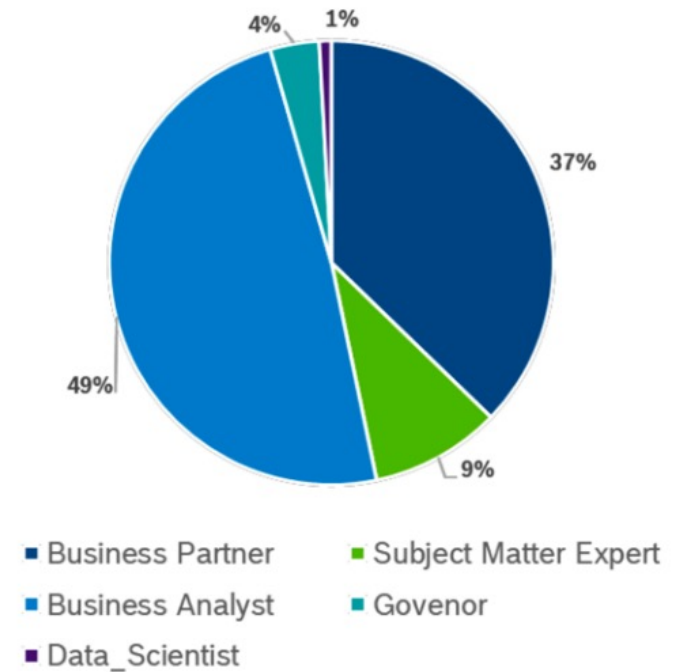


Source: Schäffer, May 9, 2022

# The future roles of controllers at BOSCH – winner of the „ICV Controlling Excellence Award“



Role distribution as of 12.2020



# The future roles of controllers at BOSCH – winner of the „ICV Controlling Excellence Award“

## Controller of the Future – People make the Difference

# Fact Sheets of our five new Controlling Roles

### Fact Sheet - Business Partner

#### Consultant of the management and key interface to business

**Role Description**

- Analyzes, interprets and summarizes cross-functional information
- Is able to communicate appropriately relevant information to management
- Monitors financial target achievement, risks and opportunities
- Develops proactively suggestions for countermeasures to achieve targets
- Provides trustfully decision relevant information/recommendation to management including evaluation of different scenarios
- Supports development of new business models
- Supports Finance Transformation and Digital Transformation

**Competence Profile (minimum requirement)**

Finance and Controlling Expertise	4
Technology and Analytics	3
Business Acumen	3
Communication and Collaboration Skills	3
Management Expertise	2
Personal Competence	3

**Major Tasks**

- Financial Planning and Analysis (FP&A) Tasks:
  - Planning of Steering P&L and relevant KP's
  - Develop scenarios
  - Identify risks and opportunities
  - Evaluation of deviations vs. target
  - Initiate measures to close potential gaps
  - Evaluate effectiveness of measures
- Cross-functional story-telling for Business
- Performance Management (incl. identification of risks and opportunities)
- Handling of ad hoc requests incl. preparation of reports
- Consulting of management and other departments
- Financial objectivity as basis for decision making
- Evaluation of business cases (e.g. investment cases)
- Support development of new business models
- Initiation and result interpretation of projects
- Contribution to strategic planning (incl. scenario planning)

### Fact Sheet - Data Scientist

#### Specialist using scientific methods to support business

**Role Description**

- Builds and maintains statistical and machine learning models
- Collects and analyses data with cutting-edge methods to gain new insights (e.g. AI, Predictive analytics, Data & Process Mining)
- Supports decision process by recognition of data patterns and trends
- Collaborates closely with Business Partner and Management

**Major Tasks**

- Interpretation of data in context
- Identification of use cases
- Run use cases
  - Develop data science models
  - Collect, check and clean data
  - Ensure relevance, completeness and consistency of data
  - Apply statistical models on input data
  - Program and test data models / tools
  - Develop recurring reports
- Integration of data science into existing processes
- Handover & change management

### Fact Sheet - Business Analyst

#### Process-oriented expert in data analyses, reporting and IT-systems

**Role Description**

- Efficiently carries out routine tasks of standard reporting (data collection, data validation, plausibility check, report generation)
- Key user of financial IT-systems
- Applies strong analytical skills to evaluate financial data
- Translates multi-functional information to insights
- Conducts ad hoc requests in cooperation with Business Partner
- Improves continuously processes (within personal area of responsibility)

**Competence Profile (minimum requirement)**

Finance and Controlling Expertise	4
Technology and Analytics	4
Business Acumen	3
Communication and Collaboration Skills	3
Management Expertise	2
Personal Competence	3

**Major Tasks**

- Financial Planning and Analysis (FP&A) Tasks:
  - Detailed planning in IT-systems, e.g. cost center planning, PPC calculation and transfer price calculation
  - Generation of actual data
  - Responsibility for data quality (consistency and completeness)
    - Plausibility check of reports
    - Identification and correction of errors
- Coordination and execution of standard reporting processes
  - Ensure on time delivery of data and reports
- Collection, processing and consolidation of data and reports for stakeholders
  - Standard RB-Reporting
  - Organizational-specific Reporting
  - Special reports to external authorities
- Key user of financial IT-systems, e.g. managing of interfaces, initiating of change requests, recommendation of report structure / data availability

### Fact Sheet - Subject Matter Expert

#### Specialist with a deep understanding of a particular area

**Role Description**

- Provides specialist advice in his/her matter of expertise (on demand)
- Contributes his/her professional perspective to cross-functional teams
- Shares openly knowledge with different target groups, e.g. basic training
- Drives controlling process excellence

**Competence Profile (minimum requirement)**

Finance and Controlling Expertise	4
Technology and Analytics	3
Business Acumen	3
Communication and Collaboration Skills	3
Management Expertise	2
Personal Competence	3

**Major Tasks**

Examples for typical Subject Matter

- Data Analyst
- Process Delegate (BBM only)
- Controlling Process Excellence
  - Support as system reporting and closing specialists
  - Implementation and further development of controlling IT-systems, e.g. as process delegate
- Tax Officer (e.g. TP-, VAT-, PE- and License Officer)
- M&A Finance Specialist
- RB-wide Controlling Specialist, e.g. FBI

### Fact Sheet - Governor

#### Officer for controlling regulations and standards

**Role Description**

- Acts as experienced authority with holistic approach
- Defines and communicates controlling policies and guidelines
- Ensures compliance with guidelines
- Exchanges improvement ideas with cross-functional network
- Defines business concepts and standards, e.g. implementation in IT-solutions

**Competence Profile (minimum requirement)**

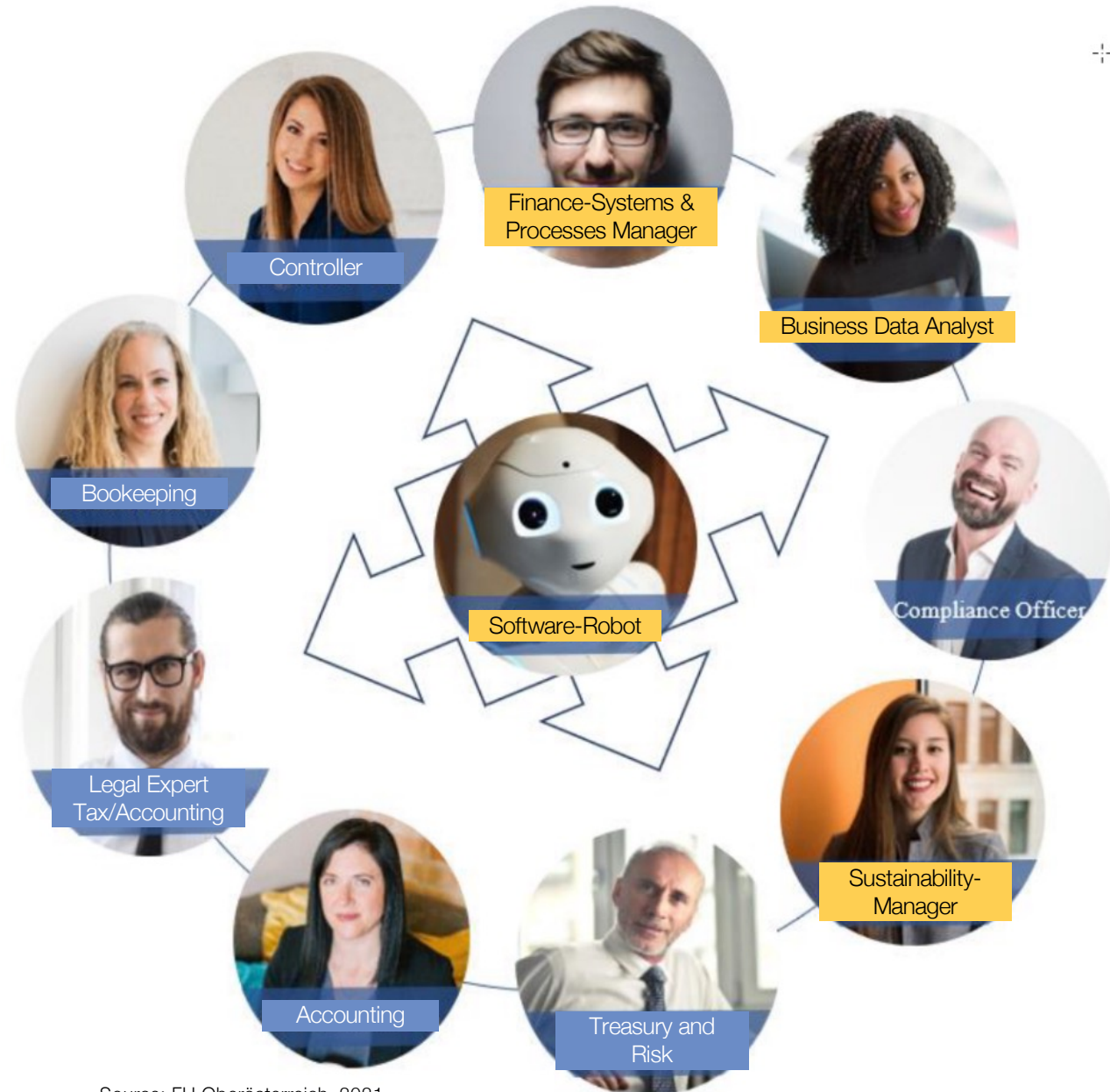
Finance and Controlling Expertise	4
Technology and Analytics	3
Business Acumen	3
Communication and Collaboration Skills	3
Management Expertise	2
Personal Competence	3

**Major Tasks**

- Responsible for implementation of RB-standards in operating unit
- Monitoring of compliance with regulations and standards
- Definition of business standards for operating unit (e.g. Controlling Concept, Reporting KPI and standard layout, Target-setting ...)
- Definition of process standards and end-to-end processes
- Definition of reporting time schedules in operating unit
- Application owner of financial IT-systems
- Continuous improvement of standards, procedures and tools



# The finance team of the future?



Source: FH Oberösterreich, 2021



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# Arguments why controllers could lose importance or there could be fewer controllers

## Managers take over activities of controllers

- Better financial skills of managers
- Self-controlling: easier-to-use controlling tools
- Younger, IT-savvy managers

## Machines take over activities of controllers

- Automation of repetitive activities (RPA, e.g. updating calculations)
- Automation of high quality activities (AI, e.g. machine forecast)

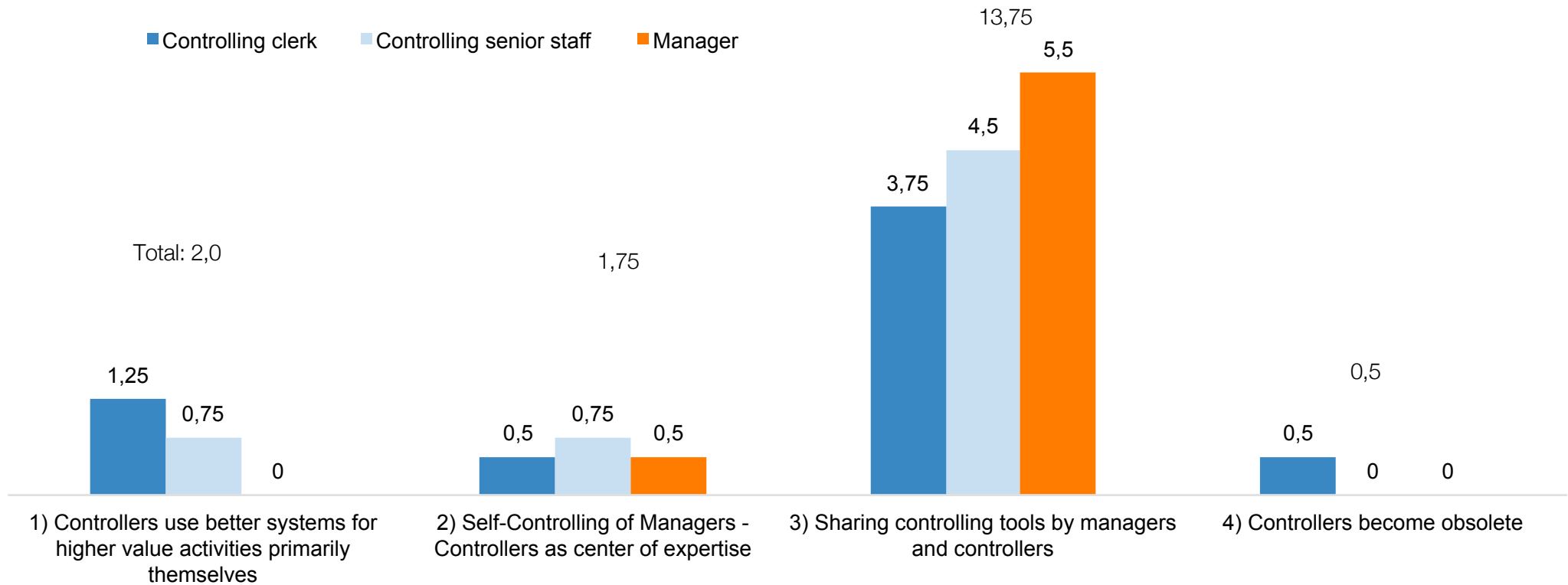
## Data Scientists take over activities of controllers

- Financial modeling
- Sophisticated analytics
  - Big Data

## Controllers take over activities of controllers

- Process standardization
- Shared service centers

# Does the controller become obsolete through digitization and self-controlling?



Source: Losbichler/Ablinger



# Arguments why controllers could gain importance or there could be more controllers

## New opportunities lead to higher demand for controllers

- More available information and techn. opportunities lead to greater wishes of the executives
- System implementation requires additional capacity (setup + maintenance)
- Self-controlling of executives requires stronger coordination by controllers

## Stronger competition and greater complexity of the business

- Leads to a greater need for information and increased time pressure

## Personality of executives

- Managers do not want to take over the activities of controllers

## New tasks are settled at the controller

- New jobs through new IT systems (AI-Tutor, ...)
- Change management, risk management, data governance
- Controllers do not fulfill expectations today - finally sparrings partner!

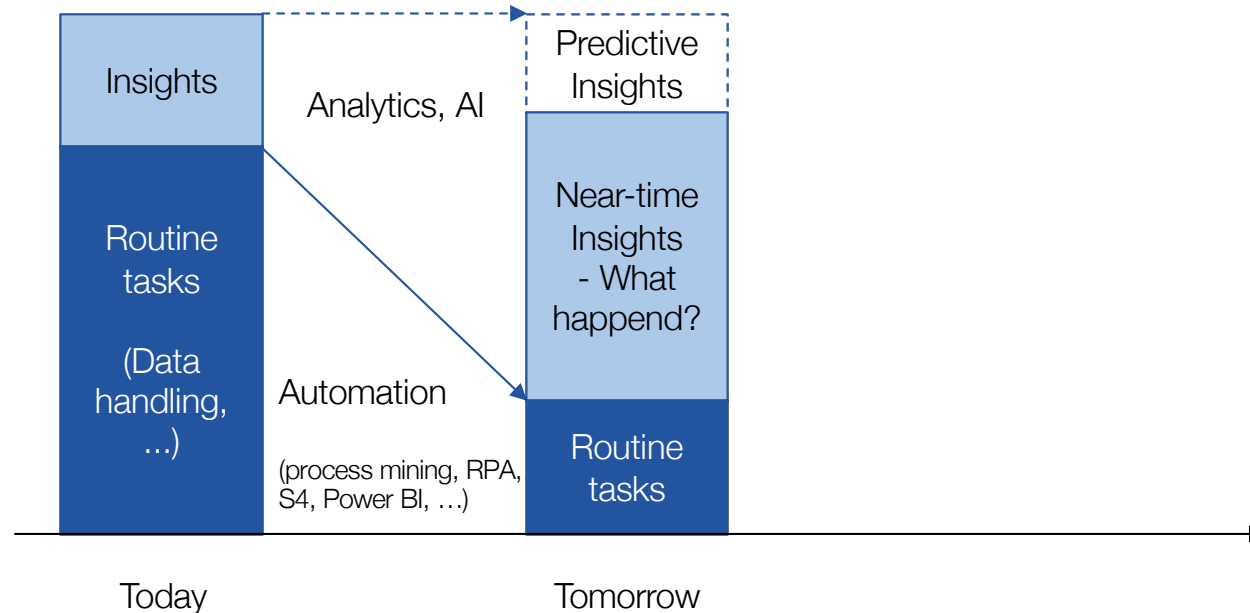
## Controllers take over activities of IT

- Easy to use tools allow controllers to develop/change tools on their own (e.g. Power BI)

## Limitations of automation and AI

- The formation of will can not be automated!
- Assurance of rational management decisions
- What happens if all competitors use AI?

# Summary - The impact of digitization



- The cornerstones of controlling - the management process of setting objectives, planning and control – will remain
- Digitization will have an impact on controlling and the controllers' job,
  - Overall - more insights and partnering, less number crunching, elimination of annoying repetitive tasks
  - The impact will differ between companies, jobs, and individuals
- Data scientists and IT systems will complement / support / replace controllers to some extent
- How do controllers take advantage of the opportunities?
  - Learning to love process automation and AI
  - Controllers have to actively shape their future role and not leave it to others