AIR PROJECT 2017

UK Aerospace and Defence Industry Report

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Introduction

The UK Aerospace industry is the jewel in crown in the UK's industrial economy and is intrinsically interconnected within the wider EU Aerospace sector. The annual turnover of the Aerospace sector within EU is 146.7 billion Euros' of which 75.5 billion comes from the UK, in addition out of the 507,700 direct jobs the sector supports within the EU 340,000 are within the UK.

The industry spans the whole of the UK with many large players designing and manufacturing a wide range of components from engines and wings to landing gear, advance systems, including fuel, avionics and electrical power. However, the world is changing and fast, current success is no guarantee for the future the economic benefits that Aerospace delivers is much sought after with many nations now wanting a piece of the action including Brazil, India, China and Russia.

It is expected that the global Aerospace market will continue to see rapid growth, with an estimated 35,000 new aircraft set to be required over the next the 20 years' worth around $5.3 trillion dollars. In order to position itself to be able to continue to progress and prosper in that global growth, the EU Aerospace industry must adapt and evolve. The onset of the 4th Industrial Revolution that digitisation 4.0 will bring will touch upon just about every aspect of the industry and bring challenges and opportunities in equal measures.

New manufacturing techniques will need to be developed, embryonic and infancy technology, such as Additive Layer Manufacturing and Cobots will become the norm, with enhanced connectivity a key objective of any new technology introduced. The biggest enabler to meet the challenges and take the opportunities is **people.** It is the people that will design and develop those technologies and people that will be integral to producing the components in some shape or form, so to put it simply without people there is no Industry.

The industry will have to retain and retrain its current workforce as well as attracting new apprentices and graduates, equipping them with the new skills required. Skills which will include software capability, environmental awareness and understanding the impact any new technology will have. There will be regulatory challenges and of course, cyber security challenges that greater connectivity will undoubtedly create to name just a few. Coupled with the demographics of the workforce, which in itself will bring its own challenges, it is estimated that the industry will require 10,000 new workers every year in order to meet the demand.

Rolls Royce Project

The stated aim of the project was to try and create an environment that helps to retain new recruits, rebalances the age demographics and builds trust in older workers. In order to achieve this help was enlisted from a number of stakeholders including senior managers the works council and the wider Trade union population forming small working group to look at the issues. The group gathered some statistics on the apprentice and school leavers program over the last 10 years the results can be found below.

Intake	Number of apprentices	Apprenticeship Type	Left R-R	Employees still in role type trained in apprenticeship	Moves to other roles
2008	162	Advanced Practical	32 (20%)	114(70%)	6 x Production Leaders 6 x M.E 1 Service Engineer 1 MRPC Make 1 Manufacturing Services Leader 1 Technical Function Manager
	21	Advanced Technical	3 (14%)	18 (86%)	n/a
2009	123	Advanced Practical	10 (8%)	105 (85%)	4 Production Leader 1 Physical Logistics Manager 1 Service Management Officer 1MRPC Make Secondment
	9	Advanced Technical	0	9 (100%)	n/a
2010	87	Advanced Practical	8 (9%)	76 (88%)	2 Production Leaders 1 A&M Leadership Dev Scheme Trainee
	23	Advanced Technical	5 (22%)	18 (78%)	n/a
2011	82	Advanced Practical	9 (11%)	70 (85%)	1 Fleet Asset Co-ordinator 1 Production Leader 1 Field Service Technician
	44	Advanced Technical	3 (7%)	41 (93%)	n/a
2012	92	Advanced Practical	5	84 (91%)	1 Account Professional 1 Project Lead 1 Continuous Improvement Manager
	51	Advanced Technical	0	49 (96%)	1 Production Leader 1 A&M Leadership Dev Scheme Trainee

Analysis

The results were evaluated and showed that within Rolls Royce there is a high retention rate of 89% among individuals who undertake an apprenticeship, compared to the industry average of around 70%, with around 84% still in the role since they joined. The statistics provided the view that retention among apprentices did not appear to be an issue for Rolls Royce and on the face of it the high aspirations of recruiting the cream of the crop was not causing the significant gaps we first anticipated, although the 84% figure should be tempered with the fact apprenticeship programs take around 4 years to complete and the recent timescales from 2011 and 2012 could be skewing the figures.

Knowing we still had an ageing workforce and skill gaps within the business our focus then turned to looking at the age demographics with Rolls Royce. The results varied across the UK sites and across the various disciplines and ranged from 47 years old in some parts of the business providing CNC machining activities to 57 in engine build areas to around 53 in some of the engineering and design areas.

For example within the Barnoldswick facility currently with around 1079 full time employees the average age is around 51 years old, however, we currently have circa 220 people who are age 53 years and above (these figures do not include 85 agency workers). There is a similar picture in other parts of the business across the UK. The risk to the business from these statistics has been compounded by the recent improvements to the Defined Benefit Pension schemes that were negotiated with the company and the Trade Unions that provide for greater pension benefits for those people in a final salary scheme. It should be noted that around 50% of the current workforce have defined pension benefits with the other 50% eligible to join the defined contribution scheme although not a bad scheme, it does not provide the same level of benefits, this will be covered in more detail below. For completeness the average age of the agency workers is 31 years old within the Barnoldswick population.

We then decided to look at the wider demographics issue within the UK to try to understand if other industries were facing the same issues and if so how they were intending to address them. A supplementary paper was produced detailing this analysis which has previously been circulated and can be seen below.

Wider analysis of the UK demographics issue

Air change Project (supplementary information previously from the UK)

Introduction

Following on from the last conference in Toulouse, at which I know many of you highlighted some of the various programs that were taking place in the various countries, I thought it might be useful sharing the information below relating to some other UK activity that is

taking place, which could be a signal that UK government is starting to wake up to the issues that are emerging and that we as a sector have recognised.

There are also numerous case studies highlighting how some business outside the aerospace sector are addressing some of these challenges from signing the international longevity centre business pledge[1], apprenticeships that encourage a diverse inter-generational in-take[2] to studies trying to understand people's attitudes to retirement and the impact of work on later life income[3] and details as to what steps the government are taking to try to address the issues.[4]

The UK Government has published (February 2017) a strategy paper entitled ***Fuller working lives: a partnership approach*** which can be found here ***https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/587654/fuller-working-lives-a-partnership-approach.pdf*** and whilst undoubtedly the underlying driver that sits behind this paper is the increasing cost of providing state pensions across the UK, leading on to justification of an increase in state pension age, nevertheless, the paper spans across many of the issues that the individual countries projects have identified from the overview presented by Wolfgang, the transfer of knowledge from older workers highlighted by Gerhard to the challenges presented by Corrine and Franck. In addition, it also touches upon the two main topics that were identified as the challenges to business in the European survey.

3-Results from Survey_Companies.p

- How do we ensure the recruiting and retention and development of suitable skilled labour?
- How do we ensure that work is structured in a way that allows for ageing with employees remaining healthy and competent while still enjoying employment?

Reasoning

The report highlights the number of people over the age of 50 in employment has increased from 5.7 million in 1996 to 7.6 million in 2006 to 9.8 million in 2016. The figures emphasise the pace of the increasing demographics currently running at circa 2 million every 10 years but at the same time articulates the declining retention, showing that one in

[1] Department for Work and Pensions- *Fuller Working Lives: A Partnership Approac*h, (Feb 2017), (page 5) Mercers
[2] Department for Work and Pensions- *Fuller Working Lives: A Partnership Approac*h, (Feb 2017), (page 6) Aviva
[3] Department for Work and Pensions- *Fuller Working Lives: A Partnership Approac*h, (Feb 2017), (page 26, 27)
[4] Department for Work and Pensions- *Fuller Working Lives: A Partnership Approac*h, (Feb 2017), (page 35)

four men and one in three women reaching state pension age have not worked for five years or more and whilst the age in which people are leaving the labour market has increased in the last 20 years , (some of which will be as a result of the increased in state pension age for women), it is still lower than in 1950 and not keeping pace with life expectancy.

As previously stated, it is the increasing costs behind providing the state pension within the UK, to an increased ageing population from a reduced percentage of a working age population, that is the driving force behind this consultation (the current UK state pension age set to increase to 67 for both men and women by the late 2020's and further increases to 68 by the 2040's). The issue related to this is the long term health of workers that are forced to work longer latest figures from the TUC suggests that there are 436,000 who are within 5 years of retirement age have been forced to stop work due to ill health or disability.[5] The figures support the view of how we adapt the workplace and provide the right terms and conditions that are conducive and complimentary to older workers to remain active participants within the labour market; from increasing the labour pool to passing on knowledge and skills, is going to be vital to the continued success of the aerospace industry. It is therefore imperative that unions from across the EU are considered as genuine partners in the discussions and consultations that are required to facilitate a successful outcome to the challenges that an ageing workforce presents.

The need for action to address these issues is growing with figures suggesting that by 2022 that 1 in 3 of the workforce within the UK will be over the age 50 which is an increase from 1 in 4 as highlighted in 2010, there is a of course financial benefits to the individuals themselves with the department for work and pensions modelling that by retiring at 65 instead of 55 a male average earner could have an extra £280,000 income and increased pension pot by 55%, with figures for females not far behind with the figures suggesting that females retiring at age 63 instead of 55 would earn £180,000 with an increased pension pot of 50%. The benefits are not just confined to individuals, employers themselves also recognise the benefits older workers bring, with increased reliability, experience and mentoring capabilities to mention a few.

Training

I believe a flexible approach to training will be a key component of any successful strategy with the TUC calling for the introduction of a midlife career review taking stock of where they are in their career considering the skills they have acquired and looking at future options including what barriers, if any there are.[6] This could be combined with an employer's own road map, which identifies organisations requirements for retraining and

[5] https://www.tuc.org.uk/equality-issues/age-equality/one-eight-people-are-too-ill-or-disabled-work-state-pension-age-says

[6] https://www.tuc.org.uk/sites/default/files/PostponingThePension.pdf (page 11)

upskilling and allow a comprehensive training matrix and plan across the age spectrum to be developed.

Going forward

The paper details a number of actions that the UK government is taking in support of older workers[7] including legislative changes to

- Extend flexible working
- Support flexible options for flexibilities in private pensions to phase retirement
- Supporting women
- Increased support for carers
- Increase support for people with health conditions

As we have discussed on the project it is clear a comprehensive rethink in many areas is required, from how we recruit individuals to how we retain them for longer. The comprehensive framework of policies, design, training and investment will take time develop and implement but from the evidence it appears that the UK government is at least is aware that action is required.

Closer to home for us in our organisation a starting point (which we have commenced here in Rolls Royce Barnoldswick) is to map the demographics of the workforce and overlay their current skills against the future skills requirement to produce a gap analysis as starting point from which actions plans can be produced.

Scope of the project

Following the analysis of the wider UK demographics and the interim presentations from the other EU countries at the project meeting in Toulouse (February 2017) it was clear to us, that the scope of our project needed to extended to encompass the synergies across a number of interlinked areas.

The need for an overarching cohesive strategy which included policies and practices that encouraged retention of older workers thus providing vital breathing space to allow for the recruitment or more apprentices, graduates, time to design and implement new training programs to acquire the skills of the future, was needed.

As articulated above, recent improvements to the Final salary pension scheme which provide greater financial benefits to circa 50% of the UK workforce, whilst good news for the employees, has only created an increased Risk for the company. We therefore decided to engage with the pension's central negotiating committee (CNC) to look at the issue in some

[7] Department for Work and Pensions- *Fuller Working Lives: A Partnership Approac*h, (Feb 2017), (page 35 - 42)

more detail. A series of meeting have been held with the CNC and the head of pensions and reward, which has resulted in an outline proposal at a national level, with the detail still being developed however, the proposals under construction and consideration include

- Improvements' to Defined contribution Pensions
- Allowing individuals to draw their pension and carry on working
- Part time working and how to mitigate any impact on an individual's pension
- Pool of banked workers
- More flexible working.
- Redesign of Short term sickness benefits
- Redesign Long term sickness benefits

It is hoped that the detail will be finalised with a view to reaching a national agreement within Rolls-Royce and implementation of these proposals by April 2018.

Local Initiatives

The project has also kicked off a number of local initiatives to meet some of the challenges we face. For example highlighted above was the demographics analysis carried out at the Barnoldswick facility showed that we had an average age of 51 and a large population over the age of 53? In order to try to reduce the average and the risk of older workers just leaving with very little notice thus creating a skills shortage, we are actively in discussions to try to secure the voluntary release of older workers with a financial incentive and replace those workers with the temporary workers we currently have on site by providing the agency workers with full time contracts, which lowers the average of the workforce as a whole and reduces the risk not only the older workers just leaving but also reduces the flight risk of temporary workers who have been trained from leaving to take up full time positions with other organisations. Whilst there is an initial financial cost of this proposal to the company we believe this is cost neutral after approximately 15 months, when total employment costs taken into account such as

- Agency costs
- Training costs
- Pension costs
- Potential penalty costs of late delivery
- Recruitment costs

SKILLS FOR THE FUTURE

Recently the UK and European works council executive committee addressed members of the Rolls Royce board with questions regarding new technologies and future skill

requirement and were somewhat encouraged by the response given including the creation and appointment of a new role the chief of technology.

It is widely recognised that the skills we posses today will not necessarily be the skills that will be required in the future. Significant investment in both financial terms and time commitment will be required across the industry spectrum to put the infrastructure in place to deliver the needs of the industry over the next 20 years. It is also clear that some of the larger EU/Global players from within the industry will have carry a greater burden of these costs along with government support both in terms of financial and a flexible regulatory framework, which to some extent the foundation building blocks have already been laid within Rolls Royce and another large defence aerospace employer BA'e systems. Details of these can found in the presentation contained in appendix 1.

Next Steps

Continued engagement with the company to develop the employment policies of the future to help deal with the challenges posed by an ageing workforce, the impact of automation and increasing need for continuous training and to be able to attract and retain employees in the future.

Finalise the proposals surrounding improvements in pension design for DC members, flexible working arrangements and sickness benefits as enablers to older worker retention.

Share the findings of our project with a wider audience including the IndustriALL aerospace committee and Unite's National industrial sector committee.