

Research & Development @FHM



Strategy and Mission

FHM research strategy

- Integration of future research fields of the federal High-Tech Strategy 2025 and consideration of European strategies and priorities
- Focus on specific scientific areas that align with the FHM's core expertise and profile
- Consideration of interdisciplinary approach to deliver solution for complex socially and economically relevant challenges.

The research mission to is develop solutions and approaches especially directed towards the university's students and research partners from academia, industry, and administration. It envisions the creation and realization of projects at regional, national, and international levels.



Strategy and Mission

FHM research and development aspires

- to conduct research that has direct **applications** in industries, especially SME and the community, addressing pressing issues
- to fostering **innovation** in different areas and sectors to ensure growth
- to contribute to the economic and societal development of the region
- to actively engage and **collaborate** with the local community, industry partners, and other stakeholders to jointly create solution to complex challenges.
- to develop **innovative approaches** and programs providing opportunities for lifelong learning, continuous education and professional development

Research and development activities are centering on specific research areas



FHM Research areas

RESEARCH FOR THE SME SECTOR

ENTREPRENEURSHIP

SUSTAINABILITY

URBAN-RURAL RELATIONS&MOBILITY DIGITIZATION/ SECURITY MEDIA/ VIRTUAL REALITY EDUCATION/ COMPETENCES/HR HEALTH/ CARE

INSTITUTES/ ENDOWED PROFESSORSHIPS

School of Start Ups and Succession

Centre for

Bureaucratic Cost

Reduction (NZBA)

Center for Sustainable Governance (CSG) Institute for Small and Medium-Sized Enterprises (IfM)

> Cyber-Institute Düren

Institute for Cultural and Creative Industries (IKK)

Institute for Sports Communication (IfS) Institute for Training and Competence Development (IWK)

German-Asian SME Institute (DAMI) FHM Institute for Health LK Waldshut (IfG)

RESEARCH TOPICS

Start-up

Corporate governance

Innovation

Red Tape

Assessment

in medium-sized companies

at the legislator level

Succession in municipal management organisations

> Sustainable consumption

> > Sustainable education

Urban-rural relations

Hanshin-FHM SME

Institute Korea (IMK)

Economy and society in rural areas

Location analyses for SME

Demographie

Industry 4.0

Digitization in SME

Working in the digital world

Cyber Security

VR and AR in vocational and school education

VR in higher education

VR in product design and prototyping

VR and AR in journalism

Competences

Vocational and academic education

Digital education

Employability

Retention of skilled workers/diversity Sports

Prevention

Health

Nutrition

nach Hightech-Strategie 2025 der Bundesregierung



Infrastructure

Head of Project development Head of Finance administration	Head of Institutes	Research directors Research coordinators	
Ideation and project development	Promotion of innovation in respective sector and area	Scientific area development	
Project preparation	Collaboration with respective sector	Thematical development	
Project coordination and realisation	Applied research and development	Product development	
Project finalisation and closing	Network and external partnership	Project development	
Quality	Profiling and Growth	Innovation	



Current projects

SME RESEARCH

ENTREPRENEURSHIP	SUSTAINABILITY	URBAN AND RURAL & MOBILITY	DIGITALISATION/CYBER SECURITY	NEW TECHNOLOGIES	EDUCATION/ COMPETENCES	HEALTH/ CARE
IUG NZBA	CSG	IfM IMK	IfM Cyber-Institut Düren	IKK IfS	IWK DAMI	Institut für Gesundheit
ADA (Erasmus+) BIX (KBV)	 CREDINGREEN (E+, VET) GIF (E+, VET) L2C (E+, VET) PackLess (E+,VET) Shift2Green (E+,VET) CirculEC (E+, CBHE) ECOnsumer (E+, VET) 	 Open Innovation City (MWIKE NRW) Sektorkopplung (BMWK) Faktor X (BMWK) Transformationslabor Hochschule (Stifterverband) 	 DigiKomS (BMBF) Cyber-Institut Düren (Kreis Düren NRW) EyesOnCS (E+, VET) MEDIA (E+, CBHE) Denkschmiede Hennef (Land NRW) 	 ISENSE (E+, HE) VR4ALL (E+, HE) ASSISTANT (E+, HE) KI-& Digitaloffensive Handwerk (MWIKE NRW) 	STEAM (E+, HE)CTML (E+, VET)BFF (SBH West)	▶ IfG Waldshut



Topics and Areas

TOPICS

- Sustainability Circular Economy
- New Technologies Al and Cyber security in VET
- Resilience and Psychology
- Inclusion, Participation and Open Innovation in Ecosystem of Cities and Regions



Methodologies/approaches/tools from other projects

- Gamified Webapplication (e.g. GoBeEco/Shift2Green)
- Massive Open Online Courses
- Digitization Index
- Chatbots
- Mentoring Platform (Online Trainings & Communication between Mentor&Mentee)
- Mobile Learning System (e.g. MobiLEx)
- Digital/Sustainable tools handbook
- Curricula development

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