
From research to innovation: How Fraunhofer spur knowledge and technology transfer



Georgian-German Day of Science

Tbilisi, 19 September 2016

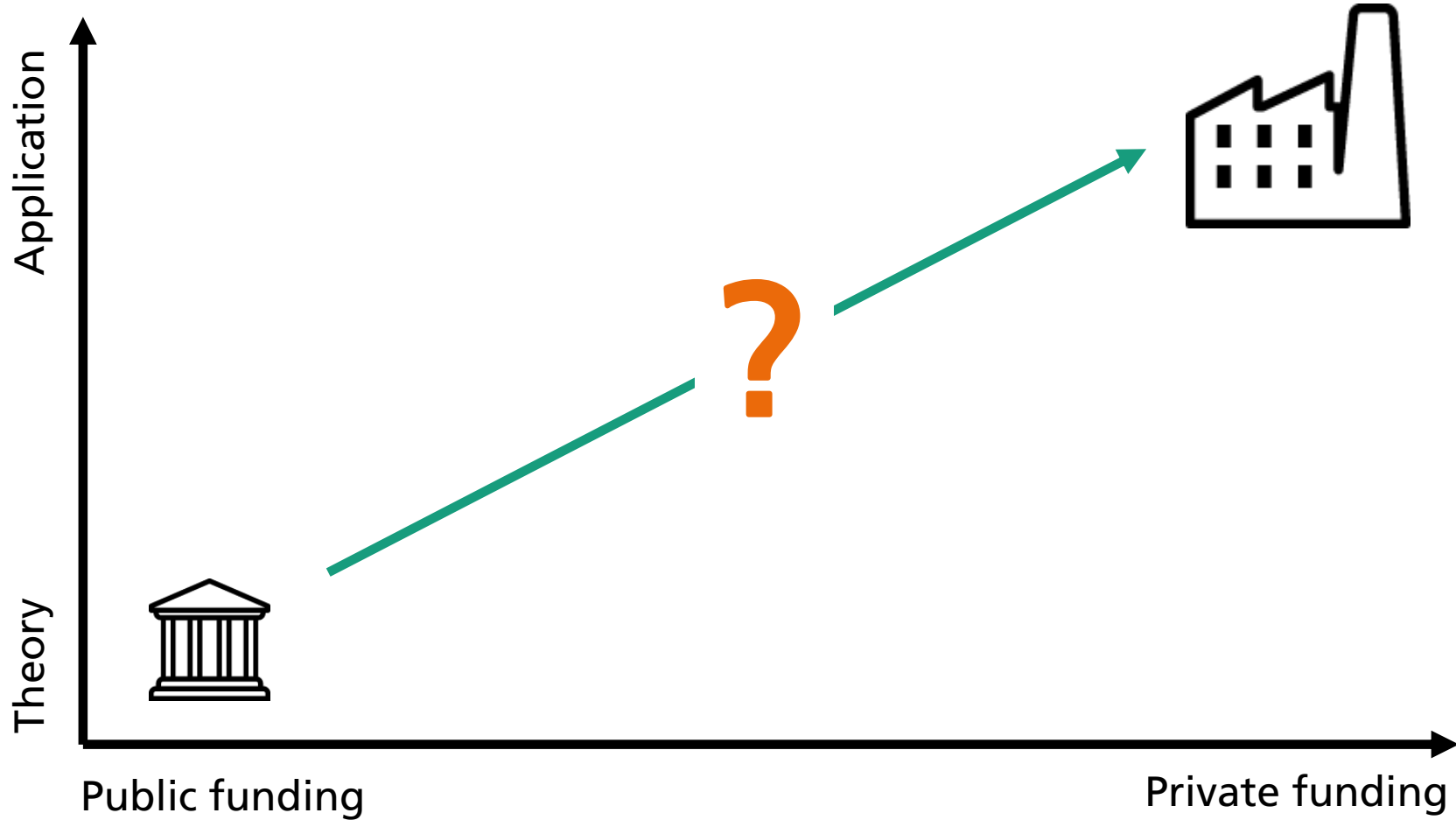
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Research and Business Acceleration

The German research and innovation system

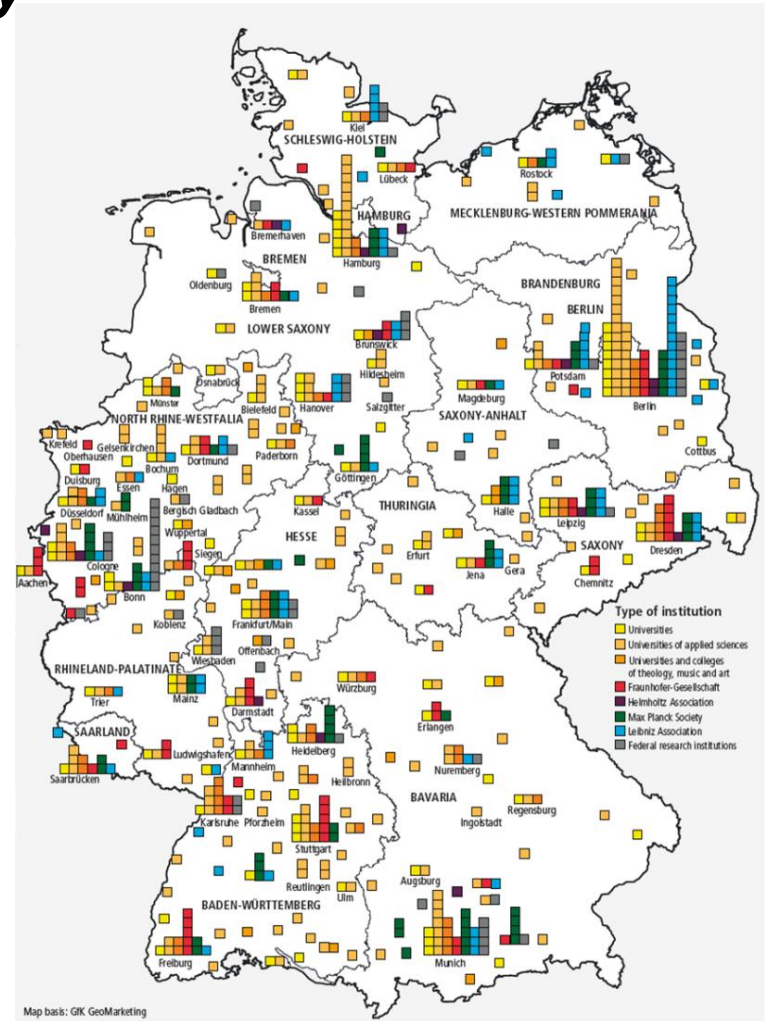
From science to industry



The German research and innovation system

Complementarities and Diversity

- 105 universities (incl. technical universities)
- 234 universities of applied sciences
- 67 Fraunhofer institutes
- 82 Max Planck institutes
- 89 Leibniz institutes
- 18 Helmholtz research centers



Source: DFG Funding Atlas 2012

The German research and innovation system

Key actors with a clear mission

Mission



Applied research

Application



Long-term research and infrastructure



Knowledge- und application-oriented **basic** research



Basic research



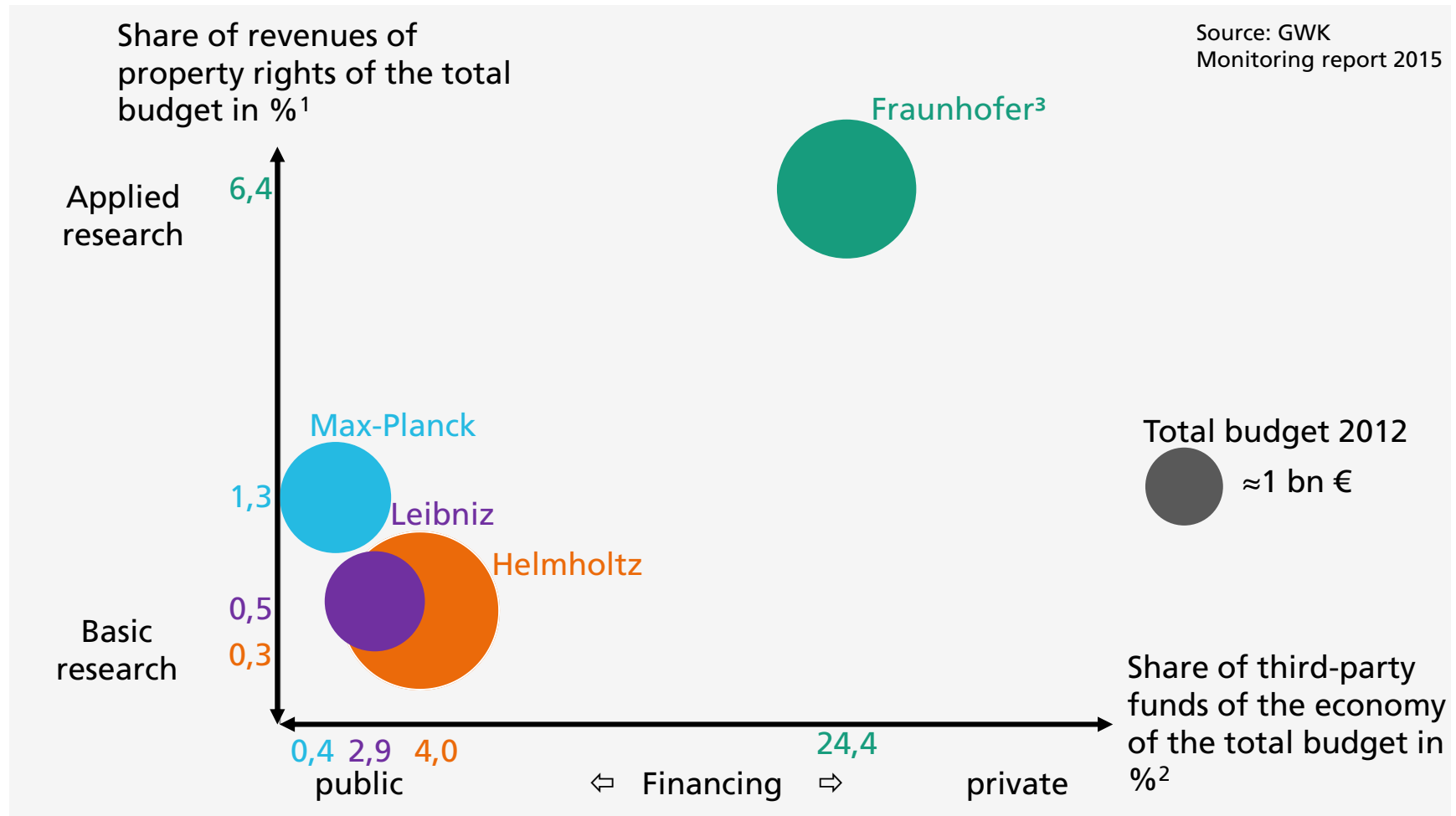
Universities

(Basic)research and **teaching**

Basic

The German research and innovation system

Positioning of the "Big Four"



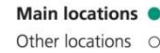
¹ Copyright, Know-how, Patents, Licenses, etc.

² Without revenues of property rights

³ Deviating from the presentation in the Fraunhofer annual report due to different demarcations

Europe's largest organization for applied research

- Institutes work as profit centers; approx. 1/3 of revenues comes directly from industry



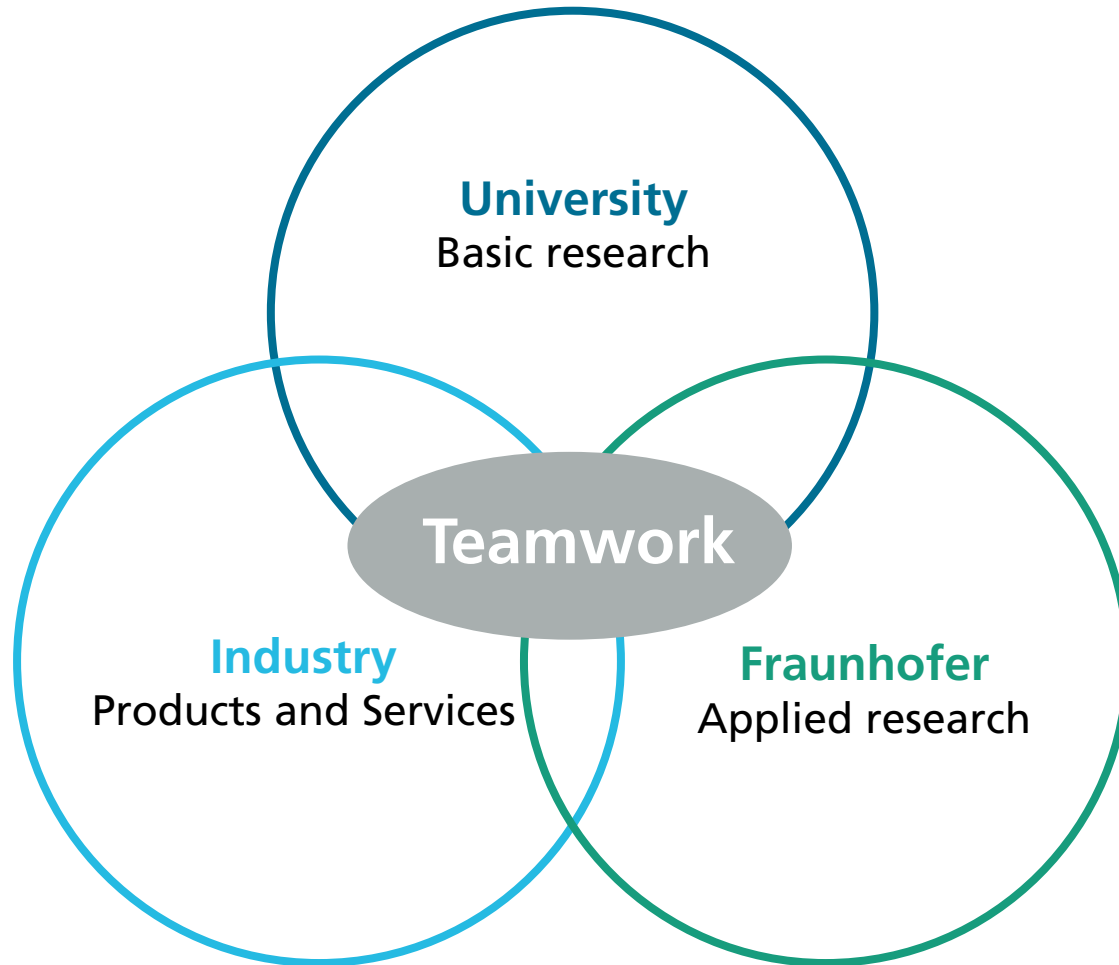
Fraunhofer's fields of research

More than 250 business fields and core competencies



Integration in the research and innovation system

Institutional framework



Creating science-based value chains

Fraunhofer's affiliation with universities

Main task of universities

- Research, teaching and education/advancement of young researchers

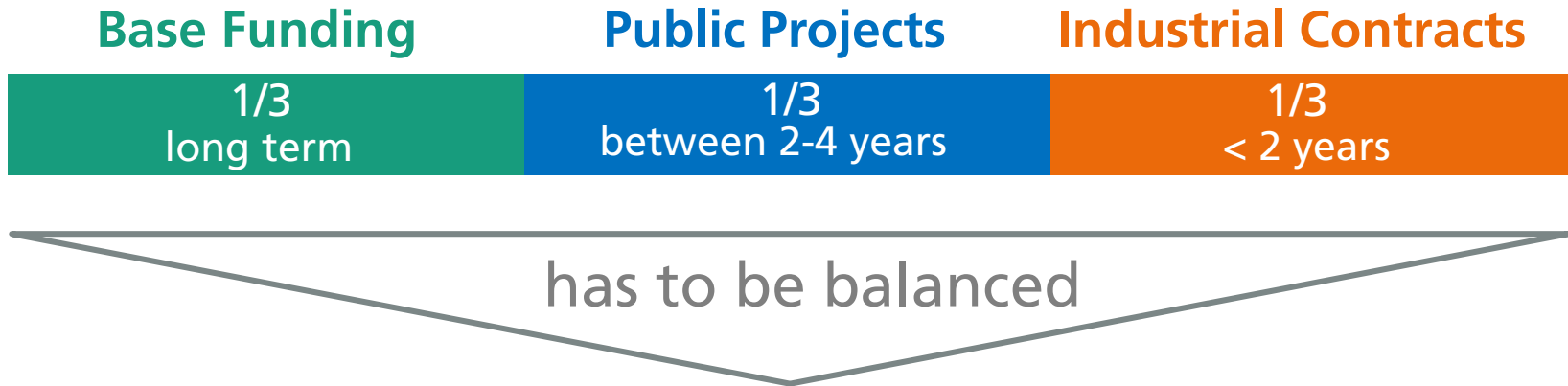
Development

- Strong acquisition of third-party funds (esp. DFG (German Research Foundation) and business sector; in part strong application orientation)

Cooperation with Fraunhofer

- Stock of 193 “joint appointments” in 2014, incl. institute directors
- Knowledge pool based on basic research
- Recruitment platform for student assistants, interns, diploma students, doctoral candidates for Fraunhofer

Fraunhofer Model



Base Funding: continuity of scientific excellence

Public Projects: precompetitive research (networks)

Industrial Contracts: direct innovation push

Fraunhofer Center for International Management and Knowledge Economy

Economics

Corporate
Development
in International
Competition



Knowledge and
Technology
Transfer



Sustainability
Management
and
Infrastructure
Economics



Technology

Health & Environment, Mobility &
Transportation, Production & Services,
Energy & Resources, Information &
Communication, Safety & Security



Human resources > 110

15 nations

30 languages

2.85 € mio. revenues

Int. funding: 40%

Internationalization in the Global Knowledge Economy

Our research lines

Corporate Development in International Competition

Research and Business Accelerator

Business Models: Engineering and Innovation

Price and Services Management

Professional Development and Competence Management

Regional Positioning and Location Development

Knowledge and Technology Transfer

Professionalization of Transfer Processes

Innovation Financing

Competitive Intelligence

International Innovation Policies

Entrepreneurship and Innovation for Development Cooperation

Sustainability Management and Infrastructure Economics

Energy Management and Energy Economics

Stakeholder Dialogue and Social Acceptance

FRAUNHOFER-ZENTRUM FÜR INTERNATIONALES MANAGEMENT UND WISSENSÖKONOMIE

FRAUNHOFER CENTER FOR INTERNATIONAL MANAGEMENT AND KNOWLEDGE ECONOMY

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