

Deep subsea data transmission : wet mateable hybrid connectors based on dry inserts

VLVnT

La Sapienza, Roma

15 sept 2015



We'll bring power to sea

WWW.POWERSEA.EU

PowerSea SAS is a spin-off created from the CNRS research on the wet-mateable underwater connectors.

President : Peter Weiss

Business Developer : Christophe Tardy

Shareholders :



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Existing technology



OIL & GAS wet mate connector

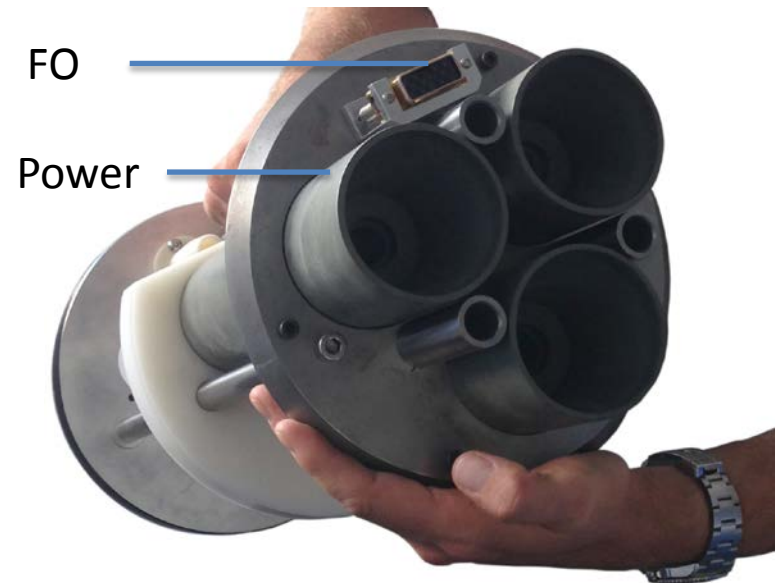
CONCEPT

All the complex and expensive functions are in a tool
Bespoke combination of standard reliable terrestrial inserts

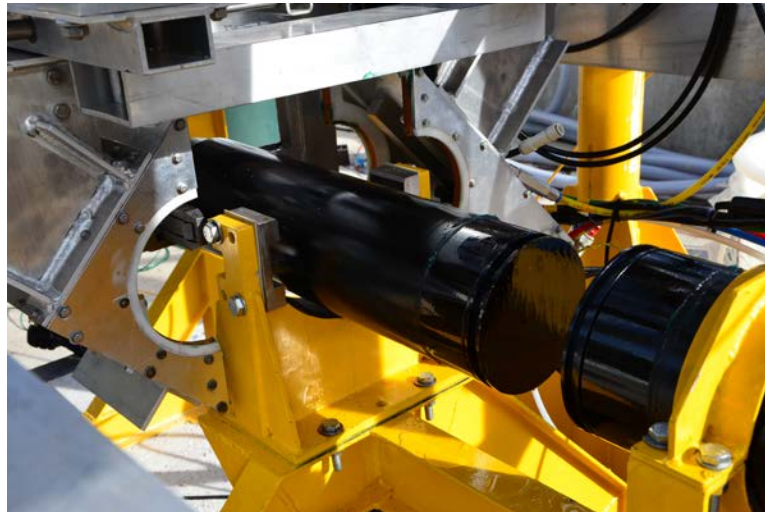
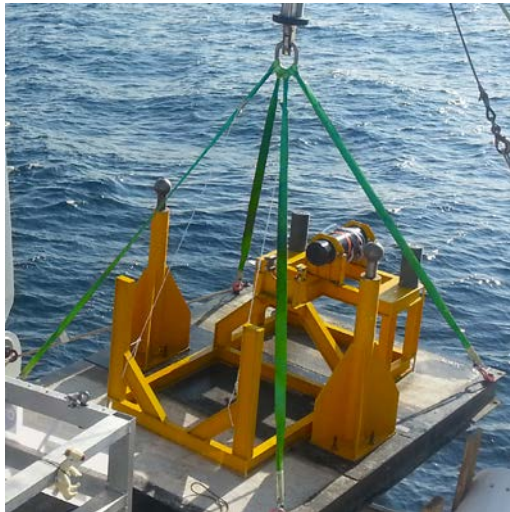
Recoverable coupling machine



Standard inserts

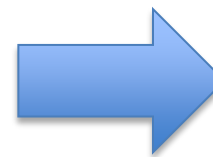


Validated EMR results



FUI POWER MATE 2013
24kV – 300A
Qualification (standards)
IEC 60502 - HD 629.1.

Sea trial (20m)



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Benefits

✓ Reliability

- Proven Standard inserts
- Simple design
- No moving parts on connector

✓ Versatile

- Hybrid up to 24 FO + power

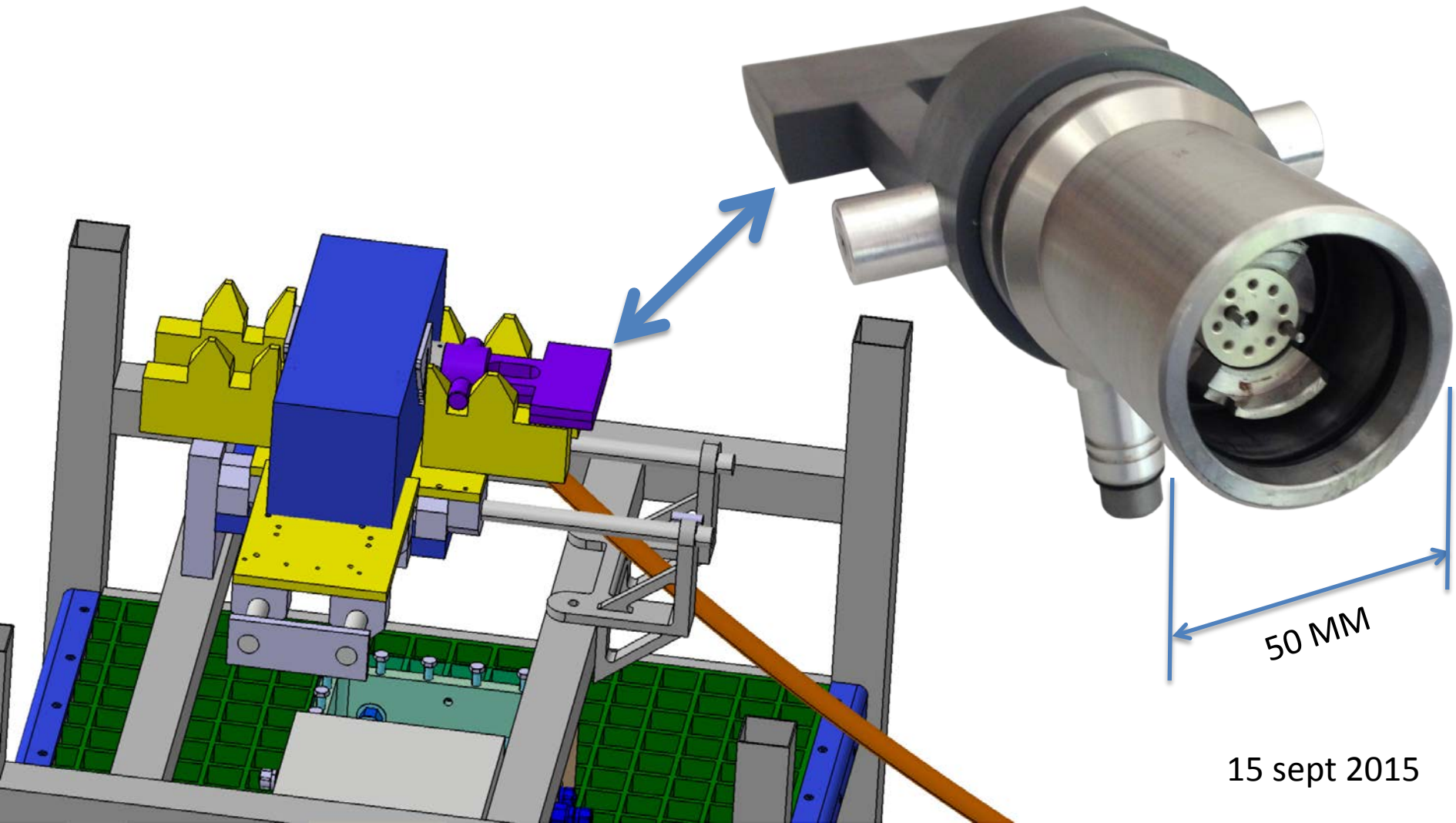
✓ Lower Cost

- Connector itself
- Installation

✓ Remote tool benefits

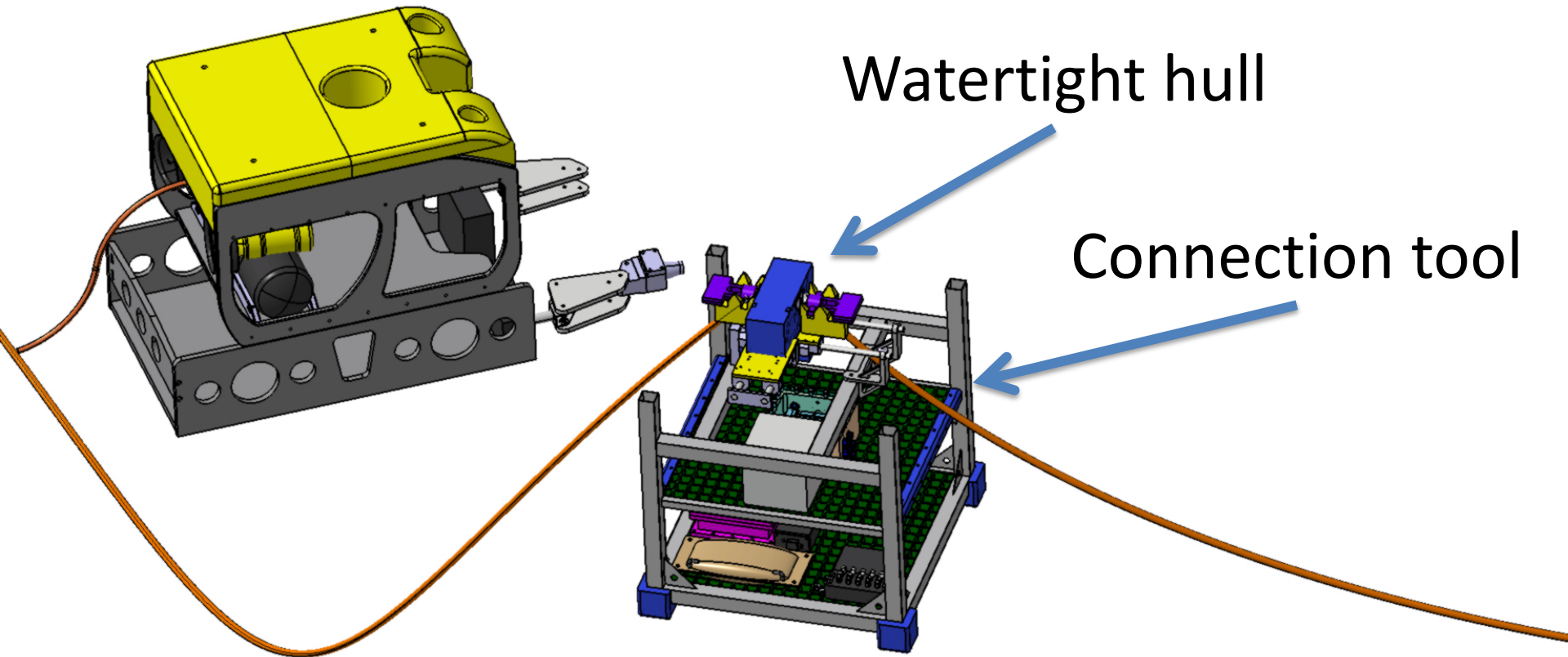
- Small ROV
- Additional bespoke functionalities (eg cleaning)

Scientific applications

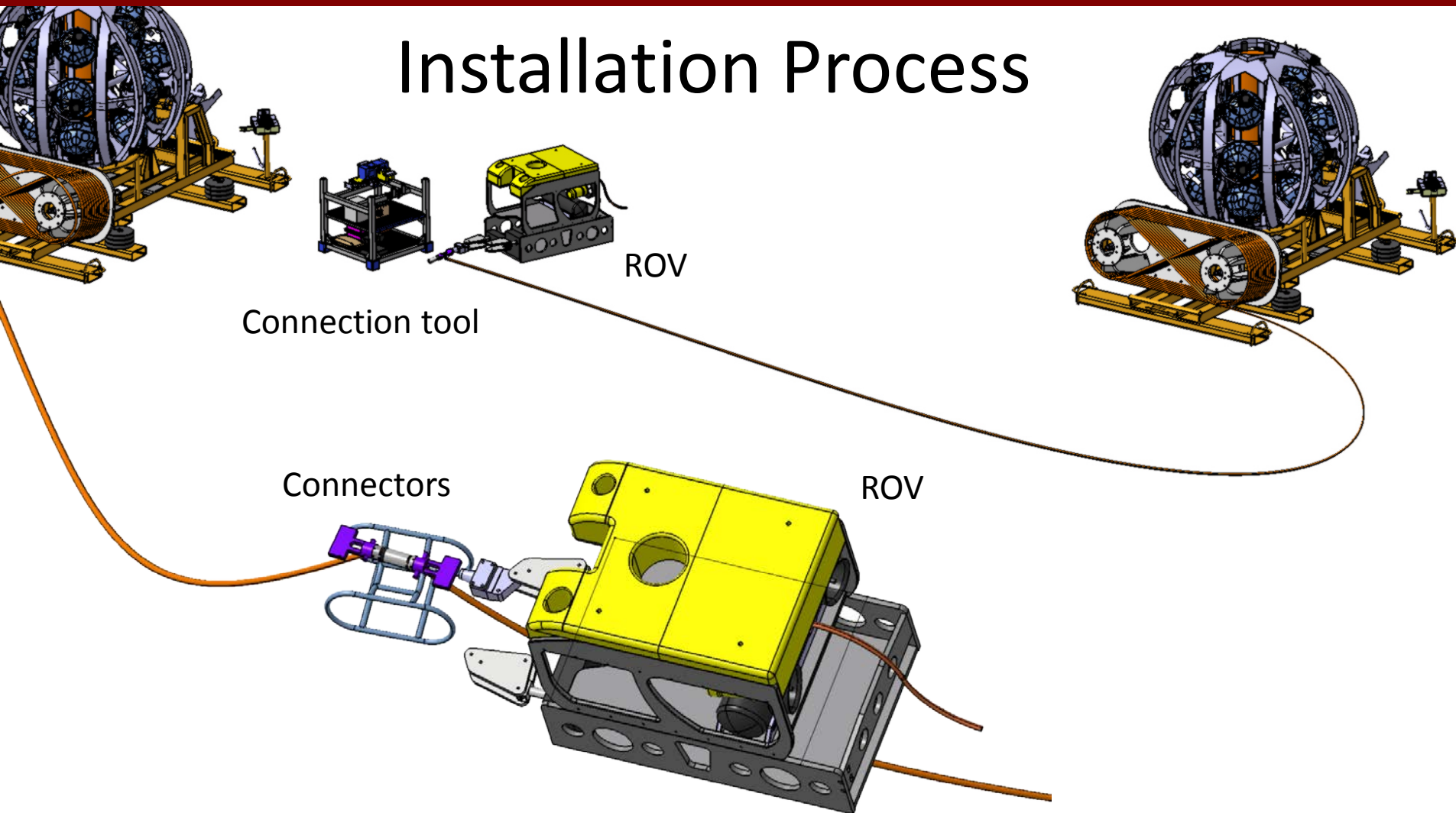


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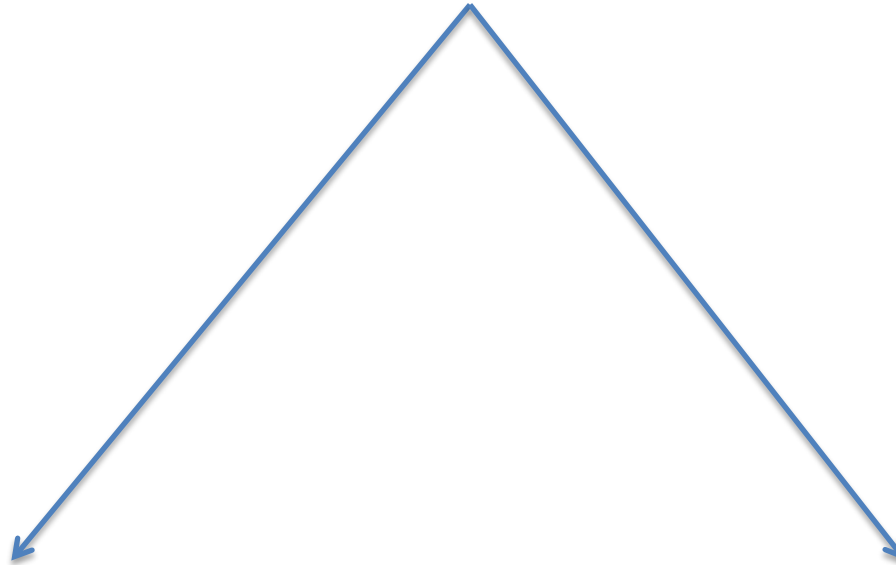
Connection principle



Installation Process



Qualification



Oil & gas standards

Lengthy and expensive

**Scientific adapted
requirements**

Shorter and affordable

Costs

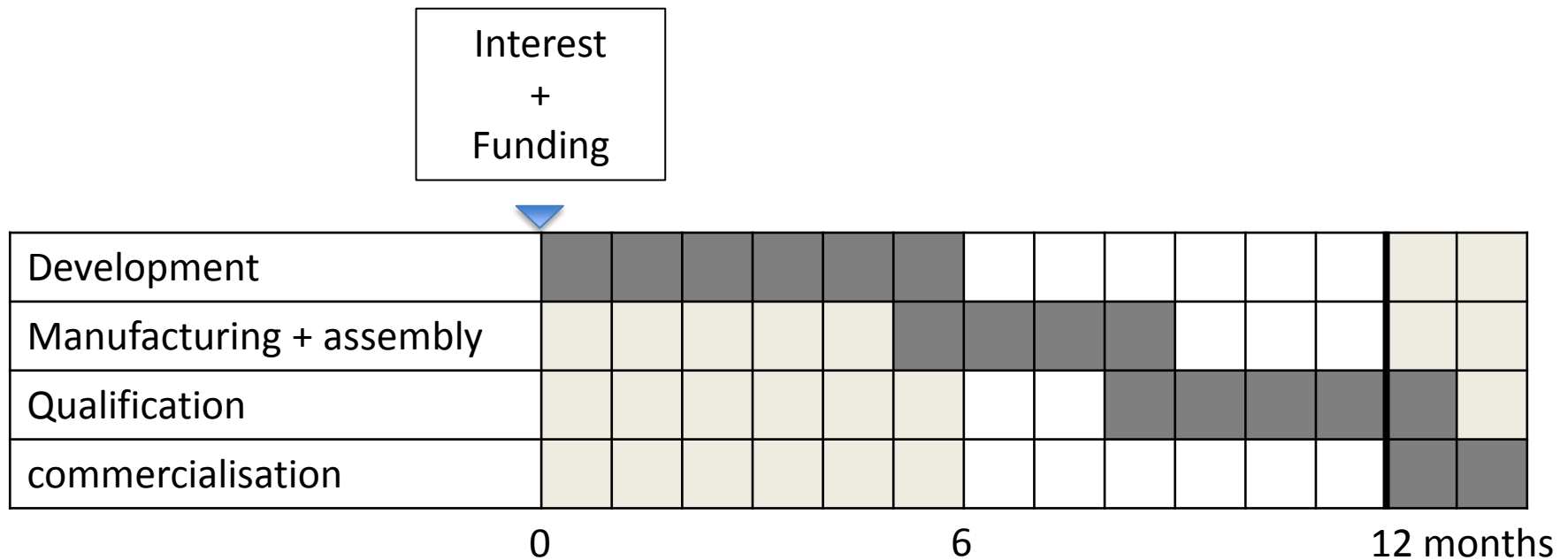
Connection is a major part of the cost, up to 25%
Existing wet mate connector are expensive (O&G based)

Powersea concentrates the highest costs in the recoverable tool
Terrestrial inserts are cheaper and more reliable

The target price is 50% off comparing to existing solutions

30K€ all inclusive (Connector : 20K€ / Connection 10 K€)

Time table



Partnerships

H2020 Fast Track to Innovation Pilot

An opportunity to accelerate wetmate scientific connection development

- 3 nationalities (mandatory)
- 3 to 5 participants, end user accepted
- 87,5 % funding
- High TRL product (Powersea FO connector)
- Dead line December 2016