

# IAMs for Policy Support?

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# What modellers cannot do

- **Time travel** - climate change is a 100 year problem, yet policy makers have the urge to make decisions in the middle of the night about issues that no one really understands (multigas, Swedish market)
- **Everything** - models are specific abstractions of reality - models and modeller-client relationships evolve only gradually - we often use models that were designed for yesterday's questions to answer those of today - rapid prototyping



# What modellers find difficult

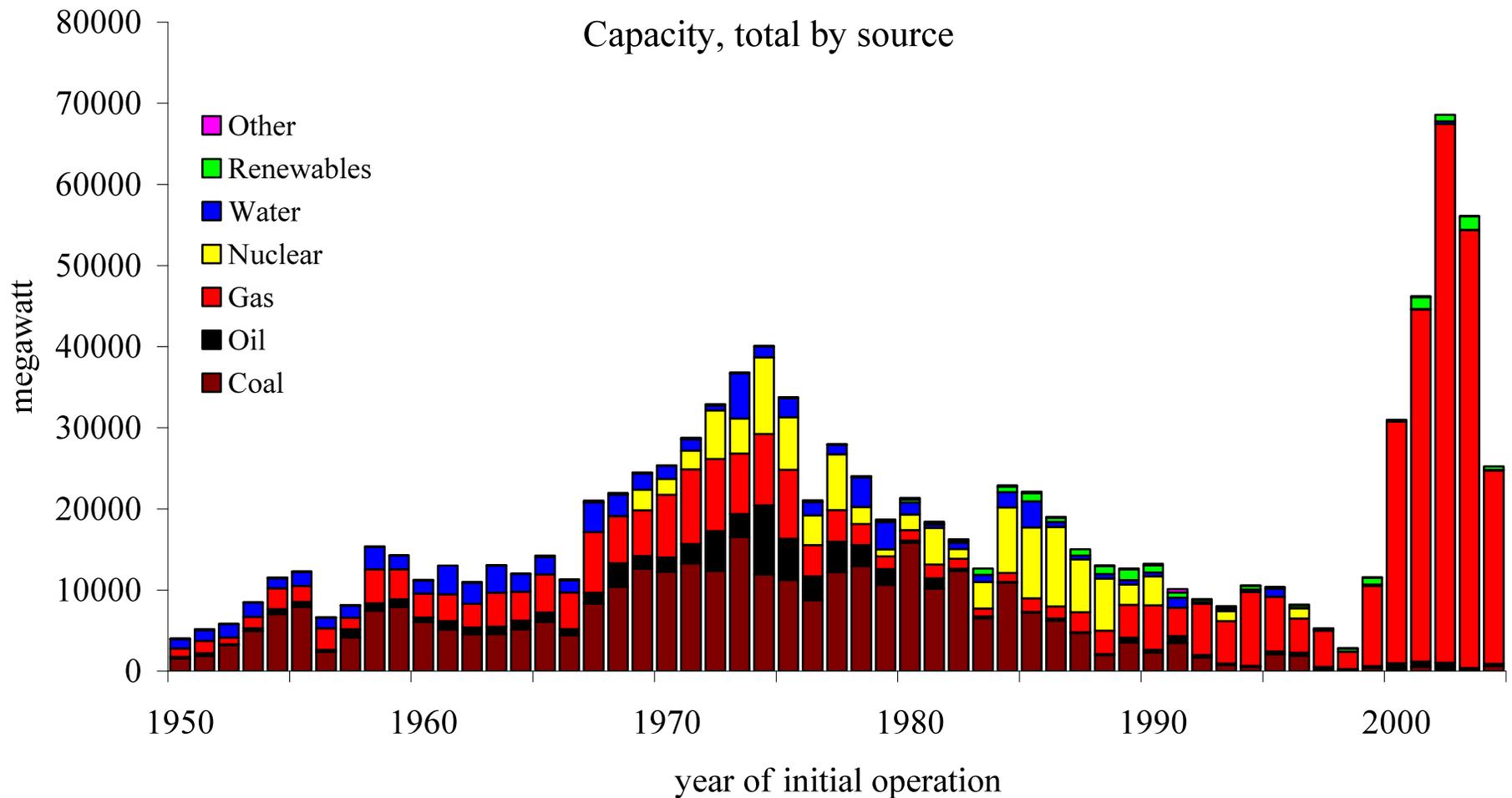
- **Messiness** - modellers are autistic, create their own world that adheres to strict rules - actual policy is a messy compromise that defies all logic, policy makers tend to order the menu rather than from the menu, and policies rarely expire - but we should really represent policy as it is for short-term analyses and develop stylised facts for long-term analyses



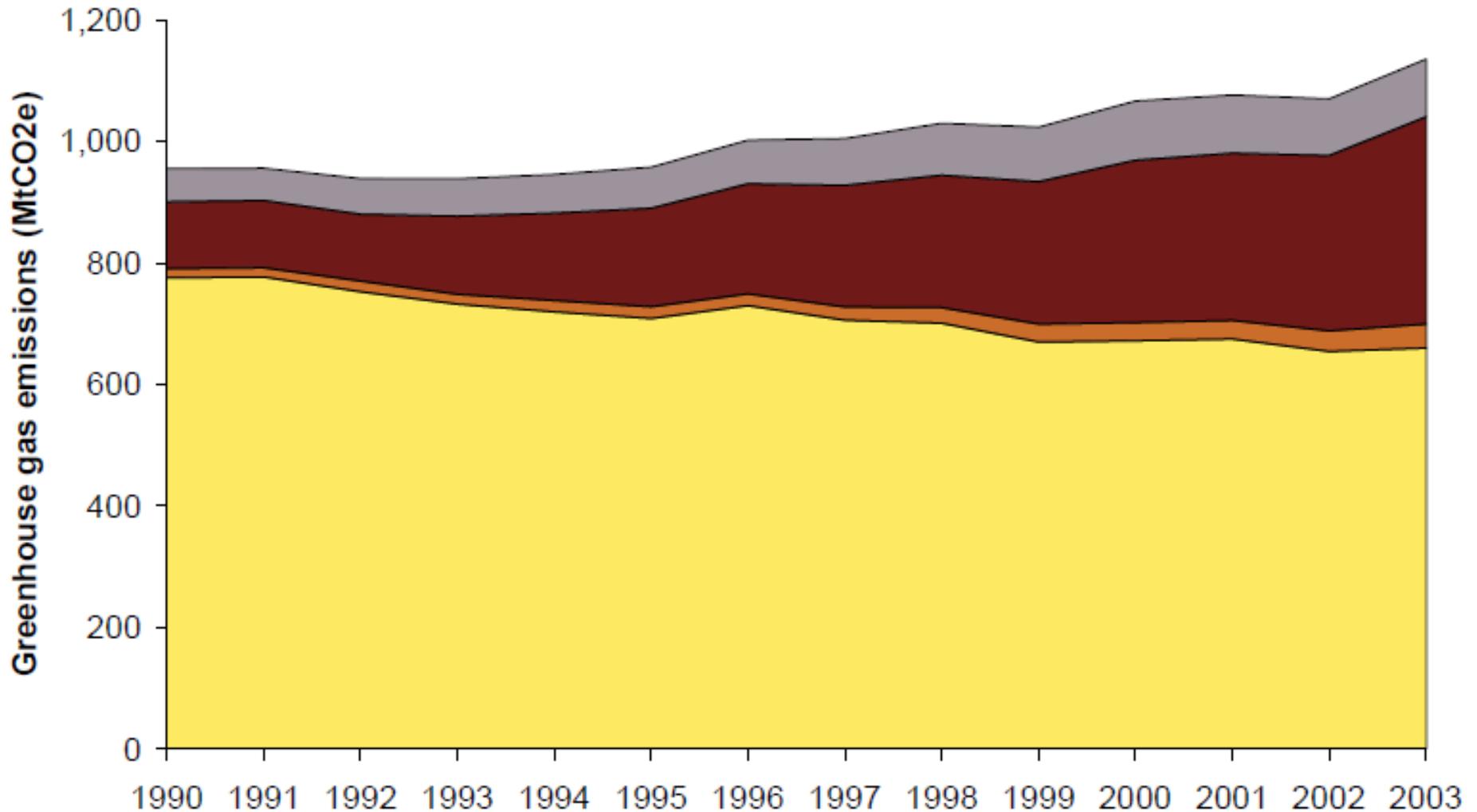
# What we haven't found time for

- Recent progress in land use, transport, technological progress, but less so in:
- Issue linkage: Energy security, employment
- Shale gas: market power, oil-gas price bond
- Capital: In Ireland, an oil price shock would increase the cost of capital so that the relative price of renewables would rise
- Vintaging
- Consumption accounting





Energy investment has come in waves, and so will replacement investments. This implies that timing is more crucial than you would think.



■ Kyoto emissions 
 ■ Net emissions from tourism 
 ■ Net imports of carbon 
 ■ Bunker emissions

UK emissions have fallen, but that is because energy-intensive production has been off-shored. Do our models reproduce this?