



ITALIA

LA BELLEZZA UNISCE LE PERSONE
BEAUTY CONNECTS PEOPLE
الجمال يجمع الناس

Partner del Padiglione Italia a Expo 2020 Dubai

LA REGIONE LAZIO VERSO EXPO2020DUBAI

“INFORMAZIONE & FORMAZIONE 4.0” - CICLO DI DIGITAL MEETING



sara.pisano@clusterchico.eu
info@clusterchico.eu

C.H.I.CO.
Innovative Lazio

Cluster of Health Innovation and Community

"The First Wealth is Health"
-Emerson-



Cluster of Health Innovation and Community

Lazio's Healthcare Cluster

Prof. Fabio Miraglia

ALCUNI PARTNER C.H.I.CO



ALCUNE ASSOCIAZIONI ADERENTI



CON IL PATROCINIO DI



PARTNERSHIP INTERNAZIONALI



COLLABORAZIONI

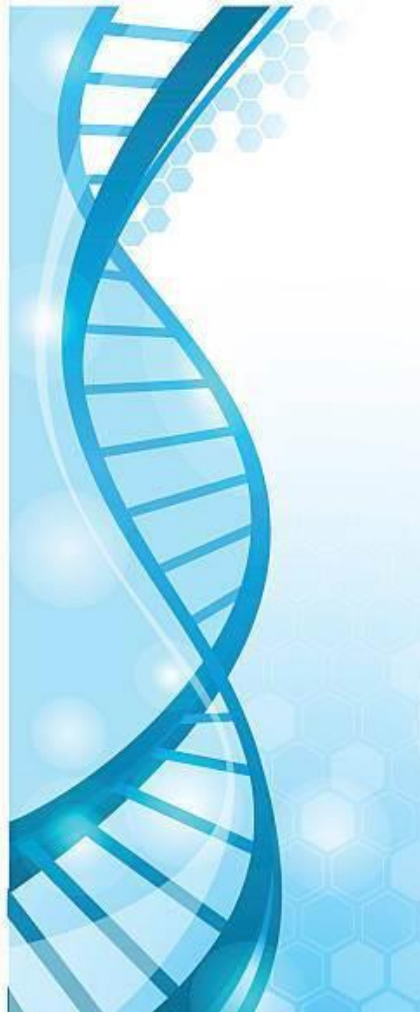


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CHICO's ACTIVITIES

THE HOUSE OF RESEARCH

- An opportunity multiplier, an inclusive environment that favours **synergy between INDUSTRY and RESEARCH**
- Supports the development of projects and partnerships thanks to its dynamic ecosystem
- Contributes to orienting national strategies on the theme of Life Science
- Promotes the technological innovation of the production system, favouring the creation of start-ups e spin-offs
- Develops partnerships in the field of technology transfer and industrial cooperation
- Organizes seminars, events, and conferences promoting the Life Science sector
- **CHICO SYNERGY: networking platform** accessible to members to promote and highlight their innovation projects
- **LIFESEEDER: the first equity crowdfunding platform dedicated to all those wanting to invest in Life Science**





IL SETTORE LIFE SCIENCE

AREAS OF EXCELLENCE

The value that is perceived and recognized on international markets

1. PHARMA

2. INTERNET OF THINGS & TELEMEDICINE

3. ARTIFICIAL INTELLIGENCE e
and GENOMICS (digital twin)

4. NANOTECHNOLOGIES

5. ROBOTICS



THE PHARMA SECTOR

IN ITALY

Italy is the leading producer in the UE and is strong in all the links of the supply chain: **research, production, packaging, and distribution**. Italy Pharma Inc. accounts for 65k employees, 10% of whom are research workers.

The production value amounts to 31 billion, 79% of which is earmarked for export. Prescription drugs are one of the most important export items in our trade balance.

THE LEADING FIVE REGIONS

60% of our local companies have foreign capital and **Lombardy, Lazio, Tuscany, Emilia Romagna** and **Veneto** are the 5 top-ranking regions accounting for 90% of the value.



LAZIO IS FIRST

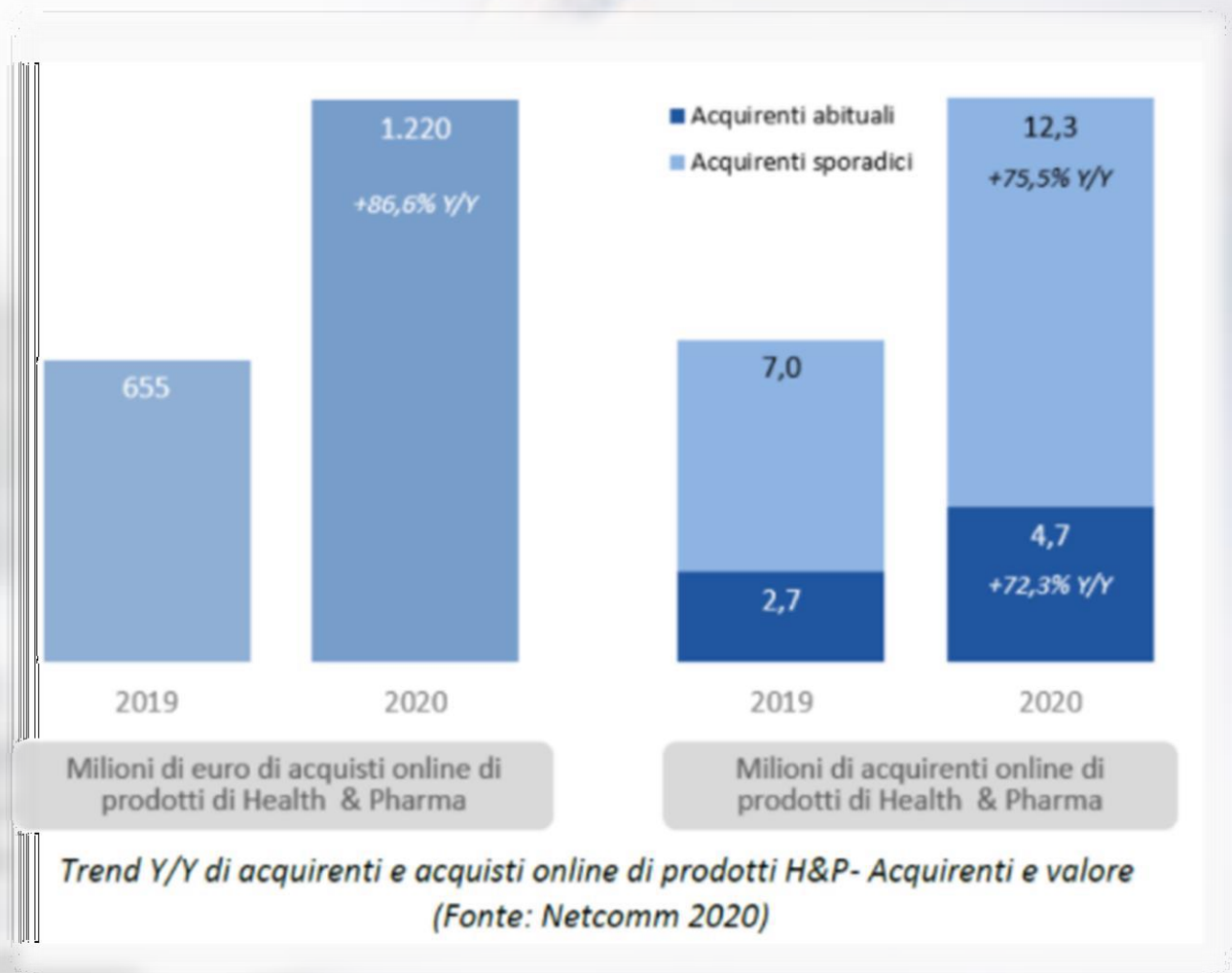
The **Lazio Region ranks first** in terms of its weight in total pharmaceutical exports as well as of the value of pharmaceutical industry exports in absolute terms (8.9 billion Euros).

Lazio's chemical-pharmaceutical district is mainly concentrated along the **South Rome – Pomezia – Aprilia – Latina** axis. The Region is second in Italy for number of companies and turnover of the biotechnology sector.

DIGITAL HEALTH E PHARMA REPORT

In 2020, online purchasers of pharmaceutical products rose by 76% in Italy, topping at 16.9M consumers.

The market grew by 1.22 billion Euros, 87% more than the previous year.

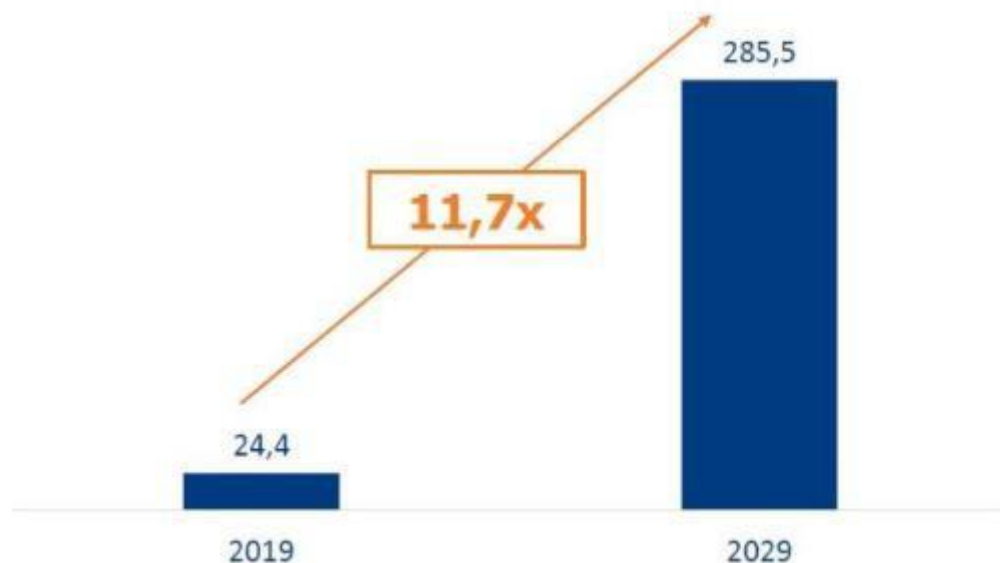


Il mercato **Italy's INTERNET OF THINGS** market

The Internet of Medical Things (IoMT), the network of wearable devices connected to patients and capable of exchanging all the information concerning a person's health through a wireless system, is on a continuous uptrend. Compared to 2019, the IoMT market is forecast to grow 1.070% over the next 10 years.

Si sta sempre più affermando l'Internet of Medical Things (IoMT)

Mercato dell'Internet of Medical Things
(miliardi di Dollari), 2019 e 2029



- **Internet of Medical Things:** network di **dispositivi wearable connessi al paziente** capaci di scambiare, tramite un sistema wireless, tutte le informazioni riguardanti la salute di una persona
- Nei prossimi 10 anni si prevede **una crescita del mercato degli IoMT pari a +1.070%** rispetto al valore del 2019

L'ARTIFICIAL INTELLIGENCE

The opening of IoT platforms in 2019 accounted for a market worth more than 3.5 billion Euros which is growing at TCMA rate of 9% in the 2019-2022 period. The Covid-19 health emergency is shedding light on the importance of **TELEMEDICINE platforms working through wireless biomedical sensors.**

The use of artificial intelligence (AI) is worth 215 million euros and increasing: TCMA 2022E/2019 +21%. Medical priorities encourage reliance on AI solutions to support diagnostics, as well as the experimentation and development of new drugs. Market growth is driven by the demand for platforms to measure **predictivity, simulate processes, products, digital twin services and systems to prevent criticalities and test future results.**

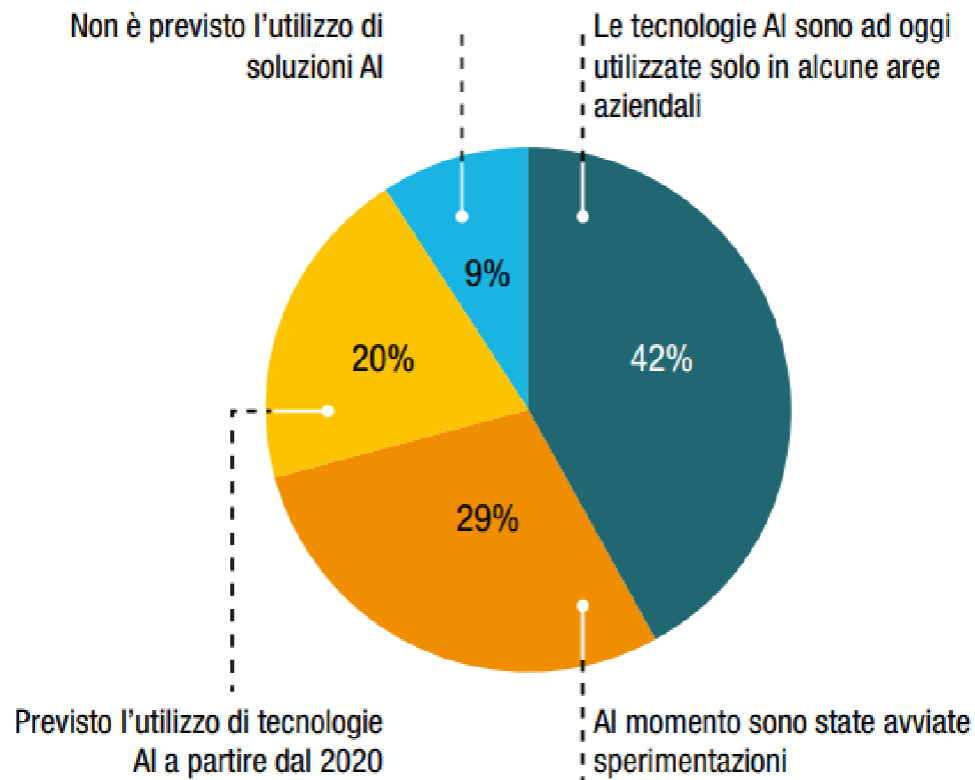


THE SPREAD OF ARTIFICIAL INTELLIGENCE SOLUTIONS AND AREAS OF APPLICATION IN ITALIAN COMPANIES

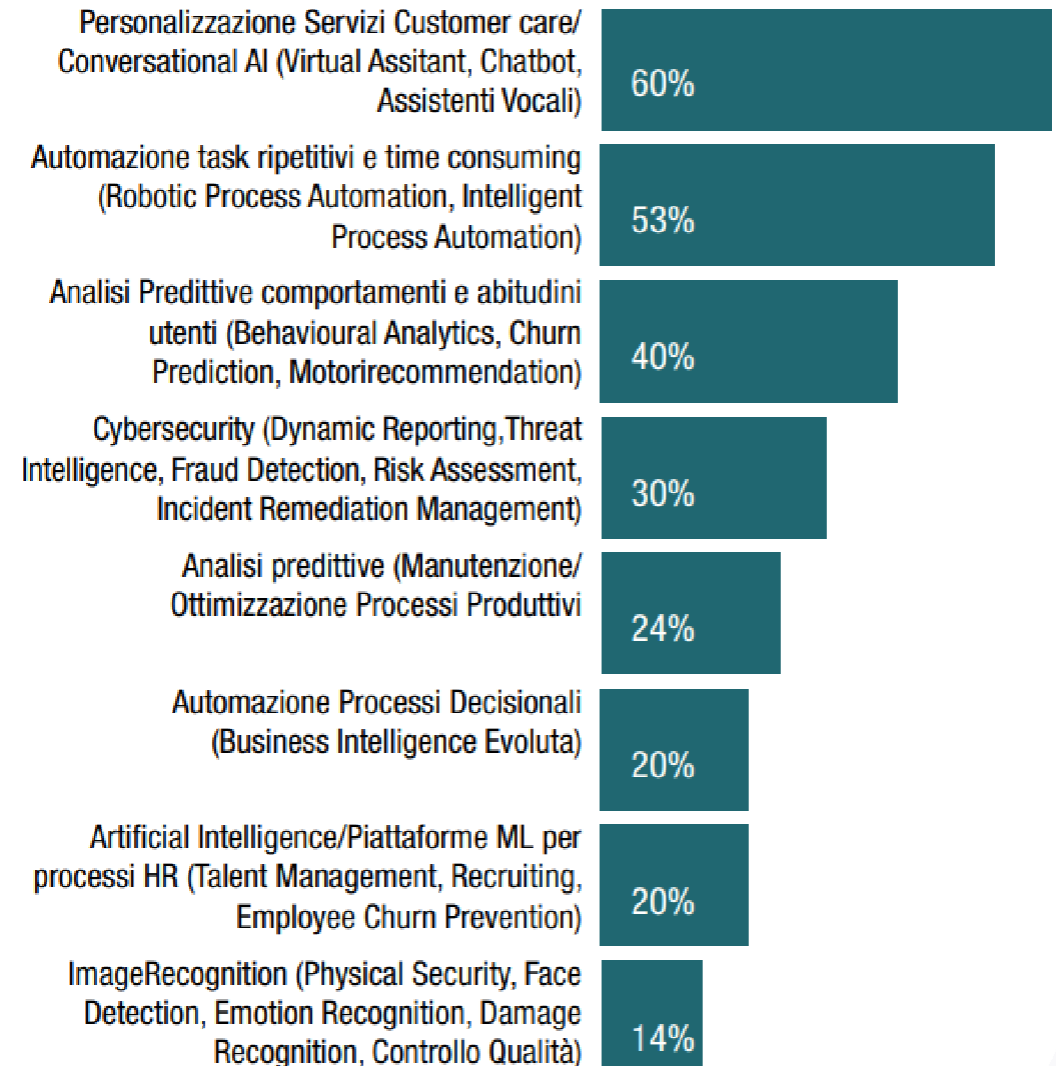
ARTIFICIALE E APPLICAZIONI LE AZIENDE ITALIANE

Livello di diffusione di soluzioni AI

Valori %, Risposta singola



Ambiti di applicazione



FROM GENOMICS TO ARTIFICIAL INTELLIGENCE AND THE DIGITAL TWIN MODEL



By integrating and processing the enormous bulk of data acquired from wearables, biomolecular tests, images, medical records and the creation of **exact virtual replicas (Avatar)**, digital medicine substantially expands the diagnostic spectrum.

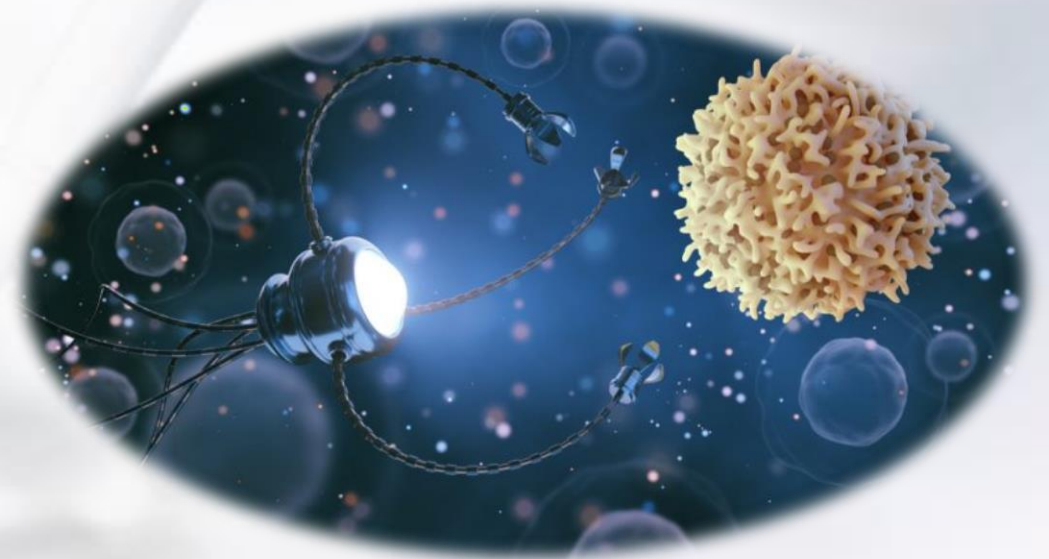
By using computational models, many variables (differentiated by type, source and historical authenticity) can be integrated, allowing for the creation of patients' digital twin on which to apply treatments and **develop customized prevention systems, optimize medical procedures and boost the success of therapies, thus reducing timeframes and costs.**

A multi-dimensional Digital Twin provides technological support to the new holistic conception of medicine.

NANOTECHNOLOGIES

In Italy:

- Excellent level of activity in R&S
- All major public research institutions are involved
- Constantly growing industrial endeavour
- Activity in key areas of application: ICT, Pharma, Biotech
- Potential for innovation in traditional 'Made in Italy' production sectors
- Growing presence in markets of biotechnology-based products



LA ROBOTICA

On an uptrend, in 2025 the market will be worth 275 billion Dollars



According to a GlobalData survey, the global robotics market is forecast to triple over the next six years, rising from 98 billion Dollars in 2018 to more than 275 billion Dollars in 2025.

The Report estimates that the robotics sector will grow at a composite annual growth rate (CAGR) of 16% from 2018 and 2025, with a 17% peak yearly growth in 2022.



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