

Distributed & Interactive Systems

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SEN5 Research Focus

Experimental computer sciences systems research

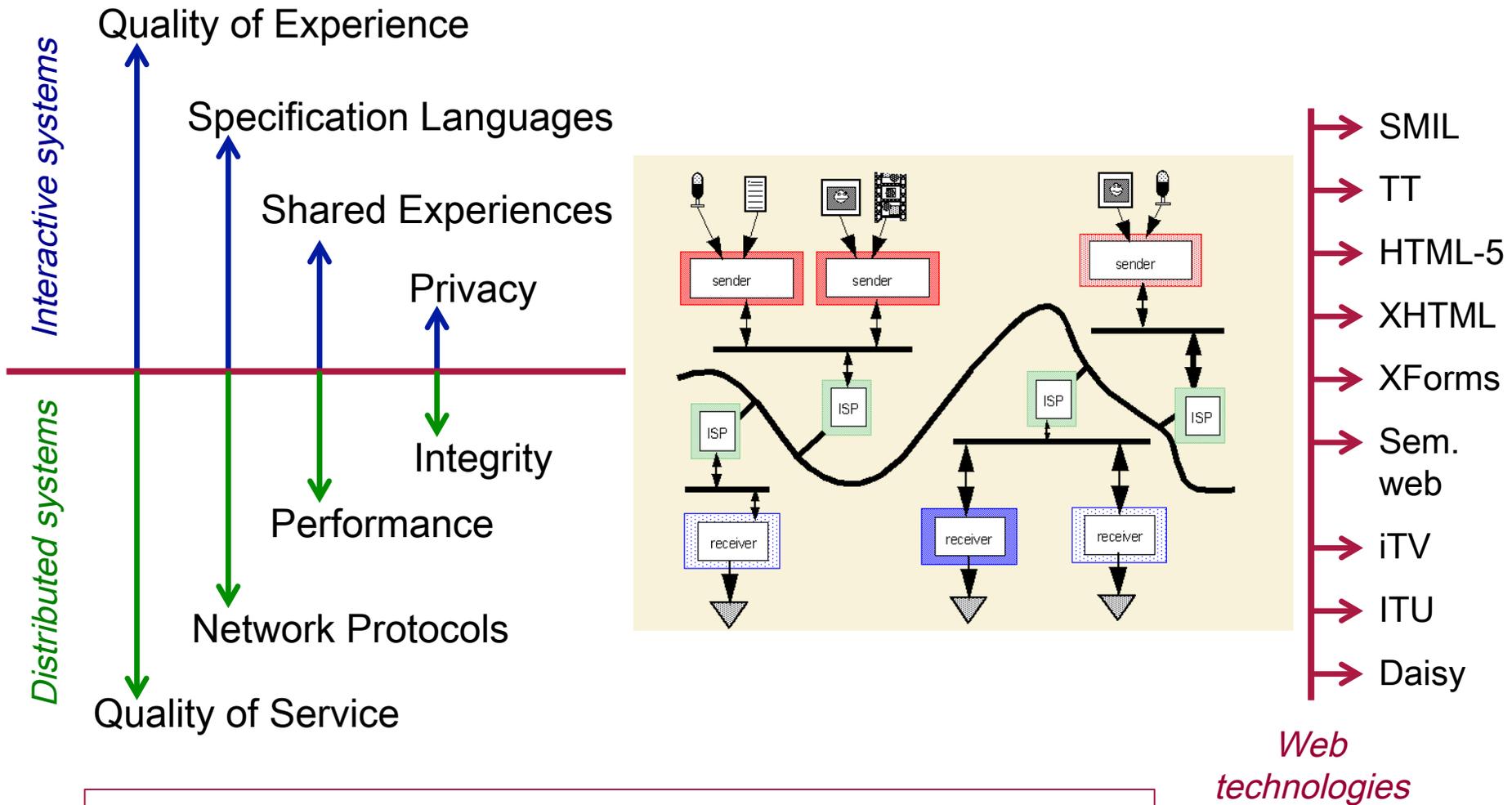
Three thrusts:

- Interactive systems
- Distributed systems
- Web technologies

Representative output

- Scientific publications & dissertations
- Open source software
- Standards, both in the small and the large

SEN5 research landscape



Unifying theme: Understanding Temporal Constraints

Interactive Systems

Topics:

- Algorithms for adaptive on-demand presentations



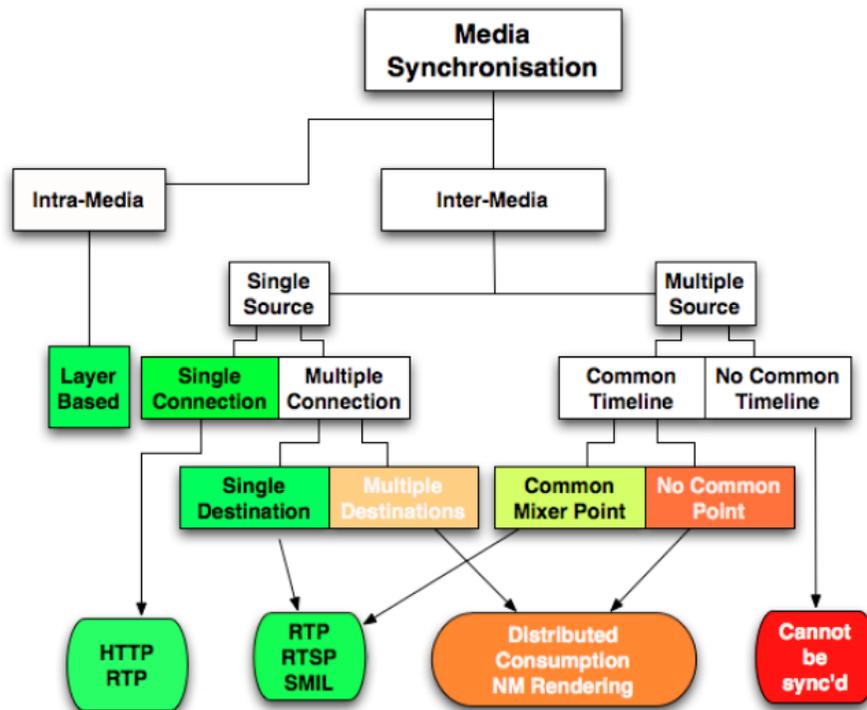
- Supporting virtual synchronous experiences in asynchronous use
- (Protected) Content personalization
- DSL's for synchronized multimedia
- Social impact research



Distributed Systems

Topics:

- Algorithms for time-bounded media delivery



- Architectures for distributed media synchronization
- Algorithms for user mobility
- Low-level non-monolithic rendering algorithms
- Predictive block-level media prefetching

Group history and senior staff

Profiles:

- Distributed multimedia systems (focus since 2004)
- Standards and knowledge transfer (added 2009)

Research staff:

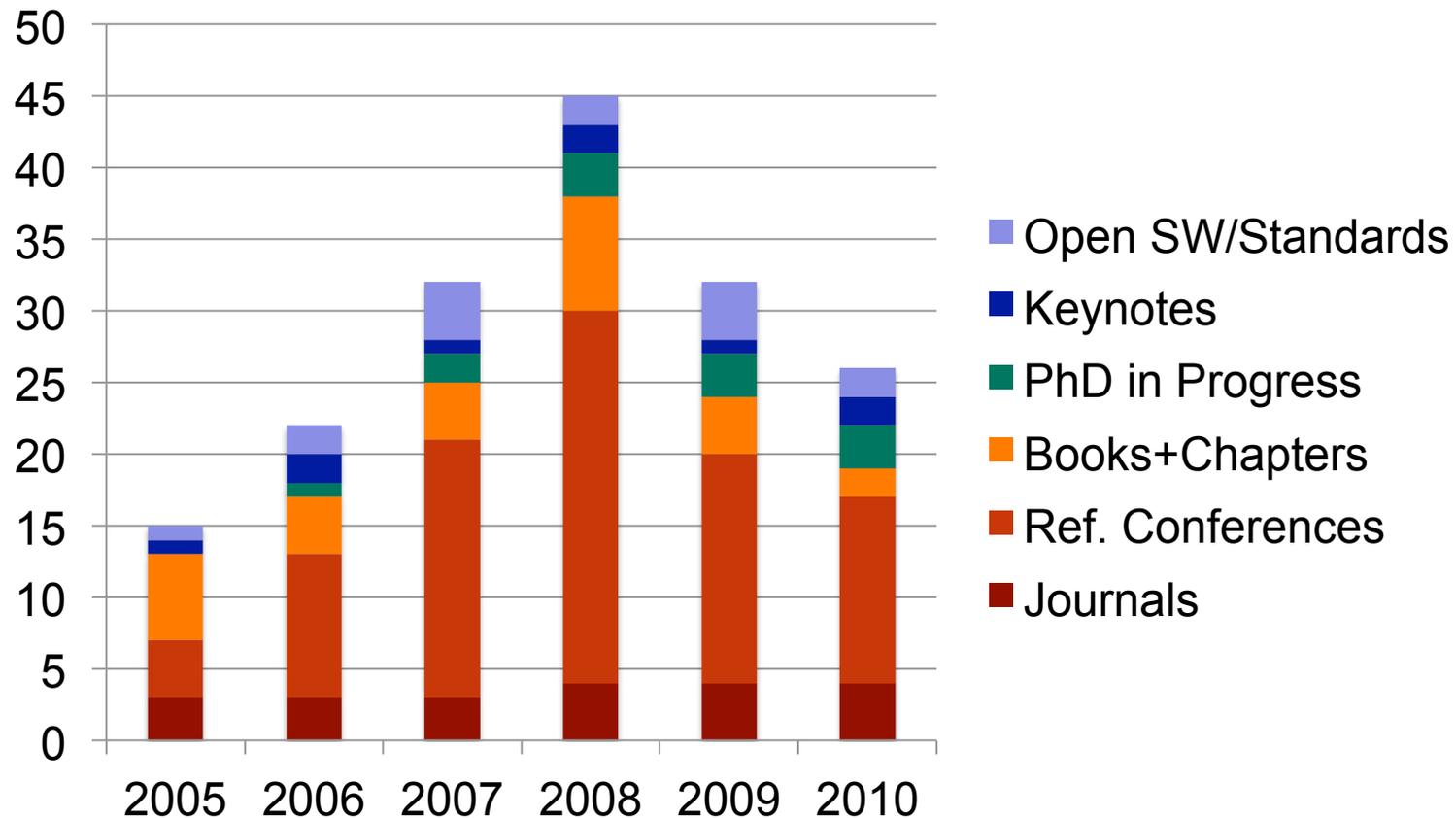
- *Initial*: Bulterman (2004), Jansen (2004)
- *PostDoc*: Cesar (2005)
- *PhD Std*: Vaishnavi (2006), Laiola (2007), Gao (2008)

Total group staffing:

2005	2006	2007	2008	2009	2010
5.2	6.8	8.0	9.8	9.8	9.8

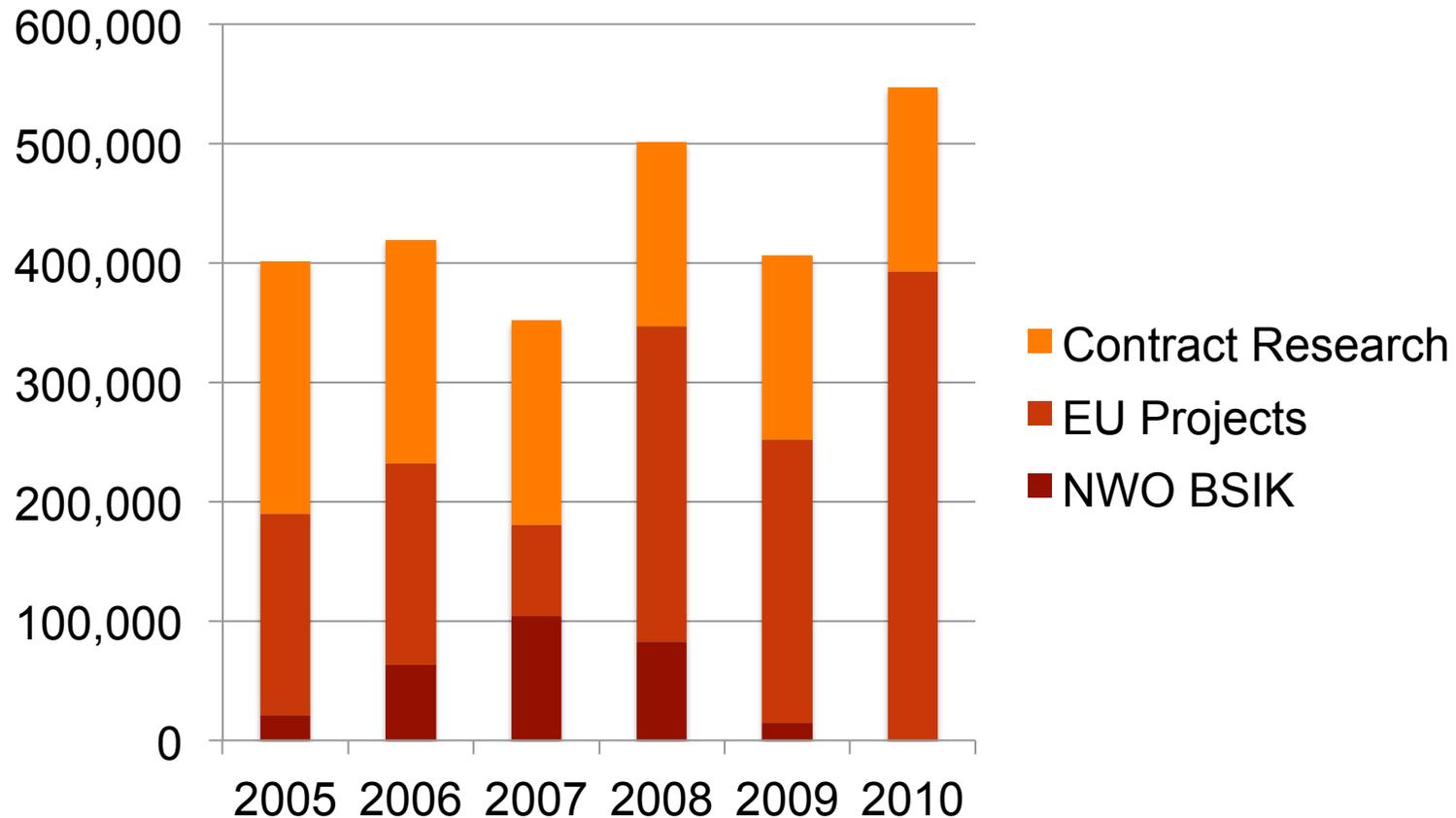
Research activity (1)

Research output:

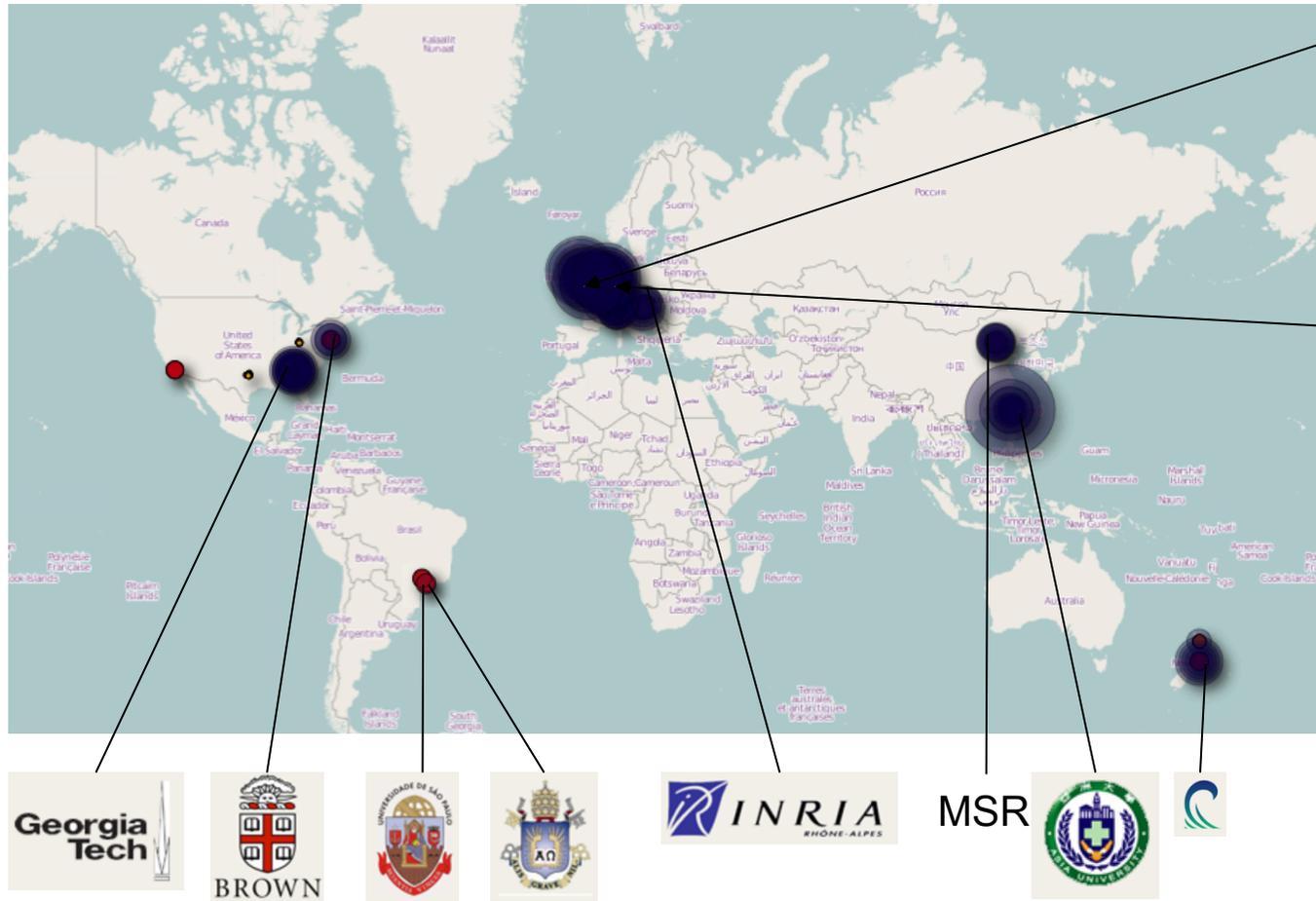


Research activity (2)

Research funding:



Partnerships



CWI internal:

- INS2
- SEN1+SEN3
- PNA2

EU projects

Conferences organized:

- EuroITV
- ACM DocEng
- ACM MM
- IEEE ISM
- ACM NOSSDAV

Societal relevance

High-impact standardization:



Dedicated public-interest partnerships



Open-source software



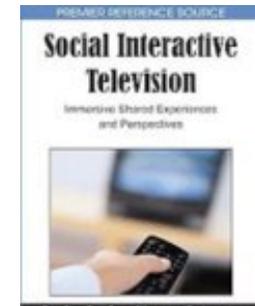
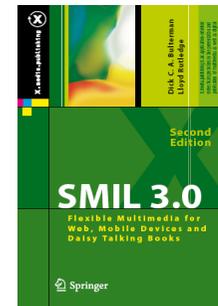
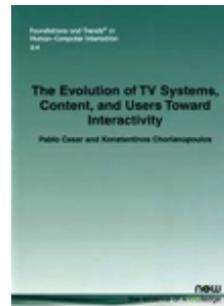
Highlights 2005-2010

Personnel development:

- Bulterman: VU Professorship, ACM SIGweb Vice-Chair
- Pemberton: ACM-CHI Lifetime Achievement Award
- Cesar: Tenure at CWI
- Vaishnavi: Finished his PhD work

Best papers/best projects

- Three BP's at ACM Conferences/SIGMM
- ITEA Gold Medal (Paris, 2006)



SWOT Analysis SEN5

Strengths

- Reputation, partnerships, people, funding

Weaknesses

- Lots of semi-research staff, W3C future...

Opportunities

- Increased awareness for media, social networks

Threats

- Increased commercialization of research agenda

Strategic Directions 2011-2016

Invest in external partnerships

- Key world-wide research, plus key EU funding

Develop dedicated research lines

- Focus on Interactive & Distributed aspects

Acquire new staff

- PostDoc in Distributed Systems, OIOs in both

Consolidate future activity

- Plan for post-2016

(Our) Future = Networks + Media + Users + Time



Jamie Black/Kevin Burg, 2010