Innomar standard-rov
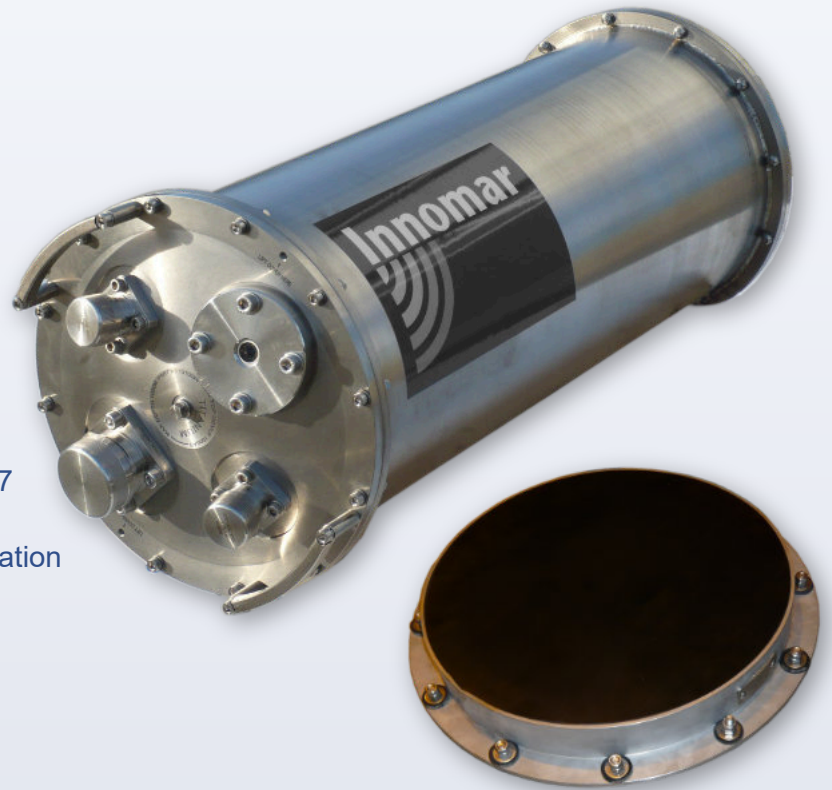## Parametric Sub-Bottom Profiler

Innomar

A **NORBIT** Company

▶ General & Applications

- First / latest product generation: 2003 / 2017
- Integration into work-class ROVs
- Remotely controlled and automomous operation

▶ Performance

- Range: 1−400 m below transducer
- Depth rating: 2,000 m
- Seabed penetration: up to 40 m
  (depending on seabed type and noise)
- Range resolution: up to 5 cm
  (depending on pulse settings)
- Depth accuracy: 2.5 cm + 0.06% range
- Motion compensation: Heave, Roll or Pitch
  (beam forming at transmit only;
  external sensor data required)

▶ Transmitter

- Principle: parametric (nonlinear) acoustics
- Frequencies: 100 kHz (HF) / 5−15 kHz (LF)
- Primary Source Level: >239 dB//µPa re 1m
- Acoustic Power: c. 3 kW
- Beam width: c. 4° (±2°) for all frequencies
- Pulse type: CW, Ricker, FM Chirp
- Pulse width: 0.07−1 ms (CW), 1.5 ms (chirp)
- Pulse rate: up to 40 Hz, multi-ping mode

▶ Data Acquisition

- Digital, 2 channels (LF and HF, "SES3" format)
- Sample rate c. 70 kHz @ 24 bit; resolution <2 cm
- LF sub-bottom data: raw (full-waveform)
- HF data: processed (envelope)

▶ System Components

- Subsea unit (transceiver electronics):
  Titanium Housing D 28 cm × L 75 cm / c. 58 kg
- Transducer:
  D 47 cm × H 6 cm / c. 32 kg (w/o cable)
  cable length 5 m, connectors on both ends
- System control PC (not included):
  MS Windows® based

▶ Optional Features

- SESWIN extended remote-control

▶ Power Supply Requirements

- 85−260 V AC or 115−370 V DC
- Power consumption: typ. 85 W / max. 250 W
- Power-on inrush current: max. 15 A

▶ Software

- SESWIN data acquisition software
- SES-Convert SEG-Y/XTF data export
- SES-NetView remote display
- ISE post-processing software (optional)

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