Microsoft

AI 4 Italy
Power your AI transformation with the Microsoft Cloud

Diego Bonsangue

Partner Development Manager & Azure AI Engineer

What can AI do for you?

87% of organizations believe AI will give them a competitive edge

Source: MIT Sloan Management Review

Employees are ready to embrace AI

64%

Employees lack time & energy to do their job

3.5X

More likely to struggle with strategic thinking

70%

Employees willing to delegate work to AI

60%

of leaders say a lack of innovation is a concern

Source: 2023 Work Trends Index

Power your AI transformation with the Microsoft Cloud

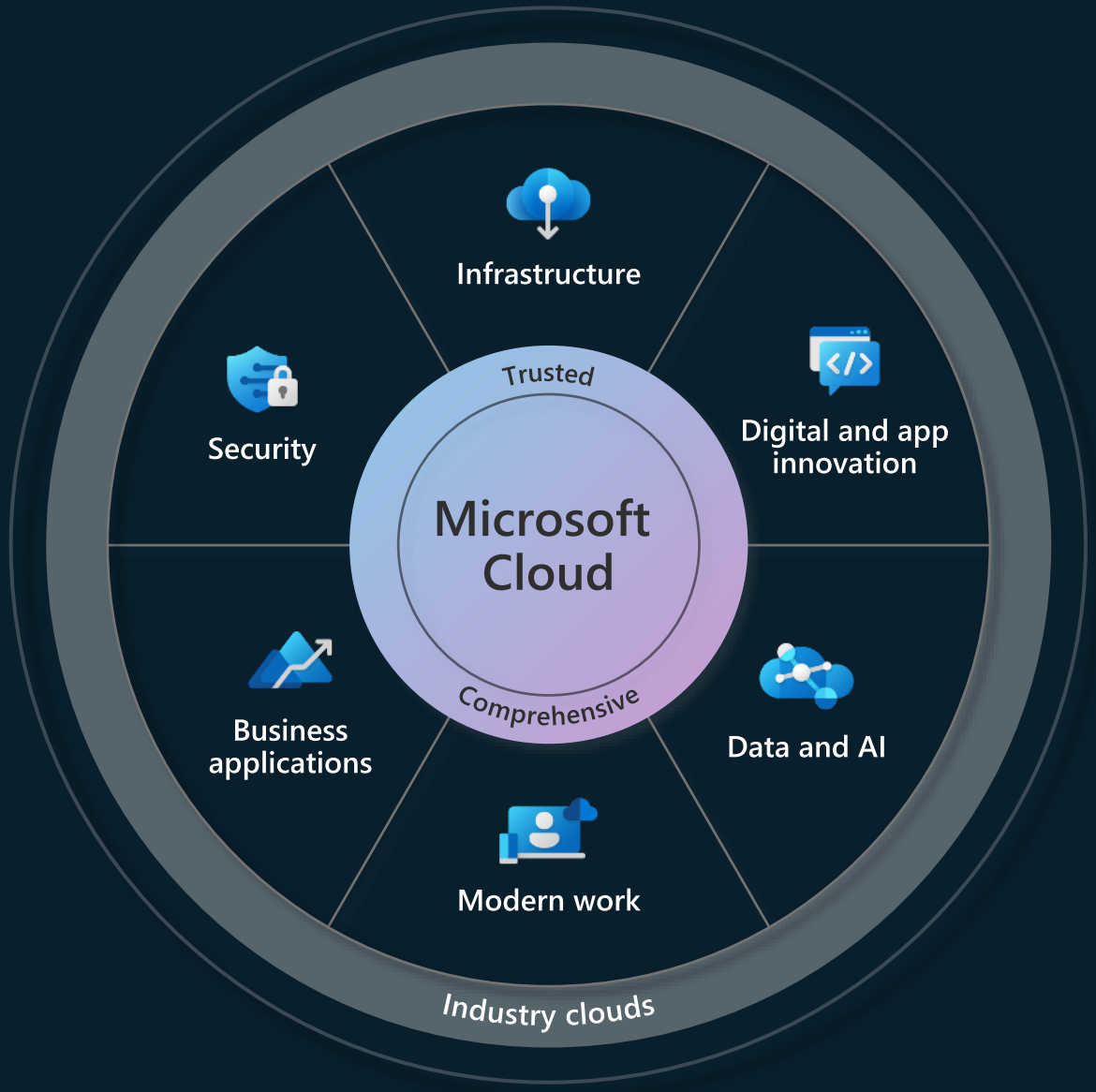
Amplify human ingenuity with a copilot for everyone

Deliver transformational experiences by building your own intelligent apps

Safeguard your business and data with the most trusted AI platform

Microsoft Cloud

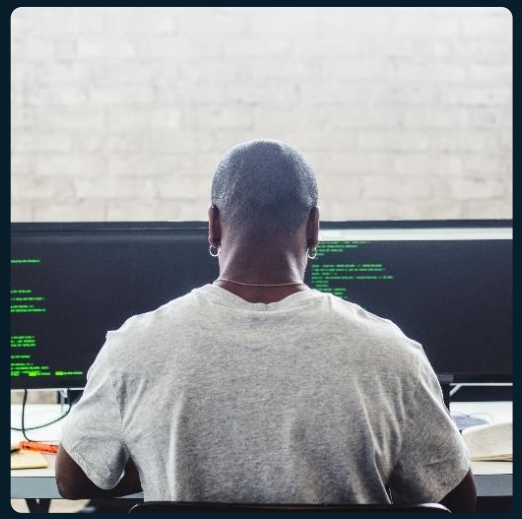
The most trusted and comprehensive cloud



Empowering everyone to achieve more

Every employee

Functional business roles



Security & IT professional

Developer & data professional

What every employee wants from AI

Finding info and answers

Summarizing meetings and action items

Creative work

Analytical work

Planning their day

Admin tasks

Microsoft 365 Copilot

Works alongside you in the apps you use every day

Natural Language

Large Language Models

+

Microsoft Graph
- Your Data -

+

Microsoft 365 Apps

+

The Internet

What sellers want from AI

Prospecting and lead generation

Sales presentations and demos

Customer relationships

Negotiating and closing

Collaboration with other sellers

Achieving sales targets

Turbocharge your workforce with a copilot for every job role

Sales

Recap sales meetings

Contextual customer emails

Auto-generated opportunity summaries

Marketing

Generate content ideas

Natural language audience segmentation

Simplify customer insights

Service

Create customer responses

Enhance self-service bots

Boost conversations

Supply Chain

Predict disruptions

Summarize purchase order changes

Finance and Operations

Create product descriptions

Risk assessment

Collections workspace

Dynamics 365 Copilot

Sales Copilot

Unlock sales productivity | Personalize every customer interaction | Stay in the flow of work

Generated opportunity and lead summaries

Meeting preparation and summaries

AI-assisted email creation

Supports both Dynamics 365 and Salesforce

What security pros want from AI

- Digital threat protection
- Endpoint protection
- Identity and access management
- Incident response and reporting
- Compliance management
- Data and app protection

Microsoft Security Copilot

The first generative AI security product to help defend organizations at machine speed and scale.

Enables response in minutes, not hours

Simplifies the complex with natural language prompts and easy reporting

Can catch what others miss with deeper understanding of events

Upskill your security talent with cyber-trained generative AI

What developers want from AI

Guidance and suggestions

Coding with context

Autofill repetitive code

Convert comments to code

Code documentation

Automatic test generation

Copilot in Power Platform

Streamlined, intuitive low-code development for everyone

AI-driven development efficiency and productivity

Lower barriers to build and launch solutions

Cross-platform integration to simplify creation

Copilot in Power Platform

Streamlined, intuitive low-code development for everyone

AI-driven development efficiency and productivity

Lower barriers to build and launch solutions

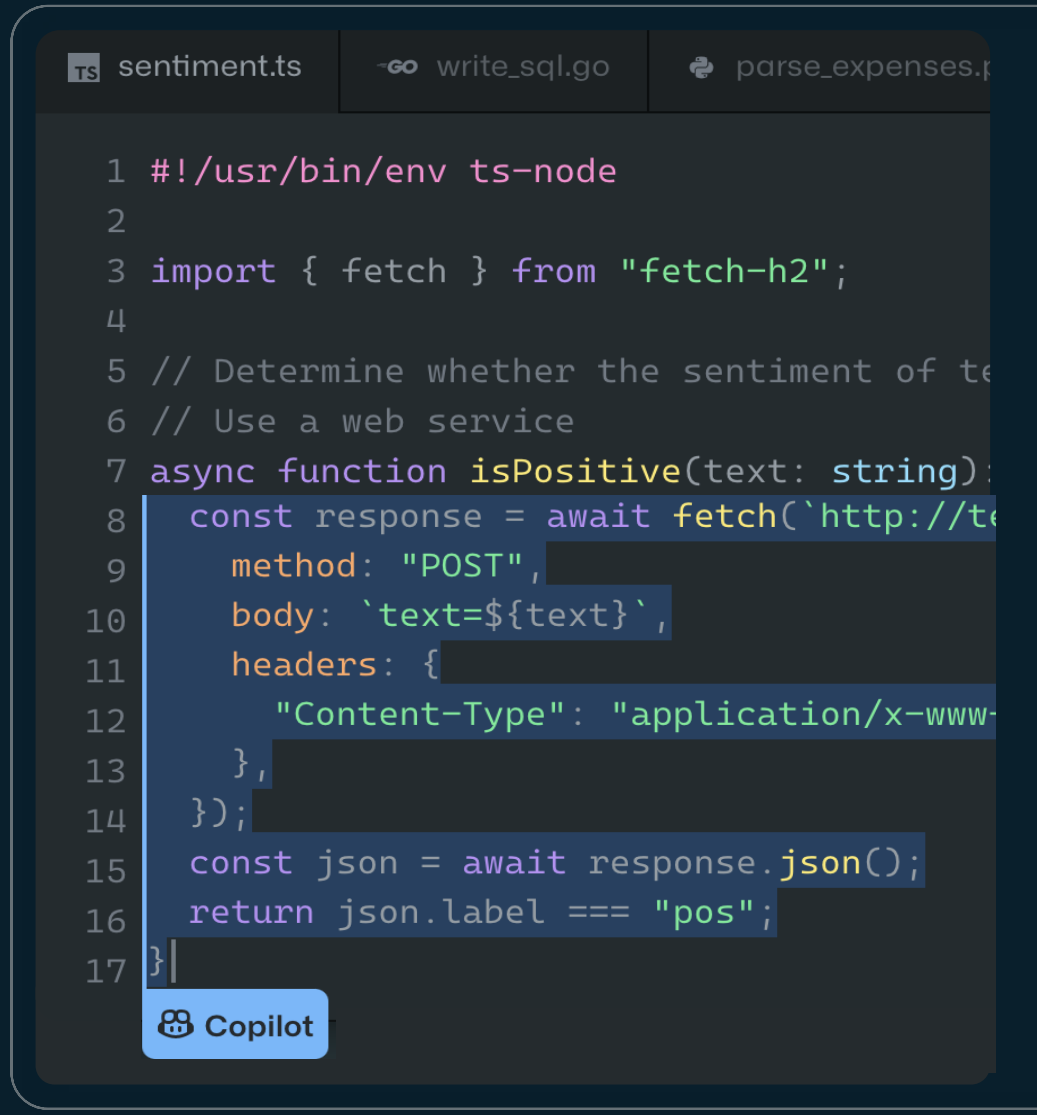
Cross-platform integration to simplify creation

GitHub Copilot

46% | of new code is now written by AI

55% | faster overall developer productivity

75% | developers feel more focused on satisfying work



InnoTech Hub

The European House Ambrosetti

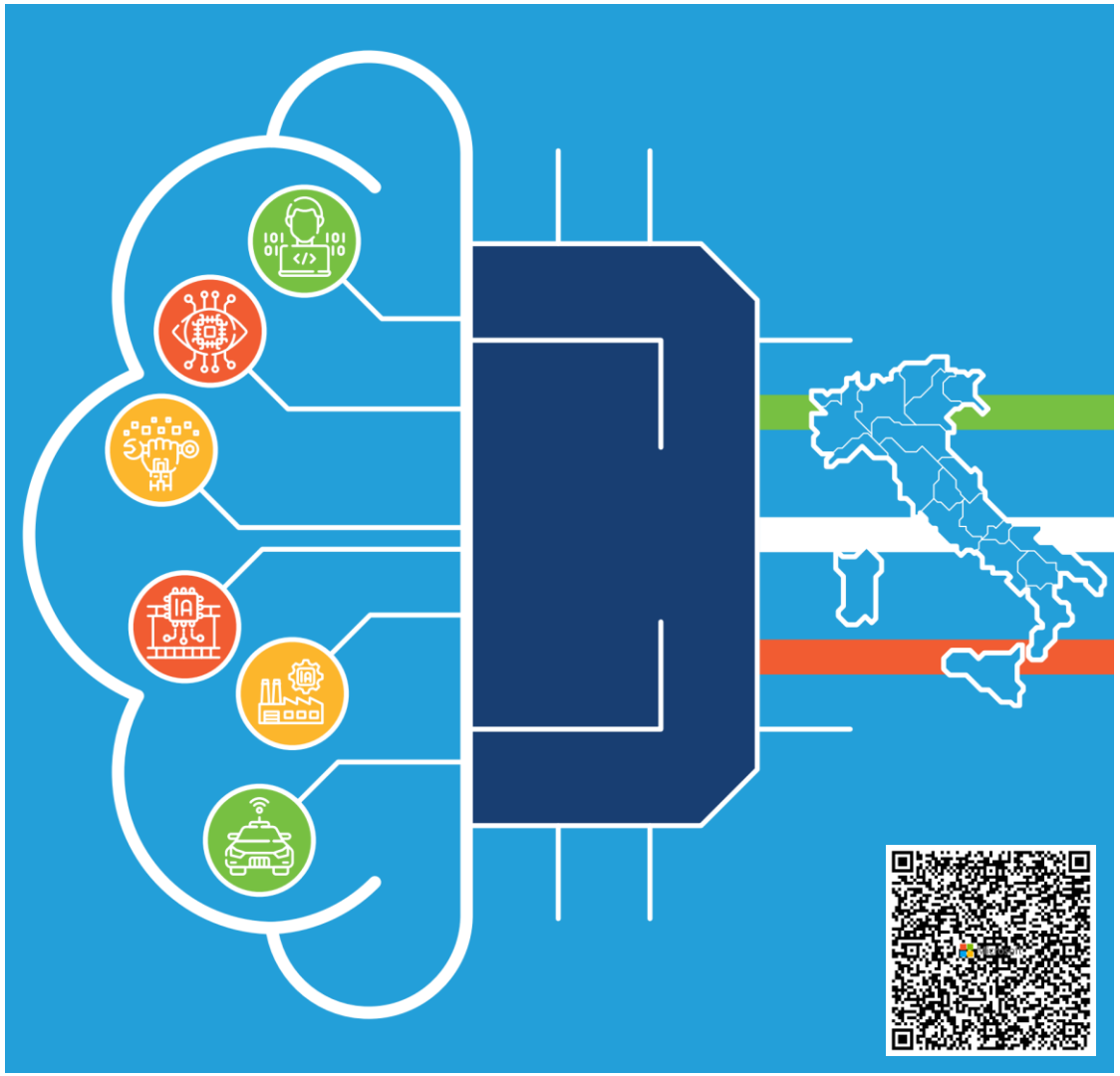
AI 4 Italy

Impacts and Prospects of Generative Artificial Intelligence for Italy and Made in Italy

Microsoft

Presentation of the results of the research work

Cernobbio, September 1, 2023



The European House Ambrosetti

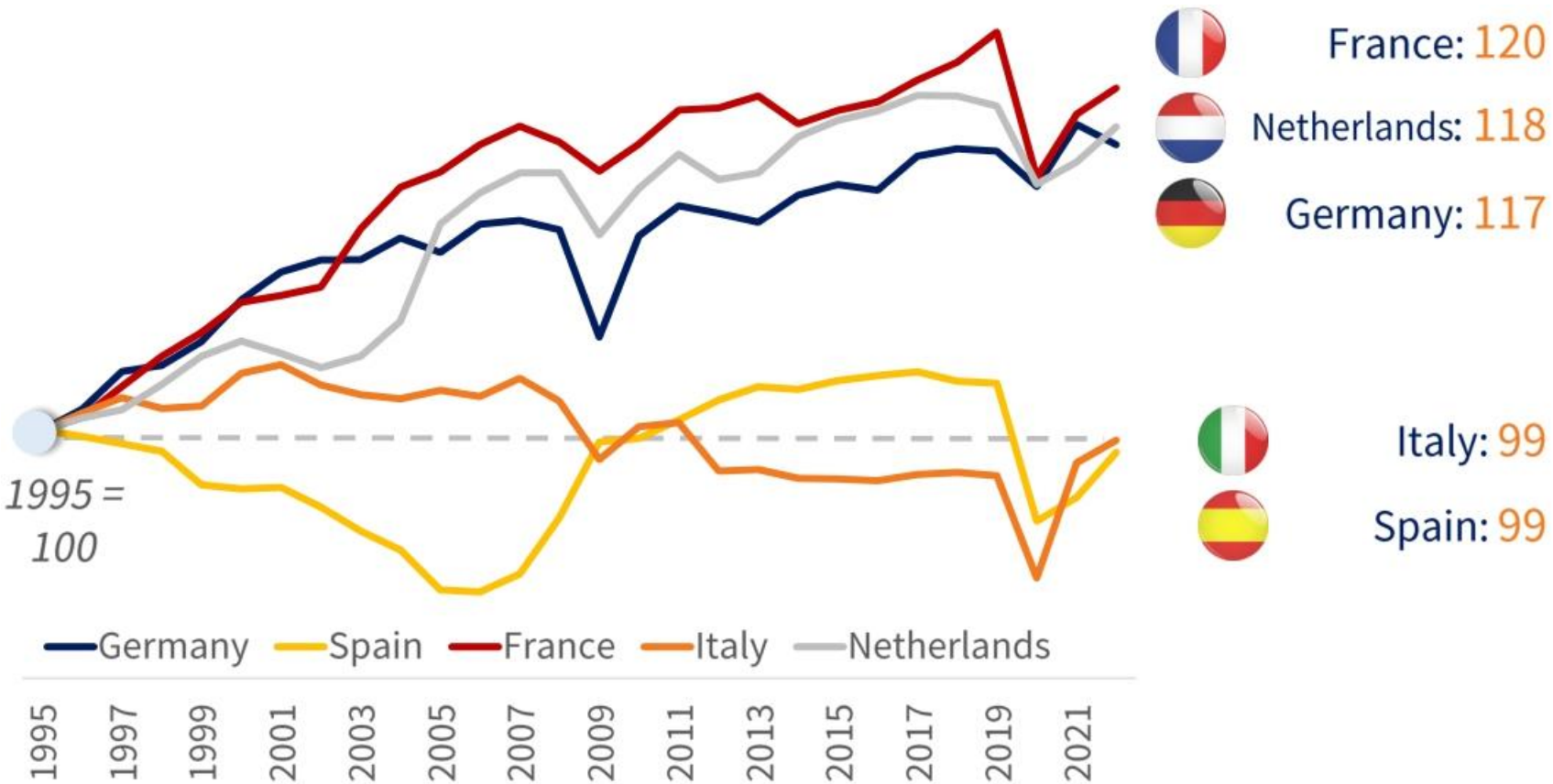
© 2023 The European House - Ambrosetti S.p.A. ALL RIGHTS RESERVED.

The 5 key messages of the research

1. **Italy needs Generative Artificial Intelligence** to unlock productivity and counter the adverse effects of an aging population
2. **Generative AI use cases cut across all sectors**: the question is not whether there will be an impact, but how important it will be
3. **Italy's productivity may increase by up to 18%** through a systemic adoption of Generative Artificial Intelligence
4. Generative AI poses several ethical-social risks: therefore, it is necessary to develop a **responsible approach**, characterized by transparency, accountability, safety, and equity
5. To seize all the opportunities of generative AI, **Italy needs to stimulate the digitization of enterprises**, with a focus on small and medium-sized ones, and **develop the right skills**

The country's productivity has been stagnant for three decades...

Evolution of real Value Added per employee in EU countries
(Index number - 1995 = 100), 1995-2022



France: 120
Netherlands: 118
Germany: 117
Italy: 99
Spain: 99

In 2022, the **nominal value added** of the Italian economy was about **1,714 billion euros**

Value added per employee was about **€74,200**, far behind the Netherlands, France, and Germany

The European House Ambrosetti

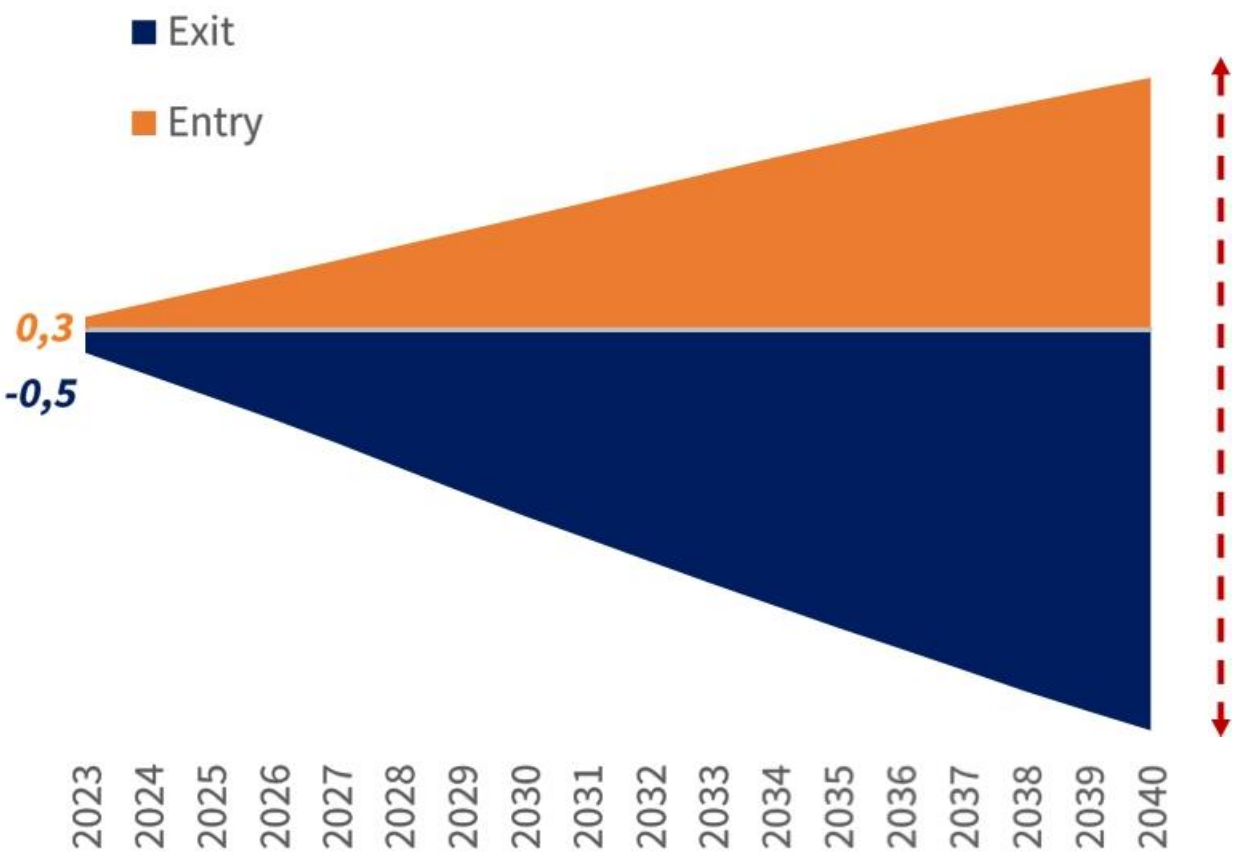
Source: elaboration The European House - Ambrosetti on Eurostat data, 2023

By 2040, due to an aging population, Italy will lose about 3.7 million workers on the job market...

On average in Italy, **young people** enter the **labor market** at **age 24** and **workers leave the market** at **age 64** (average retirement age)

For the purposes of the estimation model, this is equivalent to saying that in **2023 those born in 1999 entered** the labor market and those **born in 1959 exited**, and so on

Expected labor market trends in Italy
(million employed), 2023 - 2040



IN 2040...

6.2 million young people will enter the workforce

GAP: 3.7 million fewer workers

9.9 million people who will retire

The European House Ambrosetti

Source: elaboration The European House - Ambrosetti on ISTAT data, 2023

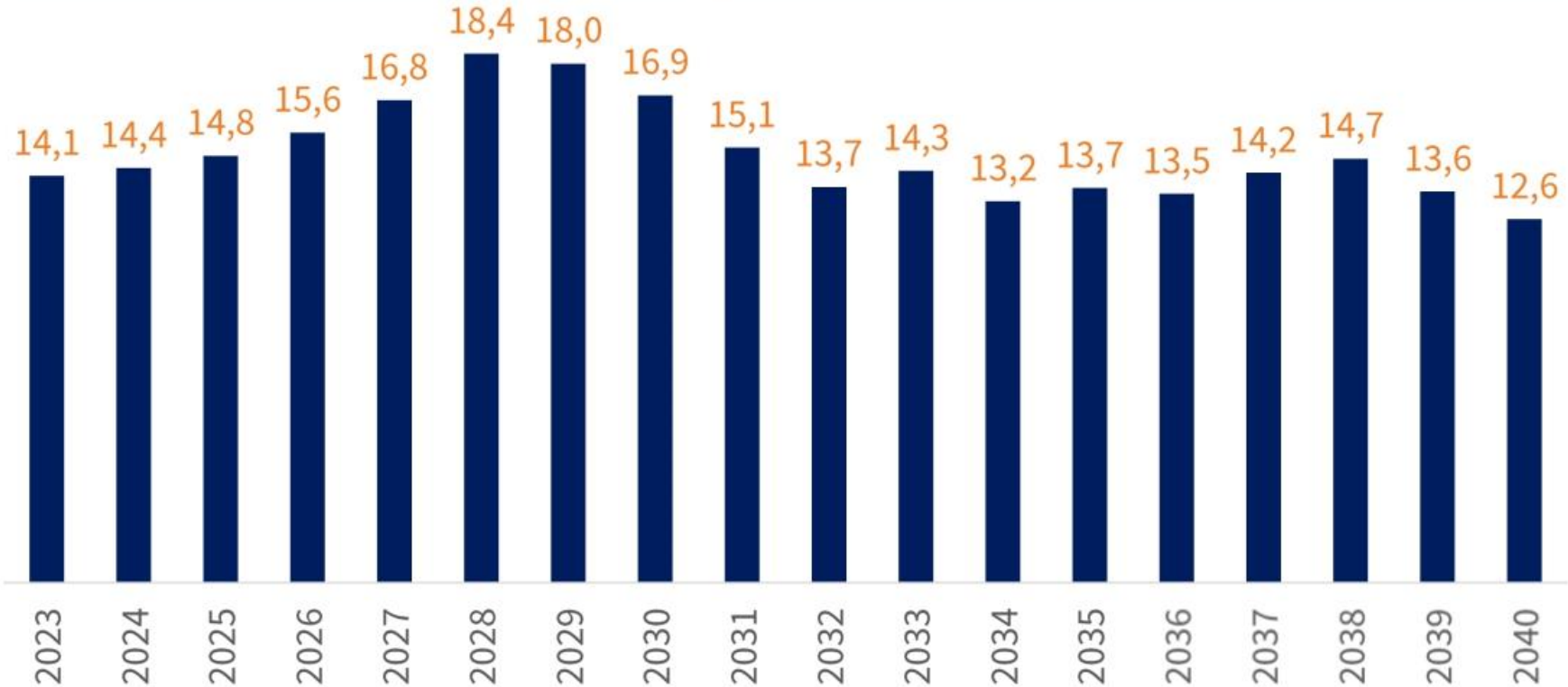
3.7 million workers produce 268 billion of GDP, which we will have to find ways to achieve with more capital and more technology

Value added to be supported with technology
(Billion Euros), 2023 - 2040

Total 2023 - 2030: ***129.0 Bn €.***

Total 2031 - 2040: ***€138.8Bn.***

→ ***Total 2023 - 2040 267.8 Bn €***



Methodological note:

For every worker who leaves the labor market, the country loseson average €74,200 in Value Added per year

The European House Ambrosetti

Source: elaboration The European House - Ambrosetti on ISTAT and OECD data, 2023

Generative AI use cases cut across all industries and processes: we have identified 120 different applications

To identify the use cases of Generative AI, we constructed a **three-dimensional matrix** crossing the different economic sectors, the business processes involved and the relative degree of technological maturity, breaking down 120 different types of use cases

Sectors

Identifying **15 economic sectors** using the official NACE system of the EU Commission

Processes

Identification **8 key processes** impacted by generative AI using literature analysis

Maturity

Use of Artificial Intelligence (ChatGPT) to qualify the **degree of maturity in low, medium, or high** for each intersection of industry and process

Matrix with 120 use cases

Different industries and processes show different degrees of maturity of Generative AI solutions

Commodity sectors	Processes corporate: Research and development	Design and creativity	Production and supply chain	Customer service	Marketing and sales	Organiz. and processes	Finance	Human Resources
Impact	High	High	Medium-High	Medium	Medium	Medium	Medium-Low	Low
Financial Services	Medium	Medium-High	Medium	High	High	Medium-High	High	Medium-Low
Manufacturing	High	High	High	Medium	Medium	Medium	Medium	Medium-Low
Health and life sciences	High	High	High	Medium	Medium	Medium	Medium	Medium-Low
Telco and ICT	High	High	Medium-High	High	Medium-High	Medium	Medium-Low	Low
Distribution and consumer goods	Medium	Medium-High	High	Medium-High	High	Medium	Medium-Low	Low
Transport	High	Medium-High	High	Medium	Medium-Low	Medium	Medium-Low	Low
Energy and Utilities	High	Medium-High	High	Medium	Medium-Low	Medium	Medium	Low
Entertainment	Medium-High	High	Medium-High	Medium	High	Medium	Medium-Low	Low
Mining industry	High	Medium-High	High	Medium	Medium-Low	Medium	Medium-Low	Low
Education	High	High	Medium-Low	Medium	Medium	Medium	Medium-Low	Medium-High
Agriculture	High	Medium-High	High	Medium	Medium-Low	Medium	Medium-Low	Low
Tourism	Medium	Medium-High	Medium	High	High	Medium	Medium-Low	Low
Construction	Medium	Medium	Medium	Medium-Low	Medium	Low	Low	Medium-Low
Other services	Medium	Medium	Medium	Medium-Low	Medium	Low	Low	Medium-Low
Public sector	Medium-Low	Medium-Low	Low	Medium	Low	Low	Low	Medium-Low

Use cases: how generative AI revolutionizes the world of customer service

The introduction of Generative AI in customer support activities enables the efficiency of both **text chat** with increasingly human-like conversations and **on-call support** with the generation of information *real-time* useful for agents and the introduction of virtual agents

Chatbot

- 24/7 Availability
- More natural conversations
- Personalized responses

Generative AI

Agents

- Summary of customer requirements
- Suggestion of answers
- Support for ticket creation
- Introduction of virtual agents

14-35%
Increased productivity

-9%
Turnover

-25%
Customer dissatisfaction

The European House Ambrosetti

Source: elaboration The European House - Ambrosetti on data from National Bureau of Economic Research, 2023

To measure the impacts on Italy, we built a model that can estimate the productivity effects of Generative AI

Input variables

Breakdown of the Italian labor market into **63,360 tasks and occupations**

88 economic sectors

NACE Rev 2 classification, the official classification of economic activities in the EU

40 professions and **9** macrofamilies

International Labor Organization's International Standard Classification of Occupations **(ISCO)** classification.

18 types of tasks

Taxonomy of the **Joint Research Center of** the European Commission.

*Levels of adoption**

Parameterization of results on estimated adoption levels

*Output variables***

Productivity: **hours worked**

Productivity: **value added**

Methodological note:

*We used the adoption levels identified through the survey as the parameter for adoption levels.

**The productivity potential can be estimated in hours worked for the same VA, or in VA for the same hours worked.

The European House Ambrosetti

An overview of the model results for Italy

... for the same number of hours worked

312 Billion €
of Annual Value Added*
18.2% GDP

Even value:
- 1.6 times the value of PNRR
- Lombardy's GDP
- 120% of manufacturing value added

... for the same added value

5.7 billion annual work hours freed up

Even value:
- The hours worked annually by the entire Czech Republic.
- 9 times the hours of the Italian redudancy fund in 2022
- The hours worked each year by 3.2 mln people

The European House Ambrosetti

Source: elaboration The European House - Ambrosetti on proprietary models, 2023

Image Creator from Microsoft Designer (bing.com)