



Project n°: CIT5-028519

Project acronym: U-Know

Project title: Understanding the Relationship between Knowledge and Competitiveness in the Enlarging European Union

Instrument: Specific Targeted Research Project (STREP)

Thematic Priority: CITIZENS-2004-1.2.2 Understanding knowledge

FIRST PERIODIC ACTIVITY REPORT (12 MONTHS)

Period covered: from 1 March 2006 to 28 February 2007

Date of preparation: 04 May 2007

Duration: 12 months

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Revision: First draft

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PART 1 – PROJECT OBJECTIVES AND MAJOR ACHIEVEMENTS DURING THE FIRST YEAR

The research objectives aim at improving our understanding of 'knowledge' and the overarching research question pertaining to the institutional arrangements and organisational forms in support of the knowledge-based society. The items are structured around the actors from enterprise, education and government/administration, as promoted in the 'Mode 2' and 'Triple Helix' literature.

Projects objective for the reporting period and achievements

During the first year, the main objectives included the development of "terms of references" (TOR) that would specify and coordinate the research tasks planned for the whole period by spelling out in greater detail how to fulfil the research as planned and specified in Annex I. TORs were developed for each deliverable and their sub-sections planned in the three workpackages (WPs) of section 1 and two WPs of section 2. The TORs additionally have the task to specify the terms of cooperation in deliverables across the nine participants of the original design of the project, and the thirteen partners following the inclusion of the TTC partners from South Africa. The TORs were then sent out to all researchers and discussed at the first project Kick-off meeting in Halle/Germany in 7 – 8 March 2006. The finalised TORs are attached to this report in Annex 1.

The second most important objective were the development of state-of-the-art reports in WPs of sections 1 and 2 to make sure that research in U-Know would make an actually new contribution to the existing body of knowledge. WPs developed their own individual state-of-the-art reports to use as point of reference for their own collaborative research in the field or related research. This followed the suggestion by the EU Commission during negotiations. Following the kick-off meeting and in parallel with the finalisation of TORs, all researchers started collecting the most recent research available that would contribute to the field of their research in U-Know. Those draft state-of-the-art reports were presented and discussed in our second project meeting in Brighton in 8 – 10 November 2006, together with some of the first results of research and collaborative field work. This discussion was then reflected in the state-of-the-art reports, so that all were finalised on time. The complete state-of-the-art report (D3) is available on the project intranet e-room. Some of those reports are very large and some spell out the most important features of the academic discussion in their fields. Each WP has its own state-of-the-art report that is targeted at the WP's own subject of research all contributing to the project's common field for the generation of scientific knowledge. The state-of-the-art reports quite clearly show that the planned work in U-Know is able to push forward the research frontier in our common field of interest in all workpackages, all leading up to a better understanding of the characteristics of knowledge and its role in the economy and society. The complete state-of-the-art report is attached to this activity report in Annex 2.

In terms of dissemination, the prime objective was to make knowledgeable the project as a whole. To this end, a web-site was developed and published online to inform the greater public about the project, its objectives and its current status with publications, conferences, etc. Additionally, a flyer was designed to be disseminated to the scientific community at conferences and workshops and to the interested public (including enterprises, economic and business associations, public administrations). A panel that prominently includes the U-Know project and a presentation of the project objectives and method of analysis was accepted at the 10th *Uddevalla Symposium* on "INSTITUTIONS FOR KNOWLEDGE GENERATION AND KNOWLEDGE FLOWS – BUILDING INNOVATIVE CAPABILITIES FOR REGIONS", June 14-16, 2007 at University West, Campus Uddevalla, Sweden. Finally, to enhance intra-project communication, a project intranet e-room was established that allows the exchange of primary resources, preliminary versions of reports and papers, and a discussion platform for project coordination. The description of the panel is attached to this activity report in Annex 3.

**Preparatory Section Paradigms, Knowledge Concepts, and the Network
Alignment Approach (March 06)**

With respect to the analytical framework for the project, the first objective is to map the variety of existing knowledge concepts and their underlying rationalities, as well as their limitations and potential impacts on policy making. It is demonstrated how the 'network alignment' approach can be applied as a tool to understand 'knowledge' in its varieties across the enlarging EU in a context of its growing complexity. With respect to the management of the project, the objective is to proactively target the academic community.

Objectives

The primary objective was to provide all researchers with a common intellectual starting point to enter into collaborative research (D1). This task was achieved by the researchers from CEE (represented by Dietmar Paier), SPRU (represented by Nick von Tunzelmann), and NIFU-STEP (represented by Mark Knell) by preparing outline papers and presentations for the theoretical framework that forms the philosophical basis of the U-Know project. Those were presented and discussed at the first project kick-off meeting. At this meeting, the workpackage leaders coordinated working sessions on cooperation and common research methods, all couched into the instrument of the TORs. Following the discussion of the presentations of the theoretical framework, Dietmar Paier coordinated the finalisation of those outline papers (D2).

Objectives for the
reporting period and
achievements

**Section 1 Innovation and Technological Change in the Firm
(April 06 – February 08)**

In the enterprise sphere, the first objective is to increase our understanding of the relative impact of internal and external determinants on knowledge creation in the enterprise sphere and the effects of knowledge creation on firms' competitiveness. Knowledge creation is here exemplified by the innovation process at the firm level and represents the interface between firms' own creativity, their contacts with externally structured networks, and their 'absorptive capacity'. The factors underlying this innovation processes are scope, intensity, and knowledge content/character and are mapped from a sectoral as well as country perspective as a prologue to the differentiation of networks. The second objective in the enterprise sphere is to generate a better understanding of mechanisms/channels, determinants, and

Objectives

intensities of knowledge flows between firms. Knowledge flows are exemplified through international transfer of knowledge and technology via foreign direct investment (FDI). Particular emphasis is placed on FDI-activity involving new member states as confronting hierarchical power relationships with embedded networks. Research linked to the first and second objective contributes towards policy development at the cross roads of national/regional FDI, R&D, and innovation policy. The third objective in this sphere aims to establish, how market structures are determined by market-specific knowledge processes, and in particular, what market structures are typically found in knowledge-intensive product markets. This provides the necessary information to discuss the political implications of interventions with a view on social gains and losses from oligopolistic / monopolistic market structures.

The most important objectives for the first year included (i) to browse the available empirical and theoretical literature on the functioning and organisation of knowledge creation at the level of the firm to develop the state-of-the-art reports, and (ii) to determine in the TORs how best to organise the planned empirical research. The TORs for the deliverables D4, D7, D10, and D11 and their respective sub-units were developed and then presented and discussed at the kick-off meeting in Halle. Following this discussion, the terms of cooperation were agreed upon and the complete TORs readily delivered (see Annex 1 to this activity report). The participants and researchers involved in this section of the project included the IWH, the IER, NIFUSTEP, SPRU, UoT, GEA, BC, and since January 2007 also the new partners HSRC and UCT. The development of state-of-the-art reports was coordinated by the workpackage leaders (Mark Knell for WP 1.1, Boris Majcen for WP 1.2, and Ulrich Blum for WP 1.3) and the reports were finalised on time (D4a&D7a, D10a). In the case of WP 1.1 (on innovation) and WP 1.2 (on technology transfer) the reports were amalgamated. This follows the suggestion in the discussion that the project's particular focus on foreign ownership in those two fields justifies a combined states-of-the-art report that avoids redundancies. Both researchers from IER and from NIFU-STEP (Matija Rojec and Mark Knell) assumed collective responsibility for editing this combined report. WP 1.3 has developed its own separate state-of-the-art report, and the researchers from IWH (Johannes Stephan) and GEA (Dragos Pislaru) assumed collective responsibility for this report. Additional research effort in this section led to further papers and reports dealing with particular issues that the researchers have been working on for U-Know (D4a2, D4f, D7d, D7e, D10b).

Objectives for the reporting period and achievements

Section 2 Learning, Human Capital Formation, and Government (April 06 – February 08)

In the education sphere, the first objective is to increase our understanding of the link between the public funded science systems and industry, and to develop a characterisation of such a link in a knowledge based society. Hereby, the EU may learn from the South African experience with special reference to the newly acceding countries. Further on, SA expects to gain inside of their own experience by analyzing the situation from a different perspective. The second objective in this sphere is to explore the supply of entrepreneurial education and other specific skills in selected European higher education institutions, as well as the demand for entrepreneurial skills in the industry of selected European countries. The final objective of this section relates to the government sphere. The aim is to assess the interrelatedness of policy making in the fields of research, education, and innovation, with different

Objectives

understandings of what knowledge is and how knowledge is functioning in economies.

The most important objectives for the first year included (i) the development of state-of-the-art reports, and (ii) to develop and agree upon the TORs for deliverables and sub-units of deliverables. The TORs for the deliverables D13, D14, D15, D16, D17, D18, D19 and D20 and their respective sub-units were presented and discussed at the kick-off meeting in Halle. Following this discussion, the terms of cooperation were agreed upon and the complete TORs readily delivered (see Annex 1 to this activity report). The participants and researchers involved in this included NIFU-STEP, SPRU, the IWH, GEA, UoT, and since January 2007 also the new partners HSRC, UCT, CSIR, and PGWC. The development of state-of-the-art reports was coordinated by the workpackage leaders (Antje Klitkou for WP 2.1 and Olaf Spilling for WP 2.2) and the reports were finalised on time (D13a, D16a). There is no state-of-the-art report for WP 2.3, because this WP involves largely a policy-advising efforts which are already very well detailed in the "Description of Work". In this section, WPs 2.1 and 2.2 both developed their own separate state-of-the-art report. For both reports, researchers from NIFU-STEP were responsible coordinators and edited those reports and in this case, own explorative research was conducted by the respective research (Antje Klitkou and Olaf Spilling) with the active contribution by researchers involved in these WPs. Additional research effort in this section led to further papers and reports dealing with particular issues that the researchers have been working on for U-Know (D13d, D16b).

Objectives for the reporting period and achievements

Section 3 Relationship between institutional arrangements and organisational conditions for knowledge generation
(December 06 – February 09)

The first objective focuses on the societal fabric required to match demand for and supply of human capital and skills in the evolving knowledge based society. The research draws on the analyses of the changing combinations of skills required for the continued expansion of knowledge-intensive processes and products in modern society. This bears implications in particular for policy learning and specific forms of network governance. The second objective is to examine the form and function of intellectual property rights regime in terms of their role to support the knowledge process. This serves to consolidate and augment our current knowledge of the changing IPR systems and the implications for the knowledge-based society.

Objectives

The third objective is to develop our understanding of the impacts of socio-cultural attitudes and non-economic motivations on the knowledge process and how these impacts differ for different knowledge characteristics. The fourth objective is to analyse network alignment in innovation systems to institute new forms of interaction between the different agents of knowledge creation, production and diffusion to harness latent knowledge-based capabilities. Particular attention is going to be paid to the reconstruction of 'regional' and 'national systems of innovation' in CEE countries as well as South Africa. The final objective is to conclude all policy-relevant results generated in the project to contribute to the development of knowledge- and innovation policy for building the advancement of the knowledge based society.

The intention of section 3 of the project is to synthesize the research results generated in sections 1 and 2. This implies that WPs of section 3 draw on research output of sections 1 and 2 after having reached a sufficient level of finalization. However, two WPs (3.3 and 3.4) of section 3 already started in month 10. Both

Objectives for the reporting period and achievements

involve some own additional empirical analyses. Therefore, the here the objectives for the first year were the development of common research methods at the meeting in Brighton. The meeting for WP 3.3 was conducted under the responsibility of UTN and Dietmar Paier of CEE compiled the report for this meeting. It included the researchers of CEE (Dietmar Paier), IWH (Jutta Günther and Cornelia Lang), UTN (Matteo Ploner and Stefano Comino). The results of their discussions is compiled into a report (D27). The meeting for WP 3.4 was conducted under the responsibility of SPRU (Nick von Tunzelmann) and included the researchers of SPRU, CEE, IWH, IER, UTN, and the representative of our new partner HSRC Jo Lorentzen (who participated without funding, because the contract was not yet signed).