

# FRAMEWORK FOR SUBSEA ROBOTIC AUTONOMY

INPUT  
COMMAND LINE

**COMMUNICATION MODEL  
(COM)**

- COMMUNICATION & INTERACTION

**SITUATION AWARENESS  
MODEL (SAM)**

- SITUATION ASSESSMENT
- REASONING
- BELIEF MAINTENANCE
- REMEMBERING

**PLANNING MODEL  
(PLAM)**

- PROBLEM SOLVING & PLANNING
- DECISION MAKING & CHOICE

**LEARNING MODEL  
(LEM)**

- REMEMBERING
- REFLEXION
- LEARNING

**PERCEPTION MODEL  
(PEM)**

- PERCEPTION
- RECOGNITION & CATEGORIZATION
- PREDICTION & MONITORING

**EXECUTION MODEL  
(EXEM)**

- EXECUTION & ACTION

OUTPUT  
ACTIONS

INPUT  
SENSOR DATA

