

# Data Skills Framework

**A new Data and Analytics Skills Framework for  
organisations to excel in a data-driven world.**



**A graduated Data Skills Framework for Professionals delivered through integrated learning and skills development to provide a pathway to continuously advance in a data-driven world.**

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For more information: \_\_\_\_\_  
[www.digitalskillnet.ie](http://www.digitalskillnet.ie) [www.analyticsinstitute.org](http://www.analyticsinstitute.org)

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The Technology Ireland Digital Skillnet is proud to partner with the Analytics Institute to bring accessible professional developmental pathways, and new professional certifications to a wide range of professionals.

Data science and analytics are at the heart of the digital transformation of organisations, processes and technologies. Data skills and competencies will enable companies small and large to survive and thrive.

*“Data literacy will help every industry stay relevant and thrive. It’s the ability to read, interpret and communicate about data in context, then critically assess it to transform numbers into actionable insights. Better data literacy means better results on every level. Our partnership with the Analytics Institute brings a new suite of practical, applied data skills to all sectors and business professionals.”*

**Máire Hunt** Network Director, Technology Ireland Digital Skillnet



*“The Data Skills Framework identifies and defines the key skills and knowledge required to advance as a professional in a world where data plays a key part in every role. The Data Skills Framework sets out a progression pathway for professionals from new entrants right up to seasoned leaders. We have developed a range of advanced training and certification programmes incorporating cognitive, communications and leadership skills along with data and digital fluency skills to help professionals further and enhance their skillset.”*

**Lorcan Malone** Chief Executive, the Analytics Institute.



The Analytics Institute exists to support the data science and analytics sector. We do this by providing a platform for our members to share insights and expertise, to collaborate and build networks in the industry and to foster innovation in the sector.

Our membership comprises over 120 global corporate and government organisations and over 3,000 individual data professionals. Our organisation works with government, academia and the corporate business sectors to promote cooperation, research and employment growth in the data analytics and data science sectors.

# Data is Everyone's Business

Data helps companies thrive and plan for the future. Data gives customers, clients, shareholders, and workforces the reassurance and certainty to make critical, clear-sighted, evidence-based decisions.

These days, there is no reason why employees in any type of business cannot learn more about the exciting and fast-moving world of data and analytics. Data driven decision-making is the future. That's why the Analytics Institute in partnership with the Technology Ireland Digital Skillnet have developed the Data Skills Framework for Business. It supports and accelerates learning and enables teams to further develop and enhance their data skill across all levels of ability.

The framework sets out to break down the complexity of the skills and competencies needed to work effectively with data. It defines the attributes, skills and knowledge that are essential to professional excellence in the data sector and where they interface and how they interact. The framework brings together these elements into one cohesive model - defining the skills and knowledge required for each level of professional competence. It offers a customised range of programmes appropriate to different groups in the organisation. The framework is designed to be flexible for staff of all abilities and is scalable across every organisation. After all, data is everyone's business.

## Key Highlights

- Customisable to your organisation's requirements.
- Scalable across the organisation.
- Classroom and virtual delivery options.
- Co-Funded by the Technology Ireland Digital Skillnet
- Small class sizes.
- Professional Certification from the Analytics Institute of Ireland.



A graduated Framework to enhance data and analytics skills through integrated learning & development pathways for data driven organisations and business professionals.



Future-ready Cognitive Data + Data & Digital Fluency Skills

**Data Skills for Practitioners**

- Critical Thinking Problem Solving & Innovation (3h)
- Agile Project Delivery (3h)
- Communicating with Impact (3h)

+

- Data Preparation & Cleaning (3h)
- Data Analysis with MS-Excel (3h)
- Data Visualisation: Building Better Charts (3h)

18 Hours Training + assessment 

**Data Skills for Professionals**

- Innovation & Design Thinking (3h)
- Teamwork & Collaboration (3h)

+

- Storytelling with Data (3h)
- Data Analysis with Power BI (3h)
- Building Beautiful Data Dashboards (3h)
- Data Modelling & Calculations in Power BI (3h)

18 Hours Training + assessment 

**Advanced Data Skills for Professionals**

- Leading Continuous Innovation (3h)
- Team Leading & Coaching Skills (3h)

+

- Data Wrangling with Python (3h)
- Data Visualization & Exploration (3h)
- Machine Learning & Predictive Analytics (3h)
- Big Data Analytics (3h)
- Deep Learning Theory & Practice (3h)
- Data Science Challenge (3h)

24 Hours Training + assessment 

**Data Skills for Leaders**

- Enabling a Culture of Innovation (3h)
- Strategic Data Leadership (3h)
- Data Governance (3h)

+

- Data-Driven Decision Making (3h)
- Data Ethics & Digital Maturity (3h)
- Data Platforms & Technologies (3h)

15 Hours Training + assessment 

# Data Skills for Practitioners

## Why attend?

- *If you are seeking to upskill your teams to become data-driven business professionals - but in a way that fits in with busy day jobs.*
- *You want a dynamically delivered programme that will give your staff job-ready data tools and analytics skills. With small classes and expert online instruction, we'll help build competency for practitioners with hands-on learning and assignments applied to your organisation and sector.*
- *Are you ready to take on board the very latest insights into data visualisation, problem-solving and agile project delivery and provide your teams with a graduated professional certification? Then this course is for you.*



## Designed for:

Busy professionals and companies who want to add data analytics to their skillsets or to generally improve knowledge of the latest trends and applications in data and analysis of data.

Suitable for full-time employees who can seamlessly incorporate the four levels of training into their working calendar.

The course is suitable for professionals working in varied industries and sectors with a pathway to continuously advance data competency.

# Modules

## Future-ready Cognitive Data Skills



Critical Thinking, Problem Solving & Innovation



Agile Project Delivery



Communicating with Impact

## Data & Digital Fluency Skills



Data Preparation & Cleaning



Data Analysis with MS-Excel



Data Visualisation: Building Better Charts

## Certification

Assessment leading to:



Certified in Data Skills for Practitioners



# Data Skills For Professionals

## Why attend?

- *If you have teams that are already applying data analysis but are looking to take things to the next level and add value to the organisation.*
- *The second programme on our pathway will upskill in key areas such as cognitive data skills, innovation and design thinking, and build professional skills such as teamwork and collaboration.*
- *If you also want 'hands-on' learning to understand how data helps with storytelling and how to build beautiful dashboards. Then this course on our data skills framework is for your team.*



## Designed for:

This co-funded and scalable course can be delivered in-house or customised to specific needs. It's for professionals already employed in a role where they use data analysis tools to support a company's decision-making.

They might also already be involved in complex project work that requires a wide use of varied data. This course would suit full-time employees who can seamlessly incorporate the four-levels of training into their working calendar. The course is suitable for people working in varied industries and sectors.

# Modules

## Future-ready Cognitive Data Skills



Innovation & Design Thinking



Teamwork & Collaboration

## Data & Digital Fluency Skills



Storytelling with Data



Data Analysis with MS-Power BI



Building Beautiful Data Dashboards



Data Modelling & Calculations in Power BI

## Certification

**Assessment leading to:**



**Certified in Data Skills for Professionals**

# Advanced Data Skills for Professionals

## Why attend?

- For your staff who are data scientists, architects or engineers with broad expertise, the third programme on our framework will enable professionals to drive their career forward and lead from the front.
- You want to hone your teams future-ready cognitive data skills and develop team leading and coaching capabilities through expert instruction.
- This programme will extend the knowledge base in data and digital fluency with expertise in data visualisation and exploration, big data analytics and deep learning theory and practice.
- You will already be proficient with python for AI and machine learning. This course is for you if you are a seasoned data pro who can lead at an operational level.



## Designed for:

This co-funded and scalable course can be delivered in-house or customised to specific needs.

It's for experienced data professionals who lead teams and who have already amassed a deep level of knowledge.

This is also for those who have proven skills in motivating people – with expertise in negotiation and communication.

## Modules

### Future-ready Cognitive Data Skills



Leading Continuous Innovation



Team Leading & Coaching Skills

### Data & Digital Fluency Skills



Data Wrangling with Python



Data Visualization & Exploration



Machine Learning & Predictive Analytics



Big Data Analytics



Deep Learning Theory & Practice



Data Science Challenge

### Certification

Assessment leading to:



Certified in Advanced Data Skills for Professionals



# Data Skills for Leaders

## Why attend?

- You want to champion a data-driven culture!
- Your senior management group need to use data to support strategic decision-making. But you want to go even further and help to enable and embed a culture of innovation in your company.
- You want to deepen knowledge of strategic data leadership and governance and embed data ethics and digital maturity in your organisation.
- This course is for your team leaders and data leaders.



### Designed for:

This co-funded and scalable course with professional certification can be delivered in-house or customised to specific needs.

The programme is for leaders and senior managers who lead data-driven projects and who can shape data culture and drive innovation.

# Modules

## Future-ready Cognitive Data Skills



Enabling a Culture of Innovation



Strategic Data Leadership



Data Governance

## Data & Digital Fluency Skills



Data-Driven Decision Making



Data Ethics & Digital Maturity



Data Platforms & Technologies

## Certification

Assessment leading to:



Certified in Data Skills for Leaders

**“The new data skills framework opens pathways to help employees develop real-world competencies and allows Irish businesses to futureproof their talent.”**

**Dave Flynn** Director of Business Networks at Skillnet Ireland

[Network Name] Skillnet is co-funded by Skillnet Ireland and network companies. Skillnet Ireland is funded from the National Training Fund through the Department of Further and Higher Education, Research, Innovation and Science.



An Roinn Breisoidreachais agus Ardoideachais,  
Taighde, Nuálaíochta agus Eolaíochta  
Department of Further and Higher Education,  
Research, Innovation and Science



Co-funded by  
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# Data Skills Framework

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