

# Fresh chains in a changing world: the onion case

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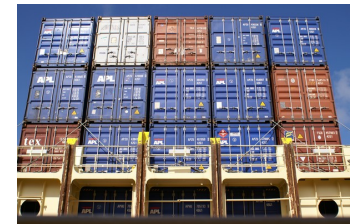
# Supply chains in a global context

Transport becomes cheaper and better:

- Global logistics networks
- Multinational players in trade and retail
- Increase-of-scale in production
- Containerisation
- Increasing consumer demands

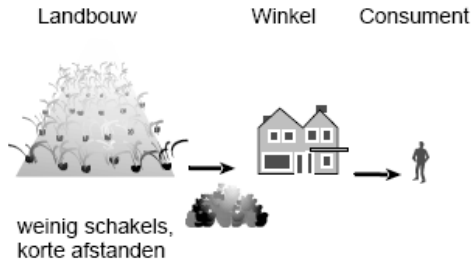
But it has its downside:

- Congestion
- CO<sub>2</sub>-emission and climate change
- Dependency on fossil fuels
- Scarcity of space
- Air quality, Noise, Safety



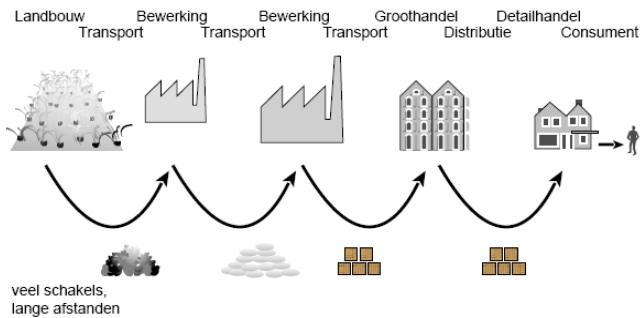
# Complexity of chains increases:

Past:



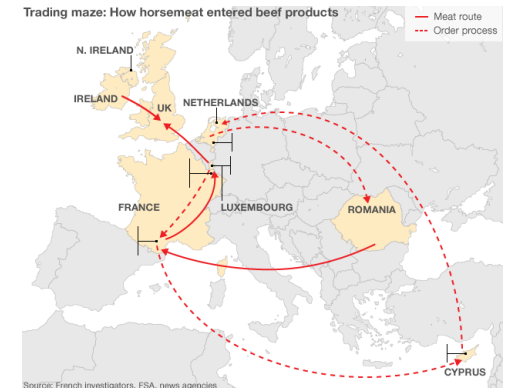
Few links  
Short distances

Present:



Many links  
Long distances

# Transparency of chains decreases:



# The onion case

- Part of a national study on the relation between the Greenports and the mainports of Schiphol and Rotterdam
- 1,1 million tonnes export of onions, to West Africa, Asia and Eastern Europe. Export growth is 173% in 10 years.
- Containerisation 80% and still increasing
- The reefer flows to and from Rotterdam enable worldwide export of onions. No great investments needed, worldwide networks seek balance.
- Increase of scale in trade and processing: exporter as link in the chain disappears: more ease in the chain
- Province of Zeeland no longer the only centre for processing

## Export of onions

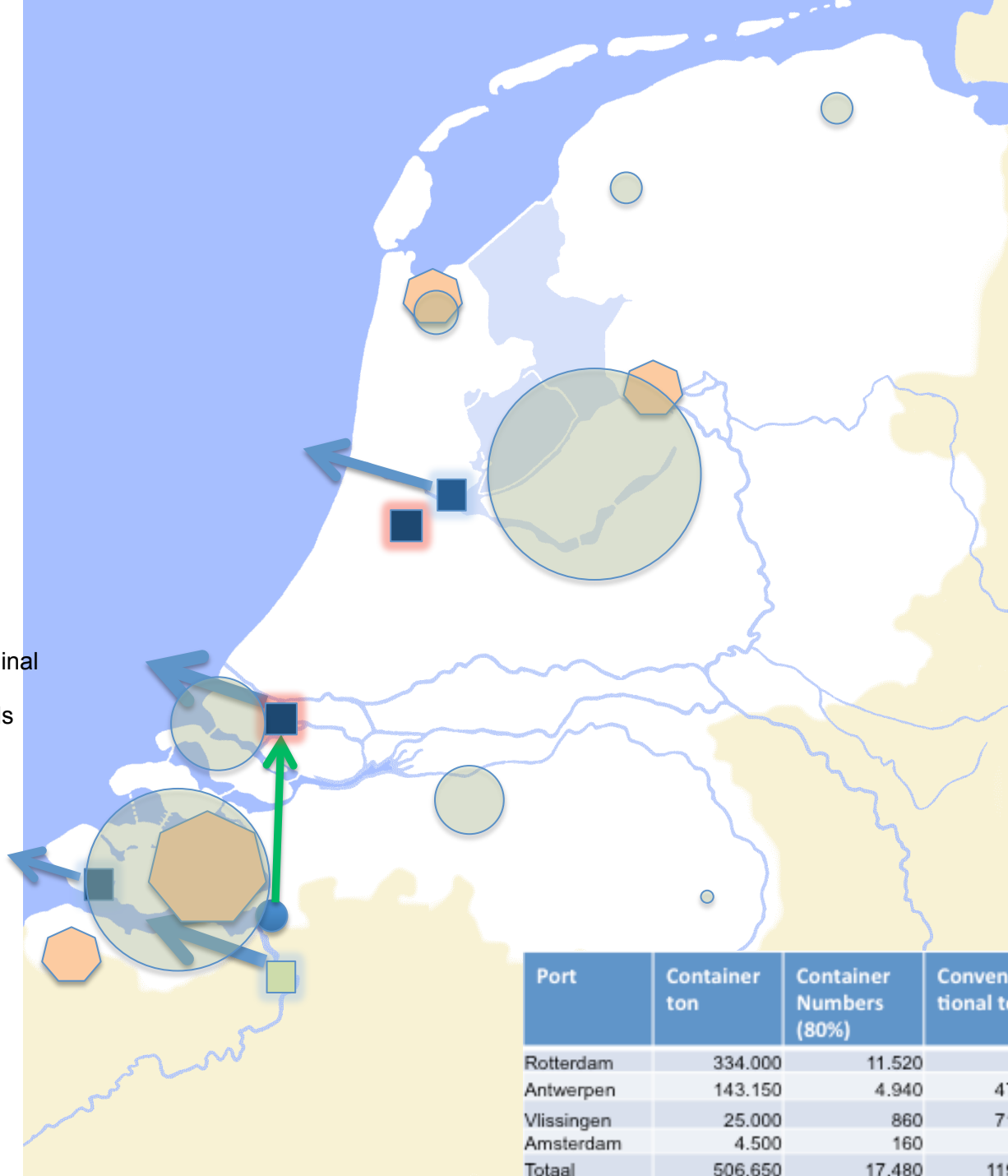
COUNTRY	2000 ton	2000 % world	2011 ton	2011 % world	Δ ton in %
1. United Kingdom	75.042	12%	254.482	16%	239%
2. Belgium	34.731	5%	214.200	13%	517%
3. Germany	87.050	14%	209.365	13%	141%
4. Senegal	48.385	8%	139.974	9%	189%
5. Russia	84.802	13%	96.808	6%	14%
6. Cote d'Ivoire	17.009	3%	66.187	4%	289%
7. Poland	14.987	2%	60.500	4%	304%
8. France	39.117	6%	55.838	3%	43%
9. Malaysia	20.796	3%	42.193	3%	103%
10. Czech Republic	9.201	1%	38.395	2%	317%
<b>Total top-10</b>	<b>431.085</b>	<b>68%</b>	<b>1.177.944</b>	<b>72%</b>	<b>173%</b>

# Onions

## Deep-/shortsea

### Present situation

-  Production areas
-  Processing (trade, packaging)
-  Main ports
-  Other Dutch ports
-  Port of Antwerp
  
-  Inland navigation terminal
-  Potential new terminals
  
-  Shortsea/deepsea
-  Inland navigation



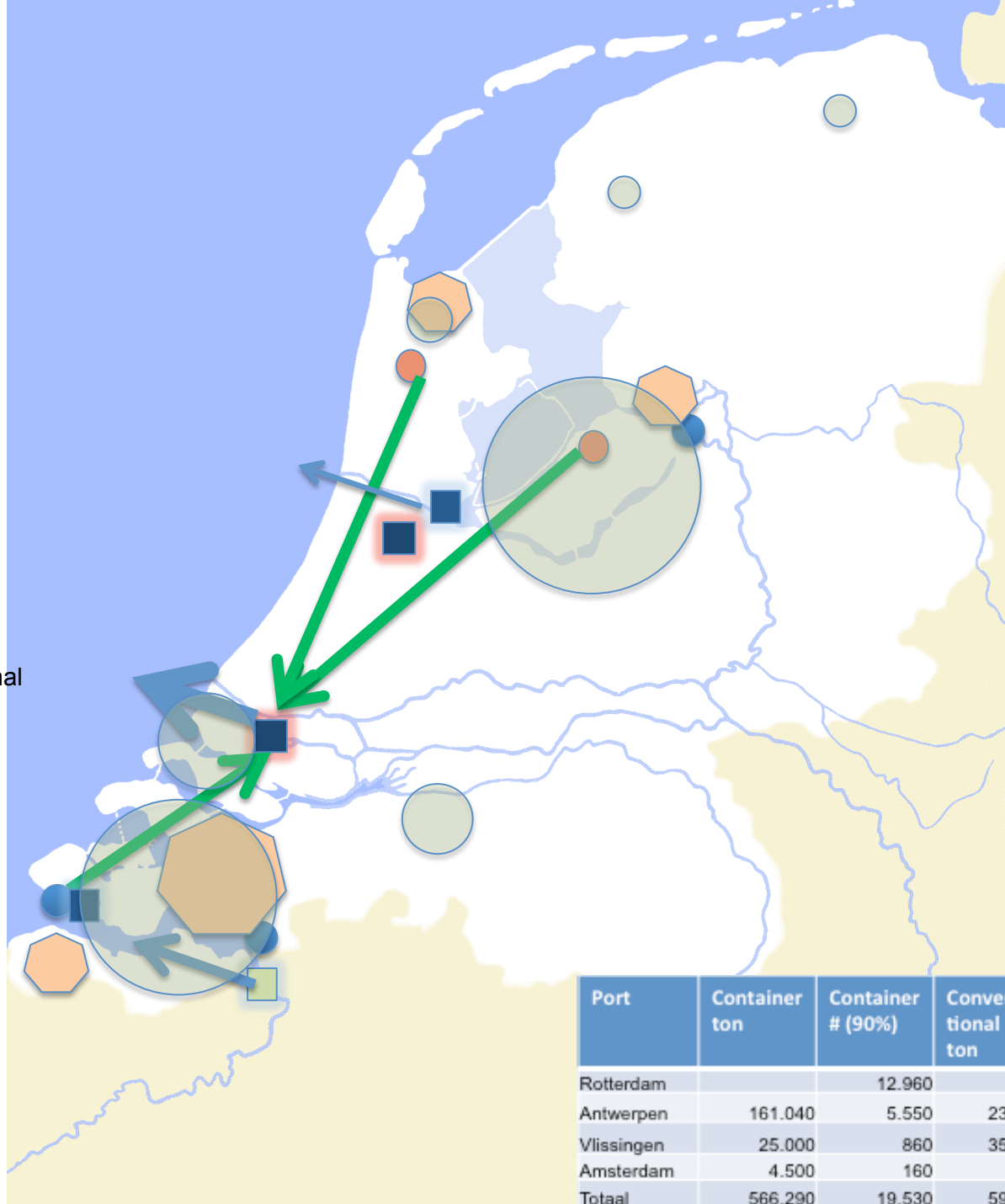
Port	Container ton	Container Numbers (80%)	Conventional ton	Total ton	%
Rotterdam	334.000	11.520	0	334.000	53
Antwerpen	143.150	4.940	47.720	190.870	30
Vlissingen	25.000	860	71.570	96.570	15
Amsterdam	4.500	160	0	4.500	1
Totaal	506.650	17.480	119.290	625.940	100

# Onions

## Deep-/shortsea

## Future situation

-  Production areas
-  Processing (trade, packaging)
-  Main ports
-  Other Dutch ports
-  Port of Antwerp
-  Inland navigation terminal
-  Potential new terminals
-  Shortsea/deepsea
-  Inland navigation



Port	Container ton	Container # (90%)	Conventional ton	Total ton	%
Rotterdam		12.960	0	375.750	60
Antwerpen	161.040	5.550	23.860	184.900	30
Vlissingen	25.000	860	35.790	60.790	10
Amsterdam	4.500	160	0	4.500	1
Totaal	566.290	19.530	59.650	625.940	100

# Consequences

- Containerisation has led to a redirection of the export flows:
  - Processing in other regions
  - Modal shift to barge
  - Rotterdam increasingly important
- The supply chain becomes more relaxed, thanks to increase of scale and integration of chain functions
- Last-but-not-least: faster and more reliable transport, less loss of product in ports of disembarkment

