

Prof. Dr. Utz Schäffer  
ICV Work Group Controlling Competence | May 2021

# Controller Competencies of the Future



# Which competences will I need?

# Which competencies does the controller of the future need? The WHU Delphi Study has identified six competency areas

## Finance & Controlling Expertise

- Expertise in company's finance & controlling processes
- Expertise in finance & controlling related concepts and frameworks
- Knowledge of financial metrics
- Knowledge of non-financial metrics
- Expertise in financial accounting

## Technology & Analytics Expertise

- Expertise in IT systems and data architecture
- Expertise in data sourcing and data preparation
- Expertise in data visualization
- Expertise in business intelligence tools (reporting, analytics, and planning tools)
- Expertise in statistical model building
- Expertise in statistical model interpretation
- Expertise in programming
- Knowledge of digital technologies and trends
- Expertise in data protection and data security

## Management Expertise

- Expertise in project management
- Expertise in change management
- Expertise in agile techniques

## Communication & Collaboration Skills

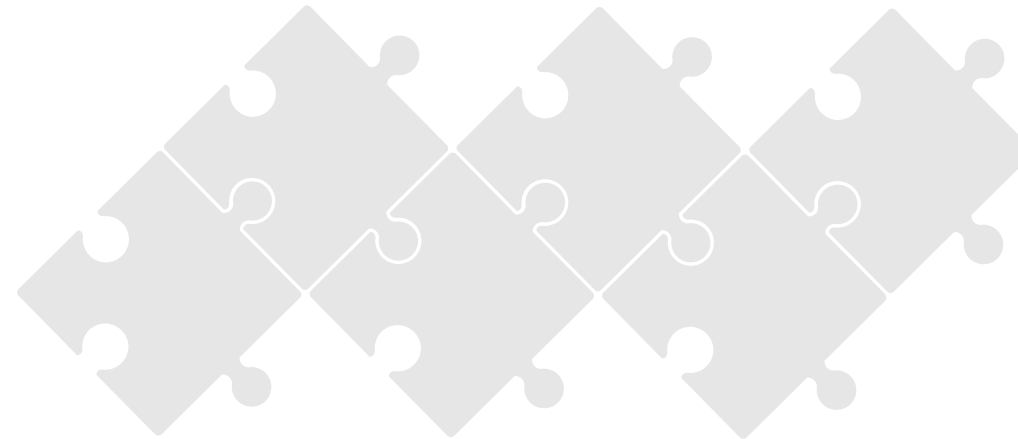
- Presentation and storytelling skills
- Collaboration and discussion skills
- Negotiation skills
- Leadership and motivation skills
- Coaching and mentoring skills
- Assertiveness

## Personal Competencies

- Analytical thinking
- Problem solving orientation
- Critical thinking and reflection
- Personal integrity and backbone
- Ambiguity tolerance and openness
- Execution skills
- Perseverance and grit

## Business Acumen

- Knowledge of company's business model, value drivers, and industry
- Knowledge of success factors of traditional business models
- Knowledge of success factors of digital business models
- Strategic thinking



Source: Schäffer/Brückner (2019)

# New tasks require new competencies. However, most of the future competencies identified in the WHU Delphi Study are not entirely new

## Required competencies today

- Expertise in company's finance & controlling processes
- Knowledge of financial metrics
- Expertise in financial accounting
- Presentation and storytelling skills
- Negotiation skills
- Personal integrity and backbone
- Perseverance and grit

## Change in level or type of requirement

- Expertise in finance & controlling related concepts and frameworks
- Knowledge of non-financial metrics
- Expertise in IT systems and data architecture
- Expertise in data sourcing and data preparation
- Expertise in data visualization
- Expertise in business intelligence tools (reporting, analytics, and planning tools)
- Expertise in project management
- Expertise in change management
- Knowledge of company's business model, value drivers, and industry
- Knowledge of success factors of traditional business models
- Collaboration and discussion skills
- Leadership and motivation skills
- Coaching and mentoring skills
- Assertiveness
- Analytical thinking
- Problem solving orientation
- Critical thinking and reflection
- Execution skills
- Strategic thinking
- Ambiguity tolerance and openness

## New requirements

- Expertise in statistical model building
- Expertise in statistical model interpretation
- Expertise in programming
- Knowledge of digital technologies and trends
- Expertise in data protection and security
- Expertise in agile techniques
- Knowledge of success factors of digital business models

Source: Schäffer et al. (2019)

# The WHU panelists consider themselves highly competent in some, but by far not all controller competencies

## Finance & Controlling Expertise

- Expertise in company's finance & controlling processes
- Knowledge of financial metrics
- Expertise in finance & controlling related concepts and frameworks
- Expertise in financial accounting
- Knowledge of non-financial metrics

## Technology & Analytics Expertise

- Expertise in data visualization
- Expertise in data preparation
- Expertise in business intelligence tools (reporting, analytics, and planning tools)
- Expertise in IT systems
- Knowledge of digital technologies and trends
- Expertise in data protection & data security
- Expertise in data architecture
- Expertise in statistical model interpretation
- Expertise in data sourcing
- Expertise in statistical model building
- Expertise in programming

## Management Expertise

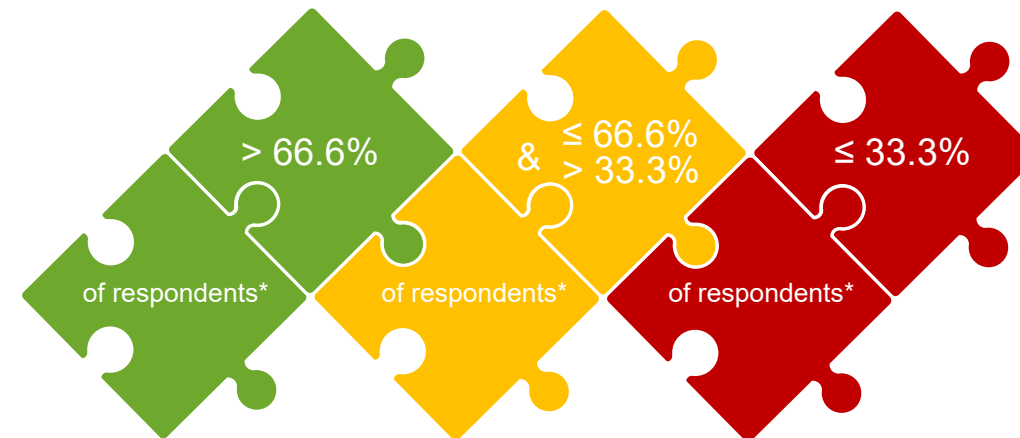
- Expertise in project management
- Expertise in change management
- Expertise in agile techniques

## Communication & Collaboration Skills

- Collaboration skills
- Discussion skills
- Presentation and storytelling skills
- Coaching and mentoring skills
- Assertiveness
- Leadership and motivation skills
- Negotiation skills

## Personal Competencies

- Analytical thinking
- Problem solving orientation
- Personal integrity and backbone
- Critical thinking and reflection
- Perseverance and grit
- Execution skills
- Ambiguity tolerance and openness



## Business Acumen

- Knowledge of company's business model, value drivers, and industry
- Knowledge of success factors of traditional business models
- Strategic thinking
- Knowledge of success factors of digital business models

Source: WHU Controller Panel (2019)

\*consider themselves "highly competent" (values 6 and 7)

# Role-specific competency gaps need to be addressed: Results of the participants of the ICV Working Group Digital Controlling Competence

## Finance & Controlling Expertise (Avg. 4.3)

- Expertise in finance & controlling related concepts and frameworks
- Expertise in company's finance & controlling processes
- Knowledge of financial metrics
- Knowledge of non-financial metrics
- Expertise in financial accounting

## Technology & Analytics Expertise (Avg. 4.2)

- Expertise in data architecture
- Expertise in data preparation
- Expertise in IT systems
- Expertise in data visualization
- Expertise in business intelligence tools (reporting, analytics, and planning tools)
- Knowledge of digital technologies and trends
- Expertise in data protection
- Expertise in data security
- Expertise in data sourcing
- Expertise in statistical model interpretation
- Expertise in statistical model building
- Expertise in programming

## Management Expertise (Avg. 5.0)

- Expertise in project management
- Expertise in change management
- Expertise in agile techniques

## Business Acumen (Avg. 4.6)

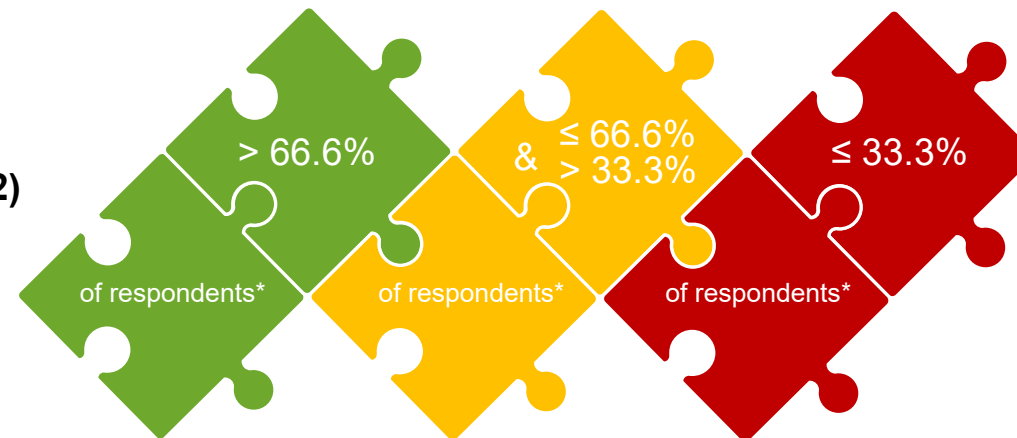
- Strategic thinking
- Knowledge of company's business model, value drivers, and industry
- Knowledge of success factors of traditional business models
- Knowledge of success factors of digital business models

## Communication & Collaboration Skills (Avg. 5.3)

- Collaboration skills
- Discussion skills
- Presentation and storytelling skills
- Coaching and mentoring skills
- Leadership and motivation skills
- Negotiation skills
- Assertiveness

## Personal Competencies (Avg. 5.7)

- Problem solving orientation
- Ambiguity tolerance and openness
- Analytical thinking
- Execution skills
- Critical thinking and reflection
- Personal integrity and backbone
- Perseverance and grit



Source: ICV Facharbeitskreis Digital Controlling Competence (2021); n = 7

\*consider themselves "highly competent" (values 6 and 7)

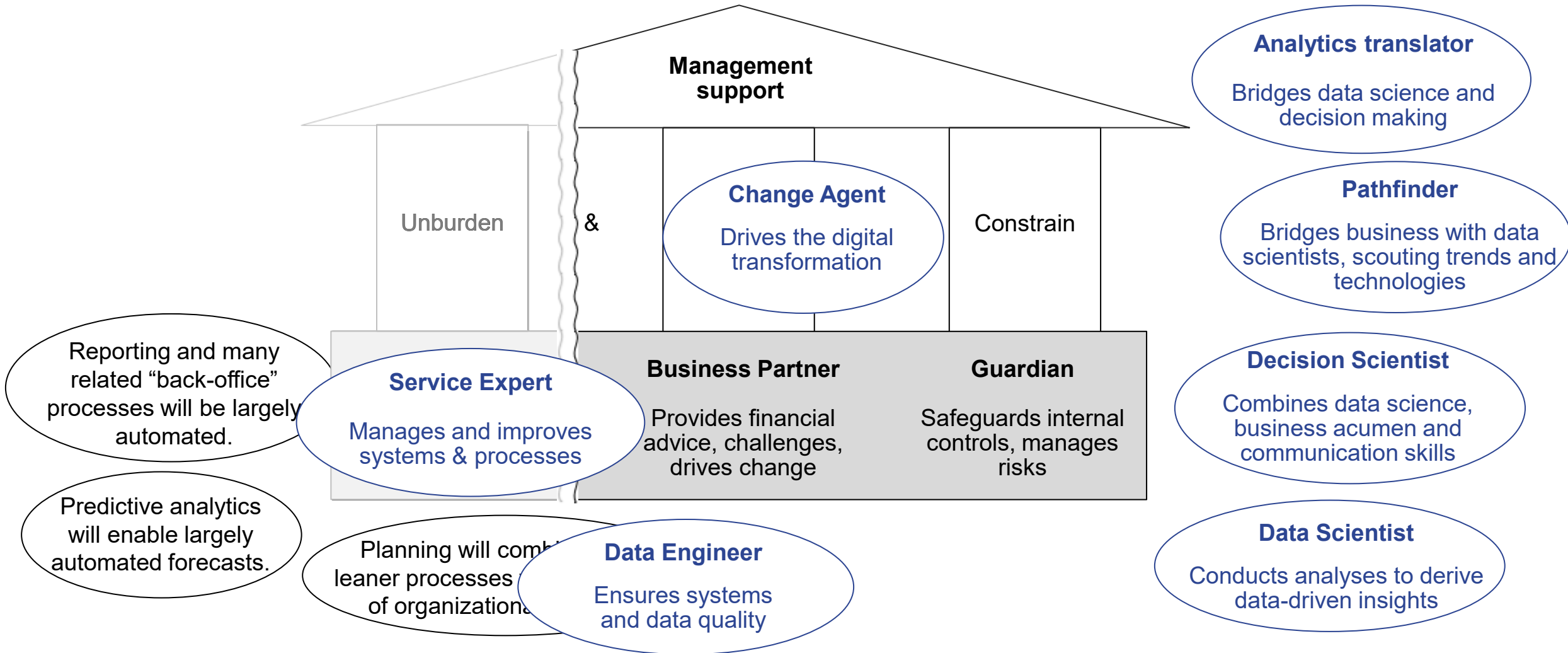


Are we asking too much? Is the controller of the future required to be a jack of all trades, master of none (or to put it in German, an "egg-laying, milk-bearing woolly sow")?



Source: Marketing campaign by KSP Krieg Schlupp Partner for Volkswagen (2016)

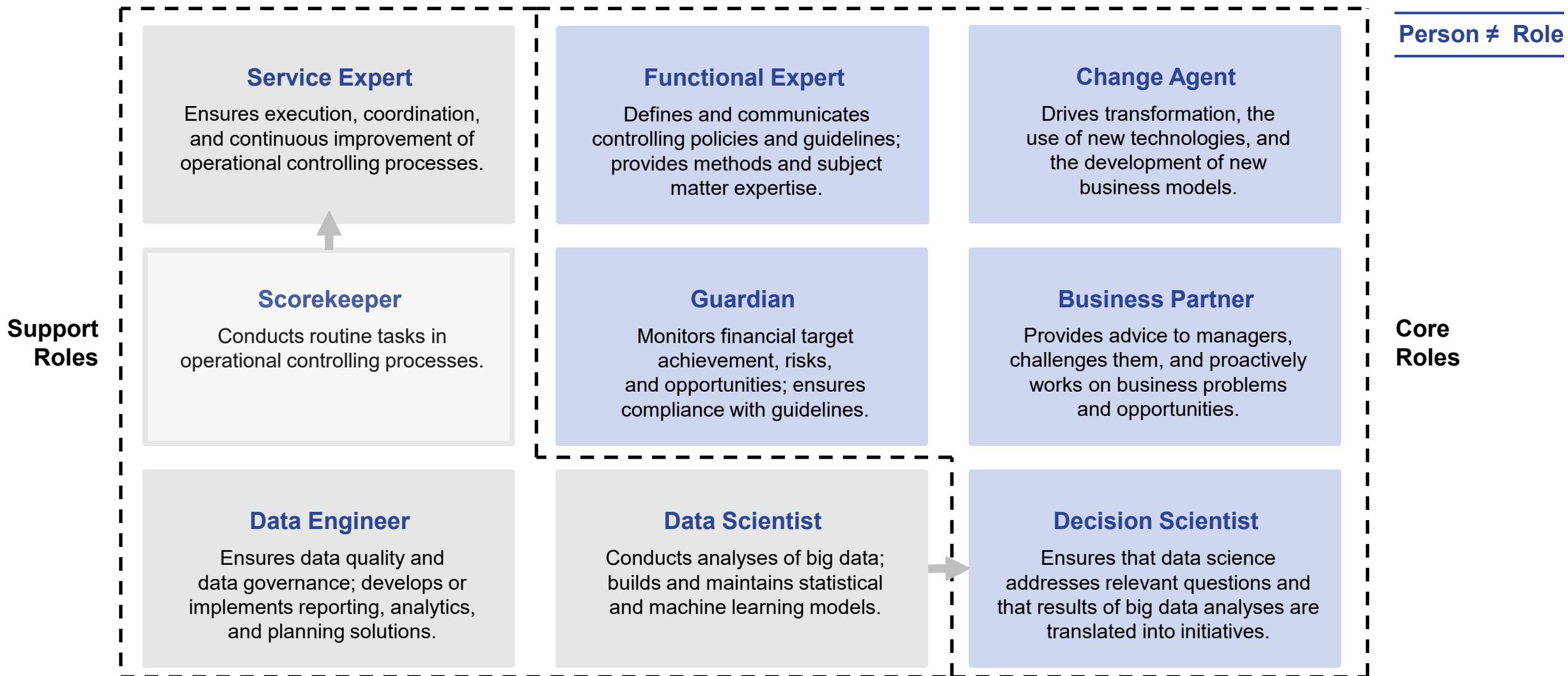
# The scorekeeper is dead: role making is key!



Source: Weber/Schäffer (2008; 2020); Schäffer/Weber (2015)

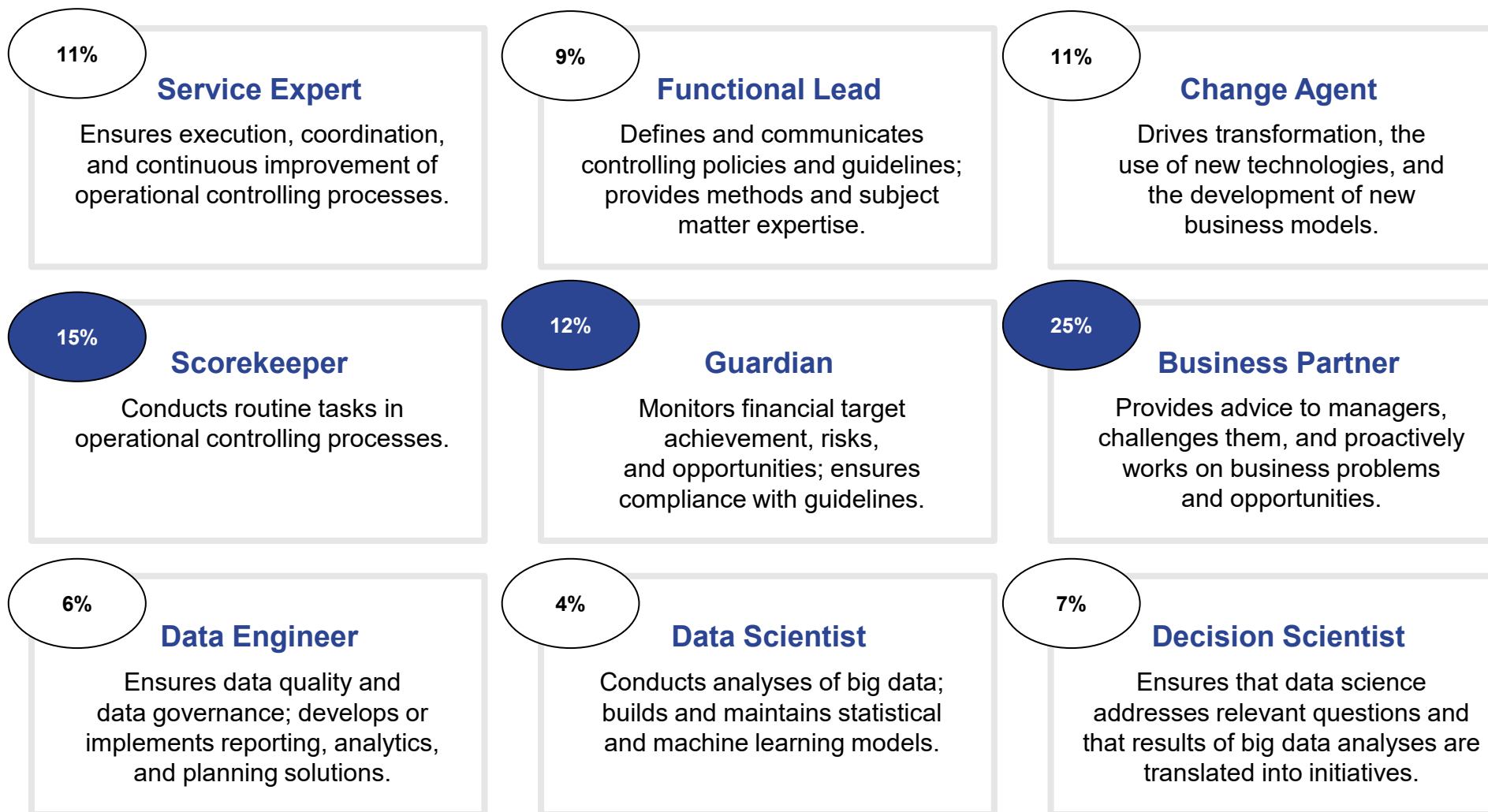


The WHU Delphi Study identified a total of nine *potential* future controller roles



Source: adapted from Schäffer/Brückner (2019)

# Which roles are enacted by controllers today? Results from the WHU Campus for Controlling



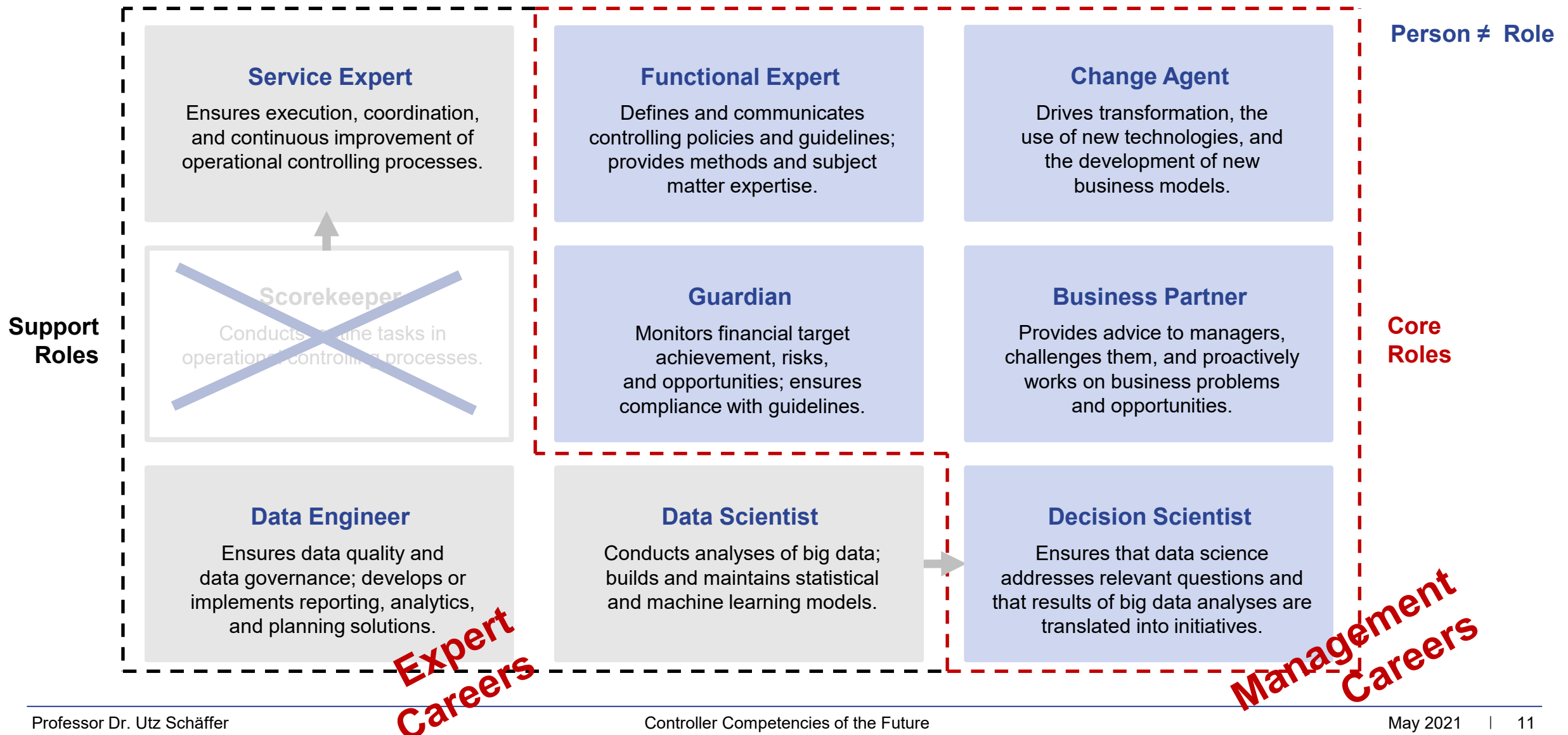
## Campus results

Which controller roles are taken on by you?

Please indicate how much of your work time is spent on each role by distributing 100% between them.

Source: WHU Campus for Controlling (2019); n = 117

# The scorekeeper is dead! Long live its heirs!



# To make the new controller roles work, role-specific competency profiles are needed

Competencies	Roles	Score-keeper	Service Expert	Data Engineer	Guardian	Functional Lead	Data Scientist	Decision Scientist	Business Partner	Change Agent
<b>Finance &amp; Controlling Expertise</b>										
Expertise in company's finance & controlling processes		Intermediate	Intermediate	Basic	Intermediate	Intermediate	Basic	Intermediate	Intermediate	Basic
Expertise in finance & controlling related concepts and frameworks		Basic	Intermediate	Basic	Basic	Intermediate	Basic	Basic	Intermediate	Basic
Knowledge of financial metrics		Basic	Intermediate	Basic	Intermediate	Intermediate	Basic	Basic	Intermediate	Basic
Knowledge of non-financial metrics		Basic	Basic	Basic	Basic	Intermediate	Basic	Basic	Intermediate	Basic
Expertise in financial accounting		Basic	Basic	Basic	Basic	Basic	Basic	Basic	Basic	Basic
<b>Management Expertise</b>										
Expertise in project management		Basic	Basic	Basic	Basic	Basic	Basic	Basic	Basic	Intermediate
Expertise in change management		Basic	Basic	Basic	Basic	Basic	Basic	Basic	Basic	Intermediate
Expertise in agile techniques		Basic	Basic	Basic	Basic	Basic	Basic	Basic	Basic	Intermediate
<b>Technology &amp; Analytics Expertise</b>										
Expertise in IT systems and data architecture		Basic	Basic	Intermediate	Basic	Basic	Intermediate	Basic	Basic	Basic
Expertise in data sourcing and data preparation		Basic	Basic	Intermediate	Basic	Basic	Intermediate	Basic	Basic	Basic
Expertise in data visualization		Basic	Basic	Basic	Basic	Basic	Intermediate	Basic	Basic	Basic
Expertise in business intelligence tools		Basic	Basic	Intermediate	Basic	Basic	Intermediate	Basic	Basic	Basic
Expertise in statistical model building		Basic	Basic	Basic	Not at all	Basic	Intermediate	Basic	Basic	Basic
Expertise in statistical model interpretation		Basic	Basic	Basic	Basic	Basic	Intermediate	Intermediate	Basic	Basic
Expertise in programming		Basic	Basic	Intermediate	Not at all	Basic	Intermediate	Basic	Not at all	Basic
Knowledge of digital technologies and trends		Basic	Basic	Intermediate	Basic	Basic	Intermediate	Basic	Basic	Intermediate
Expertise in data protection and data security		Basic	Basic	Intermediate	Intermediate	Basic	Intermediate	Basic	Basic	Basic

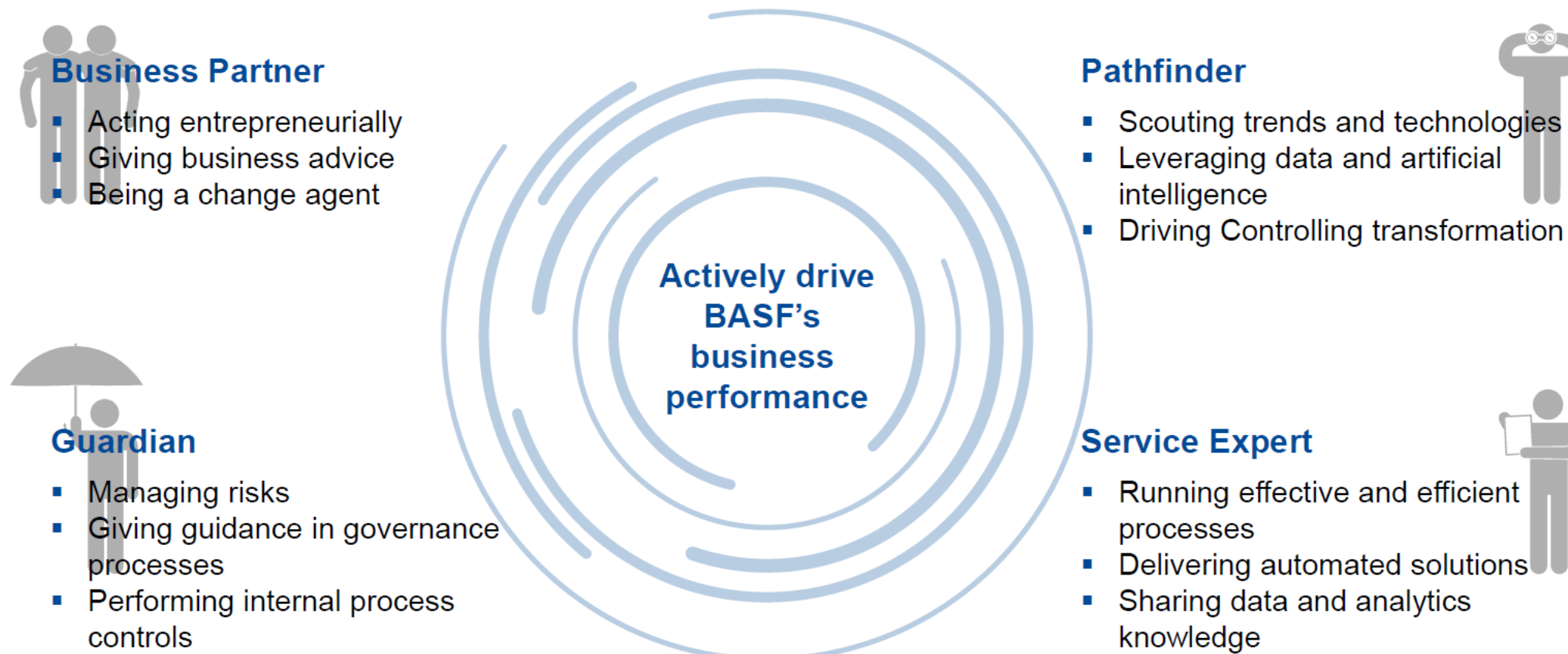
Competencies	Roles	Score-keeper	Service Expert	Data Engineer	Guardian	Functional Lead	Data Scientist	Decision Scientist	Business Partner	Change Agent
<b>Business Acumen</b>										
Knowledge of company's business model, value drivers, and industry		Basic	Intermediate	Basic	Basic	Intermediate	Basic	Basic	Intermediate	Intermediate
Knowledge of success factors of traditional business models		Basic	Basic	Basic	Intermediate	Intermediate	Basic	Basic	Intermediate	Intermediate
Knowledge of success factors of digital business models		Basic	Basic	Basic	Basic	Basic	Basic	Basic	Intermediate	Intermediate
Strategic thinking		Basic	Basic	Basic	Basic	Basic	Basic	Basic	Intermediate	Intermediate
<b>Communication &amp; Collaboration Skills</b>										
Presentation and storytelling skills		Basic	Basic	Basic	Basic	Basic	Basic	Basic	Intermediate	Intermediate
Collaboration and discussion skills		Basic	Basic	Basic	Basic	Intermediate	Basic	Basic	Intermediate	Intermediate
Negotiation skills		Basic	Basic	Basic	Basic	Basic	Basic	Basic	Intermediate	Basic
Leadership and motivation skills		Basic	Basic	Basic	Basic	Intermediate	Basic	Basic	Intermediate	Intermediate
Coaching und mentoring skills		Basic	Basic	Basic	Basic	Basic	Basic	Basic	Intermediate	Basic
Assertiveness		Basic	Basic	Basic	Basic	Basic	Basic	Basic	Basic	Basic
<b>Personal Competencies</b>										
Analytical thinking		Basic	Basic	Intermediate	Basic	Intermediate	Intermediate	Intermediate	Intermediate	Basic
Problem solving orientation		Basic	Intermediate	Intermediate	Basic	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate
Critical thinking and reflection		Basic	Intermediate	Basic	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate	Intermediate
Personal integrity and backbone		Basic	Basic	Basic	Intermediate	Basic	Basic	Basic	Intermediate	Basic
Ambiguity tolerance and openness		Basic	Basic	Basic	Basic	Basic	Basic	Basic	Basic	Intermediate
Execution skills		Basic	Intermediate	Intermediate	Basic	Basic	Basic	Basic	Intermediate	Intermediate
Perseverance and grit		Basic	Basic	Basic	Intermediate	Basic	Basic	Basic	Intermediate	Basic

Required competency level (median): ■ Not at all ■ Basic ■ Intermediate ■ Profound

Source: Schäffer/Brückner (2019)

Use Case: BASF has pioneered the pathfinder and identified a total of four roles

## The four Controller roles in BASF



Source: BASF, Guest Lecture AMAC, December 2, 2020

# Use Case: Robert Bosch has identified five roles for the controller of the future

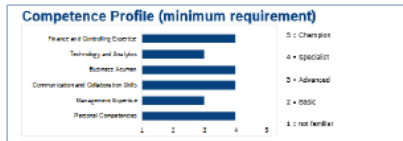
## Controller of the Future – People make the Difference

# 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



- Major Tasks**
- Financial Planning and Analysis (FP&A) Tasks:
    - Planning of Steering P&L and relevant KPIs
    - 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 Partner
  - Performance Management (incl. identification of risks and opportunities)
  - Handling of ad hoc requests incl. prioritization
  - Consulting of management and other stakeholders
  - 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 big data analyses**

- 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

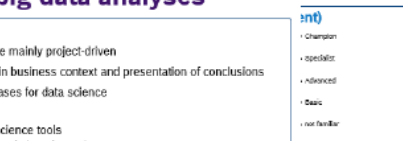


- Major Tasks**
- Examples for typical Subject Matter:
- Data Analyst
  - Process Delegate (BBM only)
  - Controlling Process Excellence
    - Support as system reporting and closing specialists
    - Implementation and further development of controlling IT-systems, e.g. as process delegate
  - Tax Officer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

### Fact Sheet - 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

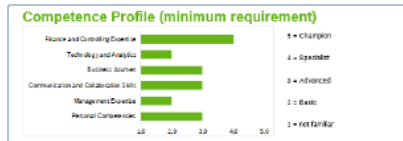


- Major Tasks**
- Data science tasks are mainly project-driven
  - Interpretation of data in business context and presentation of conclusions
  - Identification of use cases for data science
  - Run use cases
    - Develop data science tools
    - Collect, check and clean input data
    - Ensure relevance, 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 reporting processes
  - handover & change management

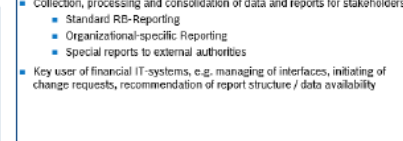
### Fact Sheet - Governor

**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



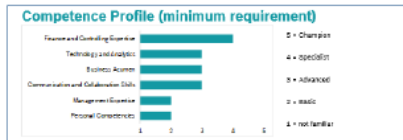
- Major Tasks**
- Financial Planning and Analysis (FP&A) Tasks:
    - Detailed planning in IT-systems, e.g. cost center planning, PPC calculation and transfer price calculation
    - Generation of actual data
    - Responsibility for data quality (consistency and completeness)
      - Plausibility check 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 subject**

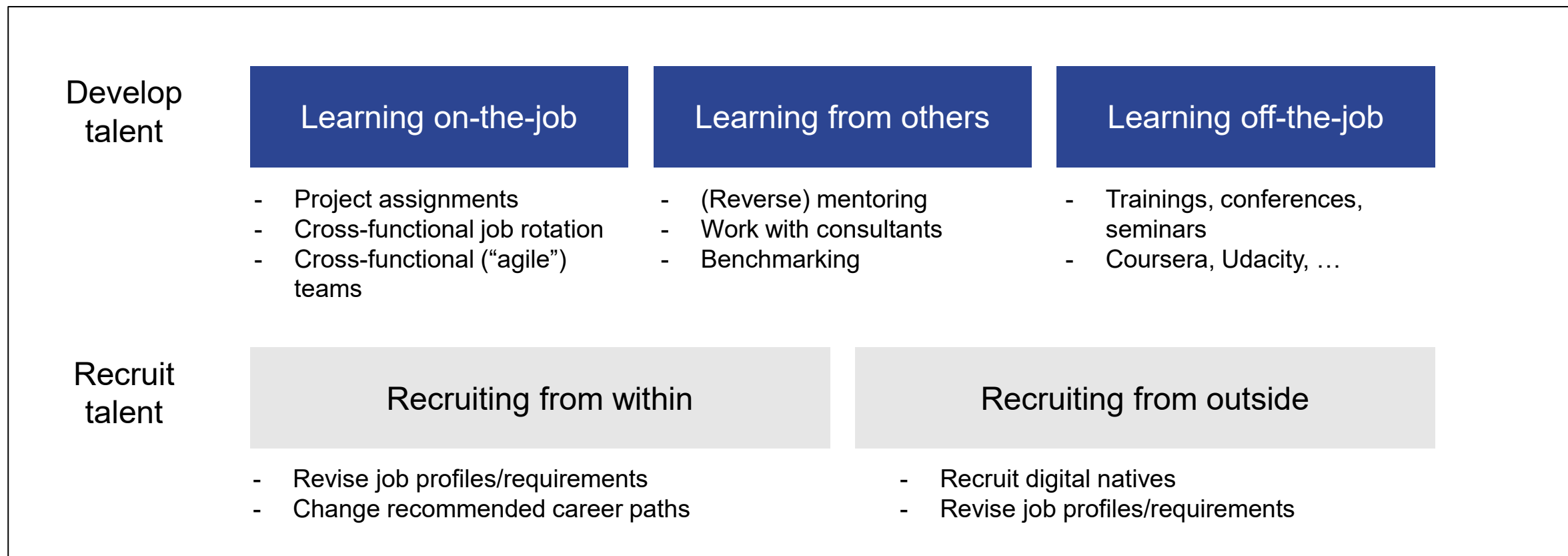
- Role Description**
- Provides specialist advice in his/her matter of expertise (on demand)
  - Contributes his/her professional perspective to cross-functional teams
  - Shares openly knowledge with different target groups, e.g. basic training
  - Drives controlling process excellence



Source: Robert Bosch (2021)



## Closing the competency gap requires a combination of different levers



Source: Schäffer/Brückner (2019); Lombardo/Eichinger (2006)

### The scorekeeper is dead!

Therefore, controllers need to ...

- **reinvent themselves** and work on roles, mindset and competencies! Business acumen, personal competencies and analytics are key!
- **drive change** in technology, process design, organizational set up and culture!
- **preserve (and strengthen) their key assets**, last not least a forward-thinking, fact-based and analytical mindset and the claim as single source of truth.



Prof. Dr. Utz Schäffer

Institute of Management Accounting & Control  
WHU – Otto Beisheim School of Management  
Campus Vallendar, Burgplatz 2, 56179 Vallendar, Germany

+49 261 6509 700

[utz.schaeffer@whu.edu](mailto:utz.schaeffer@whu.edu)

[www.whu.edu/controllers](http://www.whu.edu/controllers)

