Call for Project Proposals on
Multimodal Information Management and *Man-Machine Interaction*

The National Centre of Competence in Research (NCCR) on Interactive Multimodal Information Management (IM2, www.im2.ch) is a large Swiss research network funded by the Swiss National Science Foundation, on behalf of the federal authorities.

To extend its partnerships and impact (scientific, technology transfer, advancement of women), IM2 has released a budget for a few additional projects, resulting in the following Call for Project Proposals.

Background

IM2 is aimed at the advancement of research and development in the field of multimodal man-machine interaction and multimedia information management. IM2 is thus concerned with audio and visual processing technologies, with particular emphasis on joint modality processing, for both structuring and interactive access of multimedia databases.

During the first four years of the project (Phase 1), IM2 research and development revolved around instrumented meeting rooms which enable the collection, annotation, structuring, and browsing of multimodal meeting recordings. For each meeting, audio, video, slides, and textual information (notes, whiteboard text, etc) are recorded and time-synchronized. Relevant information is extracted from these raw multimodal signals using state-of-the-art processing technologies. The resulting multimedia and information streams are then available to be structured, browsed and queried within an easily accessible archive. A large multimedia database (of around 100 hours of meeting data) is now available and annotated along multiple dimensions.

Directly building upon successful Phase I achievements (2002-2005), the second phase of IM2 (2006-2009) should keep the same focus, emphasising the highest possible quality, cross-disciplinarity and collaboration between the IM2 partners around challenging applications such as the ones initiated in Phase 1. A first round of call for project proposals was emitted in 2006 and led to the funding of 10 projects for a total of 300kCHF. This second round will fund up to 5 projects for a total amount of 200kCHF.

The scientific structure of IM2 is composed of eight integrated individual projects (IP) addressing the following themes: multimodal input interface (including speech signal processing and visual input), integration of modalities and coordination among modalities, meeting dynamics and human-human interaction modelling, content abstraction (multimodal information indexing, summarizing and retrieval), human brain interface and, finally, technology transfer through exploration and evaluation of end-users applications.

More detailed information about IM2 research and its IPs are available on www.im2.ch.

Call for Project Proposals

By opening this call, IM2 seeks not only to attract new partners in view of optimizing the internal resources and reinforcing the IM2 themes of research for the next few years, but also to foster competition inside the IM2 community.

Selected projects will be funded for 12 months, with possibility of renewal and full integration within IM2, depending on performance and other factors.

Selection criteria for this call will be:

- **Focus**: project proposals should be directly and clearly aligned with the current IM2 activities and addresses any or all of the following themes:

    1. Multimodal Data Analysis and Management
    2. Multimodal Human-Machine Interaction
    3. Multimodal applications and their evaluation

    Proposals that do not clearly address any of the above themes will be rejected by the IM2 Technical Committee. See note below on what we mean by multimodal in the context of the call for proposals.

- **Quality**: highest scientific quality.
- **Collaboration:** priority will be given to collaborative projects across two or more groups located in different institutions.
- **Matching funds**: all successful project proposals will have to demonstrate the availability of matching funds (excluding CTI/KTI and SNSF funding) in the *related* research areas.
- **Additional IM2 goals:** as a plus to the above points, it will be considered as an advantage if the proposed projects address one of the following issues:
    - **Visibility**: increasing the national, international, and/or industrial visibility of IM2.
    - **Technology transfer**: fostering the collaboration with industries.
    - **Advancement of women**: encourage the advancement of women

Submission form

In order to simplify the application process, a simple form is provided. Proposers, however, are required to carefully follow the guidelines and provide clear project objectives (well in line with current IM2 focus) and clear progress evaluation metrics.

Selection process

Project proposals will be evaluated by the IM2 Technical Committee and the Advisory Board of IM2, composed of a panel of international scientists renowned in the areas of IM2, but not funded by IM2.

Grants range and duration

Awarded grants can range from 20'000.- to 100'000.- CHF, for a maximum duration of 12 months, with the possibility to take part in the next steps of IM2.

Eligibility

Proposals are open to both IM2 current partners and other researchers from Swiss Universities or Swiss Research Institutes. The general SNSF eligibility criteria, as well as funding schemes (such as PhD student salaries), apply.

Application Process

Applications will be accepted only electronically by filling the form attached, which should be sent to info@im2.ch. Receipt of submissions will be acknowledged by email within 48 hours.

Deadlines

- Deadline for submission: May 15, 2007, midnight.
- Decision: September 15, 2007
- Start of the project: November 1, 2007, but not later than January 1, 2008, for a duration of 12 months maximum.

Contact and information

Questions about the application procedure should be directed to Prof. Touradj Ebrahimi, IM2 Deputy Director: touradj.ebrahimi@epfl.ch.

Multimodal Definition

The term multimodal has been used in many contexts and across several disciplines. For our interests, a multimodal system is simply one that processes data or responds to inputs in **more than one** modality or communication channel (e.g., speech, gesture, writing, physiological signals such as brainwaves, etc.). For example, a system that responds only to facial expressions and hand gestures using only cameras as input is not multimodal, even if signals from various cameras are used. Using the same argument, a system with multiple keys is not multimodal, but a system with mouse and keyboard input is, and so is one that combines pen input with speech, camera input, brainwave signals, and so on.