EDISON Data Science Framework (EDSF) provides conceptual basis for the Data Science profession
- CF-DS – Data Science Competence Framework
- DS-BoK – Data Science Body of Knowledge
- MC-DS – Data Science Model Curriculum
- DSMP – Data Science Professional Profiles
- Data Science Taxonomy and Scientific Disciplines Classification
Service and operational components of the Data Science professional ecosystem
- Community Portal (CP) including
  - EOEE – EDISON Online Education Environment
  - Education and Training Marketplace and Directory
- Professional certification and career development support

EDISON Data Science Framework (EDSF) Release 3

Data Science Body Of Knowledge (DS-BoK)

DS-BoK Knowledge Area Groups (KAG) are defined in compliance with the CF-DS
- KAG1-DSDA: Data Analytics group including Machine Learning, statistical methods, and Business Analytics
- KAG2-DSENG: Data Science Engineering group including Software and infrastructure engineering
- KAG3-DSMN: Data Management group including data curation, Research Data Management, Open Data, Open Access
- KAG4-DSRMP: Research Methods and Project Management, use cases/practices
- KAG5-DSBPM: Business Process Management (data driven)

Includes selected KAG and KU defined in IEEE/ACM SWEBOK (2012), PMI BABOK, and BABOK, ACM DS-BoK, compliance with CMMI DMM, IT-CMF

Outcome Based Educations and Training Model:
From Competences and DSP Profiles to Learning Outcomes (LO) and to Knowledge Units (KU) and Learning Units (LU)

Data Science Body of Knowledge (DS-BoK)

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Data Science Competence Framework (CF-DS)

Data Science Competences includes 5 areas/groups
- DSDA - Data Analytics
- DSMP - Data Science Model Curriculum
- DSMP - Design Experiment
- DSMP - Research Methods and Project Management
- DSMP - Domain Knowledge/Expertise

Scientific Methods, Design Experiment, Data Collection, Data Analysis, Identify Patterns, Hypothesis Explanation, Test Hypothesis

CF-DS is defined in compliance with the European e-Competence framework for ICT (e-Cv3.0 – 2015/2017)

Dimension 1 – Competence group
Dimension 2 – Competence definition
Dimension 4 – Knowledge (KA & KU) and Skills

Matching – Competence Profiles

Individual Education/Training Path based on Competence benchmarking

Red polygon indicates the chosen professional profile: Data Scientist (general)
Green polygon indicates the candidate or practitioner competences/skills profile
Insufficient competences (gaps) are highlighted in red
- DSDA01 – DSAD01 Data Science Analytics
- DSRMM – DSRMM Data Science Research Methods

Can be used for team skills match marking and organisational skills management

For more information refer to EDISON Release 3 documents
EDSF github project - https://github.com/EDISONCommunity/EDSF
EDISON Community work area and discussions - https://github.com/EDISONCommunity/EDSF/wiki/EDSFhome
Mailing list - edison-net@list.uva.nl

EDSF is maintained by the EDISON Community Initiative
https://github.com/EDISONCommunity/EDSF
Contact: Yuri Demchenko <y.demchenko@uva.nl>

Data Science Curriculum for different types of learners and professional profiles

Competence Driven Curriculum Design outcome
- Data Science curriculum for different types of learners and professional profiles
- Virtual Labs and Project Development Environment that can combine local university facility and use cloud based Big Data and Data analytics facilities and services on demand

EDISON Data Science Framework (EDSF)

Data Science Professional Education and Training Model: Competence driven curriculum design