



United Nations
Educational, Scientific and
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UNESCO Chair on Engineering for Society,
University Politehnica of Bucharest,
Romania

EDULEARN¹⁸

10th annual International Conference on Education
and New Learning Technologies



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Better partnerships for better skills and employability in air transport



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Palma de Mallorca, Spain, 2nd - 4th of July, 2018.

CONTENT OF PRESENTATION

1. CONTEXT

2. OBJECTIVES AND METHODOLOGY

3. RESULTS

4. CONCLUSIONS





1. CONTEXT

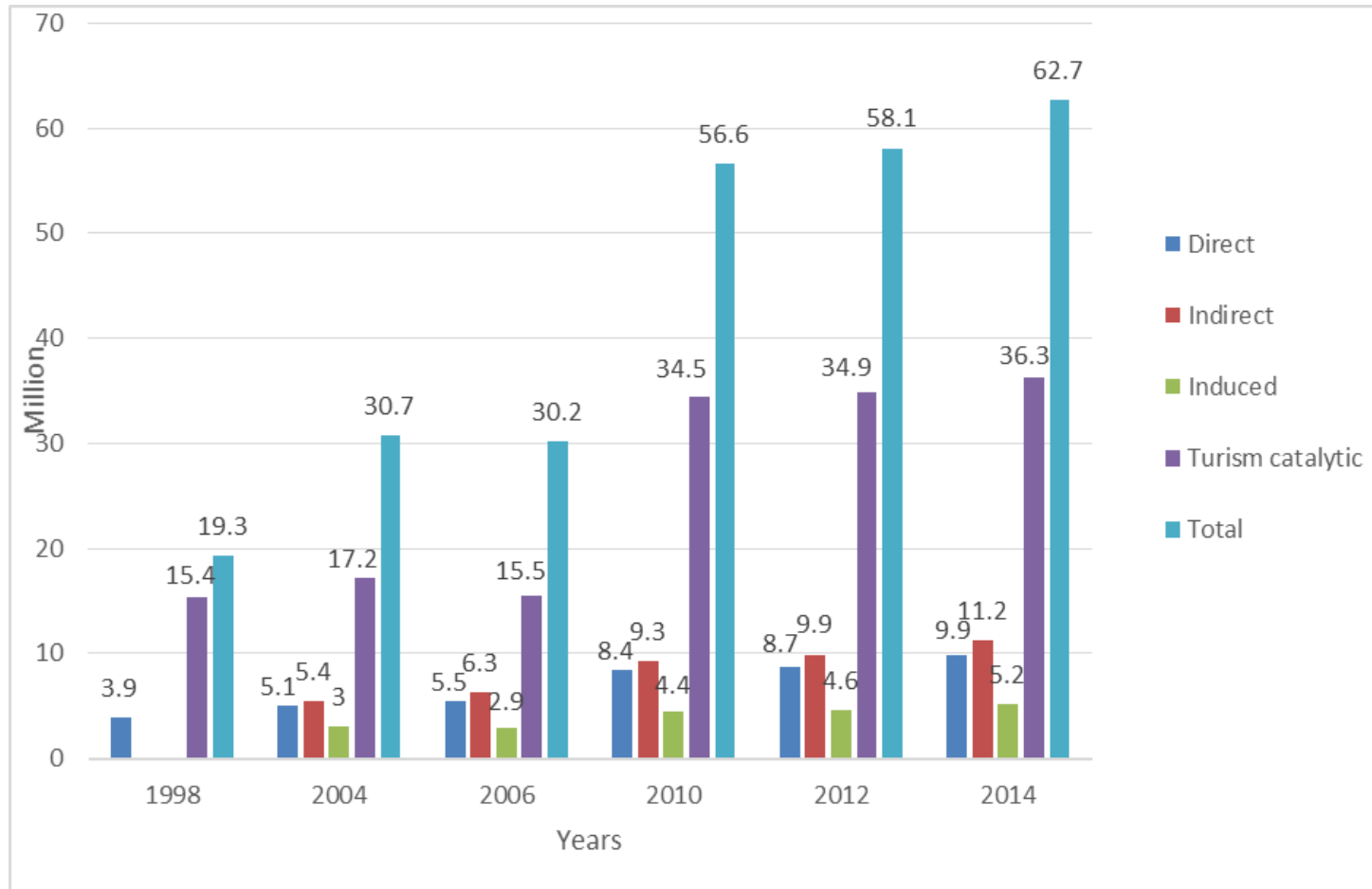
- ▶ Air transportation is an **international activity** par excellence and one of the most challenging sectors, following globalization trends.
- ▶ In aviation, we deal with **regulated and non-regulated international qualifications** and occupations which must be very well correlated.
- ▶ **Air transport environments are changing** and becoming more difficult to manage.
- ▶ Worldwide passenger **traffic grows exponentially**.
- ▶ Air transport supposes **synchronizing multiple operations and stakeholders**.
- ▶ Digitalization and greenization.

Need

Anticipating future occupations

Understanding future skill needs

High-calibrate graduates



AVIATION'S GLOBAL EMPLOYMENT IMPACT EVOLUTION



EVOLUTION OF DIRECT JOBS BY SECTORS

Long-term traffic forecasts

By 2034:

- ❑ Air passenger traffic and freight traffic – more than double
- ❑ Passenger traffic – 14 trillion PRKs
- ❑ 99 million jobs in aviation: 14.9 mil direct jobs, 39.6 mil indirect jobs and 44.6 mil tourism-catalytic jobs



International qualifications and occupations in aviation



▶ **FORECAST** for maintenance personnel/aircraft (ICAO)

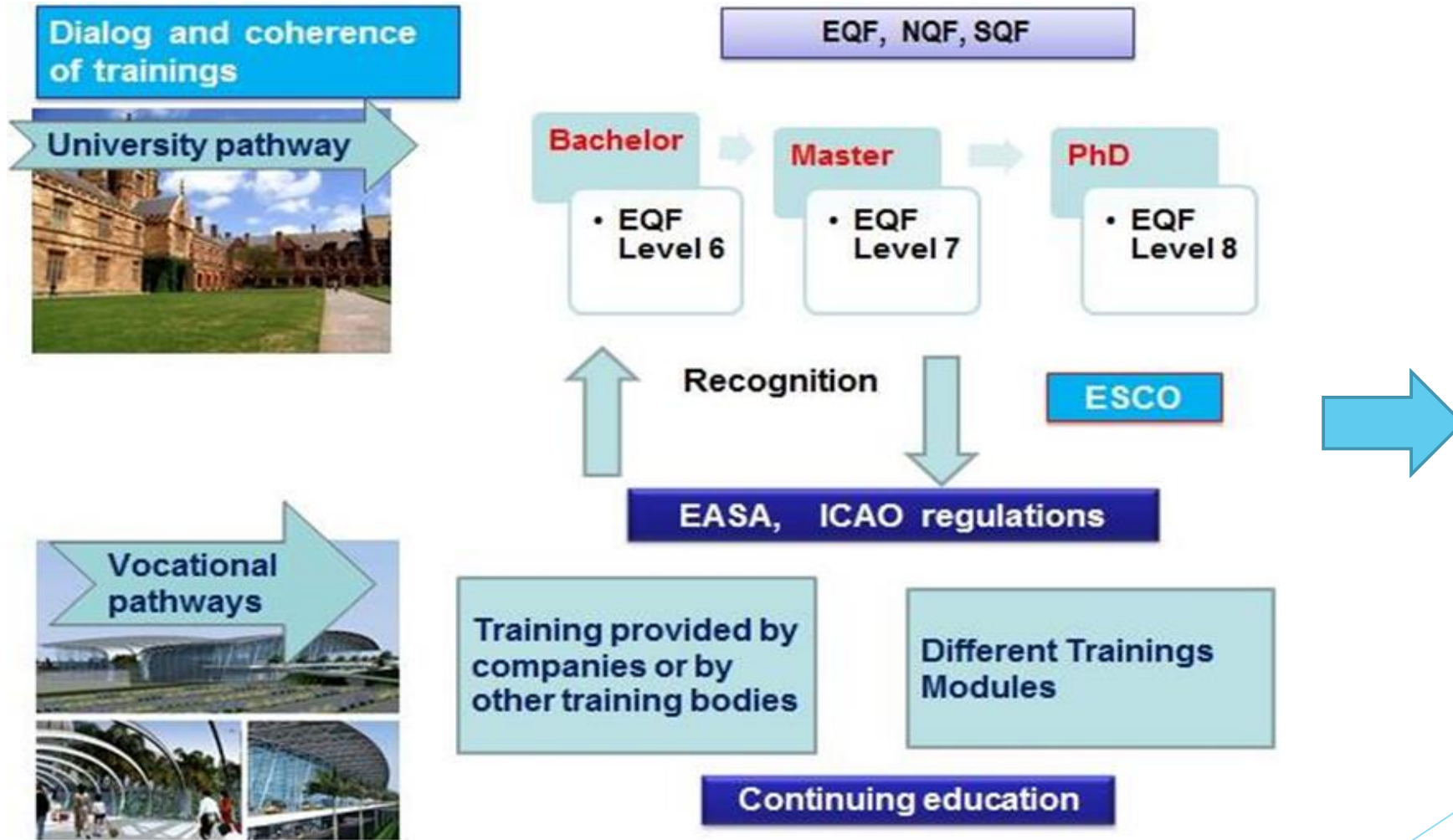
- 20 maintenance personnel/aircraft
 - ¼ licensed
 - Increase by a factor of 3.9 between 2010 – 2030
 - Annual training shortage: - 8352 in 2030
-

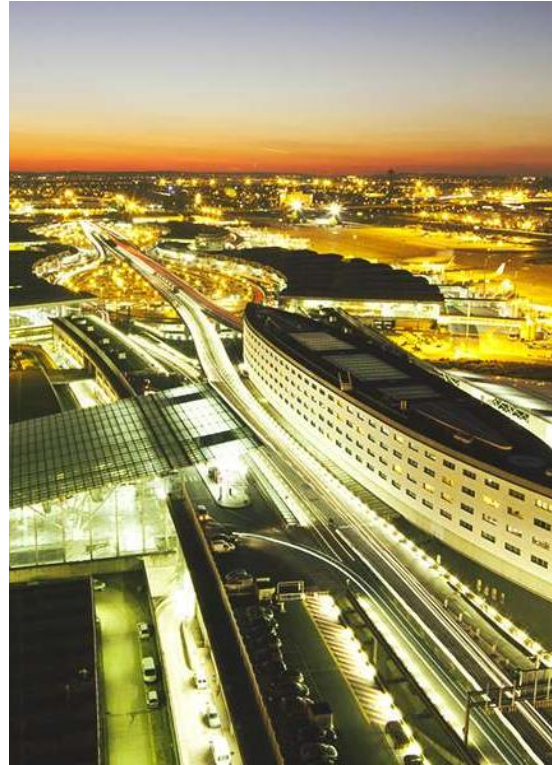


New training institutions

Recognition of experience and previous knowledge

Pathways for education and training in air transport





2. OBJECTIVES AND METHEDODOLOGY

OBJECTIVES

- ▶ To identify **new occupations** in air transport and **new qualifications** and **learning outcomes** to be provided by study programmes for these occupations.
- ▶ To propose **better university-industry cooperation** to ensure the match between occupations and qualifications, and coherent career and educational pathways for providing efficient and high-quality workforce in the air transport industry.
- ▶ To establish the main axes for a **Sectorial Qualification Framework (SQF) Methodology** in order to ensure a better match between occupations and qualifications and recognition of prior learning and work experience in aviation in line with the ESCO initiative.

METHODOLOGY

- ▶ The research was conducted under the Erasmus+ project “**Knowledge Alliance in Air Transport**” (KAAT) with 28 partners from 11 countries under the coordination of **University POLITEHNICA of Bucharest**.





RESEARCH METHOD:

- ▶ **Analysis** of EC-DG Education and EASA regulations, EUA, CEDEFOP and ICAO reports on QFs and occupations in air transport;
- ▶ **Two reports on occupations and on qualifications** in air transport;
- ▶ **In situ analysis** based on interviews with stakeholders and a survey on airports needs in terms of occupations, employee qualifications and skills for the future airport for the next 10 years.
- ▶ **Workshops with stakeholders.**

3. RESULTS



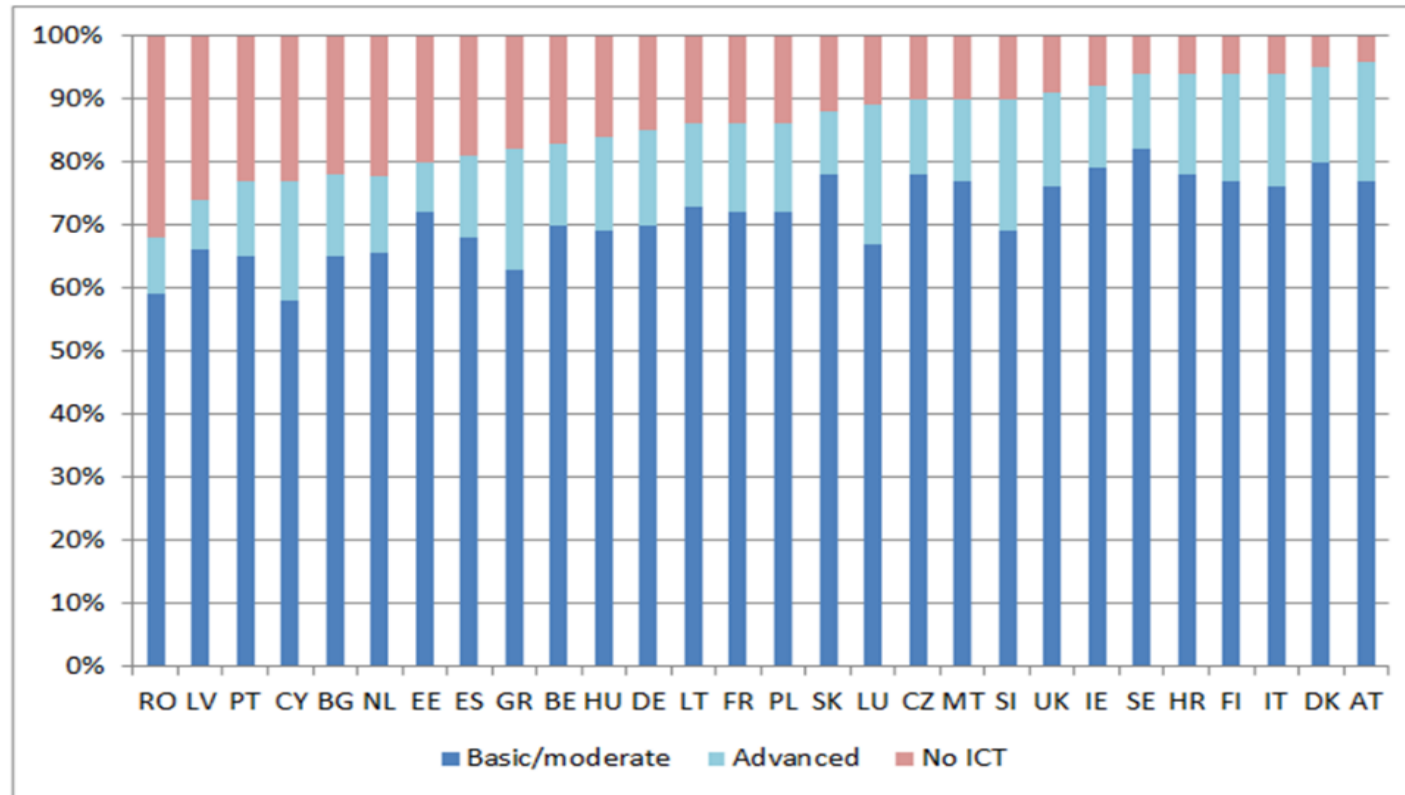
3.1. The general context of employment: a strong growth in recruitment needs and a lack of competent profiles

- ▶ The confirmation of **increasing recruitment needs**, and this on all the functions
- ▶ **Deficits in skills and qualified profiles**
 - ▶ Experience in air transport
 - ▶ Double competences



- ▶ **Recruitment levels** on most occupations tend **to change**
- ▶ **An age pyramid** that could in future greatly increase recruitment tensions

3.2. New skills for new occupations - digitalisation



Level of ICT skills needed to do the job, adult employees, 2014, EU-28

The **digitalisation** is a cross sectorial action which supposes advanced skills and competences in ICT and in aviation simultaneously.



3.3. Interdisciplinary master

“ICT applied in aviation”

- ▶ profound aviation **worldwide experience** in international projects and the up-to-date ITC technologies;
- ▶ will be organized by **modules, function of background of graduates**;
- ▶ will use new modes of delivery:
 - ▶ **distance**, through new forms of personalized learning,
 - ▶ strategic use of **open educational resources, virtual mobility**,
 - ▶ European internships in the main air transport employers.

3.4. Sectorial Qualification Framework Methodology

The first part

SQF for aviation

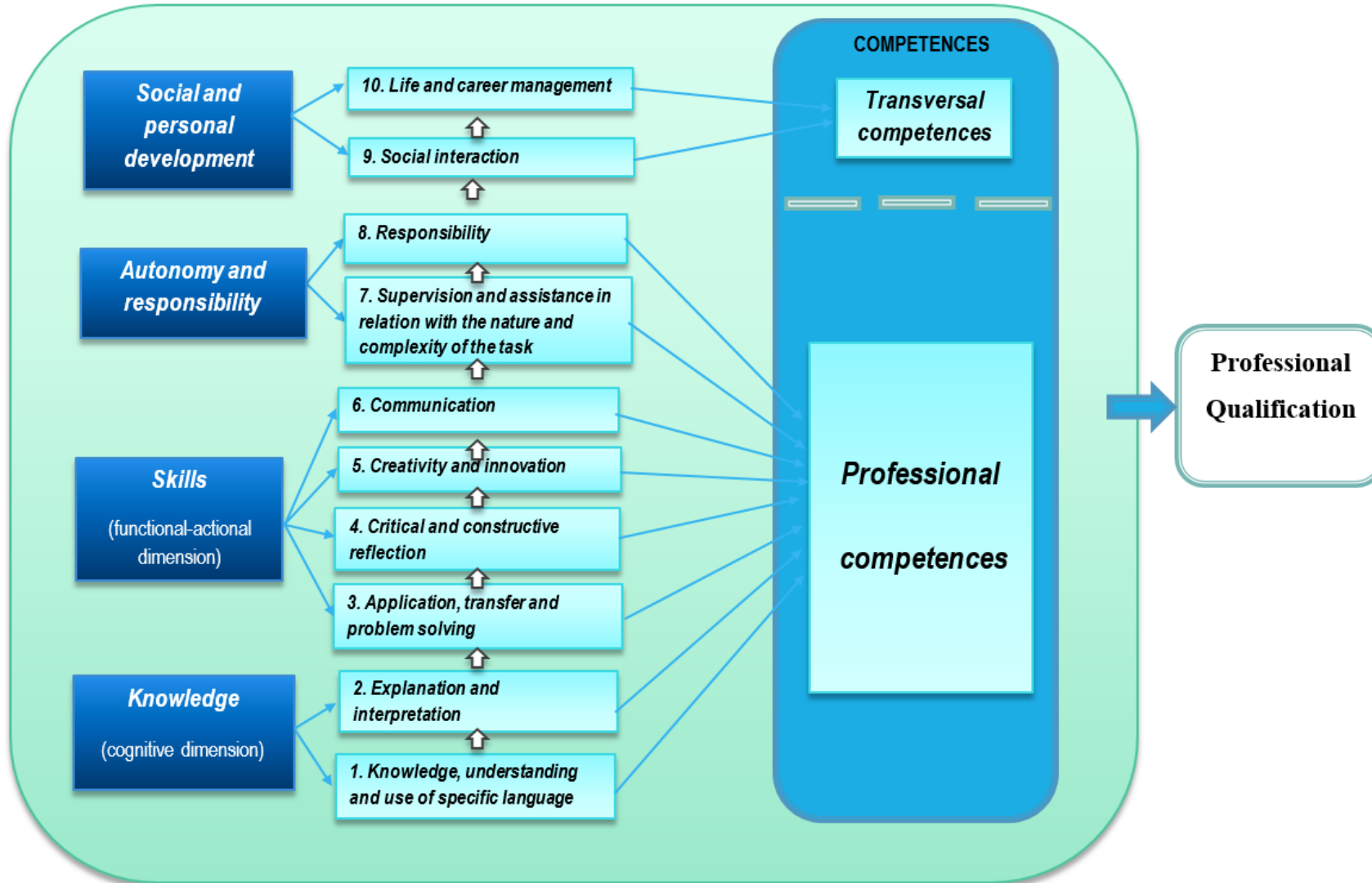
considering the EC recommendations, competence based learning practices used in aviation and the aviation regulations;

The second part –

Criteria for recognition of prior learning and work experience

for a better coherence of professional and training pathways; it will be precise the conditions and procedures for passing from a non-regulated to a regulated qualification.

Sectorial Qualification Framework Methodology





4. CONCLUSIONS

Our paper contributes to:

The right matching of learning outcomes with skills and competences, as required by EC, EASA and ICAO regulations;

Define clear progression routes and recognition of prior learning and work experience in aviation;

Promote knowledge-transfer programmes and develop new study programmes;

Strengthen exchange channels between education and labour market through the European Network for Aviation Training and Education which will be created by KAAT project.



**Thank you
for your
attention!**

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