

Research Strategy of CS@VU



vrije Universiteit amsterdam

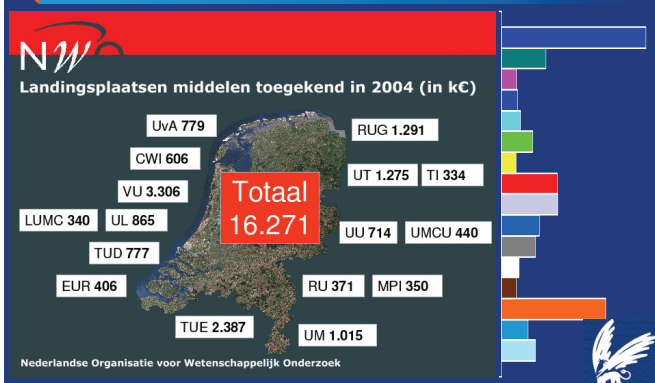
Main Messages

1. We're doing well
2. Things are changing around us
3. Some things we're not doing so well
4. How can we do better

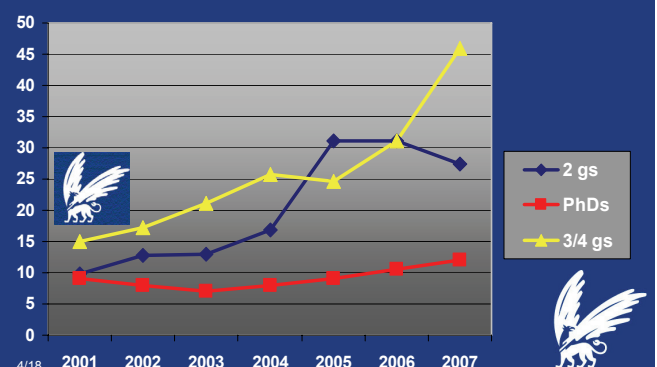
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We're doing well: NWO CS allocation '04



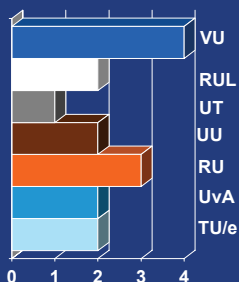
We're doing well (ex. 2): VU financial parameters



We're doing well (ex. 3): Citations

Rank	Name	Univ.	Pos.
1	Tanenbaum	VU	147
2	Apt	UvA	288
3	Klop	VU/RU	396
4	Overmars	UU	521
5	Larsen	UT	533
6	Bergstra	UvA	547
7	Rozenberg	RUL	568
8	Barendregt	RU	585
9	Bal	VU	909
10	Aarts	TU/e	988
11	Baeten	TU/e	1158
12	Vaandrager	RU	1411
13	Bäck	RUL	1413
14	Bodlaender	UU	1520
15	Van Harmelen	VU	1601

• August 2006 CiteSeer
• top 15 NL out of 10.000



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From Faculties to Institutes



NETWORK

CAMERA

Institute_K

Institute_N

From Faculties to Institutes

- Major policy initiative of CvB
- Main instrument for quality growth
- Main instrument for quality control

→ It's going to happen, whether you like it or not

- 7 trial Institutes VU-wide (will grow)
- CS Dept. is participating in 2



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CAMeRA

- Center for Advanced Media Research A'dam
- studying use and impact of new media
- designing multi-media systems
 - social, cultural, psychological perspective
 - serious games, visualization, virtual reality, intelligent bots, mobile systems
- Faculties are:
 - Social Sciences, Humanities, Psychology and Pedagogy, and Science
- Participation from CS: (part of) group Schreiber



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Network Institute

- “The Connected World”:
 - economically (FEWEB), socially (FSW), technically (FEW)
- Four main programs:
 - knowledge- and value networks
 - Internet and Web science
 - Social networks
 - Integrative

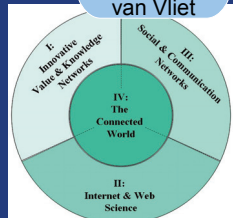
Akkermans

van Harmelen

- 1.25m€ of new money (total)
- 2AIO/PD for FEW

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Bal
Eiben
Fokkink
v. Harmelen
Schreiber
van Steen
Tanenbaum
Treur
van Vliet



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Lack of mass, lack of focus

- 12 small groups
 - actual incoherence
 - image of incoherence
 - consequences of incoherence

- little knowledge of each other's research
- even a first set of 5min presentations caused surprises
- very few joint projects

- action: “innovation AIO's”

We need mass to obtain new types of funding:

- EU
- thematic NWO funding
- other national funding

From recent VU-internal evaluation: “CS Dept. appears to be fragmented” (CvB-brief nov'07: 3x “versplinterd”)

Action:
represent Dept. research profile in coherent clusters

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Mass & focus: the neighbours

- **CWI**
 - Service Oriented Computing
 - Life and Earth Sciences
 - The Data Explosion
 - Societal Logistics
- **UvA**
 - Computing, System architecture & Programming Lab
 - Human Computer Studies Lab
 - Intelligent Systems Lab
- **UU**
 - Games, Media and Agent Technology: IT challenges of the digital world
 - Information- and Software Systems: IT challenges of the data-rich society



Mass & focus: CS@VU

1 Modelling and Simulation of Complex Systems

- large variety of computational modelling methods:
 - logic-based models, multi-agent models, self-organising models, evolving populations
- use of these methods in variety of areas:
 - cognitive science, economics, biology, SE
- participants:
 - Eiben, Fokkink, van Harmelen, Heringa, Treur, Verhoef, van Vliet

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Mass & focus: CS@VU

1 Internet & Web Science

- computer networks, security
- scalability, P2P, gossiping
- distributed computing, Grid computing, e-Science
- Intelligent systems & services
- Semantic Web, ontology engineering
- participants:
 - Akkermans, Bal, Schreiber, van Steen, Tanenbaum, van Harmelen

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Consequences of introducing the two themes

- Current sections remain
- Public image changes:
 - web-site, flyer, PR
- Internal collaboration will be stimulated:
 - e.g. innovation AIO's
- Hopefully, more
 - cross-knowledge,
 - cross-collaboration,
 - cross-fertilisation

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Summary

1. We're doing well
 - on pretty much all indicators
2. Things are changing around us
 - VU institutes are coming
 - CS is well on the way to participation
3. Some things we're not doing so well
 - We are fragmented (and seen to be so)
4. How can we do better
 - Introduce two research clusters
 - both for external communication and for internal collaboration

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