



Jožef Stefan Institute (JSI)



Mission statement

The JSI's mission is to collect, create and disseminate knowledge at the highest level of natural and technical sciences for the well-being of Slovenian society and humanity in general. With the constant development of new knowledge, the JSI provides the best education to personnel as well as the research and development of technologies at the highest international level of excellence.

The mission of JSI is realized through:

- **a professional attitude to research at the cutting edge** of science at all levels;
- **education** that is embedded in research and development; in doing so, the JSI cooperates closely with other institutions in Slovenia and around the world;
- focusing **on new research topics**, which are frequently interdisciplinary;
- **the transfer of technologies and exchange personnel** to industry;
- **raising public awareness**, especially among young people, of the growing importance of science and technology;
- **environmental and public-safety** services;
- adopting flexible, goal-oriented **organizational structures** that can respond quickly to new challenges and offer the appropriate services.



Name of the Institute



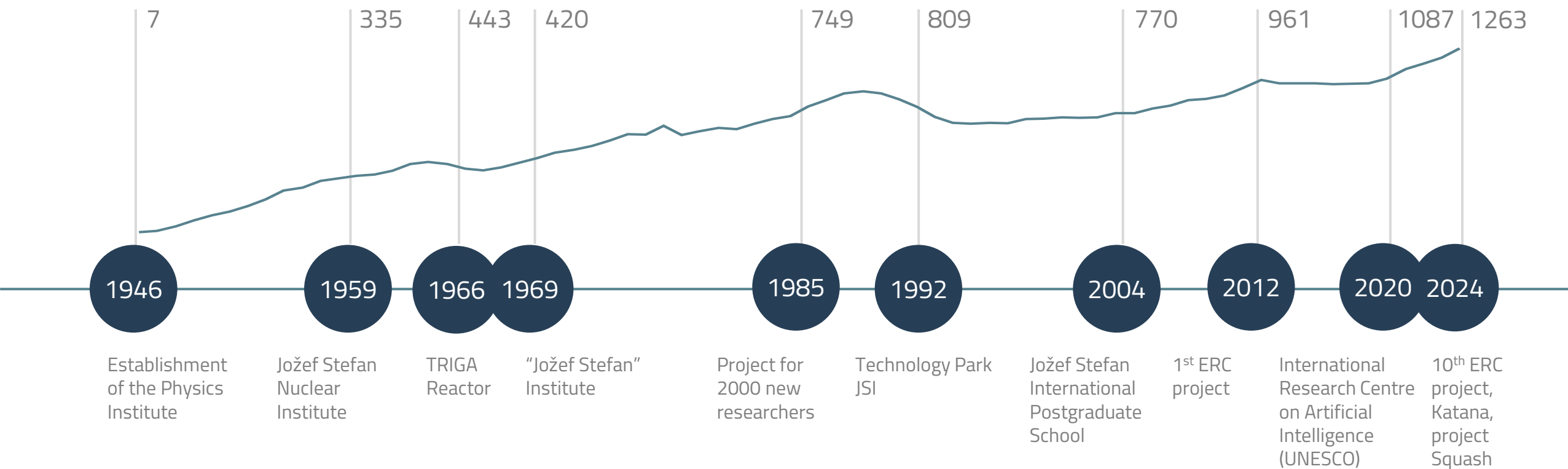
Jožef Stefan: distinguished 19th century physicist, most famous for his work on the Stefan-Boltzmann law of black-body radiation

Jožef Stefan
1835–1893



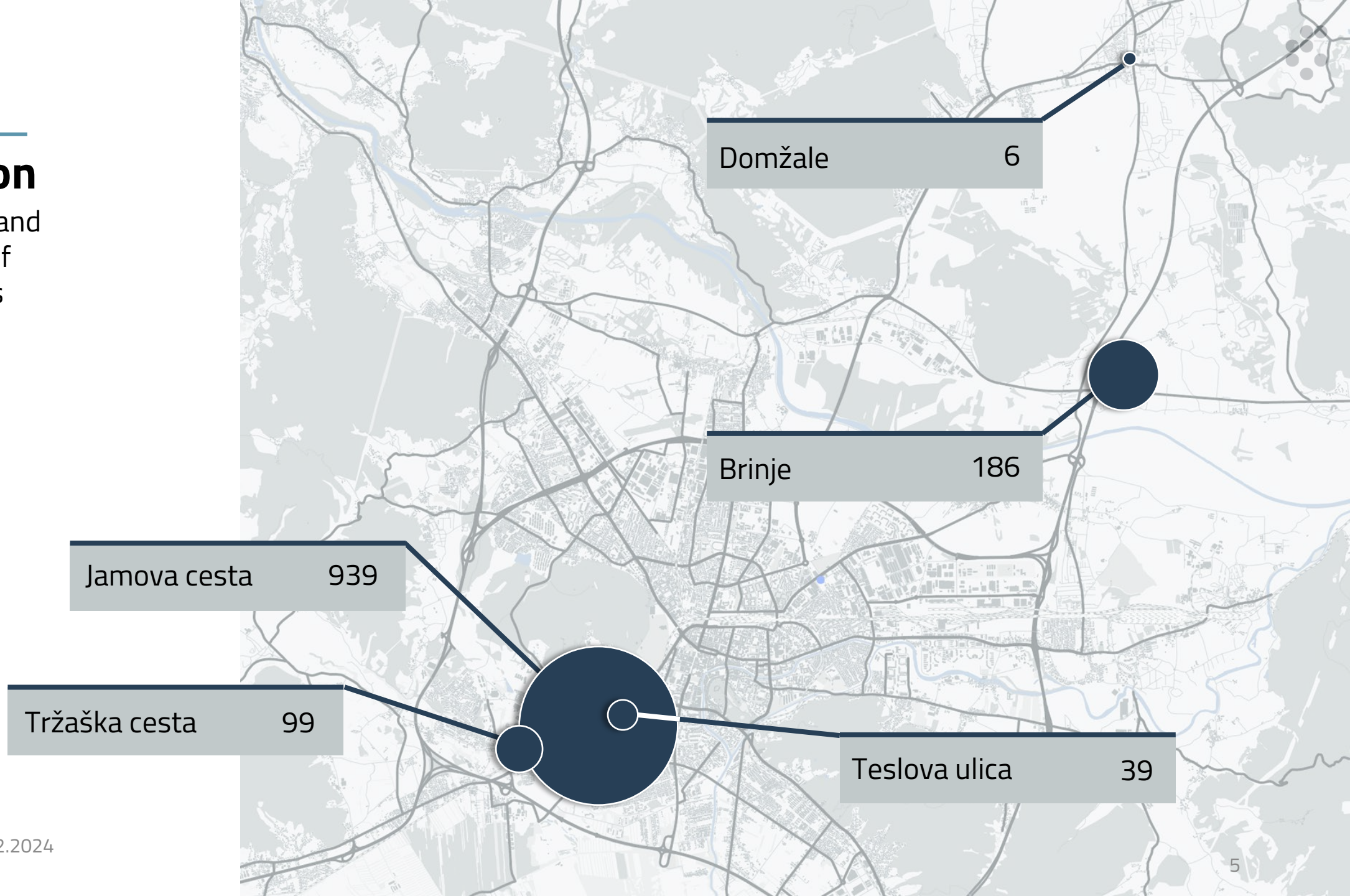
History

Institute milestones and growth in the number of employees



Location

Locations and
numbers of
employees



Data as of 31.12.2024

The Institute in numbers

1263

employees*

838

researchers*

223

faculty members
lecturing at ->

49

various higher-
education
institutions**

835

young
researchers * * *

903

doctoral theses***

1060+

published articles**

60,751

citations*

769

projects**

13

ERC projects

124

awards***

46

programmes**

78,053

€m of planned
revenue*

261

revealed inventions***

2894

media releases**

21,700+

visitors**

*Data collected on 31.12.2024

**Data are for 2024

***Data for 2000-2024



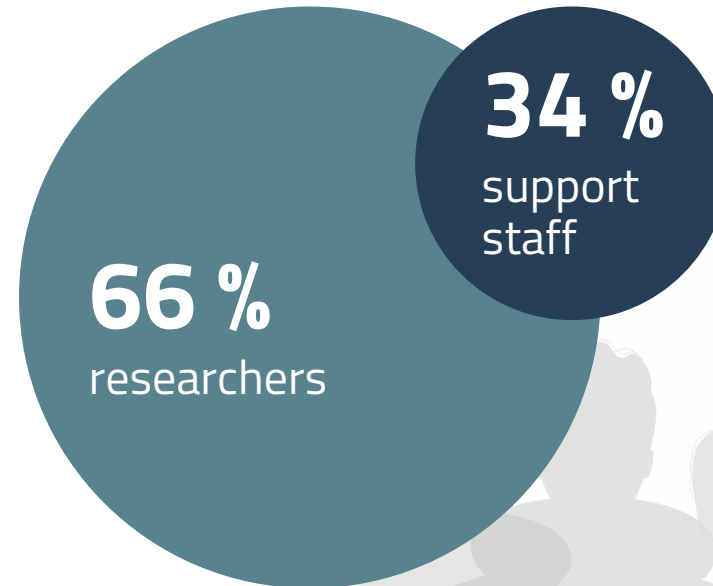
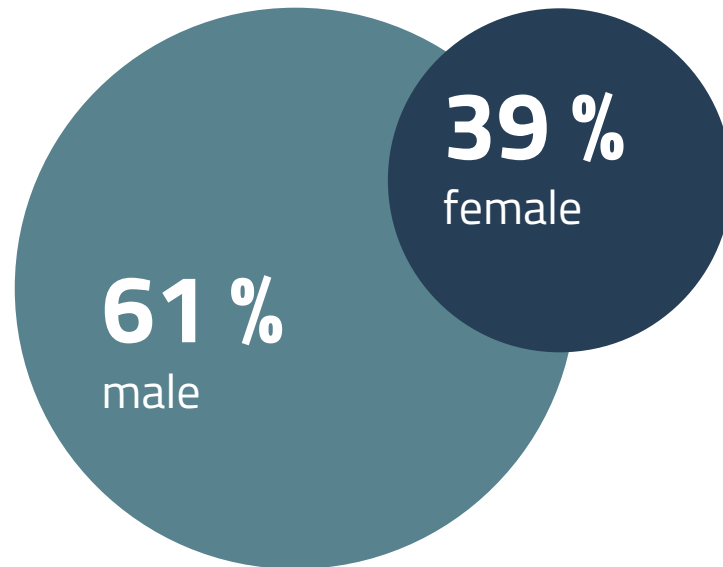
Staff

Number of employees by gender and area of activity

Total

1263

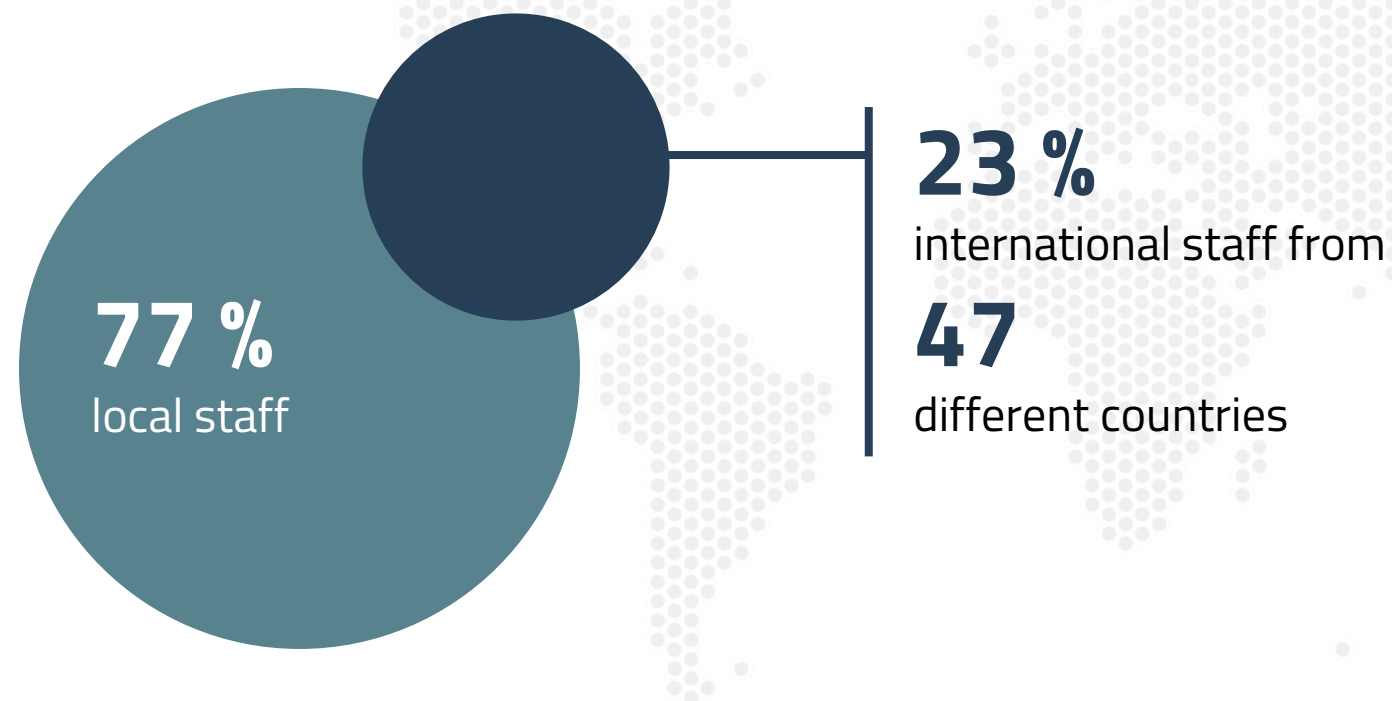
employees





Staff

Number of researchers by country of origin



Total

838

researchers



Main areas of research

JSI departments divided into areas



Electronics and Information Technologies

- Automation, biocybernetics and robotics
- Systems and control
- Artificial intelligence
- Open systems and networks
- Communication systems
- Computer systems
- Knowledge technologies
- Intelligent systems

8
depart-
ments

Physics, nuclear engineering and energy

- Theoretical physics
- Low and medium energy physics
- Thin films and surfaces
- Surface technology
- Solid State Physics
- Gas electronics
- Complex matter
- Reactor physics
- Experimental particle physics
- Reactor technology

10
depart-
ments

Chemistry, biochemistry, materials and environment

- Biochemistry, molecular and structural biology
- Molecular and Biomedical Sciences
- Biotechnology
- Inorganic chemistry and technology
- Physical and organic chemistry
- Electronic ceramics
- Nanostructured materials
- Synthesis of materials
- Advanced materials
- Environmental sciences

10
depart-
ments



Main areas of research

Number of researchers by scientific fields

(27 female researchers and 36 researchers are employed in centres and technical services)

Total

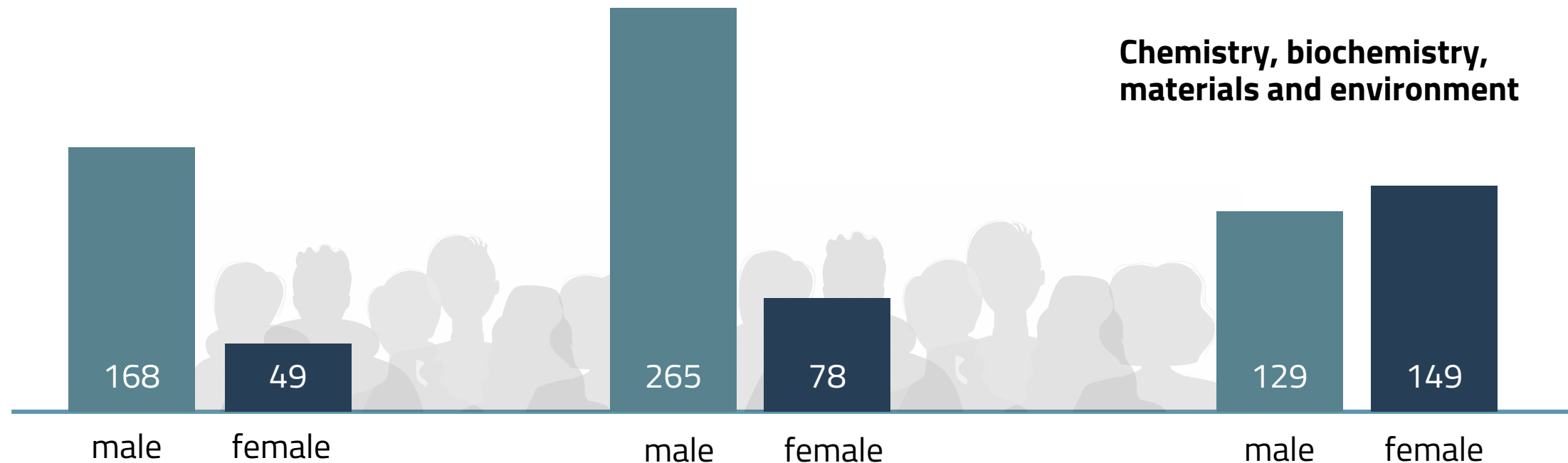
838

researchers

Electronics and Information Technologies

Physics, nuclear engineering and energy

Chemistry, biochemistry, materials and environment



Data collected on 31.12.2024



Publication of JSI articles in top scientific journals

Elsevier CiteScore



Total

1343

publications

69 %

articles in
the top 25% of
scientific journals.

40 %

articles in
the top 10% of
scientific journals.

17 %

articles in
the top 5% of
scientific journals.

3 %

articles in
the top 1% of
scientific journals.



Publication of JSI articles in top scientific journals

Web of Science



WEB OF SCIENCE



60,751

citations of all
JSI articles



649,667

citations of all
JSI articles



1069

Number of published
JSI articles

Total

60,751

citations

Total

1069

publications



Projects

Number of all projects in 2024

Total

769

projects

295

projects financed by
the national agency:
ARIS

160

projects financed by
different **European
Union** schemes

157

market projects:
domestic

157

market projects:
international



The Institute and the European Research Council (ERC)

The JSI is proud of all its ERC project grantees

| | | | |
|------|-----------------|--------------|--------------|
| 2012 | D. Mihailović | ERC-2012-AdG | TRAJECTORY |
| 2017 | D. Mihailović | ERC-2017-PoC | Umem4QC |
| 2019 | M. Humar | ERC-2019-StG | Cell-Lasers |
| | P. Križan | ERC-2019-AdG | FAIME |
| | I. Mušević | ERC-2019-AdG | LOGOS |
| 2020 | M. Lozinšek | ERC-2020-StG | HiPeR-F |
| 2022 | P. Križan | ERC-2022-PoC | CherPET |
| | Z. Lenarčič | ERC-2022-StG | DrumS |
| 2023 | L. Vidmar | ERC-2023-CoG | Boundary |
| | D. Mihailović | ERC-2023-AdG | HIMMS |
| 2024 | Matjaž Humar | ERC-2024-POC | EdibleLasers |
| | Matjaž Humar | ERC-2024-CoG | SoftQuanta |
| | Andrii Tykhonov | ERC-2024-CoG | PeVGALAXY |

Total

13

ERC projects





Programmes

Number of programmes by policy area in 2024



Total
46
programmes

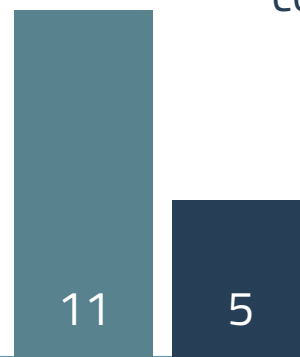
Electronics and Information Technologies



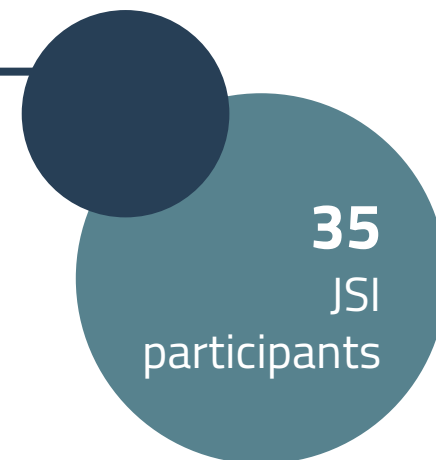
Physics, nuclear engineering and energy



Chemistry, biochemistry, materials and environment



11
JSI
coordinators





Programme revenues

Revenues from programmes
by topic in 2024

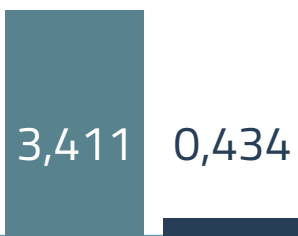


Total

21.256

€ m

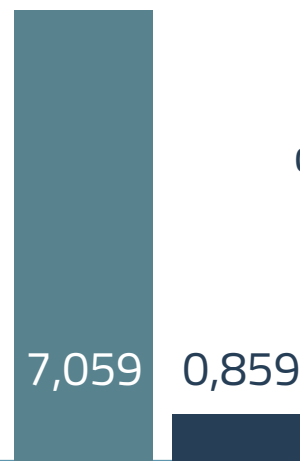
**Electronics and
Information
Technologies**



**Physics, nuclear
engineering and
energy**



**Chemistry,
biochemistry,
materials and
environment**



1865

€ m

JSI

coordinator

19.391

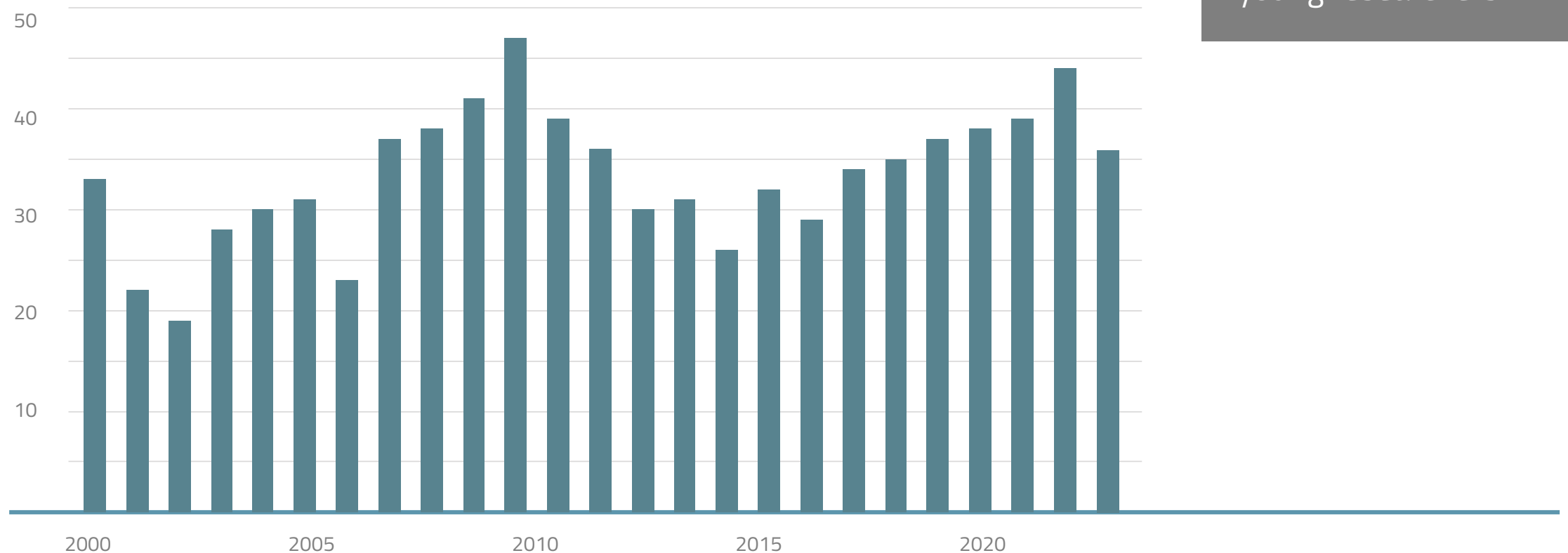
€ m

IJS partners



Young researchers

Number of young researchers covered by ARRS funding
in the period 2000–2024 by year



Total

835

young researchers

Data are for the period 2000–2024



Doctoral theses

Number of doctorates with mentors from the JSI



Total

903

Doctoral theses

The data of the number of doctorates in the year with mentors from the JSI for the period 2000-2024



Awards

Number of Zois, Puh Awards and Ambassadors of Science



Total

124

awards

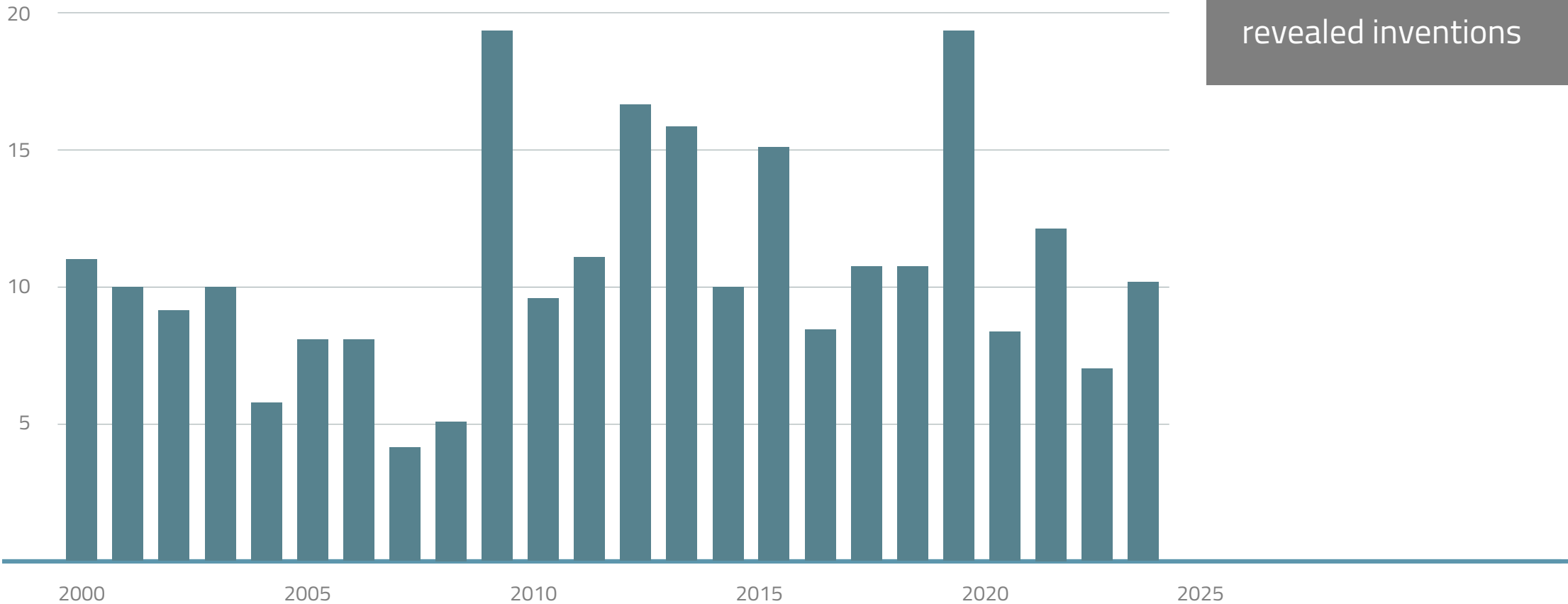




Inventions

Number of revealed inventions

Total
261
revealed inventions



Data are for the period 2000–2024



JSI's selected spin-outs

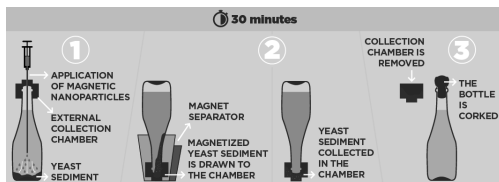
Plasmadis

Plasma reactor optimization by
Laser Optic Catalytic Sensor (LOCS)
<http://www.plasmadis.com/>



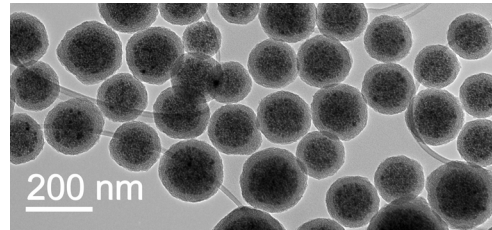
InoVine

Rapid separation of yeast sediment
from sparkling wine.
<http://www.ino-vine.com/>



Nanos Scientifcae

Nanotechnology solutions based on
magnetic nanoparticle clusters –
magnetic nanobeads –
iNANOvative™ platform.
<http://www.nanos-sci.com/>



Infinite

Toxicity testing of materials
Novel sensorial cellular devices for
personal diagnostics. Science-based
animal alternatives.
<http://infinite-biotech.com/>

Atom Quantum Labs

Designing cold neutral atoms
Quantum Computers.
<https://atomql.com/>



Particulars

Transient Current Technique (TCT)
apparatus for studies of various
semiconductor devices and
materials.
<http://particulars.si/>



FlexHex

Robotic hexapods for the
automotive industry
<http://flexhex-robot.com/>



Genuine Technologies

Synthetic bioceramic powder-like
material based on calcium tri-silicate
with high bioactivity.
<https://www.gen-tech.si/>



Comparison with the rest of the world

Jožef Stefan Institute (JSI) // Max Planck Institute (MPS) // French National Centre for Scientific Research (CNRS)



Employees

| | | population | Number of employees | Number of employees as % of population |
|-------------|----------|------------|---------------------|--|
| JSI | Slovenia | 2.12 m | 1,263 | 0.06 % |
| MPS | Germany | 84.55 m | 24,650 | 0.03 % |
| CNRS | France | 66.55 m | 33,000 | 0.05 % |

Revenue

| | | Annual revenue | Annual income per employee |
|-------------|----------|----------------|----------------------------|
| JSI | Slovenia | 65 € m | 53,400 € |
| MPS | Germany | 2,300 € m | 93,300 € |
| CNRS | France | 4,000 € m | 121,200 € |



Public cooperation

Number of visitors to JSI events organised for different groups and number of visitors to the Nuclear Technology Training Centre

Total of more than
21,700+
visitors

Events

| | |
|----------------------|-------|
| Colloquia | 1,200 |
| Gallery | 9,450 |
| School visits | 1,070 |
| Days of Jožef Stefan | 1,000 |
| Open Day | 2,000 |

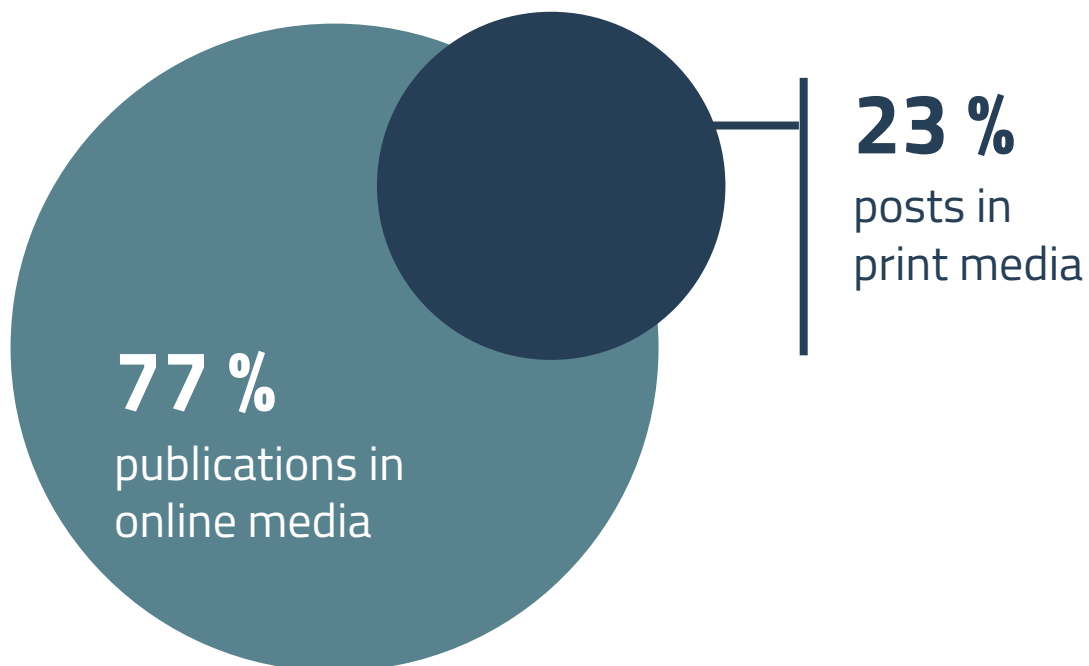
| | |
|---|--------------|
| Nuclear Technology Training Centre | 7,020 |
|---|--------------|





Appearances in the media

Incidences of the Jožef Stefan Institute and the Director Prof. Dr. Boštjan Zalar appearing in print and online media



Media that wrote
the most on these
topics:

1. [novice.najdi.si](#)
2. [sta.si](#)
3. [Delo](#)
4. [Megafon.si](#)
5. [rtvslo.si](#)

Authors who wrote
the most on these
topics:

1. [STA](#)
2. [Saša Senica](#)
3. [Marko Medvešček](#)
4. [Branko Janjič](#)
5. [G. C.](#)

Total

2811

media releases

Thank you for your attention

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<https://www.ijs.si/>