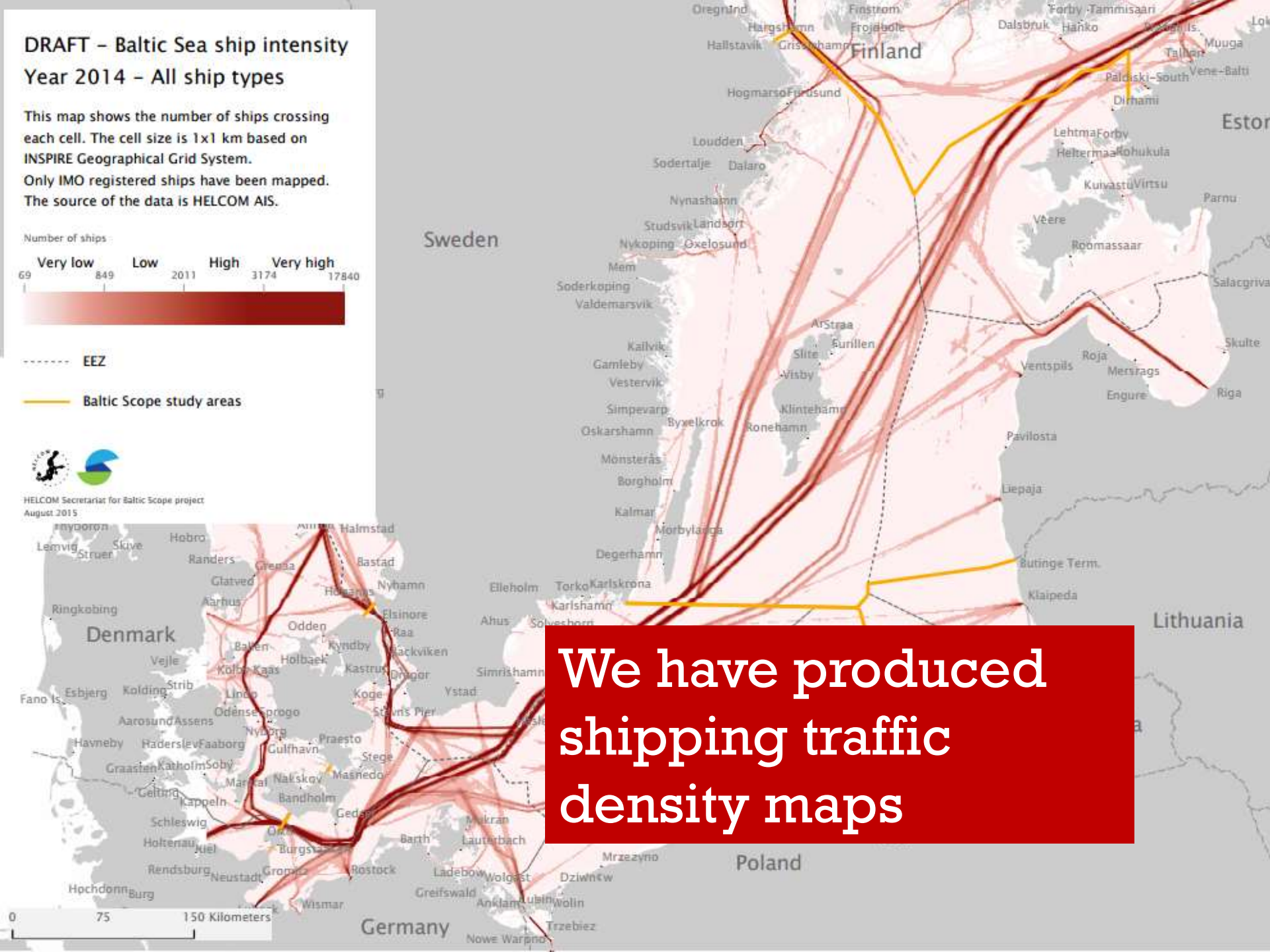
From the Baltic Sea to South Africa

AIS data for Baltic Scope

Manuel Frias
HELCOM Secretariat
Baltic Scope partner meeting
Szczecin, Poland June 2016

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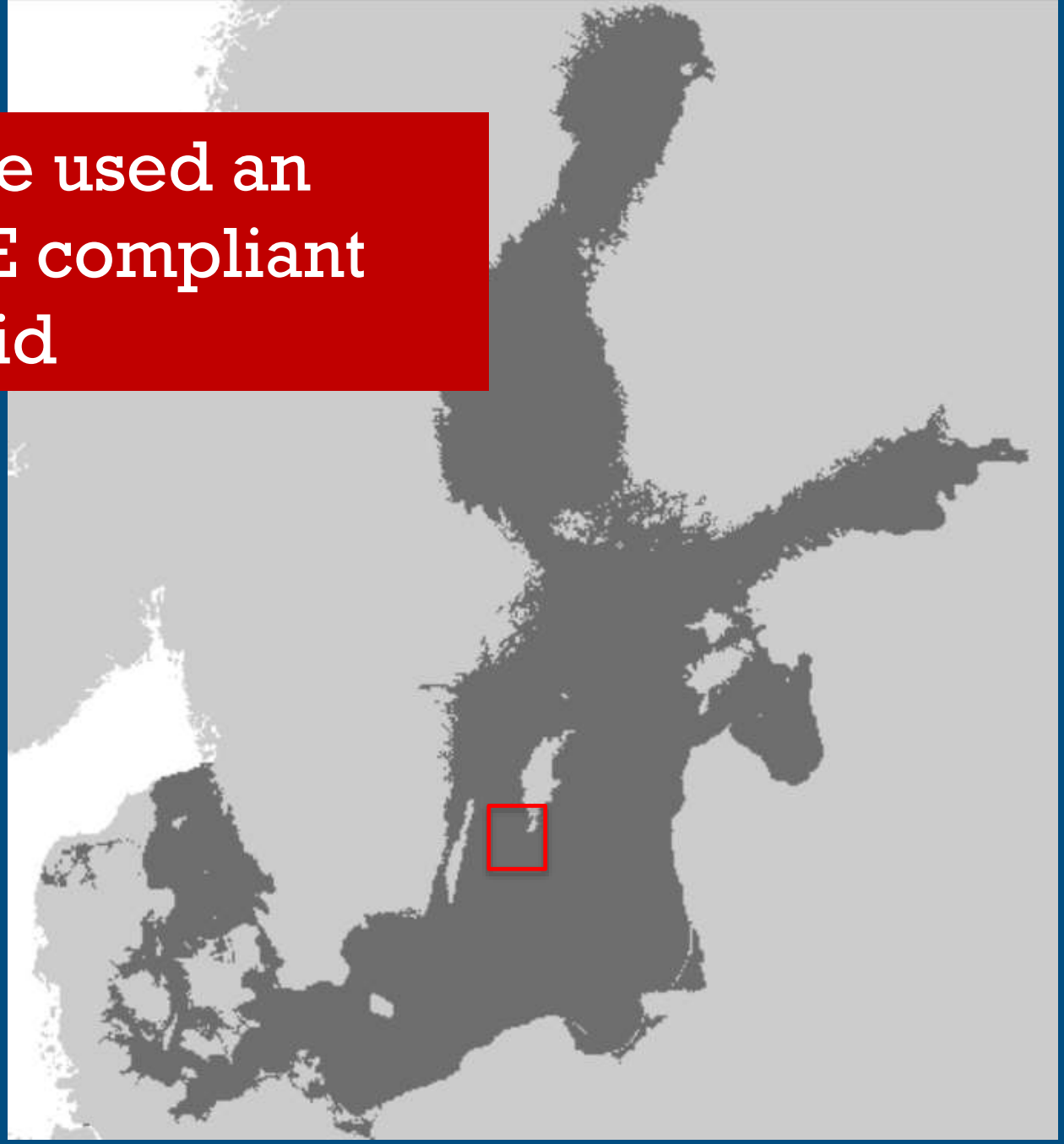

DRAFT – Baltic Sea ship intensity
Year 2014 – All ship types
This map shows the number of ships crossing each cell. The cell size is 1x1 km based on INSPIRE Geographical Grid System.
Only IMO registered ships have been mapped.
The source of the data is HELCOM AIS.
Number of ships
Very low
Low
High
Very high
69
849
2011
3174
17840
EEZ
Baltic Scope study areas
HELCOM Secretariat for Baltic Scope project
August 2015
0
75
150 Kilometers
Finland
Sweden
Denmark
Germany
Poland
Lithuania
Estonia
We have produced shipping traffic density maps

What is a

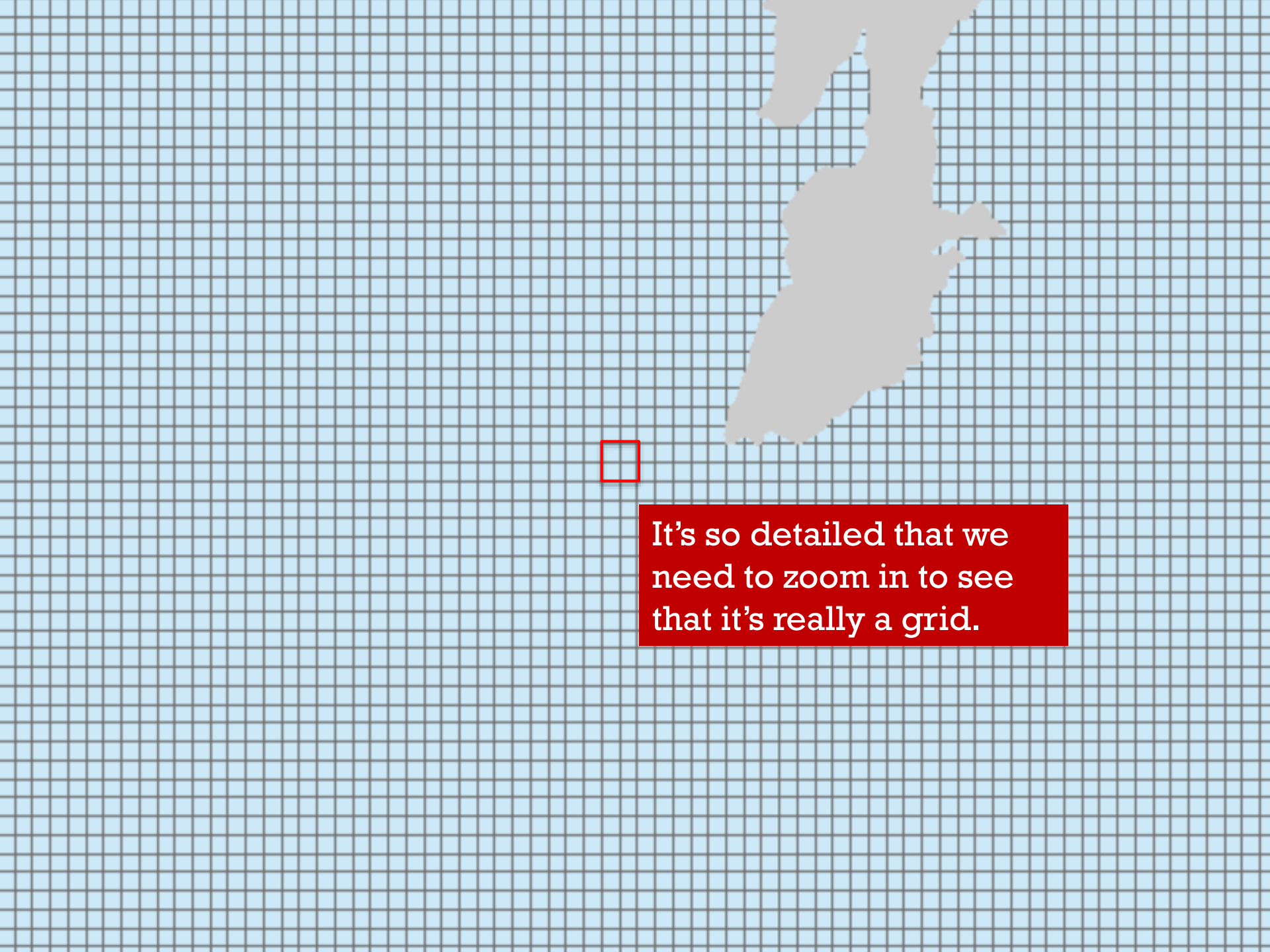
density map?

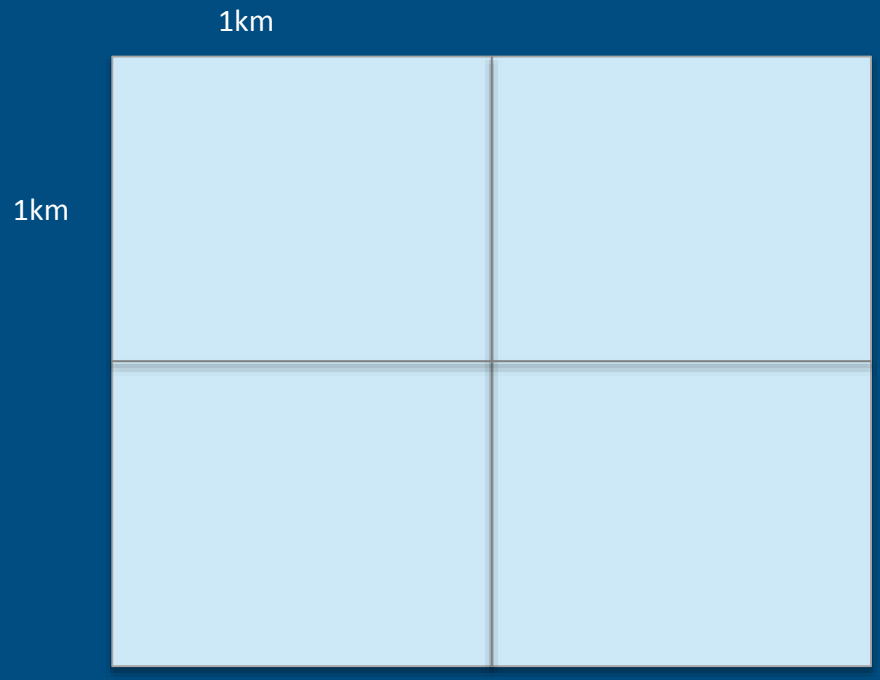
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We have used an INSPIRE compliant 1km grid

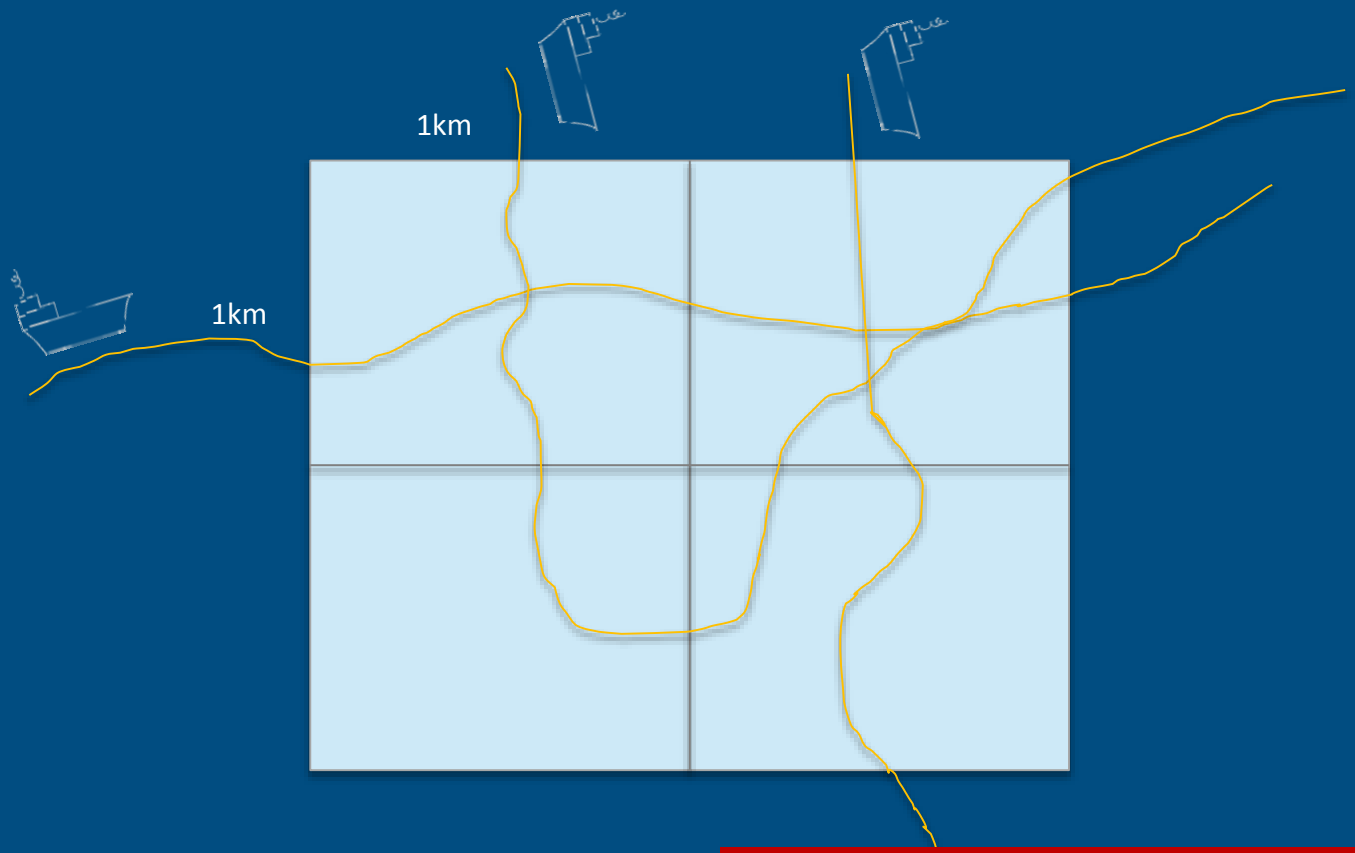


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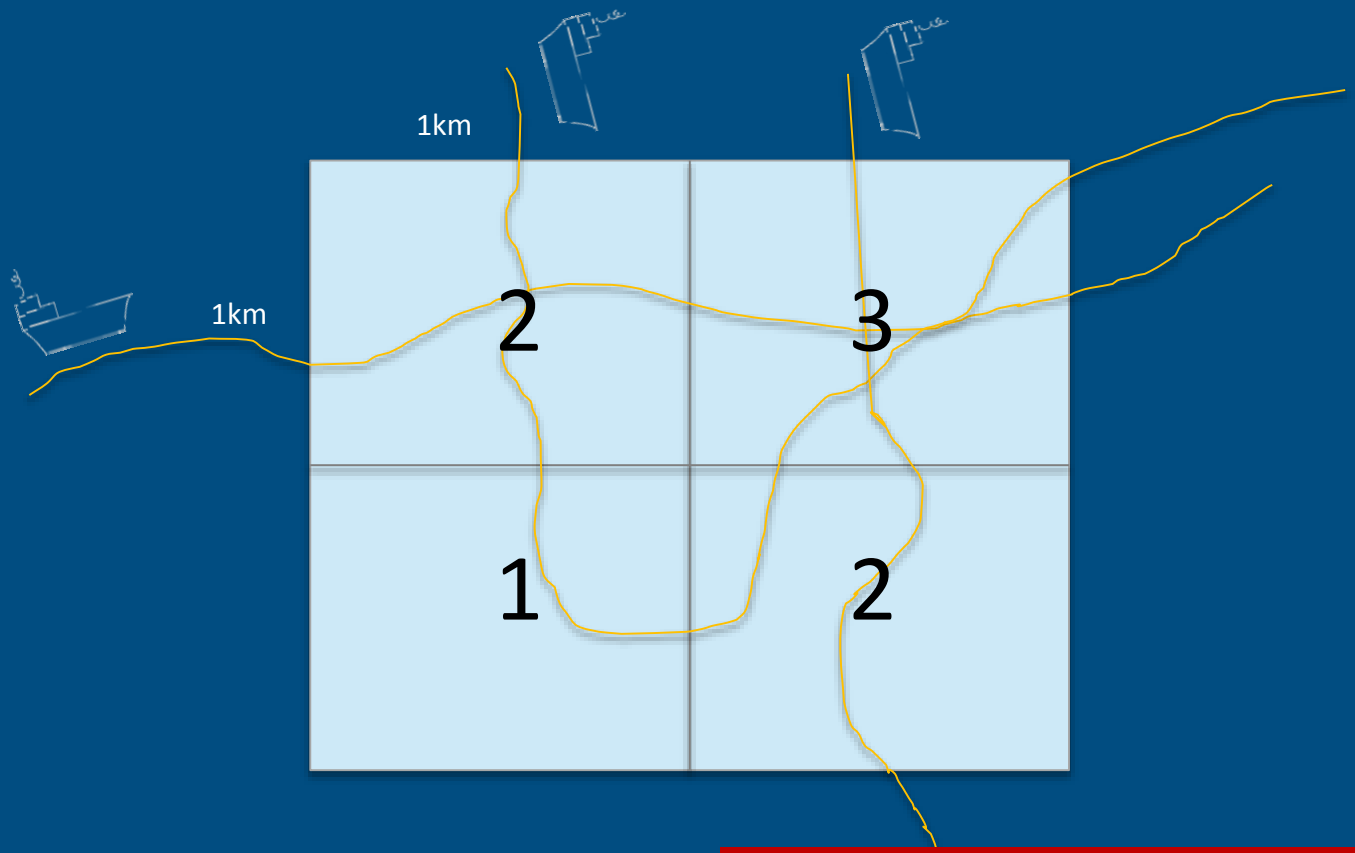

It's so detailed that we need to zoom in to see that it's really a grid.



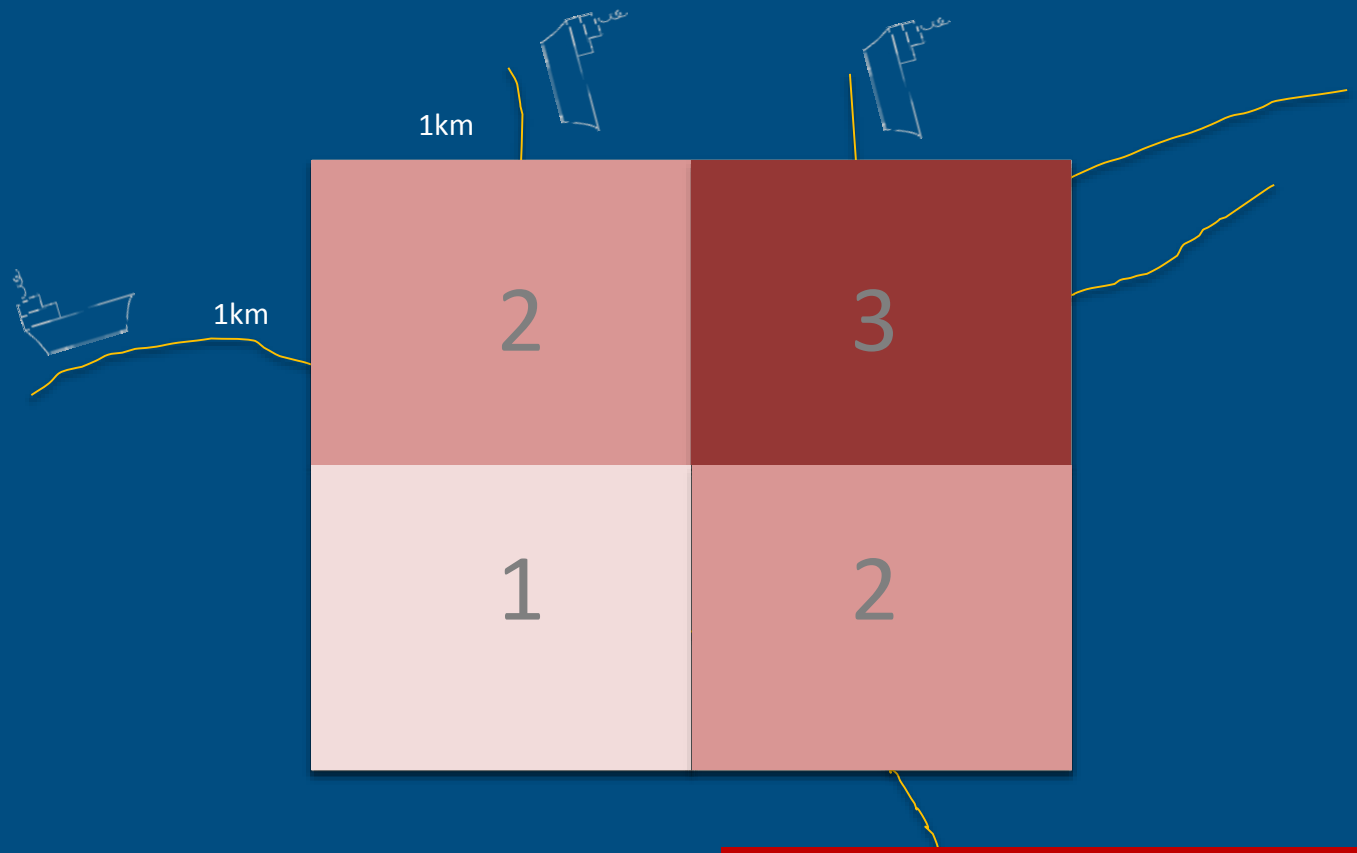
To explain how we made a density map we need to zoom in even more.



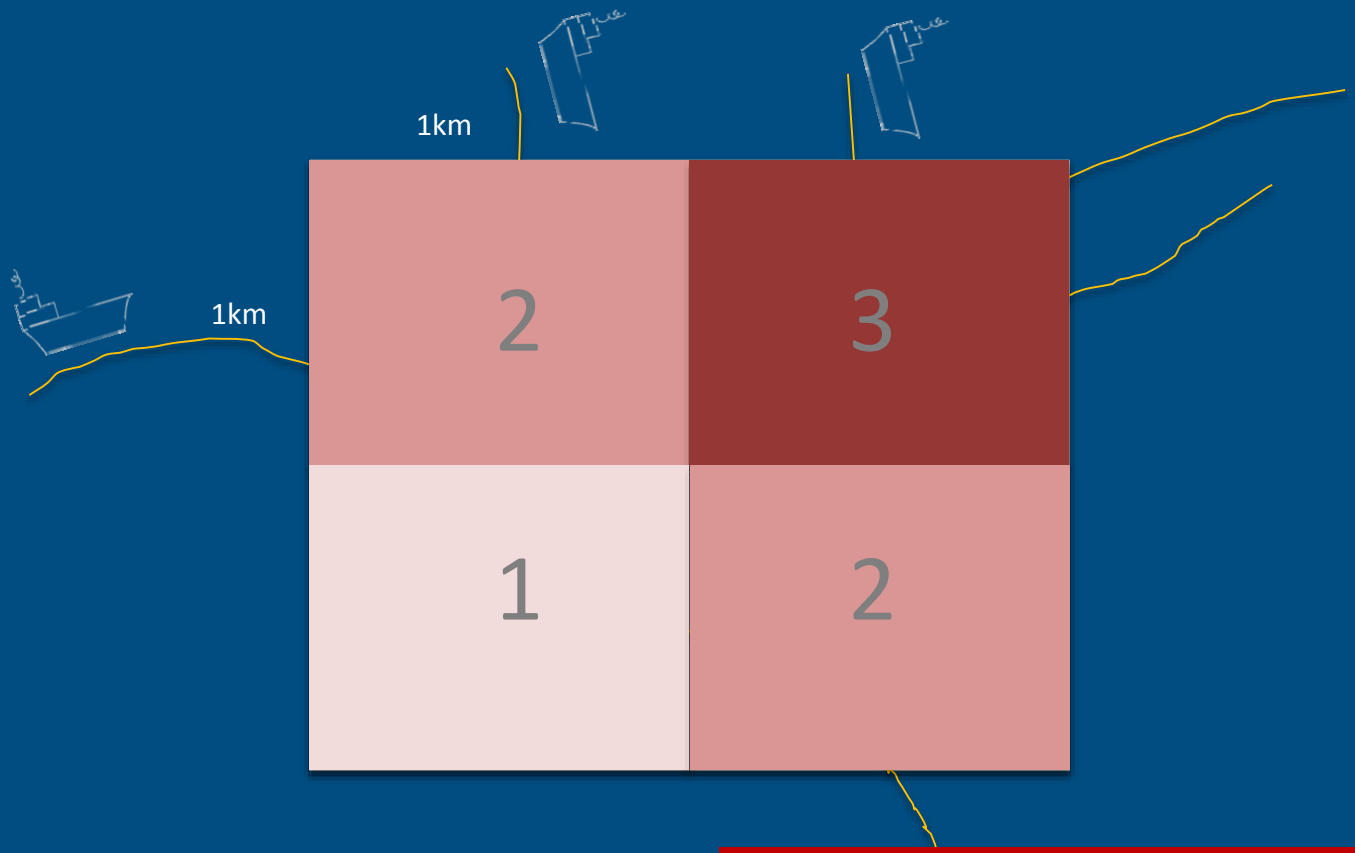
Imagine these are ships crossing those grid cells at a given time.



We count the number of ships crossing each of those cells



Then we add a color gradation. The result is a shipping traffic density map.



It looks simple, but it's a VERY time-consuming process.

How big is one year of AIS data?

2013 contains

1,3 BILLION rows

If we printed them we would need

30 MILLION A4 pages



If we put them
one after another
it'd reach South Africa

We have provided maps…

13	2014
Cargo	
Tanker	
	Passenger
	Fishing

And now we can provide more…

2005	06	07	08	09	10	11	12	13	2014
Cargo	Cargo	Cargo	Cargo	Cargo	Cargo	Cargo	Cargo	Cargo	Cargo
Tanker	Tanker	Tanker	Tanker	Tanker	Tanker	Tanker	Tanker	Tanker	Tanker
Container	Container	Container	Container	Container	Container	Container	Container	Container	Container
Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger
Service	Service	Service	Service	Service	Service	Service	Service	Service	Service
Fishing	Fishing	Fishing	Fishing	Fishing	Fishing	Fishing	Fishing	Fishing	Fishing
Vehicle C./ RoRo Cargo	Vehicle C./ RoRo Cargo	Vehicle C./ RoRo Cargo	Vehicle C./ RoRo Cargo	Vehicle C./ RoRo Cargo	Vehicle C./ RoRo Cargo	Vehicle C./ RoRo Cargo	Vehicle C./ RoRo Cargo	Vehicle C./ RoRo Cargo	Vehicle C./ RoRo Cargo
Other	Other	Other	Other	Other	Other	Other	Other	Other	Other
Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown

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So if you want more just tell us!