Europe’s Universities: Main drivers in achieving the European Research Area (ERA)

Progress Report on the implementation of the actions agreed in the Memorandum of Understanding signed between the European Commission and the European University Association
Commissioner Máire Geoghegan-Quinn and EUA President Maria Helena Nazaré signing the Memorandum of Understanding.
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Introduction

Major concrete results have been achieved by EUA with its large membership in moving forward the implementation of European Research Area policies and raising further awareness of their importance. Survey results from a significant representative sample of EUA membership show that EC ERA initiatives on researcher career conditions, open recruitment and human resources excellence are being taken up in a substantial manner. On cross-border and regional cooperation EUA has forged a innovative partnership with the Joint Research Centre (Seville)/DG Regions Smart Specialisation Platform focusing on existing “good practices”, their experience and lessons, and how universities could enhance their contribution in developing national and regional “Smart Specialisation Strategies” for future maximisation of the use of the EU regional funds for research and innovation activities leading to economic and social development. Finally, EUA has worked collectively with all Stakeholder Organisations (SHOs) who on 17 July 2012 signed the Memoranda of Understanding (MoUs)/Joint Statements in achieving agreement on “Common Principles” governing Open Access and has presented an agenda for a high-level dialogue with scientific publishers on the need for new business models that reflect the impact of digital technological developments on the process of the production of scientific knowledge for scientific publishing.

Presented here therefore is a concise progress report on these achievements made by EUA in the implementation of the actions agreed in the voluntary MoU. At the outset, it needs to be emphasised that EUA has regarded the MoU as a high priority activity and has made substantial commitment of its time and resources to implement the MoU which has required regular consultation with its governing bodies, EUA Board and Council, and survey-based data collection from its large membership base of over 850 individual universities and National Rector’s Conferences.

EUA has participated actively in the six meetings of the European Stakeholder’s Platform established to monitor and implement the MoU and Joint Statement activities, and all of the related “Doers’ Networks” established by the European Commission addressing the specific ERA barriers and bottlenecks. EUA has also acted jointly with other Stakeholder Organisations (SHOs) who have signed the MoU/ Joint Statements in order to move forward the ERA agenda. EUA has also contributed to parallel ERAC meetings on ERA policy developments and the European Monitoring Mechanism discussions convened by DG Research and Innovation.

In general, EUA has viewed the signing of the MoUs and Joint Statement on the ERA as an important European partnership initiative in building trust between the European Commission and the major European stakeholder organisations that has worked well to strengthen and give more structure to the voluntary cooperation already developed between stakeholder organisations. It has been a challenging but rewarding task as it has required the necessary bridging of the respective “operational and administrative cultures” of a governmental organisation (EC) and non-governmental membership-based organisations (SHOs). In this short time-span of 18 months, a genuine partnership approach has shown to be both achievable and productive.
MoU Priority Actions

EUA selected among its MoU commitments three priority areas on which to report on progress by end of 2013: (i) doctoral training, research careers and mobility, and gender strategies (Actions 1-7); (ii) cross border cooperation/smart specialisation strategies (Action 10), and (iii) Open Access to scientific publications (Action 11).

I. Doctoral training, research careers and mobility, gender strategies (Actions 1-7)

Survey questionnaire design and coverage

EUA designed and conducted a major questionnaire survey of its university membership on this high priority set of ERA policy issues. The questionnaire was addressed to the university leadership for completion as an institutional response. The key characteristics of the EUA survey sample were as follows.

224 universities completed the survey questionnaire representing 30% of EUA full individual members (738 as of October 2013) and hence, by comparable survey standards, a good response rate was achieved. 214 of these universities were based in EU member states and associated countries. All 28 EU member states and seven associate countries were covered in the survey responses.

The survey responses reflected the diversity of both EUA’s membership and the university sector in Europe. A comprehensive sample of universities was achieved covering research-intensive universities, universities of technology, and universities of applied sciences. To illustrate this breadth of coverage of the EUA survey sample, it gathered responses from EUA member universities who are also members of specific university networks and smaller associations as follows below.

Survey responses from:

52% of LERU members, 11 responses        (All 21 LERU members are EUA members)
45% of CESAER members, 25 responses       (47 of 55 CESAER members are EUA members)
80% of Nordic 5 Tech members, 4 responses (All 5 Nordic Five Tech members are EUA members)
50% of EuroTech members, 2 responses      (All 4 EuroTech members are EUA members)
54% of Cluster members, 7 responses       (All 13 Cluster members are EUA members)
25% of IDEA League members, 1 response    (3 of the 4 IDEA members are EUA members)

Main survey results

On MoU Actions 1 to 4 that focused on EU level human resources initiatives concerning researchers, the main results were as follows (see Figures 1-14 for more detail):

(a) On the European Charter for Researchers and a Code of Conduct for the Recruitment of Researchers

The survey results demonstrated a high level of awareness of the Charter and Code and substantial progress in implementing its provisions (Figures 1 & 2).
84.3% of universities were aware of the EC Recommendation on the European Charter for Researchers and Code of Conduct for the Recruitment of Researchers. 41.2% had implemented most or all aspects of the Charter and Code, and 34.8% were in the process of implementing it. 23.5% planned to implement the Charter and Code in the future.

Only 0.5% indicated that they saw no reason to implement the Charter and Code.

(b) On the EU Human Resources Excellence in Research Logo (Figure 3)

The survey results demonstrated a lower take-up and awareness of this EU initiative which has been launched more recently compared to the European Charter and Code.

18.8% had obtained the Logo and 17.9% were in the process of obtaining it. 54.3% had not yet sought to obtain the Logo and 8.1% were not aware of the Logo.

Only 0.9% saw no reason to obtain the Logo.

(c) On the EURAXESS Jobs portal (Figure 4)

The survey results showed that almost two thirds of respondents use the portal, but a third needed to be convinced of its utility. Universities attached high value to open recruitment and emphasised that there were other effective routes that were also pursued for research post recruitment such as through national, European and international scientific journals.

16.7% used the portal for all open vacancies of research posts and 48.2% used the portal for some research posts. 29.7% had not yet used the portal and 4.5% were not aware of the portal.

Only 0.9% saw no reason to use the portal.
(d) On institutional policies to promote gender equality in research positions (Figure 5)

The survey results showed that the vast majority of universities had put in place policies promoting gender equality. It should be noted here particularly that these survey results differ markedly from those of the recent EC ERA progress report where a figure of 23% was presented (however, the latter EC survey covered the wider category of “research performing organizations”).

82.1% of university respondents had policies promoting gender equality in place, while 15.7% had not done so.

(e) On doctoral education/training reform (Figures 6 to 11)

The survey results confirm that a “Quiet Revolution” has taken place in recent years in doctoral education/training across universities in Europe. Structured doctoral programmes have been developed which provide greater critical mass, inter-university cooperation, transferable skills training and career development opportunities.

EUA has been a strong advocate and promoter of these reforms through its “Salzburg Principles” based on best practices (2005) and revised in 2010 and the work of its Council for Doctoral Education (CDE). These “Salzburg Principles” form the core of the “Principles of Innovative Doctoral Training” taken up by the European Commission.

84.4% of university respondents have established doctoral/research schools to create critical mass (Figure 6).

The level at which the doctoral/research school was established ranged from one for the whole institution, to research programme and faculty level, and to inter-university schools and inter-university and non-university research institution schools (Figure 7).
Over 90% of university respondents had structured doctoral programmes with institutional policies concerning admission procedures, progress monitoring, supervision and thesis assessment (Figure 8).

Over two thirds (68%) of university respondents provided career development services to doctoral candidates (Figure 9).

89.2% of university respondents provide transferable skills training to doctoral candidates (Figure 10).

On the legal status of doctoral candidates in universities the picture continues to vary across Europe but it is important to note the growing number involved in collaborative research and employed by business which validates the empirical evidence gathered in the EUA DOC-CAREERS projects I & II on collaborative PhD programmes (Figure 11).

(f) On obstacles to the further development of institutional policies (Figure 12)

The EUA survey results have indicated that the continued “Quiet Revolution” of reforms and their further strengthening are in danger of losing momentum in the current period of budgetary constraints being implemented in the wake of the economic and financial crisis, which to varying degrees across Europe is having a particular impact in the higher education and research sectors. These findings correlate with those expressed in the ERA progress report conclusions.
Secondly, national legislative frameworks continue to inhibit the ability of universities to act in an autonomous manner to develop and implement institutional policies.

Thirdly, the survey respondents recognise that the necessary reforms required within the university take time to implement and there continues to exist some internal resistance that needs to be engaged with through leadership, debate and governance procedures.

(g) On international partnerships and mobility in doctoral education/training (Figures 13 & 14)

The survey results demonstrated that almost equal importance is attached to establishing research partners at the national level, EU and associated countries level, and third country level (Figure 13).

Of particular interest to the ERA policy framework, the survey results on international research collaboration have shown that while individual ad hoc mobility remains the dominant form, international staff and doctoral candidate mobility is increasingly structured within formal research collaborations and joint/collaborative programmes (Figure 14).

II. Cross border cooperation – Smart Specialisation Strategies (Action 10)

EUA adopted a different approach and methodology in implementing this MoU priority Action. It established a partnership with the European Commission Joint Research Centre (JRC, Seville, Spain) Smart Specialisation Platform (SSP) supported by EC DG Regional Policy.

EUA and JRC/SSP held a ground-breaking workshop in Seville, Spain, on 21-22 February 2013 which gathered experts from both universities and regional authorities to debate existing "good practices"
and how universities could enhance their contribution in developing national and regional "Smart Specialisation Strategies" (RIS3) for future maximisation of the use of the EU regional funds for research and innovation activities.

At the Seville workshop, there was an agreement that universities and regional authorities have a unique opportunity to form close partnerships that, together with industry and other stakeholders, can maximise the use of EU Structural Funds for research and innovation to deliver economic and social development. From the perspective of universities, it is vital that there is more clarity on how they can benefit from the Structural Funds and how to achieve a greater synergy with competitive EU research funds (Horizon 2020).

The Seville report (entitled "The Role of Universities in Smart Specialisation Strategies") has now been finalised and includes an introduction on the European policy context with contributions from EUA President Professor Helena Nazaré, a joint contribution from Commissioners Máire Geoghegan-Quinn and Johannes Hahn, and a contribution from the European Parliament, Maria Da Graça Carvalho MEP. The report will be widely disseminated from early 2014.

The Seville report makes a set of core issues and recommendations, as follows:

- recognition of the role of universities as a key partner in taking forward successful Smart Specialisation Strategies in partnership with other stakeholders in the region;
- the need for Smart Specialisation to build on the specific profile and opportunities of European regions, which should include the unique contribution of universities;
- active promotion and publication of Research and Innovation Strategies for Smart Specialisation (RIS3) to motivate participation of key stakeholders;
- coordination of regional/national/European RTD and innovation programmes, coupled with a necessary reduction of the complexity and range of different administrative procedures;
- creation of opportunities for the alignment of university research portfolios to Smart Specialisation Strategy priorities, including through balanced recognition and incentive mechanisms for both research and innovation activities in universities;
- better alignment of timelines for the different stakeholders (universities, regional authorities and other external actors);
- development of appropriate instruments for synergy opportunities in competitive/structural funding with respect to: R&D capacity-building in infrastructure but also crucially in human resources and multi-disciplinary approaches; maximising use of generated knowledge through university-business dialogue and deployment of knowledge in both technological and social innovation;
- development of incentives for: academic research careers relating to regional priorities; R&D careers outside academia including valorisation of the contribution of doctorate holders; investment in high-risk spin-offs and venture capital; local firms and universities to work collaboratively; and
- ensuring the sustainability of Smart Specialisation Strategies beyond the structural funding timeframe.

Universities should be recognised as a vital partner for regions in the design and implementation of successful RIS3. Universities can benefit from Structural Funds for research and innovation (R&I) activities if they reach agreement with regional authorities on priorities for the region. For regions, the benefits should not be simply new infrastructure in physical terms but also importantly in investment in human capital development and services to the region. For the 2014-2020 Structural Fund cycle, the
EC has a new role in approving national and regional RIS3 strategies to meet the ex-ante conditions of the EU's Cohesion Policy. The above set of core issues and recommendations could valuably feed into the assessment of Smart Specialisation Strategies and monitoring and evaluation of Structural Fund "Operational Programmes" that fund research and innovation activities.

In a nutshell, the message of the report is that universities have to be brought in formally as partners in the process – that is, a "business as usual" approach on design and use of the ERDF/ESF funds will not deliver on the new ex-ante conditions. At present, universities are expected generally to deliver at the regional level on social and economic development without having a hand on the steering wheel.

An important further outcome of the joint EUA/JRC Seville workshop was the convening of a special session on "Higher Education Institutions and Smart Specialisation" held on 9 October 2013 during the "Open Days of the 11th European Week of Cities and Regions", 7-11 October in Brussels. The session was convened by the EUA/JRC-SSP-Regio partnership and DG EAC and EIT and attracted a full attendance as an early over-subscribed event.

The next major step in the new EUA/JRC partnership will be the convening of a "high-level" conference in Brussels in 2014 on the role of universities/HEIs in the RIS3 policy development, building upon recommendations made in the Seville report, as a basis for development of new guidelines for implementation and monitoring.

With 15% of the Structural Funds allocated for cross-border cooperation EUA sees particularly the scope for pro-active encouragement of "teaming" and "twinning" arrangements between universities and regions.

III. Open Access to scientific publications (Action 11)

In taking forward this MoU Action EUA has adopted a joint approach working in partnership with the other participating SHOs in the ERA European Stakeholder Platform and the Doers' Network.

EUA has established a working group of experts whose members have provided key input into stakeholder events organised within the framework of the MoU and Joint Statement (Nordforsk workshop 5 February 2013, and Science Europe workshop on 20-21 February 2013, and MedOAnet 16-17 October 2013, Athens). EUA together with LERU and Science Europe has proposed that the next step (to build upon "common principles" for open access that are now well-developed within the scientific community and agreed by all the ERA SHOs) should be the preparation of the ground for "high-level" talks with major publishing houses to explore "doable" business models and operational conditions for open access that meet universities' needs. It has been requested that the European Commission should be present at such "high-level" talks given its commitment to open access to scientific publications arising from research funded through Horizon 2020 grants. The European Commission has not yet formally responded to this request.

As a part of this MoU Action, EUA has held discussions with Professor Luc Soete (Chair of the European Research and Innovation Board, ERIAB) on the issue of Open Access in relation to the emergence of the concept of the "Science 2.0" research eco-system which is under discussion as a potential future "Green paper" consultation in early 2014. For EUA, the concept of "Science 2.0" has high potential relevance to the ongoing impact of digital technology on the conduct and process of research in universities, but also importantly to the parallel debate in relation to the education and teaching mission of universities – the growing emergence of MOOCs, their future operability, financial sustainability and implications
for universities' future modes of operation. These two phenomena should be linked in a future "Green Paper" on Science 2.0.

"Science 2.0" requires also a move forward from what could be described as "Scientific Publishing 1.0" (status quo today) to "Scientific Publishing 2.0". The latter requires urgent discussion of "new business models" that reflect the responsibilities and contribution of, and the rewards attaining to, the three key partners in scientific publishing – the research community (based in universities and non-university research institutions), public funders of research and the scientific publishing houses. The impact of digital technology in terms of leading to both "gold" and "green" routes to open access scientific publications (both already operational and expanding) is having a transformational impact on the relationship between these three key partners. From the perspective of university leadership, the current main effects of the impact of digital technology are ever-rising costs of maintaining and upgrading university libraries, journal subscriptions and digital resources. For its part, as a further next step in this Action, EUA is keen to engage in a debate on future business models for scientific publishing in "Science 2.0".

**Conclusion**

EUA believes that this progress report shows that Europe's universities are the main drivers in implementing ERA and are progressing towards the achievement of ERA despite the obstacles encountered. Continued progress requires more enhanced European and national funding initiatives in support of universities' institutional policies to attract and retain research capacity across Europe. The good response rate and coverage of a wide range of university members completing the MoU questionnaire reflects EUA representativeness of the overall university sector in Europe.
The European University Association (EUA) is the representative organisation of universities and national rectors' conferences in 47 European countries. EUA plays a crucial role in the Bologna Process and in influencing EU policies on higher education, research and innovation. Thanks to its interaction with a range of other European and international organisations EUA ensures that the independent voice of European universities is heard wherever decisions are being taken that will impact on their activities.

The Association provides a unique expertise in higher education and research as well as a forum for exchange of ideas and good practice among universities. The results of EUA's work are made available to members and stakeholders through conferences, seminars, website and publications.