











Introduction

The "Mobility of Knowledge" is an annual survey conducted by Area Science Park since 2005 that collects primary data on students, researchers and teaching staff at the partner research institutions in the SiS FVG network. The survey gathers data on the number of foreign researchers and students at partner research institutions, universities and music colleges, on incoming and outgoing mobility flows, gender differences, research interests and countries of origin.

The 2024 edition presents data on the 2022/2023 academic year for students and the 2023 calendar year for researchers and teaching personnel.

Three years after the outbreak of the pandemic, the overall number of foreign individuals present in the SiS FVG institutions is once again approaching the levels recorded in the pre-pandemic period. This target group is made up of enrolled students, researchers and lecturers from the institutions, as well as incoming users, meaning foreign individuals who have come to the region for a period of study or research, even if brief.

Scientific and Innovation System of Friuli Venezia Giulia

SiS FVG – Scientific and Innovation System represents a point of contact for 17 research institutions based in Friuli Venezia Giulia. This region in Italy acts as a hub for science and technology, thanks to the presence of international research facilities and high-level scientific competencies brought here by researchers from all over the world who choose this region as their ideal place to carry out research projects.

SiS FVG is supported by:

- > Ministry of Foreign Affairs and International Cooperation (MAECI)
- > Ministry of University and Research (MUR)
- > Regional Authority of Friuli Venezia Giulia

For further information:

E-mail: mobility@areasciencepark.it

Website: www.sisfvg.it

© **()**

Research and texts Anna Comini - Research Valorization Unit, Area Science Park
Data processing and visualizations Enrico Longato - Research Valorization Unit, Area Science Park
Graphics Giulia Cossutti - Communication Unit, Area Science Park



Universities and music colleges:

University of Trieste
University of Udine
SISSA - International School for Advanced Studies
Academy of Music "G. Tartini" – Trieste
Conservatory of Music "Jacopo Tomadini" - Udine

National research institutions:

Area Science Park

Elettra - Sincrotrone Trieste S.C.p.A.

National Institute of Oceanography and Applied Geophysics – OGS

CNR - IC Institute of Crystallography, IOM Materials Foundry Institute, ISM Institute of Structure of Matter, ISMAR Marine Sciences Institute

INAF-Astronomical Observatory of Trieste

INFN - National Institute of Nuclear Physics, Trieste

International research institutes:

ICGEB - International Centre for Genetic Engineering and Biotechnology
The Abdus Salam International Centre for Theoretical Physics (ICTP)
TWAS-The World Academy of Sciences for the advancement of science in developing countries
The InterAcademy Partnership (IAP)

Science and technology parks:

TEC4I FVG | Friuli Innovazione scarl Polo Tecnologico Alto Adriatico Andrea Galvani S.C.P.A Technology Park

ENROLLED STUDENTS AND RESEARCH STAFF

STUDENTS ENROLLED IN UNIVERSITIES AND MUSIC COLLEGES

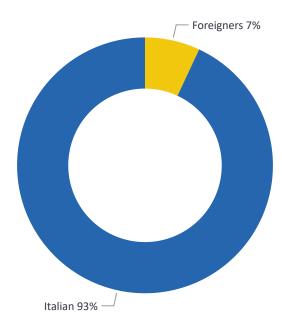


No. of displayed students

36.925

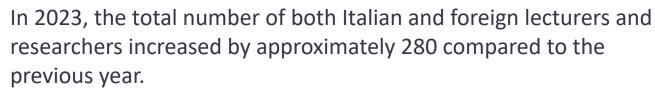
Overall, the number of enrolments in the courses at universities and conservatories in Friuli Venezia Giulia for the 2022/2023 academic year has increased by approximately 470 students compared to the previous year, making a total of 36,925. There are also 2,569 foreign students enrolled, accounting for 7% of the total.

Students enrolled in universities and music colleges by nationality



ENROLLED STUDENTS AND RESEARCH STAFF

RESEARCHERS AND LECTURERS AT INSTITUTIONS IN THE NETWORK



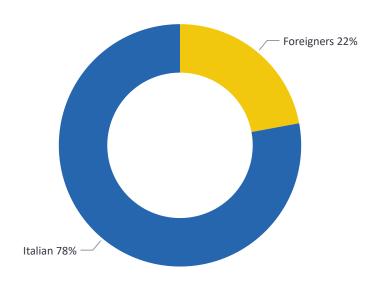
However, the figure of 3,641 is still far below the numbers recorded before the pandemic (6,960 in 2019).



No. of displayed researchers and lecturers

3.641

Researchers & lecturers at institutions in the network by nationality



SCIENTIFIC AREAS

STUDENTS ENROLLED

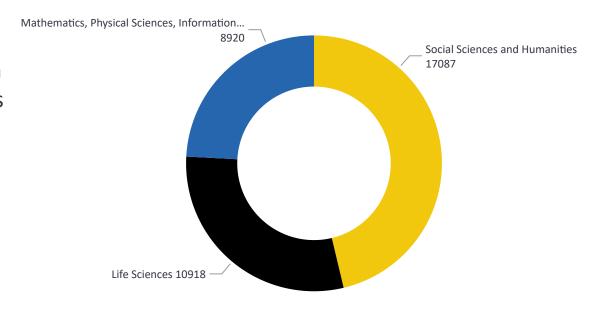


No. of displayed students

36.925

For the 2022/2023 academic year, nearly half of the enrolled students in the region - 46% - are attending courses in Human or Social Sciences, followed by Life Sciences (30%) and the macro-area that includes Mathematics, Physics, Engineering, ICT, Earth Sciences and Cosmology (24%).

Students by scientific area



SCIENTIFIC AREAS

RESEARCHERS AND LECTURERS AT INSTITUTIONS IN THE NETWORK

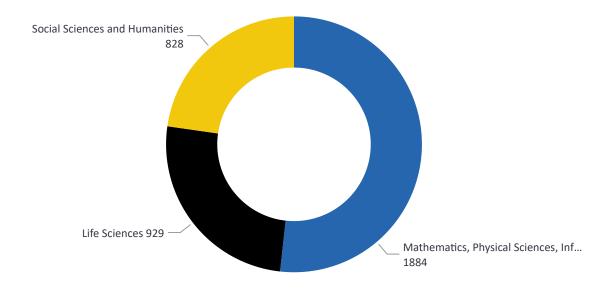
About half of the researchers and lecturers working at the institutions of the Regional Scientific and Innovation System are engaged in subjects such as Mathematics, Physics, Engineering, ICT, and Earth and Universe Sciences, while the other half of the sample is divided between Life Sciences (25%) and Human and Social Sciences (23%).



No. of displayed researchers and lecturers

3.641

Researchers & lecturers by scientific area



GENDER

GENDER DISTRIBUTION OF ENROLLED STUDENTS



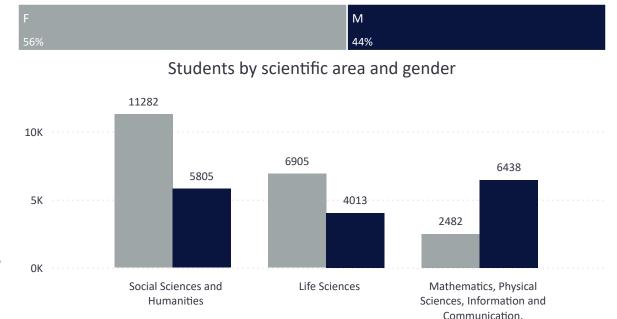
No. of displayed students

36.925

Engineering, Universe and ...

Students by gender

The percentage of female students enrolled in regional Universities and Conservatories remains largely unchanged compared to previous years, at 56%. When comparing the scientific fields chosen by male and female students, it is clear that Human and Social Sciences continue to include a strong female presence. The situation remains largely unchanged also in the scientific fields that include Mathematics, Physics, Engineering, ICT, Earth Sciences and Cosmology, where, on the contrary, the number of male students is more than double that of female students. In Life Sciences, however, female students account for 63%.



GENDER

GENDER OF RESEARCHERS AND TECHING STAFF AT INSTITUTIONS IN THE NETWORK

While the overall number of researchers and lecturers at the institutions has slightly increased compared to the previous year, the gender ratio has remained unchanged.

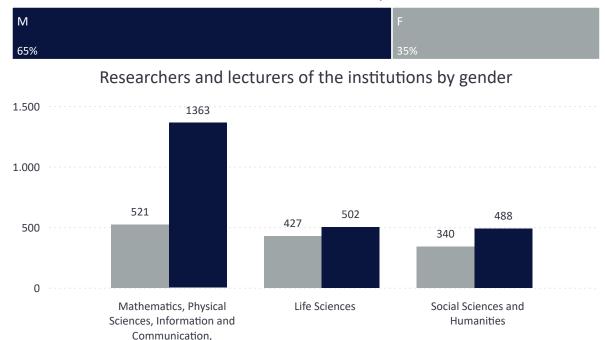
Women are still a long way from reaching 50%, representing just over a third of the sample, at 35%.



No. of displayed researchers and lecturers

3.641

Researchers and Lecturers by Gender



Engineering, Universe and ...

INCOMING MOBILITY

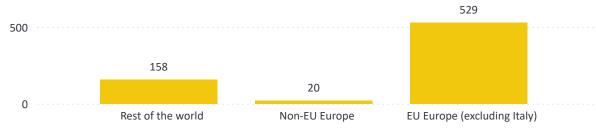
INCOMING FOREIGN STUDENTS



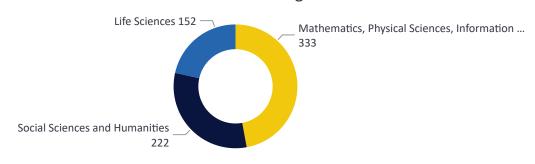
The number of foreign students who spent a period of study in the region had quadrupled in the previous edition. In the 2022/2023 academic year, the number has increased again, albeit slightly, from 660 to 707. It can thus be said that incoming student mobility has returned to pre-pandemic levels. Female students represent 53% of this group.

Data on the place of origin of incoming students remains stable: 75% of them are in fact European citizens. Regarding the scientific areas, nearly half of the sample - 47% -now falls within the area of Mathematics, Physics, Computer Science, Engineering, Earth Sciences and Cosmology. The increase in incoming students in this area is mainly attributed to their presence not only at regional universities but also at research institutions. This is followed by Human and Social Sciences with 31% and Life Sciences with 22%.

Citizenship of incoming students

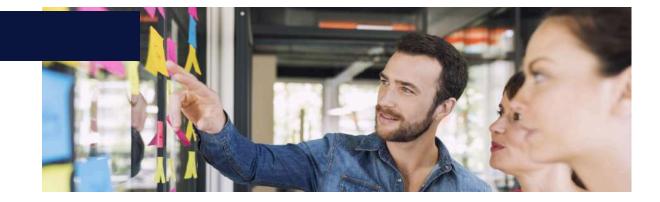


Scientific areas of incoming students



INCOMING MOBILITY

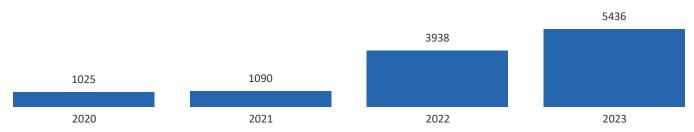
FOREIGN RESEARCHERS AND LECTURERS HOSTED BY SIS FVG INSTITUTIONS



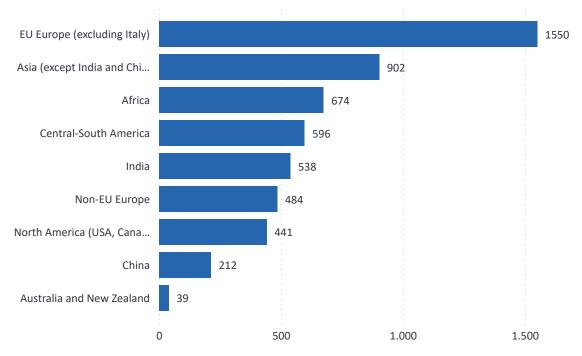
In 2023, the incoming mobility of foreign researchers and lecturers - those arriving in the region for a period of study or research, even a brief one, at institutions within the FVG Science and Innovation System (SiS FVG) - finally resumed, with an increase of nearly 1,500 individuals. In fact, the total number rose from 3,938 to 5,436. In particular, the number of incoming researchers increased by about 1,100, from 3,228 to 4,341, while the number of incoming lecturers grew from 710 to 1,095.

Almost the entirety of this group (88%) belongs to the scientific field that includes Mathematics, Physics, Engineering, ICT and Earth Sciences and Cosmology.

Foreign researchers and lecturers hosted by the institutions of the SiS FVG by year



Citizenship of incoming researchers and lecturers



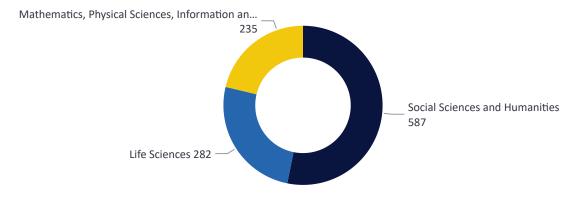
OUTGOING MOBILITY

OUTGOING STUDENTS



The outgoing mobility of enrolled students, after a significant increase in the previous survey, is now stable at 1,104 students. EU countries remain the primary destination, with an increase in the percentage of students choosing them from 88% to 93%. More than half of those studying abroad - 53% - are enrolled in Human and Social Sciences courses.

Scientific areas of students who went abroad



Student destinations



47

OUTGOING MOBILITY

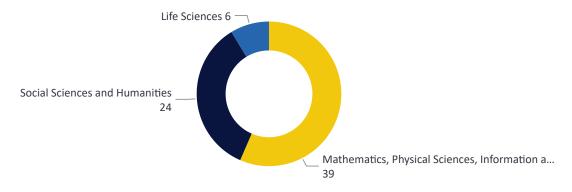
OUTGOING RESEARCHERS AND TEACHING STAFF



In 2023, the outgoing mobility of researchers and lecturers also increased. In fact, trips abroad rose from 58 to 75, a figure that is starting to approach the pre-pandemic figure of just over 90. The main destinations remain EU European countries (43%), followed this time by Asian countries (20%, excluding India and China), whereas North America had been the second most popular destination in the previous edition.

The number of outgoing researchers and lecturers from the field of Human and Social Sciences more than doubled, increasing from 17% to 35%, at the expense of those in the scientific field that includes Mathematics, Physics, Computer Science, Engineering, Earth Sciences and Cosmology, who, despite representing over half of the sample, dropped from 77% to 56%. Life Sciences also saw an increase, rising from 6% to 9%.

Scientific areas of researchers and lecturers who went abroad



Destinations and travel frequency



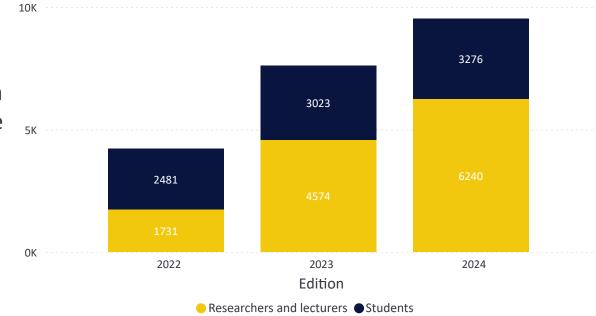
FOREIGN PRESENCE: A GROWING TREND

The total number of foreigners present in the FVG Science and Innovation System - meaning enrolled students, researchers and lecturers employed by the institutions, and incoming mobility, i.e. foreigners coming to the region for a period of study or research, even a brief one - had already risen significantly in the previous survey, increasing from 4,212 to 7,597 individuals.

In this edition, the positive trend continues, with 9,516 participants, a figure that is gradually approaching the pre-pandemic level, when the total number of foreigners was around 14,000.







CONCLUSIONS

While the previous edition of the survey showed the first signs of recovery since the pandemic period, this edition confirms the positive trend, particularly regarding foreign researchers and lecturers at the institutions and incoming mobility. Their total number has risen by over 1,600, increasing from 4,574 to 6,240.

The number of enrolled students has risen slightly, nearing 37,000, as has the percentage of foreign students, which has risen from 6% to 7%. In this additional year of recovery, the mobility with the greatest growth is that of incoming foreign researchers, which surged from 3,228 to 4,341, followed by incoming mobility of lecturers, which rose from 710 to 1,095.

While 2022 was the year in which international mobility resumed most significantly, this trend consolidated in 2023, with numbers increasingly similar to those of the prepandemic period.

Although to a lesser extent than in previous years, for what concerns short-term activities such as courses, seminars or summer schools, foreign students and researchers still participate, even if only in virtual mode, particularly regarding activities organised by the "Abdus Salam" International Centre for Theoretical Physics (ICTP).

