I-CUE
Improving the Capacity and Usability of EUROMOD

Design Study
implemented as a
Specific Support Action

Deliverable D2.1
Plan for Using and Disseminating the Knowledge Gained
in the I-CUE project

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Plan for Using and Disseminating the Knowledge Gained in the I-CUE project
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1. A brief summary of the knowledge gained

Major results from the I-CUE project include:

i. Four new country components in EUROMOD for Estonia, Hungary, Poland and Slovenia together with Country Reports documenting them.

ii. Feasibility studies for six of the remaining eight New Member States, providing much of the detail needed to build country components for those countries (Cyprus, Czech Republic, Latvia, Lithuania, Malta and Slovakia).

iii. An established method and process for identifying and cooperating with teams from the remaining countries (Bulgaria and Romania, plus any others).

iv. A version of EUROMOD that allows for analysis of 19 EU countries, separately and combined; baseline EUROMOD statistics for these countries (http://www.iser.essex.ac.uk/msu/emod/statistics/)

v. Established protocols, guidelines and methods that provide a clear and tested blueprint for the re-building of the EU15 parts of model and a roadmap for the regular updating of the whole of EUROMOD. The elements of this include:
   (a) A standardised variable naming convention and input data documentation template
   (b) A plan for the use of Eurostat EU-SILC data as the common input database for all countries
   (c) A set of common modules that act as “building blocks” in programming tax and benefit policies for each country; providing a uniform approach in all countries and allowing policy elements to be swapped across countries.
   (d) Templates for the documentation of each country component (Country Reports; Data Requirements Documents).

vi. A user interface and operating system that has proved to retain the full range of flexibility of choices by the user while requiring no special programming skills nor purchase of special software, but at the same time allowing use and operation of the model to be learned with modest effort.

vii. Some new functions and features of EUROMOD including
The ability to calculate effective marginal tax rates using a wide range of assumptions.

A mapping of social benefits onto independent and official classifications of these income elements.

The feasibility of further technical improvements has been identified as follows:

(a) Providing web access to EUROMOD in two distinct modes has been established as being feasible.

(b) On the other hand some aspects of the original plan have proved to be infeasible, impractical or not worthwhile. Approaches to not consider in the future include pursuing a comprehensive and universal solutions to the problems associated with upgrading private developments to new versions of EUROMOD. An ad hoc approach, emphasising good documentation is necessary;

(c) The choice of underlying software needs to be considered with a view to improving run speed and long term sustainability. This review needs to consider the costs as well as benefits of any significant change, given that the existing configuration has proved satisfactory in many dimensions including with respect to user feedback.

Some substantive applications of EUROMOD using the new features which may act as demonstrators or exemplars for new users.

2. Promoting the use of EUROMOD by researchers and policy-makers

I-CUE did not contain provision for supporting users or promoting the use of EUROMOD by researchers. This was originally considered as the next stage, once the design had been improved and the model was easier to use. Nevertheless it was important to test out the new facilities on both novice and experienced users and in addition to motivate the teams joining from the NMS. The following activities were undertaken with a view to promoting and facilitating EUROMOD use in various contexts (in the most part not being directly financed by the I-CUE budget):

i. Training courses for new users including week-long courses as part of the Essex Summer School in 2006 and 2007

ii. Inclusion of EUROMOD in the social science infrastructure support provided to visitors to ISER at the University of Essex under the ECASS programme. This has so far supported 11 visitors from 8 countries (Belgium, Bulgaria, Germany, Greece, Italy, Lithuania, Netherlands, Turkey).

iii. Provision of a web page inviting prospective users to enquire about access to EUROMOD; clarification of access conditions to underlying input data; informal support using email.

iv. Research applications of the I-CUE version of EUROMOD by the project team and associates to demonstrate the usefulness of the improved and extended model to other researchers and policy analysts.

The plan is to expand opportunities for training in the use of EUROMOD and to increase the provision of services for users, including the encouragement of networking and sharing experiences by users.
3. Plans to develop EUROMOD using the lessons from I-CUE

Learning from I-CUE, the plan is now to

1) Extend the model to cover the EU27 and upgrade the modelling of the EU15 countries already covered by the model to match the state-of-the-art developed in I-CUE for selected countries; and to do so using the new European Union Statistics on Income and Living Conditions (EU-SILC) data for all countries.

2) Improve the usability and ease of maintenance of EUROMOD in directions identified during the course of I-CUE; to do so in consultation with the community of users while promoting the widest use of the improved model through access activities and remote support.

3) Extend the analytical capacity of the model following user demand and policy relevance, including
   a) providing a framework for the modelling of labour supply responses to policy changes;
   b) allowing for the modelling of non-take-up of certain social benefits;
   c) incorporation of the effects of
      i) childcare benefits and
      ii) indirect taxes.

Although not part of the project work programme I-CUE also offered the opportunity, with the help of its Advisory Group, to identify and consider the management and intellectual property issues to be considered in the longer term, taking account of the growing number of EUROMOD users and stakeholders.

4. Spin offs: worldwide dissemination

As well as improving EUROMOD itself and comparative tax-benefit modelling tools in Europe, the work begun in I-CUE has implications for capacity in this area around the world. It offers a disciplined framework for tax-benefit model construction that provides a basis for new models to be built quickly and efficiently by the people who will operate or use them. A first example is a national model for South Africa for the national government Department of Social Development, constructed with only limited guidance from the EUROMOD Model Developer team. A multi-country model for five Latin American countries (LATINMOD) is due to start construction in late 2008 (supported by UNDP) using the EUROMOD platform. A model for Turkey is in the process of construction as part of a PhD project. With adequate support it can be expected that other new models will be initiated based on the extended and improved EUROMOD. The fact that the EUROMOD technology can be transferred in this way is (a) a testament to the good design and future potential of EUROMOD and (b) an example of how European research infrastructure is at the leading edge technically, and has an impact across the world.

5. Conclusions and next steps

At the time of writing a large part of the plan for carrying forward the knowledge gained from I-CUE, as outlined above, forms the basis of a proposal to the FP7-INFRASTRUCTURES Call 2008.1.1.1. The outcome of this is awaited. If the proposal is successful then EUROMOD will
position European researchers on the **leading edge of research** into the effects and functioning of welfare states and social and economic behaviour in the context of 27 “natural experiments” (policy models). It will enable a wide range of studies to be conducted on a demonstrably common basis, while also encouraging comparative research. As the capacity and scope of EUROMOD expands, the project will open up new research possibilities at a harmonised EU level. The project will enrich the social science knowledge base by allowing research on topics which cannot – with the existing state-of-the-art – be addressed in a European or cross country comparative perspective.

On the other hand, if the proposal is unsuccessful then the plans outlined above will be conditional on securing alternative sources of funding. Due to its special multi-country nature it is difficult to find alternative funding sources to the Framework Programmes that could provide integrated support for (a) the core Model Developer team which is spread over several institutions in several countries and (b) the team of national experts. A coordinated approach to seeking national funding for each national component is one possibility; but this still leaves the coordination of the parts to be supported somehow, as well as the core development tasks which form a significant proportion of the plan. The scope for dividing these up into stand-alone packages to be supported through individual grants using national funding sources is very limited and in practice such fragmentation would be inefficient.

Another approach would be to attempt to support the infrastructure developments through research funding (under the Framework Programmes or otherwise). This was the approach taken before the I-CUE project. One of the very valuable lessons from the I-CUE experience is the value of projects dedicated to infrastructure development as distinct from research using the infrastructure (within which certain specific developments are possible). The long term plan for EUROMOD foresees a combination of research projects funded by a wide range of organisations and complementary support (through one or more projects) for infrastructure development and maintenance, including updating of the model, as well as user support.
Annex: List of dissemination activities taking place within I-CUE and planned to follow it

Dissemination activities have taken three forms

1. Dissemination information about the I-CUE project

Under this heading we have:

- Developed the I-CUE web site at ISER, with regular updates. Deliverables are posted on the site see [http://www.iser.essex.ac.uk/msu/emod/i-cue/deliverables/](http://www.iser.essex.ac.uk/msu/emod/i-cue/deliverables/)
- Also created a specific project website at the European Centre ([http://www.euro_centre.org/icue](http://www.euro_centre.org/icue)), which includes the Feasibility Studies, final Country Reports for the prototype countries and basic information related to workshops and country meetings
- A description of a potential long-term large-scale project building on I-CUE (using the name COMMONtools) was submitted to the ESFRI Mapping exercise for potential pan-European research infrastructures in early 2006.
- Made a presentation of the I-CUE project to a Working Group meeting of the European Plan for Research in Official Statistics (EPROS) at Eurostat 1st June 2006 (Sutherland)
- Presented information about I-CUE at the project Final Conference in Vienna 3-4 April 2008 as part of the presentation “EUROMOD: past, present and future”(Sutherland).

2. Presentation and demonstration of developments and achievements to potential and actual users or other microsimulation model-builders

Under this heading we have:

- Incorporated I-CUE developments in the teaching of the EUROMOD course at the Essex Summer School in 2006 and 2007 (Levy, Lietz, Figari, Paulus and Sutherland)
- Discussed EUROMOD and the goals of I-CUE at meeting at ISER (Essex) with a delegation from the Hungarian Ministry of Finance, on study visit to UK (2005)
- Made a presentation (Lelkes) to Hungarian Ministry of Finance in Budapest (2005)
- Included information about EUROMOD and I-CUE in a presentation on microsimulation models to the UK Department of Work and Pensions at the University of Essex 30th May 2006
- Included information about EUROMOD and I-CUE in a presentation on microsimulation models to Kirsten Thompson, a visitor to ISER from South Africa, 31st August 2006
- Included information about EUROMOD and I-CUE in a presentation on microsimulation models to Roger Hurnard of the New Zealand Treasury 22nd September 2006
- Presentation of EUROMOD and I-CUE at Universidad de la Republica, Uruguay (27-29 November 2006) (Levy)
- Presentation about EUROMOD and I-CUE at the Estonian Ministry of Social Affairs, Tallinn, 4 January 2007 (Paulus)
- Presentation of EUROMOD and I-CUE at Technological Institute of Monterrey, Mexico (9-12 January 2007) (Levy)
• Presented a post-graduate session for BRCSS (Building Research Capability in the Social Sciences) via access grid (linked to a number of New Zealand universities) ‘Building and Using Microsimulation Models for the Analysis of the Effects of Social Policy’, 30th March 2007 (Sutherland).

• Presentation including information about EUROMOD and I-CUE on "Microsimulation - what is it, how does it work and what can it do?" at the Ministry of Social Development, Wellington, New Zealand, April 2nd 2007 (Sutherland).

• EUROMOD, its implemented country modules, and several of its possible applications were presented at the EU-SILC Workshop 24th January 2007, hosted by Statistics Austria in Vienna. The audience included policy makers, researchers and representatives of Statistics Austria (Fuchs)

• “EUROMOD, SIMPL oraz dane administracyjne” (“EUROMOD, SIMPL and administrative data”) , a presentation on a joint seminar organized by the Ministry of Labour and Social Policy and the Economic Department at the University of Warsaw showing relations between data requirements for country specific model SIMPL and EUROMOD, 16th March 2007 (Morawski, Nicjńska)

• Presentation at the Annual Conference of the National Association of Auditors and Tax Advisors in Eger, Hungary, 24 April 2007 on tax-benefit microsimulation and the impacts of a hypothetical linear income tax reform in Hungary (Lelkes)

• Incorporated I-CUE developments in the teaching of a “mini course” to University of Essex Sociology masters students May 2007 (Figari and Paulus)

• “Polski moduł w modelu EUROMOD” (Polish module in EUROMOD), a presentation on a joint seminar organized by the Ministry of Labour and Social Policy and the Economic Department at the University of Warsaw describing Polish module in EUROMOD in relation to country specific model SIMPL, 21st July 2007 (Morawski)

• Presented EUROMOD and I-CUE developments as part of an invited plenary presentation on “Role of Microsimulation Models in Cross-Country Research” at the International Microsimulation Association conference 20th-22nd August 2007, Vienna (Sutherland)

• Presented I-CUE developments as part of presentation on EUROMOD ("EUROMOD - an integrated European tax-benefit model") at the International Microsimulation Association conference 20th-22nd August 2007, Vienna (Sutherland)

• Included information about EUROMOD and I-CUE in a presentation "ALAN – maksude ja toetuste mikrosimulatsioonimudel. Tutvustus ja näiteid rakendustest" at a seminar on microsimulation models at Statistics Estonia, Tallinn, Estonia 13th November 2007 (Vork)

• Presented EUROMOD and I-CUE at the Vienna Institute for International Economic Studies (wiiw) on 17 December 2007 (Lelkes).

• Included information about I-CUE and EUROMOD in a presentation “EUROMOD and SA-MOD: What are they and what can they do?” to the directors of the Social Cluster ministries in Cape Town and Pretoria, South Africa, 20th February 2008 (Sutherland)

• Included information about EUROMOD and I-CUE in a presentation “Cross-National Microsimulation using EUROMOD: How does it work and what can it do?” at the Quantitative Methods for Social Sciences conference, Prague, June 20-23 2007 (Sutherland)
3. Presentation of research results using I-CUE developments or as a by-product of I-CUE activities


(b) Figari F., H. Immervoll, H. Levy and H. Sutherland, “Inequalities within couples: market incomes and the role of taxes and benefits in Europe” presented to:

   (i) A symposium on Gender Equality, Tax Policies and Tax Reform in Comparative Perspective at the Levy Institute, New York, 17-18 May 2006 under the title “Gender inequalities and redistribution within couples. The equalising properties of tax-benefit systems in Europe” (Sutherland)

   (ii) International Microsimulation Association conference 20th-22nd August 2007, Vienna (Sutherland)

   (iii) Cologne University Economics Seminar 28th January 2008 (Sutherland)

   (iv) Dalhousie University Department of Economics seminar, Halifax Canada 14th March 2008 (Sutherland)


(c) The enlarged EUROMOD has been used to produce results for three papers presented in the I-CUE Final Conference, Vienna 3-4 April 2008.


   o Morawski, Levy and Myck (2008) “Alternative Tax-Benefit Strategies to support Children in Poland”, analyses the recent (2007) child tax credit reform and enquires what would have been the outcome if instead, and under the same budget cost, the Polish government had reformed child policies line with the systems of Austria, France and the United Kingdom. (Morawski)


Plans for further dissemination:

There are a number of immediate plans to present and disseminate work done under I-CUE, including:
• The publication of a book including papers from the I-CUE final conference

• The 19-country version of EUROMOD is being used to inform two research notes that are contributions to DG-EMPL’s Observatory on the Social Situation (http://ec.europa.eu/employment_social/spsi/european_observatory_en.htm)
  o The effect of taxes and benefits and their changes on the distribution of income and on relative poverty rates of older people by Francesco Figari, Manos Matsaganis and Holly Sutherland
  o The take up of social benefits by Manos Matsaganis, Alari Paulus and Holly Sutherland

• A paper using the 19-country version of EUROMOD (“Income inequality and the effect of public policies in the European Union: what happens with enlargement?” by Francesco Figari, Horacio Levy, Alari Paulus, and Holly Sutherland) has been accepted for the International Association for Research in Income and Wealth General Conference in Slovenia in August 2008.

• "Alternative tax-benefit strategies to support children in Poland" by Horacio Levy, Leszek Morawski, Michal Myck has been accepted for the Warsaw International Economic Meeting conference (5-6 July 2008).

• Further development of the paper “Inequalities within couples: market incomes and the role of taxes and benefits in Europe” will lead to submissions to academic journals using the I-CUE add on developments.

• All the papers using the I-CUE developments to EUROMOD will also be published as EUROMOD Working Papers in due course (www.iser.essex.ac.uk/msu/emod/workingpapers/)

• It is planned to produce papers on the EUROMOD design and I-CUE developments for the 2nd International Microsimulation Association conference in Ottawa, Canada in June 2009.

• In order to promote the use of the new version of EUROMOD containing the I-CUE developments a training course for researchers to be held at ISER in the University of Essex in August 2008 is planned. This will last for 4 days with a high proportion of hands-on practical work and individual attention. In spite of low level advertising the course was quickly over-subscribed. As a result of the advertising, numerous expressions of interest in using EUROMOD have been received. Subject to resources being available it is planned to hold more such courses and to provide any necessary support to the new users.