

# E-Newsletter n°1

## Launching SKILLMAN



**SKILLMAN**

Sector Skills Alliance  
for Advanced Manufacturing  
in the Transport Sector

[skillman.eu](http://skillman.eu)

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# SKILLMAN officially launched !!!

## Welcome and introduction

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As from the 1 January 2015, SKILLMAN has been launched, a Sector Skill Alliance for Advanced Manufacturing in the Transport Sector, promoted by a network of leading organizations, including Jaguar Land Rover, FIAT Research Centre and SAS, Scandinavian Airlines Systems, in cooperation with research centres, educational providers and qualification awarding bodies.

SKILLMAN is the Sector Skills Alliance for Advanced Manufacturing in the Transport Sector funded within the framework of the Erasmus+ Programme of the European Commission.

SKILLMAN aims at becoming a one-stop-shop providing state of the art solutions to competencies and skills needs faced by the automotive and avionics sectors. The Sector Skills Alliance is

The industrial partners cooperate with educational providers to detect skills needs and jointly design educational programmes in line with current and emerging technologies.

The Observatory on Advanced Manufacturing for the Transport Sector focuses its research activities and yearly outlook on labour market intelligence and on the requirements for educational programmes around three key domains or problem areas:

- Robotics, programming and maintenance of automated manufacturing production
- Composite and lightweight materials, maintenance technicians in avionics
- Wireless technologies and Industry 4.0, ICT and digitalization of production processes

Each challenge is assigned to a Thematic Commission, conceived as working group, which is responsible to build a knowledge base on sector trends and innovations and on requirements in terms of educational programmes and qualifications.

The educational programmes promoted by the SKILLMAN are primarily addressed to youngsters involved in tertiary VET qualifications, workers involved in short-cycle qualifications directed to re-skilling or up-skilling programmes and trainers wishing to access state of the art educational materials on Advanced Manufacturing for the Transport Sector.

The SSA adopts an open approach allowing external stakeholders to join the Open Network of Associated Partners in the perspective of sharing information and know-how, creating synergies and cooperation initiatives and promoting the raise of quality of educational programmes and qualifications in the field of Advanced Manufacturing in the Transport Sector.





# Advanced Manufacturing is one of the key enabling technologies

Discover business, research and employment opportunities offered by this fast growing sector

[Read more on EC website](#)

# Kick-off Meeting

On 18th and 19th March 2015 partners had the chance to meet up in Torino for the kick-off which has been held at the premises of FIAT Research Centre.

While partners meet online on a monthly basis and a number of “bilateral” meetings already took place both in UK, Denmark and Italy, we believe face-to-face meetings are crucial to establish a fruitful cooperation and “connection” among people.

Indeed, this was the case as the March kick-off meeting in Torino offered the opportunity to partners to get to know each other, exchanging views and fostering understanding of each other's operational contexts, expectations and the specific contributions that each organization is willing and capable to deliver.

One of the main objectives of the meeting was to understand and reconfirm priorities of industrial partners in terms of skills needs, to be focused by project activities related to curriculum design and development of qualifications.

Jaguar Land Rover shared information on their context as well as on their research activities on forecasts of skills needs which are accomplished on a on-going basis both internally as well as with a wide network of representatives of their supply chain.

Jaguar Land Rover is currently experiencing a significant growth in sales, expecting to multiply by 4 overall number of vehicles produced per year, moving from 250.000 to 1 million within 4 years. This trend represents a major challenge in terms of human resources and work force, especially for the supply chain as for each job created within Jaguar Land Rover, 4 new jobs are needed within suppliers.

As presented by Martin Perfect, the outcomes of the research activities on skills shortages clearly highlight two main priorities, in terms of “hard-to-fill” vacancies among technicians: “Maintenance” and “Robotics”. While maintenance is already covered by other educational initiatives accomplished in cooperation with other stakeholders from UK, Robotics is the skill challenge which Jaguar Land Rover has decided to assign to SKILLMAN. Further analysis are required and will be implemented during 2015 to better focus the areas, tasks and skills requirements in the field of robotics, probably targeting programming as well as maintenance of automated manufacturing production lines.



Daniel Christensen from Scandinavian Airlines, being responsible for maintenance technicians workforce, presented a similarly critical scenario which is faced by all main airlines. The new generation of aircrafts bring a whole range of new technologies, ranging from wireless solutions to the materials used to build aircrafts. Technicians are simply not trained and not qualified to operate maintenance activities on the new fleet, time is ticking and innovative educational offers is mostly needed.

Pandeli Borodani from FIAT Research Centre confirmed the relevance for the automotive sector of all subject items proposed by SKILLMAN identifying, within the area of robotics a research domain and potential focus area for the educational modules of the project in relation with hybrid automated production systems, focusing on the interaction and cooperation between humans and robots.

FIAT Research Centre is currently engaged in a number of research activities looking at how to overcome the scenarios of fenced automated production lines, identifying the conditions, the technical requirements and the safety procedures allowing workers to interact more closely with robots, using robots to accomplish all those production activities which are complex, time consuming and thus more expensive to be fully automatized.

An interesting requirement expressed during the kick-off from all industrial partners, which represents an interesting and stimulating challenge for the educational providers, is introducing innovative delivery systems, including virtual reality and 3D simulators aimed at reducing the time needed by learners to have their hands on real robotic production lines and real aircrafts, and thus raising effectiveness of the training and reducing its overall costs.





# SKILLMAN Launching Conference

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On March 20th SKILLMAN organized a launching international conference in the perspective of promoting awareness on this new initiative and starting the process of building relationships with external stakeholders active in the field of advanced manufacturing.

Association of industry representatives, Regional authority responsible for vocational education and training, educational providers, innovative technology oriented small and medium businesses took part in the event.

Bernadette Forthuber, Team Leader at funding agency EACEA and responsible for Sector Skills Alliances, explained the context of these new initiatives, their political objectives and the expectations from the European Commission, in terms of establishing conditions for a strong impact at European level for promoting innovation of educational curricula and qualifications within the vocational training systems.

Among external speakers, Didier Gelibert, representing European Training Foundation, presented the state of the art and figures of manufacturing and sales/after activities for the automotive sector in Turkey, Morocco and in some neighbouring countries. While an increasing number of automotive players are establishing their production plants in Turkey, the analysis showed how over 70% of their local suppliers are small and medium sized companies. SKILLMAN should look at opportunities to establish educational partnerships in these areas.

# The Kick-off Conference

20th March 2015

Venue: FIAT Research Centre, Strada Torino, 50 – 10043 Orbassano TO



Outstanding the objective of Moroccan government to create 220.000 new jobs in the automotive sector by placing vocational and technical training at the heart of this challenge while securing:

- Learning outcomes approach (APC)
- Setting up of a Private-Public Partnerships
- Training support for companies
- Financial and technical support for developing internal “training centres”

Furthermore, Didier Gelibert made an outlook of current trends and policy developments in vocational training in France in connection with the automotive sector. France is determined to set up a training policy of the branch, looking at how to up-skill or re-skill existing working force of the automotive sector, supporting companies and employees to cope with constant evolution and emerging technologies, by setting up jobs and skills management plans.

The new policy framework should also seek to harmonize VET schemes for youngsters and workers, covering both initial and continuous training, with a view on both national and regional levels.

In this context, France is currently looking at how to aggregate perspectives and contributions from different and complementary actors, establishing sector skills councils, facilitating exchange of information and cooperation between economic and social partners.



# Focus Areas

Discover the key priorities identified by industrial partners, educational providers and qualification awarding bodies

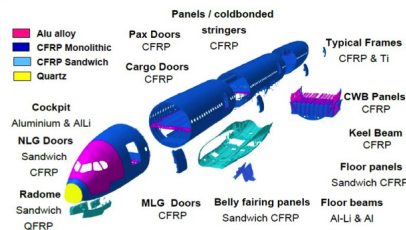


## Women representation

Only 21% of employees in engineering are women and this trend is not changing despite many efforts from national and European campaigns.

## Robotics

Educational modules to be developed by SKILLMAN will focus on programming and maintenance of automated production lines.



## Composite and lightweight materials

Innovation in avionics is determined by new lightweight materials which represents over 50% within new generation of aircrafts.

## Wireless technologies

Infotainment and wireless technologies are one of the key innovation area in the transport sector.

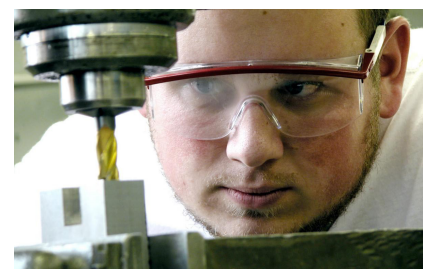


## Energy performance

Energy is still one of the major challenges of Europe and energy performance of products and production processes is one of the key elements to be analyzed.

## Vocational Education and Training

This is the focus of SKILLMAN, promoting innovative educational programs and qualifications in the field of advanced manufacturing.



# New website

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Within its first months, during March, SKILLMAN has acquired its new skin, with a colourful though manufacturing related corporate image and a new web site.

The logo evokes the circles of the milling machines while its name is the union of skills and manufacturing. Since some criticisms have been raised, in relation of the fear of SKILLMAN only talking to man in manufacturing, the Alliance have decided to register an additional domain name, [www.skillwoman.eu](http://www.skillwoman.eu), and converge there all promotional and awareness raising activities to increase female participation in engineering jobs.

While the web site is still under expansion and consolidation, it allows already a presentation of partners, an outline of project activities, references to main European transparency measures related to vocational education which are embedded within project methodology, including ECVET, EQF. References will be made also to ESCO and EQAVET.

SKILLMAN is committed to cooperate with ESCO within a consultation process which will be launched later in 2015, aimed at establishing a common European database of occupational profiles related to 27 different occupational families, one of them being “manufacturing for the transport sector”.

Soon on the web site, the opportunity for organizations and professionals to register and become members of the SKILLMAN Open Network, which already is composed by over 40 organizations across Europe. Discover the key priorities identified by industrial partners, educational providers and qualification awarding bodies



**SKILLMAN**

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