



DEVELOPMENT OF A DIGITAL LECTERN FOR TELETEACHING

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Overview

- motivation / opinion poll on used media
- requirements
- market evaluation (hard- and software)
- concept and design
- user's feedback
- Outlook

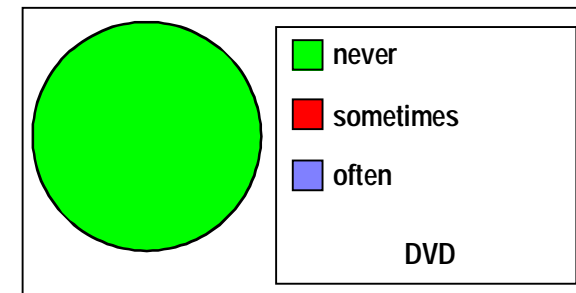
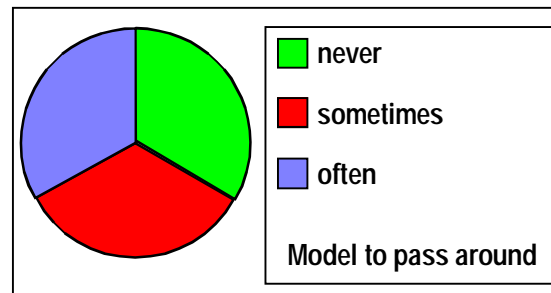
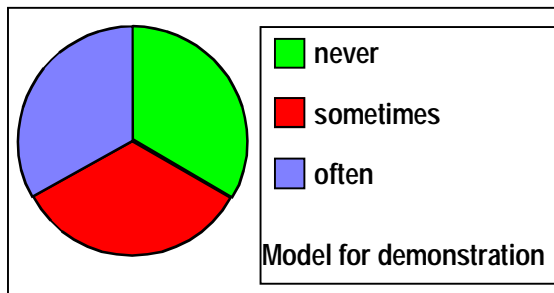
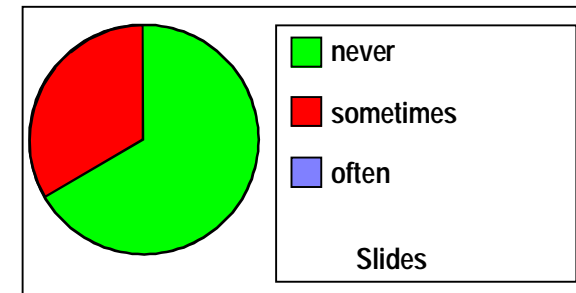
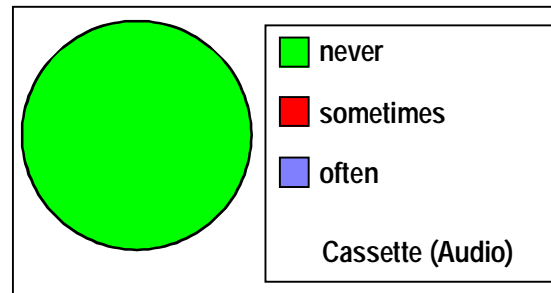
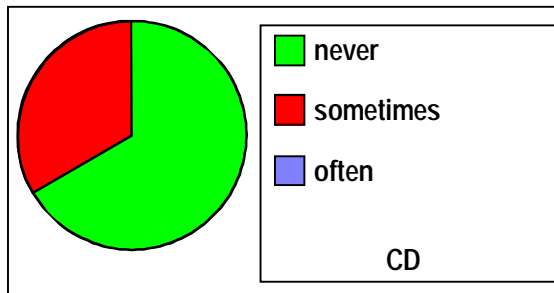
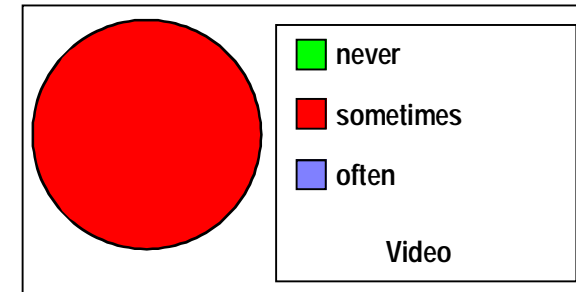
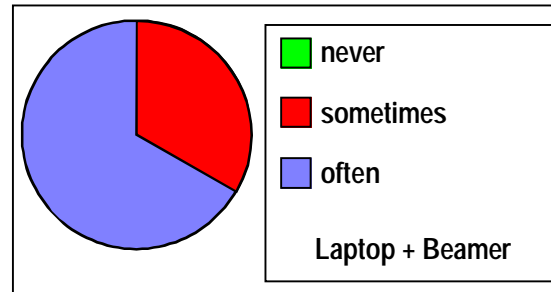
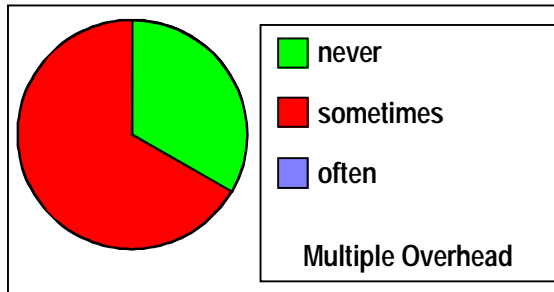
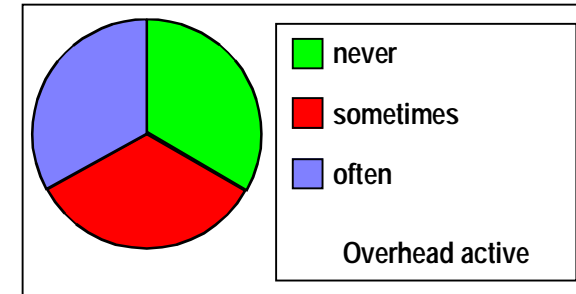
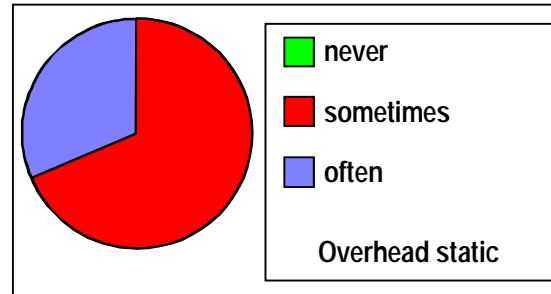
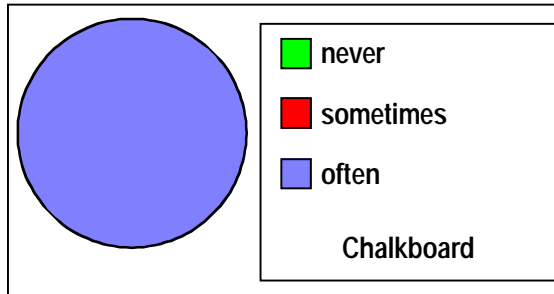
opinion poll

	never	sometimes	often
Chalk board			
Overhead (static)			
Overhead (active)			
Multiple Overheads			
Laptop + Beamer			
Video			
CD			
DVD			
Cassette (Audio)			
Slides			
Models for demonstration			
Models to pass around			

The questionnaire also evaluated the method of teaching



opinion poll



summary of result; requirements (reduced form)

- use in lectures and for presentations
- annotations during lessons
- presentations of objects (look and understand)
- content from CD, DVD, video, transparencies and paper
- audio device, wireless microphone
- USB connector, laptop connection, internet connection
- use in large and small lecture rooms
- attend presentations online externaly
- attend presentations offline

market survey (some results for hardware)



inductive display



object camera



keyboard

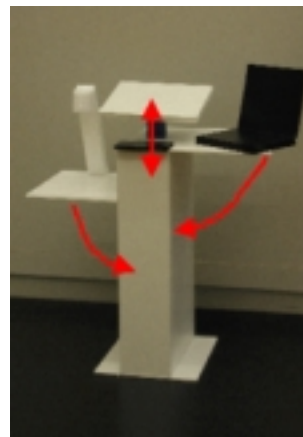
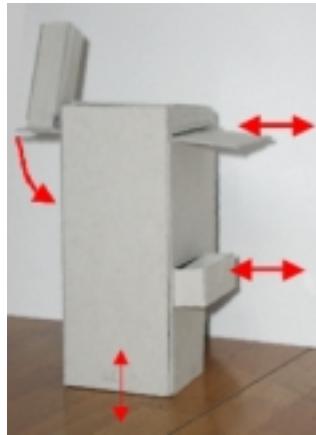


annotation pen

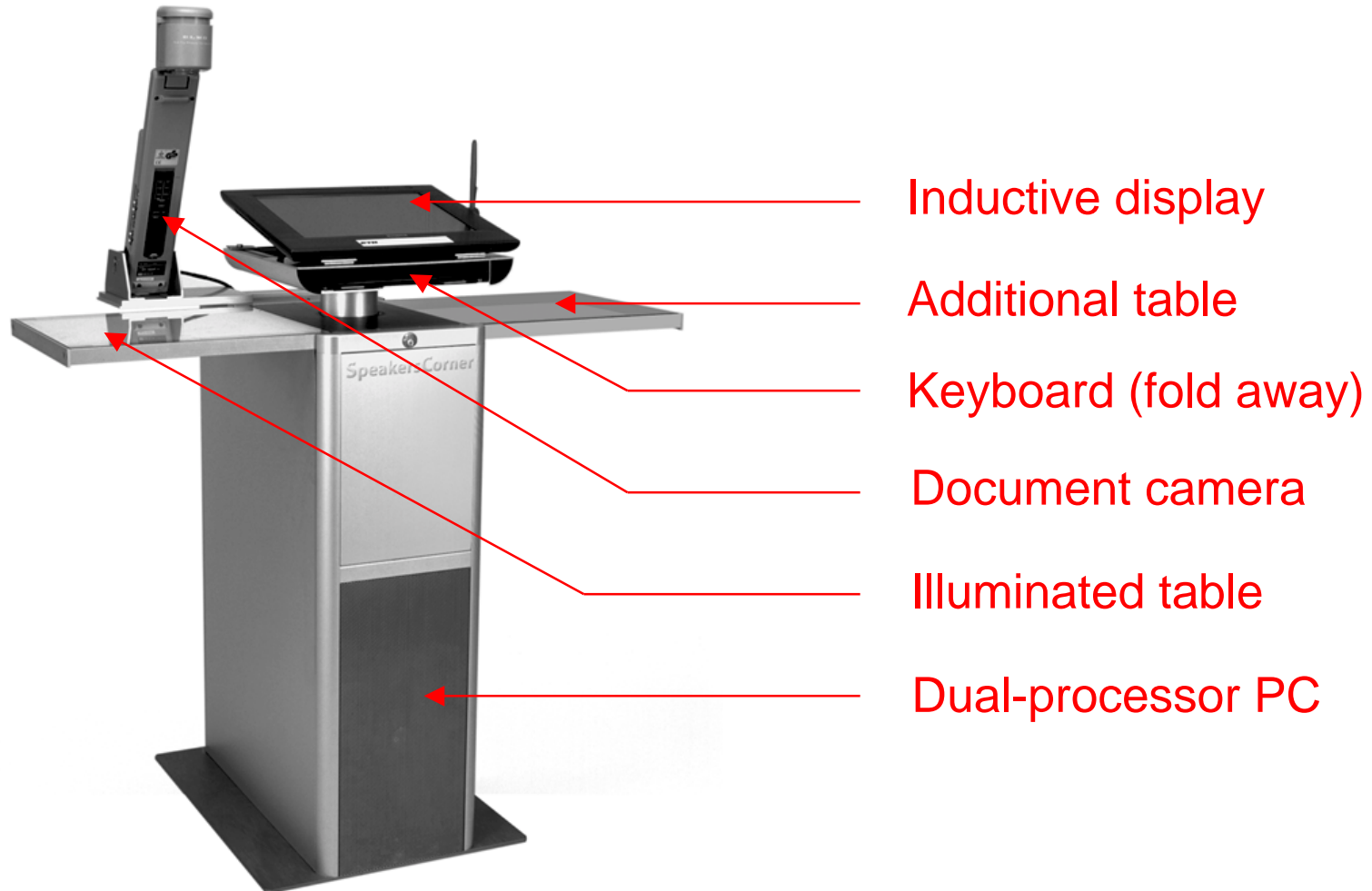


radio transmission

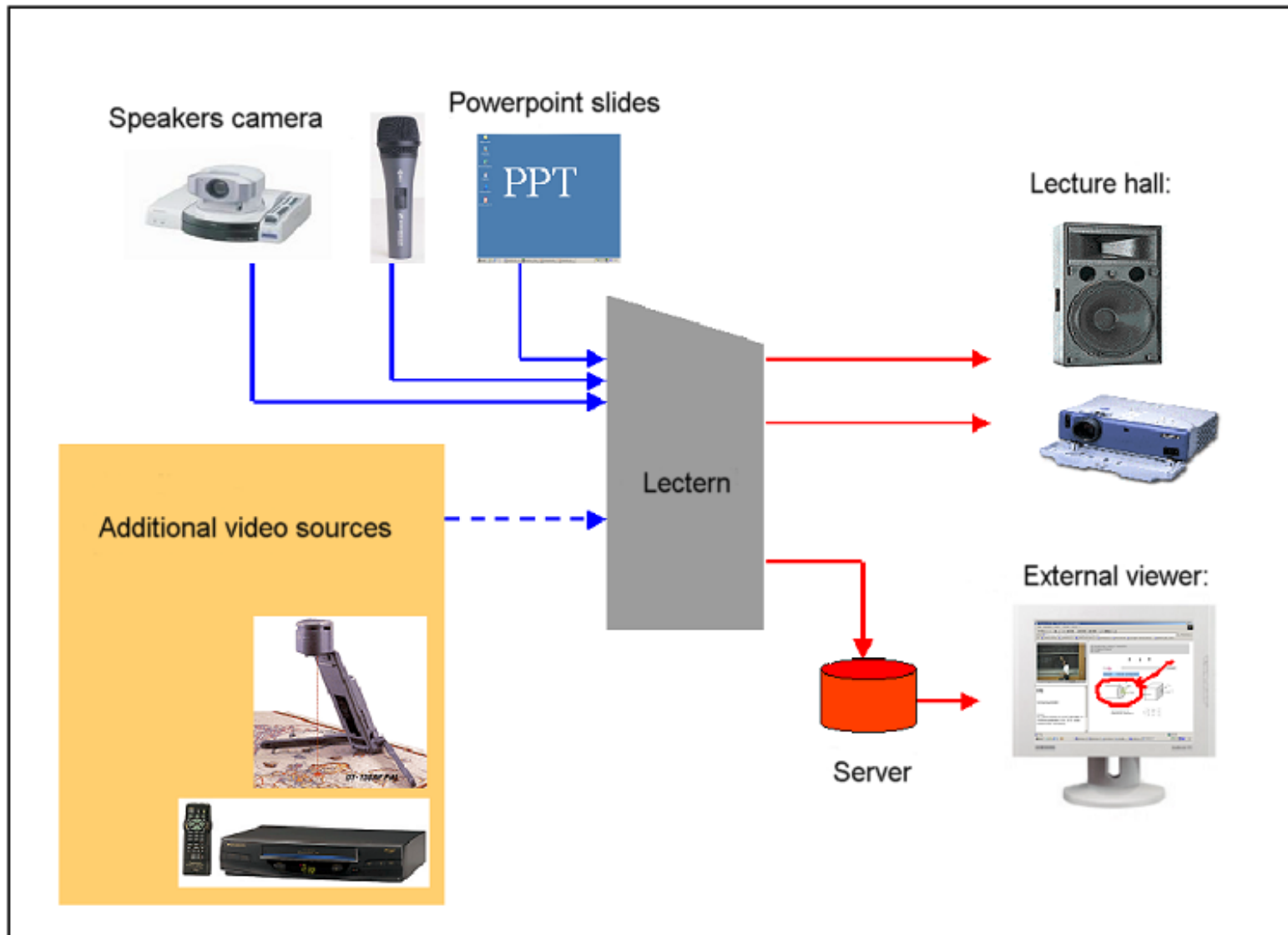
concept studies



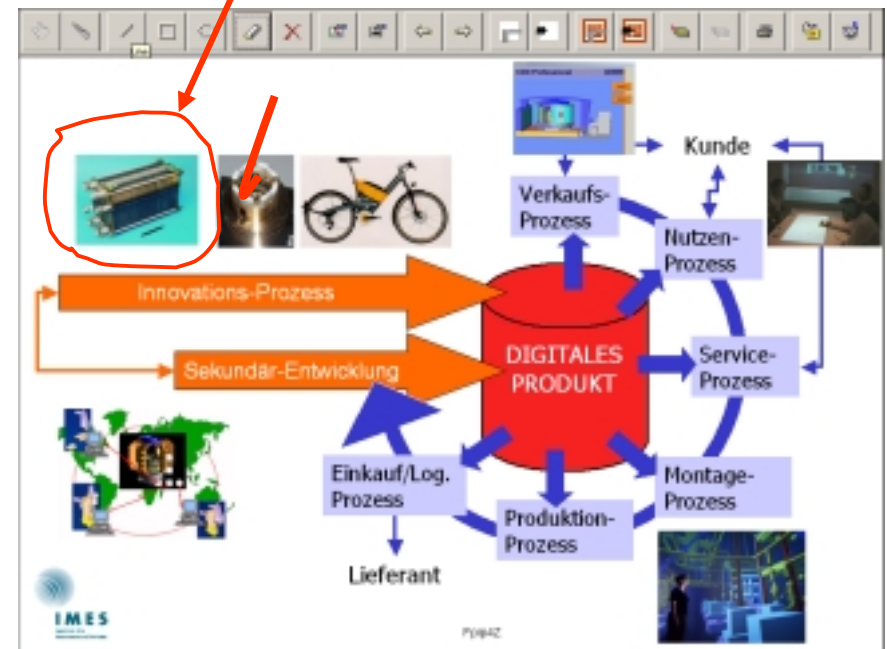
prototype



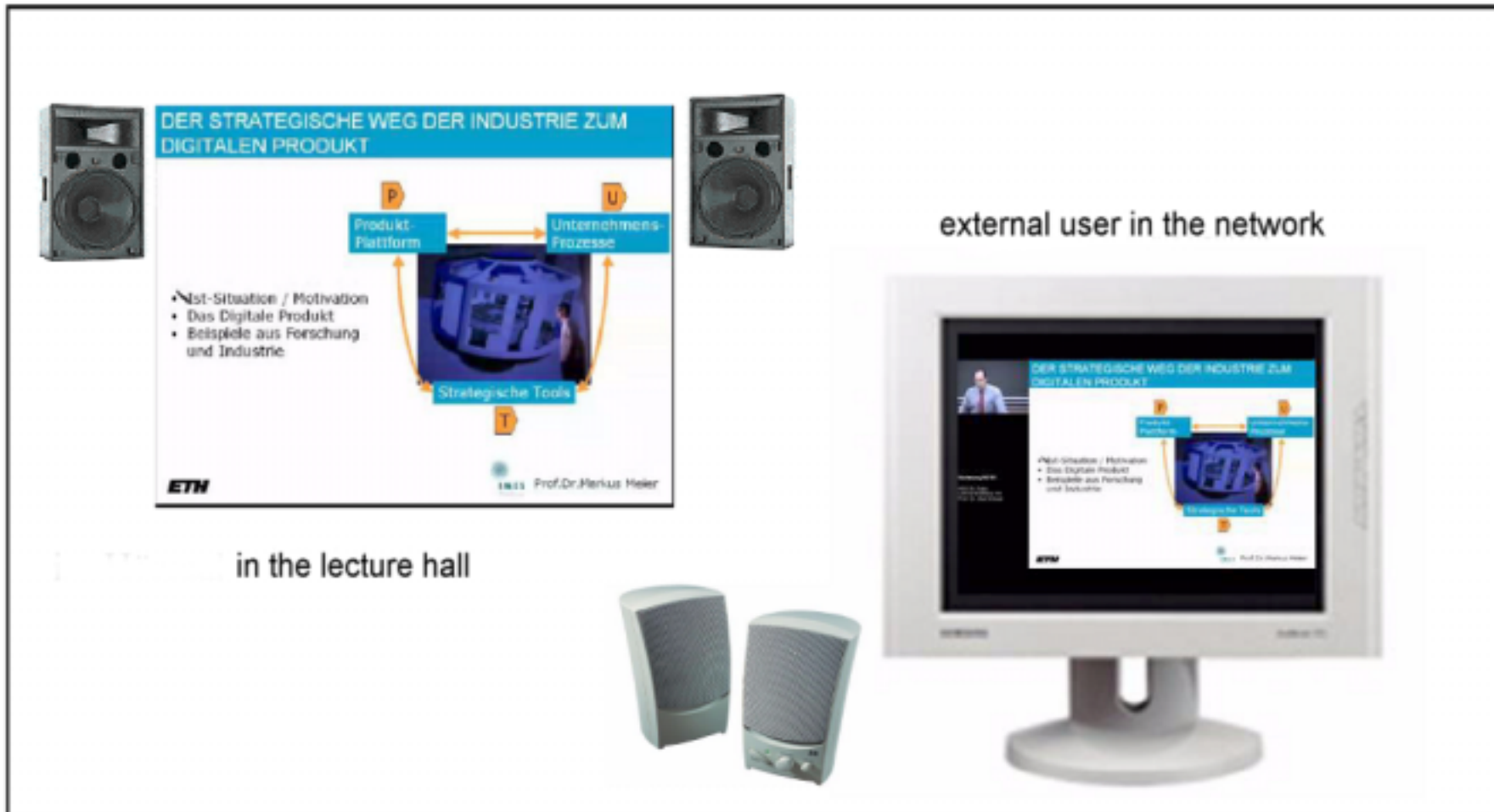
description



description (view of the speaker)



description (view of the auditory)



some feedbacks

Speaker / teacher:

- intuitive to operate
- camera forces the teacher to stay more at one place, less movement possible
- Sometimes reflections of the room light in the screen
- Interference of the video-/audio wireless link with cellular phones or wireless LAN
- „don't want to miss the tool in future“

Auditory:

- Very good visualization
- Ideal if the lecture was not visited
- ideal to repeat for exams
- A digital lecture does not replace attending the real lecture
- Personal contact between teacher and student is still very important
- Only “digital lectures” are not accepted



outlook

- Optimization of the software parameters to reduce CPU utilization
- Design of a portable variant
- Layout of a wireless link without interferences
- starting marketing activities
- starting production

