EUSBSR PA SAFE
Steering Group Meeting
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Finnish Transport Agency

WINMOS II

WINMOS II

Winter Navigation Motorways of the Sea

Co-financed by the European Union
Connecting Europe Facility

EU STRATEGY FOR THE BALTIC SEA REGION
FLAGSHIP

WINMOS II – Basics.

- Aims to:
  - further develop and enhance the winter navigation system and its safety,
  - safeguard required icebreaking resources in the future by developing new options and improving old capacity .
- Budget ~19M€; CEF (MoS) funding 6,6M€
- Implementation period: Feb 2016 – Oct 2019
- Partners: Finnish Transport Agency (coordinator), Swedish Maritime Administration, Arctia Icebreaking, Novia University of Applied Sciences, Aalto University, Estonian Maritime Administration and ILS Oy.

WINMOS II – Activities.

- Environmental benefits, reduction of fuel and emissions
  - Battery hybrid for safer and more environmentally friendly operation
  - Further development of the Common Rail system
- Life extensions and alternative options
  - Life extension of Finnish icebreakers (IB Voima and IB Sisu)
  - Study on life extension of Estonian icebreakers
  - Study on removable-bow concept
- More efficient use of resources
  - Implementation and further development of IBNext
  - Development of icebreaker training
  - Study on adequacy of icebreaking capacity and level of service in Baltic Sea during severe winters

ENVIRONMENTAL BENEFITS, REDUCTION OF FUEL AND EMISSIONS.

- Battery hybrid for safer and more environmentally friendly operation
  - Data collected and study done. Fairly good results, payback time for investment fairly long.
  - Could be used in other vessels as well.
- Further development of the Common Rail system
  - All 5 engines of IB YMER have been tested.
  - Some issues need solving.
  - Fuel reduction around 5% measured during WINMOS.

LIFE EXTENSIONS AND ALTERNATIVE OPTIONS.

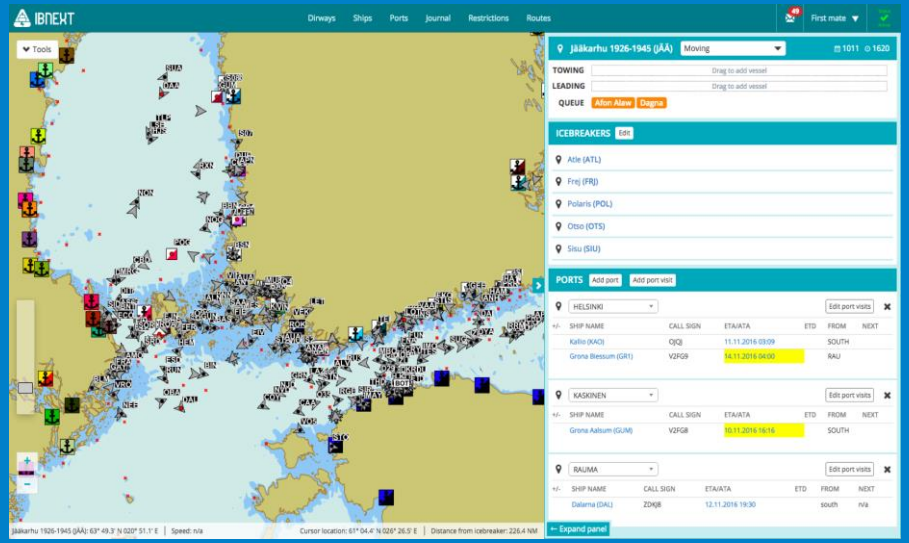
- Life extension of Finnish icebreakers (IB Voima and IB Sisu)
  - Works on IB VOIMA 90% completed.
  - IB SISU will be re-fitted 2018.
- Study on life extension of Estonian icebreakers.
  - Procurement completed.
  - Study ongoing, should be finished by end of year.

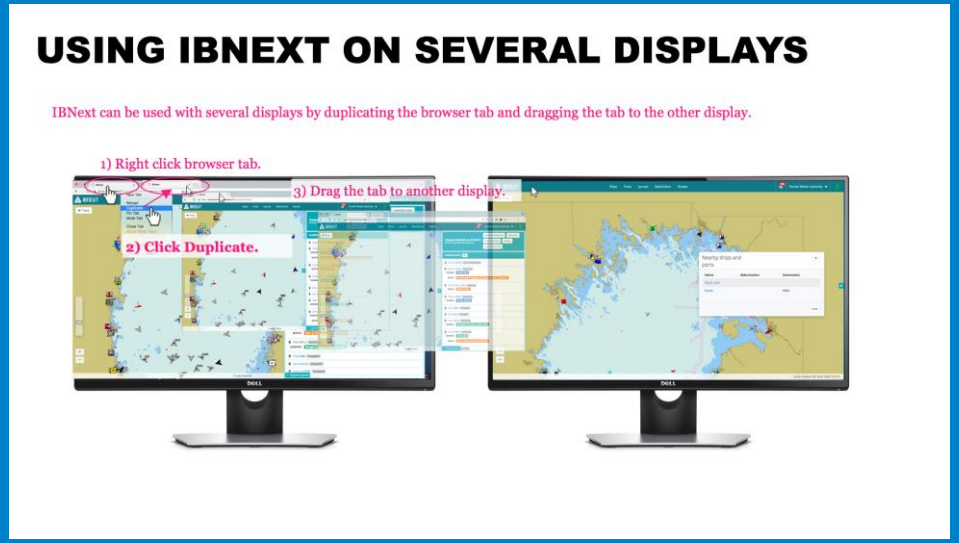
LIFE EXTENSIONS AND ALTERNATIVE OPTIONS (2).

- Study on removable-bow concept
  - Design and specifications ready.
  - Pusher vessel procured.
  - Procurement of shipyard ongoing. Contract to be signed by end of year.

MORE EFFICIENT USE OF RESOURCES.

- Implementation and further development of IBNext
  - Online, usable also on mobile devices, connected to STM.
  - Should be completed by end of year.





MORE EFFICIENT USE OF RESOURCES (2).

- Development of icebreaker training
  - Collection of tacit knowledge from experienced icebreaker officers done; report not finished yet.
  - Demo training course for icebreaker officer ongoing this week.
- Study on adequacy of icebreaking capacity and level of service in Baltic Sea during severe winters
  - Winter navigation simulation model completed.
  - Contingency plan for whole Baltic Sea for severe winters.
    - Draft presented to Baltic Icebreaking Management (BIM) group.
    - Will be sent to industry stakeholders for comments.

PROJECT MANAGEMENT AND DISSEMINATION

- Introduction video produced.
- Past and upcoming vents:
  - CEF conference in Tallinn, Estonia Sep 2017
  - MoS conference in Barcelona, Spain Nov 2017
  - TEN-T Days in Ljubljana, Slovenia Apr 2018

www.winmos.eu

WINMOS II

Thank You.

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