

September 2017

air project

CHANGE

Demographic change and employment in European aerospace industry

Newsletter 4

Make digitization in a humane way

Everyone talks about the challenges of Industry 4.0 and Digitalisation. If we take a closer observation, we can see that companies find different technical and social answers to the questions coming out of it, and implement them in various forms and speed. ndustry 4.0, Digitalisation or Work 4.0 are no fully-shaped concepts, but processes that still to precise while managing them.

It is no surprise, that under the keyword Industry 4.0 is included wide spectrum of different technologies.

Field of action	Examples of technology
Production work	Man-Robot Interaction, 3 D-Printer, Assistance systems, Plug & Produce Module, Mobile Multiple machine operation, remote control on production facilities
Engineering	Computer based simulations, remove interfaces, Application of Cloud and Crowd
Maintenance	Spatial distance, Help at Diagnostic, Sensors for Material- und Production status
Production management	RFID as a new data medium, Real-time data, Digital production memory, intelligent containers, Optimisation based on BIG DATA

Source: Detlev Gerst, IG Metall 2017

A survey of the german Institute for Employment Research from 2016 sees ICT-companies as pioneers (47,4%) in their usage, whereas only 6,1% of the production companies see the usage of these technologies as a central part of their business model.

The effects on the work conditions, the coverage of the work and the work-political relations are not defined by the technology, but depend on the concrete design and implementation of the particular company. Which concept of Industry 4.0 will be established, depends mainly on the labour actors.
Trade union activists are therefore well-advised to get familiar with the approach of the concrete company as soon as possible and to take proactive part in its design.

(continuation page 3)

Final Meeting in Rzeszów (Poland) July 2017

Create a European exchange and come up with national initiatives in the sector. With that aim, the trade union partners of the CHANGE-project met in Rzeszów, centre of the polish aerospace industry.

Information and exchange: Colleagues from the Spanish CCOO in Rzeszów

The structural changes in the aerospace sector should be anticipated by the employee representatives and should be accompanied with labour policies. Regardless if discussing themes as work structure, human resource assurance or industry 4.0 – the results of the project have proven: a synergy between company-based representation of interests by work councils and national strategies is needed to strengthen the trade unions' influence for an employment-oriented labour and sector policy.

All participants agreed on the future enormous needs of information, exchange and knowledge of the sector development in the different countries. It is therefore all the more important to continue the trade union exchange in the European network IndustriALL and in European work councils, which was intensified trough the project.

Initiatives in the Aerospace Industry - Trade unions in the European CHANGE project evaluate their cooperation

The CHANGE-project partners have analysed and discussed the demographical challenges for the qualification- and the personal development in the European aerospace industry since the beginning of 2016. Their joint conclusion: Securing skilled workforce is more successful, when companies organise their work conditions according to the „Good work" principles.

Through this, the existing potential of workers is preserved, developed and bound. An integrated approach is needed, so that different action fields (planning, recruiting, development, bounding, preserving, know-how transfer) are included and at the same time measures for the work organisation are linked to qualification. The main goal is to create healthy and competent ageing in the work-path through age-appropriate design of employment biographies and at the same time to strengthen the success- and innovation opportunities of the company.
Such companies will win in the competition for qualified workers – where the recruiting process is not short-term oriented, quantitative and external, but where the employment structure is developed from the inside and which offer sustainable workers' development strategies.
For that are needed the active engagement of the employees` representatives from companies and trade unions, so that these measures are initiated and sustainably developed for the best interest of the employees.

„It is the time to exchange experiences and to develop new perspectives. Even though a lot of the concepts and the solutions need to be developed on a national, or even regional level, we can still learn from each other and in that manner create the future of the aerospace industry in Europe together", said Jürgen Kerner, Executive member of the Managing Board of IG Metall at the project beginning in March 2016.

Building on this, the CHANGE-Partners have worked in European cooperation on concrete, feasible „projects" with region-specific priorities in the field of company and sector strategy's alignment. The range of these activities goes from company's recruitment and qualification models (UK, SE, ES, IT) through measures for employees' and work organisation in transition to "Work 4.0" (FR, DE) to payment regulations (PL, RO).

It is often the small steps, which move the big things. The informations and the actions developed by the national partners, help to strengthen work, qualification and occupation in the companies on the long term. Above all, the most important is anyway the reciprocal exchange of experience, information and strategies for the sector. At the end, all colleagues from Spain, France, Rumania, Poland, Great Britain, Italy and Sweden have the same interests.

CHANGE is a successful step in this direction.

The most important results of CHANGE at a glance

- **Systematic exchange of experience and information by the representatives of the company and the trade unions with 5 European meetings and around 120 participants**
- **European questionnaire on labour policy standards and future challenges in 38 companies**
- **Labour policy analyses to identify changeable action fields in companies**
- **Trade unions' and companies' Best practice Initiatives with country-specific focus**
- **Activities for information and publicizing**
  (Flyer, Website, Newsletter)
- **Documentation and dissemination of "Best Practices"**
  (employees' initiatives, qualification models, aging-management concepts)
- **Information and Practical help for representatives of employees and trade unions**
  (documentation of results)

Make digitization in a humane way *(Continuation from p.1)*

From the present point of view and despite all uncertainties, we can point out the following trends:

- Digitalisation leads to significant increase of productivity
- Work gets accelerated
- Work gets stronger controlled and managed
- Work gets more flexible
- Work includes more and more reactions to uncertainties

With regard to employees' interests these points of changes and consequences are fundamentally important for:

- Type and scale of employment
- Modified requirements of qualification
- Physical and psychological effects
- Labour-law regulation of the employment and working conditions

The implementation and impact will hence be more successful, when the efforts of the TU representatives focus on one specific labour political guiding principle. That serves as a guide and orientation for a proactive influence for human-oriented labour design. The following diagram illustrates the positive and the negative effects of the digital technology, as they are discussed in the context of Industry 4.0.

Field of action	Positive Effects	Negative Effects
Labour content	Extended work tasks with influence on design and objectives	Precisely designed tasks, Higher range of standardization
Work-organisation	More options for action and opportunities for participation	Tight standards and low transparency
Ergonomic	Discharge in cases of physical and mental stress	Dequalification through automation
Work time	More sovereignty in terms of time, because of better work-life-balance	More severe requirements for individual availability (limitation, systems define working time)
Data	Access to information	Control and monitoring
Global work division	Supporting international work	Global dumping competition
Employment	Productivity gains for employees and society	Productivity gains for enterprises - increased social inequality

Source: Wolfgang Anlauft, ffw GmbH 2017

Kick-off Meeting in Potsdam (DE) March 2016

Workshop (1) in Madrid (ES) Sep. 2016

Workshop (2) in Toulouse (FR) Feb. 2017

AEROSPACE INDUSTRY IN POLAND

Poland has a 100-year history of aerospace and a tradition of aerospace industry dating back more than 80 years. Strong scientific, academic and engineering centres were of key importance to the development of this sector. After the period of transformation in Poland, increased international business cooperation and direct foreign investments contributed to its further development. Currently, the Polish aviation industry has a rich export offer of advanced aviation products.

There are over 200 aerospace and aerospace-related companies with annual sales of EUR 1,3 bln, and over 30 thousand employees in total operating in Poland. The majority of these are small and medium-sized enterprises (SMEs), companies with foreign capital, and a small group of enterprises with minority state shareholding. Around 80% of aerospace plants are located in the south-eastern Poland in one of four aviation clusters. Operating plants are specialized in the production of aircraft (agricultural, training, executive), helicopters, gliders, subassemblies (aluminium, composite, GRFP) and accessories. 90% of aviation production is exported to: USA, Italy, Canada, China, Ukraine, Australia, UK, France, Germany.

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Selected companies operating in the aerospace sector

Companies	Employees	Companies	Employees
„Pratt & Wittney Rzeszów	**4000**	PZL „Warszawa Okęcie", Airbus Defence and Space Company	**850**
WSK „PZL - Świdnik" / Augusta Westland	**2900**	HS Wrocław	**500**
Pratt & Whitney Kalisz	**1400**	Avio Aero (Bielsko-Biała)	**400**
Polskie Zakłady Lotnicze, Sikorsky a Lockheed Martin Company (Mielec)	**2100**	UTC Areospace Systems (Goodrich, Krosno)	**400**
GE EDC Poland (Warsaw)	**1000**	Safran Transmission Systems Poland (Sędziszów Małopolski)	**400**
Thoni Alutec (Stalowa Wola)	**1200**	MTU Aero Engines Polska (Rzeszów)	**270**
WSK PZL Kalisz	**600**	Hamilton Sundstrand Poland (Rzeszów)	**250**

AVIATION CLUSTERS

Polish aviation industry is mainly organized in few industry clusters' from which Aviation Valley (region of Rzeszów) is the largest. The Aviation Valley Association was started on April 11, 2003, as a non-profit organization, as a means to furthering the rapid development and growth of the aerospace industry in southeastern Poland.

This region currently represents 158 companies, 90% of Polish aerospace industry output and over 24,000 experienced and dedicated employees.

CHANGE – ACTIVITIES IN POLAND

Equal standards with collective agreement – Prerequisites for fair competitiveness

ACTIVITY | AIM

Conclusion of National Intra-companies Collective Agreement including provision regarding skill and competence upgrade

SPECIFIC PROJECT GOALS

- To equal employment standards in aviation branch of Poland,
- To create the same competition environment,
- Stop qualified employees emigration/ migration

TARGET GROUPS

- First group of project recipients are three biggest aviation companies in Poland where "Solidarność" union organizations are established. Those companies owned by foreign investors are as follows:
  Pratt & Whitney Rzeszow |Canada |US
  PZL Mielec |Sikorsky |US and
  PZL Swidnik |Leonardo Helicopter /ITALY
- Each of these companies has separate local collective agreement.

CHALLENGES

- Basic challenge of the project will be persuasion of Employers to the organizing and staring negotiations and analysis of prepared draft of National Intra-companies Collective Agreement
- Creation of common provision in National Intra-companies Collective Agreement could appear due to fact that each company have specific individual collective agreement provisions that differ from each other,
- Pratt& Whitney Rzeszow belong to the UTC Corporation that possesses other non-unionized aviation divisions. There could appear resistance to engage into National Intra-companies Collective Agreement due to concern that it would force them to necessity of applying higher standards of working and payment conditions in non-unionized businesses and create additions expenses.

„In our sector there are different standards in the companies. We want to remove this. To make that happen, we need an intra-company, national agreement with the same conditions and standards for all companies. We need a tariff or legal framework in order to prevent dumping and to secure competitiveness."

Pawel Kawalec | Pratt & Whitney Rzeszów S.A. | NSZZ Solidarność

CHANGE – ACTIVITIES IN POLAND

OPERATION

- Elaboration of draft of National Intra-companies Collective Agreement content among union representatives that would include common general provisions,
- Submissions of National Intra-companies Collective Agreement draft to the management of selected aviation companies,
- Starting information meeting with management of selected aviation companies explain goal of the project,
- Submission of request to the management of selected aviation companies to organize ,
- Review of legal possibility to implement by law possibility of legal enforcement to organize employers. Union will play active role in New Labor Law Codification Commission which is going to elaborate and implement new law in terms of individual and collective terms of working conditions.

INTERIM RESULT

The principle obstacle for negotiation is the absence of a national employers' association in aviation industry. National Intra-companies Collective Agreement needs a negotiating social partner on the employer's side and cannot be concluded with non- organized Employers.
Only organized and registered Employers as groups are becoming legitimate to become part of Collective Agreement.

Representatives from NSZZ „Solidarnosc": Marian Kokoszka, Bogdan Szozda, Roman Jakim, Pawel Kawalec (from left to right)

„In Poland we have a joint representation with the employers and the government. Our goals in this negotiations are:

1. ***to set standards,***
2. ***to create an environment of real competition between the companies and***
3. ***to prevent the occurrence of an emigration wave of young talents."***

Marian Kokoszka | NSZZ Solidarność

INCENTIVE FOR EMPLOYEES

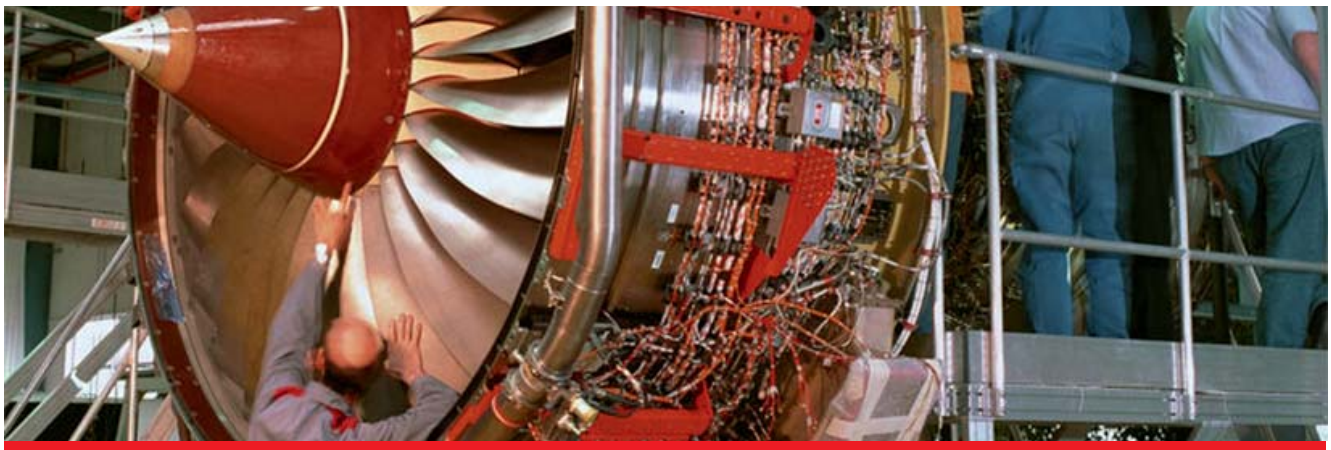
- Employees covered by National Intra-companies Collective Agreement getting additional security provision umbrella in the area of working and payment conditions.
- With time it will encourage employees from other smaller non-unionized business units (i.e MTU, Safran) to organize union structure in order to join to National Intra-companies Collective Agreement.

EFFECTS FOR UNIONS

- From a trade union point of view the basic value is that Employers stared to think and discus about benefits or disadvantages of entrance into the Agreement.
- Discussion about National Intra-companies Collective Agreement in Aviation Sector started discussion about possibility of conclusion such agreements in other Metalwork's Union sections.
- Union will be address new proposals in collective working terms area with solutions that could enhance employers to organize and take active part in creation new National Collective Agreements.

PERSPECTIVES

Unions are going to remind the employers about the necessity to conclude National Intra-companies Collective Agreement and will put pressure through all dialog processes and negotiation channels. Unions also have own representative in New Labor Law Codification Commission which is going to elaborate and implement new law in terms of individual and collective terms of working conditions.



AEROSPACE INDUSTRY IN UNITED KINGDOM

The U.K. has both civil and military aerospace industry and an important space sector. Current employment numbers are: 109,000 direct employees and 120,000 indirect jobs (i.e. in the supply chain). By value this is 50% civilian aerospace and 50% military aerospace. In 2013, the government listed 634 enterprises as being in the aerospace industry, and total turnover was £24.7 billion in that year.

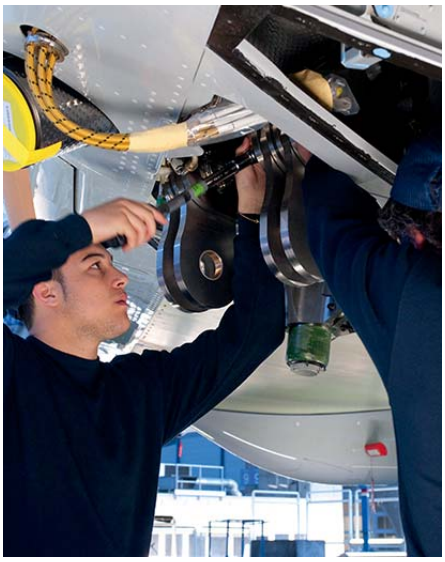
75% of the revenues of the industry are from export sales. On the civil side, much of this is attributable to sales of Airbus aircraft and Rolls-Royce engines. Also important are Bombardier, with wings for the new C Series produced in Belfast, and Agusta Westland in the rotary market. The U.K. Supply chain supports those OEMs above and are also significant suppliers for Boeing, Lockheed Martin, Northrop Grumman and other USA companies. The industry is present in every region of the U.K. but the most concentrated employee numbers are in the south west, north west, East Midlands and Scotland.

Selected companies operating in the aerospace sector

OEMs	Important suppliers		Top 5 companies (by employment numbers)
Rolls-Royce Airbus BAE Systems Bombardier Agusta Westland MBDA	GKN Selex ES Thales GE UTAS Raytheon Spirit	Aerosystems Eaton Aerospace Martin Baker Marshalls Honeywell Safran	BAE Systems | 34.800 Rolls-Royce |24.000 Airbus | 15.000 Bombardier | 6.000 GKN |3.000

Development of employment

The civil aerospace business has been growing in recent years, but even so there has been restructuring, with redundancies announced at Rolls-Royce and Bombardier. Despite this, there is strong recruitment of apprentices, with an estimated 3.300 people currently being trained, and graduates. Many of the large companies operate with a core workforce of permanent workers, but supplement this with a „complementary workforce“ of temporary or agency workers. Often this is at around 10% of the level of permanent workers.

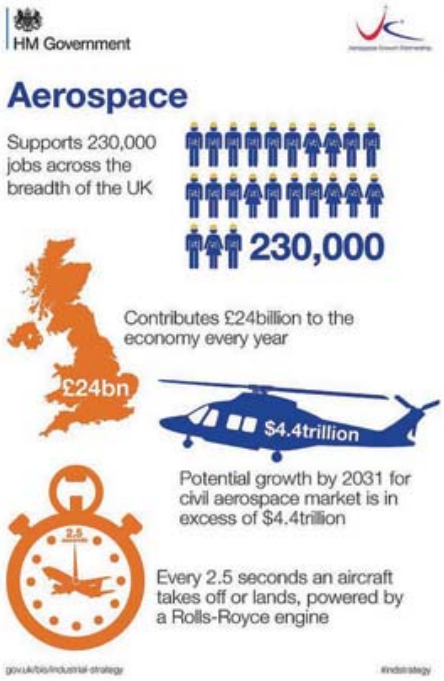


Structural changes in the Sector

Most companies in the aerospace industry are dealing with an ageing workforce, with an average age of engineers currently at 54. The U.K. has a particularly bad demographic problem due to the downturn in manufacturing that occurred in the 1980's and early 1990's when apprenticeships were abandoned across the economy. This has led to a generational gap across manufacturing and there is a noticeable lack of 35-50 year old workers in the industry. This has led to arguments that the skills gap in the UK leads to offshoring of work.

Internationalisation of the value chain

There is clear evidence that the demands of international customers for work packages in return for ordering aircraft is resulting in the offshoring of the value chain. OEMs have conceded assembly lines in some countries, and are forcing their suppliers to send work to low cost economies, partly on the grounds of cost, and partly to satisfy the demand for aerospace work.



CHANGE – ACTIVITIES IN UNITED KINGDOM

Recruitment, retain and retrain of workers!

CHALLENGE

- Adapt employees & workplace for the onset of the 4th Industrial revolution/Industry 4.0.
- Satisfying projected need for 10,000 additional worker per year to meet demand.
- Retain & Retrain older workers.
- Recruit new workers with skills for the future, e.g. ALM (additive layer manufacturing & COBOT's)

AIM

- Create an environment that helps to retain Employees including new recruits.
- Rebalance the Age Demographic.
- Build Trust in Older Workers around job security.
- Build Trust in Younger Workers around Terms & Conditions

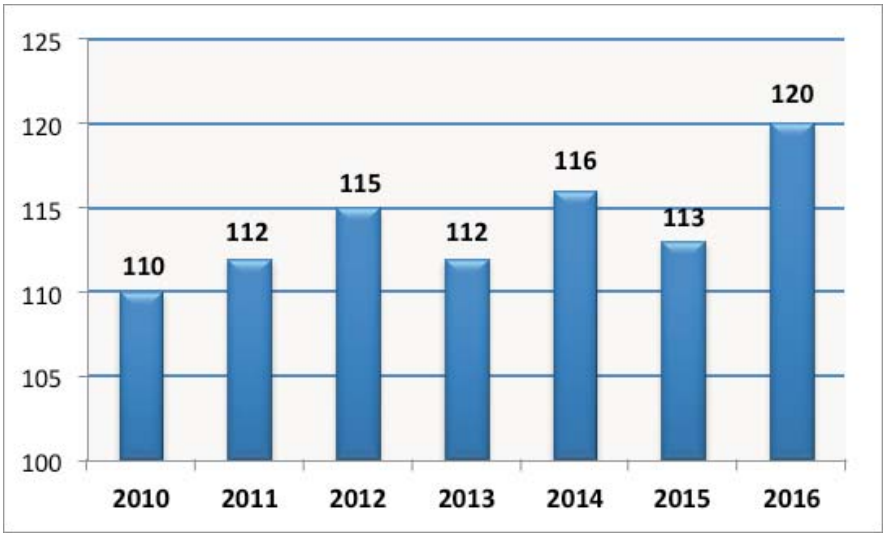
ROLLS ROYCE ACTIONS

- Mapping the demographics of workforce.
- Overlay current skills against future skills.
- Gap analysis of skill needs.
- Develop policies & practices to enable retention of workers including younger and older workers, allowing headroom to prepare for Industry 4.0.
- Flexible working.
- Part time working.
- Pool of banked workers
- Growing challenge from BRIC countries.
- Adapt employees & workplace for the onset of the 4th Industrial revolution/Industry 4.0.
- Satisfying projected need for 10,000 additional worker per year to meet demand.
- Retain & Retrain older workers.
- Recruit new workers with skills for the future, e.g. ALM (additive layer manufacturing & COBOT's)

RESULTS

- Building of common understanding with Senior RR management that appropriate recruitment (by appropriate recruitment we mean appropriately qualified, not over qualified) is an Issue. Work has begun to ensure Apprentice and Graduate recruitment is conducted from socially & economically diverse area.
- Changes have already been implemented in recruitment policies.
- Changes have already taken place to alter the Final salary pension for older workers to increase flexibility and value of pensions.
- Negotiations are ongoing to improve pension provision for newer/younger workers to boost fund value & flexibility
- Job security and therefore trust has been focused on, as a result significant investment has recently been announced, £80-100m will be invested into a new XL Test facility.
- Other investment of over £70m has already been secured to improve manufacturing, assembly & overhaul facilities.
- A 'no compulsory redundancy' clause has been agreed until the end of 2022.
- An agreement has been reached to involve the Union in Strategic workforce planning including skills for the future.
- A common working group (Trade Union and Employers) has been established.
- The main facility is being transformed over the next 5 yrs.

UK Aerospace: Direct employees 2010-2016 (000s)



Source: UK Aerospace Outlook 2017 (ADS)

Unite is the major union in aerospace and the industry is well organised, with good union density and strong workplace representation. We have developed an organising model to try and improve our organisation in the supply chain as we are currently best organised in the OEMs and Tier 1 suppliers. Our organisation weakens further down the supply chain.

Unite has a seat on the Board of the Aerospace Growth Partnership and we regularly meet government ministers, MPs and MEPs to raise the concerns and aspirations of the workforce.

Most of the big companies have active European Works Councils and many have UK Councils for information and consultation.

KEY FACTS

- 120,000 directly employed by UK Aerospace industry.
- 118,000 indirect Aerospace Sector jobs
- UK Aerospace industry provides high skilled jobs across in every region of the UK.
- 3.800 Apprentices & Trainees
- 68% of companies employ apprentices or trainees
- Around 31,000 R&D, Design & Engineering jobs directly in the UK Aerospace sector.
- £41,600 average salary in the UK Aerospace industry, over 51% more than the UK Average (approx. £27,600).

„If the experience and the know-how of the older colleagues doesn't get transferred to the new employees, we have a 'ticking time bomb'. When the company choses only the best candidates out of 150 application, it becomes more difficult to keep them in the future. The bounding is created over qualitative activities and trough structured and interrelated career paths, and it is not only based on the salary."

Mahf Khan |Rolls Royce |Unite

„There are some uncontrolled risks regarding to the bounding of the employees. One proposal is to keep employees "frozen" on the same position for 2-3 years, when these qualifications and skills are required at this position. With that approach the individual career paths would be better regulated and adjusted to the company needs."

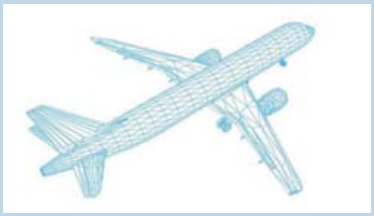
Marc Porter |Rolls Royce |Unite

Final project meeting in Rzeszów (PL) July 2017

„This project has helped us identify best practices, consider the changing needs of the aging workers and as a result - to respond to them in a better way."

Ian Waddell | Unite

The complete country air reports are available for download under: www.air-change.eu/index.php?id=62



SWEDISH AEROSPACE AND DEFENSE INDUSTRY

IFMETALL

PDF-Format, 6 pages, English

POLISH AEROSPACE INDUSTRY AIR PROJECT 2017

air project CHANGE
Demographic change and employment in European aerospace industry

SEKRETARIAT METALOWCÓW NSZZ Solidarność

PDF-Format, 7 pages, English and Polisch

AIR PROJECT 2017

UK Aerospace and Defence Industry Report by Mafh Khan and Mark Porter of Rolls- Royce and representatives of Unite the Union

unite the UNION

industriAll EUROPE in ACTION for Investments, Jobs & Solidarity

PDF-Format,10 pages, English



Demographic change in employment

Trade Union initiatives for innovations in employment for securing skilled workforce with coherent strategies of HR-development and age management in the European Aerospace Industry (CHANGE)
(VS/2015/0236)

The CHANGE project is a trade union initiative for shaping demographic structural, employment and training changes in the European aerospace industry with an eye towards the future.

Trade unions and works councils can demonstrate their initiative by contributing their sector- specific know-how and operational experience and helping to create solutions that are viable for the future.

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European Trade Union
www.industriall-europe.eu

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