

Demand for Data Science Skills & Competences –
Consultation and Validation of the “Competence
Framework”

Academic Supply to Data Science – Consultation and
Validation of the “Body of Knowledge

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Objective 1: Data Science Curricula Foundation

Promote the creation of *Data Scientists curricula* by an increasing number of universities and professional training organisations.

The ***Data Science Competence Framework (CF-DS)*** including Taxonomy of competences and skills, compliant with e-CF3.0.

The ***Body of Knowledge (BoK) for the Data Science (DS-BoK)*** that will map required competencies/skills and existing academic, research and technology disciplines

A ***Model Curriculum for Data Science (MC-DS)*** as a template for building customisable Data Science curricula based on the proposed CF-DS and DS-BoK.

Objective 2: Education and Training Environment

Provide environment for ***re-skilling and certifying*** Data Scientists expertise to graduates, practitioners and researchers throughout their careers.

Create **EDISON Education and Training Marketplace** by leveraging EGI Engage Training Marketplace.

Objective 3: Sustainability Model

Develop a ***sustainable business model*** and a ***roadmap*** for European education and training on Data Science technologies, provide a basis for the formal recognition of the Data Scientist as a new profession.

Create Community of practice for sustainable Data Science education and training supported by **EDISON Liaison Group(s)**.



Workshop Objectives

- Interim results and establish open dialogue
 - Define basic competences and skills
 - Discuss and describe new outlines of professions
 - Consultation and validation
- Data lifecycle
 - Data Creation
 - Data Organisation and Management
 - Data Processing
 - Data Preservation and Curation
 - Data Access and Retrieval
 - Data Analytics and Visualisation



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Themes

- The analysis of organizational and employer requirements for competences and skills of Data Scientists
- The elicitation of education and training needs in various contexts, focusing on different industry sectors. Particular training and continuous education needs for practitioners (or self-made data scientists) to support advanced European Research e-Infrastructure development.
- Discussing perspectives of the educational path for the Universities with the potentials of starting careers into data-driven industries, as well as for life-long learning programs to identify suitable paths to carrier development
- Identifying and formalizing profiles corresponding to the major stakeholders/employers of the future specialists



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Themes

- The EDISON inventory and taxonomy by providing an overview of existing curricula, training programmes and related educational resources
- Determining the Body of Knowledge for Data Scientists, identify and discuss common conceptual elements and gaps among the existing offerings
- The development of the EDISON Data Science Model Curriculum
- The formalization of the Data Scientist profession

Demand for Data Science Skills & Competences 9:00 – 10:30

- Yuri Demchenko – EDISON: Defining the Data Science Competence Framework
- Kevin Berwind - Big Data Infrastructure And Skills From A Consulting Point Of View
- Marco Xaver Bornschlegl - Data Science Competences To Understand Big Data Analysis From A Management Perspective
- Sy Holsinger - Demand from e-Infrastructures
- Q&A

Academic Supply to Data Science 11:00 – 12:30

- Andrea Manieri - Academic Supply For Data Science – Consultation And Validation Of Body Of Knowledge
- Gianluca Reali - Industry-driven Master Certificate in Data Science
- Yuri Demchenko - The online big data course at the University of Liverpool
- Christopher Jung - Education Interests of Summer School Students at GridKa School
- Discussion

