RAISE Training Program Results

General description

The **ROBOTICS AND AI FOR SOCIO-ECONOMIC EMPOWERMENT (RAISE)** project aims to create and strengthen an innovation ecosystem based on technologies and knowledge related to Artificial Intelligence and Robotics. The focus on a specific region - Liguria - will help transform this context into a highly attractive hub for businesses, investors, and researchers.

The **Training Program** fits into this context, designed to offer advanced training courses for students, doctoral students, researchers, SME employees, teachers, and public administration staff. The training program is structured into eight projects, each with its own teaching methods, target audience, duration, and outcomes. The modular structure allows for a targeted response to diverse training needs and promotes progressive and personalized learning.

The training program was implemented through both online and in-person streaming activities. The online training, hosted on the Moodle platform, is delivered in active and interactive e-learning mode, using a personalized and experiential learning method. Each project consists of multiple teaching units, with 20-minute lessons that include videos and interactive activities. Before accessing the various modules, each participant completes an Initial Questionnaire, which allows for user profiling and allows for more precise monitoring data. Upon completion of each training module and passing the final test, participants are awarded a "Microcredential" Open Badge, which ties to the acquired disciplinary (hard) and transversal (soft) skills. Additionally, some courses offer the option of being included in a university study plan, resulting in the awarding of credits.

Training projects

P1. RAISE Knowledge Transfer and Entrepreneurship Academy: 3 online training modules on key topics related to technology transfer, intellectual property protection, and professional training for deep tech entrepreneurship. The primary target audience is new researchers recruited to the RAISE project, although it is accessible to all interested parties. It aims to foster a mindset suited to starting a successful innovative business based on robotics and artificial intelligence applications.

P2. Basic AI & Robotics Applications4SMEs: 11 online courses organized in a catalogue for employees of local SMEs operating in the RAISE sectors, with the aim of encouraging the adoption of innovation-oriented management approaches. The project aims to support SME entrepreneurs in the digitalization process, in changing their business model, and in AI & Robotics-related practices, enabling them to increase productivity and gain a competitive advantage.

P3. Officinae RAISE: Intensive in-person course for undergraduate and graduate students, aimed at acquiring and refining skills in design thinking methodologies, business model development, and storytelling and public speaking for the creation of innovative business ideas in the fields of robotics and artificial intelligence. The program integrates the analysis of user needs, desires, and behaviours to develop products and services that meet societal demands, providing strategic thinking principles for defining a distinctive and coherent value proposition, supported by a business model geared towards growth and sustainability.

P4. Basic AI & Robotics skills at University level: online training courses worth 1 ECTS, aimed at UniGe students of all degree programs and open to interested members of the public, with the aim of increasing awareness and autonomy in the use of advanced digital skills. The training program aims to disseminate knowledge about innovations in AI and Robotics, promote awareness of the potential applications of these technologies across all sectors, and develop skills needed to adopt a multidisciplinary approach for the proper integration of technology into various professional, social, and research contexts.

P5. AI for Public Administration: Online, in-person, and blended training modules designed to develop the ability of public administration employees to effectively adopt innovative technologies in supervised processes, identifying specific needs related to the four research areas (urban technologies, health, environment, and ports) and offering an overview of potential AI applications.

P6. Basic AI&Robotics skills for secondary schools: A project for secondary school teachers and students designed to develop a Community of Practice on Artificial Intelligence & Robotics (AI&R CoPS). This project provides a common knowledge base, project ideas, and documented experiences, serving as an incubator for launching and nurturing a community of practice (CoP) of AI&R teachers. The AI&R CoPS introduces basic AI&R concepts, provides advice on the design and implementation of related teaching activities, and creates workshops for secondary school students.

P7. Advanced AI & Robotics Applications4SMEs: Online training program and in-person meetings aimed at entrepreneurs, managers, and other professionals working in high-tech SMEs, innovative startups, and academic spin-offs, primarily in the Ligurian ecosystem. The programme, through specific focuses on AI and robotics, enables the acquisition of entrepreneurial and managerial skills to support the management and re-engineering of the operational dynamics of organisations that integrate artificial intelligence and robotics technologies into their processes.

P8. Boosting PhD students' career: A project aimed at doctoral students, structured around specific scientific programs in AI and robotics, aimed at enhancing the development of high-level specialized skills in the RAISE ecosystem and maximizing visibility for both fundamental and applied research conducted within it. The training program aims to facilitate doctoral students' entry into the workforce.

Results

The Training Program resulted in a total of 95 training initiatives, divided into various types of intervention: 76 courses, project modules, and workshops, 2 specialization schools, 10 workshops, and 7 networking events. The activities were delivered using a blended approach, combining online training (58 initiatives) and in-person activities (37 initiatives), to ensure broad participation and organizational flexibility.

To support the training, a total of 600 microlearning videos were recorded, created using innovative methodologies capable of engaging users, stimulating prior knowledge and reflection, promoting active and meaningful learning.

The project totalled 973 hours of training, of which 406 hours were delivered through online course video lessons and 567 hours were dedicated to in-person events. The highest values were recorded in the P6, P8, and P4 programs, with 375, 161, and 148 training hours, respectively.

Five presentation events dedicated to the training projects were also organized, and the project concluded with a final dissemination event, designed to summarize and highlight the training projects completed. The meeting not only provided an opportunity to publicly share the results, best practices, and experiences gained by the participants, but also provided an important networking opportunity between local organizations, professionals, companies, and stakeholders, fostering potential future collaborations that could generate positive spin-offs and tangible benefits for the community and the users involved.
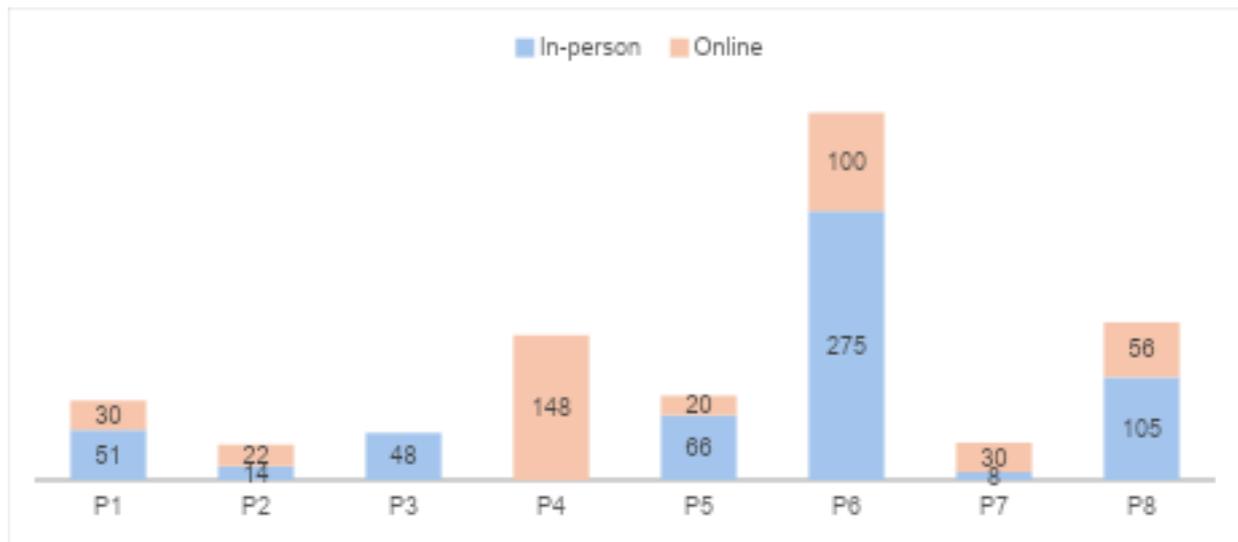
Training hours

Overall, the Training Program saw 7673 participants: 5714 followed the online training and 1959 attended events, workshops, and in-person meetings. The highest participation was seen in programs P4 (3934), P5 (1509), and P6 (1327), which target university students, public administration employees, and secondary schools, respectively.
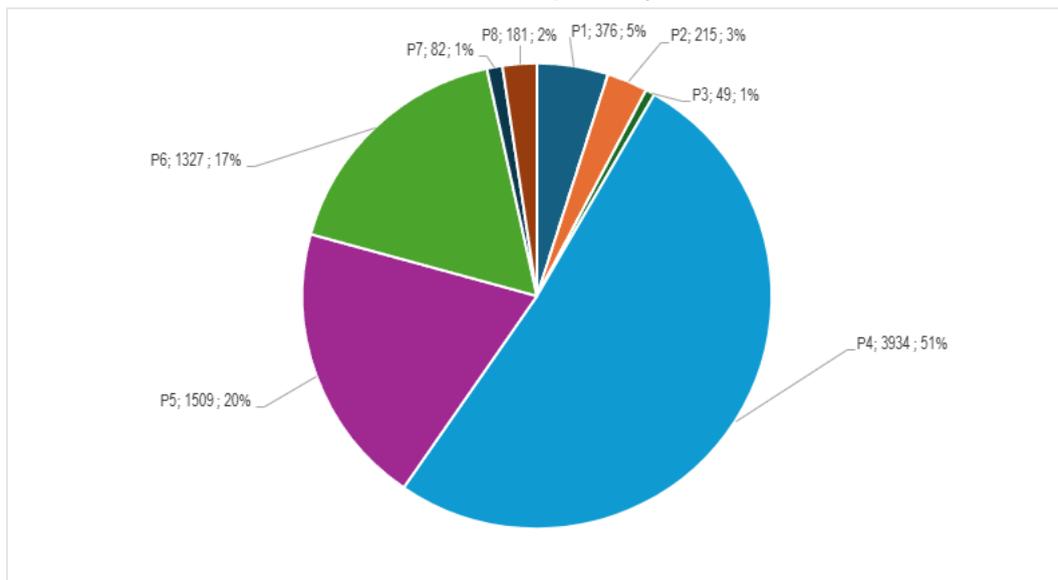
Training participants

Summary of the 8 training projects

	P1	P2	P3	P4	P5	P6	P7	P8	TOTAL
Online training participants	220	140	\	3934	1196	81	42	101	5714
In-person participants	156	75	49	\	313	1246	40	80	1959

Completed courses	75	46	32	1659	407	23	2	64	2308
Open badge issued for online activities	62	43	\	965	407	\	\	64	1541
Open badge issued for in-person activities	123	11	32	\	185	\	\	44	395
Female particpants (online + in-person)	51% (137/376)	41% (90/215)	47% (23/49)	53% (2083/3934)	60% (918/1509)	>40%	35% (29/82)	44% (80/181)	48% (3379/6981)

Data from the Initial Questionnaire revealed that university students and public administration employees represent most users, with 43% public administration employees and 42% university students. High school teachers, doctoral students, master's students, and SME employees account for 12% of the total.

The questionnaire data also provides an overview of the educational background of the users: the highest percentage concerns users with a high school diploma (36%), followed by users with a bachelor's degree (23%), a master's degree (14%), and a single-cycle master's degree (10%).
The Training Program has seen the issuance of 1936 Open Badge (this figure includes both Open Badge issued upon completion of online training and those issued during in-person events). The highest number of Open Badge was issued in P4 (965) followed by P5 (592) in accordance with the participation data. 2308 courses were completed. The highest number of completed courses was found in P4 (1659) followed by P5 (407) and P1 (75).
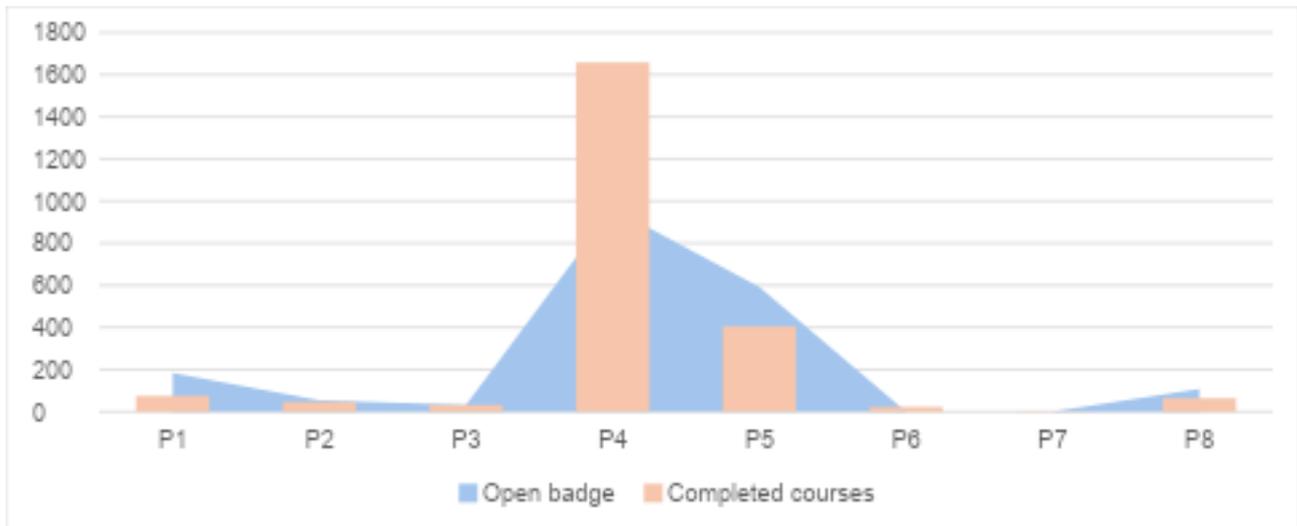

Open badge issued & completed coures

The number of completed courses and Open Badge issued is proportional within individual courses: greater participation > greater number of courses completed > greater number of Open Badge issued [1].
Regarding user demographics, the highest female participation was found in the P5 project (60%), while the overall average for training was 48%. Female participation data are particularly important for meeting project

---

[1] The number of OBs issued does not correspond to the number of courses completed because:
- Not all courses require OBs to be issued upon completion.
- Some courses require OBs to be issued for in-person activities, in addition to online courses.
- Not all users who complete courses request OBs.

KPIs, which require a minimum participation of 40% female users: this value was achieved in 7 out of 8 projects[2].

Male & female participants
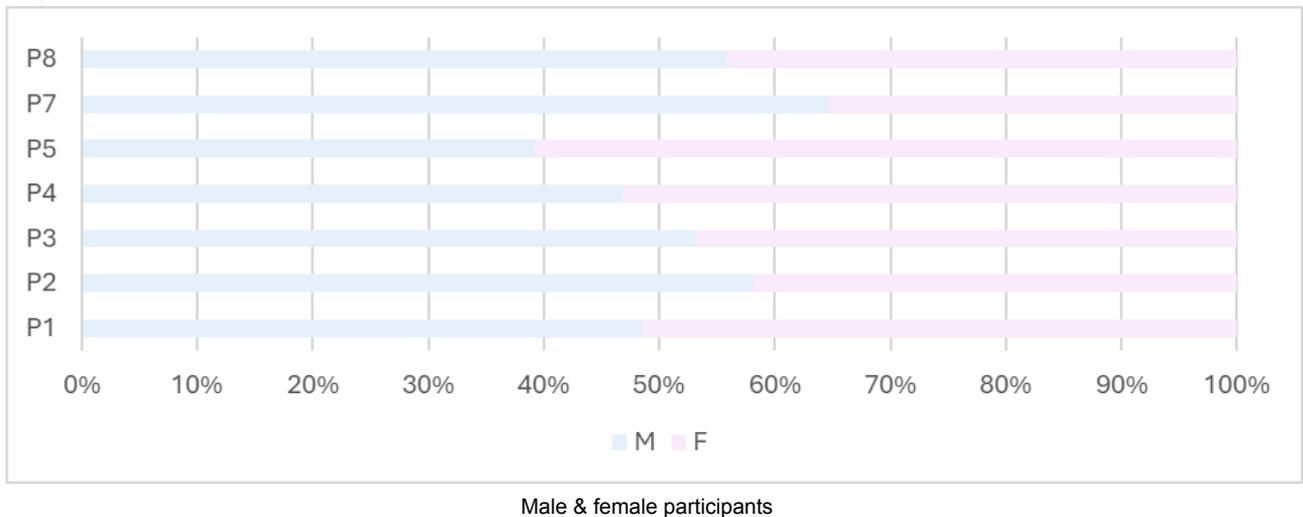
The average age of users is 32 (the data tends to remain in the 20-35 range). The highest average, 46, which is significantly different from the rest of the data, is for the P5 program: this is consistent with the program's target audience, which is public office employees. Similarly, the lowest average age, 26, is for the P4 program, which is primarily aimed at university students. In general, the age data tends to cluster around the most representative areas for the target audience, with little overall deviation from these values.

Data related to project KPIs

The RAISE Impact Monitoring Plan defines specific guidelines for evaluating and measuring the project's impact over time. This allows us to determine whether the project is achieving its objectives, which areas require improvement, and to ensure accurate reporting of results.

Given the great internal diversity of projects, which differ in targets, teaching methods, and outputs, the KPIs are adapted to the respective project. However, there are some metrics whose values can be measured in relation to different plans, such as the number of participants and the percentage of female users.

P1. RAISE Knowledge Transfer and Entrepreneurship Academy

Project P1 consists of three online training modules on the topics of technology transfer, intellectual property protection, and deep tech entrepreneurship, respectively.

The project exceeded the required KPIs in five of the seven identified areas. Some of the most promising results are the participation in online modules (220 out of 90 participants), the female participation in online training (>40% across all online modules), the number of issued Open Badge (185 out of 60), and the number workshop participants (156 out of 60). The data regarding female participation refers exclusively to participants in online courses, as the workshop data is incomplete.

P1 is deficient only in metrics regarding the number of courses completed within Module 3 (14 out of 20). Overall, P1 is among the three most successful modules of the program, immediately after P4 and P5.

The age of participants presents a rather wide range, ranging from a minimum of 21yo to a maximum of 62yo.

In terms of relevant statistics, P1 is one of the courses in which the number of Open Badge (185) is higher than the number of users who completed the Online courses. This data is due to the large number of participants in the in-person Workshops (156 compared to 220 participants in the online courses) who, upon participation, received an Open Badge.
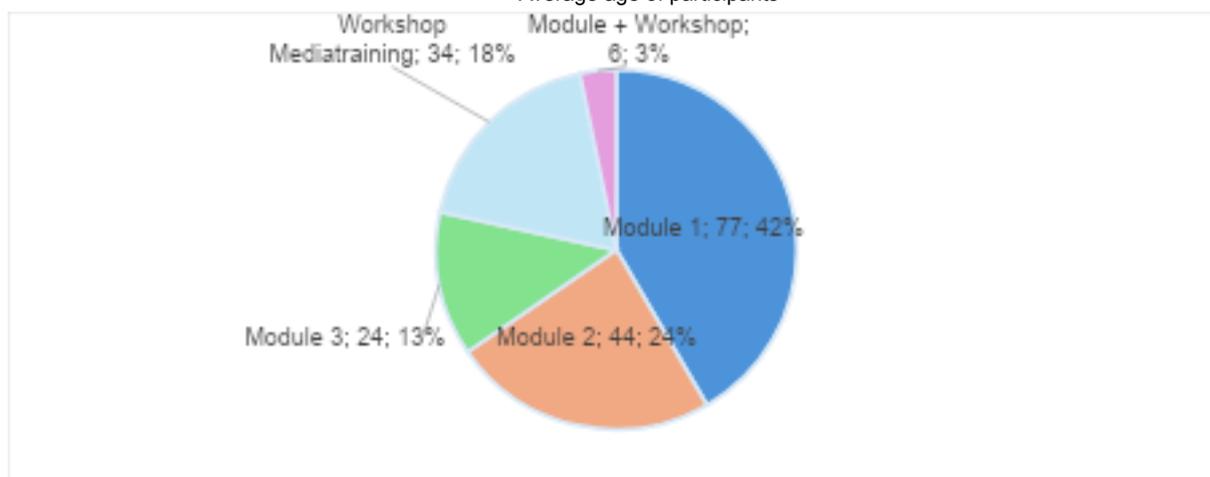
---

[2] Data is available for 7 out of 8 projects; the data reported for the P6 programme are generally >40%.
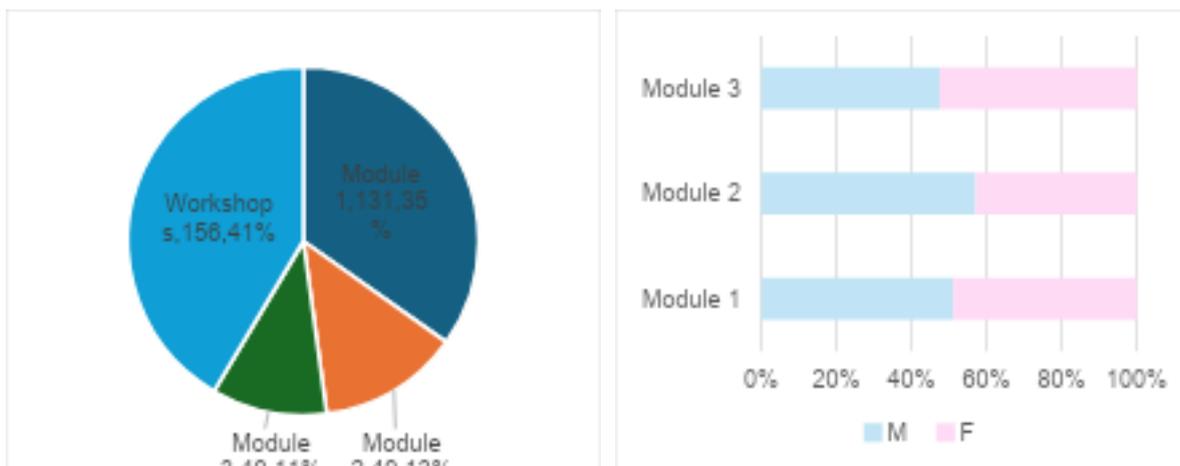
Participants organized by module
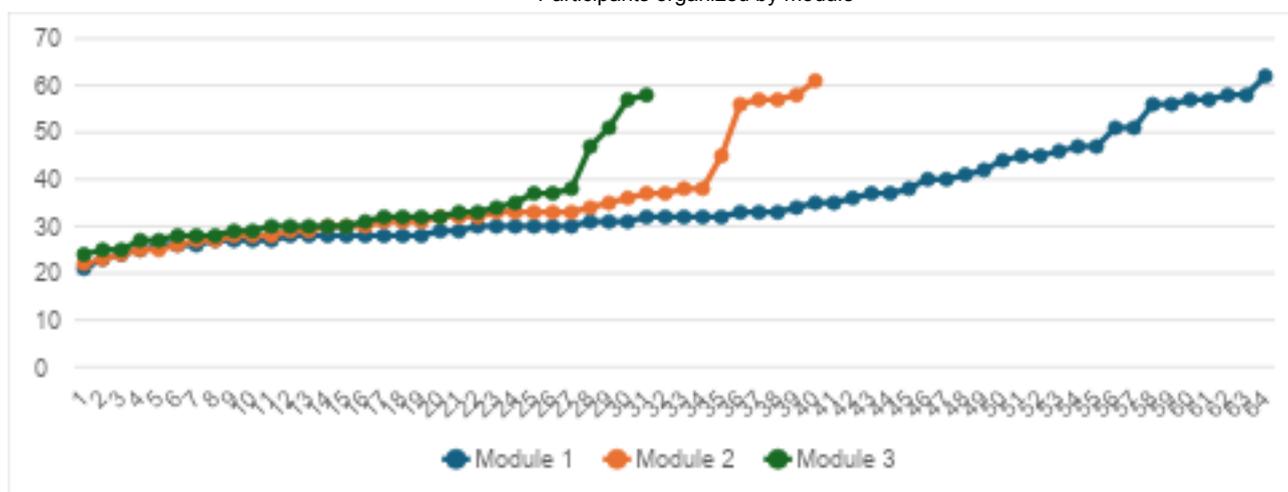
Average age of participants

Open Badge

For each module, are listed the Open Badge issued following online training and participation in the workshops held during the two editions of the project. The "*Module + workshop*" data item indicates participants who completed an online module and the related workshops.

Metrics

Hours of online streaming training: 30

Participants: 220
Module 1: 131
Module 2: 49
Module 3: 40
Workshops: 156

Completed courses: 75
Module 1: 38
Module 2: 23
Module 3: 14

Open Badge: 185
Module 1: 77
Module 2: 44
Module 3: 24
WS "Mediatraining": 34
Module + Workshops: 6

Number of Workshops: 7
Workshop participants: 156
Module 1: 63
Module 2: 56
Module 3: 37

Female participation rate: 51%
Module 1: 44%
Module 2: 39%
Module 3: 57%

P2. Basic AI & Robotic Applications4SMEs

The P2 project consists of eleven online courses designed to encourage the use of innovative management approaches by employees of local SMEs, enabling them to increase productivity and competitiveness with the contribution of AI and robotics practices. Overall, P2 has proven to be one of the two least effective programs in terms of participation. This lack of success appears to be due to the difficulty in effectively engaging the SME target audience, a criticality also identified in the P7 program, which shares the same target audience as P2. Overall, the project successfully engaged users from a total of 23 SMEs (11 SMEs during the in-person events and 12 SMEs in the online training participants).

It should be noted, however, that P2 managed to reach a relatively large audience through in-person discussions, networking sessions, and roundtables (75 participants, compared to 140 in the online training). After a decline in attendance at the third meeting, event participation remained steady, demonstrating how in-person events managed to attract a consistent audience of people who attended all seven meetings. These users were also administered an online questionnaire to investigate how the meetings helped SMEs and entrepreneurs incorporate robotics and AI into their supply chains.[3]

The P2 project showed results above the established KPIs in all areas except for the completed optional modules (8 out of 20). Noteworthy is the number of Open Badge issued (43 for online courses and 11 for in-person events). Despite low participation within some modules, female participation in online training remained above 50% in all. Furthermore, high values were highlighted for the number of completed optional
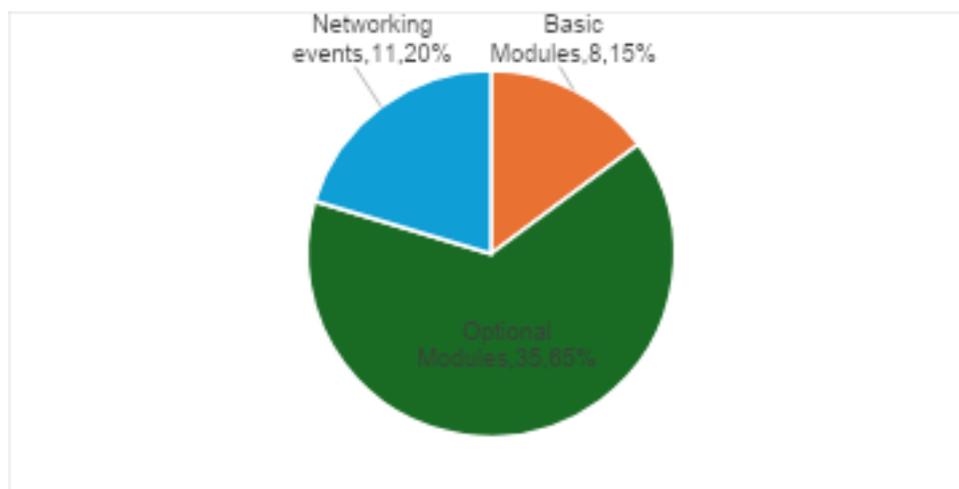
---

[3] Currently awaiting results

modules (38 out of 10). Overall, P2 demonstrates how it is possible to retain a specific user base and but also that corrective measures are needed to broaden this pool. [4]
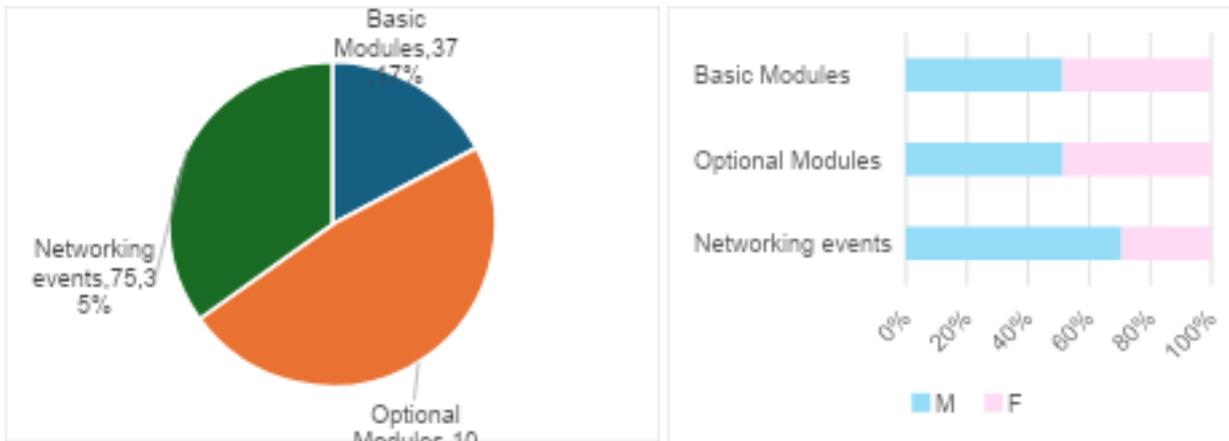
Partecipants organized by module
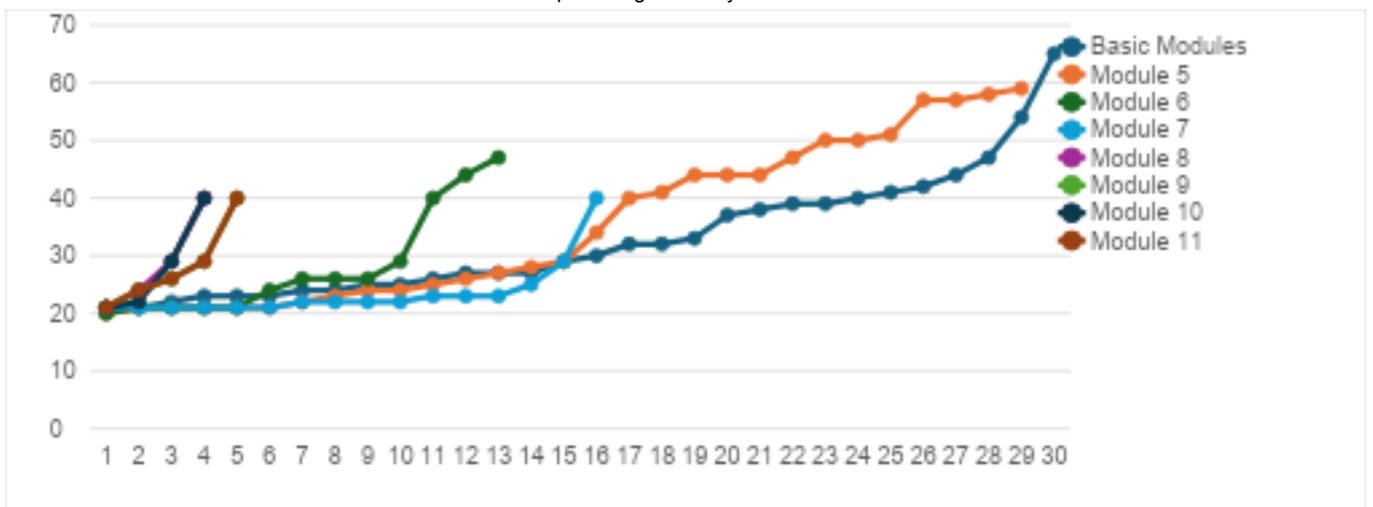
Avarage user age

Open Badge

Metrics

---

[4] During the Impact Table meetings, the other ecosystems involved in the PNRR projects also highlighted difficulties in reaching this specific type of user.

Hours of online streaming training: 22
Number of training modules delivered: 11
Number of participants who successfully completed basic modules: 8
Number of participants who completed optional modules: 38
Number of participants who successfully implemented artificial intelligence and robotics in their SMEs: data being processed, not yet received
Female participation rate: 41%

P3. OFFICINAE RAISE

The P3 project is a higher education program aimed at master's and doctoral students, designed to develop skills in design thinking, business model development, and storytelling applied to robotics and AI. P3 was conducted entirely in-person, through three Tool Courses held at the Talent Garden in Genoa and an intensive Bootcamp held at the Imperia Campus. P3 involved students from master's and doctoral programs, selected from 62 applications. The project's call for applications allowed a maximum of 40 participants, but due to high demand, 53 participants were admitted to the Tool Courses. The full course (Tool Courses + Bootcamp) was completed by the 32 admitted students, who received 3 credits and the corresponding Open Badge. Female participation remained above 40% throughout all events, with an overall final percentage of 47%.

The number of applications received demonstrated strong interest from users. Furthermore, participation remained constant, demonstrating the involvement of participants throughout the entire activity cycle.
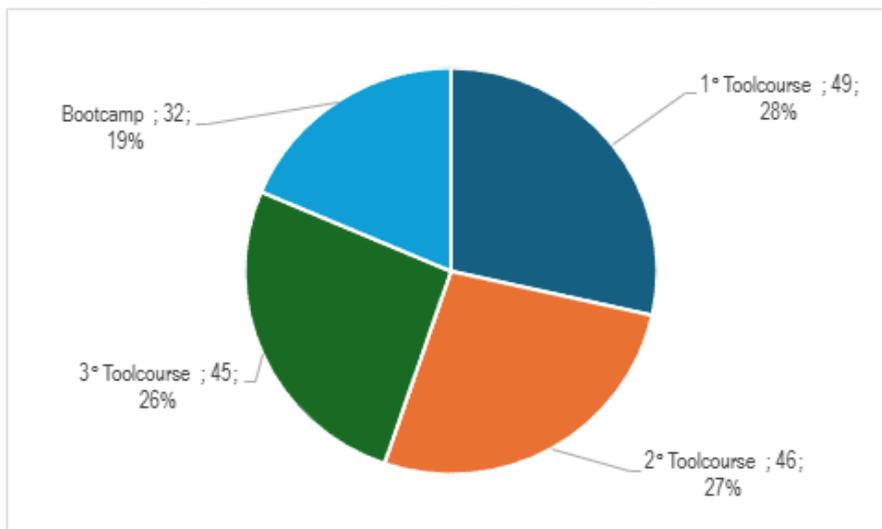
Participants
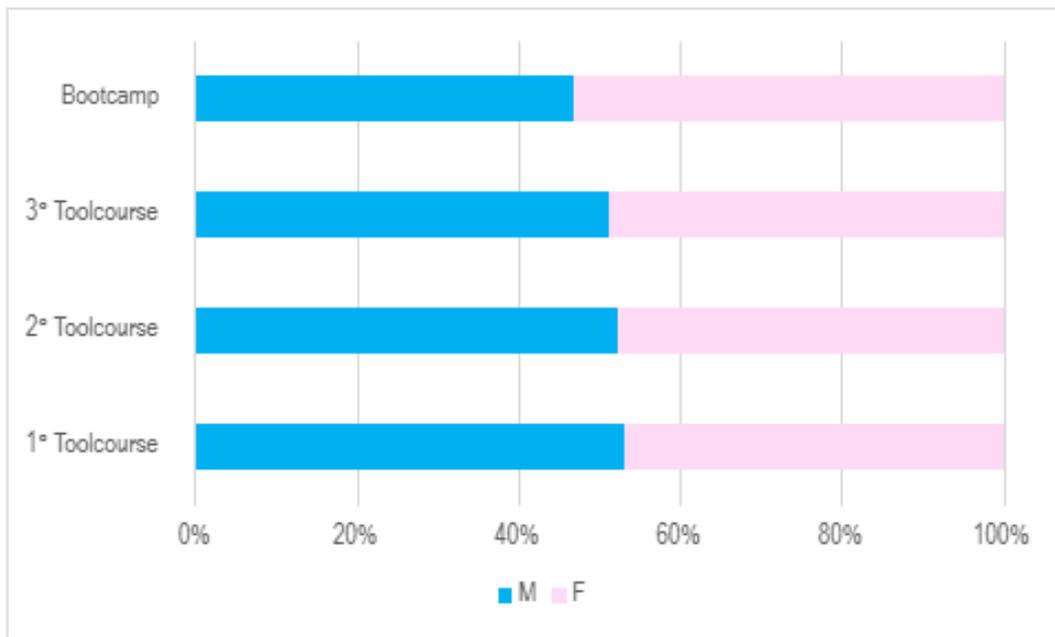
Male & female participants

Metrics

Training hours: 48
Tool Course 1: 8 hours
Tool Course 2: 8 hours
Tool Course 3: 8 hours
Bootcamp: 24 hours

Participants: 172
Tool Course 1: 49
Tool Course 2: 46
Tool Course 3: 45
Bootcamp: 32

Complete course: 32 participants

Female participation rate: 47%
Tool Course 1: 46%
*Tool Course 2: 47%*
Tool Course 3: 48%
Bootcamp: 53%

P4. Basic AI & robotics skills at university level

The P4 project is aimed at UniGe students of all degree programs and is also available to interested citizens, with the aim of increasing awareness and autonomy in the use of advanced digital skills.

P4 has proven to be one of the most successful programs in the Training Program. P4 offers the broadest range of courses (34 courses + 3 pilot courses out of 20), and the data regarding participants (3,934), completed courses (1659), and Open Badge issued (965 out of 50) are particularly promising. These figures have continued to increase steadily weekly for a year. Part of P4's success is attributable to the awarding of 1 CFU upon completion of a course included in one's study plan: 1591 students from 65 different degree programs have included courses in their plan (807 in the 2024/25 academic year, 784 in the 2025/26

academic year). These figures also continue to increase with each exam session, as students request recognition of completed courses. It can be concluded that the option of including courses within the study plan has provided an excellent incentive.
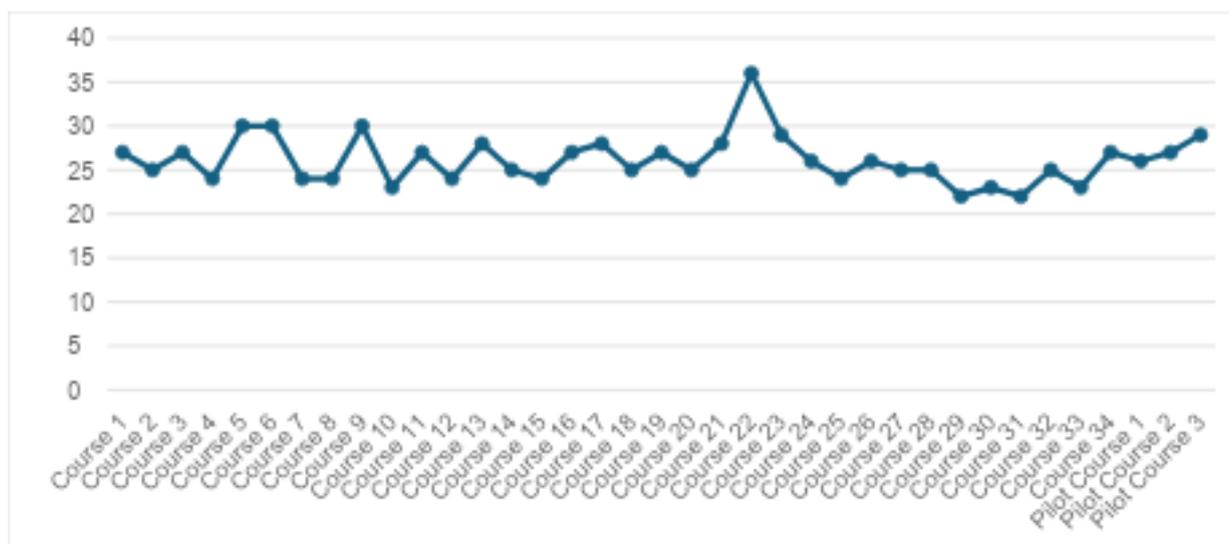
Female participation exceeded 40% in 34 out of 37 courses, with an overall rate of 53%. In demographic terms, the overall average age is 26yo (ranging between 22yo and 36yo), consistent with the university population.
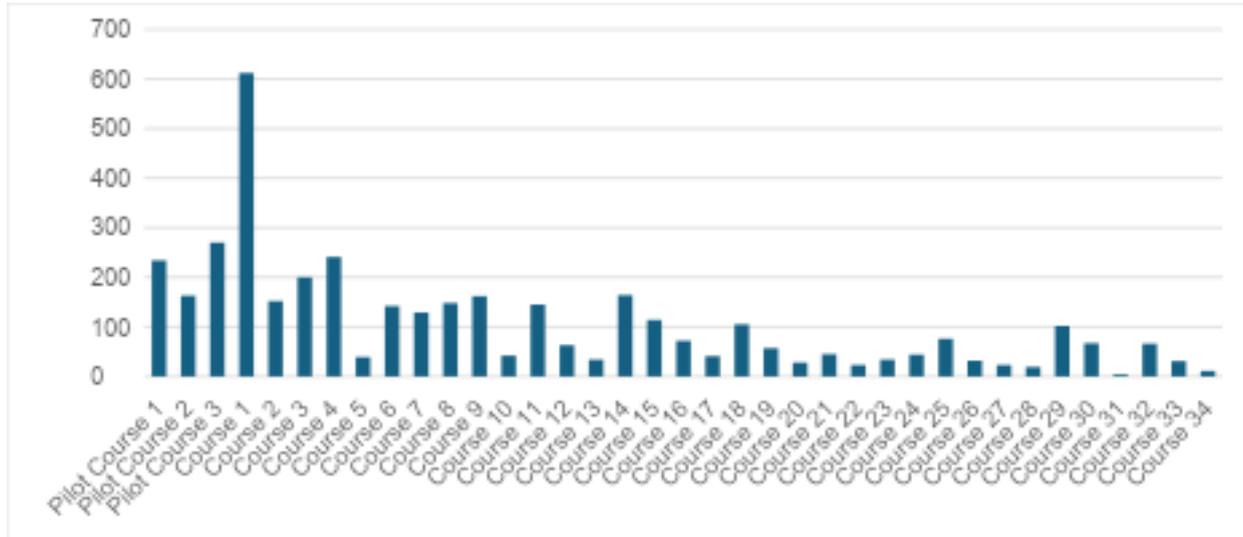
Participants of the 37 courses
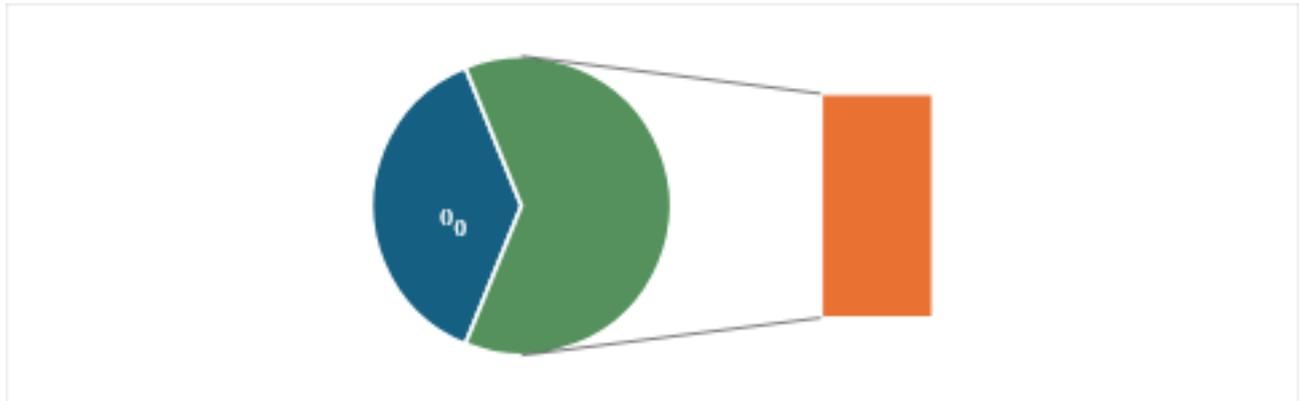
Particpants who inserted the courses in their Study Plan and Open Badge issued.

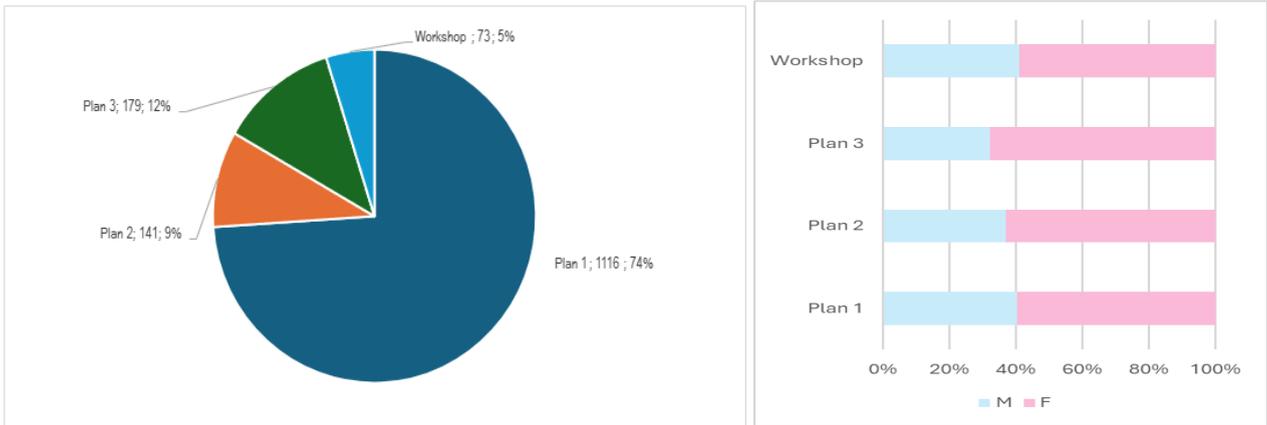Average age of users

Metrics
Courses: 34 + 3 pilot courses
*Students who have included courses in their curriculum: 1591*
Open Badge: 965

P5. AI for Public Administration[5]

The P5 project consists of training modules aimed at developing the ability of public administration employees to adopt innovative technologies in their work environments. P5, together with P4, has proven to be the most successful program in terms of dissemination. P5 also features a diversified teaching approach, as it is composed of online modules (Plan 1), modules developed in residential mode which saw users participate in events in Genoa, Imperia and La Spezia (Plan 2) and a module developed in a mixed mode both online and in person (Plan 3). The data regarding the total number of participants in online and in person training (,509 out of 200, of which 1189 in Plan 1, 141 in Plan 2 and 179 in Plan 3), completed courses (407), Open badge (592) and female participation (60%, and over 40% in all modules) are promising. Overall, the large participation data demonstrate that P5 has managed to effectively reach and involve a large number of Public Administration employees. This is particularly evident from the data relating to the number of administrations involved: 250 in total (on a KPI of 10), of which 155 in Plan 1, 58 in Plan 2 and 37 in Plan 3. Without considering overlaps and repetitions, a total of 150 PAs were reached, divided into: public administrations (47), municipalities/provinces (43), health companies (31), educational/cultural/sports administrations (20), environmental administrations (9). P5 shows the highest average age, 45yo, in accordance with the PA target.
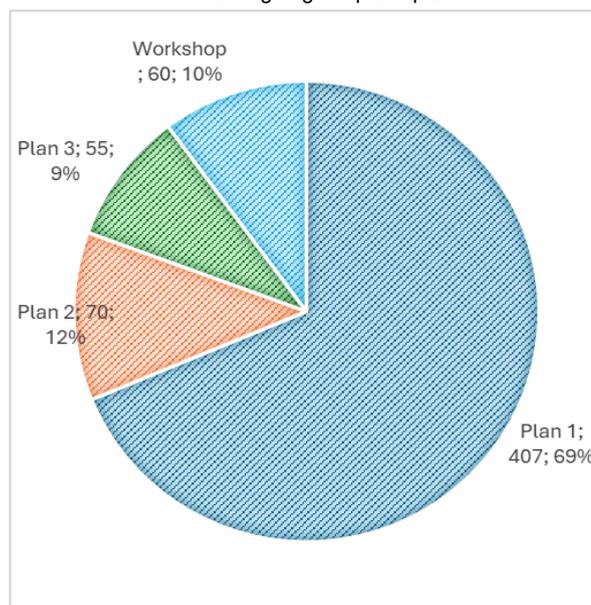
---

[5] The data for Plan 1 is partial; the participation data of 55 online training participants is unknown. After completing the course and receiving the relevant Open Badge, they unenrolled from the course, resulting in the loss of their data from the system. Open Badges issued and courses completed are still counted.
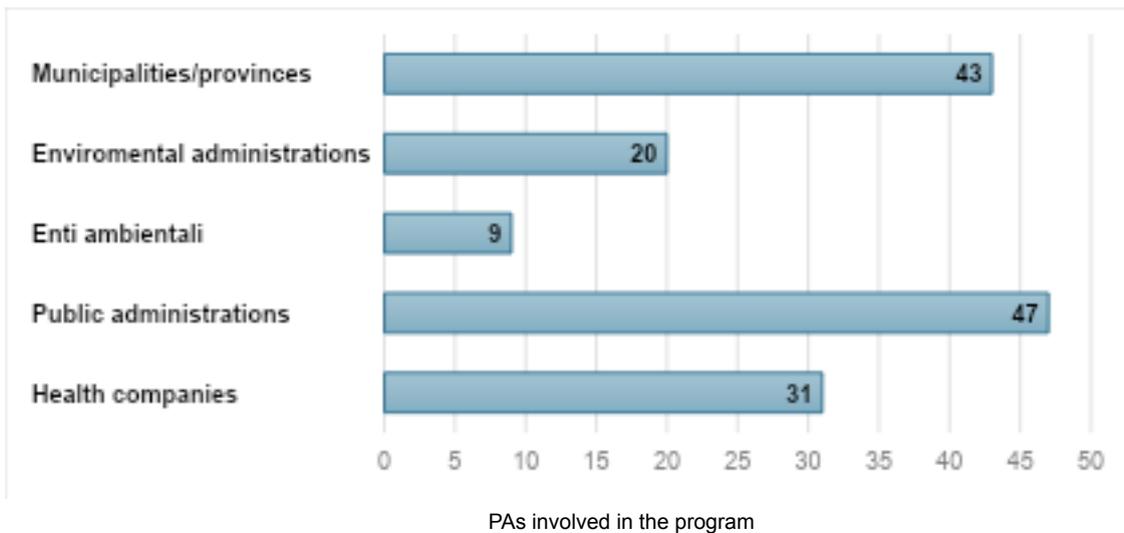
Particpants
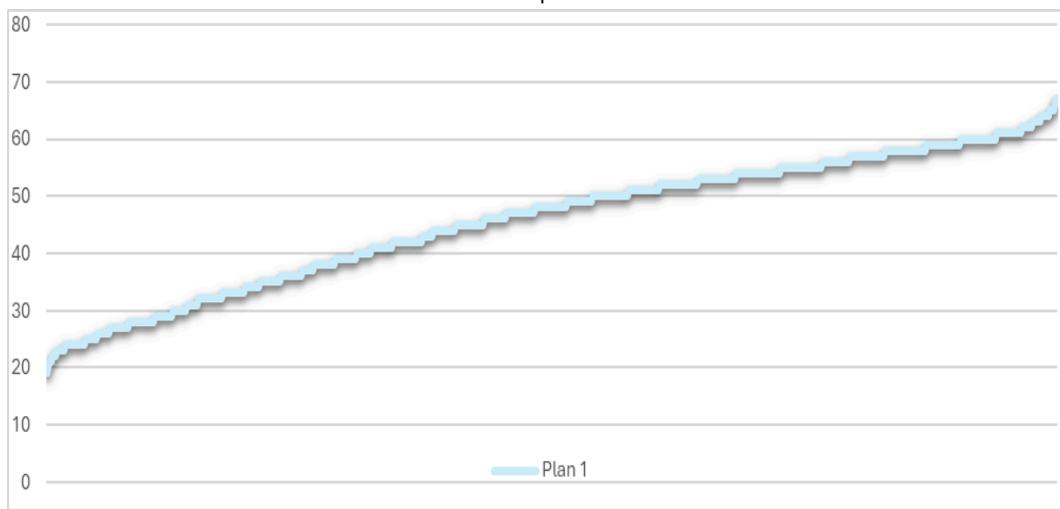
Average age of participants[6]

Open badge

---

[6] Data obtained exclusively from the online questionnaires of Plan 1.

PAs involved in the program

Metrics:
Participants: 1,509
Hours of online streaming training: 20
Workshops/in-person training events: 10 hours

Open Badge:
Plan 1: 407
Plan 2: 70
Plan 3: 55
Workshops: 60

P6. Basic AI & robotics skills for secondary school

The P6 project aims to develop a Community of Practice - System on Artificial Intelligence and Robotics (AI&R CoPS) for secondary schools, providing a common foundation of knowledge, project ideas, and experiences. In total, P6 involved:
- 59 secondary schools across 12 Italian regions
- 47 classes
- 224 secondary school teachers
- 1050 students
- 53 university teachers and students, and researchers
- 300 stakeholders reached
- 23 training events (teacher courses and workshops)
- 8 other in-person events.

A total of 375 hours of training were completed, including 100 hours of online training and 275 hours of in-person activities. Additionally, a series of online events held on the STACY platform reached an audience of approximately 150 people.

The results of the P6 project were presented at 13 national and international conferences (EdMedia2024, EdMedia2025, EduLearn2023, ICERI2025, Anticipation 2022, Anticipation2024, Osare il Futuro, ESERA Sig 8 Futurized Science Education, ESERA2025, EduSummit2025, ScoTens 2025 DCU, UnSeen Seminar PoliMi 2025, and the Conference of the Department of Human Sciences of the CNR-DSU), two monographs, and eight scientific articles and conference proceedings.

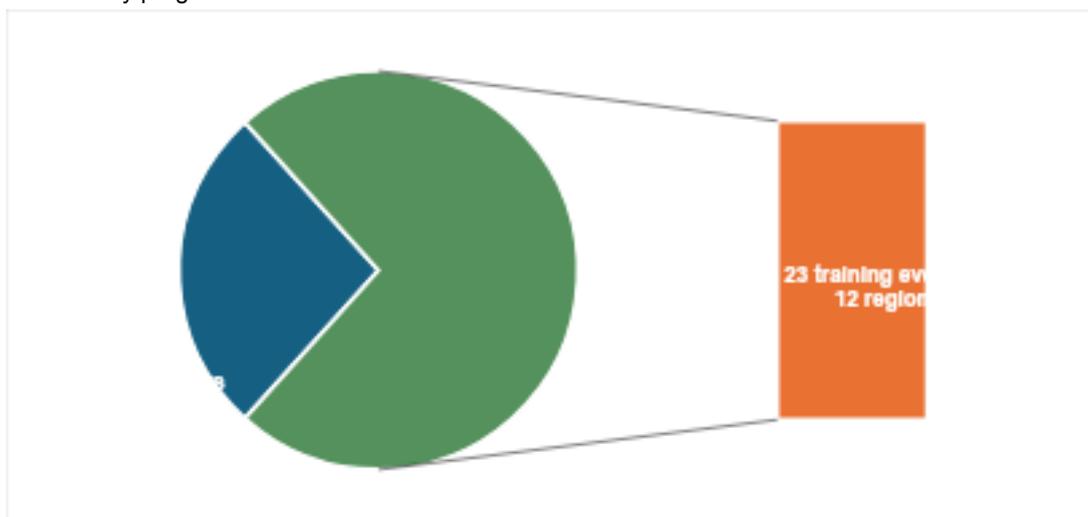Specifically, the STACY project encompasses several initiatives:
●   "Artificial Intelligence and Robotics: New Generations, New Visions": Teacher Training course + classroom implementation of the methods learned during the course with students. This course involved a total of 81 teachers in 33 schools across 12 regions, who conducted the experimental activity in 11 classes, reaching 220 students. The online course was delivered in two editions, with 41 teachers participating in the first edition and 40 teachers in the second. Additionally, the online course included an online toolkit for secondary school teachers, for classroom

implementation of the proposed method with a view to sustainability and scalability. This toolkit was used in an in-person training workshop with 50 secondary school teachers from various Italian regions and then with a group of 20 university students.
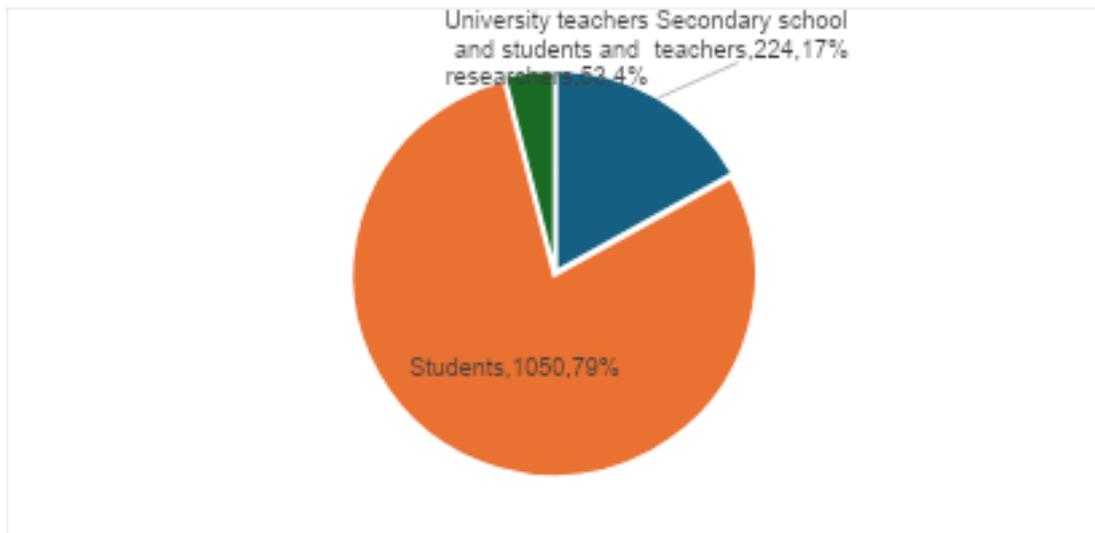
● InspAIr: a workshop program for secondary school students involving 9 schools, 11 classes, 240 students, and 36 teachers. The workshop program was tested in a pre-pilot phase and subsequently in a pilot phase. The pre-pilot phase involved 3 schools, 3 classes, and 50 students; the pilot phase involved 6 schools spread across 5 regions (Piedmont, Lombardy, Friuli, Abruzzo, Emilia-Romagna), 9 classes, and 190 students. The InspAIr workshop program was divided into three sub-workshops: Workshop 1, which involved theoretical preparation (duration 2 hours), Workshop 2, which involved classroom futures literacy activities (duration 8 hours), and Workshop 3, which involved the production of an artifact using the Hackathon method (duration 4 hours). The InspAIr laboratory program also included teacher training prior to classroom activities, consisting of a one-hour online webinar and a four-hour in-person simulation, involving 36 teachers (20 in the pre-pilot phase, 16 in the pilot phase). During the InspAIr laboratory program, educational materials and a teacher toolkit were developed. During the pilot phase, documentation was developed for data analysis, redesign, and dissemination, resulting in audiovisual products. The InspAIr toolkit was then used in an in-person training workshop with 40 secondary school teachers from various Italian regions and, subsequently, with a group of 15 university professors.

● "Come ti trasformo l'energia" – How to Transform Energy: exploration of energy conversion processes; consisting of a theoretical introduction and a practical laboratory session. 2 schools, 2 classes, 40 students, 4 teachers.

● AI & Biomolecules: Application of AI to manage complex biological data, consisting of a theoretical component and a practical session, involving 1 school, 1 class, 20 students and 2 teachers

● BotBid Initiative: consisting of an update to the BotBid web app, creation of an Arduino kit prototype for use in schools, development of the project portal on Moodle with teaching materials, presentation of the STACY project (20 participants), OrientaMenti seminar (8 classes for a total of 200 students), presentation of BotBid@STACY at the Science Festival 2024 (2 teachers and 8 researchers); the workshop involved 5 schools, 5 classes, 5 teachers, and 150 students.

Other workshops:
• Biophysics Learning Labs: 3 schools, 3 classes, 60 students, and 10 researchers
• Game or chance? Let's not use numbers
• BIO + PLASTIC = SUSTAINABILITY? 2 schools, 2 classes, 40 students, 4 teachers
• MeetAI2 - Your First Steps in Artificial Intelligence: Workshop conducted as part of two editions of the Science Festival, involving approximately 4 schools, 4 classes, and 80 students.
• THESAURUS and Rational Glossary of Language and Robotic Technologies: presentation of a paper for stakeholders. Three editions of a participatory workshop involving 150 stakeholders and citizens. Production of a podcast and a video.
• Between Computational Thinking and Sensors - Visual & Smart Regaining and Social Robots: Coding Workshop at the Festival of Science: we have no data of those workshops.
Additionally, a prize (access to the Science Festival) was awarded to the winning school of the Hackathon held as part of the Inspair laboratory program.


Training hours and events

University teachers and students and researchers,53,4%

Secondary school teachers,224,17%

Students,1050,79%

Participants

## P7. Advanced AI & Robotics Applications4SMEs

The P7 project is structured into training modules to offer support to employees of innovative SMEs that already use or intend to adopt AI and robotics technologies. Along with P2, P7 is the program that has shown the most difficulty in disseminating it to its target audience (SMEs). Overall, the data exceeds the metrics in all aspects except for the number of courses completed, which is the lowest for the entire Training Program (one online course completed in Module 1 and one online course completed in Module 2). Open Badge data is equally low: to date, no Open Badge have been issued[10]. As previously noted, reaching the SME target group proved particularly challenging: only 5 of the 42 participants in the online courses fell within this target group. However, P7 also included three in-person events (two of which were training events), which showed overall participation in line with other courses (40 participants in the training events).

The average age of participants was 32yo, consistent with the target group, and female participation exceeded 40% in all modules, with a total participation rate of 35%. Overall, although P7 failed to achieve widespread adoption among its target audience, the KPI figures were not excessively low in terms of overall participation (there were 82 participants in total, including both online and in-person training), but there are some obvious challenges in engaging the target audience.

[10] A user has completed Module 1 and requested the Open Badge, which is currently being issued.
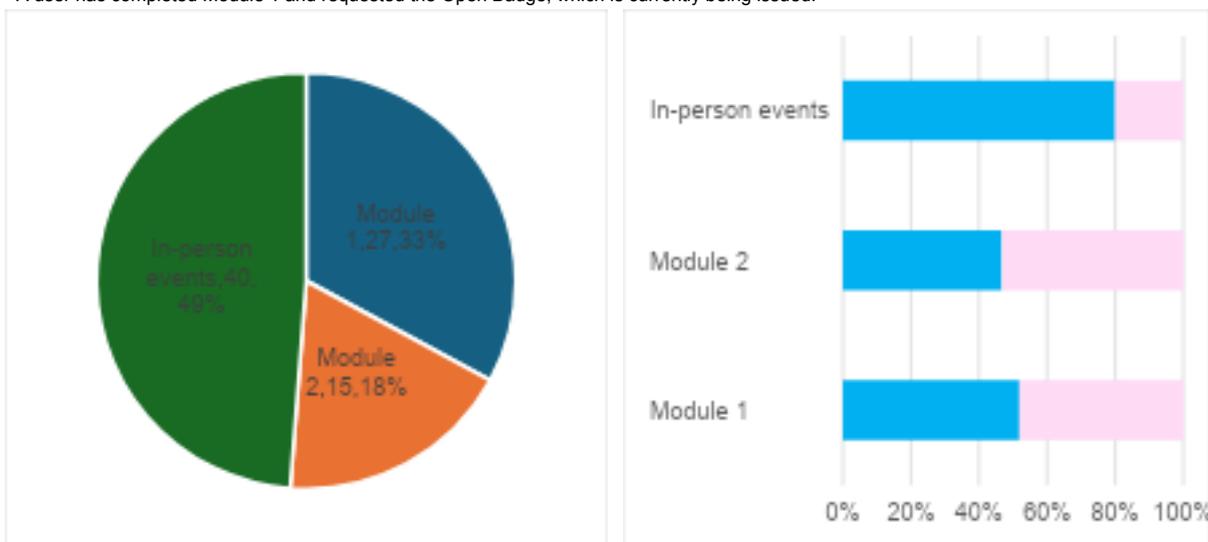
Online & in-person participants

Average age
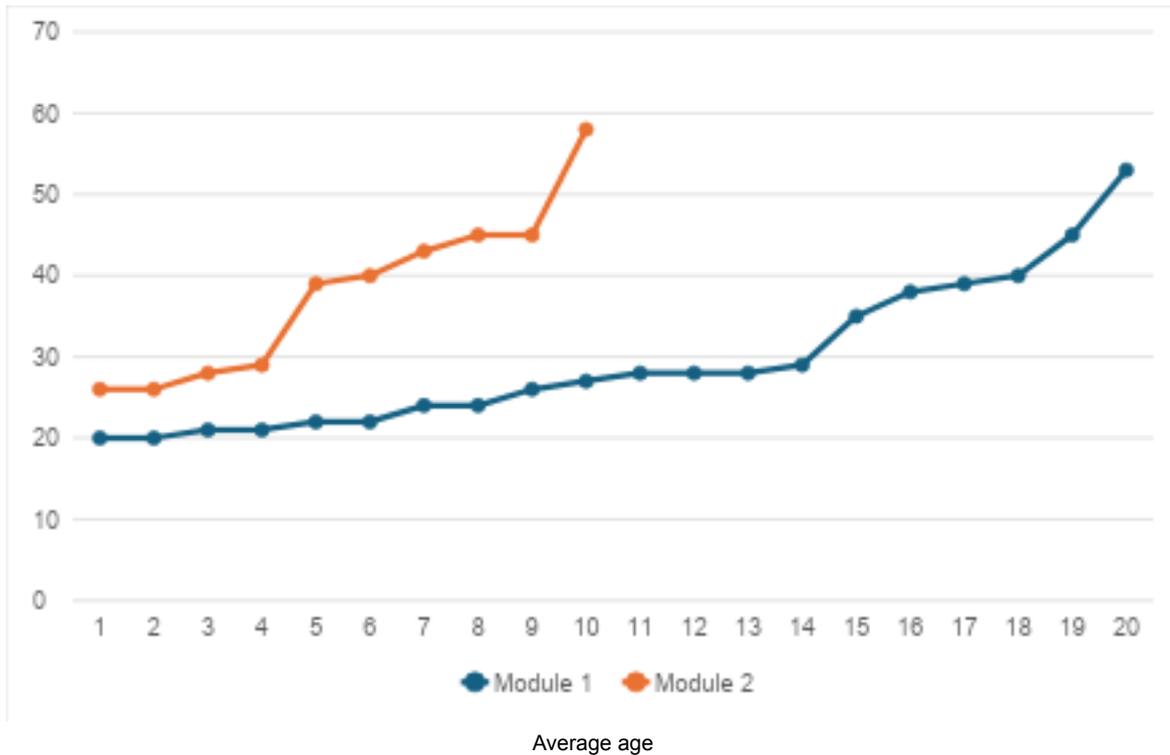
Metrics:
Online teaching hours:
Module 1: 20
Module 2: 10
In-person events: 3

Participants: 82
Courses completed:

Module 1: 1
*Module 2: 1*
Female participation rate: 35%

P8. Boosting PhD students' career

The P8 project saw the creation of specific programs related to AI and robotics, with a path aimed at facilitating the entry into the world of work of UniGe PhD students. P8 saw the creation of online courses dedicated to soft skills and in-person advanced training events (DRIMS2 and CROSSROADS schools). P8 presents some data below the KPIs regarding the soft skills courses completed (2 out of 10 for Grant Writing, 5 out of 10 for Theatrical techniques for scientific presentation, 6 out of 10 for Effective habits and skills for successful young scientists, and 25 out of 10 for Open Science and Research Data Management) [11]
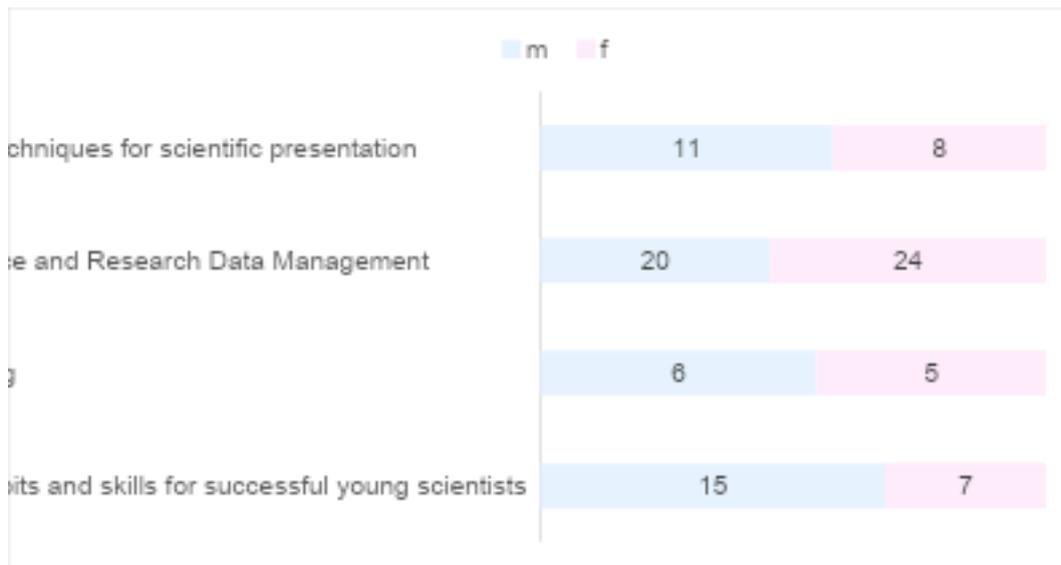
However, the data regarding participation (101 online users and 80 in-person) and Open Badge issued (108 in total, of which 64 for online courses and 44 for in-person events) are encouraging, with values like P1.

Female participation is also low, falling below the threshold in the Effective Habits and Skills for Successful Young Scientists course (37%) and in the second edition of the DRIMS2 Summer School (33%), but overall, these figures
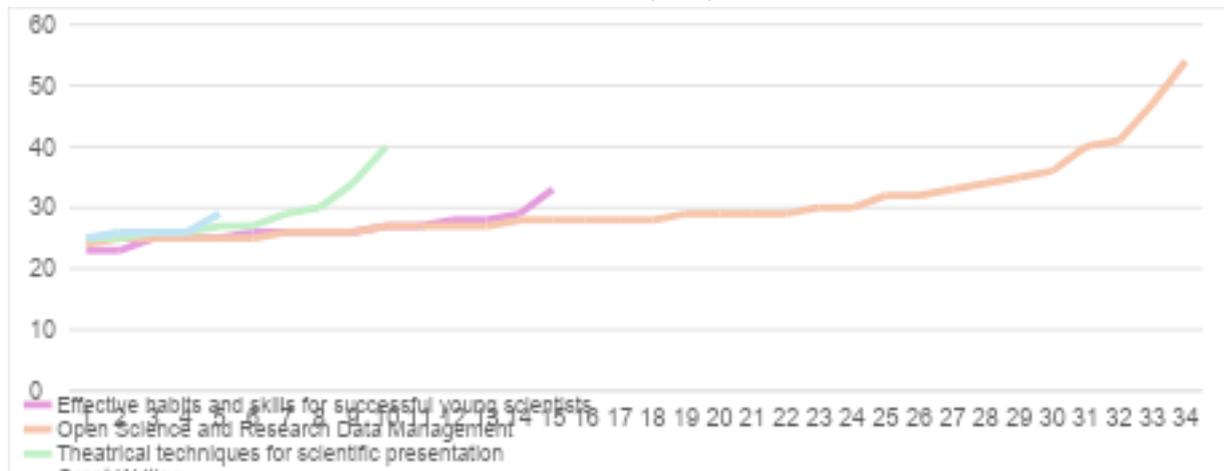
are not far from the 40% target, and total female participation stands at 48%. The average age is 27yo, consistent with the target of doctoral students.
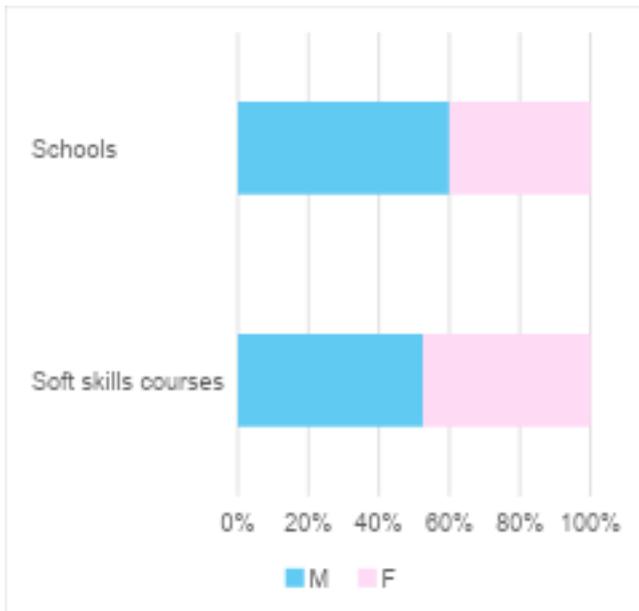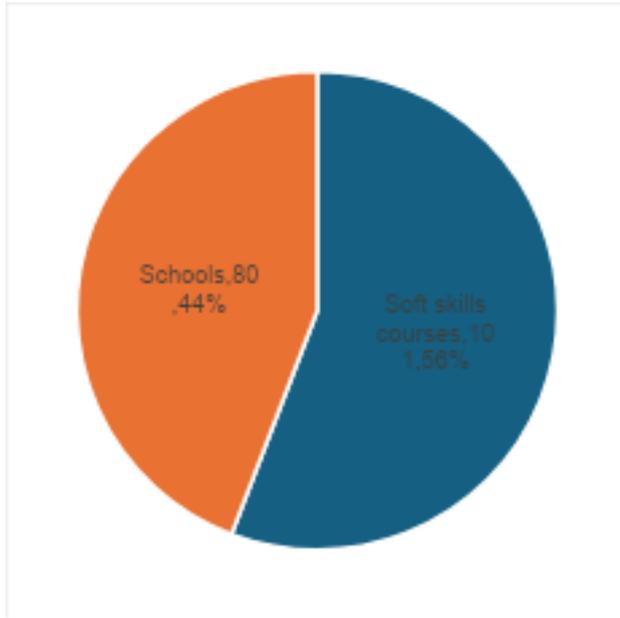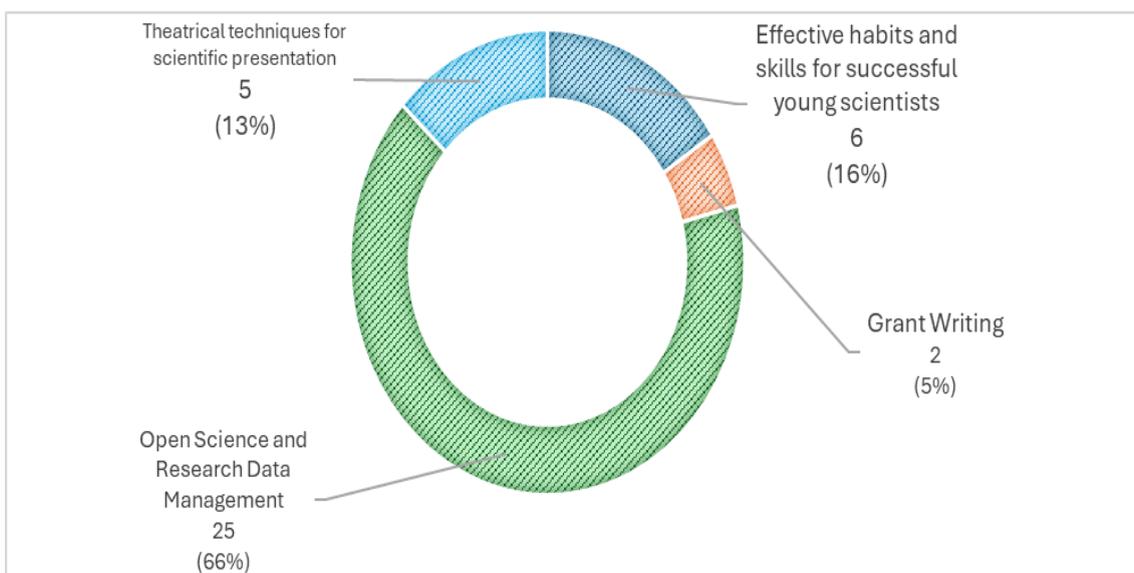
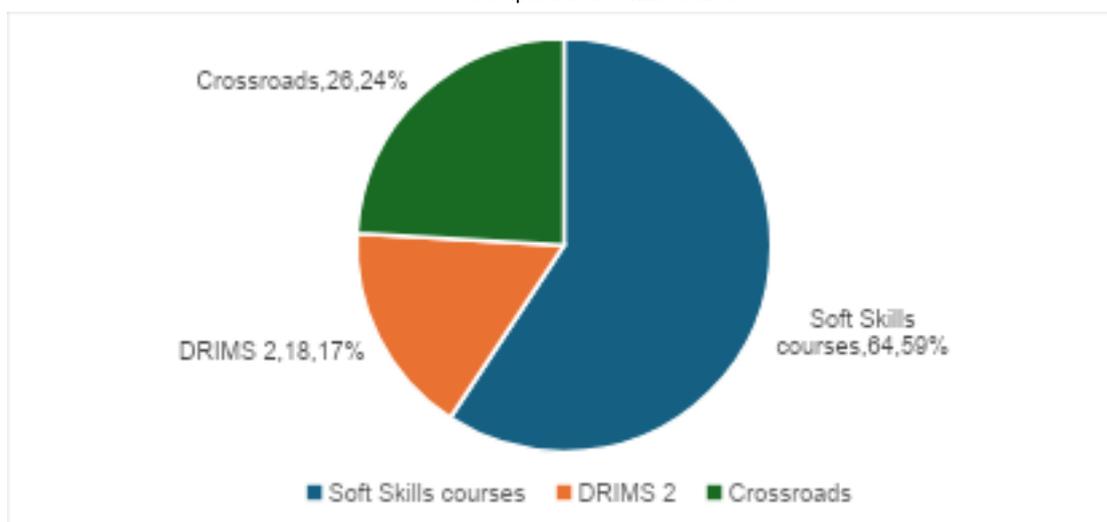Soft skills courses & Schools participants

Male & female participants

Avarage age

Completed soft skills courses[12]

Issued Open Badge

[12] Data relating to completed Soft Skills courses is partial; the participation data of 26 online training participants is unknown. After completing the course and receiving the related Open Badge, they unenrolled from the course, resulting in the loss of their data from the system. Issued Open Badge and completed courses are still counted.

Metrics
Participants:
Grant Writing: 11
Open Science and Research Data Management: 46
Theatrical techniques for scientific presentation: 20
Effective habits and skills for successful young scientists: 24

Online courses created: 4

Completed online courses:
Grant Writing: 2
Open Science and Research Data Management: 25
Theatrical techniques for scientific presentation: 5

Effective habits and skills for successful young scientists: 4

DRIMS2 editions created: 1
DRIMS2 participants: 54

Crossroads editions created: 1
Crossroads participants: 26

Female participation rate: 44%
Grant Writing: 45%
Open Science and Research Data Management: 54%
Theatrical techniques for scientific presentation: 45%
Effective habits and skills for successful young scientists: 37%
DRIMS2: 33%
Crossroads: 53%