

Future Gas Value Chain

Dutch perspective
IEA GOT IA

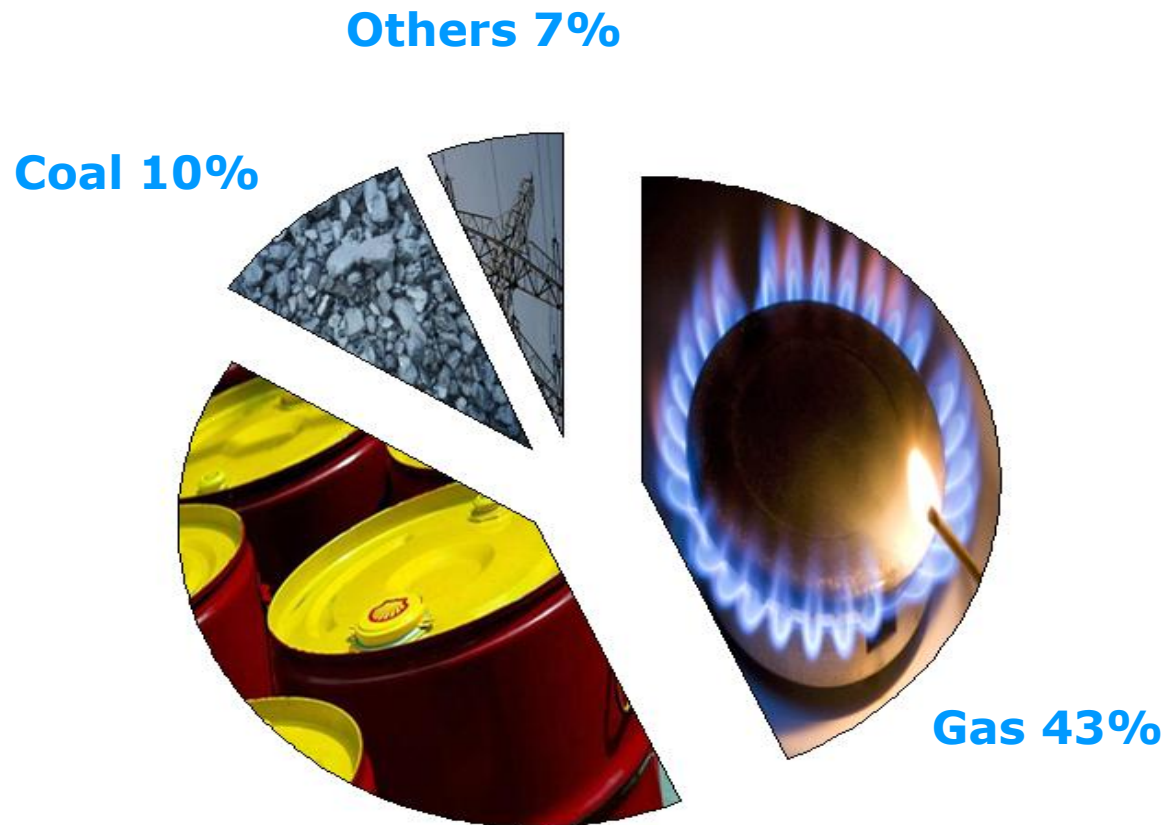
Florence, Italy

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Ministry of Economic Affairs

The Netherlands: Large gas producer in the EU



2012

Production

80,6 bcm (on-shore 57,1)

Import

18,9 bcm

Domestic consumption

40,5 bcm

Export

57,2 bcm

Germany, Belgium, Italy, France
(and the UK)

Economical benefits



but dependancy

11 mld euro revenues

Around 60 % of electricity generated from natural gas

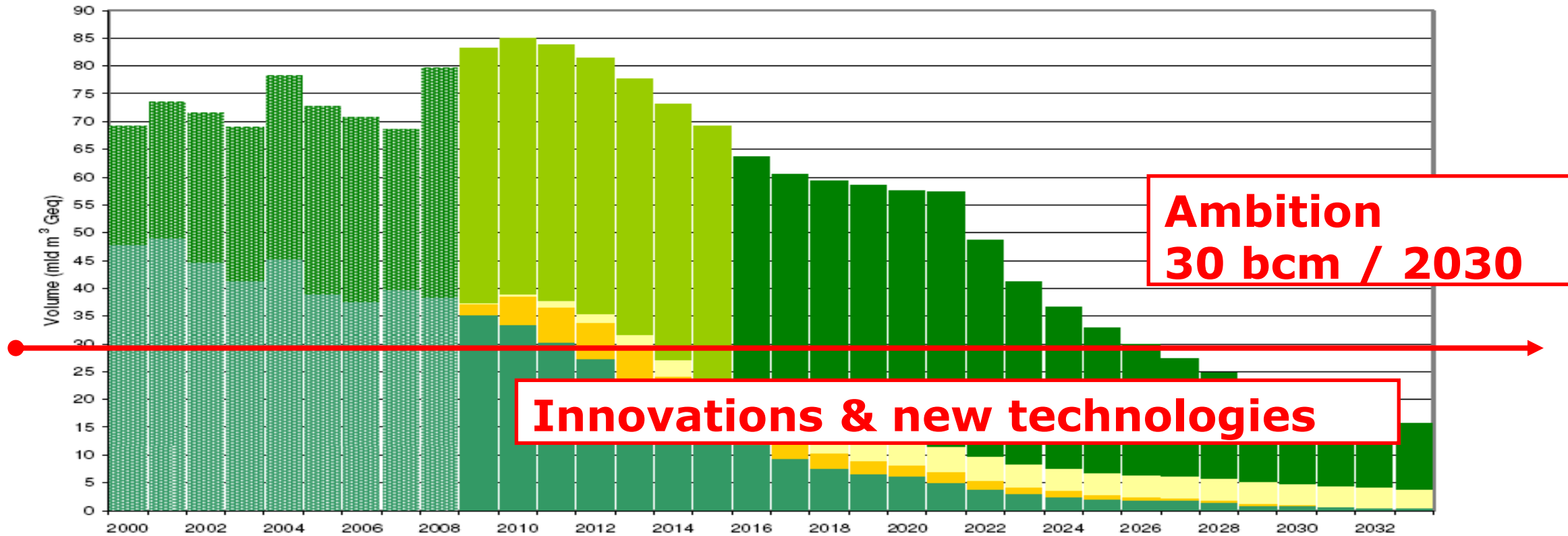
Large part of chemical industry depending on gas

A large part of the agricultural sector

97% of the households are connected

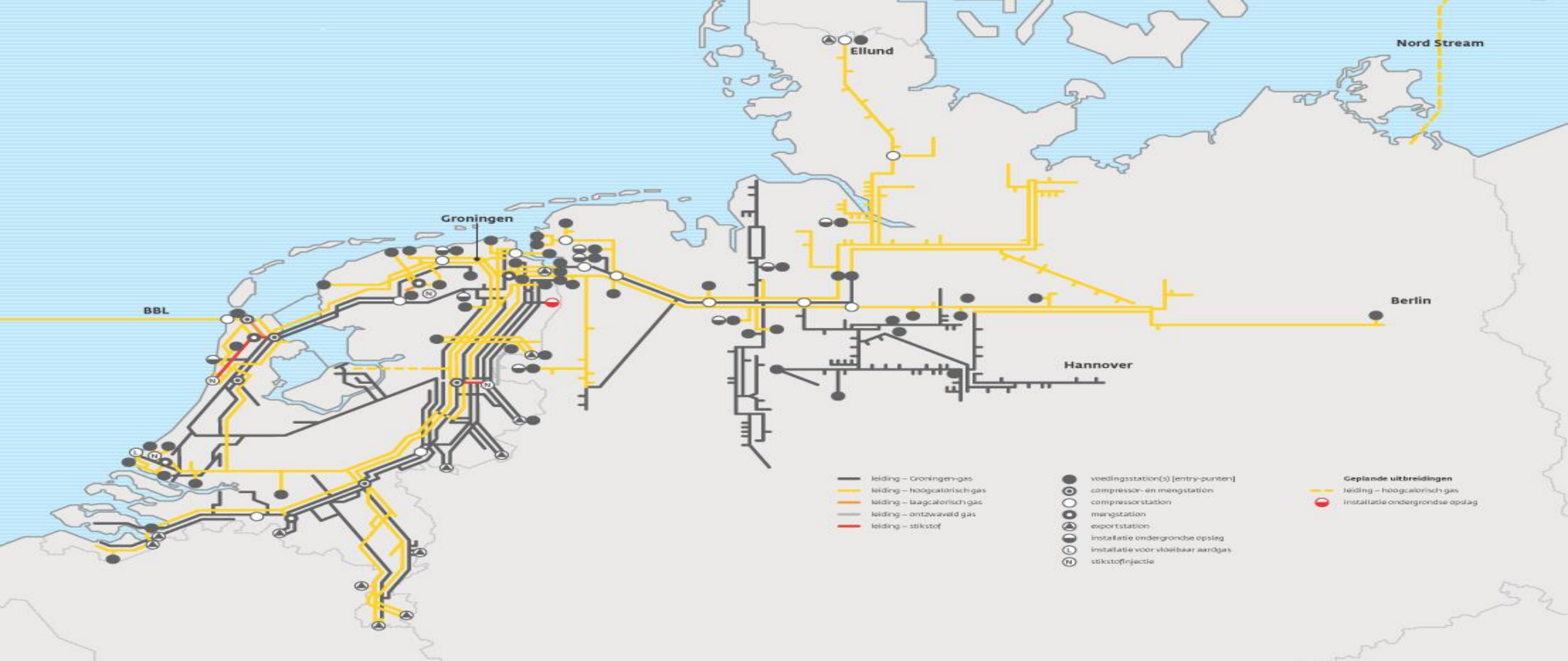
Declining production

Gas production & estimated production (2030)



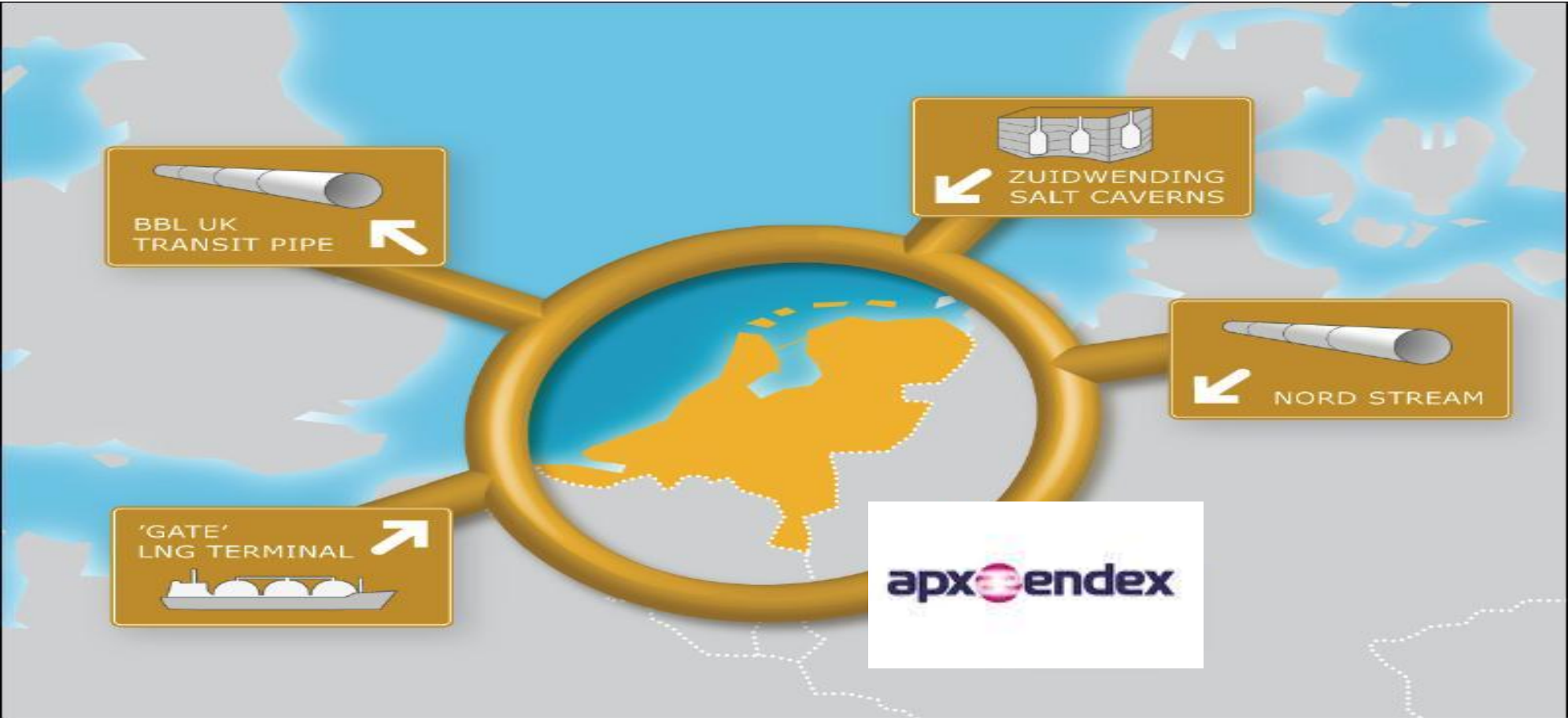
Domestic demand in 2030: around 40-50 bcm

Sophisticated Gas Transport Grid: High and low calorific



Connecting Northwestern Europe

Gas Hub strategy: invest to secure supply



Four challenges: key word is flexibility

1. Societal support for natural gas has dropped. A new view on natural gas is needed. All natural gas solutions are regarded as delaying transition towards sustainable.
 - Show the benefits for the economy
 - Make it greener, and closer to our homes (decentralised production)
 - Educate about energy figures
 - Offer solutions: balancing function in the energysystem, energy storage, combine with other energyinfrastructures, energy transport.
2. How can we earn as much as possible with our natural resources?
 - maintain level of natural gas production by innovation and new technologies
 - new conventional and possibly unconventional sources

Four challenges

3. How to benefit the most from extensive infrastructure? Keep using it.

- trade hub: import and export of gas

- more flexibility in the system allowing for more sustainable gasses to be produced, transported and used (biogas, hydrogen)

- more flexibility at the end user appliances, or composition changing technologies within the grid

4. How can we make it greener ? Decarbonise the gas system.

- biogas and hydrogen production

- new business models are needed