

## Summary of the Task-Force Meeting on April 16<sup>th</sup> 2013

29. April 2013

List of participants who attended the meeting: *see appendix*

Staffan Jerneck (SJ) opened the kick-off meeting of the task force and elaborated upon the objective and the process of the CEPS Task Force. It was agreed upon that a draft of the finalized Task Force Report would be delivered to the participants of the Task Force between the 3<sup>rd</sup> and the 4<sup>th</sup> meeting of the task force.

After a general introduction by each individual participant, Jan-Eric Sundgren (JES) explained his interest in chairing the Task Force. He stated that while there are only 8 international truck companies around the world, there existed 38 companies in China alone. He continued to mention that out of these 38 Chinese companies there would be at least a few who had a global ambition and who wanted to compete on a global scale in a medium and long-term perspective. The best strategy for the 8 global truck companies was to win this upcoming competition by building high quality products which are based on a high degree of technology. He concluded that the prerequisite for Volvo and the other seven global companies was to **secure a high quantity and quality of Science, Technology, Engineering and Mathematics (STEM) students**.

In the end JES asked whether one aspect to explain the higher quality of university education in the US might be the fact that the US university system has put more emphasis on the quality of teaching by their university professor in contrast to the European University system. Concerning this point Elpida Keravnou-Papailiou (EKP) clarified that the incentive scheme for professors in Europe might be wrongly set. To successfully make a career in academia the incentive system in Europe seems to be too strongly focused on the research performance and publications and too weakly oriented towards the quality of teaching.

Felix Roth (FR) elaborated upon the content of the Task Force and the five individual meetings and presented four sets of questions which should be considered as being of primary importance to answer. In addition, he presented empirical evidence on the evolution of the quantity of tertiary graduation rates in the EU, US and China from 2000 to 2020. In this context he highlighted the importance of focusing on the quality of the European Higher Education Area (EHEA).

Xavier Prats Monné (XPM) mentioned that there already existed an extraordinary stock of facts of how to ameliorate the quality of the EHEA. To post a strong policy recommendation however, he argued that it seemed crucial that academia and industry would speak with a joint voice. In this instance CEPS could provide added value. XPM formulated the key question as: Which

governance and Funding scheme is necessary to ameliorate the quantity and quality of EHEA when taking into consideration the rule of subsidiary?

XPM continued to state that there are moments in history where technology makes a significant difference. The substitution of the horse by a car was one of these moments in history. Similarly, the introduction of Massive open online courses (MOOCs) would revolutionize the governance of the EHEA. He stated that in the decades ahead there will be 1 billion citizens from Brazil, Russia, India and China (the BRIC countries) who wanted to join the middle-class. He continued that with a relatively low degree of an internationalization of higher education (4-7 million of mobile students) mobility can't be the answer to this challenge. The answer had to be the utilization of digital technology, e.g. the implementation of MOOCs. XPM stated that in the first MOOCs there were around 150 000 enrolled participants. With such a high participation rate MOOCs had the potential for a new business model by granting the ability to lower the costs of the universities (e.g. University of Warwick plans to substitute the lectures for the first year undergraduates by MOOCs). Concerning the EU 2020 strategy XPM mentioned that the 40% of tertiary graduates benchmark should be considered a proxy. The important fact was however that education has been chosen among one of the five key dimensions. In addition, education will be included in the annual growth survey. **One key priority in modernizing the EHEA was to identify the adequate incentive structure to be able to reform the governance structure and the funding scheme of the EHEA.** In addition he mentioned that Excellency within higher education starts with excellence in upper-secondary education.

In the discussion XPM highlighted i) the new communication by the European Commission (EC) from November 2012, ii) that there will be an upcoming conference on MOOCs organized by the EC on the motivation and impact of MOOCs, and iii) that MOOCs were a challenge for the current governance of the EHEA as the implementation of MOOCs would need more **flexibility**, iv) that the Task Force report should think about which university system in which country it wants to address, iv) that there will be resistance to change from actors within the EHEA.

After having been asked by FR to once more specify the most important aspects to be analyzed from his perspective, XPM once more pointed out the key priorities to be: i) **an adequate balance between public and private funding**, ii) the **effectiveness of spending**, iii) **incentives for better spending** (e.g. Australian example to cut public funding + recruiting new CEO's outside the university system for governing the HEA or Italian example: implementing all Master courses in English by the rector of the *Politecnico of Milan* increased the share of foreign students from 2 to 20% among all students).

Andrea Saltelli (AS) mentioned that the Royal Swedish Academy of Science issued a report which highlighted that the opening up of universities to the various stakeholders has been counterproductive as Swedish universities lost ground to the Netherlands, Denmark and Switzerland. In addition AS mentioned that regulatory compliance, rule of law and corruption might be a big issue in the EU-27 when considering the governance of the EHEA, as it is very

heterogeneous split in the EU-27. Further this has high impact on business environment (e.g. see how difficult it is to comply with tax regulation in several EU MS according to the Doing Business report of the World Bank).

Stephen Stacey (SS) mentioned that it would be crucial to look into the question of what happened after the university education was achieved. Is there a smooth transition from the universities into the respective labor markets? In addition he mentioned that it would be important to implement a system of continuing education.

Dominique Ristori (DR) mentioned the two educational policy goals of the EC: i) early school leavers lower than 10% and ii) tertiary graduates of 30-34 year old cohort at least 40%. He continued to say that to reach these targets the EC needed more policy goals. One of those policies is the **stronger interaction between universities and businesses** (e.g. introducing more professors from the private sector in the teaching curriculum of European universities). DR mentioned that according to empirical evidence based upon the PISA tests, achievements in science and mathematics has declined in the EU countries which are member of the OECD, in contrast to the non-EU members OECD countries from 2006 to 2009. Concerning the quality of tertiary education, the empirical evidence based upon the Shanghai rankings between 2008 and 2012 showed that some important improvements in the EU have been made if one looks at the first 200 or 100 best world universities – where EU participation has increased – and a deterioration if one looks at the first ten, where only the UK is represented. . Coming to the comparison EU, US and China a JRC study based on comparing top universities (Leiden ranking) and top patents for individual EU member states versus individual US states and Chinese regions shows that the EU both leads and lags, with top performers as Sweden and poor EU performers which have been already overtaken by Chinese regions. DR added that the quality of universities (measured among others by top publications) was associated with top patenting activity. Another JRC study on regional university systems shows that there is a clear divergence between the north and south of Europe. This divergence obtained using the EUMIDA ranking was similar to that shown by the Shanghai ranking. In regions in southern Europe the human capital creation was not matched by its utilization. Although young people graduated with a tertiary degree, they were not employed (e.g. case of Spain with youth unemployment rate of 55%). Thus the EC has launched a new benchmark (known as employability benchmark): 82% of tertiary graduates should be employed. The recent figure was 77%. DR stressed that i) Europe's attractiveness for top researchers had to be ameliorated (e.g. China and Brazil's program on science without border would be good example to follow), ii) there should be **better interconnectedness between universities and businesses in order to bridge these two sectors** (e.g. translate the basic research into a business model and thus the real economy) iii) there is a need for industry to be part of this process (e.g. implementation of science parks in line with model of Cambridge, iv) that education should be put as a main priority (e.g. US president directly pointed out the importance for education for economic growth).

Concerning the comment by EKP that 25% out of the 47% of tertiary graduates are unemployed in Cyprus and that a lot of tertiary graduates took employment in other fields (in which they were overqualified), DR answered that the European service sector needed more competition.

Marc Durando (MD) stated that one third of teachers in the EU are older than 50 years. He mentioned that whereas high quality teaching was a priority in the US, in Europe this was not the case. He continued to ask how Europe could make this happen, similar to the US, and how Europe could implement MOOCs considering the existing variety of languages. He continued to mention that there is large need for STEM graduates in the EU (whereas 40% of Chinese students are enrolled in STEM studies there exists a skill gap of app. 850 000 ICT students in Europe). He asked how the governance/the public programs could be changed in order to educate the needed ICT students.

PKM stated that i) EC is building up a European university ranking (U-Multirank) which measured all single quality dimensions in an adequate manner (e.g. quality of teaching). In addition he asked, if the demand for STEM really existed, as in the US there existed only 5 million STEM jobs but about 50 million citizens were educated in STEM studies. He claimed that it would be interesting to analyze the career tracks of stem graduates and find out why they did not remain in STEM jobs.

Asked by FR what could be done to utilize unemployed tertiary graduates in Spain XPM answered that young tertiary graduate were better off than non tertiary-graduates and DR answered that one should help Spain to become a more diversified economy which was specialized less heavily on construction activities. In addition, Spanish universities should be helped and shown how to open up the door to business. At the end of the day: a higher graduation rate was the correct policy for Spain.

Kim Lansford (KL) pointed out that the EHEA needed reform. Presenting empirical evidence based upon studies from the EC she showed that in the EU the demand for low skilled jobs would further decline from 29 to 15%, while the demand for high skill jobs would further increase from 22 to 35%. KL highlighted that i) it was the quantity and quality of STEM students which were crucial, ii) there would be an overhang of 900 000 ICT jobs by 2015, that there existed a gender gap among science graduates and science PhDs (with only 31% of women in science and 35% of women with a PhD). She highlighted i) that it was of crucial importance to analyze the the quantity and quality of master and PhD graduates in science and technology, ii) that **more interaction with stakeholders was necessary**, iii) **a better balance between public and private funding was needed** iv) **more flexibility in the EU's tertiary program** (e.g. lifelong learning, part-time studies, MOOCs, accessibility to higher education) was needed, v) that it should be considered a policy failure if a student who had been trained by tax-payers money in the end would find no job and vi) that the European University System could learn from China and Korea (e.g. Chinese professors teach courses in German even if there only Chinese students and Korean professors teach in English even if there are only Korean students).

She stressed that is important for the task force to correctly identify the mission of each individual university and only compare universities with the same mission. Depending upon the mission there would be different schemes of incentives for university professors.

Harald Gruber (HG) mentioned that in the EHEA – the government had frequently the de-facto monopoly. However often governments did not consider the needs: i) for students nor ii) the system. The EHEA was to a large degree a self-referential system. There should be a better **balance between public and private funding**. For this balance to take place **the governance of the EHEA was in need of a reform**. Private funding would provide a higher degree of emphasis on service delivery.

In this instance SJ claimed that donations and tax assumptions (the template within the US) could be of importance.

Marianne Paasi underlined that the EU was in need of **mixed funding** and that reforms until now have been very slow. It would be very **fundamental to restructure the educational and innovation system in the EU**. The Aalto University was a very interesting example and one had to wait for the outcome of this experiment. The Aalto university was, among others, financed by the industry.

JES remarked that Aalto had a real chance of success and that the different governance structure was interesting for the faculty and the students. The question was whether the Aalto University would become a European benchmark/ role model?

Takahiro Tomonaga pointed out that the EU-27 had a strong diversity, whereas Japan and the US were very homogenous countries. **This diversity should be used to enhance the efficiency of the educational and innovation system**. In addition, he pointed out that in the US there existed more venture capital than in the EU. In order to create more room for young people there **was a need for more venture capital in the EU**.

Sophia Eriksson Waterschoot (SEW) suggested **clustering the governance and funding** of EU-27 countries as they were very heterogeneous.

Rasmus Dahl asked whether there would be a way of anticipating which type of degree the private sector would need from tertiary graduates in the time ahead.

KL suggested that the EU should foster **stronger communication between universities and industry** (e.g. in US the industry communicates to universities their demand for new entrants and the respective faculties cut back on accepting graduate students).

Elpida Keravnou-Papailiou (EKP) introduced the current and upcoming activities of the European Institute of Technology (EIT). She commented that the EIT conceptualized the chore of **innovation being based on a knowledge triangle between i) higher education, ii) research and technology and iii) industry and SME's**. All three **dimensions were driven by the**

**concept of entrepreneurship.** She continued to say that the main idea of EIT was to create a new set of culture and that **many EIT activities were based on trust.** The central tools for all EIT activities were the Knowledge and Innovation Communities (KICs). The KICs were financed by the EIT with a max. of 25% of funding. Concerning education the benchmark of EIT was to generate 10 000 Master and 10 000 Ph.D. graduates, respectively. The interdisciplinary concept was of crucial importance. The main goal of EIT was to take ideas into action and to expose students to reality by i) supervising student's thesis **by academia and industry**, ii) guaranteeing the mobility of staff, students and business and iii) fostering the cooperation with international bodies. The EITs primary objectives were the KIC's. There existed 200 partners (1/3 being universities). The goal was to reach within and outside Europe and to **create a synergy between business and academia.**

Asked by Frederique Biston how one could teach entrepreneurial spirit EKP answered that it was necessary to create an environment for ideas and to teach students how to set up a business plan. In this context it was crucial that entrepreneurs were involved into the teaching program.

JES summarized the important topics for the Task Force as:

- i) **Governance and funding of EHEA,**
- ii) **Efficient corporation between the university + business sector and**
- iii) Incentives for high quality teaching of university professors.

Last comments by participants included:

KL: Task Force should look into the fact of how to get the governance + funding of EHEA right.

HG: Task Force could look at UK example for broadening funding base: tuition fees provided the incentives and funding for new infrastructure .

SEW: Task Force should not forget to analyze the impact of digital technology.

JES: MOOCs are important for the governance of the EHEA. Online education will make more flexibility necessary.

MD: MOOCs are rated too optimistically. There existed a high drop-out rate.

MP: Gender issues should be dealt within the Task Force Report.

**It has been agreed upon that the 2<sup>nd</sup> Task Force Meeting will take place on September 18<sup>th</sup>.**

**Appendix:** List of participants who attended the meeting

Mrs. Frederique Biston  
Senior Vice President, EU Office  
Volvo AB

Mrs. Kerstin Born-Sirkel  
Director of Corporate and External Relations  
CEPS

Mr. Rasmus Dahl  
Consultant  
Confederation of Danish Industry - DI

Mr. Marc Durando  
Executive Director  
European Schoolnet

Dr. Ulla Engelmann  
Head of Unit, DG JRC  
European Commission

Ms. Sophia Eriksson Waterschoot  
Adviser to the Deputy Director General, DG EAC  
European Commission

Mr. Harald Gruber  
Head of Division  
European Investment Bank - EIB

Mr. Staffan Jerneck  
Senior Adviser  
CEPS

Mrs. Elpida Keravnou-Papailiou  
Rector, Cyprus University of Technology  
Governing Board Member  
European Institute of Innovation and Technology

Ms. Kimberley Lansford  
Senior Policy Adviser  
European Round Table of Industrialists (ERT)

Ms. Ilaria Maselli  
Researcher, Economic Policy Unit  
CEPS

Ms. Marianne Paasi  
Scientific Officer, DG RTD  
European Commission

Mr. Xavier Prats Monné  
Deputy Director General, DG EAC  
European Commission

Mr. Dominique Ristori  
Director General, DG JRC  
European Commission

Mr. Felix Roth  
Research Fellow & Editor of Intereconomics  
CEPS

Mr. Andrea Saltelli  
Head of Unit, DG JRC  
European Commission

Mr. Stephen Stacey  
Director and Executive Representative  
Hyundai Motor Company

Mr. Jan-Eric Sundgren  
Senior Vice President & Head of Corporate Relations  
Volvo AB

Mr. Takahiro Tomonaga  
General Manager  
Mitsui & Co. Benelux

Mr. Peter Van Der Hijden  
Policy Officer, DG RTD  
European Commission