

Invitation to seminar 21. May in Trondheim

## Solutions for effective project-based manufacturing

A significant part of the Norwegian manufacturing industry produces customized capital goods and equipment for maritime purposes. Especially within

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*Which requirements and challenges do project-based manufacturers face in today's dynamic markets? How can they effectively organize and plan their manufacturing supply chains?*

innovative, highly customized segments, Norway has long had a world-wide leading role. However, emerging economies are increasingly entering these segments, and they compete with significantly lower prices. In order for Norwegian manufacturers to stay competitive, there is an urgent need to reduce costs and lead times while maintaining high levels of flexibility and innovativeness.

manufacturing supply chains? This seminar brings together internationally known academics and leading industrial companies. The goal is to share knowledge and experience to generate new ideas and stimulate value creation.



# PROGRAMME

08:00 – 08:30	<i>Coffee and registration</i>	
08:30 – 09:00	<b>Welcome and introduction</b>	Jan Ola Strandhagen, <i>Ph.D, Professor at the Department of Production and Quality Engineering, NTNU</i>  Marco Semini, <i>Ph.D, Researcher at the Department of Production and Quality Engineering, NTNU</i>
09:00 – 10:00	<b>The Last Planner System of Production Planning &amp; Control</b>	Glenn Ballard, <i>Ph.D, Research Director, Project Production Systems Laboratory, Department of Civil and Environmental Engineering, University of California, Berkeley. Co-Founder of the International Group for Lean Construction and the Lean Construction Institute</i>
10:00 – 10:20	<i>Break</i>	
10:20 – 11:10	<b>Project execution at Kværner</b>	Thomas Chr. Dahl, <i>Construction Manager, Kværner Contractors Norway</i>
11:10 – 12:00	<b>The role of set-based design in successful shipbuilding project execution. Experiences from Umoe</b>	Nere G. Skomedal, <i>Vice President Engineering, Umoe Mandal AS</i>
12:00 – 13:00	<i>Lunch</i>	
13:00 – 14:30	<b>Supply chain strategies for engineering-to-order: Lessons from manufacturing and construction</b>	Mohamed Naim, <i>Professor in Logistics and Operations Management, Cardiff Business School Deputy Dean at Cardiff Business School Co-director of the Logistics Systems Dynamics Group and the Centre for Advanced Manufacturing Systems at Cardiff (CAMSAC)</i>  Jonathan Gosling, <i>Ph.D, lecturer in Supply Chain Management, Cardiff Business School</i>
14:30 – 14:50	<i>Break</i>	
14:50 – 15:45	<b>Lean and mean in Ulstein – continual efforts to retain competitiveness</b>	Runar Arne Toftesund, <i>Manager Planning, Development and Control, Ulstein Yard</i>  Per Olaf Brett, <i>Deputy Managing Director at Ulstein International AS, Vice President of Ulstein Group ASA</i>
15:45 – 16:00	<i>Closure</i>	



## About the speakers:



### **Glenn Ballard, University of California**

Glenn Ballard is research director of the Project Production Systems Laboratory at the Department of Civil and Environmental Engineering at the University of California, Berkeley. He is also the co-founder of both the International Group for Lean Construction and the Lean Construction Institute. He has taught and done research at Berkeley since 1989, and also provides consulting services to the construction and related industries worldwide.



### **Thomas Chr. Dahl, Kværner Contractors Norway**

Thomas Chr. Dahl is construction manager at Kværner Contractors Norway. Over the past years, he has held several positions in various parts of the EPC (Engineering, Procurement, Construction) supply chain. He has a bachelor in Informatics.



### **Nere G. Skomedal, Umoe Mandal AS**

Nere Skomedal is Vice President Engineering at Umoe Mandal AS. He studied naval architecture and marine engineering at NTNU and graduated in 1978. In 1985 he obtained a Ph.D in Hydrodynamics, also at NTNU. His work experiences include 10 years with Det Norske Veritas AS and 24 years at Umoe Mandal.



### **Mohamed Naim, Cardiff Business School**

Mohamed Naim is professor and Deputy Dean at Cardiff Business School. He is also a co-director of the Logistics Systems Dynamics Group and the Centre for Advanced Manufacturing Systems at Cardiff (CAMSAC). He has won several prizes at the Association of Researchers in Construction Management Conference and he was awarded the Institution of Electrical Engineers' Manufacturing Division Premium. He was also granted a Royal Academy of Engineering Global Research Award.



### **Jonathan Gosling, Cardiff Business School**

Jon Gosling is lecturer at Cardiff Business School. He gained industrial experience from working at TNT Logistics, and in the automotive industry working as a supply chain analyst, before joining the Innovative Manufacturing Research Centre at Cardiff. He has worked as a researcher and a professional tutor in the Logistics and Operations Management Section.





### **Runar Arne Toftesund, Ulstein Yard**

Runar Arne Toftesund is Manager of Planning, Development and Control at Ulstein Yard AS. He studied economics and logistics at Høgskolen i Molde. He has been with Ulstein since February 2007 and had several positions in Supply Chain at Coca Cola Drikker AS. Runar has led the work and development of Lean Shipbuilding at Ulstein Yard since 2007 and was a Board Member of Lean Construction Norge in the period 2010- 2012.



### **Per Olaf Brett, Ulstein International AS**

Per Olaf Brett is Deputy Managing Director at Ulstein International AS and Executive Vice President of Ulstein Group ASA. He has a Ph.D in business administration from Henley Management College. He has had several positions and roles at Det Norske Veritas AS. Per Olaf is also academically active and holds a professorship at BI's Institute for Strategy and Logistics in Oslo.



### **Jan Ola Strandhagen, NTNU**

Jan Ola Strandhagen is professor at the Department of Production and Quality Engineering at NTNU. He is also the director of SFI Norman. He has an extensive experience from both industry and academia, and he has been project manager for more than 35 industrial projects, 15 national research projects and 10 international research projects.



### **Marco Semini, NTNU**

Marco Semini works as a research scientist at the Department of Production and Quality Engineering at NTNU. He holds a PhD in decision support for manufacturing logistics from NTNU and is R&D project manager in several applied research project. His current research focuses on manufacturing strategy, global manufacturing, and production planning and control, with a particular emphasis on low-volume, high-variety industries.



## Organizers:

**SMARTLOG** is a network for the dissemination of research and practice in the fields of manufacturing logistics and supply chain management. SMARTLOG's vision is to provide the Norwegian industry with high international expertise in these areas. Since 2002, SMARTLOG has communicated results to its partners and provided an arena for sharing of knowledge and experience between industry and academia. For more information, see: [www.smartlog.no](http://www.smartlog.no)

**Sfi Norman** is an eight year research program with the vision to develop new and multi-disciplinary research on next-generation manufacturing, and create theories, methods, models, and management tools that enable Norwegian manufacturers to thrive in global competition. 14 Norwegian manufacturing companies collaborate with NTNU and SINTEF in order to improve the competitive strength of the industry through long-term research and innovations.

For more information, see: [www.sfinorman.no](http://www.sfinorman.no)

**SUSPRO** is a four-year project that started in autumn 2013. The project will assure sustainable production of ships in a global, fluctuating market. Knowledge, methods, best practices and decision support tools will be developed in three main areas: (1) Market trends and fluctuations and their impact on the design, manufacturing, supply chain and network; (2) Next-generation sustainable ship production that ensures high environmental and economic performances; (3) Life cycle analysis and other analytical tools for improved sustainability goals. The project is led by NTNU and carried out in collaboration with SINTEF, Ulstein International AS, Fiskerstrand Holding AS, and Pon Power AS.

For more information see: [www.sintef.no/suspro](http://www.sintef.no/suspro)

**Effekt** is a three year research project which aims to develop manufacturing strategies and technologies for competitive production of customer-specific, high-tech maritime equipment in Norway. Specifically, the project will focus on four key R&D areas: (1) Production Strategy for engineer-to-order manufacturing; (2) Lean engineer-to-order production logistics; (3) Flexible automation systems; (4) Real-time monitoring and control. The project is led by Brunvoll and performed in cooperation with Oshaug Metal, SINTEF, NTNU, and Møreforskning Molde.

For more information, see: <http://www.sintef.no/Projectweb/EFFEKT1/>



**Lift** aims to create innovative methods and solutions for project supply chain management in the production of maritime cranes and lifting solutions. The project has duration of 3 years and a total budget of 12 MNOK, supported with 5.86 MNOK by the Maroff program. The consortium consists of the industrial partners AXTech, Huse Engineering and Hycast, with NTNU and Møreforsking Molde from the R&D side.

For more information, see: [Lift](#)

**NCEI** is one of twelve clusters in the NCE Programme and represents high-tech knowledge within the field of industrial instrumentation. NCE is a governmental innovation program which aims to build clusters of companies and specialist environments that are able to compete internationally. The NCEI partners are world-wide leading suppliers of instrumentation, management-, and automation solutions for a large a number of applications, such as oil and gas, maritime, medical, renewable energy, navigation and positioning, and subsea.

For more information, see: [www.ncei.no](http://www.ncei.no)



## REGISTRATION

Deadline for registration is the 18<sup>TH</sup> of May 2014

Register by sending an e-mail to: [tonje.hamnes@ntnu.no](mailto:tonje.hamnes@ntnu.no)

## LOCATION

The seminar will take place at NTNU Valgrinda, S.P. Andersens veg 5 (collocated with SINTEF Technology and Society), in Trondheim. There are parking spaces outside the building, but spaces are limited.

