

The background features a stylized, high-contrast illustration. On the left, there is a grid of rectangular shapes representing a window or a wall panel. To the right, a brick wall is depicted with horizontal lines. The word 'Joule' is rendered in a large, 3D, sans-serif font. The letters are white with a thick yellow outline and a blue shadow, giving them a three-dimensional appearance as if they are floating or resting on a surface.

Joule

Impact Report

2023



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Letter to stakeholders

2023 was a crucial year for Joule, Eni School of Entrepreneurship. We are an integral part of Eni's open innovation process and have strengthened the foundations on which we will build our path of value creation for Eni and for the innovation ecosystems in the areas where we are present, especially in Italy where we have established eight local hubs aimed at stimulating the entrepreneurial development of our Country and supporting the creation of new supply chains in the field of sustainable energy.

Our internal entrepreneurship initiatives, which are aimed at harnessing the creativity and proactivity of Eni's people and fostering the emergence of new ideas from within, are now fully operational. Similarly, our programmes to support local business growth have gained significant traction across the Country and are now beginning to take shape also in Africa. In the Republic of Congo and Kenya in particular, we have launched the first projects to support the development of the agricultural feedstock supply chain, bringing tangible benefits to local entrepreneurs.

Over the past year, we have worked to expand growth opportunities for the company and for the startups in our portfolio, for instance by adopting the Joint Development Agreement (JDA) to foster the joint development of new intellectual property, or by submitting our deal flow to Eniverse and Eni Next for the purpose of identifying new talent or new technological opportunities to be explored.

We continued to collaborate with Eni's General Departments and subsidiaries from a demand-driven perspective, identifying and proposing innovative solutions to make processes, products and services more efficient and sustainable, and we have contributed to the creation of new partnerships between startups and subsidiaries such as Plenitude, Enilive, Eni Rewind and Versalis, promoting both the growth of the startups themselves and the generation of value for Eni.

Besides being a technological issue, innovation is a social and cultural change

Furthermore during the year we consolidated our collaboration with Enilive, with which we embarked on a path aimed at identifying new managers-entrepreneurs to manage the service stations of the future focusing on customer-centricity.

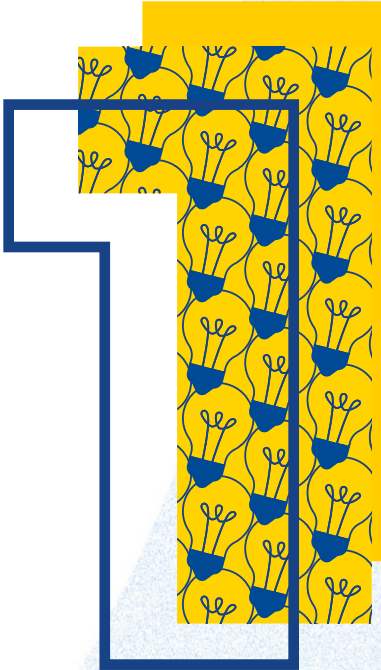
In 2023 we took a leading role in the creation of “ROAD - Rome Advanced District”, the innovation and technological research hub in the Gazometro area in Rome Ostiense, dedicated to new energy value chains and built together with other large corporations, through which we aim to strengthen our impact on Italian and international innovation ecosystems.

Our activities are therefore contributing to the Eni’s just transition strategy, involving all actors who can be part of the change, focusing on people and their uniqueness.

Besides being a technological issue, innovation is also and above all a social and cultural change that often takes some time to spread and bring about transformations in society. It is therefore a lever for socio-economic growth and generating shared value.

Claudio Granata
Human Capital & Procurement Director

The context





30% of jobs will require completely new skills

One of the driving forces behind innovation ecosystem is the relationship between startups and corporations. A winning combination that allows startups to gain capital and quick access to the market and corporations to acquire innovative ideas, boosting the development of entrepreneurial skills and mindsets.

Innovation is a cultural issue. This is why the term “intrapreneurship” is beginning to spread in business vocabulary and entrepreneurial skills are already one of the most in-demand skills in many professions and will be even more so in the future.

The report “Il Capitale Umano 2022” [Human Capital 2022] prepared by COTEC (a foundation that supports innovation) shows that today both large companies and SMEs require the skills typical of entrepreneurship and that the adoption of new technologies will put about 10% of current jobs at risk by 2030 and about 30% of jobs will require completely new skills. The World Economic Forum (The Future of Jobs Report 2020) also points out that creativity, originality and resourcefulness are the main skills that employers consider to be on the rise in the run-up to 2025.

The intrapreneurship - a term coined in 1978 by the American entrepreneur Gifford Pinchot and taken up by Steve Jobs in 1985 - is an employee of a company who combines classical entrepreneurial skills with a new drive to act, to transform ideas into action and innovate.

For companies today, innovating means on the one hand welcoming ideas, dialogue and collaborations with a large external network of startups and SMEs, as well as universities and research centres, and on the other hand it means fostering the birth of innovative ideas from within, promoting new competences models based on intrapreneurship as a lever for upskilling and reskilling one's people.

Global Startup Ecosystem Ranking 2023

According to the Global Startup Ecosystem Ranking 2023 (The Global Startup Ecosystem Report, 2023), the three innovation ecosystems that have dominated the global ranking for the past three years are, in order of ranking, Silicon Valley, New York City and London.

EUROPEAN HUBS IN THE TOP 30	
Berlin	13th
Amsterdam	14th
Paris	18th
Stockholm	21th

TOP FIVE AFRICAN ECOSYSTEMS	
1	Nairobi
2	Lagos
3	Cape Town
4	Johannesburg
5	Accra

Data from the 8th Italian Open Innovation and Corporate Venture Capital Observatory

(promoted by InnovUp and Assolombarda with the scientific partnership of InfoCamere and the Digital Innovation Observatories of the Milan Polytechnic) show that the number of innovative companies is decreasing compared to 2022.

However, the positive note is that almost one third of Italian innovative companies include Corporate Venture Capital (CVC) among their shareholders and they reported an increase in terms of production value (+3.2%) as well as growth in economic performance of 13.4%.

In Italy (2023)

€ 10.3 billion	€ Total turnover
16,500	Innovative startups and SMEs
€ 1.13 billion	€ Investments in innovative companies
-39 %	Compared to 2022
-3.5 %	Number of innovative companies compared to 2022

About us

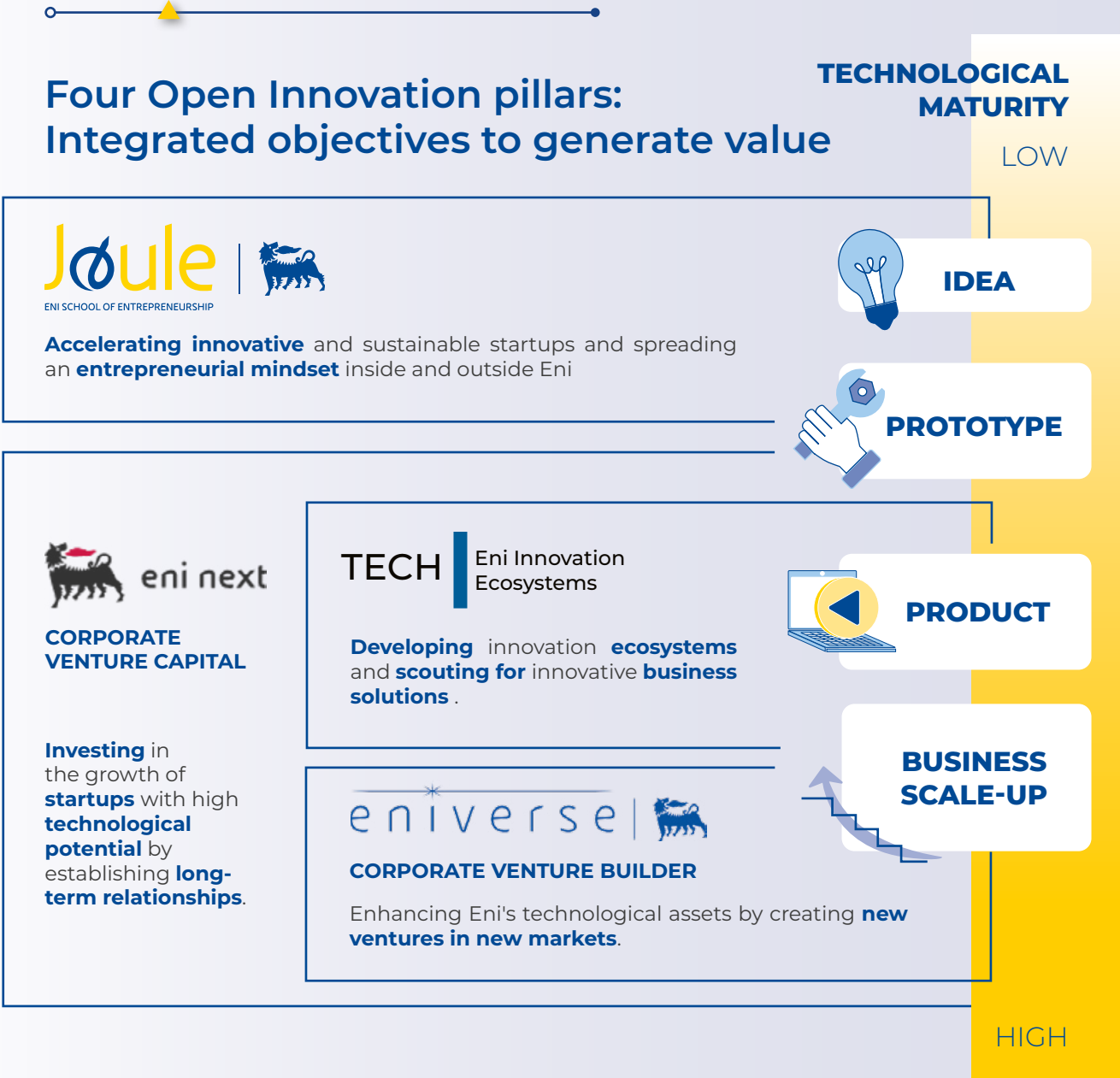




Joule is **Eni School of Entrepreneurship**. Since 2020 it has been supporting the growth of innovative and sustainable startups to create an entrepreneurial ecosystem in the zero-emission energy value chain and spread an entrepreneurial mindset inside and outside Eni.

Together with Eni's **Tech|Innovation Ecosystems** unit and **Eni Next** and **Eniverse**, Joule is one of the pillars of Eni's Open Innovation process.

The four Open Innovation pillars operate synergically with the aim of generating value for Eni by monitoring the technology market evolution, accelerating the innovation process and enhancing technological assets, skills and talents.



Joule's mission

 We generate **impact** on **human capital** and **technology**

We are an **open innovation** unit in the area of **human capital**.

We generate **impact** on people by leveraging the development of **new technologies**.

We promote the adoption of a new model of **competences** to identify **entrepreneurial talents**.

We facilitate the **generation of ideas** and support the growth of **sustainable businesses**.

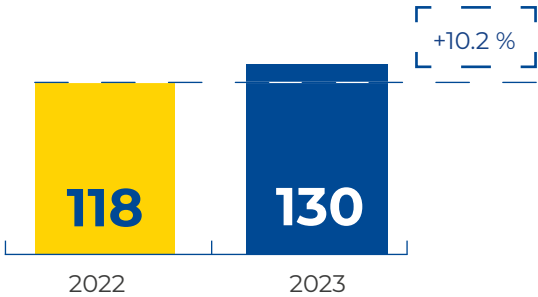
Organisational model



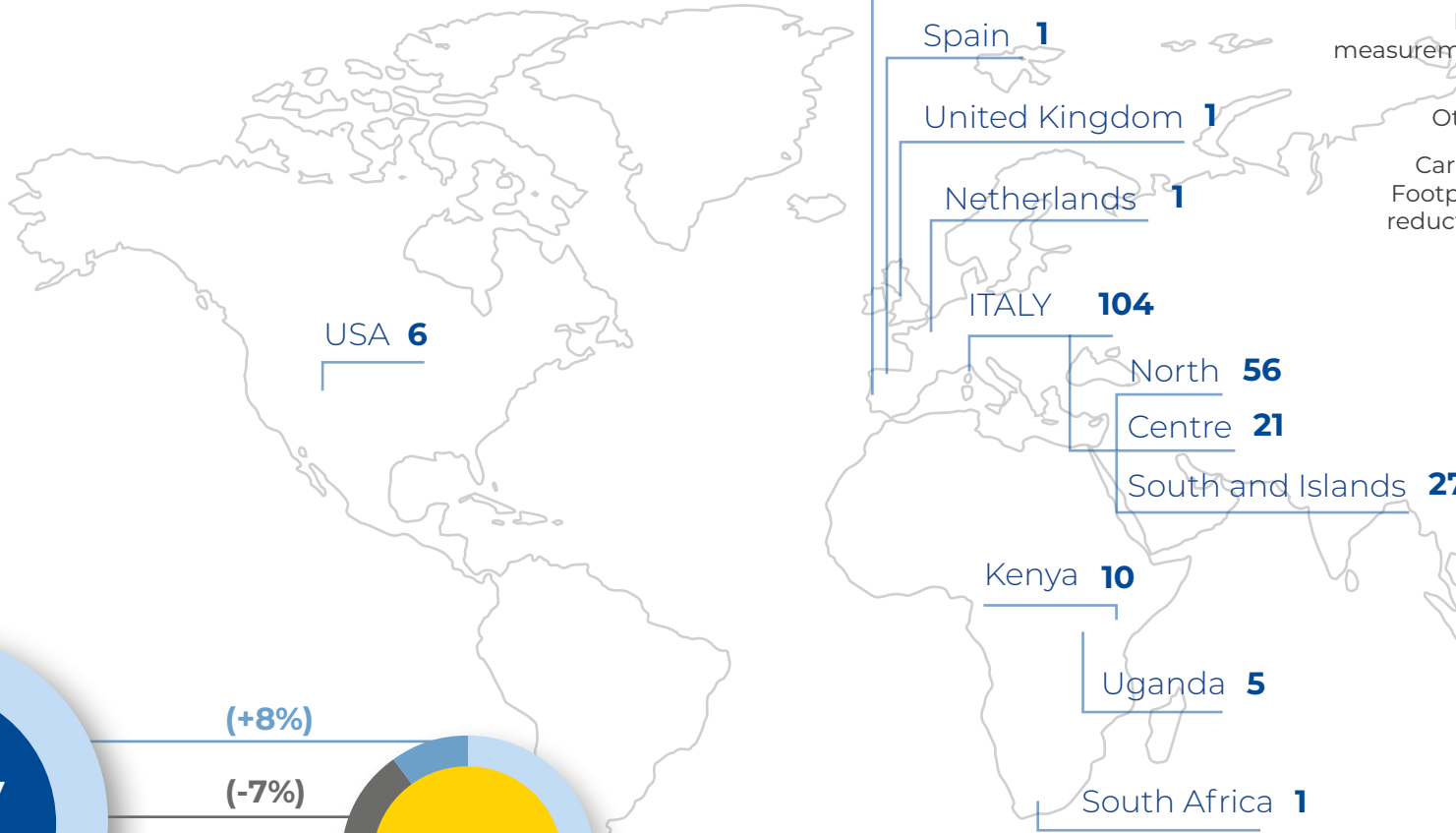
Highlights



Joule's startups

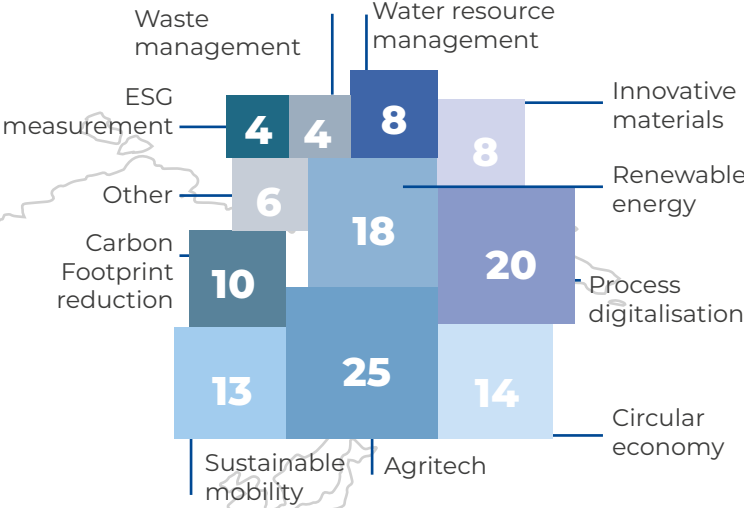


Changes in the portfolio 2023
+ 45 new entries
- 33 exits from the portfolio

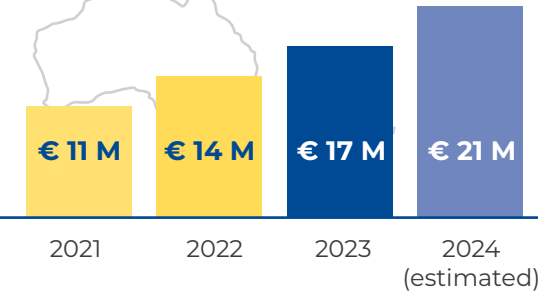


Entry into Africa in 2023
(+16 vs 2022)

Innovation areas

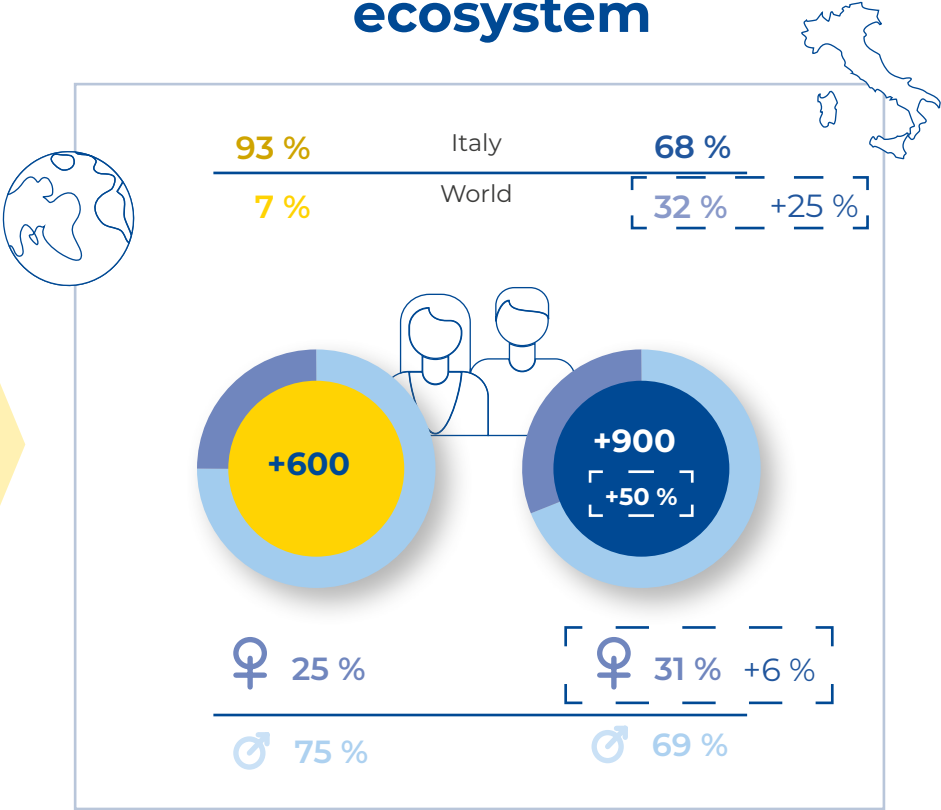


Seed and growth stages startups turnover (€ million)



2022

Joule startups ecosystem

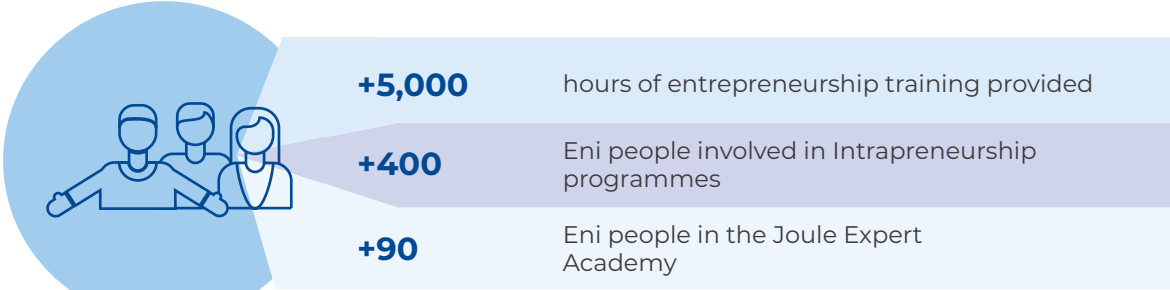


Female CEO

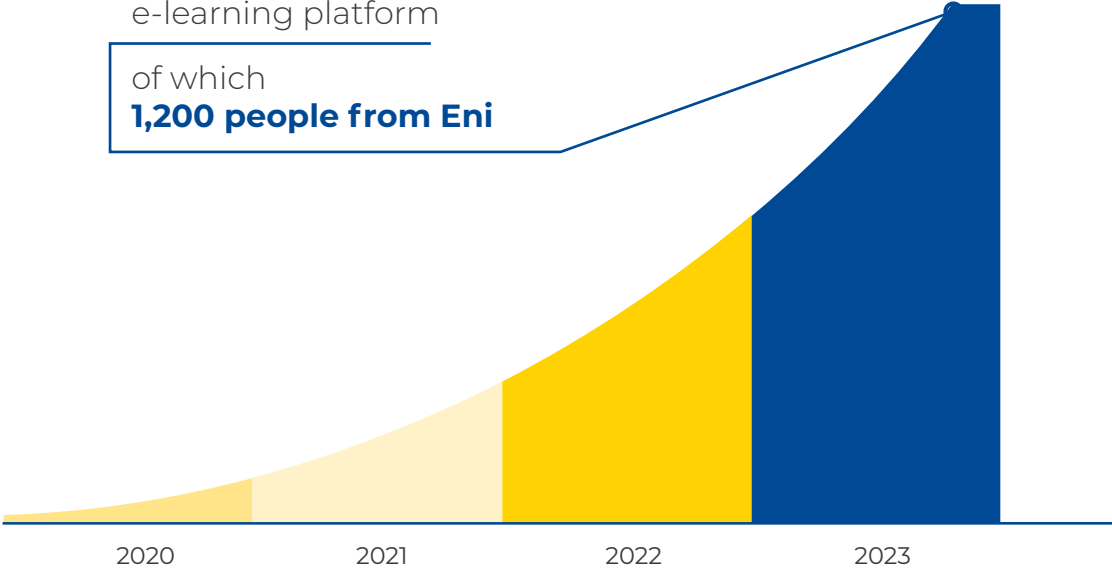


2023

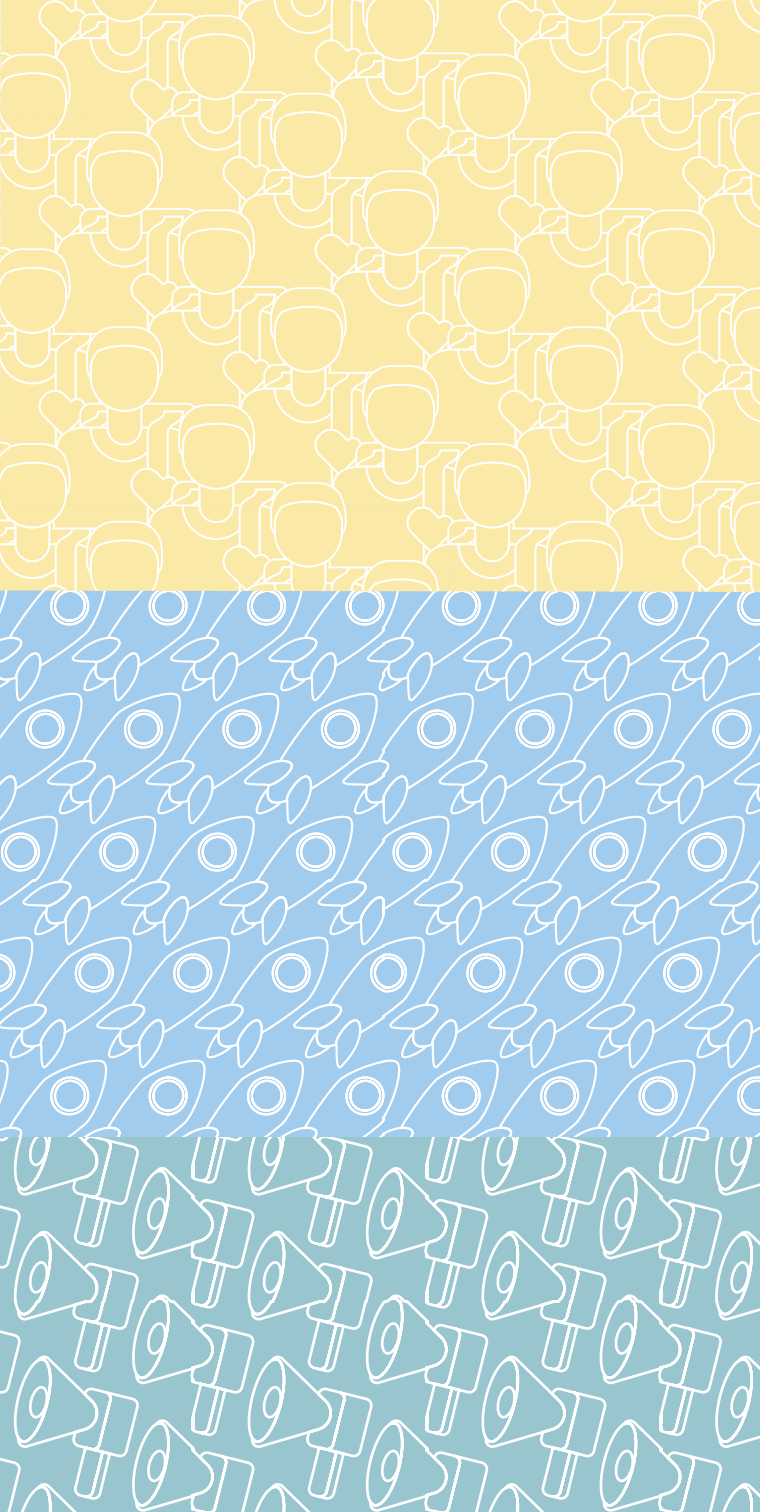
Community



+10,000 people signed up for the **Joule Open** e-learning platform
of which **1,200 people from Eni**



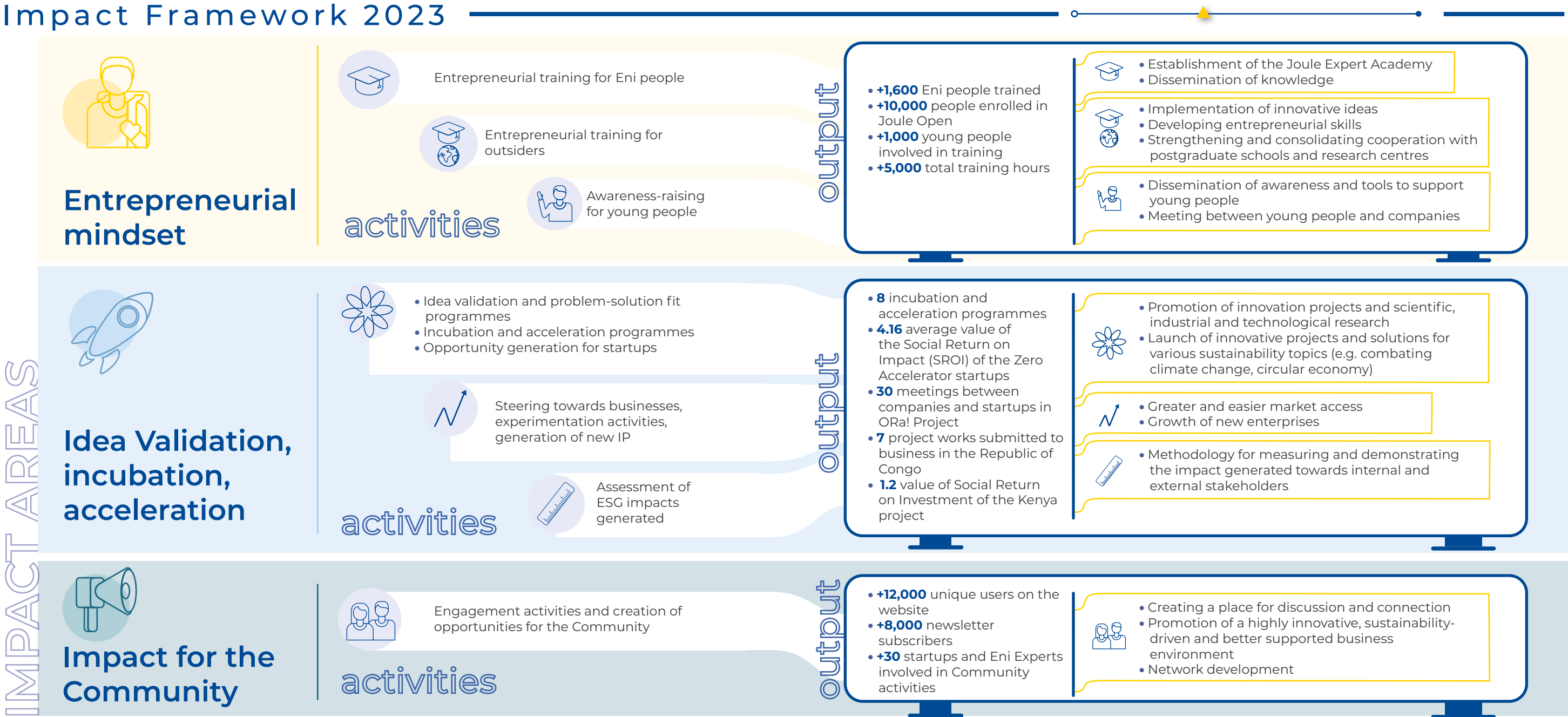
Joule's impact



The impact framework

In the dynamic context of startups and new national and international entrepreneurship, Joule recognises the importance of identifying the impact generated through its programmes. For this reason, it has chosen to adopt a methodological approach based on the Theory of Change (ToC). In the context of ToC, the impact generated represents the broader and more significant change that the organisation aims to achieve as a result of the activities carried out, and is the end point of the “impact chain”, as well as the final result that is intended to be produced by the actions implemented.

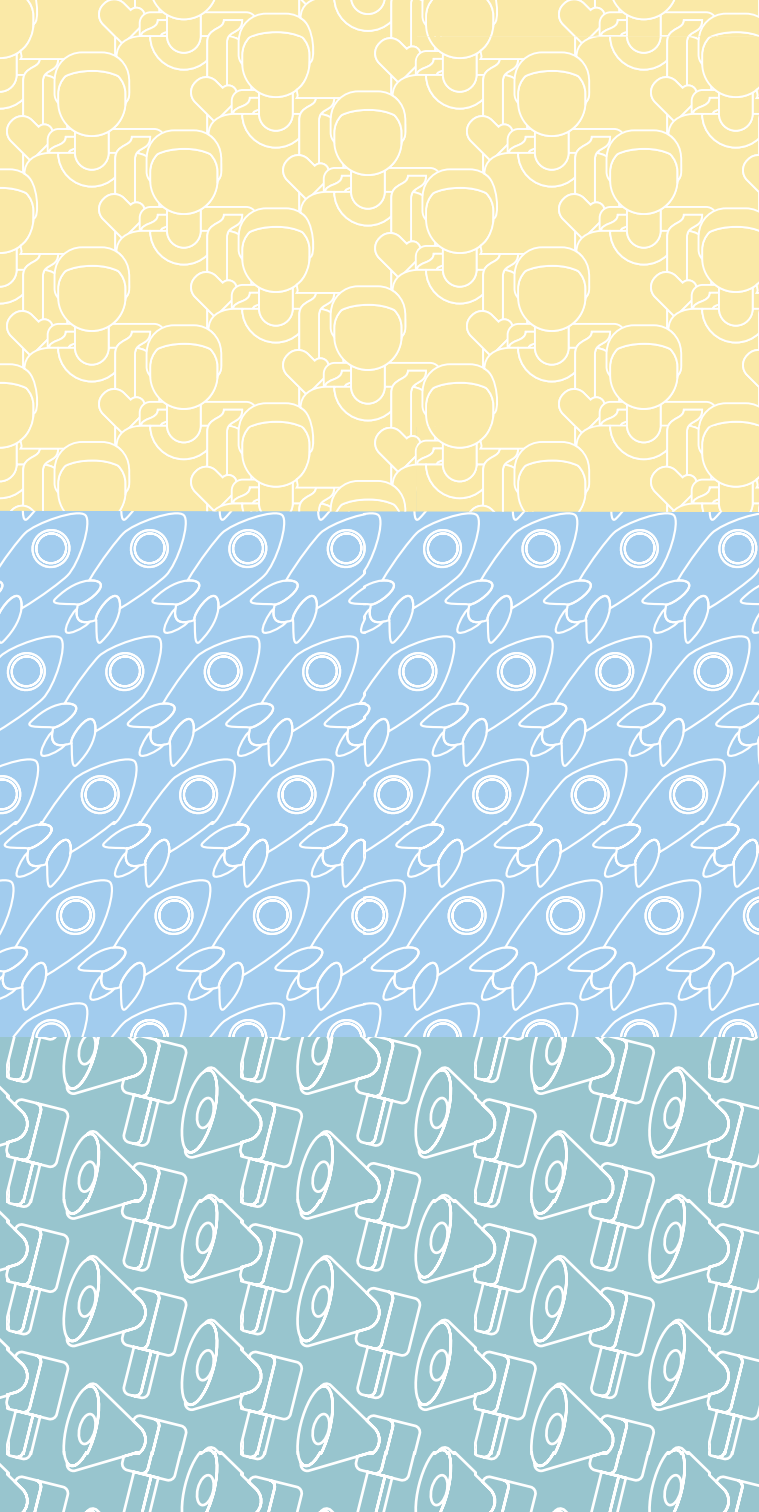
IMPACT AREAS



- **Increased** entrepreneurial skills and capabilities, people retention, motivational engagement, increased awareness, expanded employability
- **Spreading** an entrepreneurial mindset at all levels
- **Integrating** internal training

- **Creating** partnerships and a business environment capable of developing new solutions to drive the energy transition, stimulate innovation and create new market opportunities

- **Promoting** an innovative, collaborative and sustainability-oriented business environment



Activities and projects



5.1 Entrepreneurial mindset



Joule Open

One of the cornerstones of Joule's mission since its launch in 2020 has been to spread an entrepreneurial and innovation-oriented mindset at all levels, both inside and outside Eni. To this end, the **Joule Open e-learning platform** was created, a training programme that supports people in acquiring the basics to develop their entrepreneurial skills.

The platform was built with the support of Eni Corporate University and with the collaboration of universities and business schools such as LUISS Guido Carli in Rome, Graduate School of Management of the Milan Polytechnic, SDA Bocconi School of Management, Scuola Superiore Sant'Anna in Pisa, Federico II University in Naples, as well as with the contribution of Fondazione Eni Enrico Mattei (FEEM).

Aspiring entrepreneurs, Eni people, startupper and innovation enthusiasts have the opportunity to follow training modules and study in-depth contents with experts and certified trainers, follow interviews with managers who are experts in open innovation and entrepreneurs who talk about their own experiences, listen to podcasts on innovation and obtain **certifications** for the skills they have acquired.

Joule Open is a **dynamic community** for discussion and innovation, a place for interaction that allows people to expand their own network of contacts, get to know other entrepreneurs, initiate partnerships and possible collaborations with startups.

+10,000

members

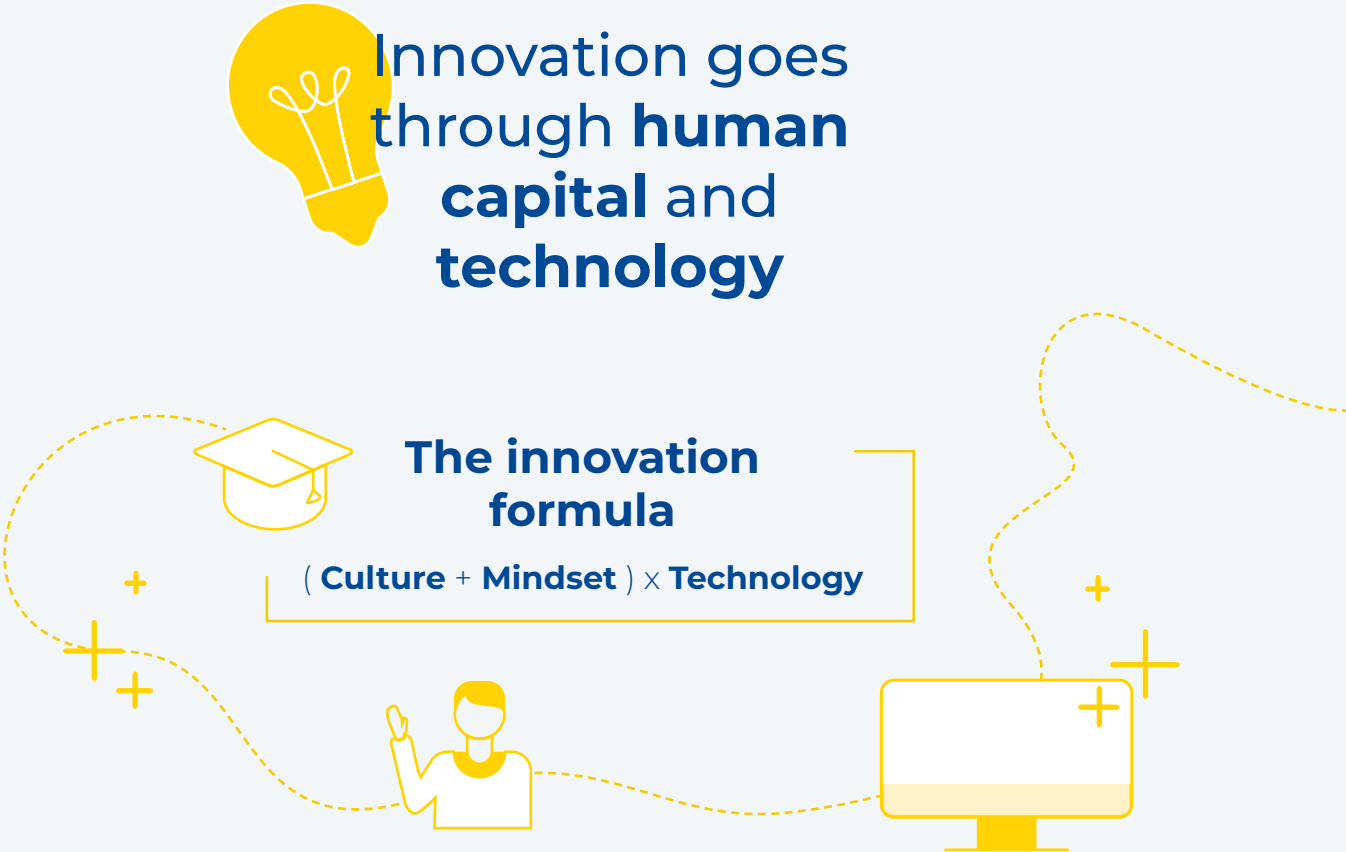
of whom

1,200

Eni people

550

Open Badges
obtained



Intrapreneurship

"Intrapreneurs are dreamers who do. Those who take hands on responsibility for creating innovation of any kind, within a business!"

Gifford Pinchot

Launched in 2022 and strengthened in 2023, the **entrepreneurship programmes** dedicated to Eni people aim to foster the development of soft skills that are typical of entrepreneurs (approach to error as continuous learning, less risk aversion, flexibility, lateral thinking, customer orientation) that enable **work on ideas that can change strategic direction**, even following radical and risky changes. Finally, the ability to seize high-potential opportunities through teamwork, thus developing leadership skills and collaborative communication, cannot be missing.



332

participants from Eni's HSEQ and Health units

+4,000

hours in distance learning

Y Start: the entrepreneurship literacy programme

It is an **Entrepreneurial introduction** pilot project aimed at developing the entrepreneurial mindset of Eni people by creating awareness of their entrepreneurial soft skills.

After the first training phase, the participants were clustered according to their level of awareness and **90 people** were identified who will be involved in internal hackathons and project work in 2024 to stimulate the internal generation of new ideas.

Train the Joule Expert: acquiring entrepreneurial awareness

Now in its fourth edition in 2023, it is a theoretical and practical training course designed for Eni people who are interested in offering their technical skills to startups as well as those wishing to develop a new awareness of their own entrepreneurial skills. The programme enables attendees to acquire new methodologies and languages that can be useful for facilitating the interaction of startups with the Eni business environment.

This contributes to the **Joule Expert Academy**, which is now made up of around **100 Eni experts** (60% men, 40% women) offering support services to startups and mentorship during incubation and acceleration programmes.

124

Eni people trained in 2022-23

+ 1,200

training hours

Joule Discovery Lab: the path to becoming "managers-entrepreneurs"

The Joule Discovery Lab is a real **laboratory for becoming an intrapreneur**, a factory of ideas and projects that originate from Eni people or from the interaction of Eni people with startups and/or strategic partners.

The programme aims to enable entrepreneurial talent to spread a culture of innovation within Eni and to promote the development of new projects, starting from the idea to the concrete implementation of a solution that can respond to current and future energy challenges.

On 4 and 5 December 2023, the second edition of the programme was held at Eni's headquarters in Castel Gandolfo. **Enilive** people were involved in developing new products and services to enhance the assets of Eni Stations, putting the needs of the customer and the community first.

5

innovative ideas incubated in 2023

Unlocking Financial Excellence

The first edition of “Unlocking Financial Excellence”, a format on innovation and entrepreneurship dedicated to Eni’s **Administration professional family** (AMBIL), took place in September 2023 at the Gazometro in Roma Ostiense.

29 young people were involved in a training day that was inspirational and rich in experiences to reflect on the importance of entrepreneurial skills at the service of business and the opportunities related to the application of innovative and collaborative approaches in everyday activities.

The participants were divided into six teams and were involved in a hackathon aimed at identifying innovative ideas to support business strategies.

Further editions of this format will be held in 2024 with the involvement of other professional families, with the aim of spreading the **entrepreneurial mindset** as a new approach to everyday work throughout the company.



Entrepreneurship and new jobs

The **'Enilive Station Manager'** project was launched on 30 November 2023, promoted by Joule together with Eni Corporate University and Eni International Resources and in partnership with ELIS Innovation Hub, aimed at identifying and introducing on the market a new professional jobs destined to manage Enilive points of sale, real hubs of services dedicated to mobility and people. The Enilive Station is the result of Eni's ongoing commitment to decarbonization, leading to a new interpretation of the concept of the current service station into a **service hub**. The EniLive network will also support other mobility-related activities, among them restaurants, shops and many services to support people on the move, such as Telepass points, Enjoy cars, payments by postal slips and Amazon Lockers.

With this in mind, the new figure of the Enilive Station Manager will have multiple tools to develop his or her business and, thanks to the support of major financial institutions, they will also have the resources available to invest in the launch of the point of sale.

The project is aimed at 300 service station managers in Italy, and involves training the manager who will become a **“manager-entrepreneur”** through a training programme designed to develop the managerial and entrepreneurial skills that are necessary for a new approach to the managerial profession, entirely focused on the customer.

Applications were collected through a call for applications open from 20 October to 3 December 2023.

300

new Enilive Station managers in Italy



School4life 2.0

1,000

students enrolled

21

Eni experts
involved

School4Life 2.0 is a two-year project created with the aim of supporting the fight against early school leaving and supporting young people who risk being part of the NEET category, i.e. people who neither study nor work. The project, developed by Elis with the involvement of Joule, involved **12 high schools** throughout Italy divided into **48 teams**, in areas of interest to Eni where the school dropout rate is significant.

21 experts from the Joule Expert Academy were involved, providing insights into energy transition, climate change and the circular economy as well as the spread of an entrepreneurial mindset.

Start-me up

30

hours for each
training course

+50

young people
involved

The project was launched in June 2023 at the **Gela biorefinery** and it is aimed at **young people** who have left the school system but are still unemployed (NEET), aged between 18 and 29, and aims to offer training opportunities in innovation and entrepreneurship that can be useful for starting a career, thanks to the support of a team of experts in the sector and local companies looking for talent.

The project uses players **in the Sicilian ecosystem** - SMEs, university incubators and accelerators, schools and Confindustria, the federation of Italian entrepreneurs - in synergy with Eni Corporate University and Eniscuola initiatives already underway in the area, in order to ensure continuity in Eni's action to combat early school leaving.

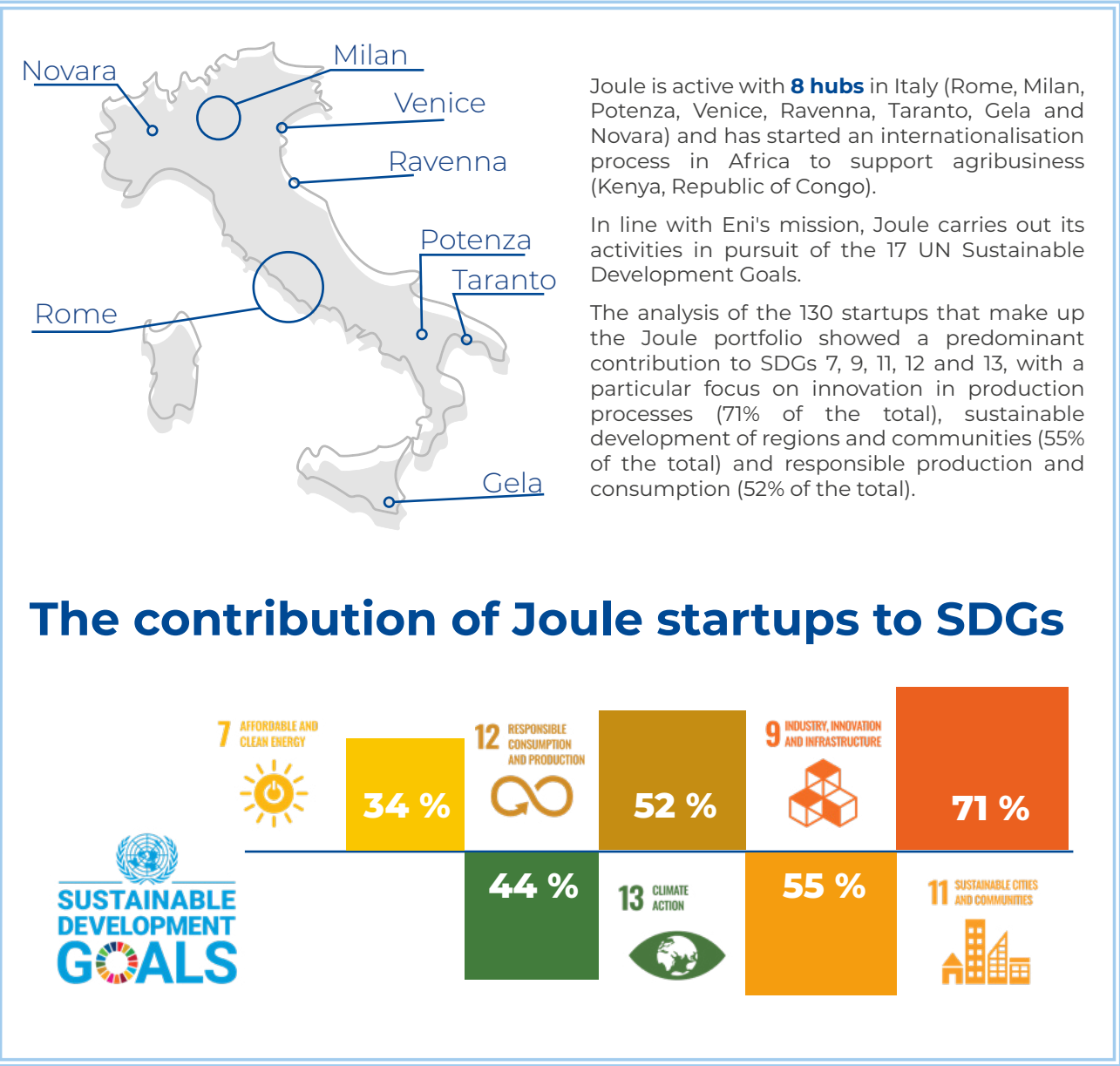
In order to prepare young people to start working, the programme was developed with both distance and face-to-face activities to support learning through three parallel courses, each 30 hours long: **"Innovators in the Company"**, **"Digital Marketing"** and **"Startup Creator"**.

5.2 Idea Validation, incubation, acceleration



**"Most innovations fail.
And companies that
don't innovate die"**

Henry Chesbrough



The programmes

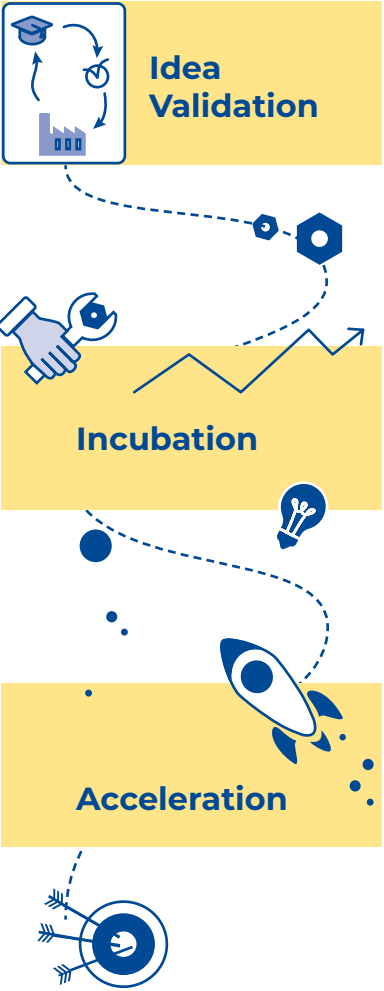
Joule trains the entrepreneurs of tomorrow. It does so through programmes for the validation of innovative ideas, incubation and acceleration of early-stage startups, with the support of specialised partners such as Seedble, Gellify, PoliHub | Innovation Park & Startup Accelerator, LVenture Group, Elis Innovation Hub, Mind the Bridge, and with the collaboration of leading universities and business schools of excellence.

Idea Validation

The **Joule Discovery Lab for startups** focuses on the scouting of new projects and talents to be valued through an idea validation process in order to foster the creation of synergies with Eni researchers for the development of joint tests.

It is a **problem-solution fit** programme that aims to identify innovative technological solutions to meet Eni's business needs.

The two editions held in 2023, the first in January at Eni's headquarters in Castel Gandolfo (Rome) and the second in November at Eni's research centre in Novara (Istituto Donegani), saw the involvement of a total of **11 teams** and the selection of **6 startups** working in the fields of **agritech** and **lithium battery recycling**, with which Eni's R&D unit is currently conducting in-depth studies with the aim of identifying use cases of common interest and initiating *Joint Development Agreements* (JDAs) or *Proof of Concepts* (PoCs) to develop joint experiments together with researchers from Eni's research centres and generate new intellectual property.





Acceleration Program Novara

During 2023 Joule designed, together with Eni’s R&D unit, the **Acceleration Program Novara**, a new in-house program whose goal is to **accelerate the technological development of innovative deep-tech solutions** with the aim of reaching the necessary TRL (Technology Readiness Level) for being applied by Eni businesses and subsidiaries and, therefore, to be able to contribute to implementation of the company strategy.

The ambition of the initiative is to **make the most of the synergies** between the assets and the know-how present in the Eni research center in Novara and the early stage startups skills, starting joint development projects regulated by Joint Development Agreement (JDA) which can then give rise to **commercial agreements or joint ventures**.

Incubation and acceleration programmes



Technology Transfer Hub for environmental sustainability. Eni is partner of the initiative for the second consecutive year.



Lazio-based pre-acceleration programme aimed at supporting solutions that foster ecological and digital transition. Eni has been a main partner for three years.



The Startup Lab incubation and pre-acceleration programme based in Rome. Eni has been a partner for two years.



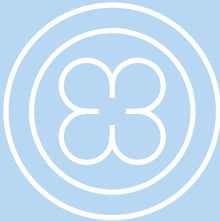
Climate Tech Accelerator based in Milan. Eni is partner for the second consecutive year.



Cleantech Accelerator based in Rome. Eni is main partner for the third consecutive year. In 2023, **11 startups** were accelerated.



Blu economy Accelerator based in Taranto and La Spezia. Eni is a partner for the second time.



Venice **Sustainability Accelerator** based in Venice. Eni has been a main partner for three years.



Sales Accelerator based in Rome. Eni has been involved in the project for three years.

+430

total hours dedicated to impact training and mentorship

152

custom environmental, social and economic indicators identified

9

Eni, ELIS and Open Impact mentors who collaborated on model design and SROI calculation

ZERO Accelerator

ZERO is the **acceleration programme** of the National Network of CDP Venture Capital SGR, launched in 2021 in collaboration with ELIS, LVenture Group and corporate partners Eni, Acea, MAIRE, Microsoft and Vodafone. The programme accelerated **30 innovative startups** in **3 years**, supporting them on a path to technological and business growth. The programme also included a simultaneous **evaluation of the blended impact (economic, environmental and social)** generated, carried out by the ELIS Innovation Hub in partnership with Joule and the startup Open Impact. The quantified indicators are many: from CO2 emissions reduction to energy saving, from people involved in sustainability issues to employment and gender equality. The average value of the **SROI (Social Return on Investment)** of accelerated startups in 2023 is 4.16, which means that every euro invested in these innovative companies translates into 4.16 euros of generated benefits.



2023 Results

4.16 Average SROI calculated on **10** startup

(E) quantity of tonnes CO ₂ reduced	8,517,529 tonnes
(E) energy saved	51,849 MWh
(S) number of people involved in sustainability and energy transition issues	9,392 people
Total value (monetary) social, environmental and economic impact generated	€ 129,813,776

ORa!

The **ORa!** project - **Outpost Ravenna for Energy Transition** was launched by Joule in 2022, with the support of local institutions and Eni's **Central Northern District** (DICS), with the aim of creating an innovation hub focusing on technologies related to the blue and green economy to support the transition of local companies through partnerships and industrial collaborations with international startups and scaleups.

The first edition of the initiative ended with very positive results and there was a hypothesis of experimentation between Eni and Canadian startup Aurora Hydrogen, which has developed an energy-efficient and emission-free hydrogen production method through the use of microwaves for methane pyrolysis.

The second edition of the initiative will be held in 2024.

12

local companies engaged

8

Countries and 61 startups

30

meetings between companies and startups

10

Non-Disclosure Agreements (NDAs) signed

3

Proofs of Concept (PoC) under discussion



Basilicata Open LAB

120

applications received from all over Italy

27

participating Lucania companies

+200

training and mentoring hours

The Basilicata Open LAB project, carried out by Eni through Joule, with the support of Shell Italia E&P and with the partners PoliHub and Consorzio ELIS, stems from the evolution of the previous entrepreneurial development initiatives carried out by Joule in Basilicata (**South Up!**, **Basilicata Pitch2Pitch**) and is one of the five-year development projects promoted by the co-holders of the Val d'Agri Concession under the New Protocol of Intent (so-called "Non-Oil" projects).

The initiative aims to generate value for the Lucania region and is developed around two project lines:

- Creation of a **physical facility** in Potenza to support startups in Lucania and SMEs that wish to innovate their business model;
- Activation of a **digital tool through the basilicataopenlab.it platform** that enables users to benefit from training contents and mentoring sessions as well as to apply for the Call4Innovation calls that will be launched over the next 5 years.

For each edition of **Call4Innovation**, **12 local companies** will be supported through training and mentoring activities and **9 grants** will be awarded, 6 for startup-SME co-innovation projects and 3 for incubation paths for new business projects.

The first call closed on 15 December 2023.

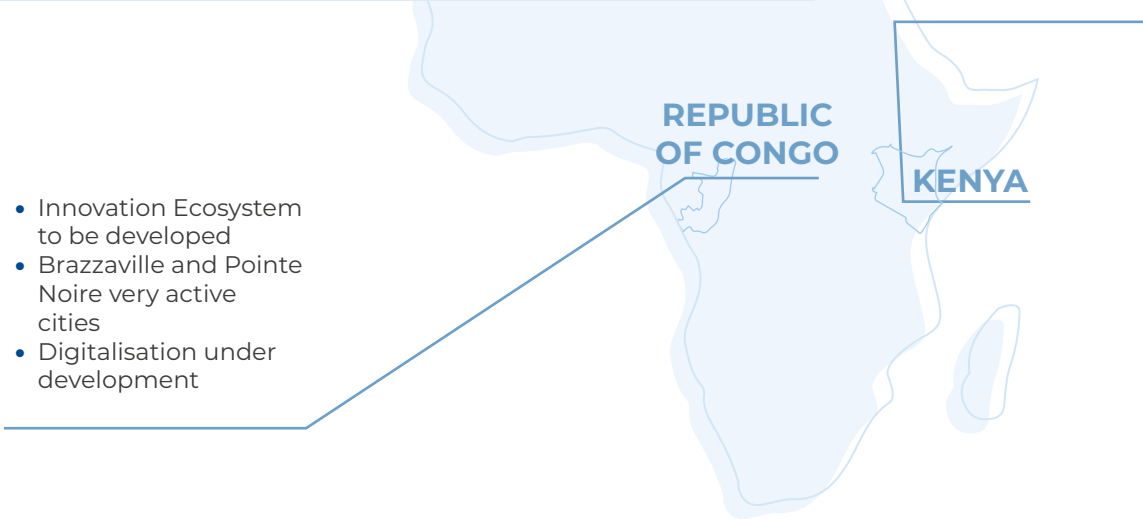


Joule in Africa

In 2023, Joule started an internationalisation process to support Eni's business in Africa. Together with Eni's Agroenergy Services and Open Innovation units, and with the collaboration of its subsidiaries **Eni Congo** and **Eni Kenya**, Joule has implemented two high impact local initiatives to foster the development of the agribusiness chain for the production of bio-feedstock for Italian biorefineries, in line with Eni's decarbonization strategy.

Agri-feedstock projects are in line with the highest European and international standards. The development of cultivation does not affect either traditional food crops or forest resources. Castor, croton, brassica, camelina and cotton co-products are among the crops already used.

- Highly developed innovation ecosystem
- Nairobi in top 5 African cities for innovation
- Agritech among the liveliest sectors



"Ecosystem building" in the Republic of Congo

55
mapped stakeholders

4
months of training
and mentoring

+60
participants involved

7
project works
submitted to the
business

In order to help create a new agricultural supply chain to produce the raw materials needed for agrihubs, Joule launched a five-year project in 2023 to build a robust innovation ecosystem and foster co-innovation projects between Congolese startups and local entrepreneurs.

In the first phase, local stakeholders were mapped and engaged and **empowerment** initiatives were launched **on small and large farmers** through training activities on entrepreneurship and innovation with the contribution of the Eni Corporate University, LUISS Business School and UNIDO.

The project will continue in 2024 with the scouting of local innovative solutions and their incubation as well as specific management training for aggregators of small farmers.

Atelier d'entrepreneuriat: a laboratory for innovative solutions in the Republic of Congo

On 3 and 4 October 2023, **14 Congolese startups** and some of the Country's leading agricultural entrepreneurs and local stakeholders met at the Enrico Mattei Campus in Pointe-Noire to take part in the "Atelier d'entrepreneuriat" training and networking event aimed at boosting the Country's innovation ecosystem. The training sessions were delivered with the support of the Eni Centre of Excellence for Service Design, User Experience & Agile, in collaboration with the Italian university LUISS Business School.



Capacity building in Kenya

In February 2023, Joule, with the collaboration of the BeEntrepreneurs association, launched the "**Seeds for sustainable energy**" project with the goal of identifying innovative local solutions to be introduced into Eni's agribusiness supply chain and of creating growth opportunities for local entrepreneurs, thus generating value locally.

The project identified 10 Kenyan startups in the fields of agriculture 4.0 and the valorisation of agricultural waste.

The startups, hosted at the E4Impact Entrepreneurship Centre in Nairobi, were guided by mentors and industry experts in preparation for the final investor day, which was held at the conclusion of the bootcamp in May 2023.

During the second half of 2023, **four particularly interesting innovative solutions** were analysed by the business with the support of Eni's R&D unit in order to build possible use cases to be implemented at the Makueni agrihub.

Through a process of ex-post analysis of the economic, environmental and social benefits generated by the project, applying the **SROI (Social Return on Investment)** methodology - which assesses the ratio between the impacts generated by the project and the available budget - it was estimated that for every euro invested by Joule in the initiative, a return of 1.2 euros for the local community can be expected.

202
applications received

10
selected startups

3
winners who were
awarded a grant of €
10,000 each

1.2
Social Return on
Investment (SROI)

5.3 Impact for the Community

The Big Hack

Every year, as part of the Maker Faire event, a hackathon is organised on the main topics of innovation. In 2023, Joule participated by presenting the challenge “GenAI for Sustainable Development”, with the aim of developing ideas based on Generative Artificial Intelligence (such as apps or software/ hardware solutions) in line with at least one of the 17 Sustainable Development Goals.

Eni Joule for Entrepreneurship

Eni Joule for Entrepreneurship is a special mention awarded at the Eni Award to startups that stand out for the innovativeness and sustainability of their business projects. In 2023, the special mention was given to Reco2, Ohoskin and 20energy. For Joule, this is a further opportunity to promote the creation of an innovation ecosystem and enhance talent.

Circular Bootcamp

The event, which focuses on the theme of the circular economy, is aimed at stimulating dialogue between corporations and startups, creating a concrete impact on the community. The two 2023 editions were held in Castel Gandolfo and Taranto, both focusing on potential synergies and sustainability impact generation.

Innovation Bootcamp in Silicon Valley

Joule invited ten startups from its ecosystem to spend a week in San Francisco, giving them the opportunity to connect with Silicon Valley's most important investors. The initiative was organised with the collaboration of the Eni Open Innovation Outpost in San Francisco and Mind the Bridge (an international organisation that provides innovation consultancy to startups and companies).

WomenX Impact

For the second year in a row, Eni School of entrepreneurship participated in WomenX Impact, an event supporting women's empowerment. It was a moment of dialogue to share innovative ideas and support women's professional growth.

Unstoppable Women

The Unstoppable Women event, organised by StartupItalia on the occasion of Milan Digital Week, gave Joule the opportunity to get in touch with a large community of women and to bring in some Eni professionals for a discussion with startups on innovation, artificial intelligence and new technologies.

Road to the Future

During the first edition of Rome Future Week, Joule supported ROAD (Rome Advanced District) in organising the “Road to the Future” event, involving 15 innovative companies in a startup battle to select the projects that were deemed most promising for the future of the city of Rome.

Innovation tour in Italy for Kenyan startups

In September 2023, Joule invited four Kenyan startups to Italy for an innovation tour in the cities of Milan, Turin and Novara. During the tour, the startups had the opportunity of getting to know important technological facilities by visiting Eni's laboratories in Bolgiano and Novara and it took part in the Italian Tech Week in Turin.

In three years Joule has built an innovation Community of about **10,000 people**, a space where startupper, entrepreneurs and industry experts have the opportunity to meet, sharing experiences, ideas and projects in the name of sustainability.

Over the course of the year, the Eni School of entrepreneurship developed a series of activities to stimulate and energise its Community. The website, which was visited 17,000 times in just over 12 months for a total of **12,000 single users** was one of the tools Joule used to illustrate its ecosystem. An equally strategic role was played by the newsletter, which was completely renewed in content and design and constantly updated. It provided information to its almost **8,000 subscribers** reaching an **average open rate of 30%**, three percentage points higher than the market average.

In 2023, Joule was committed to involving the startup community, organising and participating in events aimed at spreading an entrepreneurial mindset in strategic regions for Eni and developing new innovative projects.

The launch of ROAD





The roads that **meet in Rome** do not only **cross** space, but also **time**.



"ROAD - Rome Advanced District", a network of companies formed by **Eni, Acea, Autostrade per l'Italia, Bridgestone, Cisco, Gruppo FS and NextChem (MAIRE)** was launched in May 2023. The aim of the project, which is based in the area of the Gazometro in Rome Ostiense - formerly Joule's headquarters - is to develop the first technological innovation district dedicated to the new energy supply chains and open to applied industrial research collaborations in synergy with the world of research and academia.

ROAD's objectives are:

- to develop, promote and **accelerate innovation projects** and scientific, industrial and technological research;
- to establish **supply chain collaborations** between R&D departments of companies, universities, research centres, startups and innovative SMEs on **energy and digital transition technologies**;
- to use the Rome Ostiense asset as a **"living lab"** for experimenting with emerging technologies to support the community;
- to attract and train **talent** to develop new professions.

The main impact areas covered by ROAD range from technologies for decarbonization to the circular economy (water and waste management), energy efficiency and storage, from sustainable mobility to smart cities and the promotion of health and safety.

Each network co-founder pools activities and expertise on the four main streams that characterise the innovation hub and, in addition, the business network promotes the generation of new Intellectual Property (IP) through specific projects. The ownership of the IP generated within the research projects is divided among the participating networks.

Joule shares with ROAD the location within the Gazometro area of Ostiense, an urban district dating back to the early 20th century, now owned by Eni, covering a total area of about 13 hectares.

The space is currently undergoing redevelopment and remediation and also houses the new **Eni 2050 lab** technology hub as well as the ZERO Accelerator (part of the CDP's National Network) dedicated to the best cleantech startups.

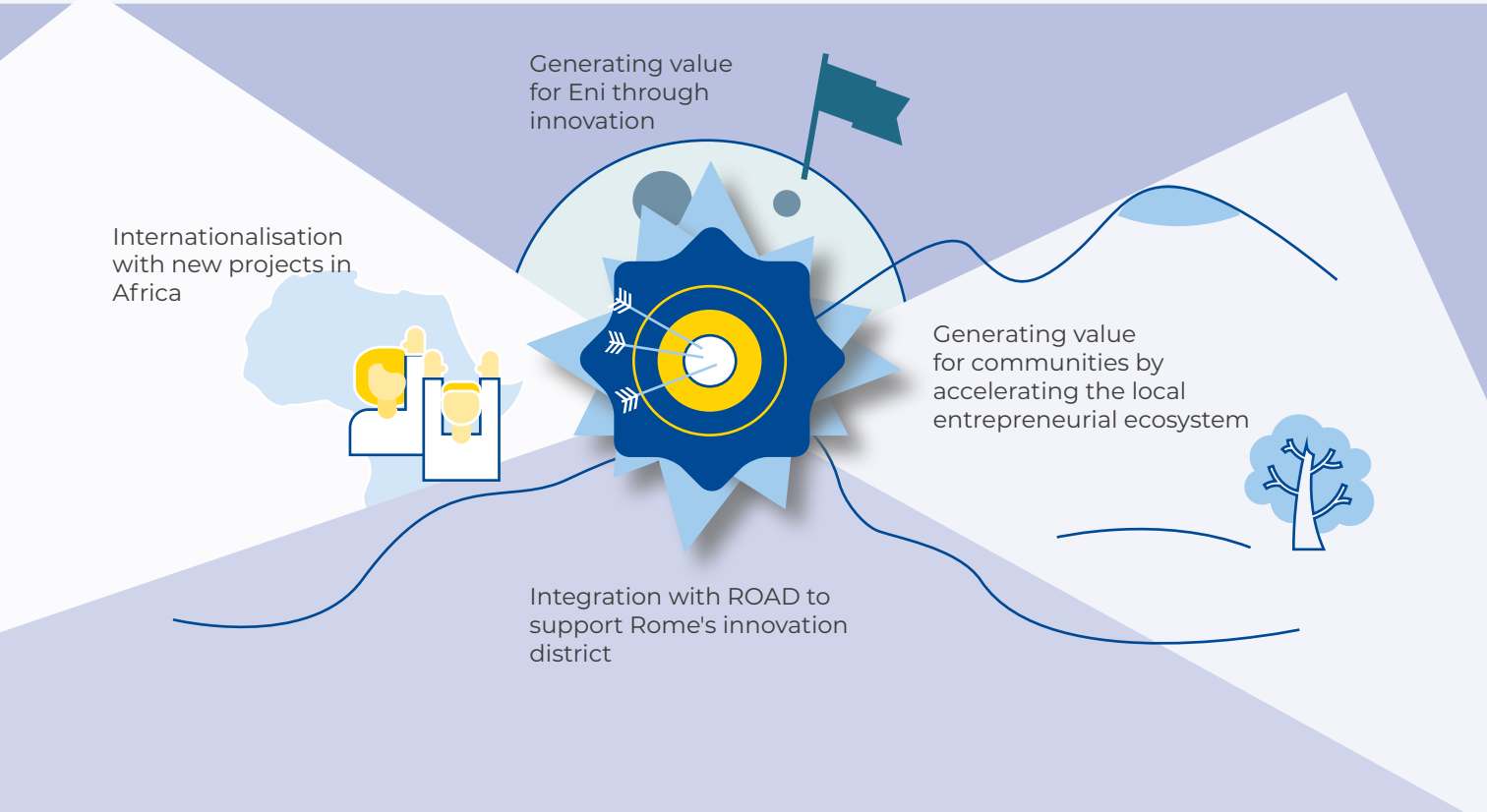
Joule also shares ROAD's mission and values, which is why Eni School of entrepreneurship represents the operational branch of the innovation hub by holding the role of **Project Manager Officer (PMO)** and promoting initiatives along the innovation hub's four project streams (**Mindset, Stakeholders alliance, Ecosystem & co-creation, Green Jobs**) with the involvement of the relevant Eni units.

Joule tomorrow



“Ingenuity is seeing possibilities where others see none”

Enrico Mattei



In the future, Joule's activities will focus more on creating value for Eni and the business ecosystem in the areas where it is present.

Value creation for Eni

Promoting collaboration between innovative startups, Eni businesses and subsidiaries in Italy and abroad to seek potential new suppliers along the entire energy value chain.

Continuing the upskilling and reskilling of Eni people in order to spread the development of an entrepreneurial mindset within the company and foster the emergence of innovative ideas from within.

Synergies with ROAD

Strengthening the innovation district, generating value for its member companies, for the city of Rome and for the Italian and international innovation ecosystems.

Impact on communities

Supporting the creation of innovation ecosystems in Africa in the regions where Eni is present and foster local development through initiatives to support local entrepreneurship (e.g. Republic of Congo, Kenya, Côte d'Ivoire, Rwanda)

Increasing the activities in Italy in order to support the development of new entrepreneurial ideas and the growth of innovative startups through incubation, acceleration and empowerment initiatives.

Methodological note



Theory of Change

Theory of Change			
Input	Output	Outcome	Impact
the set of resources needed and used by the organisation in order to implement its programmes and activities	the product of the organisation's activities	the expected and measurable results and preconditions necessary to achieve the long-term impact objective	the positive and negative, intentional and unintentional, direct and indirect, primary and secondary effects produced by the organisation's action



To prepare this Impact Report, Joule followed a methodology based on the Theory of Change (ToC) with the aim of carrying out a detailed mapping of the impact generated by the organisation as a promoter of open innovation.

The impact generated represents the broader and more significant change that the organisation aims to achieve as a result of the activities carried out and is the end point of the “impact chain”, as well as the final result that is intended to be produced by the actions implemented. To make this representation clear and at the same time complete, Joule has summarised its activities and programmes in its “impact areas”, i.e. the main areas of engagement through which the School of entrepreneurship is able to generate positive effects in the context where it operates:

- 1. **Entrepreneurial mindset;**
- 2. **Idea Validation, incubation, acceleration;**
- 3. **Impact for the Community.**

The methodology was supported by qualitative and quantitative indicators, which were strategically defined during the mapping process and constituted an essential tool to assess and observe the impact generated by Joule. In order to make the report more robust, the Global Reporting Initiative (GRI) Standard was taken as a reference.

Joule followed the SROI (Social Return on Investment) methodology, an evaluation system that seeks to measure and quantify the social, environmental and economic impact of a project, programme or investment.

This Report covers the period from 1 January 2023 to 31 December 2023. The document is not subject to external assurance.

The startups of 2023

















Printed in February 2024