

Partner With Us

for more women in nuclear



www.iaea.org/mscfc
Email: mscfc@iaea.org

June 2023

— The IAEA —
Marie Skłodowska-Curie
FELLOWSHIP PROGRAMME

Scholarships
with Internships



The Marie Skłodowska-Curie Fellowship Programme

aims to foster a new generation of women leaders in the nuclear field, and to promote their participation in nuclear science and technology.

The programme provides a monetary scholarship for female students accepted or enrolled in a master's programme in a nuclear related field at an accredited university.

Selected students are also given an opportunity to pursue a paid internship in their field of specialization, facilitated by the IAEA.

The IAEA and the SUSTAINABLE DEVELOPMENT GOALS

The IAEA, in line with its 'Atoms for Peace and Development' mandate, supports countries in their efforts to reach the Sustainable Development Goals by transferring technology and know-how in areas including energy, human health, food production, water management and environmental protection.

Gender equality and the empowerment of women lie at the heart of the Sustainable Development Goals, and they are vital to fully realizing the rights and potential of everyone. These fundamental aims also inform the work of the IAEA.



***Nothing in life is to be feared, it is only to be understood.
Now is the time to understand more, so that we may fear less.***

Marie Skłodowska-Curie

First woman to win a Nobel Prize, and the first person, and only woman, to be awarded two Nobel Prizes.

- Nobel Prize in Physics, 1903
- Nobel Prize in Chemistry, 1911

“When I look back at my life, the IAEA MSCFP changed it in a million ways. It provided me with opportunities that would otherwise be lost. I have grown as a young aspiring scientist and most importantly, as an individual. Looking in the mirror, I see strength within myself, I have learned valuable life lessons and I have pride within myself for coming so far.”



Amèlia Jansen van Vuuren, an MSCFP recipient from South Africa, working as an intern at the Radiation Biophysics Division of National Research Foundation, iThemba Laboratory for Accelerator Based Sciences in Cape Town, South Africa. She is growing cells from a skin biopsy of an African elephant.

Internship facilitated by the IAEA: 2023

MSc studies: Radiation Biophysics

University: University of the Western Cape, South Africa

Closing the Gender Gap

Women are currently underrepresented in the global nuclear field. They make up only a fifth of people working in the field, although they constitute half of the population. Women often face barriers to entry and progression in the fields of science, technology, engineering and mathematics (STEM) beginning in their school days, meaning they represent an untapped reserve of talent and innovation.

Equipping women with educational and career opportunities in the nuclear field will help foster the next generation of women leaders. In the years ahead, the world will continue to face the effects of global warming and a growing population, which will drive a greater need for food and energy security. More people globally are expected to need access to cancer care. These challenges can only be met by a diverse and qualified workforce bringing creativity and innovation to forge technological and scientific solutions.

Post-graduate education is essential to enable the next generations of women nuclear professionals to achieve their full potential. In recognition of this, in March 2020, the IAEA launched the IAEA Marie Skłodowska-Curie Fellowship Programme (MSCFP) with the aim of closing the gender gap in the nuclear field. The programme provides scholarships for women master's students as well as internships facilitated by the IAEA and professional networking opportunities. It is hoped that the MSCFP will contribute to fostering the next generation of women leaders in the nuclear field, while contributing

to greater gender equality in nuclear energy, nuclear science and applications, nuclear safety and security, non-proliferation and nuclear law.

The programme honours Marie Skłodowska-Curie for her pioneering research on radioactivity, which was a crucial step in the scientific journey to the peaceful uses of nuclear energy. Marie Skłodowska-Curie was the first woman to win a Nobel Prize and was the first person, and only woman, to be awarded two Nobel Prizes, one in physics in 1903 and one in chemistry in 1911.

“Equipping women with scientific education and work experience will promote equal representation in the application of nuclear technologies to meet our shared global challenges such as climate change, growing populations and food insecurity.”

Rafael Mariano Grossi
Director General, IAEA



MSFCP interns at the IAEA Headquarters, Vienna, Austria (May 2023)

The Marie Skłodowska-Curie Fellowship Programme for more women in nuclear

Through this programme, the IAEA encourages women to enter and remain in the nuclear field and to pursue their studies at the highest level. Raising the overall participation of women in the nuclear field will contribute to gender parity in both national programmes around the world and at the IAEA.

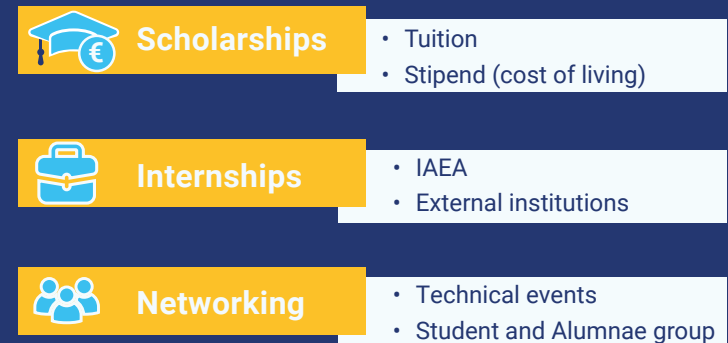
In cooperation with Member States, donors, universities, and partner organizations, the IAEA will contribute to creating opportunities for women in nuclear science and technology, safety and security, non-proliferation and nuclear law. This will enable them to actively participate and make meaningful

contributions in the future, including as leaders and role models for future generations of women seeking to enter the nuclear field.

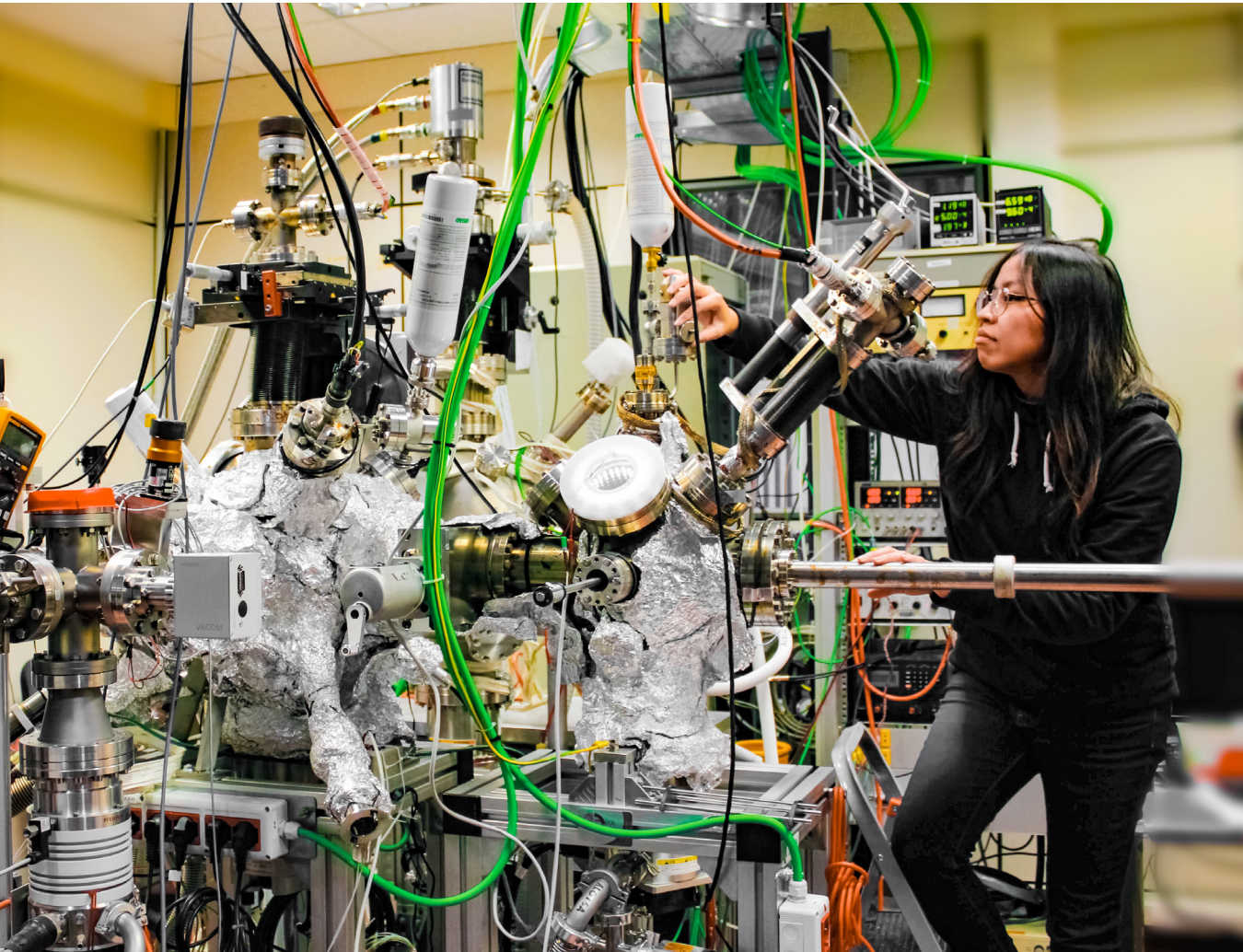
The MSFCP aims to increase the number of women given support each year. The number of selected recipients has grown significantly since its launch in 2020. The breakdown per year is as follows:

- 2020: 100 students
- 2021: 110 students
- 2022: 150 students
- 2023 (expected target): 200 students

The programme offers scholarships, internships and professional networking.



"The MSCFP will help more women enhance their education in nuclear related fields, which is very important for present and future generations; we need to keep working together, women and men, to create opportunities for a more balanced workforce in nuclear. Both men and women's creativity are needed to improve research in many scientific areas."



Carolina Gutiérrez Bolaños, an MSCFP recipient from Mexico, working as an intern at the Elettra-Sincrotrone Trieste S.C.p.A., in Italy. She is working in the experimental chamber of the ALOISA beamline as part of her research into X-Ray spectroscopy techniques and electronic structure of semiconducting and quantum materials.

Internship facilitated by the IAEA: 2022

MSc studies: Nuclear Material Science and Engineering – Synchrotron Radiation
 University: Ludwig-Maximilians-Universität München (LMU) part of
 Erasmus Mundus program MaMaSELF, Germany

Scholarships

Scholarships are awarded once a year. The yearly number of selected students is subject to availability of funding.

Selected students receive a scholarship of **up to €20 000 for tuition fees** and **up to €20 000 for living costs** for their master's programme.

Internships

IAEA

- IAEA HQ, Vienna, Austria
- IAEA Laboratories:
 - Seibersdorf, Austria
 - Monaco

The internship part of the programme is the first of its kind in placing interns not only at the IAEA but also at external partner organizations.

Interested organizations offer internship placements worldwide, across various nuclear domains, providing diverse and enriching experiences.

Interns receive a stipend of **€1000 per month for a period of up to 12 months** (maximum €12 000).

PARTNER ORGANIZATIONS

- IAEA Collaborating Centres
- Private companies
- Other partner institutions

Every student is given a considered evaluation for the best internship opportunity based on the student's background and available internship vacancies.

Internship opportunities allow for the practical application of knowledge and for interns to gain work experience in line with their specialization and interests. Interns also benefit from participation in interdisciplinary settings.

Benefits to Interns

- The chance to work with experts in the nuclear field on defined tasks and gain hands on experience at the IAEA or other partner organizations.
- Experience in an international working environment and the opportunity to network within the international nuclear community.
- Increased employment opportunities following the internship.

Benefits to Partner Organizations

- Increased visibility to the international nuclear community through a unique IAEA internship programme.
- Develop further cooperation with the IAEA, potentially creating the opportunity for them to collaborate on future projects.
- Qualified interns contribute to the ongoing activities of the organization.



150 MSCFP recipients
participated in the IAEA Nuclear Security School in 2021 and 2022

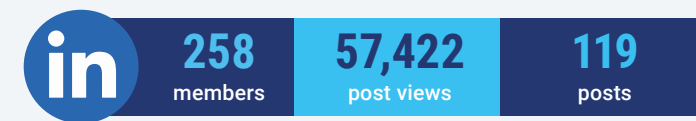
Between 2020-2022 various MSCFP recipients participated in
20 IAEA Technical Events

as of April 2023

MSCFP recipients at the IAEA International School on Nuclear Security, in November 2021. The school provided the opportunity to meet and build networks with both their peers and experienced nuclear specialists at the IAEA.



The MSCFP Student and Alumnae Group on LinkedIn.



as of April 2023

Networking

Technical Events

MSCFP recipients are provided with opportunities to participate in and contribute to various technical events, workshops and trainings. They can deliver presentations or share information on their research or master's thesis, as well as contribute to scientific papers and panel discussions related to their specialization or benefit from specialized trainings.

For example, the IAEA Nuclear Security School in 2021 and 2022 offered selected participants the opportunity to learn about, gain understanding of and explore a broad spectrum of topics in the area of nuclear security and to enhance their skills in the field.

Student and Alumnae LinkedIn Group

MSCFP recipients can also become members of the Student and Alumnae Group on LinkedIn which aims to support students and alumnae by sharing educational and professional development opportunities. The private group provides a forum where members can connect with their peers and exchange knowledge and experiences as well as access information on programmes

and events that can benefit their personal and professional development.

The group features a range of nuclear related content including: educational and career opportunities, such as PhD positions and internships; technical events and networking opportunities for women in STEM; and the latest developments in nuclear science and technology.

“Becoming a nuclear engineer for me means honouring the efforts of thousands of women who have worked against stereotypes imposed by society. The IAEA Marie Skłodowska-Curie Fellowship Programme contributes to those efforts by supporting women and their passion for nuclear science and technology.”



Benedetta Brusasco, an MSCFP recipient from Italy, is carrying out sample positioning during analysis over the neutron generator shield, at the Nuclear Science and Instrumentation Laboratory in Seibersdorf, Austria, as part of her internship at the IAEA.

Internship facilitated by the IAEA: 2022

MSc studies: Nuclear Engineering

University: Politecnico di Milano, Italy

Eligibility and Selection

The MSCFP is open to female students from IAEA Member States, accepted or enrolled in a master’s programme in a nuclear related field at an accredited university. Students apply in their own capacity at the beginning or during their studies.

Selection Criteria

Applications are reviewed and assessed against selection criteria, including entry requirements, educational background and prior achievements, motivation and impact of the MSCFP on the applicant’s career goals.

Consideration is given to geographic distribution and diversity of the field of study.

Fields of Study

The IAEA supports women studying in nuclear related fields relevant to the IAEA’s mission to advance the safe, secure and peaceful uses of nuclear energy.

Examples of nuclear related fields may include, among others:

- nuclear engineering
- advanced reactor designs
- nuclear physics and chemistry
- nuclear medicine
- isotopic techniques
- radiation biology
- nuclear safety
- nuclear security
- safeguards and non-proliferation
- nuclear law

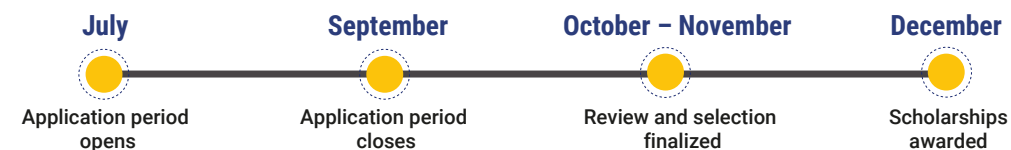
University Accreditation

The IAEA refers to the universities in the World Higher Education Database run by the International Association of Universities in collaboration with UNESCO, which lists accredited universities worldwide. If the university is not listed in the database, the IAEA consults with the Permanent Mission of the country hosting the university about its accreditation status.

Application Timeline

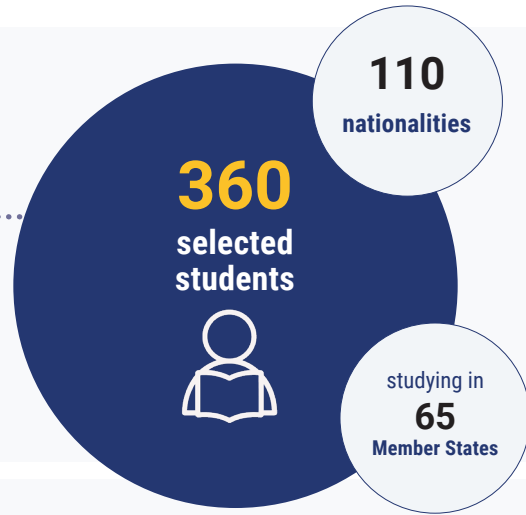
The application period opens in July each year and is announced on the IAEA’s website:

www.iaea.org/mscfc

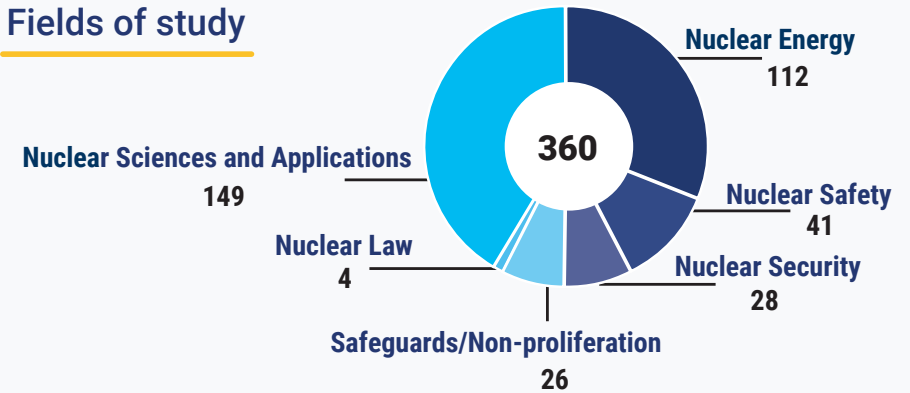


Impact in Numbers

1567
MSCFP applicants
from 2020-2022

Fields of study

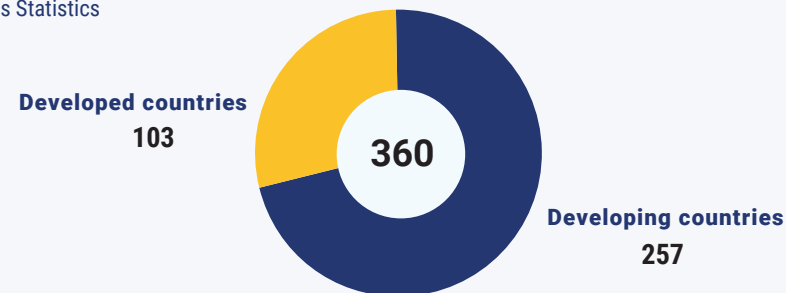


Selected students by region



Country classification

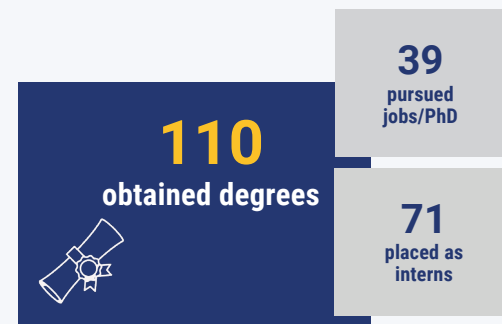
based on the United Nations Statistics Division data classification



Status of selected students

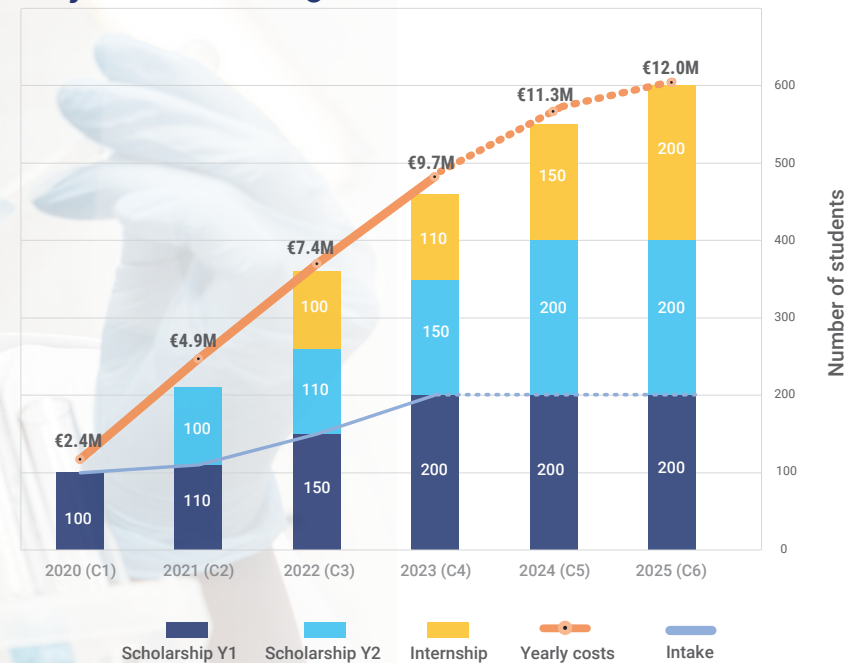
as of April 2023

250
active students



Projection of funding needs*



*From 2024 the number of recipients selected annually is estimated for illustrative purposes. The yearly funding requirement is expected to grow after 2023, even if the new MSCFP intake remains at 200 students per year.

Partner With Us

The MSCFP is a long-term initiative, entirely funded by extra budgetary contributions. The programme is forecast to grow on an annual basis, and as such, there is a recurring need to raise sufficient funds and to increase the number of host organizations for internships. The support can be either in the form of a financial contribution or in-kind support.

The funding requirement per year is in the range of €7.4–12 million, based on the maximum costs indicated per student. The estimated range varies depending on the duration and location of the master’s studies, cost associated with tuition,

interest from the student in pursuing an internship and duration of the internship.

The IAEA encourages contributions to the programme as a whole as well as flexibility in donors’ contribution. This brings increased effectiveness in implementation and efficient use of donors’ funds. For in-kind support, such as universities waiving tuition or helping with stipend costs, or host organizations providing paid internships or covering travel costs, the IAEA encourages support towards international students, as such support contributes to a wider geographical participation.

To achieve the objectives and implementation of the programme in a cost-effective, transparent, fair, responsible and sustainable manner, a Steering Committee, Technical-Selection Committee and a Project Management Team have been established as an internal mechanism for MSCFP governance. This mechanism helps with the broad participation and engagement of all relevant stakeholders to ensure that the objectives are met in line with programmatic needs as well as financial and donor requirements.

The table above shows the breakdown of MSCFP funding requirements on a yearly basis.

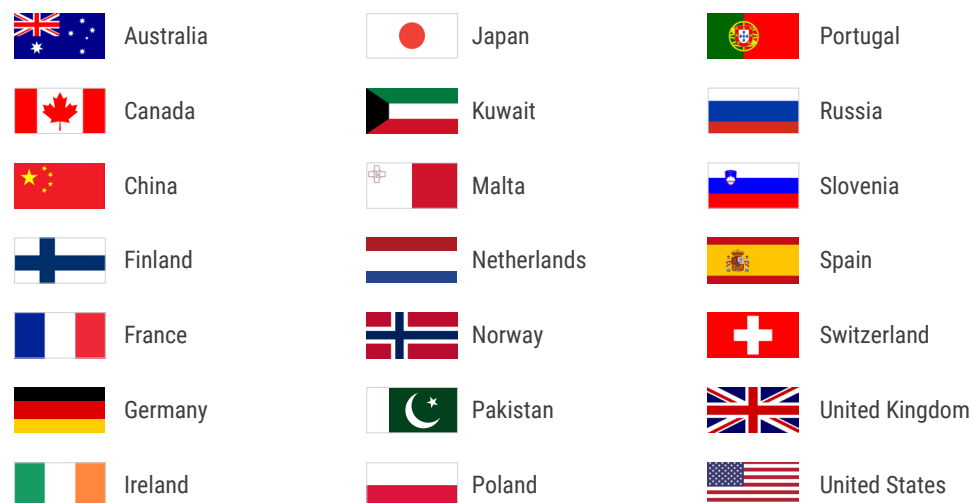
To ensure awareness of the MSCFP, the IAEA regularly conducts targeted outreach to Member States’ governmental institutions, universities, scientific organizations, nuclear related associations and groups, industry, NGOs and other relevant organizations to help solicit interest from female master’s students, donors and internship host organizations.

Whether you are from the public or private sector, academia or civil society (foundations, NGOs), we are looking forward to partnering with you.

Donors and Partners

A special thanks to our donors and partners for their support.

Member States



Inter-Governmental Organizations



Other Donors and Partners

The Abdus Salam International Centre for Theoretical Physics (ICTP) · A. C. Camargo Cancer Center · East China University of Science and Technology (ECUST) · Elettra-Sincrotrone Trieste S.C.p.A. · Istituto Nazionale di Fisica Nucleare Sezione di Trieste (INFN) · Istituto Nazionale di Geofisica e Vulcanologia (INGV) · Institute of Nuclear Sciences Applied to Health (ICNAS) · iThemba Laboratories for Accelerator Based Sciences (LABS) · Laboratori Nazionali di Frascati (LNF) · National Institute of Standards and Technology (NIST) · National Nuclear Laboratory (NNL) · NINE Nuclear and Industrial Engineering S.r.l. · Nuclear Threat Initiative (NTI) · Ontario Tech University · ROSATOM · Seaborg Technologies · Siemens Healthineers · Stockholm International Peace Research Institute (SIPRI) · Sogin S.p.A. · Urenco



www.iaea.org/mscfp/donors

“Thank you to donors for recognizing that women can make a difference and giving us a chance to pursue a career that we have so much passion for.”

Josephine Nkhula

an MSCFP recipient from Malawi and an intern at the Dosimetry and Medical Radiation Physics Section, IAEA Division of Human Health.

Internship facilitated by the IAEA: 2022

MSc studies: Nuclear Science and Technology

University: University of Manchester, UK

