Mobilizing Universities of Applied Sciences for Horizon 2020

Introduction

Martin Reichel
CEO/Director

Bavarian Research Alliance

The Bavarian Research Alliance (BayFOR)

- Initiative to promote Bavaria as a location for science and innovation within the European Research Area
- Founded in 2006/2007
- Associates: University of Bavaria e.V. and The Bavarian Universities of Applied Sciences e.V.
- Director/CEO: Martin Reichel

Picture: © Fotolia

- Board of Directors: Prof. Dr. Dr. h.c. mult. Wolfgang A. Herrmann, Prof. Dr. Peter Sperber, MinDirig Dr. Michael Mihatsch, MinDirig Dr. Ronald Mertz, Prof. Dr. Torsten Kühlmann, Dr. Axel Jahn

Associates & Contributors

Universität Bayern e.V.

11 Universities

HOCHSCHULE BAYERN
– The Bavarian Universities of Applied Sciences – e.V.

20 Universities of Applied Sciences

The Bavarian State Ministry of Education, Science and the Arts and the Bavarian State Chancellery

BayFOR‘s goals

To strengthen and permanently anchor the science and innovation location of Bavaria in the European Research Area through:

- Acquisition of European and international funding: in particular supporting the professional drafting of applications and the establishment of promising application consortia
- Initiation of national and international innovation and science partnerships from academia and business

Picture: © Fotolia

BayFOR as a „Full Service Provider“

Project management

Workshops/trainings of project participants and of third-party staff

Contact for all questions relating to EU project management and dissemination / communication

Project implementation

Support from preparation to conclusion of contract

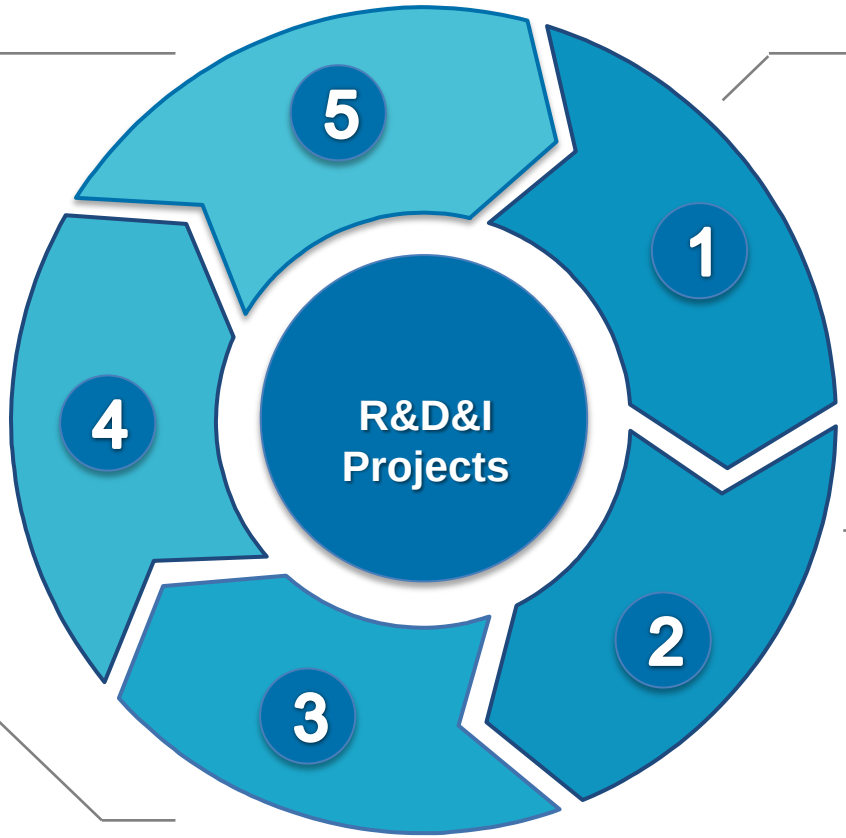
Providing assistance with financial and organizational issues

EU application support

Active support during the whole application process

Preparation of call-specific information material

Search for cooperation partners



Information

Information on current and future EU tenders and ways to a successful application for EU funding

Issue lobbying

Consultation

Expert advice on general and call-specific research funding

Assigning project ideas to the appropriate funding programmes

Universities of Applied Sciences in Bavaria and their participation in EU-funded projects

- 23 Universities of Applied Sciences (17 state-owned)
- 18 successful participations in EU-funded research projects
- Around € 4 million of EC contribution under FP7, min. € 20,000 and max. € 500,000 per project

European Commission

HORIZON 2020

Opportunities for Universities of Applied Sciences and Lessons Learned from First Calls

Brendan Hawdon
DG Research & Innovation

HORIZON 2020

What is Horizon 2020? A quick reminder

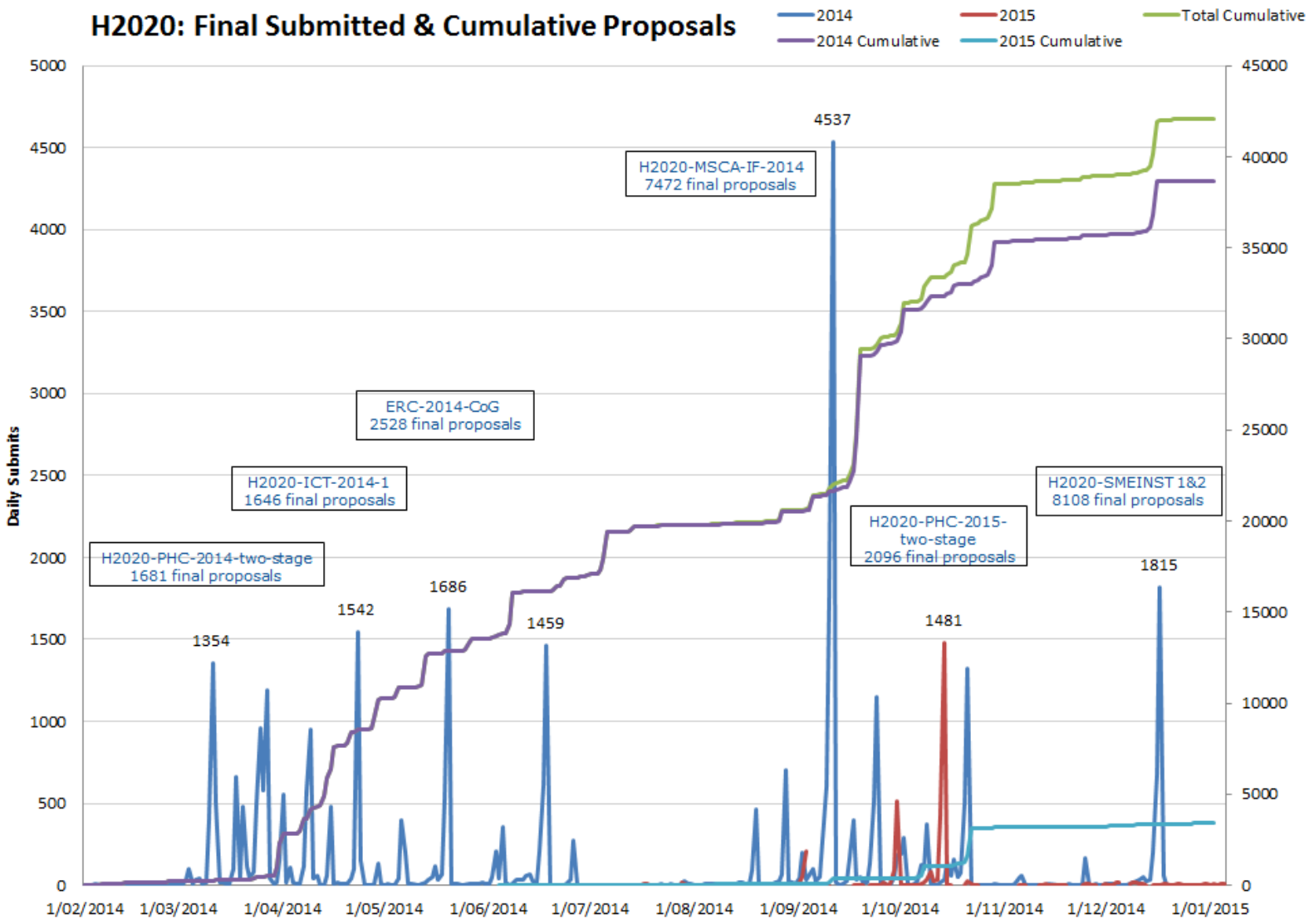
- **The European Union programme for research and innovation for 2014-2020**
- **A core part of Europe 2020, Innovation Union & European Research Area:**
  - Responding to the economic crisis to invest in jobs and growth
  - Addressing people's concerns about their livelihoods, safety and environment
- **Key features:**
  - A single programme bringing together separate programmes/initiatives
  - Coupling research to innovation
  - Focus on societal challenges facing EU society
  - Simplified access

Horizon 2020: first year of operation

- Successful implementation of biennial strategic work programme with broader and fewer topics;
- Confirmation of WP 2015, including launch of FTI pilot & five inducement prizes;
- Calls/topics with total budget of over €8 billion closed;
- In total, more than 40,000 proposals submitted;
- Robust and user-friendly IT systems and Participant Portal;
- Simplified business processes helping to achieve implementation targets like shortened time-to-grant.

H2020 proposal submission in 2014

European Commission



Lessons Learned from First Horizon 2020 Calls

Analysis of experiences with first calls based on:

- **Statistical analysis of 33 concluded calls** (approx. half of calls launched in 2014, but comprising only ca. 5,250 proposals) covering the first six months of operation;
- Feedback from **Commission services and Executive Agencies;**
- **Observers' reports** from evaluations;
- Feedback from some **Member States, stakeholders, and certain NCPs.**

First comprehensive statistics on 2014 calls/topics will be available at the end of March 2015.

Lessons Learned from First Horizon 2020 Calls

Further feed-back collected from

- Strategic Configuration of **Programme Committee,** plus written comments from 13 MS
- **NCP** Coordinators;
- Umbrella **stakeholder organisations**;
- **Observers** of evaluations.

as well as **additional stakeholder input** and continued monitoring.

Stakeholder communities appreciated occasion to provide early feedback as well as responsiveness of Commission services.

Result: Action Points

Lessons Learned from first H2020 Calls
Key findings and action points

Key features and novelties

Work programme has delivered on

- **Embedding key features** and novelties of Horizon 2020 reinforcing its integrated approach;
- **Opening up topic descriptions** in which horizontal priorities are integrated.

➡ **Address key features and novelties upstream** in the work programme preparation cycle to ensure embedding in the **priority setting as well as implementation**; in particular enhance efforts to increase **international cooperation activities** and **SSH** embedding

Lessons Learned from First Horizon 2020 Calls

Key findings and action points

Response to calls

- **Great attractiveness of calls:** around 35,000 proposals submitted to calls closed in 2014 with requested total budget of €60.5 billion*.
- Average **over-subscription around 7 times the available budget** (5.5 times under FP7). However, picture remains largely diverse.
- **Increase in industry participation,** particularly in the Industrial Leadership and Societal Challenges pillars, and good **SME participation** with successful launch of SME instrument (8100 applications)

➡ **Maintain challenge-based approach** in delivering topics while improving their clarity (esp. impact requirements); devise measures to manage large demand, notably in two-stage calls

***Preliminary statistics**

Research and Innovation

Lessons Learned from first H2020 Calls
Key findings and action points

Evaluations

- **Overall excellent quality of evaluations** with a good mix of experts (disciplines, geographical background, organisational typologies etc.). Some concerns regarding interpretation of criteria and new concepts (e.g. innovation management).
- **Selection of expert evaluators:** lack of innovation expertise and women experts.

➡ Continued joint efforts to **attract experts; update the evaluation standard briefing and guidance documents,** including information for applicants**.**

Lessons Learned from first H2020 Calls
Further key action points

- ✓ **Improve presentation of calls** on Participant Portal Portal (better reflection of work programme);
- ✓ Make **better use** of the **whole toolbox** of funding instruments, including prizes and pre-commercial procurement (PCP) or public procurement of innovative solutions (PPI) co-fund actions;
- ✓ Conduct **further analysis of oversubscription**;
- ✓ **Continue monitoring the implementation of calls,** particularly when they affect applicants and develop corrective measures when necessary (e.g. information on evaluation results).

Lessons Learned from first Horizon 2020 Calls

Next steps

- **Implement** action points and **continue to listen** to stakeholders and **to improve;**
- Updated statistics and recommendations from the first Horizon 2020 calls will form the basis of Horizon 2020 **Annual Monitoring Report.**

European Commission

Universities of Applied Sciences and Horizon 2020

Research and Innovation

Opportunities for universities in Horizon 2020

Universities are key players in Horizon 2020 across all of its priorities:

- **'Excellent Science'**
  Support operates largely on a bottom-up basis; universities and their researchers in the lead in setting the research agenda through instruments such as the European Research Council or the Marie Skłodowska-Curie actions.
- **'Industrial Leadership'**
  Universities to carry out partnerships with the private sector, e.g. development of key enabling technologies or in assisting SMEs to become more innovative.
- **'Societal Challenges'**
  Focus on bringing together international and multidisciplinary teams, including universities, as providers of basic knowledge, to tackle challenges which are closely linked to EU's policy agenda in domains such as health, energy or transport.

Universities of Applied Sciences and Horizon 2020

- **Participation in FP7** *(N.B. no EU-wide definition of UAS)* as a starting base: 199 organisations (highest number from DE); 1.4 billion euro EU financial contribution, participation in 4 000 projects;

- Universities of applied science in **excellent position to benefit** from the new features of Horizon 2020;

- **Strengths**: could serve as link between research and innovation – focus on practical skills, partnership with business (incl. SMEs), close to market activities.

European Commission

Conclusions:

- Research and Innovation trigger growth and jobs and will help us exit the crisis
- Need for continuous investment in research and innovation at regional, national and EU level
- Horizon 2020 is the largest funding programme for research and innovation in the world
- Horizon 2020 offers opportunities for universities across all priorities
- Universities of applied sciences in particular are in an excellent position to benefit from Horizon 2020 and should actively participate in Horizon 2020!

European Commission

For further information

- **Participant Portal**
  http://ec.europa.eu/research/participants/portal/desktop/en/home.html

- **Helpdesk**
  http://ec.europa.eu/research/enquiries

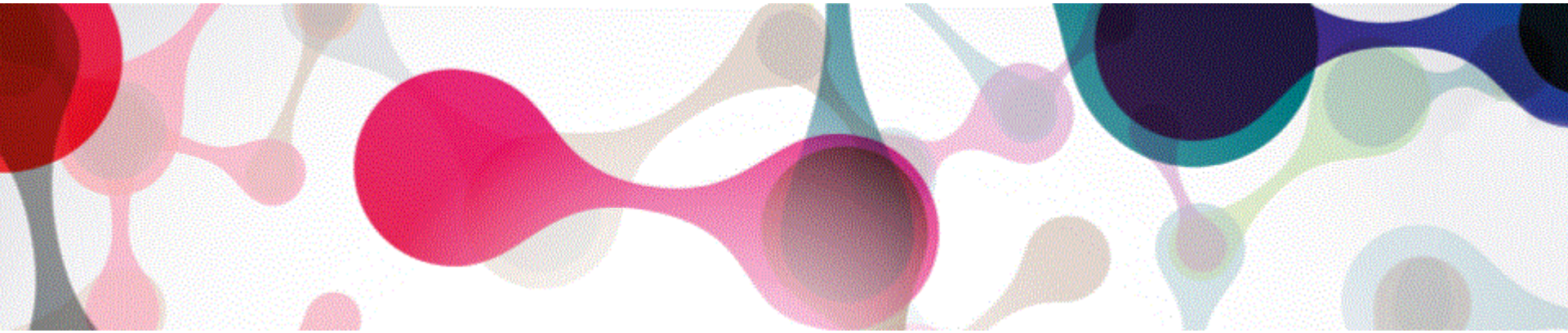
- **Expert evaluators needed!**
  http://ec.europa.eu/research/participants/portal/desktop/en/experts/index.html

- **Learn more about Horizon 2020**
  http://ec.europa.eu/horizon2020

Thank you for your attention!

Research and Innovation

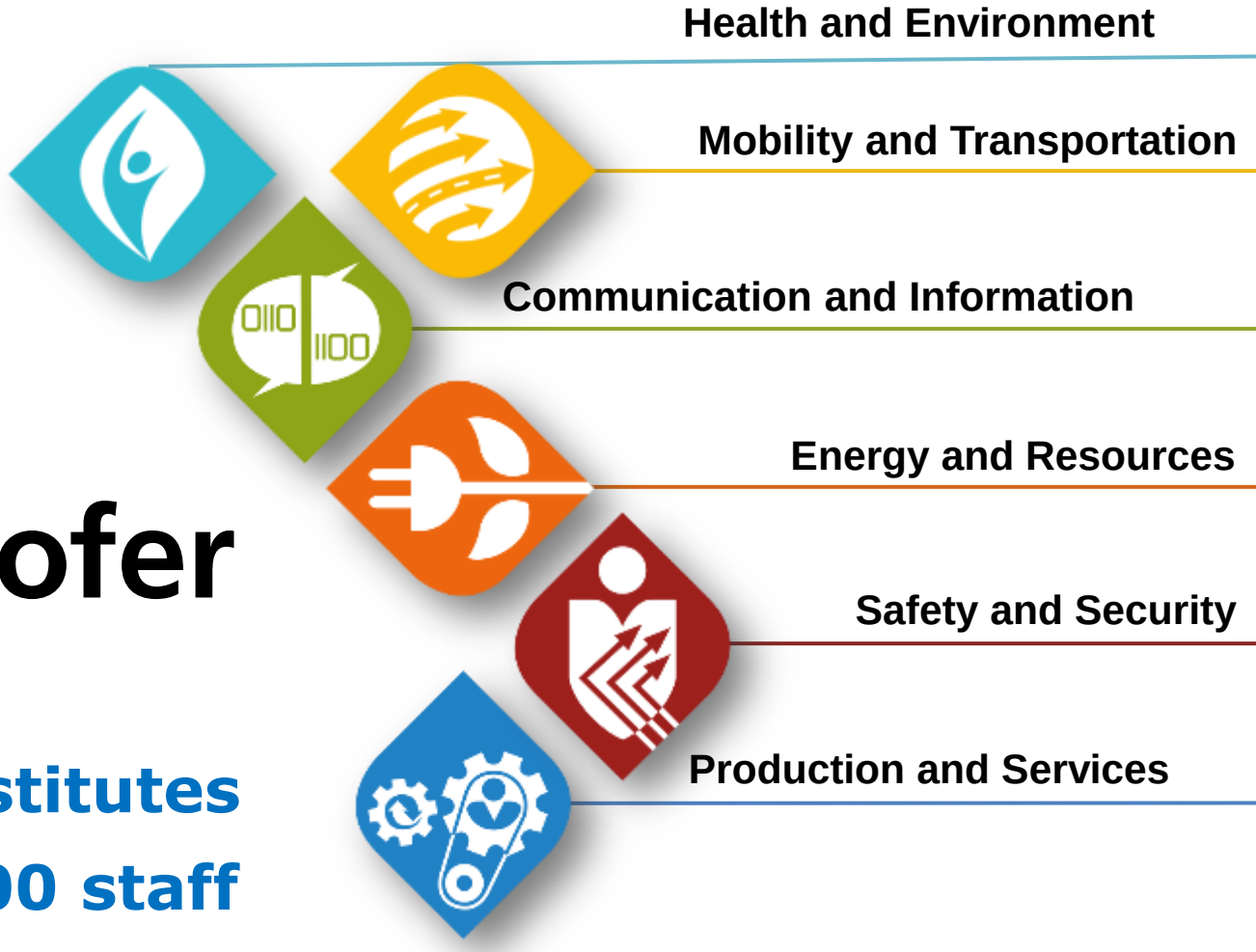
FRAUNHOFER‘S COOPERATION WITH UNIVERSITIES OF APPLIED SCIENCES – STATUS QUO AND OPPORTUNITIES



Mathias Rauch
Fraunhofer Brussels, Director

Fraunhofer-Gesellschaft

Europe's largest organisation for applied research

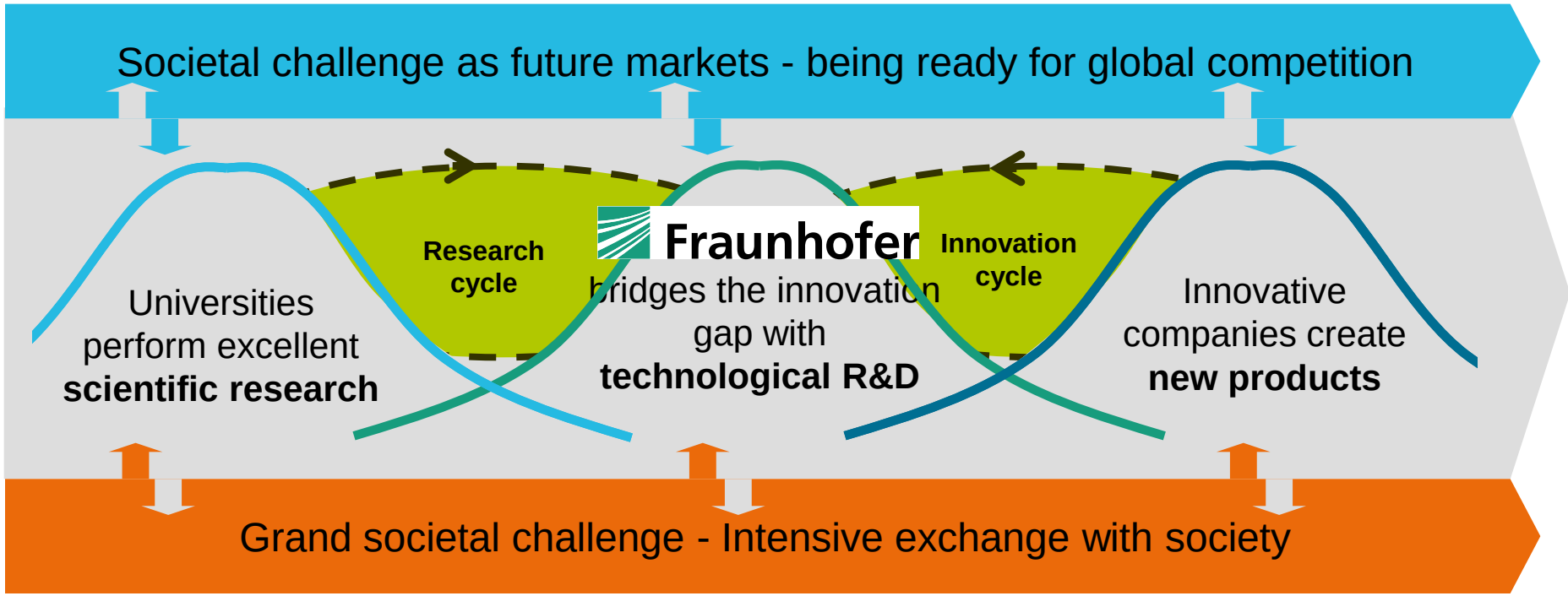


Fraunhofer

- **67 research institutes**
- More than **24,000 staff**
- **€2 billion** annual research **budget**

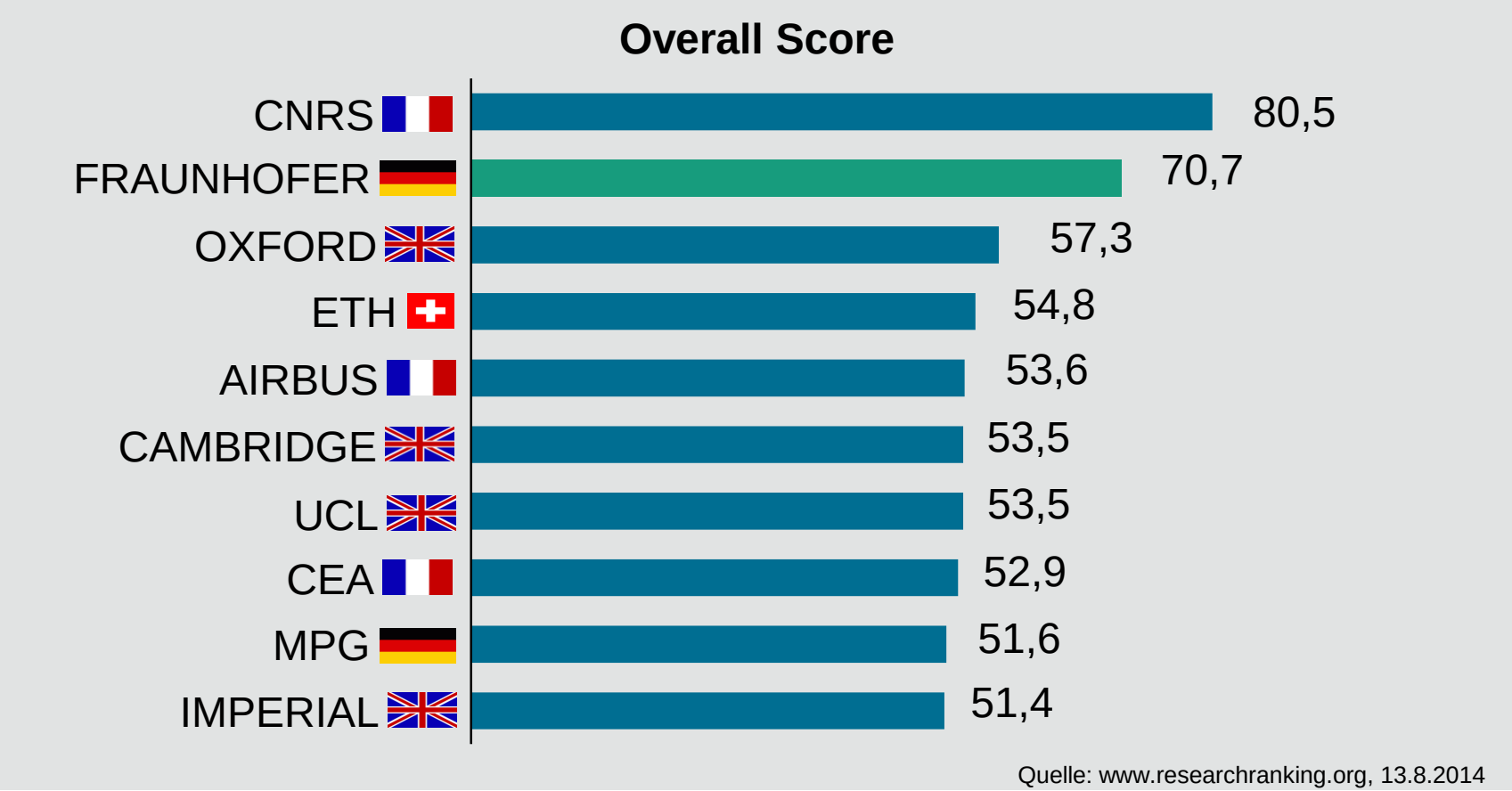
Fraunhofer-Gesellschaft

Connector of the innovation system



Fraunhofer Gesellschaft

A strong partner in the EU framework programme



Quelle: www.researchranking.org, 13.8.2014

»Overall Score« is based on::

• **Funding and project participation performance • Networking activity and alliances • Diversity of research areas**

Fraunhofer

Cooperating with Universities of Applied sciences

Two new ways to join forces in Germany

Fraunhofer Application Center

- **Establishment of a new Fraunhofer site** at a University of Applied Sciences
- Managing director: Professor at the University of Applied Sciences
- ~ 10 members of staff
- **Pilot phase until 2017**

Cooperation Programme « Fachhochschule »

- **Local cooperation** of Fraunhofer and University of Applied Sciences
- Creation of a **collaborative research group**
- Long term goal: **Strategic alignment of a specific research field**

Fraunhofer

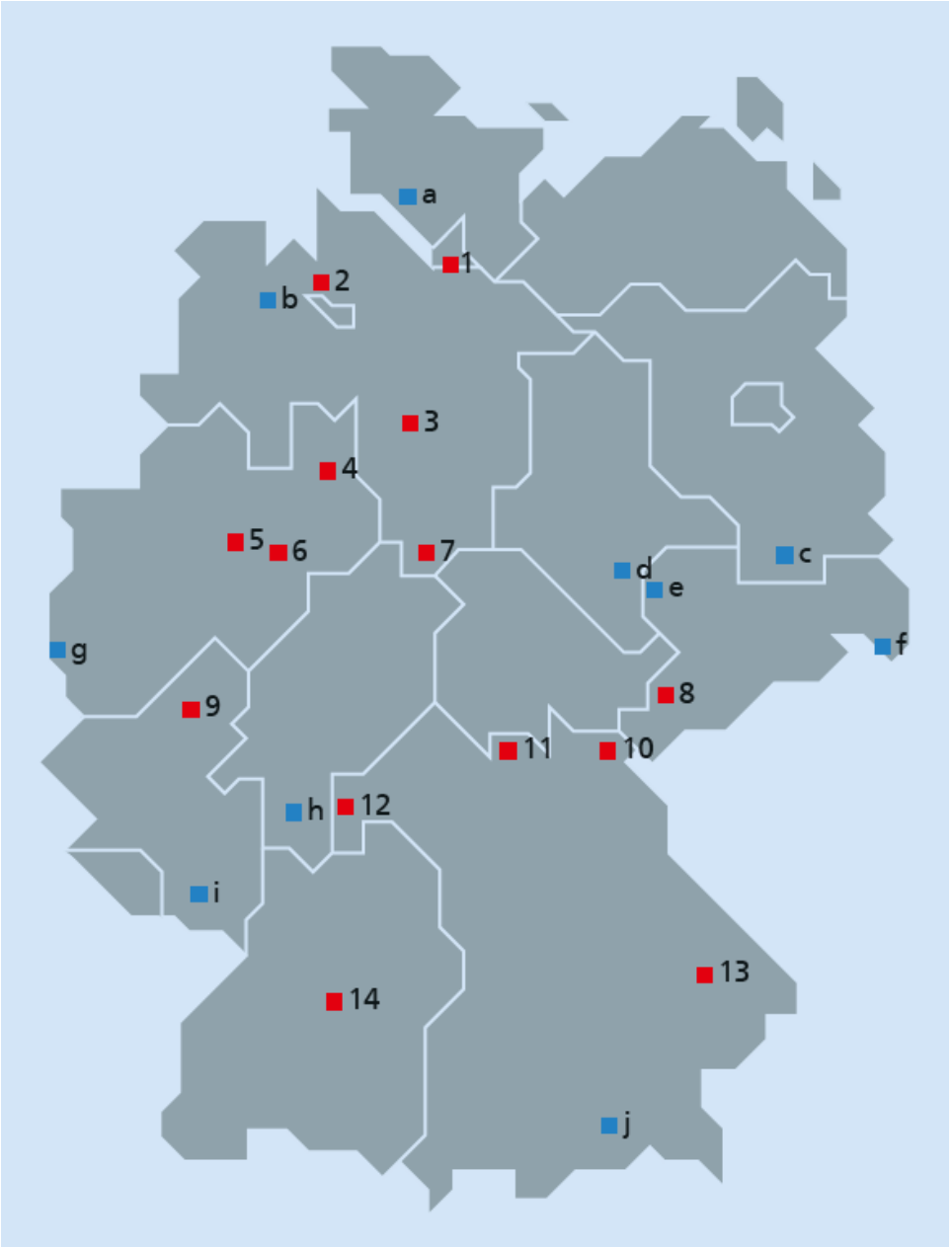
Active partnerships

Fraunhofer Application Center

1 Fraunhofer ISIT / HAW Hamburg
2 Fraunhofer IWES / HS Bremerhaven
3 Fraunhofer WKI / HS Hannover
4 Fraunhofer IOSB / HS OWL Lemgo
5 Fraunhofer FIT / HS Hamm-Lippstadt
6 Fraunhofer IWM / FH Südwestfalen
7 Fraunhofer IST / HAWK Göttingen
8 Fraunhofer IWS / WH Zwickau
9 Fraunhofer FHR / HS Koblenz
10 Fraunhofer ISC / HS Hof
11 Fraunhofer IIS / HS Coburg
12 Fraunhofer ISC / HS Aschaffenburg
13 Fraunhofer IIS / HS Deggendorf
14 Fraunhofer IAO / HS Esslingen

Cooperation Programme « Fachhochschule »

a Fraunhofer ISIT / FH Westküste
b Fraunhofer IDMT / Jade HS Oldenburg
c Fraunhofer IAP / HS Lausitz (BTU Cottbus)
d Fraunhofer IWM / HS Anhalt
e Fraunhofer IZI / HTWK Leipzig
f Fraunhofer IWU / HS Görlitz
g Fraunhofer ILT / FH Aachen
h Fraunhofer LBF / HS Darmstadt
i Fraunhofer ITWM / FH Kaiserslautern
j Fraunhofer IBP / HS Rosenheim



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Best practice: Fraunhofer Application Center

Application Center Industrial Automation INA

Hochschule Ostwestfalen-Lippe
University of Applied Sciences

- Site of the Fraunhofer Institute of Optronics, System Technologies and Image Exploitation - IOSB
  - Established following an **initiative of the local industry**
  - Research focus: operation and high adaptability of **Industrial automation systems**
  - Linked to the “inIT - Institut Industrial IT” of the **Ostwestfalen-Lippe University** of Applied Sciences and to
- Integrated in the cluster „Intelligent technical systems“ for machine engineering and industrial electronics
- Increased access for the local industry to research in industrial ICT: one of the many innovations: **A Smart-Watch to monitor production facilities**

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Best practice: Cooperation Programme «Fachhochschule»

Hochschule Anhalt

Hochschule Anhalt
Anhalt University of Applied Sciences

- Cooperation of the **Fraunhofer Center for Silicon Photovoltaics CSP** with Anhalt University of Applied Science
  - Complements the cooperation of Fraunhofer IWM and the University Halle-Wittenberg
  - **A Collaborative Research Group** was established in close cooperation the joint project »StrukturSolar« of the University Halle-Wittenberg and the Anhalt University of Applied Sciences

- First results: the **group significant increased the charge carrier life of silicon modules**
- The results are jointly exploited with the local industry

Fraunhofer

Cooperation of the Fraunhofer Academy
Life-long education and advanced training

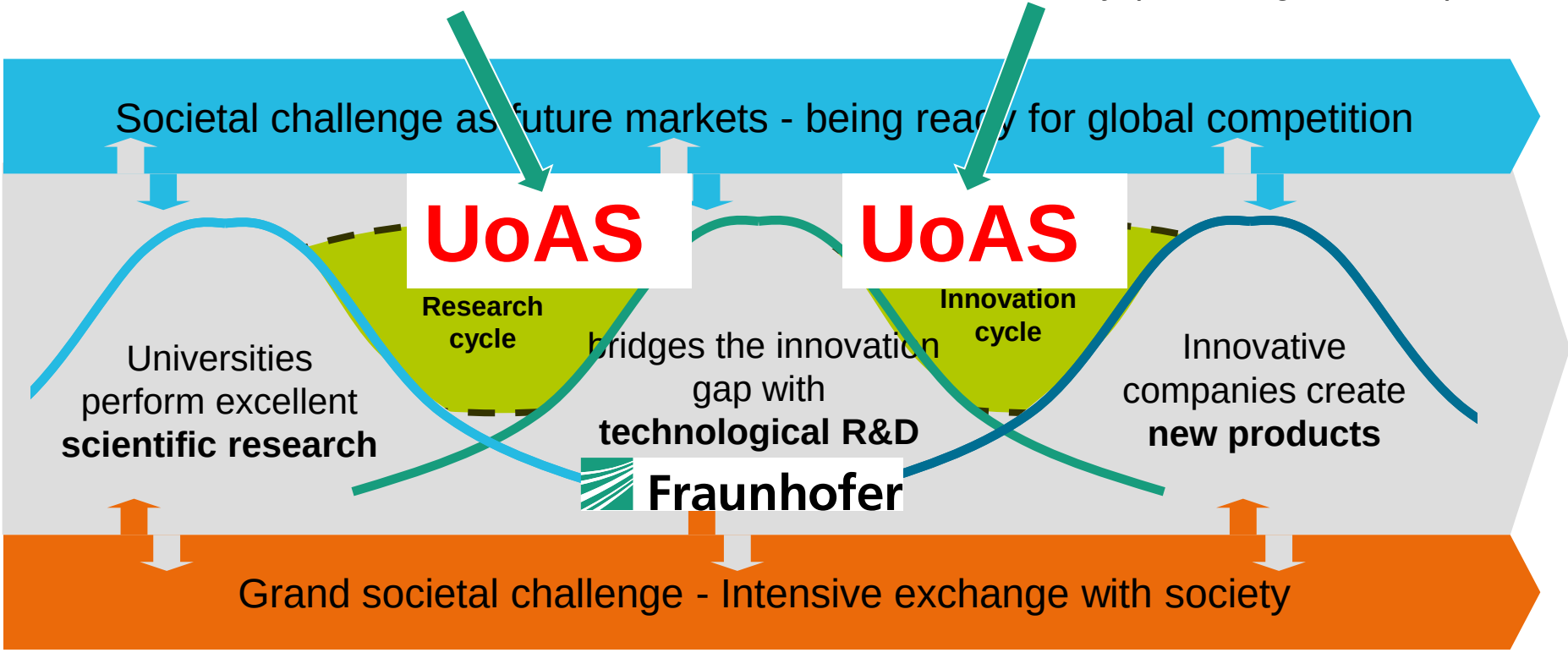
- The Fraunhofer Academy offers a unique opportunity for specialists and managers to benefit of a **direct transfer knowledge** from Fraunhofer research projects into their own company.
- European Distance Learning University in Hamburg (Euro FH)
  - **Part-time Bachelor of Science in Logistics Management**
  - Fraunhofer Academy and the Fraunhofer Institute for Material Flow and Logistics IML in Dortmund
- Hochschule für Technik und Wirtschaft des Saarlandes
  - **Part-time Master programme„Automotive Production Engineering“**
  - Fraunhofer Academy and Fraunhofer Institute for Nondestructive Testing IZFP
- 2015: First project of the academy on EU level under the **EIT-KIC ICT labs**

Universities of Applied Sciences (UoAS)

Supporting the research and the innovation cycle

- Application centres
- Cooperation programme

- Cooperation with the Fraunhofer Academy (knowledge transfer)



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EU projects with German Universities of Applied Sciences

Collaboration with Fraunhofer under FP7

Name	No
Duale Hochschule Baden-Württemberg	1
Fachhochschule der Polizei des Landes Brandenburg	1
Fachhochschule für öffentliche Verwaltung und Rechtspflege in Bayern	1
Fachhochschule Köln	1
Georg-Simon-Ohm-Hochschule für angewandte Wissenschaften - Fachhochschule Nürnberg	1
Hochschule Aalen - Technik und Wirtschaft	1
Hochschule Bonn-Rhein-Sieg, University of Applied Sciences	2
Hochschule Darmstadt	1
Hochschule der Medien Stuttgart	3
Hochschule für angewandte Wissenschaften Fachhochschule Amberg-Weiden	1
Hochschule für Angewandte Wissenschaften Hamburg	1
Hochschule für angewandte Wissenschaften Regensburg	1
Hochschule für Technik Stuttgart	1
Hochschule Karlsruhe - Technik und Wirtschaft	3
Hochschule Mannheim	1
Hochschule Osnabrück	1
Hochschule Ruhr West- University of Applied Sciences	1
Hochschule Wismar - University of Applied Sciences: Technology, Business and Design	1
Total number of partners*	**23**

- In total **only 22 joint projects ➔ >2% of all Fraunhofer FP7 projects**
- In comparison: Just with KU Leuven about 50 projects

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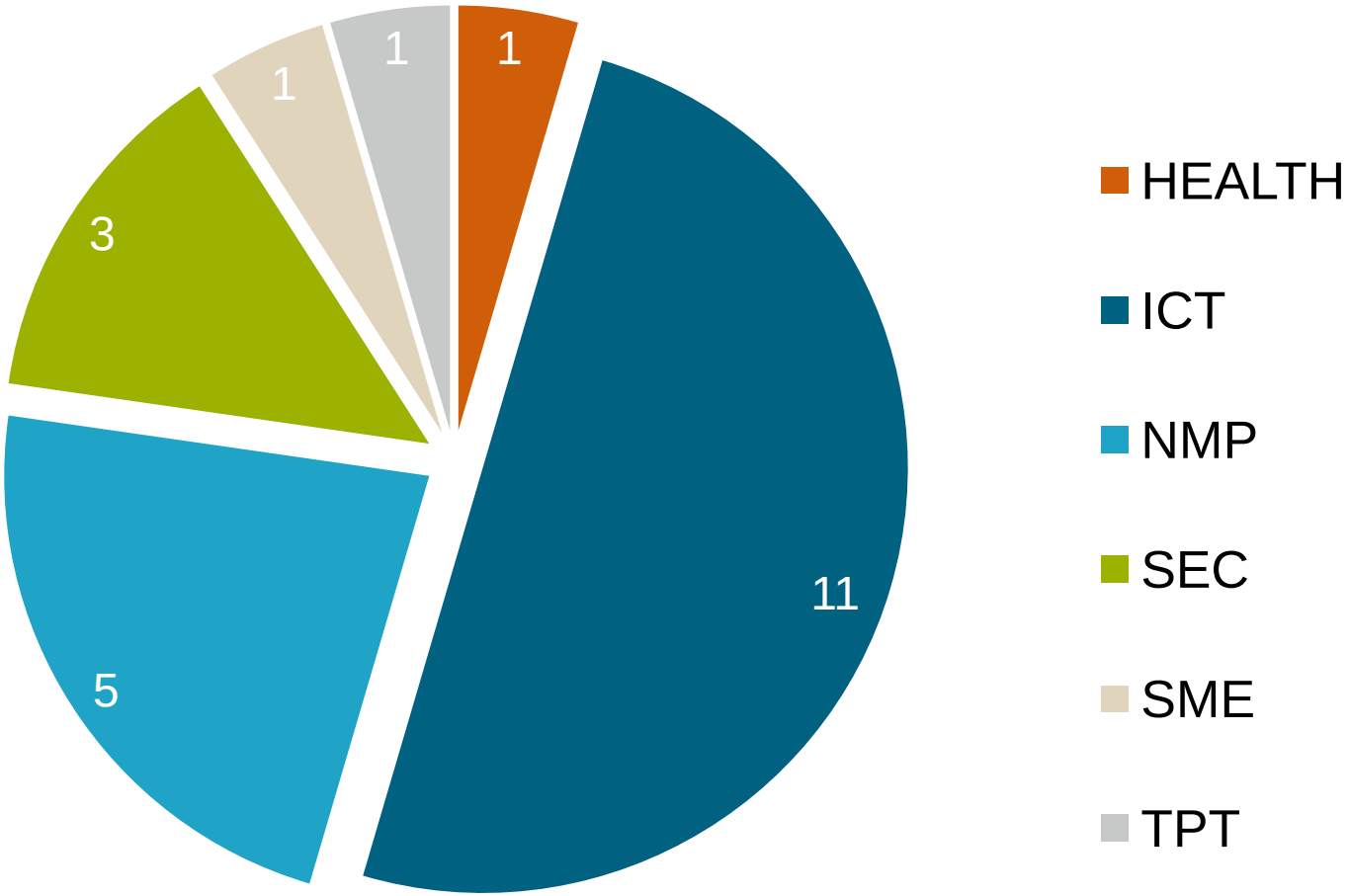
Source: ECORDA-Vertragsdatenbank, Stand: 06.10.2014; EU-Büro BMBF
*Remark: One project with 2 partners –> 22 projects, 23 collaborations

EU projects with German Universities of Applied Sciences

Number of joint projects in the FP7 themes



- Total number of projects 22 ➔ **50% of all projects in the area of ICT**

Source: ECORDA-Vertragsdatenbank, Stand: 06.10.2014; EU-Büro BMBF
*Remark: One project with 2 partners –> 22 projects, 23 collaborations

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Conclusions on the status quo
There is room for more

- In Germany Fraunhofer **cooperates** with Universities of Applied Sciences on **different levels**
- But the cooperation **remains on a comparatively small scale** -> (Technical) Universities are the core partners
- Cooperation **on EU level is currently very low** and mainly concentrated on ICT

(Technical) universities are Fraunhofer‘s natural core partners but…

- The **cooperation** with Universities of Applied Sciences **is increasing**
- There is plenty of **room for more…**

Fraunhofer

Opportunities with Fraunhofer
Join us as a partner

- **More Application Centers and Cooperation Programmes** to come in Germany in the next years

- Join us in Horizon 2020 projects
- Especially with a strong **focus on knowledge transfer** to industry
  - Combine research with education components in the projects
  - Training for pilot line and demonstration projects

- Further **exploit opportunities of the Knowledge Alliances** under Erasmus+ together with the Fraunhofer Academy

Fraunhofer

Long term opportunities – A proposal
Increase the absorptive capacity of Europe's industry

- On EU level Universities of Applied Sciences could particularly **strengthen their role in supporting knowledge transfer**
  - Through combining research with: part-time education, training and life-long learning programme, competence development of companies, long distance learning….
  - Join forces with RTOs to bring research results to industry

- Establish the **concept of a „Professional School“** on European level
  - Transfer research results through training directly to industrial specialists and technical managers
  - Possible examples: Training on the qualities of new materials, Possibilities of new IT-tools etc.
  - **To be Integrated in up-coming 2016 EIT-KICs ?**

Fraunhofer

Thank you for your attention!

How to get in touch?

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Fraunhofer

COBURG UNIVERSITY
of applied sciences and arts

Research at Coburg University of Applied Sciences and Arts

Prof. Dr. Jürgen Krahl

Technology Transfer Center Automotive Coburg (TAC) of Coburg University of Applied Sciences and Arts

COBURG UNIVERSITY
of applied sciences and arts

Agenda

- Introducing Coburg University of Applied Sciences: Facts and Figures
- Research Focus Areas
- Current Research Project: Diesel R33
- Networking Activities
- Search for project partnerships

COBURG UNIVERSITY
of applied sciences and arts

Coburg University of Applied Sciences

COBURG UNIVERSITY
of applied sciences and arts

Facts and figures

- 5.000 students
- 100 scholarship recipients
- 117 professors
- 380 employees in teaching, research and administration

6 faculties:

- Applied Sciences
- Electrical Engineering and Computer Sciences
- Mechanical and Automotive Engineering,
- Social Work and Health
- Economy
- Design

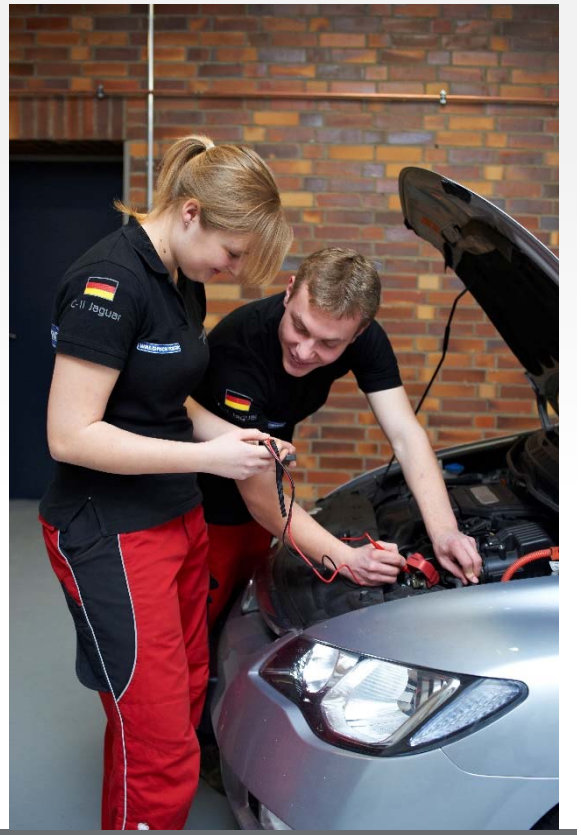
COBURG UNIVERSITY
of applied sciences and arts

Five Institutes

- Technology Transfer Center Automotive Coburg (TAC)
- Institute for Sensor and Actuator Technology (ISAT)
- Institute for Applied Health Sciences (IaG)
- Institute for Integrated Product Design (IP.CO)
- Institute for Prototype and Modelling Technique (IPM)

Automotive Engineering

- Combustion and emissions for diverse fuels
- Energy management for (hybrid) powertrains
- Development of fail-safe automotive software functions (powertrain, chassis)
- Motion systems
- Innovation process management



Measurement and Sensor Technology

- Novel sensor concepts and applications
- Touch-sensitive surfaces
- High-voltage sensors,
- Bio-analytics in micro-biology and molecular-biology
- Mobile monitoring
- Wireless energy-efficient transmission of sensor measurement data

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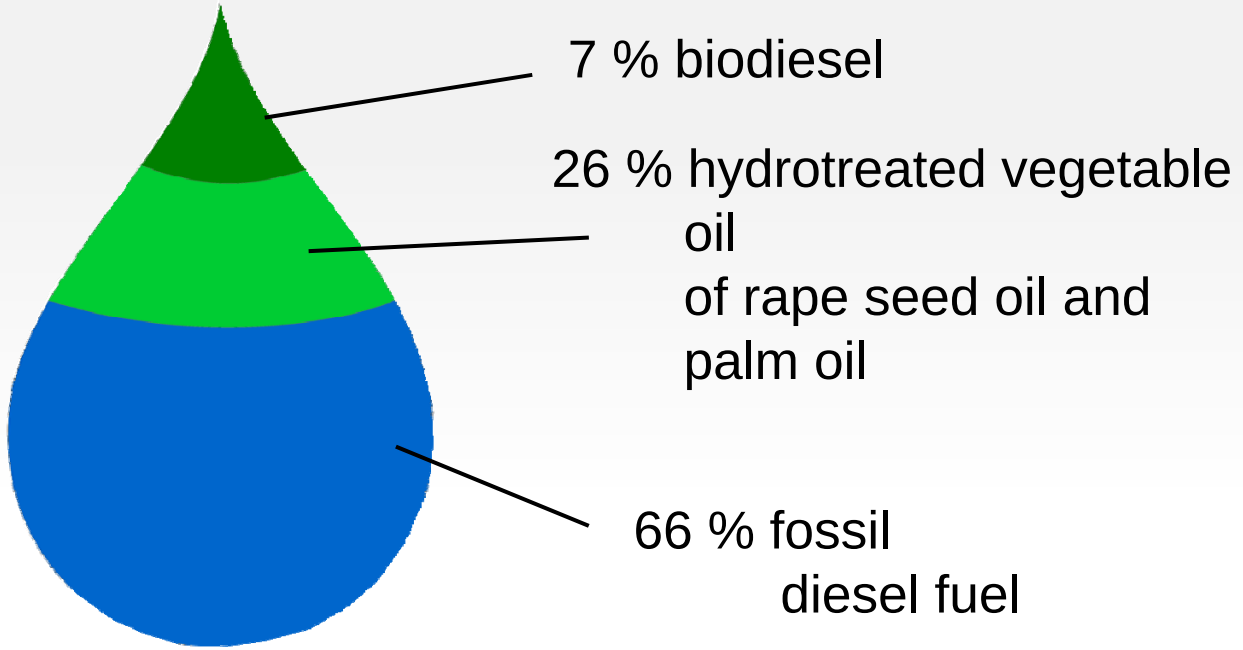
Health promotion through organisation developments

- Regional health promotion policy
- Health literacy
- Demography and technology – quality of life of the elderly

Diesel R33



Diesel R33 is according to the diesel fuel standard DIN EN 590.

Scientific targets

- Emissions and health impact
- Fuel-oil-interactions
- Fuel-fuel-interactions
- Material compatibility
- Sustainability and green house gas effect

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Diesel R33

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Current project status

- Diesel R33 is conforming to the diesel fuel standard
- Useable in all diesel vehicles
- Reduction of the CO_2 emissions
- Opening of the first filling station of Diesel R33
  Filling volume (Dec 2014) over 1,500,000 liter

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Project partners of Diesel R33

ASG Analytik-Service Gesellschaft

bender automobile und mehr

bft

CEB

Continental

DAIMLER

ERC

HOCHSCHULE COBURG

HUK-COBURG Aus Tradition günstig

LASCO UMFORMTECHNIK WERKZEUGMASCHINENFABRIK

NESTE OIL

DB BAHN

Frankenbus

Steinbeis-Transferzentrum Biokraftstoffe und Umweltmesstechnik

SÜC Energie Und mehr.

tac technologietransfer automotive hochschule coburg

TECOSOL liquid organic energy

THÜNEN

ufop

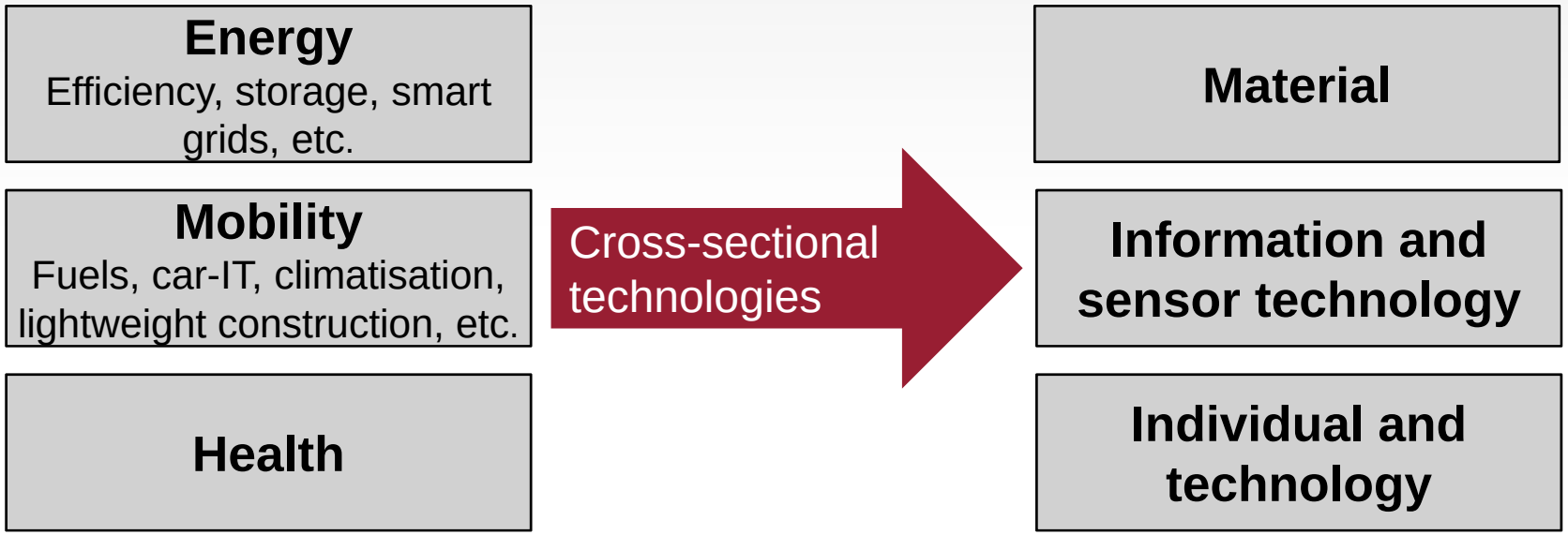
Walther

„Investition in Ihre Zukunft“

Das Vorhaben
wird von der Europäischen Union aus dem
Europäischen Fonds für regionale Entwicklung
und vom Freistaat Bayern kofinanziert.

Technology Alliance of Upper Franconia (TAO):

- Initiative of the **Universities of Bamberg** and **Bayreuth** as well as the **Universities of Applied Sciences Coburg** and **Hof**
- Concentration of regional competencies in **teaching** and **research** in academia and business



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of applied sciences and arts

Networking Activities

- **Fraunhofer Applied Research Center for Wireless Sensor Technology**
  - Focus on the development of practical solutions for industry based on wireless sensor network technologies
- **Partnership with the University of Winnipeg (Canada) and University of Shanghai for Science and Technology (China)**
  - Preparation of a joint international bachelor program in optical engineering and technical physics

COBURG UNIVERSITY
of applied sciences and arts

Search for project partnerships

- Search for partnerships to initiate new European projects
- Search for European partnerships to cooperate within existing research projects in research focus areas of the Coburg University of Applied Sciences and Arts

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Contact

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Hanze
University of Applied Sciences
Groningen

Hanze UAS

Mobilizing Universities of Applied Sciences for Horizon 2020

share your talent.
move the world.

Hanze UAS

Introduction

- Hanze University of Applied Sciences, Groningen was founded in 1798.
- 70 Bachelor's degree programmes and 18 Master's degree programmes.
- 17 schools, each with its own specific ambiance.
- Approximately 26.000 students (2.000 international students)
- The university employs 3000 professionals.
- A large international network.
- Strategic themes are Energy, Healthy Ageing, Entrepreneurship and Excellence.
- Educational vision intertwines education, research and professional pracice

Research Expertise

- **ENERGY**
- **HEALTHY AGEING**
  - 28 professors
  - 100 researchers
  - 26 PhDs on Healthy Ageing
  - Many students in different programmes
  - 9 large projects and 100 smaller projects
  - One-third of Hanze UAS research capacity is dedicated to Healthy Ageing

Current Research

Case: SPEACH

- EU project ‘Sport Physical Education and Coaching in Health (SPEACH) 2015-2017 (Eramus +)
- Lead partner: Hanze UAS Groningen, the Netherlands
- a unique consortium consisting of 10 partners from 7 EU member states
- national and international Sports Associations and European sports universities and studies.
- This Project is supported by the European Network of Sport Science, Education & Employment (ENSSEE).

Current research

Lessons learned

- Experience and quality
- Long term commitment
- Money and time
  - Internal process
  - Partners

Networks

Healthy Ageing Network Northern Netherlands

- University of Groningen (RUG) & University Medical Centre Groningen (UMCG), Hanze UAS and 3 smaller UAS
- >100 companies & many health care organisations
- Regional authorities
- Health is largest branche in North Netherlands:

Networks

Centre of Expertise Healthy Ageing

- 140 partners;
- 4 Universities of Applied Sciences, University of Groningen (RUG), University Medical Centre Groningen (UMCG); 5 schools for vocational training
- 50 health-welfare institutions
- 50 companies
- local government and other partners like HANNN
- 25 Innovation Labs in the region; public/private partnerships
- European Programmes

Research Cooperation

- Northern Netherlands reference site Active and Healthy Ageing
- European Innovation Partnership on Active and Healthy Ageing
- Hanze UAS research themes aligned with future EU Horizon 2020 projects

- Long term commitments
- Applied research

Thank you

Contact information

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Executive Board Hanze UAS

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www.hanze.nl
www.healthyageing.net

Mobilizing Universities of Applied Sciences for Horizon 2020

ICT Research Cluster at OTH

Information and **C**ommunication **T**echnology

Speaker Prof. Dr.-Ing. Hans-Peter Schmidt

h.schmidt@oth-aw.de

OTH Amberg-Weiden

Kaiser Wilhem Ring 23

92444 Amberg, Germany

Ostbayerische Technische Hochschule (OTH)

Ostbayerische Technische Hochschule
Amberg-Weiden

OTH Comprises Two Universities of Applied Sciences

OTH Regensburg

OTH Amberg-Weiden

OTH

13.000 Students (71 % MINT)

- 39 Bachelor-Programs
- 22 Master-Programs
- 290 Professors
- 410 Members of Staff
- 422 Lecturers from Practice
- 1.700 Alumni / Year

OTH Regensburg

9500 Students

OTH Amberg-Weiden

3.500 Students

Applied Research at OTH

Ostbayerische Technische Hochschule
Amberg-Weiden

Five Research Fields at OTH

- Energy Mobility
- Information and Communications Technologies
- Life Science and Ethics
- Production and Systems
- Building and Infrastructure
- Sensor Systems

OTH Amberg-Weiden

- **Energy and Mobility**
- **Information and Communications Technologies**
- Life science
- Ethics

Ostbayerische Technische Hochschule Amberg-Weiden

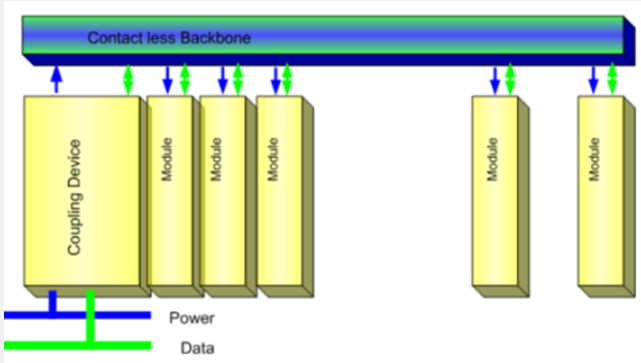
Contactless Power and Data transfer

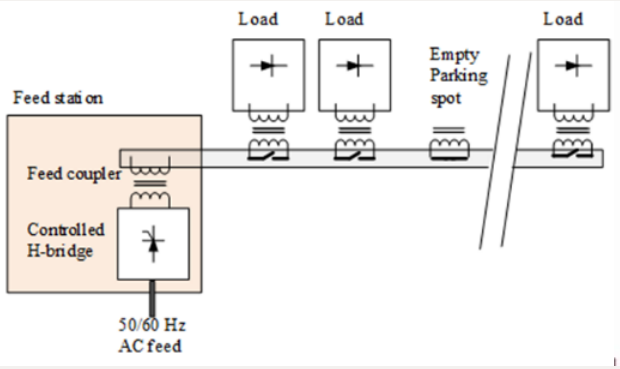
Automation and Automotive

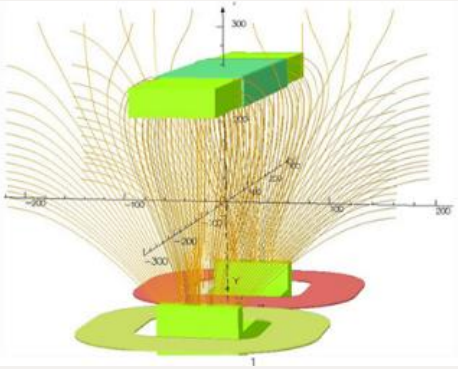
KoBA (2009-2012) funding Free State Bavaria

KoBUS (2013-2015) Federal Government

- Inductive power transfer for production automation
- KoBA: Contactless Supply and Data Transfer
  small power levels for sensors and electronics







Ostbayerische Technische Hochschule Amberg-Weiden

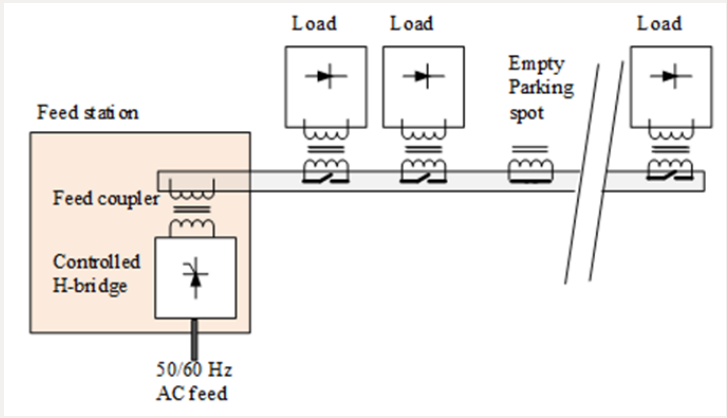
Contactless Power transfer and Data transfer

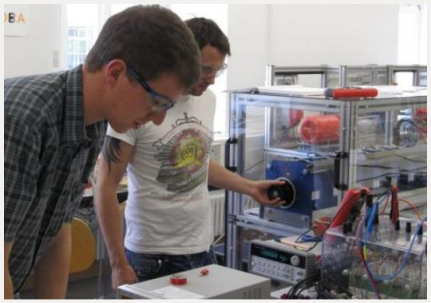
Automation and Automotive

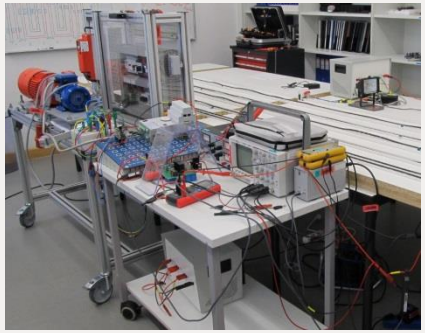
KoBUS: Contactless Power and Data Bus

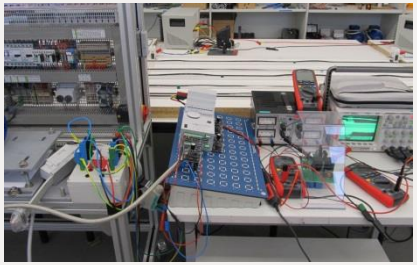
Wireless Power and Data Transfer
higher power levels for actors

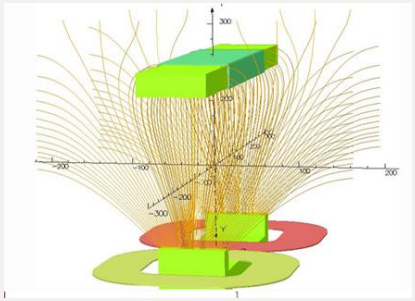
Co operative PHD thesis











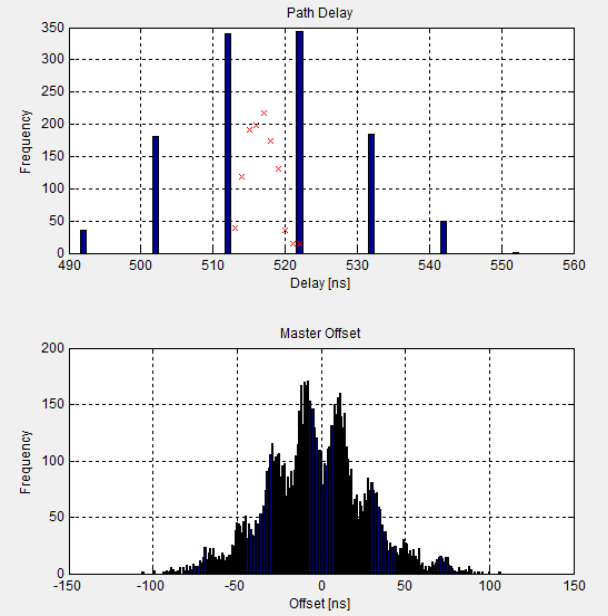
Ostbayerische Technische Hochschule Amberg-Weiden

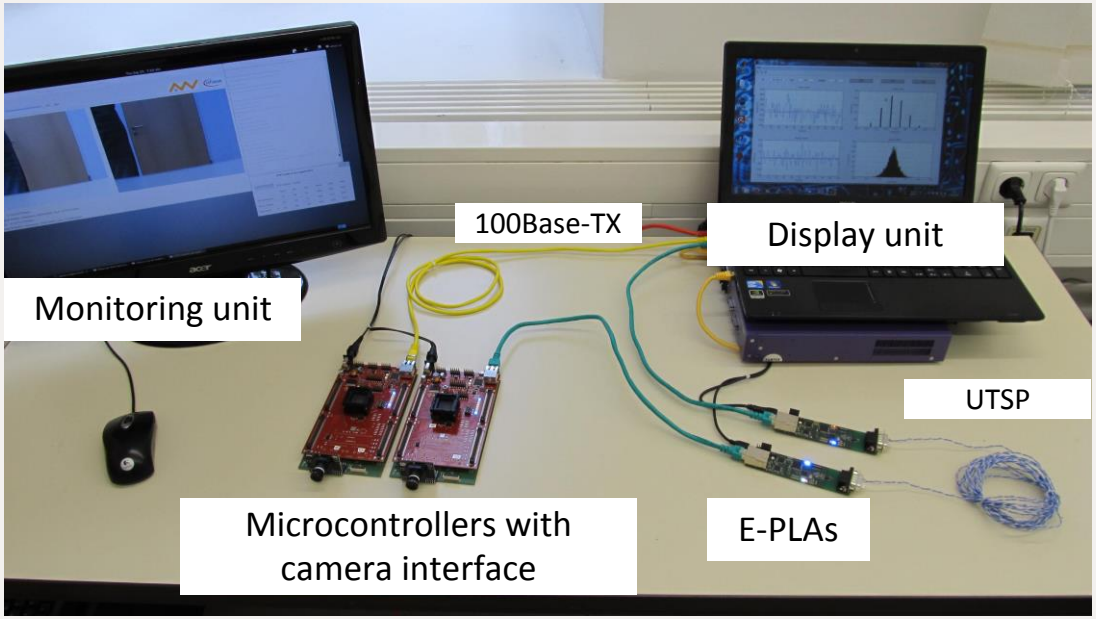
Data transfer for Automation and Automotive

EtherCar (2012-2015) funded by Federal Government

- Real Time Ethernet for Automation and Automotive
- Industrial Communication and In-Vehicle Communication including physical layer

Co operative PHD thesis





Ostbayerische Technische Hochschule Amberg-Weiden

Existing Co-Operations

- **Universities**
  - TU Pilsen, Czechia
  - TU Prague, Czechia
  - TU Ilmenau, Germany
  - TU München, Germany
  - NTU Nanyang, Singapore
  - University Bochum, Germany
  - University Erlangen, Germany
  - University Hagen, Germany
  - University Regensburg, Germany
  - University Siegen, Germany
  - University Valencia, Spain
- **Institutes:**
  - Cesarea Rothshild Institute, Israel
  - CSIRO Sydney, Australia
  - DFKI – German Research Centre for Artificial Intelligence, Germany
  - Fraunhofer IIS Erlangen, Germany
  - FTK – Research Institute for Telecommunication and Cooperation, Germany
  - ifak – Institute of Automation and Communication, Germany

Ostbayerische Technische Hochschule Amberg-Weiden

Existing Co-Operations

- **Industry partner**
  - BHS Corrugated
  - BMW
  - Bosch Rexroth
  - ComDec
  - Continental
  - Eaton/Möller
  - Harting
  - Infineon
  - Jaguar Landrover
  - Lenze
  - Leoni
  - Maschinenfabrik Reinhausen
  - Molex
  - MSF Vathauer
  - netfabb GmbH
  - Phoenix Contact
  - PNO
  - REWAG
  - SEW Eurodrive
  - Siemens Amberg, Erlangen, Prag
  - Softing
  - Stadtwerke Amberg
  - Weidmüller
  - Wieland
  - Witron
  - WIBond

Ostbayerische Technische Hochschule Amberg-Weiden

Co-Operations Sought for Project(s)

Combined Energy and Data transfer with application in Automation and Automotive (incl. E-Mobility wireless charging)

Topics of Interest

- Real Time Ethernet (AVB and TSN)
- Adapted modulation techniques (e.g. OFDM)

coupled with

- RTPGE (Reduced Twisted Pair Gigabit Ethernet)
- Data integrity (EMC)

Project Partners sought: **European Universities**
European Companies

UNIVERSITY OF WEST BOHEMIA

University of West Bohemia

1948 – Founded School of Education
1949 – Founded School of Mechanical and Electrical Engineering
1991 – Founded University of West Bohemia

UWB – 9 Faculties; 2 Institutes
– ≈ 13.000 students
– ≈ 2.000 employees

Located in Pilsen:
- ✓ **Industry driven region**
- ✓ **Long technical tradition**

- ✓ **80 km to the border**
- ✓ **80 km to Prague**

UNIVERSITY OF WEST BOHEMIA

University of West Bohemia

	No of students
Faculty of Applied Sciences	**1 473**
Faculty of Economics	**1 631**
Faculty of Electrical Engineering	**1 545**
Faculty of Education	**2 229**
Faculty of Law	**1 255**
Faculty of Mechanical Engineering	**1 377**
Faculty of Philosophy and Arts	**2 210**
Faculty of Health Care Studies	**770**
Faulty of Art and Design	**628**

*** New Technologies - Research Centre**

*** Institute of Applied Language Studies**

UNIVERSITY OF WEST BOHEMIA

RESEARCH CENTRES

NTC - New Technologies Research Centre

NTIS – New Technologies for Information Society

RTI – Regional Technological Institute

RICE – Regional Innovation Centre for Electrical Engineering

UNIVERSITY OF WEST BOHEMIA

NTC
New Technologies Research Centre

- Materials technologies
- Laser technologies
- Strength analyses
- Convection of heat and heat transfer
- Human body modelling and monitoring
- Human Cognitive Enhancement

UNIVERSITY OF WEST BOHEMIA

NTIS
New Technologies for Information Society

- Development of cybernetic control systems, identification, intelligent decision-making and communication systems
- Advanced computer and information systems
- Research and modelling of heterogeneous materials and mechanical and biomechanical structures
- Novel nanostructured thin-film materials prepared using plasma processing
- Qualitative and quantitative investigation of mathematical models

UNIVERSITY OF WEST BOHEMIA

RICE – Regional Innovation Centre for Electrical Engineering

- Intelligent industrial systems
- New traction concepts and advanced technologies for traffic vehicles
- Material research
- Energetics and industrial systems
- Testing and diagnostics

UNIVERSITY OF WEST BOHEMIA

RTI – Regional Technology Institute

- Research and development of the modern vehical contruction and design icluded traction systems
- R&D of processing machines
- R&D of forming technologies
- R&D of machining technologies

- Traction Vehicles Competence Center
- Machinery Processing Technics Competence Center

UNIVERSITY OF WEST BOHEMIA

International R&D Co-operation

Agreements

11 countries (24 partner universities)

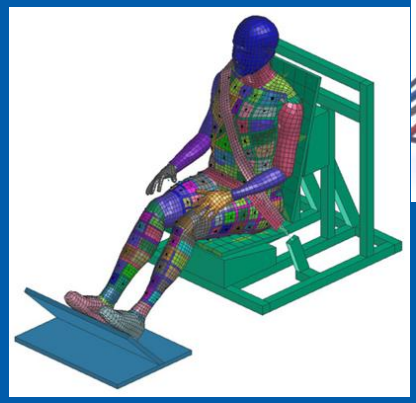
Extensive experience with research projects:

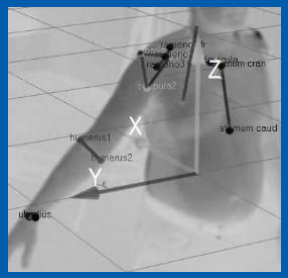
- Czech Rep: Grant Agency, Ministry of Culture, Ministry of Education, Ministry of Industry and Trade, Ministry of Health Ministry of Foreigh Affairs, Technology Agency …
- 6. FP, 7. FP, COST, ESA, Jean Monet, Czech-Norwegian Research Programme, Visegrad Fund,

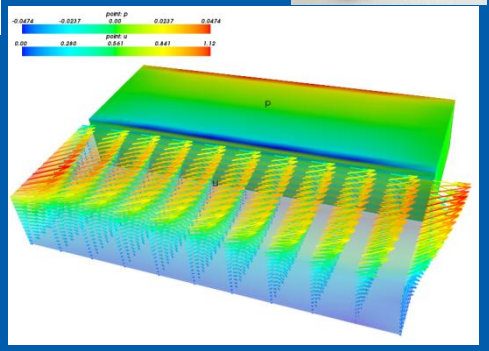
UNIVERSITY OF WEST BOHEMIA

Research projects: Human body modelling and monitoring

- Injury analysis for external impact (traffic accidents)
- Muscle stress/strain analysis
- In-house FE solver http://sfepy.org for modelling strongly heterogeneous materials (BSD license)
- Clinical applications(stress/strain analysis during delivery)
- Electronic systems for biometric data measuring, transfer and analysis







- ***Cooperation: national and foreign universities, university hospitals***
- ***FP6 and FP7 projects, national projects***
- ***References: CEESAR France, ESI Group, TRW Germany***

UNIVERSITY OF WEST BOHEMIA

Czech leading research center on infrared and laser technologies

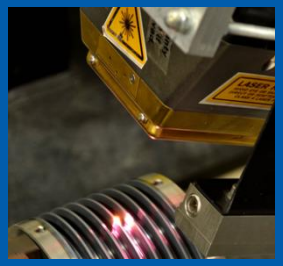
- Industrial laser technologies for materials processing
- Active infrared technologies for process and material analyses
- Measurement of optical properties of materials

Educational Projects cooperation possibilities

Partners: educational institutions, universities, research institutes

Scope of cooperation:

- practical and theoretical presentations preparation on capabilities of infrared and laser technologies, translations into Czech and German language, live demonstrations in application labs for Czech and Bavarian companies or students, workshops in Czech Rep. and Bavaria ...



Research and development projects cooperation

Partners: universities, research institutes, SMEs

Scope of cooperation:

- practical demonstration of laser and infrared technologies, processing of prototypes, material analyses, technical/economical analyses
- definition of tasks, providing test workpieces, analyses of processed parts, competitive technologies for comparison
- Both - joint publications, presentations, workshops, ...

UNIVERSITY OF WEST BOHEMIA

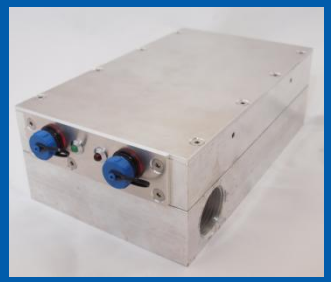
TECHNOLOGICAL SYSTEM FOR PROTECTION OF CUTTING FLUID

Description of technology:

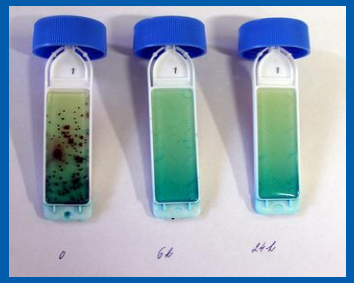
- Our newly-developed technology is based on using photocatalysis to generate a reactive form of oxygen with antimicrobial effects which eliminate undesirable microorganisms.
- We remove the need for cutting fluid additives based on bacterial cultures or bactericides which have undesirable risks and side-effects.

Innovative advantages:

- **Functional** – works over a wide range on all types of bacteria, yeasts and moulds.
- **Economic** – extended operational stability of cutting fluid, material savings.
- **Health** – Operation of machines without biocides. The additive has no undesirable toxic or allergenic effects, minimizes negative health risks to the machine operators.
- **Ecological** – cutting fluid contains no toxic antimicrobial additives meaning no biocides in waste water and soil, and eliminates risks during filtration, cleaning and disposal of cutting fluid.
- **Regulatory Compliance** – elimination of toxicological risks, meets the most stringent safety regulations.



Photoinitiation system



Microbial tests illustrating the efficiency of destruction of microorganisms in cutting fluid. 1. Contaminated cutting fluid; 2. Fluid after 6 hours; 3. Fluid after 24 hours

UNIVERSITY OF WEST BOHEMIA

INNOVATIVE INTERNAL HIGH PRESSURE FORMING

Description of technology:

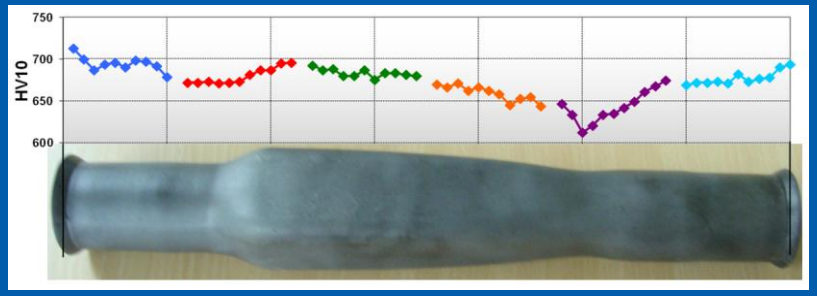
- Our innovation, offering the potential for manufacturing complex-shaped structural parts with enhanced properties, opens new opportunities in the field of processing hollow stock.
- We can deliver excellent ultimate strengths exceeding 2000 MPa at a sufficient elongation level of 10 %. When combined with an unconventional forming method, it allows the production of complex-shaped parts with outstanding mechanical properties.

Innovative advantages:

- Advanced steels achieving strength limit. Reduced cost of heat treatment as the final hardening operation can be omitted.
- Weight reduction (Results in lightweight steel components such as hollow shafts)

Demonstration on automotive shafts:

- Our tests show that hollow shafts with their substantially reduced mass can transmit torques equal to those sustained by solid shafts.



Hardness in the axial direction can be influenced by the wall thickness and the cooling rate.

UNIVERSITY
OF WEST BOHEMIA

THANK YOU

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Hochschule Kempten
University of Applied Sciences

Forschungszentrum Allgäu (FZA)

Mobilizing Universities of Applied Sciences for Horizon 2020

Prof. Dr.-Ing. Andreas Rupp
Charlotte Wallin

Kempten University of Applied Sciences

Hochschule Kempten
University of Applied Sciences

Forschungszentrum Allgäu (FZA)

Kempten, the city on the river Iller is located deep in the south of Germany, on the northern edge of the Alps in the spa and holiday region Allgäu. The Allgäu is notable for its beautiful landscapes. Besides tourism the building of machines is an important factor of economy.

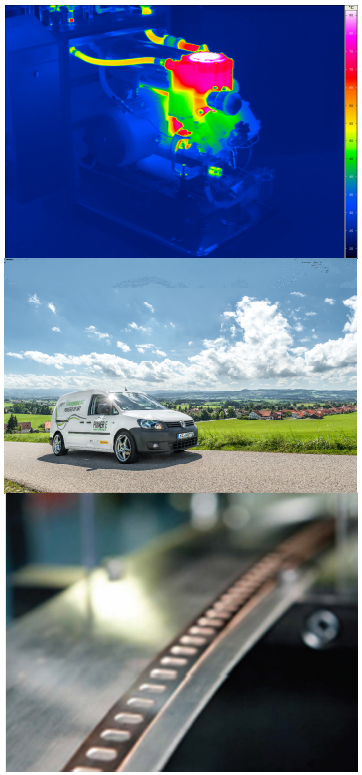
Kempten University of applied sciences is a cosmopolitan university in Allgäu which offers applied, interdisciplinary, international and pioneering higher education courses. Besides the education, the university offers a wide field of research- & development projects.

Research focuses at the UAS Kempten

Hochschule Kempten
University of Applied Sciences

Forschungszentrum Allgäu (FZA)

With the institute “Forschungszentrum Allgäu FZA” and the new founded network „Technologienetzwerk Allgäu TNA” the university is advanced to a platform for customers and partners in common public government-funded projects and contract research. Due to the regional, national and European partners, the university is a nationwide research facility in its fields.



1. Energysystems and engineering

2. Connected mobility and automotive engineering

3. Production and automation engineering

4. Health Care Management

5. Innovative forms of teaching and learing

In total the UAS Kempten has over 25 active R&D Projects and over 60 scientific employees.

Research focus - Connected mobility and automotive engineering

e-mobilität allgäu

- At the center of the project is the diversity of the fleet
- Vehicles of all kind, with different operators and different use cases are operated with an unified, newly developed ICT-System and a public and private charging infrastructure
- By areal- and user-related mobility and market-research activities, the basis for the development of suitable business models and marketing concepts is created.
- Different models evaluating the life expectation of batteries are developed on the basis of measurements and tests
- A driver assistant system with eco –routing and reliable vehicle range prediction is developed and tested.

- **Tourism acts as an ambassador**
- **Rural settlement structure**
- **Topographic and climatic challenge**

Hochschule Kempten
University of Applied Sciences

E-Tour ALLGÄU
effiziente Elektromobilität & Tourismus

IRENE
Integration regenerativer Energien und Elektromobilität

econnect
eE-Tour Allgäu

ENEVATE
European Network of Electric Vehicles and Transferring Expertise
Accelerating E-Mobility

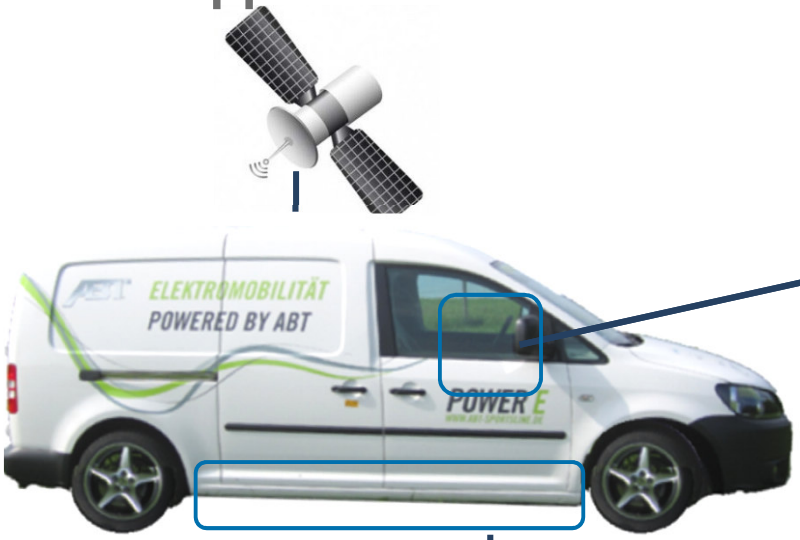
TNA
Technologie Netzwerk Allgäu
Elektromobilität

Data acquisition in a vehicle at the Kempten Universi of Applied Sciences

Hochschule Kempten
University of Applied Sciences

e-mobilität allgäu

Forschungszentrum Allgäu (FZA)



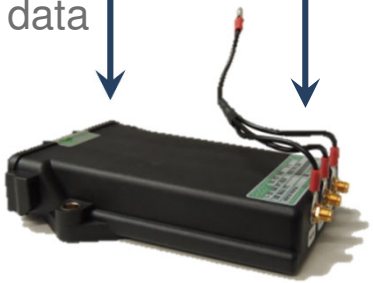
Tablet with Android
- range map

SoC

WLAN

Processing of the GPS data

CAN



HKE-DB
- data administration
- data recording
- vehicle administration
- data evaluation

GSM/UMTS
status every minute
Total data every 10 minutes

Energy data from the battery
- state-of-charge
- power
- voltage
- temperature

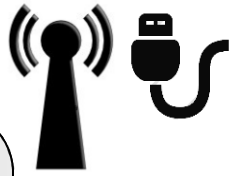
Load data from the vehicles

Database of the Kempten University of Applied Sciences

Hochschule Kempten
University of Applied Sciences

e-mobilität allgäu
Forschungszentrum Allgäu (FZA)

dynamic data via GPRS-network connection
reading of measurement data from a SD-memory card



statistic data
energy simulations
user data

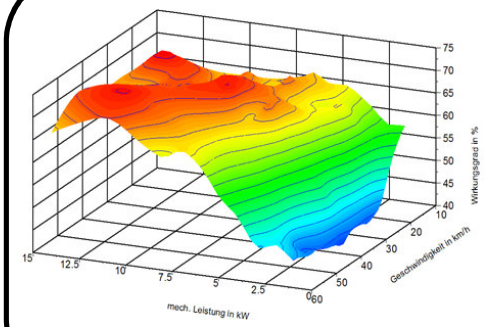
database with raw data

removal of point clouds
interpolation of jumps
allocation in trips
value range checks

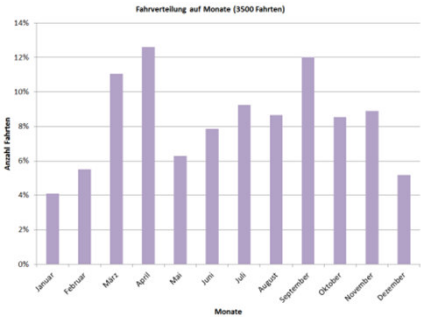
plausibility check and correction of the raw data

consolidated database

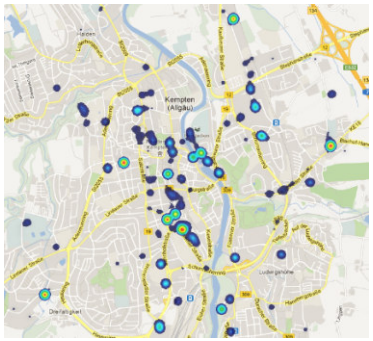
data analysis



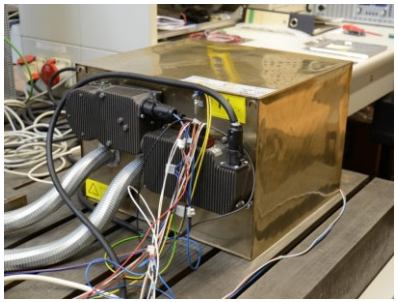
energy model



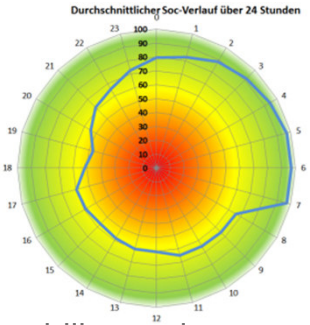
statistic evaluations



location analyses



battery research



mobility analyses

Creation of a range map based on the energy model

Hochschule Kempten
University of Applied Sciences

e-mobilität allgäu Forschungszentrum Allgäu (FZA)

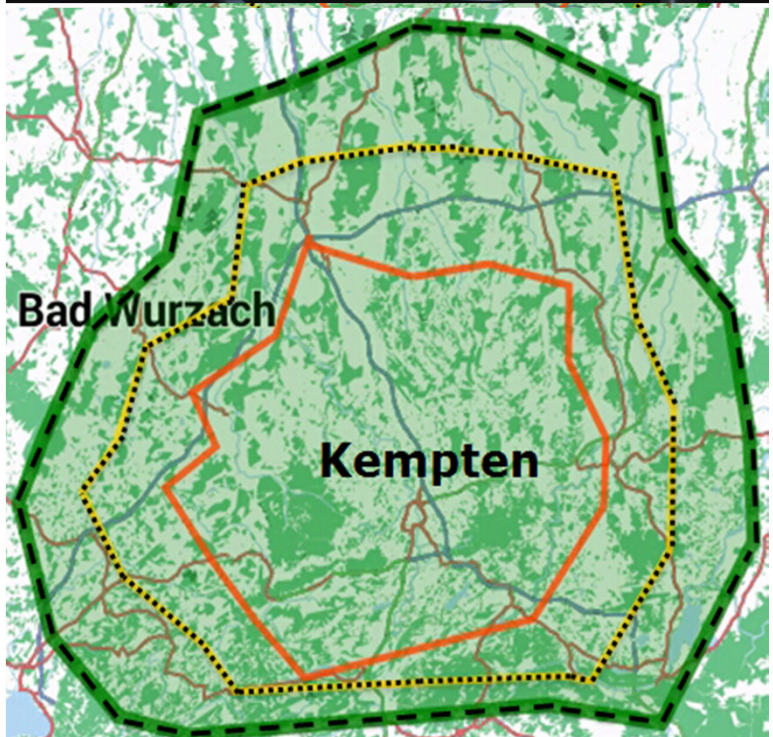
- Utilization of the energy model of the vehicle for the calculation of the energy demand of a route using (adaptive) driver models

  → Important: the classification of the roads

- Consideration of the driving behaviour during the trip and adjustment of the range by means of the actual consumed energy

- Consideration of the current SOCs for the calculation of the range map

  → Direct connection to the data logger



For the forecast of the range, it is necessary to accumulate the map data with specific acceleration values

Research focus - Innovative forms of teaching and learing

Hochschule Kempten
University of Applied Sciences

Forschungszentrum Allgäu (FZA)

- Entrepreneurship, e.g. eCollaboration within teams, access to risk financing institutions/venture capital
- Innovation in SME
- Innovative eLearning in SME
- Process optimization in the manufacturing industries
- Knowledge management
- Cultural and creative industries

Prof. Dr. Gabriele Schäfer
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Faculty of Mechanical Engineering
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www.hs-kempten.de

Industryconnection in R&D-projects

Hochschule Kempten
University of Applied Sciences

Forschungszentrum Allgäu (FZA)

The UAS Kempten has over 90 national and international industry and research partners.

Partner selection:

Intent of Mobilizing 2020

Hochschule Kempten
University of Applied Sciences

Forschungszentrum Allgäu (FZA)

1. **Energy systems and engineering**
   smart grids, feeding energy back to the grid / energetic recovery, power-heat coupling
2. **Connected mobility and automotive engineering**
   vehicle analysis, datalogger development, data acquisition, fleet operators, car2X, power consumption
3. **Production and automation engineering**
   process monitoring and optimization in the fields of foundry engineering, friction coating and press-bent-technology, optimization of materials
4. **Health Care Management**
   health care strategies, supply concepts for chronic diseases, aging society, work-place health promotion, labor market, social- and employment policy, migrants and intercultural competences
5. **Innovative forms of teaching and learning**
   new approaches to extra-occupational studies for professionals in the field of youth work, theory-practice exchange, blended learning, intercultural opening in the field of youth work, professionalization of the teaching and learning in the field of software engineering integrative approach to competencies development

Mobilizing Universities of Applied Sciences for Horizon 2020

Anne De Smedt & Julien Lecointre

4 February 2015

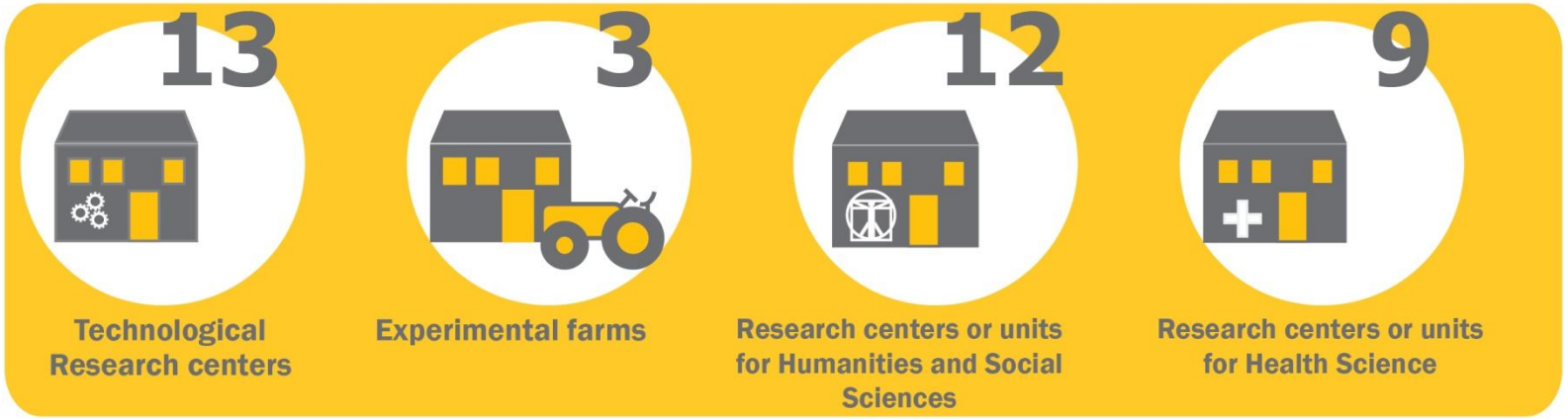
The research in Universities of Applied Sciences

1995 Universities of Applied Sciences mission involves Applied Research

20

Universities of Applied Sciences

Independent legal entities have been created



ADISIF

heCh CHARLEMAGNE
EPHEC
Albert Jacquard
Francisco Ferrer
hepH condorcet
HELB Ilya Prigogine Haute École Libre de Bruxelles
heb
HELHa Haute École Louvain en Hainaut
Haute École Lucia de Brouckère
hénalux Haute École de Namur-Liège-Luxembourg
Haute École Robert Schuman
HEL hel.be
Province de Namur Enseignement & Formation Haute École
ICHEC Brussels Management School
HE HAUTE ÉCOLE EN HAINAUT
HELMO Haute Ecole Libre Mosane
Haute École Paul-Henri Spaak
Province de Liège Enseignement Haute Ecole de la Province de Liège
vinci HAUTE ÉCOLE LÉONARD DE VINCI
Haute École Galilée

A unique organ
for guidance / support and
valorization

Adisif - Entreprises

ADISIF

Adisif - Entreprises

The mission

Adisif - Entreprises

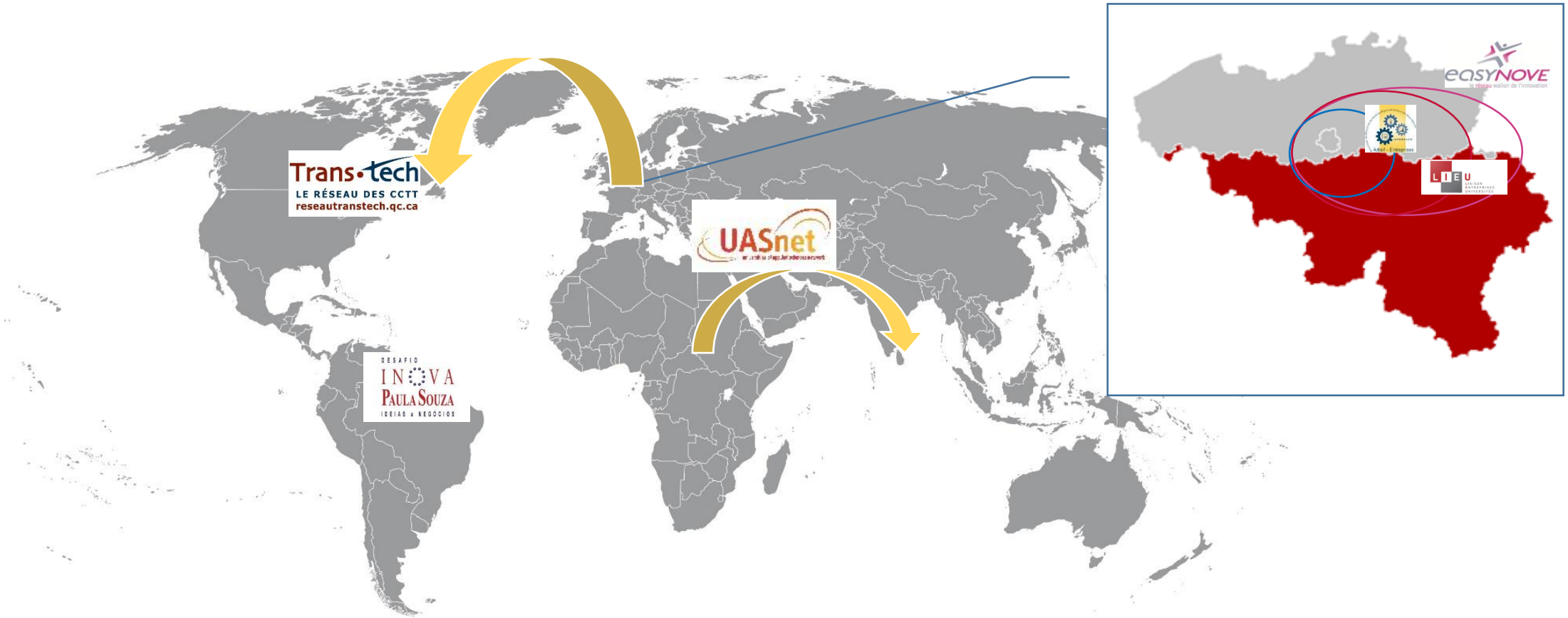
A skills network

A skills network

Adisif - Entreprises

ADISIF in networks

ADISIF takes part in networks directly involved in research and valorization



Networks

BALANCING PROFITABILITY AND ENVIRONMENT THANKS TO RAPID MANUFACTURING AND ECO-DESIGN

Objective:

Demonstrate to SMEs that eco-design and techniques of rapid manufacturing are:

✓new sources of development and innovation for the company,

✓mobilizing tools to address environmental challenges,

✓opportunities to significantly reduce production costs, bringing a competitive advantage in marketing.

Partners:

-11 partners: BE/FR/Lux

-Universities, colleges, R&D centres, companies, competency centers, business interfaces…

Working plan:

1.Form
2.Develop
3.Accompany

1. Creation of new academic and continuing education modules:

✓Eco-design and design methodology
✓Material selection and eco-design
✓Optimization of the flow of materials and of energy in the manufacturing process
✓Rapid product development
✓Coupled simulation
✓Topology optimization
✓Environmental management

3. Business Accompaniments:

✓Life Cycle Assessment (LCA):
- •Environmental profile of a product
- •Product comparison
- •Environmental communication
- •…

✓Rapid prototyping
✓Topology optimization
✓Staff awareness
✓Staff training
✓…

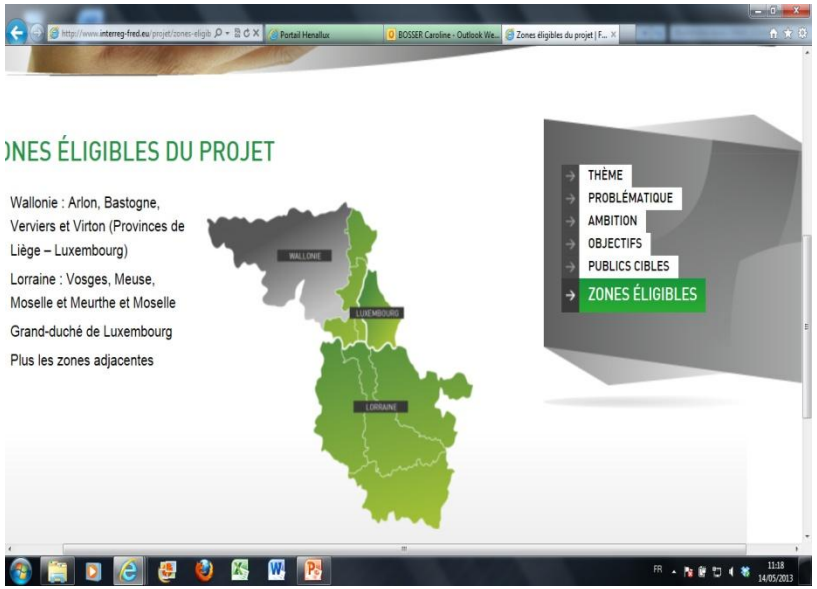
2. Development of new tools specifically developed for companies:

✓Eco-design tools guide
✓Eco-design strategies Guide
✓Questionnaire "Eco-potential"
✓Survey design practices
✓ECOPACT: Development of comics
✓Website: www.interreg-fred.eu/projet/
✓…

FUTURE DEVELOPMENTS AND RESEARCH PARTNERSHIPS

Continue raising awareness and supporting companies on eco-design implementation:

- Enlarge the eligible area: the whole Wallonia, Germany, …
- Applying the approach to any type of business (not only mechanical)
- …



Eco-design, rapid manufacturing and micro-electricity:

- Technical Inventory: Wallonia, BE, Lux, Germany…
- Production peaks smoothing
- Micro-storage
- …

Thank your for your attention

Anne De Smedt
Interface ADISIF
www.adisif.be

Julien LECOINTRE
FoRS
www.fors-ing-henallux.be

Brussels 4/2/2015

Lubos Zilka

MEDIN

MEDIN, a.s.

A traditional Czech manufacturer of medical instruments and implants since 1949

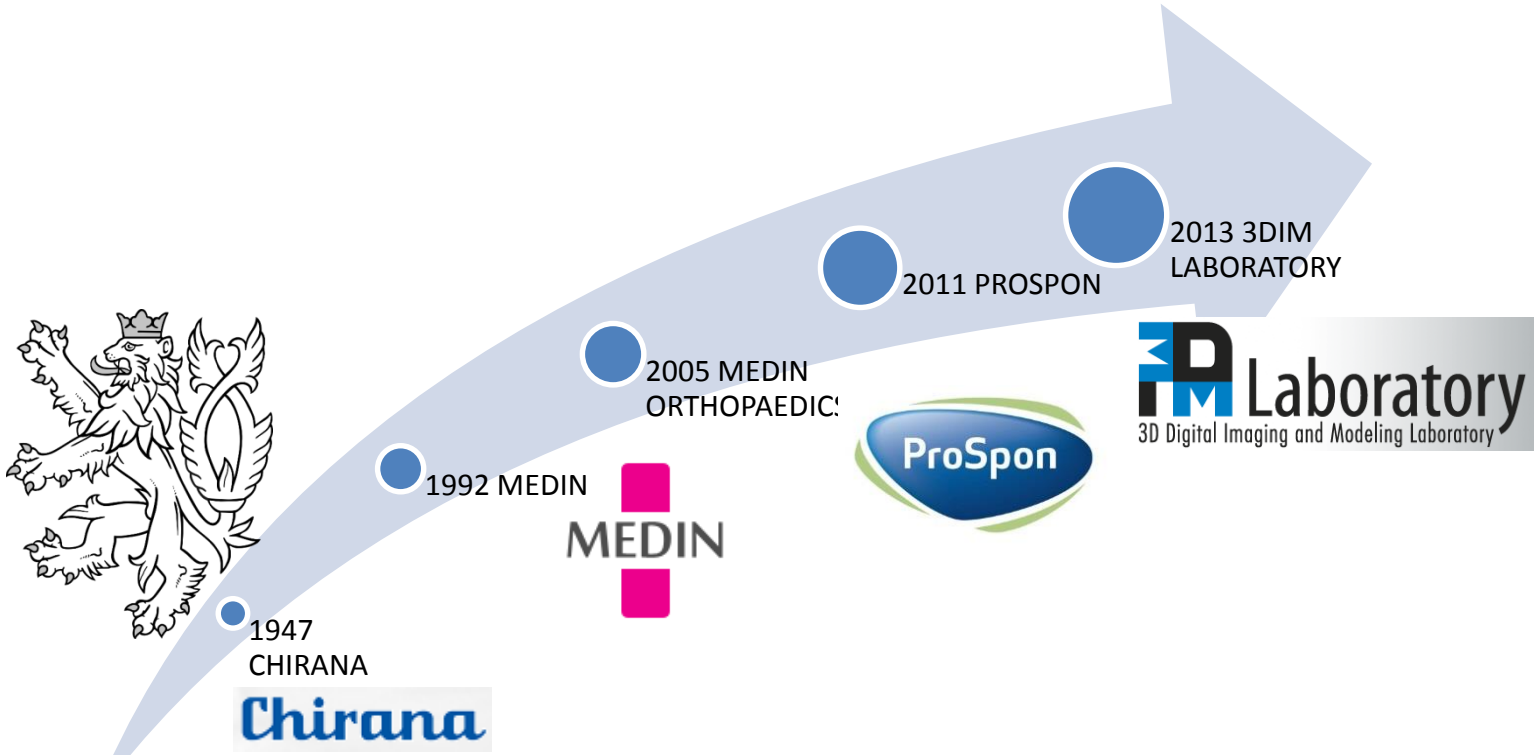
MEDIN

MEDIN – INTRODUCTION 65 year

MEDIN, a.s.

- **1949** - **Chirana s.p.** – company making dental drills and millers for dental laboratories
- **1950** - **Chirana s.p.** – production of surgical instruments
- **1980** - **Chirana s.p.** – production of traumatology implants
- **1992** - **Chirana s.p.** **->** **MEDIN, a.s.** established
- **2006** - **MEDIN, a.s.** **+** **Medin Orthopaedics, a.s.**
- **2010** - **MEDIN Russia** established
- **2012** - **MEDIN established** (in Slovakia)

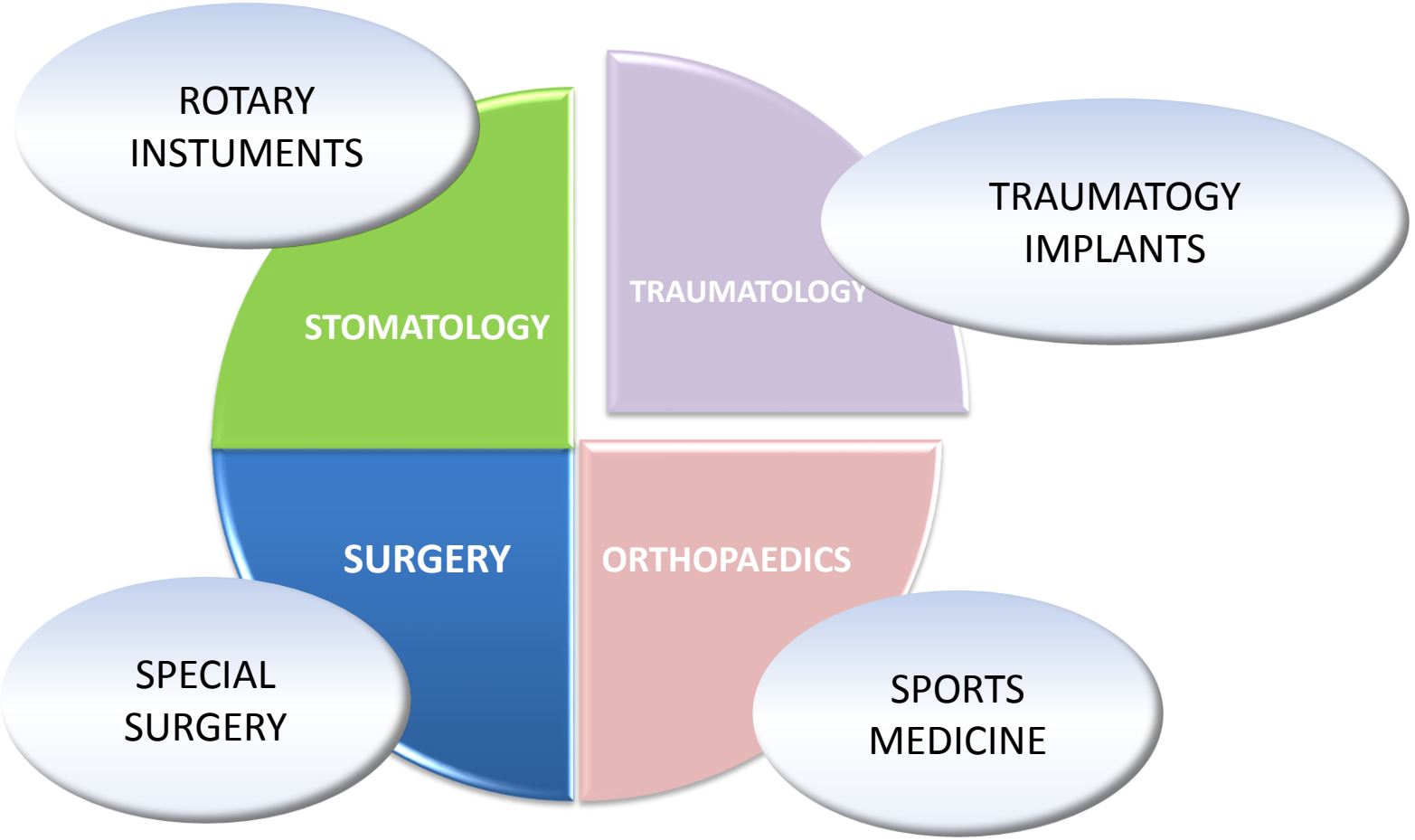
MEDIN GROUP



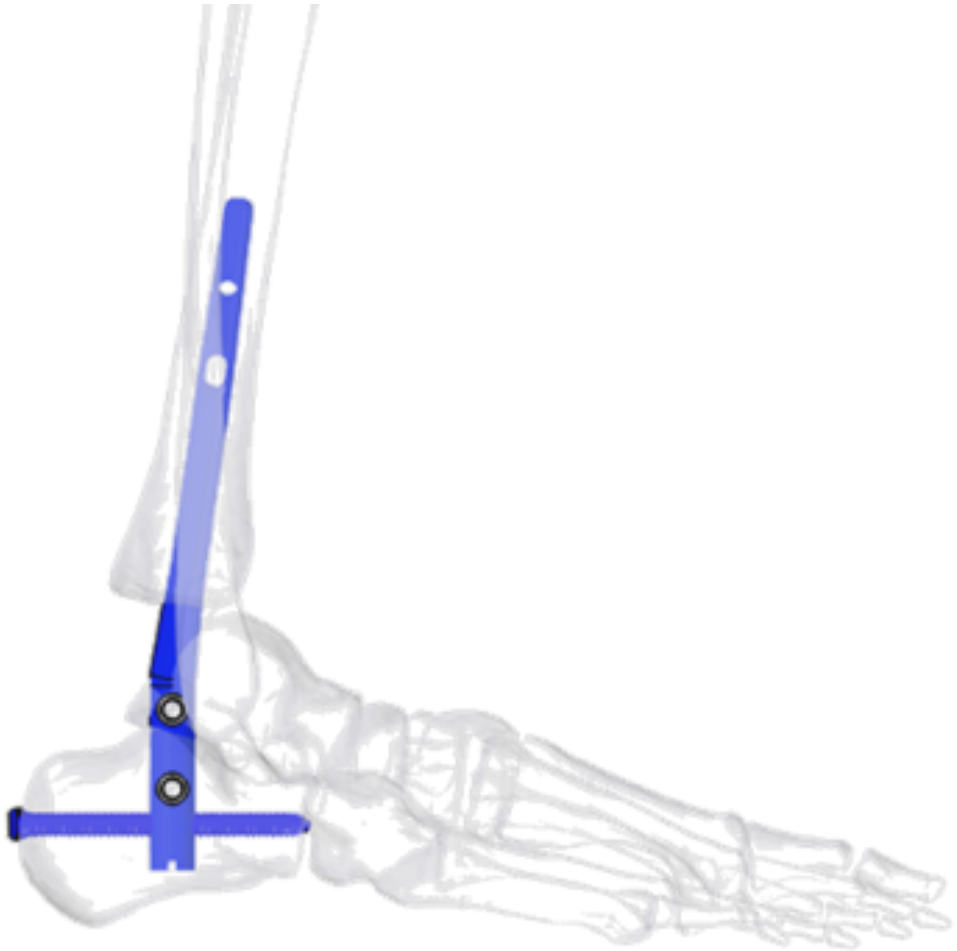
Medin is member of the group of companies that cooperate together in the development of products. Each member of our group is independent.

MEDIN - OUR FOCUS

Medin focuses on four groups of products:



MEDIN



TRAUMATOLOGY

This group contains implants and instrumentations as nails, plates, screws, wires for osteosynthesis of the bone.

MEDIN

Scissors
Twisers
Pliers
Retractors
Endo surgery

SPECIAL SURGERY

for open and close operation techniques

SPORTS MEDICINE

arthroscopy punches, interference screws
Arthroscopic Instrument Set of instruments

MEDIN

MEDIN

UNICONE
time for change

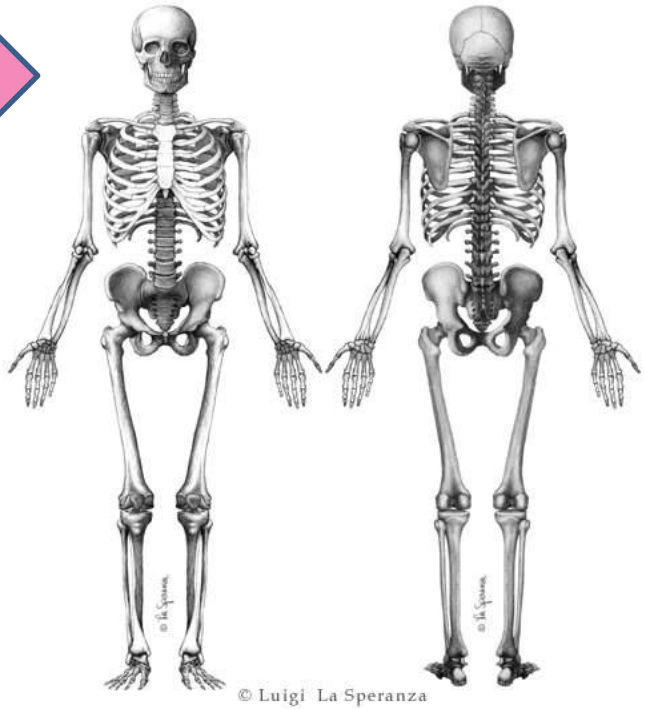
STOMATOLOGY

diamond burs, carbid burs, root canal instruments, barber broach

R&D MEDIN

R&D consists of four teams:

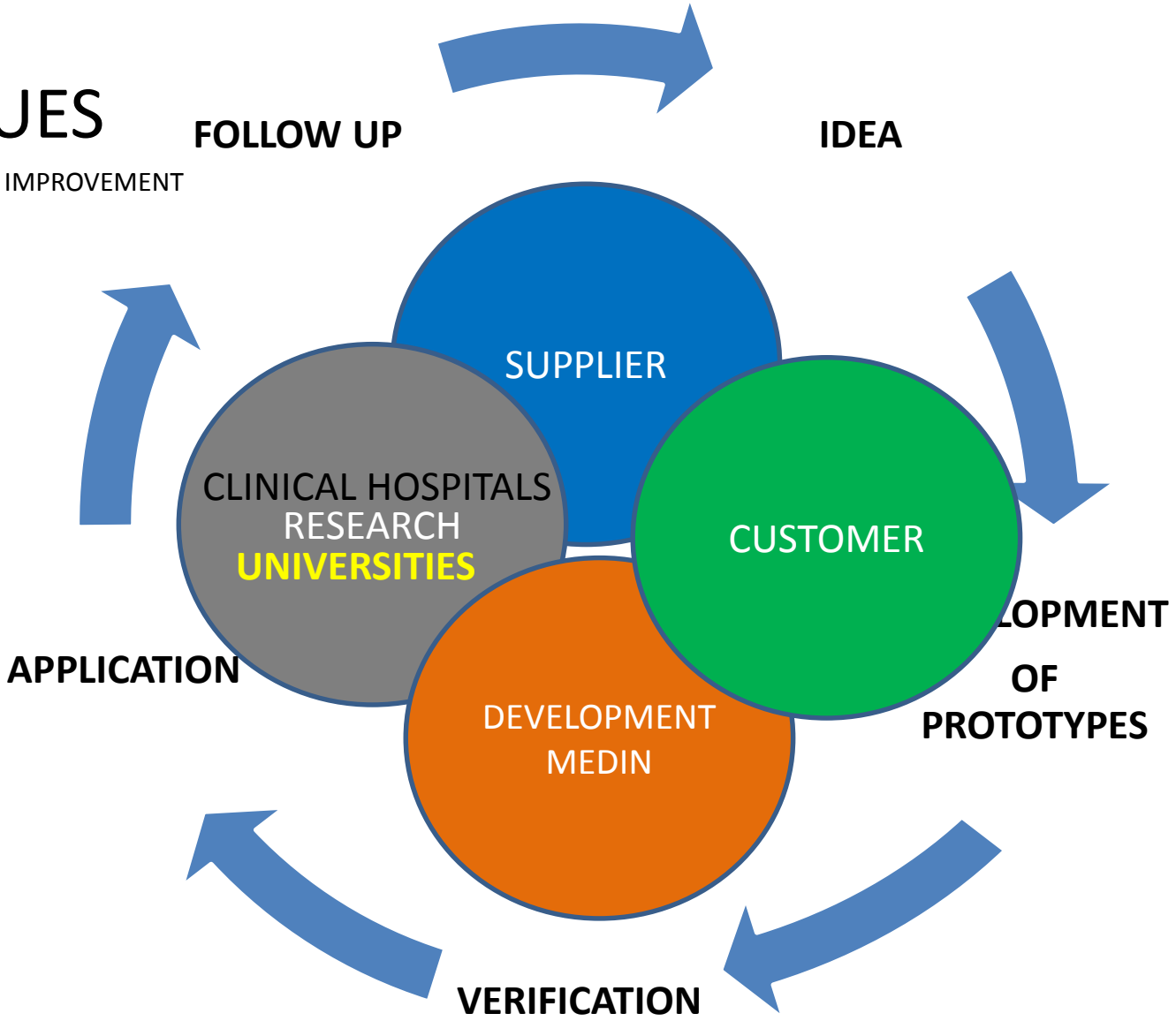
- TRAUMA
- SURGERY
- STOMATOLOGY
- DEVELOPMENT OF NEW MACHINES AND TECHNOLOGY



R&D MEDIN

VALUES

CONSTANT IMPROVEMENT



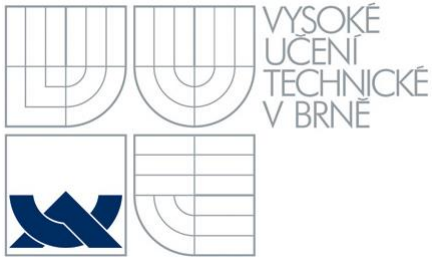
R&D MEDIN

Our current projects are:

- **TA 03010804** - Develpment of small implants for extremitis
- **TA 04011720** - Development of operation techniques for fractures of pelvis
- **TA 04011606** - Development of preoperation 3D SW for surgeons and designers
- **TA 04011214** - Development of new surface for titan implants
- **TA 04010100** - Development of tribology surface
- **TH 01020049** - Development of operation technique for femur fractures
- **TH 010 20487** - Development of Endodoncy instruments

OUR UNIVERSITY PARTNERS

MEDIN



ČVUT PRAHA
VŠB OSTRAVA
KARLOVA UNIVERSITA PRAHA
MASARYKOVA UNIVERSITA BRNO
VETERINA BRNO
VŠCHT PRAHA

R&D MEDIN

OUR SUCCESS IN PROJECTS:

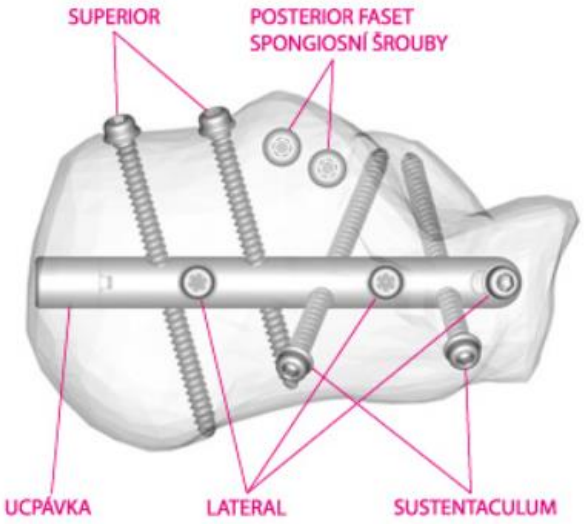
- Development of a new operation technique for **fractures of calcaneal bone**

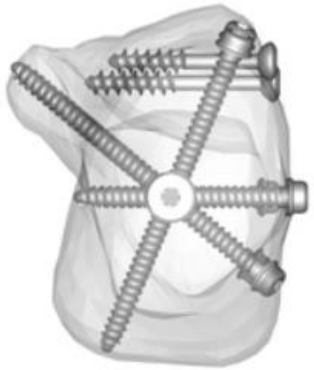
- Development of a new operation technique for **fractures of acetabulum**

We cooperated with universities.

OUR SUCCESSFUL PROJECTS:

- C-NAIL is an operation technique for fixing fractures of the calcaneal bone. It is a unique product. Thanks to this method the patients can return to their standard life sooner.





R&D MEDIN

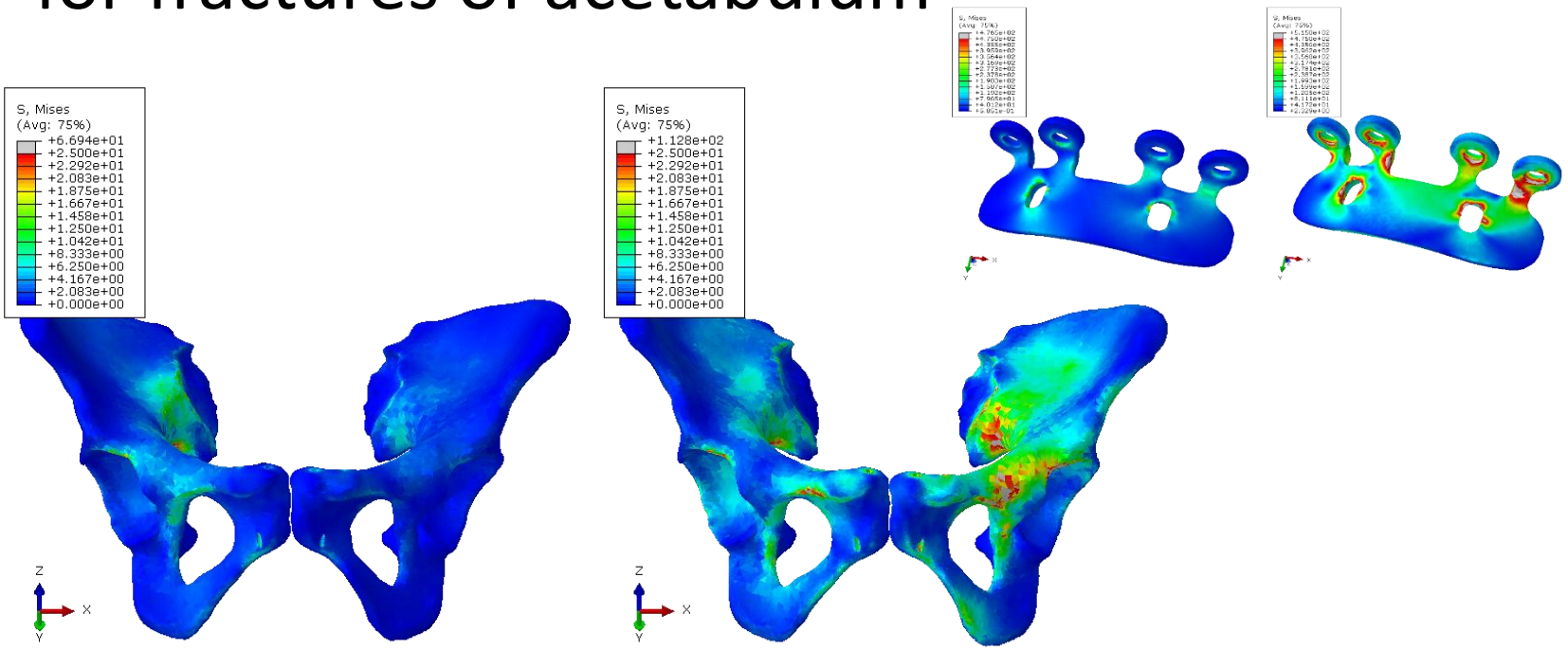
We received this award for an innovative company with our product C-NAIL.

OUR SUCCESSFUL PROJECTS:

- Development of a new operation technique for fractures of acetabulum

OUR SUCCESS IN PROJECTS:

- Development of a new operation technique for fractures of acetabulum



What are we looking for?

Partnership with an international team that has experience in developing:

- **Operation techniques** for bone surgery, sports medicine or regenerative medicine for joints
- **Improvements of materials** and surfaces (biodegradable materials, ceramic materials, polymers materials, shaping material for implants) for improvements (antialerfic materials, barrier surface, antibacterial surface, antialergic surface, osteointegration surface)
- **Preoperative planning** based on CT scan for traumatology
- **Individual attitude** to patients in bone surgery (inborn deformity, posttraumatic deformity, 3D printing of metal and nonmetal implants, individual implants)
- **Monitoring of healing** of fractures

R&D MEDIN

What can we offer?

- A well-skilled team and trained designers
- Development and test equipment
- Experience in development of medical devices
- Professional attitude

Our competences and experience:

- Design of medical devices for
  - traumatology, orthopaedics
  - open and close surgery
  - rotary dental instruments
- Design of grinding 6 axes machines
- Design of chemical process equipment for the production of medical devices
- Production of prototypes and design of tools
- Mechanical test of prototypes
- Experience with legislation rules for medical devices

R&D MEDIN

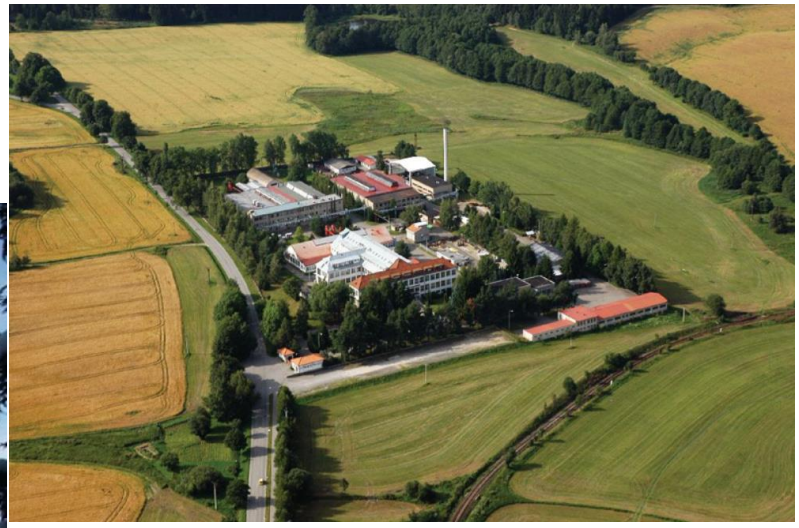
Our equipment for development:

- Biomechanical test laboratory
- Workplace for designers with SW **Solid Edge**
- Rapid prototyping printer
- Development shop for production of prototypes
- Production shop with technology for medical devices
- Tool shop with high tech technology equipment
- Education centre
- Training centre with a workshop room

R&D MEDIN

We received this award from our Ministry of Industry and Trade for our R&D centre.

R&D MEDIN



You are welcome to visit us in Nové Město na Moravě

www.medin.eu

Thank you for your time and attention

UNIVERSITY OF APPLIED SCIENCES UPPER AUSTRIA

Pacesetter in Applied Sciences

Prof. Dr. Johann Kastner | 04th February 2015
FH OÖ Research & Development

HAGENBERG | LINZ | STEYR | WELS

Studies for the future in Upper Austria

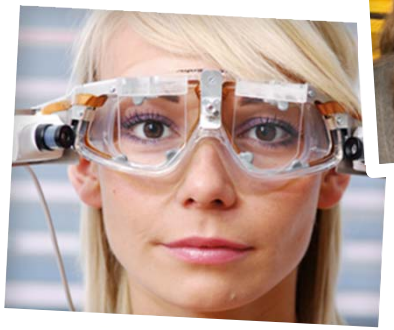
University of Applied Sciences: FH Upper Austria

- Internationally recognized degrees
  (Bachelor: 180 European credits / Master: 120 European credits)
- Close co-operation with industry (more than 1,000 partners)
- Degree programmes include internships/fieldwork and R&D project work
- Students from 60 different countries
- More than 200 partner universities from all around the world
- 5500 students
- 13.8 million € R&D Turnover in 2014

UNIVERSITY OF APPLIED SCIENCES UPPER AUSTRIA

Hagenberg – Linz – Steyr – Wels

Four Faculties – Four Campi



HAGENBERG Campus

Informatics, Communications and Media

LINZ Campus

Applied Health and Social Sciences

STEYR Campus

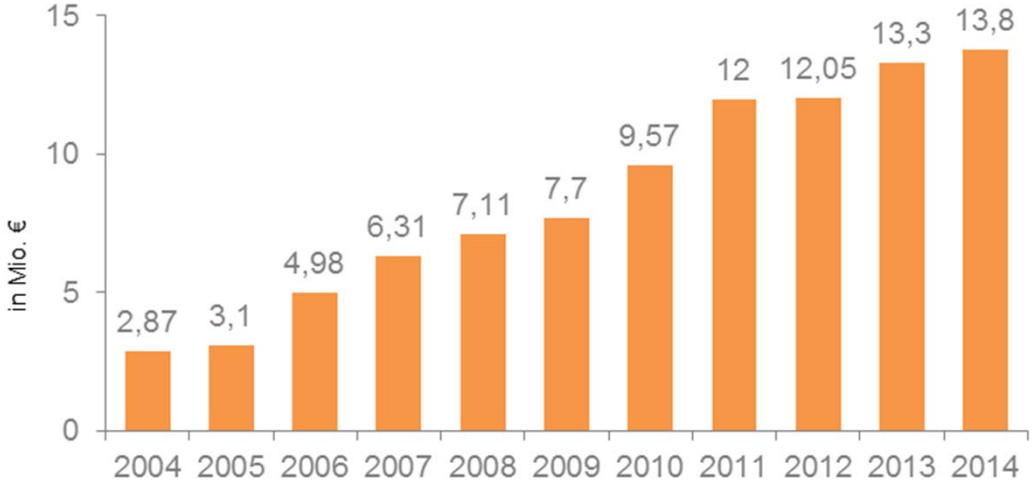
Management

WELS Campus

Engineering and Environmental Sciences

Austria's leader in applied Research & Development: 4 Research Centers

- € 13.8 million R&D turnover in 2014
- About 210 professors and 200 research associates involved in R&D
- 325 ongoing R&D projects
- More than 600 R&D partners from industry and society (of which 140 are international partners)
  - E.g. BMW, BRP, Airbus, Eurocopter, FACC
  - Fronius, Infineon, MAN, Microsoft, NXP, etc.



Austria's leader in applied Research & Development

15 main areas of research

Campus Hagenberg

- Software Technology and Applications
- Information and Communication Systems
- Media and Knowledge Technologies
- Quality of Life for the Elderly

Campus Steyr

- Logistics Management and Corporate Network – LOGISTIKUM
- Production and Operations Management
- Digital Business
- Fields of competence in Management

Campus Wels

- Automated Control Engineering and Simulation
- Bioenergy and Food Technology
- Energy and the Environment
- Innovation and Technology Management
- Materials and Production Engineering
- Measuring and Testing Technology

Campus Linz

- Applied Social Sciences and Non Profit Management
- Medical Technology
- Quality of Life for the Elderly

R&D partnerships with universities

Contacts all around the world

More than 200 Partner Universities

- **Incoming students: About 230**
- **Outgoing students: About 290**

Partnering with industry – one of our major assets

Participation FH Upper Austria in FP7

- **12 ongoing EC FP7 projects and 1 new Horizon 2020 project**
- **Coordination of 5 projects:**
  - QUICOM - Quantitative Inspection of Complex Composite Aeronautic Parts Using Advanced X-ray Techniques, 12 partner, 2012-2015
  - NanoXCT - Compact X-ray computed tomography system for non-destructive characterization of nano materials, 10 partner, 2012-2015
  - Idea Garden - An Interactive Learning Environment Fostering Creativity, 8 partner, 2012-2015
  - Flashed - Flexible Large Area Sensors for Highly Enhanced Displays, 6 partner, 2013-2016
  - SCComplexity - Supply Chain Complexity, Marie Curie project, 2014-2015

Mission statement

- „…to take the next big step in quality control and development of new advanced composite components for the aircraft of the future.“

Main goals

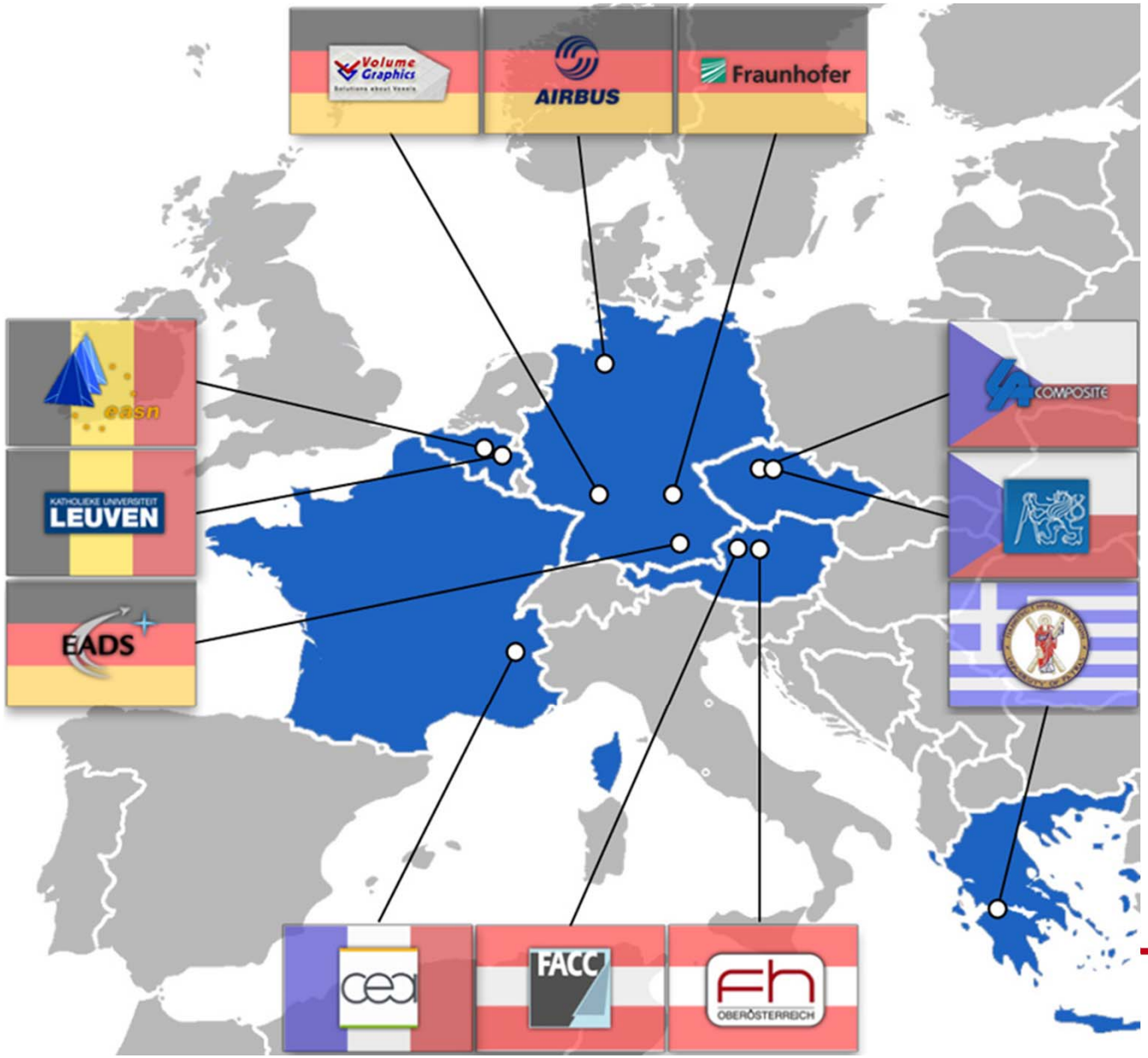
- QUICOM technology platform for non-destructive testing methods
- More economic, greener and safer aircraft industry
- Quality assurance

Funding programme

- FP7 – AAT Aerostructures Transport incl. Aeronautics

The research leading to these results has received funding from the European Union under grant agreement n° 314562.

QUICOM – Consortium: 12 partner



UNIVERSITY OF APPLIED SCIENCES UPPER AUSTRIA

H2020 Focus by calls

Research, Development & Innovation

- ICT
- NMP
- MSC (Marie S. Curie)
- GALILEO
- FoF (ICT, logistics and supply chain, production optimization)
- DS (digital security)
- MG (Mobility for growth)

For further Information

www.fh-ooe.com

research@fh-ooe.at

METROPOLITAN
UNIVERSITY COLLEGE

METROPOL

Research & Development at Metropolitan University College, Copenhagen

Associate Dean Linda Schumann Scheel
Senior Associate Lecturer Chalida Mae Svastisalee

Mobilizing Universities of Applied Sciences for Horizon 2020
Brussels, 4 February 2015

Metropolitan University College, Copenhagen

Metropolitan University College is a university of applied sciences with campuses in Copenhagen, the capital of Denmark

Metropolitan conducts applied research and development activities in welfare-sector, health, rehabilitation, welfare technology, management, education and social work

Metropolitan offers

- Bachelor's Degree programmes
- Academy Profession Degree programmes
- Postgraduate studies

Two Faculties

- Faculty of Health and Technology
- Faculty of Social Science and Pedagogy

Facts

- Approximately 10,000 students
- Approximately 1,000 employees
- A budget of approximately 100 million EUR

Research areas of interest

Topics, a few of our projects

- Person centred health care including role of relatives – *Institute of Nursing*
- Inequality in health – *Institute of Nursing*
- Vulnerable patients/citizens – *Institute of Nursing*
- Transitions - intra and inter-institutional – *Institute of Nursing*
- Empowerment and self-efficacy during the entire life cycle – *Institute of Nursing*
- ICT in health (e-health and m-health) – *Institute of Nursing*
- Qualitative Methods, Quantitative Methods - and Mixed Methods (Rod Taylor UK, Michael Fetters US and Vicky Dickson US)
- Interventions in pregnancy and childbirth - patterns, explanations, and consequences of the rise over 15 years – *the Midwifery Department "Technology and medicalization in pregnancy and childbirth"*
- Math Recovery for Marginalized Groups (RCT identifying evidence for a teaching model improving math skills for primary school children) – *Institute of School and Education*

For further information about our R&D projects, please visit our website:
www.phmetropol.dk/English

Healthy Food

Poor diet and obesity, a larger burden of non-communicable diseases (NCDs) than tobacco, alcohol and physical Inactivity combined[1]

Healthy food policies in EU Member States: potentially halve the current burden of disability and premature death[2]

Dietary policy interventions[3]:

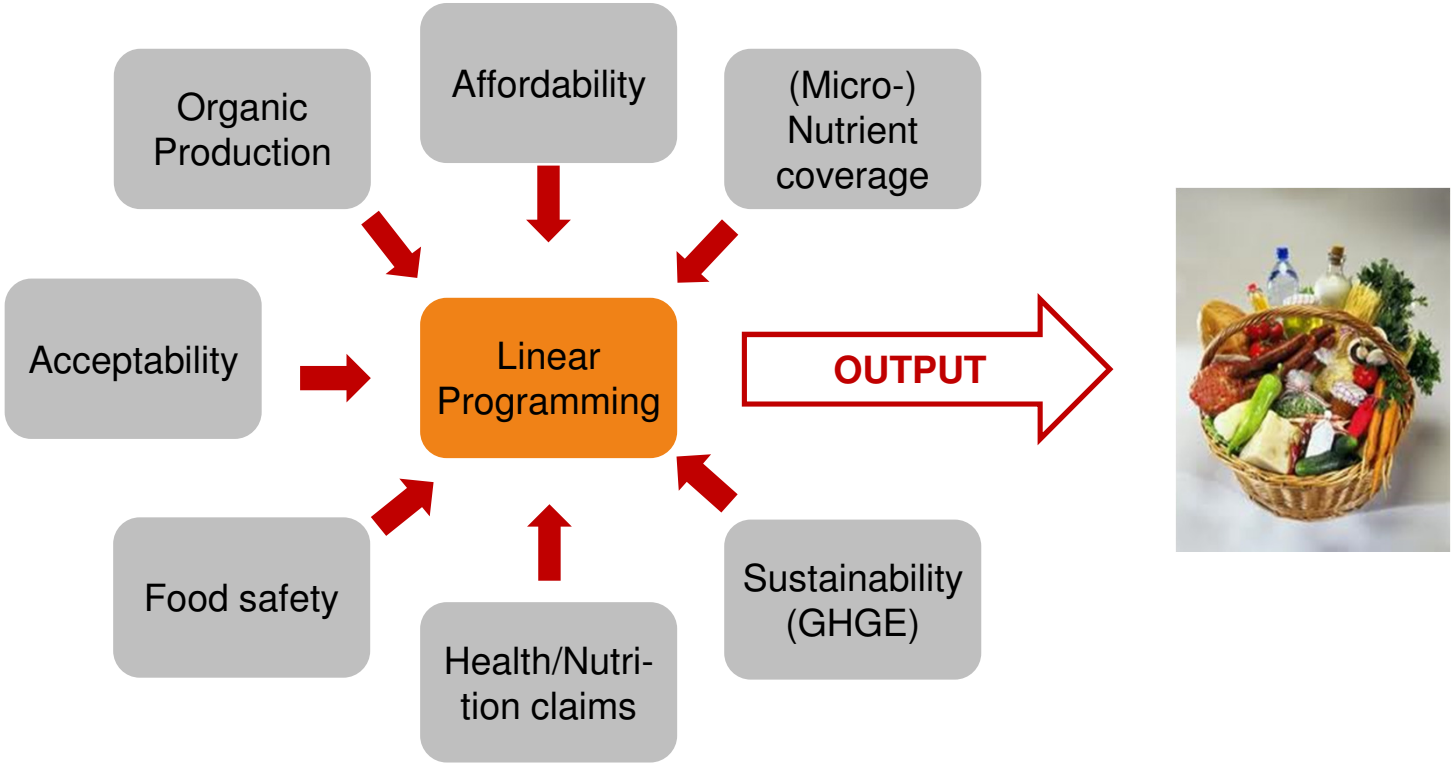
- guarantee sufficient nutrient provision
- reduce premature NCD-associated mortality rapidly
- help to foster environmental sustainability (pesticide reduction, monoculture minimization)
- prevent climate change (minimize green house gas emissions)
- reduce by making healthy diets affordable.

Excellent example for challenges that demand collaborative, inter-sectorial, international research programmes (Horizon 2020) span-ning academia, public health, governments, agriculture, industry and the third sector.

[1]GBD. A comparative risk assessment of burden of disease and injury attributable to 67 risk factors. Lancet 2012; 380: 2224–60;
[2]D Mozaffarian & S Capewell. UN dietary policies to prevent CVD. Modest diet changes could halve the global burden. BMJ 2011; 343: d5747
[3]R Bonita et al. Country actions to meet UN commitments on NCDs: a stepwise approach. Lancet 2013; 381; 9866: 575-584.

Linear Programming (LP)

An Integrative Tool to Develop Health-Promoting Affordable, Environmentally National Food Baskets (HNFB)



Alexandr Parlesak, PhD & Aileen Robertson, PhD Metropolitan UC, Copenhagen, Global Nutrition and Health in Collaboration with Jørgen Dejgaard Jensen, PhD & Sinne Smed, PhD Copenhagen University and João Breda, PhD, Nutrition Programme, Physical Activity & Obesity Division of Non-communicable Diseases & Life-course - WHO Regional Office for Europe, Copenhagen

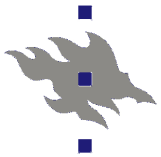
Food Baskets for Europe

Nutritionally Complete, Health-Promoting, Affordable, and Environment-Friendly Food Baskets for Europe

- Could be used as tools by national authorities to guarantee environment-friendly and sustainable food production
- Identify critical nutrients in local diets, so initiating a change in diet or practices
- Identify (novel) foods that can close nutrient gaps
- Improve cost-efficacy in families striving for a healthy diet
- Used in nutrition education programmes (WHO etc.)
- Examine the effect of supplements or fortified foods
- Help to fix minimum wages for families
- Help to minimize changes in food prices (e.g. under food crises conditions)
- Contribute to optimized homestead food production

Parlesak A, Geelhoed D, Robertson A. Toward the prevention of childhood undernutrition: Diet diversity strategies using locally produced food can overcome gaps in nutrient supply. Food and nutrition bulletin. 2014;35(2):191-9.

Existing networks



Project Partners

Projects in healthcare	Partners
Artic Appetites Food Security in Greenland and Climate Changes	• **Ilisimatusarfik (University of Greenland)** • **University of Helsinki** • **Canadian Circumpolar Institute (University of Alberta, Canada)** • **University of Copenhagen** **Practical partner: Health Services of Greenland**
Healthy Food Basket To maximize affordability of national diets that are fully nutritious, health-promoting, sustainable, and acceptable	• **University of Copenhagen** • **Oxford University** • **Aix-Marseille University**
Promoting Food Security Promoting food security of low-income women in central Uganda	• **Makerere University, Uganda** **Practical partner: CHAIN (Community Health and Information Network)**
Nordic Network for Education in Public Health Nutrition Scaling up public health nutritionists	• **Oslo and Akerhus University College of Applied Sciences** • **University of Helsinki, Finland** • **Orebro University** • **University of Iceland** **Practical partner: World Public Health Nutrition Organization**

Potential partnerships

Institute of Nursing

- Established a European partnership in relation to Horizon 2020 application with partners in Finland, Denmark and Spain
- Explored contact with Hochschule für Technik und Wirtschaft Berlin
  HTW Berlin - University of Applied Sciences (Professor Mathias Knaut)
- Interested in partnerships for Interreg, Horizon calls and Marie Curie research projects and network & exchange (Distinguished Visiting Professors)

Midwifery Department

- Collaboration could unify national analyses and enable proper international comparisons for discussions of net-effects of interventions within this field

Department of Physiotherapy and Occupational Therapy

- Inspiratory Muscle Training: University of Leuven, Belgium

Information about R&D projects in other departments:
www.phmetropol.dk/English

Research & Development
Contacts

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METROPOLITAN
UNIVERSITY COLLEGE

METROPOL

www.phmetropol.dk/English

HOCHSCHULE
WEIHENSTEPHAN-TRIESDORF
UNIVERSITY OF APPLIED SCIENCES

Weihenstephan-Triesdorf
'green' and innovative

Applied Research and Development at the green University of Applied Sciences

HOCHSCHULE
WEIHENSTEPHAN-TRIESDORF
UNIVERSITY OF APPLIED SCIENCES

Teaching and Research Structure

Departments

- Biotechnology and Bioinformatics
- Horticulture and Food Technology
- Landscape Architecture
- Agriculture and Food Economy
- Agriculture
- Environmental Engineering
- Forestry

Students

- 6,300 students
- 1,700 new students (2014/15)

Research Facilities

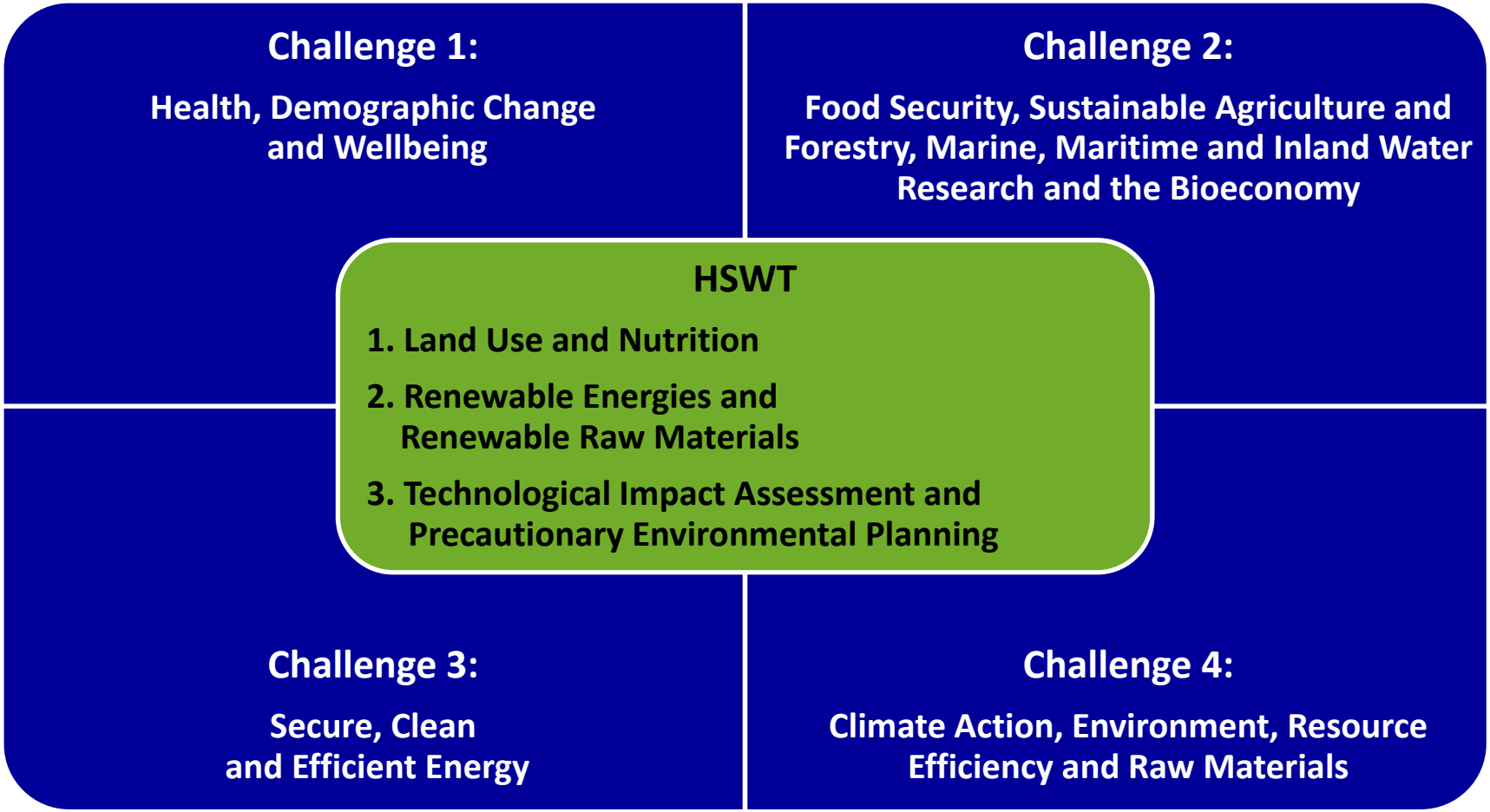
- Centre for Research and Continuing Education
  - Institute for Horticulture
  - Institute for Landscape Architecture
  - Institute for Food Technology
- Straubing Centre of Science

Research Projects

- 12 projects supported by the EU
- 57 projects supported by the federal government and the State of Bavaria
- 88 projects supported by external sponsors
- 62 cooperative dissertations

HOCHSCHULE
WEIHENSTEPHAN-TRIESDORF
UNIVERSITY OF APPLIED SCIENCES

Four Societal Challenges of „Horizon 2020“ meet HSWT Research Topics



Research Topics HSWT

HOCHSCHULE
WEIHENSTEPHAN-TRIESDORF
UNIVERSITY OF APPLIED SCIENCES

Improvement of Animal Husbandry Systems

Plant Nutrition Plant Protection

Agricultural Economics and Sociology

Land Use and Water Resources

Precision Farming

Use of forest resources

Soil Sciences

Food and Beverage Technlology

Environmental Protection

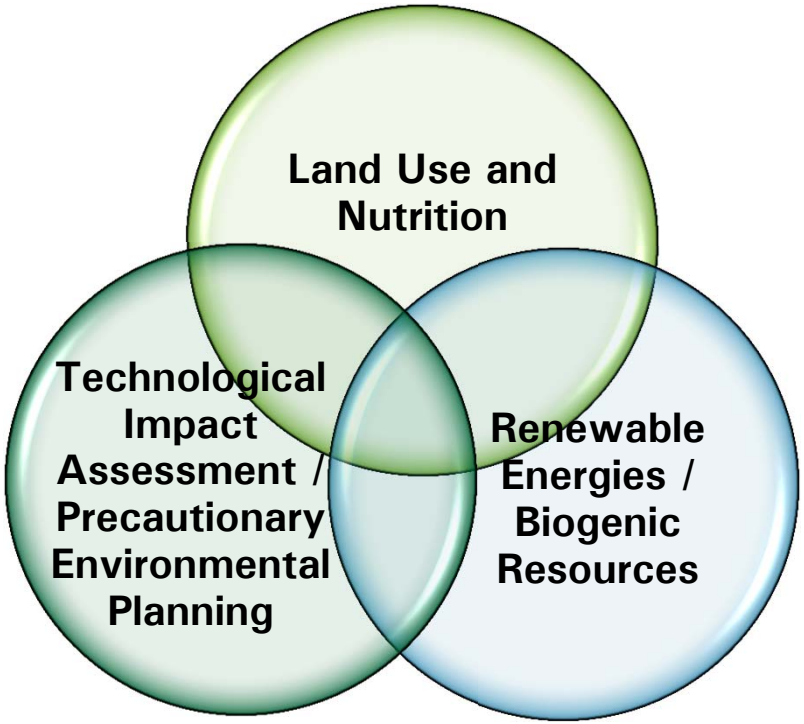
Climate Change and Climate Impact Research

Cultural Landscape Development

Vegetation Ecology

Energy Efficiency

Restoration Ecology



Inventory and Control of Forest Resources

Marketing and Management of Biogenic Resources

Irrigation Technology

Investigations for the Optimisation of Processes in Biogas Facilities

Location Potential of Renewable Energies

Optimising Biomass Energy Utilisation

Organical and Analytical Chemistry of Biogenic Resources

Use of Renewable Energies

Economics of Renewable Resources

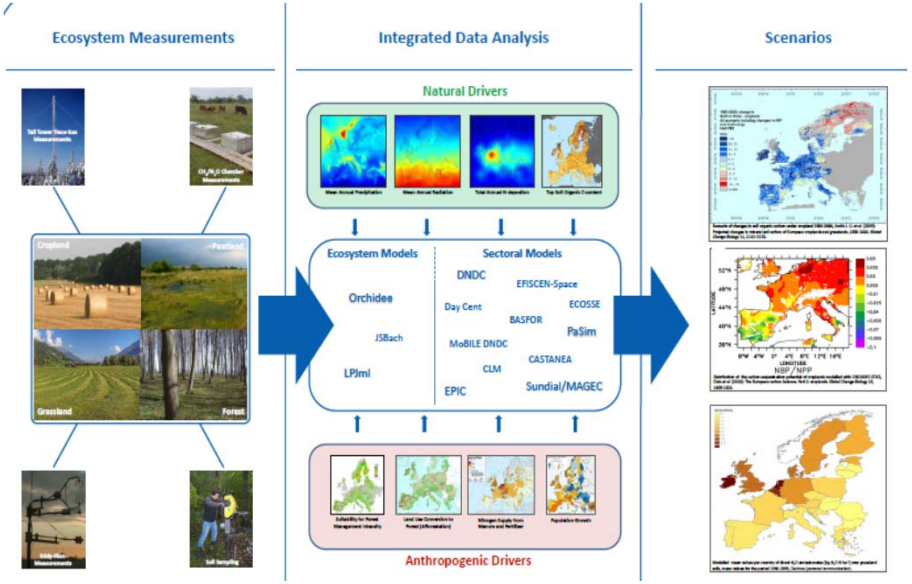
GHG Europe

Greenhouse gas (GHG) management in European land use systems

Research Focus

Greenhouse gas emissions are not evenly distributed across land use systems and regions of Europe. Spatial concentrations (*hotspots*) and temporal discontinuities (*hotmoments*) predominantly account for the existing uncertainties in the quantification of the European greenhouse gas budget.

GHG-Europe will focus on ***hotspots*** (peatlands, mediterranean shrublands, Eastern European forests) ***hotmoments*** (land use change, intensification/extensification of land use, bioenergy production) and ***driving factors*** (climate/climate variabilty, management, disturbances, N-deposition).



Subproject HSWT

Task 2.1 Peatland Synthesis
Prof. Dr. Matthias Drösler
Department Landscape Architecture
Chair of Vegetation Ecology

GHG-Europe at a Glance

Funding source: European Commission (FP7)
EC-contribution: € 6.6 Million
Duration: 01.01.2010 –30.06.2013
Consortium: 41 partners from 15 EU countries
Coordinator: Thuenen Institute (TI)

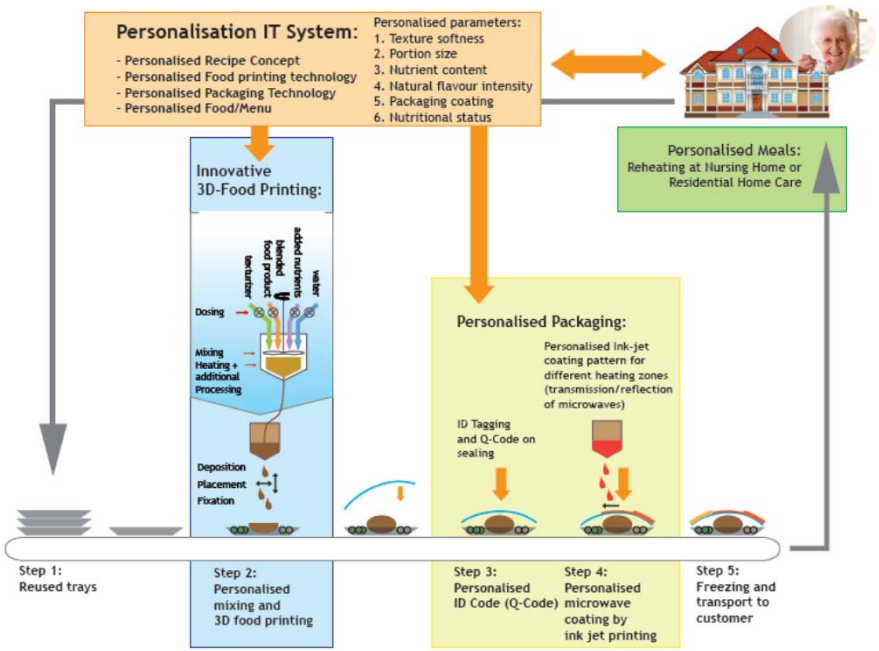
PERFORMANCE

PERsonalised **FO**od using **R**apid **MA**nufacturing for the **N**utrition of elderly **C**onsum**E**rs

PERFORMANCE is a 3-year (EU-funded) research project addressing patients with mastication and swallowing problems.

Research Focus

Development of a personalised food supply chain for elderly people based on 3-D Food Printing. Personalisation will be based on preferences, portion size and nutrient composition as well as food texture. The innovative products developed (based on food purees) will have the appearance and taste of natural traditional meals.



Subproject HSWT

Prof. Dr. Thomas Lötzbeyer
Institute for Food Technology
Fields of Work: Food Ingredients and Biotechnology / Quality Assurance

PERFORMANCE at a Glance

Fundingsource: European Commission (FP7)
EC-contribution: € 3 Million
Duration: 01.11.2012 –31.10.2015
Consortium: 14 partners from 5 EU Countries (2 Universities, 2 Research and Technology Organisations, 10 Small- and Medium-sized Enterprises)
Coordinator: biozoon food innovations gmbh

HOCHSCHULE
WEIHENSTEPHAN-TRIESDORF
UNIVERSITY OF APPLIED SCIENCES

HSWT has Joint Research Projects with over 120 Business Enterprises

- For education and research, HSWT cooperates closely with a large number of companies from different sectors that are involved in the energy transition

- The cooperation with self-help business institutions and non-governmental organizations which are supporting the energy transition critically is of particular importance.

- For the regional planning management and implementation, the close cooperation with communities, official agencies and ministries is of crucial importance.

Selection of partnerships

HOCHSCHULE
WEIHENSTEPHAN-TRIESDORF
UNIVERSITY OF APPLIED SCIENCES

HSWT Cooperates with National and International Universities and Research and Technology Institutions

- Over 100 projects in joint research and development with national universities, research and technology institutions
- National cooperation with 55 universities
- International cooperation with over 100 universities
- 62 cooperative dissertations

With its campus Weihenstephan, the HSWT forms part of the largest “green“ campus in Germany with numerous renown institutions like f. ex. the Technical University Munich and some State Institutes of Bavaria.

Selection of partnerships

HOCHSCHULE
WEIHENSTEPHAN-TRIESDORF
UNIVERSITY OF APPLIED SCIENCES

We are looking for …

… projects and project partnerships in the following fields of Societal Challenges defined in Horizon 2020

- **Health, Demographic Change and Wellbeing**
- **Food Security, Sustainable Agriculture and Forestry, Marine, Maritime and Inland Water Research and the Bioeconomy**
- **Secure, Clean and Efficient Energy**
- **Climate Action, Environment, Resource Efficiency and Raw Materials**

HOCHSCHULE
WEIHENSTEPHAN-TRIESDORF
UNIVERSITY OF APPLIED SCIENCES

Thank you for your attention!

Campus Freising-Weihenstephan

Campus Triesdorf

Experimental Station of Fruit-Growing at Lake Constance

Campus Straubing

CEITEC

Central European Institute of Technology

BRNO | CZECH REPUBLIC

CEITEC
Cybernetics in Material Science

Prof. Pavel Václavek, Research group leader

pavel.vaclavek@ceitec.vutbr.cz

February 4th, 2015

Brussels

EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT FUND
INVESTING IN YOUR FUTURE

2007–13
OP Research and Development for Innovation

Aim and Vision

*CEITEC is a scientific centre in the **fields of life sciences, advanced materials and technologies** whose aim is to establish itself as a recognized European centre of science.*

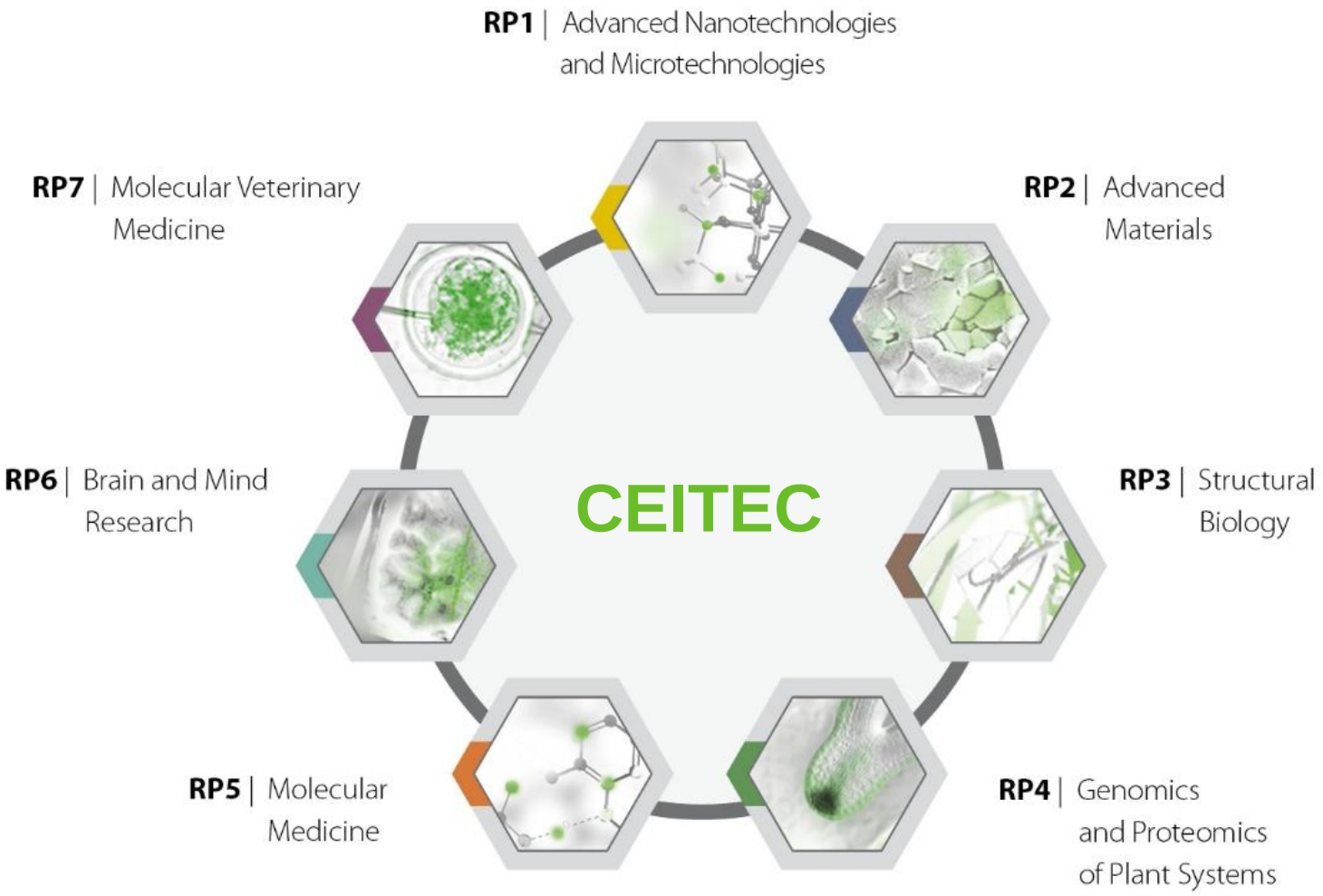
CEITEC is leading a path to

global scientific recognition

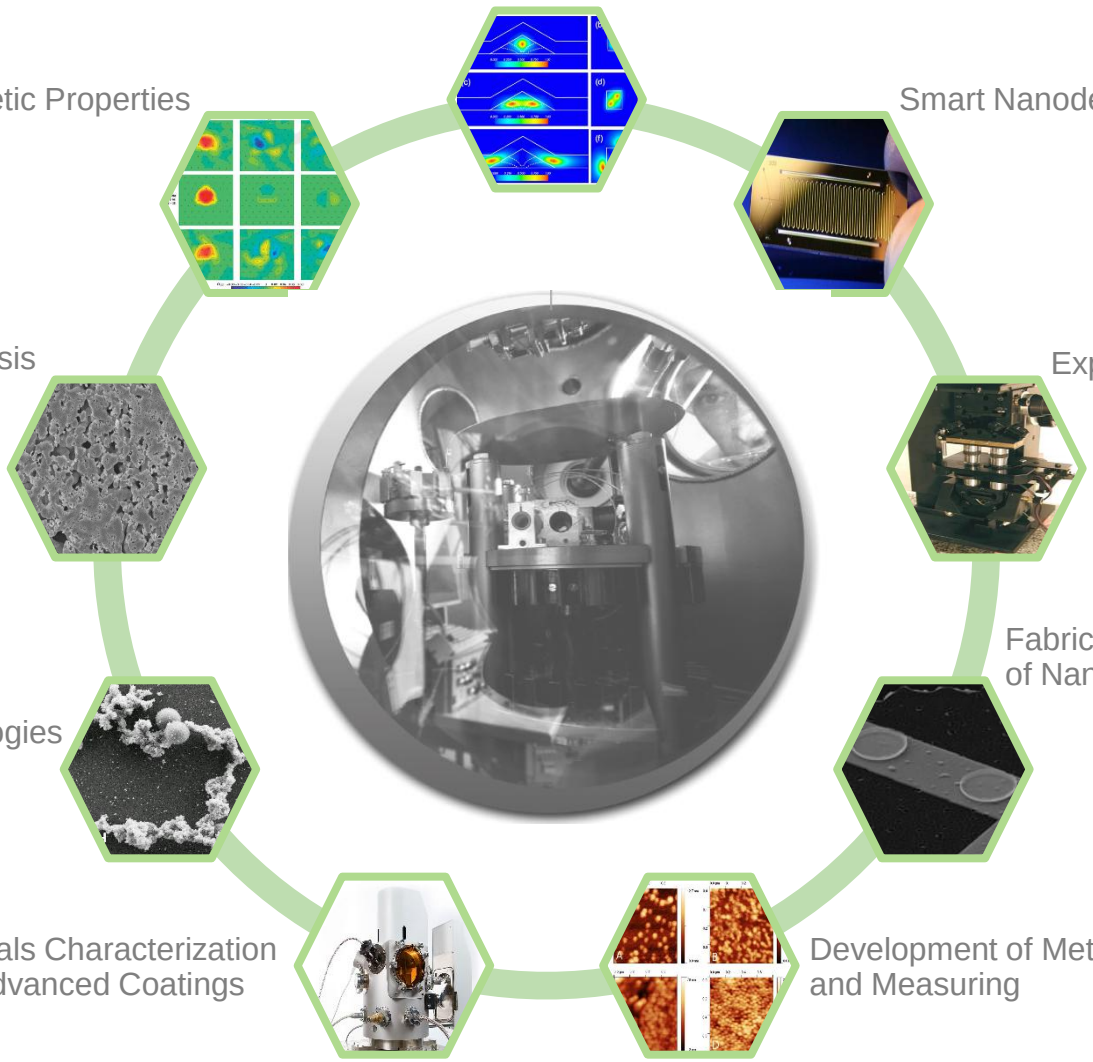
through synergy and collaboration,

in order to achieve a regional knowledge-based economy.

Research Programmes



Advanced Nano and Microtechnologies

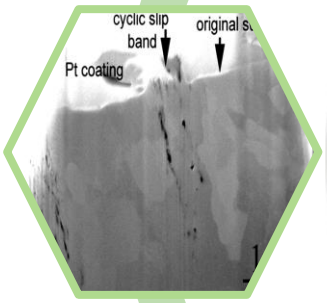


CEITEC

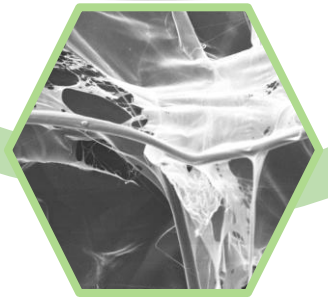
Advanced Materials

Advanced Ceramic Materials

Advanced Metallic Materials and Metal Based Composites



Cybernetics in Material Science



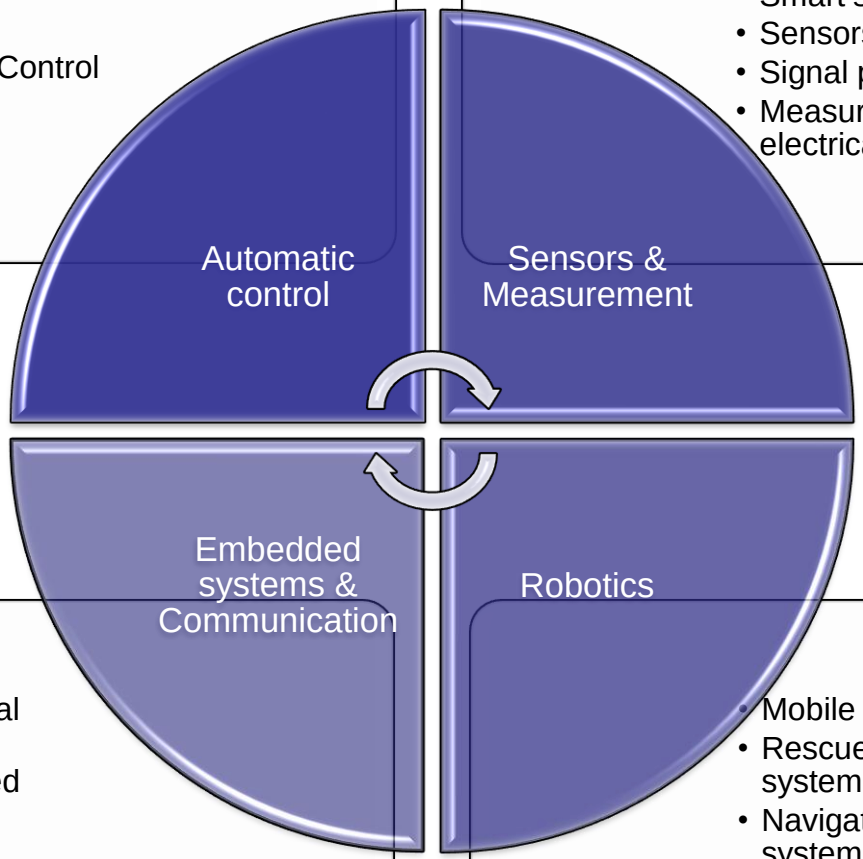
Advanced Polymers and Composites

CEITEC

Research topics
Cybernetics in Material Science

- Algorithms
- Industrial processes control
- Drives and Power Systems Control

- Smart sensors
- Sensors design using new materials
- Signal processing
- Measurement of electrical and non-electrical quantities



- Wired and Wireless Industrial communication
- High-performance embedded systems
- Computer Vision

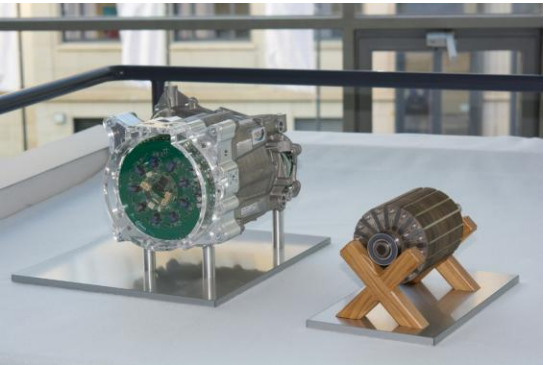
- Mobile robotics, telepresence control
- Rescue and Reconnaissance systems
- Navigation and self-localization systems

Related projects

MotorBrain

Nanoelectronics for Electric Vehicle Intelligent Failsafe Power Train

- FP7 ENIAC initiative project, 2011-2013 - 30 partners from Austria, Czech Republic, Germany, Spain, Italy, Netherlands, Romania, Sweden, United Kingdom – Infineon, Siemens, ZF Friedrichshafen, Fraunhofer, TU Dresden, NXP, ST Microelectronics, Fiat,…
- Development of a new powertrain for electrical car, CEITEC involved in the drive control system design and implementation
- RG involved in electrical drive advanced fault tolerant control, energy efficient control, drive and electronics diagnostics
- Prototype presented at the Hannover Messe ”MobiliTec” in 2014



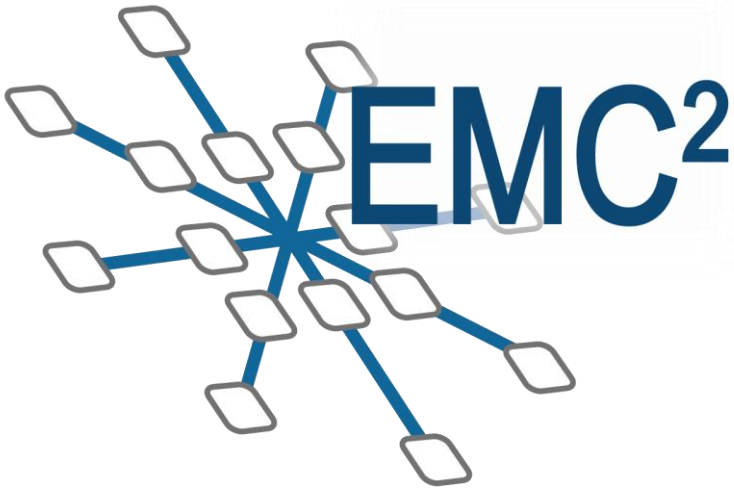
eniac JOINT UNDERTAKING

CEITEC

Related projects

EMC2 - Embedded multi-core systems for mixed criticality applications in dynamic and changeable real-time environments

- large FP7 JTI ARTEMIS project (2014 – 2017) – 100 partners, over 100 mil. EUR (Infineon, BMW, AUDI, Volvo, ABB, Fraunhofer, NXP, Siemens, AIT, Thales, Rockwell, TU/e, Technion)
- CEITEC responsible for development of control algorithms for industrial drives, e-car powertrain control, computer vision



Related projects

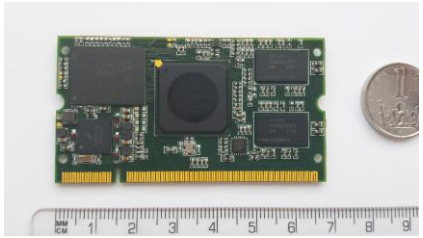
3CCAR - Integrated Components for Complexity Control in affordable electrified cars

- large H2020 JTI ECSEL project (2015 – 2018) – 50 partners, over 50 mil. EUR (Infineon, BMW, Daimler, Fraunhofer, Siemens, OTH-AW, TU Dresden, AVL, AIT, ITRI Taiwan,….)
- CEITEC responsible for development of control algorithms for powertrain and smart servos, electrified car energy management.

Related projects

IDEAS - Interactive Power Devices for Efficiency in Automotive with Increased Reliability and Safety

- Midscale H2020 JTI ENIAC project (2012 – 2015) – 17 partners, nearly 10 mil. EUR (Centro Ricerche Fiat, Polytechnic University of Turin, SINTEF, BUT, IMA,)
- BUT responsible for SW and HW platform design and development in order to prepare Data Processing Memory System test-bed for testing high-speed communication, real-time parameters and security functions. Research of methods for increasing data processing security, real-time parameters, and communication throughput in multi-core data processing systems.



Cooperating institutions (international projects and contract research)

- Bavaria and Germany
  - Infineon Technologies
  - Siemens
  - Fraunhofer
  - ZF Friedrichshafen
  - TU Dresden
  - Ostbayerische Technische Hochschule Amberg-Weiden
- Other companies
  - Freescale Semiconductor
  - Honeywell
  - National Instruments
  - ABB
  - Rockwell Automation
  - Brüel & Kjær
  - DIGNIO
  - Saab

CEITEC BUT
University Campus Pod Palackého vrchem

CEITEC

Central European Institute of Technology

BRNO | CZECH REPUBLIC

CEITEC BUT

c/o Brno University of Technology

Technická 10, CZ-61600 Brno

Czech Republic

www.ceitec.vutbr.cz | info@ceitec.vutbr.cz

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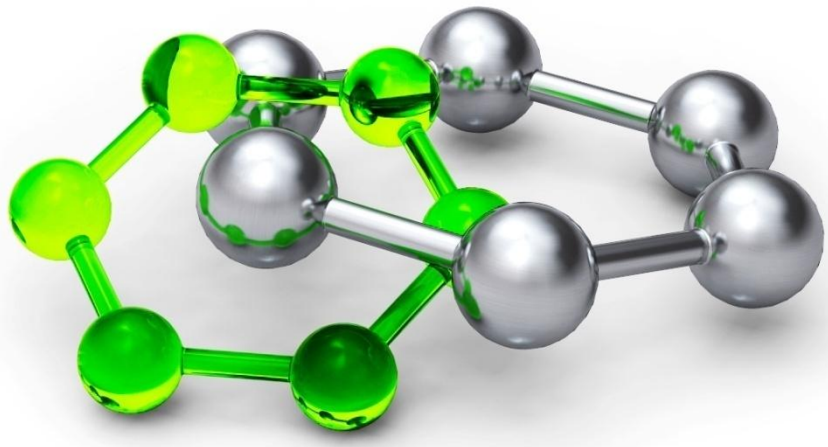
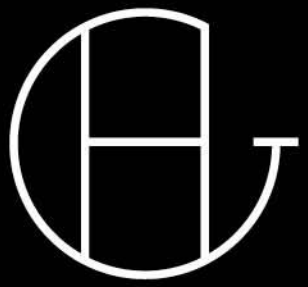




HoGent

Excelling in - education - research - service provision

HoGent

EDUCATION
HEALTH
SOCIAL WORK

HoGent

SCIENCE
AND
TECHNOLOGY

HoGent

HoGent

BUSINESS AND
INFORMATION
MANAGEMENT

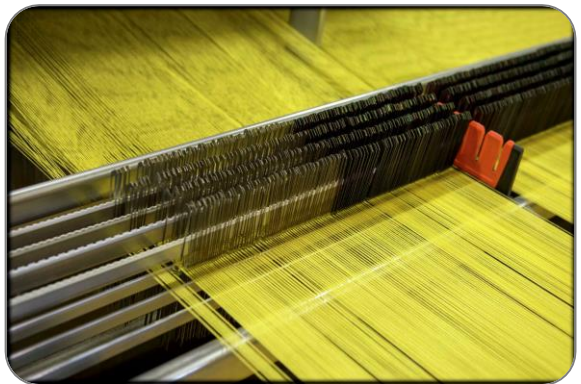
HoGent

SCHOOL
OF
ARTS

HoGent

Expert in

- Agro- and biotechnology
- Fashion, textile and wood technology
- SME policy and organization
- Design and organization of interior and exterior space
- Community building and (cultural) diversity
- Well-being and health promotion
- Quality of life and people in vulnerable situations
- Artistic research



Environmental friendly and Durable Oil and water repellence finish on Technical Textiles

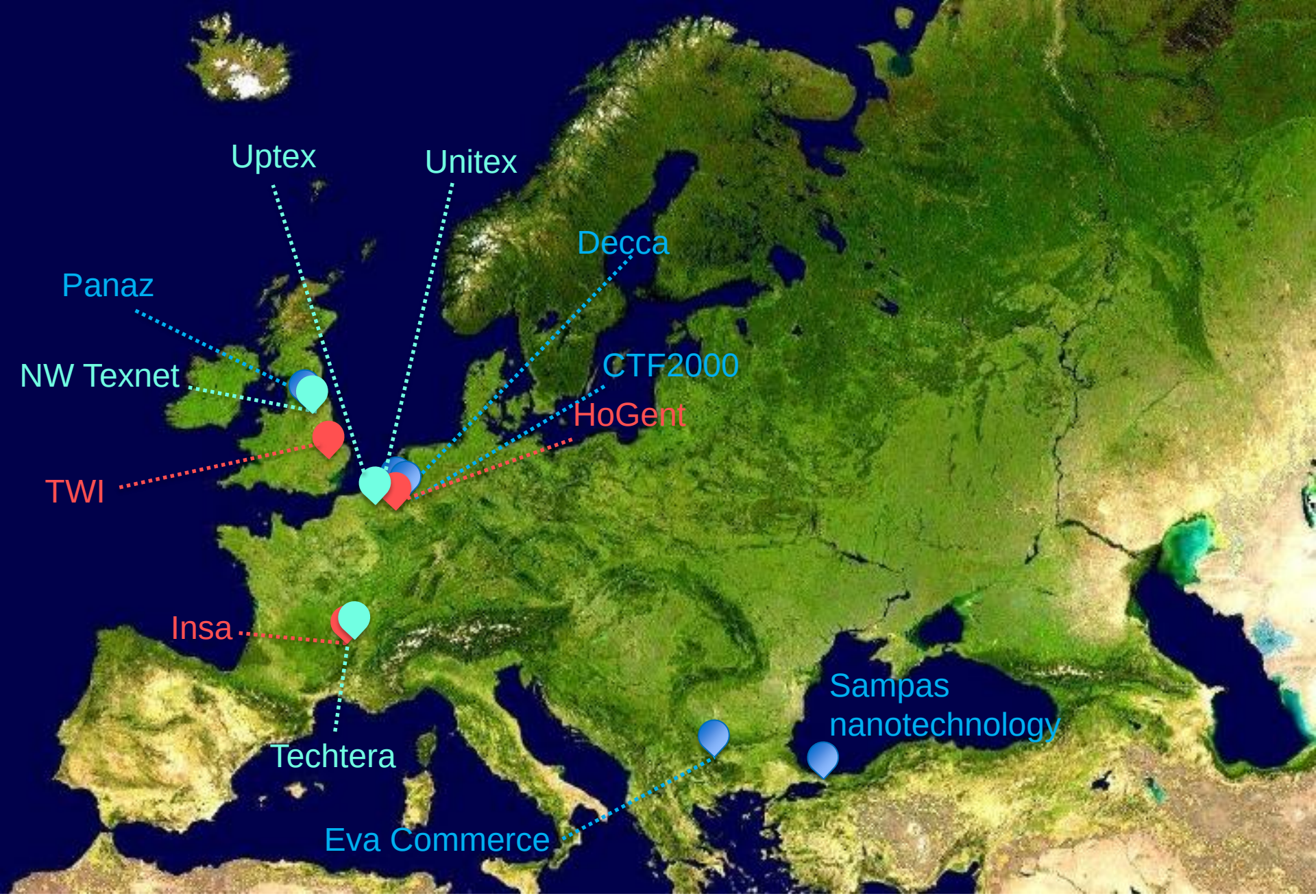
Project call: FP7_SME_2012

36 months (17/01/2013 - 17/01/2016)

Coördination: NW-Texnet (UK)

> €2.000.000

www.texshield-project.eu


Uptex
Unitex
Decca
Panaz
NW Texnet
CTF2000
HoGent
TWI
Insa
Techtera
Sampas
nanotechnology
Eva Commerce

HoGent


HoGent

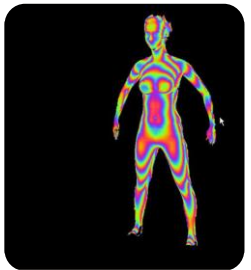
HoGent
SCIENCE AND TECHNOLOGY

Expert in

- Product development:
  - textiles – wood – 3D prototyping
- Material testing:
  - textiles - wood
- Plant:
  - greenery management – plant breeding - horticulture
- Animal:
  - breeding – nourishment – animal care
- Nutrition:
  - food technology – analysis – safety – dietetics - brewery
- Biochemistry and Environment
- Real Estate - Land and Property Surveying
- Statistical Analyses







HoGent

http://english.hogent.be/research

Bavarian Research Alliance

Mobilizing Universities of Applied Sciences for Horizon 2020

Summary of the Day Conference

Karin Lukas-Eder

Bavarian Research Alliance
Brussels Liaison Office

Brendan Hawdon, European Commission, DG Research and Innovation

« Horizon 2020: Opportunities for Universities of Applied Sciences and Lessons Learned from First Calls »

First year of Horizon 2020:

- total budget of over 8 billion EUR closed
- more than 40.000 proposals submitted
- Average over-subcription around 7 times of the available budget
- first statitics on 2014 calls available end of March 2015

Lessons learned → Action points

- Adress key features and novelties upstream in the work programme preparation cycle to ensure embedding in the priority setting as well as implementation
- over-subcription: Maintain challenge-based approach
- Excellent quality of evaluations. But: need of more experts (lack of innovation expertise and women experts)
- Improve presentation of Calls / Conituing monitoring the implementation of calls

Brendan Hawdon, European Commission, DG Research and Innovation

« Horizon 2020: Opportunities for Universities of Applied Sciences and Lessons Learned from First Calls »

Opportunities for Universities of Applied Sciences:

They are Key players in Horizon 2020 accross all of its priorities:

- Excellent Science on a bottom-up basis
- Industrial Leadership: Carry out partnerships with private sector
- Societal Challenges: Bringing together international and multidisciplinary teams

Could serve as a link between Research AND Innovation

- Focus on practical skills
- Partnership with business
- Close to market activities

Excellent position to benefit from new features of Horizon 2020.

Bavarian Research Alliance

Presentations by Universities of Applied Sciences

UNIVERSITY OF WEST BOHEMIA

COBURG UNIVERSITY of applied sciences and arts

Association des Directions des Instituts Supérieurs Industriels Francophones
INTERFACE
Adisif - Entreprises

Hochschule Kempten University of Applied Sciences

sapere aude
FH OÖ

Ostbayerische Technische Hochschule Amberg-Weiden

HoGent

Hanze University of Applied Sciences Groningen

CEITEC
Central European Institute of Technology
BRNO | CZECH REPUBLIC

METROPOLITAN UNIVERSITY COLLEGE
METROPOL

HOCHSCHULE WEIHENSTEPHAN-TRIESDORF UNIVERSITY OF APPLIED SCIENCES

Bavarian Research Alliance

- **Coburg Universitiy of Applied Sciences and Art**, Prof. Dr. Jürgen Krahl
  - Diesel R33 (Automotive Engineering)
- **Hanze University of Applied Sciences Groningen**, Prof. Dr. Han de Ruiter
  - SPEACH – Sport Physical Education and Coaching in Health
- **OTH** (East Bavarian Institute of Technology) **Amberg-Weiden**, Prof. Dr.-Ing. Hans-Peter Schmidt
  - Contactless Power and Data Transfer
- **University of West Bohemia**, Mrg. Jaroslav Šip
  - Human Body Modelling and Monitoring

Kempten University of Applied Sciences, Prof. Dr.-Ing. Andreas Rupp / Charlotte Wallin

- Connected mobility and automotive engineering

- **ADISIF** (Association des Directions des Instituts Supérieurs Industriels Francophones), Anne De Smedt
  - Project Balancing Profitability and Environment Thanks to Rapid Manufacturing and Eco-design

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- **University of Applied Sciences Upper Austria**, Prof. Dr. Johann Kastner
  - QUICOM / Space – Quantitative Inspection of Complex Composite Aeronautic Parts Using Advanced X-ray Techniques
- **Metropol – Metropolitain University College**, Linda Schumann-Scheel
  - Healthy Food
- **Weihenstephan-Triesdorf University of Applied Sciences**, Prof. Dr. Patrick Ole Noack
  - Greenhouse Gas Management in European Land Use Systems
- **CEITEC – Central European Institute of Technology**, Prof. Pavel Václavek
  - Cybernetics in Material Science (Motor Brain)
- **HoGent – University College Ghent**, Ms Marieke Merckx
  - TEXSHIELD (Environmental friendly and Durable Oil and Water repellence finish on Technical Textiles

Examples Best Practice

Fraunhofer

Mathias Rauch, Head of Fraunhofer Office Brussels

Europe's largest organisation for applied research

Cooperating with UoAS - new ways to join forces:

Fraunhofer Application Centre
Cooperation Program Fachhochschule
Cooperation with Fraunhofer Academy

MEDIN

Lubos Zilka, Technical Director, MEDIN

Traditional Czech Manufacturer of Medical Instruments and implants since 1949

4 RTD-Teams: Trauma, Surgery, Stomatology and Development of new machines
e.g. Development of new operstion technique for fractures of acetabulum

They offer: well-skilled team; development and test equipment; experience; professional attitude

Bavarian Research Alliance

Lessons Learned I

TODAY **140 participants** from more than **20 EU Member States**. Big success! Kick-off, in 2 years follow-up (same conference in Brussels)

Wish for regular, similar Networking Events for
EXCHANGE and PARTNER SEARCH

COOPERATION with research organisations, industry and academia:
BIG ROOM FOR MORE!

Focus not only on Horizon 2020, but also on other EU-Funding programmes and especially have a look on the Investment Package of President Juncker

Bavarian Research Alliance

Lessons Learned II

How to write a good proposal? TIPPS:

Horizon 2020: strong policy touch, focused on **IMPACT** and **INNOVATION**
Proposals have to reflect this

Ask NCP‘s or other service providers for help

Look for partners with excellent scientific expertise AND good organisational and management experience

Look for **LONG-TERM COOPERATION**

Calculate **TIME** and **MONEY**

There is an absolute need to find strong partners from industry

Strengthen role of UoAS in supporting Knowledge Transfer

Coordinator of project = can focus on own interests. Partner = only partner

Bavarian Research Alliance

Thank you for your attention!

Contact: Karin LUKAS-EDER

BayFOR-Representative Brussels Office

Phone +32 (0) 2 - 513 41 21

E-Mail lukas-eder@bayfor.org

Web http://www.bayfor.org