

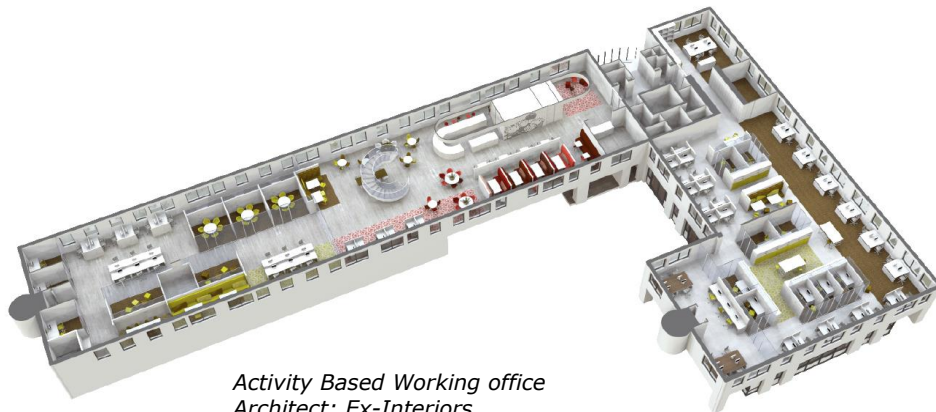
## Leaflet Master Class: Open plan/Activity-based office design

### Contents

In this Master Class we will focus on the acoustic design of open plan and multipurpose offices, while touching other topics like environmental psychology. For three days, you will gain theoretical and practical knowledge in the presence of leading world-renown professionals.

The Master Class is complemented by workshops in drafting and analysing questionnaires, measuring (according to ISO 3382-3) and modelling room acoustic properties of an open plan office.

In a guest lecture the principles of Activity Based Working will be explained. We will focus on the physical environment as a powerful instrument to support this new way of working and the importance of acoustics in the new working environment.



*Activity Based Working office  
Architect: Ex-Interiors*

### What will be presented?

- Theory of open plan office design:
  - Office etiquette and behavioral zones
  - Why do we need better design in open plan offices?  
psychological effects of office noise on work performance: scientific evidence from laboratory experiments.
  - Room acoustic design:
    - importance of acoustic parameters such as STI
    - acoustic design in Activity Based (multipurpose) offices
    - how to deal with screens, absorbers and use of sound masking?
    - room acoustic modeling: simple and complex.
- Practical experiences of open plan offices:
  - open plan offices - private room offices - innovative offices: how do employees experience and perceive them?
  - experimental studies from the field: how did acoustic improvements affect occupant satisfaction?
- ISO 3382-3: Scientific background of the new standard.
- Workshops
  - Drafting a questionnaire and analysing and interpreting the outcomes.
  - Measuring the room acoustics in an actual open plan office following ISO 3382-3.
  - Simulating the acoustics of the measured open plan office using ODEON or CATT Acoustic or your own room acoustic prediction model.
- The principles of Activity Based Working by Rolien Lucassen.
- Vision and perspective from an architectural point of view on the subject by architect Joost Ector; combined with a workshop in the recently completed building MetaForum designed by Ector Hoogstad Architecten.

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### For whom?

The master class is primarily meant for acoustics consultants with some years of experience. The participants are expected to have basic knowledge and experience in the field of room acoustics and/or perception. Also, this Master Class can be suitable interesting for PhD students and post-doctoral research fellows. The maximum size of the group is 9 persons.

### The master

The class will be given by Adj. prof. V.(Valtteri) Hongisto, from the indoor environment group at the Finnish Institute of Occupational Health, which is specialized in acoustic, ventilation and lighting design in office environments. Among other things, he was closely involved in the development of the recently introduced standard on measurements of room acoustic properties in open plan offices ISO 3382-3. His work has also dealt with psychological effects of office noise which gives important evidence to foster the noise control design in workplaces.

### Guest speakers

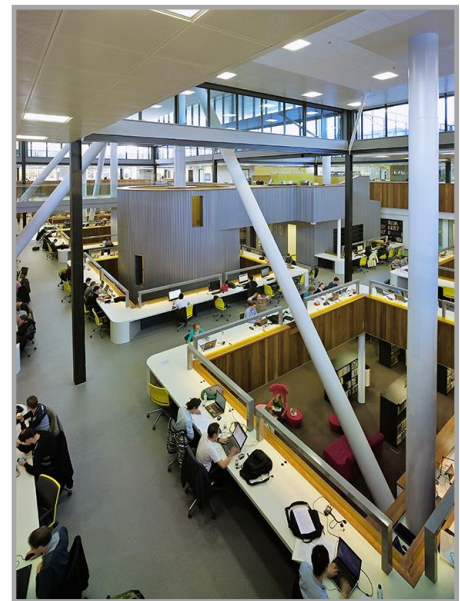
A guest lecture will be given by Rolien Lucassen. She is a specialist in developing concepts for the office environment. For years she worked at Veldhoen+Company who is the founder of the Activity Based Working concept. In 2014 Rolien started her own management consultancy company, Funckey, including services as project/process management and advise on the best accommodation suiting company's processes, culture and dynamics. See [www.funckey.com](http://www.funckey.com)

What will be presented:

*\* Functionality is the key! In an Activity Based Work Environment employees have the choice out of a carefully selected variety of facilities. Their choice depends on the activity they want to perform, the look and feel and their personal preferences. We will discuss how acoustics effect these choices.*

In the recently completed MetaForum the architect of this building, Joost Ector, will explain his vision on the transformation of the historic W-hal, one of the oldest buildings on the campus of the Eindhoven University of Technology, into a modern, new main building accommodating different functionalities in large open spaces. Various acoustical environments are created for the university library, open offices and spaces to study. During the visit you will be challenged to judge the acoustic quality by 'ears-on' experiments.

Joost Ector is CEO/Project Architect at Ector Hoogstad Architecten. Ector Hoogstad Architecten (EHA) is an independent all round architectural practice based in Rotterdam. EHA has a leading position in the Netherlands' internationally highly ranked design-landscape. In over fifty years, the firm has built up an impressive portfolio of projects, remarkable both for its range and variety as well as its consistently high level of both architectural and technical quality. The firm has a large number of striking and significant buildings to its credit, see <http://www.ectorhoogstad.com/en/projects>.



MetaForum  
Architect: Ector Hoogstad Architecten

### Dates

The Master Class will take place from Monday 23 November through Wednesday 25 November 2015.

### Location

Laboratorium voor Akoestiek (Level Acoustics BV)

The laboratory is located at the campus of Eindhoven University of Technology in the Netherlands.

### **Costs**

The cost for attending the Master Class is:

- € 3.055 (VAT excluded) including a two night's stay in a hotel;
- € 3.165 (VAT excluded) including a three night's stay in a hotel;
- € 3.275 (VAT excluded) including a four night's stay in a hotel.

Also included are:

- A reader with literature and presentation sheets;
- Breakfast, lunch and diner.

For (PhD) students we will use a reduced fee, please send us an email about the possibilities.

### **Registration**

You can register for the Master Class by filling in the paper registration form thoroughly and sending it to Level Acoustics by mail or email. Registrations will be accepted in the order in which they are received, up to a maximum of 9 participants. After receiving the registration folder, we will send a confirmation and an invoice. The payment must be fulfilled within 30 days after receipt of the invoice. Your registration for the Master Class is confirmed after we receive the course fee. The final registration date is the 23<sup>th</sup> of October 2015.

### **Cancellation**

If you cancel more than four weeks before the Master Class starts, the course fee will be refunded, less € 327,50 for administration costs. If you cancel within one to four weeks before the Master class starts, a refund of 50% of the course fee is given. If you cancelling within the last week before the Master Class starts, there will be no refund of the course fee. However, it is possible to send a substitute to follow the class, provided he or she has considerable knowledge and experience in the field of building acoustics. If there are not enough participants, Level Acoustics has the right to cancel the Master Class, up to one week before the start of the master class. In that case, the total course fee will be refunded.

### **Information and registration**

Level Acoustics BV

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### **Download the registration form here:**

<http://www.levelacoustics.nl/education/masterclasses/info/regformMCRA15.doc>

## Program

### Monday 23 November

- 10.00-10.30 Reception with coffee
- 10.30-12.30 Lectures: part1
- 12.30-13.30 Lunch
- 13.30-14.00 Introduction workshop questionnaire drafting
- 14.00-15.00 Workshop 1: questionnaire drafting
- 15.00-15.30 Break
- 15.30-17.00 Introduction workshop measuring room acoustic properties in open plan offices: measurement system and software
- 17.00-19.00 Dinner
- 19.00-21.00 Workshop 2: measuring room acoustic properties in an open plan office according to ISO 3382-3

### Tuesday 24 November

- 09.00-10.30 Lectures: part2
- 10.30-12.30 Workshop 2: working out measurement results
- 12.30-13.30 Lunch
- 13.30-15.00 Guest presentation
- 15.00-15.30 Break
- 15.30-16.30 Guided tour MetaForum
- 16.30-17.30 Workshop 3: 'ears-on' experiments in MetaForum
- 17.30-19.30 Dinner
- 19.30-21.00 Case studies participants

### Wednesday 25 November

- 09.00-10.30 Lectures: part3
- 10.30-11.00 Break
- 11.00-12.00 Workshop 1: Analysis questionnaires + discussion
- 12.00-12.30 Introduction workshop modeling open plan offices
- 12.30-13.30 Lunch
- 13.30-15.00 Workshop 4: modeling open plan office (the measured open plan office), part 1
- 15.00-15.30 Break
- 15.30-16.30 Workshop 4: modeling open plan office (the measured open plan office), part 2
- 16.30-17.30 Discussion of measurement and modeling results
- 17.30-20.00 Dinner