

# EUROMOD

## Introduction and overview

European Microsimulation Modelling for Policymaking

28 May 2015



# What is EUROMOD?

EUROMOD is a unique tax-benefit microsimulation model for the EU that enables researchers and policy analysts to calculate, in a comparable manner, the effects of taxes and benefits on household incomes and work incentives for the population of each country and for the EU as a whole

Since 2009, EUROMOD has been supported by the European Commission's DG-EMPL to maintain and carry out annual updates of policy and input data

# Why use EUROMOD?

EUROMOD is widely used across a range of disciplines from public economics to comparative social policy

Key strengths of the model include:

- the only multi-country tax-benefit model available for the EU
- harmonised input data and policy simulations for all countries
- highly flexible policy settings
- intuitive user interface
- universal tax-benefit modelling language
- extensive library of policies
- continually updated and developed

FREE ACCESS  
to policy makers  
and researchers

# Why use EUROMOD?

EUROMOD can be linked to, or used alongside, other types of model (behavioural, macro-economic or environmental) as a tax-benefit policy calculator or to provide a distributional perspective

EUROMOD is sufficiently flexible that its general framework can be used to shortcut the process of building similar models with potentially comparable outputs for any country

FLEMOSI

SORES –  
demonstrated  
today

# How EUROMOD works

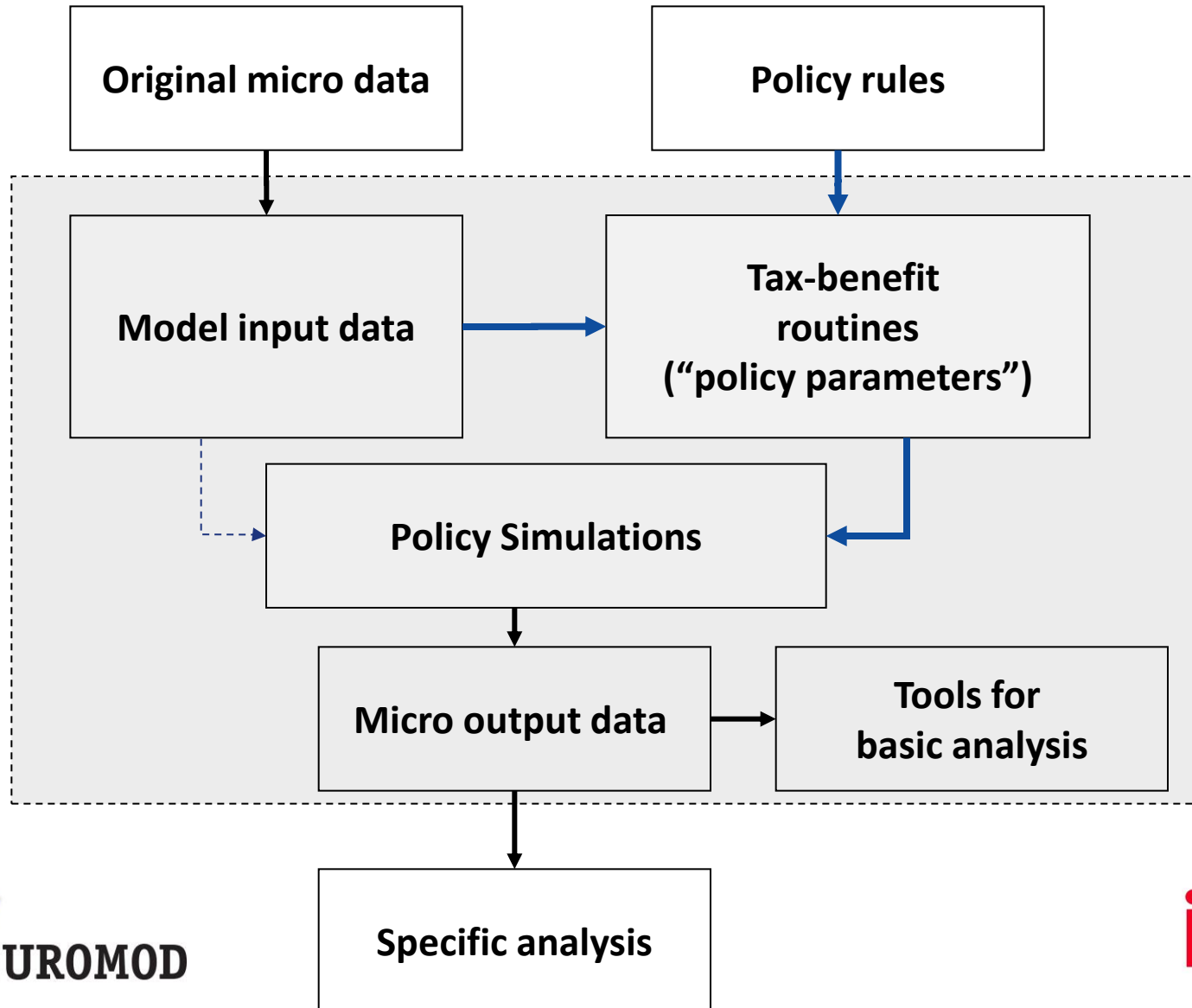
EUROMOD is a static microsimulation model

It applies user-defined policy rules to harmonised survey micro-data on individuals and households, calculates the effects of these rules, and then outputs results – still at the micro level – that can be analysed in the user's chosen statistical software

In addition, the model can output a range of summary statistics

EUROMOD aims to simulate as much as possible of the tax and benefit components of household disposable income

# How EUROMOD works



# How EUROMOD works: Input

Original data are EU-SILC (some national SILC) – equivalent variables are prepared for all countries

**Original micro data**

Baseline policy systems for all countries prepared by national experts

**Policy rules**

**Model input data**

**Tax-benefit routines**  
("policy parameters")

User loads data for countries of interest

The baseline systems can then be modified by the user in the UI and applied to data

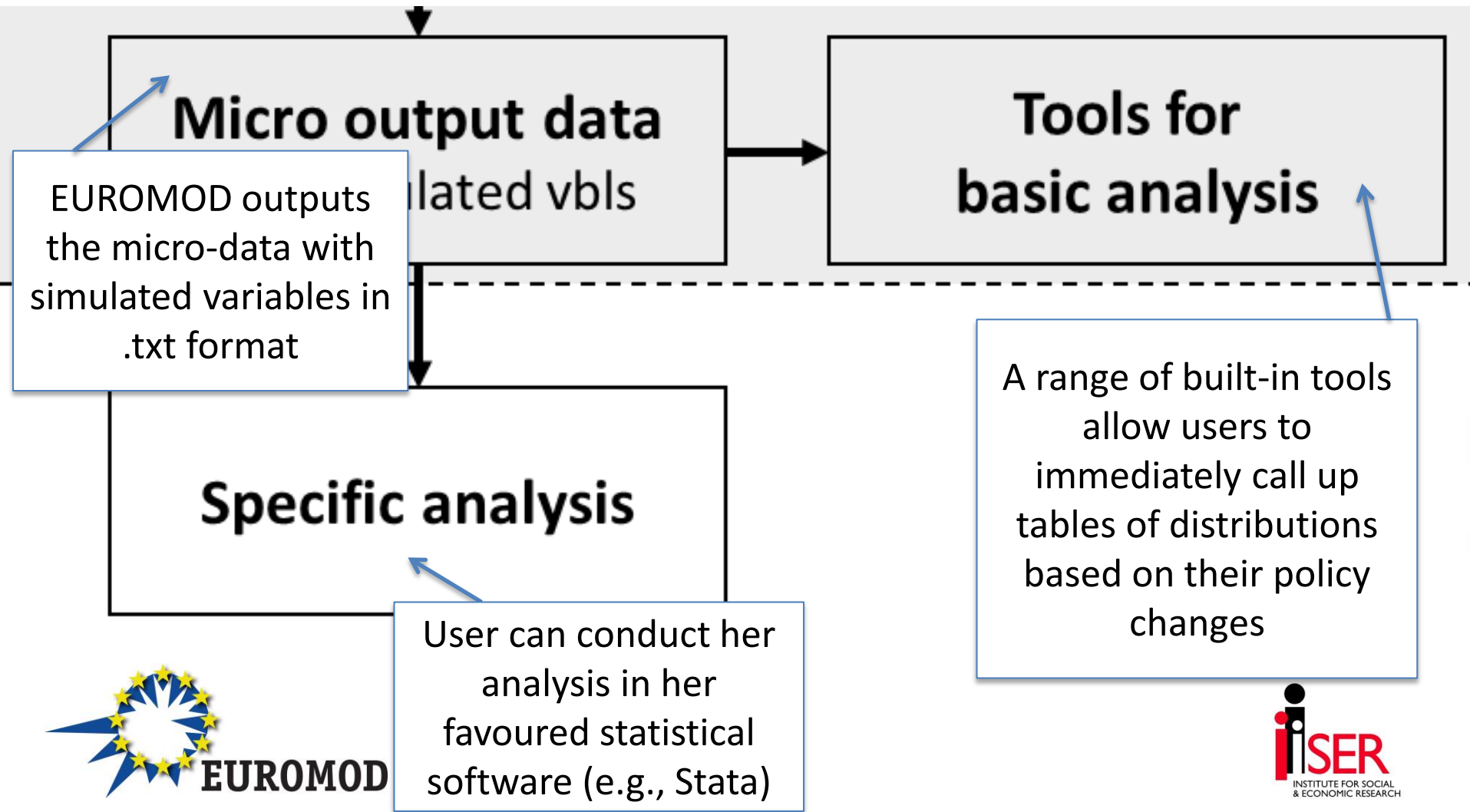
# How EUROMOD works: Simulations



Once user has specified her policy changes for her selected systems, she can execute changes at the click of a button



# How EUROMOD works: Output



# What can EUROMOD do?

- Estimate the redistributive effects of actual/previous/future tax-benefit policies
  - on income distribution
  - on risk of poverty and income inequality
  - estimating budgetary costs
- Policy swapping analysis
- Cross-country comparisons
- Tax design, including EU-wide reforms
- Estimate work incentives (METR and RR) and labour supply
- Stress test a tax-benefit system
- Model hypothetical households
- ‘Nowcast’ and forecast the income distribution under different scenarios
- Data imputation
  - gross income (by source) from net, or vice versa
  - estimate the extent and incidence of non-take up of benefits or tax evasion

# Accessing EUROMOD

EUROMOD is freely accessible for non-commercial use

The latest public release version of EUROMOD covers all EU-27 countries and policies 2009-2013

We recommend attending our next training course if you are new to EUROMOD

# Model updates and roadmap

Support from DG-EMPL allows us to develop and annually update EUROMOD so as to maintain its usefulness as a tool for policy-relevant research and policy monitoring

The main tasks are updating policies to the latest year and revising and updating input data which, for most countries, is based on EU-SILC micro-data

The work is being done in collaboration with national teams in each of the member states

It is planned to release the first 28-country version of EUROMOD using 2014 policies and 2012 SILC data early in 2016

# Thank you!

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