High Tech, Human Touch

The ENTREPRENEURIAL UNIVERSITY OF TWENTE
prof.dr.ir Petra C. De Weerd-Nederhof (@PetraDWN)

- Chair Organising Innovation
- School of Management & Governance
- IGS Institute for Innovation and Governance Studies, SRO Innovation & Entrepreneurship
- Coordinator MSc BA track Innovation & Entrepreneurship & Double Diploma IME
- Programme Director Graduate Studies, UT
- Editor, Creativity and Innovation Management (Wiley)
- Board member, EIASM International Product Development Management Conference
- President, EITIM (www.eitim.org, www.eitimdoc.org)

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prof.dr. Aard J. Groen

- department chair /director NIKOS @
- School of Management & Governance
- Leader research group Innovation & Entrepreneurship @
- IGS Institute for Innovation and Governance Studies
- Project leader Venture Lab Twente
- Activity lead Entrepreneurship support system EIT-ICT-Labs
- 10 year collaboration in Russia (Mephi, HSE, ITMO)
UNIVERSITY OF TWENTE

- Founded in 1961 as the **youngest** of 3 Dutch Technical Universities
- **Both** technical and social sciences
- Compensation for loss of textile industry in the **Twente region**
- **Entrepreneurial** university:
  - 700+ spin-off companies
  - >7000 jobs created
Schools at the University of Twente

Science and Technology
MSc programmes in: Applied Physics, Chemical Engineering, Biomedical Engineering, Technical Medicine, Nanotechnology

Electrical Engineering, Mathematics and Computer Science

Engineering Technology
MSc programmes in: Mechanical Engineering, Industrial Design Engineering, Civil Engineering and Management, Construction Management and Engineering, Sustainable Energy Technology

Management and Governance
MSc programmes in: Industrial Engineering and Management, Business Administration, Health Sciences, Public Administration, European Studies, Business Information Technology

Behavioral Sciences
MSc programmes in: Educational Science and Technology, Psychology, Philosophy of Science and Technology, Science Education and Communication, Communication Studies, Social Systems and Evaluation Research

Geo-information science and Earth observation

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**University of Twente in top 10 of European Technical Universities (SCI)**

**Key research institutes**

- Institute for Nanotechnology (Mesa+)
- Institute for Biomedical Technology (MIRA)
- Centre for Telematics and Information Technology (CTIT)
- Institute for Mechanics, Processes and Control - Twente (IMPACT)
- Institute for Innovation & Governance Studies (IGS)
- Institute for Behavioral Research (IBR)

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An aerial overview

University of Twente

Business & Science park

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Study and Research

Sports and leisure

Work and Pleasure

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Student numbers 2008

- Bachelor 5614
- Master 2631
- Premaster 532
- International students 986
- Doctorate/PhD 635
- International PhD’s 302
Valorization in Business and Science Parks

University of Twente Campus

Business & Science Park

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Kennispark Twente: Creating value of new academic knowledge in a network
Research and Teaching centre of Campus
Public-private-partnership: building an interaction place for industry and university
New real estate
NanoLab MESA+

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High Tech, Human Touch

April 21, 2010
Lecture rooms
New Canteen Waaier building
Campus in Summer
Vision on entrepreneurial universities

- Engaged scholarship
- Combining research, teaching & societal orientation
- Building on entrepreneurial values:
  - Innovative
  - Creative
  - Risk taking propensity
  - Network orientation
- Creating Value
INN&ENT @ UT: BSc, Minor, MSc and PhD

- School of Management & Governance:
  - Departments OOHR and NIKOS (LAA=Langezijds A-gebouw)

- Research Institute for Innovation & Governance Studies (IGS):
  - Strategic Research Orientation Innovation & Entrepreneurship
    - Includes also other departments.

The main purpose of our research program is to enhance our theoretical and practical understanding of the organization and management of innovation, entrepreneurial and business development processes and strategies at different levels (i.e. network and firm level).
Innovation & Entrepreneurship @ IGS

Entrepreneurship & Business development

International business

Empirical fields

Technology

Human resources

New materials
Information Technology

Smart systems

Biomedical Technology
Nano technology

Health
Knowledge
Sustainability
Service industry
Public sector

Human resources

Organizing Innovation

Innovation & Entrepreneurship @ IGS

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Research approach combined with practice orientation

- Engaged Scholarship (Andrew Van de Ven, 2008)
- Quasi-experimental research: theory guided design of support instruments
- Practice oriented implementation: entrepreneurs will join a business development facility
- Longitudinal measurement of processes
- Measurement instruments which are practical usefull e.g. diary for preparing coach meetings

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UT-Entrepreneurship Support Structure: Innovation Lab Twente now known as “Kennispark”

- Decentralised into research institutes, accelerators
- Specialised business development support from NIKOS and BCvB staff
- IP-program
- Market-academy connection via accelerators (business developers) in the research institutes
- Utility sharing
- Venture capital network
- UT-strategy, focus on spearheads of research (converging technologies: Nano-IT-biomed)
- At least 10-15% of academic staff involved in leading the entrepreneurial activities
- And VentureLab Twente, our Living Lab

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VentureLab Twente
main hypothesis: supporting four crucial functions of entrepreneurial system will improve growth rate

This project is made possible by contributions of the European Union and the Province of Overijssel
Need for high tech high growth companies

.. initiative and objectives

- University Twente: > 700 start-ups in 25 yrs
  ... but they remain small (< 10 fte)
- IPT asked NIKOS to design business support program for growth companies → VLT

VLT OBJECTIVES

350 participants in 4 years
- 200 SME’s
- 30 SME’s >100 fte’s
- 3000 direct, 6000 indirect fte’s
Entrepreneurial and market orientation

**Scope:**
- from idea to Strategy

**Social Network-Contacts**

**Skills:**
- Patterns of Organisation

**Scale:**
- Economy: Financial means

**COO / CTO**
- Balanced teams operations organized, Q-systems in place & product offering

**CMO**
- Strong connections with market (suppliers-clients)
- Managing strong & weak ties (in business & academic world)

**CEO**
- Clear Growth ambition
- Strategic focus
  - developed T-M-O
  - strategic process/network
  - path of value creation/exit

**CFO**
- Managing cash flow rounds of investment
- FFF Venture capital (Formal-informal investors)
Courses @Utwente starting end of August 2012: Semester 1

Q1
- Business Development from a Network Perspective
- HRM, Innovation and Entrepreneurship
- Entrepreneurial Finance

Q2
- Supply Management and Innovation
- Principles of Entrepreneurship
- Advanced Technology Venturing Group project

- All courses are 5 ECTS
- 8 weeks teaching, 2 week exam period per Quarter
- Semester ends at the end of January
Courses @Utwente starting end of August 2012: 
Semester 2

Q3
- Master Class 5 EC
- Master Thesis 10 EC

Q4
- Master Thesis continued 15 EC
  - Master Class lectures start 1\textsuperscript{st} week of February, and are concentrated in that month.
  - Empirical part of Thesis work can start from March onwards, and can take place in the Netherlands, Germany or another country.
  - Master thesis supervision by teacher from Twente \textbf{and} from Berlin, both have to approve the assignment.
  - It is possible to already seek an assignment while in Berlin but final decisions/approval during semester 1 at Twente

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QUESTIONS?