

“What if” Scenario Modelling Tools

REEIO – An Introduction and Update

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Outline of the presentation

- **What is REEIO and what does it do?**
- **What's currently in REEIO?**
- **How do we use REEIO?**

What is REEIO?

- **Regional Economy-Environment-Input Output Model (REEIO)**
 - software model within which to consider possible environmental pressures
 - designed in consultation with EA/RDAs/SCPnet to provide ‘strategic-level’ analysis
- **Links economic development to selected environmental pressures**
 - waste arisings, management options
 - energy use and emissions to air
 - water demand

What REEIO Does

- **Impact of economy on environmental pressure**
 - scale of economic activity (GDP, population)
 - structure of economic activity (which industries)
 - trends in environmental ‘intensity’
 - Policies to mitigate impact (eg ‘efficient’ use of inputs)
- **Built up from detail**
 - eg waste from 41 economic sectors plus households
 - energy demand for 45 fuel users, 15 fuels
 - 13 types of emissions

What REEIO is Designed to Do

- **Economy → Environment**
 - impact of scale of economic activity (GDP, population)
 - impact of structure of economic activity (which industries)
 - not environment → economy
- **Represent policies to mitigate impact**
 - assumptions for 'lower impact per unit of activity'

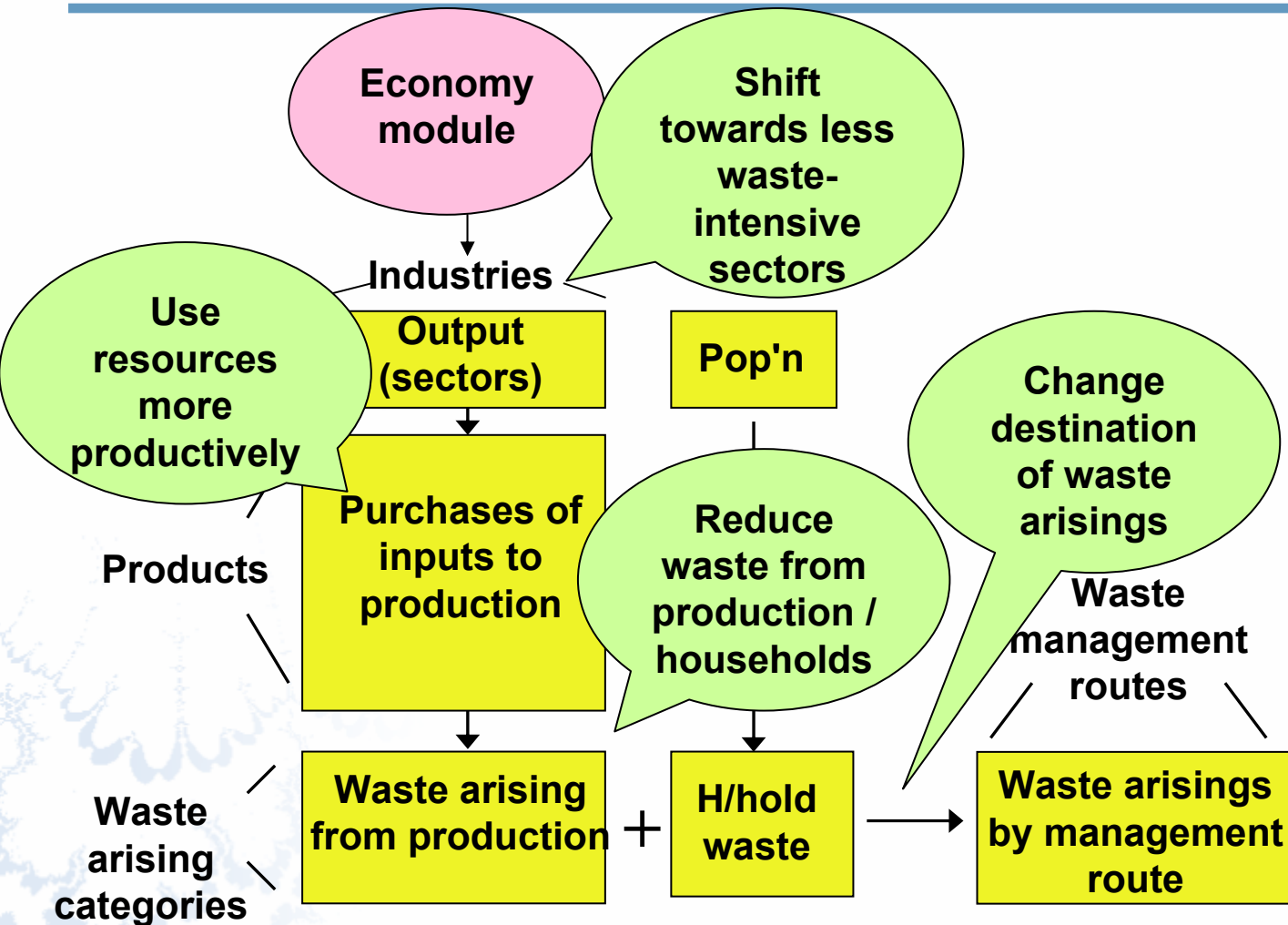
What REEIO is Designed to Do

- A framework for representing the effects of policy
 - REEIO *is not* a tool with a few policy levers to pull
 - REEIO *is not* a black box which will prescribe the optimum policy mix
 - REEIO *is* a tool for constructing scenarios in which the policy trade-offs can be examined
- Only limited representation of social inclusion

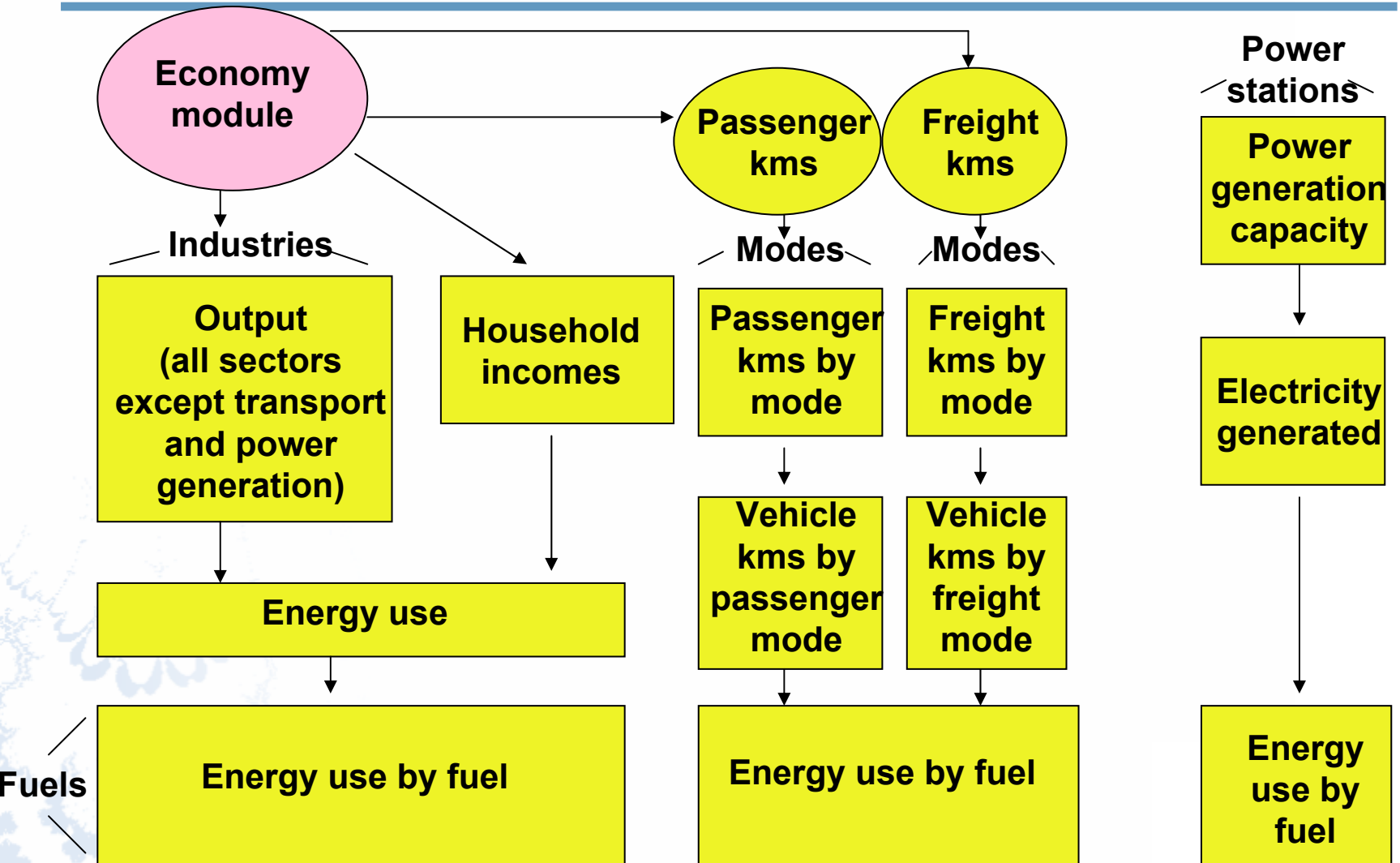
REEIO's latest developments

- **REEIO Version 3 to be released imminently**
 - original model developed over 2001-03; Version 2 data update 2005
- **Latest data**
 - timely forecasts for regional economies and national energy trends
 - 2005 environmental baseline
 - some gaps in waste data, water data not been updated
 - energy/air data for 1990 and 2000 in accompanying databases
- **Enhancements to version 3**
 - international and domestic air transport identified separately
 - identify biofuels separately from other renewable fuels
 - current data on biofuels are limited and of variable quality, but improving

Informing policy: waste



Informing policy: energy/emissions



How REEIO has been used to date

- **Regional strategies**
 - assessing implications of economic strategies,
 - background trends for SEAs
 - contribution of regional strategies to GHG emissions
 - regional/local waste/energy strategies
- **‘How can the region meet its emissions targets’**
 - stabilisation of ecological footprint, resource use/CO2 emissions
 - business opportunities/challenges presented by carbon targets
- **Sector strategies**
 - scenario planning - energy (North East)
 - impact of alternative structures for resource efficiency programme (East of England)

How REEIO looks ...
