



cost
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IN SCIENCE AND TECHNOLOGY

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Energy/Environment round table

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The discussion was structured by first listing topics of interest based on the presentations at this first annual workshop, then highlighting the Green and Smart aspects of these topics and finally discussing concrete proposals. The list of topics of common interest is large but three main categories were found:

- Liquid-liquid interfaces (Coordinator M. Antoni)
- Gas-liquid interfaces (Coordinator not found during the meeting)
- Liquid-gas-solid interfaces (Coordinator T. Gambaryan Roisman)

These three categories have surfactants, foams, electric fields, de-foaming and solid foams in common. In the first theme the following topics were listed:

- Drop coalescence
- Drop breakup
- Oil-water separation
- CO₂ capture (emulsified systems)

The second and third themes (second column) comprised the following topics:

Bubble coalescence	Droplet evaporation near contact lines
Bubble breakup	Boiling
Drop evaporation (spray evaporation)	Liquid film evaporation
Phase transitional flows	Drop evaporation with contaminants (coffee stain, porous substrate)
CFD modeling	Drop condensation + drop drainage
Flow regime transitions	Motion of aerosols in porous media
Centrifugal separations	Particle coated drops
Non-aqueous foams	Flotation
Foams in emulsions	

A list of Green and Smart items was made. This list comprises particle-coated drops, rapid prototyping and many other topics.

The calls on the area of Energy and Environmental were subsequently discussed. The single-stage "Ocean of Tomorrow" call number 3: "Innovative antifouling materials for maritime applications" (7-2-2013) was found interesting and fitting and got Sami Franssila as coordinator.

The single stage Energy Call number 5: "CO₂ Capture and Storage Technologies for Zero Emission Power Generation" (28-11-2012) got less response, although the late hour of the meeting might have played a role. Libero Liggieri was found willing to act as a pre-coordinator for this call.

Within the framework of the single-stage call Energy-efficient Buildings (4-12-2012) "Safe, energy-efficient and affordable eco-innovative materials ..." (EeB.NMP.2013-2) got Tomasz Sosnowski as a coordinator.

All other calls of Energy and Environmental were discussed but did not appeal to the community to the extent that a coordinator could be found.

The consent was that the Energy and Environmental area is challenging and fitting to the interests of many attendants. Calls on this area will be carefully examined and with sufficient preparation time available may count on response by a consortium of participants.



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