Collaborative efforts of french national public institutes for marine technicians and engineers training.

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Why ?

- Conjunctions of
  - Needs expressed by technicians/engineers in the INSU Labs during an employment prospective
  - Expression of the various organisms to coordinate as much as possible the efforts on Marine Technologies

➔INSU took the initiative of the effort, well supported by the others organisms

Objectives

- In 2010, contribute to the running prospective in Ocean and Atmosphere Sciences in a technology point of view

- Establish, consolidate the links beetween the persons, the labs and organisms at technicians and engineers level

- Share knowledge (intellectual property permitting)

Methods

- Set up a visible time once a year for training
  - Who : Technicians, engineers, PhD students, researchers, …
  - Where : Outside the Labs
  - How long : Significant time, 4 days (6 halfdays sessions)
  - What :
    - Invited speakers for lectures
    - Technical sessions contributed by participants
    - Workshops on specific topics
- Share tools, tips, questions, advices, short reports on conferences/workshops/exhibitions thru a network (distribution list)
- Develop common products as much as possible (scientific programs, work load, intellectual property … permitting)

Contents (1)

- 2010, first edition : State of the art and expression of needs
  - Instruments developpement : embedded electronics
  - Sensors / Smart sensors
  - Autonomous platforms / vectors
  - Data : Calibration / Validation / Archiving
  - Quality processes
  - Moorings

Contents (2)

- 2011, 2nd edition
  - Synergy beetween Space Oceanography and *in-situ* instrumentation
  - Human ressources : Technical persons in Science Labs (recognition, carrier, …)
  - Sensors : design, integration, biofouling, calibration, validation
  - Quality assurance processes
  - ASIC components for very low consumption and very small devices
  - Industrial transferts and Intellectual property (brevets)

Contents (3)

- 2012, 3rd edition
  - Mechanical designs : constraints on materials including composites
  - Underwater acoustics
  - Quality assurance processes
- 2013, 4th edition
  - Sensors : physical, optical, acoustical with manufacturers
  - Signal processing
  - Metrology

Contents (4)

- 2014, 5th edition
  - Project management
  - *In situ* imaging systems
  - ADCP : Moored-, Lowered-, Vector Mounted-, Tow-
  - ADCP : current profilers, turbidity, waves, …
  - Presntation of manufacturer representatives : TRDI, Rowe Tech., LinkQuest
- 2015, 6th edition planned

Products

- Contribution to the Ocean and Atmosphere Scientific Comitee in a technology point of view
- Generic tool for Iridium communications
- Common description library for moorings components (instruments, floats, wires, …)
- Guidelines for Quality assurance processes

Conclusion

- Increase exchanges beetween labs technicians/engineers : only place to meet, talk and share on technical points only.
- Continuous training : fill a need
- Sharing of field returns, new possible common tools, good practises, exchanges with manufacturers, …