



**COST Action MP1106 – 4<sup>th</sup> Management Committee Meeting – Marseilles, 23/04/2014**

**Smart & Green Interfaces:**

From Single Bubbles/Drops to Industrial/Environmental/Biomedical Applications



**Thematic clusters and Round tables towards Horizon 2020**

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## Thematic clusters main objective

**Setting up consortia among the action partners  
for application to H2020 open calls for proposals  
related to Smart and Green Interfaces**



## Essential Chronology

### 1. 1<sup>st</sup> Annual COST MP1106 Workshop – Dublin, 13-14 September 2012

- 3 round tables on Food, Biotechnology and Biomedical (Moderators: S. Stoyanov, N. Denkov), Energy and Environment (Moderators: C.W.M. van der Geld, R. Orr, C. Koukiotis), and Nanotechnology (Moderators: M. Ersoz, A. Amirfazli)
- Identification of topics

### 2. 2<sup>nd</sup> Annual COST MP1106 Workshop - Prague 21-22 March 2013

- Same 3 round tables (coordination by Sergio Caserta)
- 16 cluster topics proposed to be subscribed by action partners via email sent by RPA and IPR Manager

### 3. COST MP1106 Workshop - Sofia, 4-5 September 2013

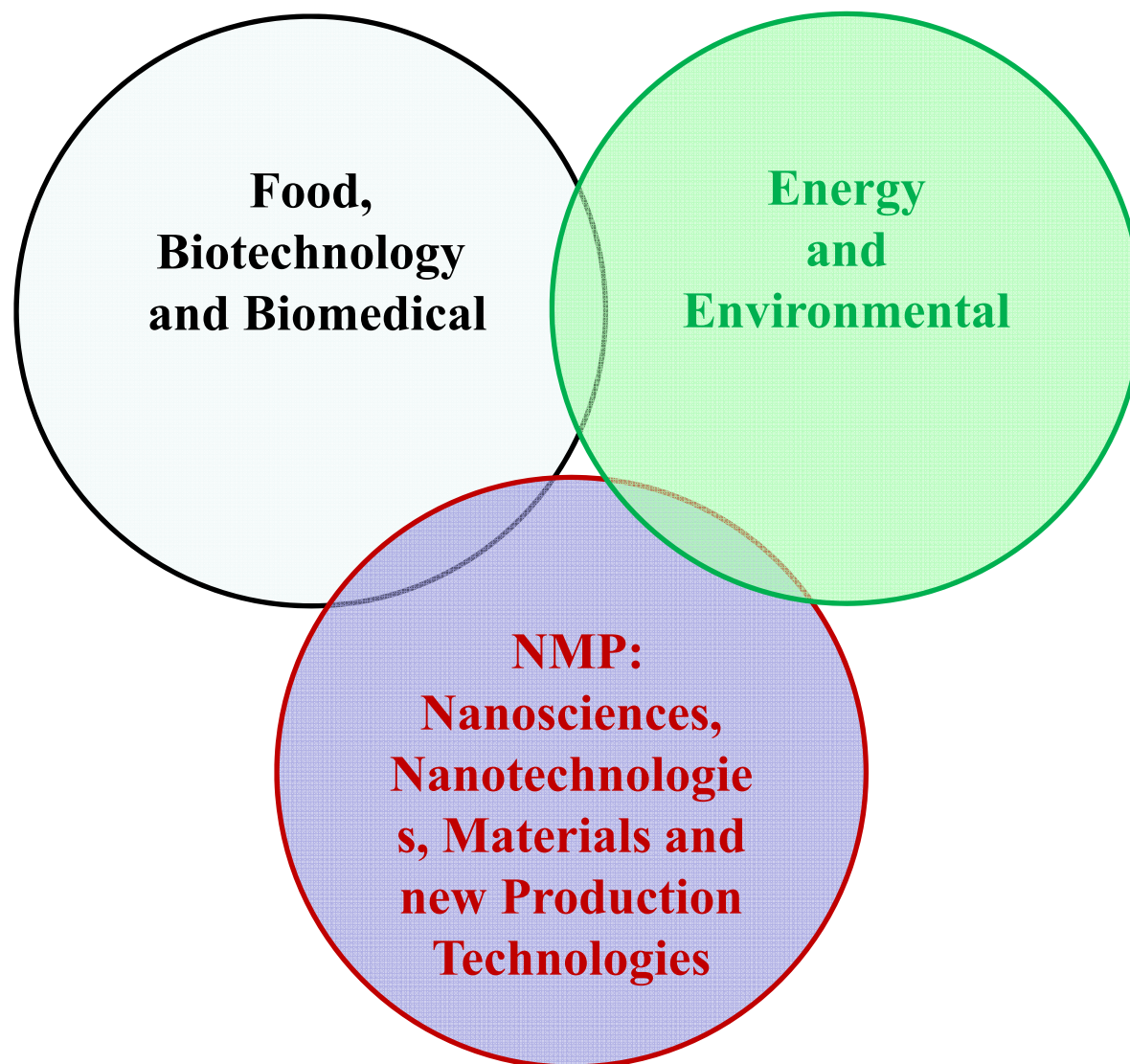
- Preliminary results based on feedback from action partners (intro by Sergio Caserta)
- New clusters proposed

### 4. Announcement of the 6 final clusters – 29 November 2013

### 5. Core group teleconference - 13 December 2013



## The 3 starting round tables





## The original clusters at a glance

### 1. Medical diagnostics & advanced therapies

N° preferences	30
N° countries	13
N° companies	4
N° academic	21
N° affiliations	25

### 4. Food Science and Technology

N° preferences	33
N° countries	16
N° companies	5
N° academic	23
N° affiliations	28

### 7. Heat and mass transfer to a fluid on a solid substrate

N° preferences	24
N° countries	13
N° companies	2
N° academic	17
N° affiliations	19

### 10. Increase of safety and energy efficiency in heat and mass transfer processes

N° preferences	13
N° countries	9
N° companies	0
N° academic	10
N° affiliations	10

### 2. Drug delivery

N° preferences	31
N° countries	15
N° companies	2
N° academic	25
N° affiliations	27

### 5. Energy efficiency in food product processing

N° preferences	22
N° countries	12
N° companies	4
N° academic	14
N° affiliations	18

### 8. Wetting of complex surfaces

N° preferences	44
N° countries	17
N° companies	8
N° academic	28
N° affiliations	36

### 11. Energy-efficient methods to produce emulsions and foams

N° preferences	29
N° countries	13
N° companies	7
N° academic	19
N° affiliations	26

### 3. Raw materials from biomasses

N° preferences	18
N° countries	11
N° companies	2
N° academic	12
N° affiliations	14

### 6. Downstream processing

N° preferences	2
N° countries	2
N° companies	0
N° academic	2
N° affiliations	2

### 9. Heat transfer with phase change

N° preferences	24
N° countries	13
N° companies	1
N° academic	16
N° affiliations	17

### 12. Wettability of surfaces in the context of pool boiling and flow boiling

N° preferences	21
N° countries	13
N° companies	1
N° academic	16
N° affiliations	17



## The original clusters at a glance - continued

### 13. New materials with superb thermal and sound insulation properties

N° preferences	12
N° countries	6
N° companies	2
N° academic	8
N° affiliations	10

### 16. Nanoparticles and graphene oxides and their applications

N° preferences	18
N° countries	13
N° companies	1
N° academic	15
N° affiliations	16

### 19. Nanostructured materials for water treatment/purification

N° preferences	30
N° countries	15
N° companies	3
N° academic	22
N° affiliations	25

### 14. Nanocomposite materials: fabrication, characterization

N° preferences	33
N° countries	16
N° companies	2
N° academic	26
N° affiliations	28

### 17. Functional food (Proponent: Luciano Navarini)

### 15. Nanoparticles and nanocomposites for stabilizing dispersed systems

N° preferences	30
N° countries	17
N° companies	2
N° academic	25
N° affiliations	27

### 18. Nanotechnology for Functionalization of Textiles Fibrous Materials towards smart textiles

N° preferences	11
N° countries	8
N° companies	1
N° academic	9
N° affiliations	10



## Cluster selection

As of 22th November 2013

	From WPGs list	All clusters	Clusters with a coordinator
Partners	126	106	104
Affiliations	73	80	78
Companies	6	13	12
Countries	30	30	30

Main criteria for the selection of the 6 final clusters

- Presence of a coordinator
- Merging of clusters with similar scope



## The 6 final clusters

- A. Medical Diagnostics and Advanced Therapies (it includes proposed clusters 1 and 2), coordinator: Claudio Nastruzzi
- B. Sustainable Food Science and Technology (it includes proposed clusters 3-5 and 11), coordinator: Simeon Stoyanov
- C. Heat and Mass Transfer on a Solid Substrate (it includes proposed clusters 7,9 and 12), coordinators: C.W.M. van der Geld and J.G.M. Kuerten
- D. Wetting of complex surfaces, coordinator: Tatiana Gambaryan-Roisman
- E. Nanomaterials and Nanotechnologies (it includes proposed clusters 14, 15 and 18), coordinator: Mustafa Ersoz
- F. Nanostructured Materials for Water Treatment/Purification (it includes proposed clusters 16 and 19), coordinator: Vasileios Koutsos





## 6 final clusters composition as of 18/12/2013

**A. Medical Diagnostics and  
Advanced Therapies**  
(it includes clusters 1 and 2)  
Coordinator: Claudio Nastruzzi

N° preferences	42
N° countries	18
N° companies	6
N° academic	30
N° affiliations	36

**B. Sustainable Food Science and  
Technology**  
(it includes clusters 3,4,5 and 11)  
Coordinator: Simeon Stoyanov

N° preferences	58
N° countries	22
N° companies	9
N° academic	40
N° affiliations	49

**C. Heat and Mass Transfer on a  
Solid Substrate**  
(it includes clusters 7,9 and 12)  
Coordinators: C.W.M. van der  
Geld and J.G.M. Kuerten

N° preferences	43
N° countries	23
N° companies	5
N° academic	30
N° affiliations	35

**D. Wetting of complex surfaces**  
(it includes cluster 8)  
Coordinator: Tatiana Gambaryan-  
Roisman

N° preferences	49
N° countries	18
N° companies	8
N° academic	32
N° affiliations	40

**E. Nanomaterials and  
Nanotechnologies**  
(it includes clusters 14, 15 and 18)  
Coordinator: Mustafa Merzoz

N° preferences	52
N° countries	21
N° companies	3
N° academic	38
N° affiliations	41

**F. Nanostructured Materials for  
Water Treatment/Purification (it  
includes clusters 16 and 19)**  
Coordinator: Vasileios Koutsos

N° preferences	42
N° countries	19
N° companies	3
N° academic	32
N° affiliations	35



## Main tasks of clusters

1. Promote discussions and interactions among cluster members and nucleate small groups of Action members around proposals to EU calls. Regarding the latter point, cluster coordinators should pay special attention in fostering *industrial participation*, which is a necessary condition for consortia within Horizon 2020.
2. Organize telecons\meetings to discuss about topics and organization more in detail.



## Main issues about cluster organization

1. Being a cluster member does not automatically imply to be included in consortia for EU proposals. Setting up partners consortia is a separate procedure organized inside the cluster and should be made according to specific needs of a Call, complementarily of partner background, etc. However, inside a cluster partners are free to setup more than one consortium if they like to.
2. Clusters will be specifically allocated a certain budget and number of STSMs. Coordinators will be free to use the budget and STSMs while the Grant Holder will still be handling the paperwork.
3. Being a coordinator does not necessarily mean to write a proposal. A cluster coordinator is in charge of organizing meetings/discussions and of fostering the setup of consortia for EU Calls of Horizon 2020. The proposal coordinators will select the members of their consortia based on their expertise, complementarily, industrial participation, geographical distribution (minimum number of different EU countries) etc. It is ideal to have industrial proposal coordinators which however in order to be convinced to take over this role need to be backed-up by an effective academic partner.



## More about cluster organization

- STSMs could be potentially used as a mobility tool among the participating groups and the scientists who write a proposal.
- Each cluster should organize at maximum one meeting per year with around 15 participants due to budget constraints
- More cluster meetings could be associated with Annual Workshops and Training Schools to share the costs