

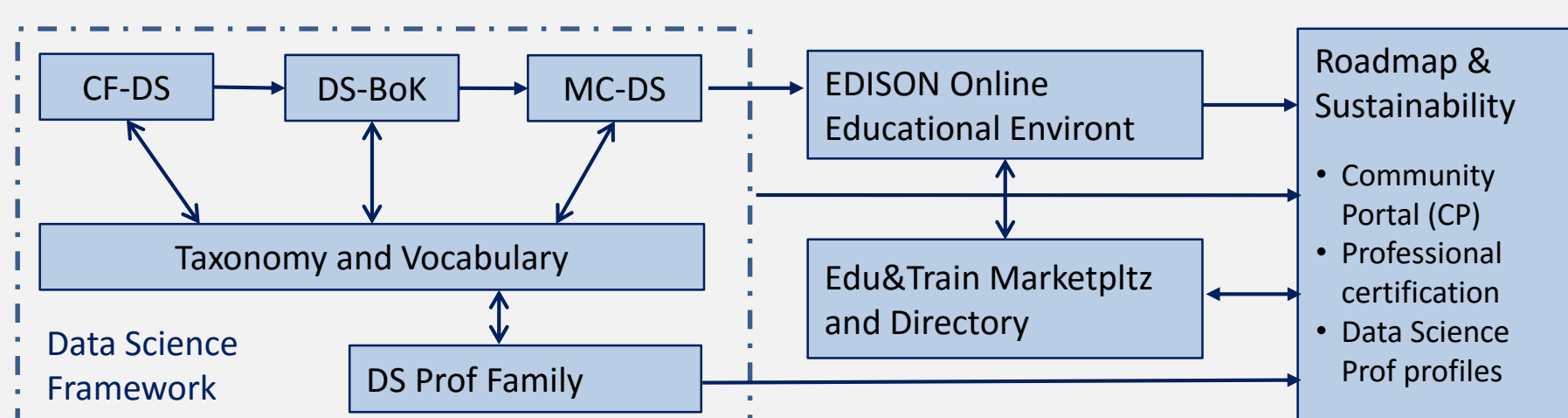


EDISON

building the data science profession

EDISON Project: Data Science Profession Framework for European Research and Industry

EDISON Data Science Framework (EDSF)



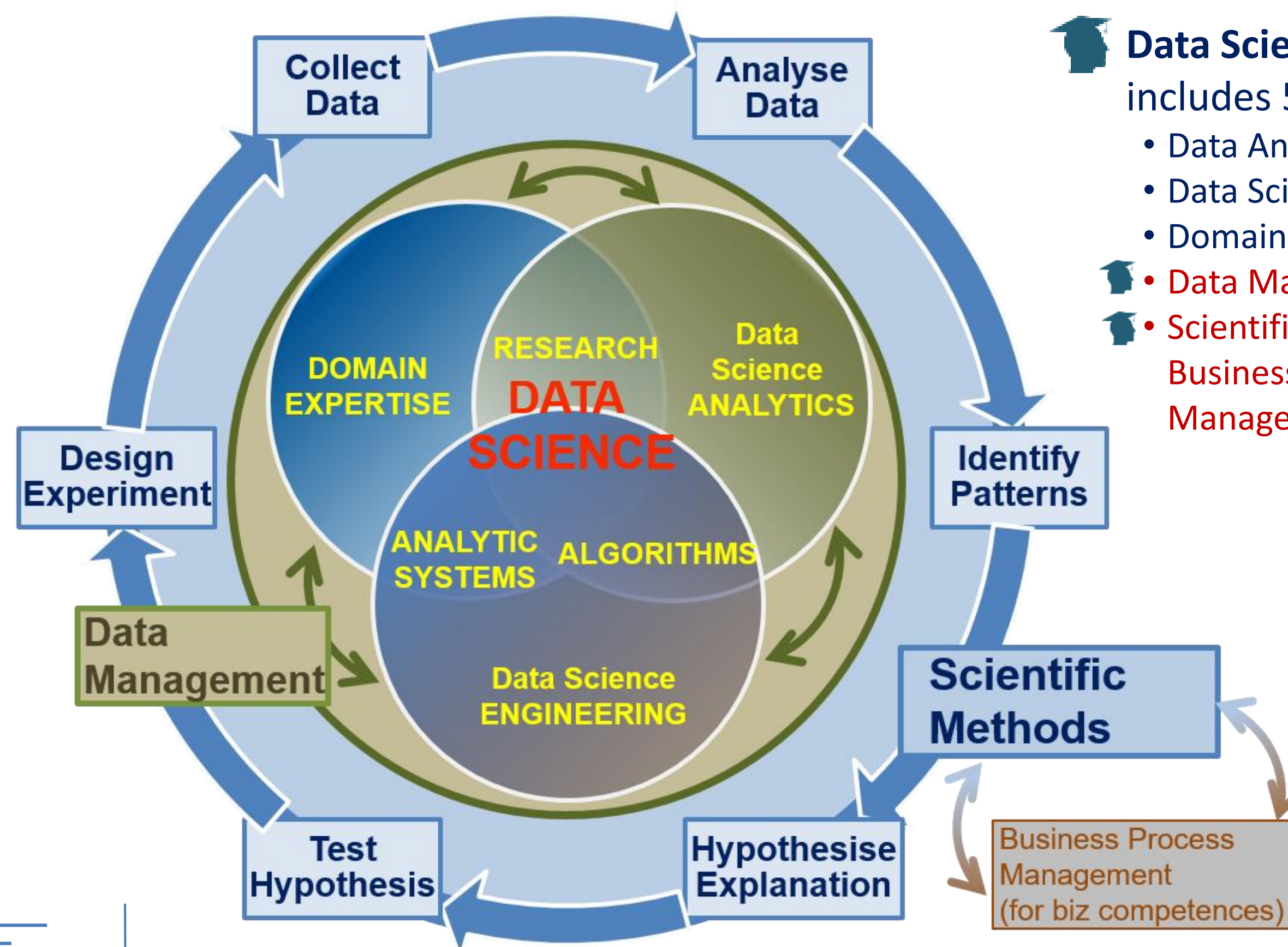
EDISON Data Science Framework (EDSF) provides conceptual basis for the development of the Data Science profession

- CF-DS – Data Science Competence Framework
- DS-BoK – Data Science Body of Knowledge
- MC-DS – Data Science Model Curriculum
- Data Science Taxonomy and Scientific Disciplines Classification
- Data Science occupations taxonomy

EDSF provides basis for other components of the Data Science professional ecosystem

- EOOE - EDISON Online Education Environment
- Education and Training Marketplace and Directory
- Data Science professional profiles definition and certification
- Community Portal (CP)

EDISON Data Science Competence Framework (CF-DS)



Data Science Competences

includes 5 areas/groups

- Data Analytics
- Data Science Engineering
- Domain Knowledge/Expertise
- Data Management
- Scientific Methods (or Business Process Management)

CF-DS is built in compliance with the European e-Competence framework for ICT (e-CFv3.0 - 2015)

Data Science Body Of Knowledge (DS-BoK)

Data Science Body of Knowledge Area Groups

DS-BoK Knowledge Area Groups (KAG) are defined in compliance with the CF-DS

- KAG1-DSA: Data Analytics group including Machine Learning, statistical methods, and Business Analytics
- KAG2-DSE: Data Science Engineering group including Software and infrastructure engineering
- KAG3-DSDM: *Data Management group including data curation, Research Data Management, Open Data, Open Access*
- KAG4-DSRM: *Scientific and Research Methods, use cases/practices*
- KAG5-DSBP: Business Process Management

Data Science Community Portal (<http://datasciencepro.eu>)

- One-stop one-step shop for becoming Data Science Professional and engaging with the Data Science community
- Data Science Benchmarking and Learning Path Recommendation System
- Clearinghouse of educational and training materials and Virtual Labs powered by EGI Fed

EDISON Community Engagement Activities

EDISON is hosting a programme of events across Europe that will appeal to different segments of the data science community. Many are co-located with important events in the Research Infrastructure calendar:

- EDISON Workshop on Data Infrastructure Competences and Skills Framework: a European and Global Challenge, 9 February 2016, Brussels
- EDISON Champions Conference for Universities and Training organisations: forthcoming 13-14 July in Southampton, UK; planned for Winter and Summer 2017
- Digital Infrastructure for Research (DI4R), Krakow, 28-30 September
- Regular EDISON Liaison Group (ELG) meeting
- RDA Interest Group on Education and Training on Handling Research Data Handling (IG-ETRD) is the EDISON RDA community liaison venue

Acknowledgement

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Data Scientist Professional (DSP)

Definition by NIST Big Data WG (NIST SP1500 - 2015)

A Data Scientist is a practitioner who has sufficient knowledge in the overlapping regimes of expertise in business needs, domain knowledge, analytical skills, and programming and systems engineering expertise to manage the end-to-end scientific method process through each stage in the big data lifecycle.

Data Science Professional (DSP) profiles defined in compliance with the European Skills, European Competences, Qualifications and Occupations (ESCO) Taxonomy

Managers: Chief Data Officer (CDO), Data Science (group/dept) manager, Data Science infrastructure manager, Research Infrastructure manager

Professionals: Data Scientist, Data Science Researcher, Data Science Architect, Data Science (applications) programmer/engineer, Data Analyst, Business Analyst, etc.

Professional (database): Large scale (cloud) database designers and administrators, scientific database designers and administrators

Professional and clerical (data handling/management): Data Stewards, Digital Data Curator, Digital Librarians, Data Archivists

Technicians and associate professionals: Big Data facilities operators, scientific database/infrastructure operators

For more information refer to

EDISON website - <http://www.edison-project.eu/>

CF-DS: <http://edison-project.eu/data-science-competence-framework-cf-ds>

DS-BoK: <http://edison-project.eu/data-science-body-knowledge-ds-bok>

EDISON Channel @Digital4EU: <https://ec.europa.eu/futurium/en/content/how-should-we-build-data-scientist-profession>