



# Good practices, Objectives Strengths, Difficulties and Obstacles

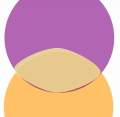
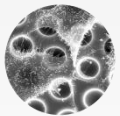
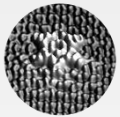


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October 20<sup>th</sup> 2021



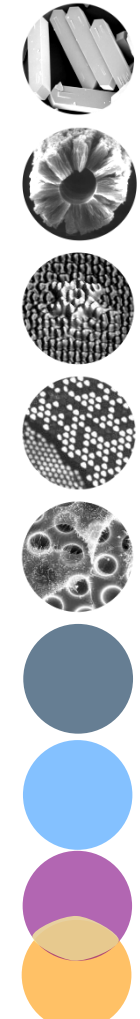
# Outline

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## Introduction

1. Good Practices
2. Objectives
3. Strengths
4. Difficulties & Obstacles

## Conclusion



# 1. Good practices - European Projects

## PHC Gilibert

Surface Color on demand: *Chameleon Effect*

### BioColor Project



#### Kaunas Team

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#### Students:

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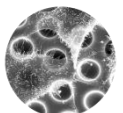
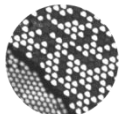
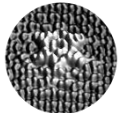
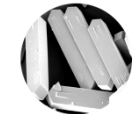
Tadas Klinavicius

#### IS2M- Mulhouse Team

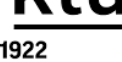
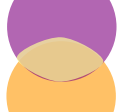
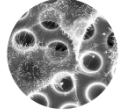
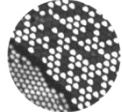
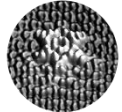
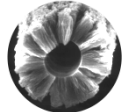
Dr. Karine MOUGIN  
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Dr. Loic VIDAL

#### Students:

PhD:  
Quentin BAUERLIN  
Marc KELLER



# 1. Good practices - European Projects



## M-ErA.net

Ultrasensitive Sensors for the detection of Lithium Ion Batteries

NanoTRAACES

2<sup>nd</sup> STEP

### Consortium

#### Academic Partners

Partner 1/

Coordinator: Institut de Science des Matériaux de Mulhouse-IS2M-CNRS,  
France

Partner 2: Centre National d'Etudes Spatiales, CNES, Toulouse,  
France

Partner 3: Kaunas University of Technology; Kaunas,  
Lithuania

Partner 4: Luxembourg Institut of Science and Technology, LIST  
Luxembourg

Partner 5: Gwangju Institute of Science and Technology, GIST  
South Korea

#### Industrial Partners:

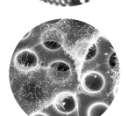
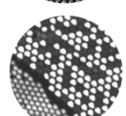
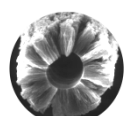
SAFT Batteries, France; UNS Energy, Korea

ktu

kaunas  
university of  
technology

1922

# 1. Good practices – Common conferences



## Advanced materials and technologies 1999-2021



“... The international conference school “Advanced materials and technologies” to me means excellent talks, striking hospitality, wonderful location and side program as well as **perfect networking opportunities** for young and senior scientists...” (Prof. Franz Faupel, Kiel University, Germany)

# 1. Good practices – networking

## Physics and Chemistry of Advanced Materials

Carl von Ossietzky University of Oldenburg, Germany

Friedrich-Schiller-Universität Jena, Germany

Graz University of Technology, Austria

Jagiellonian University Kraków, Poland

Kaunas University of Technology, Lithuania

Lomonosov Moscow State University, Russia

Sorbonne University, France

Technische Universität Dresden, Germany

The Autonomous University of Madrid, Spain

University of Luxembourg, Luxembourg

University of Milan, Italy

University of Milano-Bicocca, Italy

University of Southern Denmark, Denmark

University of the Basque Country, Spain

University of Trieste, Italy

**PCAM** is a research network comprising a total of **fifteen international partners** focusing on various aspects of the **physics** and **chemistry** of **advanced materials**.



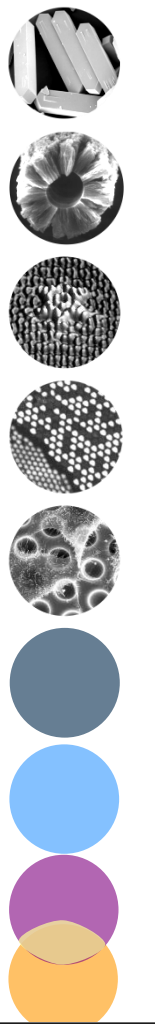
<http://www.pcam-doctorate.eu/contact/>



Lomonosov Moscow State University



# 1. Good Practices - Lessons learned

- 
- 1) **Finding a EU call** corresponding to the objectives of the project
  - 2) **Defining the roles of each partner** to ensure a good distribution of tasks in response to the objectives and expected results
  - 3) **Importance of the coordinator: “Guardian of the good practices”**
    - responsible for ensuring the success of the project:, from the set-up phase to implementation and justification
    - for effective monitoring:
      - back-planning,
      - regular consortium meetings,
      - contact with the EU project officer to ensure optimal monitoring in conjunction with the European Commission reporting actions
  - 4) Anticipation of potential problems or organization timing
  - 5) Foresight

## 2. Objectives – Topics in Science?

### Relation between Topics and Eu Economy and Environment

Ex:

#### Materials Science

1. Sustainable topics – these last years
2. High-tech products
  - Increasing efficiency
  - Integrating renewable energy and its storage for applications in buildings, transport and industry

Ex: Development and manufacturing of high-performance Reliable, safe, and **low-cost batteries**
3. Enhancing the durability of products & improving process efficiency with reduced energy and materials consumption, substituting hazardous or hardly recyclable materials
4. Developing products to maintain, repair, upgrade, remanufacture or recycle (eco-design)
5. Preventing by-products and avoiding waste

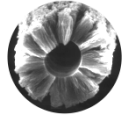


# 3. Strengths

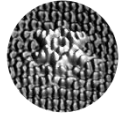
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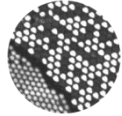
- **International impact**



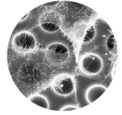
- **Networking**



- **Balance between Academia and industrial partners**



Creating a direct transfer between research and development



## Example: M-ErA.net Consortium

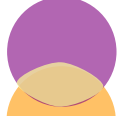
M-ERA.NET 2 from 2016 to 2022 with 43 partners from 29 countries



third phase as M-ERA.NET 3 until 2026 under the Horizon 2020 ERA-NET COFUND scheme with currently 50 public funding organisations from 36 countries



## **Specific Call : M-ErA.net**

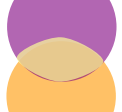
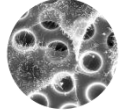
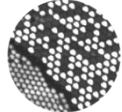
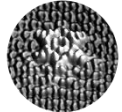
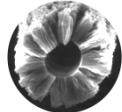


National and regional funding programmes from 25 EU member states and 5 associated countries and includes 6 non-European organisations



# 4. Difficulties & Obstacles

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1) Differences in internal organization between the different partners

Example of UMRs in France: not always understandable for foreign partners.

2) Difference between accounting and financial rules of organizations

3) For specific call such as M-ErA.net:

Specific recommendations for **each Eu countries** – each partner should contact their own funding agencies!!

4) Keeping the Gantt Chart schedules on time

4) Time difference between countries : Eu and Asia...?

# Conclusion

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## 1. Good Practices

**Teams & organizations**

## 2. Objectives

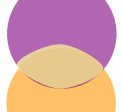
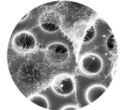
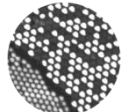
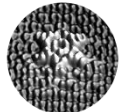
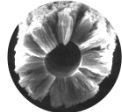
**Projects and Eu Needs**

## 3. Strengths

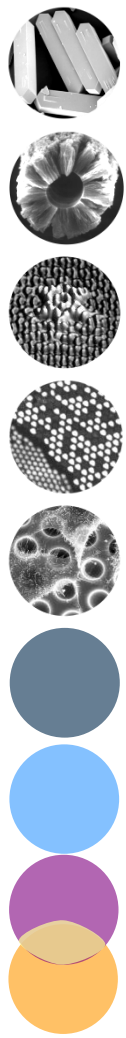
**Networking**

## 4. Difficulties & Obstacles

**Schedule and specific EU country rules**



# Acknowledgements



Institut Français Lituanie

Pr. Thomas BUFFIN

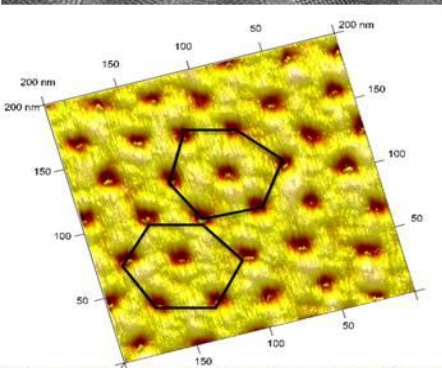
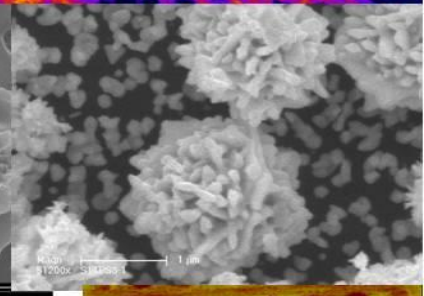
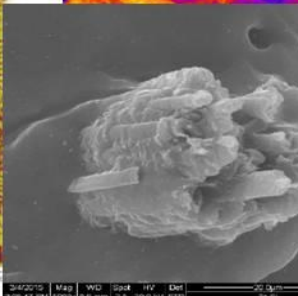
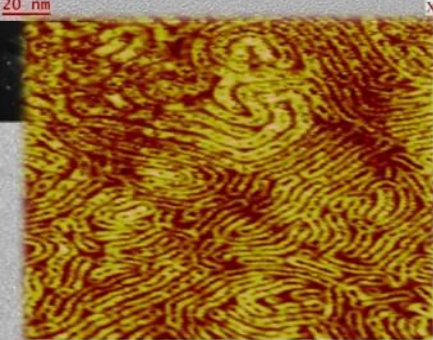
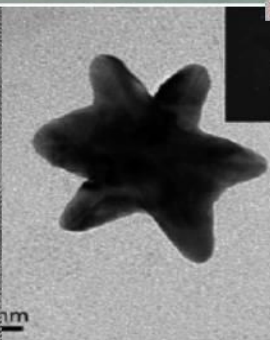
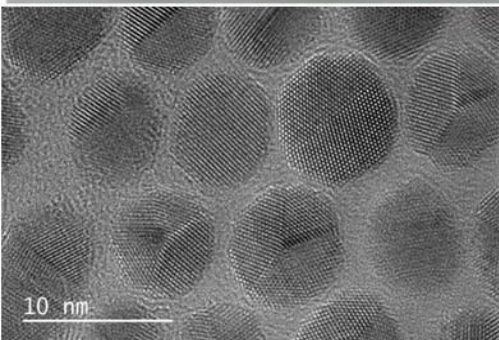
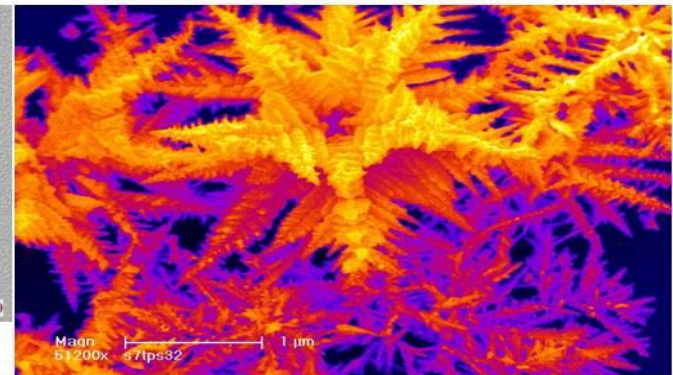
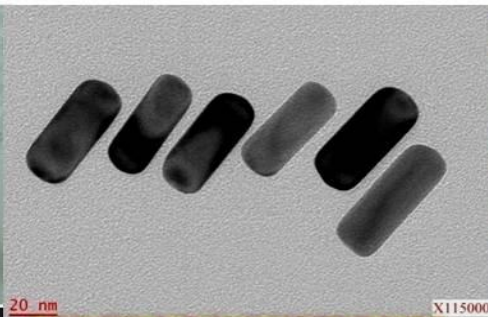
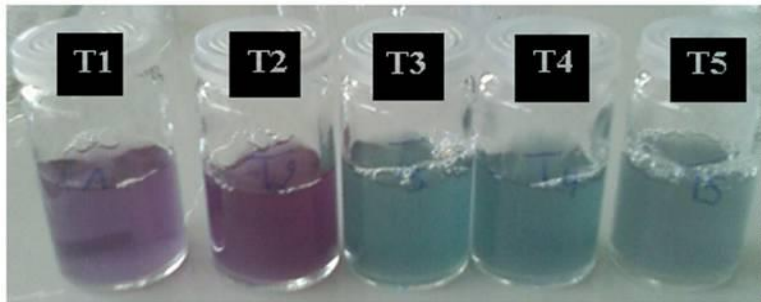
Campus France and French Embassy



**Kaunas Team**

**IS2M- Mulhouse Team**





Questions ?

