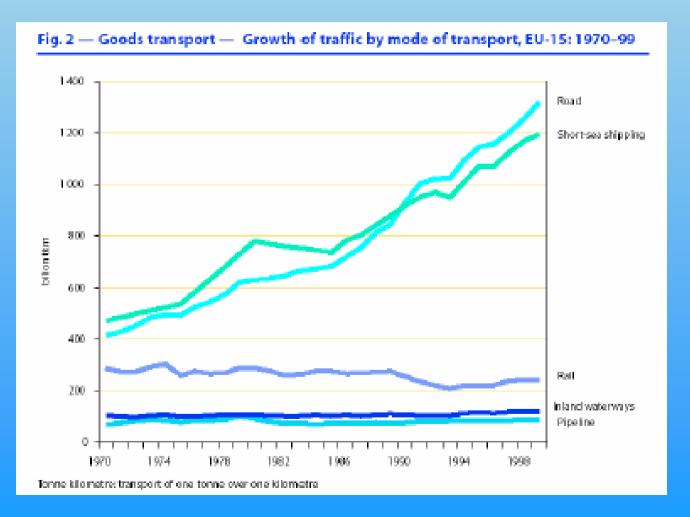


Triggering European Shortsea Fleet Renewal Opportunity for European Maritime Clusters

Prof.dr.ir. Niko Wijnolst Maritime Industries Forum Bremen, 26 January 2005

European transport production 1970-1999 shortsea 1200 billion tonne-km

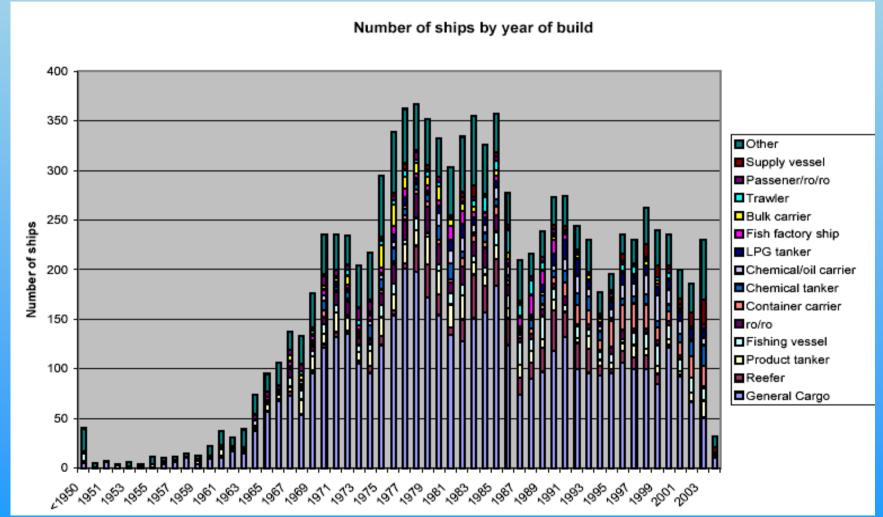


Structure of the European Shortsea fleet

- Based on Lloyd's Marine Intelligence Unit, data for the year 2003 (from Baltic Sea to the Black Sea)
- 10,000 ships between 500 and 10,000 GT
- 457,000 port calls in 2003
- 3,825 ships older than 25 years
- 2,110 older than 30 years
- 3,460 shipowners

European shortsea fleet by ship type

10,000 ships (500-10,000gt)



Shortsea fleet by major ship type

Ship type	Number
General Cargo	4.575
Reefer	534
Product tanker	499
Fishing	414
Ro/ro	359
Container carrier	339
Chemical tanker	305
Chemical/oil carrier	299
Lpg	240
Fish factory	202
Bulk carrier	194
Trawler	176
Passenger ro/ro	165
Supply vessel	152

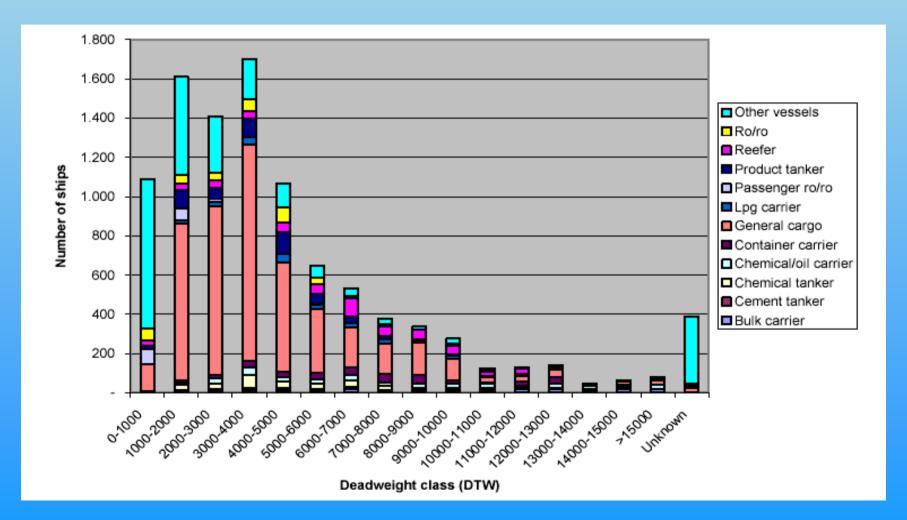
Major ship types in GT and DWT

Ship type	Gross tonnage (million GT)	Deadweight (million Dwt)
General cargo	13,3	18,0
Reefer	2,9	3,2
Container carrier	2,0	2,5
Ro/ro	1,9	1,3
Chemical/oil carrier	1,4	2,3
Product tanker	1,4	2,1
Bulk carrier	1,2	1,9
Chemical tanker	1,2	1,8
LPG	1,1	1,3

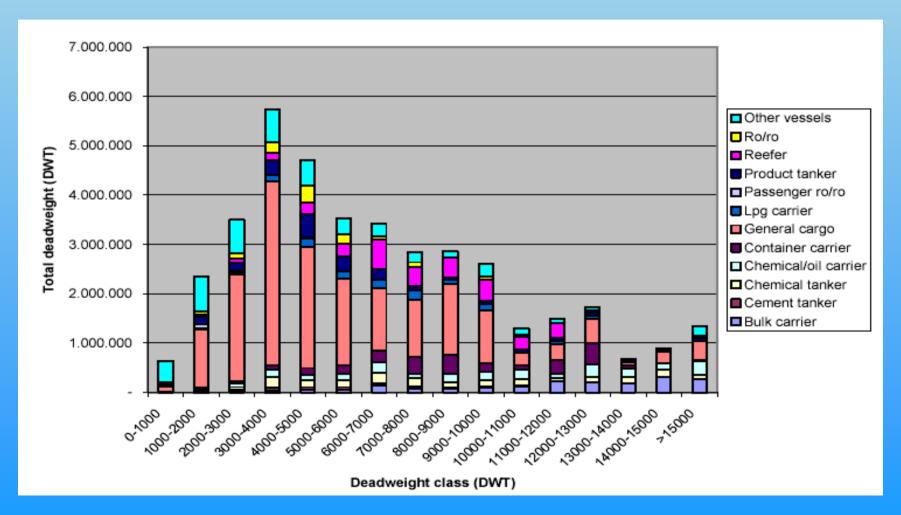
Age profile by ship type (number of ships)

#	Ship type	> 0 years	>20 years	>25 years	>30 years	>35 years
1	Bulk carrier	194	145	110	33	14
2	Cement tanker	86	80	68	46	18
3	Chemical carrier	305	134	86	45	10
4	Chemical/oil carrier	299	103	47	28	13
5	Container carrier	339	69	41	18	2
6	General cargo	4.575	2.640	1.916	1.067	478
7	LPG	240	77	31	9	2
8	Passanger ro/ro	165	108	93	77	34
9	Product tanker	499	326	232	133	65
10	Reefer	534	293	117	39	17
11	Ro/ro	359	254	170	69	25
	Overig	2424	1300	914	546	307
	Total fleet	10.019	5.475	3.825	2.110 Unit: No	985 umber of ships

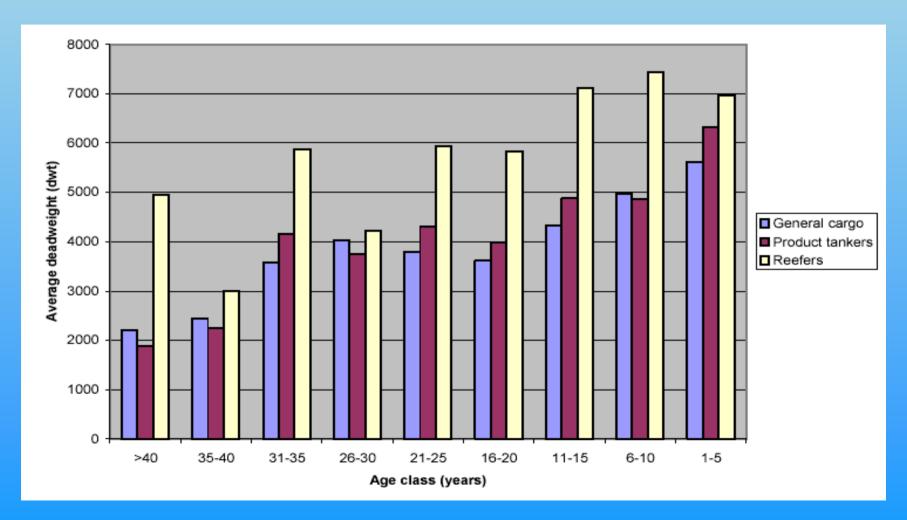
Number of ships per deadweight class (too) many small ships



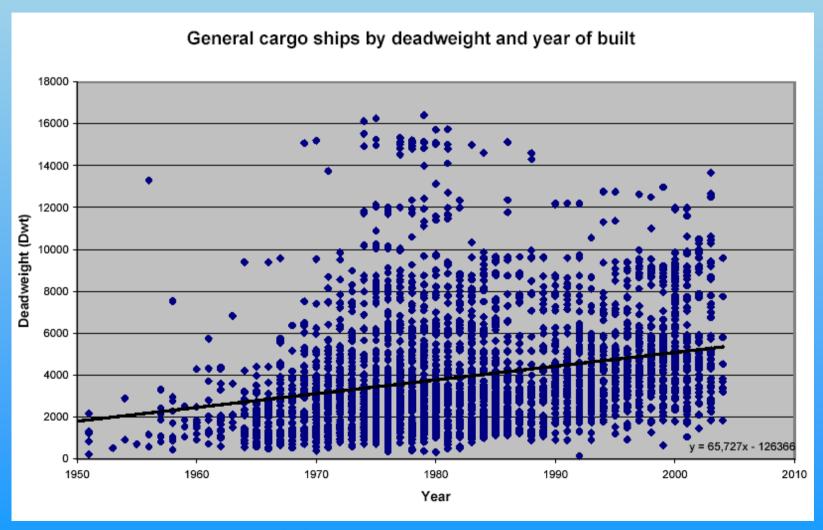
Total deadweight per DWT-class



Economy of scale increase over time



General cargo ships: great potential for fleet renewal



Major shortsea shipping countries:

it's an European affair!

Country of residence	# ships	# ships under
shipowner		national flag
Russia	1,265	1,241
Germany	1,199	192
Norway	930	448
Netherlands	737	591
Turkey	612	447
Greece	601	241
United Kingdom	522	435
Denmark	338	222
Italy	333	286
Ukraine	265	223
Spain	211	47
Sweden	192	129
Total	7,205	4,502 (62%)

Number of ships older than 25 and 35 years by country of residence

Country of residence of	>25 years	35 years
shipowner		
Russia	493	89
Norway	383	98
Greece	338	92
Turkey	263	68
United Kingdom	181	45
Germany	138	36
Syria	133	39
Ukraine	130	39
Italy	120	28
Netherlands	104	22
Denmark	97	28
Spain	73	12
Sweden	72	17
Other	1,300	372
Total fleet	3,825	985

Dutch shortsea fleet renewal proposal

- The strategy of the Dutch dry cargo ship owners should be aimed at:
 - Taking old general cargo ships out of the market
 - Sell good second-hand ships to shipowners who demolished their ships
 - Build new ships (in the Netherlands)

Possible impacts of fleet renewal strategy

- Positive effects on charter rates
- Newbuilding will support productivity and competitive position of Dutch shipowners and shipyards
- Sustainability and safety of the fleet will improve
- Consolidation of the market
- Chances for the export, repair and maintenance of marine equipment
- Other European countries may take part in the fleet renewal programme
- Case-study: European inland shipping fleet renewal

Impact European inland shipping scrap-andbuild actions: opportunity for the Dutch

	1975	1979	1988	2002 (end)
	Number of ships (tonnage million)	Number of ships (tonnage million)	Number of ships (tonnage million)	Number of ships (tonnage million)
Dry cargo	21222 (12,4)	16765 (11)	13575 (10,7)	8180 (8,7)
Tanker	2455 (2,2)	2057 (2)	1633 (1,9)	1222 (1,6)
Totaal	23677 (14,6)	18822 (13)	15208 (12,6)	9402 (10,3)

Share Netherlands	1975	2002	
	number % (tonnage%)	number % (tonnage%)	
Dry cargo	35 (<i>36</i>)	45 (<i>53</i>)	
Tanker	28 (29)	46 (47)	

Opportunity for European Maritime Clusters

- Shipowners: strenghten their position in a high growth market
- Shipbuilders: capitalize on a semi-captive market
- Marine equipment suppliers: great protential for innovation in a strong home market
- Ports: great potential for innovation in ship-port interface and efficiency in cargo handling
- Government: quality and modal shift impuls to ageing shortsea fleet