

YEAR Seminar at SP

Improved material durability in buildings and infrastructures, including offshore



Seminar venue: SP Main campus, meeting room "TBD", building 1. Brinellgatan 4, 504 62 Borås, Sweden

Day I: May 3

Note:	It will be possible to arrive at the venue from 9.00. Internet and Coffee will be available. Lunch is available at the restaurant in the same building.
12:30	Welcome and coffee
13:00	Round of individual presentations
13:15	Presentation of YEAR and goal of the seminar Martin Zelan (SP / YEAR board-member)
13:30	Relevant activities performed in each participating research organization (each ~10min + 5min questions) – Part I
14:30	Coffee break / Mingling
15:00	Relevant activities performed in each participating research organization (each ~10min + 5min questions) – Part II
16:30	Relevant talk. TBD TBD
17:30	Free time / Transfer to City Center
19:00	Dinner at TBD (offered by YEAR)

Day II: May 4

09:00	Round table discussion – Part I: <i>Brainstorming based on</i> <u>H2020-NMBP-2016-2017</u>
10:30	Coffee break / Mingling
11:00	Round table discussion - Part II: Finding common directions
11:30	Wrap-up & conclusions of the meeting
12:30	Lunch at seminar venue (offered by SP)
13:30	End of YEAR Seminar at SP
Note	It will be possible to remain in the venue until 16:00. Depending on the interest, lab tours can be arranged.

YEAR and SP will cover the seminar fee and the announced dinner and the lunch on the second day for participants from YEAR members.

For more info, <u>martin.zelan@sp.se</u>

YEAR - Young European Associated Researchers - <u>www.year-network.com</u>



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GENERAL INFORMATION AND APPROACH:

YEAR, the Young European Associated Researchers Network, is a non-profit organisation gathering young professionals from different Research and Technology Organisations (RTOs) and Industrial Research Bodies (IRBs) across Europe. YEAR aims at supporting the career of young researchers, providing them with opportunities to increase their skills, spread their professional network and live international experiences.

This YEAR Seminar aims to gather young professionals with a specific interest in subjects related to improving material for buildings and infrastructure, including, but not exclusive, offshore applications. The goal is to provide an opportunity to learn more about ongoing and future activities as well as grow the professional network within the field in Europe.

To provide a good start for collaborative discussions, the seminar topic is based on the specific Two-Stage H2020-call <u>H2020-NMBP-2016-2017</u>. The hope is that the discussions and brainstorming can lead to the initiation of successful consortium.



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FOR DISCUSSION: EU CALL FOR PROJECTS: <u>NMBP-06-2017</u>

Improved material durability in buildings and infrastructures, including offshore (Two-Stage)

<u>Planned opening:</u> 2016-05-11 (Stage 1) <u>Deadline:</u> 2016-10-27 17:00 (CET) (Stage 1)

Specific Challenge: Durability is a key criterion for materials in many applications and environments. Longer performing materials can strongly reduce overall life time costs, such as lower usage costs through reduced maintenance and shorter service interruptions. Costs may also be reduced in the production phase (raw materials, energy, transport, formability), in the installation phase, and the materials may be more appropriate for end of life reuse/recycling. Typical applications requiring excellent long term durability and high reliability are buildings, marine applications and infrastructures including off shore.

In many applications, operational durability needs to be better understood, particularly for innovative products which have no demonstrated long term performance. Durability has to be evaluated both theoretically and in real installation conditions (including within challenging environments when relevant) as these may influence final product performance.

Scope: Research proposals should address all of the following activities: theoretical understanding (and development of models if appropriate) of the factors which affect durability of materials, including corrosion and ageing phenomena; experimental methods to measure and reliably test durability, non-destructive inspection procedures and monitoring tools; development of new and more durable materials (possibly multifunctional); and "fit for purpose" validation of new materials through life testing in the planned application and environment.

The proposed solutions should go well beyond the state of the art and it should be demonstrated that materials with improved durability also fulfil all other properties necessary for the application proposed.

The following factors should also be all considered: principles of sustainability (the sustainability of each developed solution should be evaluated via life cycle assessment studies carried out according to the International Reference Life Cycle Data System - ILCD Handbook); ease of installation; realistic solutions at a reasonable price and appropriateness for the operational environment; resistance to harsh environments if applicable. When relevant, design considerations (optimal combination of new materials) should also be considered. Recycling/reuse of materials should also be addressed. Standardisation aspects should be considered when relevant. Proof of concept in terms of one (or more) component(s) containing the new materials developed should be delivered within the project, excluding commercially usable prototypes (2006/C323/01), but convincingly demonstrating scalability towards industrial needs. Information guides for applications, installation and any appropriate training on the new solutions should be provided before the end of the project.

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The implementation of this topic is intended to start at TRL 4 and target TRL 6.

This topic is particularly suitable for the participation of SMEs.

The Commission considers that proposals requesting a contribution from the EU between EUR 3 and 6 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected Impact:

- At least 30% improvement in durability on the most relevant properties for the application;
- At least equivalent level for all other properties;
- At least 30% lower cost;
- Positive LCA balance over the whole life cycle;
- Proposals will have a higher impact if they are relevant to several applications;
- Contribution to strengthening competitiveness of the European industry, including in the field of "green" and/or offshore technologies.

Proposals should include a business case and exploitation strategy, as outlined in the Introduction to the LEIT part of this Work Programme.

From European Commission website,



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SEMINAR VENUE AND ACCOMMODATION

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The best way to get to and from Landvetter Airport and the venue is by taxi. The trip takes approximately 30 minutes and costs about $60 \in$.



The seminar will take place at SP which is located approximately 3 km from the city center of Borås. Most of the available accommodation is in the city center. The seminar dinner is also expected to take place in the city center. There are several busses that can take you between the seminar venue at SP and the city center if you don't prefer the 35 minute walk.



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This document is a draft and is subject to changes



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CONTACT LIST

YEAR Board

Seminar Participants

Invited speaker

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