

EXECUTIVE SUMMARY

Lifescience STart UP (LIST UP) SCOPE AND TIMING

Lifescience STart UP (LISTUP) is the first Observatory focused on lifescience start up in Italy, born on the initiative of **Indicon Srl SB** in collaboration with **Growth Capital**, **Innovup** and **Italian Tech Alliance**.

The project's aim at shaping the Italian ecosystem of Life Sciences (LS) innovative start ups to understand trends and provide all stakeholders with a systematic picture.

The project is structured in three phases:

- **Phase 1** – Innovative Life Science start-ups in Italy research focused on 2021-2023 newly born start ups.
- **Phase 2** – Update on Phase 1 data, on top to new parameters (e.g. surviving rate, incubators, funding) and active innovative Life Science SMEs in Italy.
- **Phase 3** – Research projects in Life Science (not yet start up) seeking funding to become start ups.

MAIN RESULTS

a. General Overview

- Innovative startups born and active in 2021, 2022, 2023 in Life Science (LS) field account for 9.5% of the Overall innovative startups born and active, that is 753 out of 7.908.
- There is a decrease in the number of innovative startups over the three years, both overall (-22%) and in LS (-26.5%).

| Start up - 2021-2023 | | | |
|----------------------|------------------|-------------|-------------|
| Year | Overall start up | LS start up | % |
| Total | 7.908 | 753 | 9,5% |
| 2021 | 3.063 | 290 | 9,5% |
| 2022 | 2.466 | 250 | 10,1% |
| 2023 | 2.379 | 213 | 9,0% |

- The **DIGITAL HEALTH** macro-category is the most represented in terms of innovative Startups in LS born and active in the 2021-2023 triennium (42%), followed by MED TECH (28%), HEALTHCARE PRODUCTS/SERVICES (21%), and closing with BIOTECH/PHARMA (9%).
- Although the macro-categories show a percentage decline in the 2021-2023 triennium (DIGITAL HEALTH -36% compared to 2021, HEALTHCARE P/S -32%, BIOTECH/PHARMA -21%, and MED TECH -9%), **MED TECH** and **BIOTECH/PHARMA** show a **recovery** in **2023** compared to 2022, respectively by +17% and +21%.

b. Regional Distribution

- In terms of **regional distribution**, most startups are located in **Lombardia** (28%), Lazio (13%), Campania (12%), Emilia-Romagna (8%), and Piemonte (7%).
- Startups based in the metropolitan area of **Milano** account for 73% of startups in Lombardia, as well as 20% of startups nationwide.
- Other innovative districts are the metropolitan areas of Roma (12%), Napoli (6%), and Torino (5%), as well as the entire Emilia-Romagna region, which has a uniform territorial distribution of new startups across the regional territory.

c. Technology

Artificial Intelligence (A.I.):

- A.I. technology is in 20% of total LS Start up (150 out of 753). Its distribution is prevalent in the DIGITAL HEALTH sector (67%) and in MED TECH (21%).
- The trend is progressively increasing, from a presence of 17% in 2021 to 24% in 2023.
- In DIGITAL HEALTH, 1 LS start up out of 3 (32%) uses A.I.

Telemedicine:

- Telemedicine is in 14% of total LS start up (105 out of 753).
- 91% of LS start up with telemedicine are from DIGITAL HEALTH.
- From 2021 to 2023 the trend is significantly decreasing

Patents/Registered Software:

- Patents presence in LS start ups is 19% (140 out of 753) vs. 15% Overall (1.200 out of 7.908).
- 48% decrease of number of LS start ups with patents from 2021 to 2023.

d. Founders Features

Female, Youth (<35) and Benefit Corporates:

- In LS, startups with a female majority represent 20%, compared to a total average percentage of 15%.
- In LS, startups with a majority of young people are fewer compared to total startups. While globally, the youth prevalence stands at 22%, for LS it remains at 19%.
- Among the total LS Start ups, benefit corporations are 3,9% compared to a total average percentage of 5,7%.

e. Funding

- Growth Capital report on SME and start ups, shows that there's been a 36% increase in the amount raised by Life science field over the last 3 years, although the number of rounds remained stable.
- About a third of the rounds took place in the Biotech/Pharma vertical, which has experienced a substantial growth in funding. The investment amount in Biotech/Pharma has quintupled from 2021 to 2023.
- Between 2018 and 2023, Biotech/Pharma accounts for more than half of the investments in Life Science (55%), followed by Med Tech with 31%, while Digital Health covers only 10% of the investments.

METHODOLOGY

In order to create start up lifescience database we followed these steps:

- 1- **Registrolmprese Raw data export:** innovative start ups list: The complete report on innovative start-ups registered in Italy between 1 January 2021 and 31 December 2023 was downloaded on an Excel platform by accessing the special section of Registro Imprese. The official database of the Italian Camera di Commercio, which includes all innovative start-ups and SMEs registered in the special section of Registro Imprese, was used to conduct the research. Only innovative start-ups registered and active between 1 January 2021 and 31 December 2023 in the special section of Registrolmprese are included in the analysis*.
- 2- **Selection of ATECO 2007 codes:** ATECO 2007 codes identifying areas of activity potentially related to the life science sector were selected.
- 3- **Website Start up analysis:** Each individual start-up identified by an ATECO 2007 code as potentially related to the life sciences sector was analysed to determine its actual relevance to the sector. The analysis was carried out by reading the data sheets of each start-up on the company register and, if this was not sufficient, by checking the company's website.

- 4- **Validation and categorization:** The selected start-ups were classified according to their year of registration in the special section of Registro Imprese and then classified into four macro-categories according to their sector of activity: Biotech, Med tech, Digital Health, Healthcare product/service.