

IM2 Phase III Executive Summary

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Outline

- Background and context
- Summary of IM2 Phase I & II (2002-2009)
- Summary of IM2 Phase III (2010-2013)

Background and context

20 National Centres of Competence in Research

National Centres of Competence in Research (NCCR)



Interactive Multimodal Information Management (IM2)

- Phase I (2002-2005):
 - SNFS funding: 15'400'000.- CHF
 - Self & third-party funding: 16'220'000.- CHF
- Phase II (2006-2009):
 - SNFS funding (Y3 20%, Y4 40% reduction): 11'900'000.- CHF
 - Self & third-party funding: 11'900'000.- CHF
- Phase III (2010-2013)
 - SNFS funding (40% of Phase II): 4'760'000.- CHF
 - Self & third-party funding: 4'765'000.- CHF

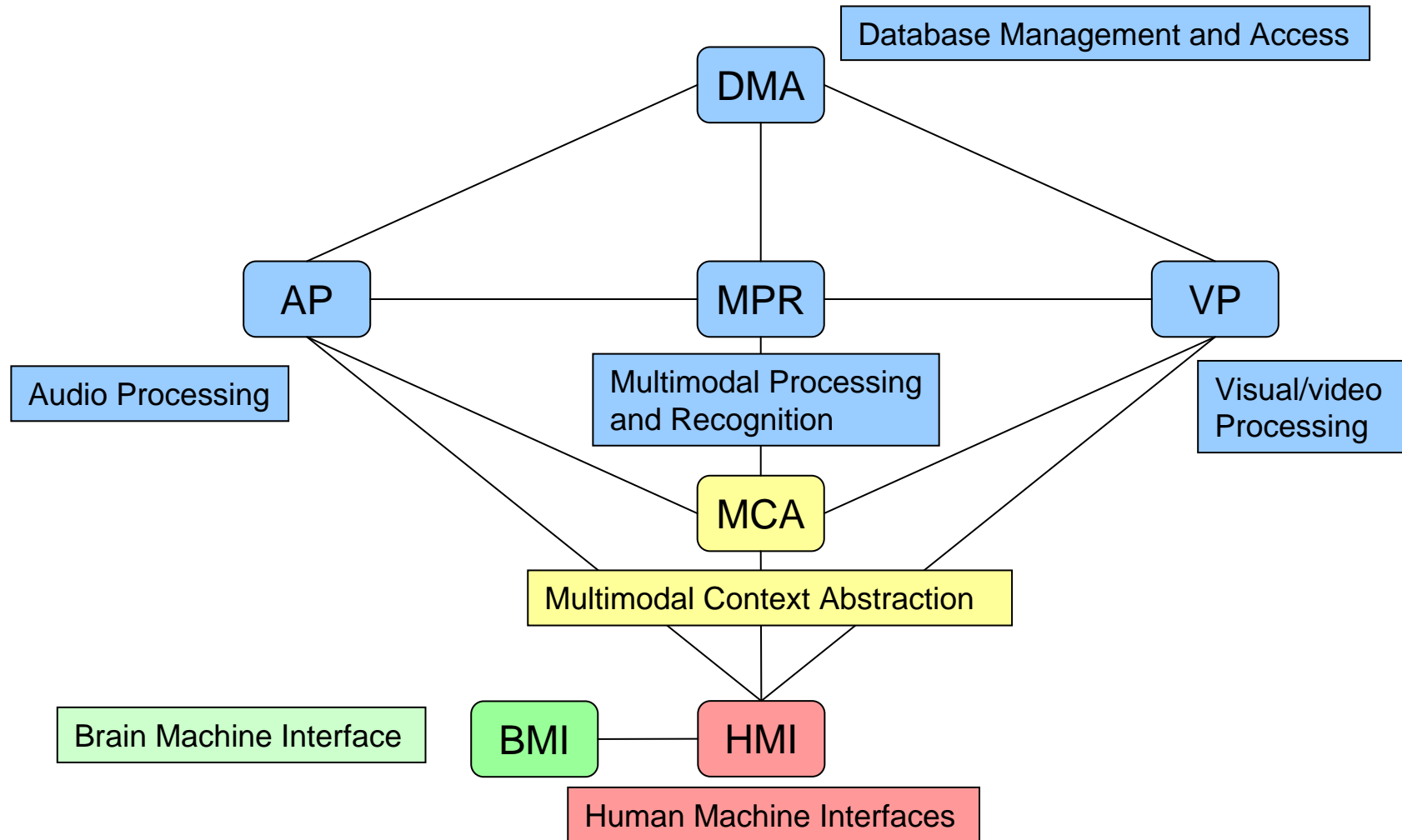
IM2 Phase I (2002-2005)

- Initiated the IM2 common **vision**:
 - **Human-to-human interaction** in **multimodal meeting recordings**, and **indexing** and **retrieval** of relevant multimedia information
- Developed the required **hardware**:
 - **Instrumented meeting rooms** at Idiap and the University of Fribourg), **software** infrastructure, etc.
 - Now available and used in multiple site in EU and US
- **Collected** and **annotated** a large common **multimodal corpus**:
 - Quite “**unique**” in size and (hierarchical) levels of annotation
 - Now used by multiple EU and US research institutions, include NIST as part of international evaluation campaigns
- **Fundament research**:
 - On this basis, we initiated and performed fundamental research in **mono-modal** and **multimodal** processing, encouraging the IM2 partners to **test** their research on the IM2 corpus, while **adapting** their software to the IM2 vision.

IM2 Phase II (2006-2009)

- **Consolidation** the IM2 research and development efforts on our common vision
 - IM2 involved in many EU and US projects related to IM2
 - IM2 involved in numerous **evaluation campaigns**
 - Resulting in large amounts of **high quality publications**
- Increased **emphasis** on **multimodal processing**, **system integration**, **HCI**, and system **evaluation**
- Development of the “**Hub**”, allowing easy **integration** of multiple modalities, software tools, and applications
- IM2 was enriched with a **flexible user interface** development tool (JFerret)
- Significant **structural impact**

IM2 Structure before Phase III



IM2 Phase III (2010-2013)

- **Consolidation** of most of the IM2 activities in **one single IP** to further foster **collaboration** and **focus (IP1)**
- More **emphasis** on **human-centered design** and **evaluation (IP2)**:
 - **Testing** generalization properties of IM2 results (IP1) on different application domains
 - Developing more **user-centric applications** and **evaluation protocols** (required new partners)
- **Extend fundamental research** in one of the newest, but most promising, (longer-term) outcomes of IM2-II **(IP3)**:
 - **Social signal processing**

IM2 Phase III – Structure

Management, TT, Community Building, and other activities

- Knowledge and Technology Transfer
- Education
- Exchange programs
- Advancement of Women
- Community Building

IP1. Integrated Multimodal Processing

- Core multimodal technologies geared towards integration into end-to-end applications
- Multimodal processing of meetings and other data
- Meeting browsers and assistants
- Evaluation of integrative applications

IP2. Human Centered Design and Evaluation

- New educational application(s) based on IM2 technologies
- Exploitation of multimodal research
- Ergonomics, usability, and user studies

IP3. Social Signal Processing

- Analysis of social behavior through non-verbal communication
- Vocal behavior, gestures, other cues
- *Relations* to SSPNet EU networks of excellence, and to Affective Sciences NCCR

Thank you for your attention!



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