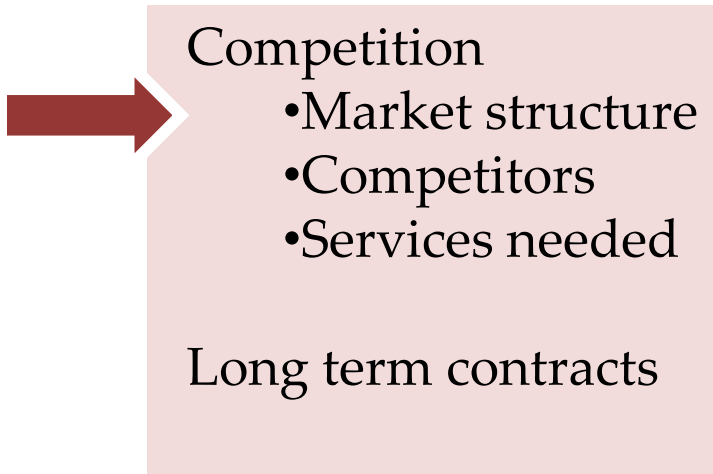


Market design in gas markets Competition

Jan-Peter Heida

Bucharest, April 9, 2008

Gas market



Gas transport in the Netherlands

Facts (2005):

Overall

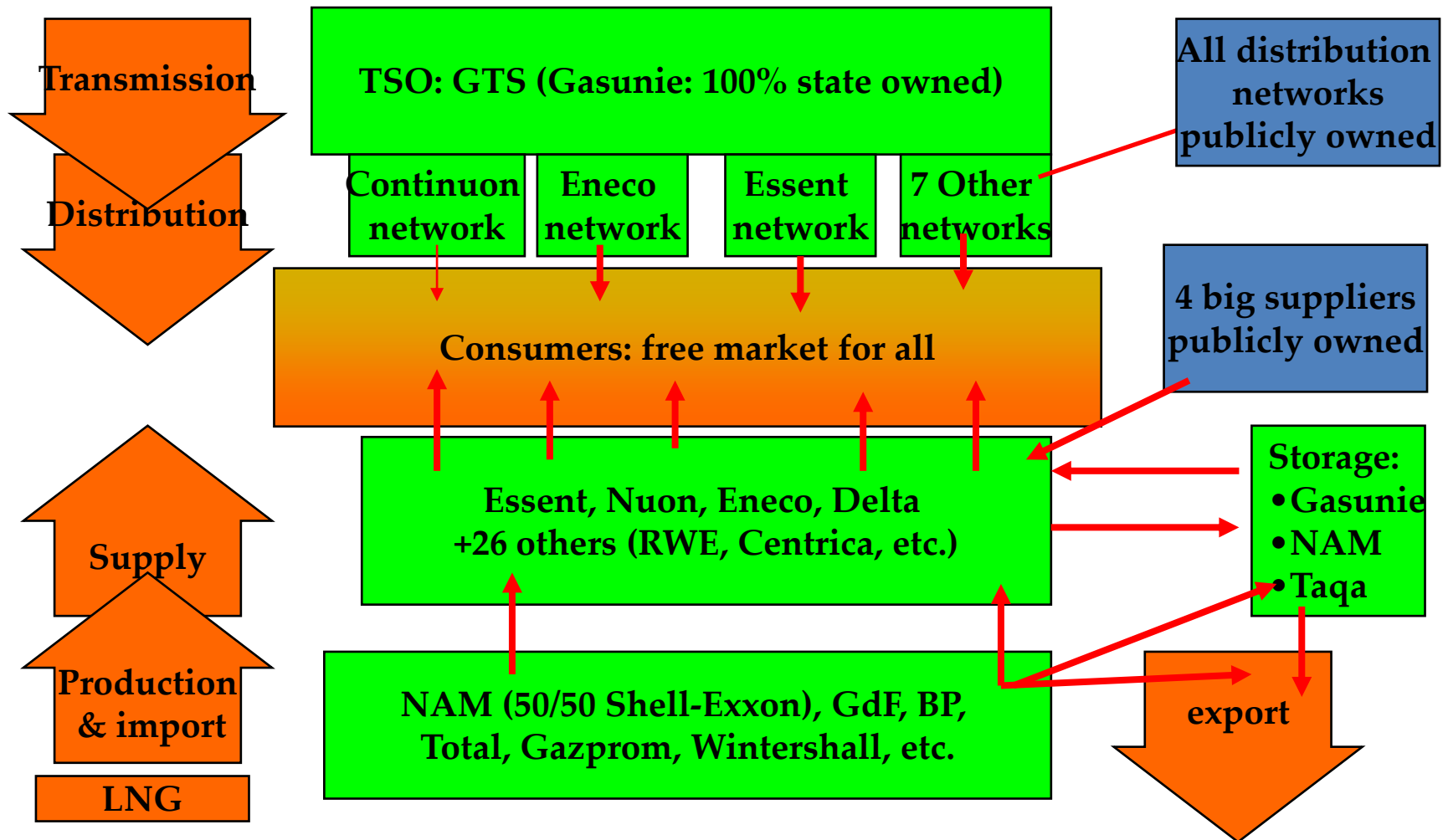
- Network 134.000 km
- Consumption 47 BCM
- Production 71 BCM
- Regulated B€ 2,1

Transmission

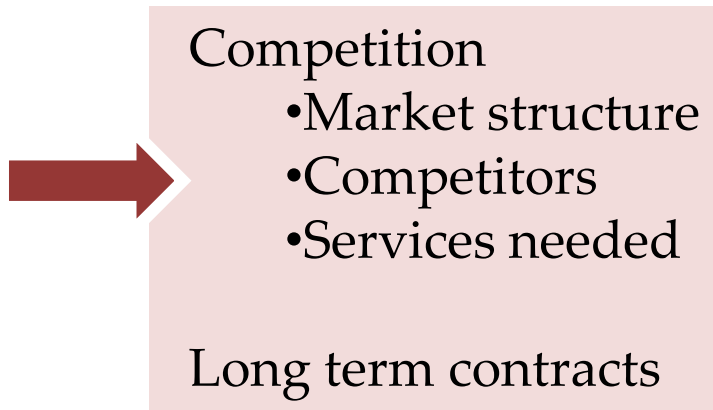
- Volume 85 BCM/yr
- 1100 Exit points, 50 entry points
- Entry:
 - 60% small fields,
 - 30% Groningen,
 - 10% import
- Exit
 - 55% export
 - 45% home market



Gas market structure in the Netherlands



Gas market



Who is active in which part of the value chain?

Producers / importers / international shippers

Production

- NAM
- Gaz de France
- Total
- ...

Import / transit

- GasTerra
- Essent
- Statoil
- ...

Shippers / traders / operators

Shippers

- GasTerra
- Essent
- Statoil
- Nuon
- Electrabel

Trade

- Traders (banks)

Storage

- D-Gas

Suppliers / end consumers

Suppliers

- Essent
- Nuon
- Oxxio
- ...

Industrial customers

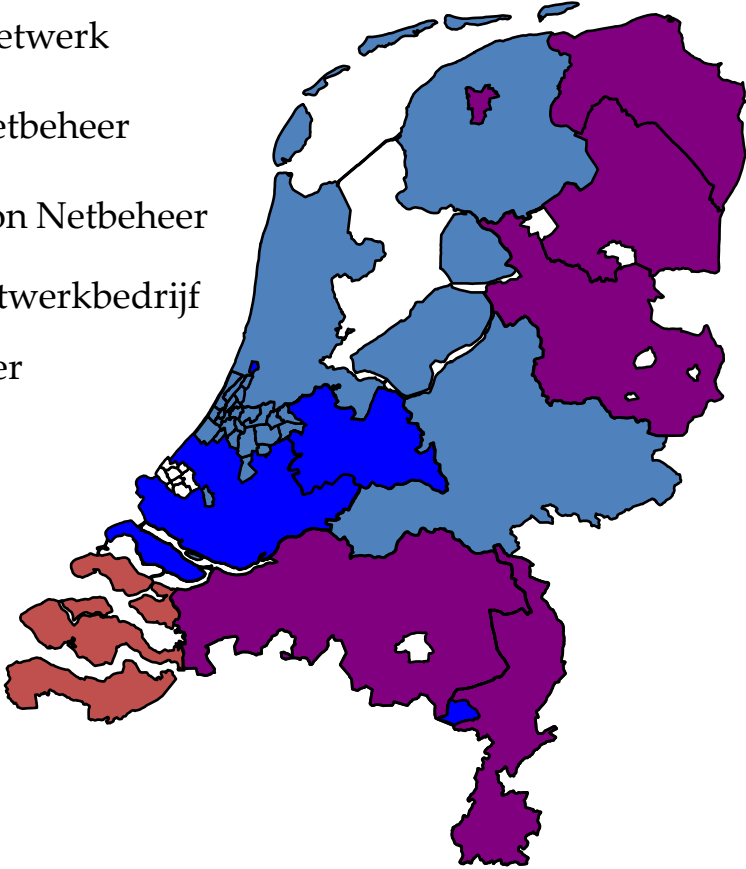
- Electricity producers (Electrabel, Essent, Nuon, E.ON)
- DSM
- Corus
- Export customers

Regional gas networks in the Netherlands

Large companies

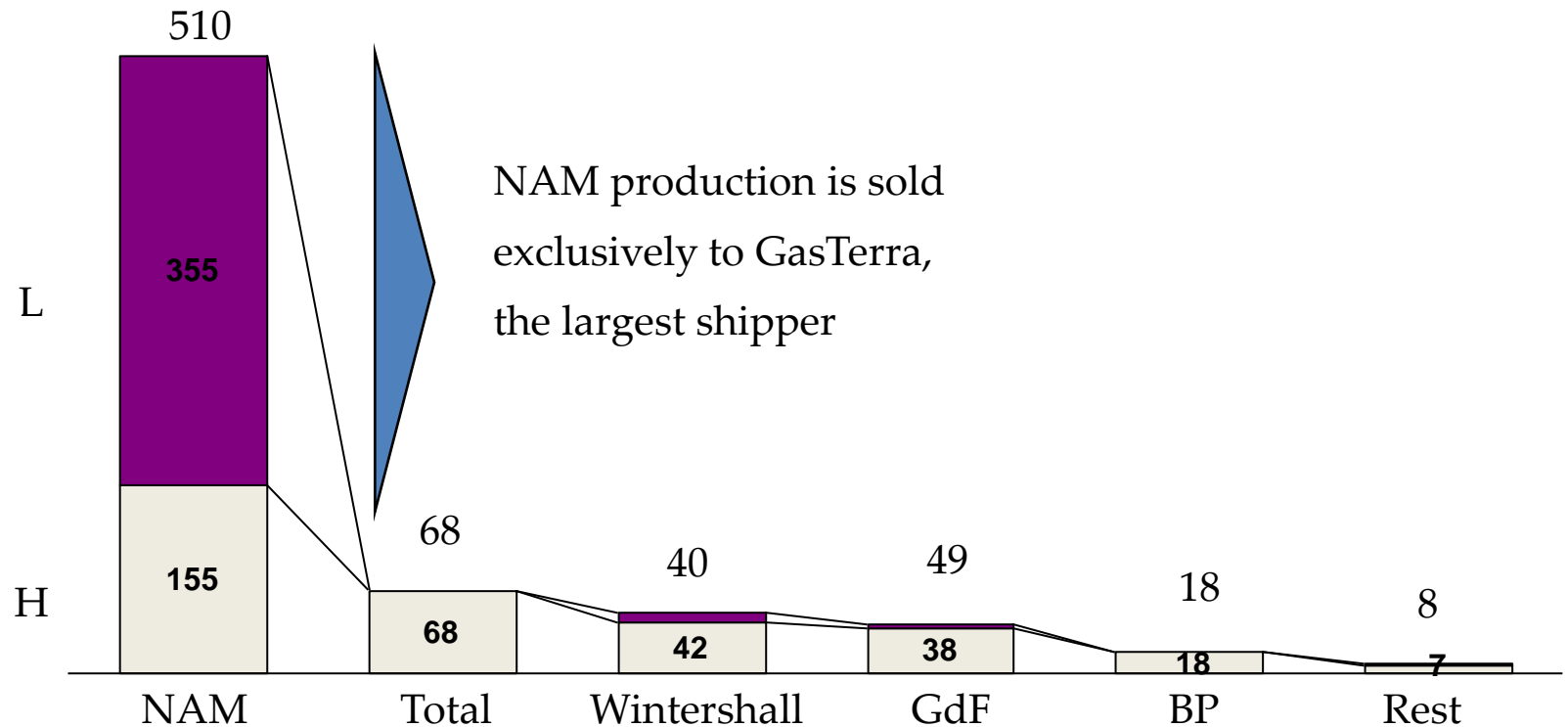
- Essent Netwerk
- Eneco Netbeheer
- Continuon Netbeheer
- Delta Netwerkbedrijf

And 8 smaller companies

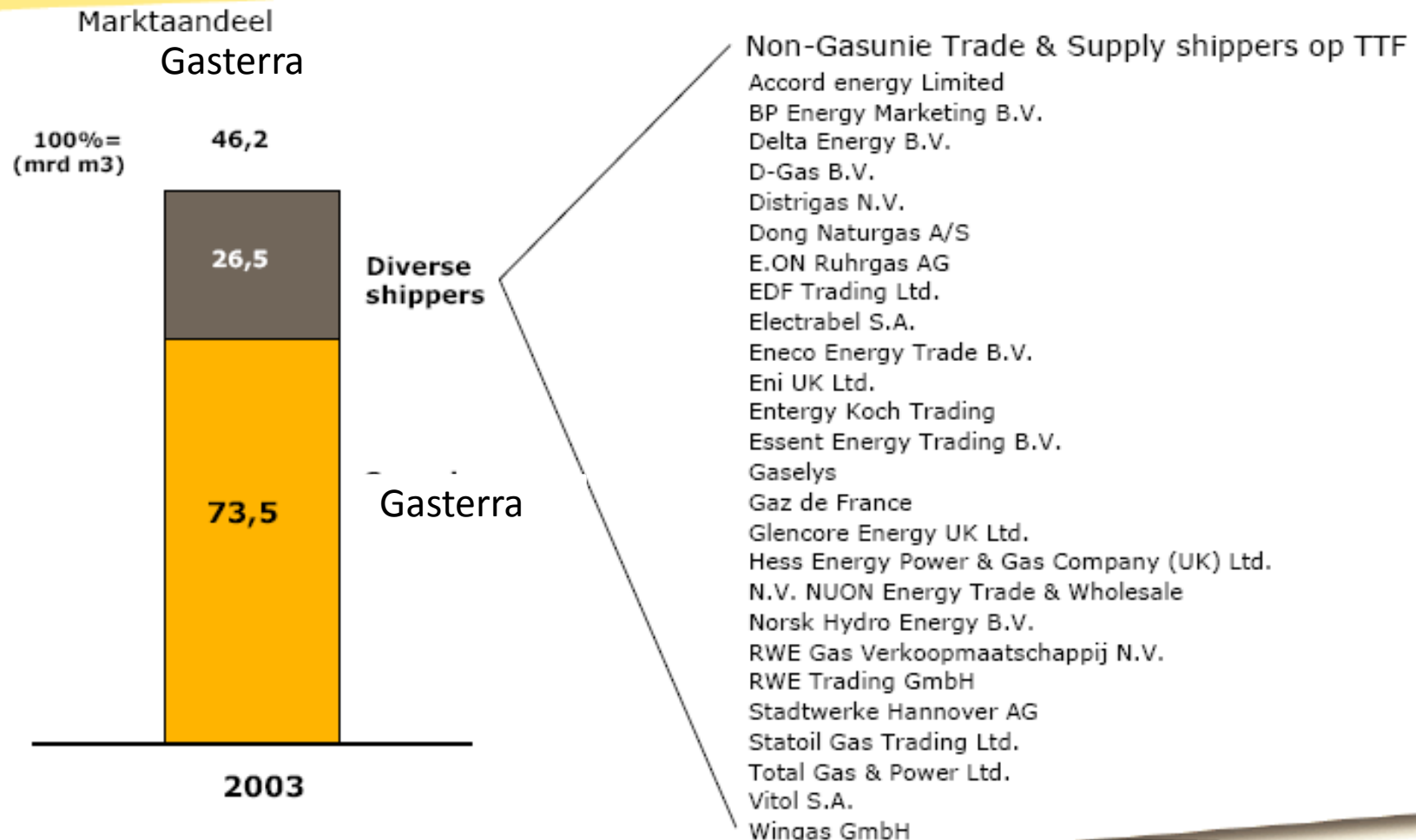


The Netherlands has ownership unbundling of gas-TSO

Gas production the Netherlands



GTS' mother also owns Gas Terra which has almost $\frac{3}{4}$ of the shipping market



Gas market



Services required for competition on gas market – the Dutch experience

From

To

Market place

Balancing

Quality
conversion

Flexibility

Types of
contract

Services required for competition on gas market – the Dutch experience

From

To

Point to point

Entry/Exit system

Market place

Balancing

Quality conversion

Flexibility

Types of contract

Trade:

- Bilateral - Gas Receiving Station
- Market place - Title Transfer Facility (TTF)
- Eurohub

Need for improvements

- Growth of trade over TTF (now 10%)
- More information for shippers
- Investments in import capacity, LNG terminals
- Bi-directional interconnection

Services required for competition on gas market – the Dutch experience

From

To

Market

High costs, focussed on not getting technical problems

Link to cost - causation

Balancing

Quality conversion

Flexibility

Types of contract

Towards electricity balancing market approach

- Netting imbalances
- Reward for removing imbalance problems
- Market based approach
- More information

Services required for competition on gas market – the Dutch experience

From

To

Market

Limited available capacity
that needs to be contracted in
advance

Automatic available capacity

Balancing

Quality
conversion

Typically Dutch problem

Low calorific gas from Groningen

High calorific gas from import, North Sea

Flexibility

Types of
contract

Services required for competition on gas market – the Dutch experience

From

To

Dominated by GasTerra

Availability

Market

Balancing

Quality
conversion

Flexibility

Types of
contract

Availability of flexibility on TTF
Regulation of capacity (storage/Groningen) ?
Storage capacity
Import/export (use it)

Services required for competition on gas market – the Dutch experience

	From	To
Market	Mainly bilateral	Mix of bilateral and marketplace

Balancing

Quality conversion

Flexibility


- More volume over TTF for stability
- More standardised contracts
- Development of financial services (futures)
- Longer term contracts

Types of contract

Gas market

Competition

- Market structure
- Competitors
- Services needed



Long term contracts

Signals for investments

- Pipes
 - LNG terminals
 - Storage
 - Import capacity
- (GTS uses 'open season')

The end

- Thank you for your attention
- Feel free to ask questions; now or later

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