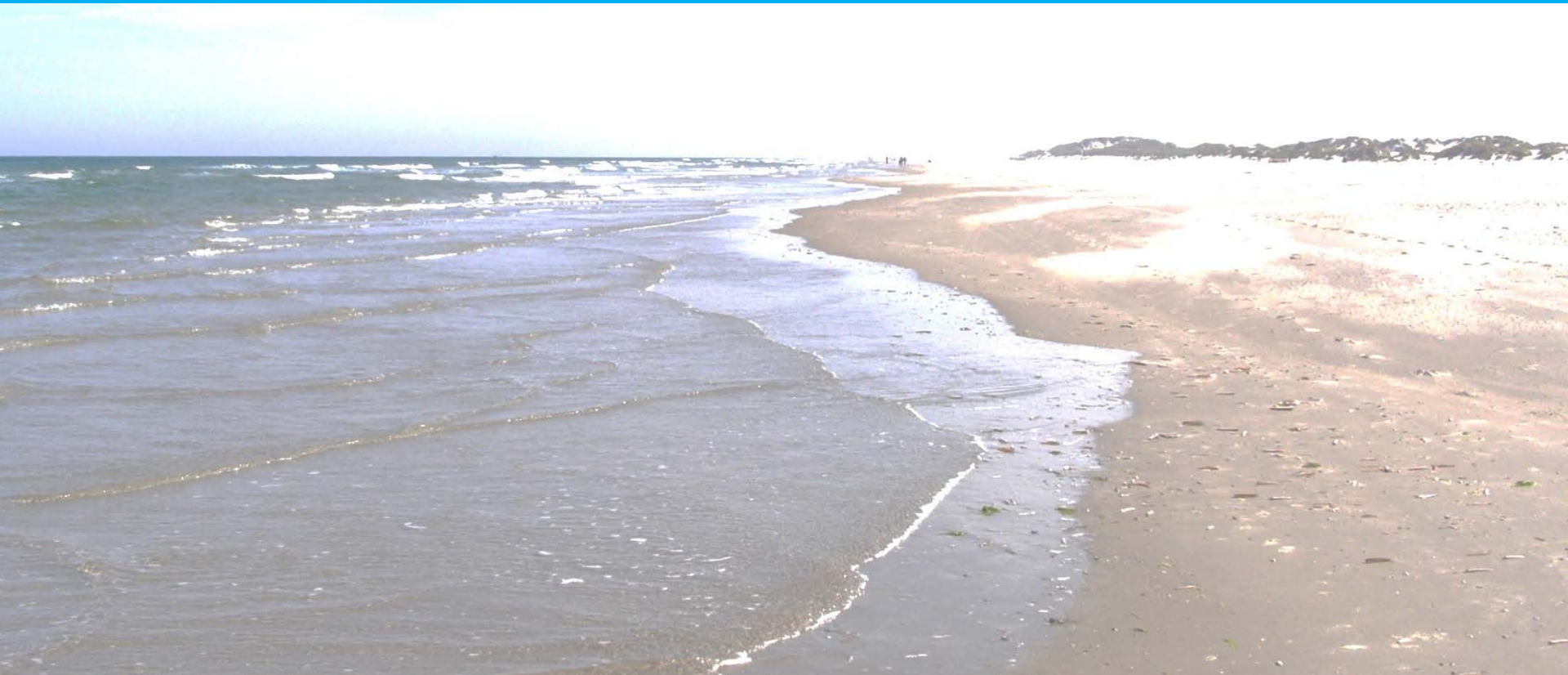


Versatile Hydrodynamics

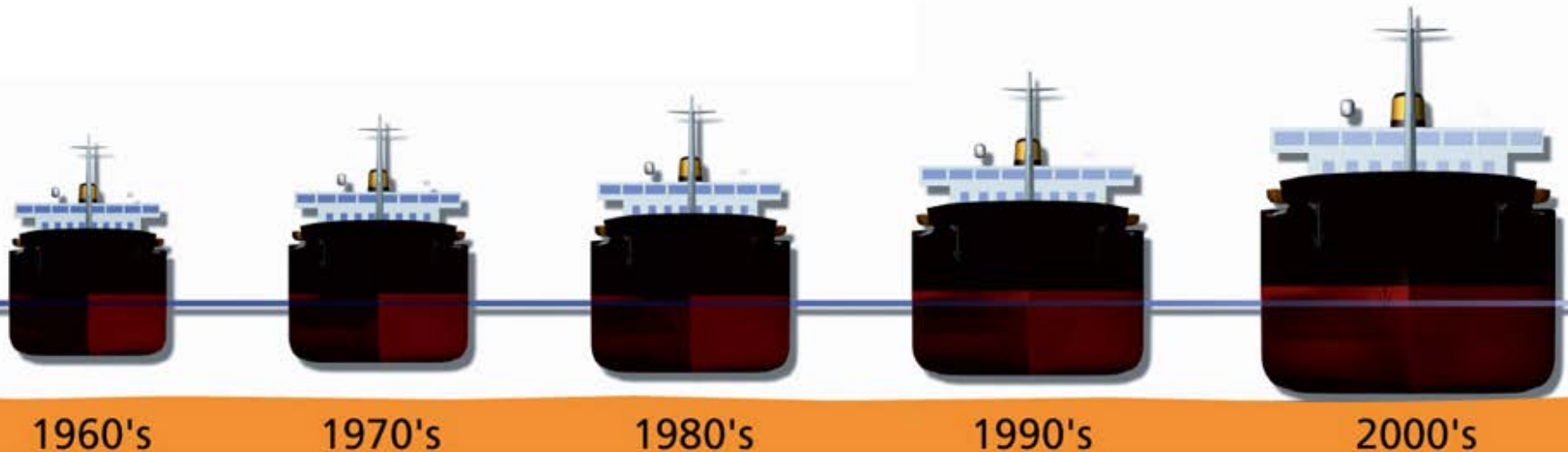


The challenge ahead...

Access to the main Dutch harbors and their approach routes is for the bigger ships already restricted to certain stages of the tide...

...ships are still getting bigger & ship drafts deeper!

How informative are depths w.r.t. LAT?



The next 5 years:

VERSATILE HYDRODYNAMICS

A SYNERGYSTIC DEVELOPMENT OF TOMORROW'S
MARINE NAVIGATION PRODUCTS

To develop a hydrodynamic model properly embedded in the observational network that allows accurate, seamless forecasting of total water depths in the Dutch North Sea.

The next 5 years:

VERSATILE HYDRODYNAMICS

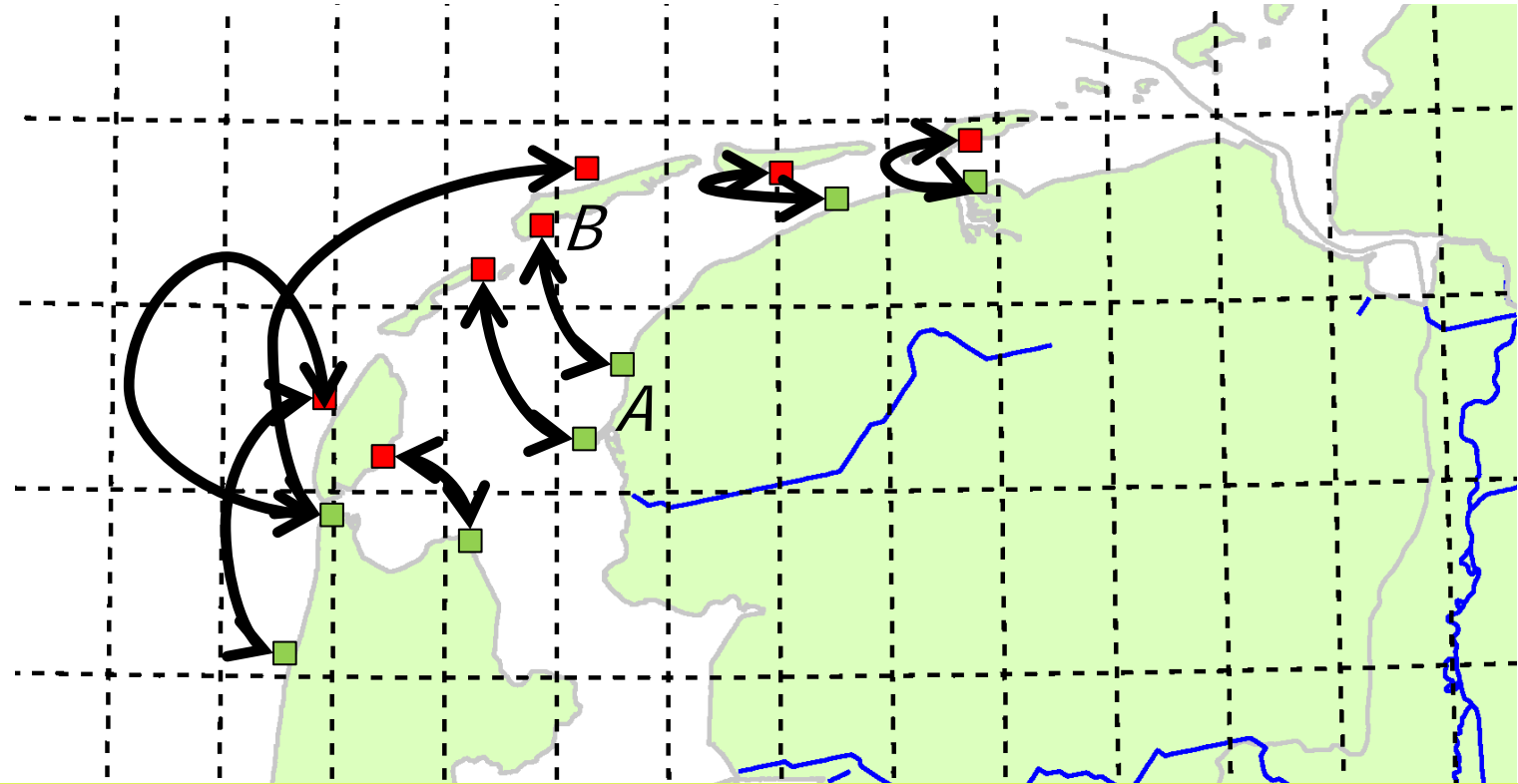
A SYNERGYSTIC DEVELOPMENT OF TOMORROW'S
MARINE NAVIGATION PRODUCTS

LEARN MORE



<http://versatile-hydrodynamics.nl/>

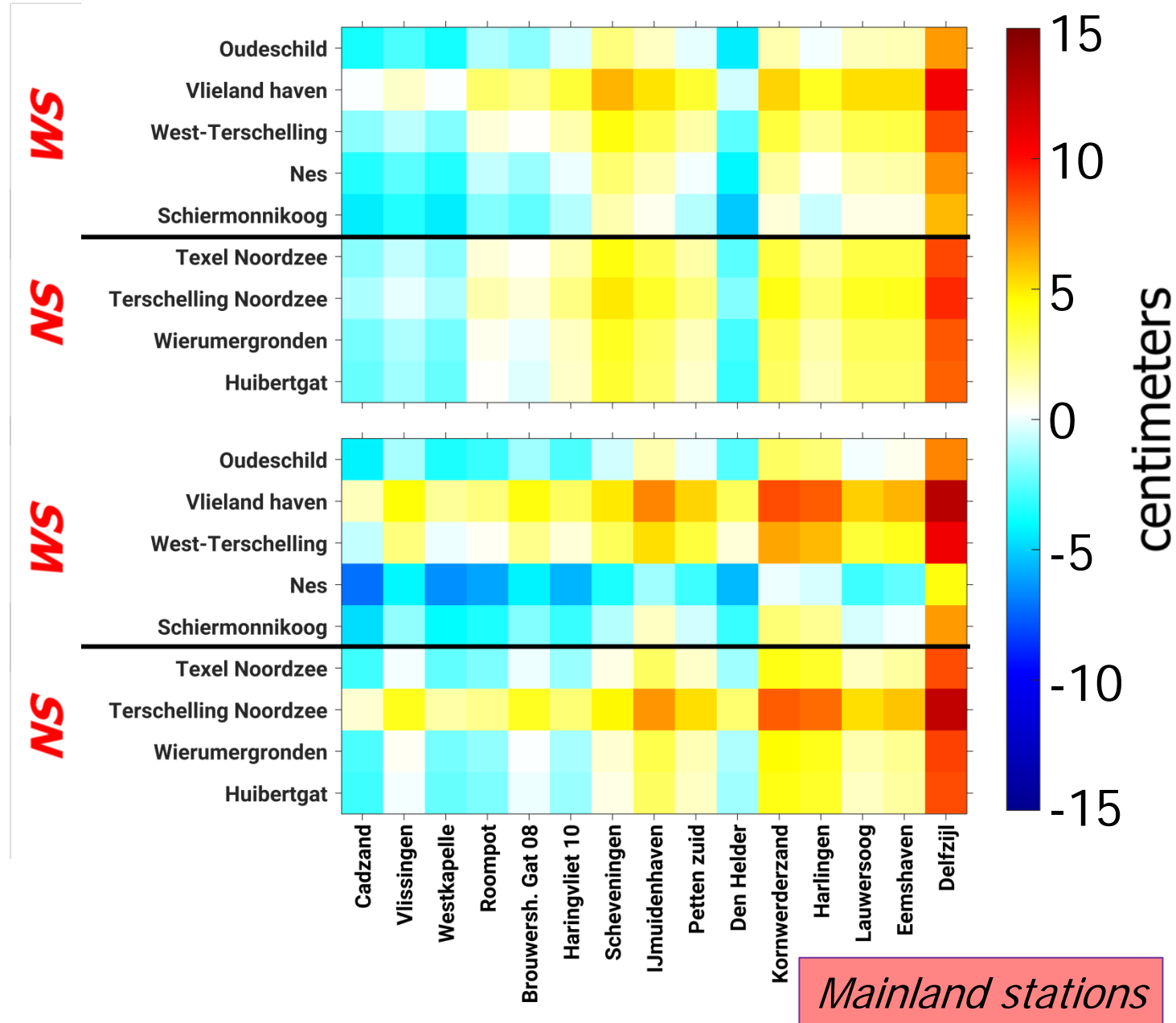
Model-based hydrodynamic leveling



$$H_{\text{NAP}}(B) = H_{\text{NAP}}(A) + (\zeta_{\text{MDT}}(B) - \zeta_{\text{MDT}}(A))$$

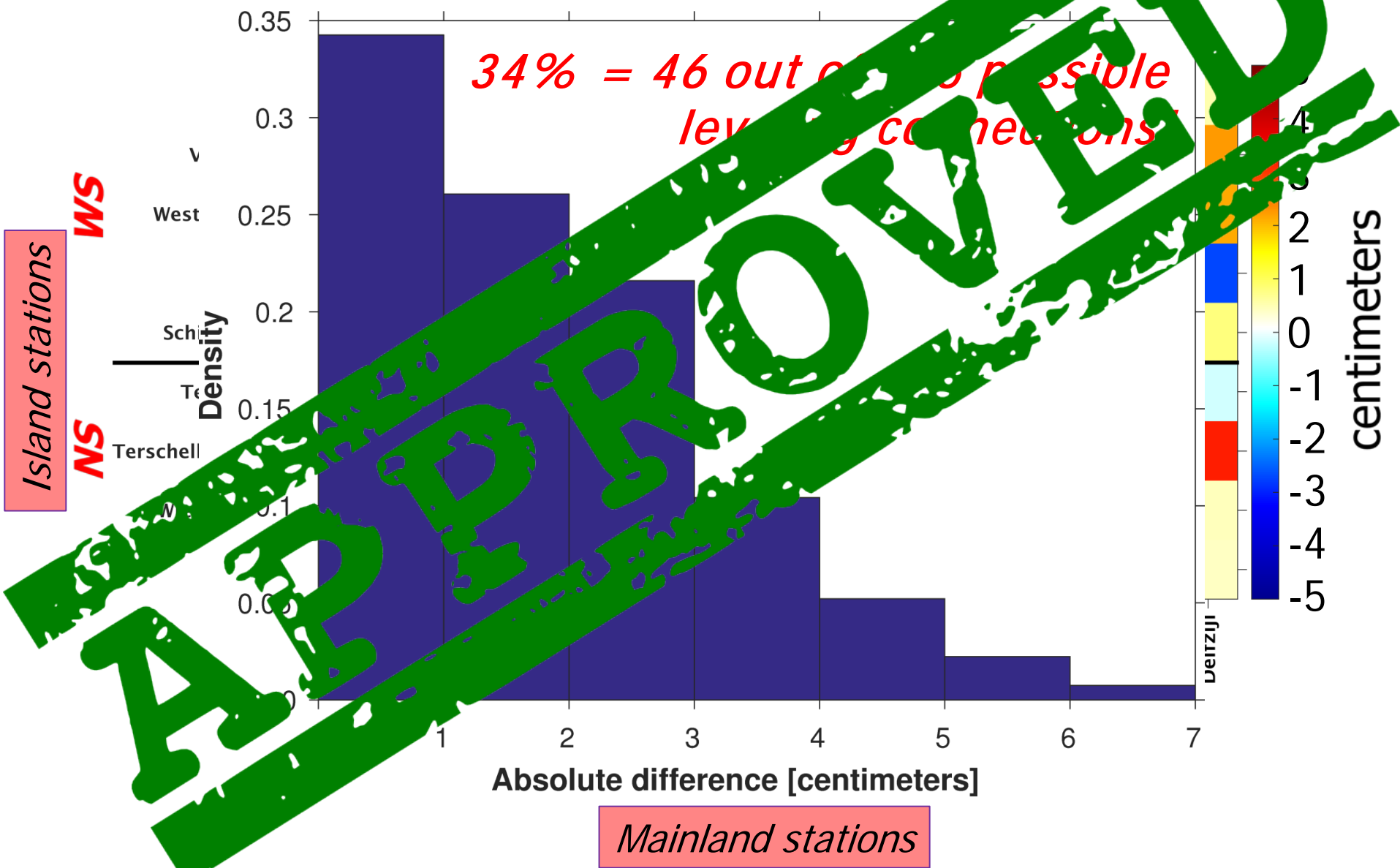
Mod/Obs differences in MDT

Island stations



Mainland stations

Obs-Mod differences in MDT



The questions

- 1) Why to use LAT, the quasi-geoid is a much better choice?
- 2) Hydrodynamic leveling is a promising new technique to transfer heights over large water bodies. Would you rely on a hydrodynamic model?