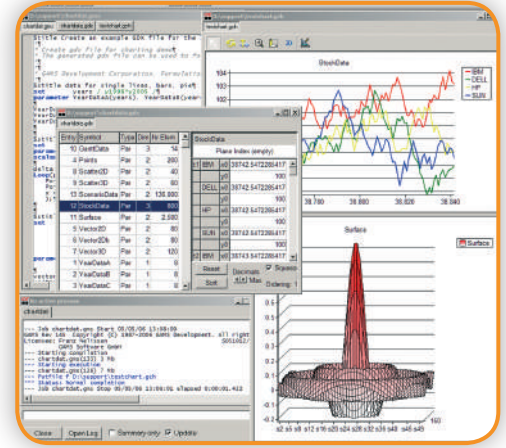# ➤ OPTIMIZATION   www.gams.com ◀

GAMS

High-Level Modeling

The General Algebraic Modeling System (GAMS) is a high-level modeling system for mathematical programming problems. GAMS is tailored for complex, large-scale modeling applications, and allows you to build large maintainable models that can be adapted quickly to new situations. Models are fully portable from one computer platform to another.

State-of-the-Art Solvers

GAMS incorporates all major commercial and academic state-of-the-art solution technologies for a broad range of problem types.

GAMS Integrated Developer Environment for editing, debugging, solving models, and viewing data.

ReMIND-R - A global energy economy climate model in a multi-regional setting

PIK

ReMIND-R provides a model framework developed for the implementation of energy-economic models in a multi-regional setting. The framework allows for the representation of energy carriers and conversion technologies with various techno-economic characteristics. The energy system part is coupled with a macroeconomic part represented by a nested CES production function with flexible structure. The regional models are implemented as optimal growth models linked by trade in energy carriers, tradeable permits and generic goods.

- 11 world regions and 7 types of traded products (incl. emission rights)
- Climate policy analysis: Business as usual and different climate policies
- Combines complex optimization and simulation models
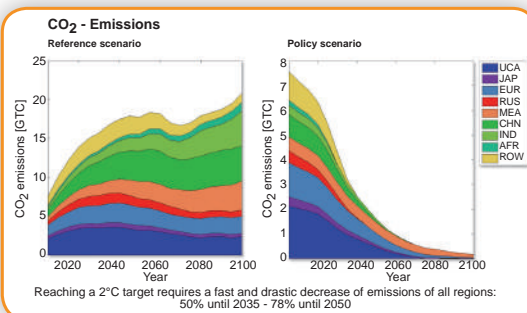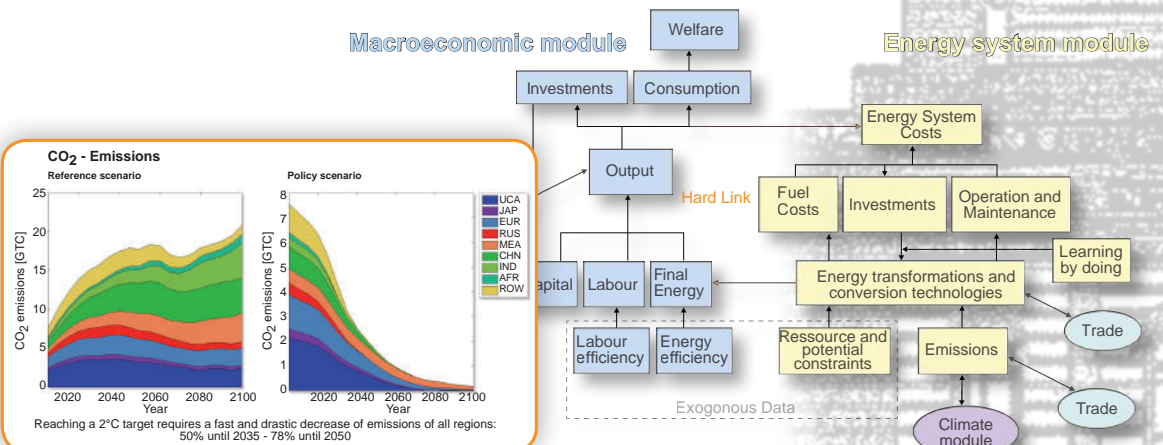- Developed by group of experts from different fields
- Model documentation - see
  http://www.pik-potsdam.de/research/research-domains/sustainable-solutions/models

Europe
GAMS Software GmbH

Eupener Strasse 135-137
50933 Cologne, Germany

phone
+49-221-949-9170
fax
+49-221-949-9171
mail
info@gams.de
web
http://www.gams.com

USA
GAMS Development Corporation

1217 Potomac Street, NW
Washington, DC 20007, USA

phone
+1-202-342-0180
fax
+1-202-342-0181
mail
sales@gams.com
web
http://www.gams.com

CO_2 - Emissions

Reference scenario — Policy scenario

Reaching a 2°C target requires a fast and drastic decrease of emissions of all regions: 50% until 2035 - 78% until 2050

REMIND-R has been developed and is being maintained by the ReMind Team at the Potsdam Institute for Climate Impact Research (PIK); for more information about this application please visit
http://www.pik-potsdam.de/research/research-domains/sustainable-solutions/models/remind