

Fourth Meeting of the Network for the Coordination  
of Statistical Training in Asia and the Pacific

12 September 2018 Chiba, Japan

**Possible Modalities for Accrediting  
Courses on Official Statistics in the  
Region**



**Recommendation in the 13<sup>th</sup> Session of the  
Governing Council of SIAP in December 2017**

- \* The Council recommends that the Institute, as the secretariat of **the Network for the Coordination of Statistical Training in Asia and the Pacific**, work with its members to develop **possible modalities for accrediting courses** on official statistics in the region.

## The Cases for and against an ISI Strategy on Accreditation of Statistics

- \* This document explores the case for and against the ISI formulating and adopting strategies relating to the professional accreditation of statisticians.

Strategies		
Promoting excellence in statistical <b>research</b> and research training	Promoting excellence in statistical <b>education</b>	Promoting excellence in the <b>practice</b> of Statistics

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## Voluntary Professional Accreditation Schemes



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## Royal Statistical Society Certification Scheme for Demonstrating Compliance to ISO 18404

- \* RSS 18404 is a management system for **Six Sigma and Lean** and therefore the **ISO** high level structure and content for management systems must be followed in applying it.
- \* Organisations seeking certification under this Sector Scheme should ensure that they engage a Certification Body approved by RSS under the scheme.
- \* The RSS is the owner of the Sector Scheme and will be responsible for its overall operations, maintenance of the scheme, and the qualification and monitoring of the participating Certification Bodies.
- \* RSS will maintain a list of recognised Certification Bodies and Assessors

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## Professional Accreditation of the Statistical Society of Australia

Accredited Statistician

- based on a combination for formal qualifications in statistics, relevant practical experience and demonstration of professional competence

Graduate Statistician

- shall meet at least the degree requirement: a pass degree of equivalent with a Statistics component equivalent to that of second or third level Statistics subjects or Mathematics majors in Australian universities, plus six years practical experience in applying statistics

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## Accreditation of the Statistical Society of Canada

### Professional Statistician

- has the necessary academic qualifications and a minimum of six years of professional experience in the application of statistics

### Associate Statistician

- has completed a course of study equivalent to a major or honours degree in statistics, or in exceptional instances, has otherwise demonstrated an advanced understanding of statistical theory and its application

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## Accreditation of the American Statistical Association

### PStat

- a demonstrated level of educational and professional experience
- a commitment to professional ethics and continuing education

### GStat

- a great way for students and early-career statisticians to demonstrate their dedication to the statistics community

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## Qualifications for Teaching an Introductory Statistics Course

Prepared by the ASA/MAA (Mathematical Association of America) Joint Committee on Undergraduate Statistics

### What is a Modern Introductory Statistics Course?

- the concepts underlying the design of statistical studies and the reasoning needed to interpret the results of statistical analyses
- the necessity of data for good decision-making, the value of sound data production, the omnipresence of variability in underlying processes, and the understanding and quantification of variability
- experiences with data and appropriate use of technology to support data analyses

### What Educational Training and Experience are Necessary to Teach Statistics?

- ideally require a candidate to have at least a master's degree with a strong concentration in statistics
- because this is often not possible, should have at a minimum at least the equivalent of
  - two statistical methods courses including content knowledge of data collection methods, study design and statistical inference
  - experience with data analysis beyond material taught in the introductory class

## The Activities Which ISI Could Take in Regard of Professional Accreditation Range Over

- \* Facilitate discussion amongst National Statistical Societies (NSSs)
- \* Encourage all NSSs to consider adopting a professional accreditation **scheme**
- \* Establish a **model process** for NSSs who decide to implement a professional accreditation scheme
- \* Compare, contrast or even coordinate the professional accreditation **standards** which are established by NSSs
- \* Establish and recommend **model** professional accreditation **standards** to be adopted by NSSs
- \* Validate or accredit the professional accreditation **processes** adopted and implemented by NSSs
- \* Validate or accredit the professional accreditation standards implemented by NSSs
- \* Implement an **ISI** professional accreditation **scheme**

## Global Strategy to Improve Agricultural and Rural Statistics Training in Agricultural Statistics (Trainer's Guide)

to support trainers in the preparation of their agricultural statistics training sessions by emphasizing the key points, limits and needs in terms of training time and requirements of trainers and trainees for achieving the realistic objectives of each module

Title of training	Agricultural statistics
Duration	10 days
Training type	Face-to-face
Training level	Degree or Master's in statistics – agronomists and economists with previous training in statistics
Requirements	Statistics, sampling, general economics

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## European Master in Official Statistics

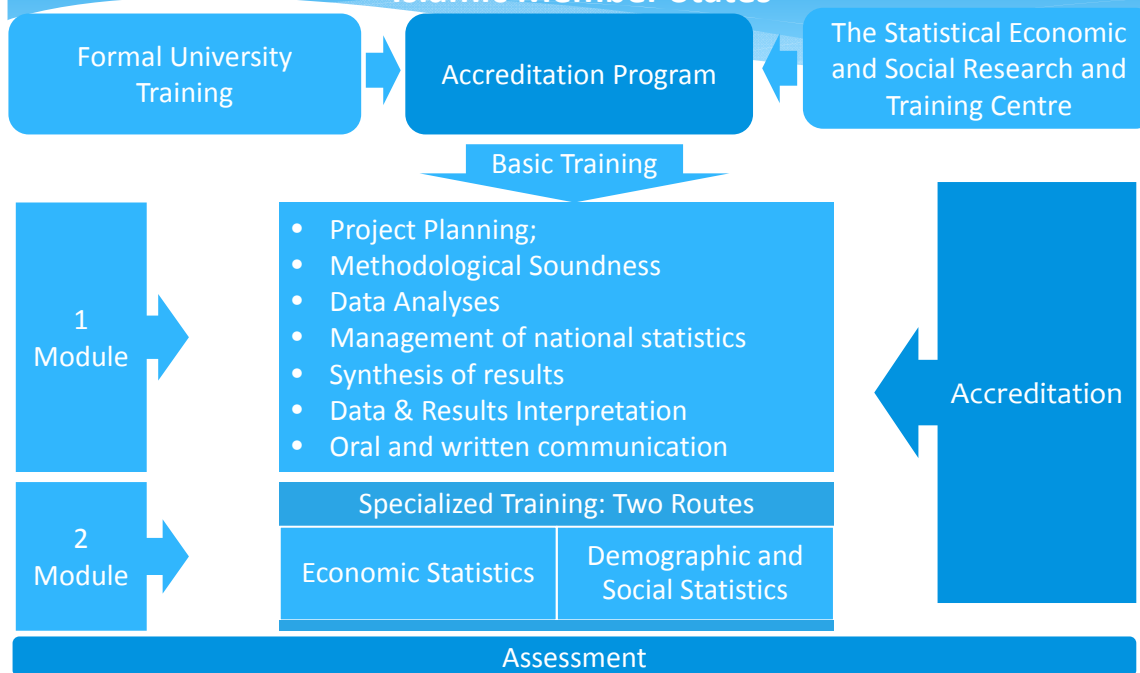
- \* a network of Master programmes providing post-graduate education in the area of official statistics at the European level
- \* a joint project of universities and data producers in Europe
- \* comprises over 20 programmes in 14 countries
- \* set up to strengthen the collaboration within academia and producers of official statistics and help develop professionals able to work with European official data at different levels
- \* Universities offering EMOS Master degrees collaborate actively with the national statistical institutes to reduce the gap between theory and practice



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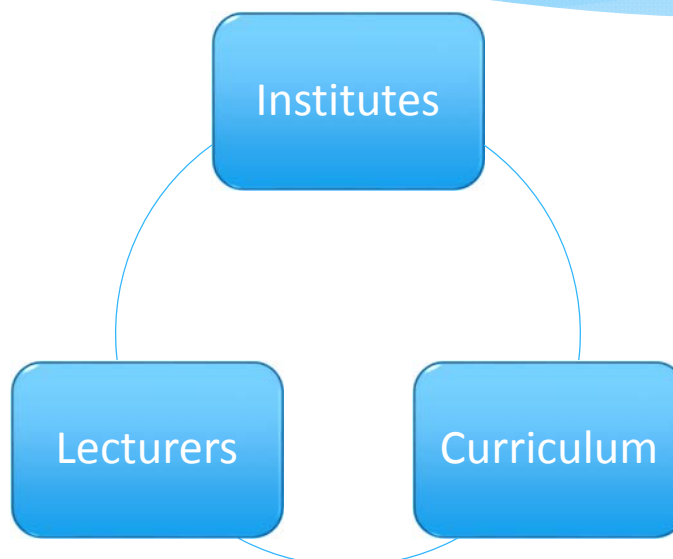


## A Proposal of Accreditation of Statistical Professionals to Improve Professional Competence in Organization of the Islamic Member States



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## Targets of Accreditation for Statistical Training



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## Discussion

- \* What elements should we consider related to accreditations on training of official statistics?
- \* Possible modalities for accrediting courses by SIAP
- \* Possible modalities for accrediting teachers or institutions by SIAP