

**Gunnar Bäckstrand**



PhD Gunnar Bäckstrand's research background is in industry with focus on the interaction between workers and information systems and how these interactions affect the quality and productivity.

In order to continue and help disseminate the research results to SMEs companies did Gunnar change employer to Swerea IVF, Stockholm in 2011. Gunnar runs his research further by participating in national research projects, such as FACECAR, COMPLEX and Lean and Green.

**Björn Langbeck**



PhD Björn Langbeck's research has been focusing on assembly, more precise it has been among flexibility, robotics and materials flow. In recent time Björn has also included assembly instructions and issues about how they could be developed in order to help the assembly worker to perform the tasks efficiently.

Björn has also worked intensely in Swedish industry with implementation of lean production. He has worked closely with over 50 companies regarding lean. Quite often he has also been asked to help companies increasing their productivity in assembly. Björn is also in charge of the network Swedish Assembly Forum and one of the activities he has executed within the network is workshops regarding assembly instructions. Gunnar Bäckstrand has been lecturer at these workshops.



Swerea IVF and four other Swedish industrial research institutes constitute the Swerea Group of R&D institutes.

The Swerea Group creates, refines, supplies, and transfers new findings from applied research into industrial use with the objective of generating industrial growth. The Swerea institutes provide advanced services within the sectors of materials, process, product, and production technology. These services include research and development, testing, pilot production, training, standardization, and consulting. Swerea is owned jointly by Swedish industry and the government of Sweden.

Swerea IVF is project manager of the large project Production Leap which is a nationwide project providing expert training within lean production mainly for SMEs. The project has been ongoing since 2007 and until now some 140 companies have been through the 18 months training program and some 25 are currently in the program.

Swerea IVF manages a vast amount of industrial networks within certain fields. One of them is the Swedish Assembly Forum, which is mentioned above. The purpose of these networks is to give possibilities for industry persons to keep up with the latest news within the field and also enlarge their personal network within industry.

## INFORMATION PRESENTATION FOR IMPROVED LEARNING CURVES IN FINAL ASSEMBLY

The work carried out was intended from the beginning to evaluate how different ways of presenting information affecting productivity and quality in assembly. The results showed great influence on productivity but negligible impact on the quality of the outcome. When the data from the experiment were studied interesting patterns were found that are directly linked to learning, but also for attention.

A spin off from the research is the training station which will be presented and also shown. This station is meant for assembly workers as well as for production engineers and they will understand the impact of parts presentation for the productivity in assembly operations.

