



EDISON Project: Coordination and cooperation to establish new profession of Data Scientist for European Research and Industry

EDISON – Education for Data Intensive Science to Open New science frontiers

EDISON is a 24-month project, established in September 2015, with the purpose of accelerating the process of establishing the profession of Data Scientist. This will be achieved by coordinating the vision and activities of the stakeholders who will contribute to and benefit from Data Science as a professional practice.

EDISON Objectives

Objective 1: 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.

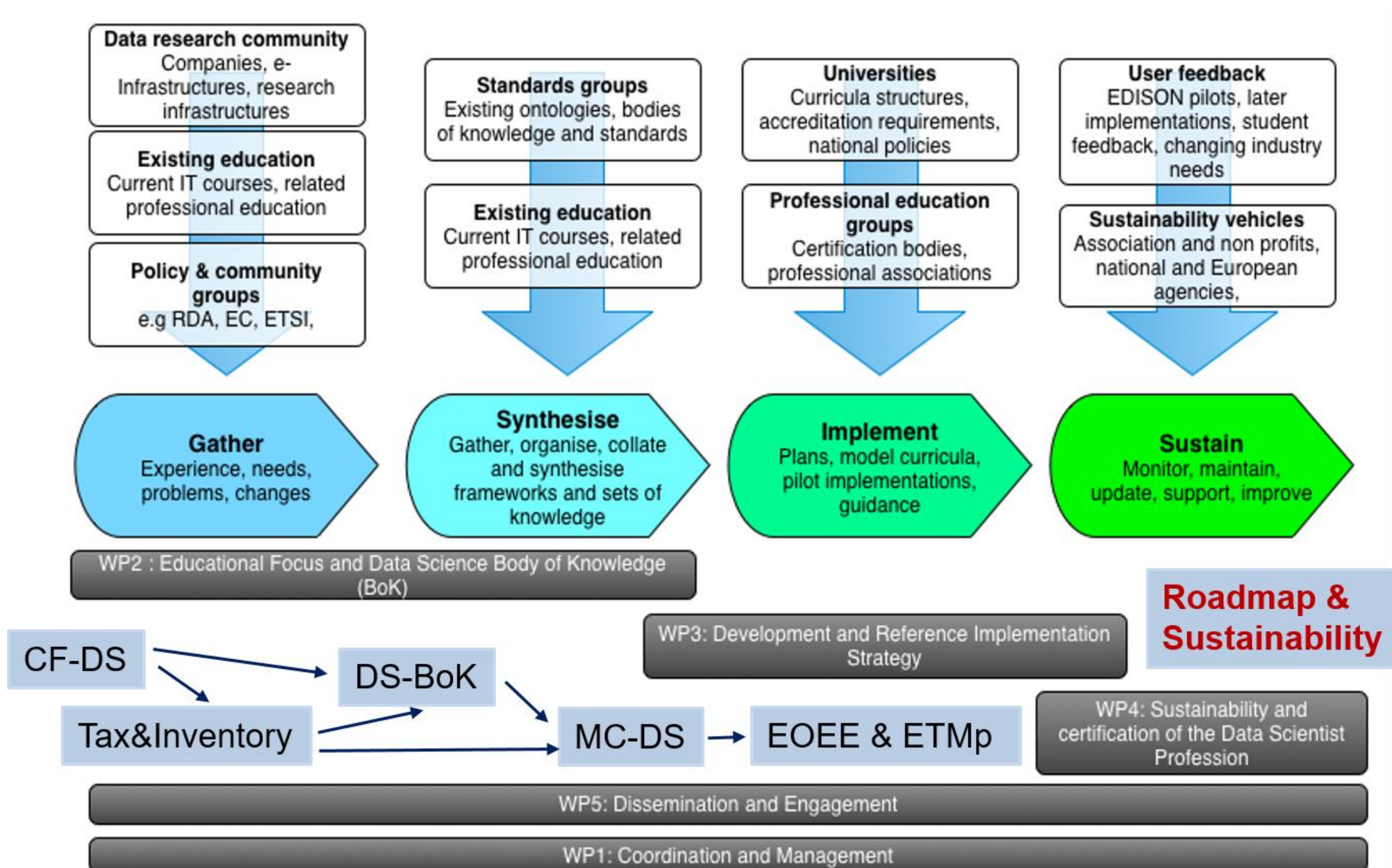
Objective 2: Provide conditions and environment for re-skilling and certifying Data Scientists expertise to graduates, practitioners and researchers throughout their careers.

Create **EDISON Online Education Environment (EOEE)** powered by **Education and Training Marketplace (ETMp)** leveraging EGI Engage Training Marketplace.

Objective 3: 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)**.

EDISON methodology, inputs and work packages



EDISON Community Oriented Activities and Future Events

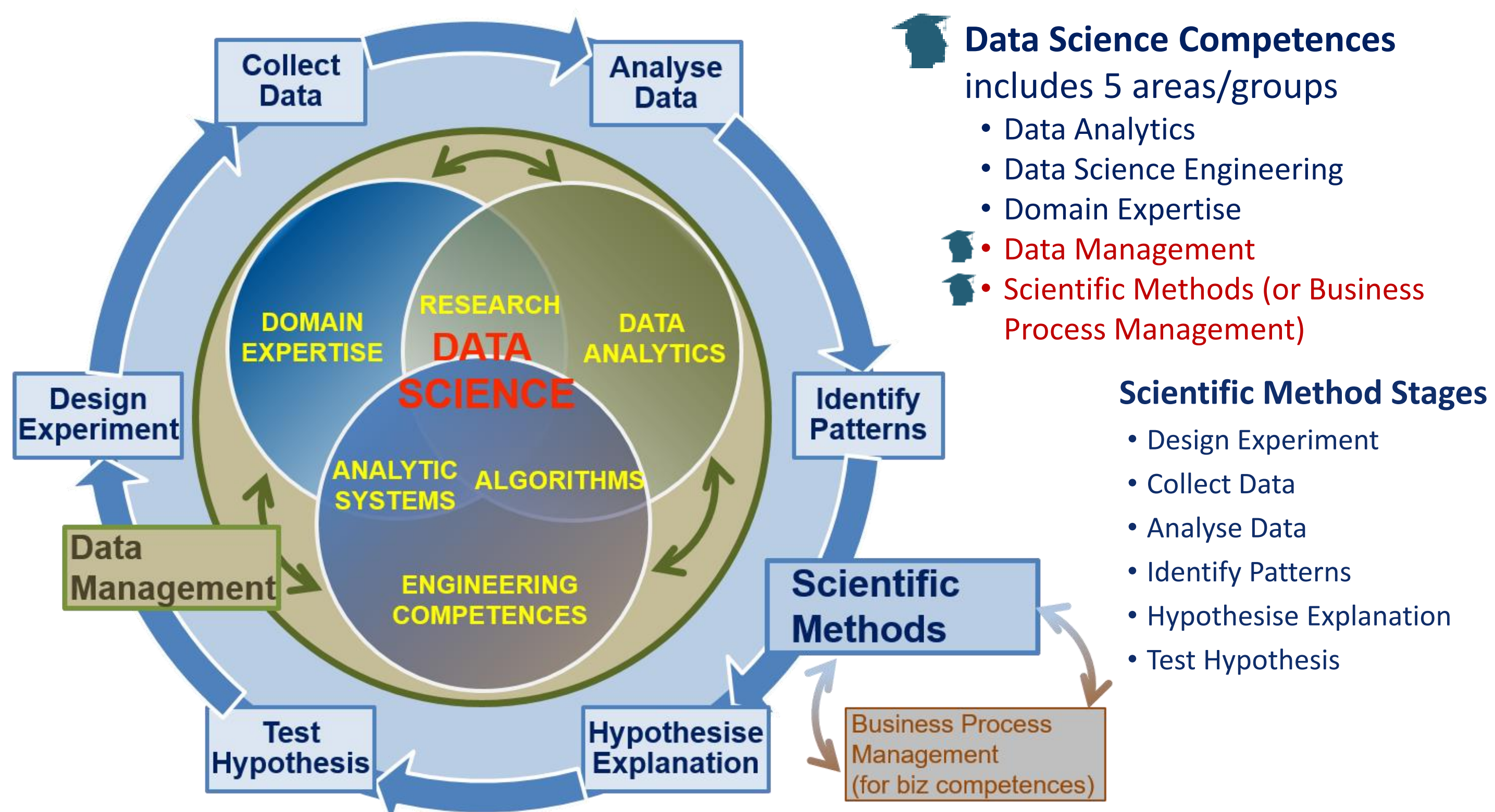
EDISON is planning a series of workshops and other events to meet community, present results and obtain feedback

- EDISON Workshop on Data Infrastructure Competences and Skills Framework: a European and Global Challenge, 9 February 2016, Brussels
- EDISON, CODATA, RDA Workshop on Developing Curricula for 'Research Data Science' Training Courses, as part of The 11th International Digital Curation Conference (IDCC16) - 22 - 25 February 2016, Amsterdam
- Invited Session "Data Science Skills for Space Research and Industry" at 2016 ESA Conference Big Data in Space (BiDS'16), 15-17 March 2016, Gran Canaria
- RDA Interest Group on Education and Training for Research Data Handling (IG-ETRD) is the EDISON RDA community liaison venue
- EDISON community engagement workshops** – Planned for Summer 2016, Winter and Summer 2017

Acknowledgement

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EDISON Data Science Competence Areas



Data Science and Data Scientist Professional (DSP) definition

Definition by NIST Big Data WG (2014-2015)

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**.

EDISON Data Science Competence Framework and e-CF3.0

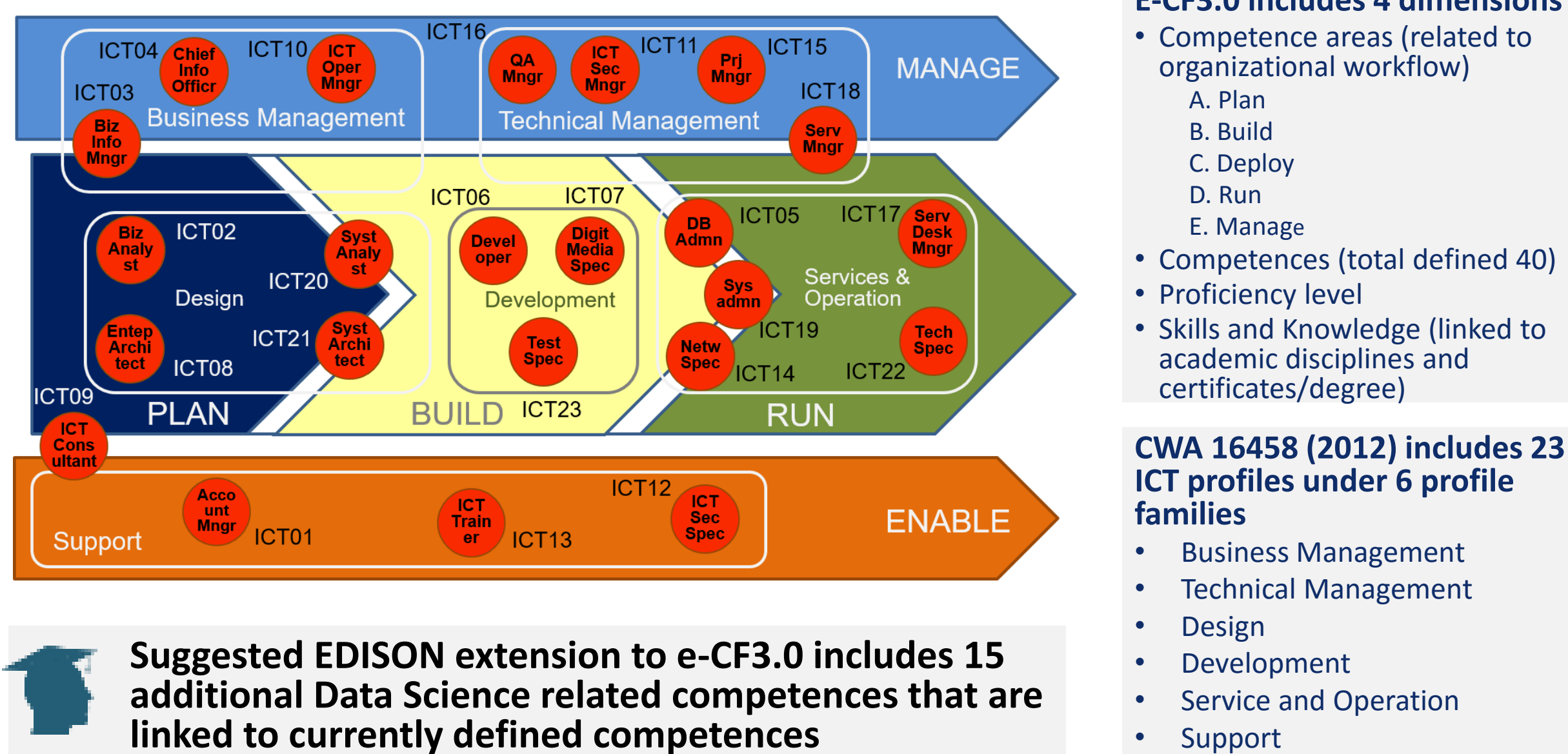
EDISON Competence Framework for Data Science (CF-DS) is built in compliance with the European e-Competence framework for ICT (e-CFv3.0 - 2015) and European ICT Profiles CWA 16458 (2012)

- Linking scientific research lifecycle, organizational roles, competences, skills and knowledge
- Provides a basis for defining Data Science Body of Knowledge (DS-BoK)
- Mapping CF-DS and DS-BoK to Data Science Model Curriculum (MC-DS) and academic disciplines

e-CFv3.0 is widely accepted by European industry: Multiple use of e-CFv3.0 within ICT organisations

- Provides basis for job profile definition, individual career path, competence assessment, training and certification

Mapping between CWA ICT profiles and e-CF3.0 Competence Areas



Suggested EDISON extension to e-CF3.0 includes 15 additional Data Science related competences that are linked to currently defined competences

For more information refer to

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

EDISON FAQ: <http://www.edison-project.eu/frequently-asked-questions>

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