

SHORT TERM SCIENTIFIC MISSION (STSM)

FINAL REPORT Philipp Molter

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Working Group: (please indicate your preferred working group)	WG1	WG2	WG3	WG4
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This document is the final scientific report to the Short Term Scientific Mission at the TU Delft, Faculty of Architecture and the Built Environment from 04.07.2016 – 08.07.2016 2016 with the topic:

“Presentation master: development of a series of lectures and teaching material WG1“

which was elaborated within the COST action TU1403 Adaptive Facades.

I took part in the COST Action 1403 in the framework of the objectives of WG1, and more specifically the assessment of the data base in order to develop a detailed layout of the lecture series at the training school as well as a design teaching concept in Hamburg. I mainly focused on a structure and the content for the lectures by setting up a classification and framework for the lectures. The lectures show case studies of adaptive components, materials, technologies and building/architectural integration methods towards adaptability.

Lecture 1: Introduction to adaptive facades

- I. what? / why? / how? : an introduction.
- II. from wall to façade, history to adaptive facades.
- III. Definitions / Types of adaptivity, general requirements, product levels
- IV. The adaptive façade survey

Lecture 2: state of the art of adaptive facades

- I. introduction
- II. active learning – getting in touch with the adaptive façade data base
- III. categorisation of adaptive facades and components
- IV. state of the art of adative facades

With the help of my host and the other members of the WG1, I structured and completed the first two lectures. I mainly focused on a systematical introduction in adaptive facades allowing young architects as well as students to get an overview on divers approaches and study cases. For further information, I attach extracts which constitute the base of the summerschool in Hamburg Germany and later on the the teaching material for the WG1 Educational Pack of the Adaptive Facades Network database.

The exchange was very productive also because I could to give my contribution to the WG1's work by integrating my knowledge gained in years of research projects and teaching units on adaptive facades. Also, I had the chance of benefiting from the expertise and of my host by getting to know working methods, facilities and human resources, developing as well the relations between TU München, the façade research group in Delft as well as the TU München.

	Prospected outcome	
	I.) A Master-deck for a series of lectures including chapters and sub- categories The presentation serve as a base. a) general introduction in adaptive facades (highlight on architectural aspects) b) history on adaptive facades (highlight on architectural aspects) c) state of the art of adaptive facades (highlight on architectural aspects)	Fully achieved. Fully achieved. Fully achieved. Partly achieved. A summarizing conclusion will be discussed with the workshop leaders in order to adjust the content to a wider scope of the edupack.
	II.) workshop manual for the 'active teaching unit' including subject areas in for students who will investigate within a framework of research questions to deepen their knowledge on adaptive facades.	This workshop manual needs to be discussed with workshop teachers and can be finalized with their input.