

# Intelligent Seafloor Monitoring and Consulting

### **Seafloor monitoring**

Environmental awareness and technological advances have spurred development of new monitoring solutions for the offshore and marine sector

- ...the costs for seafloor operations using ships and ROVs are high
- ...robotic innovations allow to drastically reduce the running costs for seafloor monitoring
- ...the internet allows rapid analyses and distribution of results from robot monitoring

#### **iSeaMC**

- ...has developed (semi)autonomous robots for seafloor monitoring and surveying
- ...offers complete robotic infrastructure and accompanying services
- ...operates own seafloor robot systems for longterm deployments
- ...can be deployed in the METAS X-frame
- ...has a proven longterm record in deep sea research since 2010
- ...executes complete monitoring programs including the help of international experts
- ...provides environmental maps and data analyses
- ...offers laboratory facilities on hydrodynamic behavior of particles and fluids (drill cuttings, sediments, oils, plumes from mining operations)



#### Unique selling points

- Provision of highly sophisticated tele-operated robot technology for ≤ 6000 m deployments
- Deployable from beach and ships with WLAN buoy with tele-operations over> 10 km distance in shelf seas
  (< 200 m water depth)</li>
- Cost effective seafloor monitoring and consulting
- Subcontracting experts from renowned oceanographic institutions
- Long year experience in consulting for hydrocarbon industry
- Track record and media presence due to international research projects
- Full autonomy in 2020

## Expert group

⇒We recruit and subcontract additional experts from an international network of Institutions

- nationally, including GEOMAR, AWI, ZMT, MPI, MARUM, U-Bielefeld and
- internationally, including the School of Oceanography, Seattle, NIOZ, Texel, NOC Southampton, Uni-Gotheborg, IMR Bergen, IFREMER Brest, Uni-Victoria, Uni-Barcelona, CNRS.

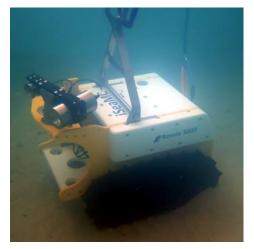


Thomsen L, Barnes C, Best M, Chapman R, Pirenne B, Thomsen R, Vogt J.(2012) Geophys. Res. Lett., 39

A. Purser, L. Thomsen / Marine Pollution Bulletin 64 (2012) 2309–2316 Godø, ..., & Thomsen, L. (2014). Marine pollution bulletin, 84(1), 236-250. Thomsen, et al. (2017) Scientific reports 7, no. 1.

Danovaro ..., & Thomsen, L. (2017) Science 355, 6324,

Chatzievangelou, ..., & Thomsen, L. (2016) PloS one, 11(10),



In collaboration with METAS

Contact: <a href="mailto:c.thomsen@iseamc.com">c.thomsen@iseamc.com</a> Tel.: +49 421 200 3660, Bremen, Germany