Hydraulische Simulatie Superstormen

© Kees Molkenboer / nfa, coll. Nederlands fotomuseum

Ehsan Sarhadi zadeh

May 2013

TELEMAC-MASCARET

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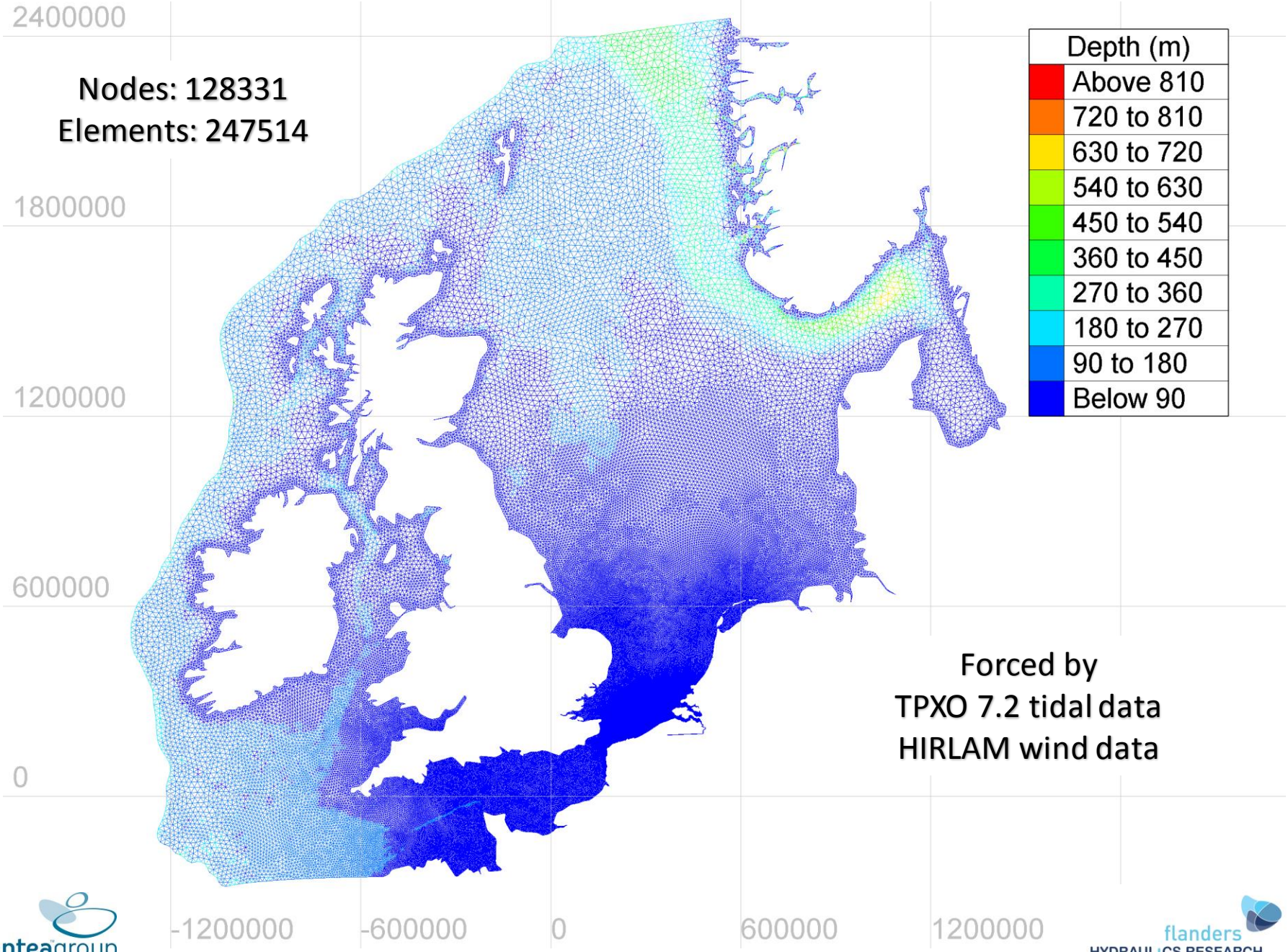

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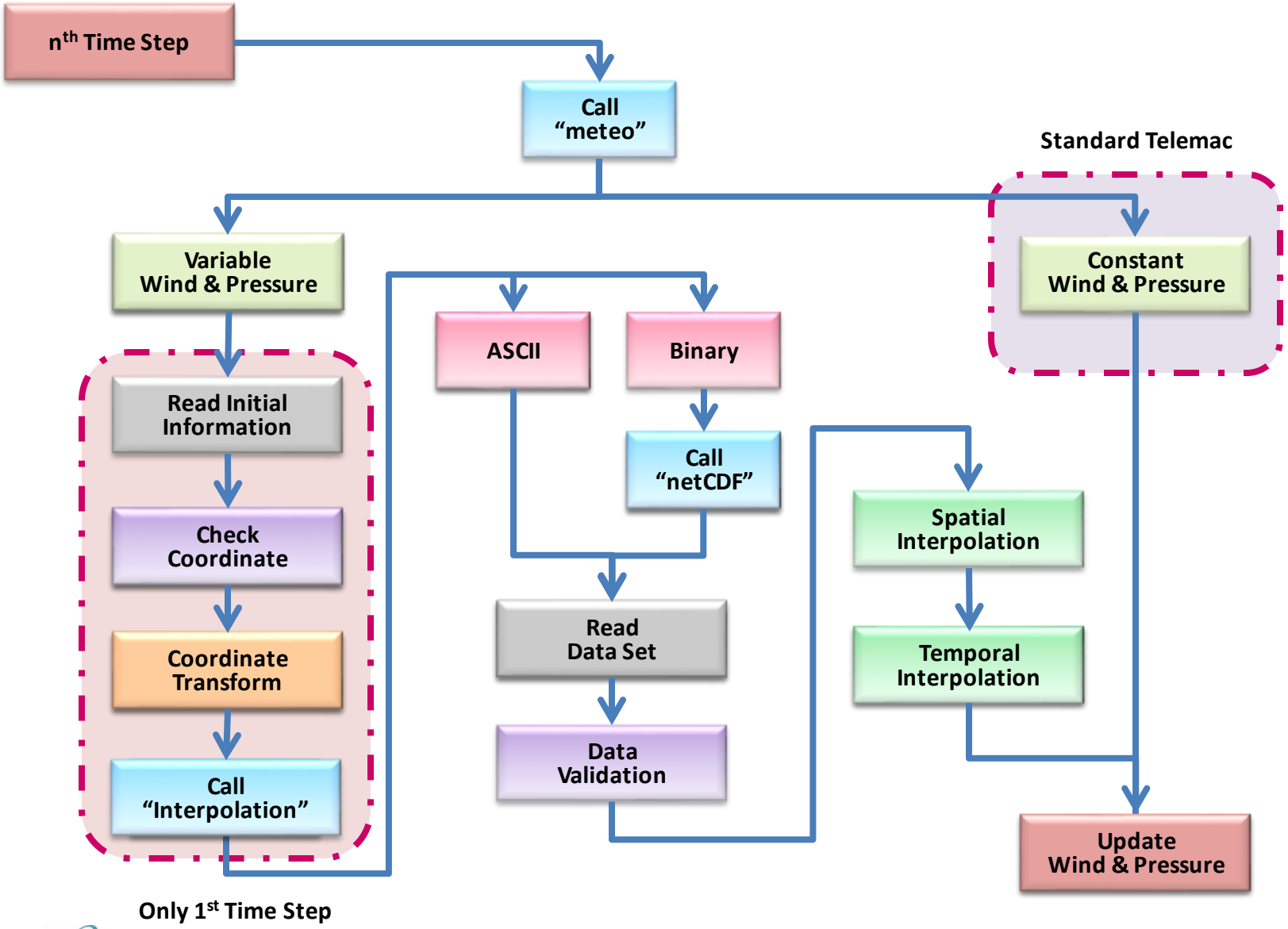
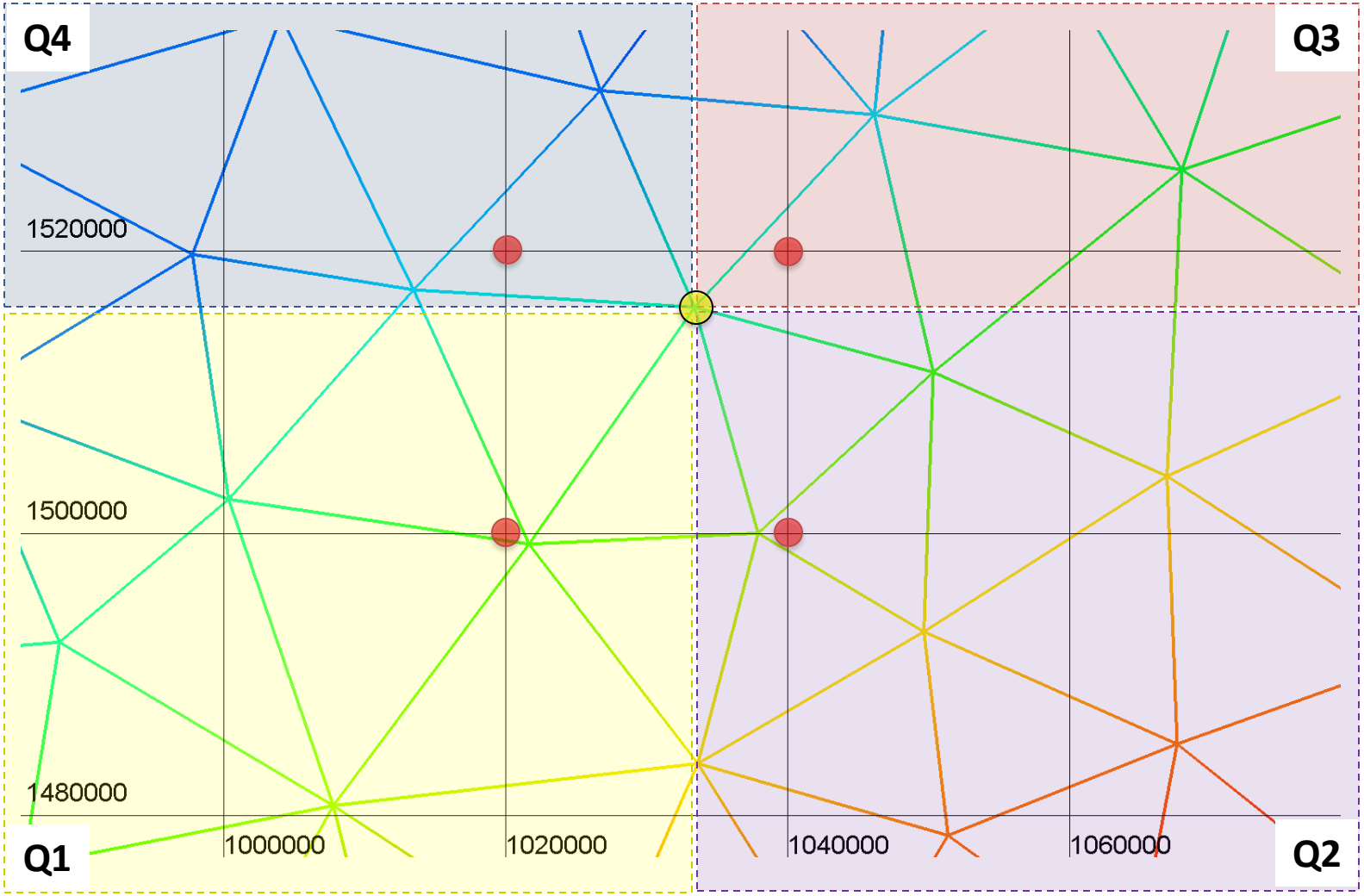

n^th Time Step
Call "meteo"
Standard Telemac
Variable Wind & Pressure
Constant Wind & Pressure
Read Initial Information
Check Coordinate
Coordinate Transform
Call "Interpolation"
ASCII
Binary
Call "netCDF"
Read Data Set
Data Validation
Spatial Interpolation
Temporal Interpolation
Update Wind & Pressure
Only 1st Time Step


Q4
Q3
1520000
1500000
1480000
Q1
1000000
1020000
1040000
1060000
Q2

Wind Field

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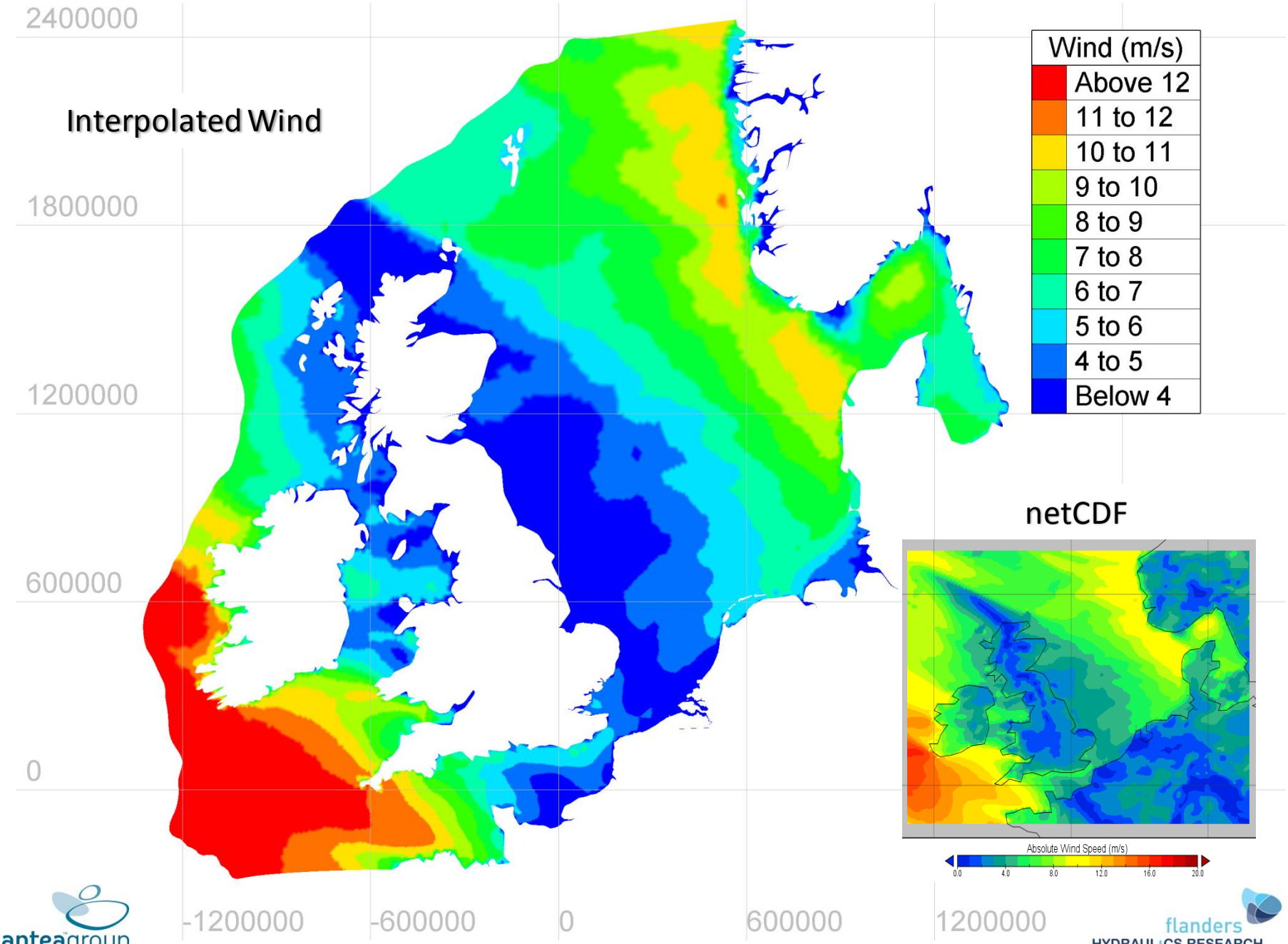

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60 s computational time step
Wind and Pressure 3 h intervals
16 CPU cores

Internal Interpolation	Simulation Time							
	5 days				31 days			
	Serial		Parallel		Serial		Parallel	
Wind & Pressure	Off	On	Off	On	Off	On	Off	On
Computation Time	17':05''	34':18''	01':43''	02':55''	2:02':57''	3:55':11''	09':40''	17':03''

External Surge

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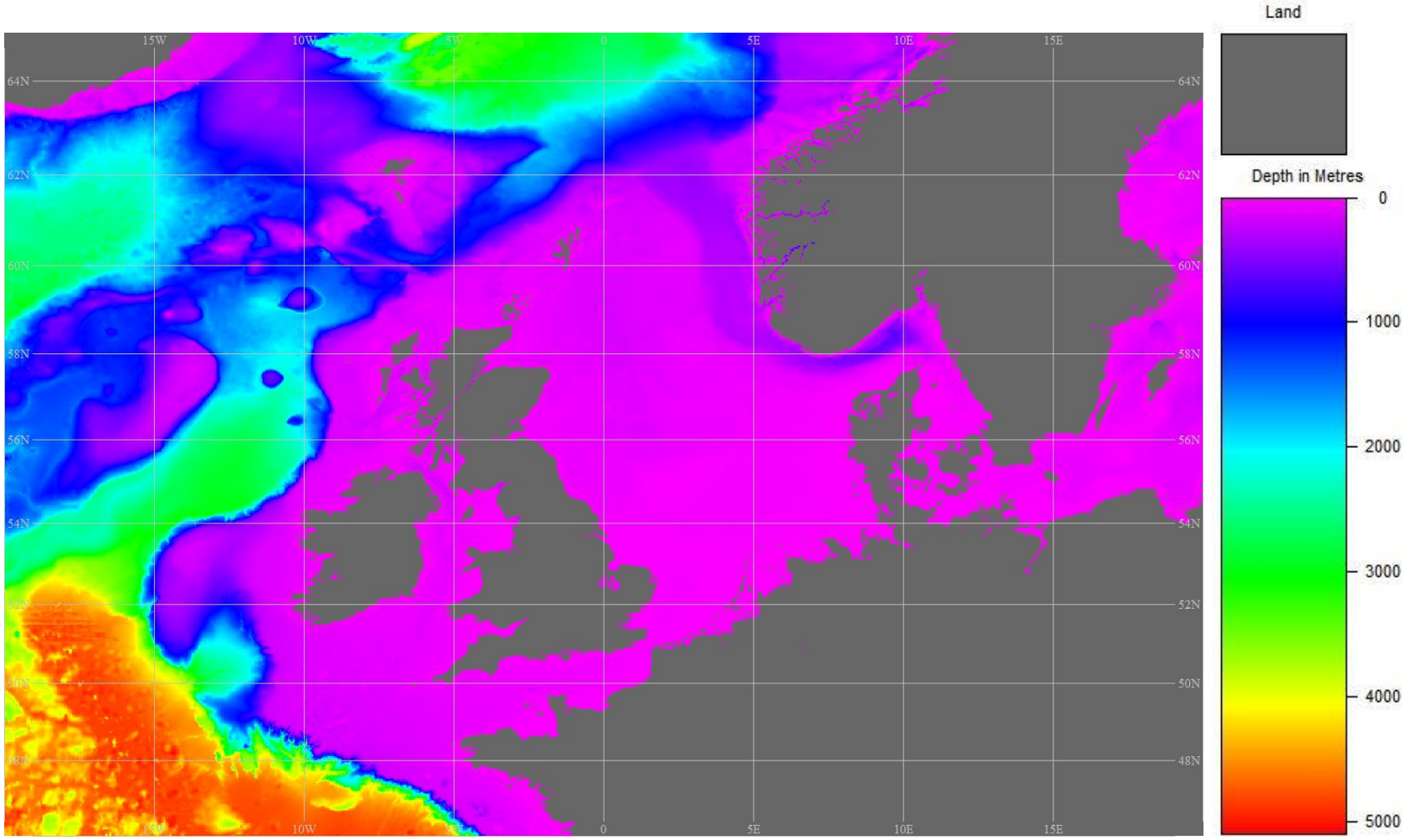

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St Elizabeth's Day flood, 18-19 November 1421, broken dike at Wieldrecht