

ASSEMBLE



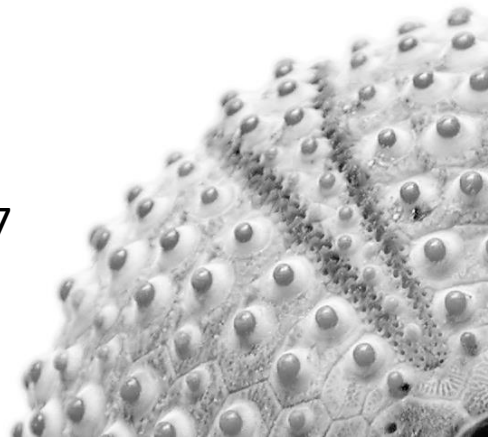
ASSOCIATION OF EUROPEAN MARINE BIOLOGICAL LABORATORIES

JRA 4

Development and standardization of
on-site instrumentation for
experimental marine biology and
ecology

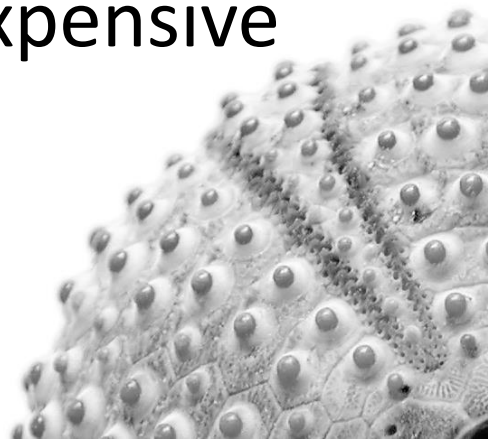
Co-coordinators: Ian Probert (UPMC)
& Sam Dupont (UGOT)

ASSEMBLE+ Kick-Off meeting, UPMC Paris 19/10/2017



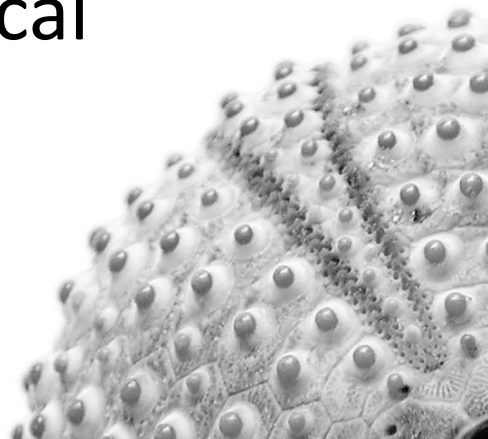
Rationale

- Provision of access to marine biological resources and on-site facilities to conduct experiments on them are emblematic services of EMBRC
- Experimental systems are most often developed from scratch by research teams and abandoned after project
- This approach is time-consuming, expensive and inefficient



Objective

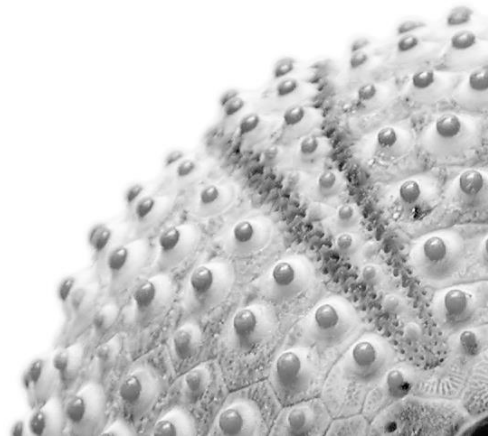
- To produce a set of detailed technical specifications and guidelines (with cost estimates) to facilitate future cross-consortium implementation of standardized experimental systems and associated infrastructure for the culture of marine organisms for biological and ecological research.



12 Funded Partners

Co-coordinators : UPMC (I. Probert) / UGOT (S. Dupont)

- UPMC -SBR : I.Probert
- UPMC-OOB : JF Ghiglione / FY Bouget
- UPMC-OOV : S. Rabouille
- UGOT : S. Dupont
- NUIG : G. McCormack
- VLIZ : U. Braeckman / C. Van Colen
- UPV/EHU : A. Villanueva / J. Gonzalez
- CCMAR : J. Silva / P. Gavaia / R. Santos
- SZN : G. Procaccini
- UH : J. Norkko
- IUI : M. Fine
- MBA : N. Mieszkowska



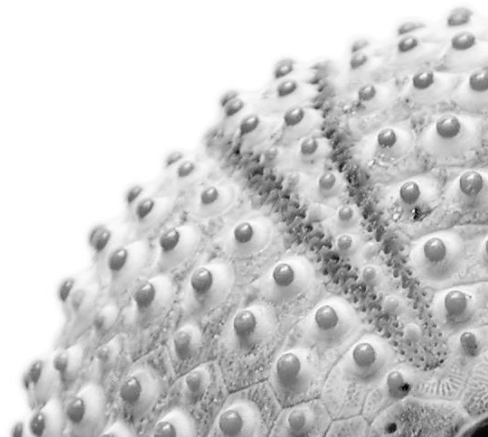
Task 4.1

Collaborative R&D to improve and harmonize design of selected categories of experimental systems

Improvements in systems for monitoring/regulating :

- pH / carbonate chemistry
- light
- hydrodynamics
- immersion/emersion cycles
- water quality
- biological parameters (e.g. photosynthesis)

**Aquarium/tank systems
and dry lab based bioreactors**

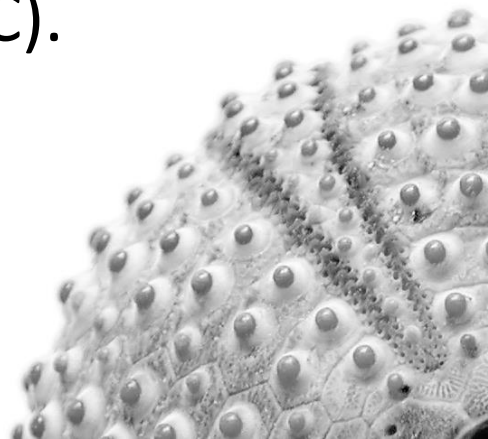


Task 4.1

Collaborative R&D to improve and harmonize design of selected categories of experimental systems

Principles :

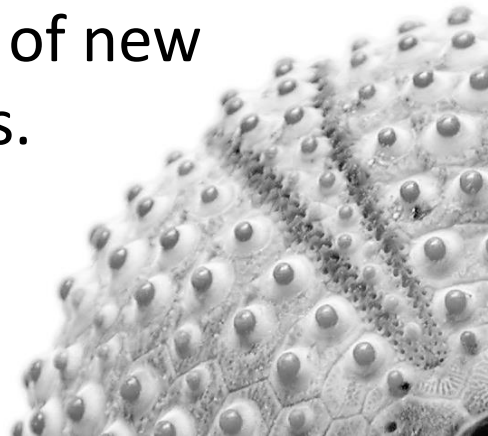
- First 24 months of project
- No funding for equipment
- Full on-site access to all experimental facilities developed in this task (and to expertise for operating them) will be offered to external researchers via ASSEMBLE Plus (and where relevant EMBRC).



Task 4.2

Establishment of detailed technical design specifications (with cost estimations) for experimental systems and associated infrastructure

- Inventory of technical plans of existing experimental systems and associated infrastructure (seawater pumping / filtration)
- Catalogue of detailed design specifications for different categories of system including analysis of minimum technological requirements for harmonization of systems and best practise guidelines for future design of new facilities and/or upgrading of existing facilities.



Task 4.2

Establishment of detailed technical design specifications (with cost estimations) for experimental systems and associated infrastructure

Information gathering :

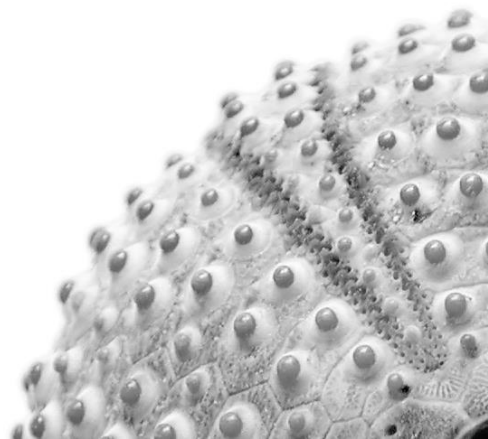
- workshop M3 (Kristineberg in January 2018)
- questionnaires? database?
- **needs input from all WP partners!**
- **open to other ASSEMBLE+ / external partners**

Analysis and recommendations :

- categorization during workshop M3
- internal working group for each category
- external consultancy

Best practice and technical design manual :

- First draft : workshop M24 (input from task 1)
- validated version M36
- regular update in context of EMBRC

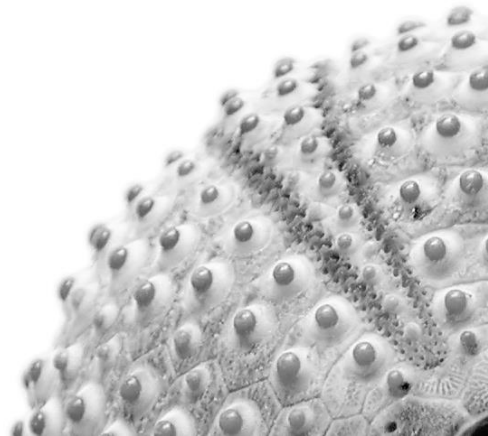


Deliverable

- D JRA4.1 : Detailed technical design specifications (with cost estimations) and guidelines for experimental systems (Month 36).

Perspectives

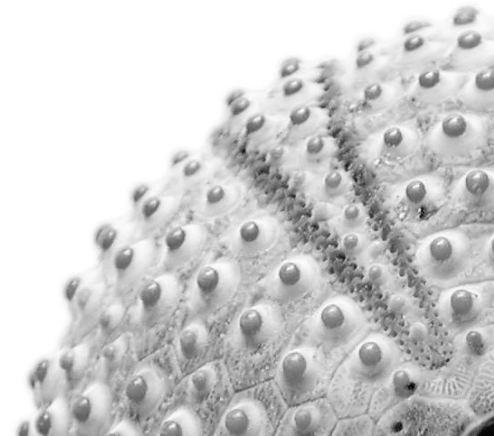
- Centralized equipment exchange ??



Budget

- UPMC-SBR : 109 k€ (including 30k€ subcontracting)
- UPMC-OOB : 56 k€
- UPMC-OOV : 33 k€
- UGOT : 83 k€
- NUIG: 20 k€
- VLIZ : 30 k€
- UPV/EHU : 26 k€
- CCMAR : 47 k€
- SZN : 46 k€
- UH : 20 k€
- IUI : 46 k€
- MBA: 41 k€

Total : 559 k€



JRA4 kick-off workshop
Kristineberg Marine Station
January 2018

