



AWARE

*Applied NetWork on
Automotive Research and
Education*

Strategic partnership Germany-Brazil



AWARE at a glance – its origin

Strategic location



Bavaria

- Centre of innovation in the field of **automotive, aviation, logistics and mobility** technologies
- **More than 100 automotive suppliers in Ingolstadt**



Technische Hochschule
Ingolstadt

University of Applied
Sciences, focussed
on automotive industry

Paraná / Santa Catarina

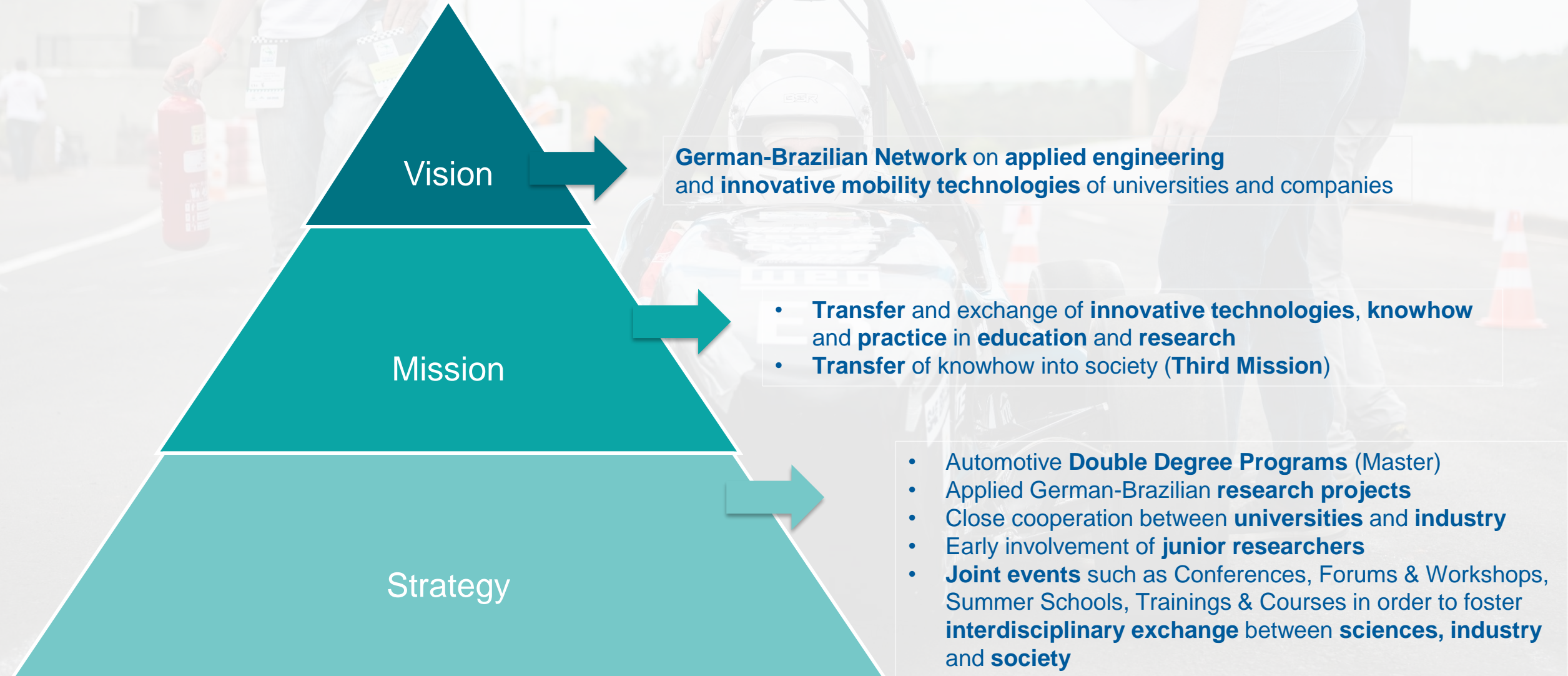
- one of Brazil's largest **automotive cluster**
- **Center of Mobility Engineering**



Brazilian Federal
universities with
excellent engineering
courses and interest in
automotive application

AWARE officially started in 2013 with funding from the DAAD (German Academic Exchange Service) to build up a strategic partnership over the upcoming six years.

AWARE at a glance – its strategy



AWARE at a glance – its board members



Prof. Dr. Walter Schober
President of THI



Dr. Henning Löser
Head of Audi Production Lab (AUDI)



Rainer Ackermann
Global R&T Cooperations
Airbus Defense & Space, Munich



Gabriel Engert
Director of the Office of Cultural Affairs
City of Ingolstadt



Prof. Dr. César Zucco, Scientific Director &
Prof. Dr. Sérgio Gargioni, Former President
FAPESC, Florianópolis



Andréa Carvalho Vieira
General Coordinator for International
Programs (**CAPES**), Brasília



Dr. Irma de Melo-Reiners
Executive Director of Centro
Universitário de Baviera para
América Latina (**BAYLAT**), Erlangen



AWARE at a glance – its core team



Prof. Dr. Harald Göllinger
Scientific Director



Prof. Dr. Alessandro Zimmer
Research Ambassador



Anne-Sophie Lohmeier
Operative Director



**Prof. Dr. Karin Graf &
Prof. Dr. Ewaldo Mehl**
Coordinators UFPR (AWARE / AIM)



Prof. Dr. Andreas Hagerer
Double Degree Coordinator



Prof. Dr. Evelio Fernandez
Double Degree Coordinator UFPR



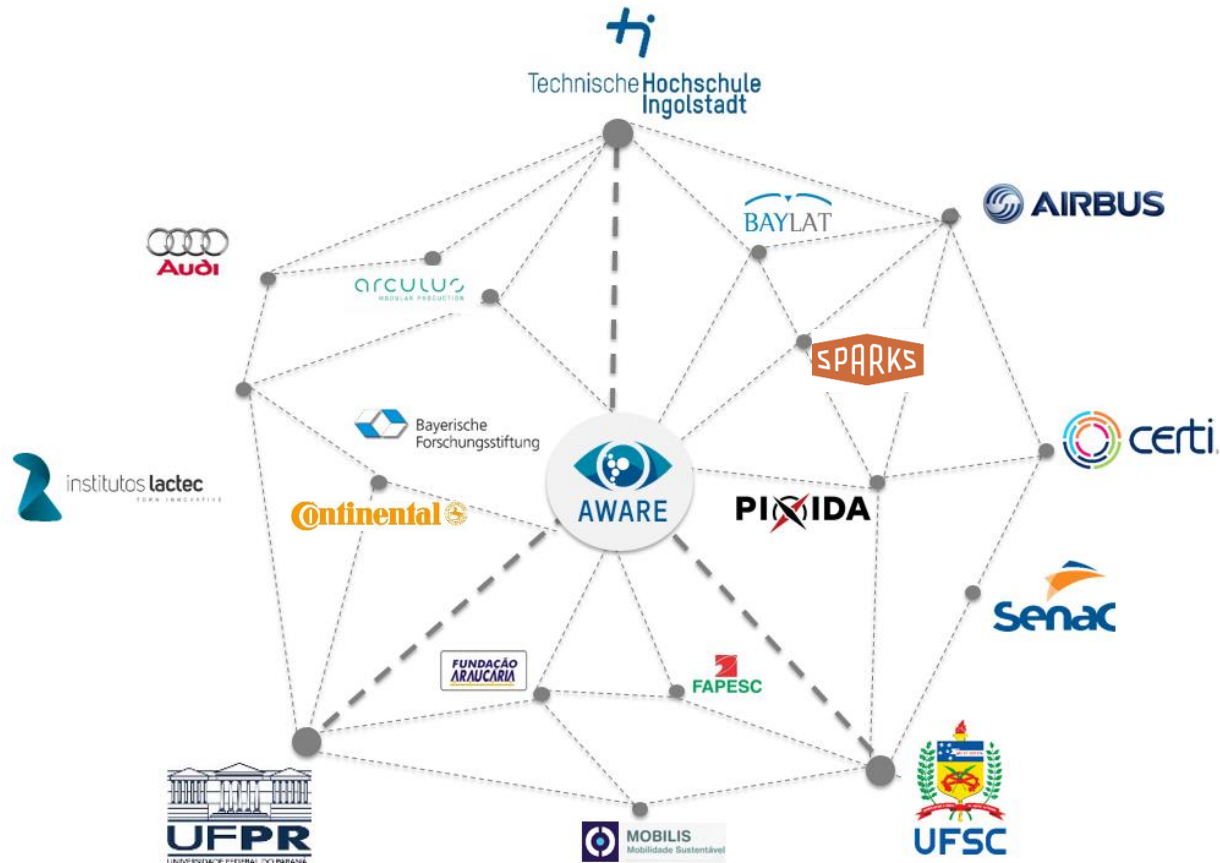
Lisa Hermsen
Research Advisor



**Prof. Dr. Maurício Campos Porath &
Prof. Dr. Lucas Travassos**
Coordinators UFSC (AWARE / AIM)



Partners and Funding



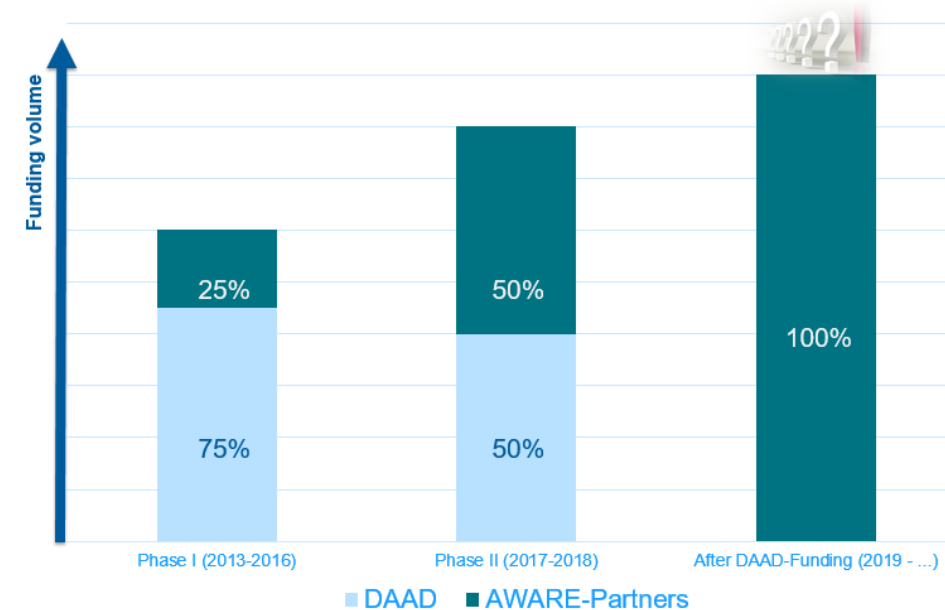
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Federal Ministry
of Education
and Research

Funding received:

Phase I: 2013-2016: 750.000€
Phase II: 2017-2018: 250.000 €
Phase III: to be discussed

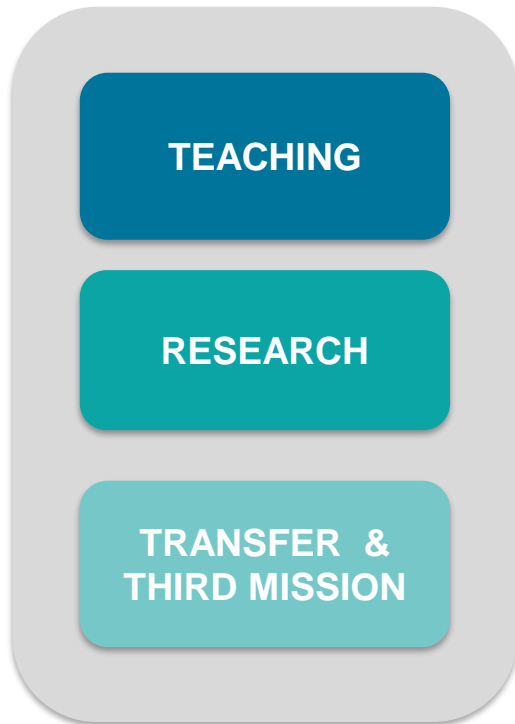


AWARE Mobility

Total Mobility 2013-2018	447
<i>Funded by AWARE</i>	248 (55%)
<i>Further (THI, UFSC, UFPR, FA, FAPESC, DAAD, ...)</i>	199 (45%)

Total Mobility 2018 (24% outgoings, 76% incomings)	87
<i>Funded by AWARE (DAAD-Strategic partnerships)</i>	32%
<i>Further (THI, UFSC, UFPR, FA, FAPESC, further DAAD, industry, etc....)</i>	68%

Results

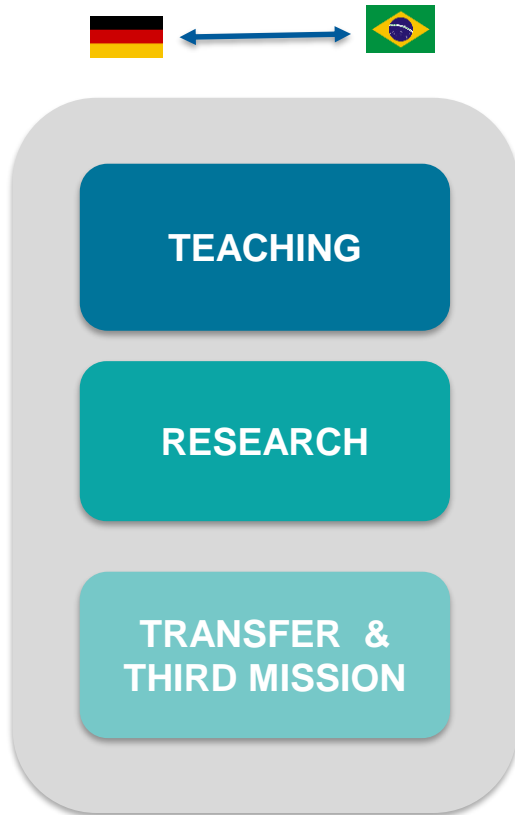


Summer Schools

- *THI International Automotive Summer School: High Participation from UFSC and UFPR students since 2013*
- *AWARE Automotive Summer/Spring School in Brazil 2014, 2016, 2018*
- *AWARE Autumn School on Industry 4.0 at THI in 2018*

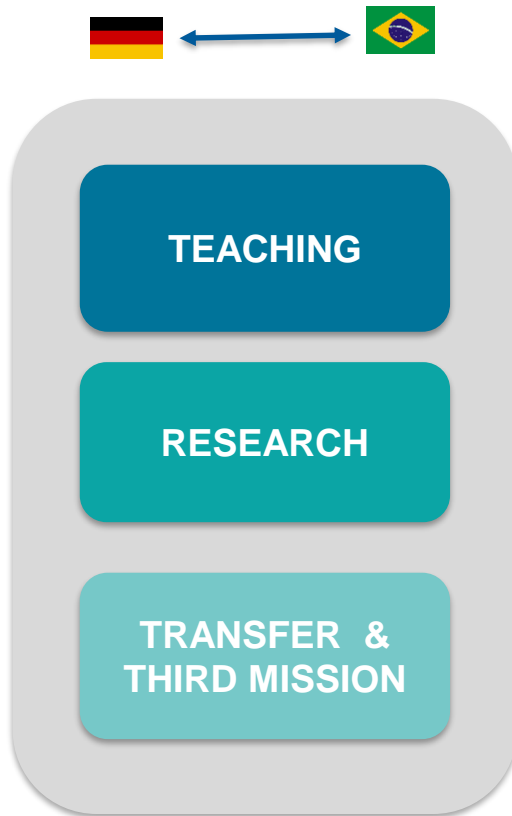


Results



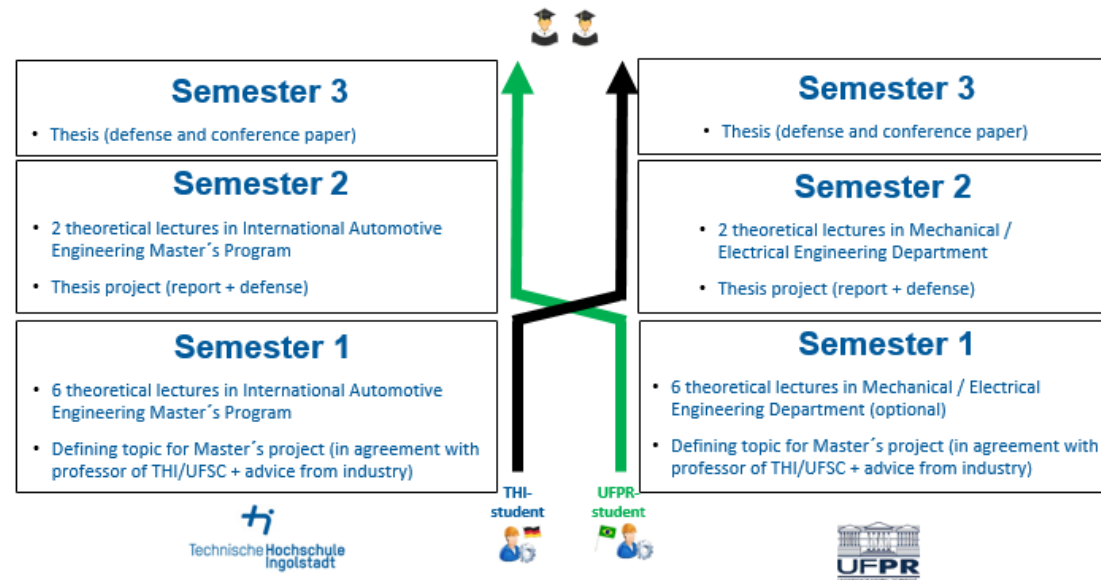
Guest lectures (and trainings) in Brazil (esp. via AIM project) + guest lectures at THI on mechanical & electrical engineering and business studies

Results

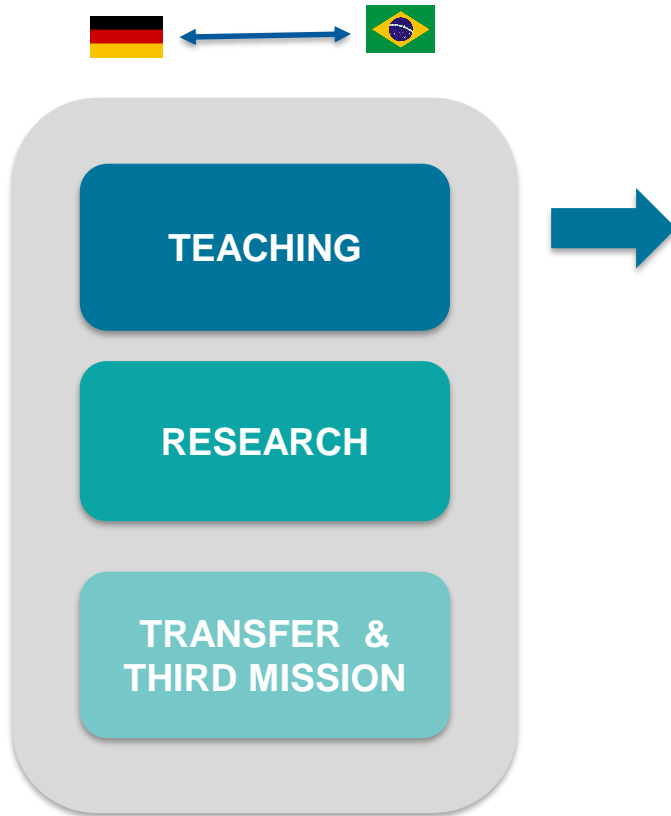


Double Degree Program with UFPR and UFSC

14 students involved until now



Results



New project AIM (2018-2021):



– *Impetus for (automotive) application-oriented education in Brazil (UFPR&UFSC)*

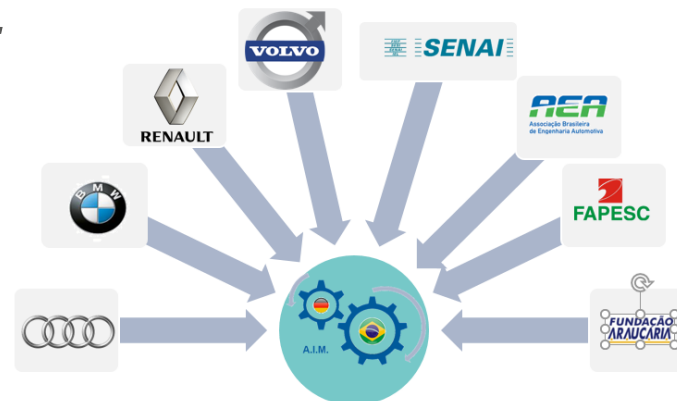
– *Funding: 200.000€*

DAAD

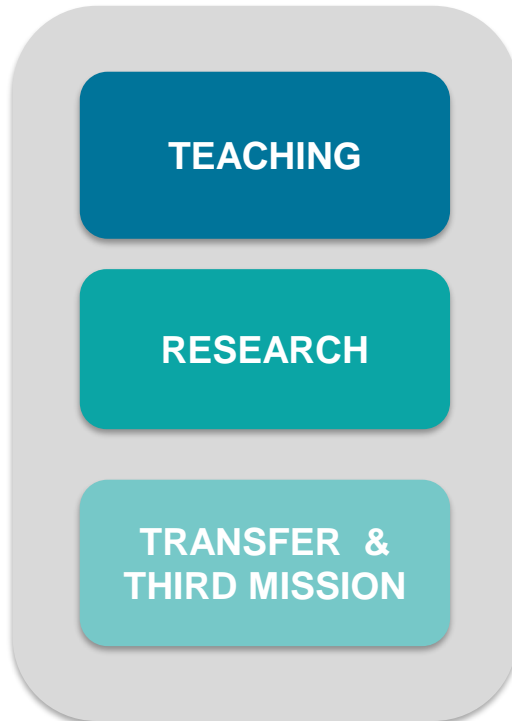
With financial support from the



– *Partners:*



Results



6 established research groups (since 2013)

- **Prof. Huber (THI) & Prof. Parente (UFPR):** Joint PhD (Simulation-based Testing: Benchmarking for environmental sensors and data fusion algorithms for autonomous driving)
- **Prof. Tetzlaff (THI) & Prof. Graf (UFPR) & Prof. Fredel (UFSC)**
THI-UFSC: Joint PhD (Improving high temperature properties of Metal Matrix Composites)
THI-UFPR: Master Student exchange (Laser Cladding for Disk Brakes) – 1 outgoing
- **Prof. Schweiger (THI) & Prof. Waltrich/ Impinisi (UFSC/Lactec):** PhD student exchange (safety aspects of high-voltage battery systems) – 1 outgoing
- **Prof. Bienert (THI) & Prof. Bavastri (UFPR):** Double Degree student exchange (passive vibration control) – 2 incomings
- **Prof. Navarro (THI) & Prof. Aoki (UFPR):**
Master student exchange in the field of energy storage and transmission - 3 outgoings, 1 incoming
Joint research projects between LACTEC research institute and Master students of the THI Master “Renewable Energy Systems”
- **Prof. Knoppe (THI) & Prof. Welzel (UFSC) & Prof. Tutui (Senac)**
Joint research workshop THI-Senac in New York
Master Student exchange in Retail Management – 2 outgoings

Results



- *Several scientific publications*
- *Prof. Zimmer (UFPR) as CARISSMA Research Professor at THI (since Nov 2017)*
- *4 Brazilian scientists researching in full employment at THI (since 2017)*
- *6 Brazilian Master Students in CARISSMA Research Team of Prof. Zimmer (2018+2019)*

Results



eMobility Forum (since 2013):

Annual event with students' racing teams from THI and UFSC meeting alternately either in Brazil or Germany

Invitation

*First eMobility
Forum Ingolstadt
Brazil*

23/09/2013 – 27/09/2013



Results



Results



TEACHING

RESEARCH

TRANSFER &
THIRD MISSION



„U4i-Workshop“ at UFSC, Joinville

- ***40 industry representatives***
- ***Scientific lectures regarding future trends in the automotive field***
- ***Discussions regarding the future of industry-university-cooperation***



Results



TEACHING

RESEARCH

TRANSFER &
THIRD MISSION



PR:

- *Two AWARE Publications (2013-2016, 2017-2019)*
- *Own website: www.aware.thi.de*
- *Newsletter: Subscribe! (e-mail to zaf@thi.de)*



Results



TEACHING

RESEARCH

TRANSFER &
THIRD MISSION



***Third Mission:
AWARE at SEPEX
Week in Florianópolis
Presentation of CARISSMA
virtual reality glasses by
research assistant from THI
= transfer of results from
university to public***





Technische Hochschule
Ingolstadt



AWARE

BeAWARE!

Applied Network on Automotive
Research and Education
Teaching
Research
Technology Transfer

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