



CITEPH'S LINES OF ACTION

RESPONSIBLE OIL & GAS



- **Subsurface** (geophysics, geology, reservoirs, drilling, optimized resource management...)
- **Hydrocarbon Transport & Processing** (flow assurance, process engineering, refining...)
- **Offshore & Subsea Technologies** (ROV, AUV, mooring, hydrodynamics, manifolds, pipelines, risers, umbilicals...)

ENERGY AND ECOLOGICAL TRANSITION



- **Carbon capture, use and storage (CCUS)**
- **Alternative Energy Sources** (photovoltaic systems, wind turbines, marine power....)
- **Low-Carbon vectors** (H2, LNG, synthetic fuels, biofuels...)
- **Energy Storage Technologies**
- **Energy Distribution/Management Technologies**
- **New mobility**
- **Environmental impact reduction and energy efficiency**

INDUSTRY 4.0 FOR ENERGY



- **New Design Capabilities** (simulation, new materials, new manufacturing processes)
- **Augmented Worker** (teleoperation, robotics, cobotics, RA & RV, chatbot...)
- **Smart Assets** (big data, IIoT, artificial intelligence...)
- **Safety, Computer Security/Cybersecurity & Reliability**