

## European Master in Official Statistics

At the 21<sup>st</sup> Meeting of the European Statistical System Committee (ESSC)<sup>1</sup> on 14 May 2014 the ESSC agreed to following opinions:

1. The ESSC endorsed the proposed approach and roadmap for the implementation of EMOS as presented in the document to the ESSC. It also underlined the importance of a harmonised implementation of EMOS based on a set of clear and transparent criteria.
2. Although some delegations expressed different opinions on the general ambition of the EMOS project and on certain aspects, it was generally agreed to follow the presented concept, taking into account the need to evaluate the programme after the first round of implementation.
3. Eurostat acknowledged that the details on the curriculum and administrative rules raised in the discussion would be considered at the EMOS workshop in Helsinki on 26-27 June and in the next meeting of the Group of Experts.

The ESSC gave his opinion based on following draft proposal:

### **1. RECOMMENDATION FOR ACTION**

The ESS Committee is invited to give its opinion on the outlined approach so that EMOS may proceed to the detailed planning and implementation phase. Specifically, the ESSC is invited to give its opinion on the governance structure of EMOS, where the ESSC is proposed as the ‘owner’ of the EMOS label, and the syllabus developed on the basis of the feasibility study and proposals from the Group of Experts (please see Annex 1 for the proposed governance structure, Annex 2 for the proposed structure of EMOS, and Annex 3 for the list of members of the Group of Experts).

### **2. BACKGROUND AND BRIEF HISTORY**

Following the first EMOS workshop in Southampton in 2010, a voluntary group, comprising NSIs and universities from 12 EU Member States and chaired by ISTAT, was set up. One of the outputs of the group was a paper ‘Prospects for a European Master in Official Statistics (EMOS)’ which was presented to the 12<sup>th</sup> ESSC meeting in February 2012.

In autumn 2011, Eurostat selected EMOS as a Vision Infrastructure Project for 2012, in line with the objective of “creating a true European research and training facility in statistics” as provided for in the Communication from the Commission to the European Parliament and the Council on the production method of EU statistics: a vision for the next decade.<sup>2</sup>

In spring 2012, Eurostat launched a call for tender for the feasibility study 'Towards a European Master in Official Statistics'. The results of the feasibility study, finalised at the end of 2013, were

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<sup>1</sup> Please see for more information about the ESSC

[http://epp.eurostat.ec.europa.eu/portal/page/portal/pgp\\_ess/about\\_ess/statistical\\_committees/essc](http://epp.eurostat.ec.europa.eu/portal/page/portal/pgp_ess/about_ess/statistical_committees/essc)

<sup>2</sup> COM(2009) 404 final, 10.8.2009.

drawn from 151 valid replies from European universities to an online survey as well as individual interviews at universities and NSIs in 14 European countries.

The feasibility study resulted in the following main findings and recommendations<sup>3</sup>:

- Given the national differences in the accreditation of new Master programmes, it is recommended to implement EMOS as a label for existing Master programmes. The EMOS label must stand for excellence in European statistics and apply quality standards recognised by all concerned stakeholders.
- EMOS raises interest in the majority of the universities visited as long as there is no major impact on the core parts of the Master programmes. Moreover, some programmes are ready to implement EMOS on the basis of the criteria proposed by the feasibility study (only minor changes in their curricula would be required). There are also universities that are willing to join, but not fulfilling all the criteria yet.
- Syllabus and governance structure for EMOS have been proposed and further developed within the Group of Experts. Some further discussions on a semi legal base are on-going as part of defining the modalities for implementation.

### **3. POLICY CONTEXT**

Statistical literacy and life-long learning are essential in a fast-changing statistical world. Such topics as big data highlight the importance of educating future and current ESS employees as well as future and current data users of official statistics. In this regard, one of the objectives of EMOS is to promote education in the field of official statistics in universities.

EMOS is to be implemented as a label for Master programmes joined in a network of universities and NSIs. However, it is also expected that EMOS can become an instrument to train ESS staff in the future.

### **4. CONSEQUENCES FOR NATIONAL STATISTICAL INSTITUTES**

For EMOS to succeed, an active involvement of NSIs is of utmost importance. Specifically, the collaboration of universities and NSIs will be the key factor to success, in particular when it comes to internships, support to Master theses, and transfer of knowledge of Official Statistics from NSIs to universities when required. However, these efforts should be seen as an investment which will allow high quality recruitments for the ESS in the future as well as a possibility for current staff to gain access to university courses for internal training purposes. Furthermore, EMOS will contribute to an enhanced knowledge exchange between NSIs and the academic world.

### **5. OUTSTANDING ISSUES**

The implementation of EMOS will include the following:

- adaptation of university programmes to be eligible for the EMOS label;
- setting up of cooperation schemes between universities and NSIs;
- establishing an EMOS Board as a permanent body in the EMOS governance structure.

### **6. RISK ASSESSMENT**

Not proceeding with EMOS would constitute a missed opportunity to establish:

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<sup>3</sup> For detailed results of the feasibility study, please see <http://www.cros-portal.eu/content/results-feasibility-study>.

- enhanced Master programmes with well-defined elements of official statistics;
- a reinforced network of professional statisticians and strengthened cooperation between academia and the ESS;
- a shared vision for the methodology, organisation, management and assessment of the production of European statistics;
- a repository of young professional statisticians and potential future recruits for the ESS.

## 7. NEXT STEPS

- On 26-27 June 2014, Eurostat and the University of Helsinki are co-organising the 2nd International EMOS Workshop in Helsinki.<sup>4</sup> The objective of the workshop is to inform in particular universities and NSIs interested in implementing EMOS about the EMOS concept. The workshop will also be used as a discussion platform for the participants to exchange views, plans, and ideas with regard to the implementation of EMOS in their institutions.
- With a view to supporting the preparation process for EMOS, it is proposed to publish a call for participation immediately after the Helsinki workshop to preselect the first group of Universities, with Master programmes already meeting the majority of the EMOS eligibility requirements<sup>5</sup>. It is foreseen that the preselected Master programmes can better prepare for the call for applications and implementation of EMOS in a network of universities, in cooperation with NSIs and the EMOS Secretariat.
- It is proposed that the EMOS Board composed of representatives from universities and NSIs as well as Eurostat and ESAC, is elected and its composition and mandate approved by the November 2014 ESSC meeting. The main role of the EMOS Board will be to evaluate applications for the EMOS label and to provide recommendations to the ESSC on the award of the label.
- The deadline for the applications for the EMOS label is foreseen for the end of February 2015. Having examined the applications, the EMOS Board will recommend to the May 2015 ESSC meeting the award of the EMOS label to eligible Master programmes.
- A second round of applications is foreseen for the 2nd half of 2015. A new call for participation will bring new aspiring universities/Master programmes together with the existing EMOS Network and will facilitate their preparation to become eligible for the EMOS label.
- Depending on the duration of the Master programmes, the first graduates could be expected in 2017 at the latest. This objective could also be reached in 2015-2016 under the condition that the EMOS label could be awarded to graduates in already running Master programmes.
- The ESSC will be kept informed of developments through annual progress reports in the May ESSC meeting.

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<sup>4</sup> For workshop details please see <https://wiki.helsinki.fi/display/EMOS2014/Home+EMOS>

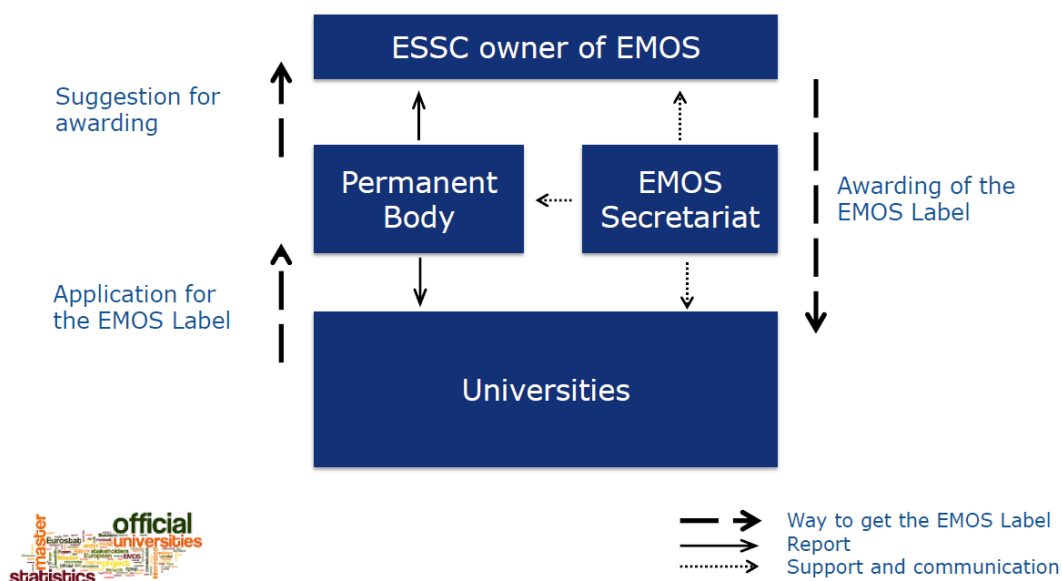
<sup>5</sup> The Master programme should include the EMOS module, covering the most important topics in official statistics, as well as an internship in an NSI or other national statistical authority and a Master thesis with a strong link to official statistics.

## Annex 1

### Proposal for the EMOS governance model

The following structure is based on the recommendations of the feasibility study 'Towards a European Master in Official Statistics' and two rounds of discussion in the Group of Experts.

## EMOS governance



### 1. European Statistical System Committee (ESSC) as ‘owner’ of EMOS

It is suggested that the ESSC takes on ownership of the EMOS label.

On the basis of an assessment and recommendation of a permanent body to be appointed (EMOS Board), the ESSC will take the final decision with regard to the award of the EMOS label and will also guarantee the quality of EMOS. The proposed governance framework should prevent a potential conflict of interests in the decision-making on the award of the EMOS label to a university Master programme.

### 2. Permanent Body (EMOS Board)

The EMOS Board will be composed of twelve members<sup>6</sup>: six members from universities, four from NSIs, one from ESAC, and one from Eurostat. The six members from universities will be elected by the EMOS community via an online voting. The EMOS Secretariat (Eurostat) will make a call for interest to select the four NSI members and will ask ESAC to appoint one of its members. The November 2014 ESSC meeting should formally establish the first EMOS Board with a mandate of three years.

The EMOS Board, as a permanent body, will be responsible for the assessment of applications for the EMOS label and for the quality of EMOS. If the structure of the Master programme is in line with the requirements, the EMOS Board will issue a recommendation to the ESSC to award this

<sup>6</sup> The size of the EMOS Board has been proposed while taking into account a workable body – the question is open to discussion.

Master programme with the EMOS label for a period of four years. After the reassessment of the Master programme, the EMOS Board can recommend to the ESSC to extend the validity of the EMOS label.

Moreover, the EMOS Board will be responsible for the further development of EMOS. The EMOS Board will prepare an annual activity report for the ESSC which will include a review of accepted and refused applications as well as extensions of the validity of the EMOS label. Furthermore, the EMOS Board can contribute to the conception of EMOS workshops and/or conferences to exchange experiences within the EMOS network and discuss further developments.

The EMOS Board will meet twice per year. Travel costs for members' participation in EMOS Board meetings will be covered by Eurostat.

### **3. EMOS Secretariat**

The EMOS Secretariat will be responsible for the daily work. The secretariat will provide support to the EMOS Board and will organise the EMOS Board meetings and other EMOS activities.

The secretariat will also be responsible for communication about EMOS and public relations matters. The secretariat will be responsible for the EMOS website which will be used to share relevant information with the EMOS Board, EMOS network<sup>7</sup> and to the EMOS community<sup>8</sup>.

The EMOS Secretariat will be provided and managed by Eurostat.

### **4. Universities**

Following a call for participation, universities will be able to participate in the EMOS network and subsequently to apply for the EMOS label.

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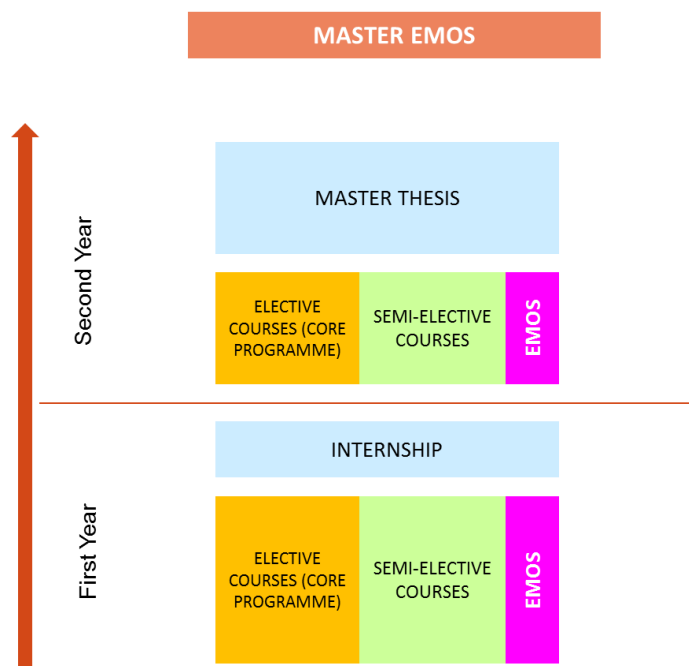
<sup>7</sup> All Universities and NSIs who are active in EMOS Master programmes.

<sup>8</sup> All Universities, NSIs and others who are interested in EMOS

## Annex 2

### Proposal for the EMOS structure

The following structure has been based on the recommendation of the feasibility study 'Towards a European Master in Official Statistics' and two rounds of discussion in the Group of Experts.



#### 1. Introduction

The recommendation from the feasibility study 'Towards a European Master in Official Statistics' was to implement EMOS as a label for existing university Master programmes. The requirements are mainly linked to the syllabus of the Master programmes. The consensus by the Group of Experts was that the requirements should be flexible enough that all interested universities could, in principle, participate under the auxiliary condition that EMOS meets the defined level of quality.

An EMOS-labelled Master will be made up of four main parts:

- EMOS module (approx. 10% of ECTS<sup>9</sup> credits);
- Semi-elective courses (approx. 30% of ECTS credits);
- Elective courses (approx. 25% of ECTS credits);
- Internship and Master thesis (approx. 35% of ECTS credits).

These percentages are approximate and could differ in real application once the EMOS Board has accepted the whole concept of a given Master programme.

The weights and contents should be flexible for the initial implementation phase and should be fixed following the evaluation of the implementation phase. This phase should be used to implement the structure in running master programmes; therefore, some flexibility will be required to meet the

<sup>9</sup> European Credit Transfer and Accumulation System.

structure of different programmes such as Master in Statistics, Master in Economics, Master in Economic Analysis; Master in Survey Statistics; Master in Business; Public Policy and Management, etc.

## **2. The EMOS Module**

The EMOS module will be compulsory and include topics of Official Statistics and a European dimension. The module should have a weight of approx. 10 % of credits of the whole Master programme.

The content of the EMOS module is described in the following positive list:

European Statistical System (ESS), Code of Practice, Quality, Production Model, Data Management, Metadata, Sampling Theory, Statistical Disclosure Control, Data law, Administrative Data, Big Data in Official Statistics, Classification, Evaluation and Monitoring, Statistical Data Editing.

This list could include more topics than necessary for the 10 % of credits. In this way, universities will have the option of choosing subjects with a stronger link to their main programme. Subject to further assessment, the EMOS Board will be able to modify the list of topics.

## **3. Semi-Elective Courses**

The semi-elective courses include empirical and statistical issues. These topics are offered in many university courses and in different Master programmes. Universities will have the possibility to *choose* topics in this module, but they will be obliged to choose from a definite list, which is why it is only a semi-open process.

The weight of the semi-elective courses should be around 30 % of credits of a Master programme. The content of the semi-elective courses are also described in the positive list below. This list should be much longer than necessary for 30 % of credits of a Master programme. The aim is to have a broader range of topics in this module in order to make EMOS compatible with more Master programmes. It should be possible that Masters in Economics as well as in Survey Methodology find statistical topics in this module that are tailored to their main programme.

The content of the semi-elective courses is described in the following positive list:

Survey Methodology, Government and Public Finances, Demography, Price Statistics, Econometrics, Econometrics of Time Series and Panel Data, Multivariate Statistics, Small Area Estimation and Spatial Statistics, Statistical Computing, Record Linkage and Statistical Matching.

The EMOS Board will be responsible for this list and can decide to modify it at a later stage.

## **4. Elective Courses**

In this module, with a weight of 25 % of credits of a Master programme, universities are completely free to choose the topics. The responsibility for this module is entirely with the university.

## **5. Internship and Master Thesis**

The main purpose of this requirement will be to establish a regular structure for internships and Master theses, both with the support of NSIs. Students should have the possibility to get practical experience within an NSI or other statistical authority. The EMOS Board will assess whether alternatives to an internship within an NSI, such as an internship in another statistical authority with

a strong link to statistics or assistance in a university project like a FP 7 project, can be considered as eligible for EMOS.

The internship should have a weight of around 10 % of credits of a Master programme. Given that 2 ECTS credits require 50 to 60 hours of work, an internship will last six to eight weeks.

The Master thesis should have a weight of approx. 25 % of credits and a strong link to topics of Official Statistics. The thesis should be supported by an NSI; whereas, the evaluation and grading of a Master thesis is the responsibility of the university.

### **Annex 3 – Members of the EMOS Group of Experts (GExp)**

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