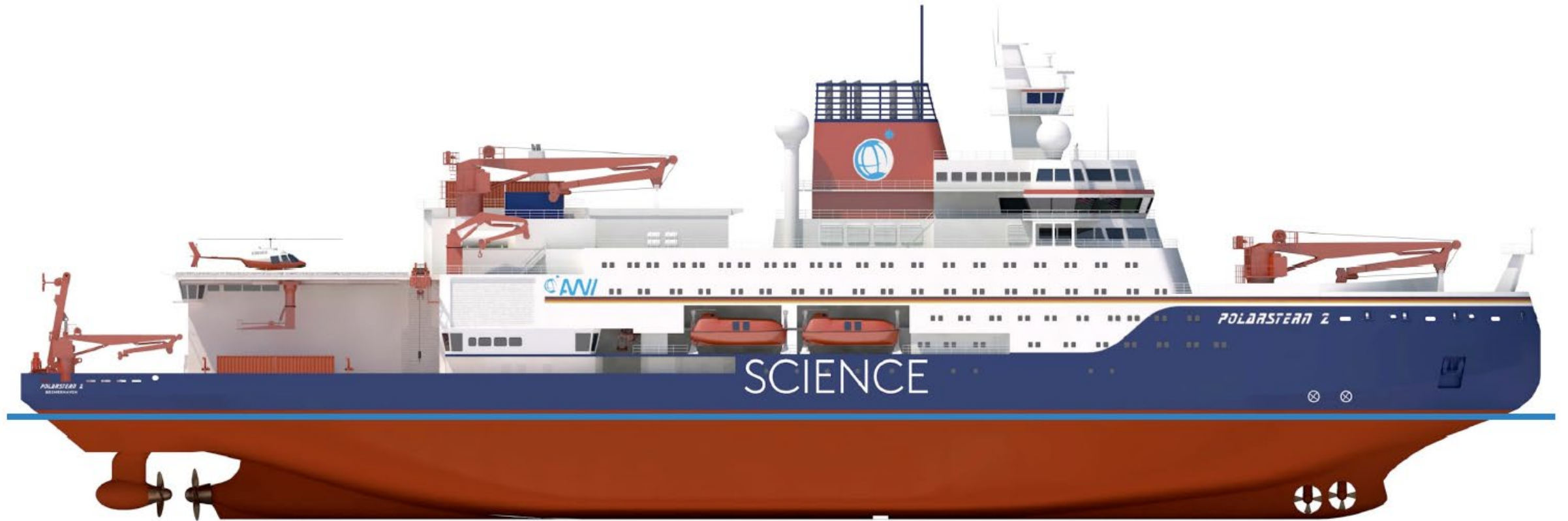




Country update Germany, 2025 - 2027

Dirk Mengedoht, Verena Mohaupt (Alfred Wegener Institute)

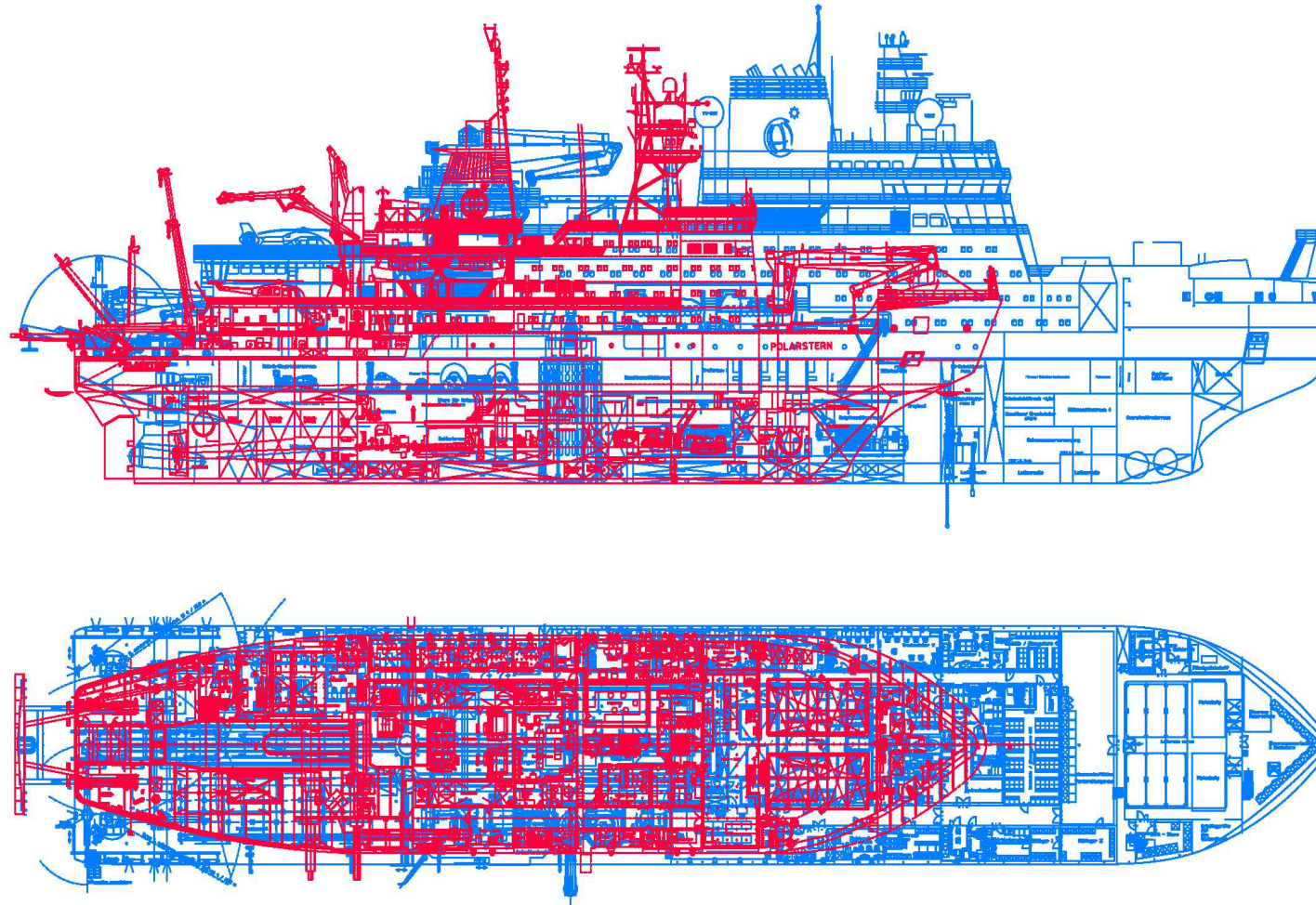
Polarstern II



PS I vs. PS II

Red: Polarstern (Volume: 42.500 m³)

Blue: Polarstern II (Volume: 84.200 m³)



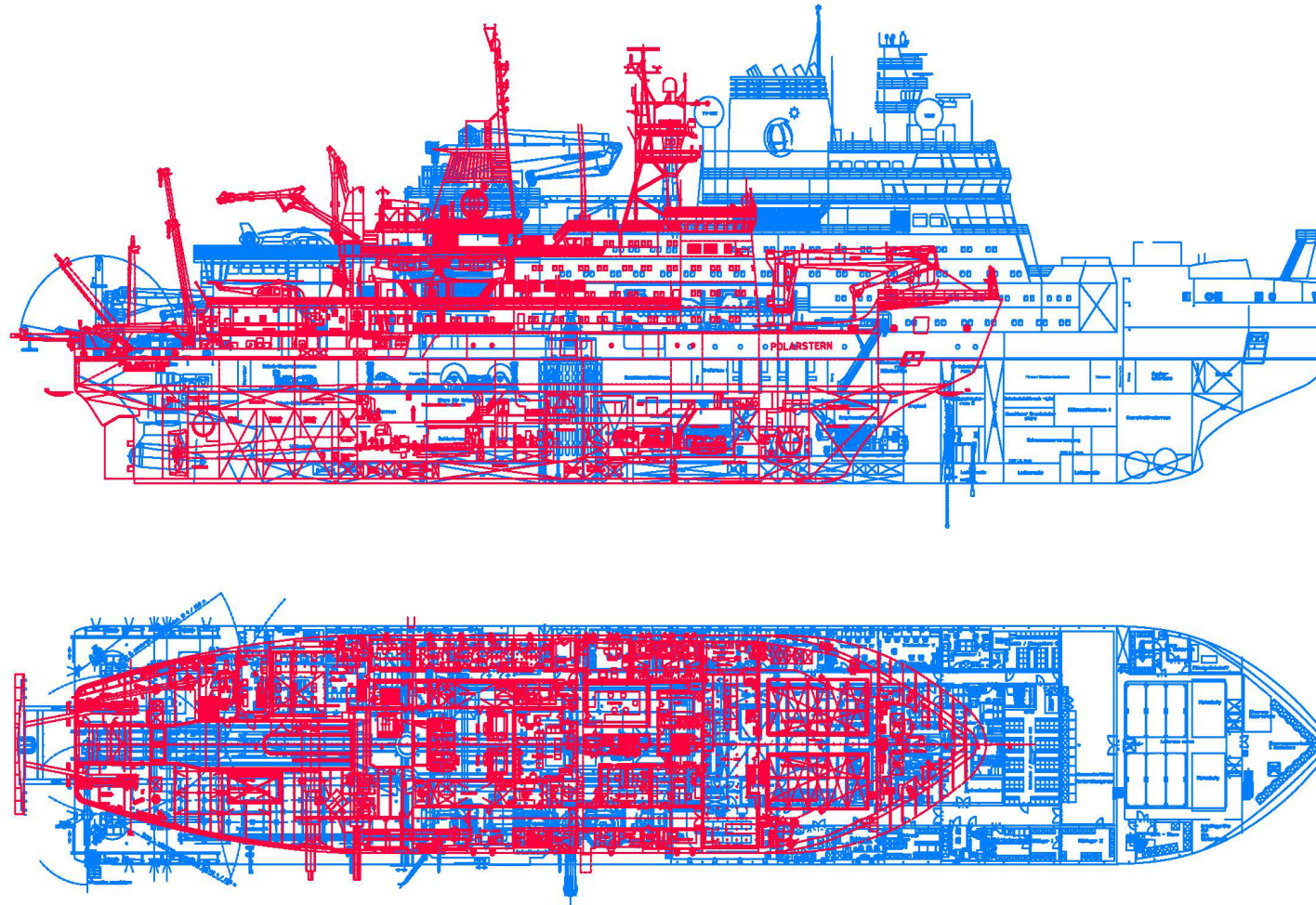
PS II double the size of PSI due to:

- MGO Fuel tanks protected by double hull
- Additional alternative fuel tanks for methanol and large battery package for emission reduced operations
- Approx. double the size of installed power due to ice breaking capability of 1.8 m

PS I vs. PS II

Red: Polarstern (Volume: 42.500 m³)

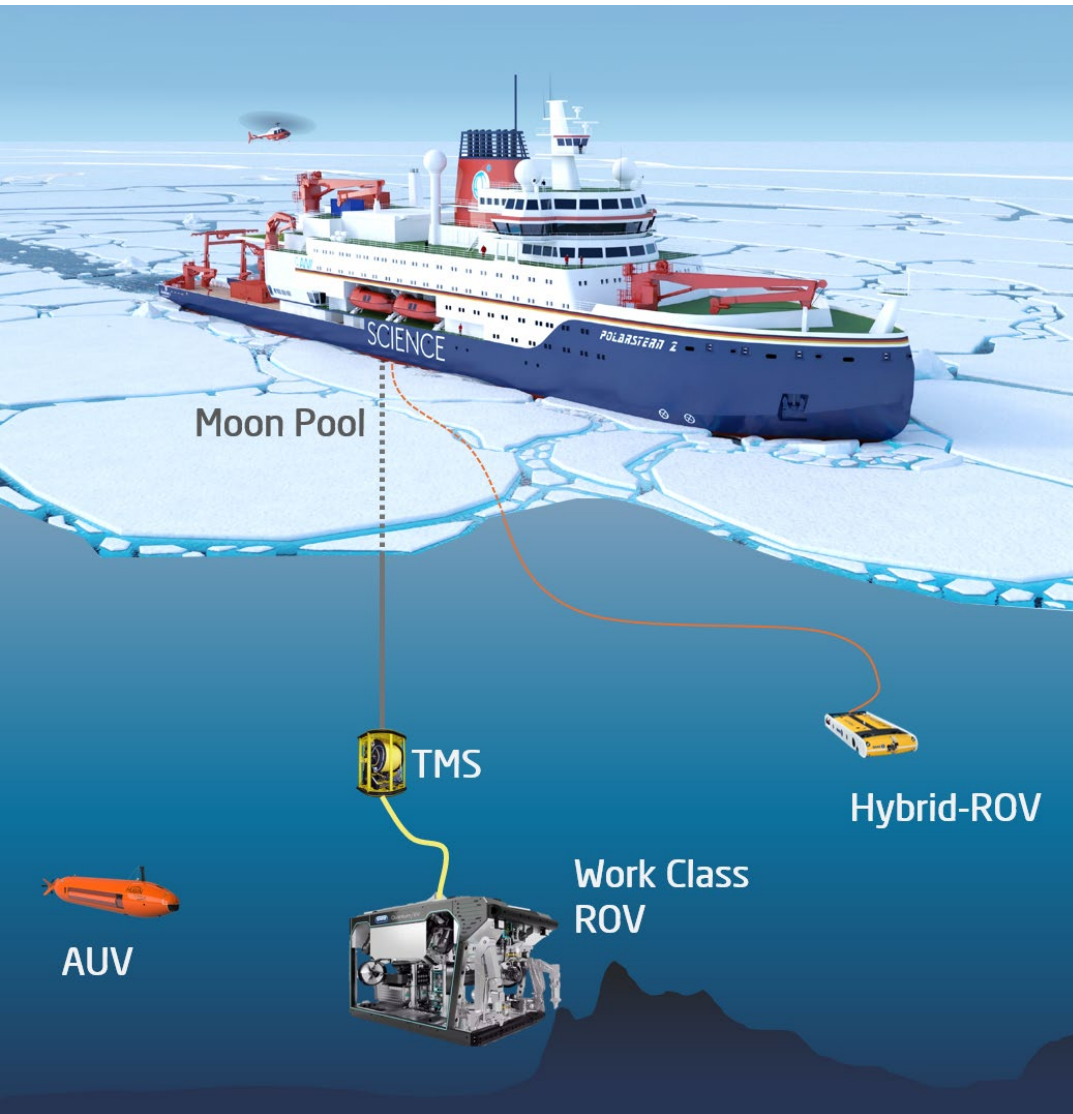
Blue: Polarstern II (Volume: 84.200 m³)



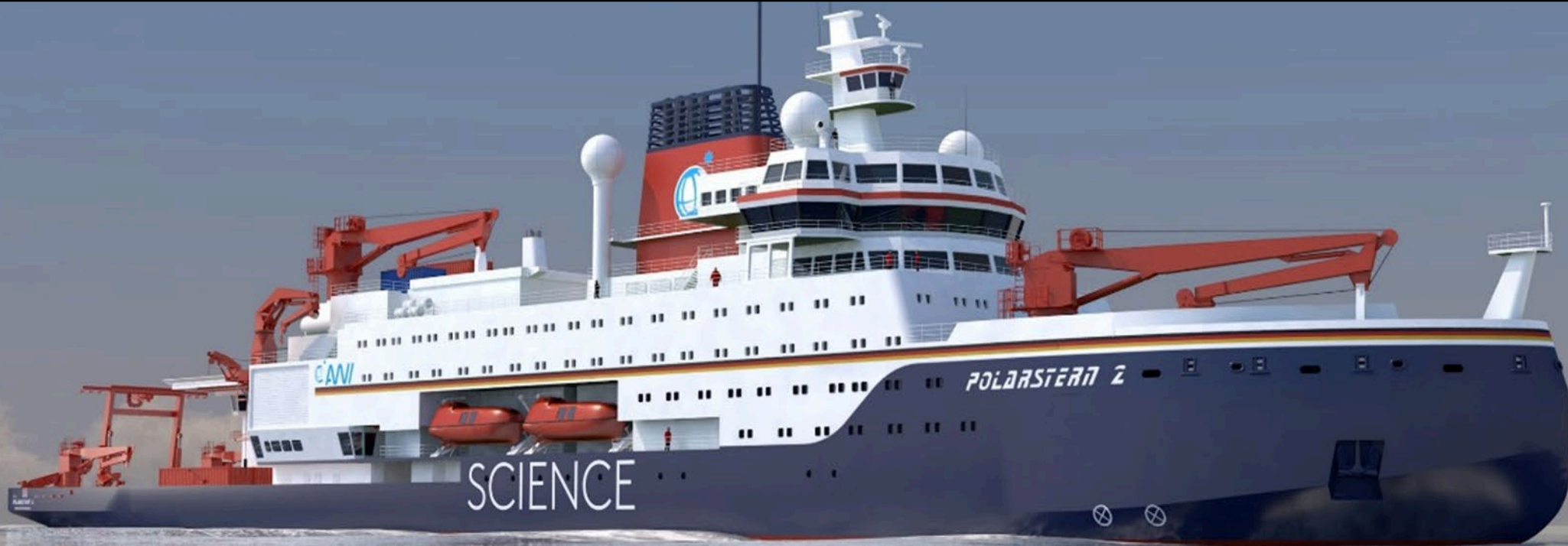
Profit for the users:

- Increase of the lab area by: **+ ~40 %**
- Increase of the scientific usable area (Main working deck, scientific hangar) : **+ ~70 %**

Science equipment – example: Robotic systems



- 6000m Heavy-Work class ROV
- SMD Quantum E.V.
- hovering H-ROV/AUV (3000/6000m) docking LARS & >15km on fiber-optic winch
- SAAB Sabretooth
- Survey AUV 6000m with LARS (Stinger-Ramp) z.B. Kongsberg Hugin Superior /Cellula Solus
- Smaller systems (mAUV/obsROV/... ?)



Polarstern II – timeline

start 12/24, kiellaying 9/27, trials 8/29, in service 8/30

An aerial photograph of a research ship, likely the AWI Polarstern, navigating through a vast expanse of Arctic sea ice. The ice consists of numerous irregular, interconnected floes of varying sizes, creating a complex, textured surface. The ship is positioned in the lower-left quadrant of the frame, moving towards the center. The sky is a uniform, overcast grey, and the overall scene conveys a sense of isolation and scientific exploration in a high-latitude environment.

AWI's contribution to Arctic Pulse in 2027

Research in the Western Canadian Arctic

Bennet Juhls, Gesine Mollenhauer,

Arctic Pulse & the Polarstern-Amundsen Partnership 2027 - Follow-Up meeting

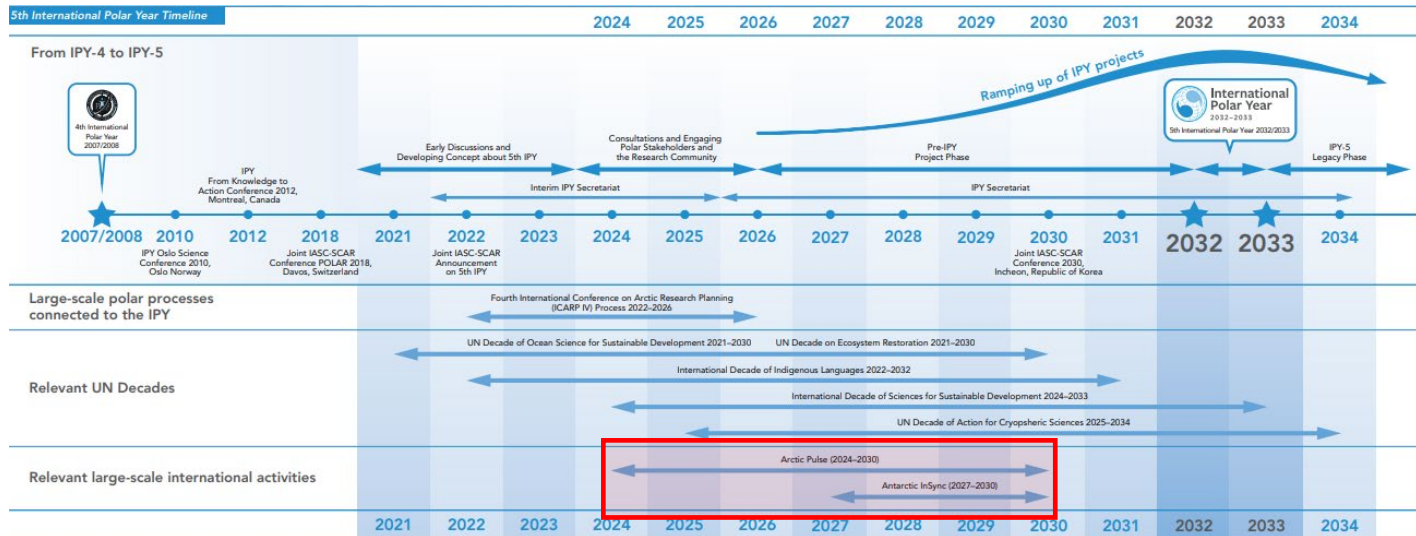
ASM2025, Calgary, 17 December 2025



Arctic Pulse: BeauPAIR, REVISIT, ArcticLand



International Polar Year 2032/2033



BeauPAIR PS161+162



Gesine Mollenhauer
 Marcus Gutjahr (Geomar)
 Bennet Juhls
 Frank Wenzhöfer
 Susann Henkel

REVISIT Flight campaign



Thomas Krumpfen
 Christian Haas
 Guido Grosse
 Torsten Sachs (GFZ)

Arctic Land Expeditions



Ulrike Herzschuh
 Guido Grosse
 Hugues Lantuit
 Julia Boike
 Bennet Juhls

Ramping projects

towards next IPY



ARCTIC PULSE

ARCTIC  PULSE
@ 



Natan Obed,
President of Inuit Tapiriit Kanatami,
Tjorven Bellmann,
German Ambassador in Canada
Mona Nemer,
Canada's Chief Science Advisor,
Jackie Dawson,
University of Ottawa's Arctic Pulse Initiative



Gesine Mollenhauer



Bennet Juhls



Almut Brunner



Thomas Krumpfen



Susann Henkel



Anne Morgenstern

Jan Kahl

- German participation in line with new Arctic Strategy
- Supported by Germany's ambassador to Canada
- Strong support also from Indigenous Communities