

# Human Language Technologies for the Information Society: Role, Plans and Visions of Funding Agencies

## *Panel on International Co-operation*

### Moderator

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### Panellists

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In our world of rapidly increasing social and economic globalisation, there is a growing need for tools and applications which facilitate knowledge access and dissemination by bridging linguistic, cultural, social and geographical barriers. In the pursuit of these tools and applications, networked multilingual knowledge management technologies emerge as key enablers for the empowerment of our Information Society within a digital economy. The goal of this panel is to discuss the role, plans and visions of funding agencies as a co-operating body in promoting the Human Language Technologies needed to facilitate such an advancement.

As Internet penetration increases, non-English Web material seems to be growing faster than English Web material. For example, a 1997 study on the evolution of the Internet and WWW sponsored by the European Commission reports that 75% of

Fig. 1 (Source: Databank Consulting, 1997)

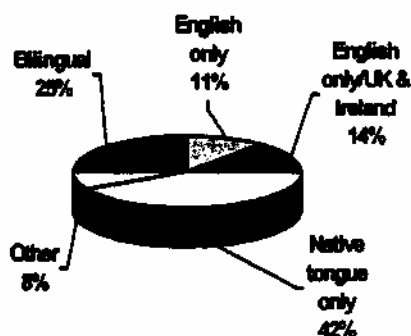
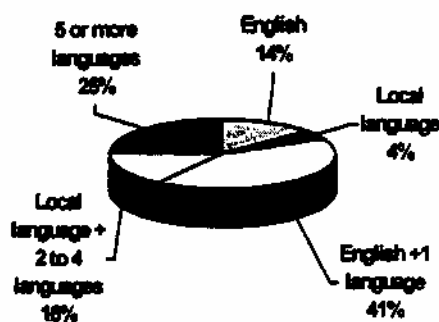


Fig. 2 (Source: Forrester Research Inc., 1998)



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commercial Web sites in Europe are in languages other than English, see Fig. 1 (Martinoli *et al.*, 1997). This trend is confirmed by a later survey by Forrester Research Inc. (Torriss *et al.*, 1998), where 82% of Web sites for Europe's largest firms were found to offer content in more than one language (see Fig. 2). The survey foresees that large European firms will have to be prepared to manage sites larger than 20,000 pages in 12 different languages by the turn of the century.

The increasing significance of multilinguality in Web content growth emphasises the need for language technologies which make it possible to manage information access and dissemination in and across different languages. Funding agencies have played an important role in supporting the development of multilingual information management technologies and enabling localisation and translation tools through a variety of funding activities fostering the promotion and further development of focal applications. Recent agreements on transatlantic co-operation between the European Commission and the National Science Foundation (<http://www.linglink.lu/hlt/call-for-proposals/>) provide a further opportunity to advance the state of the art by creating an environment in which research efforts worldwide can be integrated into a joint programme of technological development. Co-operation agreements exist or are underway also with Australia, Argentina, South Africa, Canada, China, Japan, Kazakhstan, Russia, Switzerland and Ukraine (<http://www.cordis.lu/fp5/src/3rdcountries.htm>).

Clearly, it is only by enlarging the scope of and participation in international co-operation programmes that effective solutions to the need for cross-cultural exchange and communication can be attained. A global problem calls for a global solution.

Funding Agencies worldwide have devoted considerable efforts in designing a global policy for the management of activities concerning Research and Technological Development (RTD).

For example, the European Commission has planned a number of specific actions on co-operation with non-EU states within the 5<sup>th</sup> Framework Programme (<http://www.cordis.lu/fp5/>). These include the possibility for associated states (see Fig. 3) to participate in the programme with Community funding and the integration of the EU-US agreement referred to earlier in the programme's key action on *Human Language Technologies* (<http://www.linglink.lu/hlt/>). In addition, any other country can participate without Community funding (Community funding can still be granted under special circumstances). Other specific measures (see Fig. 3) aim at

- facilitating access to RTD initiatives for candidate member states from Eastern Europe including Cyprus which are candidates for EU-membership through the promotion of existing centres of excellence;
- contributing to the stabilisation of the RTD potential of other Central and East European countries, the new independent states of the former Soviet Union and Mongolia;
- supporting and developing the Euro-Mediterranean partnership, and
- contributing to the advancement of developing countries.

Similar and related initiatives have been launched by other funding agencies.

In keeping with these themes, the panel will address multilinguality issues from the viewpoint of funding agencies with reference to the need for information management tools and applications which offer new localisation solutions and translation technologies able to

- ensure linguistic and cultural diversity when accessing and disseminating multimedia digital content on the Web, and
- optimise workflows right across the business fabric.

These issues will be considered in the light of current and forthcoming RTD programmes which aim at realising country-specific interests and objectives within a global policy of general advancement for the Information Society.

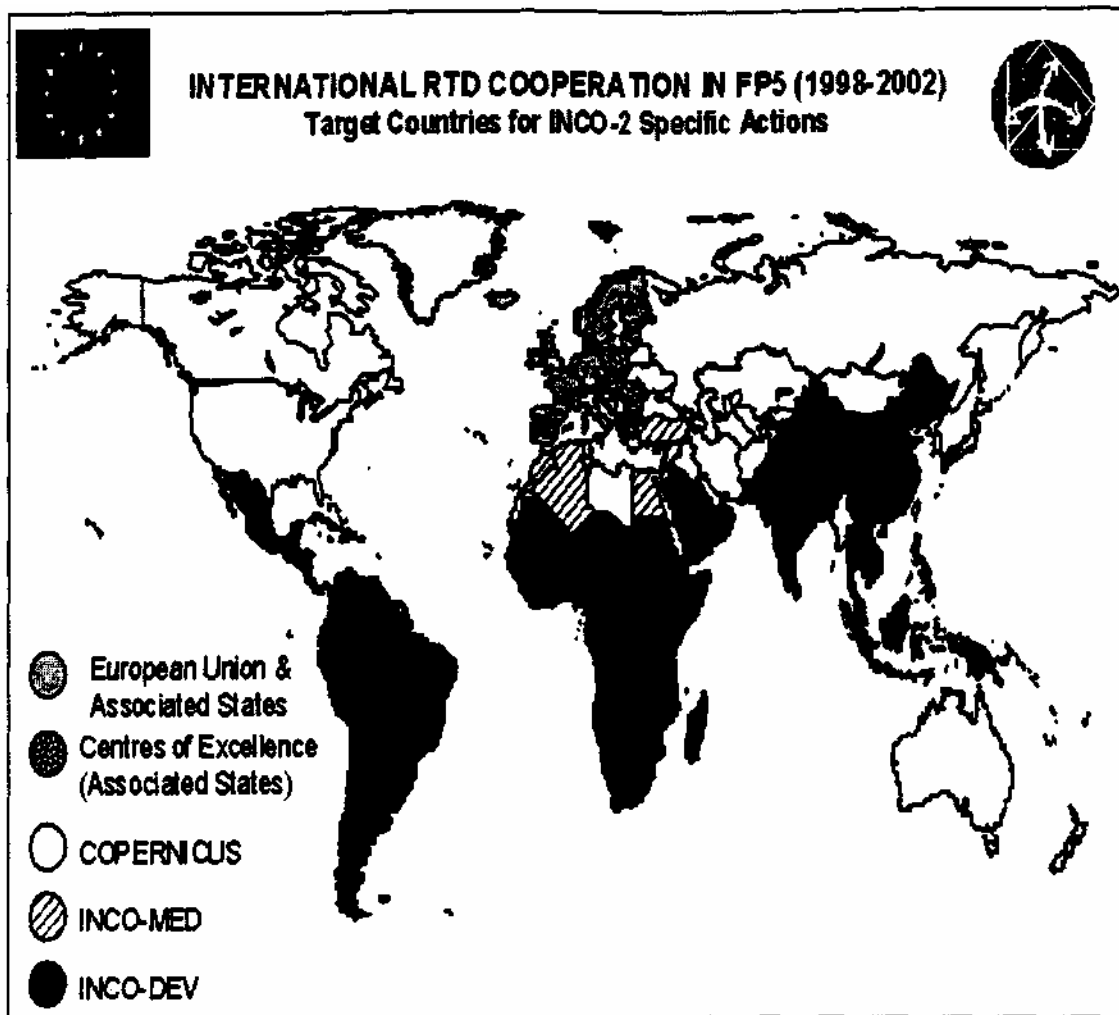


Fig. 3: International RTD Co-operation in the 5<sup>th</sup> Framework Programme of the EU

The following questions provide an indication of specific issues which will be discussed:

- What objectives are funding agencies currently targeting for the promotion and support of Human Language Technologies?
- Which measures are being taken to pursue a global RTD policy intended to bring together funding agencies worldwide?
- What are the main stumbling blocks in pursuing such a policy?
- What results can be expected in the near future (3-5 years)?
- How can such results be expected to benefit users?

**References**

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T. Torris, E. Nagle Green, G. Hodge and S. Gerber (1998) *The Forrester Report. European New Media Strategies: JIT Web Localisation*. Cambridge, Mass., Volume I, Number 4, July 1998.