

**NEXT** *Level* for **NEXT** *Gens*

**HZDR**  
HELMHOLTZ ZENTRUM  
DRESDEN ROSSENDORF



# Introducing the HZDR

## Helmholtz-Zentrum Dresden-Rossendorf

Board of Directors: Prof. Dr. Sebastian M. Schmidt · Dr. Diana Stiller · [www.hzdr.de](http://www.hzdr.de)





## Founding

1956 – ZfK  
1992 – FZR  
2011 – HZDR



## Budget

ca. 120 Mio. € (90:10)  
+ ca. 30 Mio. € 3rd party-f.



## Research

Transformation of the  
Energy System  
Health Research  
Materials and Technologies



## Personnel

1437 total (08/2021)

480 Scientists  
40 Professors  
189 PhDs

35 Apprentices  
more than 60 Nationalities



## Transfer

Own exploitation company  
HZDRi  
ca. 5 Mio € Revenue

HZDR  
INNOVATION

## Research Sites



Dresden, Freiberg, Görlitz  
Leipzig, Grenoble (ESRF),  
Hamburg (XFEL)

## Strategy

2030+

- Complex and unique large RIs in user operation (peer-review)
- International talents
- Close cooperation with science and industry





# HZDR – Application-oriented Basic Research

The HZDR faces the **grand challenges of our time** by providing knowledge and technologies for the next generations in order to:

develop radiation-based diagnostic and therapeutic methods to

combat **cancer**,

support the transition to sustainable industry through **resource**

**and energy efficiency**, and

research **future materials and technologies** and develop

them to the point of application.

HEALTH



ENERGY



MATTER



Complex research infrastructures

International talents

Close collaborations in science and industry

# HZDR – Member of the Helmholtz Association

HELMHOLTZ  
RESEARCH FOR GRAND CHALLENGES



ENERGY



HEALTH



MATTER



## Board of Directors

Prof. S. M. Schmidt  
Dr. D. Stiller



## Institute of Fluid Dynamics

Dr. G. Gerbeth



## Institute of Radiation Physics

Prof. T. E. Cowan  
Prof. U. Schramm



## Institute of Theoretical Physics

Prof. R. Schützhold



## CITO Chief Innovation Transfer Officer

Dr. B. Wolf



## Department of Information Services and Computing

Dr. U. Konrad



## Institute of Resource Ecology

Prof. T. Stumpf



## Institute of Radiopharma- ceutical Cancer Research

Prof. K. Kopka  
Prof. M. Bachmann



**HZDR**

HELMHOLTZ ZENTRUM  
DRESDEN ROSENDORF



## Dresden High Magnetic Field Laboratory HLD

Prof. J. Wosnitza



## Department of Research Technology

Prof. P. Kaefer



## Helmholtz Institute Freiberg for Resource Technology

Dr. J. Gutzmer



## Institute of Radiooncology – OncoRay

Prof. M. Krause



## Institute of Ion Beam Physics and Materials Research

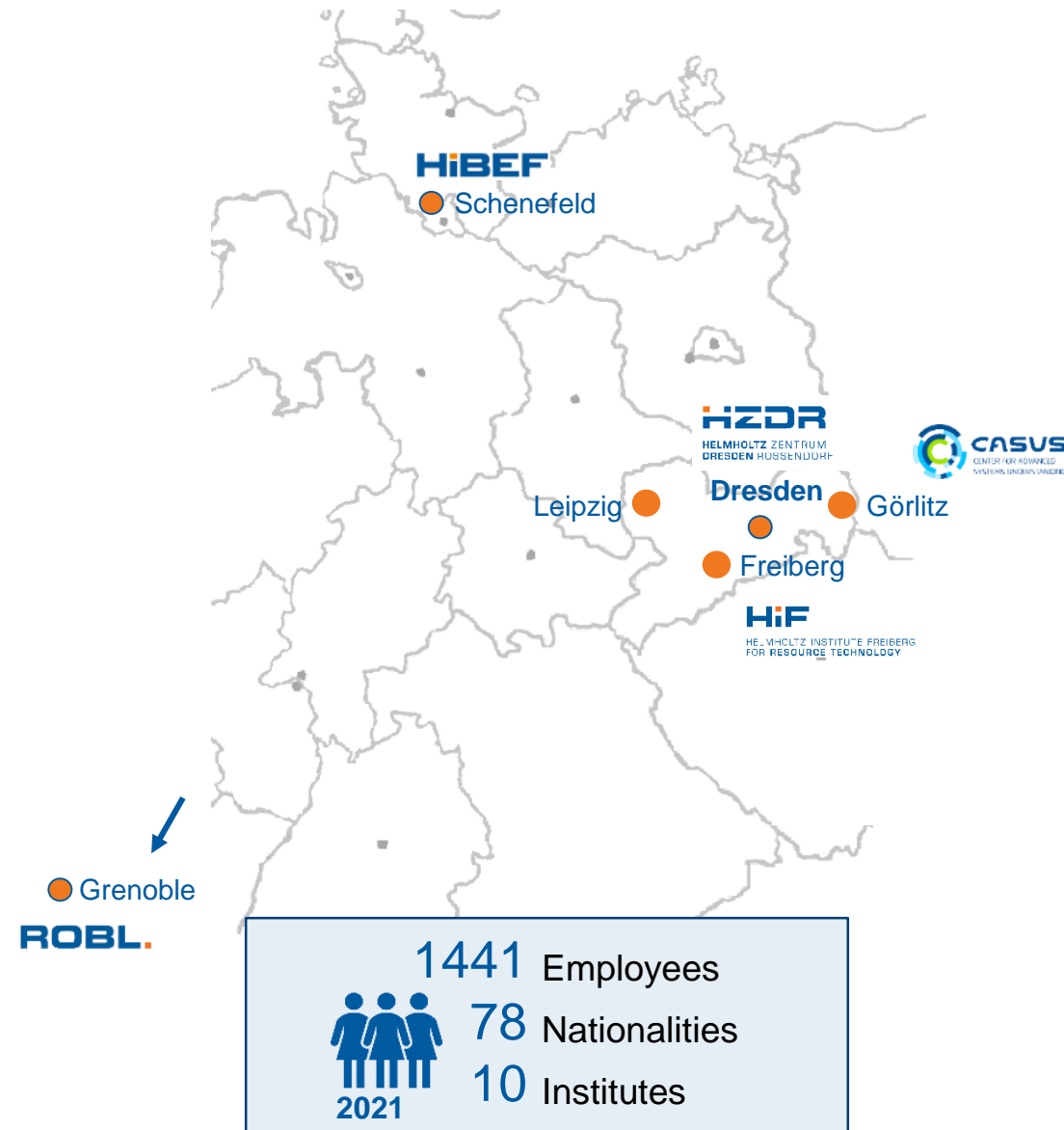
Prof. M. Helm  
Prof. J. Fassbender



## CASUS – Center for Advanced Systems Understanding

Prof. R. Sauerbrey

# HZDR – Large User Facilities at 6 Research Sites



# HZDR – Large User Facilities at 6 Research Sites



**HiBEF**

Helmholtz International Beamline for  
Extreme Fields @ European XFEL

**HiBEF**

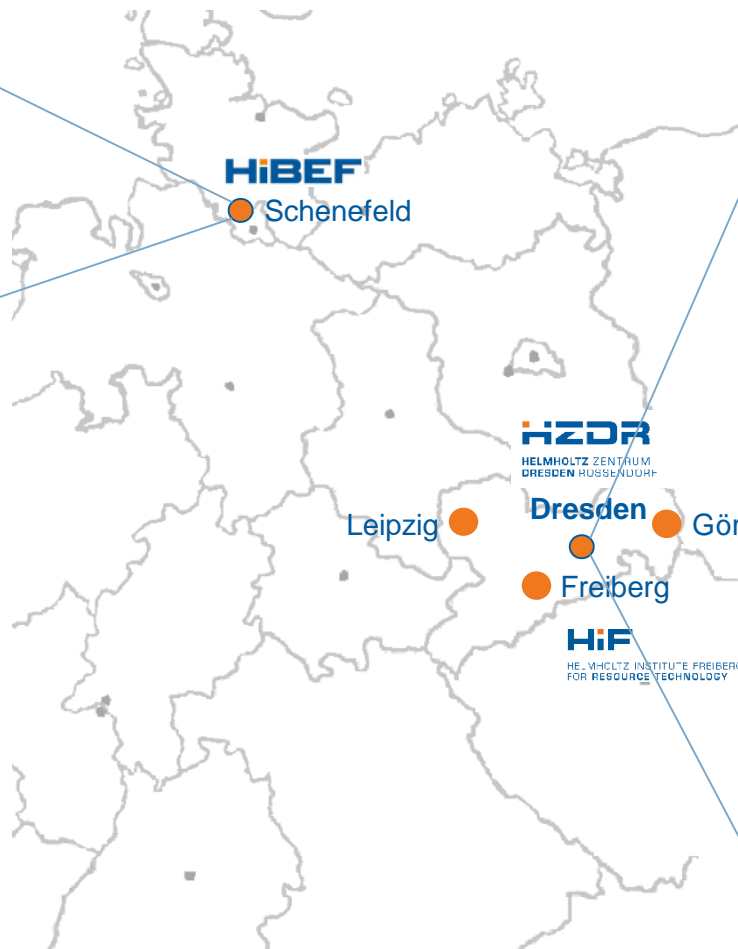
Schenefeld



**ROBL**

Rossendorf Beamline @ ESRF

Grenoble  
**ROBL**



**HZDR**  
HELMHOLTZ ZENTRUM  
DRESDEN RUSSENDORF

Leipzig

Dresden

Freiberg

Görlitz

**HiF**  
HELMHOLTZ INSTITUT FÜR  
FÜR RESSOURCEN-TECHNOLOGIE

**CASUS**  
CENTER FOR ADVANCED  
SYSTEMS UNDERSTANDING



**HLD**

High Magnetic Field Laboratory Dresden



**IBC**

Ion Beam Center



**ELBE**

Photon and particle source



**DRACO & PENELOPE**

High-power Laser-particle Acceleration

1441 Employees



78 Nationalities

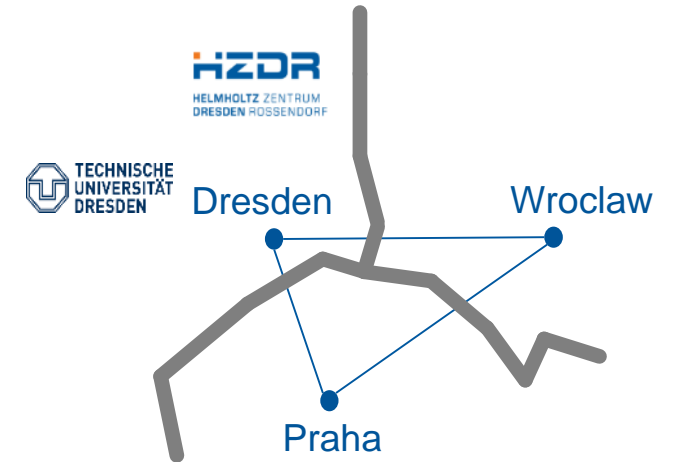
2021

10 Institutes



# HZDR – Local Partners and Partners around the Globe

- Securing competences through partnerships
- Networking at **local**, **national** and **international** level
- **DRESDEN-concept**-Network as strong local advantage
- Strategic cooperative relationships in the border triangle Germany – Poland - Czech Republic;  
e.g. connection Dresden – Görlitz – Wrocław at **CASUS**



# HZDR – Longterm Established Radiation Protection-Know-how

- Founded in 1955 as “ZFK” - Central Institute for Nuclear Physics
- Operation of the Rossendorf Research Reactor until 1989, complete decommissioning in 1991
- **Today: Broad experience on Research facilities for handling radioactive substances**



**Cyclotron TR-FLEX**  
for Production of Radioisotopes



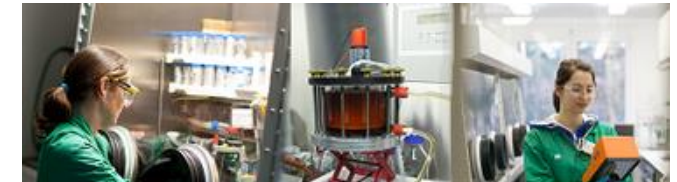
**Unique Radiation Protection Areas**  
chem./biol. labs, hot cells (Dresden, Leipzig)  
**ROBL-II at ESRF (Grenoble)**



Broad portfolio of  
**Analytical Methods**



User beamlines at the  
**superconducting electron  
linear accelerator ELBE**



Research on  
**Safe Nuclear Waste Repositories**



**Development and production of  
Radiopharmaceuticals**  
Marketing authorizations for PET  
radiopharmaceuticals



**Nuclear Astrophysics**



**NEXT** *Level* for **NEXT** *Gens*

**HZDR**  
HELMHOLTZ ZENTRUM  
DRESDEN ROSSENDORF



# Introducing the HZDR

## Helmholtz-Zentrum Dresden-Rossendorf

Board of Directors: Prof. Dr. Sebastian M. Schmidt · Dr. Diana Stiller · [www.hzdr.de](http://www.hzdr.de)

