**Reference**

Sandberg Å. (ed.), [Enriching Production. Perspectives on Volvo’s Uddevalla plant as an alternative to lean production](http://freyssenet.com/?q=node/748), Avebury, Aldershot (UK), 1995, 459 p. Digital edition, with a New preface, Åke Sandberg, Stockholm, 2007. Digital publication, first at <http://freyssenet.com> 2007, ISSN 7116-0941 and 2009 at [www.akesandberg.se](http://www.akesandberg.se)

*Enriching Production* was first published by Avebury in 1995. The book was quickly sold out and is now made available again. *Enriching Production* was edited by professor Åke Sandberg, Arbetslivsinstitutet/ National Institute for Working Life and KTH The Royal Institute of Technology, Stockholm.

*Enriching Production* was followed up by a symposium on the general theme of ‘Good work and productivity’. The papers were collected in a special issue of *Economic and Industrial Democracy*, Vol. 19, No 1, February 1998. There will also be follow up articles on Volvo and alternative production systems in a forthcoming reader *Absolut management. Scandinavian perspectives on management in the new working life*, to be published by SNS förlag, Stockholm, autumn 2012.

**Abstract**

Both researchers and practitioners in industrial organization ask themselves today whether lean production is the only possible model for the future. *Enriching Production* proposes a radically different alternative, which was put into practice at Volvo’s Uddevalla plant during its brief life span. Skilled workers in autonomous teams could altogether abandon the assembly line. With a work content of several hours they built cars according to customer order, with a short delivery time, thus avoiding stocks. In spite of its good performance the plant was closed after only a few years without having developed its full potential.

*Enriching Production* explains the design of the Uddevalla plant and tries to understand its closure against a background of organizational politics and Volvo’s production structure. In comparative chapters the NUMMI and Saturn plants in the US and European car manufacturers are contrasted to the Uddevalla model and also to Volvo’s Kalmar plant with still another form of group work. Chapters on social problems with lean production and recent developments in Japanese car manufacturing also contribute to an understanding of where the car building industry and the organization of industrial production is heading. Although the Uddevalla plant in its original form was closed, the vision of competitive systems of production that do not destroy but enhance human competencies and in a a wider sense a human working life lives on. *Enriching Production* contributes by reminding us that under certain circumstances good and competitive ways of arranging production are possible.

**Content**

Preface
The book and its authors

The Uddevalla experience in perspective
Åke Sandberg

Part I

Volvo’s innovative Uddevalla and Kalmar plants. The creation of a new production system at the Volvo automobile assembly plant in Uddevalla, Sweden,
Kajsa Ellegård

Production system design – a brief summary of some Swedish design efforts,
Tomas Engström and Lars Medbo

The Uddevalla plant: Why did it succeed with a holistic approach and why did it come to an end?
Lennart Nilsson

Volvo Kalmar – twice a pioneer
Thomas Sandberg

Part II

The performance of the Uddevalla plant in a comparative perspective. The fate of the branch plants – performance versus power
Christian Berggren

Assembly skills, process engineering and engineering design
Henrik Blomgren and Bo Karlson

Building for new production concepts
Colin Clipson, Jesper Steen, Anders Törnqvist and Peter Ullmark

Designed for learning: A tale of two auto plants
Paul S. Adler and Robert E. Cole

Limits to innovation in work organization?
Bob Hancké and Saul Rubinstein

Group work and the reception of Uddevalla in German car industry
Ulrich Jürgens

Part III

Volvo car plants internationally and the alliance with Renault. Volvo truck and bus in the UK: The clash of the Titans
Paul Thompson and Terry Wallace

Volvo-Gent: A Japanese transplant in Belgium or beyond?
Rik Huys and Geert Van Hootegem

First DAF, then Volvo and now Mitsubishi
Ben Dankbaar

Missing the road: Working life at Volvo Nova Scotia
L. Anders Sandberg

Volvo in Malaysia
Hing Ai Yun

The origins of team work at Renault
Michel Freyssenet

Fait accompli? A Machiavellian interpretation of the Renault–Volvo merger
Karel Williams, Colin Haslam and Sukhdev Johal

Part IV

Beyond lean production Japanese work policy: Opportunity, challenge or threat?
Norbert Altmann

Lean production in the automobile industry: Second thoughts
Dan Jonsson

Humanization of the production system and work at Toyota Motor Co and Toyota Motor Kyushu
Koichi Shimizu

Recent developments at Toyota Motor Co
Terje Grönning

Social preconditions for lean management and its further development
Paul Lillrank

Lean production. The Micro-Macro dimension, employment and the welfare state
Peter Auer

**Key words**

Automobile, Automobile industry, car makers, employment relationships, team working, team leaders, lean production, reflective production, moving line, fordism, taylorism, toyotism, Volvo, Volvo Uddevalla plant, Volvo Kalmar plant, Volvo Gent plant, division of work, NUMMI, SATURN, Toyota, Volkswagen, Renault, Mitsubishi, DAF.

**Concerned disciplines**

Economics, Ergonomics, Management, Geography, History, History of Sciences and Technologies, Engineering, Cognitive sciences, Sociology.

**Writing context**

**References, commentaries, critics**

“This book -- a careful selection of well informed and provoking papers -- provides a solid basis for a reassessment of the socio-technical experiments at the Uddevalla plant and for a critical debate of the lean production system in industry.”
Prof. Dr. Frieder Naschold

“This volume should come to represent a classic for all those interested in different national and international trajectories of work and design in industry.”
Alan Jenkins, in *Organization Studies*

“An invaluable aspect of Sandberg’s book is the wealth of comparative information, not only about other Volvo plants in Sweden, but also with regard to those in the UK, Belgium, the Netherlands, Malaysia and Canada. … this invaluable collection of readings raises a wide range of additional questions which takes the critical debate about lean production significantly further. Its message is not only of relevance to academics, and managers unconvinced by the evangelical enthusiasm of many advocates of lean production, but also to those trade unions which are keen to preserve their independence through the development of new bargaining strategies in the face of an onslaught of new management techniques.”
Dave Beale, in *Industrial Relations Journal*

“… this is an important book and one to be read by academics and practitioners alike. Although it appears as a narrative relating to a single company, it goes beyond this; asking what it is we seek from work reforms.”
Peter Cressey, in *New Technology, Work and Employment*

“This book closes the chapter on Uddevalla’s heroic experiment. It helps the sympathetic reader understand what really happened there, and it draws out the positive lessons of Uddevalla for the very unfinished chapter of ongoing worldwide production and work reorganization in today’s turbulent markets.”
Lowell Turner, in Industrial and *Labour Relations Review*

“…essential reading for all those interested in the auto industry and the challenging innovations associated with Volvo.”
Russel Lansbury, in *Economic and Industrial Democracy*

“…detailed and compelling…Enriching Production provides researchers with a very deep vein of information and analysis.”
Steve Babson, in *Work and Occupations*

“This is a valuable collection…for researchers in this area, and for those who teach in the field, this is a useful addition to the literature.”
*Human Resource Management Journal*

“By its rich content, Enriching production is a good vehicle for keeping the discourse on alternative production systems rolling; and on the road”
Lars Normann Mikkelsen, in *Acta Sociologica*

**Date of the putting on line of the downloadable book**

2007.03.18, Sandberg Å. (ed.), *Enriching Production. Perspectives on Volvo’s Uddevalla plant as an alternative to lean production*, Avebury, Aldershot (UK), 1995, 459 p. Digital edition, New Preface, Åke Sandberg, Stockholm, 2007. Édition numérique, freyssenet.com, 2007, 5,7 Mo, ISSN 7116-0941.Later also at www.akesandberg.se/publications