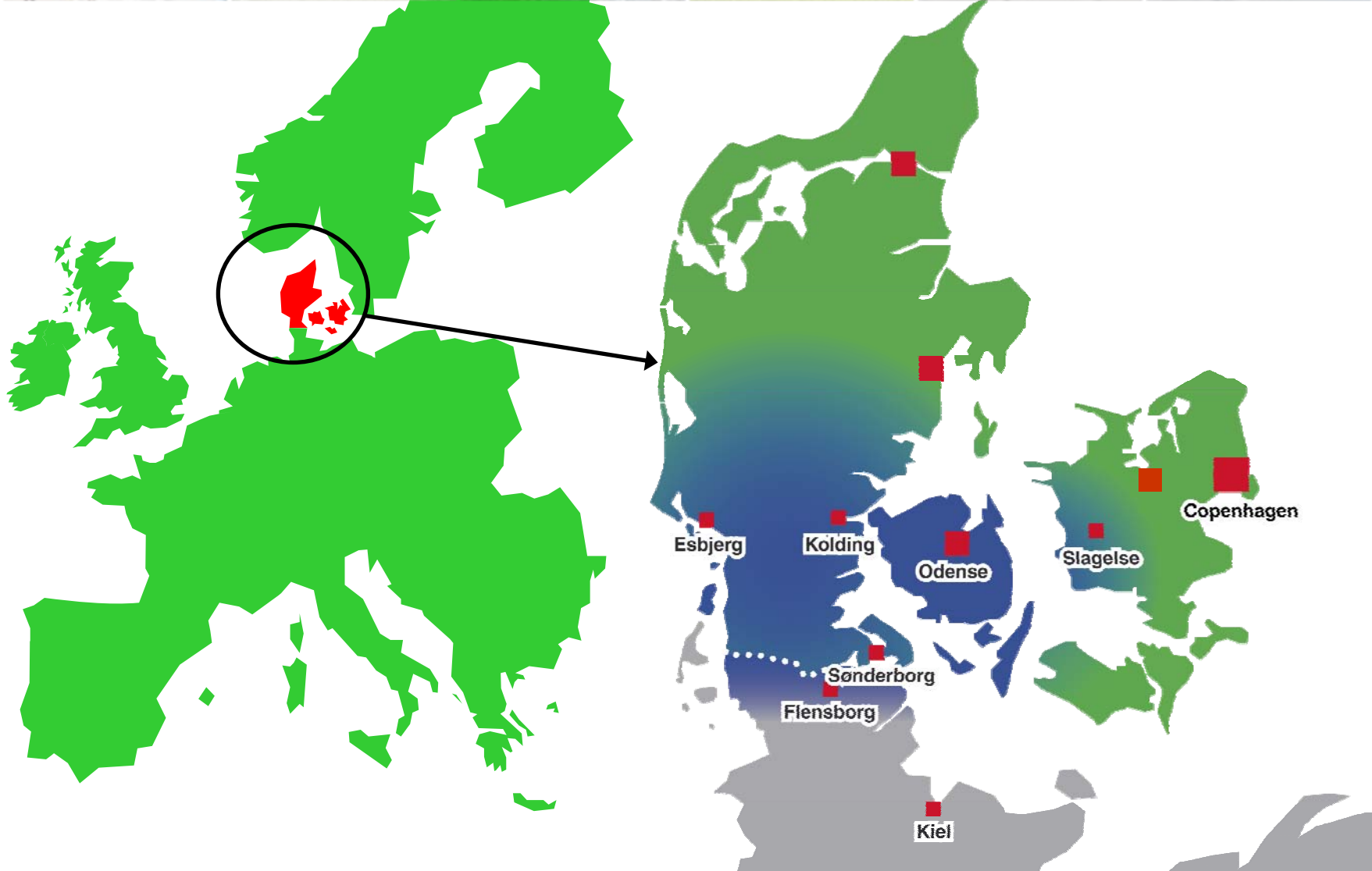




University of Southern Denmark

Competences and possibilities

Prof. Horst-Günter Rubahn

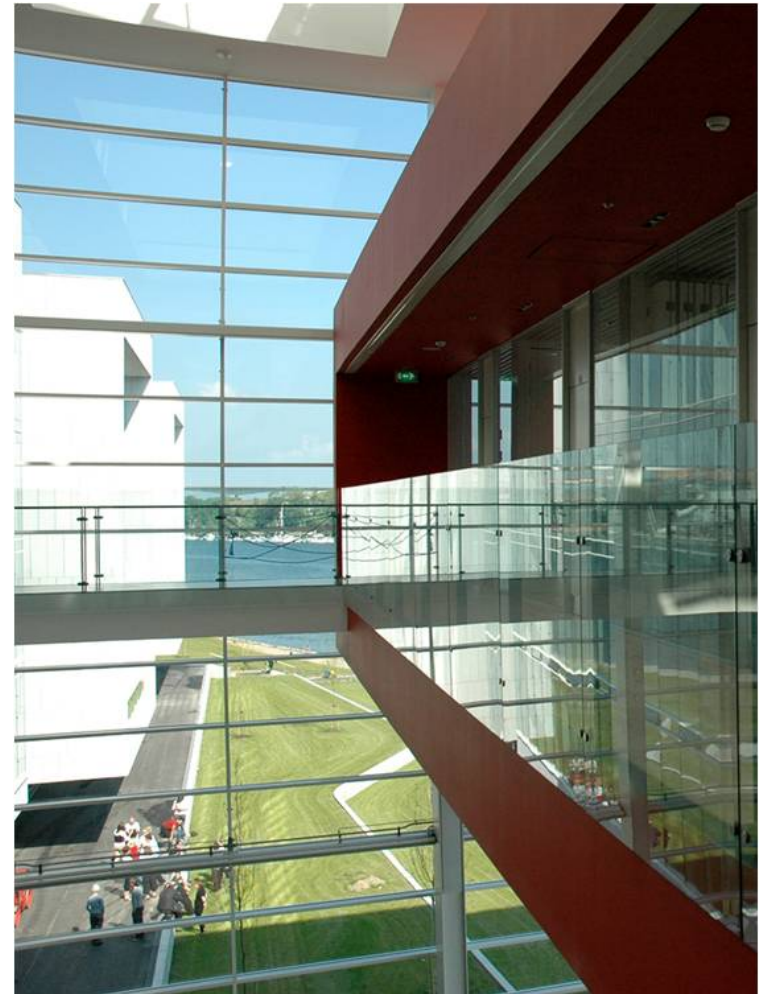


Mission & Values

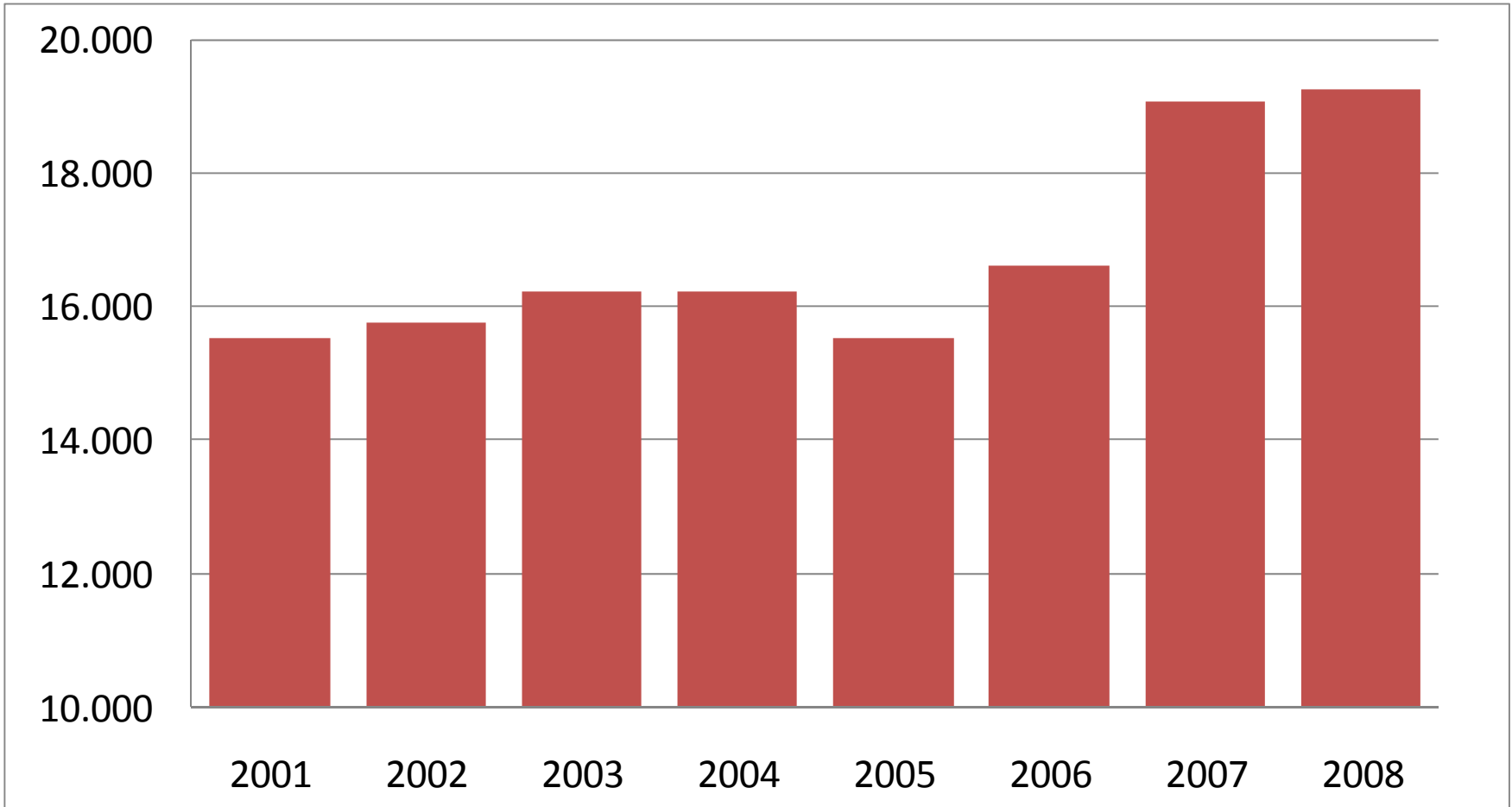
Research, Education and
Knowledge transfer

- at highest level
- as a joint effort
- in a strong,
interdisciplinary and
innovative environment

innovative, reliable, inclusive



Number of students



2010: 22000 students

Five faculties

- Humaniora
- Social Sciences
- Health Sciences
- Natural Sciences

Centers of Excellence: MEMPHYS, NAC, FLINT

- Faculty of Engineering

Faculty of Engineering: Interdisciplinary research target areas and PhD educational programs

- Robotics
- Energy efficient and environmental friendly technologies
- Functional materials and nanotechnology
- Applied mathematical modeling
- Product design and innovation

Industry collaboration

Examples:

- Rambøll Oil & Gas
- Mærsk Oil & Gas
- Danfoss
- Linak

etc.

96 mechatronic companies in Sonderjylland

Internships, student jobs, industrial PhDs ...

Students to industry

Weiterbildung, Beratung, Industrie-Akademia ...

Industry to university

Researcher contacts, commercialisation and start-ups, ventures ...

Industry-academia collaborations

Cross border collaborations

Interreg IIIa

- Center for Product Development

FH Flensburg

Interreg IVa

- Lab-on-chip technology for food safety
- Nanoparticles in food

FH Flensburg, FH Kiel

FH Flensburg

Interreg IVb

- Technet_nano

Baltic Sea Area

PhD courses at the Technical Faculty

Kursusudbud efterår 2010



MMMI

- Advanced Topics in Information and Communication Technology* , RP-ATI-U1 (IKT-FUP), Semesterrække, 10 ECTS
- Advanced Topics in Information and Communication Technology*, RP-ATI-U2 (IKT-FUP), Semesterrække, 5 ECTS
- Advanced Topics in Robotic Systems Engineering*, RP-ATR-U2 (RT-FUP), Seminarrække, 5 ECTS
- Advanced Topics in Robotic Systems Engineering*, RP-ATR-U1 (RT-FUP), Seminarrække, 10 ECTS
- Advanced Topics in Modular Robotics*, RP-ATMR-U1 (RT-FUP), 2,5 ECTS
- Literature Survey and Report*, RP-LSR-U1 (IKT-FUP+RT-FUP), 6 ECTS
- Presentation course*, RP-PRC-U (Alle), 1 ECTS
- Writing Scientific Papers in English*, RP-WSP-U1 (Alle), 5 ECTS

SENSE

- Numerical Acoustics* , FP-NUCA-U1 (AMM-FUP), 10 ECTS

MCI

- Design Anthropology* , PDI-DAP-U1 (PI-FUP), 8 ECTS
- Physics of Piezoelectric Solids*, AMM-PPS-U1 (AMM-FUP), 5 ECTS
- Mathematical Modelling of Mechatronic Systems 2*, NAMMM2-U2 (AMM-FUP), 10 ECTS
- Advanced Micro- and Nanofabrication*, FMN-AMN-U1 (FNM-FUP), 5 ECTS
- Advanced spectroscopic techniques*, FMN-AST-U1 (FNM-FUP), 5 ECTS

KBM

- Process Control of Chemical and Biochemical Processes* , XP-REG2-U1 (EMT-FUP), 5 ECTS
- Advanced Natural Product Chemistry*, XP-BIO3-U1 (EMT-FUP), 10 ECTS
- System Analysis*, KP-SYS1-U1 (EMT-FUP), 10 ECTS
- Dynamisk Elektrokemi*, KP-DE1-U1 (EMT-FUP), 5 ECTS

IB

- Fracture Mechanics and Fatigue* , PH-PRA2-U1 (AMM-FUP), 5 ECTS
- Non-linear Finite Element Method*, PH-VAE5-U1 (AMM-FUP), 5 ECTS

PhD courses at the Faculty of Science

For PhD students at the Department of Physics and Chemistry:

PhD courses from the Department of Physics and Chemistry (code 200)

KE807 - Fysisk Organisk Kemi from SDU with 5 ECTS.

KE809 - Videregående teoretisk kemi from SDU with 5 ECTS.

KE810 - Biouorganisk kemi from SDU with 5 ECTS.

KE811 - Videregående NMR spektroskopi from SDU with 5 ECTS.

KE819 - Assembling minimal living systems from SDU with 5 ECTS.

FY801 - Laserfysik og spektroskopi from SDU with 5 ECTS.

FY802 - Statistisk fysik from SDU with 10 ECTS.

FY803 - Kvantefysik from SDU with 10 ECTS.

FY804 - Eksperimentel overfladefysik from SDU with 5 ECTS.

FY805 - Videregående fysik af kondenserede stoffer from SDU with 10 ECTS.

FY809 - Kvantefeltteori - 3. kvartal from SDU with 5 ECTS.

FY809 - Kvantefeltteori - 4. kvartal from SDU with 5 ECTS.

FLinT/MEMPHYS journal club from SDU with 2 ECTS (participation is possible twice if the person responsible for the course certifies that the course is repeated with new material (total 4 ECTS))

Participation in six official colloquiums at the Department of Physics and Chemistry during one year with 1 ECTS.

Patent course from SDU with 1,5 ECTS.

Praktisk grundkursus i mundtlig videnskabsformidling for ph.d.-studerende from SDU with 3 ECTS.

Cross institutional PhD course in Molecular Biophysics from SDU with 10 ECTS.

PhD Summer School on Nucleic Acid Chemical Biology from SDU. This ECTS is not fixed because the course is offered every second year with different subject matter. You will be given the ECTS the course is worth the year you follow it.

PhD exchange

- support for short time visit: 'guest honorary' (travel and accomodation plus small daily allowance)
- joint research collaborations
- joint PhD stipends: (1+2) at SDU
- joint seminars, workshops, summer schools