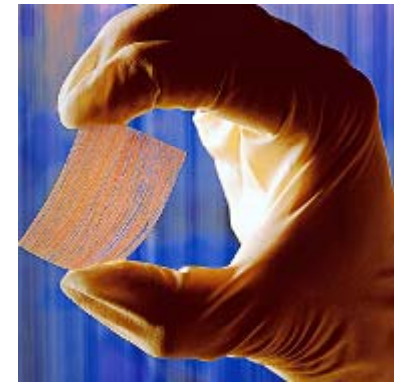
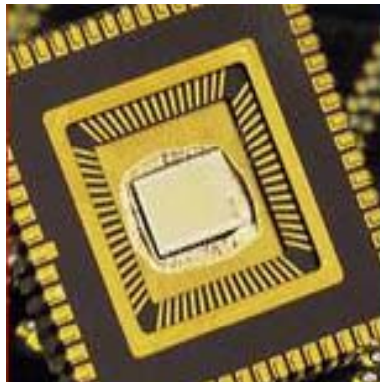

13th Israeli-German Administrator's Conference

Integrated Human Resource Management



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Fraunhofer-Gesellschaft
Member of the Executive Board of
Directors

1 Personnel, Legal Affairs and IPR



13th Israeli-German Administrator's Conference

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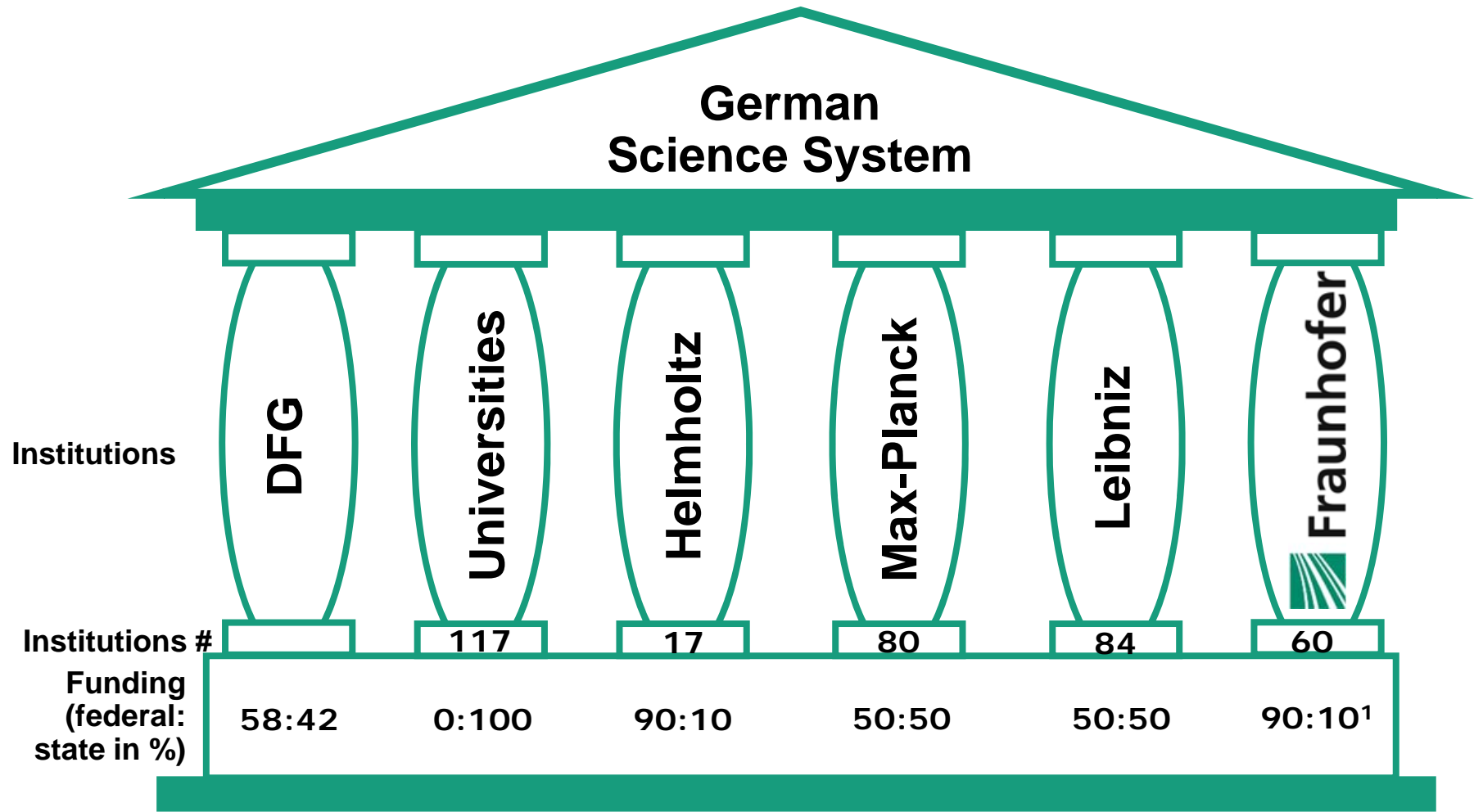
1. Introduction
2. Fraunhofer at a glance
3. Strategy and HR
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 - 4.1 HR in Fraunhofer
 - 4.2 Integrated HR-Management –The Process-

1. Introduction

HR in science and academia

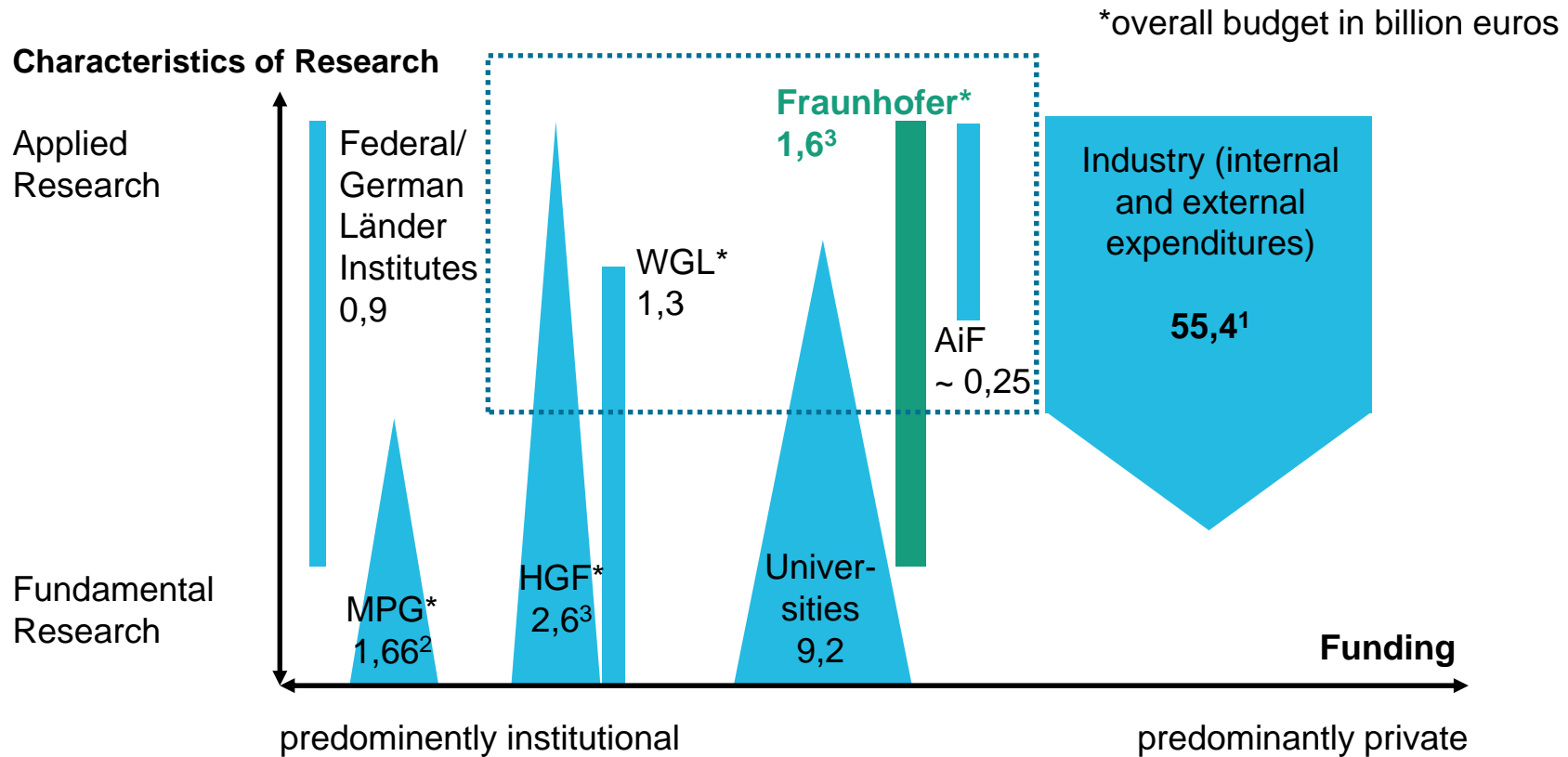
- Germany is dependent on its brains
- World-wide need/demand for higher education rises. Hence: competition and collaboration are key.
- Strong lack of experts (in Germany at least) due to demographic factor and distribution of students along different disciplines (still not enough, espec. in engineering, informatics and natural sciences).
- Profile of jobs and personal skills needed change radically, also in the science system and its institutions
- Working conditions and working environment are also under change. Employer attractiveness is not at all „only“ a question of salary. (New) employees have clear and demanding expectations with regard to their (potential) employer.
- There are very dynamic processes in the German science system, not seen before. Institutions must adapt to this in order to maintain their competitiveness.

1. Introduction: the German Science System



(1) Basic public funding only 30 %

1. Introduction: the German Science System



HGF Hermann von Helmholtz-Gemeinschaft
WGL Wissenschaftsgemeinschaft Gottfried Wilhelm Leibniz
AiF Arbeitsgemeinschaft industrieller Forschungsvereinigungen
MPG Max-Planck-Gesellschaft

¹ estimation Wissenschaftsstatistik 2008, Stifterverband

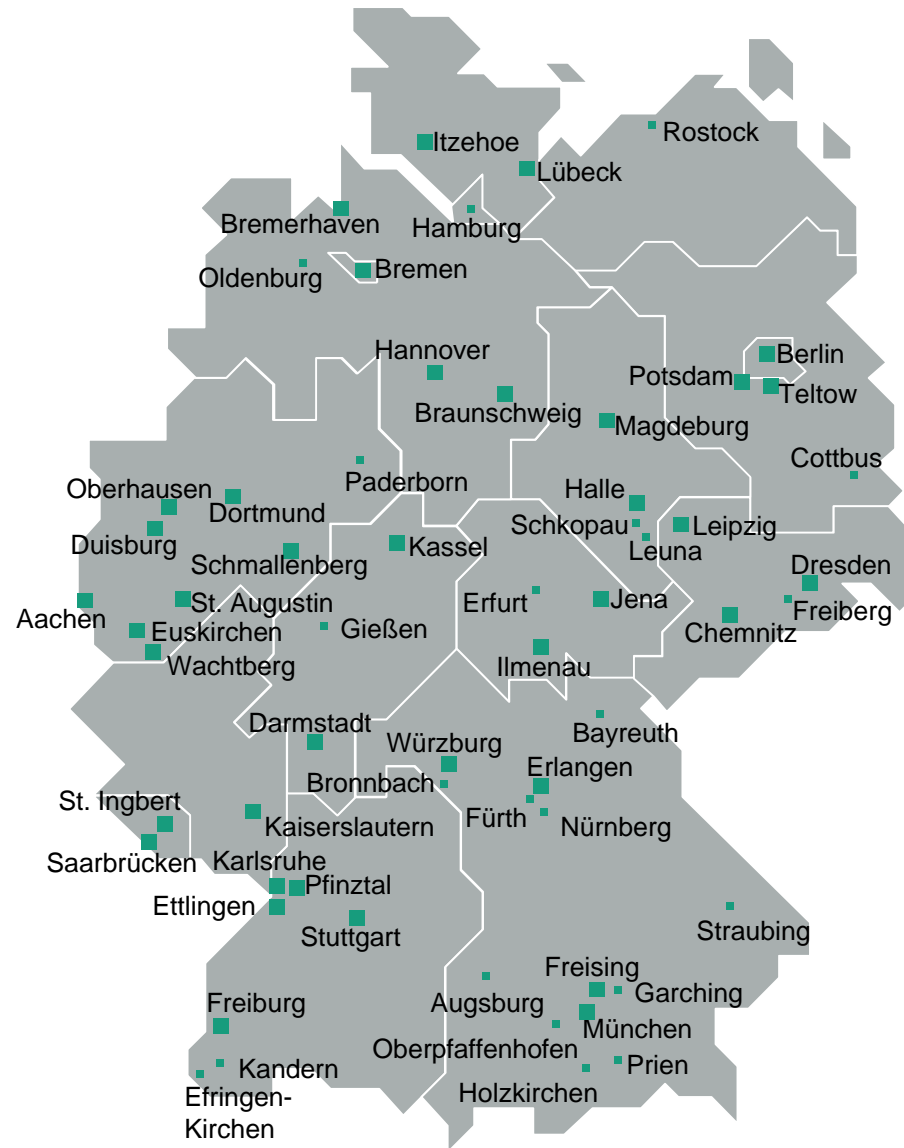
² 2008

³ 2009

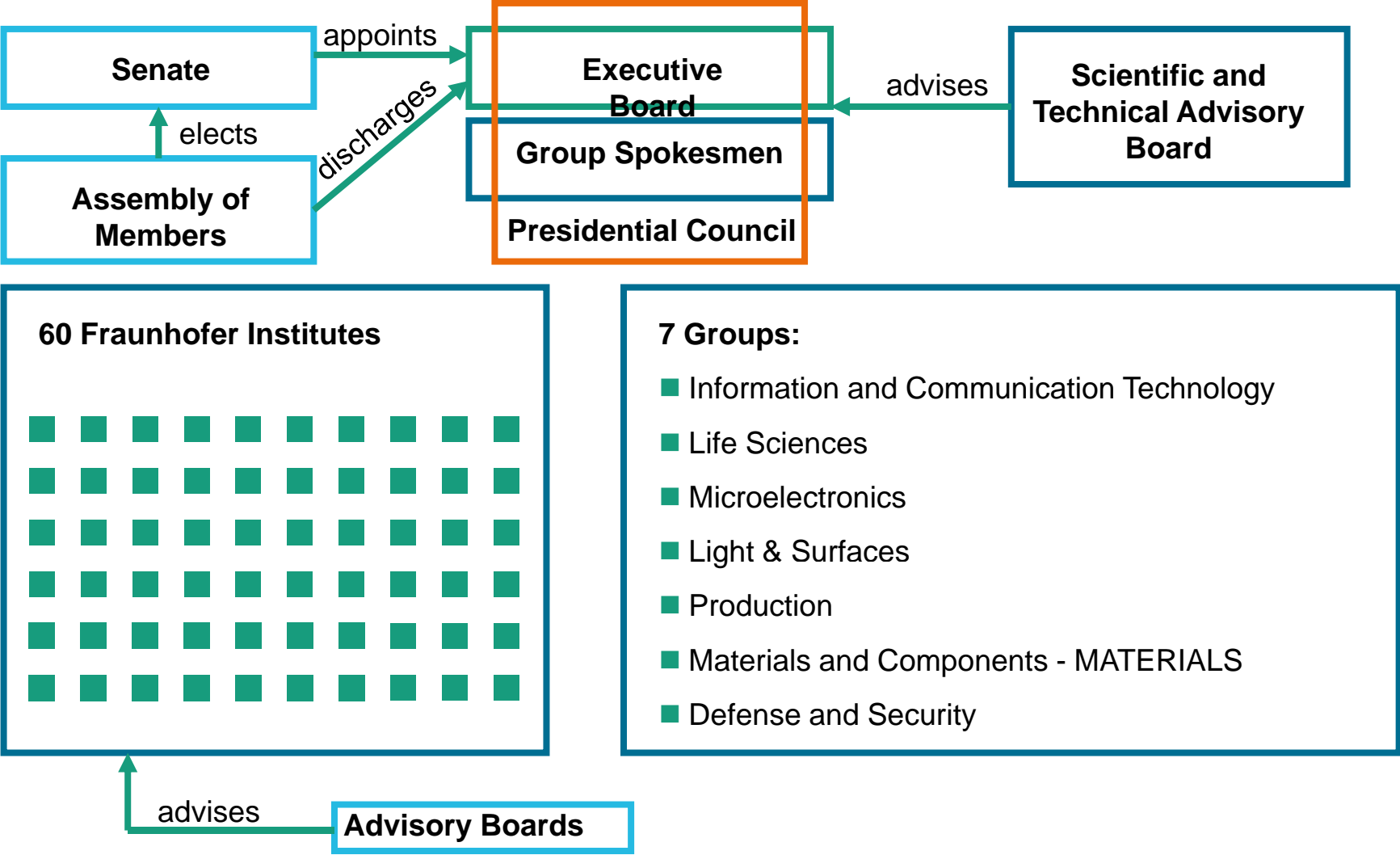
Source: Stifterverband für die Deutsche Wissenschaft, Destatis

2. Fraunhofer at a glance

- Largest organisation for applied research in Europe
- 60 Institutes in Germany (at around 80 sites)
- more than 18,000 employees
- Around 1.8 bn € (annual budget 2011) of which 1.4 b€ is self-generated income (contracts research)
- 6 subsidiaries (legal entities) in USA, Chile, Portugal, Austria, Italy, UK
- Project groups and representative offices worldwide



2. Fraunhofer at a glance (Structure of the Fraunhofer-Gesellschaft)



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2. Fraunhofer at a glance

Independence and responsibility of the Fraunhofer Institute (core business is there)



- Legally not independent
- Project result
- Standing in the scientific community
- Financing
 - Approx. 35% basic financing
 - Approx. 65% from the market

- Area of research emphasis
- Allocation of resources
- Project acquisition
- Project management

2. Fraunhofer at a glance

Cooperation between Universities and Fraunhofer

**Institutional integration by dual appointment:
Fraunhofer Institute director = University professor (chair)**

Fraunhofer Institute

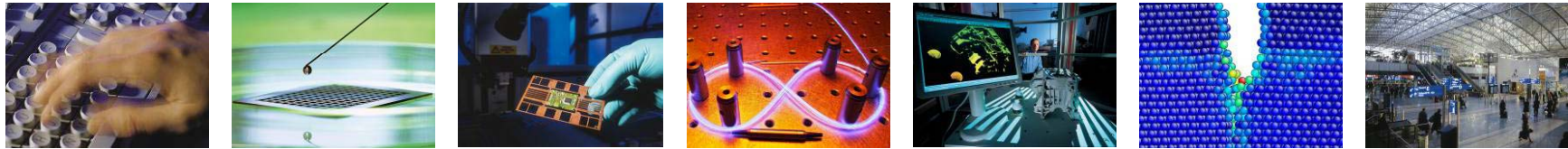
- access to basic research
- recruitment of junior scientists
- recruitment of students (interns, undergraduates)
- opportunities for employees to gain scientific qualification (doctorate, professorship, contributing to the university's curriculum)

University Chair

- cooperation in industry-oriented projects; opportunities for interns, undergraduates and graduates to gain practical experience
- integration of practical applications into the curriculum
- access to cost-intensive equipment
- full academic recognition at University

2. Fraunhofer at a glance

Fraunhofer Profile 2011



60 Institutes

- > 18 000 employees
- > 1.8 billion € budget

7 Groups:

- Information and Communication Technology
- Life Sciences
- Microelectronics
- Light & Surfaces
- Production
- Materials and Components
- Defence and Security

3. Strategy and HR

Fraunhofer has to cope with some dilemmata



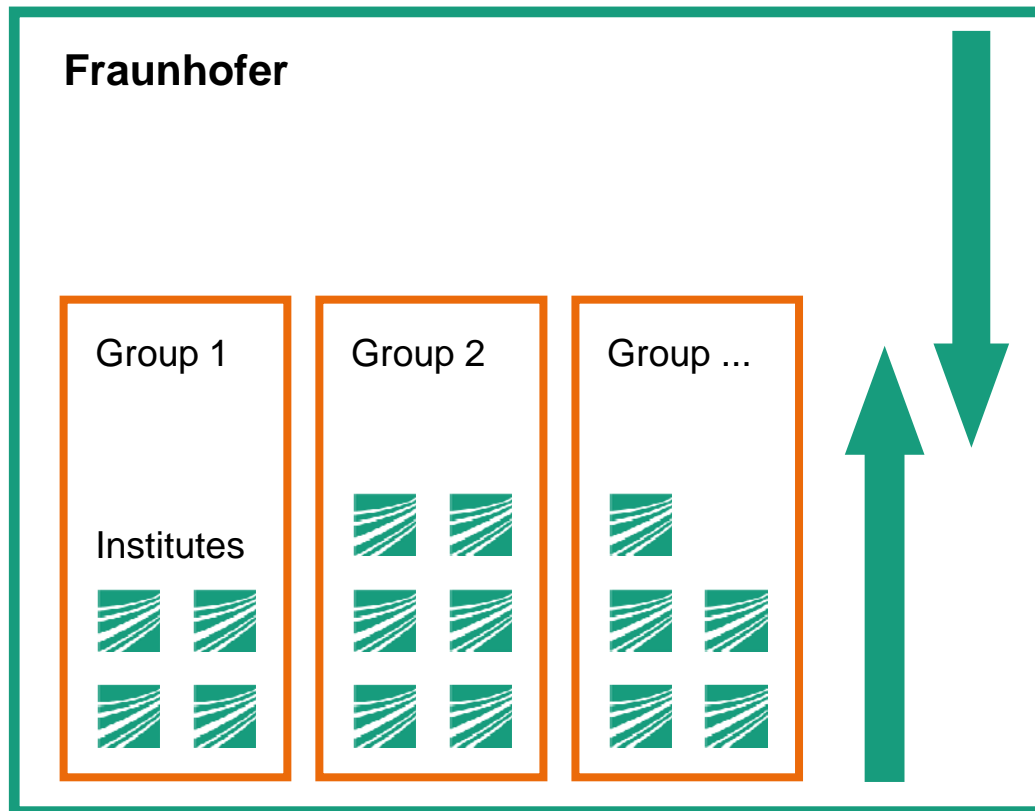
on the one hand

on the other

60 different institutes' cultures	↔	one corporate organisation
Autonomous research planning of the institutes	↔	harmonized R&D portfolio
marketing for contract research	↔	250 business fields and 400 core competencies
Excellent research	↔	Strong orientation towards application

3. Strategy and HR

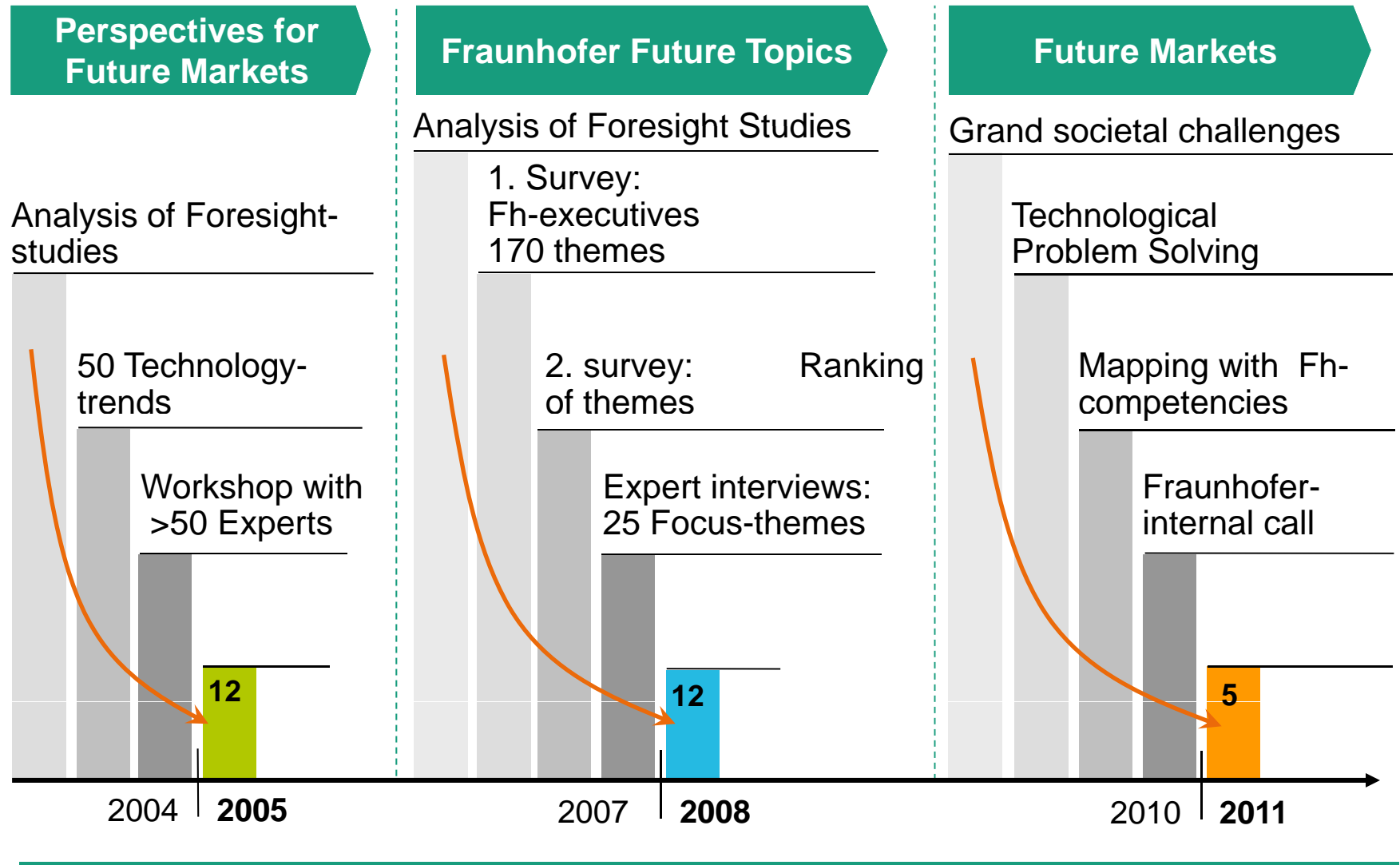
Fraunhofer has three levels for strategy planning



- **Corporate level** moderates overarching topics with a corporate portfolio process
- **7 groups** of institutes communicate common competencies
- **60 institutes** define individual strategies (real life)

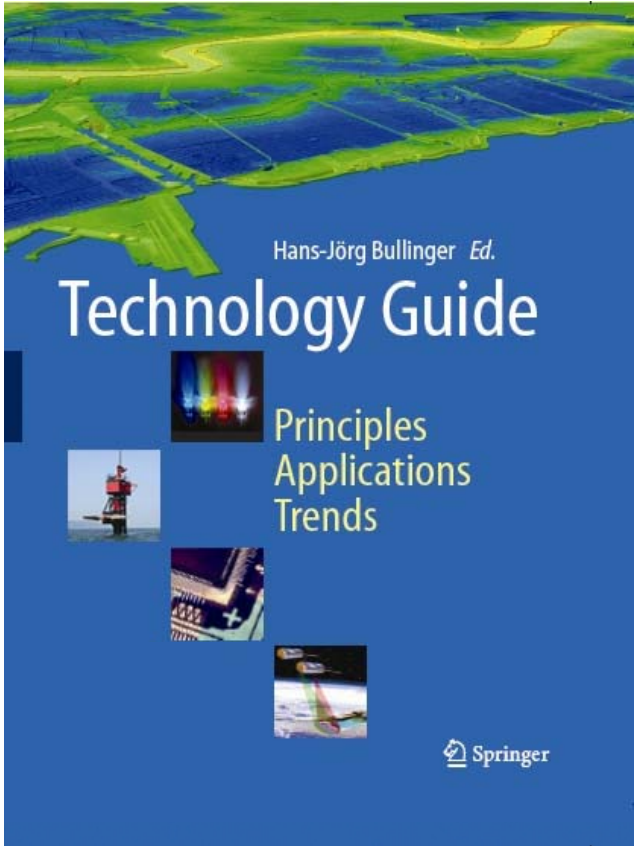
3. Strategy and HR

Three processes in the past: Corporate Level; well established cycles



3. Strategy and HR

From a draft paper to a published book



13 fields

1. **Materials and components**
2. **Elektronics and photonics**
3. **Information and communication**
4. **Life sciences and biotechnology**
5. **Health and nutrition**
6. **Communication and knowledge**
7. **Mobility and transport**
8. **Energy and resources**
9. **Environment and nature**
10. **Building and living**
11. **Lifestyle and leisure**
12. **Production and enterprises**
13. **Security and safety**

100 technologies

- ...
- 8.7 **Bioenergy**
- 8.8 **Solar energy**
- 8.9 **Fuel cells and hydrogen technology**
- ...

3. Strategy and HR

The third process: How to address Global Challenges?

- Address problems instead of technologies
- Involve intellectual resources of many Fraunhofer scientists
- Bring together different knowledge domains
- Perform dedicated technological R&D projects (lighthouse projects)
- Combine the market competence on the institutes´ level



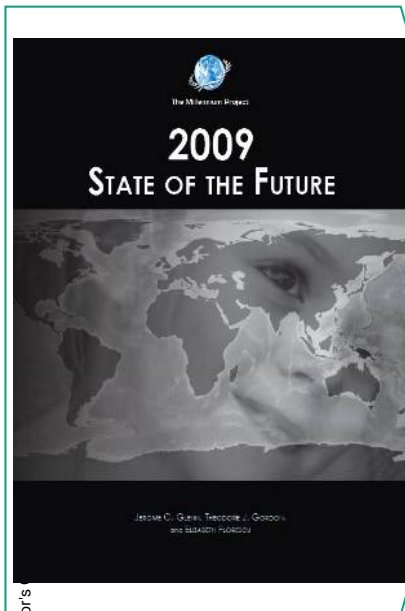
needs-oriented/demand-driven



3. Strategy and HR

A UN-Study served as the basis of deriving Fraunhofer topics

Source



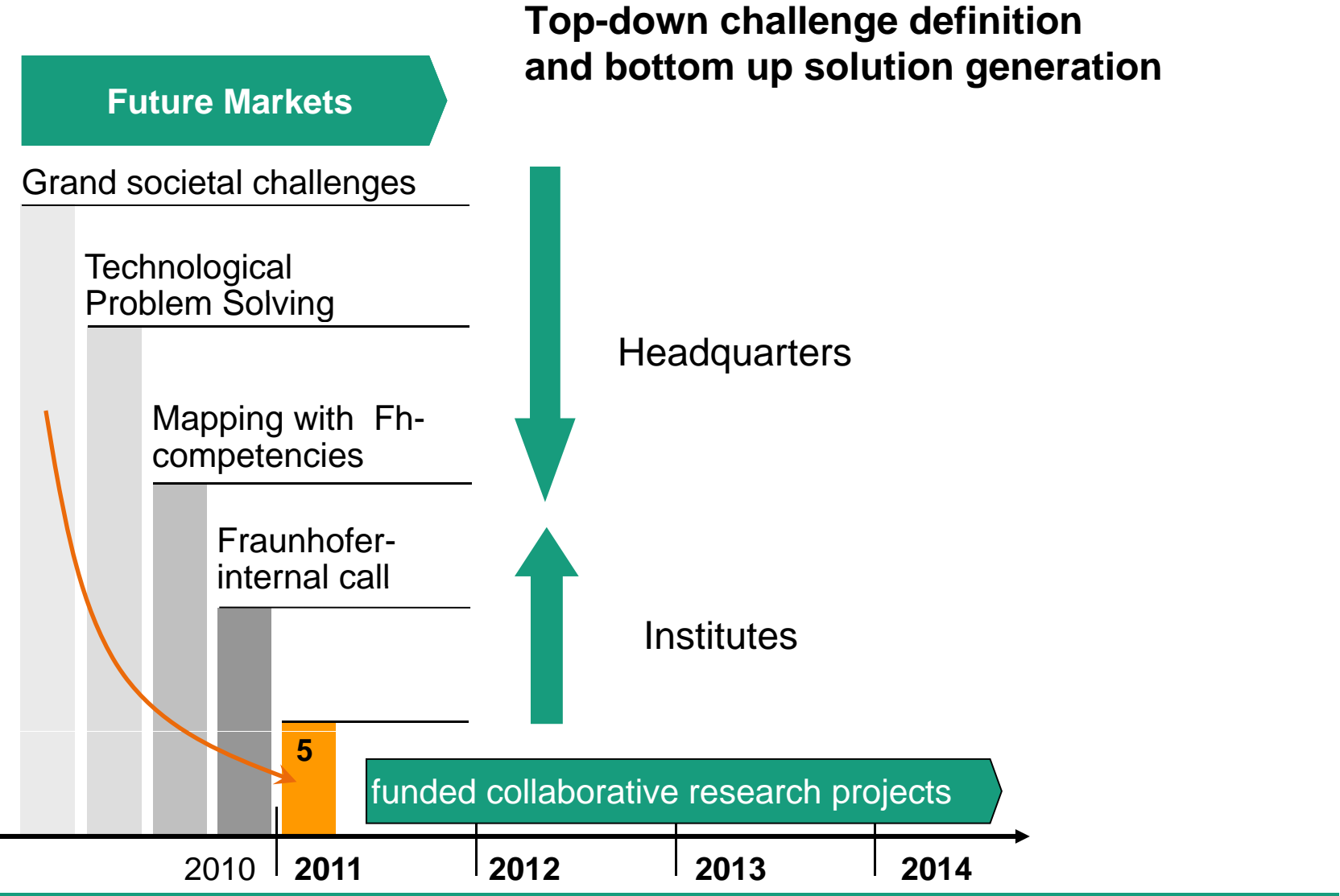
15 Challenges

1. Sustainable Development
2. Clean water
3. Population and resources
4. Democratization
5. Long term perspectives
6. Global convergence of IT
7. Rich - poor gap
8. Health issues
9. Capacity to decide
10. Peace and conflict
11. Status of women
12. Transnational organized crime
13. Energy
14. Science and Technology
15. Global ethics

Type of Study

- established source »World Federation of UN Associations«
- 280 international experts in 32 teams
- in depth description of challenges
- description of technological solutions
- annual adaptation of content (14th issue)

3. Strategy and HR

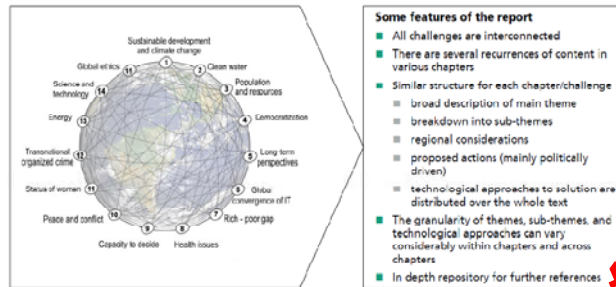


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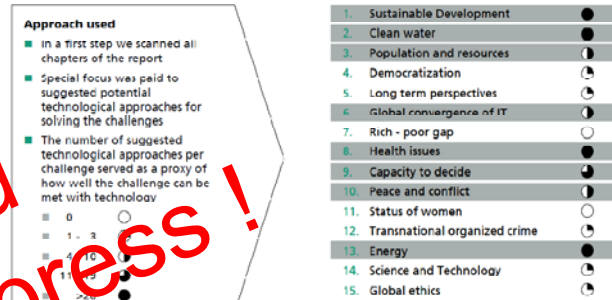
3. Strategy and HR

Structured analysis of challenges and associated technologies

The State of the Future report serves as the basis for Fraunhofer Future Topics

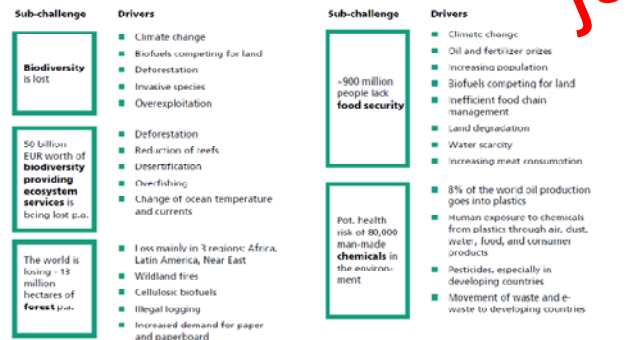


8 out of 15 grand challenges seem to be sufficiently addressable with technology

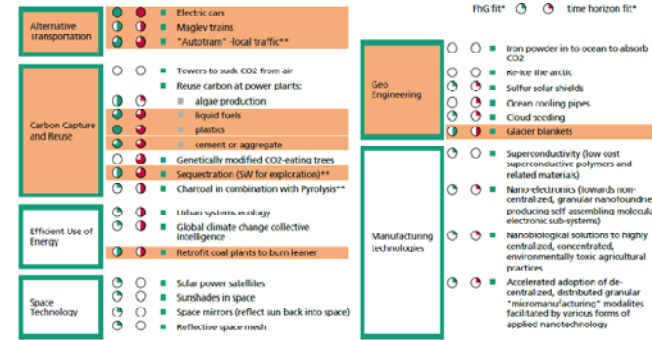


not to read just to impress!

1. How can sustainable development be achieved for all while addressing global climate change?



1. Sustainable Developments – Technological Approaches



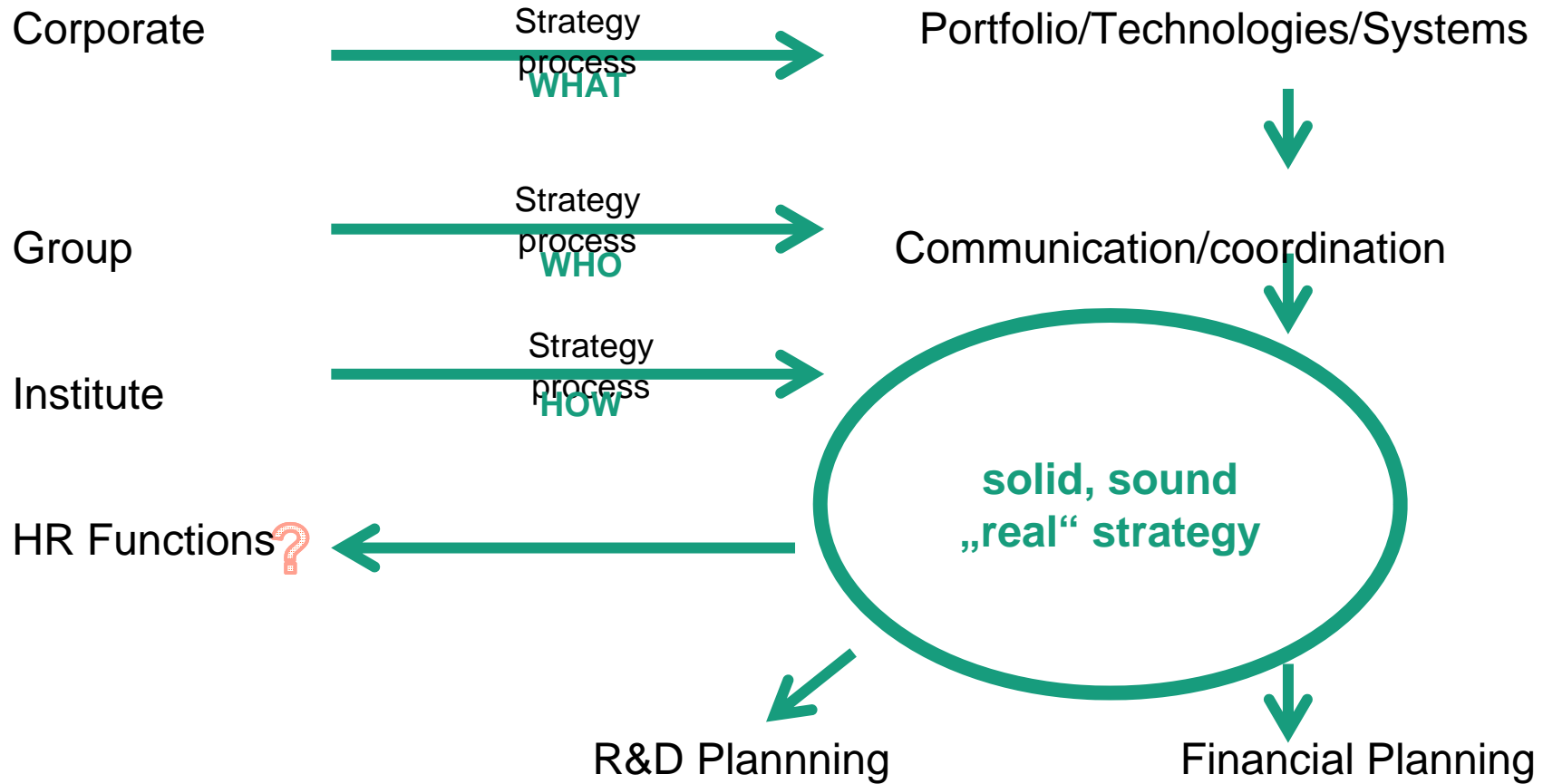
3. Strategy and HR

Three Additional important activities are under way:

1. Fraunhofer 2025: wide-spread foresight project with seven sub-topics.
One of them is ***Employer Attractiveness (results in December 2011)***.
2. Fraunhofer ***Sustainability concept (in 2012)***
3. Questionnaire (employee satisfaction survey), submitted to ***ALL employees (results in spring 2012)***

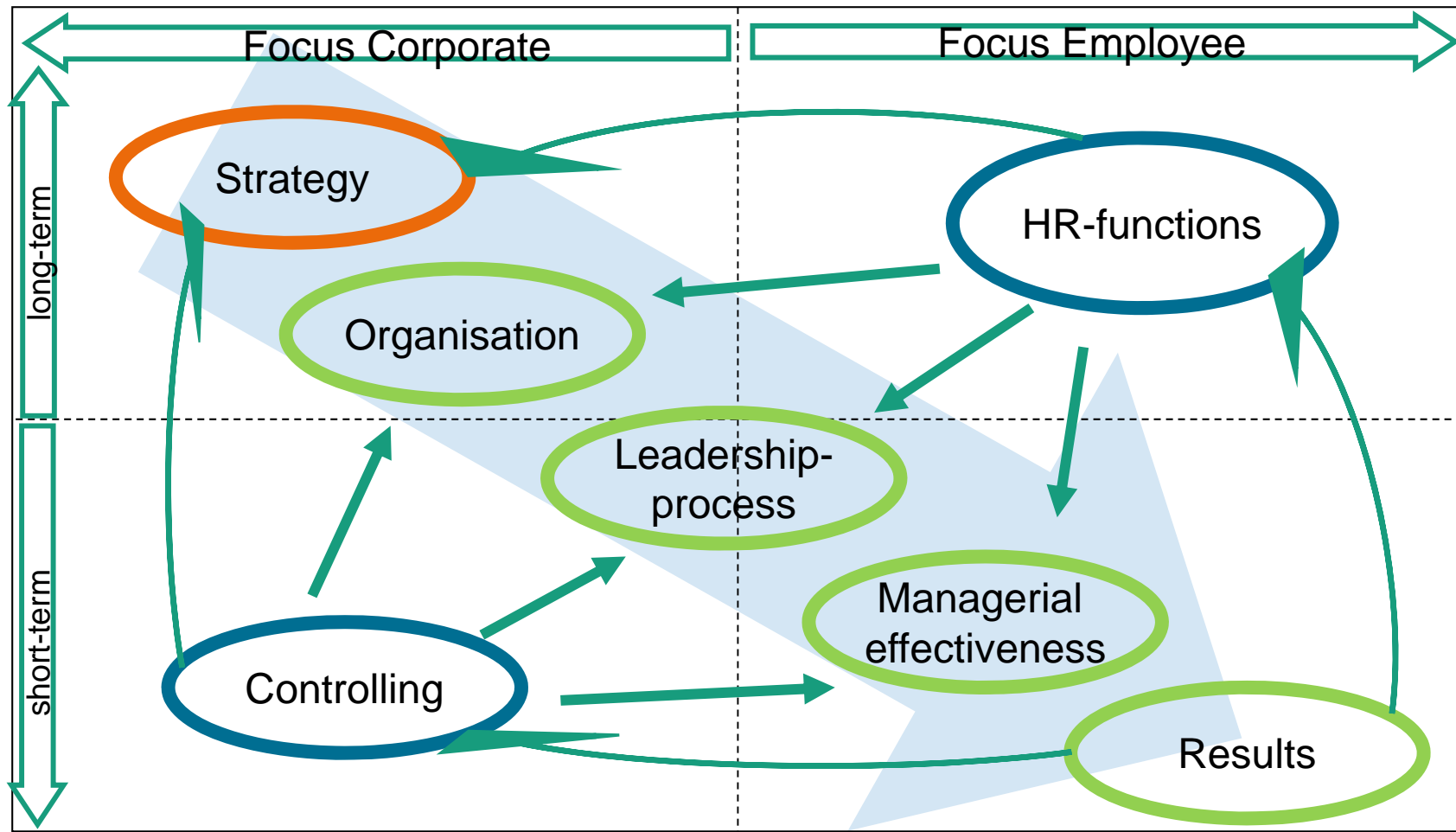
Strategy and HR

Role of HR in strategy process (simplified)

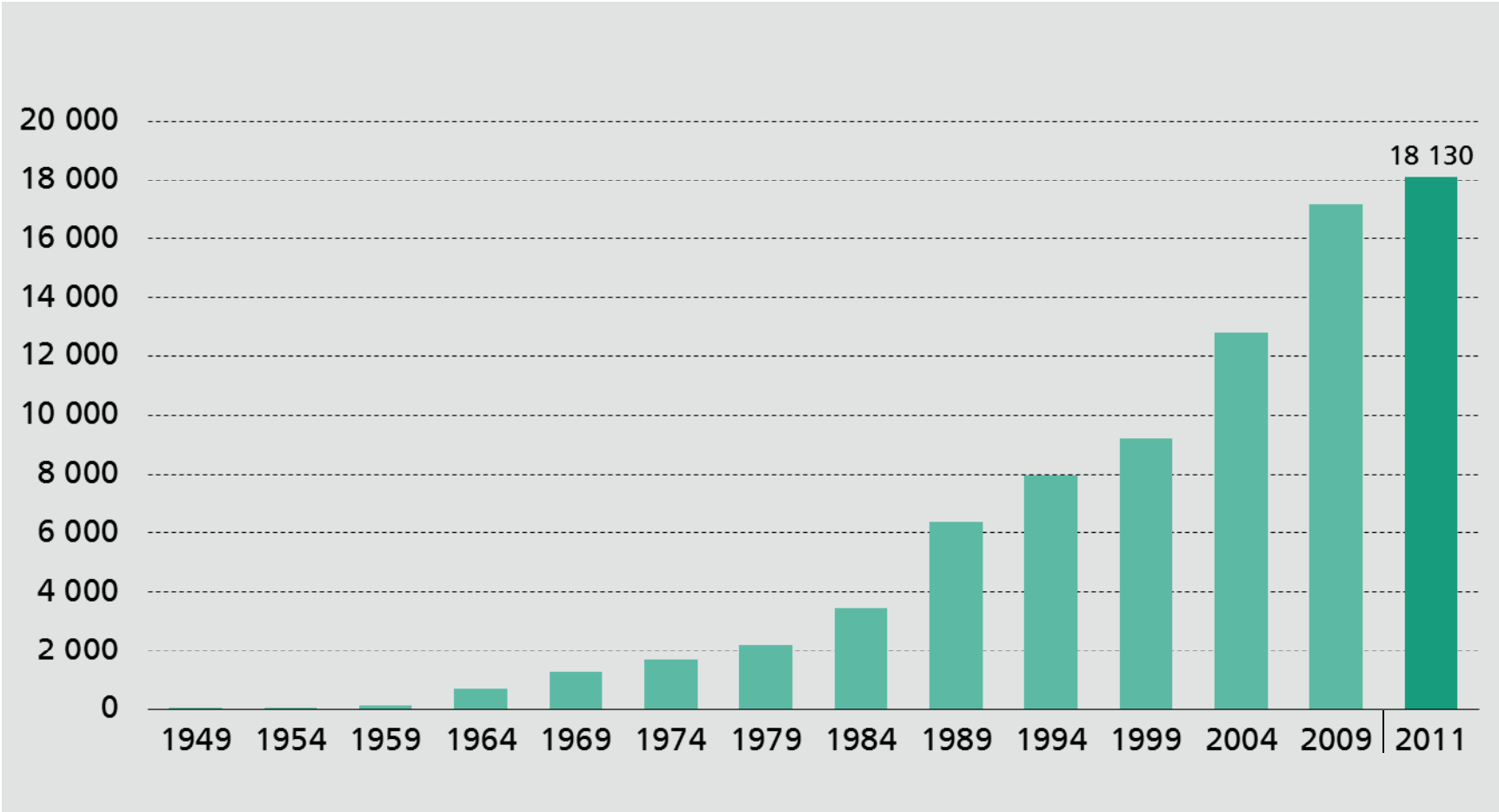


4. Integrated HR-Management

Integrated Management Model (derived from Malik, St.Gallen, CH)
From Strategy to results



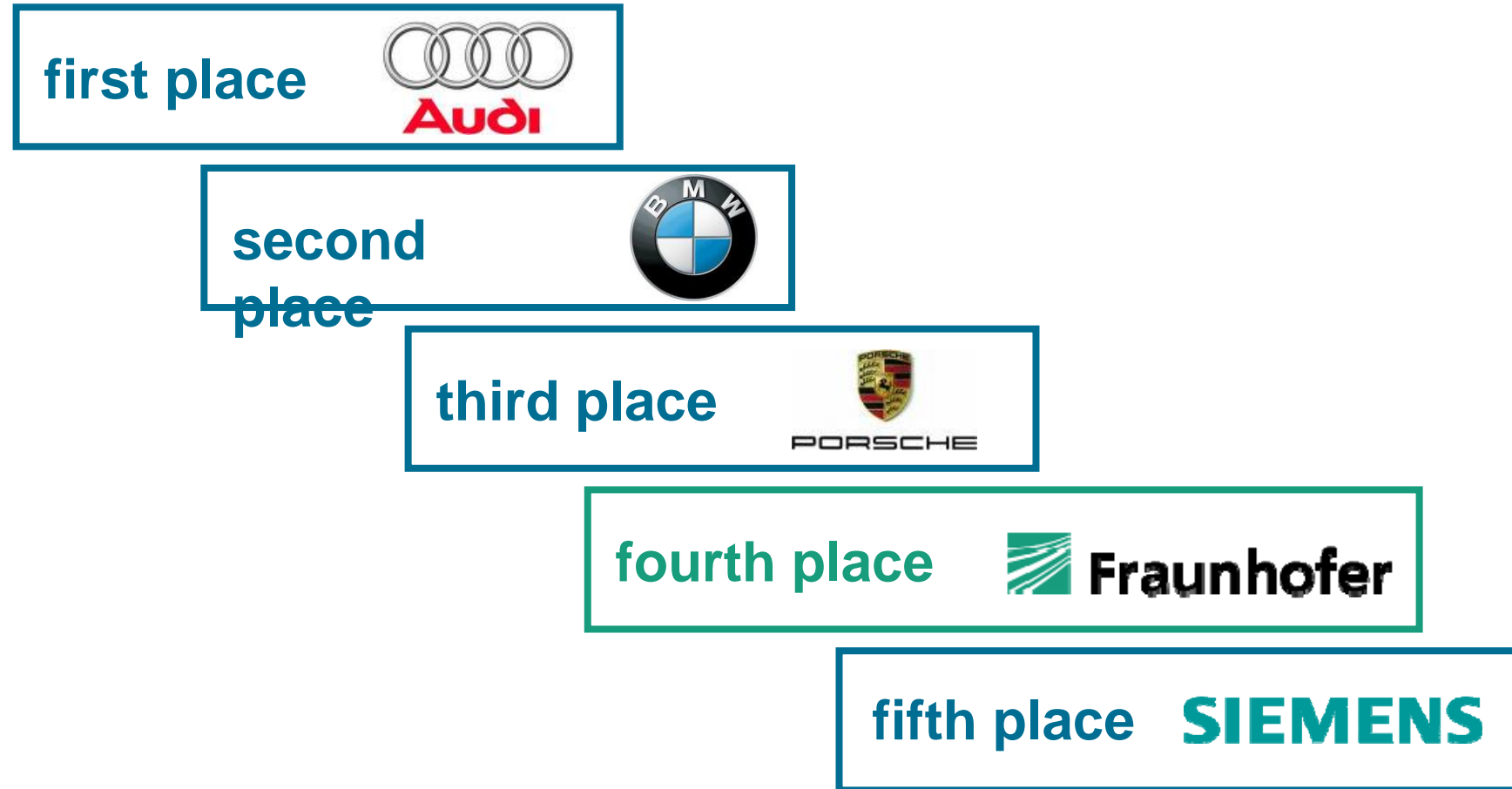
4.1 HR in Fraunhofer



4.1 HR in Fraunhofer: not too bad

Fourth place for Fraunhofer in the ranking of employers

Universum Survey of Students 2011



Quelle: Universum Communications, Stand Mai 2011

4.1 HR in Fraunhofer

Fraunhofer attracts the best

The most popular employers among elite students*

Universum Survey of Students 2011



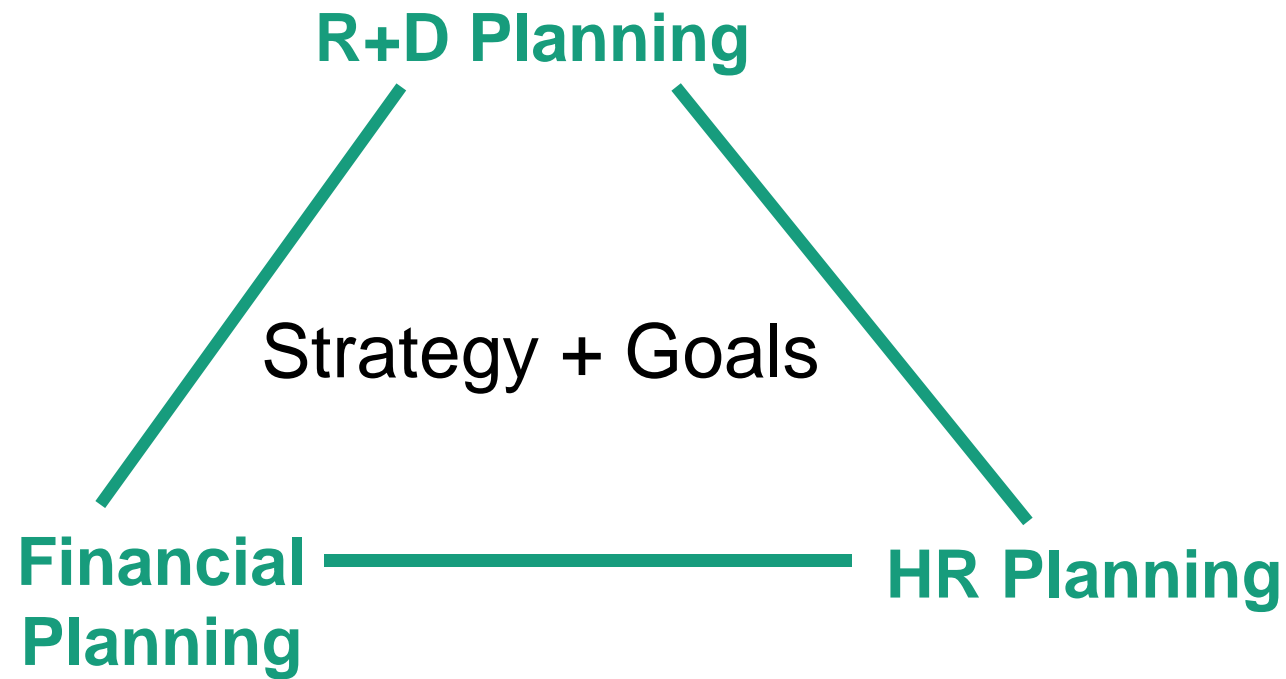
Natural sciences	Computer science	Engineering
1. Max-Planck-Gesellschaft	1. Google	1. Audi
2. Fraunhofer-Gesellschaft	2. Microsoft	2. BMW
3. Bayer	3. IBM	3. Porsche
4. BASF	4. Apple	4. Siemens
5. Roche Diagnostics	5. SAP	5. Daimler
6. Novartis	6. Siemens	6. Volkswagen
7. DLR	7. BMW	7. Fraunhofer-Gesellschaft
8. Merck	8. Audi	8. Robert Bosch
9. Boehringer Ingelheim Ph.	9. Fraunhofer-Gesellschaft	9. EADS
10. Siemens	10. Intel	10. Lufthansa Technik
11. Munich Re	11. Porsche	11. DLR
12. Ratiopharm	12. BND	12. ThyssenKrupp

Quelle: Universum Communications, Stand Mai 2011

*the best 25% of a graduating class

4.2 Integrated HR-Management

Goal: HR-Management is integral part of „strategy to results“ process (on all levels)



4.2 Integrated HR-Management

HR Project: Integrated HR-Management at Fraunhofer

Phase 1: Analysis of status quo and SWOT analysis



Phase 2: Recommendations and measures

Phase 3: Structure and application

4.2 Integrated HR-Management, the Project

Analysis of status quo of all HR functions, such as:

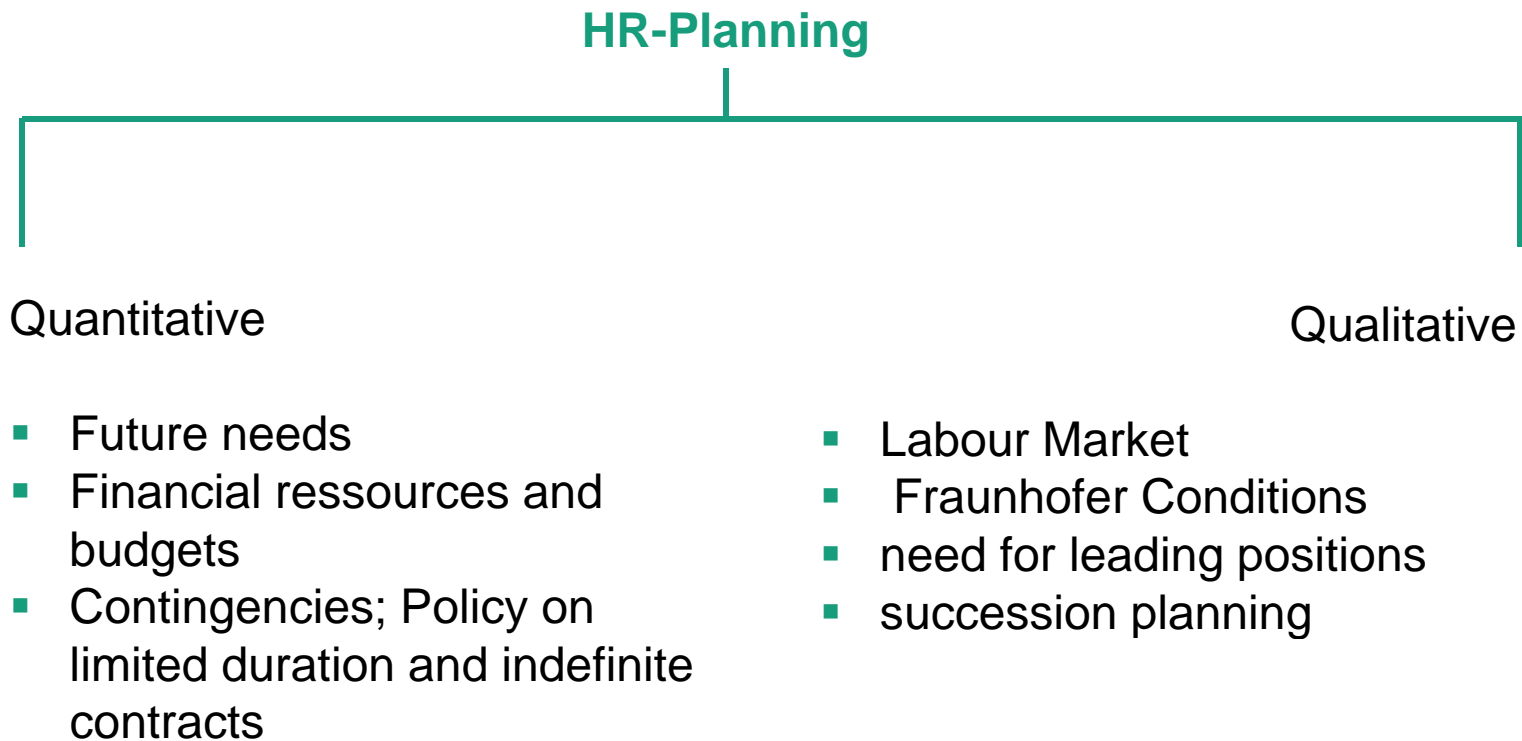
- Planning
- Development
- Recruiting
- Services
- Labor law and Corporate Governance
- Leaders and top talents
- Controlling and reporting

Status as of today  requirements Recommendations
(measures and structure) 

SWOT-Analysis  Future
Decision and Application

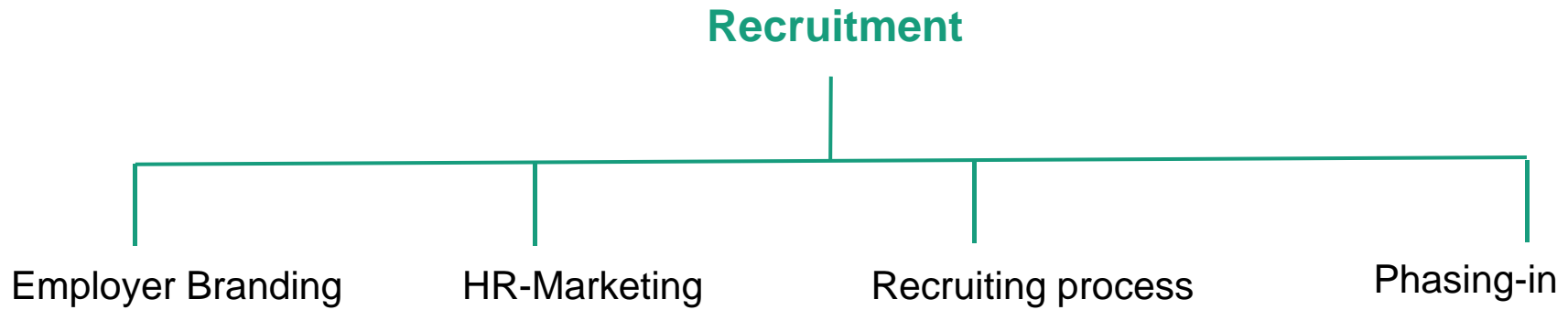
4.2 Integrated HR-Management

Focus: **Strategy and business development**



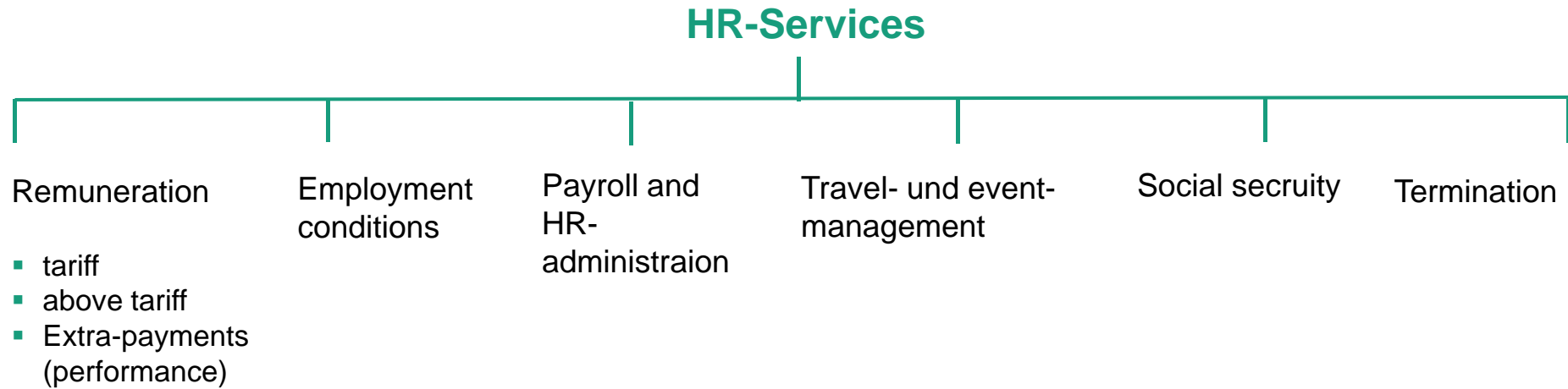
4.2 Integrated HR-Management

Fokus: fit for the future; competitiveness



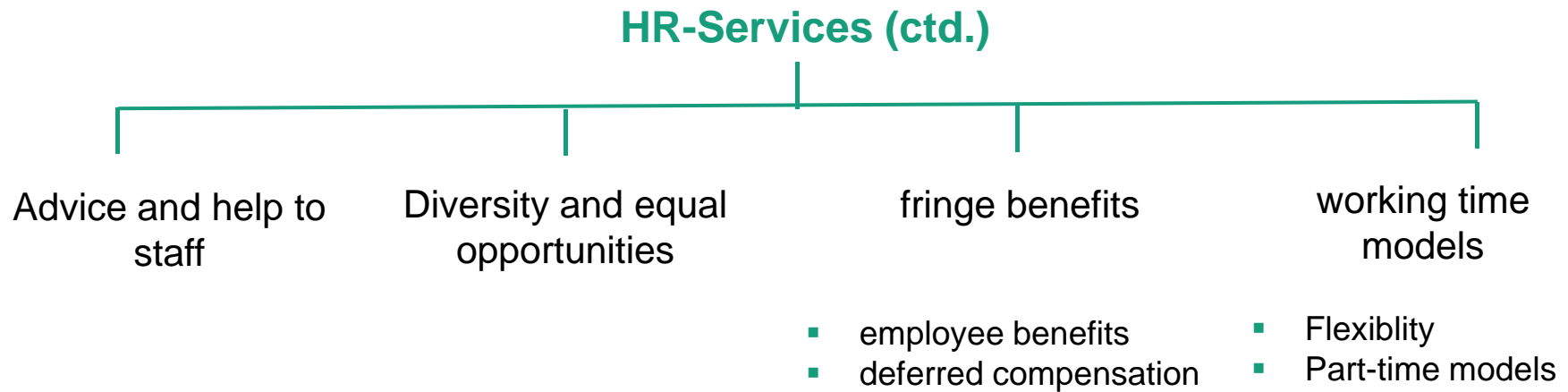
4.2 Integrated HR-Management

Fokus: **Employment**



4.2 Integrated HR-Management

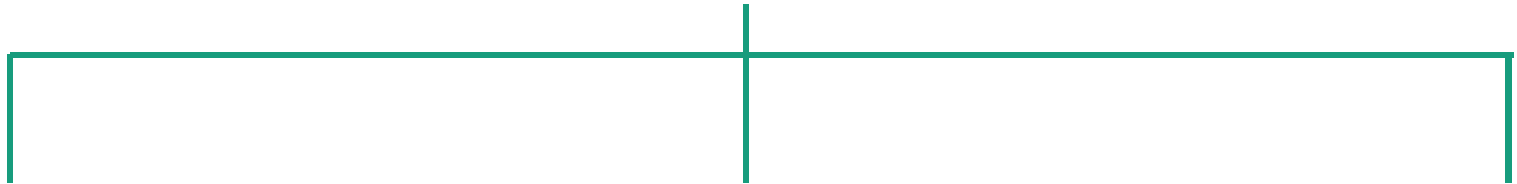
Fokus: relationship employer – employee (overlap)



4.2 Integrated HR-Management

Focus: **Competitiveness and labour law**

Framework and legal requirements



Laws and frame-
work conditions

individual labour law

collective labour law

- organisational development;
- corporate governacnce

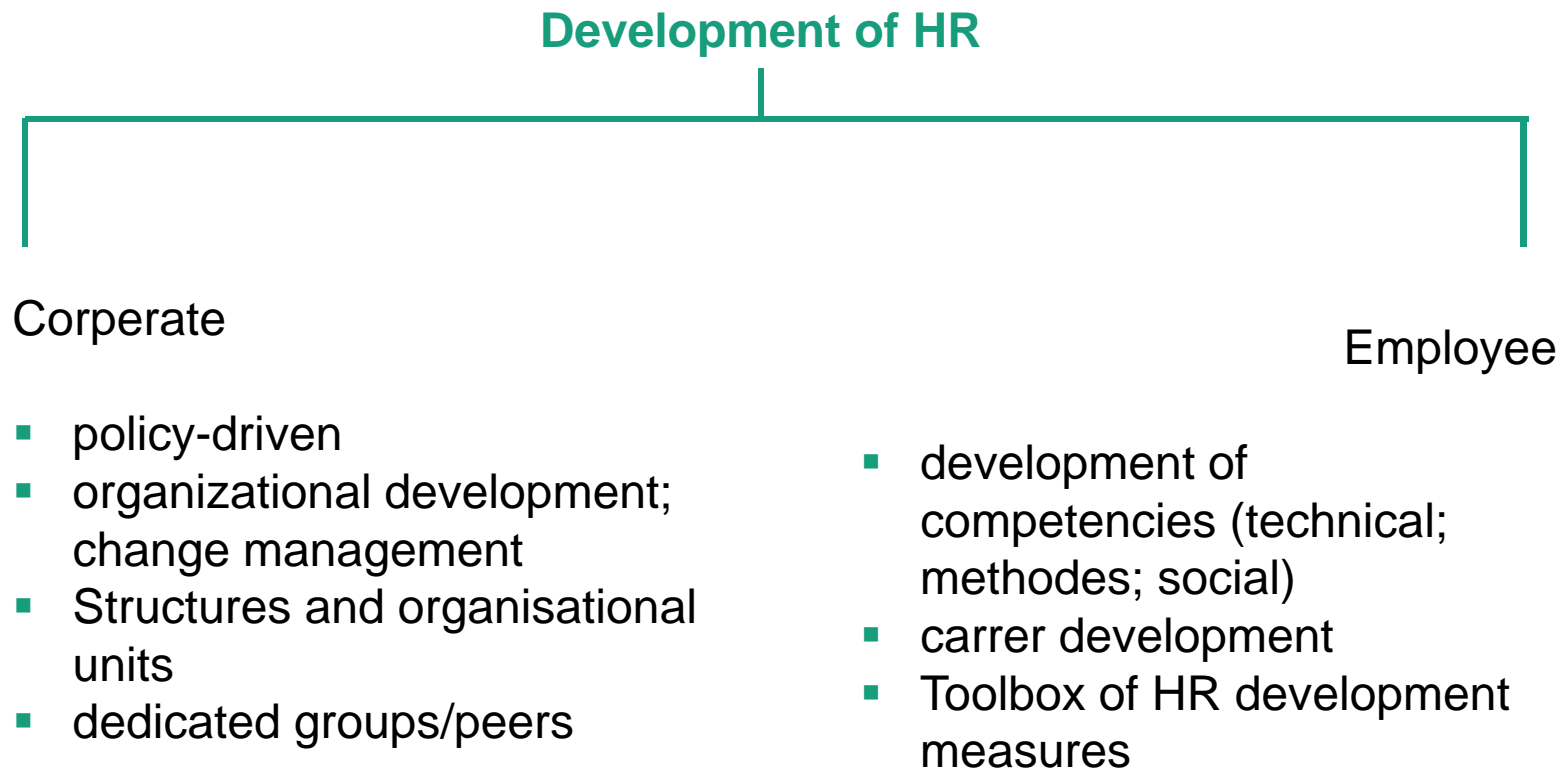
4.2 Integrated HR-Management

Focus: fit for future; key persons



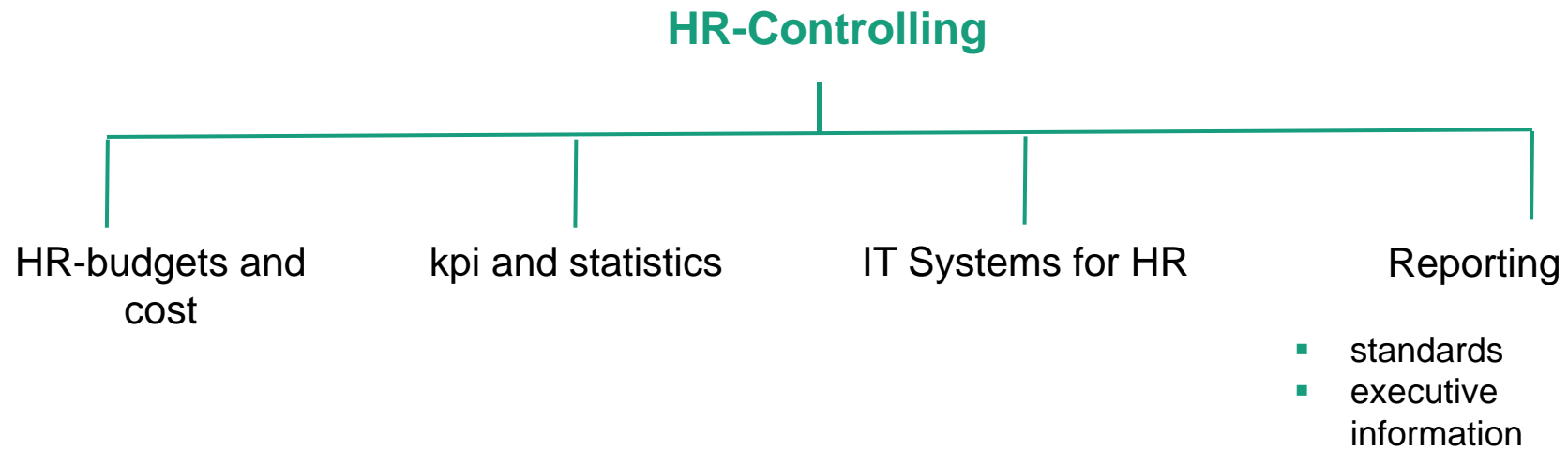
4.2 Integrated HR-Management

Focus: **over-arching all business functions**



4.2 Integrated HR-Management

Fokus: executive decisions and critical success factors



Thank you for your attention