HPI School of Design Thinking

Hasso-Plattner-Institut | Universität Potsdam

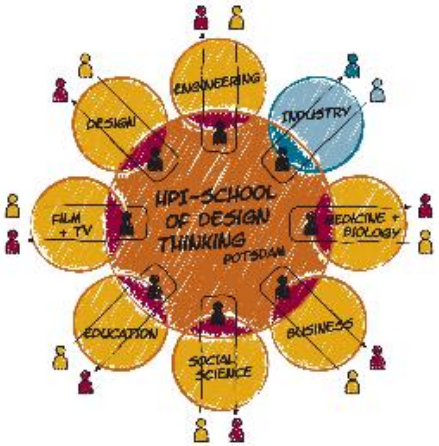
Multi-disciplinary Team-Based Innovation

Felix Naumann @ RioInfo 2008 - Oct. / 2008

Agenda

HPI School of Design Thinking

- HPI
- D-School in Potsdam (and Stanford)
- Design Thinking
  - Multidisciplinary Teams
  - Design Thinking Process
  - Variable Space
- Activities of the First Year
- Design Challenges and Prototypes



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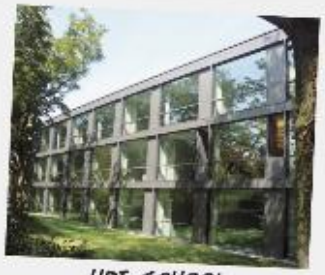


HPI-SCHOOL OF DESIGN THINKING, POTSDAM

Prof. Ulrich Weinberg

HPI School of Design Thinking

- Art and design diploma
- Specialized in 3D computer animation since 1986
  - Mental Images, Art & Com, etc.
  - Projects for ARD, BMW, Daimler, Telekom, ZDF, etc.
- Founder of TERRATOOLS and CYPARADE:
  - 3D interaction, visualization, simulation, computer games
- Professor for computer animation since 1994 at HFF Film & Television University, Babelsberg
- Dean of Animation Department (1994-2005)
- Vice President of HFF (1996-98 & 2005-06)
- Director of DMI Digital Media Institute at HFF
- Programme Director of INSIGHT OUT on Digital Cinema and HDTV
- Director of Chinese-German Summer Academy on short film production
- Visiting Professor at CUC Communication University of China, Beijing
- Director of HPI School of Design Thinking since June 2007

Information Systems at HPI

- Prof. Felix Naumann
  - naumann@hpi.uni-potsdam.de
  - HU, IBM Almaden, DFG/JP/HU, HPI
  - Currently at IBM Almaden Research Center
- Research Topics
  - Data Quality
  - Information Integration
  - Data Cleansing
  - Peer Data Management
  - http://www.hpi.uni-potsdam.de/naumann/
- Member of first year teaching team at D-School

Databases and Design Thinking?

HPI School of Design Thinking

HPI - Hasso Plattner Institute

- Private University
- Cooperation with Potsdam University
- Founded in 1998
- Focus: Software Syst. Engineering
- ~500 students

Prof. Dr. Hasso Plattner

- Co-Founder of SAP
- Former Chairman of the Board
- Honorary Doctorship
- Honorary Professorship
- Donation HPI Potsdam 1998
- Donation Hasso-Plattner-Institute of Design, Stanford 2005
- Founder of Hasso-Plattner Ventures in 2005
- Founder of HPI School of Design Thinking in 2007
- Sponsor of Design Thinking Research Program in 2008

SAP DST - Design Services Team

HPI School of Design Thinking

Drive company-wide adoption of design-led innovation in all products and services

SAP

Hasso Plattner Institute of Design Stanford – d.school

- Founded 2005 at Stanford University, California
- Driven by Mechanical Engineering, Computer Science, Industrial Design, and Business Departments
- One year course
- Innovation driven
- Open to all disciplines

Stanford, Entrance d.school, Sweet Hall

Prof. David Kelley *(Industrial Design)*

Prof. Larry Leifer *(Mechanical Engineering)*

Prof. Terry Winograd *(Computer Science)*

HPI School of Design Thinking

- Founded May 2007 at HPI, Potsdam
- Two semester course
- Innovation driven
- Open to all disciplines
- No student fees

School of Design Thinking, Potsdam

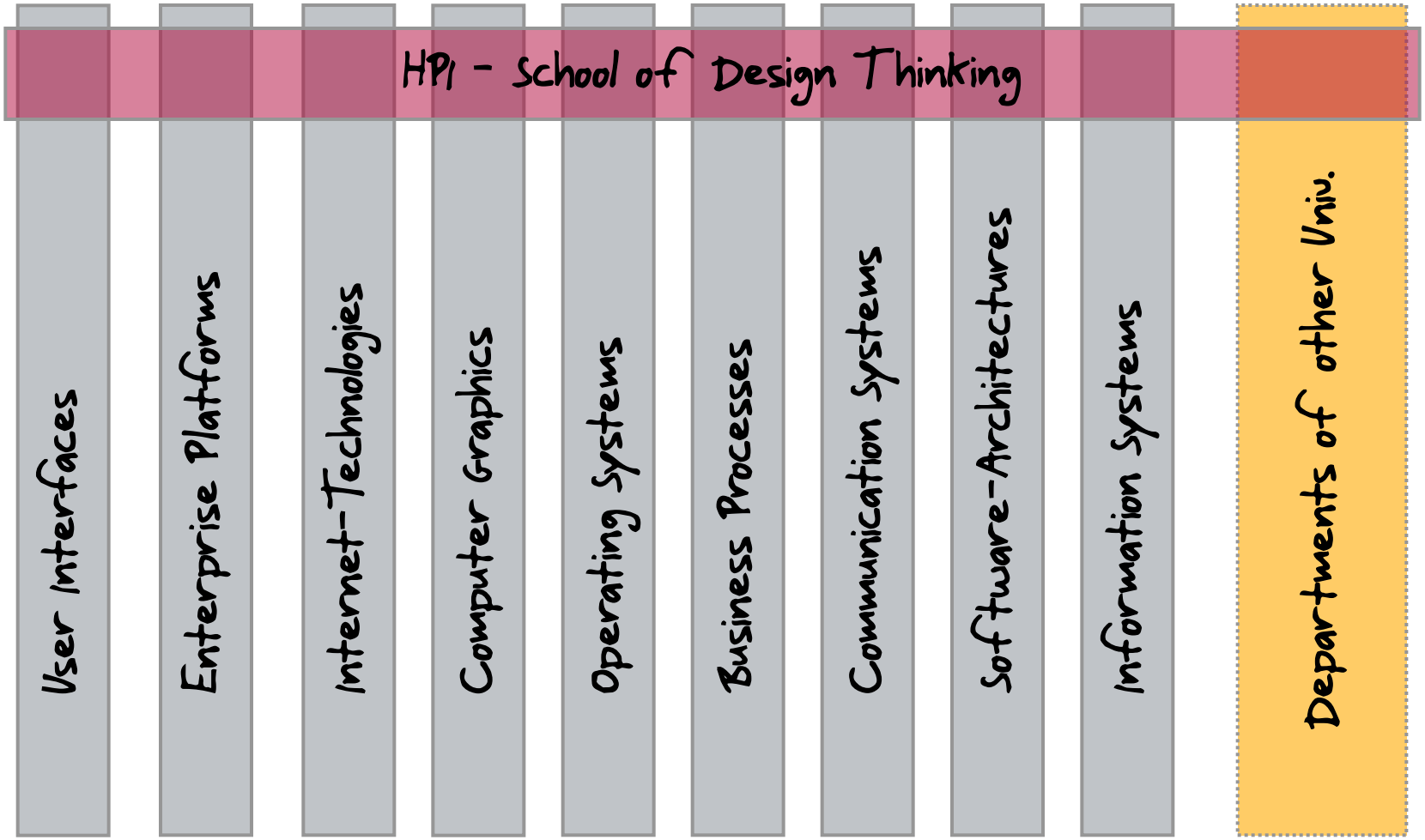
Prof. Hasso Plattner

Prof. Christoph Meinel

Prof. Ulrich Weinberg

Departments at HPI

HPI School of Design Thinking



D-School Activities

- Train the Trainers
- 3-week Bootcamp
  - Introduction to Design Thinking for students
- Classes
  - 1. semester Design Challenges (internal)
  - 2. semester Design Challenges (ext. Partners)
  - Apply Design Thinking in projects
- Research Program
  - 1 – 5 years
  - Research projects in cooperation with industry and society
- Conferences + Workshops on Design Thinking
- Lecture Series
- Future: Executive Education
  - Design Thinking Workshops for Executives from industry and social institutions

Our intent: Create the best DESIGN THINKING

- Prepare FUTURE INNOVATORS to be breakthrough thinkers and doers.
- Use DESIGN THINKING to inspire multidisciplinary teams
- Foster RADICAL COLLABORATION between students, faculty and industry.
- Tackle BIG PROJECTS and use prototyping to discover new solutions.

Stanford Project Examples

- Class "Extreme Affordability"
  - INCUBATOR
  - LED light

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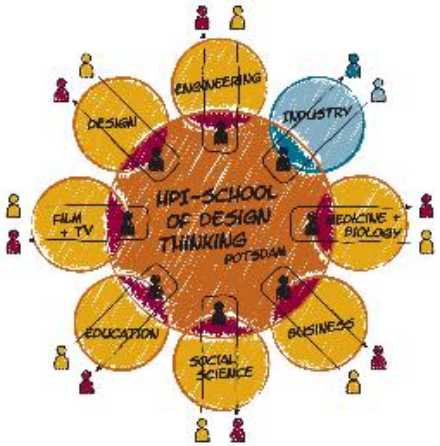

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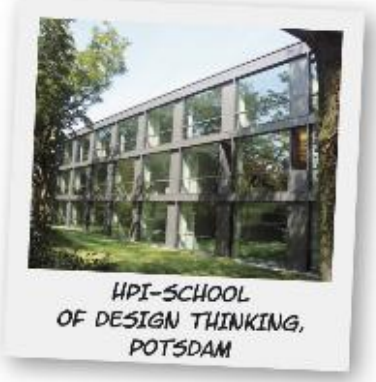
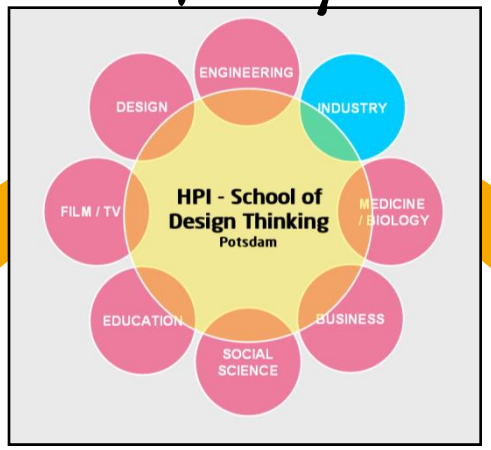
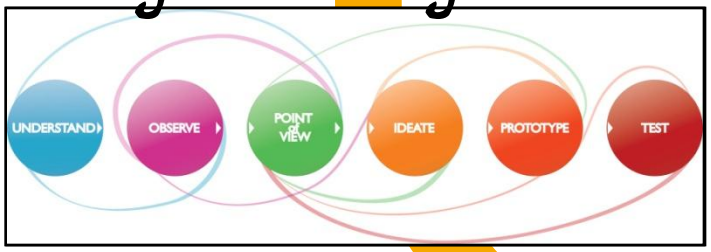

HPI-SCHOOL OF DESIGN THINKING, POTSDAM

Three Core Elements

Multidisciplinary Teams



Design Thinking Process



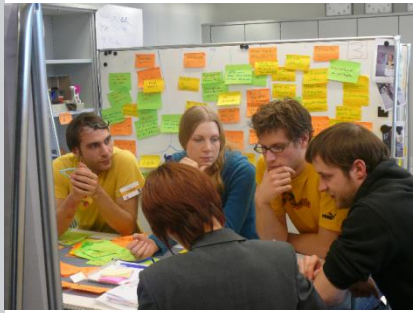
Variable Space

The first year

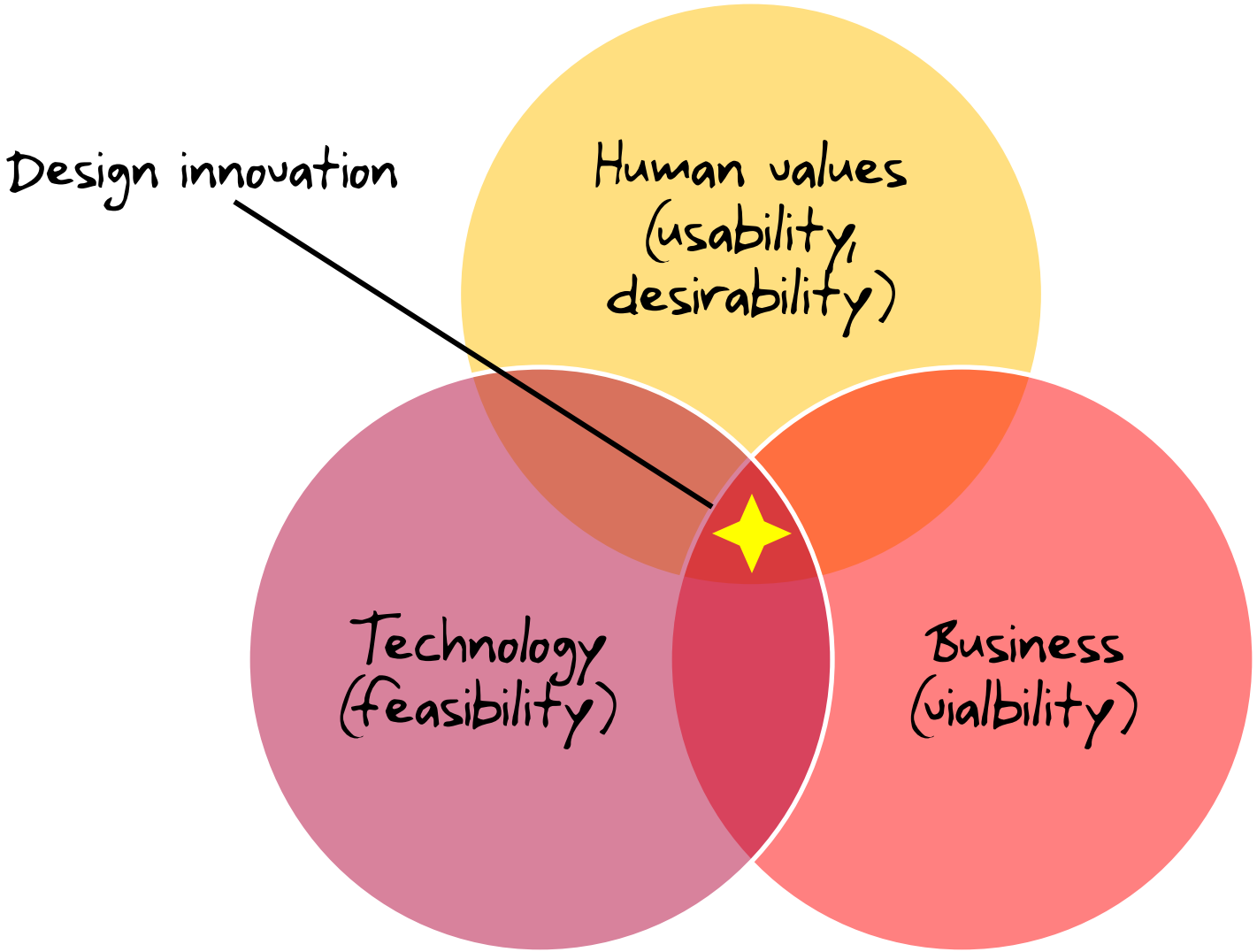
- 40 students from 30 disciplines
- 6 professors und 6 assistants from Berlin / Brandenburg Universities

Multidisciplinary Classes

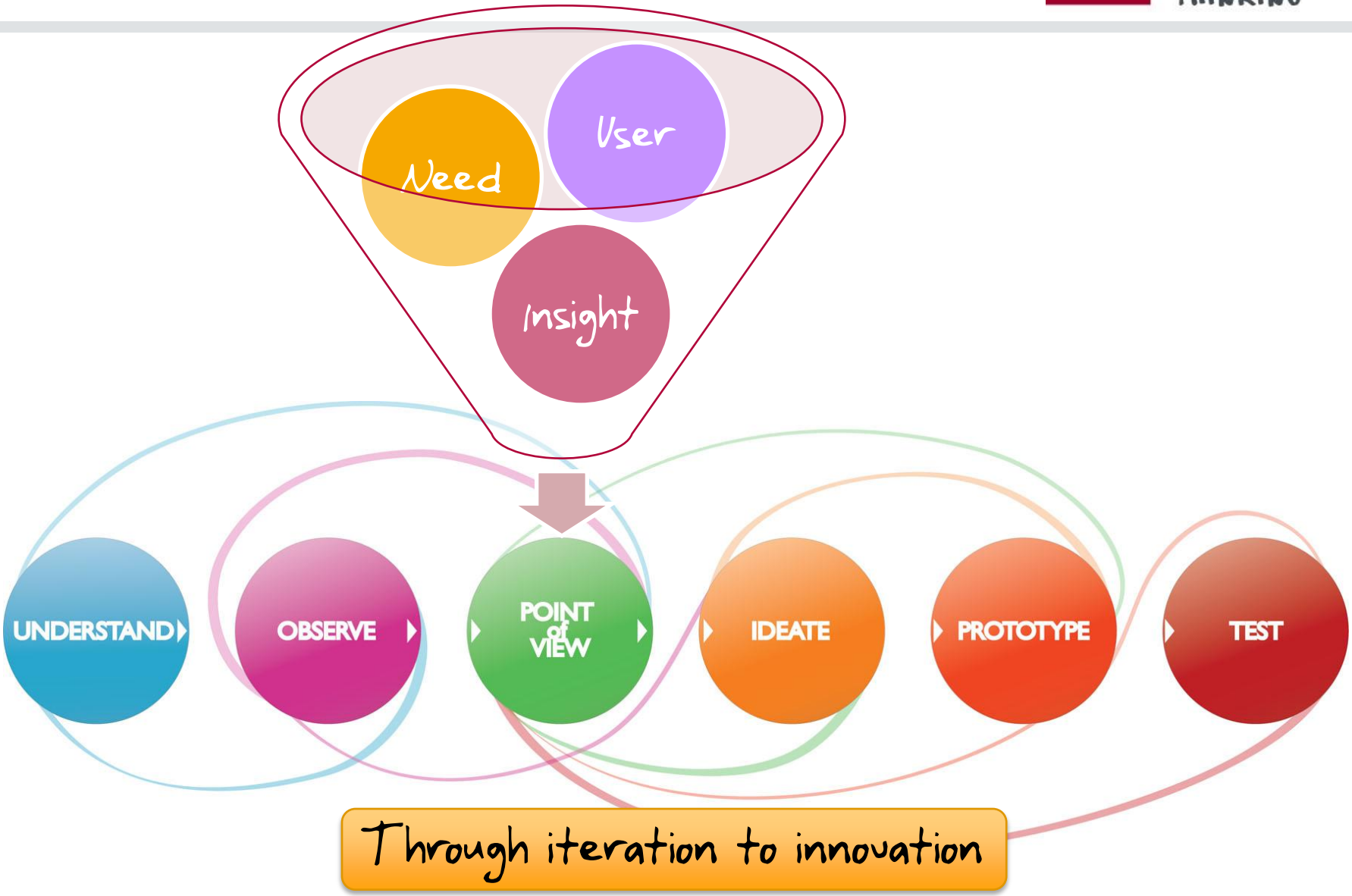
American Studies
Architecture
Art History
Audio Engineering
AV Media Sciences
Biology / Chemistry
Business Innovation
Computer Science
Cultural Sciences
Economics
Environmental Design
European Media Sciences
Fine Arts
Gender Studies
Indian Philology
Industrial Design
IT-Systems Engineering
Journalism
Legal Studies
Medical Studies
Modern History
Philosophy
Physics
Political Sciences
Social Sciences
Production Design
Micro Economics
Macro Economics



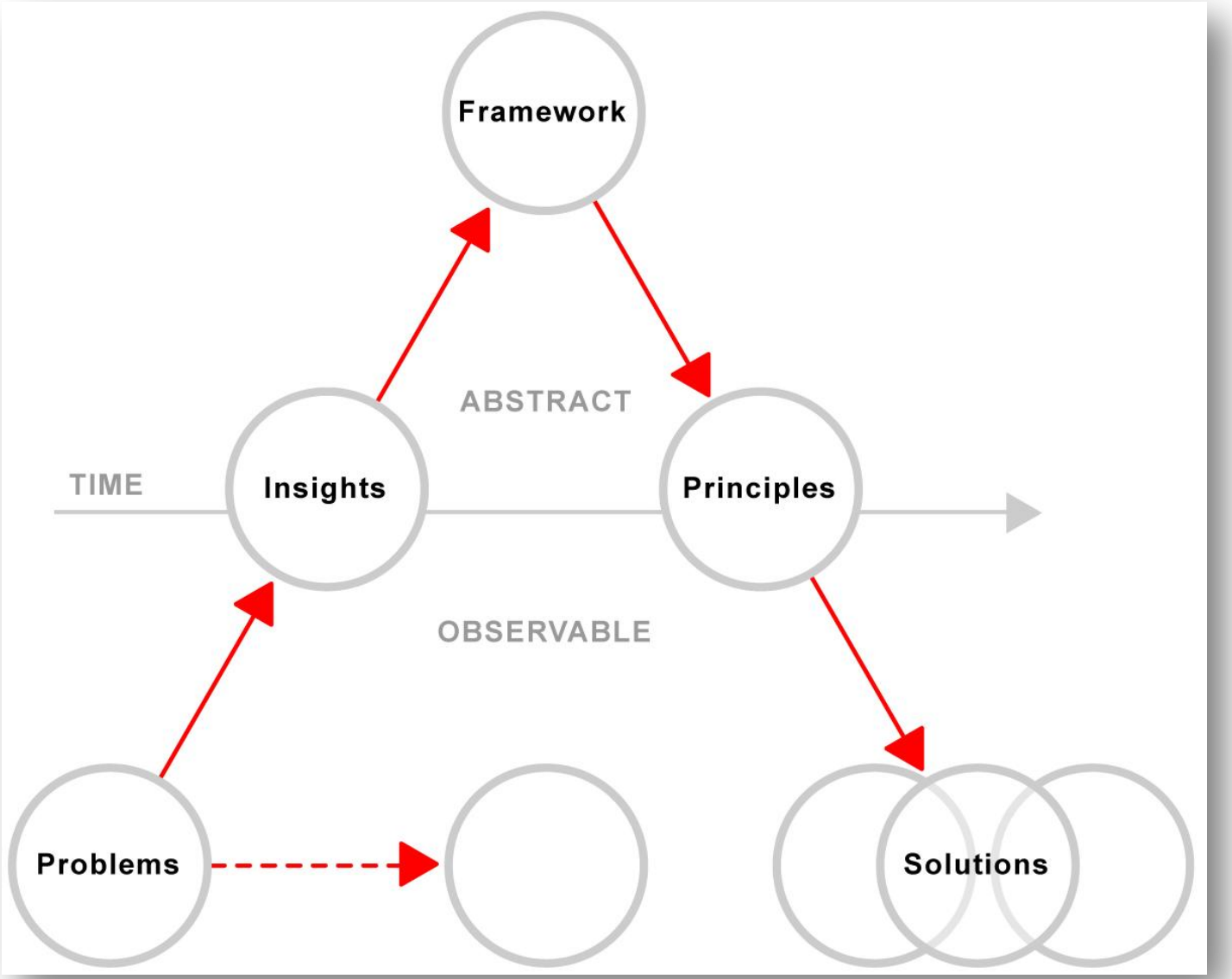
Designing Innovation



Design Thinking – The Process



From Problems to Solutions



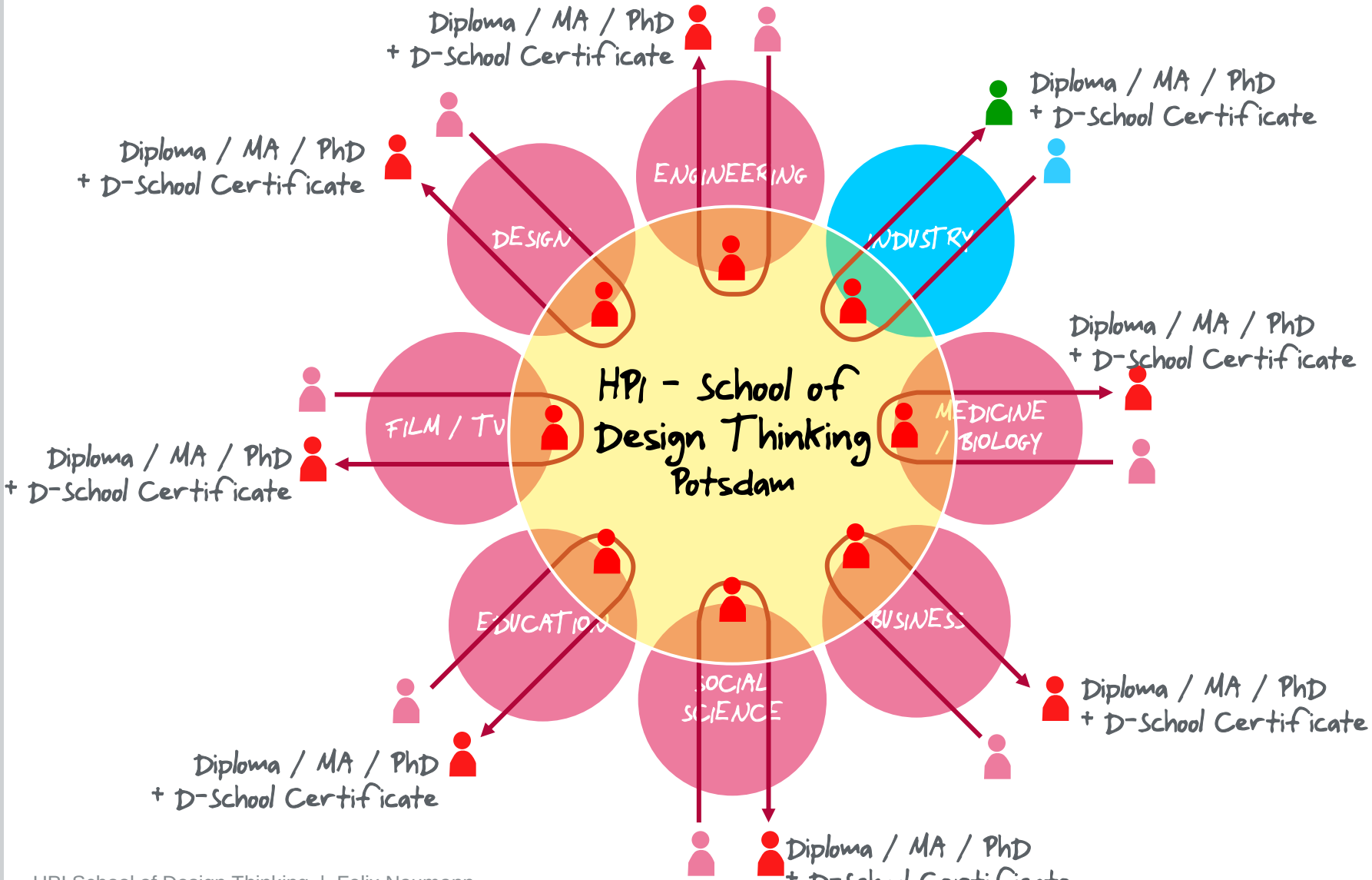
The Principles

- Stay Focused on Topic
- One Conversation at a Time
- Encourage Wild Ideas
- Build on the Ideas of Others
- Defer Judgment
- Be Visual
- Go for Quantity

- Fail early and often
- Think User-centric
- Work Multi Disciplinary
- Look for Feasability - Viability - Desirability

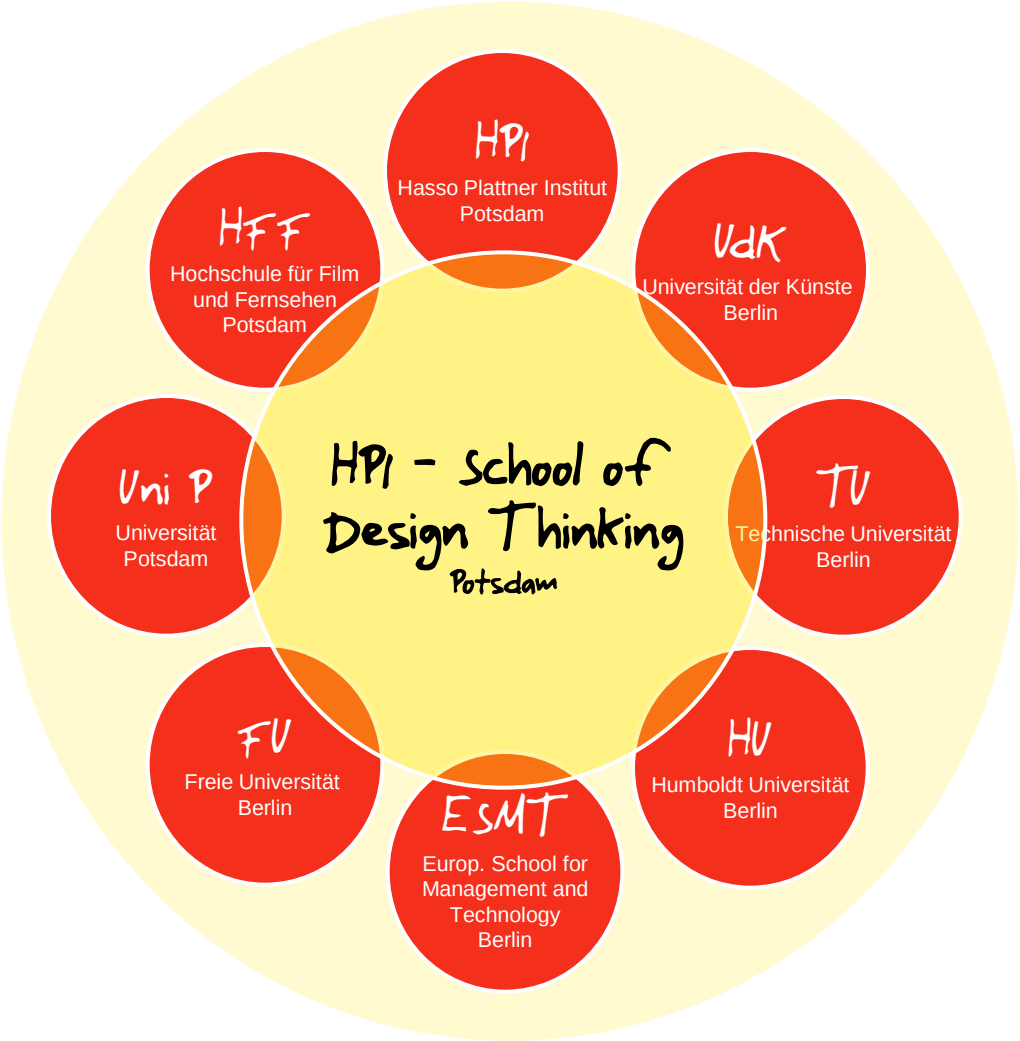
Open to all Disciplines

HPI School of Design Thinking

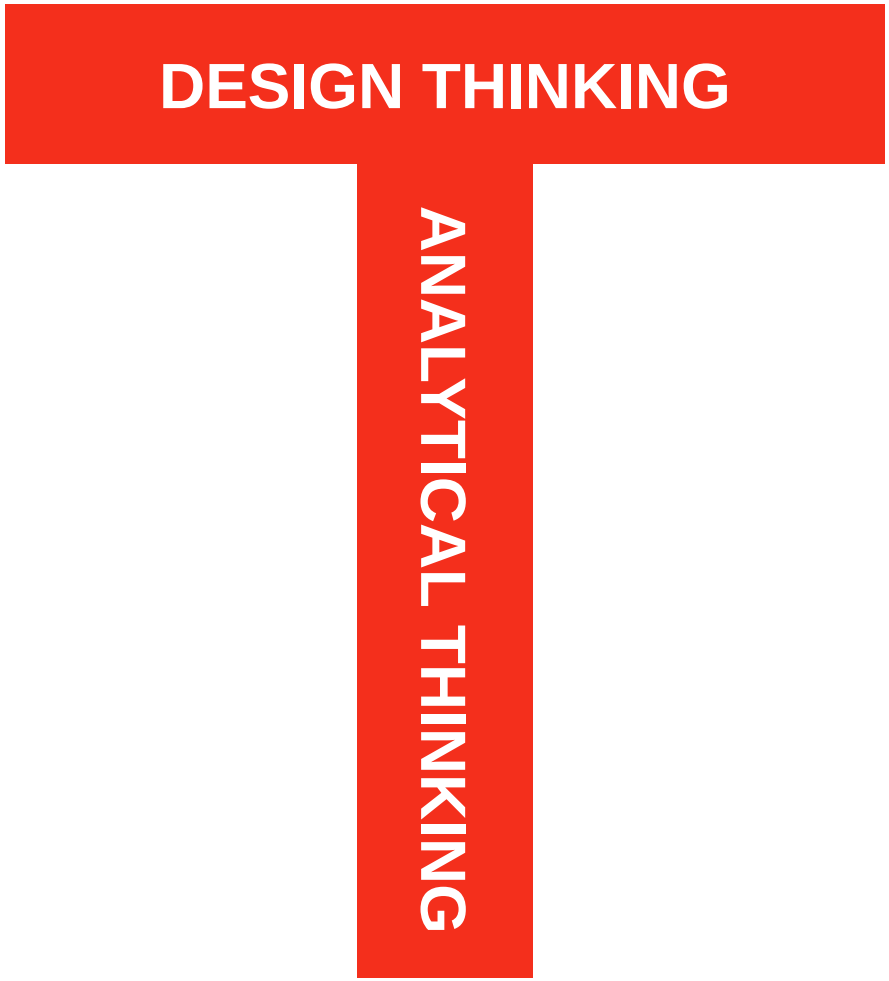


Cooperating Institutions

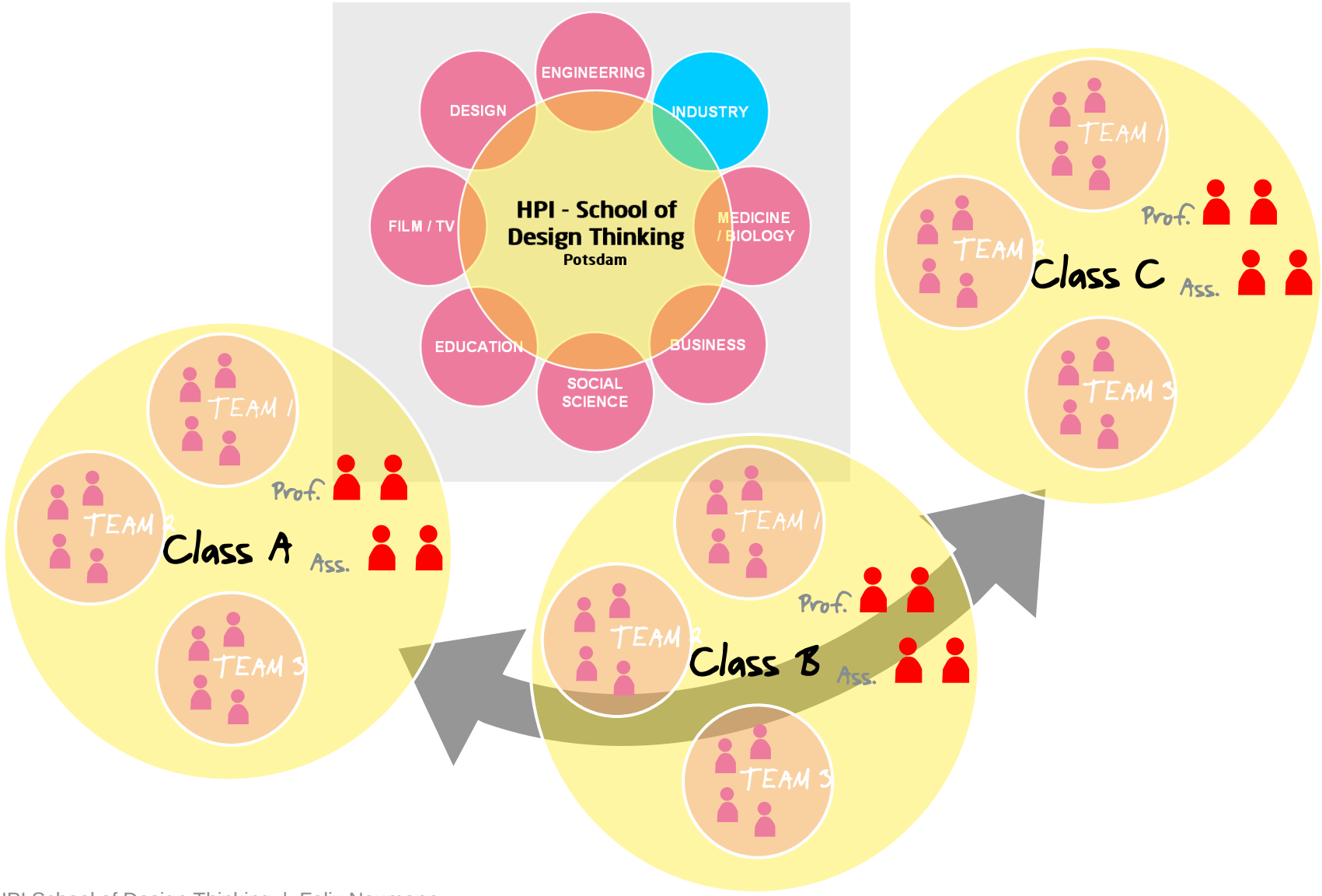
HPI School of Design Thinking



T-Shaped People



Teams teach Teams



D-School Spaces

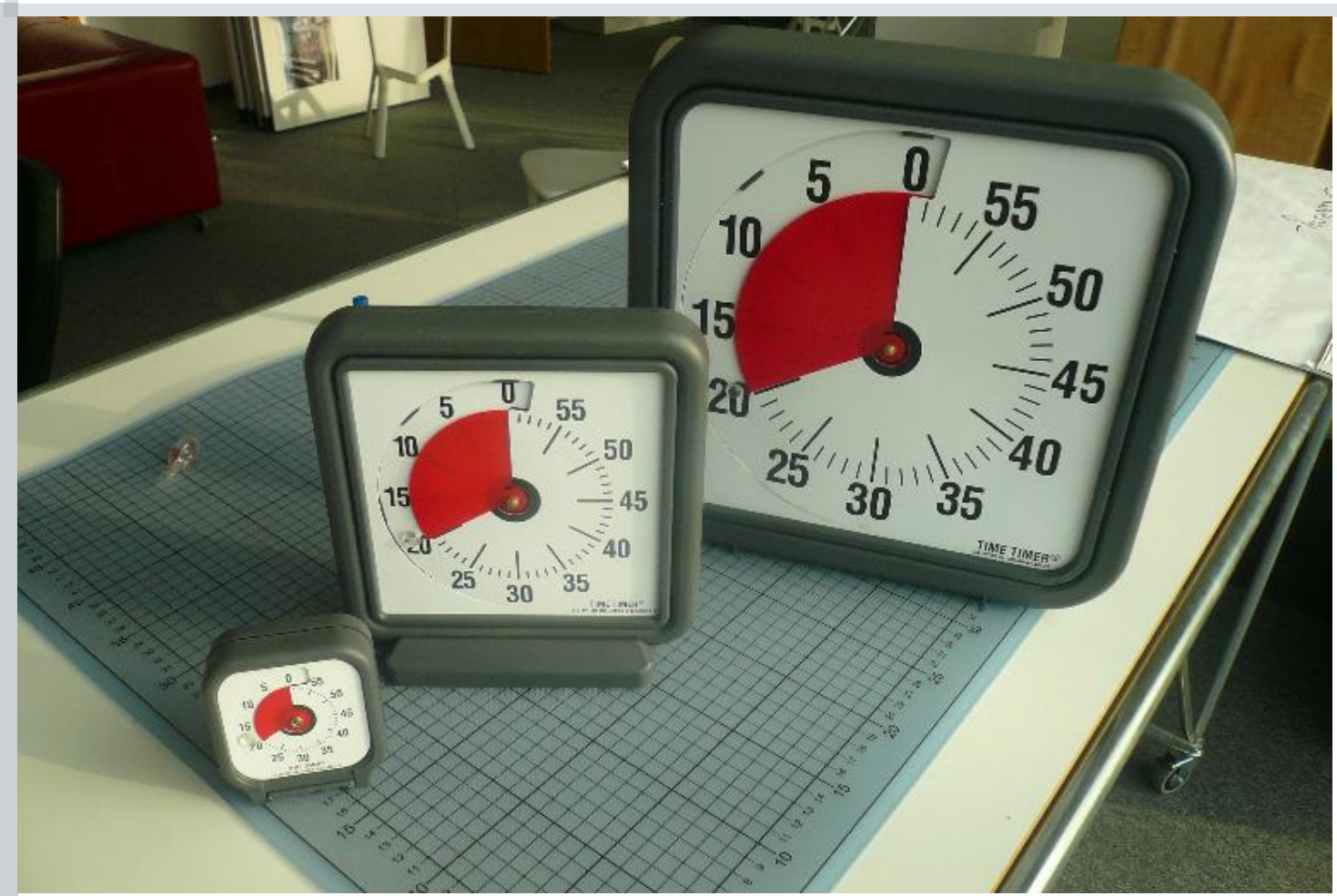
- Theater Space / Lecture space /
- Student team Workspaces / Studio classrooms
- Offices / Collaborative Workspace
- Meeting rooms
- Studio
- Workshop
- Library
- Kitchen
- D-Lounge
- Audio Spaces
- Digital Space / WWW
- Guest Office
- Kid Space

D-School Interior

- White boards on wheels
- Working tables on wheels
- Material galore
- Computer workspaces on wheels
- Sofas on wheels
- Chairs / Stools
- Foam cubes
- Bar / Lounge
- PCs / MACs
- Projectors / Flat-Screens
- Video / Audio Recording + Edit
- Workshop

Student Workspace

Time Timer



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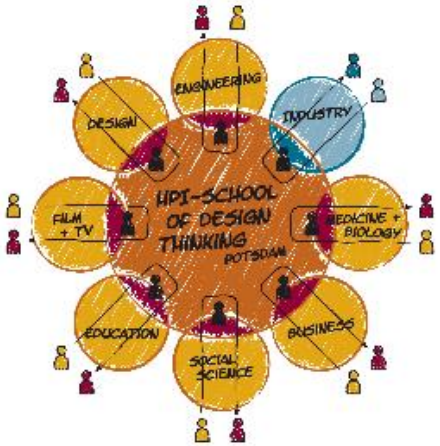

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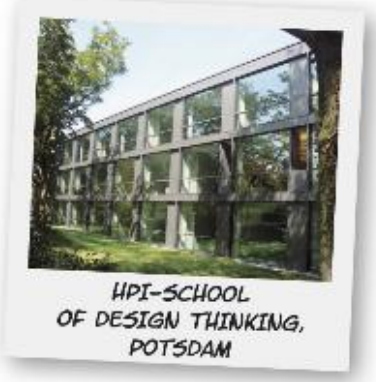
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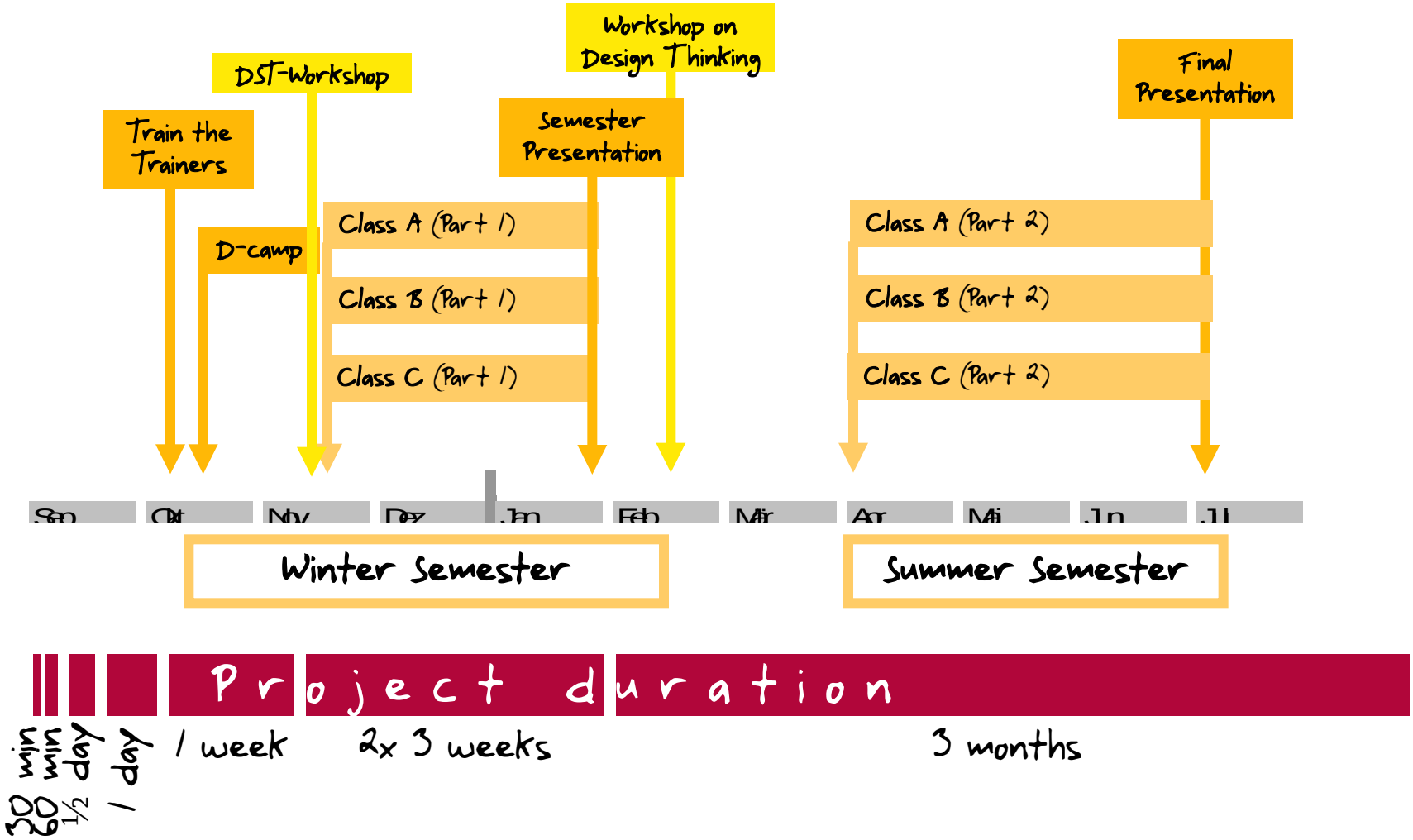
Timetable


Workshop on Design Thinking
DST-Workshop
Final Presentation
Train the Trainers
Semester Presentation
D-camp
Class A (Part 1)
Class B (Part 1)
Class C (Part 1)
Class A (Part 2)
Class B (Part 2)
Class C (Part 2)
Winter Semester
Summer Semester
Project duration
30 min
30 min
½ day
1 day
1 week
2x 3 weeks
3 months

Classes 2007/08

- Bridging Generations
- Innovating for the base of the social pyramid
- Media reconsidered

Prototypes

- Noodle Soup Experience

Prototypes

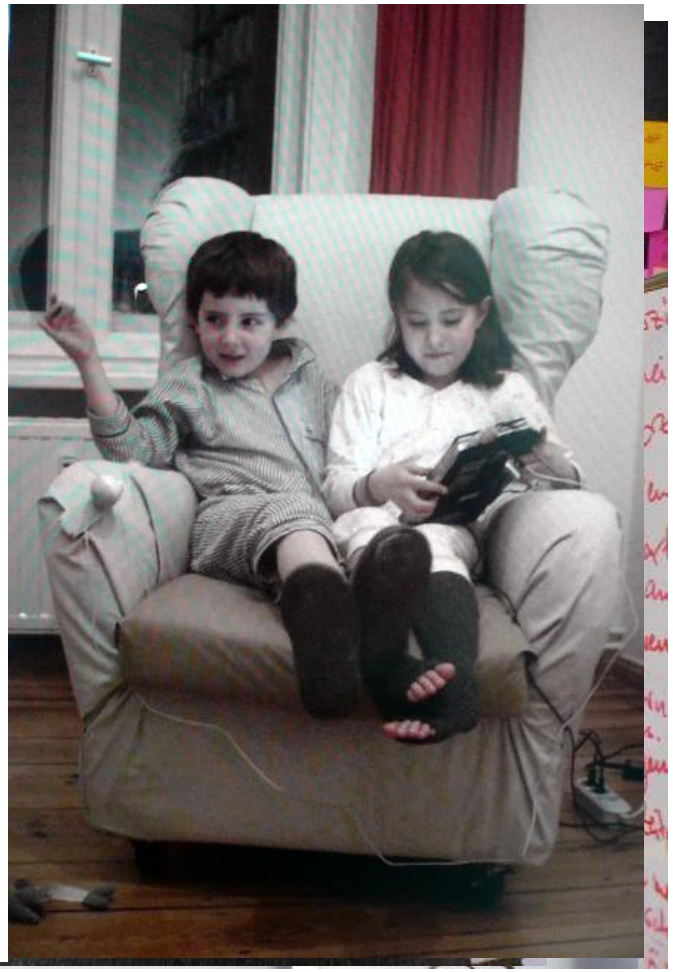
- DIY Experience

Prototypes

- Job Seeking Experience

Bridging Generations

- Family Chair



Team work

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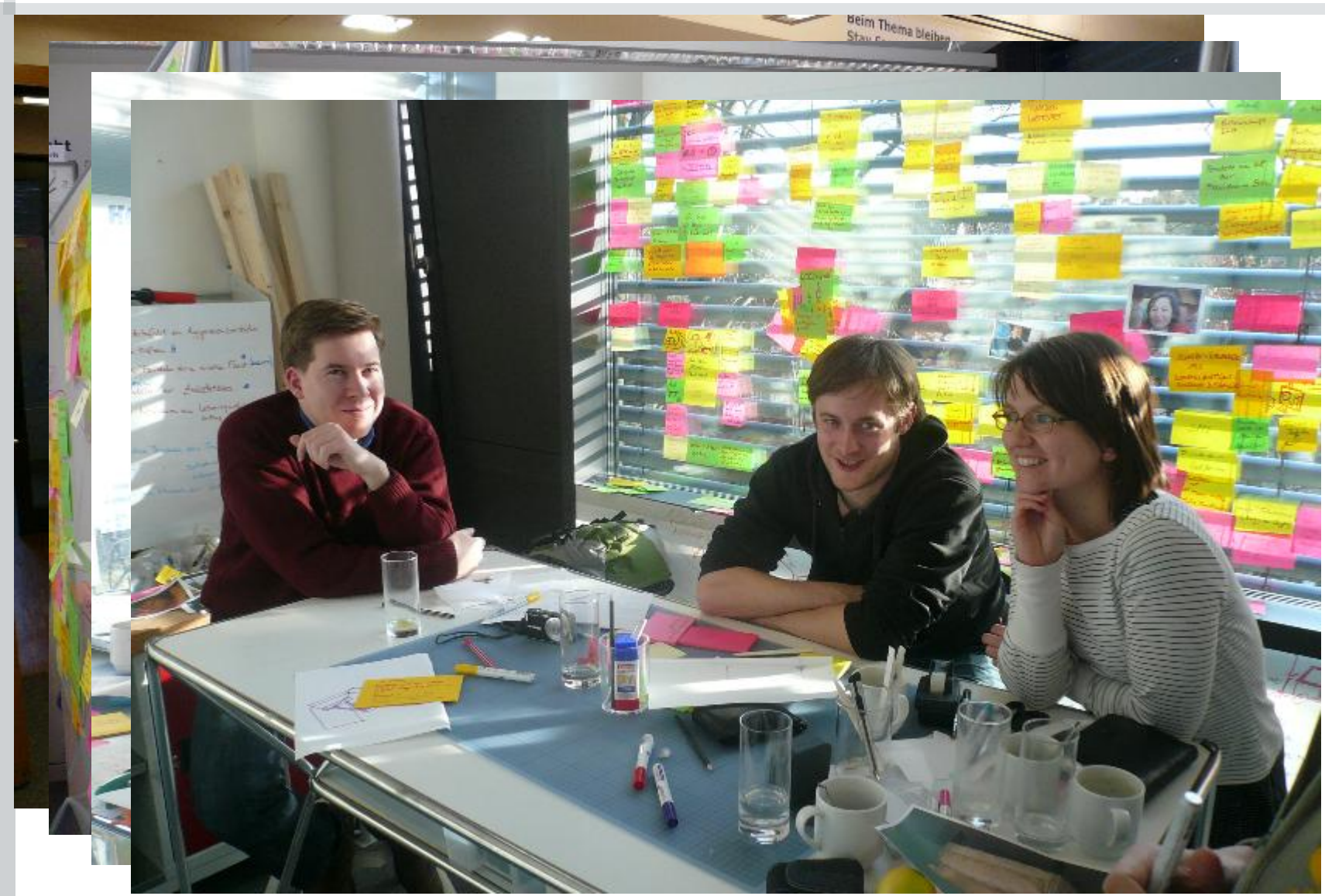

CeBIT 2008 Design Challenges

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- Live design challenges at CeBIT 2008

CeBIT 2008 Design Challenges

- IT-Technical Jargon Experience

H. Plattner/ T. Winograd Workshop

Summer Classes 2008

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ENABLE! TRANSFORM! RECONSIDER!

- 9 Projects with 13 external Partners

B.A.U.M. Bundesdeutscher Arbeitskreis für Umweltbewusstes Management e. V.
betterplace
Bundesagentur für Arbeit
BUNDESDRUCKEREI
Deutsche Messe Hannover · Germany
GRUNDY UFA
IMMOBILIEN SCOUT 24
LERNMOBIL E.V.
METRO Group
SIEMENS
Special Olympics
T··Mobile···
VATTENFALL

Class ENABLE !

Autonomy for Mentally Disabled

Special Olympics Germany, Lernmobil

E1 How might we provide a higher level of autonomy to mentally disabled people within areas of public life?

Personal Supply Chains

METRO Group

E2 How might we enhance personal supply chains for retail customers regarding convenience, cost effectiveness and sustainability?

Turning Social Empathy into Action

betterplace.org

E3 How might we help people to turn their social empathy into individual action ?

Class TRANSFORM !

Bundesdruckerei/D-Trust / T-Mobile

Siemens / Vattenfall

B.A.U.M. e.V.

T1 How might we enable spontaneous & secure interactions between people who don't know each other ?

T2 How might we, regarding the scarcity of global resources, enable consumers to make use of the many energy saving solutions in their private households ?

T3 How might a congress look like, which motivates decision makers to act sustainably in their organization ?

Class RECONSIDER !

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Deutsche Messe AG

R1 How might we generate new revenues with alternative usage models of existings fairgrounds?

Bundesagentur für Arbeit / Immobilienscout24

R2 How might we enable individuals to find things that matter like a unique living space or an appropriate apprenticeship in their respective social context?

Grundy UFA

R3 How might we enhance the authoring process for TV-series?

Research Presentation

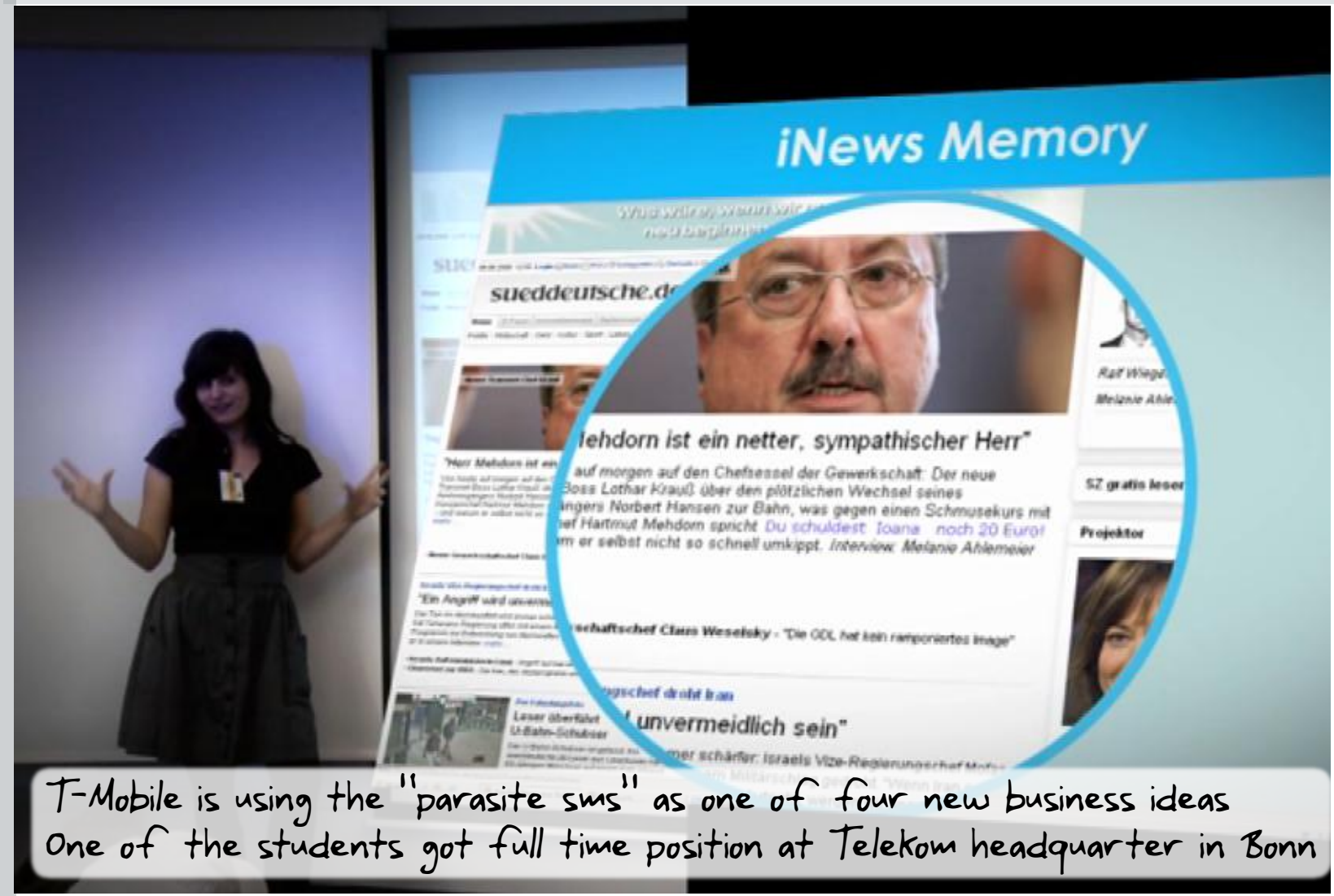
HPI School of Design Thinking

Grand Finale at July 11 2008

- 200 invited guests
- 13 project partners
- Student Certificates
- Exhibition

Germany
Land of Ideas

People Trusting People



T-Mobile is using the "parasite sms" as one of four new business ideas
One of the students got full time position at Telekom headquarter in Bonn

Sustainable Event for Sustainable Action

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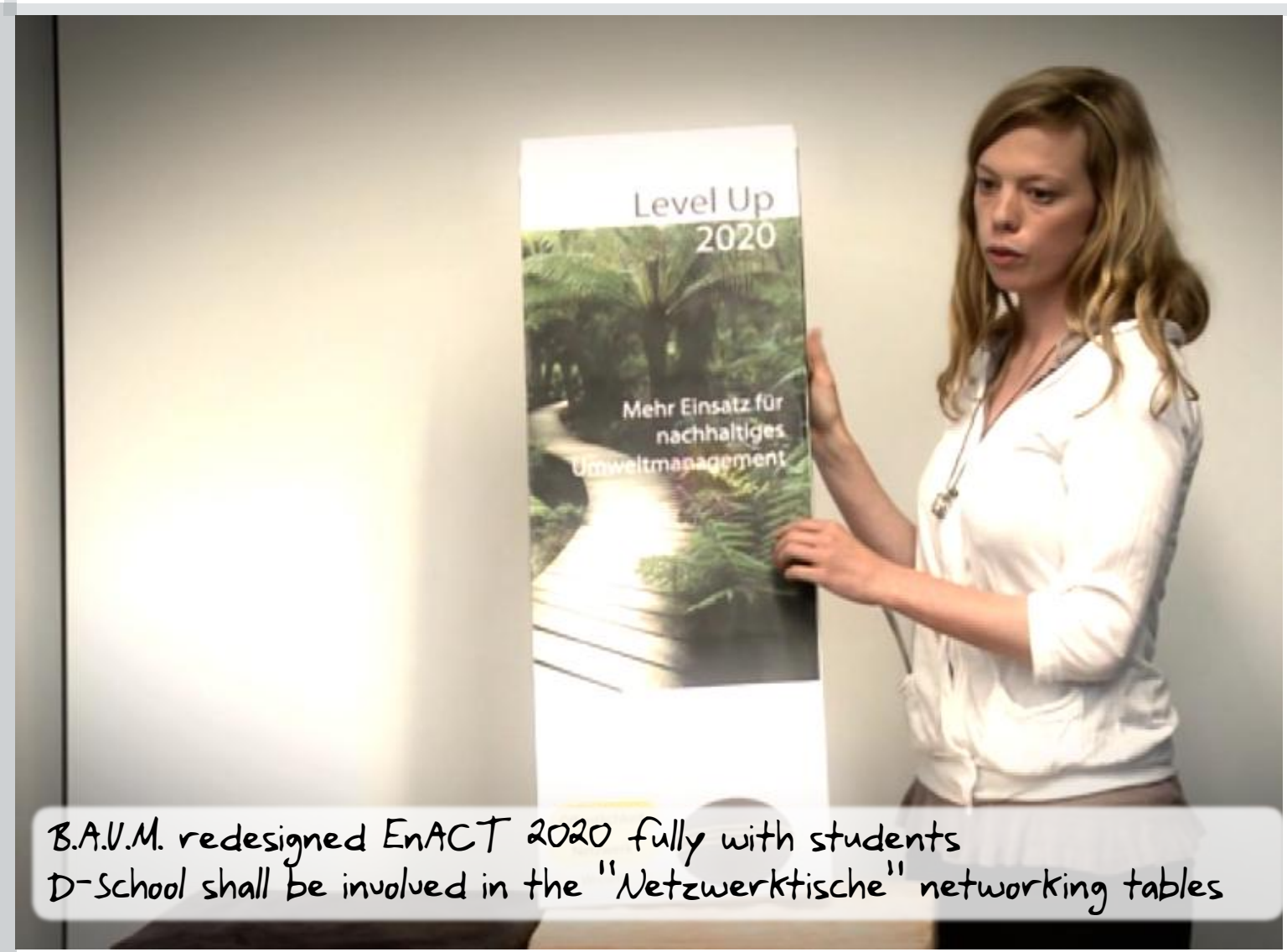
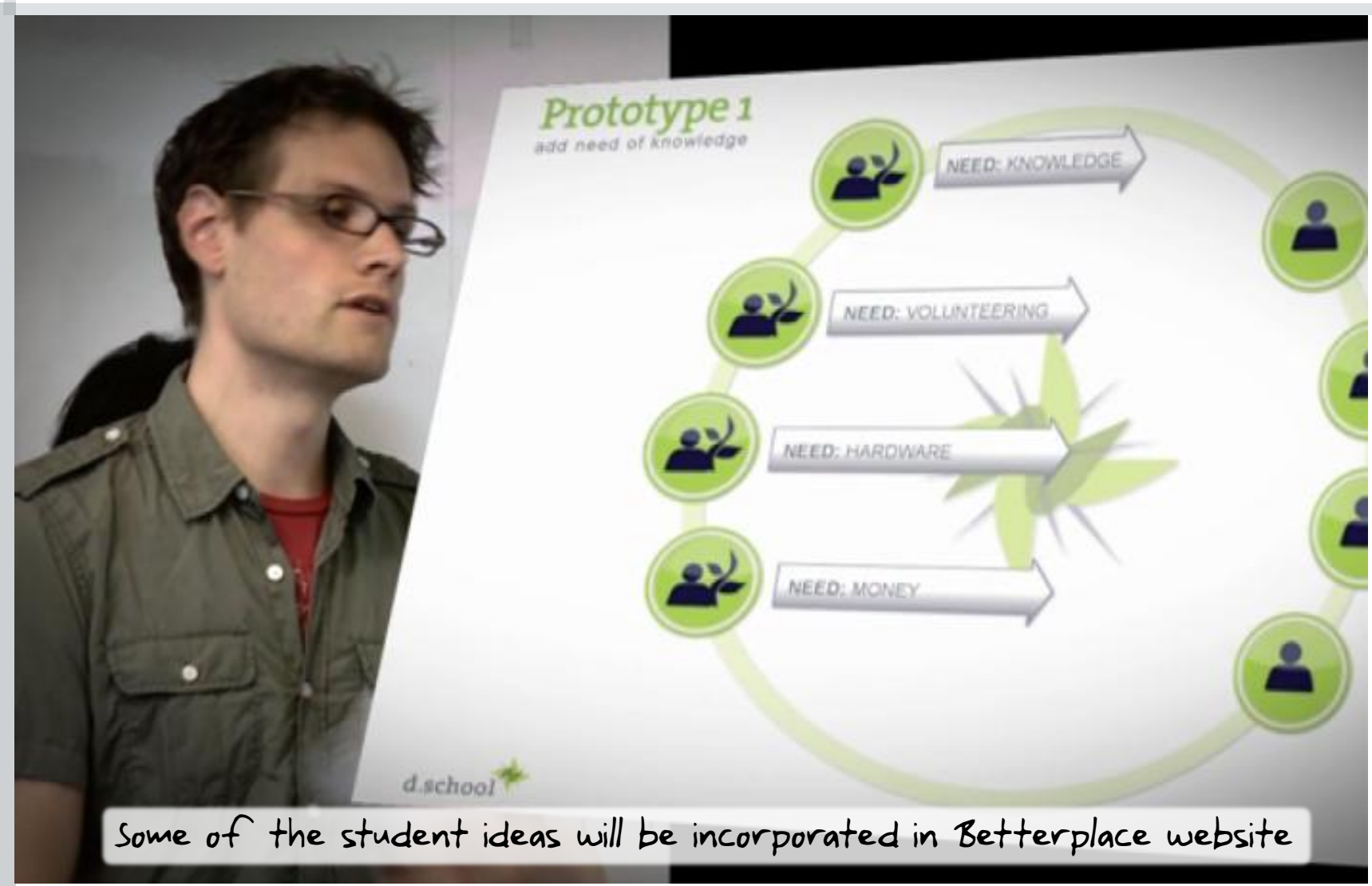


B.A.V.M. redesigned EnACT 2020 fully with students
D-School shall be involved in the "Netzwerktische" networking tables

Sustainable Energy Usage

Student team is working to establish a startup
Siemens is involved with two departments; Vattenfall headquarter Sweden too

Turning Social empathy into Action



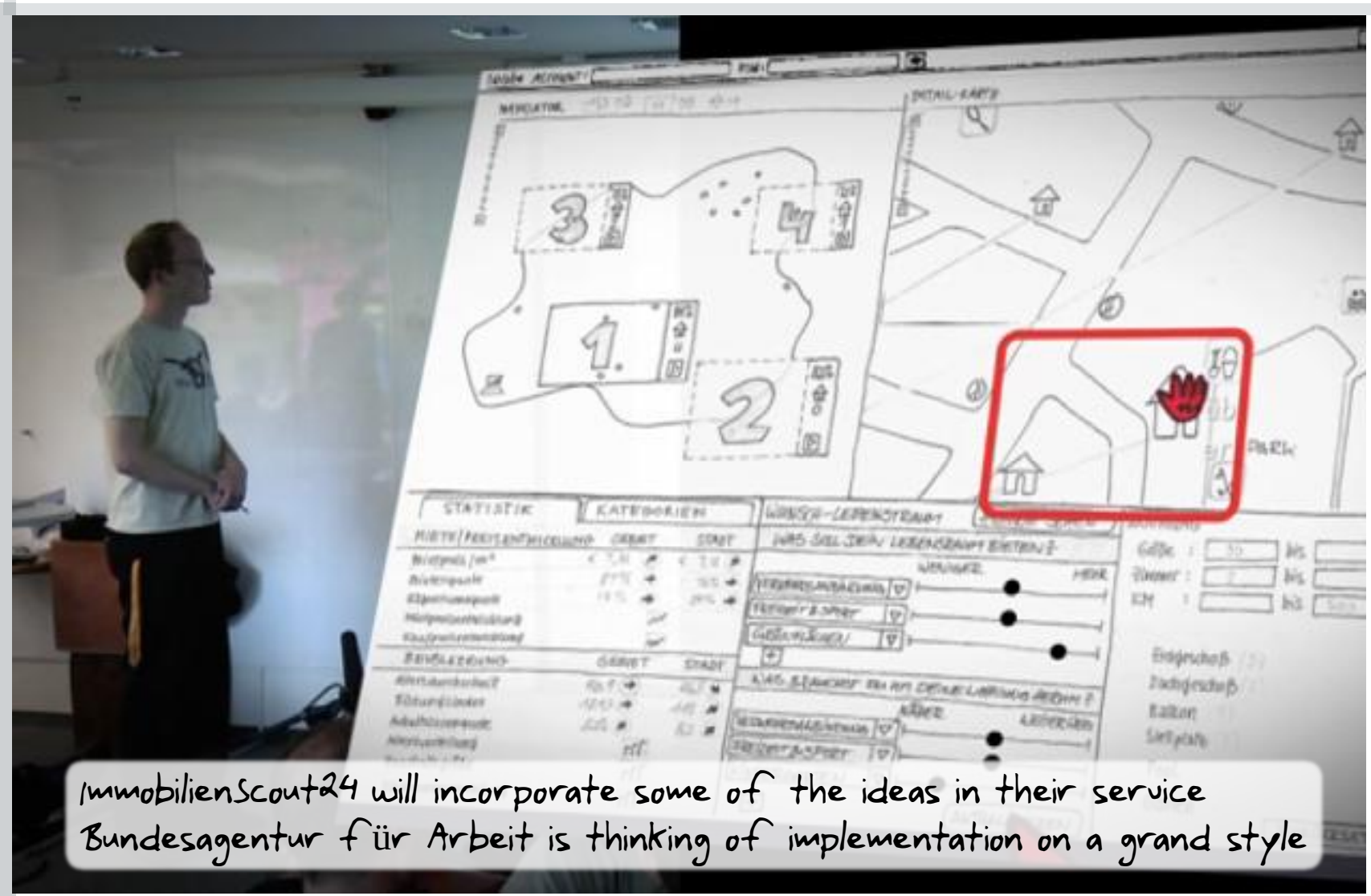
Personal Supply Chain

Metro AG developed business case for service station and will implement this
Metro AG to intensify the cooperation with HPI and D-School on a partner scale

Autonomy for Mentally Handicapped

Several parties claimed interest in the card system
Presentation in cooperation with partners in front of publisher, charity organisations, and government to develop campaign

Social Finding Strategies



ImmobilienScout24 will incorporate some of the ideas in their service
Bundesagentur für Arbeit is thinking of implementation on a grand style

Alternative Usage Models for Fairgrounds

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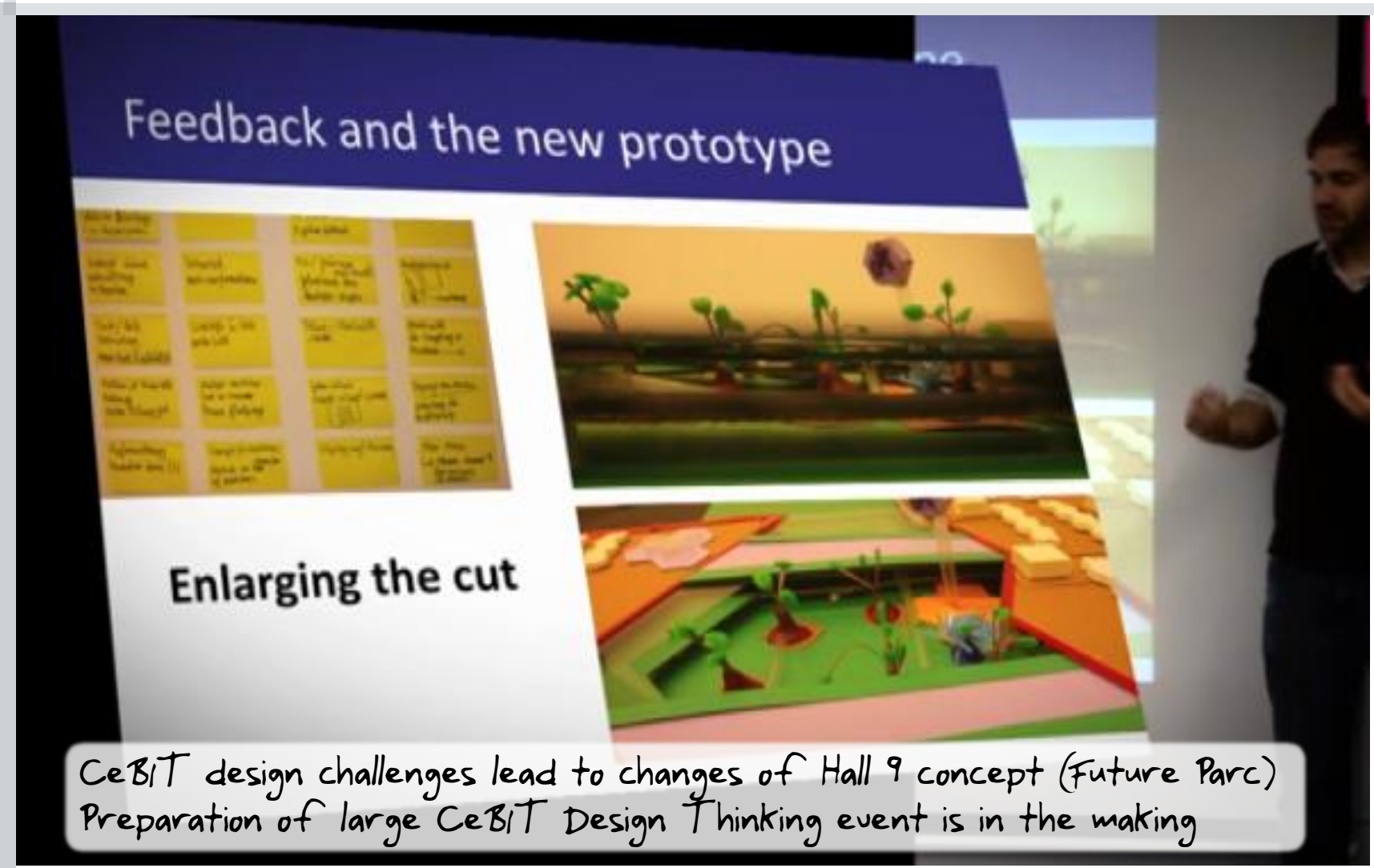

CeBIT design challenges lead to changes of Hall 9 concept (Future Parc)
Preparation of large CeBIT Design Thinking event is in the making

TV Series Authoring

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Grundy/UFA adapted the space concept for creative offices
SmartCard will be implemented to improve the authoring process

Grundy/UFA adapts Design Thinking

HPI School of Design Thinking

2008/2009

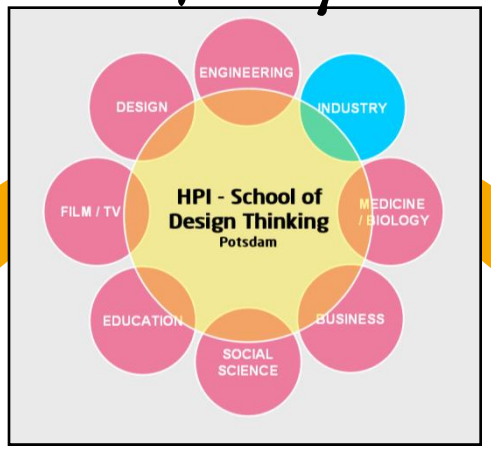
- 126 Applications
- of 68 disciplines
- from 17 universities

Flyer

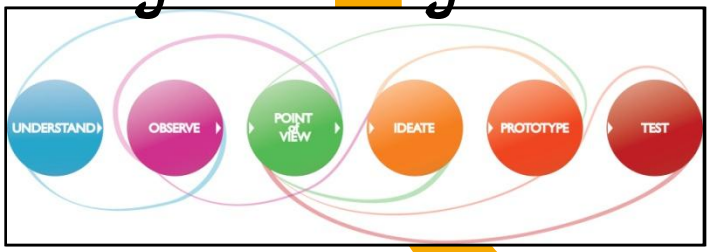
Poster

Don´t Wait – Innovate

Multidisciplinary Teams



Design Thinking Process



Variable Space

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Don't Wait. Innovate.

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