

# AMANAC: Advanced Materials And Nanotechnology Cluster

4<sup>th</sup> Newsletter: November 2016

## AMANAC NEWS AND EVENTS

### AMANAC LCA Workshop

May 19<sup>th</sup>, 2016

In May 2016, LCA Experts from the AMANAC Cluster Projects held a joint meeting to discuss LCA methodologies and good practices followed within the AMANAC projects. About 25 experts were present at the event. The core of the LCA Workshop was the presentation of LCA activities and strategies used within the AMANAC projects, along with presentations of four Key LCA topics (collection of data, scaling up, reference models and energy mix), as identified by the LCA Experts of the AMANAC CSA.

The presentations from the event can be found on the AMANAC website at:

[www.amanac.eu/workshops/lca-lcc-approach](http://www.amanac.eu/workshops/lca-lcc-approach)



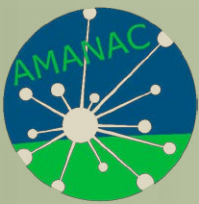
### Success Stories - Advanced materials and solutions for low carbon energy and more sustainable buildings in Europe

June 16<sup>th</sup>, 2016

As part of EUSEW 2016, AMANAC and EMIRI successfully co-organised the seminar *“Success Stories- Advanced materials and solutions for low carbon energy and more sustainable buildings in Europe”*. During the seminar, the role of the advanced materials industry in tackling EU energy challenges was discussed. Representatives of ELISSA, H-HOUSE, LEEMA, MEM4WIN and SUS-CON projects shared their success stories, covering the most recent developments within materials and components for energy efficient buildings which have emerged from these AMANAC projects. More than 70 participants representing a wide variety of sectors (e.g. architects, consultancy firms, public authorities and independent associations) attended the seminar. The seminar was recognised as being highly relevant, promoting

discussion on critical issues to ensure Industrial Leadership of the European industry on providing innovative advanced materials for low carbon energy technologies. A lively discussion on policies and regulations that delay market implementation of advanced materials in the building and construction industry with robust participation from the audience concluded the seminar.





## AMANAC at the 7<sup>th</sup> ECTP conference

November 17<sup>th</sup> - 18<sup>th</sup>, 2016

The AMANAC CSA will participate in the 7<sup>th</sup> open conference organised by the European Construction Technology Platform (ECTP) that will be held on the 17<sup>th</sup> and 18<sup>th</sup> of November at the Centre for Fine Arts in Brussels. The event will present and discuss current and future innovations in the built environment field. Plenary sessions with speakers from academia, industry and the European Commission will provide a global overview and the visions of various stakeholders. Meanwhile, thematic parallel sessions will

address specific issues under the five current challenges of the ECTP. A hall for booths and posters will exhibit examples of innovations developed within European projects.

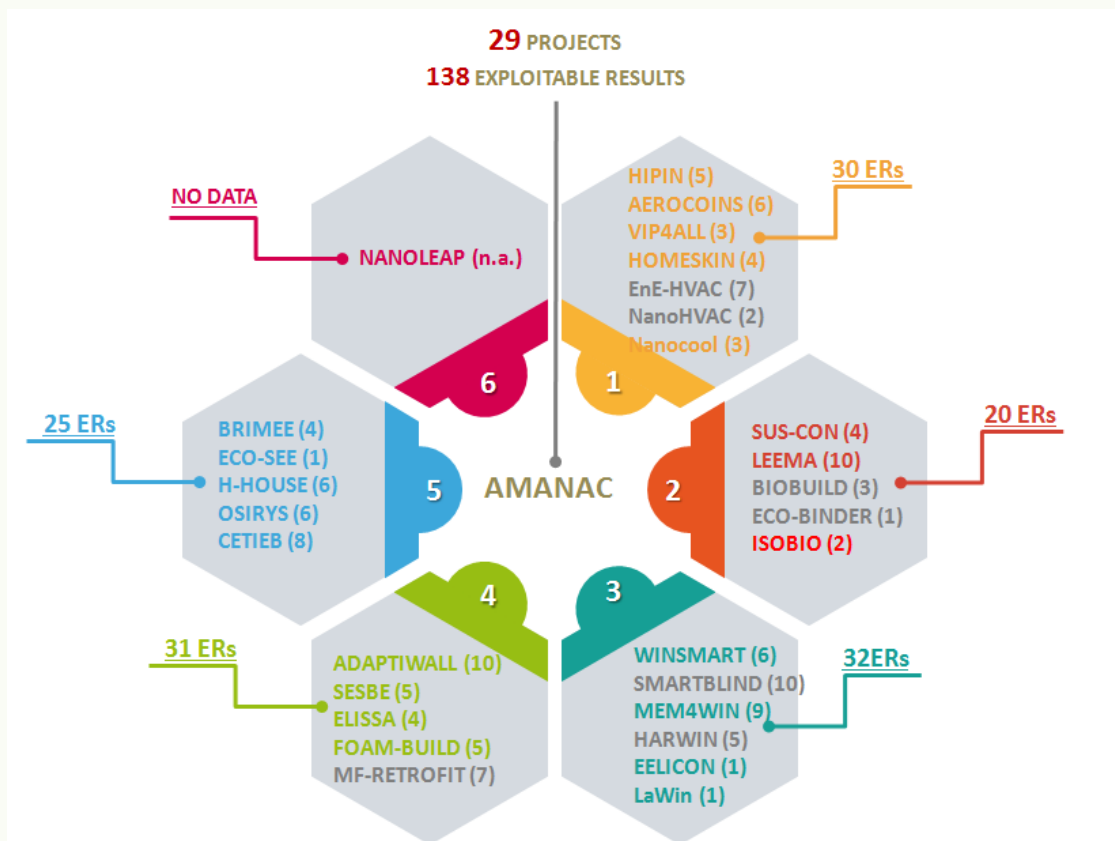
The AMANAC CSA will have an exhibition booth, and will deliver presentations on both the AMANAC CSA project and also the “Key-findings and impact of European research projects under AMANAC” within the “Materials and Sustainability Innovation in Construction” session.

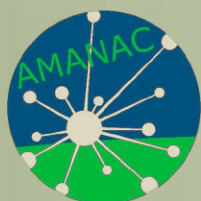
For more information and registration, please use the link:

<https://fr.xing-events.com/ECTPConference2016.html>

## AMANAC PROJECTS: FACTS AND FIGURES ON EXPLOITABLE RESULTS

One of the milestones of the AMANAC CSA project was to map and integrate the outcomes of the 29 projects participating in the AMANAC cluster. This activity has been documented in two confidential deliverables of the project (D2.2 and D2.3). The output of this work is a detailed compilation of data and information concerning the current and future exploitable results of the projects clustered under AMANAC.





In addition, the analysis also focused on the potential **gaps** in the research undertaken during the project lifetime, the **obstacles** to the **exploitation of the outcomes** and on the potential **synergies by technology combinations** amongst different projects. Particular attention has been devoted to this last issue by exploring what can be done at a Cluster/Thematic Area level and the opportunities offered by project clustering and cross-project collaboration to increase overall impact.

In order to collect the data and information effectively, a plan was defined based on a three-stage methodology involving:

1. a **survey** of projects via the project coordinators and/or key contact persons within each AMANAC project;
2. a **desk study** of information provided by the projects through other sources (EeB-CA2 Project Questionnaires, AMANAC CSA e-Newsletters, CORDIS, E2B PPP project review, projects public deliverables, etc.);
3. a collection of the main **RTD achievements and exploitable results** together with the identification of **potential barriers to exploitation and potential collaboration activities** among projects (the data were collected one by one from most of the projects over the 2 years of the AMANAC-CSA project duration).

A total of **21 surveys** were collected and analysed. For each project all exploitable results have been identified and described. For the 8 projects which did not participate actively in the AMANAC survey, other public information sources were used to collate and compile information on the key technologies developed within these projects.

The overall number of exploitable results identified is **138, from 28 projects**.

Each project has been described in a tabular format composed of different sections:

- The Main information about the project (start/end date of the activities, work programme, total cost and EU contribution in Euro, status of the project, number of partners, countries involved, list of the partners),
- A brief description of each result,
- The key partners who participated in the development of the result,
- The TRL level of the result,

- The most crucial quantifiable property/ies considered,
- Photographs (if available),
- The list of Information sources used.

In addition, through the analysis of the responses, it was possible to explore the barriers and bottlenecks faced by the project consortia during and/or after the projects' lifetime. This analysis has revealed several different obstacles:

- **Technical obstacles:** Difficulties regarding the availability of materials to be used in the project and/or the scalability of the process.
- **Market implementation obstacles:** Difficulties entering into the market due to the high cost of the new product/material or due to the tension between innovative solution and user acceptance.
- **Internal communication and management difficulties:** Occasionally there may be poor internal communication or obstacles arising from the withdrawal of a partner during the project lifetime.

In parallel the kind of help/support the project consortia expect in order to overcome the obstacles encountered or to speed up activities was investigated. The requirements can be classified as:

- **Technical support:** Help from public authorities for demonstration activities; opportunities to get in touch with experts in specific thematic areas; greater production/supply of materials from other partners.
- **Market implementation:** Promotion of innovative technologies to key stakeholders.
- **Support in management issues:** Extension of the project duration; knowledge sharing among consortium members; new funding to continue the activities after project completion.

Finally, other aspects of the projects were investigated, such as the **capacity and need to cooperate beyond the border of the single consortium**. The lesson learned from this activity is that some issues can be shared more easily than others (e.g. LCA/LCC knowledge). On the other hand the different consortia were aware of the necessity to collaborate as this is a good way to accelerate and improve the impact of the communication and dissemination process.



These comments confirm that an active project cluster can facilitate collaboration between different research groups and encourage sharing and cross-fertilisation of knowledge.

*Acknowledgements:* The AMANAC CSA partners would like

to thank all participants in the survey for sharing their information, thoughts and opinions that were fundamental to this evaluation.

## NEW RESEARCH PROJECTS ON HIGHLY EFFICIENT INSULATION MATERIALS WITH IMPROVED PROPERTIES

The four new projects that have been approved in the frame of the EEB-01-2016 call joined AMANAC. All four projects address the development and characterisation of new insulation materials and solutions based on nanotechnologies and/or advanced sustainable materials and offer enhanced insulation properties and environmental performance.

### **EENSULATE: Development of innovative lightweight and highly insulating energy efficient components and associated enabling materials for cost-effective retrofitting and new construction of curtain wall facades**

August 2016 - January 2020

Coordinator: D'Appolonia S.p.a

EENSULATE will develop an affordable and lightweight solution for envelope insulation to bring existing curtain wall buildings to “nearly zero energy” standards while complying with the structural limits of the original building structures and national building codes.

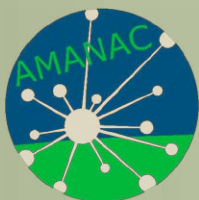
### **GELCLAD - Highly efficient cladding eco-panels with improved nano-insulation properties**

September 2016 - August 2019

Coordinator: Instituto Pedro Nunes Association for Innovation and R&D in Sc. and Tech.

The Gelclad project aims to generate an affordable advanced external wall insulation system for building envelopes. Gelclad will be a sustainable lightweight, ready-to-use composite product, made of a distinct aerogel insulation core and a weatherproofing ecoWPC skin panel in one single and easy to handle unit, able to attain high energy efficiency goals and specially designed for the major building renovation action desired by the EU.





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## INNOVIP - Innovative multi-functional Vacuum-Insulation-Panels (VIPs) for use in the building sector

October 2016 - September 2019

Coordinator: Forschungsinstitut für Wärmeschutz e. V. München

INNOVIP will reinvent VIPs by using new materials for the core, new foils for the envelope, new production technologies and innovative cladding materials that offer extra functionality to the user, whilst addressing LCA issues. The results will be demonstrated at several locations throughout Europe.

## WALL IN ONE - WALL Insulation NOvel Nanomaterials Efficient systems

October 2016 - September 2019

Coordinator: Quick-mix Putztechnik GmbH & Co. KG

WALL IN ONE will develop a consistent package of new advanced sustainable insulation products and systems. The HONEST (High performance Optimized Nanomaterial Energy efficient SysTem) package is a “modular toolbox system” providing a set of complementary solutions that will address most of the complex challenges raised by thermal renovation as well as new construction.

### COORDINATOR CONTACT

NATIONAL TECHNICAL UNIVERSITY  
OF ATHENS  
Prof. Maria Founti  
T: +30-210-772-3605  
E: mfou@central.ntua.gr  
Location: SCHOOL OF MECHANICAL  
ENGINEERING, HEROON POLYTECHNIU  
9-15780 ATHENS, GREECE

### PROJECT INFORMATION

Project Acronym: AMANAC  
Grant no: 636239  
Start Date: 2015-01-01  
Duration: 24 months  
Project Cost: 479 530 €  
Project Funding: 479 530 €  
Website [www.amanac.eu](http://www.amanac.eu)

### DISCOVER AMANAC



[www.amanac.eu](http://www.amanac.eu)

### PARTNERS

