

EUROFLEETS+ WEBINAR

12th January 2021



HOW TO APPLY FOR THE CO-PRINCIPAL INVESTIGATOR (CO-PI) PROGRAMME

Urmas Lips

**TAL
TECH**

This project has received funding
from the EU H2020 research and
innovation programme under grant
agreement No 824077





TOPICS

Potential Eurofleets+ Cruises – areas and schedules

Evaluation criteria – what should be taken into account when writing a proposal?



www.eurofleets.eu/access/co-pi

Eurofleets+ Provisional Transnational Access Schedule



2021

[illegible]

2022

[illegible]



Check which infrastructure fits your research needs, and roughly operational areas and cruise timing

- **EF+ offers access to 27 RVs and 13 pieces of ME**
- **On the following geographic areas:**
 - Arctic Ocean, Atlantic Ocean
 - North Atlantic Ocean
 - Baltic Sea, North Sea
 - Mediterranean Sea
 - Black Sea
 - North-west Atlantic Ocean
 - Pacific Ocean

www.eurofleets.eu/infrastructures/
www.eurofleets.eu/access/

Eurofleets+ Provisional Transnational Study

Locations 2020-2022

-  Eurofleets+ TA 2022
-  Eurofleets+ TA 2021
-  Eurofleets+ TA 2020

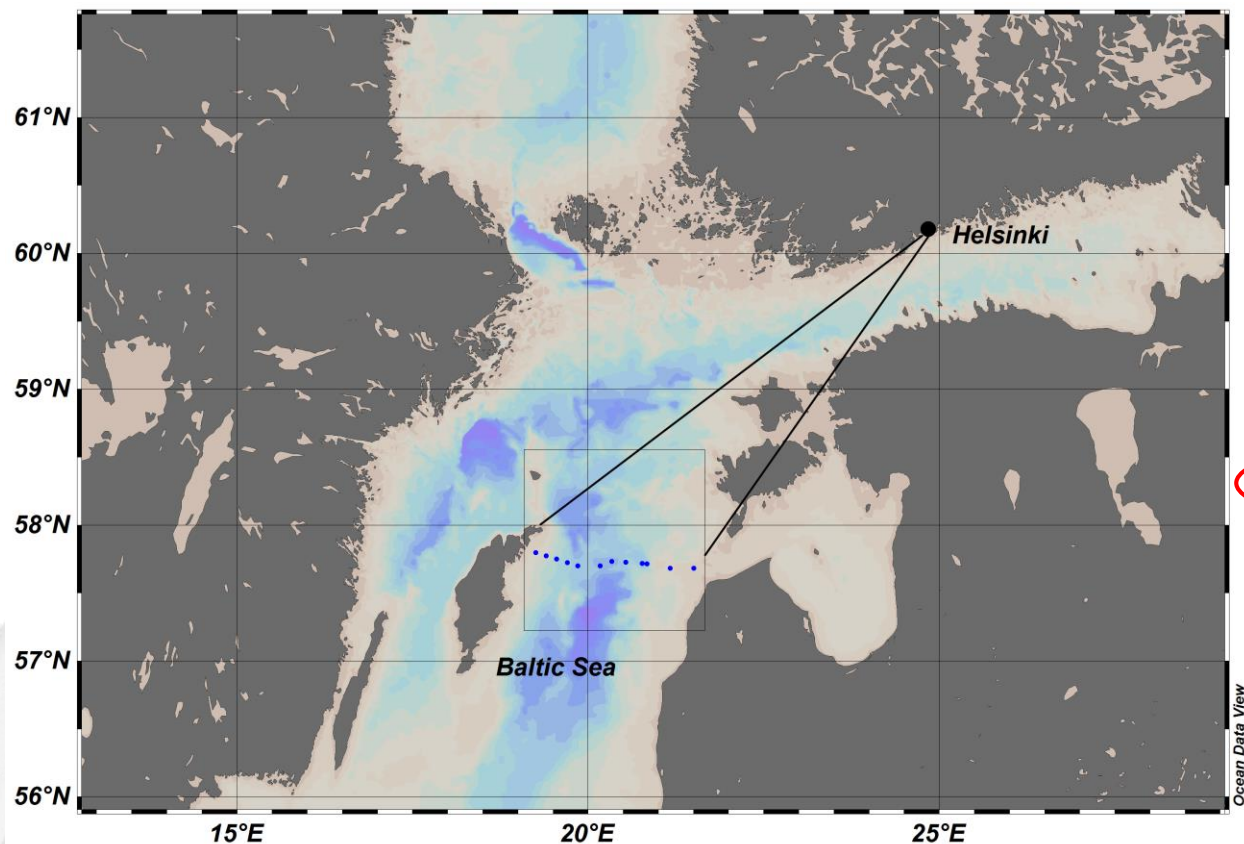
2022	
Vessel Name	Location
RV Pelagia	Alboran or Balearic Sea
RV Tangaroa	East coast of North Island, New Zealand
RV Sanna	Godhabfjord, Ameralik fjord and the shelf area connecting these fjords in Nuuk, Greenland
RV Sarmiento de Gamboa	Northeast Atlantic, Western Iberian Margin.
RV Laura Bassi	Hillary Canyon, Ross Sea, Antarctica
RV Atlantic Explorer	Gulf Stream (NW Atlantic)

2021	
Vessel Name	Location
RV Arni Friedrikson	North Western Iceland
RV DANA	Bredefjord, Greenland. Easily accessible (embark/disembark) from Narsaq, Greenland
RV Celtic Explorer	NE Atlantic (S Rockall Plateau; Eriador Seamount; Porcupine Basin & Ridge; East Thulean Rise)
RV GO Sars_Aegir	Denmark Strait, between 64 and 68.5°N.
RV Sanna	Disco Bay, West Greenland coastline
RV Thalassa_Ariane	SE Alboran Sea (W Mediterranean)
RV Mare Nigrum	Danube Fan, 44°20' N, 30°39' E / 43°59' N, 31°20' E
Aranda	Gulf of Finland, Baltic Proper (Gotland Deep is the southernmost area).
RV Tubitak Marmara	Western Black Sea
RV SOCIB	Mallorca and Cabrera islands
RV Belgica II	Ceuta Canyon and adjacent areas (West Moroccan Mediterranean margin). Shelf and slope environments.
RV Aegeo	Eastern Mediterranean, SW Aegean Sea, Myrtoon Basin

2020 UGOT Hugin AUV/RV Tangaroa



EF+ CRUISES



2021	
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RV Arni Friedrikson	North Western Iceland
RV DANA	Bredefjord, Greenland. Easily accessible (embark/disembark) from Narsaq, Greenland
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Potential Eurofleets+ Cruises – Baltic Sea (spring and autumn 2021)



EF+ VESSELS

RV ARANDA

Vessel Profile

Home port:	Helsinki, Finland
Home port Coordinates:	Latitude: N60° 9,714 Longitude: E024° 54,081996
Organisation & Address:	Finnish Environment Institute SYKE, Marine Research Centre. Latokartanonkaari 11 FIN-00790 Helsinki, Finland
Vessel Web site address:	https://www.syke.fi/en-US/Services/Research_Vessel_Aranda
Link to Vessel Schedules:	https://www.syke.fi/en-US/Services/Research_Vessel_Aranda
Normal Area of Operation:	The Baltic Sea, from N 53° to N66°, and E 10° to E30°, all conditions and seasons. Oceans with no restrictions, Polar areas in spring, summer and fall.
Max No of EF+ Days:	8

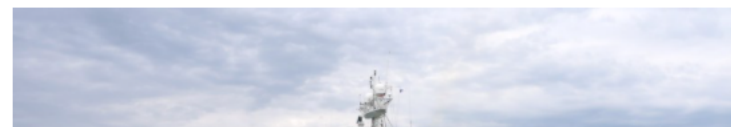
Vessel details:

Length	Breadth	Draught	Gross Tonnage	Ice class	DP	Service speed	Max No. Scientific Berths	No. of EF+ Scientific Berths
66.3m	13.80m	5.00m	1969 RT	Ice 1A*, PC6 or 7 in 2020.	Yes, DP1	12kn	27	25

Finland's National Research vessel, 66.3m long. Commissioned 1989, major refit 2017-2018. Operates currently ca. 200 days per annum. DNVGL Class 1A Research Ship E0 Ice(1A) Battery power.

Silent class R (approval in progress).

Special purpose ship code (max 60 persons).



Webinar - How to apply for a Co-PI grant



EF+ VESSELS

Technical Detail

Laboratory Facilities (fixed and temporary):

Laboratory space 260m² including 5 labs (biological, nutrient, hydrography, isotope, flex) wet lab, 3 clima rooms. Sampling facility 132m², sampling deck 190m², capacity for 5 20' containers, or 10 10' containers, or combination. Specific fish handling container lab. Underway complete flow through system with fluorometers, thermo-salinometers, sampling automatics, underway ADCP, complete meteorological station w/ ceilometer (Vaisala). Freezers (-18°, -80°), complete nutrient analysis onboard (SEAL)

CTD/Plankton sampling:

SBE 911 CTD w/ 12 bottle Rosette sampler 4000m deployment, HydriBios serial water sampler, Towed plankton and hydrography samplers (Utow, AquaShuttle, MultiNet Midi), complete set of HydroBios vertical plankton nets (Phytoplankton, WP-2)

Multi-Beam(s)/ Sub Bottom profiling:

Shelf depth (500m) Multibeam system and SSS under procurement, installed in 2019-2020 in drop keel and separate SSS winch system. Single-beam chirp 12-22 kHz (drop keel), single-beam 12 kHz (hull), both attached to Meridata high-definition sub-bottom profiler system. 28 kHz single-beam for CTD work, 50 kHz single-beam for use in back deck instrument operations/installations (e.g. piston corer), ADCP

Fisheries Echo Sounders/Sonar:

EK60 38kHz, EK80 with 38, 70, 120, 200 and 333kHz; Scanmar trawl control system, Marport trawl control system

USBL:

BATS

Coring/Sampling Capabilities:

Van Ween, box corer, Gemax sediment samplers

Winches:

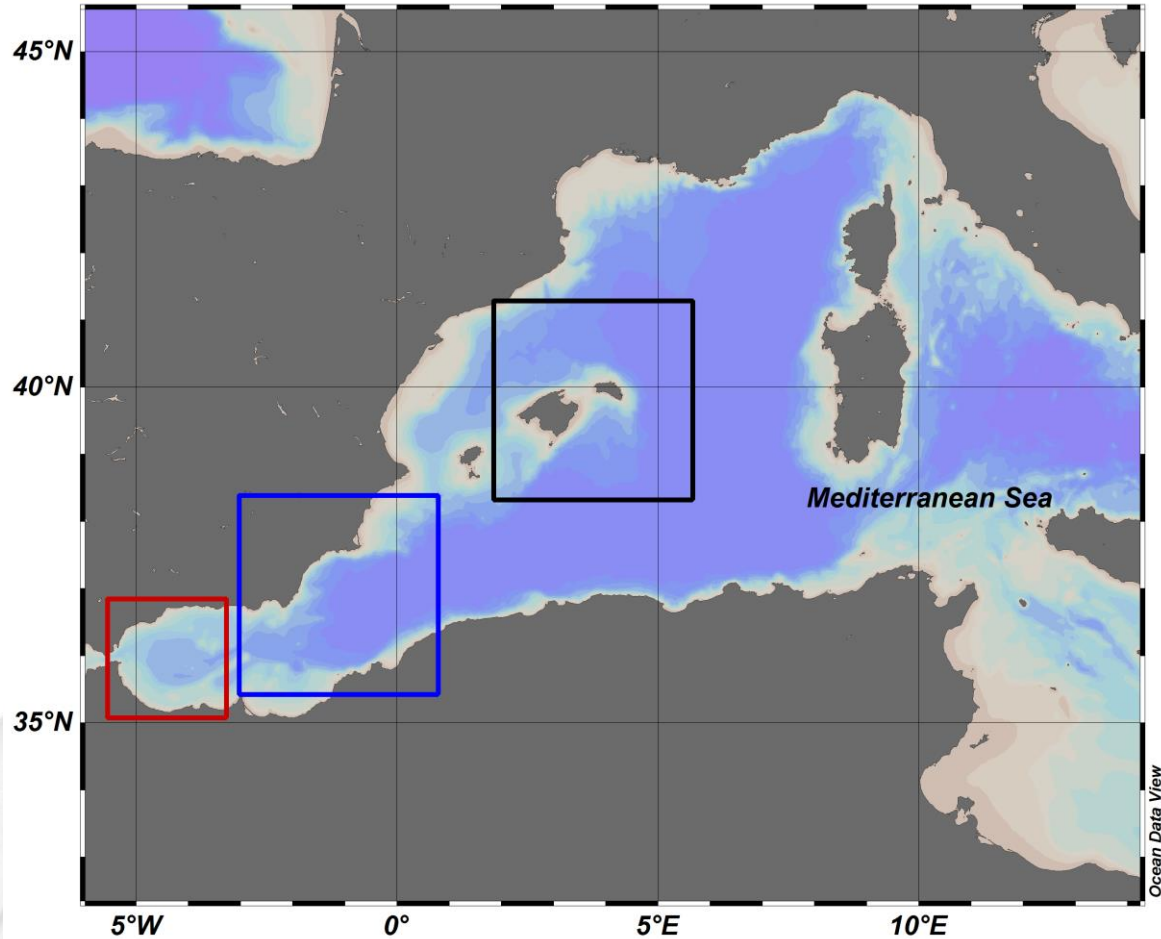
Deck crane SWL 20 kN/16 m, 30 kN/ 8 m

Aft A-frame SWL 50 kN/100 kN + towing winch



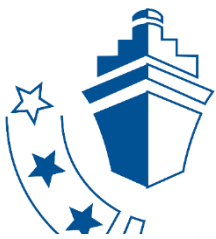


EF+ CRUISES



Potential Eurofleets+ Cruises – Mediterranean Sea: **RV Thalassa and ROV Ariane (summer 2021)**, RV SOCIB (autumn 2021), **RV Belgica II (late autumn 2021)**

2021	
Vessel Name	Location
RV Arni Friedrikson	North Western Iceland
RV DANA	Bredefjord, Greenland. Easily accessible (embark/disembark) from Narsaq, Greenland
RV Celtic Explorer	NE Atlantic (S Rockall Plateau; Eriador Seamount; Porcupine Basin & Ridge; East Thulean Rise)
RV GO Sars_Aegir	Denmark Strait, between 64 and 68.5°N.
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EF+ VESSELS

RV THALASSA

Vessel Profile

Home port:	Brest, France
Home port Coordinates:	Latitude: 48° 23' 60.00" N Longitude: 4° 28' 59.99" W
Organisation & Address:	French Oceanographic Fleet Management, Ifremer Brest, 165 Sainte Anne Road, CS 10070, 29280 Plouzané, France
Vessel Web site address:	http://www.flotteoceanographique.fr/La-flotte/Navires/Navires-hauturiers/Thalassa
Link to Vessel Schedules:	https://www.flotteoceanographique.fr/Les-campagnes/Calendriers/Calendrier-en-cours
Normal Area of Operation:	North Atlantic and Mediterranean Sea in the area 10-60 N, 40W-35E and on a case by case basis depending on annual operation plan.
Max No of EF+ Days:	11

Vessel details:

Length	Breadth	Draught	Gross Tonnage	Ice class	DP	Service speed	Max No. Scientific Berths	No. of EF+ Scientific Berths
73.65	14.90	6.1	2803 UMS	Ice II + Polar Code	No	11 knots	25	25

Fisheries research vessel, 73 m long, delivered in 1996.

The primarily fisheries-based missions are :

- Population ecology
- Fisheries stock assessment
- Study of fish resources distribution over time and space
- Fishery and product processing techniques

The ship carries out other types of missions:

- Geosciences and physical oceanography
- Deployment of the ROV Victor 6000





RV SOCIB

Vessel Profile

Vessel details:								
Length	Breadth	Draught	Gross Tonnage	Ice class	DP	Service speed	Max No. Scientific Berths	No. of EF+ Scientific Berths
23m	9m	1.75	172	–	Yes DP0	12 kts	8h: 13	8h: 13

Balearic Islands Coastal Observing and Forecasting System

23m long, delivered in September 2012. Operates <150 days per annum





EF+ VESSELS

RV BELGICA II

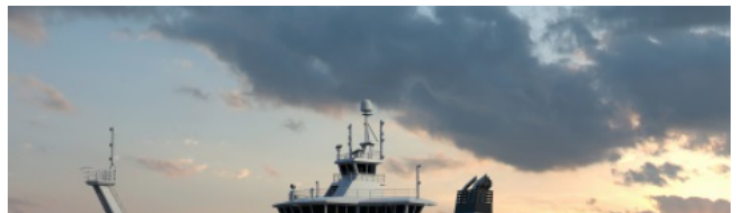
Vessel Profile

Home port:	Zeebrugge, Belgium
Home port Coordinates:	Latitude: 51.3360 Longitude: 3.1986
Organisation & Address:	Royal Belgian Institute of Natural Sciences – Operational Directorate Natural Environment (RBINS-OD Nature) 3de en 23ste Linierregimentsplein, B-8400 Ostend, Belgium
Vessel Web site address:	https://odnature.naturalsciences.be/belgica/en/
Link to Vessel Schedules:	https://odnature.naturalsciences.be/belgica/en/table
Normal Area of Operation:	80N – 28N & 55W – 36E North Atlantic Ocean, North Sea, Mediterranean Sea, Black Sea, Baltic Sea
Max No of EF+ Days:	11

Vessel details:

Length	Breadth	Draught	Gross Tonnage	Ice class	DP	Service speed	Max No. Scientific Berths	No. of EF+ Scientific Berths
71.4	16.8	4.8	3691	DNV-GL ICE-1	DP2	11 kn	28	28

RV Belgica II is a silent multidisciplinary oceanographic & fisheries research vessel built in 2020. She will replace the current RV Belgica at the end of 2020.



Eurofleets+ Provisional Transnational Study

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-  Eurofleets+ TA 2020

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2020 UGOT Hugin AUV/RV Tangaroa



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EVALUATION CRITERIA

1. Scientific and technical quality of the ship-time proposal – **35%**

a) General scientific background

Is the **current state of knowledge** in the research area well described?

Are cited **references** relevant and reflect the state-of-the-art?

b) Specific aims of the expedition

Is the proposed topic of high **scientific quality** and does it provide **innovative aspects**?

Are the **research objectives** and **expected outputs** of the proposal clearly stated? Are they **achievable** from a scientific point of view?

To which extent do the expected results lead to a **progress beyond the current state-of-the-art**?



EVALUATION CRITERIA

2. Quality of the work programme – 35%

Is the **work plan adequate**? Is it **clearly** described and well defined? Is the **research area**, the **number of planned stations** and transects well justified? Can the proposed work plan **be realized in the set time**?

Are the **scheduled tasks and methods adequate** to the set objectives? Is it clearly stated which **methods and equipment** will be employed?

Has the proposal assessed any likely **risks** and are provisions for **downtime/bad weather** included?



EVALUATION CRITERIA

3. Scientific qualification/track record of the proposing PI and user group – 10%

Background/track record of the **PI**/cruise leader.

Background/track record of the **project team** (if applicable)

Are the **roles and responsibilities** of the project team clearly stated? Is the combined **expertise suitable** to achieve the research objectives of the cruise?



EVALUATION CRITERIA

4. Technical capability to carry out the research cruise and data exploitation – 10%

Is all **necessary equipment** available to carry out the proposed project?

Is a clear concept presented how the gathered **data will be analysed and published**?

Is **additional funding** available to support the research cruise and analysis of gathered data and samples?

Will data be fed into **international/national data banks or models**?



EVALUATION CRITERIA

5. Public outreach – 10%

Are **dissemination activities addressing the general public** planned?



SURVEY DESIGN AND PLANNING

by Pauhla McGrane and John Boyd, Marine Institute
and Helene Leau, IPEV

Clearly State:

Why?

- Justification for Survey and Data Sets Targeted

Where?

- Plot of Survey Site, Charts, GIS

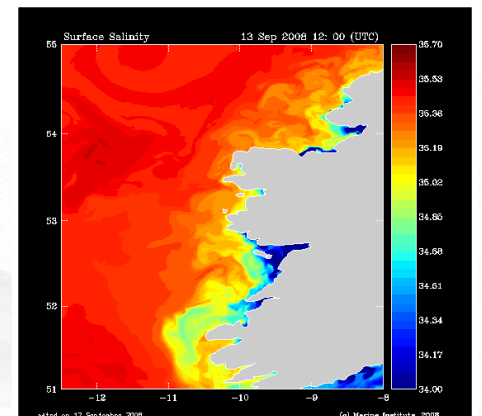
When?

- Season, Survey Dates

How?

- Track Plan and Station Sequence

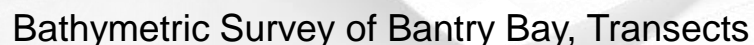
<https://www.youtube.com/watch?v=8fYucfvvgDH8&feature=youtu.be>





- Survey Objectives
- Previous Survey
- Time Available
- Funding

- Continuous Data Acquisition = Transects
- Station Data = Number of Stations
- Physical Boundaries: Depth, Estuary, Fjord



A map of the North Atlantic region, showing depth contours (200-1000m) and NASC values. The map includes a grid with Latitude (52.5 to 57) and Longitude (-12 to -5). The map is divided into sections D8, D9, E0, E1, E2, E3, and E4. The map shows the coastline of North America and Europe. The map includes a legend for NASC Values: 0.1 to 100 (small red dot), 101 to 500 (medium red dot), 501 to 1000 (large red dot), 1001 to 2000 (red dot with a cross), and 2001 to 6500 (red dot with a cross and a circle). The map also shows depth contours for 200m and 1000m. The map includes labels for 'ViaS' and 'VIIIb'.

Webinar - How to apply for a Co-PI grant



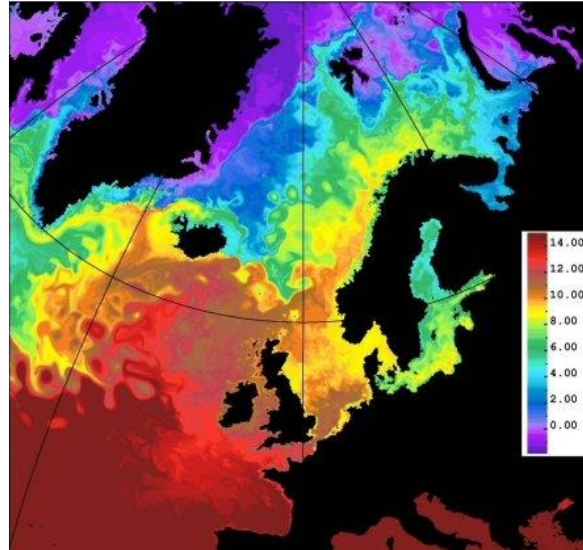
SURVEY DESIGN: WHEN?

Timing

- One off
- Annual
- Monthly
- Weekly

Influenced by:

- Weather
- Clients
- Biology
- Previous Surveys
- Permission
- Stakeholders



Shelf Edge, Spring Coccolithophore Bloom



IDENTIFYING A SUITABLE VESSEL

Choosing a survey vessel :

- Coastal or offshore capabilities
- Communications
- Navigational equipment
- Suitable winches & derricks
- Sample storage facilities
- Sufficient stowage of equipment
- Accommodation
- 12 or 24 hour operations

Ensure Appropriate Certification:

- ENG 11 Medical
- PST Sea Survival
- Liability and Insurance



RV Celtic Explorer
MI - Ireland



RV Thalassa
IFREMER– France



RV Aranda- SYKE
MRC - Finland



RV Simon Stevin
VLIZ - Belgium



CRUISE PLANNING – ESTIMATION OF TIME

Basic information needed

- Cruising speed of the vessel = max speed between two locations without performing operation
- Estimation of weather and sea conditions = take a look at the pilot chart
- Estimation of time needed for each type of operation (can depend on WD)
- Estimation of time needed to prepare the operation

Three types of operations

- En route operations: Acquisition of ADCP, EK60, thermosalinograph, etc.
- Reduced speed operations:
 - A – XBT launch, XCTD launch, some types of sounding acquisition , etc.
 - B – Swath acquisition (profiles) with hull mounted equipment : e.g. bathymetry
- Station operations: A – CTD; B – coring; etc.



DISSEMINATION

Public outreach will take place before, during and after the cruise as announcements and information on the project shall be posted on the **websites** of the A **field blog** where scientific background, purpose of the cruise, methods and cruise updates will be given along with **pictures** and short **movies** shall be set up. The research program shall also be disseminated on **public science days** at ... and we aim to involve Dutch, Danish, Greenlandic and U.S. **media**

Reviewers opinion – very good



DISSEMINATION

To inform the general **public** and to comply with the IPY objective of attracting and developing the next generation of polar scientists, engineers and leaders, we aim to:

- issue **press releases** sent to the Universities/institutions press offices of each of the participants, for publication on the partner's **websites**. They may then widen the dissemination toward their **local/national press**. Connect with **dissemination initiatives** in the framework of the International Arctic Science Committee (IASC).
- devote a **website** (may be part of the project website) to provide information to the **general public and stakeholders**. The web site will have **links and interaction with the EUROFLEETS portal** and ... websites

Reviewers opinion – excellent

EUROFLEETS+ Webinar Co-PI Programme

**Thank you very much and
good luck with your proposals!**

**www.eurofleets.eu
eurofleetsplus@awi.de**

Eurofleets+ Webinar – How to write a proposal for the SEA Programme
<https://www.youtube.com/watch?v=8fYucfvgDH8&feature=youtu.be>

Proposal Writing - a general introduction: <https://www.arice.eu/training/webinars>