

- Information event -

4. HZDR Innovation Contest 2020

HZDR, Wednesday, 30.06.2020, 10 – 11:30 a.m.
ONLINE – Big Blue Button



HZDR
HELMHOLTZ ZENTRUM
DRESDEN ROSSENDORF

Agenda

- Welcome
- 4. HZDR Innovation Contest: Schedule, Partizipation, Prizes
- Experience Reports by previous Winners of the Innovation Contest
 - Dr. Sebastian Reinecke (3rd place 2018)
 - Dr. Tobias Kosub (2nd place 2017)
 - Dr. Rodrigo Teodoro (1st place 2019)
- HZDR-Spin-Off Initiative and overview about support offered by FSTT
- Startup funding programs
- Funding programs for Validation and Collaboration with Industry
- Questions & Answers

4. HZDR Innovation Contest

4. HZDR Innovation Contest

What are the main objectives of the contest?

- Increasing the number of transfer projects
- Identification of research based on HZDR technologies or knowhow / knowledge and evaluation of their usability as a product or service
- Focus on:
 - Presentation of the technology as a potential product or service idea
 - Performance parameters and features
 - Solution for real user needs and problems
 - Advantages in performance or features compared to competitive products

4. HZDR Innovation Contest

Who can participate?

- Scientists and technicians of the HZDR
- Doctoral students, post-docs and research group leaders with an interest in developing product or service ideas out of research results
- Employees with a general interest in technology or knowledge transfer activities
- Stage of development of the idea/invention doesn't matter
- Multiple participation is possible (but with different idea)

4. HZDR Innovation Contest

What is your benefit?

- The top 3 teams win a price
- (1.500 EURO, 1.000 EURO, 500 EURO)
- The winners will be awarded by the board of the HZDR in a ceremony
- (Co-)Funding for the further development of your ideas provided by the HZDR-Innovation fund
- Individual qualification to evaluate technologies or knowhow for their suitability as a commercial product or service (proven by a certificate)
- Participation in a workshop


4. HZDR Innovation Contest

Timeline

1. Info session: detailed information on the contest (30.06.2020)
2. Submission of your ideas based on the provided template (**until 16.10.2020**)
3. Preselection of the ideas by a jury (until 23.10.2019)
4. Those who have submitted an idea will have the opportunity to attend a one day-workshop to develop a first business model and a development strategy. You will be supported by external tech-transfer experts.
Depending on Corona situation the workshop will be offline (presence workshop) or online (01.12. or 02.12.2020)
5. Short presentation of your further developed ideas at the end of the workshop day in front of a jury
6. Award of the top 3 teams
7. Individual support in project planning or in acquiring funding for validation or further development by HZDR innovation managers

4. HZDR Innovation Contest

Workshop agenda (01.12. and 02.12.2020, 09:00 am until 5:30 pm)

1. Input on how to describe a research result in the way of potential product (1x1 of utilization planning)
 -  Skills are also helpful for many R&D project applications (Bund, Land, EU)
2. Formation of teams (scientists and mentors)
3. Development of an exploitation planning in the form of a presentation (according to template)
 - Description of a user problem or need
 - Description of your idea in the way of a future product or service (proof of principle)
 - Benefits (advantages) and unique selling propositions
 - Application fields and competition
 - How to transfer your idea into application or industry?
 - Planning of further steps to development and validation (work packages, time, resources)

4. HZDR Innovation Contest

Workshop agenda (01.12. and 02.12.2020, 09:00 am until 5:30 pm)

4. Presentation (7 minutes per idea)
5. Evaluation of the presentations by the jury

Jury and mentoring team

- Well experienced transfer specialists of HZDR (innovation managers)
- Transfer agents from partner institutions (HZDR Innovation, dresden|exists, futureSAX, High-Tech Startbahn)
- Confidentiality of your ideas is guaranteed by non disclosure agreements

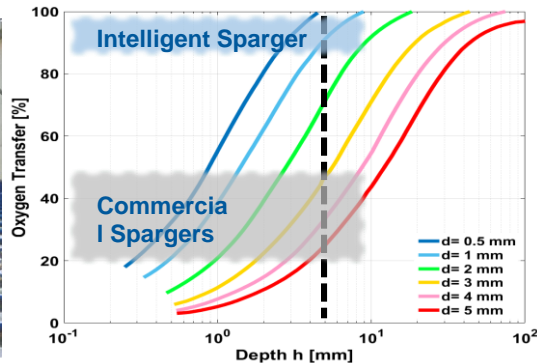
Awards ceremony (HZDR-Preisverleihung)

- Q1 2021

Experience reports by previous Winners of the Innovation Contest

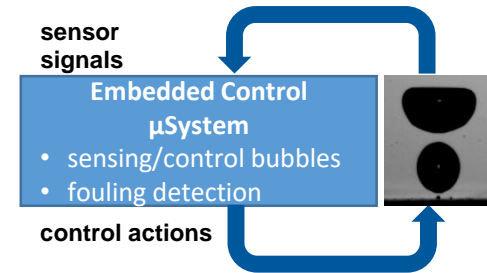
3rd place winner HZDR Innovation Contest 2018

Efficiency of Wastewater Treatment Plants



Intelligent sparger

- optimal bubble size
- self-monitoring
- 30% less energy consumption



CLEWATEC

Competence Center for Clean Water Technology

at **HZDR** HELMHOLTZ ZENTRUM
DRESDEN ROSSENDORF

A Helmholtz Innovation Lab



Open Lab with the mission to

- Develop novel technological solutions
- Grow partner network
- Create public visibility
- Foster knowledge transfer
- Exploit intellectual properties

Tensormeter



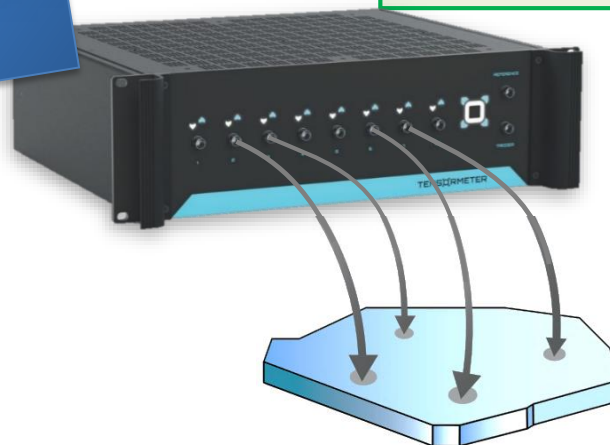
- ✓ One Device
- ✓ One Sample
- ✓ No thin film lithography necessary
- ✓ Simple 4-wire contacting
- ✓ Out-of-the-box Tensor measurement mode

- Fully backward compatible
- Often more precise than traditional devices*
- Future proof due to flexible architecture

* With accessory components:
 < 0.2 nV/√Hz diff. input noise
 < 0.2 ppm/K drift

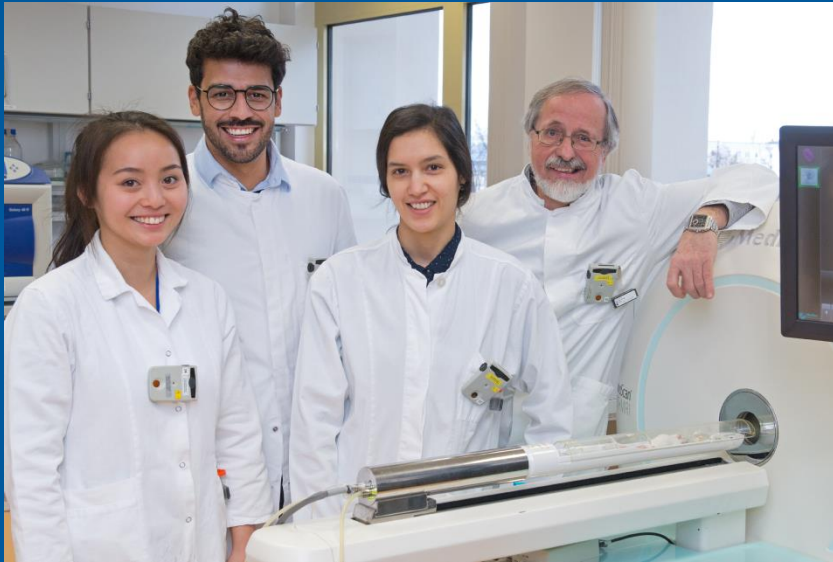
One Device & One Measurement
 fits all your needs:

- ▶ High precision & lowest noise
- ▶ 8 digits continuous dynamic range
- ▶ DC and AC measurements
- ▶ Harmonic distortion measurements
- ▶ Thin film Resistance Tensor measurement
- ▶ Integrated switching matrix
- ▶ Succeeds SMU and Lock-In amplifiers



$$\mathbf{R} = \begin{bmatrix} R_X & R_T \\ -R_T & R_Y \end{bmatrix}$$

[^{18}F]FLUDA – A potential radiopharmaceutical for the differential diagnostic of Parkinson's disease



Dr. Thu Hang Lai
Dr. Magali Toussaint
Dr. Rodrigo Teodoro
Prof. Dr. Peter Brust

Research site Leipzig

Institute of Radiopharmaceutical Cancer Research

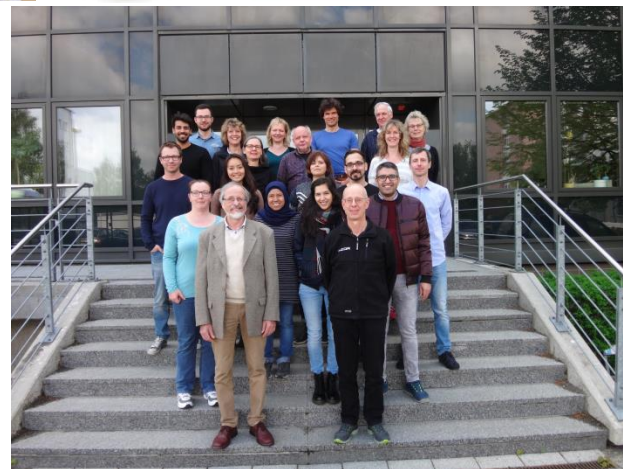
Directors: Prof. Dr. Klaus Kopka
Prof. Dr. Michael Bachmann

HZDR

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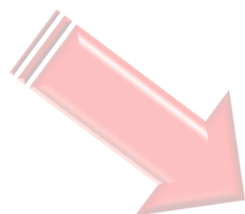
- Medicinal chemistry
- Radionuclide production
- Radiochemistry
- Biological investigation [*In vitro* and *in vivo* experiments (PET/MR)]



**Development of
PET imaging
agents**



**Alzheimer's Disease
Parkinson's Disease
Cancer**



**Translation to
market**



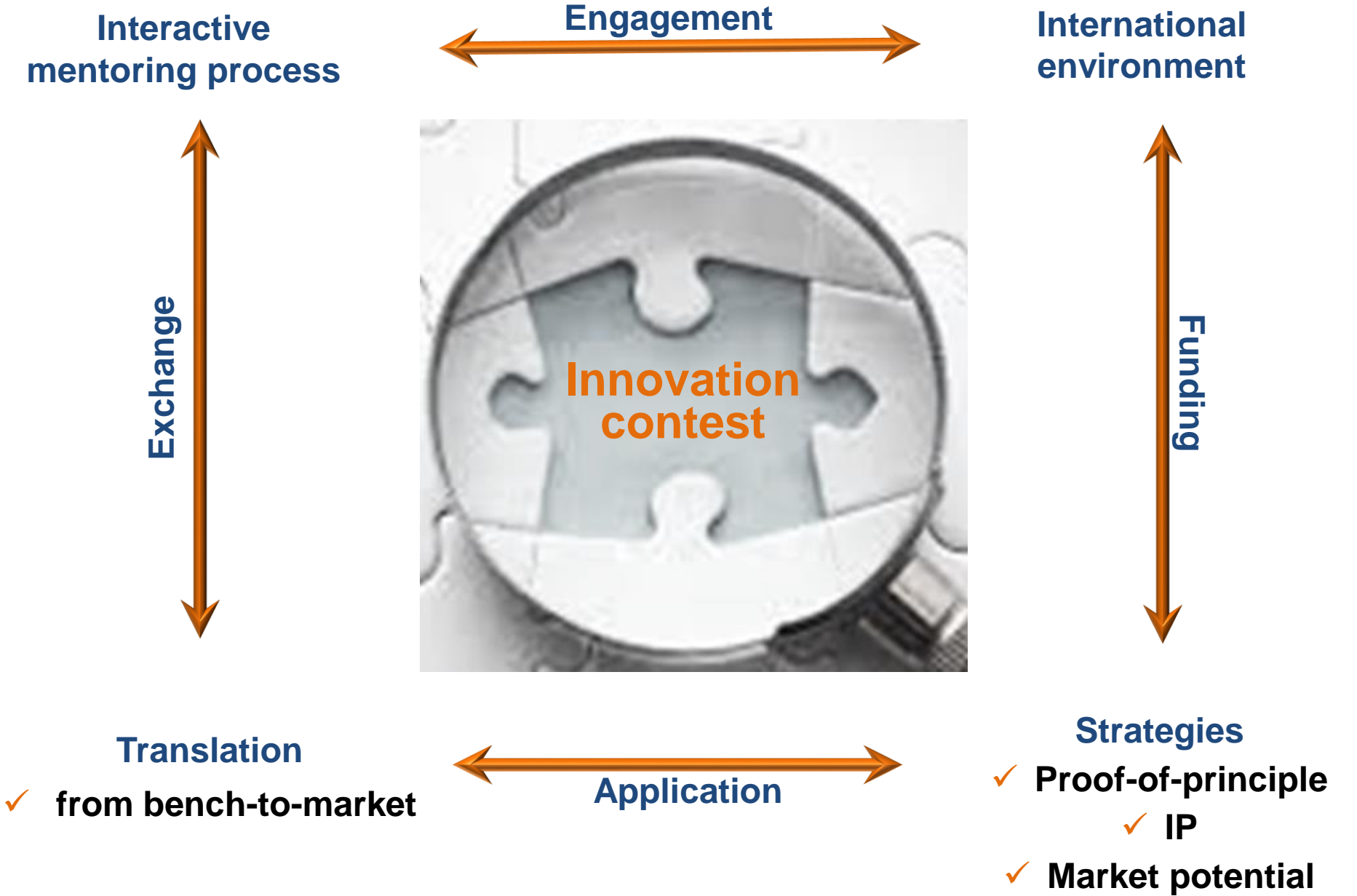
Translation:

[¹⁸F]FMcN5652 (2010) – Serotonin transporter
 (-)-[¹⁸F]Flubatine (2012) – $\alpha_4\beta_2$ nicotinic receptor
 (+)-[¹⁸F]Flubatine (2015) – $\alpha_4\beta_2$ nicotinic receptor
 [¹⁸F]Fluspidine (2016) – Sigma 1 receptor

On the waiting list:

[¹⁸F]DBT-10 (since 2014) - α_7 nicotinic receptor
 [¹⁸F]FACH (since 2019) – lactose transporter
[¹⁸F]FLUDA (since 2019) – A_{2A} adenosine receptor

**Market Value****Proof-of-principle****Intellectual Property (IP)****Think beyond!**



- **Innovation contest 2019**

[¹⁸F]FLUDA: A potential radiopharmaceutical for the differential diagnostic of Parkinson's disease (**1st place**)

Ongoing: Translation to the clinics

- **Innovation contest 2018**

RACE I: Microwave-based synthesizer for highly efficient automated production of PET radiopharmaceuticals

Ongoing: Proof-of-principle/IP/market analysis

- **Innovation contest 2017**

2P-Platform: enabling the development of PET tracers for the brain imaging by applying a novel research tool for P2Y₁R (**3rd place**)

Life Sciences funding: Personnel & Radioligand development → PATENT

„....a **win-win** experience....“

Thank you for your attention!
Stay safe!!

HZDR-Spin-off Initiative



**Scientist
today
Entrepreneur
tomorrow**

The Department of Technology Transfer and Innovation supports you step by step along the way.

HZDR
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HZDR-Spin-off Initiative

- **Objective:** Increasing the number of spin-offs projects by HZDR employees and encouraging scientists to pursue an entrepreneurial career
- Highlight the wide-ranging support offered by Transfer Office in the different transfer phases
 1. Identification of an innovative idea
 2. Further promotion of an innovation project
 3. Proof of Concept and initial market entry
 4. Company spin-off and beyond
- www.hzdr.de/startup and Flyer available
- HZDR-Guideline for the promotion of technology-oriented companies is soon updated available
- Encouraging everyone at HZDR to take advantage of the offers and programs

Startup funding programs

Startup funding programs

	Helmholtz Enterprise – Field Study Fellowship	HEF-funding	EXIST-Startup grant	EXIST-Transfer of Research
What will be funded?	Market study, customer survey	development of innovative technological product or knowledge based service ideas that rely on research results		
Who will be funded?	Scientists, technicians	Scientists, technicians	Students, Graduates, Scientists	Graduates, Scientists
Duration:	3 months	14 months	12 months	18-36 months
Funding:	Personnel expenses for up to 2 people and material expenses for customer interviews (up to 20.000 EURO)	Personnel expenses for 2-3 people and material expenses, funding rate up to 75% (funding up to 200.000 EURO)	Grant for 3 people, (1.000 / 2.500 / 3.000 EURO per person and month) + 35.000 EURO mat. expenses	Personnel expenses for 4 people + up to 250.000 EURO for material expenses
Application date:	05.04. & 01.10.	15.04. & 15.10.	anytime	31.01. & 31.07.

Helmholtz Enterprise

Aim of funding?

- To boost of spin-off activities in Helmholtz research institutions

What will be funded?

- development of innovative technological product or knowledge based service ideas that rely on research results

Who will be funded?

- Scientists and technicians
- At least 25 % co-funding of HZDR needed in the “Spin-off Program”



Helmholtz Enterprise – Field Study Fellowship

Funding conditions

- Aim of funding: identification potential users and their needs (customer survey)
- Duration: 3 months
- Funding rate 100%; funding of project related expenses for personnel and material (funding up to 20.000 EURO)
- Up to 2 team members (scientists, technicians) part-time (min. 50%) to full-time

Application deadline: 05.04.2020 and 01.10.2020

Helmholtz Enterprise – Spin-off Program

Funding conditions

- Duration: up to 14 months in 2 phases
- Phase 1:
 - Duration 8 months, funding up to 100.000 EURO
 - Further development of your technology into a product or service
 - Support in the development of a business model by an external spin-off expert
 - Review by HGF jury members in month 7 and decision on further funding
- Phase 2:
 - Duration 6 months, funding up to 100.000 EURO
 - Further development of product or service and business model
 - Preparing the establishment of your company
- Funding rate up to 75%; funding of project related expenses for personnel and material
- Up to 3 team members (scientists, technicians)

Application deadline: 05.04.2020 and 01.10.2020

Helmholtz Enterprise Funding (HEF)

Example

THATec Innovation GmbH (<http://www.thatec-innovation.de>)

- Software to control laboratory
- HZDR spin-off
- Founded in 2016



Support by FSTT:

- Development of business model
- Business plan and financial forecast
- **Helmholtz Enterprise Funding**



EXIST-Business Start-up Grant

Who will be funded?

- students, scientists and graduates from universities and research institutions
- team of 3 people (2 x scientists/ engineers, 1 x person with substantial business knowledge)

Funding conditions:

- Grant: 1.000 /2.500 /3.000 EURO per month (students/graduates/PhD)
- Expenses for material: 30.000 EURO and expenses for coaching: 5.000 €
- university / research institution provides infrastructure and supporting services for 1 year
- **Application: at any time**

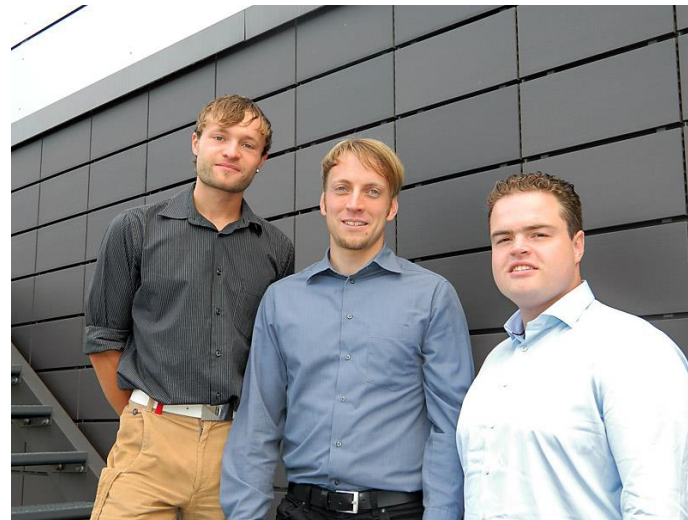


EXIST-Business Start-up Grant

Example

Saxray GmbH (<http://www.saxray.de>)

- Innovative solutions and system components for material analysis by X-ray
- HZDR spin-off
- Founded in 2011
- Winner of WECONOMY contest in 2012



Support by FSTT:

- Development of business model
- Business plan and financial forecast
- **EXIST-Business Start-up Grant**

EXIST-Transfer of research

What will be funded?

- Development of innovative technology or knowledge based product or service ideas
- Funding in 2 phases

Who will be funded?

- Team of 3 scientists / engineers and 1 person with substantial business knowledge (you will be still an employee at HZDR)

Funding conditions

phase 1:

- duration 18 – 36 months
- Material expenses up to 250.000 EURO including expenses for coaching (10.000 EURO)
- **Application deadline: 31.01. / 31.07. every year**

phase 2:

- Funding of the startup company with up to 180.000 EURO to continue product or service design



EXIST-Transfer of research

Example

Biconex GmbH (<http://www.biconex.de>)

- Innovative pretreatment process for electroplating of plastics
- HZDR spin-off
- Founded in 2015
- Winner of futureSAX contest in 2013

Support by FSTT:

- Development of business model
- Business plan and financial forecast
- **Helmholtz Enterprise funding , EXIST – Transfer of research**



Funding programs for Validation and Collaboration

Funding programs for Validation and Collaboration with Industry (1)

What does validation mean?

- Provide evidence that a certain technology/product/service is working with regard to a planned application
- Validation is an essential step prior the economic exploitation of a technology
- Specific funding programs exists to support this essential step in technology transfer

Specific programs for validation (open topic; running over longer periods)

- Federal: VIP+
- Local (Saxony): SAB Funds from ESF/EFRE programs
- Helmholtz: HEF/HZDR Innovation funds

Funding programs for Validation and Collaboration with Industry (2)

What does cooperation mean?

- Industrial development with the target to hand over the technology and/or product to the company

Specific programs for collaboration with SME

- Federal: KMU innovativ, ZIM
- Local (Saxony): SAB Funds from ESF/EFRE programs

In addition: Topic specific programs provided i.e. by BMBF (time restricted announcements)

Funding programs for Validation and Collaboration with Industry (3)

Requirements for specific programs for validation and cooperation

- All programs focus on exploitation of a technology
- Specific topics to be raised in all programs:
 - IP, development strategy, market potential, roadmap to implementation, exploitation strategy,...

We at TechTransfer help you to answer all these questions for a substantial application

Please contact us – we are happy to support you!

Thank you for your attention!

Questions?

DEPARTMENT OF TECHNOLOGY TRANSFER AND INNOVATION (FSTT)

We assist you in all TT-related matters!



B. Wolf

INNOVATION MANAGEMENT



S. Hartmann



D. Teichmann



U. Pöpping



C. Christesen



S. Krüger

TECHNOLOGY MARKETING / ALUMNI NETWORK



M. Giebel



S. Löbelt-Friedrich

dresden | **exists**
WISSEN. GRÜNDEN. UNTERNEHMEN.

IP-MANAGEMENT



M. Hiller



L. Missbach

DRESDEN
concept  **HZDR**