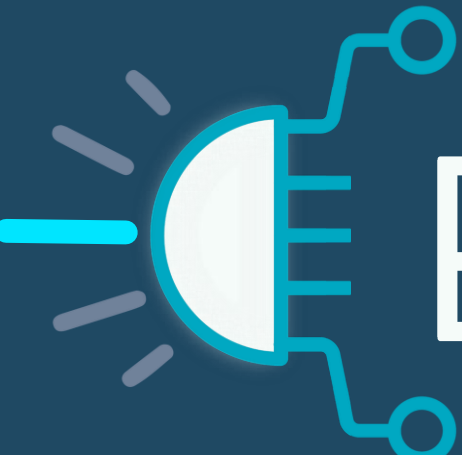


Eugenia Naselli

INFN – Laboratori Nazionali del Sud

COST ACTION CA24131

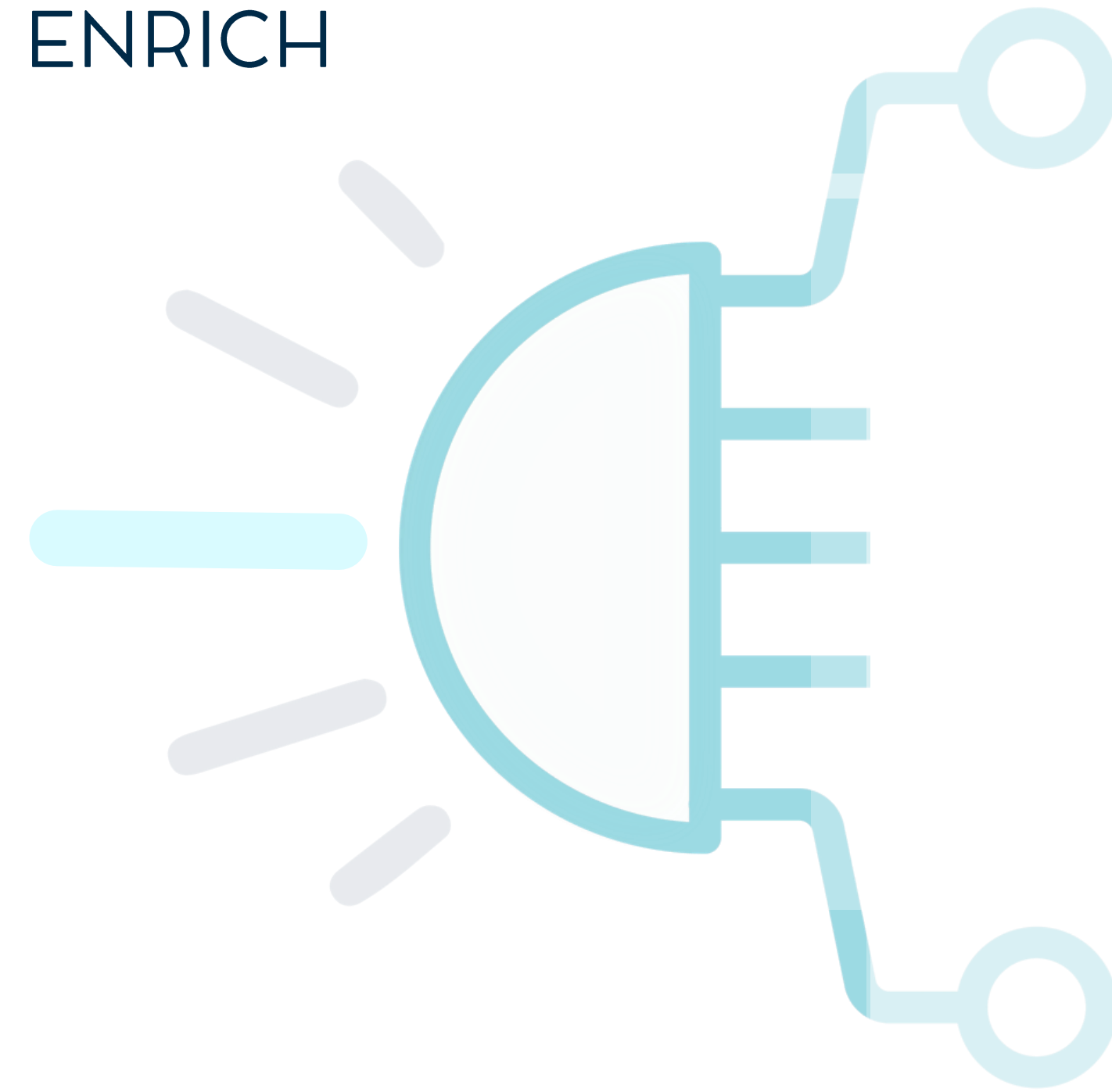
European Network for radiation-detection based Research and
Innovation addressing increasing societal CHallenges (ENRICH)



ENRICH

Young Researchers' Coordinator Report

- Intro: Young researchers in COST Actions and ENRICH
- Statistical data
- Report of activities
- Perspectives and Planned activities





Young Researchers in COST and ENRICH

1. Who are Young Researchers (YRI) in COST Actions?

- Are defined as Researchers and Innovators (YRI) under the age of 40
- COST Mission: targets YRIs to boost their career development, providing international networking opportunities, leadership roles, and global scientific visibility

2. Inclusiveness as a Core Value in ENRICH (CA24131)

▪ Priority Target Groups:

- Young Researchers to foster the next generation of scientists
- Researchers with caregiving responsibilities
- Participants from ITC (Inclusiveness Target Countries) to reduce geographical fragmentation

3. Dedicated Goals and Milestones for YRs

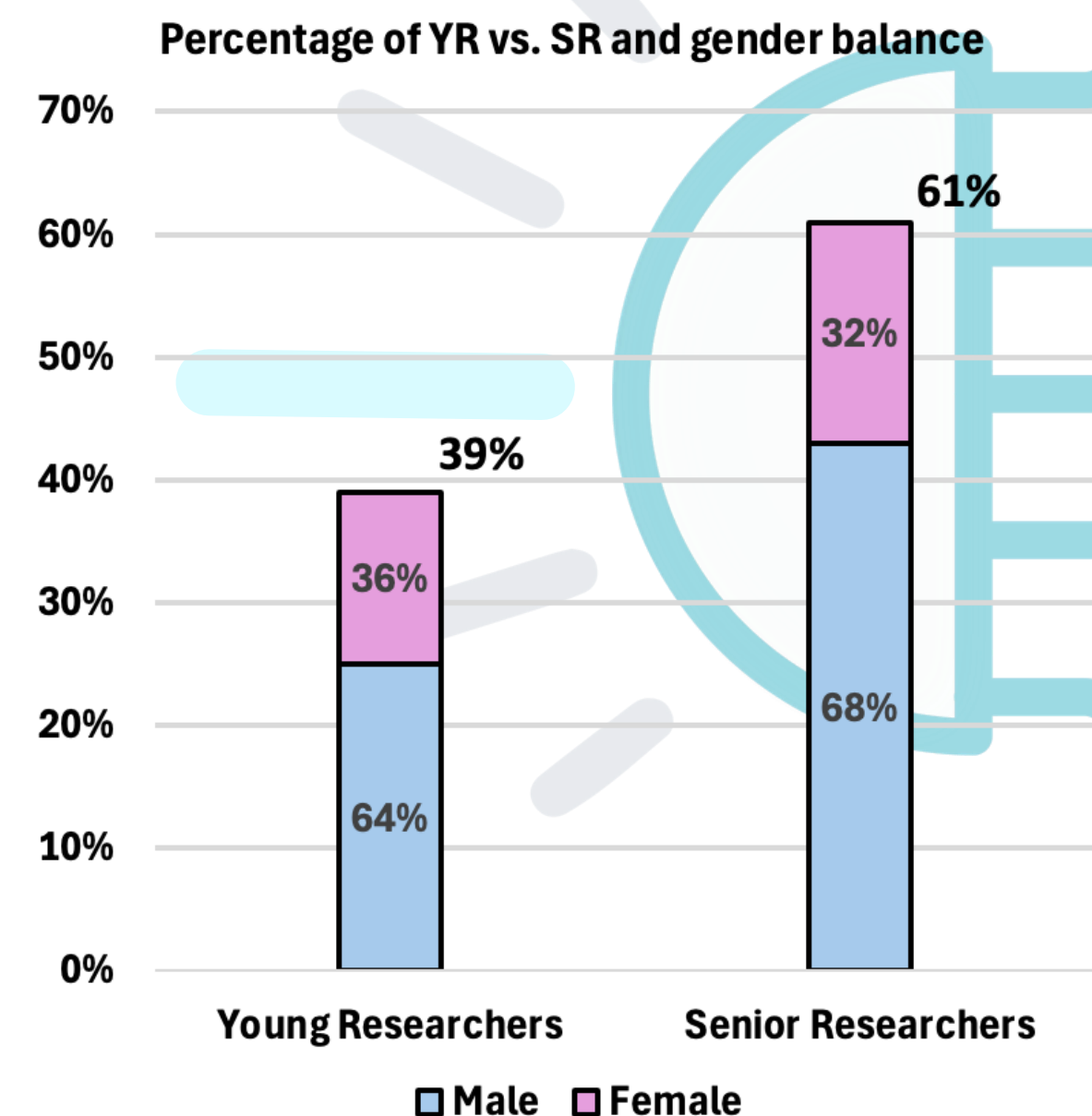
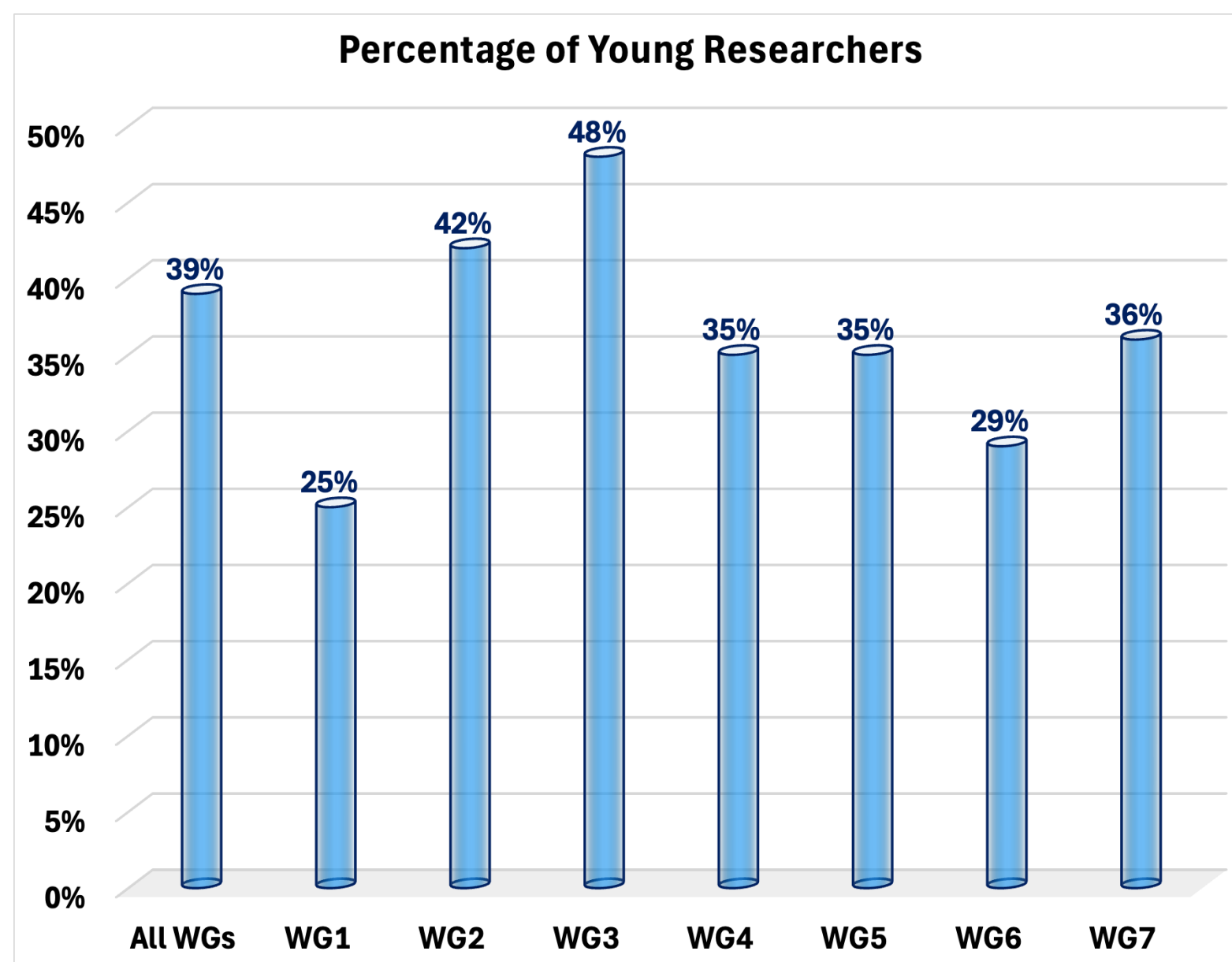
To unlock the potential of young scientists and bridge the gap between sub-communities in radiation detection, ENRICH implements several activities:

- Mentoring, Training, and Dissemination program (linked with WG7): tutor-mentee networks where senior experts guide young researchers through career paths providing training sessions to equip YRs with the skills needed to write competitive research proposals.
- Special Activities: Short-Term Scientific Missions - STSMs and Training Schools to encourage technology transfer, mobility, and skill enhancement.
- Direct Support and Recognition for YRs: Dedicated Young Researcher Awards, Financial Support to attend external conferences, direct involvement in STSMs

4. Coordination

YR activities remain transversal, integrated across all WG topics and activities

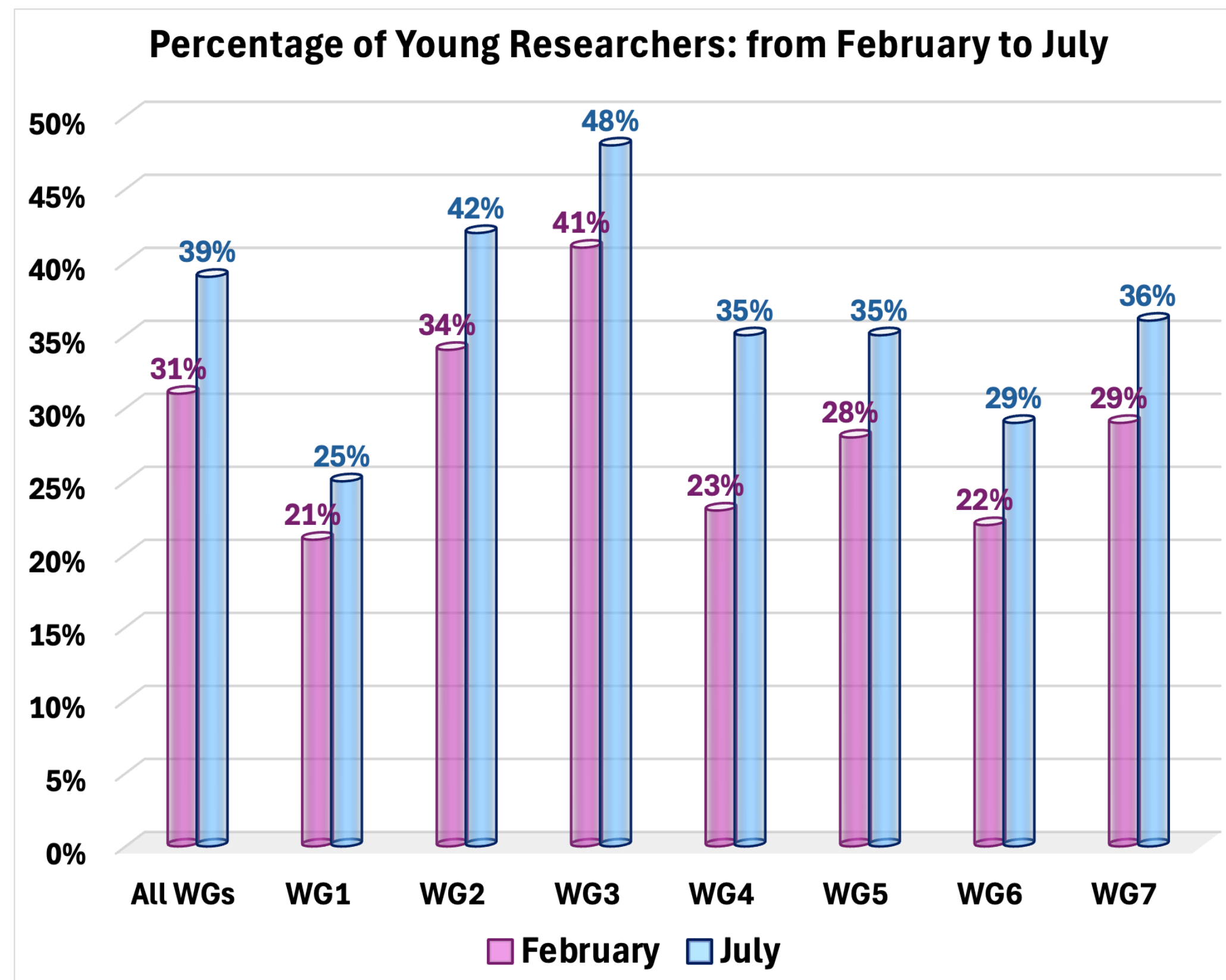
- ❑ YR Participation: The share of Young Researchers stands at 39% across the Action (81 out of 207 total participants).
- ❑ WG Distribution: YR presence is well-balanced across all WGs, reaching a peak of 48% in WG3.
- ❑ Gender Balance: The YR group is more equitable than the overall average. 36% of YRs are women. This outperforms the 32% female representation among Senior Researchers (SRs).



In a span of just 5 months, our total network expanded:

→ from 121 to 207 total participants
→ from 38 to 81 young researchers!

- Consistent Growth: Young Researcher representation has increased across every single Working Group
- Overall Impact: Across all WGs, youth participation increased from 31% to 39%, proving the success of initial engagement and outreach strategies



Active Leadership: Young researchers are not just network members, but core decision-makers within the Action.

□ Key Leadership Roles: Young researchers hold 8 out of 22 Leadership and Additional positions (~ 36%), including:

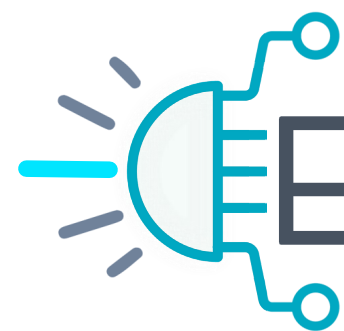
➤ Working Group management:

- WG4 Leader
- WG5 Leader
- WG2 Co-Leader
- WG3 Co-Leader
- WG4 Co-Leader

➤ Horizontal Coordination:

- Science Communication
- Grant Awarding
- YRs Coordination

□ Management Committee Representation: 8 out of 49 Management Committee members are young researchers (~ 16%).



ENRICH

Ongoing Activities: a) ECRs Seminars (with WG7)

a. Public Seminars (with WG7):

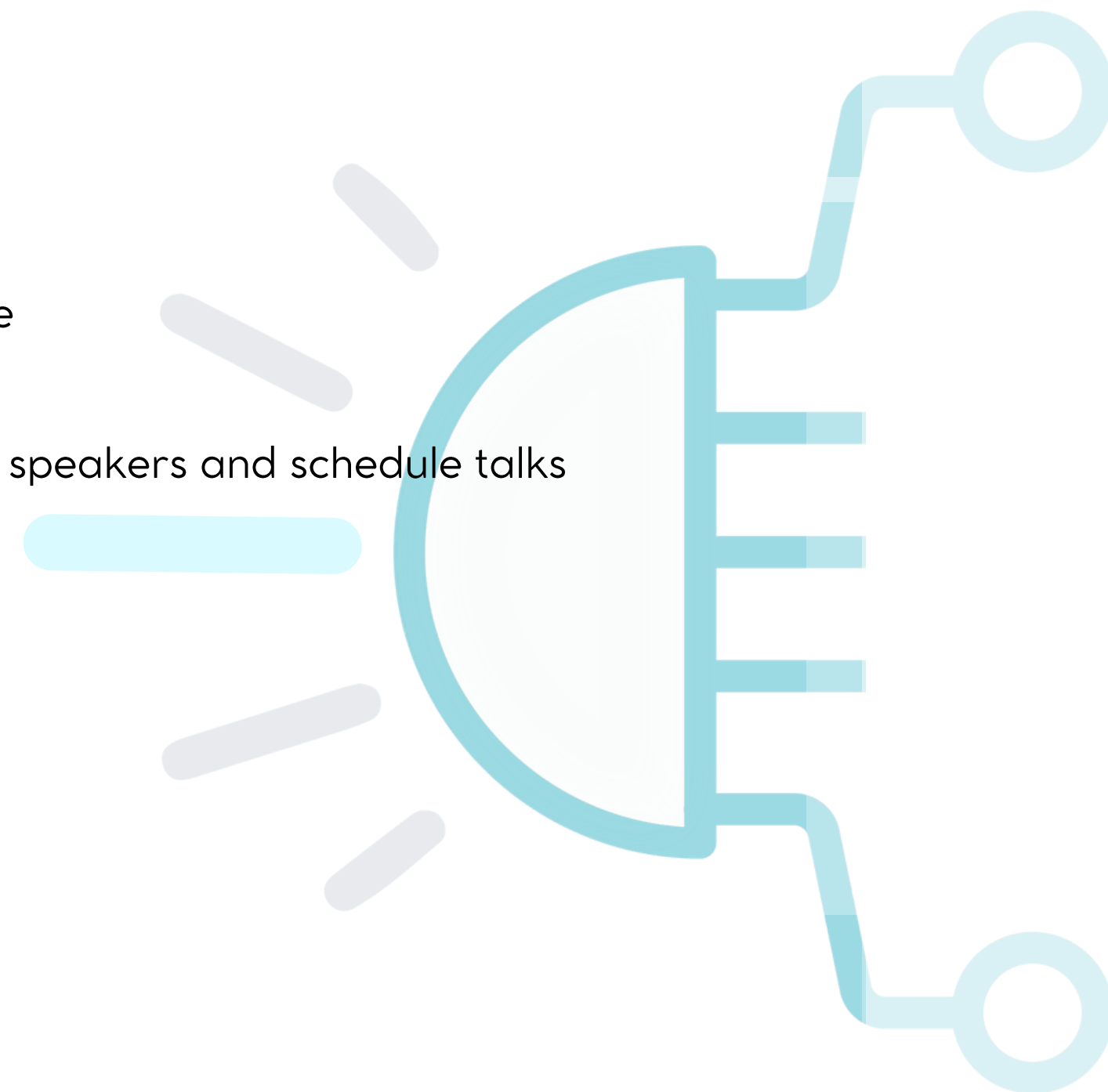
Goal: host sessions with two ECR Speakers moderated by a Senior Researcher to bridge expertise and stimulate high-level discussion and exchange

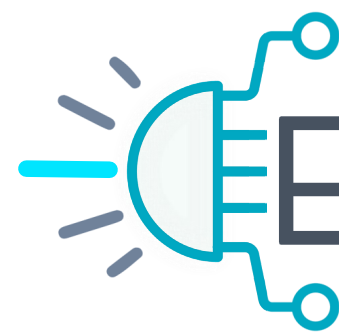
Actions: collect ECR research profiles and availability to give talk in the seminars; define speakers and schedule talks

Mode: Form shared with ECRs

Priority: High (expected begin: next Autumn, i.e. October 2026)

WPs/Coordinators: WG7 Leaders & YR Coordinator





ENRICH

Ongoing Activities: a) ECRs Seminars (with WG7)

Survey Overview & Participation Profile

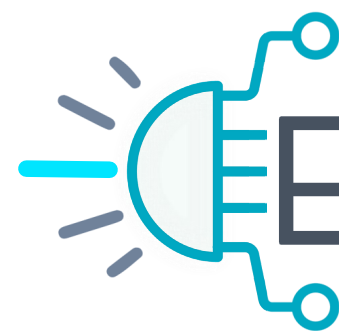
To map the expertise, a survey was conducted among Young Researchers. The profile includes:

- Different Career Stages: 6 PhD Students, 1 Post-doc, 4 Researchers, and 3 Professors.
- Broad Geographical Reach: Representation from 9+ countries (including Italy, Croatia, Belgium, Poland, Georgia, Serbia, Czech Republic, and Türkiye).
- 30% of availability among YRs (15 contributions).

From Survey to Action: Creating International Synergies

Instead of scheduling standard individual presentations, the survey data was analyzed to identify scientific common grounds. Results show almost 6 Specialized Topics built on strategic international pairings:

- **Topic 1:** Radioecology & Environmental Monitoring (Croatia vs. Serbia)
 - Synergy: Low-background gamma spectrometry with HPGe detectors for environmental applications and cosmic background suppression.
- **Topic 2:** Coherent X-ray Imaging & Ptychography (Belgium vs. Italy)
 - Synergy: Transitioning ultra-high-resolution ptychography from large-scale synchrotron facilities to compact laboratory setups.
- **Topic 3:** Advanced Medical Imaging & Dosimetry (Poland vs. Belgium)
 - Synergy: Nuclear medical applications combined with Geant4/TOPAS Monte Carlo simulations for dosimetry and PET diagnostics.
- **Topic 4:** X/Gamma Spectroscopy & Solid-State Detectors (Italy vs. Türkiye)
 - Synergy: Development, simulation, and characterization of advanced semiconductor detectors for energy-dispersive X-ray spectroscopy.
- **Topic 5:** Microtechnologies & Ultrasonic Sensors for Imaging (Türkiye vs. Georgia)
 - Synergy: Cleanroom microfabrication, advanced material sciences, and sensor development for extreme environments and biomedical imaging.
- **Topic 6:** Advanced Nuclear Techniques: Cultural Heritage & Plasma Physics (Türkiye vs. Italy/Czech Republic)
 - Synergy: Utilizing synchrotron radiation and advanced light sources for non-destructive frontier applications.



ENRICH

Ongoing Activities: b) Mentoring Programme (with WG7)

b. Launching the ENRICH Mentoring Programme (with WG7):

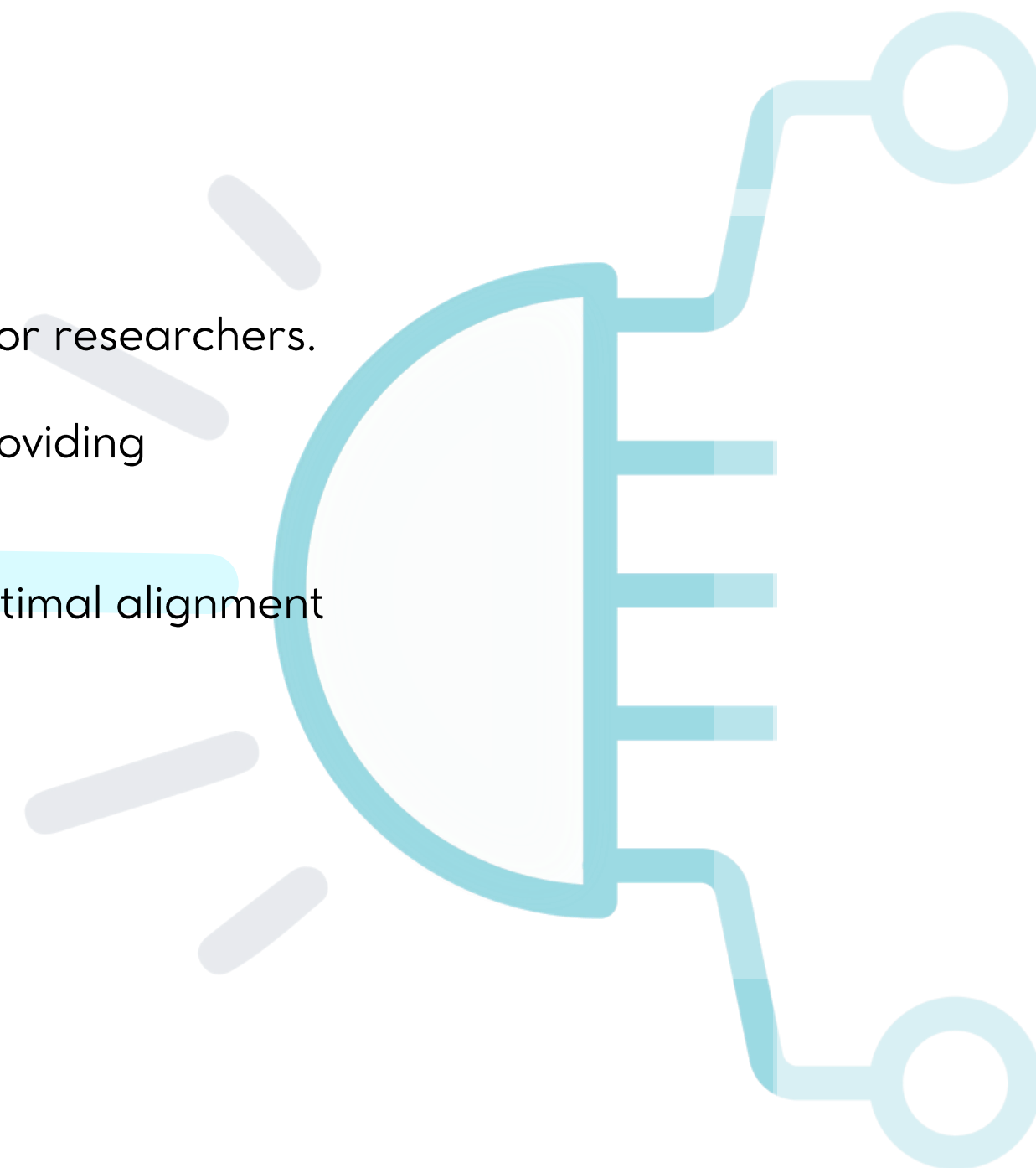
Goal: Support long-term career development and professional growth by pairing YRs with senior researchers. Intentionally distinct from scientific collaboration. Focuses on career planning (academia or industry), sharing professional experiences, providing external perspectives on career challenges, and broadening professional networks.

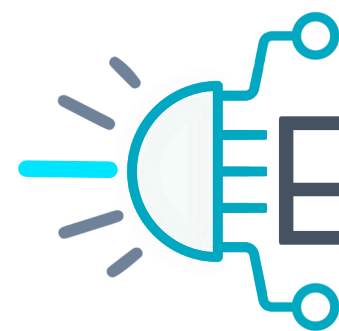
Actions: collect YRs research and personal preferences to define pairings and to guarantee optimal alignment

Mode: Mentee Sign-up Form shared with ECRs to express interest in participating as mentees

Priority: High

WPs/Coordinators: WG7 Leaders & YR Coordinator





ENRICH

Planned Activities: c) Newsletter section on YRs

c. Newsletter section on Young/Early Career Researchers & Spotlight:

Goal: establish a dedicated magazine/newsletter section to highlight YR individual experiences and foster synergies and collaborations

Actions: collect contributions and edit content in specific template to be agreed.

Mode: Invite YRs to send contribution and share experiences

Priority: Medium (post-website launch and full operativity).

WPs/Coordinators: Communication Coordinator, WG1, WG7 Leaders & YR Coordinator.

d. Section on the ENRICH Web page dedicated on Young researcher experiences

c. Newsletter section on YRs perfectly aligned with Science Communication Plan

All activities will be coordinated by the Science Communication Coordinator, the following contributions are foreseen:

→ The Young Researchers' Coordinator will support the engagement of ECRs and, among other responsibilities, monitor relevant events and initiatives both within and beyond the Action.

YEAR 2

Newsletter: a periodic newsletter will be developed and distributed to Action members as well as to all interested stakeholders who subscribe via a dedicated form on the website. The newsletter will include updates on recent events, open calls, and opportunities, as well as recurring sections—such as features highlighting the stories and experiences of researchers within the Action, with particular attention to early-career researchers.

Science Communication Plan of the COST Action CA24131

Version 01



VERSIONS AND HISTORY OF CHANGES

Version	Date of adoption by MC	Notes (e.g. changes from previous versions)	Lead author(s)*
SCP_01		First version of the SCP	Adriana Postiglione

e. Other and General Activities

1. Bridge to Leadership

Act as the direct link (interplay) between the Young Researchers (YRs) and the Management Committee, the Core Group and WG Leaders.

2. Mobility & Budget Management

Coordinate travel proposals for conferences and schools and maximize support for Young Researchers' Short-Term Scientific Missions and active participations.

3. Monitor Event Output

▪ The XGRADE workshop at Palermo:

Strong Youth Representation: YRs made up around 20% of the workshop's total participants.

Dedicated Funding & Mobility: the COST Action provided 10 Travel Grants specifically targeting YRs and participants from ITC.

Celebrating Excellence: Best Young Researcher Talk Award.

▪ the ESRF-ENRICH Oasys School EOS26 in Grenoble

The 35 student participants represented 19 countries across Europe, the Americas, Africa and Asia.

The COST Action funded 17 Travel Grants, making the school accessible to YRs and participants from ITC.

The school served not only as a technical training forum but also as a networking platform that strengthened ties across communities.

4. Collect feedbacks & actively incentivize participation

From WP leaders and ECRs about technical pitches and talks made within the WG meetings, currently self-managed on a voluntary basis.

Incentivize participation by aligning research themes

1. Knowledge, Seminars & Mentoring Programme Management

- YRs Seminar Series
Organizing dedicated public seminars tailored to ECRs.
- Selection of Contributions
Evaluating contributions and speakers based on expertise surveys mapping research topics and expertise.

2. Communications & Visibility

- Dedicated YRs Newsletter
Highlighting achievements and open network calls
- YRs Webpage Management
Maintaining a tailored section on the Action website

3. Outreach & Event Promotion

- Event Dissemination
Advertising training schools, workshop, and conferences
- Call for Active Attendance
Encouraging young members to attend external networks

4. Speaker Engagement & Matchmaking

- Strategic Matchmaking
Proposing target speakers based on survey results
- Speaker Encouragement
Urging YRs to step up as presenters & leaders

5. For the Young Researchers

- Requests
- Proposals
- Needs
- Opinions
- Suggestions
- Etc...
- **SHARE FREELY** to improve the output and impact of COST Action!

Acknowledgements

This presentation is based upon work from COST Action ENRICH - CA24131, supported by COST (European Cooperation in Science and Technology).

COST (European Cooperation in Science and Technology) is a funding agency for research and innovation networks. Our Actions help connect research initiatives across Europe and enable scientists to grow their ideas by sharing them with their peers. This boosts their research, career and innovation.

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