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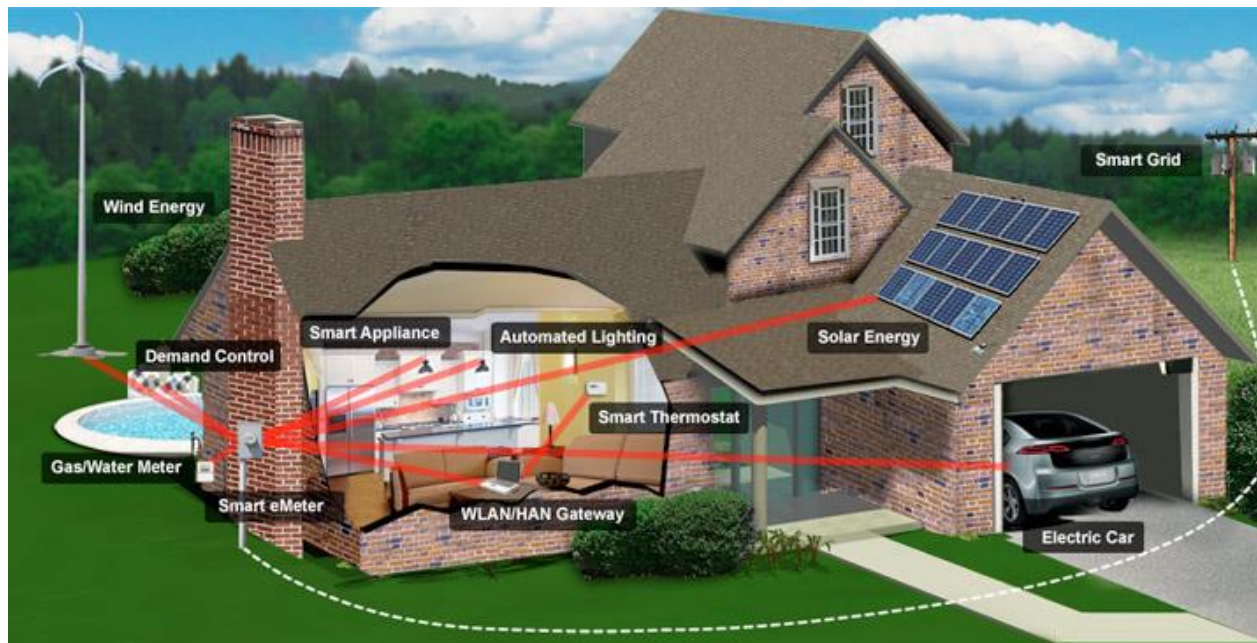


Groningen Engineering Center

Introduction by
Prof. dr. ir. Jacquélien Scherpen



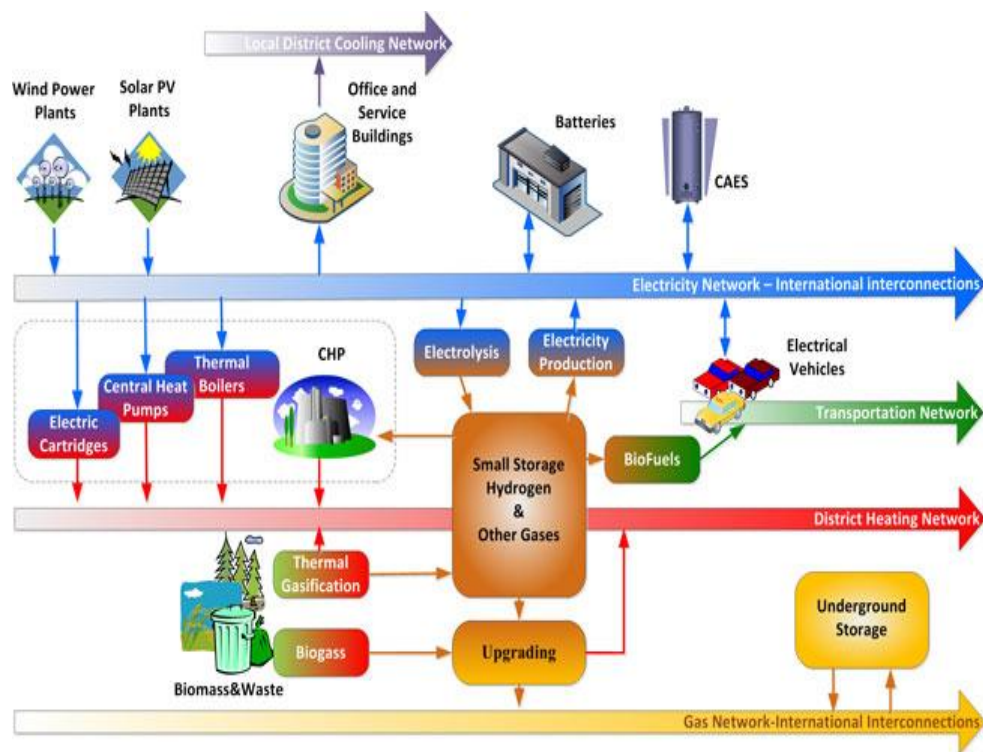
Consider the future of smart energy systems



What is necessary to have an optimal home?



Consider the future of smart energy systems



Connected
complex, new technology,
new engineering solutions.

But also:
economy, fairness,
regulations, safety,
privacy, acceptability.
What is optimal? comfort,
environment, financial?



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Engineering in a comprehensive environment

Different disciplines together are able to provide an integrated solution!

Unique in NL at University of Groningen!



Engineering in a comprehensive environment

A wide variety of examples:

- › Systems biology, iGEM (international Genetically Engineered Machine) competition
- › Biology-inspired autonomous robotic teams
- › Sustainable buildings
- › Social decision making for engineered automation
- › Astronomy, instrumentation and mechatronics
- › Agrifood
- › Cashew nut valorization project
- › Etc.



Best kept secret!

- › History since the 60/70's, variable visibility throughout the years
- › Only since 2006 one research institute that only has engineering research
- › However, also other institutes include engineering research, along with more fundamental research
- › Growth in recent years AND in years to come

Currently: approximately 40 research groups

**Strengthen profile and combine forces through
 Groningen Engineering Center!**



Engineering education at the RUG

- › Since the 60/70's education in Applied Physics, Chemical Engineering, Technical Mechanics (now Applied Mathematics), approved Engineering degree.
- › More recent: Biomedical Engineering, and since 2002 Industrial Engineering and Management. Future plans: Mechanical Engineering (MSc), Systems and Control (with UTwente).



Participating institutes

Faculty of Mathematics and Natural Sciences (FMNS)

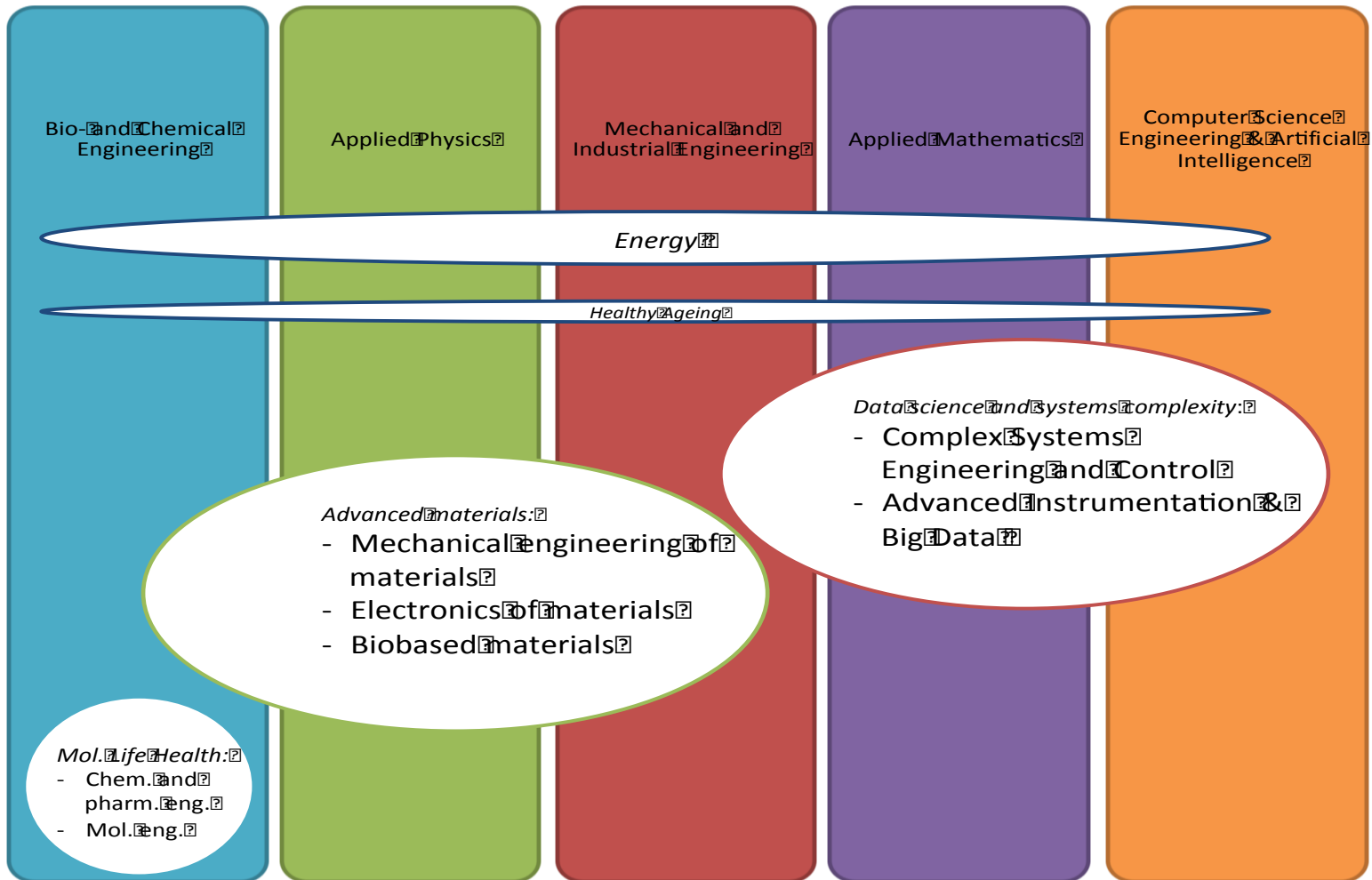
- › Engineering and Technology institute Groningen (ENTEG)
- › Zernike institute for Advanced Materials (ZIAM)
- › Johann Bernoulli Institute for Mathematics and Computer Science (JBI)
- › Energy and Sustainability Institute Groningen (ESRIG)
- › Artificial Intelligence and Cognitive Engineering (ALICE)
- › Groningen Biomolecular sciences and Bio technology institute (GBB)
- › Groningen Research Institute of Pharmacy (GRIP)
- › Stratingh institute for Chemistry (Stratingh)
- › Kapteyn institute

Other faculties

- › Faculty of Economics and Business, Operations
- › UMCG: Biomedical Engineering
- › KVI-CART



Engineering at RUG





Goals of Groningen Engineering Center

- › Connect and profile engineering researchers RUG
- › Specific media campaigns to increase knowledge of potential students about engineering programs at RUG, and to attract the right students
- › Improve knowledge about GEC research through media campaigns and network meetings with e.g. industrial partners
- › Active participation and lobby for National Science Agenda (NWA), top sector discussions, HTSM in North Netherlands, etc. Example: Smart Industry