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1. Introduction

The Early Career Hydrogeologists’ Network (ECHN) was established during the reorganisation of the commissions and working groups of the International Association of Hydrogeologists (IAH) on July 1st, 2011, and provides a forum for Hydrogeologists at the start of their professional or academic careers. An “Early Career Hydrogeologist” is someone having less than 10 years of professional experience in the field of hydrogeology independently of the age.

The ECH Network aims to support hydrogeologists in the early stages of their careers (e.g., mentoring, career development) and to promote their involvement in IAH affairs. The ECH Network focuses on information sharing, networking and strengthening the status of early career hydrogeologists within IAH.

This report presents activities carried out by the ECHN from January 2021 to December 2022, as well as the plans for the year 2023.

2. ECHN structure and ECHN Steering Committee

The present structure of the network consists of a Steering Committee (SC), led by a chairperson and two co-chairs, and complemented by a task team. The SC is supported by a group of advisors composed of former members of the committee (i.e., former chairs or co-chairs).

To ensure active participation of the ECHN SC, members are invited to join the committee for one year as part of the task team. Following this time, members can re-apply if they are willing to continue their involvement. Membership of the steering committee is not automatically renewed to allow for new member involvement, changing priorities of existing members and also reflecting that involvement may be task-specific or due to geographical location (e.g. assisting the organising committee in a specific annual IAH congress).

Due to the global emergency caused by Covid-19, in person meetings of the ECHN SC at IAH Congresses were not held in 2021 nor in 2022. The ECHN SC was renewed as follows:

- Paulo Filipe Silva Borges (Portugal) joined the SC [Dec. 2021].
- Antonia Genot (Chile) decided not to renew her commitment with ECHN SC [June 2021].
Current steering committee

Jared Van Rooyen (South Africa) Chair
Jade Ward (UK) Co-chair
Stefania Stevenazzi (Italy) Co-chair
Tirza Contreras (Honduras) Task team
Luis Camilo Suescún (Colombia) Task team
Richard Hoffmann (Germany) Task team
Paulo Filipe Silva Borges (Portugal) Task team
Fatima Monji (The Netherlands) Task team

Advisory team

Raquel Sousa (Portugal) ECHN Advisors (Past Co-chair)
Carlos Maldaner (Brazil/Canada) ECHN Advisors (Past Chair)
Viviana Re (Italy) ECHN Advisors (Past Chair)
Judith Flügge (Germany) ECHN Advisors (Past Chair)
Matthys Dippenaar (South Africa) ECHN Advisors (Past Co-chair)

Information on the ECHN-SC is regularly updated and available online at:
https://echn.iah.org/about

3. Activities

3.1. Meetings of the Steering Committee

Regular meetings are held by video conferences (about 3 to 4 per year). These meetings allow an efficient exchange between the members of the SC and for the joint planning of the activities of the ECHN during the year. During the reported period, steering committee meetings were held on the following dates:

- January 15th, 2021
- May 13th, 2021
- November 15th, 2021
- April 28th, 2022
- May 2nd, 2022
- July 8th, 2022
- February 10th, 2023
3.2. **IAH Congress**

Due to the global emergency caused by Covid-19 and the restrictions applied by each country in travelling, the presence of ECHN SC members was limited and no activities were organised for the 47th IAH Congress in Sao Paulo, Brazil, the 48th IAH Congress in Brussels, Belgium, the 49th IAH Congress in Wuhan, China (online congress). However, thanks to travel restrictions relaxed at short notice (less than 1 week before), ECHN was at least able to organise an ad hoc evening at the 48th IAH Congress in Brussels.

At the 48th IAH Congress in Brussels there was the 4th edition of an ECH keynote lecture promoted by the Local Organizing committee. Agathe Defourny from Belgium gave a keynote lecture entitled: “CO2-rich mineral groundwaters from East Belgium: Geological origin and where can we find them?”.

3.3. **World Water Day 2022**

World Water Day 2022 was dedicated to groundwater. ECHN launched an initiative to collect and share thoughts on the importance of groundwater in all its facets through its social media platforms. Contributions (photos and thoughts) are collected in a page on ECHN website:

https://echn.iah.org/activities

3.4. **Collaboration with other youth organisations**

In January 2022 ECHN was invited by the newly constituted UNESCO Groundwater Youth Network (UN-GWYN) as a support for the first steps in the creation of the network. ECHN has contributed to the planning and implementation of early career events at the UN Groundwater Summit held in Paris in December 2022: 1) a workshop on engaging and connecting youth across the water sector. In this session youth delegates that attended the summit, as well as senior officials and experienced researchers, were separated by global region and given a groundwater related scenario to discuss and come up with an action plan to address the issue or challenge; 2) the Groundwater Youth Forum co-convened by Sabina Katri (GWYN) and Jared van Rooyen (ECHN). The forum aimed to present youth considerations around the groundwater space, encouraging young water researchers and professionals to engage with professors, policymakers and groundwater stakeholders in both a keynote address and a panel discussion.

4. **Exchange and dissemination of knowledge**

Since the beginning of ECHN’s activities, the LinkedIn group has been used as a platform for sharing information and for discussions. Each member of the group can post jobs, conference announcements, groundwater events, make questions, leave comments and suggestions. The platform is used by ECHN to also promote ECHN and IAH activities, special sessions and the events and activities that are held at the IAH International Congresses.

The profile of the group is updated by Tirza Contreras and Jared Van Rooyen. The current number of members of the ECHN’s LinkedIn group is 1194.
The network takes advantage of all social media platforms available nowadays, in order to communicate with the various young generations. Therefore, the platforms used by ECHN are:

- Facebook page, administered by Jared Van Rooyen and Stefania Stevenazzi, with 2772 followers (2664 likes), open since January 2014;
- Twitter account, administered by Stefania Stevenazzi and Luis Camilo Suescún, with 1277 followers, open since December 2014;
- Instagram account, administered by Jared Van Rooyen, with 134 followers, created in September 2018.

The aims and usages of the social media platforms, as well as their pros and cons, are still a point of discussion with the IAH Council.

The ECHN website, launched in 2014 (https://echn.iah.org/) is currently administered by Stefania Stevenazzi. The website is periodically updated mainly with news and pictures regarding ECHN activities (especially activities done during the IAH congresses).

A joint video was produced and animated by the ECHN and voiced by Jared van Rooyen in collaboration with the Groundwater Quality Commission and UNESCO. The video was launched in October 2021 and titled “Why is our Groundwater Vulnerable? A message from IAH/AIH” and is available on the IAH Vimeo channel (https://vimeo.com/638602852).

5. **ECHN Branches**

The ECHN National Groups allow ECH’s to network and share technical information with other hydrogeologists in their own country and/or city. Examples of events include side events at hydrogeological national meetings, technical presentations, hydrogeological tours or socialising with local/national experts in the field of hydrogeology. Please note that some smaller IAH National Chapters don’t have an ECHN national branch, but organise activities for early careers in the same way (e.g., Belgium or France National Chapters of IAH).

Current National branches are:

1. West Australia
2. Brazil
3. Canada
4. Chile
5. Colombia
6. Italy
7. Japan
8. Portugal
6. **ECHN Licence Renewal**

The renewal of the licence for the Early Career Hydrogeologists’ Network for 6 years (2022-2027) was submitted and approved by the IAH Council.

7. **Outlook**

The main objectives of the ECHN for 2023 are:

- Continuation to engage with the Unesco Youth Groundwater Network (UN-GWYN), including, e.g., support for the UN Water Conference on Water in New York 2023.
- Inspire ECHs to become members of IAH and the ECHNetwork;
  - Delineate a regulation of new ECHs to be part of the Steering Committee;
- Revive the activities organised during the Annual IAH Congresses (50th IAH Congress in Cape Town, 18-22 September 2023).
- Support the launching of National Branches and improve the interaction between them and with the Central ECHN;
- Improve communication between IAH / ECHN community and with ECHN National Branches.

31 January, 2023

*Jared Van Rooyen*

*On behalf of the Early Career Hydrogeologists’ Network*