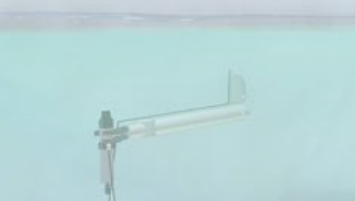


AWI Meereisphysik, Ozeanographie der Polarmeere, Tiefsee-Ökologie und -Technologie

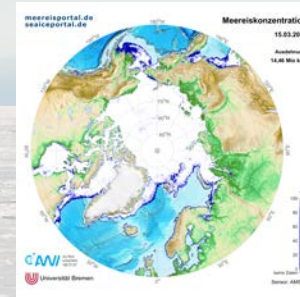


**Einsatz von autonomen und ferngesteuerten
Technologien rund um das Meereis**

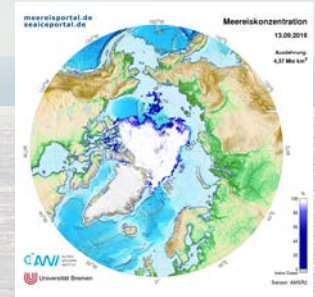


Drei große Herausforderungen:

1. Räumliche Variabilität („Skalen“)
2. Zeitliche Variabilität („Jahreszeiten“)
3. Interdisziplinarität („Wechselwirkungen“)



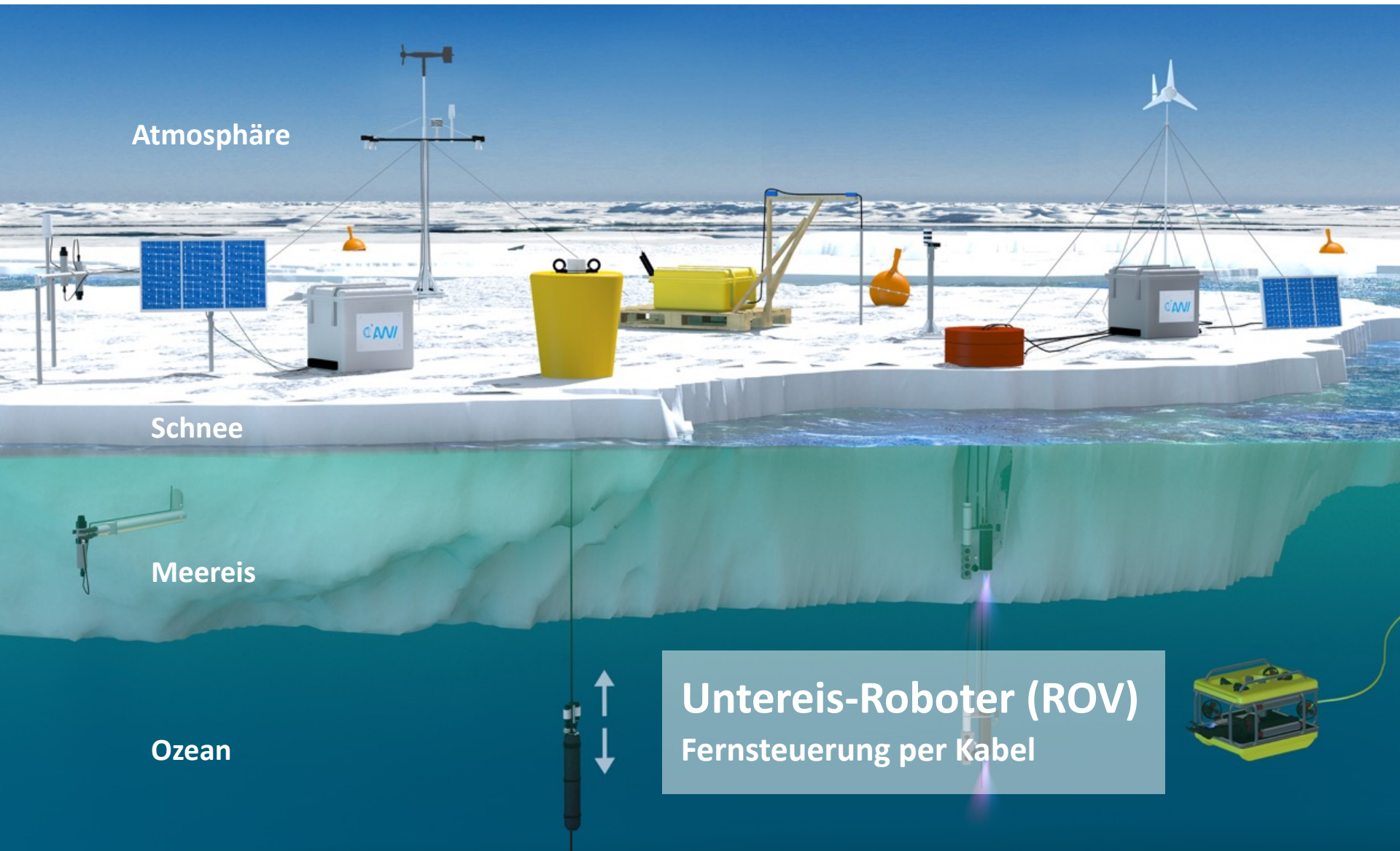
Winter



Sommer



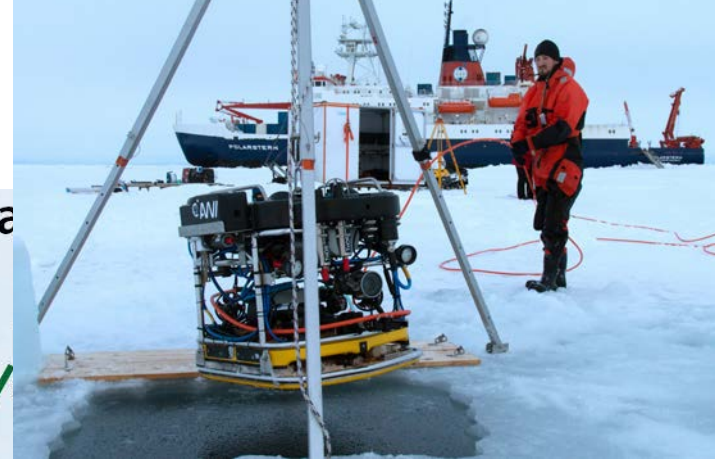
Autonome & ferngesteuerte Technologien



Ferngesteuerter Untereis-Roboter

“Remotely operated vehicle” (ROV)

Fotos: Marcel Nicolaus



USBL position
Micronav (Tritech)

Scanning sonar
Micron (Tritech)

Multibeam sonar
DT101 (Imagenex)

Irradiance
Ramses ACC-VIS (320-950 nm, Trios)

pH
18 PH (Seabird)

Still camera
Tiger Shark (Imenco)

Altimeter
PA500 (Tritech)

On skid

Nitrate
SUNA (Satlantic)

Attenuation
Viper (360-750 nm, Trios)

CTD
GP-CTD (Seabird)

Oxygen
43F DO (Seabird)

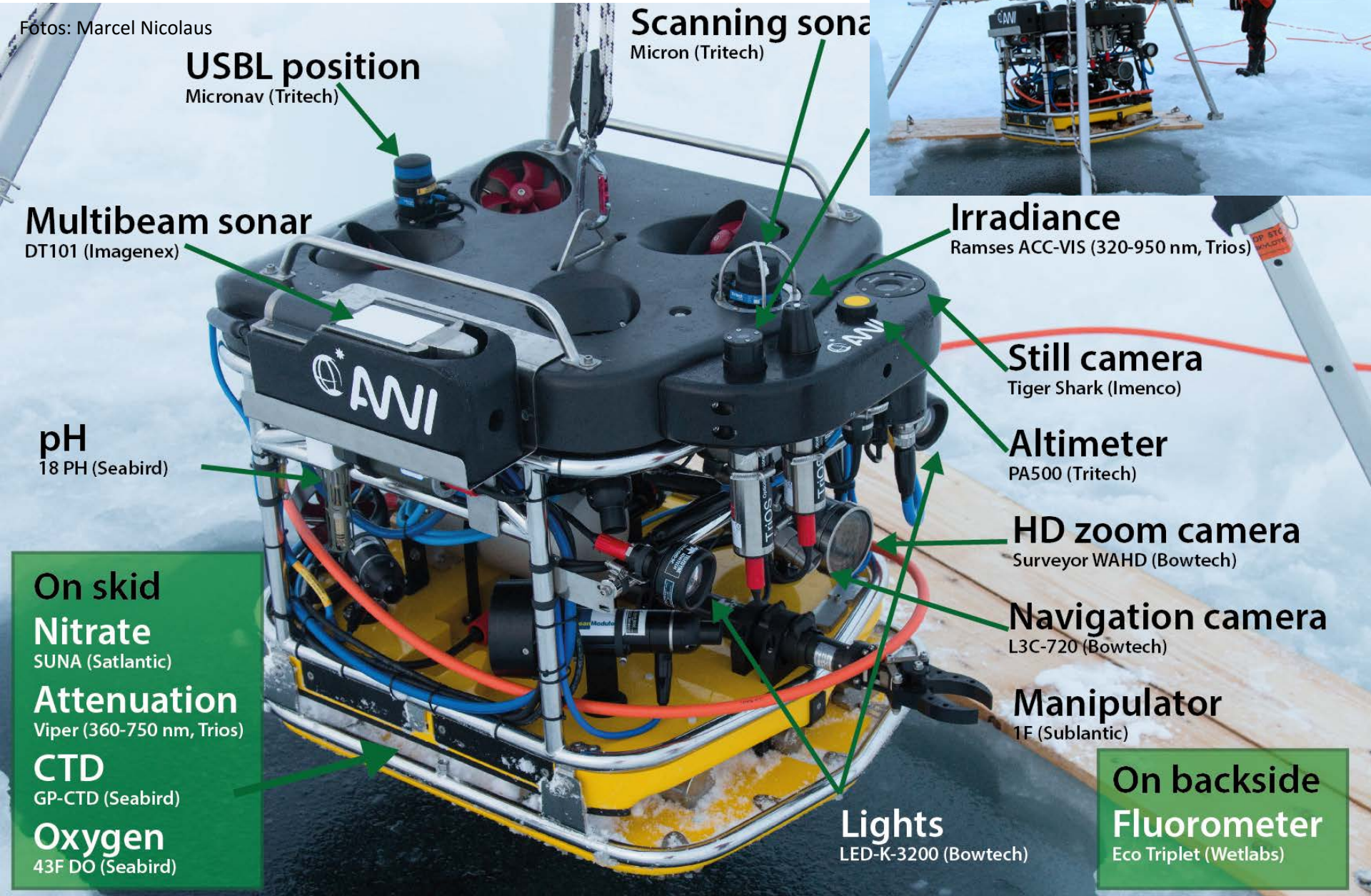
HD zoom camera
Surveyor WAHD (Bowtech)

Navigation camera
L3C-720 (Bowtech)

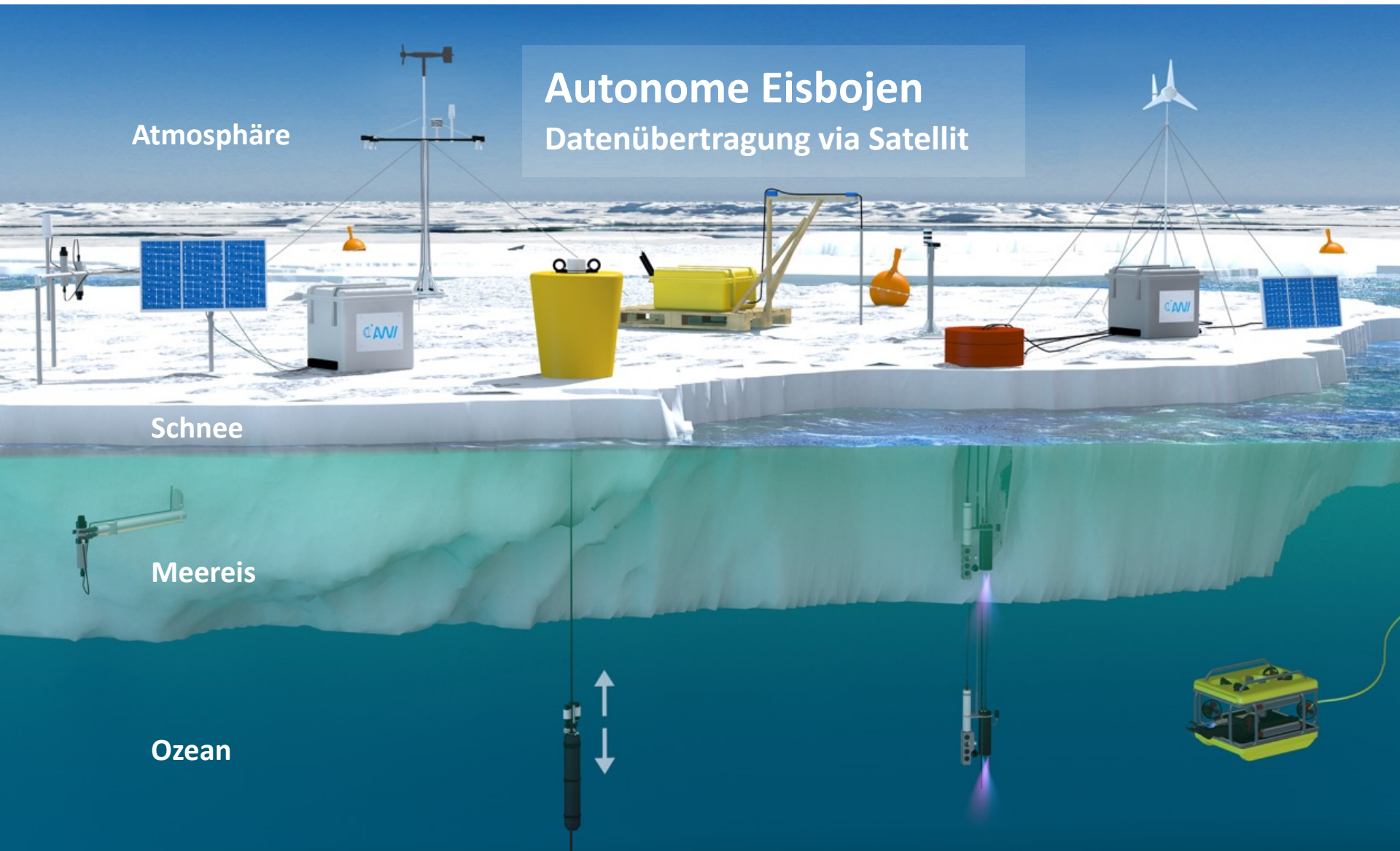
Manipulator
1F (Sublantic)

Lights
LED-K-3200 (Bowtech)

On backside
Fluorometer
Eco Triplet (Wetlabs)

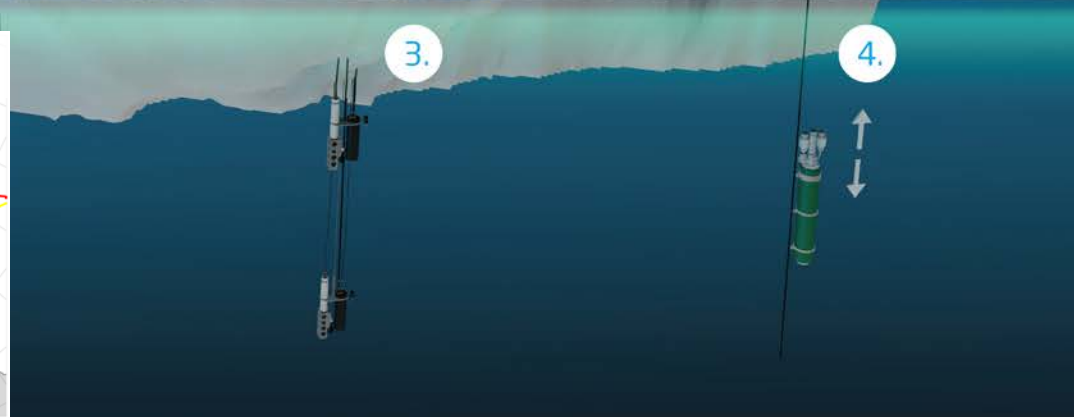
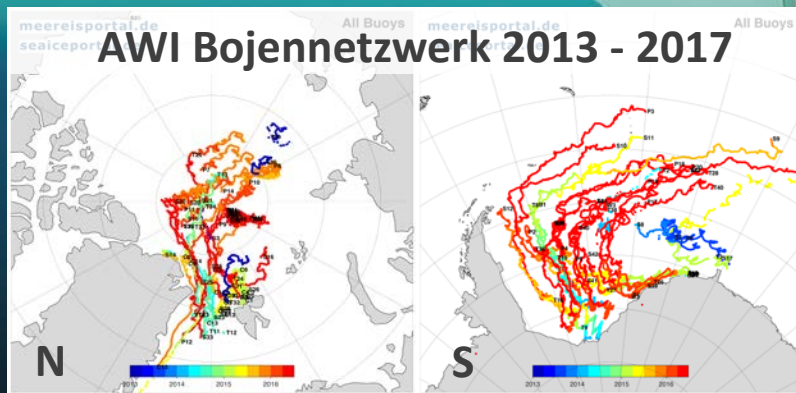
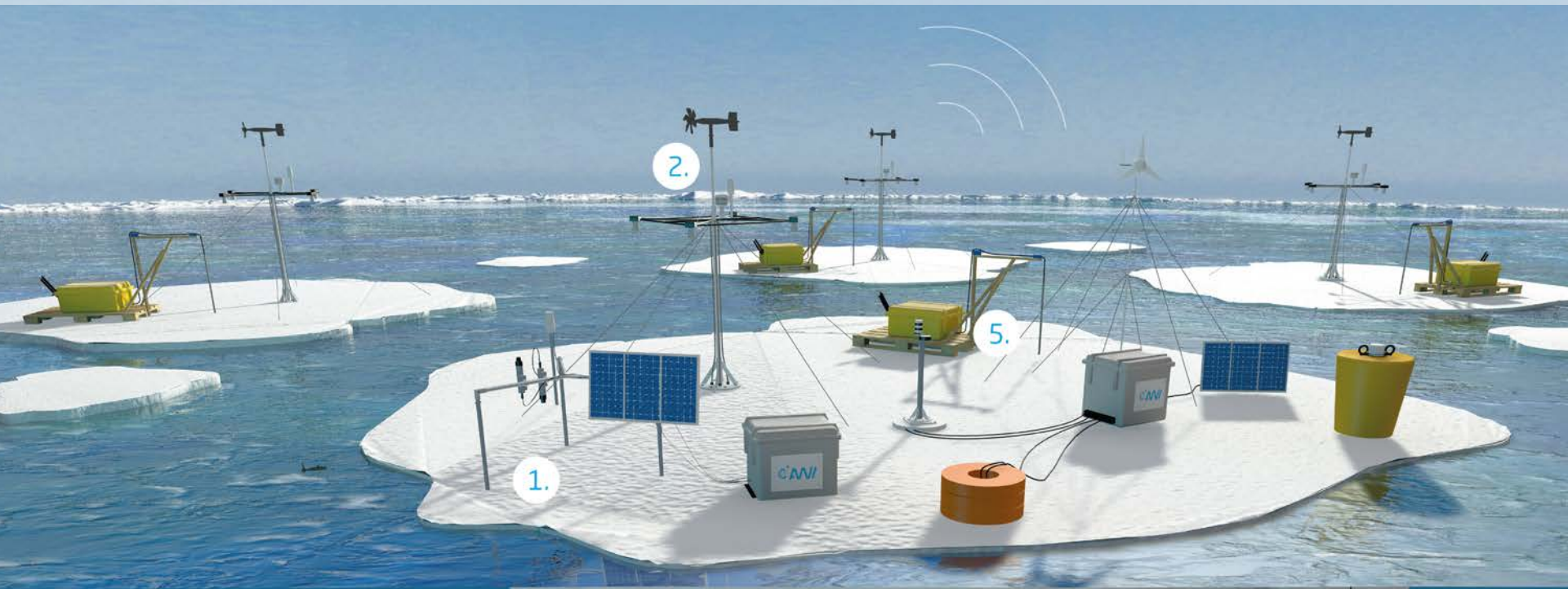


Autonome & ferngesteuerte Technologien



AWI Bojennetzwerk in den eisbedeckten Ozeanen

- Daten frei verfügbar (www.meereisportal.de)
- Beitrag zu internationalen Bojenprogrammen (IABP, IPAB)
- Echtzeit-Dateneinspeisung in das Global Telecommunication System
- Wichtiger Bestandteil des Year of Polar Prediction 2017 – 2019



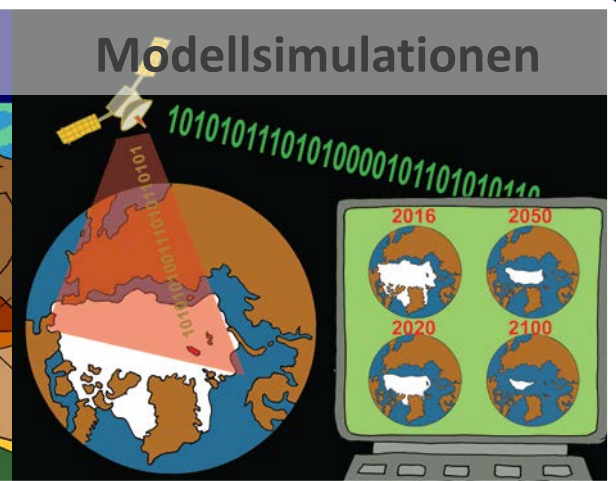
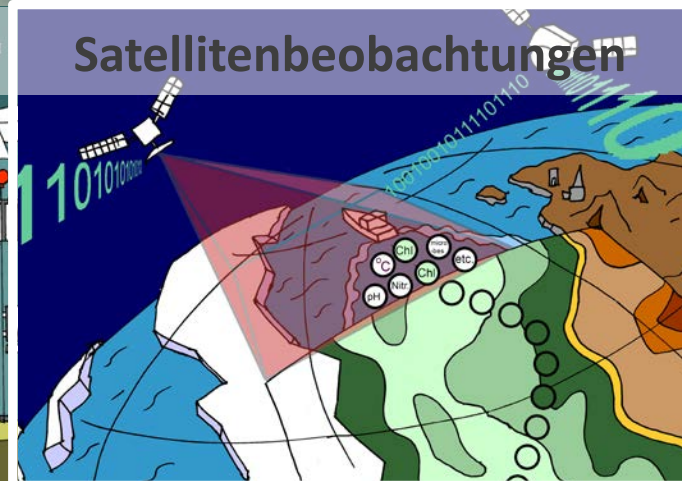
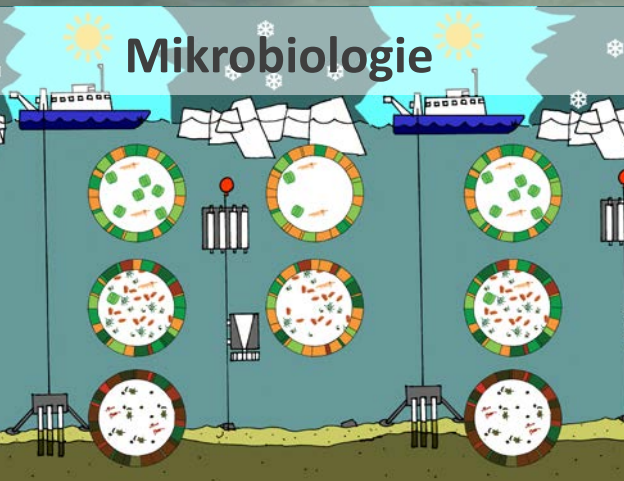
Kontext: Infrastrukturprogramm FRAM



Beobachtungen am Meeresboden



Beobachtungen im Ozean



Polarstern's einjährige Drift in 2019/20

