

# Irish Digital Skills & Jobs Coalition



Mary Cleary

Irish NC Coordinator

**Secretary General** Irish Computer Society

**Chair, CEN/TC 428** ICT Professionalism and Digital Competences



# Céad Míle Fáilte

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# Irish Computer Society

The Professional body for IT in Ireland

- The voice of the IT profession in Ireland
- The natural home for IT professionals who want and need a respected, highly visible professional body, with their interests at heart
- An inclusive, diverse membership organisation, that recognises different specialisms, credentials and stages of career development
- Embraces new ideas in line with our fast-paced industry.
- Focused on standards of professionalism
- Growth of the IT talent pipeline for Ireland



# Relevance of a professional body

- Changing landscape - same challenges, plus more
  - Social, economic, climate
  - Skills shortage
  - Digital Divide
  - Covid
- Vulnerabilities in digital space, dependence on non Eur tech
- Must build on strengths, address weaknesses
- Digital Sovereignty
  - Digital transformation
  - Healthy and green society



# Recovery and Resilience for Europe

- ICS welcomes the RRF that includes 20% for digital transition and reform
- 4 Cardinal Points for digital in RRF targets in Europe
  - A **digitally skilled population** and highly skilled digital professionals
    - **Empowered and capable citizens** – protected from cyberattack
    - **20m ICT specialists (7.8m in 2019)**
  - Secure and high-performing, sustainable digital infrastructures
  - Digital transformation of businesses
  - Digitalisation of public services – **KEY to citizen skills**
  - **Citizen/user skills to high level professional skills** part of a continuum, neither makes sense without the other

User Skills



Professional  
Skills

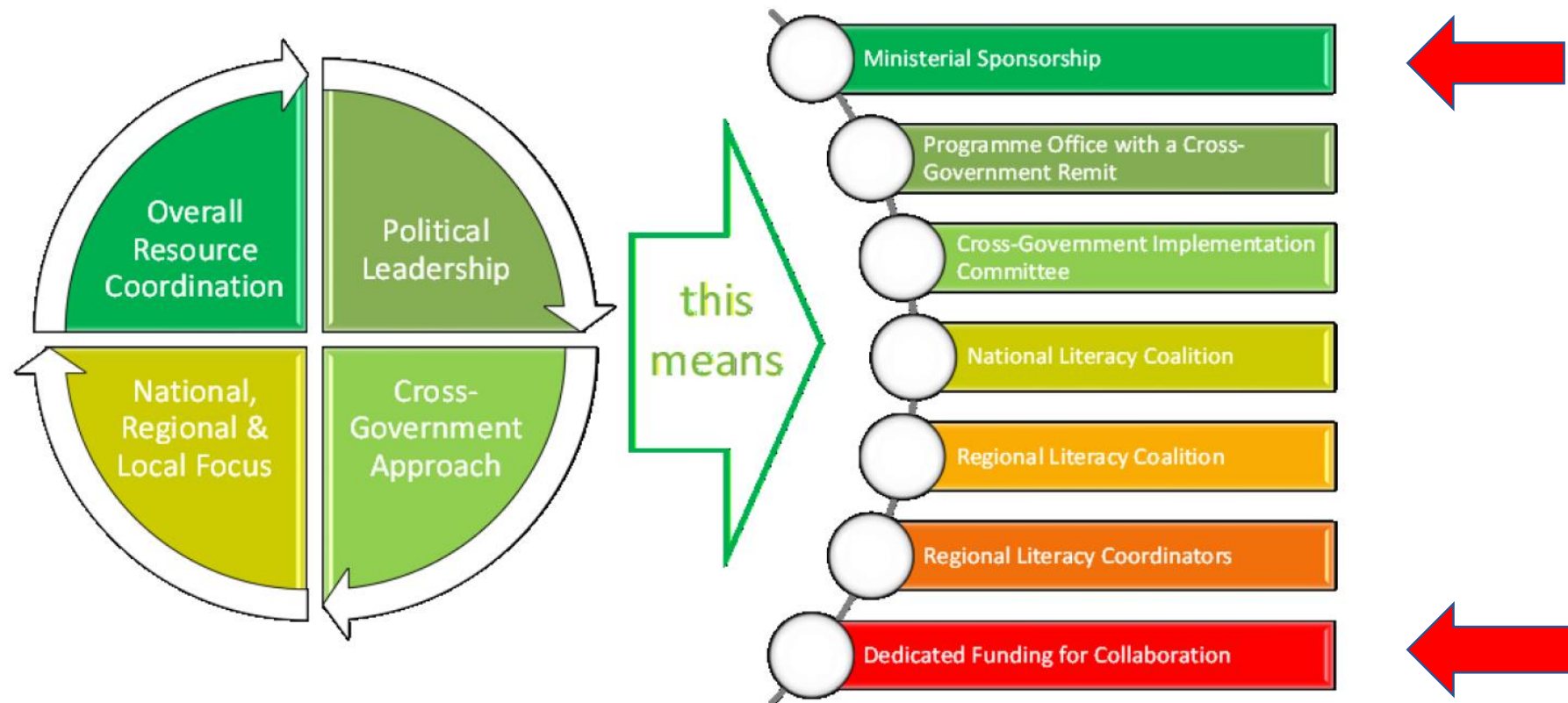
# Digital Literacy

- There are a rolling 12,000 IT vacancies in Ireland every month
  - Likely higher as Covid has increased the demand across Europe
- 40+% Irish citizens do not have basic digital skills
- These are two sides of the same coin -
  - Digitally literate population is necessary to engage with a digital economy and digital public services
  - Narrowing of the digital divide is needed for wellbeing of people
  - Sharp focus on digital inequality during Covid-19
    - Education
    - Working from home
    - Skills not as good as we thought

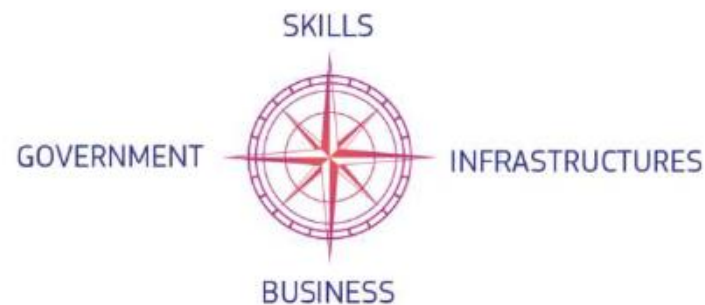


# Adult Literacy for Life (ALL)

A 10 Year Adult Literacy, Numeracy & Digital Literacy Strategy



# Europe's Digital Decade: Digital Targets for 2030



Press release | 9 March 2021 | Brussels

**Europe's Digital Decade: Commission sets the course towards a digitally empowered Europe by 2030**

## ICT Specialists: 20 millions

Advanced digital skills require more than mastering coding or having a basis of computing sciences. Digital training and education should support a workforce in which people can acquire specialised digital skills to get quality jobs and rewarding careers. As of 2019, there were 7.8 million ICT specialists with a prior annual growth rate of 4.2%. If this trend continues, the EU will be far below the projected need of 20 million experts e.g. for key areas, such as cybersecurity or data analysis. More than 70% of businesses report a lack of staff with adequate digital skills as an obstacle to investment. There is also a severe gender imbalance with only one in six ICT specialists and one in three STEM graduates being women. This is compounded by a lack of capacity in terms of specialised education and training programs in areas such as Artificial Intelligence, quantum and cybersecurity and by a low integration of digital subjects and educational multimedia tools in other disciplines. Addressing this challenge requires massive investment to train future generations of workers and to up-skill and re-skill the workforce.



### Skills

**ICT Specialists: 20 millions** + Gender convergence  
**Basic Digital Skills:** min 80% of population



### Digital transformation of businesses

**Tech up-take:** 75% of EU companies using Cloud/AI/Big Data  
**Innovators:** grow scale ups & finance to double EU Unicorns  
**Late adopters:** more than 90% of SMEs reach at least a basic level of digital intensity



### Secure and sustainable digital infrastructures

**Connectivity:** Gigabit for everyone, 5G everywhere  
**Cutting edge Semiconductors:** double EU share in global production  
**Data - Edge & Cloud:** 10,000 climate neutral highly secure edge nodes  
**Computing:** first computer with quantum acceleration



### Digitalisation of public services

**Key Public Services:** 100% online  
**e-Health:** 100% availability medical records  
**Digital Identity:** 80% citizens using digital ID



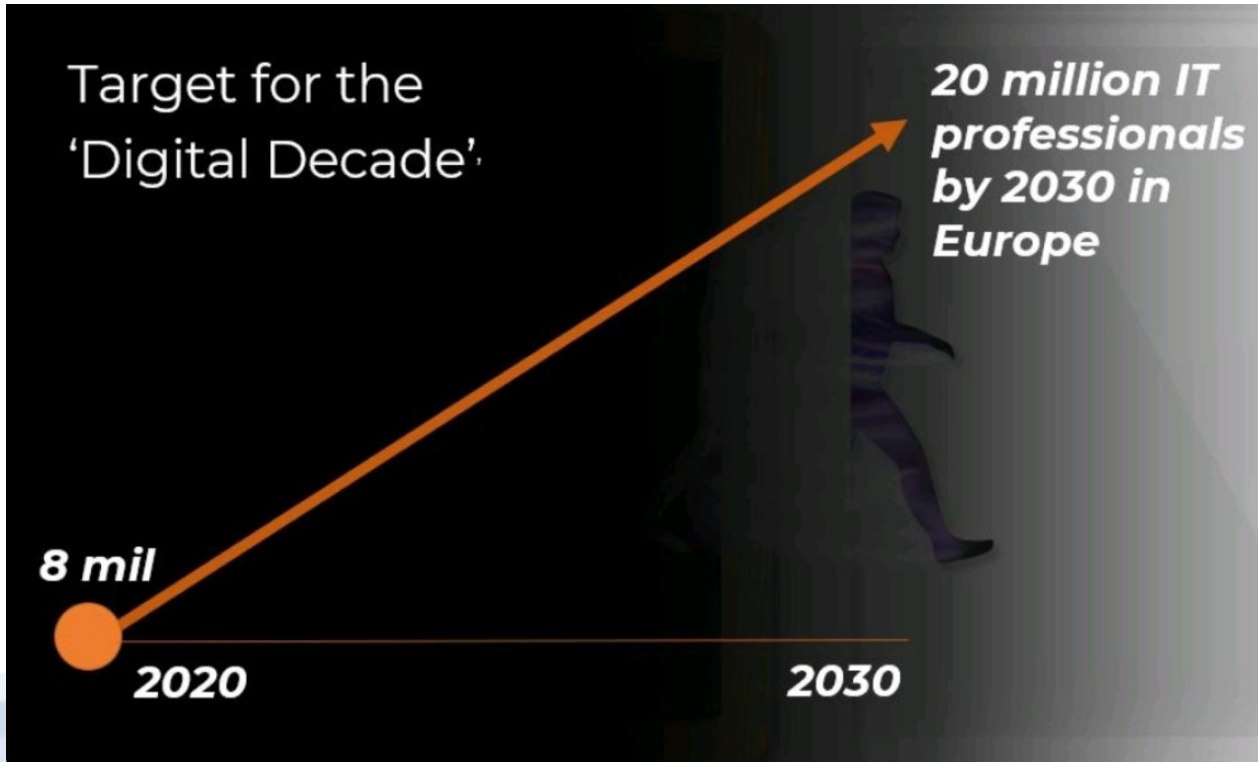
European  
Commission

**Irish Digital Skills  
& Jobs Coalition**





# The Digital Decade



Europe needs a competent, respected, mature IT Profession to drive recovery and resilience

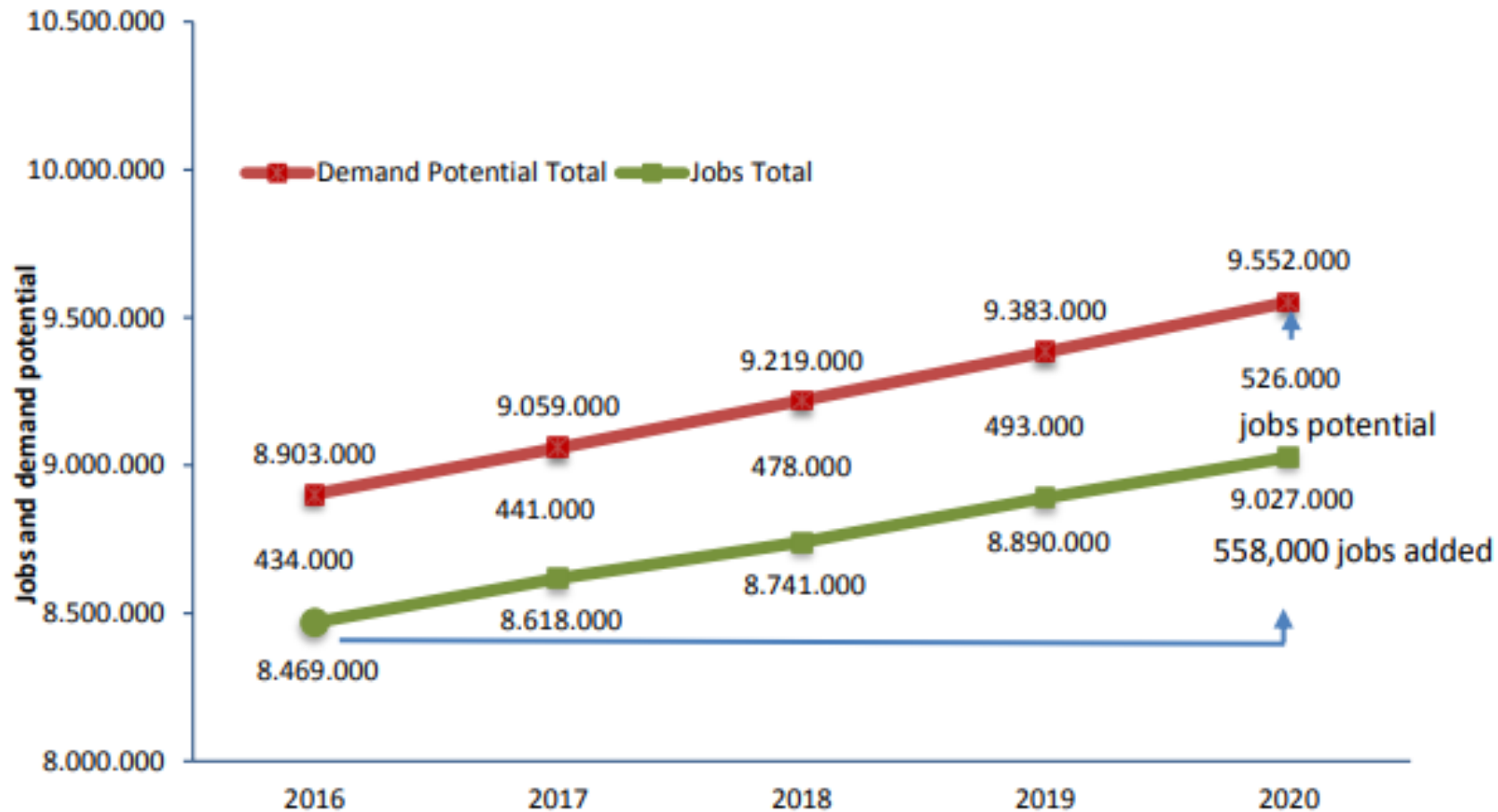
We need 20m IT professionals by 2030 – we have 8m in 2021

We can't allow urgency to let quantity trump quality

# Professional Workforce

- Ireland has a **digital economy**, as rest of Europe
- **Digital Transformation** – the buzzword of current state of industry an the economy globally
  - Not any new technology adoption
  - Must transform the business, not just the technology
  - Better term – **Digital Business Transformation** (Capgemini, 2018)
  - Priority for more than 80% of European companies surveyed
  - Business and tech skills both needed
- Appropriate professional workforce is key
  - Efficiency, productivity
  - Improved operations, reduced risk
  - Career advancement, morale

# The Skills Gap Continues to Widen



Supply growing but outperformed by demand

- Education/training
- Conversion
- Novel schemes
- Immigration

Capgemini 2018



# The ICT Profession

- Many investigations of the cause of the skills shortage
- Many initiatives to address it
- Critical factor might be the notion of professionalism

Collaboration between EC, CEN, Digital Skills and Jobs Coalition to address this

In the absence of tradition and a professional regulatory body, these agreed pillars must be standardised and assimilated into the realisation of IT professionalism



Bodies of  
Knowledge

Professional  
Ethics

Education and  
Training

Competences



# Design, Educate, Cooperate

- New ways of delivering education
  - Replace slow-paced university education with new, market-oriented training
  - Public-private partnership can work, but independent HEI's are education/curriculum experts
  - Short/midterm solution – shouldn't relinquish our renowned educational system to private sector
  - At the same time, modern curricula must be cognisant of what the market needs from graduates
  - Partnership and speed are key to deliver talent to industry from education
- Digital skills should be a required component in every faculty/field of study
- Multiple outstanding tools, training and successful initiatives already exist in Europe –a need for easily accessible one-stop-shop arises
- EU public-private partnership on skills could bring all stakeholders together, with a committed engagement to build a common vision & strategy
  - Digital Skills and Jobs Coalition

# Invest in People

Recruitment should embrace the value of older workers – reskill, upskill

Industry can make the sector more attractive with empathy and better work environments – for all

The gender gap in ICT is an issue (only 1/6 of the tech workforce is female), but also an opportunity to attract more women to tech professions

## Investment in people and skills is needed for Europe

- Maintain precedence during digital transformation of the economy
- Retain digital sovereignty

# Awareness before Action

The skills deficit in the ICT sector, from the broad workforce, through highly skilled professionals right up to digital business transformation leaders, is now well rehearsed

The next step is to use this knowledge to generate solutions

- Focus on ICT as a fully fledged profession, with the required supporting standards and quality assurance underpinning it is a wise approach
- CEN and TC 428, with the support of the European Commission have steered a path
- The Digital Skills and Jobs Coalition is a mass movement that squares the circle

# Professional Standards

The new IT profession has no legal licencing council to lay down knowledge, skills, conduct etc

- CEN/TC 428 - ICT Professionalism and Digital Competences
  - responsible for developing standards for IT Professionalism
- **European eCompetence Framework (eCF)**
- **European Foundational Body of Knowledge (BoK)**
- Also standards of curriculum guidelines, performance indicators and professional ethics



Dimension 1 5 e-CF areas	Dimension 2 41 e-Competences identified	Dimension 3 5 e-Competence proficiency levels				
		e-1	e-2	e-3	e-4	e-5
A. PLAN	A.1. Information Systems and Business Strategy Alignment					
	A.2. Service Level Management					
	A.3. Business Plan Development					
	A.4. Product/Service Planning					
	A.5. Architecture Design					
	A.6. Application Design					
	A.7. Technology Trend Monitoring					
	A.8. Sustainability Management					
	A.9. Innovating					
	A.10. User Experience					
B. BUILD	B.1. Application Development					
	B.2. Component Integration					
	B.3. Testing					
	B.4. Solution Deployment					
	B.5. Documentation Production					
	B.6. ICT Systems Engineering					
C. RUN	C.1. User Support					
	C.2. Change Support					
	C.3. Service Delivery					
	C.4. Problem Management					
	C.5. Systems Management					
D. ENABLE	D.1. Information Security Strategy Development					
	D.2. ICT Quality Strategy Development					
	D.3. Education and Training Provision					
	D.4. Purchasing					
	D.5. Sales Development					
	D.6. Digital Marketing					
	D.7. Data Science and Analytics					
	D.8. Contract Management					
	D.9. Personnel Development					
	D.10. Information and Knowledge Management					
	D.11. Needs Identification					
E. MANAGE	E.1. Forecast Development					
	E.2. Project and Portfolio Management					
	E.3. Risk Management					
	E.4. Relationship Management					
	E.5. Process Improvement					
	E.6. ICT Quality Management					
	E.7. Business Change Management					
	E.8. Information Security Management					
	E.9. Information Systems Governance					



# Advanced Digital Skills

- Shortage of ICT specialists in the labour market
- 64% large enterprises, 56% of SMEs have vacancies for ICT specialists
- Across Europe, gender balance issue - one in six ICT specialists are female
- Need a focus on ICT Professionalism and advanced digital skills
- Collaboration with CEN TC 428

<https://itprofessionalism.org/>

<http://ictprofessionalism.eu/the-it-professionalism-framework/>



# Digital Skills and Jobs Coalition

- EU initiative
  - Brings together Member States, companies, social partners, non-profit organisations and education providers, who work to address the lack of digital skills in Europe.
- Irish DSJC
  - Established by ICS, launched by EC, MMO'C 2016
  - 50 partners

# Irish Digital Skills and Jobs Coalition

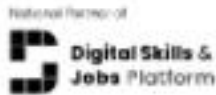
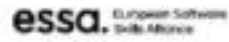
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- Irish DSJC
  - Established by ICS, launched by EC
  - Official Launch April 2017 @IT Pro Day (MMO'C)
  - 50 partners

Website [www.digitalcoalition.ie](http://www.digitalcoalition.ie)

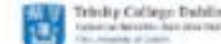
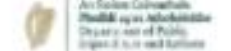
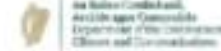


**MINISTER MARY MITCHELL O'CONNOR  
LAUNCHES NATIONAL DIGITAL SKILLS &  
JOBS COALITION**

RONAN LEONARD × APRIL 27, 2017



#### Partners



Greatest Need: coordination, community, shared information and experiences

**Irish Digital Skills  
& Jobs Coalition**





# The Irish DSJC is...

- Informal, multi-stakeholder partnership
  - Open to all
  - Willing to share
  - Promotes participation
  - Communicates widely
  - Monitors and evaluates initiatives (compiles and curates)
- Seeks to tackle shortage of digital skills in Ireland and Europe
- Considers the growing demand for:
  - Digital skills in all industries
  - ICT related professionals – broad economy
  - Digital inclusion for all citizens
  - Aligned to current EU skills development policies

# Common Partner Goals

- **Educate and train** more young people for digital professions, as young digital professionals, with increased female participation
- **Up-skill and re-skill** the European labour force with the digital skills for productivity
- Modernise our **education and training systems** for the digital age,
- Improve the **digital skills of all citizens** strengthening social inclusion.

# Irish DSJC Structure and Activities

- 50 member organisations (government/public, private companies, education, social enterprise partners)
- Listed priorities for action
- Collated current Irish Initiatives, policies, action plans

# Irish Coalition Priorities

- Understand what we mean by digital skills
- Support initiatives to upskill citizens as foundation of all digital engagement and employment
- Modernise teaching content and pedagogies
- Upgrade teacher skills and qualifications
- Promote cooperation between education and industry
- Leverage competence frameworks, (Digcomp, e-CF etc)
- Identify obstacles to gaining digital skills
- Support up-skilling the labour force, conversion from other sectors
- Reiterate employers' responsibility to train workers
- Generate public awareness of need for digital upskilling
- Access funding for initiative and actions – this is hard!
- Promote ICT as career choice (girls too), informally and through curriculum
- Support alternative approaches to careers in IT (apprenticeships, novel HE approaches for example)



# What we have done...

- Meet regularly
- Consolidated membership
  - Universities
  - Government depts
  - State agencies
  - Voluntary organisations
  - Private companies
- Listed priorities
- Considered the specif Irish context
- Collated current Irish Initiatives

# We are not alone...

- Secretariat support a game changer
- Good to be part of a community
  - Get advice and support
- International events (sadly only online)
  - Coordinators only
  - All members (webinars)
- DG Connect at the helm
  - CEF European Platform for Digital Skills and Jobs

# Digital Skills and Jobs Platform

- Digital Skills Infrastructure (DSI) Core Services  
<https://digital-skills-jobs.europa.eu/en>
  - Single point of access
  - Share resources, services among coalitions
  - Stimulate networking



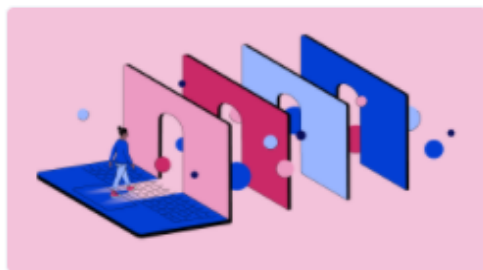
## Digital SkillUp

[Home](#) > [About](#) > [Digital SkillUp](#)

Emerging technologies impact the way we live and work. Understanding how they influence our daily lives and careers can give us a head start into the future – but it may also prove challenging to many.

[Digital SkillUp](#) is a EU-funded initiative that offers [innovative online courses](#), explaining emerging technologies in an easy and accessible way to everyone – no matter their age, profession, or previous ICT experience. It helps all European citizens and SMEs keeping up with emerging technologies and making the most of them.

### Digital SkillUp courses



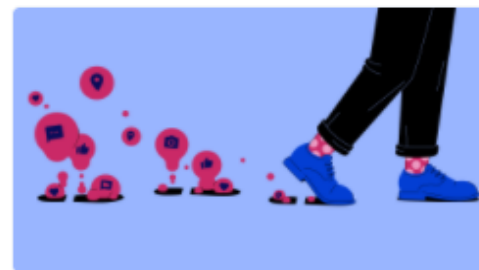
Course I: Digital Revolution

[View more](#) →



Course II: Emerging Technologies

[View more](#) →



Course III: Cybersecurity

[View more](#) →

# European Platform for Digital Skills and Jobs

- DSI Generic Services <https://www.digitalcoalition.ie/>
  - National website to provide connection to the core platform
  - Interoperable links to core
  - 3 year commitment
- Next steps – content gathering



# Welcome to the Irish Coalition

## Categories



Resources



Funding



Best Practice



Initiatives



# Our Commitment

- Create a one-stop shop portal, listing initiatives, events, resources that support coalition objectives
- Collate data and communicate updates on existing initiatives
- Exchange best-practice with coalitions in other European countries
- Communicate EU funding calls
- Support the professionalism agenda of ICS

# Content

1. Presentation of the National Coalition/network of actors and its members
2. Presentation of relevant parts of the Core Service Platform content
3. Create and implement an interoperable repository of good practice(s)
4. Create and implement an interoperable repository of resources on digital skills
5. Present relevant and innovative training opportunities on advanced digital skills currently available

# Content

6. Present funding opportunities for digital skills at national and European level
7. Events
8. News production and skills intelligence
9. Webinars/online events
10. Communication, promotion and community management

# Challenges...but you are not alone

After ambitious and optimistic start, some questions:

- National vs European Coalition
  - 2 websites, identities – solved by the CEF strategy
  - How to manage pledges – key operational strategy
    - Reconcile local social initiatives, government policy and the overwhelming scale of MNC's
    - How can new pledges be funded?
  - Where to place our focus – broad range of associations/interests
- What do we do next?
  - Need to collaborate with other coalitions for way forward



# **Irish Digital Skills & Jobs Coalition**



Thank you

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