



Statistical Indicators on the Labour Market in the eEconomy (STILE)

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Special Project Progress Report

Identification

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List of Partners

Partner	Role	Country	Budget (KEURO)	Person - Months
Higher Institute of Labour Studies (HIVA)	C	Belgium	835.979	102
Cork Teleworking Centre (CTC)	P	Ireland	101.947	20
Institute for Employment Studies (IES)	P	United Kingdom	199.320	43
CAMIRE Estadística y Análisis, S.L. (CAMIRE)	P	Luxembourg	131.412	25
Institut für Arbeitsmarkt- und Berufsforschung (IAB)	P	Germany	104.001	17
Istituto di Ricerche Economiche e Sociali (IRES)	P	Italy	204.181	37
Organisatie voor Strategisch Arbeidsmarkt-onderzoek (OSA)	P	The Netherlands	176.834	31
Institute of Sociology – Hungarian Academy of Sciences (ISB)	P	Hungary	197.862	28
Central Statistical Office (CSO)	P	Ireland	51.782	11
Joanne H. Pratt Associates	Subc	USA	136.680	19

Executive summary of the project's work

WP1: Co-ordination and partner meetings

The partners met several times during the second period (see separate list). Extended meeting minutes, available at the secure part of the project's website provided the conclusions of the meetings in order to have a solid basis to continue the work. According to plan, WP related workshops were linked to co-ordination and planning meetings where possible. This allowed follow-up and quality assurance of the milestones and deliverables that were to be produced, to discuss eventual problems met and changes to plan with the whole consortium, and to establish relevant links between the different workpackages. The assessment activities were organised related to the on-site review of 29 May 2002 in Ghent and to the Panel Review meeting of November in Luxembourg.

WP2: Extending the coding used in current national Labour Force Surveys

Based on the agreement that additional LFS's from the member states not represented in the consortium would be included in our analysis on eWork in the LFS, a lot of useful information was collected. In particular the input from the Austrian LFS and from the designer of these questions resulted gave an important added value for this WP and other STILE workpackages (WP5). The information gathered by the analysis of national LFS's resulted in the report D2.1 'National Labour Force eWork-related differences: analysis of the potential use of the national LFS in eWork'. Furthermore the lead partner formulated suggestions for the routing of questions which aim to measure eWork. These recommendations were added to the existing research results and assembled in the final report (D2.2): 'The missing E: the use of national elements of the LFS for eWork analysis'.

WP3: NACE and ISCO coding processes

After the formal kick-off at the partner meeting in Iphofen in December 2002, the planning and methodology for this workpackage were further developed at the Rome workshop in March 2003. At this meeting a basis was agreed for drawing up 150 hypothetical case descriptions for occupational coding and 150 for sector coding in areas which are expected to create problems in the light of the structural and skill changes taking place in the eEconomy. This approach was further refined through email discussions between partners and at a further workshop which took place in London in June, 2003.

WP4: ICT feasibility study on organisational panel surveys

Three deliverables have been finalised during this cost period:

- a digital toolkit on organisational panel surveys and ICT;
- a modular instrument, which can be used for designing own ICT survey modules;
- the final report including a study of stakeholders needs and a strategic action plan for the improvement of establishment-level ICT- and labour market monitoring.

WP5: Ad hoc module on telework

The contemporary telework research is coping with some important challenges. The WP5 partners have played along with these challenges by developing a telework module. A first task was to reach a common list of core and additional indicators to measure telework. This list originated from an elaborate literature review and from discussions on the composition of a telework module in national usergroup meetings and in a European usergroup meeting. The module has been tested between 01/05/2003 and 10/05/2003 both through a multi-country pilot and through the official Labour Force Surveys in Hungary and Ireland. In Belgium, Italy and the UK the module was tested in a sample of about 200 entities. In Hungary, the pilot survey has been carried out as an ad hoc module of the quarterly Labour Force Survey in the period July-September. The Irish partner tested a limited and smoothly adjusted version of the UK LFS questions on telework. The pilot studies have resulted in an adjusted module and related recommendations on the final composition and implementation of an ad hoc module on telework.

WP6: Mobility in the eEconomy

This workpackage only started in the last three months of this project period. One of the key concerns of this workpackage is to provide data, analysis and recommendations that are not just instructive on a stand-alone basis, but can also be viewed in a wider context and in comparison with related research. In order to do so, it is important that the methodological basis used, the concepts developed and the definitions employed are either rooted in or can be broadly applied to an existing set of international standards and references. This has been one of the starting points for *Mobility in the eEconomy*. The partners concentrated on discussing and aligning methods, definitions and concepts of labour market mobility and of the ICT sector in order to reveal determinants of the mobility of ICT workers. They started to explore the strengths and limits of the two data sources that will be used for the work: the Labour Force Survey and the Belgian Datawarehouse. Further, the workpackage team established links in an early stage with another project funded by the European Commission under its Information Society Technologies programme, NESIS (New Economy Statistical Information System) in order to finetune both project's activities where relevant.

WP7: ICT occupational profiles

Since this WP only started during this second project period, the focus was on the exploration of two sectors employing ICT occupations: the sector of ICT & Multimedia and the sector of Travel & Tourism. The explorational stage is based mainly on literature review. In a first stage, each partner has made a picture of the composition of the sectors, the tendencies and challenges the sectors are confronted with and the organisational answers formulated to these challenges. In a second stage of the explorational study, special attention has been paid to ICT occupations in the sectors. Insights into the occupations and the tendencies and challenges have led to a final selection of two occupations that will be the subject of further research efforts within this workpackage.

WP8: Dissemination activities

A second and third edition of the project's Newsletter was issued and distributed. The project website was regularly updated in line with the work finished and ready to disseminate. Links were in-

cluded to relevant other research projects or related issues or institutes. Several cluster initiatives have been undertaken (see below for a more detailed list).

Main problems met during the project's work

WP1: Co-ordination and partner meetings

No particular problems were met.

WP2: Extending the coding used in current national Labour Force Surveys

A lot of additional information was gathered by studying the additional LFS's (Spain, Finland, Greece, Germany, ...), with special attention for the Eurostat modules. It was useful to take into account also the national ad hoc modules. Here the problem was that not all national modules were available in English and had to be translated first. Especially the translation of the Austrian and German LFS slowed down the delivery of the final report. The extra work of analysing additional LFS's and translating the modules required an additional effort to include the findings in D2.2 in time.

WP3: NACE and ISCO coding processes

The descriptions for occupational and sector coding were dealing with areas where coding problems could be expected. A 'matrix' was constructed to organise the case descriptions and the aim was to get at least one case in the extreme right- and one in the extreme left-hand columns and larger numbers of cases near the 'faultline'. Although it was clear in advance that it wouldn't be possible to find appropriate sector and occupational cases for each cell, we found it difficult to follow the 'matrix-structure' for many 'new occupations'. All case descriptions were based on existing ones and the reality didn't always fit into the theoretical framework. In most countries not many problems were encountered to obtain the co-operation from NSI's. Only in Belgium the NSI was at the end of the day not able to co-operate in the coding exercise. Therefore the Belgian team contacted the Dutch CBS who were willing to co-operate with the consortium for the coding exercise (in Dutch).

WP4: ICT feasibility study on organisational panel surveys

Assessing the work at the end of this workpackage lead to the conclusion that three different kind of problems had to be solved:

- the technical problem of bringing the European patchwork of nation-wide establishment surveys together;
- the information-related problem: to achieve convergence of the European establishment monitoring instruments requires proper information and dissemination channels in and outside the scientific community;
- the 'relational' aspect. The question was how to rise interest and support for a further convergence of the different European establishment surveys. Analysing the conditions for improving the relational contexts of establishment research in Europe, two groups of social actors were identified: Scientists and stakeholders of the labour market policies. Both need an adequate approach for investigating the feasibility conditions.

WP5: Ad hoc module on telework

The experiences with the pilot tests of the module have revealed some difficulties with which the consortium had to deal with. First of all there was a discussion on the order of the questions. Discussing this issue, the consortium concluded that the order of questions and the filtering power of the questions determine to a large extent of the numbers in the various cells. The Irish experiences have taught that the decision on the inclusion of a module depends to a certain extent on the consequences for the interviewer burden and on the burden of analysis. These experiences have introduced a discussion on the composition of the module.

Another discussion raised on the wordings of questions. Taking into account all arguments, it became clear that it is impossible to put forward a fixed wording of questions that can be implemented in each questionnaire. These discussions have led to the recommendation that:

- the module should be presented as a list of indicators and variables, rather than a list of questions;
- the specific wording of the questions is to be adapted to the wordings and the content of the carrier questionnaire;
- the STILE module is a library of relevant indicators, the final composition of the telework module depends on the carrier questionnaire, the space for attaching additional questions and on the research question that needs to be answered;
- the choice of variables that are to be included in a cross-tabulation or that need to function as a filter depends on the specific research question and on the carrier questionnaire.

WP6: Mobility in the eEconomy

The first work concentrated on identifying the methodological, definitional and conceptual issues faced in order to measure mobility in the eEconomy. The different types of mobility need to be underlined - unemployed to employed, job-to-job, sectoral, etc. - and it is clear that there are quite a number of different ways in which it will be possible to measure mobility. In the next phase of the project it will be necessary to test different methods of measurement in a qualitative sense and also to ascertain quite what effect this has on the mobility indicators themselves.

WP7: ICT occupational profiles

At the start of the work on the ICT occupational profiles the consortium was confronted with the problem of defining the 'subject of analysis. It is necessary to define the sector and the occupations that are to be scrutinised in depth in this WP. The current economic environment is characterised by an ever-evolving technological integration, a growing penetration of ICT in all kinds of organisations, flexibility measures of organisations who are to compete at a global level, etc. In this context boundaries between organisations and between sectors are blurring, and occupations are evolving very rapidly. The integration of ICT throughout all aspects of economic activities makes it difficult to distinguish ICT occupations from occupations making intensively use of ICT. What is more, there are some new occupations that are not 'institutionalised' yet. Because of the dynamic reality, it is not obvious to define a list of ICT occupations. This problem is of course identified in similar research projects as well.

In answer to these problems, the consortium has opted for a rather qualitative approach for defining sectors and occupations. An overview of ICT & multimedia organisations is based on insights into the value chain of producing and transmitting ICT and multimedia services. The same has been done for an overview of touristic organisations.

Working with the value chain, it has become clear that this approach makes it easier to give a focused description of an organisation. It also allows giving organisations a place within the economic environment. It is important for the STILE project that this approach made it possible to define the kind of organisations that were subject of analysis.

For the occupations the same approach was chosen. Based on an overview of the value chain the consortium succeeded in delineating relevant clusters of logically coherent activities. Instead of focussing the further research on a well-determined and rather fixed occupation, the partners saw the advantages and the relevance of making an inventory of 'activity clusters' as an alternative approach to 'occupations' sensu stricto.

WP8: Dissemination activities

No particular problems were met.

Overview of the project objectives during this cost period

WP1: Co-ordination and partner meetings

After the first kick-off period, the main objective was to consolidate the internal cohesion within the consortium and to establish efficient communication and decision-making structures so that all deliverables got produced according to schedule and to a high quality standard. This was to be established mainly through the organisation of regular and efficient partner meetings and workshops.

WP2: Extending the coding used in current national Labour Force Surveys

This workpackage's general aim is to examine the extent to which the coding processes used in the national LFS can be used to extend the information on eWork derived from these surveys. Furthermore STILE aimed to derive recommendations as to where extensions of the current coding processes can provide more detail and more information about eWork. Based on an intermediate review and discussions amongst the research partners the aims were extended and further specified for the period covered in this review report:

- since it was decided to include analysis from 8 additional LFS's (Spain, Germany, Greece, Finland, Austria, ...) the aim was to collect and, if necessary, translate the surveys and to analyse eWork related questions;
- to complete the final synthesis report with information from additional surveys and to finalise the report;
- to develop suggestions for the routing of additional questions and interview guidelines and to add this to the final synthesis report;
- to develop specific recommendations for Eurostat, with regard to a possible review of the CLFS.

WP3: NACE and ISCO coding processes

The primary aim of this workpackage is to establish how various statistical bodies code eWork enterprises and eWork occupations. Therefore the aim is to document how coding decisions are made and where there are problems in current classification systems. This will eventually lead to suggestions for the optimisation of current classifications, in the context of the ongoing and future

revisions of NACE and ISCO. In order to achieve these primary objectives the WP3 partners' aims in the first phase of this workpackage were:

- prior to the formal start of WP3, the consortium felt that it was important to make a contribution to the debate about the NACE reform, which will be occurring due to Operation 2002 and Operation 2007 as initiated by Eurostat. To reach this objective a working paper was produced entitled: 'Will the convergence of NACE and NAICS in 2007 solve eWork measurement problems?'. The paper aimed to inform the process of Operation 2002 and Operation 2007 and to act as a basis for further discussions by the STILE partners;
- during the first phase of the workpackage the partners agreed upon a concrete methodology for the analysis of coding problems with NACE and ISCO. We aimed to develop 150 occupational and 150 sectoral descriptions, both in a long and a short version. Having these descriptions coded by different NSI's would give an insight in these problematic coding issues;
- the partners of the workpackage tried to establish contacts with and to ensure the willingness to co-operate of their own national NSI's.

WP4: ICT feasibility study on organisational panel surveys

The overall objective of workpackage 4's feasibility study on chances for a better monitoring of ICT occupations and activities of establishments was to check, how and by which means the method of surveying establishments could be used to improve the monitoring of the impact of ICT technologies on establishments and their workforce. For this second project's period, the objectives were:

- to optimise the existing monitoring systems by identification of best practices and black boxes and by initiating an international convergence process;
- to generate the innovation process of monitoring systems by disseminating best practices and by designing and developing instrument for monitoring ICT-related labour market issues;
- to report and to disseminate the findings of this study to the research community, the statistical bodies in a specially designed website.

WP5: Ad hoc module on telework

1. To develop a commonly agreed on list of characteristics and indicators for monitoring telework. This list was to be translated into questions that were valid, reliable and feasible to be tested in each country.
2. To set up a pilot study in each partner country. Report on difficulties experienced with the composition of the pilot questionnaire, composing the pilot sample and running the interviews. Assess the comprehensibility and the relevance of the various indicators and questions.
3. To set up tests in Hungary and Ireland. In these countries a specific module that met the requirements for attaching a module to the Labour Force Surveys was to be developed and tested.
4. To translate experiences with the pilot studies into recommendations on the composition of the module and on implementation strategies.
5. To compose a final report on the work. In addition to this, the consortium wanted to make special efforts to disseminate the work to the broader statistical and research community.
6. To involve future users in the development of the module and in the formulation of recommendations.

WP6: Mobility in the eEconomy

Using administrative data and the CLFS, the overall aim of this workpackage is a better understanding of the knowledge flows in the ICT branch and of the dissemination of information society knowledge due to the intersectoral mobility of ICT workers. This period the workpackage team aimed for providing an overview of the various methodological questions that should be posed when developing indicators on Mobility in the eEconomy, linking in these questions with the necessary reality of the available data and the structure and form in which it comes.

WP7: ICT occupational profiles

1. To explore the field of research in order to be able to define two specific occupations that are to be scrutinised more in depth in the further stages of the work. This exploration is also relevant for preparing the case studies that are at the basis of the work on occupational profiling.
2. To make international comparisons for detecting region specific tendencies and challenges within the selected sectors. These insights can also give important backgrounds for the international comparisons of occupational profiles in later stages.
3. To decide on the occupations that will be the subject of further research.

WP8: Dissemination activities

The objectives of this WP are to co-ordinate the project's dissemination activities, which includes the development of a newsletter and project website.

Deliverables submitted

	Due	Delivered
D8.1: Newsletter 2	July 2002	July 2002
D2.1: National analysis and reports <i>"National Labour Force eWork related differences. Analysis of the potential use of the national LFS in eWork"</i>	August 2002	August 2002 (+ revised version March 2003)
D4.1: Modular instrument <i>"Is ICT transforming the world of work? And how to know about it?"</i>	September 2002	September 2002
D4.2: Digital toolkit <i>"The Interactive Survey Website and Digital Toolkit"</i>	September 2002	September 2002
D5.1: National reports <i>"eWork module. Report on the national pilot tests"</i>	October 2002	October 2002
D4.3: Final report <i>"Towards convergence? Current state and future ways of establishment based ICT- and labour market monitoring in Europe"</i>	November 2002	December 2002(*)
D2.2: Final report <i>"The missing E. The use of national elements of the LFS for eWork analysis"</i>	February 2003	February 2003 (+ revised version March 2003)
D5.2: Eurostat recommendations <i>"Recommendations for the introduction of an ad hoc module on telework in the Labour Force Surveys"</i>	February 2003	February 2003
D8.1: Newsletter 3	February 2003	February 2003
D5.3: Final report <i>"Working at a distance. How to know about it?"</i>	March 2003	March 2003

(*) In order to integrate fully the results of the stakeholders' study of needs a delay was asked (agreed on the Panel review meeting of 2002).

Contractual changes

None

Project meetings held

- Kinsale (Ireland), 15 May 2002: Workshop WP4
- Kinsale (Ireland), 16-17 May 2002: STILE partner meeting
- Ghent (Belgium), 29 May 2002: European Usergroup meeting WP5

- Iphofen (Nürnberg) (Germany), 9-10 December 2002: STILE partner meeting
- Rome (Italy), 6 March 2003: European Usergroup meeting WP5
- Rome (Italy), 7 March 2003: Workshop WP3

Main results

WP1: Co-ordination and partner meetings

The internal cohesion and efficient communication and decision-making structures in the consortium were consolidated, in order to allow that the different workpackage teams could concentrate on executing high quality research work.

WP2: Extending the coding in the current national LFS

The research partners obtained precise information about the varying ways in which eWork related issues are addressed in LFS's of different EU countries, whether or not they formally participate in the STILE project. The exercise enabled the partners to identify important national experts, such as the designer of the Austrian eWork questions in the LFS. These results meant a significant input for the activities in workpackage 5 (ad hoc module on telework). Based on the analysis of the possibilities to extend the use of the LFS to measure eWork, on the iterative process between the partners and including the input from US expert, consensus was reached on the most appropriate approach to include questions on eWork in future LFS's. It became clear that eWork is too multidimensional and dynamic a concept to be captured as a single variable by a question such as 'are you a teleworker (or eWorker)?'. Rather any given definition of eWork must be seen as a derived variable, each dimension of which must be captured separately. At a minimum, the questions must cover both the location of work and the use of information and communication technologies.

WP3: NACE and ISCO coding processes

Since WP 3 was only in a starting phase there are no research results available yet. However, a working paper on the NACE and NAICS convergence in 2007 was produced, aiming to be a starting point for discussions among the workpackage partners. With regard to the challenges that eWork poses to occupational classifications (and especially ISCO) a second (shorter) working paper was produced.

WP4: ICT feasibility study on organisational panel surveys

Assessing the work done during this last period of this workpackage and taking into account the problems met, the main results of this work can be summarised as follows: the project provided:

- technical means for a next step of convergence, from the benchmarking inventory to the ICT questioning module;
- informational means for an enhanced exchange and transfer of knowledge, consisting of digital toolkit, survey website and publications;
- analysis of obstacles and chances for converging establishment-related monitoring of ICT impacts, based on the results of the investigation on stakeholders' needs;
- an action plan for building networks and raising support.

WP5: Ad hoc module on telework

1. The work within the workpackage has resulted in a framework for defining telework. Using the STILE approach future users can define telework in a flexible way without losing comparability between research projects.
2. The most important result of the work is a list of characteristics and indicators that can be used for monitoring telework. What makes the list interesting for future users is the fact that it can be composed flexibly. As the consortium confined itself to the composition of a list of indicators, it can be attached to a broad range of employee questionnaires. The consortium offers the opportunity to future users to ask support in translating the module into specific questions that can be 'piggybacked' to carrier questionnaires.
3. Based on exercises with the pilot test results, the consortium has been able to give an initial impetus for bridging gaps in telework related impact research. The work resulted in a list of impact issues that can be studied.

These results are described in a *final report* on the work, including *recommendations on monitoring telework*.

WP6: Mobility in the eEconomy

As well as drawing from the experiences gained through other workpackages in the STILE project, and also feeding into others, efforts have already been made to cluster with another project funded by the European Commission under its Information Society Technologies programme. Agreements between the STILE and NESIS (New Economy Statistical Information System) projects have been reached on consistent methodological approaches to ensure that comparison of results between the two can be more easily achieved. Further, the discussion on definitions and concepts to use in this WP, led to first conclusions. Though there are a number of different definitions around for ICT, *Mobility in the eEconomy* broadly follows that agreed by the OECD Working Party on Indicators for the Information Society.

WP7: ICT occupational profiles

1. The exploration of the sector of ICT & Multimedia and Travel & Tourism resulted in two elaborated sectoral studies. In the sectoral study of ICT & multimedia special attention has been paid to the tendencies of convergence and the blurring of boundaries. For the sector of Travel & Tourism special attention has been paid to the consequences of the introduction of the Internet as a tool for marketing, booking and selling touristic products. The report on the explorational stage (M7.1) gives a general description, emphasising international differences where relevant. The annexes of the work report more extensively on the nation-specific characteristics of the sectors.
2. The exploration of the sectors has led to the selection of two clusters of occupations that will be scrutinised in depth. The consortium put forward the cluster of 'customer technical support' and that of 'development and maintenance of websites'.

WP8: Dissemination activities

A second and third edition of the project's Newsletter was issued and distributed. The project website was regularly updated in line with the work finished and ready to disseminate. Links were in-

cluded to relevant other research projects or related issues or institutes. Several cluster initiatives have been undertaken. The list below lists the most important cluster and dissemination activities that have been attended by the members of the consortium during this reporting period. Only the events where an active involvement and/or contribution of the consortium members (such as a presentation) was provided, are included:

- Labour Market Statistics Conference, Ghent, 29/05/2002
- NESIS, Conference on the New Economy, Greece, 10-14/06/2002
- Summer School on Information Society Indicators, Madrid, 24-26/07/2002
- eWork conference, Paris, 25-27/09/2002
- WWW-ICT, Gender and ICT professions in IST projects and European policies, Brussels, 21/10/2002
- EPROS Working party meeting, Luxembourg, 23-25/10/2002
- Conference 'Social and Human Capital in the Knowledge Society: Policy Implications', Brussels, 28-29/10/2002
- NESIS, Workshop on knowledge stocks and flows, Helsinki, 10-11/03/2003
- Slovak-Czech conference with international presence. New Trends in Employment - telework, Bratislava, 27-28/03/2003
- NESIS - Indicator Development Working Group meeting, Athens, 8-9/4/2003
- CAREER SPACE, Workshop Kick-off meeting career space consortium-Cedefop-CEPIS, Brussels, 16/04/2003
- REGIONAL-IST: Workshop project results, Brussels, 29/04/2003

Project efforts

Partner	Manpower used within the reporting period (01/05/2002 – 30/04/2003)
Higher Institute of Labour Studies (HIVA)	39,5
Cork Teleworking Centre (CTC)	6,5
Institute for Employment Studies (IES)	7,5
CAMIRE Estadística y Análisis, S.L. (CAMIRE)	7,5
Institut für Arbeitsmarkt- und Berufsforschung (IAB)	4,5
Istituto di Ricerche Economiche e Sociali (IRES)	18,5
Organisatie voor Strategisch Arbeidsmarktonderzoek (OSA)	10
Institute of Sociology – Hungarian Academy of Sciences (ISB)	8
Central Statistical Office (CSO)	2,5
Joanne H. Pratt Associates (subcontractor)	7

Project Manager: Monique Ramioul

Date: 26/09/2003

Signature: