TEC-Net
Tyndall Early Career Network

Tyndall
National Institute
Institiúid Náisiúnta

Tyndall Early Career Researchers' Network

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1   EXECUTIVE SUMMARY

The Tyndall Early Career Researchers' Network (TEC-Net), is the Tyndall link for early-stage researchers to the Young European Associated Researchers (YEAR).

In 2022, TEC-Net organised a broad range of activities that were of interest to early career researchers at Tyndall. Our events included internal training, which supported the day-to-day work of researchers in Tyndall, a project integrating science and art, and a continuation of the transition to industry "A day in the life…" webinar series. We also supported the Tyndall student committee team and the business development team with the student poster competition and the business challenge. In summary, 9 events were organised by TEC-Net in 2022, with 140 attendees overall at a very limited cost to Tyndall (€150).

With the easing of COVID-19 restrictions in 2022, we were finally able to organise in-person events. For example, the hands-on art workshop was the first time that a workshop of this nature was held at Tyndall, and its aim was to support participants in developing a creative research practice through interdisciplinary collaboration. We were also heavily involved in the organisation of the YEAR event titled: "How to write proposals for Horizon Europe" held in Tyndall in October 2022. This event was a success with 30 participants from 5 different EU institutes. Following the success of this event, we are helping organise the 2023 YEAR conference held at Tyndall, with an expected attendance of around 60 people.

TEC-Net is committed to developing the careers of early-stage researchers and ensuring they have a strong presence in Tyndall. After three successful years of activities and events, we aim to have even more of an impact in 2023, as we continue to support early-career researchers at Tyndall in the increasingly fast world of research.

As the new Chair of TEC-Net, I would like to thank Salvatore Tedesco for all his work and for continued collaboration with the committee. With the experience that the committee has gained since the start of this adventure, I am optimistic that the years to come will bring more engaging and fruitful events for the career development of the researchers at Tyndall.

Sofia Teixeira, Chair, Tyndall Early Career Researchers' Network

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2 TEC-Net VISION AND MISSION

2.1 OVERVIEW

Tyndall Early Career Researchers' Network (TEC-Net) is the established network of early-career researchers at Tyndall. It brings together early career researchers through a programme of events with the goal of providing opportunities for collaboration, networking, training and socialising.

TEC-Net is driven by a dedicated team of young researchers at Tyndall, who are working towards developing the most suitable opportunities to improve early career researchers' current skills and develop new expertise.

TEC-Net supports Tyndall's 2025 strategic goals including our People and Culture Goal to attract, nurture and enable future research leaders to fulfil their potential; our Impact Goal by building our talent pipeline; our International Reach goal by developing our global presence through thought leadership; and our Research Excellence Goal by providing opportunities for collaboration.

Tyndall is a member of the Young European Associated Researchers Network (YEAR). YEAR offers EU networking opportunities, social events, and training events focused on skills development initiatives applicable to a wide range of disciplines.

2.2 OUR VISION

The vision of the Tyndall Early Career Researchers' Network (TEC-Net) encompasses three aspects:

- Enhancing the research and business potential and capabilities of Tyndall's early career researchers by increasing the exchanging of ideas internally and with European peers.

- By exchanging ideas internally and with European peers, our aim is to enhance the research capabilities and business potential of Tyndall's early career researchers.

- By promoting internal and European training and collaborations, our aim is to enhance the research capabilities and business potential of Tyndall's early career researchers.

2.3 OUR MISSION

Our Mission is to create opportunities to support the development of early career researchers in Tyndall by helping them to extend their professional network and gain new skills in a multi-disciplinary environment.

2.4 OUR GOALS

We have set nine goals to support our early career researchers:

1. Retention of high-potential young researcher talent;

2. Increase the number of young researchers becoming PIs (bolster career advancement);

3. Provide support to researchers in developing key horizontal skills and cost-effective personal development;

4. Increase collaborations between different departments;

5. Identify local obstacles and barriers to success in STEM/academia for young researchers;

6. Encourage young researchers to develop great ideas to ensure purposeful and deliberate career planning and development;

7. Support the creation and expansion of young researchers' networks internally and internationally;

8. Represent young researcher's at senior management level ensuring the development of programs and policies beneficial for Tyndall;

9. Play an active role to engage young researchers and provide them with support to break down isolation or under-representation.

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3.1 SUMMARY OF ACTIVITIES

TEC-Net was established to support early career researchers in the institute, which involved proactively organising technical talks and webinars. A graphical depiction of the events promoted by YEAR and TEC-Net in 2022 is shown in Figure 1. A separate presentation of the YEAR events will be provided in the YEAR annual report 2022.

TEC-Net continued the "A Day in the Life…" series, which started in 2020 with the goal to provide a better understanding of industry life as shown by industry leaders in Ireland and overseas. Four talks were delivered; Dr Roberto Pagano (ASML) on January 14, Dr Marion Kennefick (Janssen Sciences Ireland) on April 5, Dr Fengjun Shang (ThermoFisher Scientific, Ireland) on May 4, and Dr Suresh Kondati Natarajan (Synopsys QuantumATK) on October 18.

Moreover, TEC-Net carried out an experimental project integrating science and art which resulted in the delivery of the art talk "Drawing Practice: Practical Research Methodologies to Enhance Visual Awareness" on May 18 by Dr Helen Farrell (Drawbridge Co-Founder and Lecturer at MTU Crawford College of Art and Design) followed-up by a hands-on art workshop in-person in Tyndall on October 6 (Figure 2). The workshop was also summarised in the News & Events page on the Tyndall website (https://www.tyndall.ie/news/tyndall-researchers-channel-their-creativity-to-enhance-communication-skills/).

Furthermore, TEC-Net provided support to the Tyndall student committee and the Business Development (BD) team for the organisation of the Tyndall student poster competition (July 29) and the UCC Business Challenge (October 6), respectively.

Finally, TEC-Net was also heavily involved in the organisation of the YEAR event "How to write proposals for Horizon Europe" on October 26-27, the first in-person YEAR event organised in Tyndall, with speakers Sean McCarthy (Hyperion), Louise Burgoyne,

Martin O'Connell, Maria Aburto, Michael Nolan, Sinan Bugu, and Patrick Morrissey (Figure 3). The event was a success with 30 participants from 5 different EU institutes.

Additional training provided by YEAR in 2022 focused on preventing burnout for scientists, work-life balance in research, and the journey from research to market as shown by three successful spin-offs (with Dr John D. Lambkin by Firecomms as one of the speakers), as well as technical talks on blockchain technology and quantum technologies (with Dr Gediminas Juska from CMOS++, Tyndall as one of the speakers). An online pub quiz was also organised as a social activity. Finally, after a three-year hiatus due to the COVID-19 pandemic, the YEAR annual conference was organised in Trondheim (Norway) by Sintef on September 24-28.

In summary, 9 events were produced/supported by TEC-Net in 2022, with > 140 attendees overall and **with a very limited cost to Tyndall. The budget spent by Tyndall for the events was only €150 (without taking into account YEAR-related expenses)**.
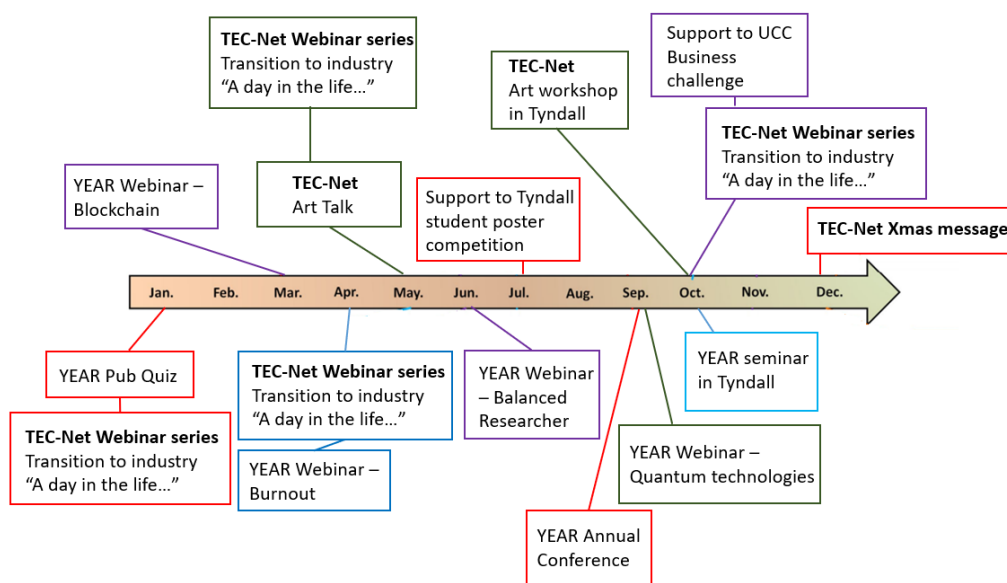
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Figure 1: TEC-Net / YEAR activities in 2022

Figure 2: Art workshop in Tyndall in October 2022

Figure 3: YEAR seminar in Tyndall in October 2022

3.2 BOARD MEETINGS

Nine board meetings were organised in 2022, virtually on Zoom in the first six months of the year and in-person in the last six months. The main objectives of these meetings were to:

- Define the main orientations and prepare the planned activities of the network;

- Define the topics, schedule and speakers of the upcoming trainings and webinars;

- Deliver a variety of training to meet the identified needs;

- Increase awareness of the network activities and their effectiveness through promotion, networking and collaboration;

- Increase opportunities for professional and personal development for early career researchers through the provision of activities;

- Seek opportunities to maintain and develop intra and inter-institute interactions and collaborations.

3.3 COOPERATIONS

1. Working with Business Development

TEC-Net strongly engaged with the BD team in Tyndall. BD's role was to collaborate with TEC-Net on finding speakers for the spin-off talk organized with the YEAR-Network. TEC-Net also engaged with Peter Finnegan, New Ventures Manager, to support the organisation of the UCC Business Challenge.

2. Working with HR (in Tyndall and UCC)

The board works with HR to develop a long-term training plan to support Tyndall's 2025 goals.

3. Working with Marketing and Communications Team

The board actively engages with Tyndall's Marketing and Communications team to develop a consistent communication strategy aimed at increasing the awareness of the network across Tyndall.

Moreover, Ursula Morrish was critical in the organisation of the art events in Tyndall.

4. Working with Operations

The board actively engages with Tyndall's Operations Team to deliver talks on possible aspects of interest to early-career researchers. In particular, we would like to acknowledge the contribution provided by Louise Burgoyne and Martin O'Connell (EU Programmes), and Elisabeth Wintersteller and Patrick Morrissey (IPIC) in 2022. Special thanks go to Rebekah Osborne for her support in the organisation of the YEAR event in Tyndall in October.

5. Working with Researchers in Tyndall

The board continuously aims to engage with researchers in Tyndall to deliver technical talks of special interest to the early career researchers in the organisation. In

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particular, we would like to acknowledge the contribution provided by Michael Nolan, Sinan Bugu, Gediminas Juska, and the Tyndall student committee in 2022.

6. Working with YEAR

YEAR is very important for TEC-Net. A direct link between the two networks is continuously enforced and TEC-Net provides the internal promotion of the events arranged by YEAR. To avoid duplication of efforts, TEC-Net aims to provide training which is complementary to the offerings provided by YEAR, with the goal to support early career researchers in the best possible way.

3.4 BRANDING AND COMMUNICATION

The TEC-Net webpage is available on Tyndall's website (https://www.tyndall.ie/tyndall-early-career-researchers-network-tec-net).

Event promotion regularly occurs via emails to all the members. These events are also updated on the Tyndall internal webpage https://intranet.tyndall.ie/tec-net/.

The communication strategy will be continuously updated according to the needs of the network. The main goals remain which are to improve the visibility and value of TEC-Net and support its growth.

3.5 DATA STORAGE

All the information and documents are shared between the board members, which are stored on Tyndall's servers.

TEC-Net events which are not in-person, such as webinars hosted online, were recorded when agreed upon by the speakers. Recordings are available on a shared MS Team folder.

Moreover, all the related links (Heanet) for retrieving the online events can be found below:

1. TEC-Net "A Day in the Life..." Series (4 events)

   1.1 ASML

   https://media.heanet.ie/page/a78b9cf6338b4d3b9a0a47d2e2d29d70

   1.2 Janssen Sciences Ireland

   https://media.heanet.ie/page/20271498a71647cd9197f6e82cfdc44a

   1.3 ThermoFisher Scientific

   https://media.heanet.ie/page/06001a73a1374a2d8b6ee6238450e5ee

   1.4 Synopsys QuantumATK

   https://media.heanet.ie/page/5017ce58cf104d9893fe843b97879e75

2. "Drawing Practice: Practical Research Methodologies to Enhance Visual Awareness"

   https://media.heanet.ie/page/25d06e027ebc425dbe2cd9a0088d47d5

3. TEC-Net Christmas Message

   https://drive.google.com/file/d/1a7fZu-zZKmSUYAO0Q_0YXUc3TvmQkWSv/view

4 EXECUTIVE BOARD

4.1 COMPOSITION OF THE BOARD

In 2022, the TEC-Net Board was composed as below:

Sofia Teixeira (MNS/ICT 4 Life)
Chair

Nadeem Rather (MNS/WSN)
Vice Chair

Salvatore Tedesco (MNS/WSN)
Member

Guan-Nan Wei (MNS/Magnetics on Silicon) Member

Walter Messina (Photonics/BioPhotonics) Member

Ji Liu (MNS/Materials Modelling for devices group) Member

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4.2 CONTACT DETAILS

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5 BECOME A MEMBER

5.1 WHO CAN BECOME A MEMBER

TEC-Net is designed for the early-stage career researcher community in Tyndall. All research assistants, research engineers, students, interns, postdocs, and researchers in Tyndall who meet the early-stage career requirements, **are automatically considered members of the network**.

5.2 WHY ATTEND THE EVENTS OF THE NETWORK

Benefits for early career researchers:

- Support and advice for early career researchers

- Tailored training

- Organised events offering networking and social opportunities

5.3 HOW TO BECOME A BOARD MEMBER

If you are interested in becoming a member of the board and supporting the proposal and organisation of new events, please email "sofia.teixeira@tyndall.ie".