Digital Skills and Jobs Coalition Workshop
Monitoring the Effectiveness of National Digital Skills Strategies & Action Plans

The Italian experience of successful digital skills strategy monitoring and evaluation

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DIPARTIMENTO
PER LA TRASFORMAZIONE
DIGITALE

REPUBBLICA
DIGITALE

Digital exclusion in Italy
EUROSTAT 2019

26 million[+]

16-74 year-old citizens **without at least basic digital skills**

(**58% of population** vs **42% EU average**)

including

11 million[+]

citizens who **do not use the Internet**

17 million[+]

16-74 year-old citizens with **at least basic digital skills**

(**42% of population** vs **58% EU average**)

including

9 million[+]

citizens with **advanced digital skills**
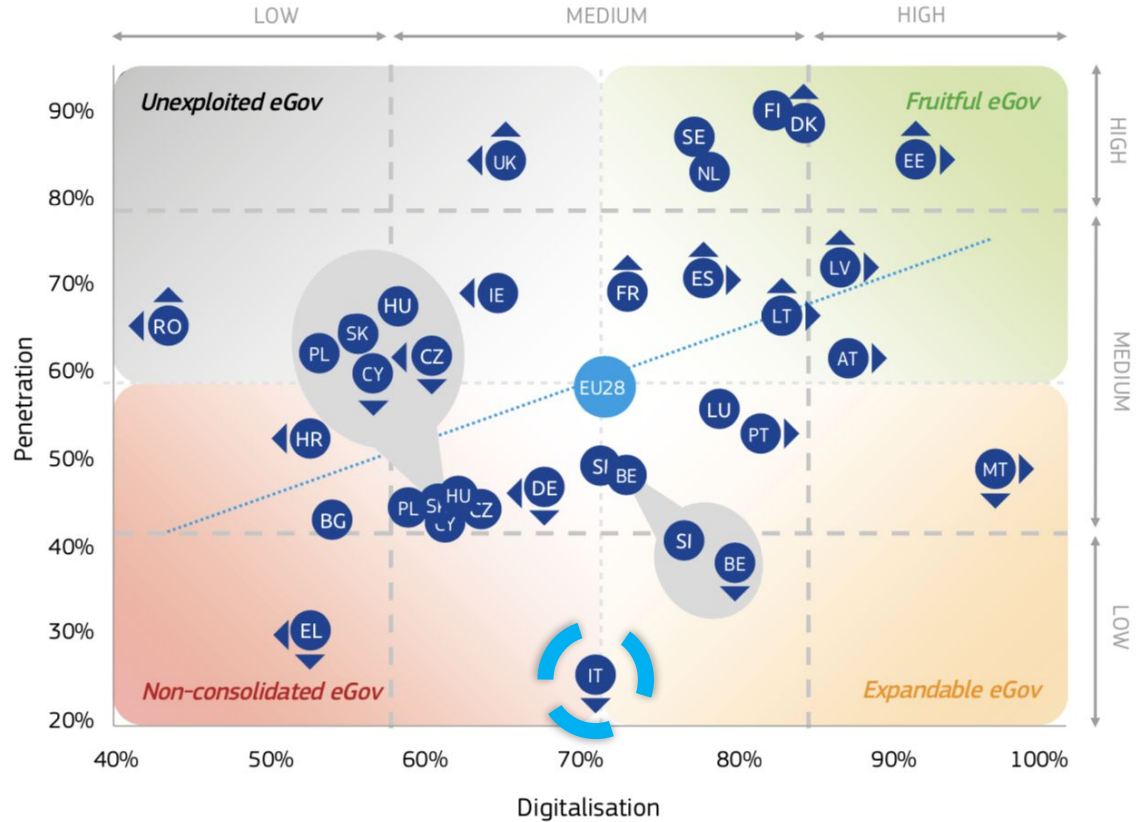
Digital exclusion in Italy

eGovernment benchmark

Repubblica Digitale

Roadmap of the national initiative for digital skills

2019

2020

2021

2022

May	December	April	July	December	February	May	October	November	Spring

May

Publication of the **Manifesto** and launch of the **Call for Action**

December

Adhesion of the **first 50 initiatives**

"Italia 2025" plan

April

Expansion of **activities perimeter**

Start of **Italian Strategy for Digital Skills development** with the institutional team

Membership of the **European Digital Coalition**

Over **100 initiatives** and **data dashboard definition**

July

Establishment of the **Technical Steering Committee**

Approval of the **Italian Strategy for Digital Skills**

Kick-off of **Operational Plan development** for the implementation of the strategy

December

Approval of the first version of the **Operational Plan**

February

Over **200 initiatives**

May

Launch of the Pilot Call for the **Digital Civil Service**

Actions of the Operative Plan in **National Resilience and Recovery Plan**

October

Operational Plan monitoring report

November

Italian Coalition Assembly

New Operational plan **updated version**

Spring

Launch of **ACCEDI platform for digital skills self assessment and learning**

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Repubblica Digitale

Governance and actors involved

with representatives of Ministries, Regions, Provinces, municipalities, universities, research institutes, companies, professionals, the National Public Broadcasting, associations and the various public sector organizations, organizations belonging to the National Coalition, EU Code Week Coordinator

with the collaboration of Observatories on Digital Skills and on Digital Agenda from Universities and ICT Business and the National Statistics Institute, Experts

TECHNICAL STEERING COMMITTEE

coordinated by Minister for Technological Innovation and Digital Transition

200+

businesses, public entities and NGOs

ITALIAN COALITION

250+ **local and national initiatives** in line with the Italian Strategy objectives

4+ **million trained citizens** (students, teachers, workers etc.)

*the value is created by the **network***

CITIZENS

Citizens contribute to Repubblica Digitale and to the implementation of the Italian Strategy through **public consultations** on the ParteciPA platform

EUROPEAN COALITION DIGITAL SKILLS AND JOBS PLATFORM

*Network with the other **24 national coalitions***

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Italian Strategy for Digital Skills

4 strategic objectives, 4 intervention axis

The Italian Strategy for Digital Skills has been **approved in July 2020**

1 Higher Education and Training

for the development of e-skills for young people within the mandatory education cycles

coordinated by the **Ministry of Education** and the **Ministry of University and Research**

2 Active workforce

to ensure adequate e-skills in both the private and public sectors, including e-leadership skills

coordinated by the **Ministry of Economic Development** and the **Minister for Public Administration**

3 ICT specialist skills

to enhance the country's ability to develop skills for new markets and new jobs, with a specific focus on emerging technologies and key competencies for future jobs

coordinated by the **Ministry of University and Research** and the **Ministry of Economic Development**

4 Citizens

to develop the digital skills needed to exercise citizenship rights and promote active participation in the democratic life

coordinated by the **Minister for technological innovation and Digital transition**

Italian Strategy for Digital Skills

Operational Plan: actions and indicators

The Operational Plan has been **published in December 2020**

1 Higher Education and Training

2 Active workforce

3 ICT specialist skills

4 Citizens

Education	University and research	Private Sector	Public Sector		
5	**11**	**8**	**5**	**7**	**5**
Lines of action	Lines of action	Lines of action	Lines of action	Lines of action	Lines of action
▼	▼	▼	▼	▼	▼
36	**16**	**11**	**17**	**7**	**20**
Actions	Actions	Actions	Actions	Actions	Actions

20+ Indicators

10+ Indicators

10+ Indicators

10 Indicators

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Italian Strategy for Digital Skills

Operational Plan: actions impact evaluation

It provides for the proposed actions **six-monthly progress and results verification**, measuring the general impact that these have on the intervention axis priorities

How is actions impact assessed?

achievement of each action specific **target values**

measurement of a **set of performance indicators**, prepared starting from the indicators included in the *Digital Economy and Society Index* (DESI) of the *European Commission and the Digital Maturity Indexes* (DMI)

Enabling factors

enable citizens and workers to participate in the digital economy and society

Results to be achieved

measure the effective participation of citizens and workers in the digital economy and society

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Italian Strategy for Digital Skills

Selection of indicators, benchmark and target values identification

Indicators selection

The selection of indicators was made from a **catalog of 217 indicators** elaborated by **Politecnico di Milano** Digital Agenda Observatory, based on the priorities and the lines of action defined by the National Strategy for digital skills, for each of the 4 intervention axis.

The 4 intervention axis working group selected **65 indicators** based on the monitoring needs of the more than 100 actions described in the Operational Plan.

Among these, **24 final indicators** have been selected for the **monitoring dashboard.**

Benchmark

The indicators allow a **benchmarking activity** with European countries that have the socio-demographic characteristics most similar to Italy: France, Spain, Germany, Poland and the United Kingdom.

For each indicator, a **trend analysis** allow to identify the growth rate of each indicator for each of the countries analyzed, **forecasting year 2025 values**. These projections allow us to give an initial indication of the **minimum target values that Italy has to reach to fill the gap with other European countries**.

The forecast consider factors such as: indicators trend in the **past years**, impact of **COVID-19 pandemic** (digitalization process), impact of **digital skills policies** and **generational shift**.

Target values identification

The following aspects were considered for target values identification:

✔ **reducing the gap with other European countries** and reaching **one of the first three positions** compared to the countries most similar to Italy in socio-economic and demographic characteristics;

✔ the **objectives defined by the European Commission** (e.g., European Agenda for Digital Skills and the Action Plan for European Digital Education 2021-2027);

✔ the need to identify **challenging target values** that can be **concretely reached with the resources available (with a "validation analysis")**.

Italian Strategy for Digital Skills

Some of 2026 objectives

70%

42%
2020

Individuals with at least basic digital skills

EU average
58%

45%

30%
2020

Public sector workers with advanced digital skills

EU average
35%

50%

14%
2020

Individuals using digital public services

EU average
38%

Italian Strategy for Digital Skills

70% of citizens with basic digital skills - *target value validation analysis*

To reach the target of **70% of the population** (16-74 years), it's necessary the development of basic digital skills of about **12.5 million people** (28%)

The population aged 16-74 at the end of 2019 was 44.3 million

Baseline
2019

Target
2026

How can we achieve this goal?

We **systematize all digital skills initiatives**, implementing **innovative projects**, promoting the **creation of new synergies/collaborations** and **raising awareness** on the importance of digital skills development

42%

18,6 millions
citizens

70%

30,1 millions
citizens

DTD actions in PNRR

Digital Civil Service and **Digital Facilitation Services Network** projects aim to train **3 million citizens**

Other PNRR and Operational Plan actions

3,2 millions citizens
estimated impact

Italian Coalition for Digital Skills

7 millions citizens
estimated impact

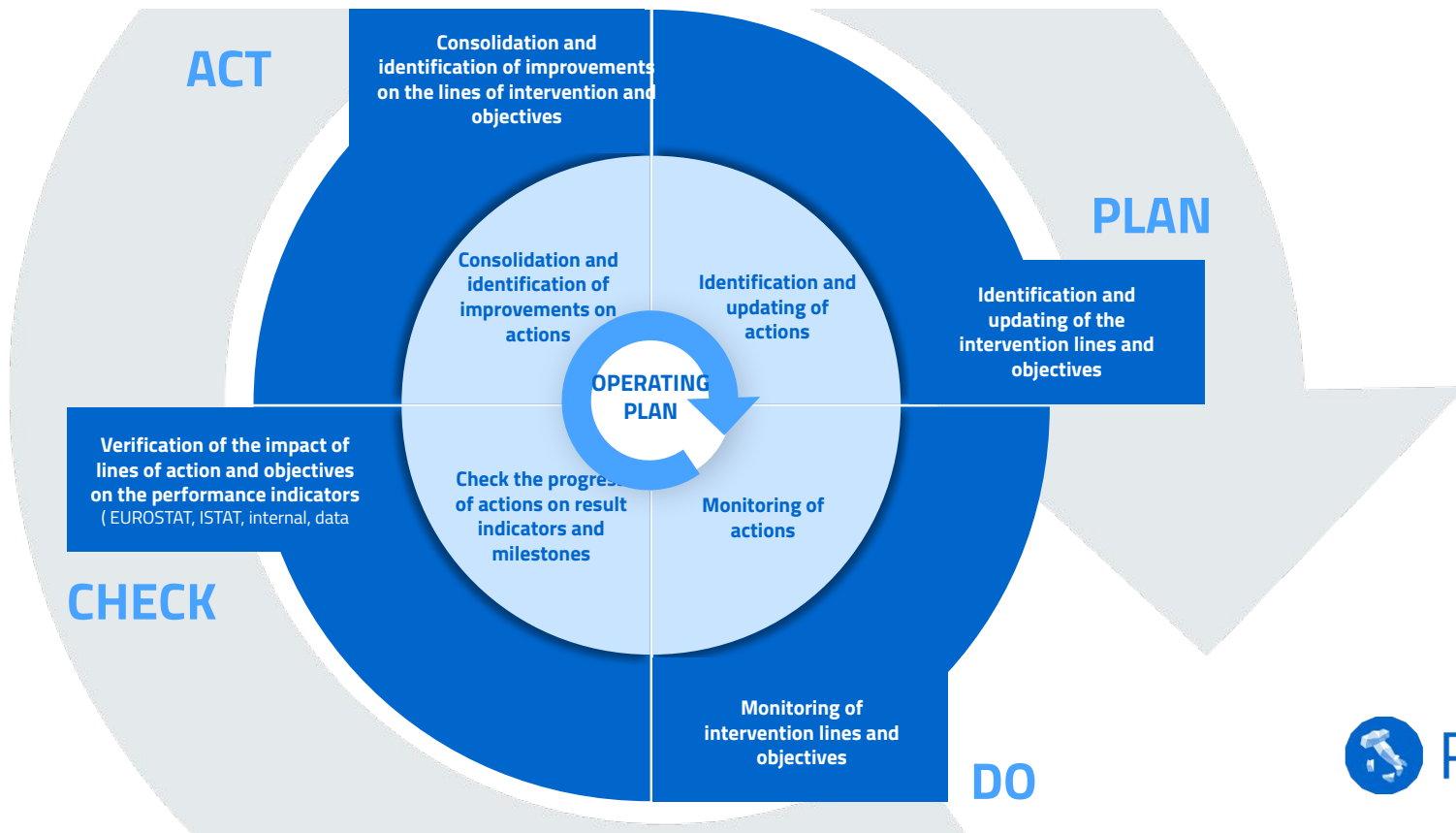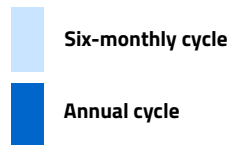**New initiatives proposal to be financed with national funds (PON)**

1,3 millions citizens
estimated impact

The forecast also considers the generational shift that provides a change in the survey population subject over the next 7 years due to the generational change

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Monitoring the Italian Strategy for Digital Skills

Six-monthly and annual cycle

Six-monthly cycle

Annual cycle

ACT

PLAN

CHECK

DO

Consolidation and identification of improvements on the lines of intervention and objectives

Identification and updating of the intervention lines and objectives

Verification of the impact of lines of action and objectives on the performance indicators (EUROSTAT, ISTAT, internal, data

Monitoring of intervention lines and objectives

Consolidation and identification of improvements on actions

Identification and updating of actions

Check the progress of actions on result indicators and milestones

Monitoring of actions

OPERATING PLAN

Monitoring the Italian Strategy for Digital Skills

Two monitoring levels

1

Monitoring of the
specific action

- ✔ progress and outcomes achieved
- ✔ effectiveness assessment (pilot)

2

Overall monitoring of the
Operational plan

- ✔ coverage of actions on the expected impacts (outcomes indicators vs impact indicators)
- ✔ adequacy of the improvements compared to target values

The monitoring activity is supported by **Invitalia** and **Politecnico di Milano**

Monitoring the Italian Strategy for Digital Skills - specific action

Operational Plan actions' state of progress

Total actions' sheet	111
Actions' sheet received	49
% Detection progress	**44%**

Coordinator	Action-sheets
Ministry of Education	**42**
Ministry of University and Research	**19**
Ministry for Economic Development	**19**
Ministry for technological innovation and digital transformation	**15**
Minister of Public Administration	**16**

ACTIONS IN PROGRESS
31
63%

ACTIONS NOT STARTED
12
25%

ACTIONS COMPLETED
3
6%

ACTIONS SUSPENDED
3
6%

INITIATIVES OF THE NATIONAL COALITION
250+

Monitoring the Italian Strategy for Digital Skills - specific action

First findings

Reorganisation of certain actions in progress/not started in order to with policies and national and international programs (i.e. Partnerships agreement, PNRR)

Review/improvement of certain elements useful to the **detection** process (indicators, milestones, target values) and to the **implementation measurement**

Individuation of possible **implementation obstacles** (i.e. epidemiological emergency, critical administrative issues)

Monitoring the Italian Strategy for Digital Skills - specific action

Effectiveness assessment pilot action: Digital Civil Service project

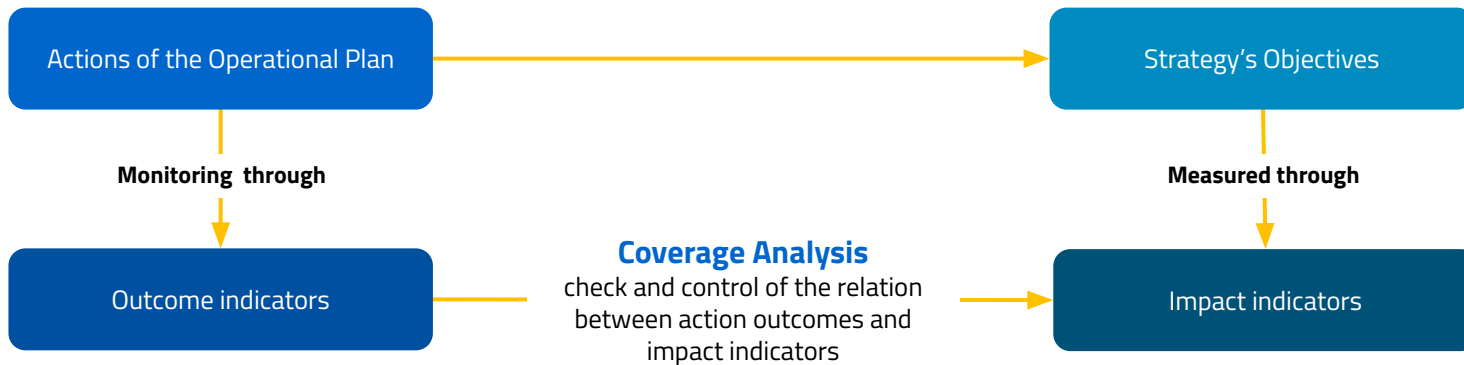| Objective		Activity
Quantify the impact (complementing with qualitative evidence) and **support the employability of volunteers**	⟼	**Evaluate the impact** of the policy on the digital competences of *digital facilitators* **(volunteers)**
Quantify the impact (complementing with qualitative evidence) and **identify channels that improve effectiveness**	⟼	**Evaluate the impact** of the policy on the digital competences of **(marginalized) citizens**
Collect and systematize evidence for **policy readjustment and innovation**	⟼	Compare the structural characteristics of the DCS programs and projects, to **identify potential sources of impact**
Sustain the employability of volunteers at the end of the Civil Service + **incentivize effort and training during the program**	⟼	Develop a **centralized certification scheme** for the digital competences acquired by *digital facilitators* (volunteers)

16

Monitoring the Italian Strategy for Digital Skills - overall plan

Indicators coverage analysis

Actions of the Operational Plan → Strategy's Objectives

Monitoring through

Measured through

Outcome indicators

Coverage Analysis
check and control of the relation between action outcomes and impact indicators

Impact indicators

52 (25%)
outcome indicator that show a **strong relation**

119 (57%)
outcome indicator that show a **less relevant relation**

38 (18%)
outcome indicator that **do not show a relation**

30 (46%)
impact indicator enhanced by **strong relations**

29 (45%)
impact indicator enhanced by **less relevant relations**

6 (9%)
impact indicator that **are not enhanced**

Monitoring the Italian Strategy for Digital Skills - overall plan

Indicators values coverage analysis

	Average level of **coverage**	**Most covered** indicator	**Least covered** indicator
1 Higher Education and Training	10	Individuals (16-19 year-old) using internet for learning activities	STEM Graduates (per 1000 of population aged 20-29)
2 Active workforce	11	Employed in public/private sector with advanced digital skills (%)	Unemployed who use internet for job search activities %
3 ICT specialist skills	14	Enterprises that recruited or tried to recruit ICT specialists	ICT Graduates
4 Citizens	15	Individuals with at least basic digital skills	Individuals who never used internet

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Monitoring the Italian Strategy for Digital Skills - overall plan

Indicators values analysis vs target - Example: Axis 4 - Citizens (based on Eurostat 2020 data)

Impact indicators	EU 27 Operational Plan	EU 27 Last updated value	ITALY Operational Plan	ITALY Last updated value	EU 27 progress	ITALY progress	Average annual progress to reach the target	Target
Individuals who use the Internet at least once a week	**85%** (2019)	**86%** (2020)	**74%** (2019)	**76%** (2020)	**+1%**	**+2%**	**+4%**	**94%** (2025)
Individuals who have never used the Internet	**9%** (2019)	**9%** (2020)	**17%** (2019)	**14%** (2020)	**=**	**−3%**	**−2,8%**	**3%** (2025)
e-Government services user (who sent completed forms to PA in the last 12 months)	**38%** (2019)	**38%** (2020)	**14%** (2019)	**17%** (2020)	**=**	**+3%**	**+10%**	**64%** (2025)
Individuals 25 to 64 with low formal education who have used the internet in the past 3 months	**73%** (2019)	**77%** (2020)	**64%** (2019)	**70%** (2020)	**+4%**	**+6%**	**+5%**	**89%** (2025)
Individuals 65 to 74 who have used the internet in the past 3 months	**61%** (2019)	**61%** (2020)	**42%** (2019)	**45%** (2020)	**=**	**+3%**	**+8,4%**	**84%** (2025)

Monitoring the Italian Strategy for Digital Skills - overall plan

Indicators values analysis vs target

Update of 2020 EUROSTAT indicators

Indicators which value was updated in 2020

27
42%

Improvement **in line with the targets**	**11** indicators	✔ Use of internet for educational purposes ✔ Use of cloud services and big data analysis by enterprises ✔ STEM graduates ✔ Advanced digital skills
Improvement **not in line with the expected improvement**	**11** indicators	✔ Employed and enrolled in educational STEM courses ✔ Employed and specialists in ICT ✔ *eGovernment* services users
No improvement	**5** indicators	✔ Students that follow universities' courses in the ICT field ✔ SMEs and specialists in ICT

Monitoring the Italian Strategy for Digital Skills - overall plan

First evidences

Impact indicators
not covered enough

Values of the impact
indicators that are **not in
line with expectations**

What to do

✔ **new actions**

✔ **expansion of the impact** of the already active
actions (i.e. with increased integration with the
initiatives of the Coalition)

✔ launch of **co-projecting focus groups**

Next steps

We are here

Completion of the detection of implementation data and gathering of suggestions from the Technical Steering Committee in order to improve the implementation capacity of the Operational Plan

Publication of the Operational Plan monitoring report

Conclusion of the **semestral monitoring cycle**

Review of elements of the Plan (actions, indicators, target values and milestones) not in line with new policies or that do not facilitate achieving the objectives

Change of the elements of the Plan (actions, indicators, milestones) that do not contribute to achieve the objectives

Update of the Operational Plan

Conclusion of the **annual monitoring cycle**

Thanks for your attention!