

BIM  
AAR  
HUS

PRESENTS THE CONFERENCE

# BIM

## COMMUNITY 2017

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### BIM AARHUS



The Louisiana Pavilion by GXN Architects  
Photo | Adam Mørk

# OCTOBER 4<sup>TH</sup> 2017

9:00 TIL 14:30

THE AARHUS SCHOOL OF ARCHITECTURE

THE AUDITORIUM NØRREPORT 22

# PROGRAM

- 08:30 **The Conference is open**
- 09:00 **Welcome**  
Ms. Marianne Friis | BIM Aarhus
- 09:10 **Ms. Marzia Bolpagni**  
BIM in a European Context
- 10:00 **Break**  
Coffee, tea and fruit
- 10:20 **Mr. Mads Søndergaard | NIRAS**  
No Errors Culture | Construction Industry
- 10:55 **Mr. Stephan Lange | Lufthansa**  
No Errors Culture | Aircraft Industry
- 11:45 **Lunch**  
Sandwich, water and fruit
- 12:25 **Mr. Morten Norman Lund | GXN**  
**Mr. Kenn Clausen | GXN**  
Architekture and Algoritms
- 13:15 **Break**  
Coffee, tea and cake
- 13:35 **Mr. Rasmus Dahlberg**  
The breakdown of Predictability
- 14:25 **Summary and farewell**

# SPONSORS



## Mr. Mads Søndergaard

Executive Vice President  
Building and Design  
NIRAS

Mr. Mads Søndergaard has worked as a consulting engineer in the Danish Construction Industry since 1988 and is currently Executive Vice President in NIRAS. NIRAS is among Scandinavia's leading engineering companies with 2.200 employees of which more than 750 are building experts. BIM is today an integrated part of the company's design processes. During his career Mr. Mads Søndergaard has also worked as external lecturer at the Schools of Architecture in Aarhus and Copenhagen, and as Associate Director at Arup in London.

### Lecture

If we are to become more efficient and make fewer mistakes on the construction industry projects, we need to break down the silos and collaborate even better across companies and industries. Based on this and a perpetually changing world where technology continuously offers opportunities for new business models, Mads Søndergaard gives his bid on how BIM can solve some of the building challenges.

### NIRAS

NIRAS is an international consulting company with activities in areas such as construction and infrastructure, process industry, supply, environment and nature, climate and energy as well as planning and development assistance. Our 2.100 specialists solve customer challenges based on our values - we listen, we learn, we deliver. We believe that cooperation, knowledge sharing and creativity are the way to create the most value for our customers. Our turn over is approx. 2 billion kr. from offices in more than 20 countries in Europe, Africa, Asia and Australia.

## Conference Sponsors

The Board of BIM Aarhus would like to thank all our sponsors who have made this event possible.

The conference BIM COMMUNITY 2017 is organized by the network BIM Aarhus, a professional forum which is operated as a non-profit and philanthropic association.

BIM Aarhus is a professional network focusing on BIM, Building Information Modeling, and has been operational for more than 6 years. BIM Aarhus has been arranging professional networking meetings and four international Conferences:

BIM FINLAND | 2012

BIM UK | 2013

BIM EUROPE | 2014

BIM WORLD | 2015

The association's activities are member meetings and conferences, as we find it important to establish a breeding ground for dialogue, interdisciplinarity and cooperation. We can thereby be helping to solve the complex challenges related to the implementation and use of BIM.

Today the network has more than 500 members, all with great BIM professional background and interest. They represent the consultancy sector, construction industry, public and private builders, public authorities, manufacturers and teaching institutions.



# SPONSORS



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## Ms. Marzia Bolpagni

Architectural Engineer / PhD Candidate  
Architecture Built Environment and Construction Engineering  
Politecnico di Milano

Ms. Marzia Bolpagni is a PhD Candidate at Politecnico di Milano, where she is investigating ways to manage and control public works through innovative digital approaches. She is the leader of the task group on LOD standardisation for the European Committee for Standardization (CEN) TC 442 on BIM and she is core member of the BIMexcellence Initiative. Currently she collaborates with the BIM Team of the UK Ministry of Justice in London. She has also worked as BIM researcher at VTT /Finland, ITC-CNR / Italy and Massachusetts Port Authority /USA.

### Lecture

The Conference is held in the European City of Culture, Aarhus. Therefore, this lecture will discourse about the influence of BIM on our work culture and our way of organizing the construction industry. By rethinking our culture, we will and ask, if we have, or do we need a European BIM Culture. Ms. Bolpagni will present the main BIM activities performed at European level including the EU BIM task group and the European Committee for Standardization. She will discuss the main peculiarities that affect the European BIM environment such as the EU directives on public procurement, heritage aspects, and the use of open standards. The importance of collaboration and new contractual methods will be presented.

Politecnico di Milano ranks as the best University in Italy. The Department of Architecture, Built Environment and Construction engineering, is a scientific and cultural project based on extensive research and teaching experience on planning, design, production and management, in the field of architecture and civil engineering. The Department brings together a multidisciplinary team of researchers and professors, fully expressing the polytechnic spirit in teaching and research, an approach leading to a timely scientific and technical response to the complex problems posed by the transformation of the built environment.

## Ms. Marzia Bolpagni

## Mr. Kenn Clausen

Architect / Computational Designer  
GXN / Green Innovation

Mr. Kenn Clausen is an architect and computational designer with multidisciplinary interests ranging from digital tools and robotic fabrication to design and workflow optimization. Kenn joined GXN in 2014, the research and innovation unit of 3XN Architects in Denmark and works in the fusion between competition, project development and research. He implements and utilizes digital tools, workflow strategies, and design technologies in large-scale building projects and researches in the implementation of robot technologies in concrete formwork fabrication. His scientific contributions and workshops include “Advances in Architectural Geometry”, “Robotic Fabrication in Architecture” and “Design Modelling Symposium”.

### Lecture

This lecture will take you behind the scenes at 3XN architects and GXN innovation to show how the digital geometry team implements creative design thinking and collaborative data sharing. Improved data and information modelling is the key to our continuous development of workflows, tools and systems that enhance performance within the studio and with our collaborators. We will address contemporary agendas such as parametric modelling, data operations and robotic research and how they inform our ongoing projects.

### GXN

GXN was established in 2007 as an internal division of the Danish architectural practice 3XN, and have since day one been working with applied architectural research in green materials and building technologies. The ‘G’ stands for Green, highlighting GXN’s dedication to ecological design research through digital processes and innovative material solutions. GXN competencies span over architecture and design projects, research and innovation and external consultancy.

## Mr. Morten Norman Lund

Design Technologist / Project Manager  
GXN / Green Innovation

Mr. Morten Norman Lund is a parametric designer, design technologist and project manager at 3XN Architect’s independent innovation unit GXN. Morten has been at GXN as an architect for 5 years now, working mainly on research projects that focus on materials, sustainability, and digital technologies as well as architecture projects. He is currently leading GXN’s latest research into digital fabrication through the Digital Factory Project as well as applying parametric workflows to BIM models in 3XN. Morten’s current work at 3XN and GXN serves to bring digital tools into the later phases of the design process to allow more complex designs to be conceived and built.

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## Mr. Rasmus Dahlberg

Historian, Author and Researcher

Mr. Rasmus Dahlberg is a writer, historian and researcher specializing in disasters and preparedness. He is educated from the University of Southern Denmark and the University of Copenhagen and is a co-founder of the Copenhagen Center for Disaster Research (COPE).

### Lecture

A prerequisite for being able to navigate in a complex and unpredictable world is that we understand the background for the models and maps we use, and the challenges that unpredictability poses to the modern society. Mr. Rasmus Dahlberg will challenge the expectations of predictability, analysis and control, and opens the door to a new understanding based on studies of, among other things, human and organizational behavior during crises and disasters.

### Rasmus Dahlberg

With a unique background as both a fiction and non-fiction author and experienced researcher, Mr. Rasmus Dahlberg draws on both art and science as he explains how the world is. In a research project carried out in collaboration between the Danish Emergency Management Agency and the University of Copenhagen he has examined the challenges that the unpredictability poses to the modern society. He currently works at the Royal Danish Defense College.

## Mr. Stephan Lange

Quality Manager

Lufthansa Technik AG

Quality Management & Assurance, HAM T/CE-Q

Mr. Stephan Lange has been responsible for analysing quality topics resulting from customer complaints and bringing those topics into sustain improvement measures. He is responsible for recall campaign caused by errors/ mistakes including cause analysis. He had been working for Aircraft Component Services of Lufthansa Technik AG for 6 years now.

### Lecture

The lecture will take starting point in the work as Crew Resource Management Trainer in Aviation and Medicine in order to make use of all available resources to ensure safe operation. Crew Resource Management covers topics like communication, situational awareness, risk assessment, error culture and stress. Effective Crew Resource Management calls out for all resources available in order to cope with a stressful and routine situation successfully. Mr. Lange will talk about technical skills covered in the Human Factor concept. Following this concept human performance is limited, especially in aviation environment, but not only.

### Lufthansa Technik AG

Aircraft Component Services maintains components for mainly all airlines all over the world and provides business solution with regard component supply. With more than 300.000 shop events per year, errors are likely, prevention of repetitive quality escapes is decisive, because components will be installed to aircrafts around the world.

Mr. Rasmus Dahlberg



**Lufthansa Technik**