Profile title	DATA SCIENTIST ROLE		(27)
Summary statement	Leads the process of applying data analytics. Delivers insights from data by optimising the analytics process and presenting visual data representations.		
Mission	Finds, manages and merges multiple data sources and ensures consistency of datasets. Identifies the mathematical models, selects and optimises the algorhythms to deliver business value through insights. Communicates patterns and recommends ways of applying data.		
Deliverables	Accountable	Responsible	Contributor
	• Data Collection and Representation • Data Selection	• Data Analytics	• Data Management Plan • Data Management System
Main task/s	• Represent business challenges through mathematical models • Collect, understand, clean, analyse, integrate and investigate internal and external data to achieve the mission • Create and test hypothesis • Uncover data correlations/relationships in support of measurement and predication • Identify the right visualisation models depending on the business challenges and the data sets • Address data security through active preventative strategies • Select and optimise algorhythms using data science tools • Comply with ethical guidelines and legal requirements		

The table above is an extract from *European ICT professionals role profiles* Ref. No. CWA 16458-1:2018 E © 2018 CEN

The following pages map SFIA skills and competency levels to the role profile. There are 2 parts to the mapping:
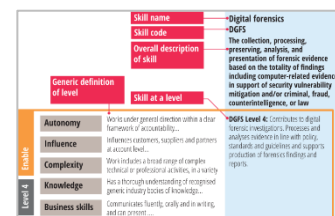
- *The Level of responsibility.*

  A common language is used to describe levels of responsibility across roles in all professional disciplines. The SFIA Framework consists of seven levels of responsibility; Level 1, the lowest, to Level 7, the highest. The levels describe the behaviours, values, knowledge and characteristics that an individual should have in order to be identified as competent at the level. Each of the levels is also labelled with a phrase to summarise the level of responsibility.

- *The Professional skills.*

  SFIA 7 consists of 102 professional skills. Each skill description is made up of an overall definition of the skill and a description of the skill at each of up to seven levels.

  The skill level descriptions provide a detailed definition of what it means to practice the skill at each level of competency. The skill level descriptions are aligned to the 7 levels of responsibility which ensures consistency throughout the SFIA framework making it solid and robust across professional disciplines.

Level 7	Set strategy, inspire, mobilise
Level 6	Initiate, influence
Level 5	Ensure, advise
Level 4	Enable
Level 3	Apply
Level 2	Assist
Level 1	Follow

EU ICT Data Scientist role (27)

SFIA Generic Responsibility Levels for the Role

Autonomy - Level 5
• Works under broad direction
• Work is often self-initiated
• Is fully responsible for meeting allocated technical and/or project/supervisory objectives
• Establishes milestones and has a significant role in the assignment of tasks and/or responsibilities

Influence - Level 5
• Influences organisation, customers, suppliers, partners and peers on the contribution of own specialism
• Builds appropriate and effective business relationships
• Makes decisions which impact the success of assigned work, i.e. results, deadlines and budget
• Has significant influence over the allocation and management of resources appropriate to given assignments
• Leads on user/customer collaboration throughout all stages of work
• Ensures users' needs are met consistently through each work stage

Complexity - Level 5
• Performs an extensive range and variety of complex technical and/or professional work activities
• Undertakes work which requires the application of fundamental principles in a wide and often unpredictable range of contexts
• Understands the relationship between own specialism and wider customer/organisational requirements

Knowledge - Level 5
• Is fully familiar with recognised industry bodies of knowledge both generic and specific
• Actively seeks out new knowledge for own personal development and the mentoring or coaching of others
• Develops a wider breadth of knowledge across the industry or business
• Applies knowledge to help to define the standards which others will apply

Businesss Skills - Level 5
• Demonstrates leadership
• Communicates effectively, both formally and informally
• Facilitates collaboration between stakeholders who have diverse objectives
• Analyses, designs, plans, executes and evaluates work to time, cost and quality targets
• Analyses requirements and advises on scope and options for continuous operational improvement
• Takes all requirements into account when making proposals
• Demonstrates creativity, innovation and ethical thinking in applying solutions for the benefit of the customer/stakeholder
• Advises on the available standards, methods, tools and applications relevant to own specialism and can make appropriate choices from alternatives
• Maintains an awareness of developments in the industry
• Takes initiative to keep skills up to date
• Mentors colleagues
• Assesses and evaluates risk
• Proactively ensures security is appropriately addressed within their area by self and others
• Engages or works with security specialists as necessary
• Contributes to the security culture of the organisation

EU ICT Data Scientist role (27)

SFIA Professional Skills for the Role
Core - all people performing this job will need this skill. Optional - some people performing this job will need the skill.

Core: Analytics @ Level 5
• Evaluate the need for analytics, assessing the problems to be solved and what internal or external data sources to use or acquire
• Specifies and applies appropriate mathematical, statistical, predictive modeling or machine-learning technique to analyse data, to generate insights, to create value and support decision making
• Manage reviews of the benefits and value of analytics techniques and tools and recommends improvements
• Contributes to the development of analytics policy, standards and guidelines

Core: Data visualisation @ Level 5
• Establishes the purpose and parameters of data visualisation
• Provides overall control, to ensure appropriate use of data visualisation tools and techniques
• Formats and communicates results, using textual, numeric, graphical and other visualisation methods appropriate to the target audience
• Advises on appropriate use of data visualisation for different purposes, contexts etc to enable requirements to be satisfied
• Develops plans showing how the identified user need will be met
• Leads exploration of new approaches for data visualisation

Core: Programming/software development @ Level 4
• Designs, codes, verifies, tests, documents, amends and refactors complex programs/scripts and integration software services
• Contributes to selection of the software development approach for projects, selecting appropriately from plan-driven/predictive approaches or more adaptive (iterative and agile) approaches
• Applies agreed standards and tools, to achieve a well-engineered result
• Participates in reviews of own work and leads reviews of colleagues' work

Core: Research @ Level 4
• Contributes to research goals and builds on and refines appropriate outline ideas for the evaluation, development, demonstration and implementation of research
• Collects and analyses qualitative and quantitative data as required
• Creates research reports to communicate research methodology and findings and conclusions
• Contributes significant sections of material of publication quality
• Contributes to research plans and identifies appropriate opportunities for publication and dissemination of research findings
• Contributes actively in research communities

Core: Data management @ Level 5
• Devises and implements master data management processes, including classification, security, quality, ethical principles, retrieval and retention processes
• Derives data management structures and metadata to support consistency of information retrieval, combination, analysis, pattern recognition and interpretation, throughout the organisation
• Plans effective data storage, sharing and publishing within the organisation
• Independently validates external information from multiple sources
• Assesses issues which might prevent the organisation from making maximum use of its information assets

Core: Data modelling and design @ Level 4
• Investigates corporate data requirements, and applies data analysis, design, modelling, and quality assurance techniques, to establish, modify or maintain data structures and their associated components (entity descriptions, relationship descriptions, attribute definitions)
• Provides advice and guidance to database designers and others using the data structures and associated components

Core: Specialist advice @ Level 4

• Actively maintains knowledge in one or more identifiable specialisms, and provides detailed and specific professional advice regarding the application of their specialism(s) to the organisation's operations
• Recognises and identifies the boundaries of their own specialist knowledge, seeking to work with other specialists where appropriate, to ensure advice given is appropriate the needs of the organisation

Optional: Business modelling @ Level 4

• Conducts advanced modelling activities for significant change programmes and across multiple business functions
• Has an in-depth knowledge of organisation-standard techniques
• Plans own modelling activities, selecting appropriate techniques and the correct level of detail for meeting assigned objectives
• May contribute to discussions about the choice of the modelling approach to be used
• Obtains input from and communicates modelling results to senior managers for agreement

Optional: Emerging technology monitoring @ Level 5

• Monitors the market to gather intelligence on emerging technologies
• Assesses and documents impacts, threats and opportunities to the organisation
• Creates technology roadmaps
• Shares knowledge and insights with others