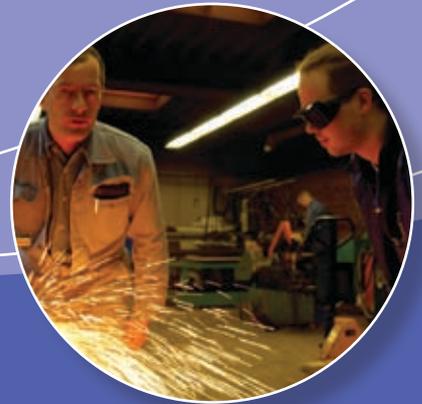




REPORT

OF THE HR WORKSHOP

“Demographic Change & Skills Requirements in the European Shipbuilding & Ship Repair Industry”



held at the Golden Tulip Hotel, Koudekerke, The Netherlands, on Thursday, 5 June 2008

Authors: CESA & EMF / Nicholas Granger

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Foreword

We have the great pleasure to herewith present the results of the **European HR workshop on Demographic Change and Skills Requirements** which was organised by the European Metalworkers' Federation (EMF) and the Community of European Shipyards' Associations (CESA) in Koudekere, The Netherlands, on 5 June 2008 with the financial support of the European Commission. This workshop was preceded by an HR research study the results of which formed the basis and starting-point for the discussions at the conference, and which is available as a separate document in different languages at the addresses below.

The HR research study and the workshop together represent the fourth joint project of the social partners EMF and CESA in the context of the sectoral Social Dialogue Committee on Shipbuilding and Ship Repair.

All documents are available at www.cesa.eu and www.emf-fem.org

At this point, we would particularly like to thank Schelde Naval Shipbuilding very much for giving the participants of the HR workshop the opportunity to visit their shipyards and organise a highly interesting tour on Friday, 6 June 2008.

Henk van Beers
Chairman SSDC

Ruud Schouten
Vice-Chairman SSDC

Peter Scherrer
EMF General Secretary

Reinhard Lüken
CESA Secretary General

Background

The event was organised jointly by CESA (Community of European Shipyards' Associations) and the EMF (European Metalworkers' Federation) as the parties to the Social Dialogue Committee on Shipbuilding and Ship Repair, and was financially supported by the European Commission.

The event formed part of the continuing work of the Social Dialogue Committee to deal with those issues identified in the work of the Committee as being of major significance for the future of the industry sector.

Event Objectives

To consider and discuss issues identified in the HR research study of the sector carried out by Koers & Vaart; to identify and consider possible solutions to problems identified; and to start the process of developing practical means of implementing the solutions.

Programme and Participants

The programme for the event as well as the list of participants and the presentations given at the workshop are attached as Annexes to this report.

Event Report



▷ Greetings, by Mrs Karla Peijs, Governor of the Queen Region Zeeland, ex MEP.

Participants were welcomed by Mrs Karla Peijs. She emphasised the significance of the maritime industries to the Vlissingen area, with shipbuilding, repair and fishing prominent. She commented on the resurgence of the shipbuilding and repair sector in the Netherlands, and of the impact of an ageing population. She suggested that one of the main strengths of the sector in the Netherlands was the possession of a strong knowledge base in the country, and she suggested that it was important for the sector to increase its efforts to appear attractive both to younger people and to women.



▷ Welcome, by Mr Henk van Beers, Chairman of the Sectoral Social Dialogue Committee on Shipbuilding and Ship Repair, and Mr Ruud Schouten, Vice Chairman.

Mr Henk van Beers began by reviewing the Social Dialogue Committee structure and activities. He reminded participants that, arising from the Committee, a study of the structure of the industry in Europe had been carried out; Shipyard Weeks had been organised, with key events in Brussels but activity across the EU; a 'toolbox' study of the measures in place in Europe to deal with cyclical fluctuation on the sector had been performed; and most recently, a study on demographics in the sector, and of the sector's skill needs, had been produced.

Over the life of the Committee, the condition of the sector in Europe had changed dramatically, with full order books and skill shortages now being the norm. The sector is one that has survived in Europe by innovation, and must increase its commitment to innovation to assure its future. This will require improvement of existing skills and the acquisition of new skills, against a background of significant loss of skills in the next decade due to the age structure of employees in the sector. Mr van Beers reminded participants of the mission for the day, as stated above.



▷ Opening of the Conference, by Mr Rene Berkvens, CEO, Damen Shipyard Group and Royal Schelde Group.

Mr Berkvens introduced the Damen and Royal Schelde Groups, explaining that they have a turnover of €1.5 billion, with yards in 25 countries and 8,500 employees, of which 2,200 are in the Netherlands. He attributed the success of the Groups to full use of the knowledge base that exists in schools, universities, technical institutes, suppliers and sub-contractors in the Netherlands. Today, the image of the sector in the Netherlands is of a growing, high-tech and innovative industry. It is well understood that shipbuilding is a cyclical industry, and Mr Berkvens took the view that the market should stay good for the next 3-4 years at least, and for longer than that in some of the specialist ship areas.

Mr Berkvens acknowledged the fact of demographics that means the post-1945 'baby boomers' are now retiring, and this faced the sector with problems in finding the required replacements. He commended the attitude of the trade unions in the Netherlands, who were driving the agenda in matters of education and training, and working constructively to solve the personnel and skills problems the sector faces.

▷ **Presentation of the Results of the HR study, by Mr Pieter 't Hart, Director, Koers & Vaart.**

In two sessions, Mr 't Hart went through the process of acquiring the information contained in the study, and then outlined the trends identified in the study.

In the first session, Mr 't Hart noted that all those who took part in the study could be expected to have different perspectives on the same issues. The study had sought the views of yard top management; of HR professionals; of employees; and of trade association professionals. It should be recognised that the study concerned itself with the yards. It would have opened the exercise up too wide in terms of skills and professions if, for example, it had in addition sought to cover suppliers and sub-contractors to yards.



The questionnaire developed had been trialled carefully, and was well received by users. All involved were to be commended for the very high response rate that was achieved. One principal element in the design of the questionnaire was to record on the basis of three skill levels. This was done, among other things, to allow the sector, and participating yards, to benchmark against the European workforce as a whole, as recorded in Eurostat. Thus, use of the Bachelor and Master-level degree as the most advanced skill level allowed comparison with the Eurostat 'Science and Technology Core'(STC).

In his second session, Mr 't Hart presented the results of the work done. He noted that, taking an average of the sector, shipyard demographics are not markedly different to the European workforce as a whole. But big differences were noticeable when the analysis went down to national level.

The study suggests that the sector needs to recruit some 11,000 people in each of the next five years to replace retirements. The replacement should not be like for like, in that the requirement is for 25% of the new intake to be STC level (ie degree holders), compared with a 19% requirement in European industry as a whole. This was a demonstration of the sector becoming more high-tech and more innovative. It recognised the need for more people with the top level of qualification to give effect to, and to accelerate, these developments.

Very noticeable at national level was the impact of workforce migration. In Poland and Romania, there had been very large outflows of skilled workers to the sector in other European countries, and further afield. For example, the flow of Romanian yard workers to the USA on 9-month contracts was noticeable. These workers tended to come back to Romania at the end of such contracts, stay in the country for a few months, and then leave again for a further 9 months. Also worthy of note was the fact that the migration was not always physical. In Poland and in Croatia, design teams, formed into specialist companies, could be found working not only for yards in other European countries, but also for South Korean and Chinese yards.

Mr 't Hart drew attention to the four main trends identified in the study:-

- Outsourcing
- Industry Image
- Education
- Skilled worker migration.

He explained that 'outsourcing' was a factor because the view from many yards was that they could best deal with the current high level of demand by increasing use of subcontractors, not by expanding the capacity of the yard.

'Industry image' was considered to be much improved over the last five years. Healthy order books were a factor in helping recruitment of good people.

'Education' meant the need to match delivery of education in terms of quantity and content more rapidly to the requirements of industry, as well as ensuring the quality of what was delivered. It also included the thought that there was a need for greater harmonisation of both training and qualifications.

'Skilled worker migration' had to be seen from a number of different perspectives. For the recipient yard, it was in one sense a solution, but for the yard losing the workers, it was a problem.

▷ **Discussion of the HR Study chaired by Mr Dick Schotte, Shipbuilding Consultant, Koers & Vaart.**



Mr Dick Schotte invited comments from the floor. On outsourcing, Dr Jochen Tholen (Bremen University) suggested that the responses to the study questionnaires indicated that yards are dealing with the issue in quite different ways. Some are investing in people to work within the existing operational structures and patterns, while others are investing in different ways of working, like subcontracting design and engineering functions from the yard

On image, the general view of participants was that the sector now had a much better image than it did just a few years ago, helped in considerable measure by the Shipyard Week and associated national and regional initiatives.

Mr Jerzy Czuczman (Forum Okretowe) and Mr Henk van Beers (CNV Bedrijvenbond) emphasised the need for greater provision of vocational training. In the Netherlands, it was reported that for every vocational training place, there were 4 or 5 applicants. Likewise in Poland, there was a strong interest in training to work in the sector, but a serious lack of vocational training centres. There was no money in Poland to fund the creation of new centres, so how might funding be provided? Might this be something that the EU could support?

Mr Egbert Bol (Hogeschool Inholland Scheepsbouwkunde) made the point that speed of response to industry requirement was not easy to deliver. Not only did it take some years to produce a new entrant to the sector who could be regarded as fully effective in the yard environment, but time had to be allowed to train the technical institute lecturers. Managing this, within the context of the cyclical nature of the sector, was extremely difficult, as Mr Sergio Fonseca (ENVC) noted. From the perspective of an education and training professional, the shipyard sector was seen as too conservative in the way it approached these issues. One possibility would be to look at the training for wider industrial categories (for example mechanical engineering) and then assess the scope for the transfer of skills into the maritime industries.

New ways to deliver the sector's requirement for well-skilled people had to be found. Participants from the Netherlands, Denmark and Poland all spoke about the vital importance of the quality of education and training to be provided. In the pursuit of more education and training provision, it would not be acceptable for standards to be lowered, nor for the gap between the three categories of skill level identified in the study to be allowed to widen.

Discussion moved from the provision and quality of more vocational training to harmonisation of training and qualifications across Europe. Mrs Jenny Braat (Danske Maritime) considered greater harmonisation would be helpful to the sector, while Dr Tholen (Bremen University) suggested that comparability was an essential precursor too, and would probably be easier to achieve than harmonisation. Mr Hans-Ulrich Stangen (IG-Metall/HDW) suggested that harmonisation of training

and qualifications was perhaps too difficult a target at which to aim, and that a more practical approach would be to work on comparison of training and qualifications with a view to achieving mutual recognition. Mrs Andrea Husen (EMF) said that the EMF supports the HR study recommendation concerning the need for EU legislation to create a level playing field for temporary employment. In the absence of such legislation, EMF and CESA should consider an agreement on industry-wide standards. She also pointed out the launch of an EMF campaign on precarious work.

In terms of expanding the pool of potential yard employees, Mr Schotte asked participants about the involvement of women. The study had not specifically analysed this, but the impression from the results was that the sector employed women as perhaps 1% of its workforce. Mr Ramon Lopez-Eady (UNINAVE) noted that in Spain the figure was nearer 5%, with most women being involved in the production functions and increasingly in design. Mrs Jenny Braat (Danske Maritime) considered the sector was very conservative in its attitudes and should be seeking more actively to utilise this pool of available labour.

Participants sought clarification from Mr 't Hart on two points in the study. First, he confirmed that no assumptions about improved productivity had been made in the calculations of numbers required by the sector over the next five years. Second, he explained that the number of employees recorded should be subject to a multiplier of perhaps 5:1 to indicate the total level of employment dependent on the sector.

The discussion session was closed by Mr Ruud Schouten, Vice Chairman of the Sectoral Social Dialogue Committee on Shipbuilding and Ship Repair, thanking the presenters and all participants for their active involvement.

Best Practice Presentations

▷ **Dual System Studies in Germany, by Mrs Silke Böttcher, Training Manager, HR Development TKMS, Blohm & Voss.**

Mrs Silke Böttcher explained that the basis of dual system studies was to offer the possibility of obtaining both a degree and a vocational training certificate simultaneously. In the TKMS group, not only was there the opportunity for a wide range of shipyard activities to be covered, but there was also the possibility of working in more than one country.

Although dual system studies was an expensive method of training, in TKMS there was the belief that it was cost effective. More new entrants are being offered the opportunity to take dual system studies. No 'dual system' students have so far left TKMS, and the system cuts down the time needed to make employees fully useful in the yards. As operated in TKMS, students are required to sign a contract to remain with TKMS for two years after graduation, or repay some of the training cost/salary they have received.





▷ **Dual System Studies in Germany, by Mr Erwin Siemens, Chairman of the Works Council, Meyer Werft.**

Mr Siemens explained that the average age of employees at Meyer Werft in 2007 was 36 – substantially below the European average for yards – but that the company had to be prepared to deal with having a significantly higher average age by 2017. It was of great importance that the knowledge present in the company was identified, retained, passed on and developed. It was also important to consider the overall wellbeing of employees, not just at work. It might, for example, be necessary to review the hours an employee worked if his state of health and fitness made full time working inappropriate. Working processes might need to be adjusted to accommodate older, less physically fit, employees.

In Meyer Werft, the dual system was introduced in 2000. The company now has 34 dual system students in a total workforce of 2,630, and in addition 34 trainees and 186 apprentices. The dual system was seen as vital in, among other things, ensuring provision of good quality middle management for the future. It could narrow the gap between theory and practice to the benefit of all involved. The company did not require any commitment from 'dual system' students to reimburse training cost/salary if they were to leave after completion of the course. All students completing dual system training are given an initial 12 month contract with the company. Mr Siemens suggested there might be a case for a unified set of terms and conditions for dual system training between all German yards.



▷ **Training Plans for Apprentices and Students at Fincantieri, Italy, by Mr Carlo Giordani, Manager, Fincantieri HR Department.**

Mr Carlo Giordani began with an analysis of employees joining and leaving the company in 2007. Fincantieri had a total of 9,055 employees at the year end, of which 3,989 were white collar and 5,157 blue collar. 281 white collar employees and 207 blue collar joined the company in 2007, while 133 white collar and 153 blue collar left. Just over 50% of the white collar employees joining in 2007 had STC level qualifications, compared with 26% of those leaving.

The training needs analysis was an important tool, to help each employee fulfil their potential. The result was a commitment to training at all levels, not just at the initial period of employment but on the basis of continuous development. Fincantieri did not see itself as working in isolation, but in partnership with its suppliers, creating a team of over 20,000 people.

To help involve the supply chain in training, Fincantieri supports a number of Technology Clusters in Italy, and is also involved in training for supply companies outside Italy (54 different nationalities).



▷ **Deltametaal Staff Pool in the Netherlands, by Mr Leen Hokke, General Director, Deltametaal.**

Mr Leen Hokke explained the way the Deltametaal staff pool developed and works today. It is a structure, founded in 1968 by six small shipbuilding companies, intended to make sure that important skills were not lost to the sector in periods of activity downturn. As it works today, the organisation has about 270 employees, both fully skilled and in training. These employees can be taken on by member companies to meet short term work peaks, and the organisation also facilitates lending of employees between participant companies. The organisation takes care of the recruitment and development of employees, and tries to stay aware of developments that might call for new and different skills, and to provide training to match the requirement.

▷ **Learning by Doing: a Gateway to Professionalism, by Mr Tuukka Pääkkonen, Pipe Assembler, Aker Yards.**

Mr Tuukka Pääkkonen explained that a problem in Finland was the perceived focus of the education system on the theoretical rather than the practical. The actual development of vocational training material was often in the hands of people who were lacking current practical experience of working in a yard, so the training material did not reflect best practice. Another failing was that the transfer of knowledge from the most skilled employees to those less skilled was not sufficiently systematised and the knowledge of the most skilled was not sufficiently regarded.



To counteract these shortcomings, two projects supported by the European Social Fund (Route of the Professional Shipyard Worker, and Route of the Professional Shipyard Worker on the Baltic Sea) have drawn together best practice documents. The first is the 'Safety, Health and Environmental Manual for Shipbuilding and Offshore Industry'. This manual was printed in six different languages, with the pagination identical in all six versions, so employees working from the different language versions could be easily referred to the same point in the manual. The second is the 'Ship Pipefitters' Textbook'. Not only does this textbook try to draw together practical information on the work involved in pipefitting – it has three parts, theory, welding and assembly – but it also includes material on the history of shipbuilding and the shipyard culture to help new employees to assimilate more easily.

The material is available at www.vayla.fi learning environment.

▷ **MAYDAY Programme 50+ in Poland – Results of EQUAL Project, by Mrs Stanislaw Gatz, Project Manager, Solidarnosc.**

Mrs Stanislaw Gatz explained that the project began some 4 years ago in Poland, when the unemployment rate was 30%. Today, the rate is around 10%. The core of the project was to explore new ways to re-train and re-deploy older workers displaced from industries such as shipyards; to develop mentoring techniques to pass knowledge on from older to younger workers; to support the use of life long learning techniques; and to encourage innovation in working processes to assist the productivity of older, less fit, employees. A film was shown to demonstrate how these core objectives had been met in a packaging company.

Mrs Gatz emphasised that older workers (45+) often had difficulty in finding new employment where the employer was prepared to invest in training for them. In Poland, there was a shortage of funds for training and also a lack of suitable training establishments. Money was needed urgently to allow a continuation of the MAYDAY work, and a plea was made to the meeting by Solidarnosc representatives to support the effort to secure funding. The meeting Chairman, Mr Henk van Beers, confirmed the continuing support of EMF for their Polish colleagues.



Discussion Session moderated by Mr Ruud van den Bergh, Officer Shipbuilding, FNV Bondgenoten.



The discussion was prompted by questions posed to all participants by Mr van den Bergh. The conclusions of the discussion can be summarised as follows:

- Across Europe, there is a general problem in recruiting young people to work in the industry. However, the scale of the problem is different, not just country by country but also yard by yard.
- Conference participants believe that the social dialogue structure could play a positive role as regards recruitment, skills and training issues.
 - On the creation of shipbuilding academies in Europe, intended to remedy inadequate provision of vocational training for the sector, there was significant, but not total, support for the creation of one in the Baltic region and one in Central Europe. Those opposed to the idea felt that the creation of such academies would not be an appropriate immediate action.
- It was vital to develop ways of delivering vocational and professional skills to young people both in academic and training environments, and that this delivery should be allied with linking young people to the knowledge of more experienced employees.
- More needs to be done to assist understanding of the content of existing training courses. This will allow comparability, and is needed if any progress is to be made toward harmonisation.
- If Europe is to retain its technological lead in this sector, in terms of commitment to training and skills development, attention must be paid to South Korea and China, who provide the sector's principal global competition.
- Academic facilities in Europe are world class, and industry should develop closer links with academia and the education sector to improve its understanding of industry requirements.
- The Shipbuilding Weeks and associated 'image' activities have been valuable and effective, but more must be done to build on their success in introducing and explaining the sector to young people. The attractiveness of working in yards needs to be communicated more effectively to young people.
- Work patterns have changed and will continue to change. The sector has to approach all its challenges in a flexible way, since the prime objective is to retain global competitiveness.
- If the sector needs to recruit 11,000 people each year for the next five years, that is a major challenge, and it has the potential to impact significantly on the sector's competitiveness. The event may not have provided all the answers, but it has been valuable in directing and focusing thinking ahead.

Evaluation by The European Commission, Mrs Eleni Dapergola, Directorate-General for Employment, Social Affairs and Equal Opportunities.

Mrs Eleni Dapergola said that the event had highlighted skills availability, skill needs and sector competitiveness. An EC project on identification of skill needs was under way, covering 17 industry sectors, of which shipbuilding and ship repairing was one. The project involved qualitative, rather than quantitative, analysis of skills needs. There would be a workshop on the study of the shipbuilding and ship repair sector on 4/5 December. Work would then be done to look at any linkages and cross transfers between sectors, and the report would be finalised by April 2009.

She considered a number of important points had emerged during the discussion. There was recognition that European society was in a state of constant change. However, the benefits of development were not always equally distributed. This could be helped by the development of occupational mobility. Demographic change in Europe forced a reconsideration of inter-generational relationships. In a sector so dependent on knowledge based technologies, more needed to be done to utilise as effectively as possible the information revolution. Key areas of investment were human capital, flexibility and innovation. Employees should not hesitate to press for re-training and additional training, and employers should be looking out for such opportunities. People should not be excluded from training on the grounds of age, and the introduction of more women in the sector should be encouraged.

The European Social Fund has a budget of some 9bn per annum to support some of these actions, but it is necessary to ensure that money is properly and effectively spent. Social Dialogue Committees are at their best when they produce solid results.



Event Conclusions, by Mr Ruud Schouten, Vice Chairman of the Shipbuilding Sector Social Dialogue Committee.



Mr Ruud Schouten assured Mrs Dapergola that the Shipbuilding Sector Social Dialogue Committee would work effectively. It has tried to join forces as between the employers and employee representative bodies for identification and exploration of problems, and it must also ensure that forces are joined for conclusions and actions.

Mr Schouten recorded the main messages from the event as being:

- Shipbuilding is a high tech industry with a high level of well-educated and highly skilled workers
- Ageing of the workforce is a moderate problem but its impact cannot be under-estimated. The social partners must continue to anticipate the effects of demographic changes
- The greatest recruitment needs exist in the categories of technical employees and university graduates. Actions are needed in this area
- Training activities and lifelong learning are core activities of the yards and must be promoted. The development of a European maritime design academy and a European vocational education programme should be discussed
- Developing adequate vocational educational training systems and programmes is of prime importance for the new EU Member States
- Outsourcing and sub-contracting of work will remain an important feature of the sector. A framework for a level playing field between all categories of employees should be developed
- The social dialogue should be promoted at all levels to build joint awareness and to jointly tackle the challenges facing the sector



ANNEXES

HR Workshop Programme

- 08:15 Registration
- 09:00 Greetings by Mrs Karla Peijs, governor of the Queen Region Zeeland, ex MEP
- 09:15 Welcome by Mr Henk van Beers, Chairman of the Sectoral Social Dialogue Committee (SSDC) on Shipbuilding and Ship Repair and Mr Ruud Schouten, Vice-Chairman of the SSDC
Opening of the conference by Mr Rene Berkvens, CEO Damen Shipyard Group and Royal Schelde Group
- 09:45 Presentation of the results of the HR study by Mr Pieter 't Hart, Director Koers&Vaart
Part 1: Raw data and figures
Questions and Answers
- 10:30 Coffee break
- 11:00 Presentation of the results of the HR study by Mr Pieter 't Hart
Part 2: Trends
Questions and Answers
Discussion chaired by Mr Dick Schotte, Shipbuilding Consultant, Koers&Vaart
- 12:15 Conclusions by Chairman and Vice-Chairman
- 12:30 Lunch (1.5 h)
- 14:00 Best Practice Presentations
- Dual System Studies in Germany
Mrs Silke Böttcher, Training Manager, HR Development TKMS, Blohm&Voss
Mr Erwin Siemens, Chairman of Works Council, Meyer Werft
 - Training plans for Apprentices and Students at Fincantieri, Italy
Mr Carlo Giordani, Manager, Fincantieri HR Department
- Coffee break
- Deltametaal Staff Pool in the Netherlands
Mr Leen Hokke, General Director, Deltametaal
 - Learning by Doing: a Gateway to Professionalism
Mr Tuukka Pääkkonen, Pipe Assembler, Aker Yards Turku
 - MAYDAY Programme 50+ in Poland – Results of EQUAL Project
Mrs Stanislaw Gatz, Project Manager, Solidarnosc
 - Q&A / Discussion, chaired by Mr Henk van Beers
- 16:00 Discussion chaired by Mr Ruud van den Bergh, Officer Shipbuilding, FNV Bondgenoten
Evaluation by the European Commission, Mrs Eleni Dapergola, DG EMPL
Conclusions CESA, Mr Ruud Schouten, Vice-Chairman of the SSDC
Conclusions EMF, Mr Henk van Beers, Chairman of the SSDC
- 18:30 Reception
- 19:30 Walking Dinner

List of Participants

| Name | First name | Organisation | Country |
|-----------------|-------------|--|-----------------|
| Adamski | Dariusz | Solidarnosc | Poland |
| Anink | David | Scheepsbouw Nederland | The Netherlands |
| Blume | Stefanie | Meyer Werft | Germany |
| Bol | Egbert W. | Hogeschool Inholland Scheepsbouwkunde | The Netherlands |
| Borg | William | General Workers' Union | Malta |
| Böttcher | Silke | TKMS (Blohm & Voss) | Germany |
| Braat | Jenny | Danske Maritime | Denmark |
| Clouet | Alain-André | FGMM-CFDT | France |
| Corral Alza | Antonio | Ikei Research & Consultancy | Spain |
| Couderc | Sebastien | FGMM-CFDT | France |
| Czuczman | Jerzy | Forum Okretowe | Poland |
| Dapergola | Eleni | European Commission | Belgium |
| de Meij | J.J.L. | FNV Bondgenoten | The Netherlands |
| Filipe | Ana | SIMA | Portugal |
| Fonseca | Sergio | ENVC | Portugal |
| Gacio | Josè Luis | MCA-UGT | Spain |
| Gatz | Stanislawa | Solidarnosc | Poland |
| Giordani | Carlo | Fincantieri | Italy |
| Gouret | Patrice | FGMM-CFDT | France |
| Granger | Nick | CESA SMRC Group | United Kingdom |
| Grosser | Katja | EMF | Belgium |
| 't Hart | Pieter | Koers & Vaart | The Netherlands |
| Haspot | Christophe | CGT | France |
| Helin | Arto | Aker Yards | Finland |
| Hokke | Leen | Stichting Deltametaal | The Netherlands |
| Husen | Andrea | EMF | Belgium |
| Isusi Bilbao | Iñigo | Ikei Research & Consultancy | Spain |
| Kaagman | Ingrid | Wärtsilä Nederland B.V | The Netherlands |
| Kauppinen | Veli-Matti | The Finnish Metalworkers' Union | Finland |
| Kirsenstein | Marco | Scheepsbouw Nederland | The Netherlands |
| Kowalszyk | Zbigniew | Solidarnosc | Poland |
| Kraszewski | Jakub | Stocznia Gdynia S.A. | Poland |
| Kuzimski | Roman | Solidarnosc | Poland |
| Lonati | Emilio | FIM CISL | Italy |
| Lopez Eady | Ramón | Uninave | Spain |
| Lorca | Pedro | FM CCOO | Spain |
| Ludwig | Thorsten | Agentur für Struktur- und Personalentwicklung GmbH | Germany |
| Lüken | Reinhard | CESA | Belgium |
| Malveiro | Ricardo | Fiequimetal | Portugal |
| Marcelas Varela | José Manuel | Astillero Hijos de Barreras | Spain |
| Matilla | Asier | Astilleros Murueta | Spain |
| Meijerman | Anton | CNV Bedrijvenbond | The Netherlands |
| Ordowski | Matthias | HDW GmbH | Germany |

| | | | |
|--------------------|---------------|----------------------------|-----------------|
| Pääkkonen | Tuukka | Aker Yards | Finland |
| Pimentel das Neves | José Antonio | ENVC | Portugal |
| Piorek | Mirosław | Solidarnosc | Poland |
| Postigo Gonzalez | José Antonio | La Naval | Spain |
| Rojo Calvo | Juan | GernaVal | Spain |
| Sansoglou | Paris | CESA | Belgium |
| Sarmiento | Ramon | FM CCOO | Spain |
| Schembri | Christopher | General Workers' Union | Malta |
| Schotte | Dick | Koers& Vaart | The Netherlands |
| Schouten | Ruud | Scheepsbouw Nederland | The Netherlands |
| Siemens | Erwin | Meyer Werft | Germany |
| Simoës | Alberto | SIMA | Portugal |
| Sinha | Ashutosh | SSA | United Kingdom |
| Sokolowski | Jerzy | Stocznia Gdynia S.A. | Poland |
| Stangen | Hans-Ulrich | IG-Metall | Germany |
| Tartarelli | Pierfrancesco | Fincantieri | Italy |
| Theobald | Fabrice | CSCN | France |
| Tholen | Jochen | University of Bremen | Germany |
| Thomsen | Heike | CESA | Belgium |
| van Beers | Henk | CNV BedrijvenBond | The Netherlands |
| van Driel | Riet | Damen Shipyards' Group | The Netherlands |
| van de Loo | Charles | Damen Shipyards' Group | The Netherlands |
| van de Waterbeemd | W.Ch. | Schelde Naval Shipbuilding | The Netherlands |
| van den Bergh | Ruud | FNV Bondgenoten | The Netherlands |
| van Putten | Nick | Heesen Yachts | The Netherlands |
| van Schijndel | Lamertus | Keppel Verolme B.V. | The Netherlands |
| Velado | Manuel | MCA-UGT | Spain |
| Veres | Andreas | TKMS | Germany |
| Verhoeven | Véronique | CESA | Belgium |

CESA and EMF would like to thank the interpreters for their excellent work during the workshop

| | | |
|-----------|-----------|-----------------|
| Balthes | Simone | Belgium |
| Basili | Antonella | Belgium |
| Beyer | Edgar | Luxembourg |
| Durau | Joanna | The Netherlands |
| Gonzalez | Cristina | Belgium |
| Leeuw | Monique | Belgium |
| Hess | Christina | Belgium |
| Prus | Piotr | Belgium |
| Thibert | Cécile | Belgium |
| Vaccano | Fiore | Belgium |
| Van Hyfte | Annik | Belgium |
| Vanstalle | Christine | Belgium |

Welcome Speech

Karla Peijs, Governor of the Queen Region Zeeland, ex MEP

Ladies and Gentlemen,

It is my pleasure to welcome you here, at a stone's throw away from the sea. The sea, that's what it's all about in your industry.

Undoubtedly, during these two days, you will have the opportunity to cross the dunes. You will see then how many ships pass so close to the coast. I always find that impressive.

Our province consists, for one-third, of water. The sea has always challenged us, here in Zeeland, to push back frontiers, to undertake, to go on adventure, to trade and to invent new techniques. Since centuries, the sea has determined the economy of Zeeland. From trade and shipping to process industry and logistics; from professional navigation and fishery to watersports and recreation. When it comes to water, we are self-conscious and innovative.

The shipbuilding industry has always been an important economic pillar for Zeeland.

"De Schelde" as shipbuilder is already more than 130 years a concept in Zeeland. There is a big chance that one will rather think of the shipyard than of the river when hearing the name Schelde.

There is also a big chance that one thinks of the big employer. Many people in Zeeland, and for sure many inhabitants of Vlissingen, have family or friends who work or have worked at Schelde.

This brings us to the subject of your conference: the consequences of the demographic developments in the shipbuilding industry.

Because a shortage on the labour market is imminent in many countries in Europe, where you come from.

In fact, that is a good sign. Not so long ago, the shipbuilding industry suffered so much that many people were dismissed. In the meantime, this trend has rotated almost by 180 degrees.

The industry has restored itself so well, at least in The Netherlands, through high-quality technology and specialisation, that it is hard to fill all the vacancies. I was told that Schelde (Royal Schelde Group) has some 100 vacancies on technical, vocational and university training level.

I am the commissioner of a province which scores quite high when it comes to demographic ageing. Apart from anticipating the climatological future – because you will understand that this keeps us very busy here in Zeeland, as we are surrounded by so much water and with the 1953 flooding catastrophe still in mind – tackling our demographic future is the other important challenge for Zeeland.

Shortly ago, we published a report on this topic: "Unexplored paths; challenges for the province of Zeeland due to the changing composition of the population".

Our composition of the population is as such that, as from 2010 onwards, most villages will experience a decreasing professional population and, after 2020, this will be the case for the entire province of Zeeland.

When labour becomes scarce, companies have four options: move, work longer, invest to increase labour productivity and engage employees from other regions within The Netherlands and abroad.

As to the aspect of moving: this is already a common trend in the shipbuilding industry. Some company segments have been moved to East-European countries or to the Far East, but the high-quality knowledge component stays in the region.

The engagement of employees from other provinces and countries can bring some relief, but this option will be insufficient to cover all the labour market shortages.

Then, there are still the options "working longer" and "increasing labour productivity". For the latter, mainly innovation, knowledge development and knowledge transfer are indispensable.

There are your chances, because you already take the lead. When it comes to naval ships and yacht building, Schelde is so strong that it is known in the entire maritime world as a knowledge intensive pearl.

Of course, we are very proud of that: Schelde is a fantastic ambassador for the province of Zeeland.

According to us, it should stay so.

The specialisation and knowledge in your industry should not disappear when older experienced and professional employees retire.

You should, therefore, also invest much in making working longer more attractive. But especially in the transfer of knowledge and skills between older and younger employees. And, last but not least, it is important to make this industry appealing for young people and women. How this can be achieved, is, I presume, the challenge of these two days. I wish you thereby good luck. I hope for our province that the shipbuilding of Schelde will remain world-famous and that, in length of years, it will continue to set the positive image of Zeeland.

Dual System Studies as one Possibility of Tackling the Challenges of Demographic Change

Silke Böttcher, Training Manager, TKMS, Germany

The ThyssenKrupp Marine Systems shipbuilding group has been offering the dual system studies for several years already to tackle the challenges of demographic change. The results of the study presented this morning stated that in Germany, the total number of employees at the shipyards will not be increased. However, investing into higher, i.e. tertiary, education and training is definitely high on the agenda both at present and in the future.

The ThyssenKrupp Marine Systems shipbuilding group which came into existence 3.5 years ago belongs to the ThyssenKrupp group of companies since 2005. The company history of its individual shipyards, however, goes partly back more than 100 years. The product range is very extensive and includes submarines, naval vessels, yachts (from 80m), commercial and special ships, repair and service. The shipbuilding group also has shipyards in Sweden and Greece. Since the dual system study is mainly a typical German type of training, the further explanations refer to the three locations of ThyssenKrupp Marine System shipyards in Emden, Hamburg and Kiel.

The average age of the employees has risen over the last three years. Since the main part of the workforce is middle-aged, TKMS is faced with a medium-term problem to secure and recruit junior staff. The training of higher qualified employees, however, has to start now. Looking at the skilled workforce with tertiary education within the shipbuilding group it turns out that 80% of the employees have a degree as engineer. This is not surprising for a shipyard, however, it shows that the personnel department has to focus on these engineering degrees when training and educating young academics.

In Germany, several studies on the development of the labour market for engineers have been carried out already (e.g. by Verein Deutsche Ingenieure VDI = Society of German Engineers). Unanimously, a shortage of engineers was predicted since the demand for engineers will exceed the supply of graduates. At this stage one already speaks of the so-called „war for talents“. Other aspects which in Germany stand for demographic change are a longer working-life and the legal increase of the retirement age.

There is no superordinate project within the TKMS shipbuilding group which comprehensively deals with the demographic change. Yet many topics have already been worked on or still are on the „to do“ lists of the HR departments. Aspects such as qualification, training and education, and internship programmes were already established years ago. Staff retention and und Know-how transfer, however, are relatively new subjects which will be realised by and by. Regarding other aspects, such as Health & Safety programmes and working time accounts, projects and guidelines were already introduced a while ago, however, due to the current situation these topics have been taken up again.

Dual system studies is an important tool at TKMS and means that a school-leaver is trained and educated both practically in a company and theoretically at a University of Applied Science at the same time so that in the end a qualified engineer is „supplied“. The students receive a monthly salary during the entire period of their training, i.e. even while they study at the university - a time in which they are not at the company's disposal. For TKMS it is very important that the students get to see the big picture, i.e. learn to “look beyond their own nose“ by getting to know different departments during their practical training (even departments which are not mandatory for the future target position).

The personal development of the students is also essential for the company. When starting their professional life, the school-leavers are relatively young and will be accompanied both by the specialist departments and the HR department. Therefore, great importance is attached to personal supervision and mentoring as well as social skills training. The first students finishing the dual studies system at TKMS (in industrial engineering and business engineering) were already employed in Kiel in 1999. Gradually, other types of study courses and other shipyards of the group came along.

The numbers jumped up in 2006 und 2007 which shows that succession planning and staff retention has come to the fore. On the basis of TKMS' medium-term personnel planning, considerably more students who finished their dual system studies, have been employed as junior staff members, in particular for the design departments. In total, the TKMS shipyards have employed 81 students so far; 66 engineers and 15 students of other study courses.

By now, all students could be provided with an unlimited working contract after graduation. For TKMS the dual system studies means covering the in-house need for qualified employees. There are even contracts of cooperation with some universities which allow coordinating the contents of the studies.

With its long periods of vocational adjustment, its complex structure and its expert positions, the company can benefit enormously by training and educating its own junior staff. Vocational training is, in general, highly appreciated in Germany and considered a task of the companies. Therefore, vocational training is considered a „social obligation“ simultaneously promoting the company's image.

But it is only fair to also contrast the reasons and advantages of the dual system studies with the drawbacks and costs of this training. The training costs for each student amount to, in all, approx. 45,000 up to 80,000 €. In addition, qualified training always binds resources in the specialist and HR departments.

In order to make this type of training target-oriented and as effective as possible, it is from our experience particularly important to

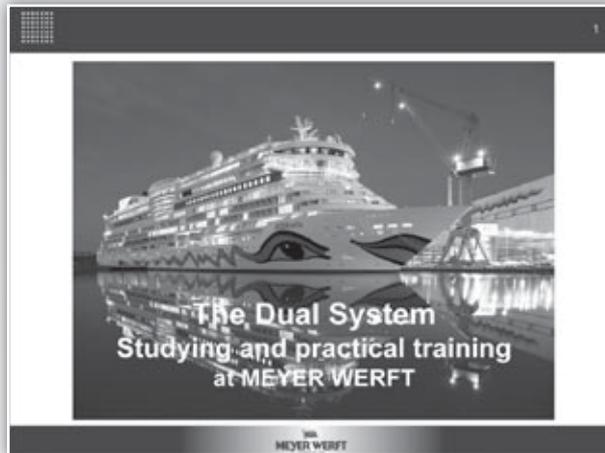
- train the right number of students in the required courses of studies (corresponding to the medium-term staff requirements)
- plan the future position as early as possible in order to motivate the students and allow for target-oriented resource scheduling
- include the specialist departments at an early stage as far as possible, i.e. from the applicant selection until the final employment and make them “carry out their duties“.

This system of succession planning and staff retention has proved to be a success at ThyssenKrupp Marine Systems. At present, we assume that the number of students will remain the same over the next 1-2 years and perhaps even slightly increases. For this, the personnel planning also in the specialist departments at all TKMS locations will be taken into more consideration.

So far, i.e. after the conversion to Bachelor/Master degrees, the dual system studies have only been carried out up to Bachelor degree. However, both the specialist departments as well as the graduates already ask for Master degrees the realisation of which represents the next step which is presently being discussed at TKMS in this context.

The Dual System Studies at Meyer Werft

Erwin Siemens, Chairman of Works Council, Meyer Werft, Germany



Contents

- About MEYER WERFT
- Demographic development
- HR strategy
- What is the "dual system"?
- Why combine studying with practical training?
- The dual system in practice

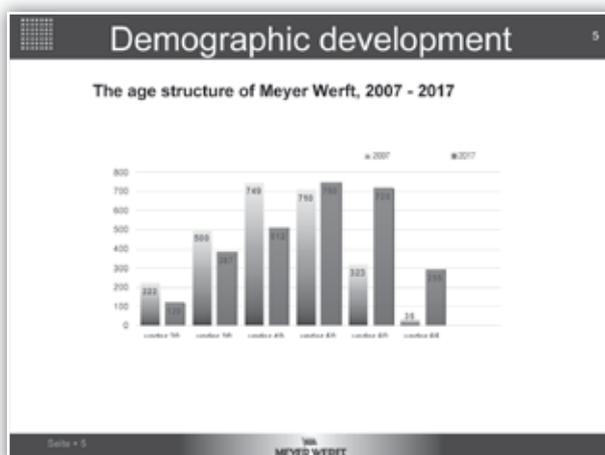
About MEYER WERFT

- A family business for six generations (founded in 1795)
- First compact shipyard and one of the world's most modern shipyards
- Building cruise ships since 1986
- Just-in-time production
- Biggest laser centre in Europe
- Sister company: NEPTUN WERFT in Rostock
- Shipyard working to capacity until autumn 2012

MEYER NEPTUN
MEYER WERFT
PAPENBURG 1795

MEYER WERFT in figures

| | |
|-----------------------|--------------|
| Workforce: | |
| Employees: | 636 |
| Industrial employees: | 1,740 |
| Apprentices: | 186 |
| Dual system students: | 34 |
| Trainees: | 34 |
| Total: | 2,630 |



- ## HR strategy
- Draw up staff development measures
 - Introduce measures for recruiting and retaining younger workers e.g. combining studies and theory
 - Double the number of apprentices to 120 per year
 - Make working hours more flexible
 - Launch a company health management programme
 - Manage integration
 - Continue the model of part-time work for older employees
 - Ensure knowledge management/ transfer of knowledge

What is the "dual system"?

7

- Integrating theory and practice – a fully-fledged practical traineeship in a company and a fully-fledged course of study at a university of applied sciences (UAS).
- The length of time spent on professional training and studying theory varies from one semester to the next.
- The course content is identical to the content of normal courses – the only difference is the way the course is organised (particularly as regards the order of exams and modules).
- Interdisciplinary training that prepares students for the international labour market and, more importantly, working in a team.
- The programme can be completed in the required time as a detailed timetable is drawn up, the requirement for a practical semester is waived and full use is made of semester breaks.
- Higher education certificate – engineer (UAS) or bachelor's / master's degree.
- Professional diploma - skilled worker.

MEYER WERFT

Why combine studying with practical training?

- The economy needs specialists and managers who have studied scientific subjects and completed related practical training courses.
- Short courses with emphasis on practical applications.
- Students are paid for their work at the company.
- Skilled workers' certificate following examination in the relevant profession and diploma or bachelor's degree upon completion of studies.
- The company is actively participating in training the engineers of the future.
- The scheme supports up-and-coming middle managers.
- Early identification with the firm and familiarisation with the company philosophy and the product range.
- Maximum involvement of students, which prepares them for the demands of working life in companies.

MEYER WERFT

Introduction of the dual system in 2000

9

- Community project by the works council and the training unit.
- Leading cooperation between the shipyard and UAS Wilhelmshaven.
- Model for establishing the dual system in the shipyard: SARTORIUS.
- Launch of the dual system: the first students/trainees started on 1 September 2000.
- All students receive a 12-month contract once they complete their studies (collective agreement to safeguard employment)
- Students are guaranteed positions as engineers in the shipyard.

MEYER WERFT

Current situation

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- At the moment, **27 students** (6 female/21 male) are studying at Emden, Wilhelmshaven and Bremen Universities of Applied Sciences.
- One trainee is studying at Leer University of Cooperative Education (UCE).



12 students in Emden



2 students in Wilhelmshaven

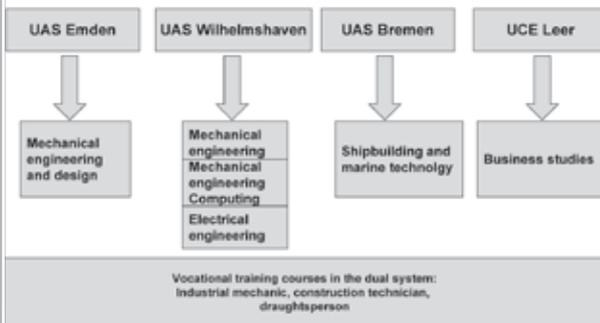


12 students in Bremen

MEYER WERFT

Available disciplines for the dual system at MEYER WERFT

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MEYER WERFT

Structure, duration and procedure

12

- Conclusion of a course-related training contract for the relevant profession.
- Creation of a timetable.
- Duration: e.g. for the Bachelor of Engineering, the standard period of study is seven semesters plus dissertation, other disciplines can take up to ten semesters.
- Close contact/exchanges between the UAS and the shipyard's training department.

MEYER WERFT

Qualifications

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- Shipbuilding and marine technology, UAS Bremen:
 - Bachelor of Engineering (B. Eng.)
- Mechanical engineering, UAS Emden and Wilhelmshaven
 - Engineer's diploma - mechanical engineering (UAS)
 - New: Bachelor (B. Eng.)
 - New: Master (Master of Engineering (M. Eng.))
 - » Bachelor und Master replace the diploma
- Mechanical engineering - computing, UAS Wilhelmshaven
 - Bachelor of Engineering (B. Eng.)
- Electrical engineering
 - Bachelor of Engineering (B. Eng.)
- Business studies
 - Business management diploma (UCE)

MEYER WERFT

Discussion

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Many thanks for your attention!

MEYER WERFT

Training Plans for Apprentices and Students at Fincantieri

Carlo Giordani, HR Manager, Fincantieri, Italy

At the end of 2007, the company had a staff of over 9,000- of whom almost 60% were blue collar workers - employed at 8 shipyards, two design centres and one Corporate HQ.

Speaking of trend, in the last 5 years almost 2,000- employees have been appointed whilst 2,135 - have left the company.

The trend however is different according to whether we consider white collar staff (where more staff have joined than left) or blue collar workers (where 80% of staff have been replaced).

Considering solely 2007, both categories show a positive ratio between incoming and outgoing employees: over 2 for white collar staff and 1.3 for blue collar workers.

This is broadly due to two factors:

1. The workload generally looks good for the next three years
2. The change in the mix of new orders with more prototypes expected in the next few years and therefore greater demand for engineering and production resources.

The change in mix also requires highly qualified technical staff.

Indeed, with regard to white collar staff it is noteworthy that the number of graduates in the company has increased: in the last five years 225 graduates have left the company, whereas almost twice as many have joined us.

Considering last year alone, 34 graduates left the company, while 142 were appointed, 4 new appointments for every outgoing graduate.

Were new staff have been assigned in 2007:

- white collar: 38% in the fields of Design and 28% in Production
- blue collar: 65% welders, in line with Fincantieri's production system where work on the hull and part of the outfitting is carried out within the company.

Taking on almost 500 people in a year was not easy, indeed in some cases it was very difficult.

With regard to blue collar workers, the problem is that some jobs no longer attract youngsters, also because the school system in general no longer takes them into consideration.

With regard to white collar staff, even graduates, this gap between the school system and the world of work in Italy is a big stumbling block.

For these reasons it is necessary to flank and support selection with intensive training programmes, pre and post appointment.

- In 2007, three 2-year master courses for engineering graduates of 1,200 hours came to an end. The aim was to introduce the company, how it is organized, the product and its operating procedures to 45 young graduates.
- For school-leavers, we have recently organized 2 courses for interior outfitting, in cooperation with vocational training institutes.
- Finally, in the second half of 2007, we organized 3 courses for welders, involving 50 youngsters for employment at the end of the course.

All three initiatives were highly positive experiences both for the youngsters and the company.

Once employed in Fincantieri, it will be the company's training system to keep the employee's skills up to date through technical and management courses.

On average, a total of over 100,000 hours of training are provided every year involving over 4,000 participants, almost 50% of the workforce.

Fincantieri's production system is based on both internal resources and subcontractors: it is important that these companies and their staff also take part in the same system of training and development of the competencies necessary to sustain the business.

In its relations with subcontractors Fincantieri aims to foster the growth of its partners and the training of their staff.

To this end, Fincantieri takes an active part in the initiatives undertaken by DISTRICTS, networks able to facilitate the transfer of knowledge and technologies and to spread the culture of innovation. The districts are located in a number of regions where Fincantieri's production facilities are located:

- Friuli Venezia Giulia
- Sicily
- Campania
- Liguria (2 districts)

By participating in the district's activities partner companies can find all the support required for training, research and innovation, in coherency with Fincantieri's needs.

In addition, for a number of fields, as for example quality and, first and foremost, safety, Fincantieri organizes training activities directly for the employees of its partner companies.

This, for example, is the case of the safety training course: a multimedia course run by Fincantieri safety officers involving over 10,000 people each year.

The course is held in 6 different languages: Italian, English, French, Spanish, Croatian and Bengali.

The issue of language, and hence integration, is increasingly important since there are an increasing number of foreign workers in our shipyards. For example, in Genoa shipyard, 47% of the workforce is foreign, from over 54 nations.

Finally, these are the next challenges Fincantieri must face in the field of selection and development of human resources:

1. A high turnover of resources with experience, within the perspective of a generally stable staff framework. It will be necessary, more than today, to find innovative solutions to accelerate the learning curve of newly-appointed staff, directly involving staff with greater experience in the transfer of know-how.
2. Increased "pressure" on our industrial system due to external factors (rising cost of raw materials, energy etc) which will require an increasingly efficient production system and technological innovation in product and process.

It will be necessary to sustain these challenges by appointing and preparing excellent resources.

DELTAMETAAL a Staff Pool in the Netherlands

Leen Hokke, General Director, Deltametaal

ABOUT DELTAMETAAL

For nearly 40 years now, companies in the Metalektro (metal and electrical engineering industry) have been aware of the importance of retaining craftsmanship and know-how.

In addition, over recent years companies have been confronted with a strong fluctuation in the amount of incoming work. To help manage these variations in customer demand, the foundation 'Stichting Deltametaal' was formed in 1986 by the employer and employee organisations in and around Rotterdam.

Deltametaal operates as a non-profit organisation sending on highly qualified project technicians to comply with the expected and unexpected request for project technicians by companies.

ESTABLISHMENT OF DRECHTMETAAL 1968

Drechtmetaal is the mother of Stichting Arbeidsreserve Deltametaal.
Drechtmetaal established at 1968.

6 “Founding Fathers” – small ship builders in the neighbourhood of Rotterdam started Drechtmetaal.

Starting with about 10 employees and a managing director and a bookkeeper.

Why a Staff Pool like Drechtmetaal?

- Temporary less orders in ship building;
- Contractors working in other “metal” branches pays more nett all inclusive salary and forget to pay taxes etc. ;
- Companies can rent there own ex-employees for a higher tariff.

DRECHTMETAAL 1968

Co operations with conditions

- The Founding Fathers (FF) support the financial risks (no work – no tariff) ;
- First selection of the Drechtmetaal employees;
- No take over of the employees from Drechtmetaal and FF;
- For employees no work – continuing salary;
- Continuing the education of the employees;
- Co operation with the Unions;
- Co operation with the Metaal Bond (Employers organization).

DRECHTMETAAL - DELTAMETAAL

Development Staff Pool to a instrument of the labour market

1980 the great reorganization of the famous shipbuilders in Holland

Start up think about the employment situation in the Rijndelta region

1983 The first Staff Pool of education, all the students-future craftsmen on the payroll of the pool. The first batch of future craftsman has not an industrial employer

1985 Expansion of the labour market instruments

The establishment of:

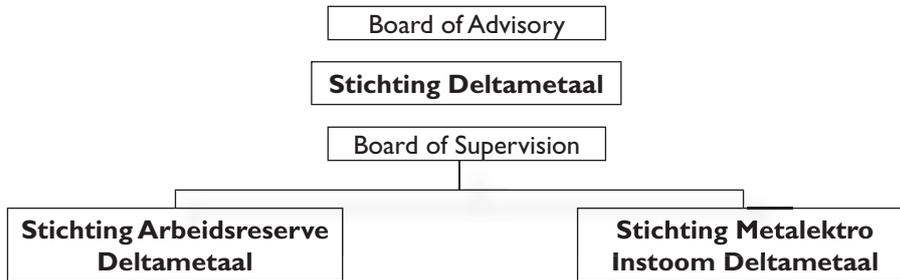
- Stichting DeltaMetaal (Umbrella organization)
- Stichting Arbeidsreserve DeltaMetaal (SAD)
- Stichting Uitzendpool DeltaMetaal (SUD) (became SMID)
- Stichting Metalektro Opleidingen Rijndelta (SMO-R) (Eliminated)

STICHTING DELTAMETAAL 2008

Staff Pool DeltaMetaal still a instrument of the labour market

- **Stichting DeltaMetaal** (Umbrella organization)
 - ▷ Special labor market projects
- **Stichting Arbeidsreserve DeltaMetaal (SAD)**
 - ▷ 28 Industrial companies: shipbuilding, yacht building, offshore products, construction, storage tanks, machine building
 - ▷ 270 employees including future craftsmen
 - Welders, shipbuilders, construction workers, pipe fitters, machine fitters, foremen, team leaders etc
 - ▷ Organize fraternal (temporary) lend employees
- **Stichting Metalektro Instroom DeltaMetaal**
 - ▷ Special education projects with the regional technical schools
 - ▷ Projects for unemployed people
 - ▷ Pooling and teaching practice for middle en higher educated technical students for the regional schools and companies

- ▷ Collect craftsmen from company reorganizations and mediate them to a new (technical) job
- ▷ Contacts with about 120 companies in the region
- ▷ About 50 till 70 pupils, students and workers.



Board of Advisory: Members of the Unions and Employers Organizations and a few industrial (Metal) Employers.

Board of Supervision: Five managing directors of member companies and one employee commissioner

Strength Deltametaal

Solid team of independent craftsmen

- Own and selective recruitment high level of quality craftsmen
- High level of knowledge of the partner companies an efficient matching
- Great knowledge of the labour market gives efficient matching in quality and quantity craftsmen
- Co operation brings reduction of costs

Weakness Deltametaal

- Strong dependent of information partner companies
- Large economical activity quantity employees low
- Weak economy quantity employees high
- Partner is shareholder but also a customer

Mission statement Deltametaal

The client's flexible production capacity, is our business

By:

- providing a short term increase in personnel capacity by sending on highly qualified project technicians to other SAD members
- improving the intake of students and career development of project technicians
- specialist training and development of trainee technicians as well as senior technicians
- leaping on developments and the changing job market situation
- deploy temporary workers in the fields of Technology

Learning by Doing: a Gateway to Professionalism

Tuukka Pääkkonen, Pipe Assembler, Aker Yards Turku

Learning through work

This speech concerns *learning through work* and its problems in Finnish educational system, which is based on theoretical learning method.

Learning through work as a vocational training system

Learning through work is the oldest way to learn a profession. Later on, the Finnish society developed various educational systems in order to accelerate the learning of basic occupational skills as well as to unify and harmonize teaching content. Since the educational system has become more complicated, learning through work fell behind and in some cases it got totally forgotten.

Nowadays in Finland little credit is given to and not much value is put upon *training through work*, though it deserves so much more. People are measured on the basis of their qualifications and degrees, not any more by their abilities and expertise. Society values and acknowledges accomplished degrees and passed exams instead of valuing personal occupational skills gained throughout the decades.

Training materials used at vocational schools are often prepared by teachers, engineers and such people, who do not practice a shipyard profession on a daily basis. That is why many training materials lack much empirical and practical information and knowledge is needed to perform a profession. Shipyard professions cannot only be learned from reading books or by passing exams.

Occupational skills are best learned only after years of repeated practice with no short-cuts. Shipyard occupational training is carried out in a traditional way, i.e. professional - apprentice, the method according to which a newcomer learns a profession by working side by side with an older and experienced worker. Also, in that case, it takes years to learn.

Based on experience it can be assumed, that learning to work independently lasts 5-10 years, depending on a person. It is also important to remember that some workers never learn to work independently. Also, not every professional has the ability to teach others their profession.

In order to function, the *learning through work* - model requires, that new workers get to work side by side with older professionals for several years and that workers get enough time and possibility to improve and develop their work. The company also needs to have the right proportion of young and older workers, so that the tacit knowledge can be promoted constantly.

It is difficult to implement *the learning through working* - method in a company, which, in order to save expenses and costs, tries to keep the number of workers on the lowest level possible. In such a case experienced craftsmen will not have enough friends and their excellent skills will be lost once they retire. Also, too tight schedules and time-tables complicate the process of learning through work, because being in a hurry prevents and blocks the creative thinking and improvement of new methods.

In order to succeed, *the learning through work* - model requires, that the company management approves the idea of professionals being the best specialists at their work, and that they have such skills and knowledge that is not available somewhere else. Also the company needs to understand that the only real competitive edge is the workers memorized knowledge of how to build ships cost efficiently and qualitatively. If this knowledge, gained over the decades, gets lost, it can be brought back only by long lasting hard work.

How can tacit knowledge be collected and documented?

The first method is to train the professionals to collect and document knowledge by themselves. In that case professionals have to have additional time in order to think over their work.

Problems:

- Experienced workers with long professional work history do not consider issues that are self-evident to them as matters that should be collected and saved.
- Not everyone is able to think of own work as of some totally different performance and to report and verbalise own occupational skills, orally or in writing.
- Collection of knowledge takes time from regular work.

The second method is to hire a person from inside or outside the company, who will become familiar with different sides of workers' occupational skills and methodically and systematically, by interviewing craftsmen and observing their work, compile knowledge and information on these skills.

Problems:

- The information compiler must have the idea of the profession's basic skills, also he should be able to communicate effectively with the professionals without excessive tension. Hence, he cannot be a white collar worker, if the question does not concern an office worker activity. This is very important.
- The information compiler must have enough time to become familiar with the central areas of the profession. If it comes to shipyard occupations it can take years. He also must be really interested in learning the methods he observes.
- The information compiler must have enough power and authority to pass in and use the company's data base containing information on all occupations.
- The company's workers and management must support the information compiler, so that he can operate without needless obstacles.

The future

The "learning through work" - method will face many significant challenges in the future. As international competition gets harder, production requirements and timetables get tighter and tense, also workers and working operations are becoming more sensitive and being realized farther. These all causes less understanding for *learning through work*.

If *learning through work* will not be supported, there is a real danger that a big part of occupational skills will fade and get lost. Such situation and these issues are current and prevailing in Finnish shipyards. Shipbuilding companies have noticed that there are not enough professionals. Majority of experienced professionals are going to retire during the coming ten-year period, and there are not enough replacements hired. Huge amount of craftsmanship is going to be lost.

The reason for this is the fact, that the necessity of *learning through work* has been neglected through the last two decades, due to fast economic profit. Dismissals and lay-offs have brought temporary wins concerning profitability, but it also resulted in many companies having totally or partially lost valuable skills so important for their business operations.

The situation can still be corrected. Craftsmanship can be saved, but it needs understanding and real and true co-operation between the employees and the employers.

Statistics

Participation in life-long learning

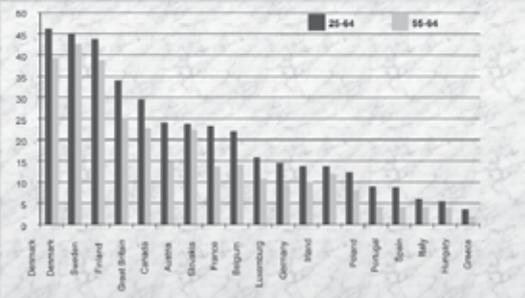


Fig. Education at glance OECD 2006

EPS



Job activation for people in oldest age groups should become the fundamental countermeasure allowing the reduction of potential threats related to the aging of employees in Poland

EPS



Suggested directions for action

- Correcting of the balance in system of financial support through actions to discourage from early pension and creation of financially more attractive employment
- Counteractions for discrimination based on age and negative assessment of older employees' abilities by legislation and campaigns concerning age awareness
- Assistance in better integration with the labour market for older disabled people and maintaining the health and work potential of employees along with their age, particularly by proper implementation of safety procedures and work hygiene
- Promotion of training in order to improve the employment and productivity of older employees, directed to types and levels of abilities, which are often the basic barrier for employing older employees. In a long term perspective, formulating a life-long learning strategy is essential. This strategy will be related to employees' needs through the entire time of their professional work

EPS



Suggested directions for action

- Improvement of work and work conditions attractiveness - these are important factors affecting the capability of older people to remain in the labour market. Increase of work possibilities in a non-full range and possibility of flexible adaptation is essential
- Promotion of active aging by proper frames of support. For many older people maintaining work capability depends on many factors like cultural aspects connected to their participation in the labour market, health state, possibility to access a proper quality care and employment services
- Reference to the aspect of sex balance is also important; low employment index of older people results from very low index of older woman and women in general employment, so actions directed towards limiting the employment gap for women and men are an essential element of every strategy encouraging older people to increase job activity.

EPS



Testing Conclusions

- Efficient support requires changes in awareness for employers and employees regarding the need for life-long learning
- Entrepreneurs must receive a visible encouragement for employing older employees
- Essential is the connection of support for enterprises with the support for employees
- Complex actions bring the best effects
- Entrepreneurs reluctantly take actions within public care

EPS



PROJECT TARGET

- Creating an innovative, active support system, dedicated for big companies and SMEs in the shipbuilding sector and their 50+ employees.
- MAIN RESULT - SUPPORT SYSTEM MODEL FOR KEEPING EMPLOYMENT BY EMPLOYEES 50+ IN THE SHIPBUILDING SECTOR
- BASIC MODULES IN THE PROPOSED SOLUTION
- The training module was tested in a group of 600 people, based on 11 modules
- The advisory module was tested in a group of 600 employees and 100 managers
- Awareness creating module needs about a 1000 contestants
- Communications module was tested on 1300 people

EPS



Summary

Many solutions within job activation were elaborated within the EQUAL project. However, there are some legal barriers making it difficult to implement the elaborated concepts

An important task is good promotion of good practices within employing older people aiming at a change in awareness in employers and employees

Exclusion of support for older employees from public care is very important

Complexity of actions within different priorities should be an important criterion for granting funding from EU funds

There is absolute necessity to monitor current changes in the labour market

EPS



Topics for discussion

Do employers see the finality in investing in the development of employees from groups 45+ / 50+ ?

How do employers evaluate the possibility of putting into effect the duty of facilitating the improvement of job qualifications for employees?

What would incline employers to increase employing older employees?

Is facilitation in employing employees from foreign countries under current conditions right?

Do suggested changes in the labour code facilitating dismissal of employees in pensionable age will effect an increase in their employment ?

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