



Skills Intelligence Emilia-Romagna: a case study to anticipate skills needs at regional level

29 April 2025 | Lara Porciatti - Senior project manager, ART-ER





ART-ER: who we are

The Consortium of Emilia-Romagna (Italy) established to foster the **sustainable growth** of the region through the development of **innovation and knowledge, attractiveness** and **internationalization** of the territory

<https://en.art-er.it/>

Emilia-Romagna, Italy



| | | | |
|---|--|---|----------------------------------|
|  | Official name Emilia-Romagna | Area 22.453 square km | GDP per capita 33.614€ |
| | Country Italy | Population 4.4 M of inhabitants | Employment Rate 68.3% |
| | Official Language Italian | Metropolitan City Bologna | Unemployment Rate 5,6% |
| | 1st Foreign Language English | Traffic Right-handed | |
| | Currency EURO | Time Zone GMT+2 | |
| | | Country Code +39 | |
| | | | |
| | | | |
| | | | |

Source: ISTAT, 2019

OUR PARTNERS

Emilia-Romagna Region

5 regional **Universities**

National Research Centres located in the region
(CNR, ENEA, INFN)

The Regional **Union of Chambers of Commerce**

Metropolitan City of Bologna

Other local representatives



Before telling you about
Skills Intelligence
Emilia-Romagna, it's
important to know...

Smart Specialization Strategy

Smart Specialisation Strategy (S3) is adopted by the EU regions and Member States in order to identify objectives, priorities and actions for optimising **investments effects in research and innovation**, by concentrating resources on areas with greatest growth potential.

a policy concept that aims to boost regional innovation

Emilia-Romagna Smart Specialization Areas

INDUSTRIAL SPECIALISATION SECTORS

AGRIFOOD

BUILDING AND CONSTRUCTIONS

MECHATRONICS AND AUTOMOTIVE

HEALTH AND WELLBEING

CULTURAL AND CREATIVE INDUSTRIES

SERVICE INNOVATION & ICT

ENERGY AND SUSTAINABLE DEVELOPMENT

CLUST-ER

AGRIFOOD

AGROALIMENTARE

CLUST-ER

BUILD

EDILIZIA E COSTRUZIONI

CLUST-ER

MECH

MECCATRONICA E MOTORISTICA

CLUST-ER

HEALTH

SALUTE E BENESSERE

CLUST-ER

CREATE

CULTURA E CREATIVITÀ

CLUST-ER

INNOVATE

INNOVAZIONE NEI SERVIZI

CLUST-ER

GREENTECH

ENERGIA E SOSTENIBILITÀ



THE CLUST-ERS ASSOCIATIONS



Communities of public and private bodies (research centers, companies, training bodies) created to support the competitiveness of the most important production systems in Emilia-Romagna.

11 Associations

700+ Associates

360+ Companies

302 Research Centres, Training Bodies, others

32 Value Chains

[WATCH THE VIDEO](#)

[GO TO THE WEBPAGE](#)

AGRIFOOD

URBAN ECONOMY

BUILDING AND CONSTRUCTIONS

ENERGY AND SUSTAINABLE DEVELOPMENT

TOURISM

CULTURAL AND CREATIVE INDUSTRIES

SERVICES INNOVATION

MECHATRONICS AND MOTORISTICS

HEALTH AND WELLBEING

**50% of companies in
Emilia-Romagna does not find
the skills they need**

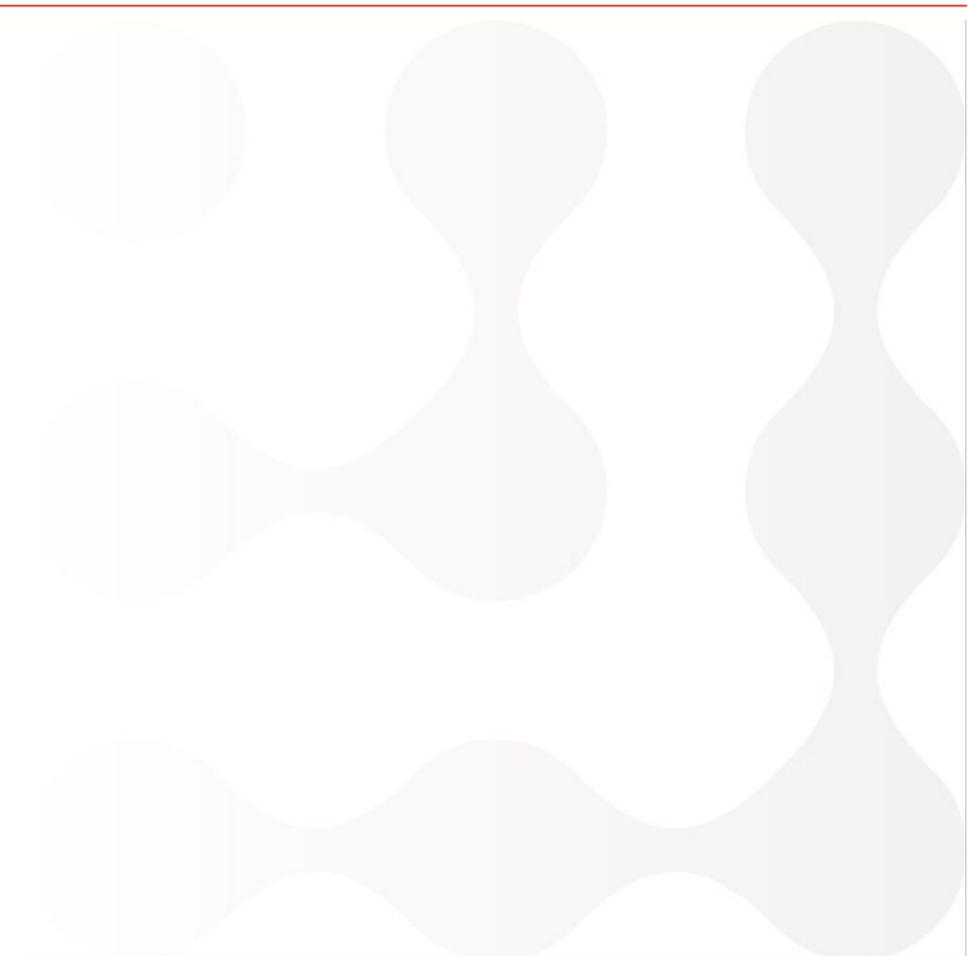
So, what can we do?

Mitigating skill mismatch requires **an integrative approach to skills governance** at regional/local level.



1° step: use evidence-based analysis to understand better skills needs at local level (skills intelligence)

Skills intelligence Emilia-Romagna



SKILLS INTELLIGENCE EMILIA-ROMAGNA: Stakeholder



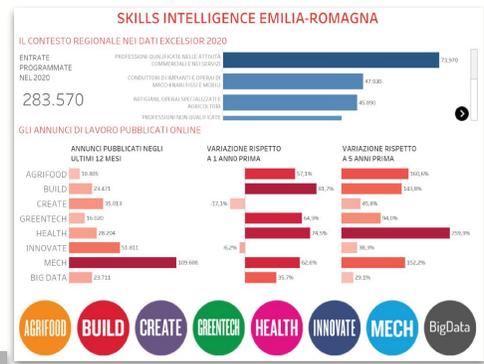
UNIONCAMERE
EMILIA-ROMAGNA



2018/2019



2021



2023



2024



Regional law 2/2023
 «Attracting, valorising and promoting highly specialized talents in Emilia-Romagna»

DI 29.03.2024
 Skills Intelligence ER recognised as best practice at national level

Toward a permanent regional system of skill needs anticipation

SKILLS INTELLIGENCE ER

TOOL

Quantitative data



FOCUS GROUP

Qualitative data



EVENTS, WORKSHOP Capacity Building



TALENT OBSERVATORY



STAKEHOLDER BOARD of the regional law 2/2023



TOOL (quantitative data)

Skills Intelligence Emilia-Romagna (in Italian)

HOME

ASSUNZIONI

ANNUNCI

FABBISOGNI



SKILLS INTELLIGENCE EMILIA-ROMAGNA

**LE COMPETENZE E I PROFILI
PROFESSIONALI RICERCATI
DALLE IMPRESE**

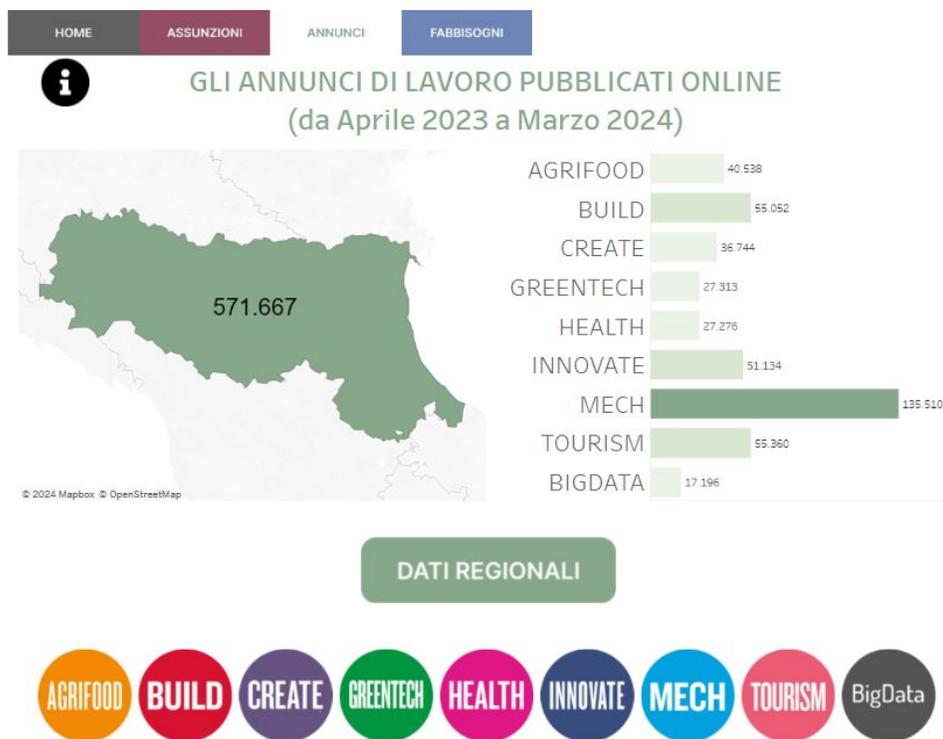


<https://emiliaromagnainnodat.a.art-er.it/skills-intelligence-emilia-romagna/>

Skills Intelligence Emilia-Romagna main peculiarities

- ER Smart specialization strategy
- Bottom-up & multistakeholder approach
- Open interactive data tool





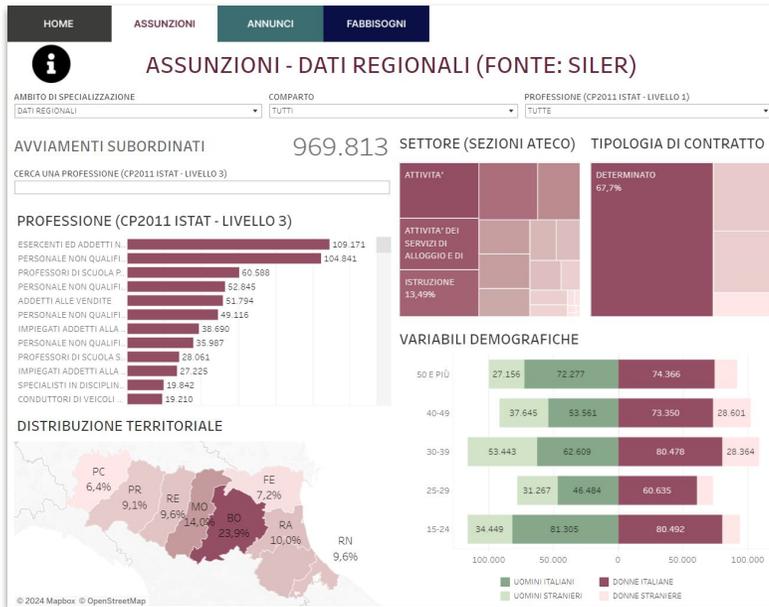
An **open, interactive** digital tool that shows data on skills and profiles

demand, using data from **OJV** - online **job vacancies** offered in Emilia-Romagna (**lightcast**); **hired**, using administrative data extracted from **contracts** ([regional employment agency](#)); **expected**, using data extracted from the official **survey** on **skills needs** ([Excelsior Information System](#))

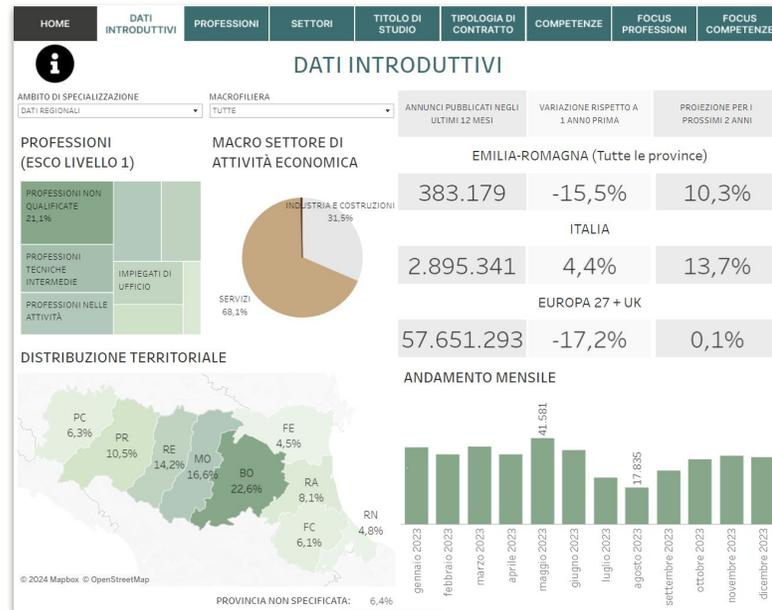
Combination of innovative and traditional data

Skills Intelligence Emilia-Romagna

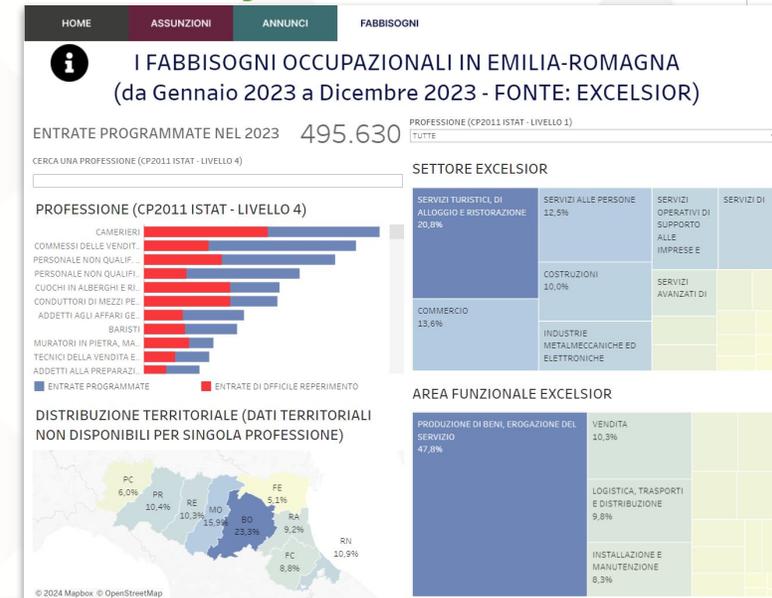
#contracts



#onlinejobvacancy



#survey



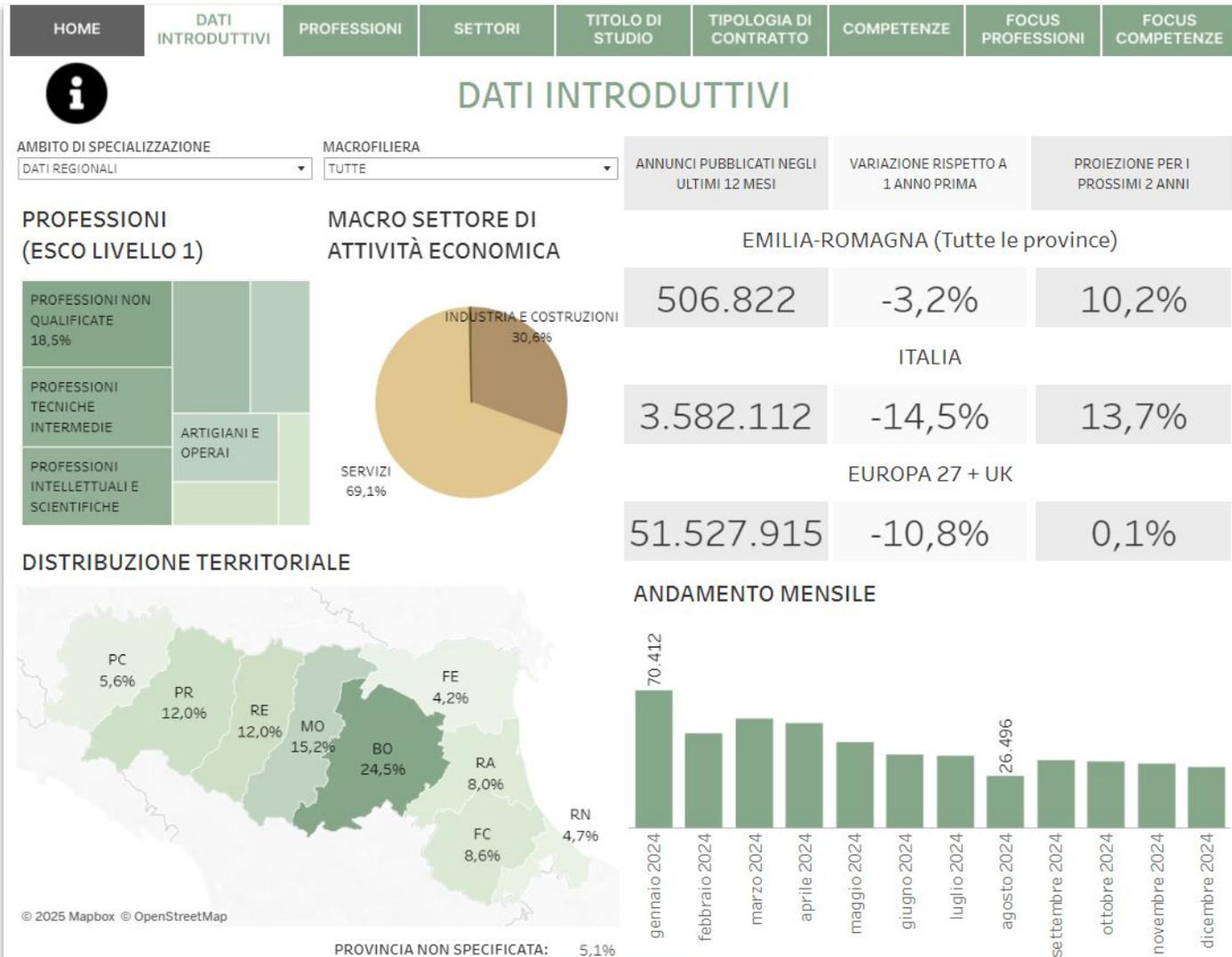
SKILLS INTELLIGENCE EMILIA-ROMAGNA

what you can find in the tool

- **what are the most demand job profiles and skills** by private companies
- **in which sectors and S3 areas**
- **how hard it is to find them**
- with **which skills** (soft, hard and digital) and their expected growth
- with **what qualification**
- with what **type of contract**
- with what kind of **previous experience**

SKILLS INTELLIGENCE EMILIA-ROMAGNA: an example

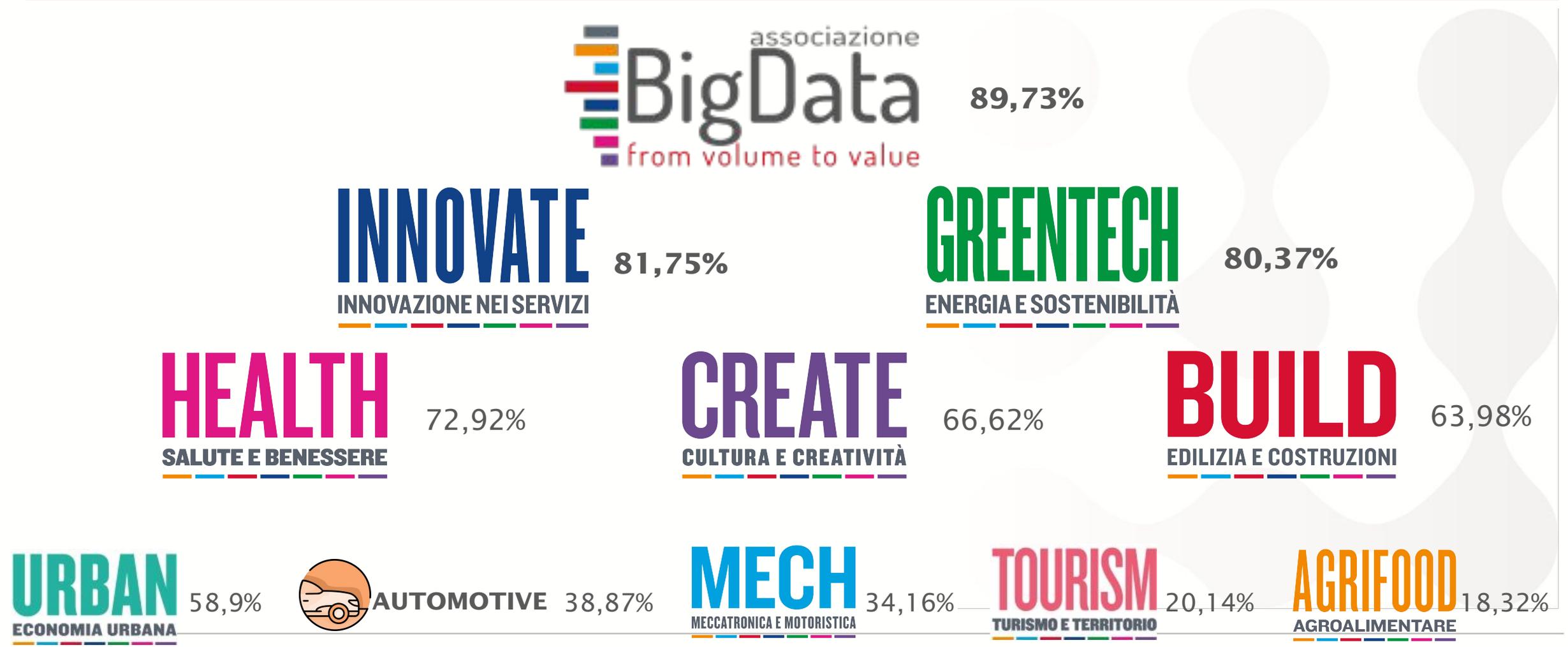
Annunci di lavoro online - dati regionali (gennaio - dicembre 2024)



I dati della sezione ANNUNCI di Skills Intelligence Emilia Romagna si riferiscono al **settore privato**

S3 areas demanding skilled job profiles

(% AC sul totale annunci dei singoli ambiti)



Higher skilled profiles most demand in ER

(fonte: Skills Intelligence Emilia-Romagna - **january** - **december** 2024)

Specialisti in basi dati e in reti informatiche (nca)

Specialisti della pubblicità e del marketing

Analisti della gestione e organizzazione

Sviluppatori di software

Tecnici per l'assistenza agli utenti delle ICT

Analisti di sistema

Ingegneri specializzati

Dirigenti nel settore ricerca e sviluppo

Amministratori di sistema

Ingegneri industriali e gestionali

Top 6 skills for higher skilled profiles in Big Data, Emilia-Romagna

Conoscenze

Computer ed elettronica

HR management

Lingue

Amministrazione e management

Media e comunicazione

Competenze specifiche

Soluzione di problemi complessi

Time management

Programmazione

Analisi del controllo qualità

Gestione delle risorse finanziarie

Strumenti e tecnologie

Utilizzo di strumenti digitali

Object or component oriented development software

Interfaccia utente del database e software di interrogazione

Software di sviluppo di piattaforme web

Development environment software

Top 6 skills for higher skilled profiles in Big Data, Emilia-Romagna

Abilità

Fluidità delle idee

Originalità

Espressione orale

Ragionamento matematico

Attività lavorative

Computer skills

Pensare in modo creativo

Assistere e curare gli altri

Analizzare dati o informazioni

Promuovere e costruire gruppi di lavoro

Stili di lavoro

Cooperazione

Abilità/flessibilità

Leadership

Affidabilità

Pensiero analitico

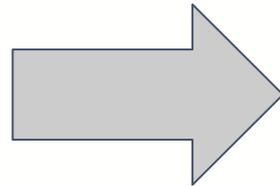
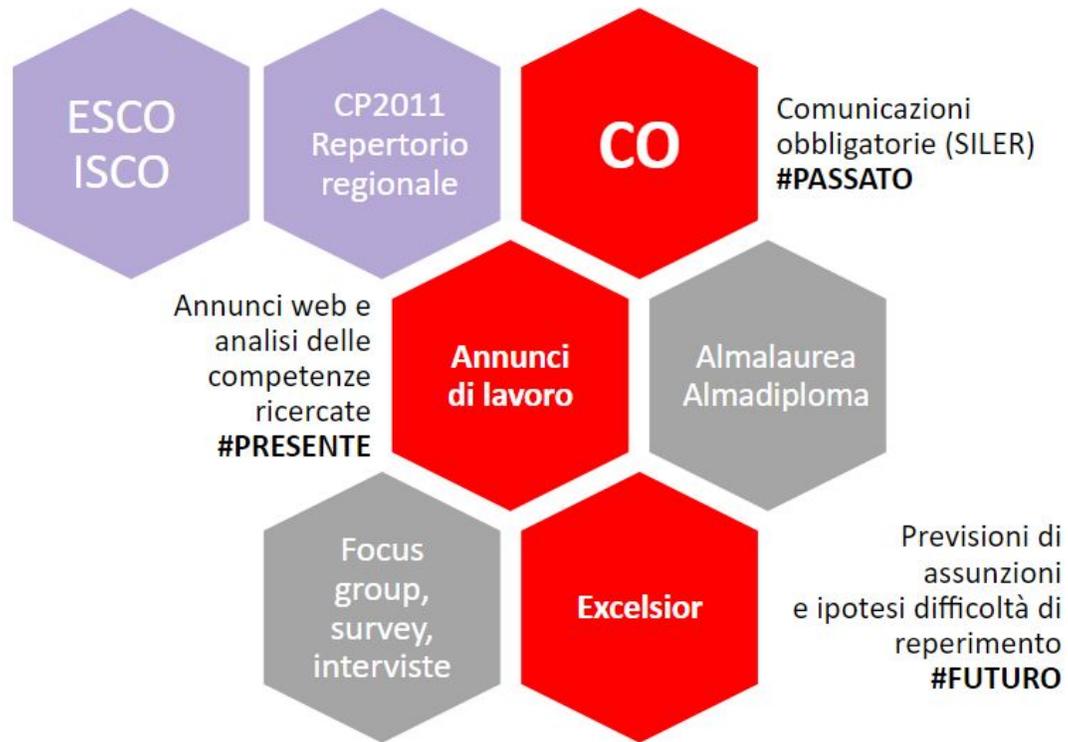
Application



Short term goal

To build an open, interactive **dataset** for all regional actors working in the field of **education and training (but not only)** which can use to fill the gap among training curricula and industry demand and to support **career guidance**

Long term goal: a regional data-driven system for skills needs analysis



Regional law
2/2023 «Attracting, valorising and promoting highly specialized talents in Emilia-Romagna»

Data-driven skills policy & practice

skills intelligence

talent attraction

talent retention

talent circulation

[it-ER Careers](#) - international recruitment campaigns
Country Study - to attract non-EU workers

[EXCEED PROJECT](#) (EU Centre of Vocational Excellence initiative)

Design of [local services](#) for talents relocation and retention
Application on University **placement / career guidance services**

EU networks where we are sharing Skills Intelligence ER experience



CoVE EXCEED



PACT 4 SKILLS



EIT HEALTH (Large-scale skills partnership for the health industry)



Lesson learnt



[Image by storyset on Freepik](#)

Strengths

- stakeholder engagement (based on long-trusted relationships) and bottom up approach
- dissemination
- collecting and harnessing local use case
- free support assistance for local actors
- policy recognition

Weakness

- limits to the comparison among different sources
- make stakeholder aware of the differences among foresight vs forecast and the need of an official taxonomy to be used
- public administration skills need is not well represented

Next steps



Next steps

- including training curricula data and skills supply in the quantitative analysis
- including job vacancies in public administration sectors
- application on stronger data-driven talent attraction policy/practice (ex. Country report -> Labour Migration attraction project)

Thanks for your attention!

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