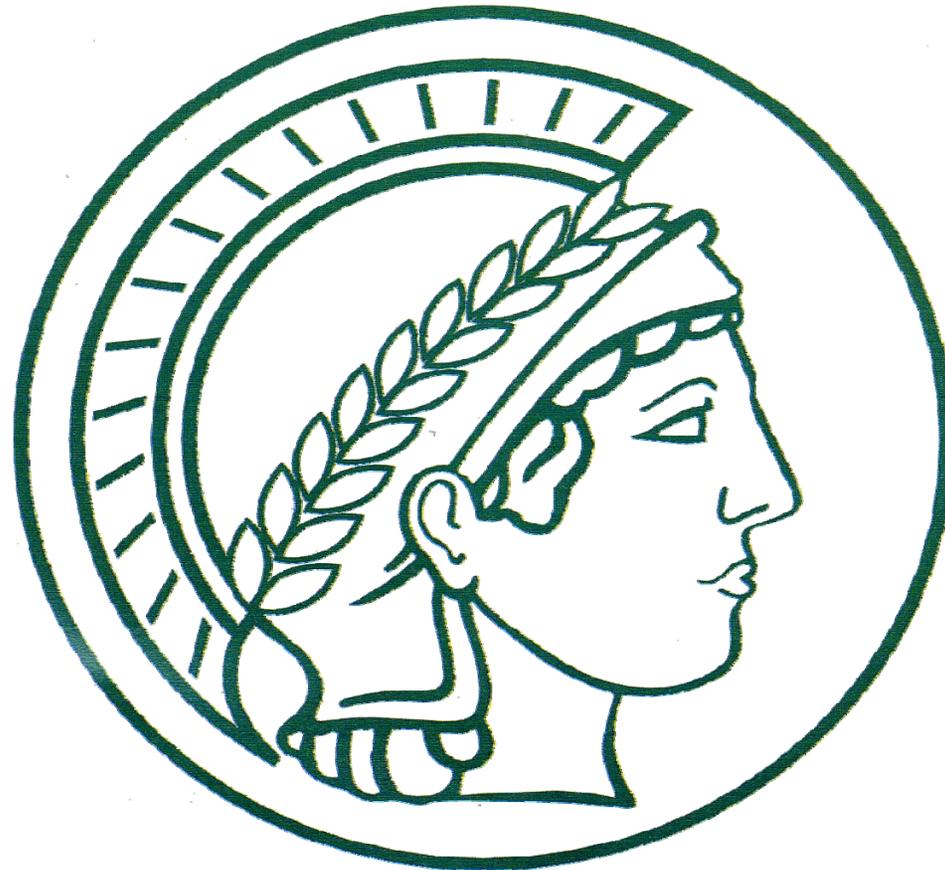


Max Planck Society



Max Planck Society

Science policy and research evaluation in Germany: Country update - MPG perspective

Presentation at the meeting of the
“G8 Working Group on Research Assessment”,
November, 3-4th, 2008, Arlington

Dr. Helene Schruff

Head of the Department Institutional Development and Evaluation
Max Planck Society
Administrative Headquarters, Munich Germany



Max Planck Society

“ Knowledge
must precede application.”
- Max Planck -



- Advancing innovative and interdisciplinary research at the frontiers of knowledge
- Providing competitive research conditions for excellent researchers
- Promoting young researchers and international cooperation



Max Planck Society

Agenda

- Max Planck Institute Florida
- Max Planck Institute for the Science of Light,
Erlangen/Nuremberg
Max Planck Research Groups at Universities
- CFEL – Centre for Free Electron Laser Science
Hamburg
- Pilot Study of the Science and Humanities Council:
Research Rating



Max Planck Society

- **Max Planck Institute Florida**
- Max Planck Institute for the Science of Light
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- Pilot Study of the Science and Humanities Council:
Research Rating



Visit of Governor Bush to Munich November 15, 2005



Florida Meets Bavaria



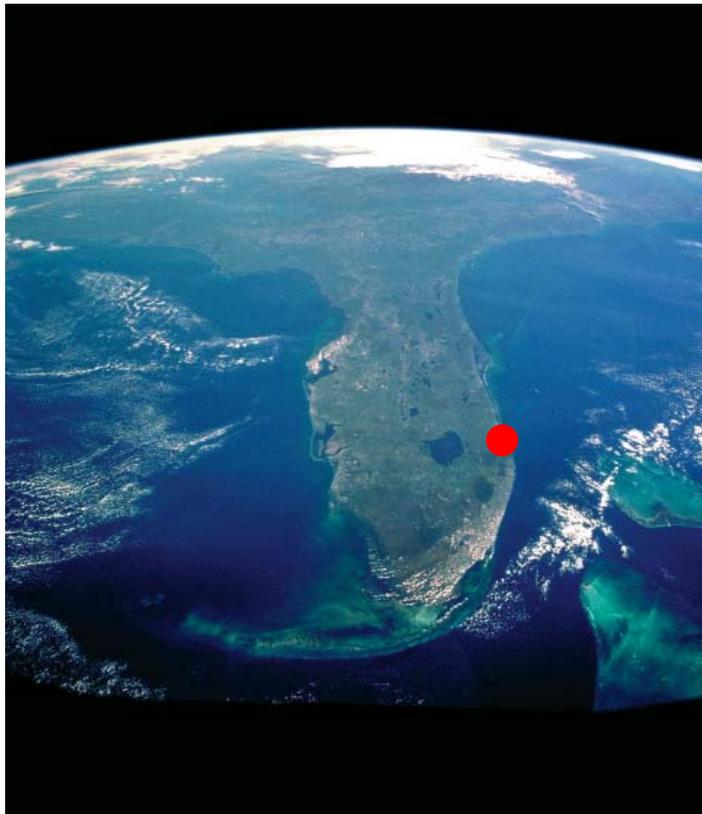
MAX-PLANCK-GESELLSCHAFT



Munich BioTech
Development



Max Planck Florida



- Initiative of the state of Florida for the strengthening of the economy:
Establishment of research facilities
- Financing:
County + State of Florida
(+ further funding: philanthropy/grants)
- Structure: **"Member Institute"**
governed by the Max Planck Society



Max Planck Florida



**Max Planck Florida Institute,
a Member Institute of the Max Planck Society**

- **Independent legal status: Max Planck Florida Corporation**
- **Independent financing** (US funding sources)
- **Guarantee of full scientific autonomy**
- **Use of MPS procedures for quality assurance**
- **Directors appointed as Scientific Members of the MPS**



Max Planck Florida



Max Planck Florida Institute: Funding sources

- "Start-up" grants approved
 - State of Florida: 94 Mio US\$
 - Palm Beach County: 87 Mio US\$
- Additional funding required:
 - Research Grants (NIH, NSF etc.)
 - Philantropy/Fundraising
- Self-sufficient operation after 10 years from today

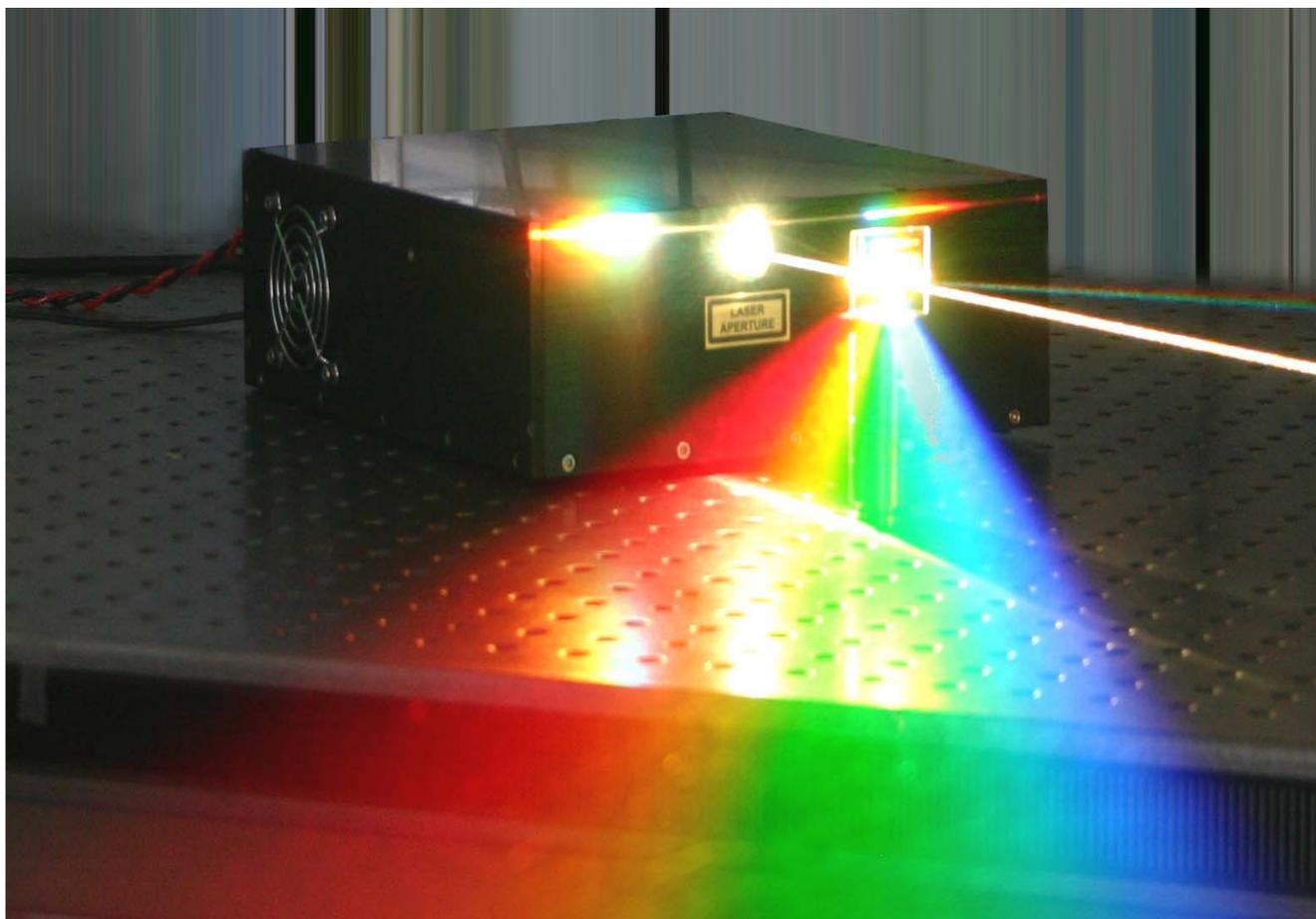


Max Planck Society

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Max Planck Institute for the Science of Lights



Max Planck Institute for the Science of Light

- The new institute is a product of the Max Planck Research Group for Optics, Information and Photonics.
- This Max Planck Research Group has been based at the University of Erlangen-Nuremberg for five years.
- It had three Group leaders, two of them becoming Max Planck directors now at the institute.
- The Max Planck Research Group at the university has thus been the nucleus for the new institute.



Max Planck Research Group (MPRG)

- MPRGs are an instrument to foster the cooperation between Max Planck Society and Universities.
- University faculties are supposed to be strengthened and become more attractive through a MPRG.
- Leaders of a MPRG are chosen by the usual Ex-ante process of the Max Planck Society .
- They are financed by the Max Planck Society.
- The founding of an Max Planck Institute out of a MPRG can be one objective.



Max Planck Society

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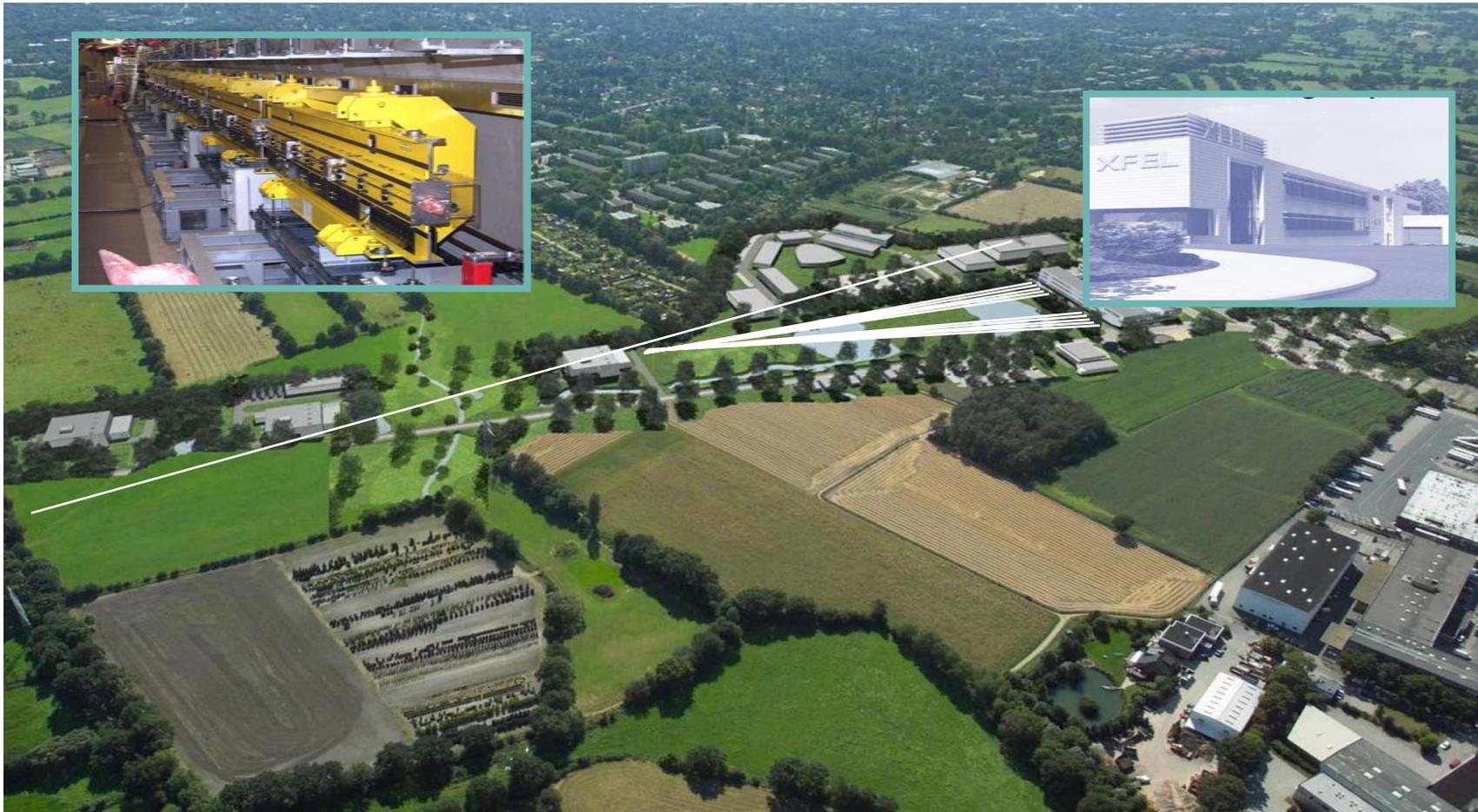
Max Planck Society

CFEL
Centre for Free Electron Laser Science,
Hamburg

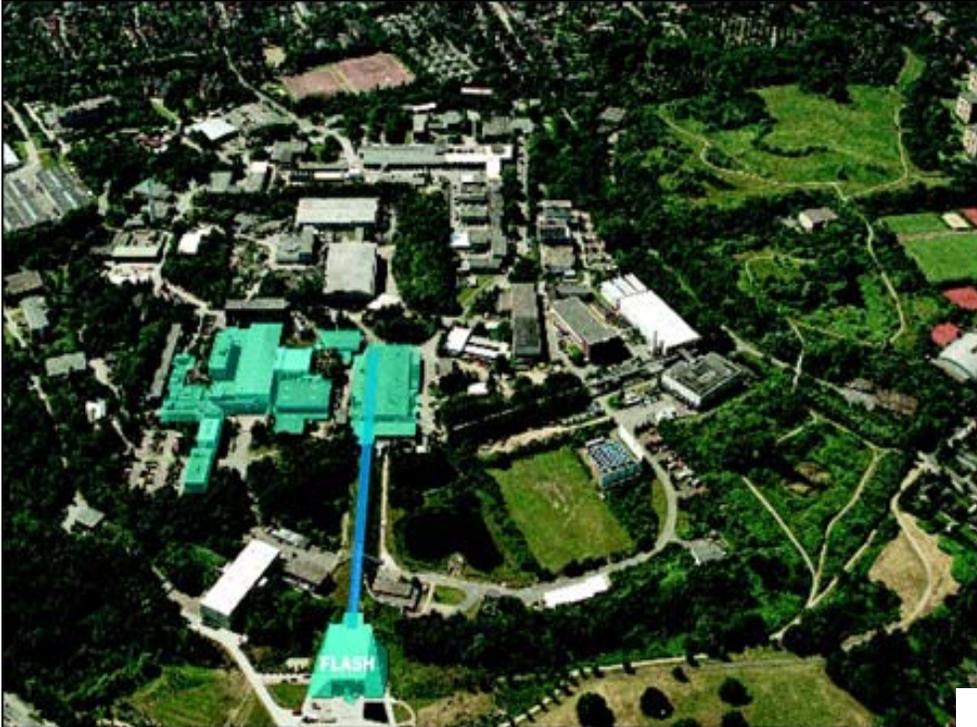
A successful cooperation between
Max Planck Society
Helmholtz Society and
Hamburg University



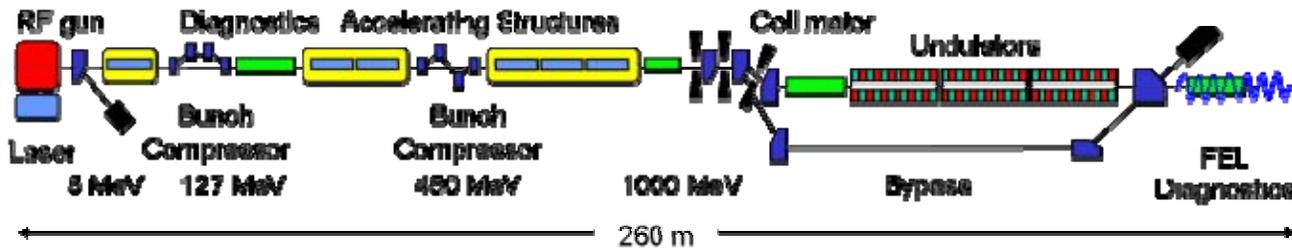
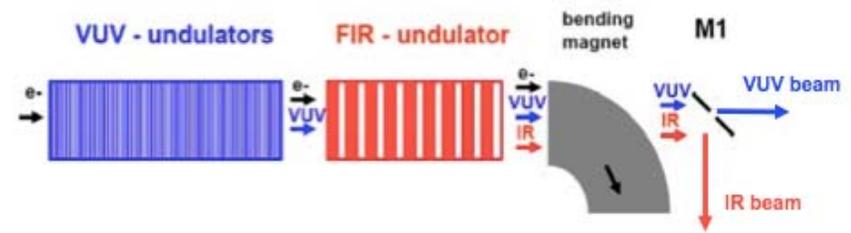
X-FEL a Hard X-ray Free Electron Laser, Hamburg



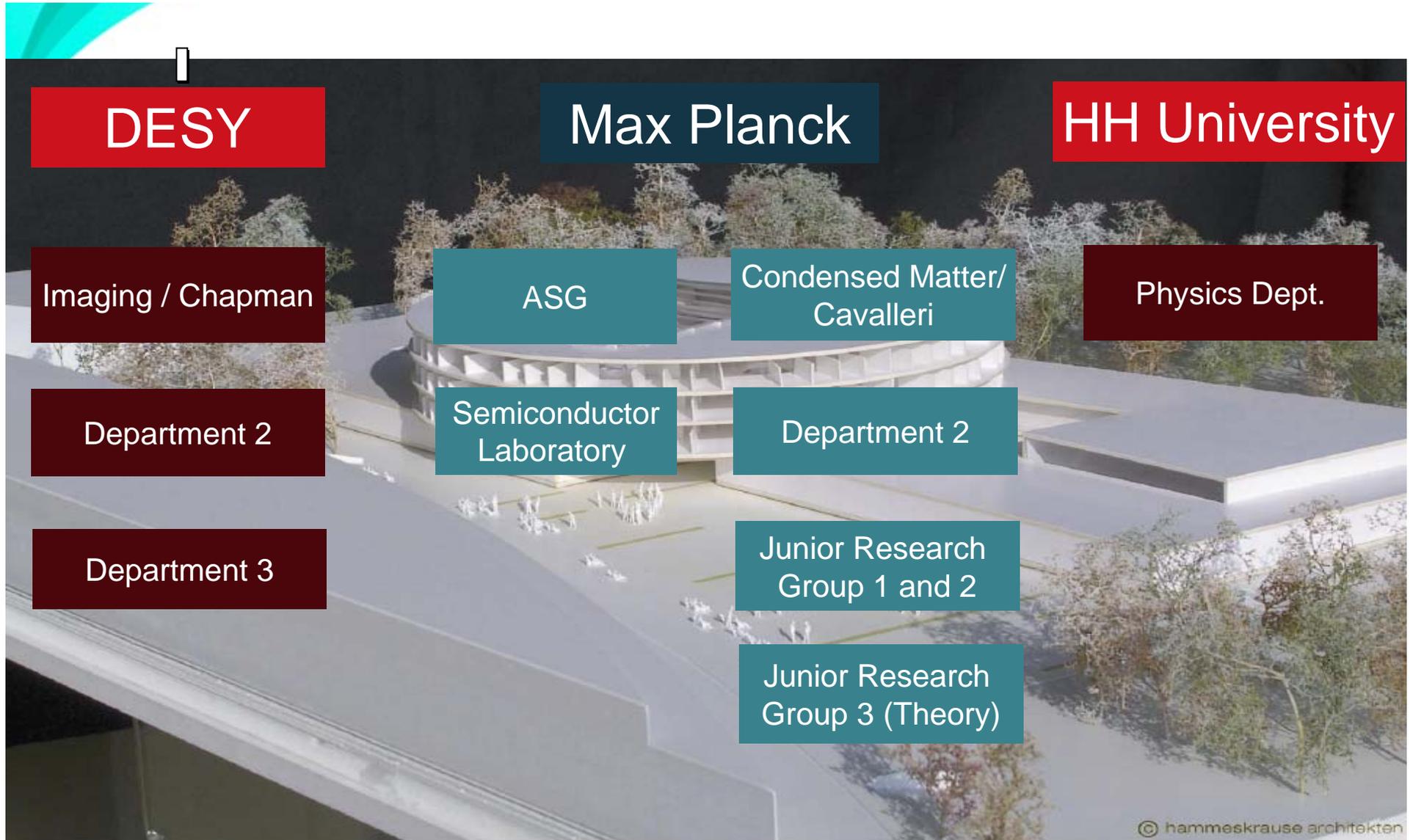
FLASH: a soft X-ray Free Electron Laser



- ✓ ~ 6.5 nm _____
- ✓ < 2 nm (3rd and 5th harm)
- ✓ synchronized THz and X-rays
- ✓ pulse durations ~ 10 fs
- ✓ shorter pulses planned
- ✓ Spatially coherent



CFEL: Centre for Free Electron Laser Science, Hamburg



Max Planck Society

- Max Planck Institute Florida
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- CFEL – Centre for Free Electron Laser Science
Hamburg
- **Pilot Study of the Science and Humanities
Council: Research Rating**



Pilot Study Research Rating of the Science and Humanities Council

- The German Science and Humanities Council recommended establishing a research rating system in Germany (July 2005) and started a first Pilot Study
 - Collection of more reliable and detailed comparative data on the quality of performance
 - Transparency of competition between universities as well as between universities and non-university institutions
 - Improvement of strategic planning
- ⇒ Peer reviewed questionnaires + publication and citation analysis



Pilot Study Research Rating of the Science and Humanities Council

Pilot Study Phase – Participating Institutions

Chemistry

Universities (56 national, 1 private)

Max Planck Institutes (9)

Fraunhofer Institutes (3)

Helmholtz Centres (2)

Leibniz Institutes (6)

Sociology

Universities (53 national, 1 private)

Max Planck Institute (1)

Leibniz Institute (1)

Wissenschaftskolleg Berlin (1)



Pilot Study Research Rating of the Science and Humanities Council

Pilot Study – Institutes of the Max Planck Society

Chemistry

MPI for Bioinorganic Chemistry, Mülheim an der Ruhr
MPI for Biophysical Chemistry, Göttingen
MPI for Solid State Research, Stuttgart
Fritz-Haber-Institute of the MPS, Berlin
MPI for Coal Research, Mülheim an der Ruhr
MPI of Colloids and Interfaces, Potsdam
MPI for Chemical Ecology, Jena
MPI for Chemical Physics of Solids, Dresden
MPI for Polymer Research, Mainz

Sociology

MPI for the Study of Societies, Köln



Pilot Study Research Rating of the Science and Humanities Council

Assessment criteria

Dimension	Assessment Criteria
Research	Research Quality
	Impact/Effectiveness
	Efficiency
Promotion of Young Researchers	Promotion of Young Researchers
Knowledge Transfer	Transfer to other Areas of the Society
	Research-based Consulting, Scientific Communication

Scale

excellent - very good – good – satisfactory - unsatisfactory



Pilot Study Research Rating of the Science and Humanities Council

Results for the Max Planck Society

Chemistry

- Research Quality: Average assessment for the total of 77 participating institutions was “good”.
- Research Quality for the 9 MPI:
2 “excellent”, 3 “very good to excellent”, 1 “very good”, 2 “good to very good”, 1 “good”
MPI performed very much better than the average, the only two institutions rated “excellent” were MPI.
- Other assessment criteria: all marks from “good” to “excellent”; MPI above and below average.



Pilot Study Research Rating of the Science and Humanities Council

Results for the Max Planck Society

Sociology

- Research Quality for the MPI for the Studies of Societies, Köln was “excellent”.
- Efficiency and Promotion of Young Researchers: “excellent”.
- Impact and Scientific Communication: “very good”.
- Transfer “good”.



Pilot Study Research Rating of the Science and Humanities Council

Points of criticism from the Max Planck Society I

- The procedure has methodical weak points, further development of the pilot study is necessary.
- Ratio of expenditure (data acquisition, evaluation) to meaningful results must be clearly optimized. The practical value of the results has to be checked.
- The procedure's objectives and efficiency boundaries must be defined more accurately; improvement of definition and data base of individual criteria; clear differentiation of the rating scale.



Pilot Study Research Rating of the Science and Humanities Council

Points of criticism from the Max Planck Society II

- Efficiency Criteria: research infrastructure as well as different resource requirements must be taken into account for the evaluation.
- Evaluation of interdisciplinarity must be made possible.
- Tasks, mission and diversity of an institution need to be considered in interpreting the results.



Pilot Study Research Rating of the Science and Humanities Council

Summary

- ⇒ The pilot study is not suited to the specific characteristics of the Max Planck Society (interdisciplinary, special apparatus-intensive research etc.).
- ⇒ Institute-specific, detailed assessments of the own expert scientific advisory boards are necessary to obtain useful results.
- ⇒ For its strategic planning, the management of the Max Planck Society requires the thoroughness of its own evaluation procedure ("informed peer review").
- ⇒ For the Max Planck Society the research rating does not provide added value and expenditure and costs are definitively too high.





Pilot Study Research Rating of the German Science Council

Assessment group

- International, know-how about German research system
- Experts from universities and industry

Chemistry

16 members from

MPG: **MPI for Colloids and Surfaces, Biophysics, Coa Research**

Universities: Departments for Organic, Inorganic, Technical, Analytical and Food Chemistry

Industry: Bayer Health Care AG, Sanofi-Aventis GmbH

Sociology

15 members from

Universities: Departments for Sociology; Social, Human and Cultural Research

Industry: TNS Infratest Social Research, Schader Stiftung

