





ELIXIR-IT: Un ponte tra ricerca e industria biotecnologica

18-19 Novembre 2024 Villa Romanazzi, Bari



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1. Introduction:

• Event Presentation

The event "ELIXIR-IT: A Bridge Between Research and the Biotechnological Industry," held on November 18–19, 2024, at the Sala Europa of Villa Romanazzi Carducci in Bari, was organised in collaboration with Confindustria Bari e BAT and Consorzio Italbiotec. It provided a valuable opportunity to showcase ELIXIR-IT's resources and services,

understand the needs of biotech companies, and highlight best practices developed through ELIXIR-IT's collaborations with the industry.

Objectives

The event was designed to promote ELIXIR-IT's services (organised into technological platforms) and foster meaningful connections between industry and the ELIXIR-IT community. It aimed to establish new relationships with SMEs and strengthen existing collaborations, focusing on those interested in ELIXIR-IT services. The program was carefully designed to address industry needs, encourage innovative synergies, and promote dialogues between academia and industry, aligning with Open Innovation principles. These principles are outlined in the new draft law on "Open Innovation Promotion Measures" from the Apulia Region. With a predominantly regional and local focus, the event represents a preliminary step toward establishing a national-scale Life Sciences Innovation Forum for SMEs in the future, paving the way for broader collaboration and impact.

Context

This event was the first initiative organised under the recently signed operational agreement between ELIXIR-IT and Confindustria Bari-Bat. It was supported by the Elixir-Europe Hub and funded through the National Recovery and Resilience Plan (PNRR) for research infrastructure enhancement. ELIXIR-IT is a distributed, global research infrastructure, designated as a national and regional priority in the 2021-2027 National Research Infrastructure Plan (PNIR). It brings together 31 members, including universities and research centres. Thanks to funding from the PON CNR.BiOmics and PNRR ELIXIRxNextGenIT projects provided by the Ministry of Research — amounting to approximately €35 million to enhance the Italian node — ELIXIR-IT has acquired an extensive portfolio of advanced genomic analysis facilities. These facilities are hosted at the operational headquarters of the CNR Institute of Biomembranes, Bioenergetics, and Molecular Biotechnologies (CNR-IBIOM) in Bari, and at the Department of Biosciences, Biotechnologies, and Environment at the University of Bari Aldo Moro (in partnership with CNR-IBIOM). Together, they form an integrated facility, enhanced by advanced high-throughput omics equipment, computational, storage, and bioinformatics analysis resources, which hold significant national and international importance.

The event took place in Bari, Apulia, which not only hosts the Italian node of ELIXIR but also represents the leading Southern region in GDP growth in 2024. Apulia also has the second highest **startup rate** in Southern Italy, with Bari ranking fifth among Italian provinces for the number of innovative startups. This context provides an ideal setting for promoting collaboration between research and industry.

2. Programme

The two-day event featured over 20 speakers and focused on showcasing ELIXIR-IT's services and fostering collaborations with industry.

In the first session of the first day, titled "ELIXIR-IT: Services and Technologies Offered by ELIXIR-IT for Business Innovation," platform leaders presented the six technological platforms of ELIXIR-IT: **Compute, Data, Interoperability, Omics, Tools, and Training**. Each platform showcased its expertise and solutions to support biotech companies, addressing topics such as Big Data integration, bioinformatics tools development, and advanced training. The presentations highlighted how each platform contributes to an integrated and synergistic approach, meeting the diverse needs of academia and industry.

With its integrated and adaptable framework, ELIXIR-IT is an indispensable resource for facilitating technology transfer, enhancing collaboration between research and industry, and accelerating the practical application of scientific discoveries.

The second day was dedicated to industry engagement and exploring collaboration opportunities with local and national partners. The participating companies and public-private consortia represented a wide range of sectors and applications, including notable organisations such as Cluster ALISEI, Distretto H-BIO, Cluster SMILE, Farmalabor, GenomeUp, MASMEC, ITEL, Hydro Fert, Menarini Silicon Biosystems, Polismail, and Exprivia.

A session on funding opportunities, led by experts from the Apulia Region, venture capitalists, and consortia, highlighted available financial support at regional, national, and European levels to sustain innovation in Life Sciences.

Discussions emphasised that the collaboration between ELIXIR-IT and these companies not only fosters the development of impactful technologies but also facilitates knowledge transfer, creating conditions for sustainable innovation adaptable to various industrial contexts.

The event emphasized the importance of collaboration between academia and industry, aligning with the principles of Open Innovation. As **Prof. Maria Svelto** of the H-BIO District and the Puglia Life Sciences Foundation stated:

"Some believe they can grow alone, but the truth is, we cannot go far without others. We must always seek collaboration at regional and national levels, focusing on what unites us, valuing complementarities, and setting aside differences."

As asserted by **Prof. Graziano Pesole** the ELIXIR-IT HoN, "This event perfectly embodies the mission of ELIXIR, which emphasises building strong synergies and enhancing competitiveness through cooperation and knowledge sharing".

The full program of the event is accessible at the provided <u>link</u>.

3. Participants

The event successfully engaged a diverse audience of over 100 participants, achieving a balanced gender representation (51.4% women and 48.5% men) and a distribution across professional profiles. The attendees comprised a mix of academics (30.8%) and industry representatives (27.9%). The audience was further enriched by CNR personnel (26%), students (9.6%), technical staff (2.9%), and policymaker representatives (2.9%). (2.9%).

The two-day format catered to different interests, therefore participants showed different preferences across the two days: academics attended on the first day, while companies preferred the second day.

The event's impact extended beyond regional boundaries, with 14.9% of participants coming from outside Puglia, demonstrating strong national interest. Most attendees were from Bari, with a smaller proportion from Brindisi and Lecce, highlighting significant regional engagement.



4. Conclusions and Perspective

The event, aligned with ELIXIR's mission to promote competitiveness through knowledge sharing and collaboration, provided a valuable platform for fostering constructive dialogue between academia and industry.

Discussions highlighted the potential of collaborations between ELIXIR-IT and companies to drive the development of advanced technologies and create an open and dynamic innovation ecosystem. The transfer of knowledge and expertise between these sectors is crucial for developing innovative and sustainable solutions, especially in technology-intensive fields that require a multidisciplinary approach.

Building on this success, ELIXIR-IT is committed to further enhancing dialogue and collaboration with participating companies. ELIXIR-IT is also open to organizing additional events, including collaboration with other European infrastructures such as BBMRI and EuroBioimaging, as well as initiatives funded by the National Recovery and Resilience Plan (PNRR), including National Centers and Extended Partnerships involving ELIXIR-IT members.

The following actions could be implemented to further strengthen these collaborations,:

- **Deepening specific topics:** Organizing thematic workshops on areas of particular interest to companies, such as the application of artificial intelligence in biological data analysis or the development of new drugs.
- Encouraging network creation: facilitating the establishment of networks between companies and researchers to promote the exchange of ideas and the development of new collaborations.
- Supporting joint project development: Assisting companies interested in developing research and innovation projects in collaboration with ELIXIR-IT researchers.

By implementing these strategies, we can continue to drive innovation and create a vibrant ecosystem for life science research and development.

5. Attachments

Presentations

The presentations are available HERE. (https://zenodo.org/records/14223856)

Photos

View event highlights by clicking **HERE**.

Press Release

To further explore the media impact of the event "ELIXIR-IT: A Bridge Between Research and Biotechnological Industry" please see the following featured publications:

- Antenna Sud: Imprese, a Bari c'è ELIXIR, il laboratorio più avanzato d'Europa
- Giornale di Puglia: Bari: il centro ELIXIR-IT al servizio di ricerca e industria
- Repubblica (edizione di Bari): stralcio della Rassegna Stampa del Cnr