

Annual Report 2025

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1 Introduction

1.1 Objective of NCR

NCR was founded as a formal cooperation between several Dutch institutions. On October 4, 2012, the partners of the 'Netherlands Centre for River studies' (NCR, Dutch: 'Nederlands Centrum voor Rivierkunde') formally renewed their cooperation within NCR.

The objective of NCR is:

Doelstelling van het NCR is een samenwerking tot stand te brengen tussen de belangrijkste kennisgebruikers en kennisontwikkelaars in Nederland op het gebied van rivieren met als uiteindelijk resultaat een versterking van het kennispotentieel, de profilering van de (inter)nationale positie van het Nederlands rivieronderzoek en het versterken van het onderwijs en het wetenschappelijk onderzoek aan de Nederlandse Universiteiten ten behoeve van een betere inrichting en beter beheer van de Nederlandse rivieren.

This translates to:

The objective of the NCR is to establish cooperation between the major knowledge suppliers and knowledge users in Netherlands in the field of river studies, with the ultimate aim of reinforcing the knowledge potential, promoting the international position of Dutch river research and strengthen the education & scientific research at Dutch universities, to better design and manage Dutch rivers.

1.2 Domains

NCR encompasses all disciplines relevant to river studies as practiced by its institutional partners. They include:

- Hydrodynamics
- Sediment transport and morphology
- Fluvial geomorphology and sedimentology
- River ecology, restoration and water quality
- Governance and spatial planning

- Modelling, serious gaming and digital twins

1.3 NCR Organisation

NCR has four main bodies. The mandates for all except Young NCR (YNCR) are documented in the "Overeenkomst Nederlands Centrum voor Rivierkunde 2012".

- **Programme Secretary (Dutch: Programmasecretaris)**
Safeguards the continuity of NCR activities, secretary to Supervisory Board (SB) and Programme Committee (PC); monitors agreed actions by the SB and PC; reports of NCR finances; management of all NCR communications.
- **Supervisory Board (Dutch: Commissie van Toezicht)**
Supervises the implementation of the cooperation agreement, settles disputes and approves the scientific programme.
- **Programme Committee (Dutch: Programma-commissie)**
Determines the scientific programme, stimulates and initiates proposals for activities and integration of knowledge, ideas, experiences and results.
- **Young NCR (Dutch: Jong NCR)**
Established in December 2020, YNCR strives to strengthen the network of young/early-career scientists within NCR.

1.4 Institutional partners

The partners of NCR are: Rijkswaterstaat (RWS), Deltares, Universiteit Twente (UT), Radboud Universiteit Nijmegen (RUN), Universiteit Utrecht (UU), Technische Universiteit Delft (TUD), Wageningen University & Research (WUR), Leiden University College (LUC), Vrije Universiteit Amsterdam (VU) and IHE Delft.

Each partner contributes in-kind and/or in-cash to realise the annual programme.

1.5 Accountability

NCR activities are annually documented in an annual programme, annual report and annual budget. The annual programme and budget are approved by the Supervisory Board.

2 Boards

2.1 Board membership

NCR partners nominate members for the various boards. Multiple members are allowed per partner. The boards nominate their own chair. In 2025, the chairpersons were prof. dr. Jaap Kwadijk (Supervisory Board), drs. Evelien van Eijsbergen and later ir. Tobias Nootenboom (Programme Committee) and Jelle Dercksen MSc (Young NCR).

2.2 Board meetings

The Supervisory Board meets at least once a year to approve the annual programme. The Programme Committee meets three times per year. The Programme Secretary takes minutes of these meetings. Young NCR meets (bi)monthly and is administered by the the deputy Programme Secretary. Once a year a joint meeting of the boards is called during the NCR Days.

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3 Activities

3.1 Types of events

3.1.1 NCR Days

The NCR DAYS is the annual meeting of the NCR network. It is a two-day conference organised by one of the partners. The organising partner is fully responsible for the organisation of the event. The Programme Secretary maintains an organiser toolkit to help with the planning and budgeting of this event.

3.1.2 NCR Summerschool

In 2023, the University of Twente successfully organised the first NCR Summerschool. A second Summerschool took place in 2025 in Twente. The next one is planned to be in 2027.

3.1.3 Meetings

Different meetings of the various boards of NCR are planned, both formal and informal. The Programme Committee meets approximately three times per year, the Supervisory Board once per year and the YNCR Board meets as often as they deem necessary. In addition, there is one joint meeting of all three board during the NCR Days.

3.1.4 Events

NCR organises various events. Themedays or seminars, which are single or half-day events focussed on a single topic or theme, e.g. "Remote sensing of rivers". Other events include field trips, excursions, networking events and workshops. NCR aims to offer all events except for the NCR Days and the Summerschool free-of-charge to participants.

3.2 Evaluation of 2025 activities

3.2.1 NCR Days

This year, the NCR DAYS were organised as an in-person only event by Deltares. This edition was well attended, about 115 participants and almost 50 abstracts. Table 3.1 also shows the amount of participants and abstracts of the previous years. It should be noted that there were already NCR DAYS before 2010 and that the NCR DAYS were skipped in 2016. For an overview of the partners who organised each NCR DAYS event, please visit: <https://ncr-web.org/ncr-days/>.

Table 3.1: Participants of the NCR DAYS

Year	Abstracts	Presentations	Posters	Participants
2025	47	23	24	115
2024	52	28	24	130
2023	53	16	37	>100
2022	61	20	41	116
2021	36	23	14	124
2020	54	27	27	110
2019	45	18	31	81
2018	60	28	32	125
2017	48	20	24	
2016				
2015	33	20	13	
2014	36	25	11	
2013	35			70
2012	32	18	10	60
2011	35			50
2010	35			68

3.2.2 NCR Themeday/seminar

One themeday was organised on June 25, 2025 at Seats2meet (Utrecht) together with YNCR. During this afternoon MSc-students and young professionals got the chance to explore various career paths within the Dutch water sector. Professionals from government agencies like Rijkswaterstaat, research institutes such as Deltares, universities, and engineering firms shared their insights and experiences. The event had a nice attendance (about 30 participants).

3.2.3 YNCR events

The first YNCR activity of the year was the joint social event with YNCK. The activity took place at Pool & Lounge Café The Break in Amersfoort, where the participants had the opportunity to develop their network by talking to other attendees while playing pool. In total there were 21 participants.

During the NCR Days 2025 at Deltares, YNCR organized a pubquiz. This took place during the social

dinner of the NCR Days, before the dessert was served. Participants formed teams of four to five people and had to answer (photo) questions.

Every year during the EGU conference the Young Hydrological Society organizes a bring-your-own-lunch gathering. This year they asked to organize it together with YNCR to have a nice opportunity to network during EGU. Therefore, this lunch was promoted on LinkedIn and in the Whatsapp groups of each organization of NCR. In total around 30 people joined this lunch and it is worth repeating next year.

For the career event a career fair was organized at Seats2meet in Utrecht together with the NCR Programme Committee, aimed at showing PhD- and master students the different working fields within the NCR community. First presentations were given on different career paths in the working field, after which round-the-table sessions took place where participants could ask questions to people working at a consultancy, Deltares, academia or Rijkswaterstaat. In total, there were around 30 participants, and the event was considered a success. Feedback was that some people were expecting more concrete career options (like a job market, instead of this event's general job orientation), and that postdocs were less included in the setup.

During the NCR Summer School, YNCR support was available to organise the excursion to the Pannerdensch Kop. Since this was the same excursion as during the last summer school, not much help was needed by organization of the Summer School. During the summer school YNCR has been promoted and people had the opportunity to join the NCR mailing list and follow NCR on LinkedIn.

For the annual field trip, a visit to the Ramspolkering was organised, where a presentation and a tour around the facility was given by people from Rijkswaterstaat. After the tour a relaxing boat trip was made from the Ramspolkering towards Hasselt along the Zwarte Meer and Zwarte Water. After which the

day was ended by having drinks in Zwolle. In total there were 12 participants, although more people had signed up. In the future, the organization should ask for phone numbers during the enrolment, so they can check whether people will still show up. Overall, the participants enjoyed the tour and the boat trip.

The social event in November was again organised together with YNCK, because they plan to organise another activity in the beginning of 2026 and asked if the schedule could be shifted. For this activity, the participants went bouldering in Utrecht. This was a good way to meet new people in an informal setting, and the participants enjoyed the event. In total, around 20 participants showed up, from which 13 were from YNCR.

In December the board of YNCR organised a get-together to go bowling, to get to know each other better and to meet the new member of the board.

3.2.4 Attendance

In total, NCR events (Table 3.2) drew over 200 participants. Even though fewer activities were organised than planned, the events that took place were quite successful.

Table 3.2: Approximate number of participants to NCR events.

Event	Total Participants
NCR DAYS 2025	115
YNCR social event (with YNCK)	21
YNCR EGU lunch gathering	30
Career event	30
NCR Summer School	24
YNCR field trip	12
YNCR social event (with YNCK)	20
Total	252

Table 3.3: Overview of NCR events in 2025.

Event	Type	Description	Lead	Date
pc-91	Meeting	91st meeting of the Programme Committee	NCR	21-jan-25
sb-26	Meeting	26th meeting of the Supervisory board	NCR	19-feb-25
YNCR social event (with YNCK)	YNCR	Pool & Lounge Café Utrecht	YNCR	21-feb-25
jm-16	Meeting	16th joint meeting of the NCR boards	NCR	8-mei-25
NCR DAYS	Conference	Yearly NCR conference	Deltares	8-mei-25
Career event	Theme day	Discover Your Future in Water & Deltas	PC and YNCR	25-jun-25
NCR Summer School	Lectures	2nd Summer School hosted	UT	7-jul-25
pc-92	Meeting	92nd meeting of the Programme Committee	NCR	9-sep-25
sb-27	Meeting	27th meeting of the Supervisory board	NCR	7-okt-25
YNCR field trip	YNCR	Visit Ramspolkering and boat tour	YNCR	15-okt-25
YNCR social event (with YNCK)	YNCR	Bouldering Utrecht	YNCR	27-nov-25
pc-93	Meeting	93rd meeting of the Programme Committee	NCR	4-dec-25

4 Research

4.1 Projects

Research projects are scientific endeavors that may consist of work-packages, themes and sub-projects. Multiple researchers may work on the same research project. NCR does not initiate or lead its own research projects. Instead, research projects of NCR members are promoted through the services NCR offers (see [Secretary and Services](#)). A list of ongoing NCR projects is available on the [NCR Project portal](#).

4.2 Publications

Academic and non-academic publications by NCR partners are promoted through the NCR services (see [Secretary and Services](#)). Any publication written by at least one (co-)author with an affiliation at an NCR institutional partner is eligible. A list of promoted publications is available on the [NCR publications portal](#).

Project	Description	Main contact	Started
Rivers2Morrow	The Rivers2Morrow is a research project of currently 13 PhD research topics that investigate the consequences of climate change and large-scale human interventions on the river functions water safety, nature, and navigability, and what it takes to keep these manageable. It will increase the system knowledge of lowland rivers with respect to hydraulics, morphology, ecology and governance, with a focus on developments that take place on along temporal time scale until 2100 (and some beyond). The program started in 2018 with 8 PhD research tracks. In 2023, the program is extended with 5 new PhD topics and maybe more to come.	ir. Tobias Nootenboom	2018

SaltiSolutions	Freshwater is vital for drinking water, nature, agriculture and industry. However, the availability of freshwater is under pressure in deltas throughout the world. Salty seawater is penetrating further up the rivers due to human intervention, such as the deepening of waterways, as equally climate change. Within SALTISolutions, the researchers, together with the partners involved such as Rijkswaterstaat, water boards, port authorities and dredging companies, will produce a virtual model (digital twin) of the Rhine-Meuse Delta. This model will integrate knowledge about processes on various spatial and time scales: from turbulent flows at the smallest scale level to the consequences of climate change in the long-term. They will use this to predict how, where, when, and how long salt from seawater will penetrate, and how measures such as implementing nature-based solutions influence the freshwater supply. These insights will be tested worldwide, as a result of which the position of Dutch delta technology will be further strengthened.	Mw. J. Grootveld (program manager)	2021
Delta ENIGMA	On 4 December 2023, the Delta ENIGMA project has successfully begun with its seven collaborating partners. The consortium is formed by Utrecht University, Delft University of Technology, University of Twente, Wageningen University and Research, NIOZ Royal Netherlands Institute for Sea Research, Deltares and TNO. Delta ENIGMA is a NWO funded Large Scale Research Infrastructure (LSRI) roadmap project that will be active for a decade, from 2023 to 2033. It is the Dutch contribution to the European DANUBIUS-RI initiative which aims at a comprehensive measurement, documentation and analysis of the (sediment, water, biological) connectivity in the river-estuary-coast continuum. The project aims to turn the Dutch delta into a world-leading 'supersite' for research on delta bio-geomorphology under climate change. This would bring bio geomorphology research in the Netherlands to the next level by establishing a unique infrastructure on how the physical processes (organisms, currents, waves, winds and sediment load) together shape the delta landscape, even during extreme events. More detailed information can be found on our website, https://delta-enigma.nl/ .	Dr. Smriti Dutta	2023

NL2120	The NL2120 knowledge and innovation programme invests in research into nature-based solutions. The aim is to mitigate climate impacts, restore biodiversity while preserving production capacity and strengthening well-being. Within these projects, the parties involved learn about the operation of natural solutions, innovative revenue models and social transition processes. The integrated approach makes the proposal unique. By combining knowledge development and practical experience, NL2120 integrates, deepens and enriches existing knowledge.	Dr. Bregje van Wesenbeeck	2024
Future FRM	Adequate protection against flooding is essential for the existence of the Netherlands. There is a very large challenge to reinforce the current flood defence system in our densely populated country, while also adapting it to deal with accelerating sea level rise and increasing river runoff. In this program "Future FRM Tech" we will develop new technical, nature-based and hybrid solutions for flood risk management and climate adaptation.	Prof. dr. ir. Bas Jonkman	2023

5 Secretary and Services

5.1 Overview

To support river studies, NCR offers services to its institutional partners. These services are coordinated by the Programme Secretary. All services are offered free of charge. These include:

- **Website & Knowledge base.** Partners may use the NCR website to host a project website and promote their publications.
- **Mailing list & LinkedIn** Partners may distribute information, vacancies and news through the NCR mailing list and LinkedIn company page. Research projects may use the mailing list to send out newsletters to the network.
- **Vimeo** NCR offers hosting of videos on the NCR vimeo account.

5.2 Activities in 2025

5.2.1 New collaboration agreement

The draft collaboration agreement has been updated to version 0.8. The final touches still need to be made to the collaboration agreement, after which it eventually will be signed by all partners.

5.3 Network analyses 2025

5.3.1 Mailinglist

Subscriptions to the mailinglist have slightly decreased to 478 in December 2025 compared to 492 in December 2024. As shown in Figure 5.1, the number of mailing list subscriptions has fluctuated around 500 over the past five years. However, the total appears to have declined during the last two years. This trend should be monitored closely to ensure that the number of subscribers does not fall too sharply.

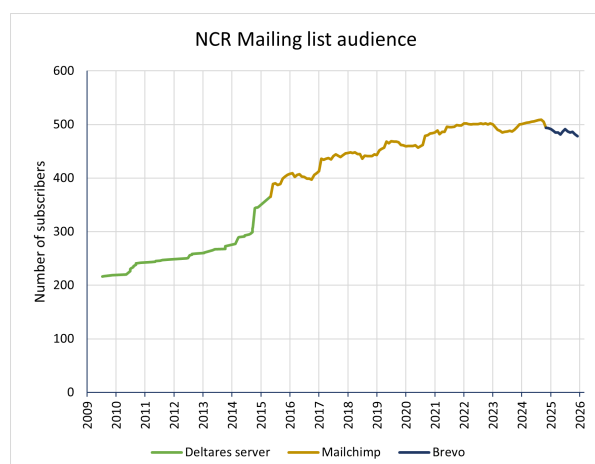


Figure 5.1: Number of subscribers to the NCR mailing list

5.3.2 Website

Website usage is tracked through the '7 day active users' metric. This metric tracks the number of active users on the website over a 7-day moving window. The website shows an increase in average users from 113 in 2020, 136 in 2021 to 162 in 2022. However, 2023 has a lower average with 122 7-day active users. This is in line with earlier experience that website activity is mainly driven by events (Fig. 5.2). For 2024 and 2025, overall website usage appears similar in scale to previous years (Fig. 5.3). Activity consistently increases around events. However, the increase in usage observed in December 2025 cannot currently be explained.

5.3.3 Knowledge base

In 2021, the new knowledge base was launched, which added two new portals to the NCR website. The [publications portal](#), and the [projects portal](#). The portals are integrated with the subsites, such that publications and subprojects added to subsites are shown on the main NCR website.

In 2025, no new sub-sites were added. In total, there are now three sub-sites (All-Risk, SaltiSolutions, Rivers2Morrow)

5.3.4 Social media

The NCR LinkedIn company page had 834 followers at the end of 2025, which is an increase from 2024 (762 followers), 2023 (626 followers), 2022 (483 followers) and 2021 (292 followers). Most work in Research (18%), Education (15%) or Engineering (12%).

No new videos were added to the NCR Vimeo channel ([link](#)).

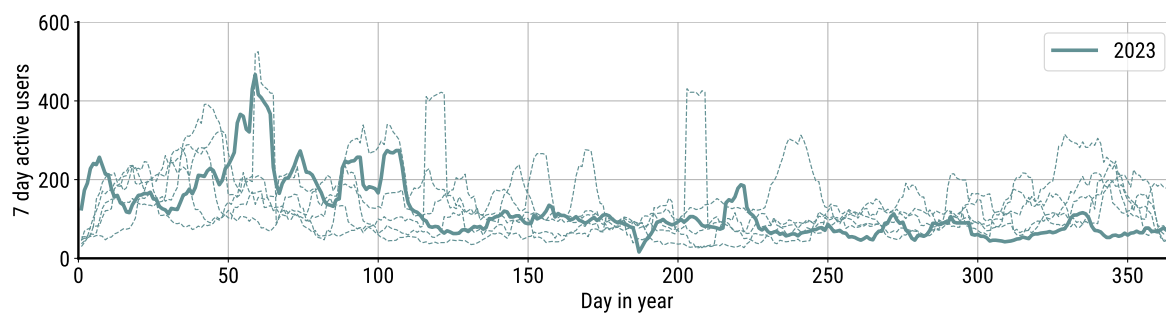


Figure 5.2: 7-day active users of ncr-web.org for 2018-2023

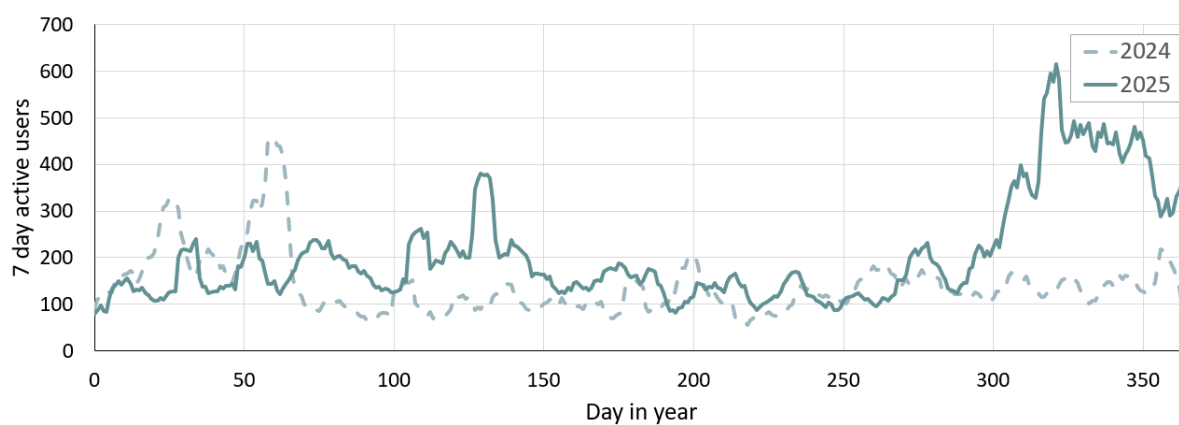


Figure 5.3: 7-day active users of ncr-web.org for 2024 and 2025