

# The future of work and skills: Global megatrends and implications for Ireland

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Managing Director  
World Economic Forum

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# The World Economic Forum

The World Economic Forum is the International Organization for Public-Private Cooperation. Our mission is to improve the state of the world.

Our purpose is to bring together stakeholders from all sectors of society to shape the future.

Governments, businesses or civil society alone cannot sustainably address the economic, technological, environmental and social challenges of an increasingly complex, interdependent and fast-transforming world. Instead, they need to work together via a trusted global platform for informed collaboration and cooperation.

Over the past 50 years, the World Economic Forum has earned the trust to build and curate impartial and independent platforms.



# Platform for the New Economy and Society



Advanced  
Manufacturing  
and Production



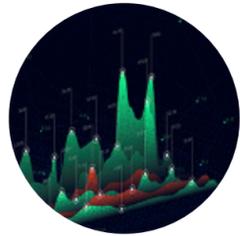
Cities,  
Infrastructure  
and Urban  
Services



Consumption



Cybersecurity  
and Digital  
Trust



Digital Economy  
and New Value  
Creation



Energy and  
Materials



Financial and  
Monetary  
Systems



Global Public  
Goods



Health and  
Healthcare



Investing



Media,  
Entertainment  
and Culture



Mobility



**New Economy  
and Society**



Technology  
Governance: Artificial  
Intelligence and  
Machine Learning



Technology  
Governance:  
Blockchain and  
Distributed Ledger  
Technologies



Technology  
Governance:  
Data Policy



Technology  
Governance: IoT,  
Robotics and Smart  
Cities



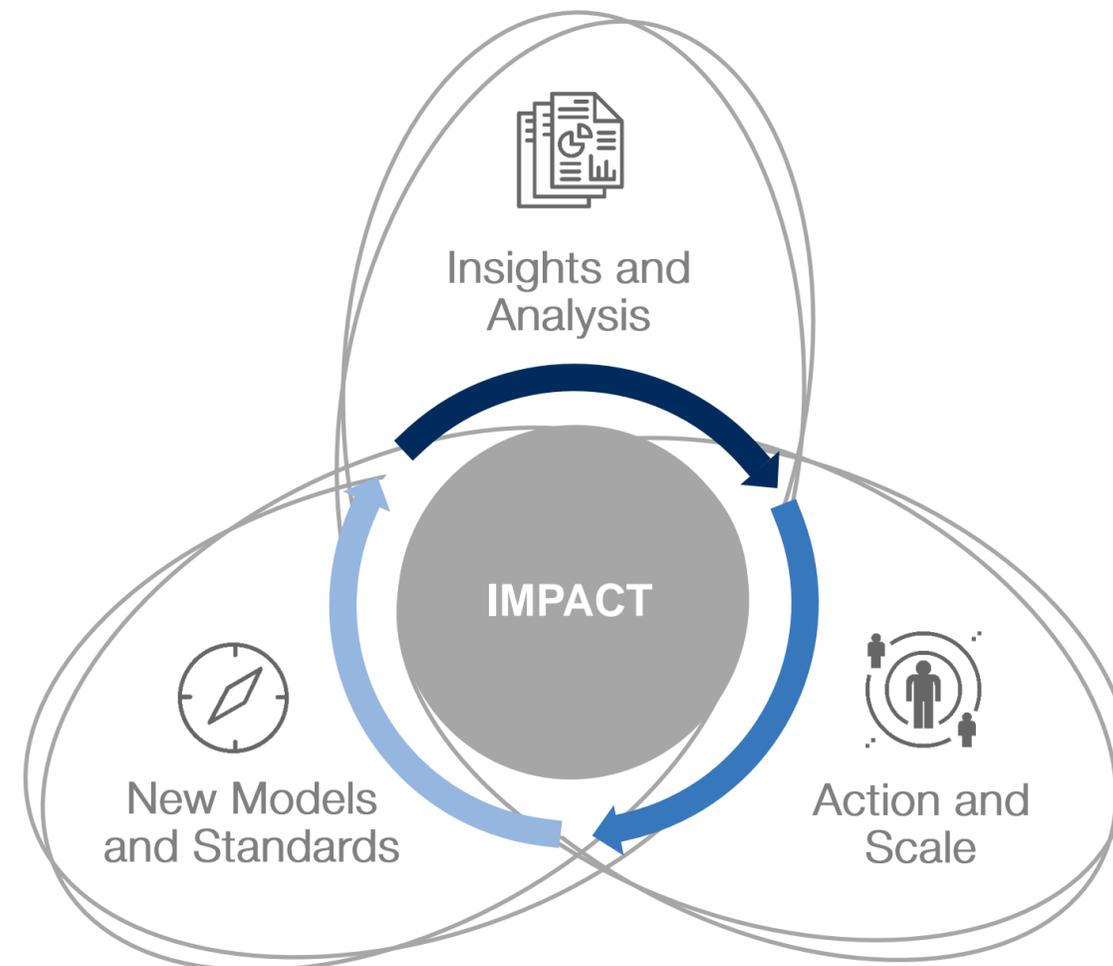
Trade and Global  
Economic  
Interdependence

# How we drive impact

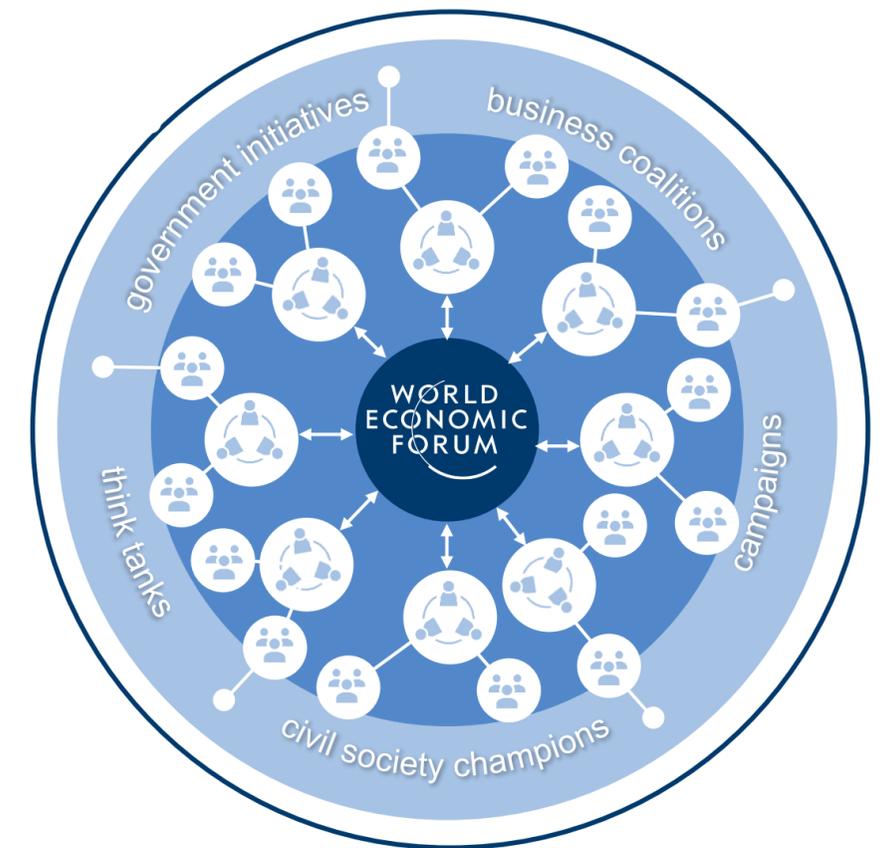
Addressing  
Interconnected Challenges



Providing  
a Transformative Activity Portfolio



Collaborating  
through a Platform Model



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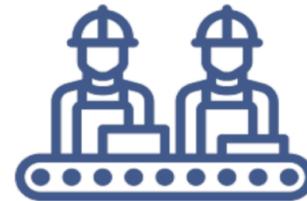
# The future of work: latest trends

# The arrival of the Fourth Industrial Revolution



## 1st

Mechanisation,  
Steam and  
Water Power



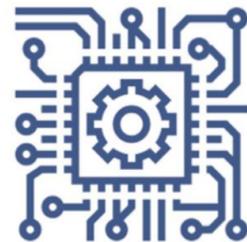
## 2nd

Mass  
production,  
Assembly lines,  
electricity



## 3rd

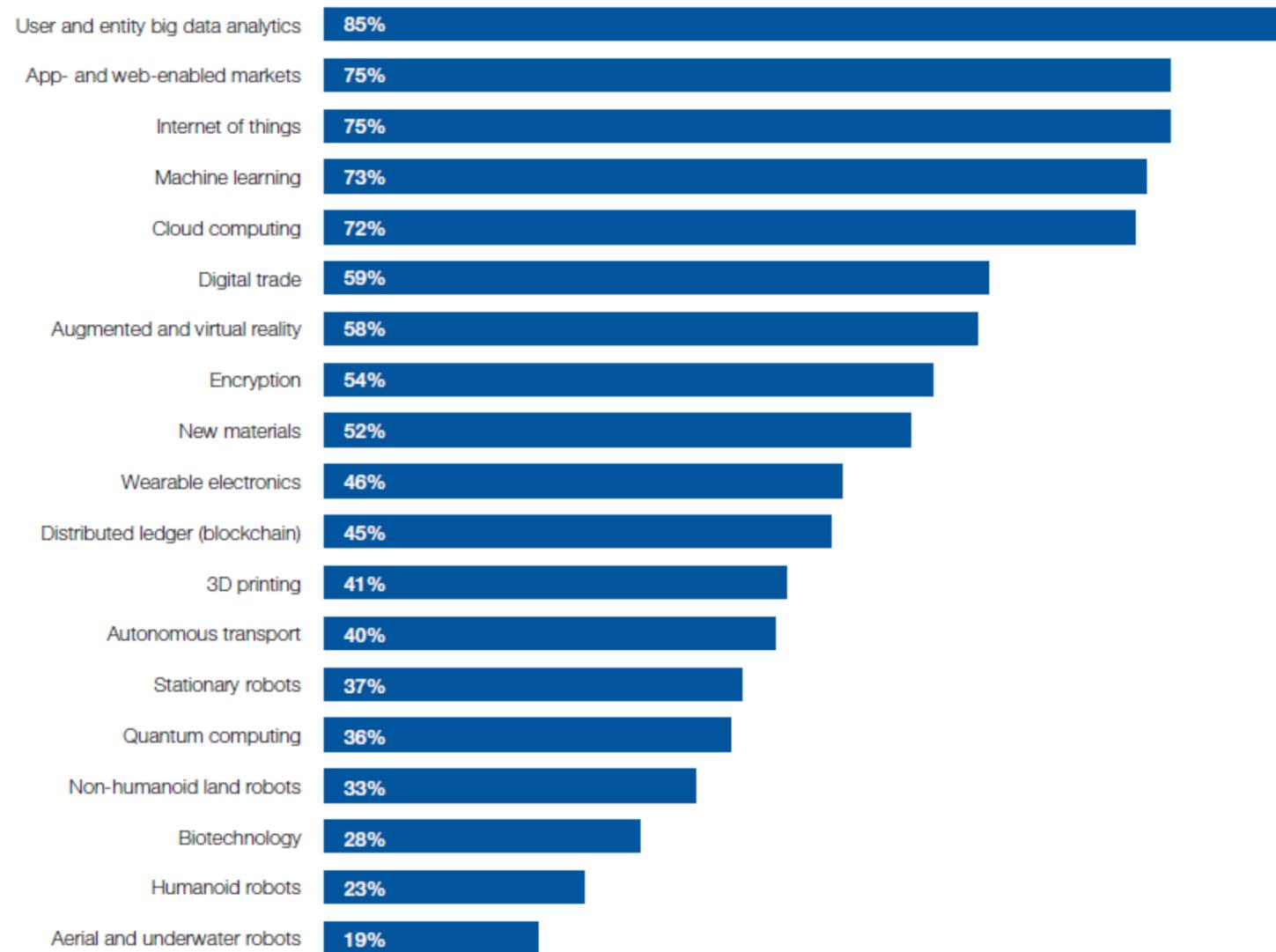
Computer &  
Automation



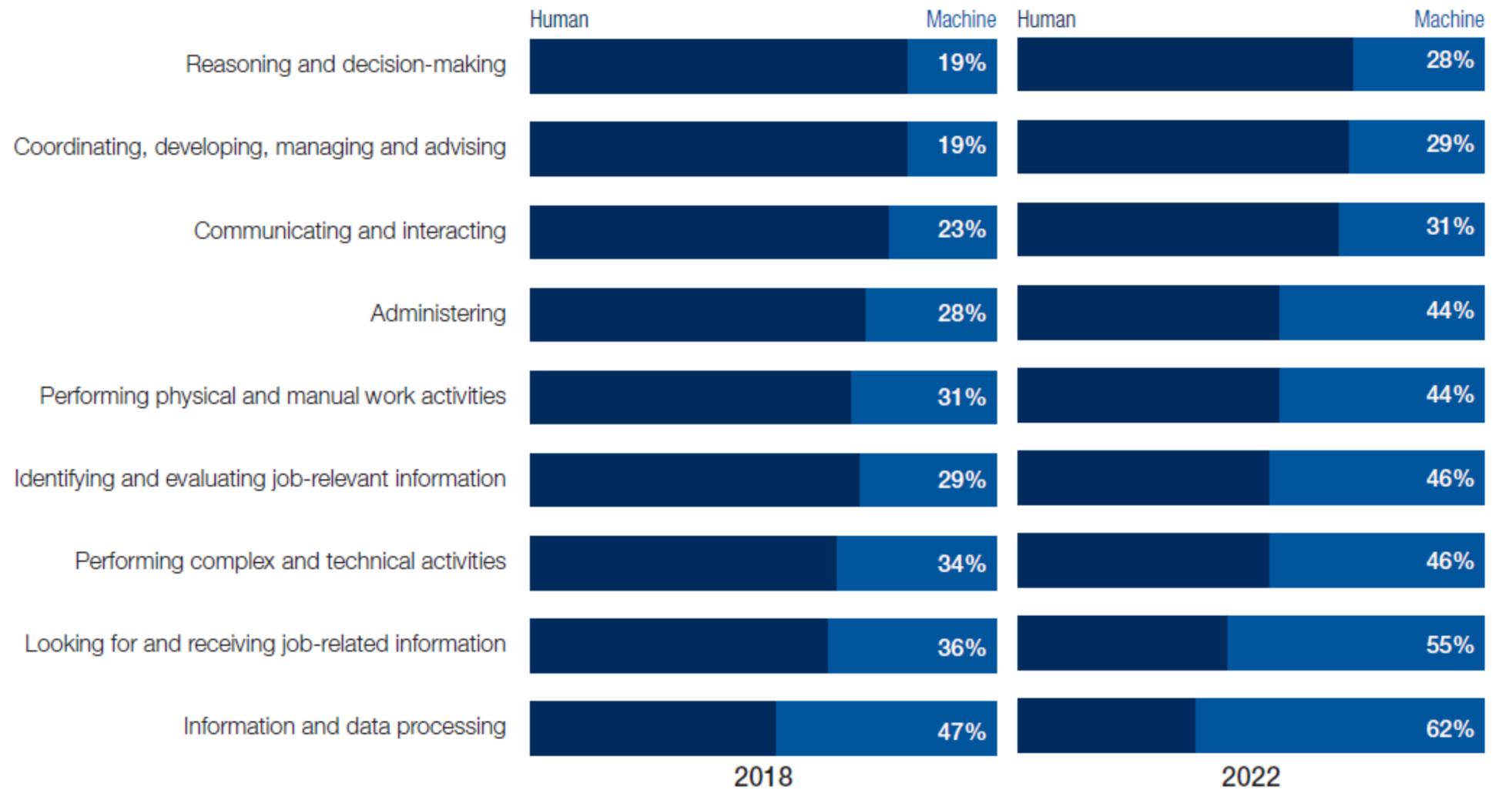
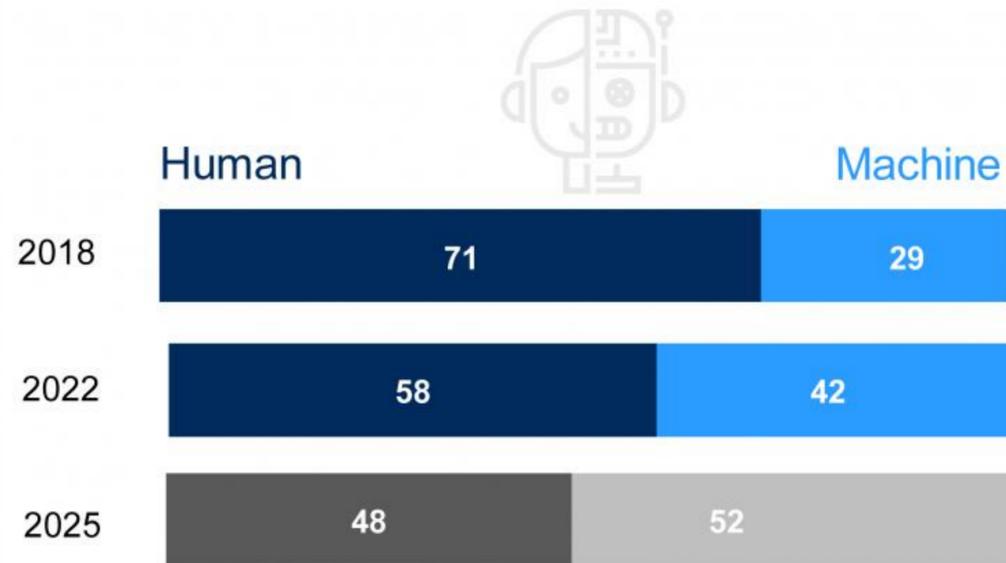
## 4th

Cyber Physical  
Systems,  
networks, AI

## Intended technology adoption by global companies in 2022



# A shift in the ratio of human vs machine work hours, 2018-2022



# A net positive outlook for jobs but high levels of churn 2018-2022

emerging  
roles,  
global  
change  
by 2022



## Top 10 Emerging

1. Data Analysts and Scientists
2. AI and Machine Learning Specialists
3. General and Operations Managers
4. Software and Applications Developers and Analysts
5. Sales and Marketing Professionals
6. Big Data Specialists
7. Digital Transformation Specialists
8. New Technology Specialists
9. Organisational Development Specialists
10. Information Technology Services

declining  
roles,  
global  
change  
by 2022



## Top 10 Declining

1. Data Entry Clerks
2. Accounting, Bookkeeping and Payroll Clerks
3. Administrative and Executive Secretaries
4. Assembly and Factory Workers
5. Client Information and Customer Service Workers
6. Business Services and Administration Managers
7. Accountants and Auditors
8. Material-Recording and Stock-Keeping Clerks
9. General and Operations Managers
10. Postal Service Clerks

# A premium on soft skills and advanced cognitive skills

## Growing

- 1 Analytical thinking and innovation
- 2 Active learning and learning strategies
- 3 Creativity, originality and initiative
- 4 Technology design and programming
- 5 Critical thinking and analysis
- 6 Complex problem-solving
- 7 Leadership and social influence
- 8 Emotional intelligence
- 9 Reasoning, problem-solving and ideation
- 10 Systems analysis and evaluation

## Declining

- 1 Manual dexterity, endurance and precision
- 2 Memory, verbal, auditory and spatial abilities
- 3 Management of financial, material resources
- 4 Technology installation and maintenance
- 5 Reading, writing, math and active listening
- 6 Management of personnel
- 7 Quality control and safety awareness
- 8 Coordination and time management
- 9 Visual, auditory and speech abilities
- 10 Technology use, monitoring and control

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# The future of work: implications for business and government

# A reskilling revolution is needed

By 2022, the core skills required  
to perform most roles will  
change by

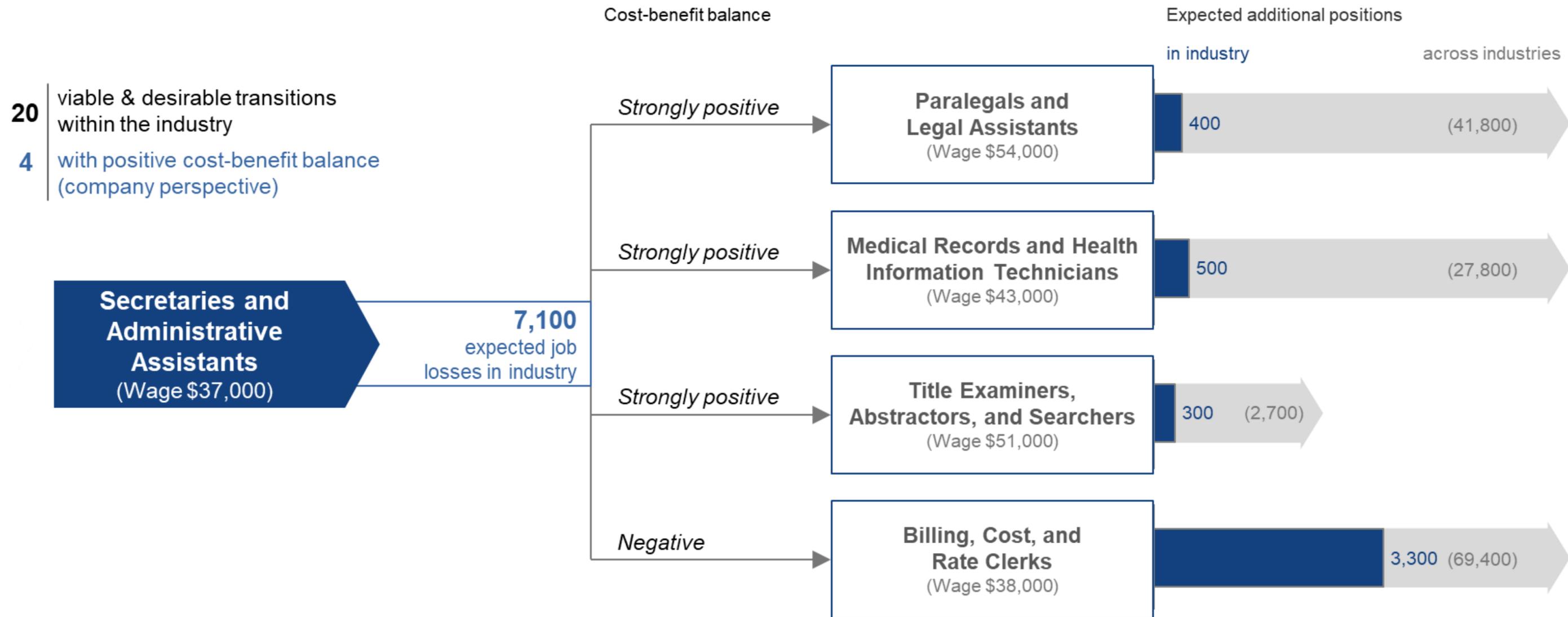
**42%**

By 2022 everyone will need  
an extra

**101**  
days of  
learning

# New data-driven approaches are available

## Example: Secretaries and administrative assistants

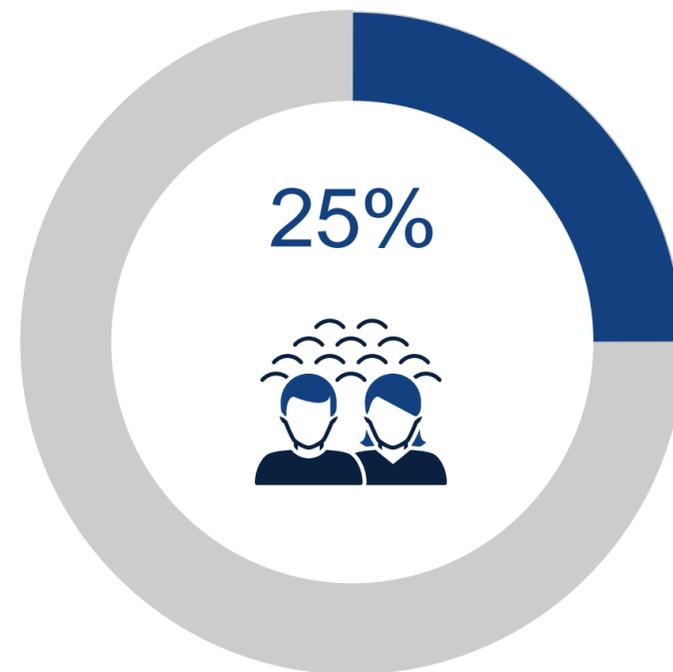


# Collaboration at scale is needed

- Transitioning 95% of at-risk workers in the United States into new jobs through reskilling may cost more than **\$34 billion**.
- If companies and governments go it alone the costs outweigh the benefits for a significant portion of workers. If they collaborate costs become viable.



Companies alone

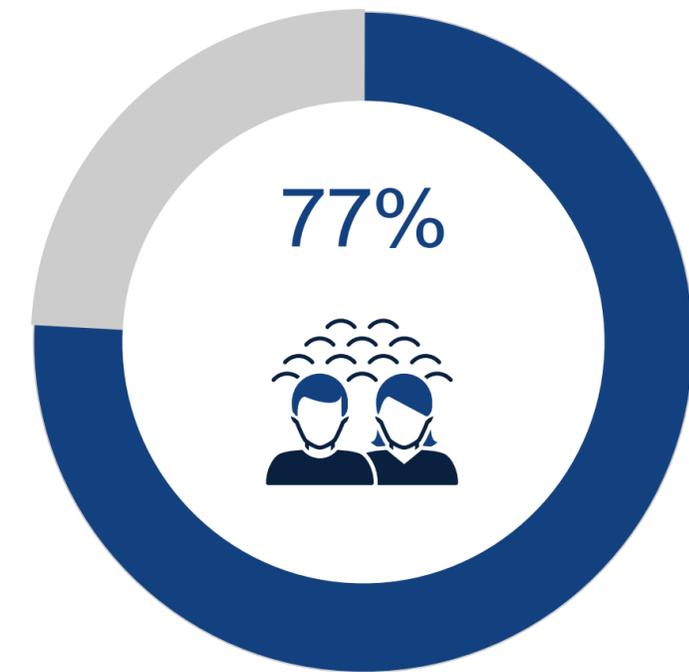


Industry collaboration

**45%**



Governments alone



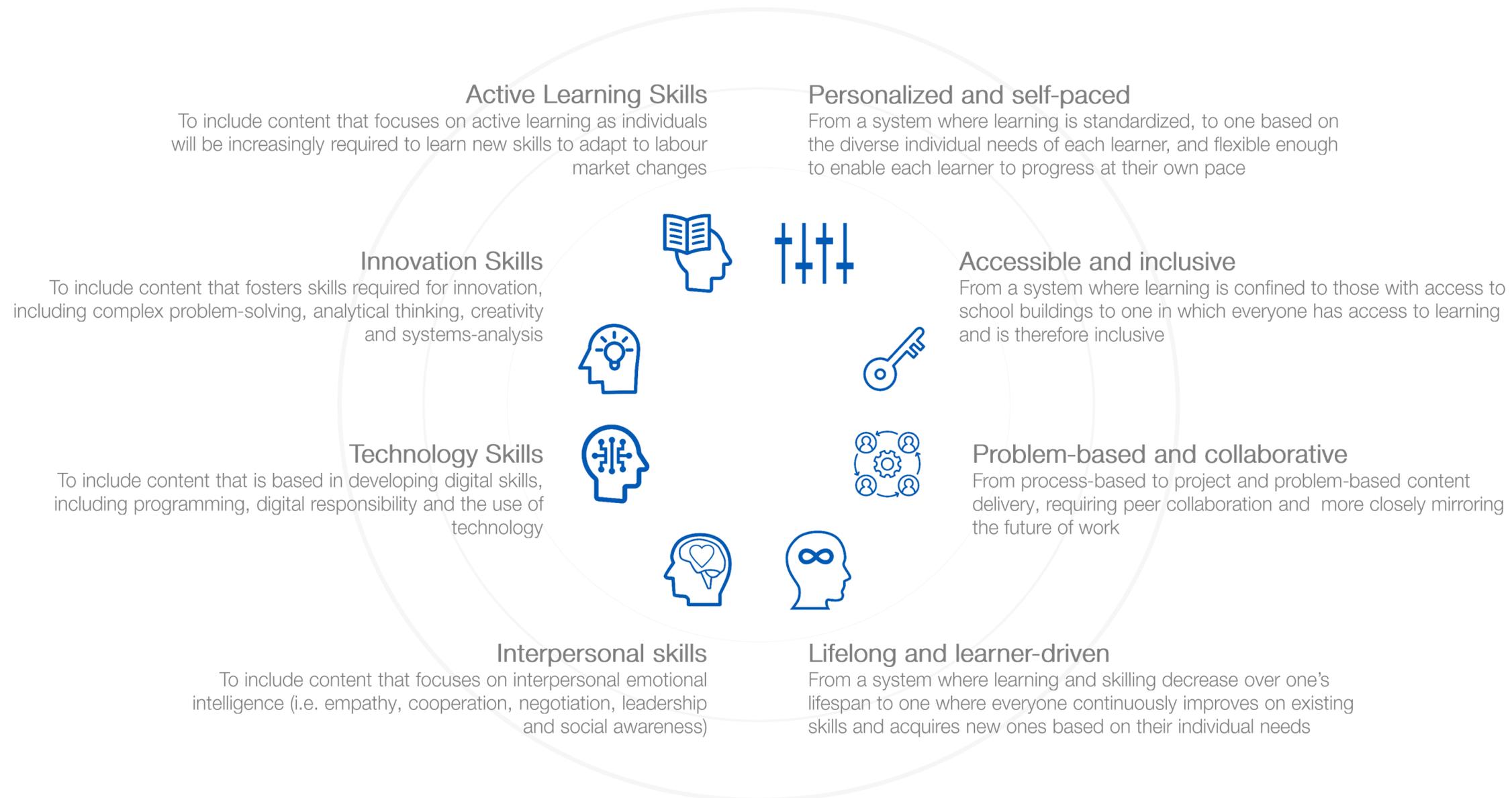
Public-private collaboration

**90%**

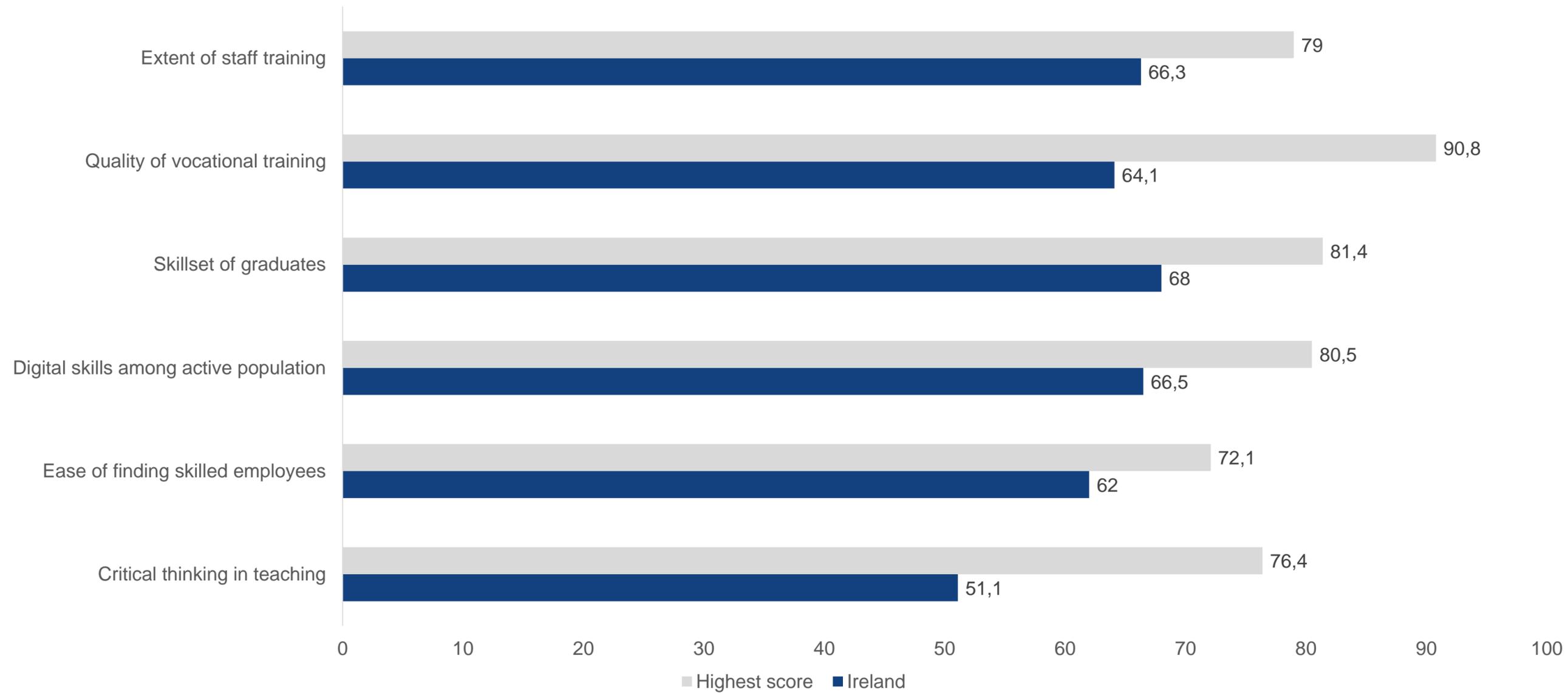
# Learning 4.0

CONTENT

MECHANISMS



# Skills score Ireland – Global Competitiveness Report 2019



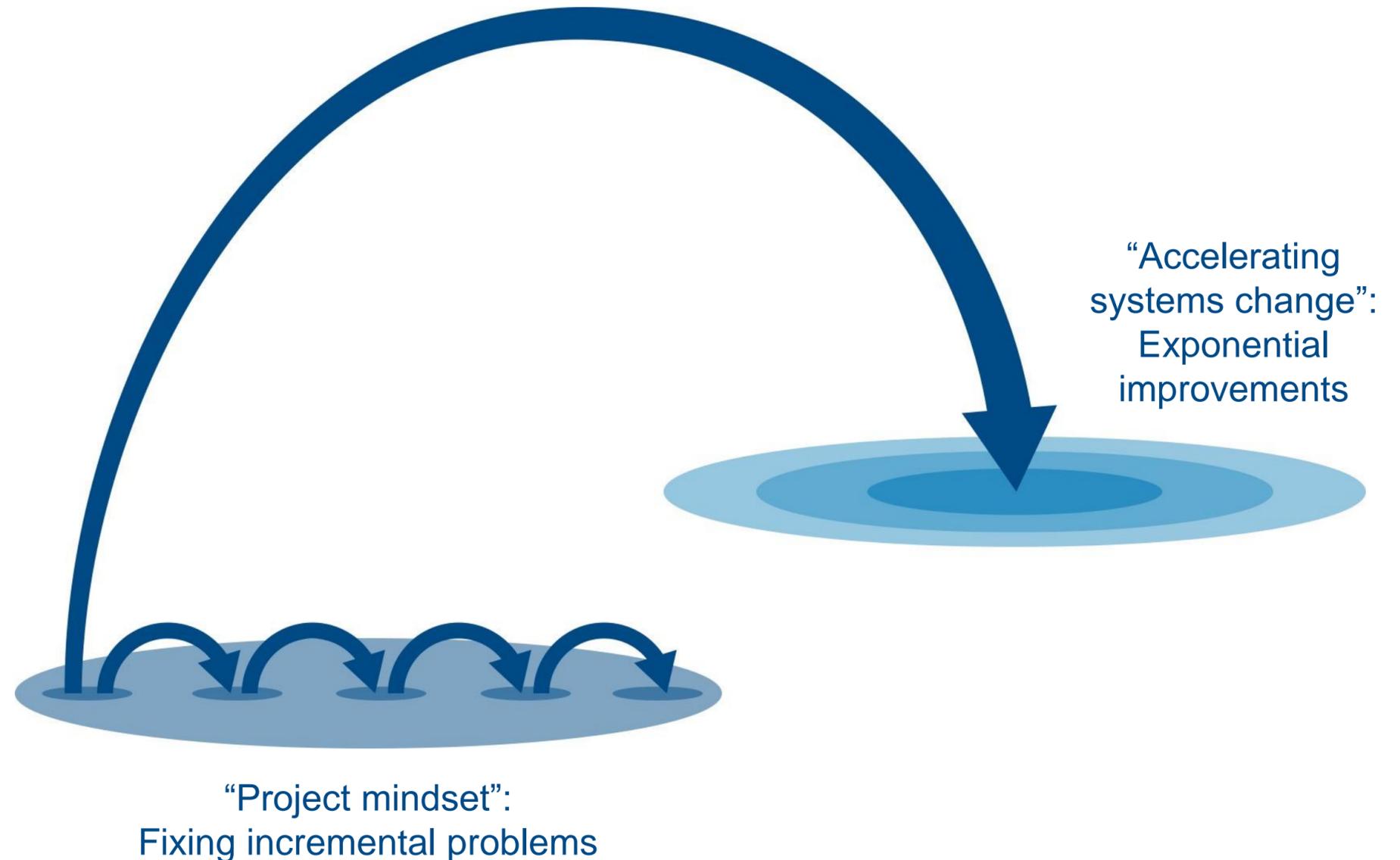
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# The Closing the Skills Gap Accelerator: an invitation for public-private collaboration

# The Forum's Closing the Skills Gap Accelerator model

Rather than creating a conventional “project”, the accelerator model aims at enabling collective action for accelerating systems change

By bringing stakeholders together with a concerted focus on specific “leverage points”, the accelerator model aims to break through inhibiting path dependencies, shifting the functioning of the whole system to an exponentially better state



# Key leverage points for closing skills gaps

The accelerator model focuses on “leverage points” across four dimensions of the system:

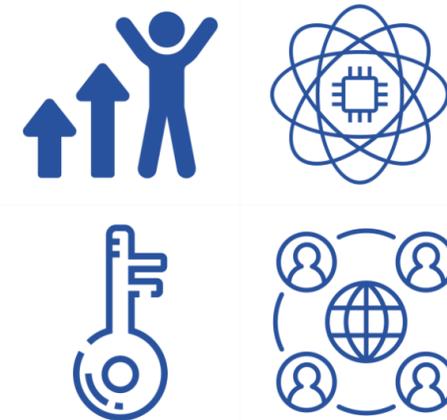
- **Lifelong learning and upskilling**
- **Future-readiness and employability**
- **Innovative skills funding models**
- **Skills anticipation and job market insight**

## Lifelong learning and upskilling

From a system where learning and skilling decrease over people’s lifespan to one where everyone continuously improves on existing skills and acquires new ones

## Future readiness and employability

From a system where education mirrors the needs of the past to one where learners are prepared for the job market of the future



## Innovative skills funding models

From a system where skills funding is fragmented to one where the broader value of upskilling to economy and society is reflected in the funding models

## Skills anticipation and job market insight

From a system with little information and top-down reskilling decisions to one where companies and workers anticipate needs and co-create the future of work

# Global Learning Network

Closing the Skills Gap Accelerators are part of a global learning network for co-creating solutions through the World Economic Forum's platform



- Closing the Skills Gap Accelerators
- *Invited*
- Global Knowledge Partners



# WORLD ECONOMIC FORUM

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