



Invitation from the Danish National Forum for Research Data Management to participate in a workshop on

## EDISON Data Science Framework (EDSF): Facilitating Data Science Curricula Development and organisational capacity building



**Time:**  $31^{st}$  of May 2018 10 AM – 5 PM

Place: A. C. Meyers Vænge 15, 2450 København SV, room 2.0.028 (AAU CPH)

http://www.aau-cph.dk/om-aau-cph/korselsvejledning/ incl. information on logistics (bus/train)

**Seats:** Limited to 40 – open for all interested parties, free of charge

Preparation: Full benefit requires reading four documents; 217 pages in total (see link below)

**Registration:** Send an e-mail no later than May 24<sup>th</sup> to Karsten Kryger Hansen kkh@aub.aau.dk including

- subject line 'EDISON'

- full name

- if applicable, also information on dietary restrictions

Please be aware, that by registering you accept that Aalborg University handles your name

and e-mail and circulates this information with the other participants.

Trainer: Yuri Demchenko, University of Amsterdam

#### Context:

Modern data driven research and economy at large require new types of specialists that are capable to support all stages of the data lifecycle from data production and input to data processing and actionable results delivery, data stewardship and governance, which can be jointly defined as the Data Science professions family. Effective use of modern data technologies cannot be achieved without necessary competences and skills and general data literacy. Critical importance and growing demand for Data Science and Analytics competences and skills and corresponding education and training is underlined in numerous European studies made for European research and industry. It is also addressed in the new H2020 Work Program 2018-2020.

The education and training of Data Scientists currently lacks a commonly accepted, harmonized instructional model that reflects all multi-disciplinary knowledge and competences that are required from the Data Science practitioners in modern, data driven research and the digital economy. The solution here is to create a continuous flow of graduates from universities and cooperate with industry to provide professional training and workplace up-/re-skilling to enable all future professions with Data Science and general digital and data knowledge and skills.

The workshop will introduce experience of developing a comprehensive Data Science competence framework in the EU funded EDISON project that is already widely used by many universities and organisations in Europe and worldwide. The session will involve the audience into discussion of the key issues in Data Science and Data Management skills and capacity building.

#### **About the EDISON Data Science Framework:**

The EDISON Data Science Framework (EDSF) includes four main components:

- Data Science Competence Framework (CF-DS)
- Data Science Body of Knowledge (DS-BoK)
- Data Science Model Curriculum (MC-DS)
- Data Science Professional profiles and occupations taxonomy (DSPP)

EDSF provides a conceptual framework and a model for building sustainable Data Science Educational Environment addressing needs of different stakeholders and professional groups and industries. The EDSF has been developed with wide participation and contribution from the European academia, research and industry and open for wide use and future development under CC BY Open Source license.





# Workshop on EDISON Data Science Framework (EDSF): Facilitating Data Science Curricula Development and organisational capacity building

#### Agenda:

Part 1 10:00 - 13:00

- 1. Introduction and bootstrapping
  - EDISON Data Science Framework and EDISON project legacy.
  - Workshop goals and attendee's interests
- 2. Background information and how the EDSF has been done
  - EU and International studies on data related competences and skills
  - EU standards, projects, initiatives, associations
- 3. EDISON Data Science Framework (EDSF) in details and walk through customised curriculum design
  - EDSF components: Competence Framework (CF-DS), Body of Knowledge (DS-BoK), Model Curriculum (MC-DS), Data Science Professional Profiles (DSPP)
  - Walk through customised curriculum design: from target professional groups or competences to curriculum suggestions

#### Part 2 14:00 -17:00

- 4. Curriculum analysis and design Interactive session and practice (in groups)
  - Analysis of Data Science and Data Management curricula by champion universities adopting EDSF
  - Continue with the curriculum design for target professional groups or study programmes
- 5. Critical issues in implementing research and enterprise Data Science capacity building and Data Management practices: skills management, team building, infrastructure issues.
  - Interactive session and open discussion
- 6. Closing: Comments, future steps, community building

### **Preparation:**

Prior to workshop participation, please read the four documents available on

https://github.com/EDISONcommunity/EDSF

#### Or download them separately:

- CF-DS Data Science Competence Framework (59 pages): https://github.com/EDISONcommunity/EDSF/blob/master/EDISON\_CF-DS-release2-v08.pdf
- DS-BoK Data Science Body of Knowledge (47 pages): <a href="https://github.com/EDISONcommunity/EDSF/blob/master/EDISON\_DS-BoK-release2-v04.pdf">https://github.com/EDISONcommunity/EDSF/blob/master/EDISON\_DS-BoK-release2-v04.pdf</a>
- MC-DS Data Science Model Curriculum (74 pages): https://github.com/EDISONcommunity/EDSF/blob/master/EDISON MC-DS-release2-v03.pdf
- DSPP Data Science Professional profiles (37 pages): https://github.com/EDISONcommunity/EDSF/blob/master/EDISON\_DSPP-release2-v05.pdf

