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Towards a New European Vision of Research

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See: <http://www.infonomics.nl>.

At the opening ceremonies of the new International Institute of Infonomics (IloI), Philippe Busquin (Research, former DG 12) noted that European research projects have typically lacked the scale necessary to compete internationally. As a solution he outlined a vision for a new European Research Area, whereby various centres are linked in networks via high bandwidth connections.

Busquin's vision is exciting because it points to a new integration of a number of long standing initiatives. The idea of broadband networks has been around for over a decade through the Trans European Networks (TEN) programmes. Although this has not yet resulted in a coherent network, the makings of a European high-speed backbone exist. In countries such as the Netherlands, SURFnet has speeds comparable to those of CANARIE or Internet 2. There have been a number of attempts at Networks of Centres of Excellence. The ESPRIT programme introduced over twenty of these in various scientific fields, including agent technology, In culture there have also been a number of attempts including Remote Access to Museum Archives (RAMA), AQUARELLE, MOSAIC, MEDICI and more recently, Van EYCK and MESMUSES.

While rhetorically attractive these and indeed all the projects of the first five framework programmes suffered from some fundamental flaws:

- 1) each project functioned as a solution unto itself;
- 2) each project tended to compete with others in the field; 3) many projects died the moment that the funding stopped. Within the ACTS programme the idea of clustering through concertation meetings marked an important step forward. Busquin's approach implicitly points to a wider vision.

Perhaps what is needed is a re-definition of what constitutes a project. In the cultural field, for instance, there exist a great number of interesting projects scattered throughout Europe. As examples, one might mention the reconstructions of Northern Spain using satellite images and GIS by the Complutensian University (Madrid); the Nuovo Museo Elettronico (NUME) project of the University of Bologna and CINECA; the reconstructions of Pisa at the Scuola Normale; the attempts at a virtual reference room at the Maastricht McLuhan Institute; the analyses of paintings at the atomic level at the Institute for the Fundamental Study of Matter (FOM in Dutch), or the efforts of Infobyte (Rome) at a Virtual Exhibitor, etc. Each of these projects entail their own methods and methodologies. Until now projects have been defined as yet another project. Perhaps one should turn the criteria around. Let us assume the network and let us assume that these existing projects are on-line, not just in the form of brief reports but in terms of their full

contents. Making these existing projects available on-line to other centres in the network thus becomes a starting point rather than a result.

In this context a new project will be defined as one, which uses and/or extends the methods of existing projects in order to arrive at something larger than the sum of its parts. If this is taken as a point of departure for the sixth framework programme, then, yes, a few dozen millions would be spent in merely putting on-line and making accessible the best results of the first five programmes, but the rest would be spent on integrating these results and ensuring that the wheel is not constantly re-invented.

It is said that Solomon claimed that there was nothing new under the sun. In one sense he was undoubtedly right. On the other hand, by making the products of European research available to the entire research community, one will have taken a first major step to ensure that original contributions are given due recognition. To be sure linking university research centres is not enough. The products of JRC and other national centres must be included. So too must the (digitally available) contents from memory institutions (libraries, museums and archives). Using the high-speed networks we need to create a number of interoperability of content rooms, which combine experiences from others rather than re-inventing them.

New European Masters and Doctoral courses must have access to this material in order to prepare students for the emerging digital paradigm. Thus the implications for a digital economy can be perceived, studied and exploited. Subsets of these materials can then be made available to school nets such that children too can become aware of developments. Thus the vision of a European Research Area can become a reality and the Sixth Framework can lead to much more than an outdated 5 year plan. The digital revolution will take decades to unfold, but we must begin to understand its networked realities now.