



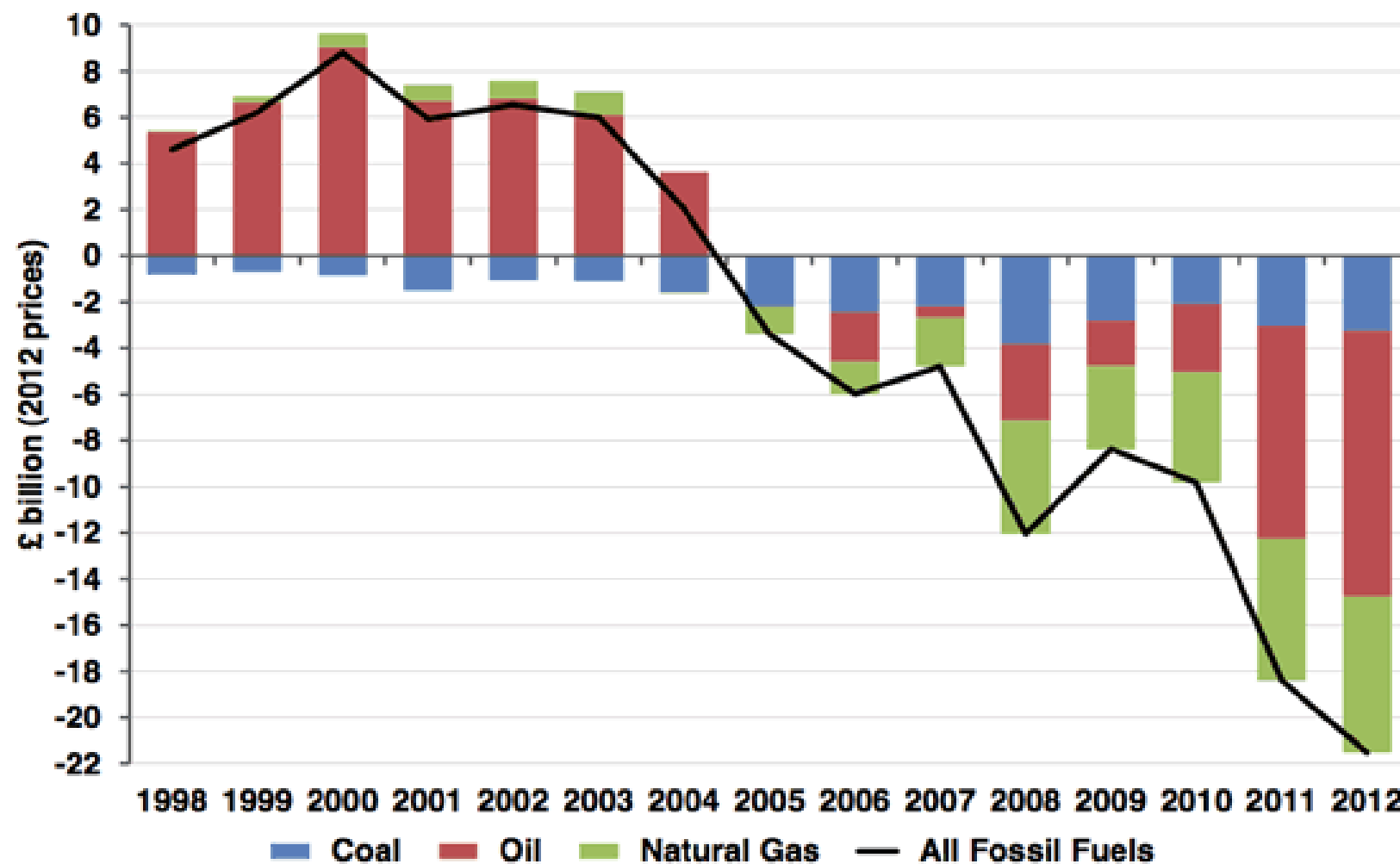
FRACKING:  
Golden Goose...

or Dead Duck?

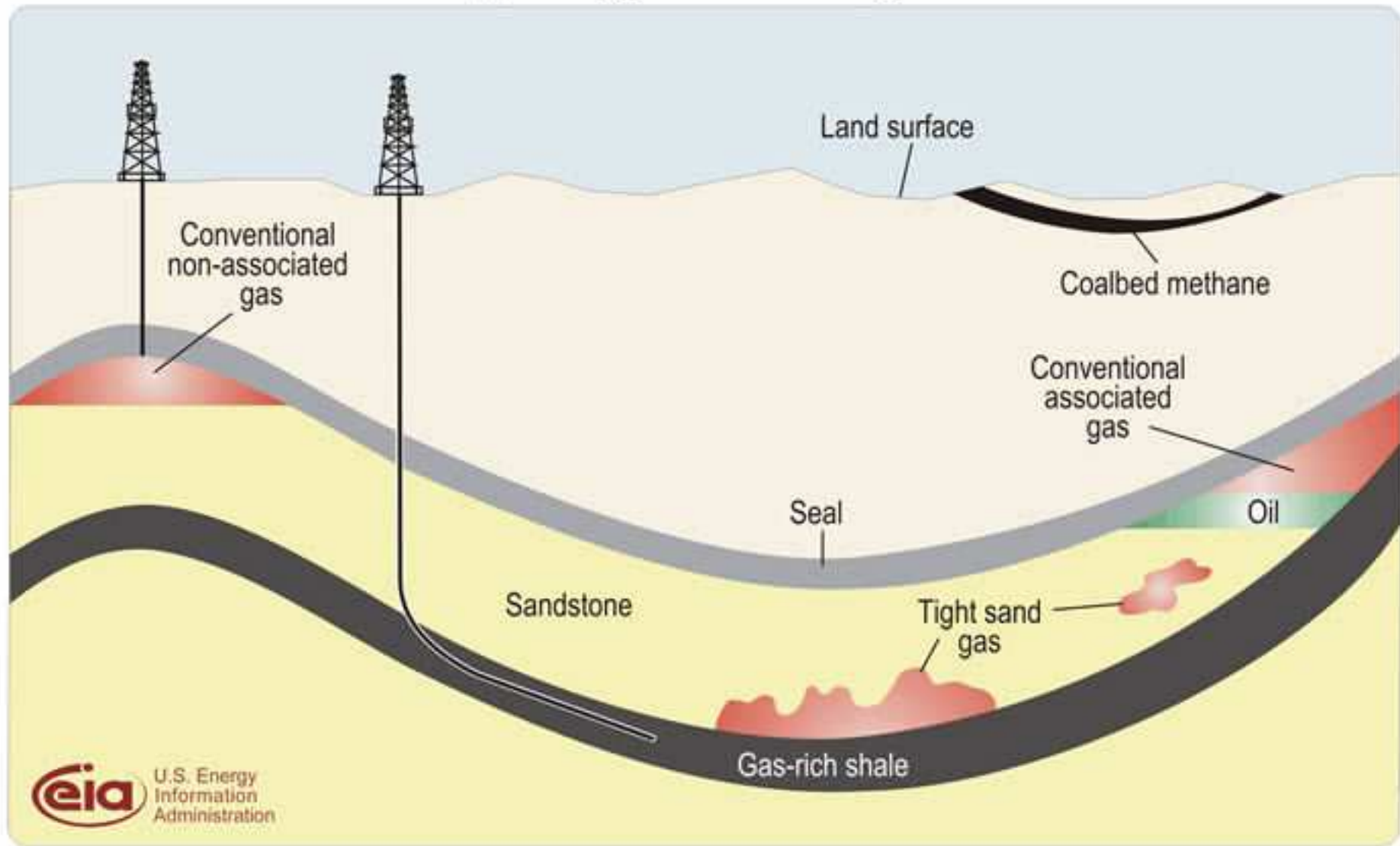
A presentation by  
Simon Tytherleigh

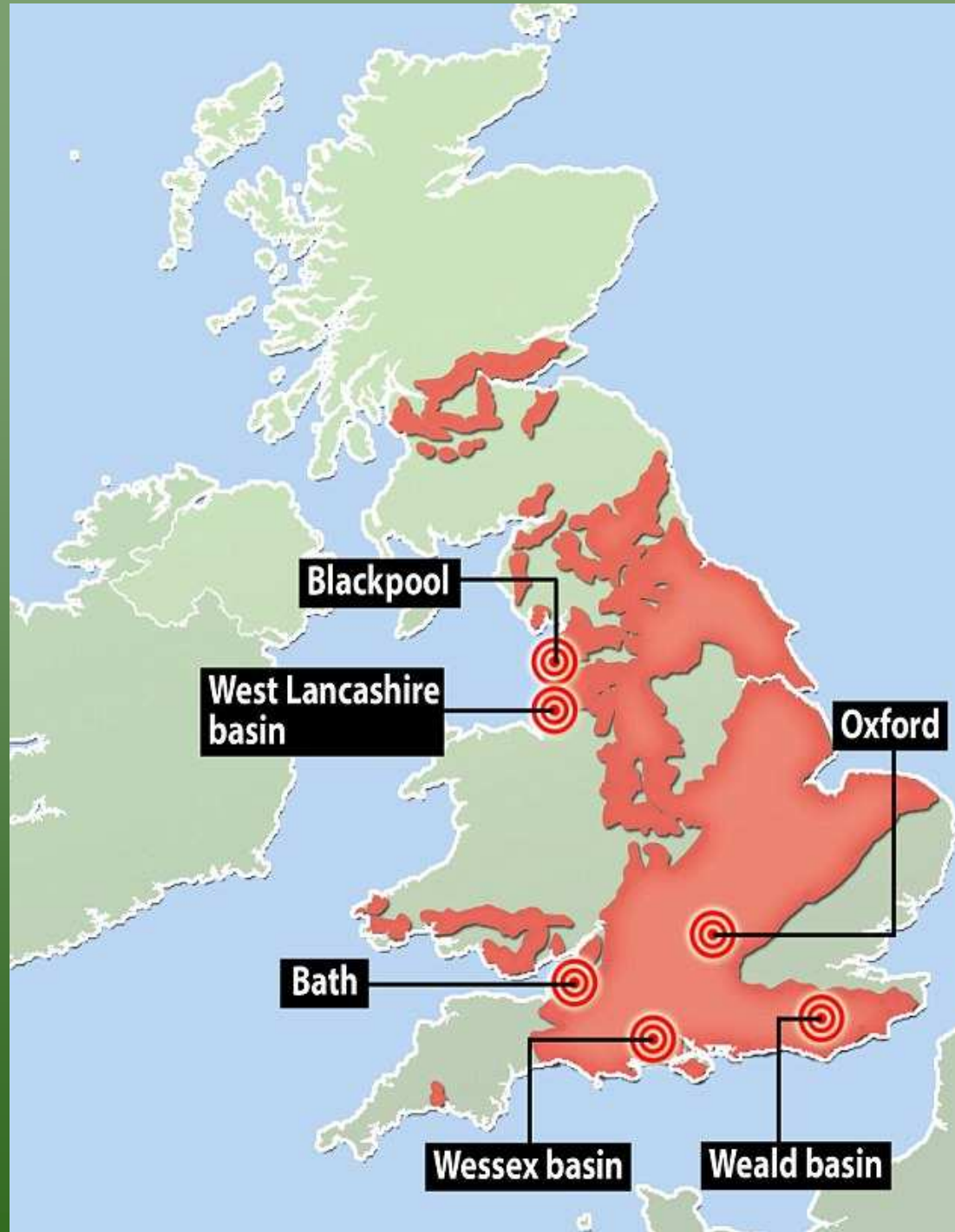
Sustainable Bradninch

## Value (Cost) of UK Fossil Fuel Exports (Imports)



# Schematic geology of natural gas resources





# DECC/BGS shale gas studies (other areas not yet studied are also prospective for shale gas)

□ Onshore petroleum exploration and development licences (as of April 2013)

## Bowland-Hodder Shale study area

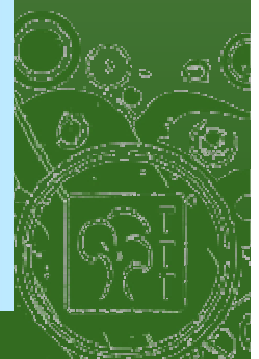
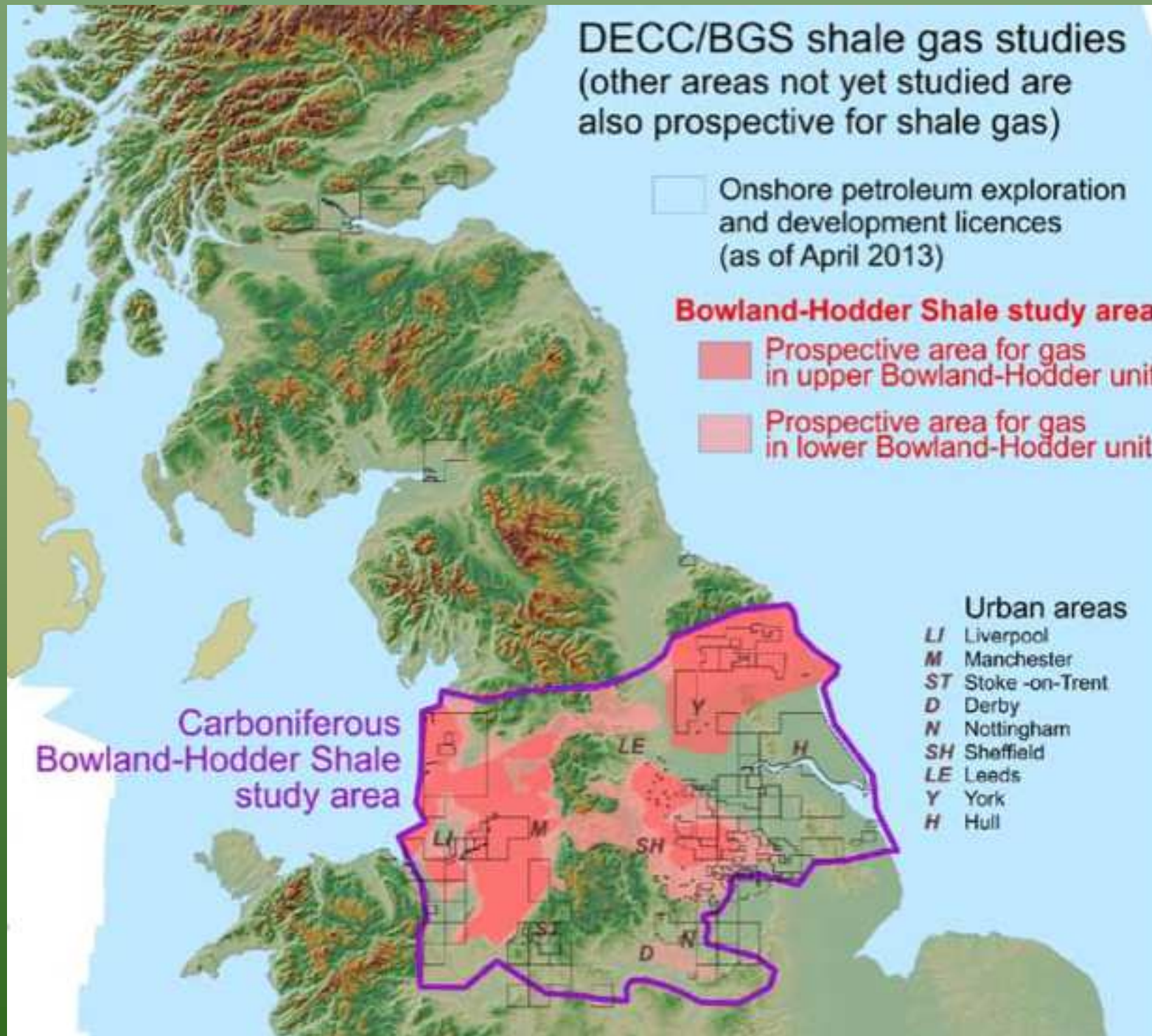
■ Prospective area for gas in upper Bowland-Hodder unit

■ Prospective area for gas in lower Bowland-Hodder unit

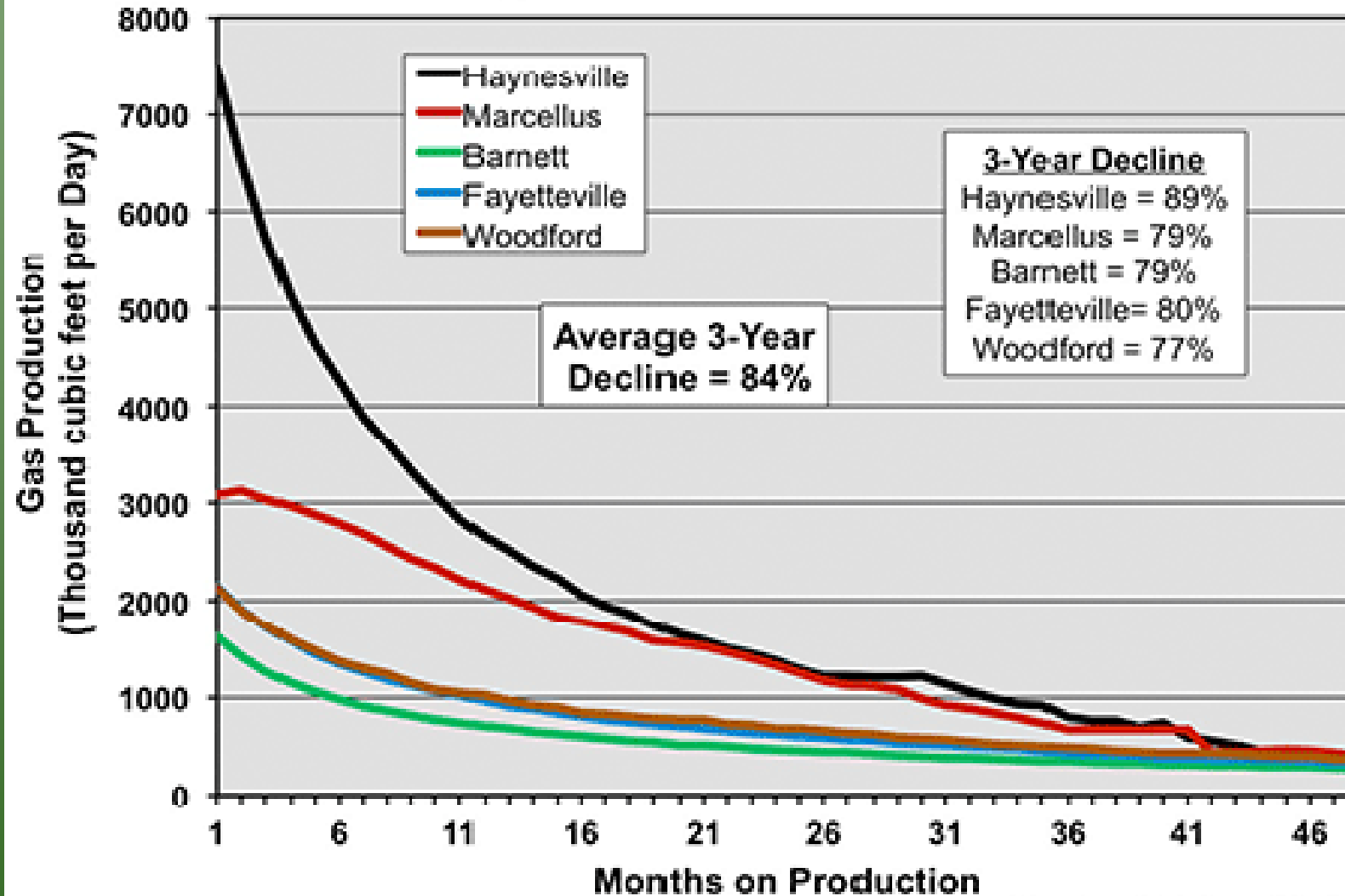
## Urban areas

- LI* Liverpool
- M* Manchester
- ST* Stoke -on-Trent
- D* Derby
- N* Nottingham
- SH* Sheffield
- LE* Leeds
- Y* York
- H* Hull

Carboniferous  
Bowland-Hodder Shale  
study area



# Type Gas Well Decline Curves for Top Five Shale Gas Plays Constituting 80% of Shale Gas Production

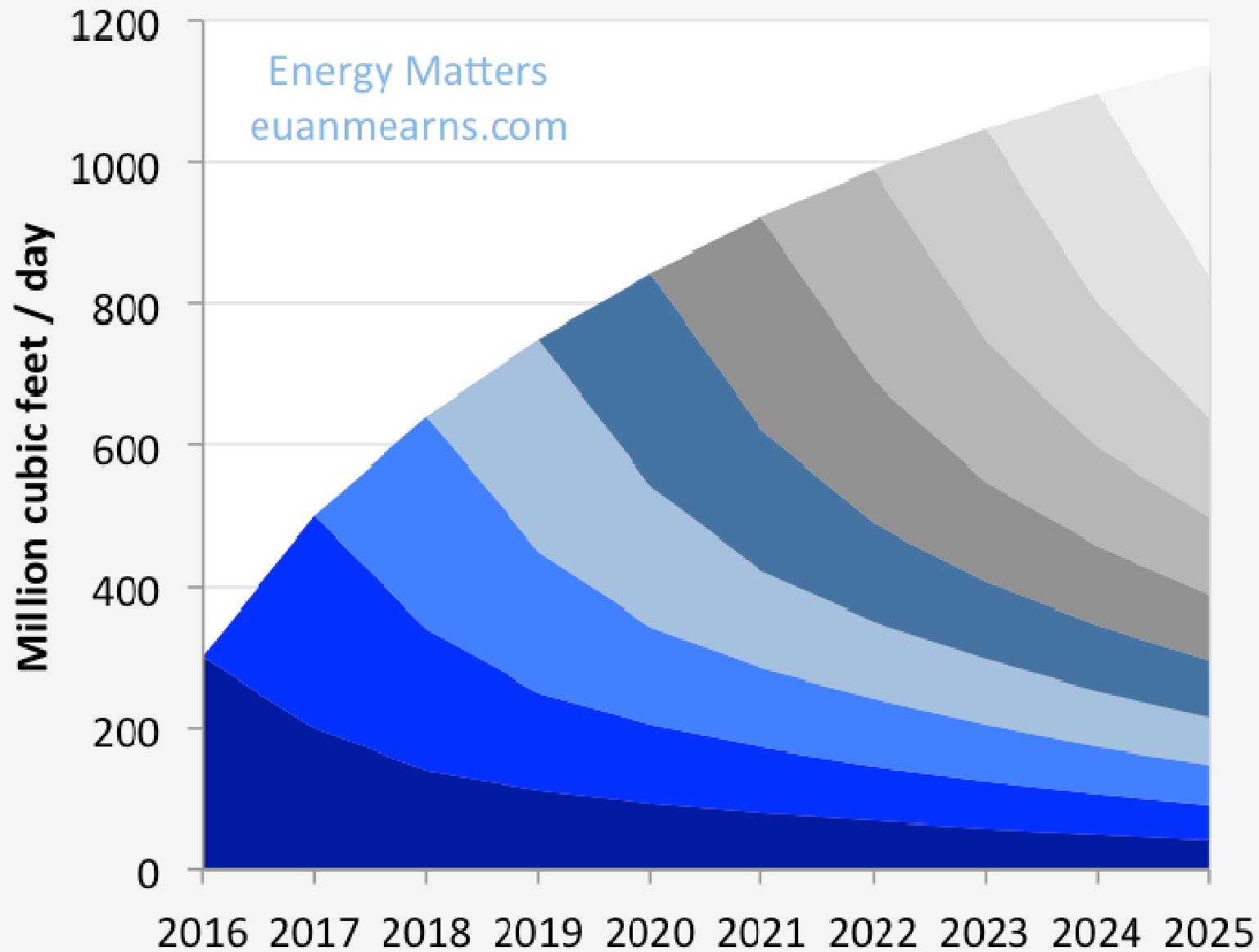


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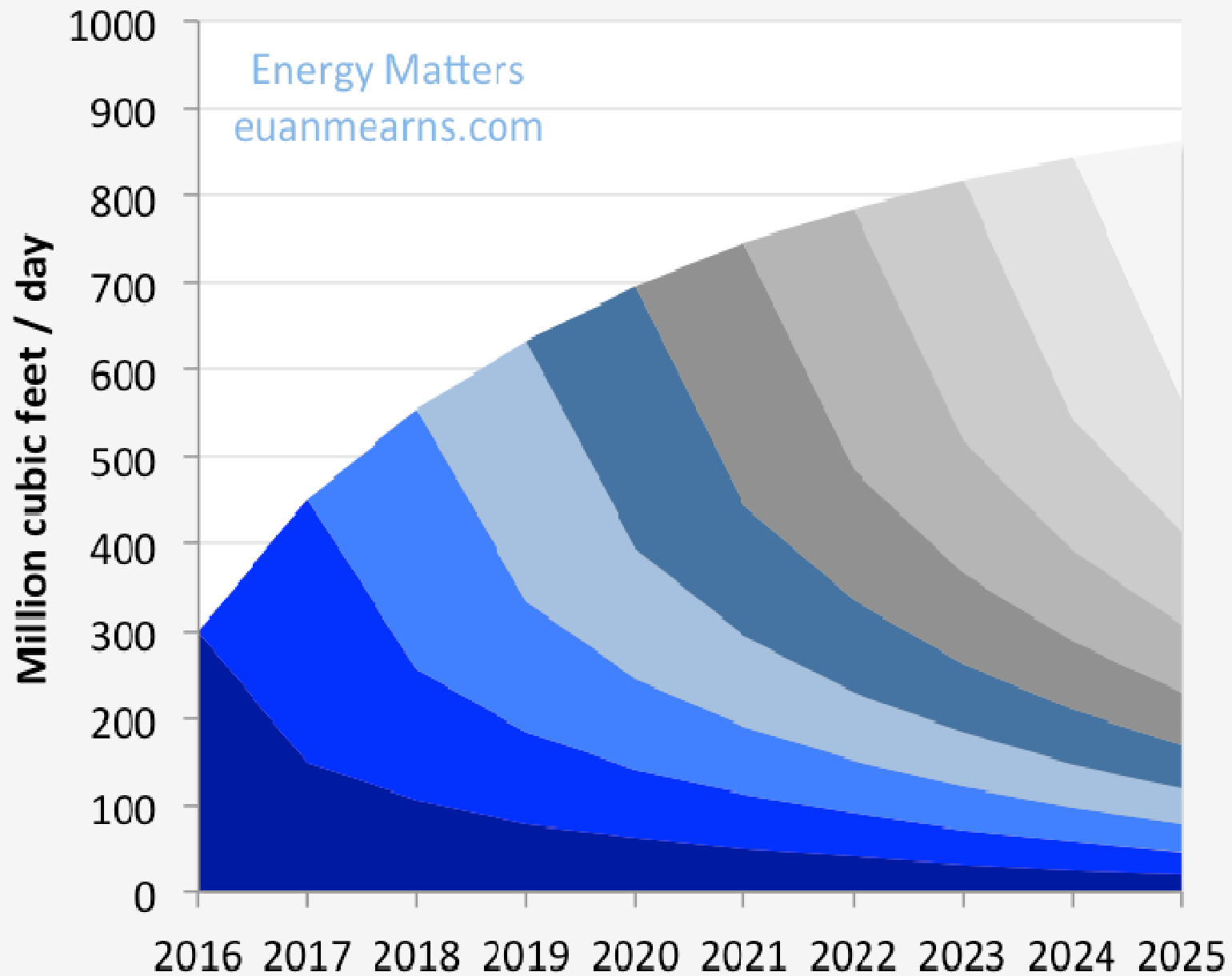
(data from DrillingInfo/HPDI, March, 2013)



# UK shale gas model, 100 wells / year

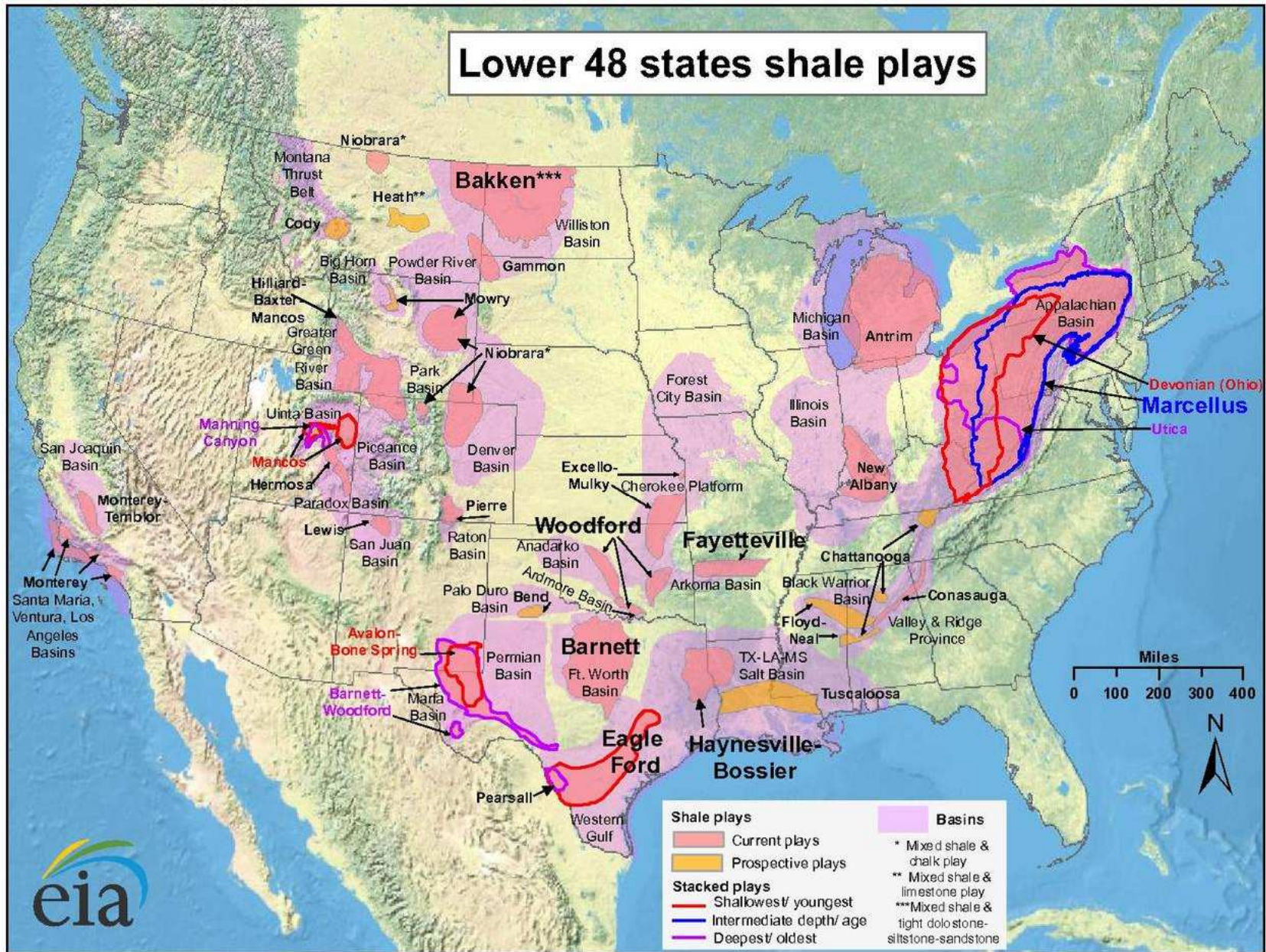


## UK alternative shale gas model, 300 wells / year





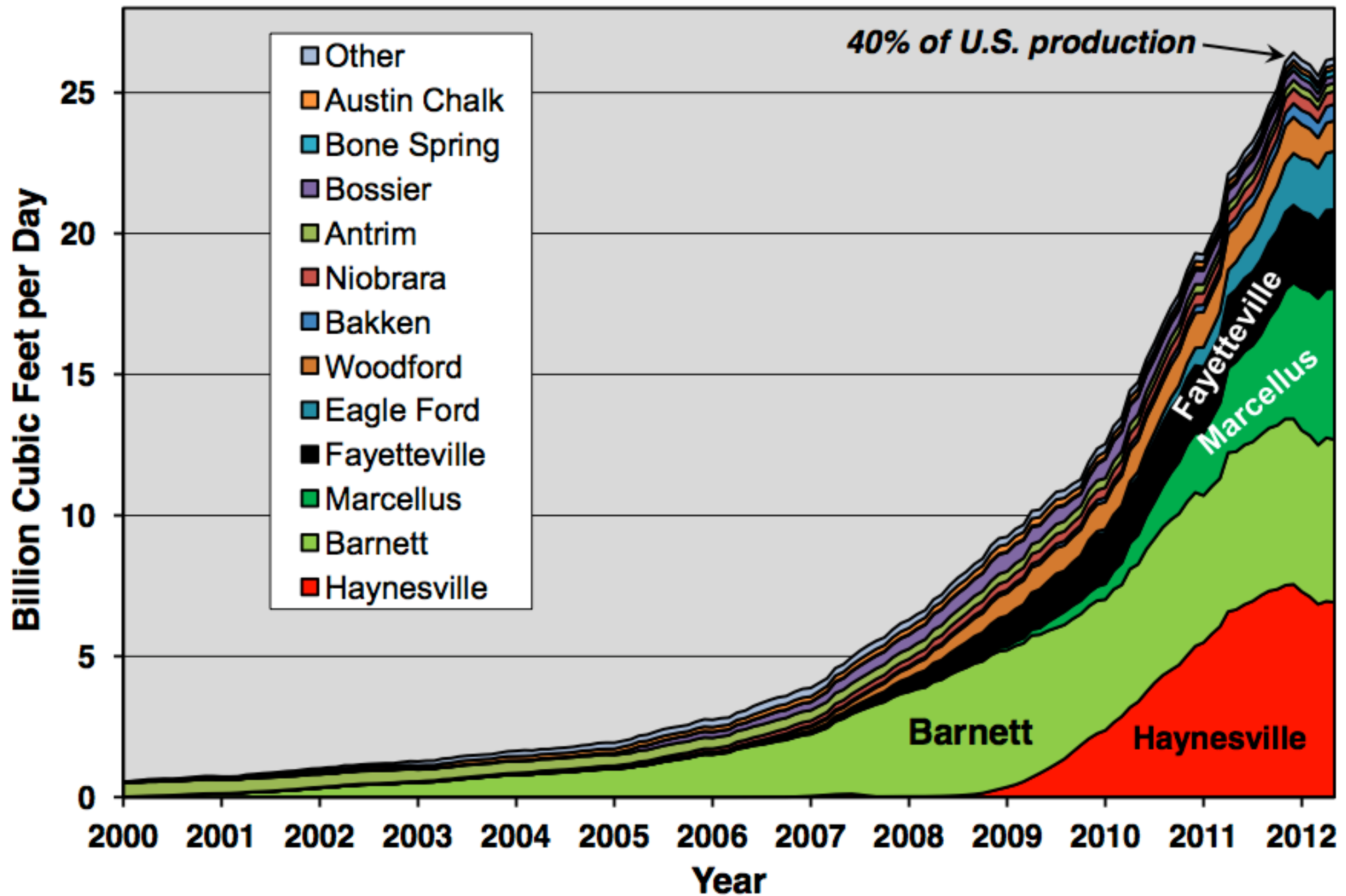
# Lower 48 states shale plays



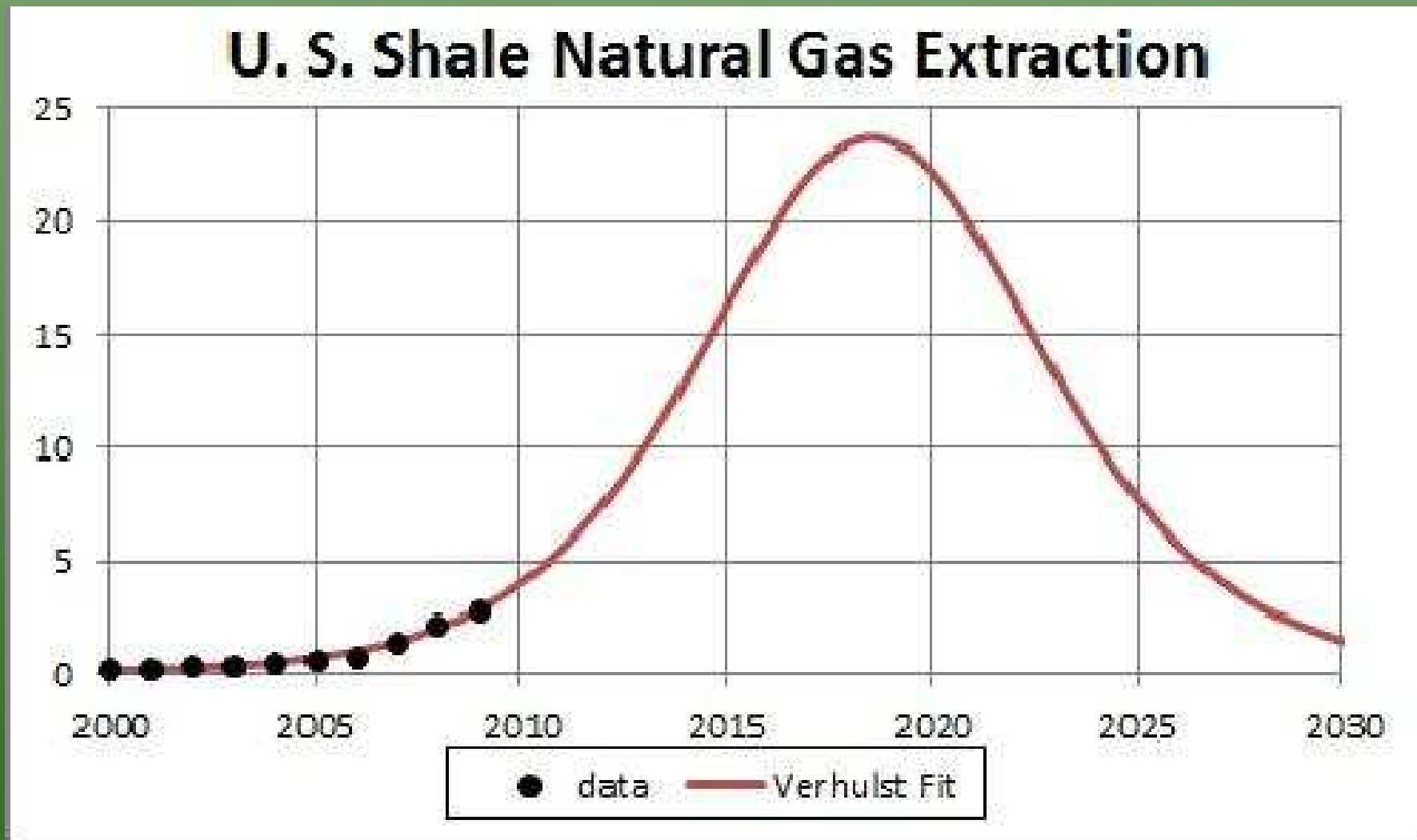
Source: Energy Information Administration based on data from various published studies.  
Updated: May 9, 2011



# U.S. Shale Gas Production by Play, 2000-2012



# How soon might it be over?



# Banks Test site in the Fylde



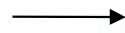


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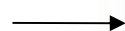
# Global Carbon Budget = 1 trT

50% chance of stopping runaway climate change



2040

75% chance of stopping runaway climate change



2025

Well over half full today.

Starting in 1750



## How much of our fossil fuel reserves can we use?

CO2 in reserves (billion tonnes)



Source: Carbon Tracker Initiative



