
The ICT-research Plaform Netherlands (IPN) unites scientists in the academic ICT field and acts as the authority when it comes to questions about future demands, wishes and possibilities of ICT science and how research in this field can be prioritised.

# Annual Report 2025

## Content

## 1 Preface

The IPN board is happy to present the 2025 annual report of ICT-research Platform Netherlands (IPN), the platform that brings together the scientific ICT-community and acts as a single point of contact when it comes to questions about future demands, wishes and possibilities of ICT science and how research in this area can be prioritised. IPN is supported by the Dutch Research Council (NWO).

IPN started in 2000 by a small group of computer scientists that saw the importance of collaboration and a joint lobby for the field. Over the years, it has changed into a mature platform with a board, members, and associated members, who are working to strengthen the public view on computer science, as well as the computer science community itself.

IPN undertakes concrete actions, organises events and discusses ICT-related topics with policy makers, research administrators, and other relevant stakeholders. The IPN board includes representatives from ICT research from Dutch universities. IPN members are all computer science research departments of Dutch academic institutions and the Center for Mathematics and computer science (CWI). With their help and efforts, and in good cooperation with NWO, many connections are established, networks formed, and cooperation initiated between knowledge institutions, but also with companies and public organisations.

Some highlights in 2025

- We celebrated the 25 years existence of IPN throughout the year, with a series of special online colloquia featuring world-renowned computer scientists: Moshe Vardi, Juliana Freire, Edward A. Lee, Bart Preneel, Marietje Schaake, and Andreas Zeller. These talks reflected on progress and the future of computer science, attracting a global audience.
- Other anniversary activities included launching a redesigned IPN website, handing out the first IPN Distinguished Service Award, celebrating during the IPN strategic dinner at NWO ICT.OPEN2025, and sharing festive moments such as distributing cakes at each SIG's annual meeting.
- We organised our first leadership training, to prepare senior researchers to take on leadership roles e.g. in their department or within IPN.
- IPN brought the Special Interest Groups (SIGs) together through the first cross-SIG meeting and ensured all SIGs are represented in the KIA Digitalisation advisory board, reinforcing collaboration and strategic alignment.
- IPN maintains regular and constructive dialogue with Topsector ICT on political developments, innovation priorities, industry collaboration, and the National Technology Strategy (NTS) action agendas for AI & Data and Cybersecurity.
- We published the sector analysis update, which provides an interim assessment of the progress made since the implementation of the Sector Plans in 2019 and 2022 and related these at the European level.
- The IPN community actively drives Working Groups (WG) on Equity, Diversity & Inclusion (EDI), Ethics, and Mental Well-being. The EDI Alice & Eve workshop 2025 in Groningen was rewarded with the NWO Diversity & Inclusion Initiative Award in 2025.

For 2026, we will continue with these activities. In addition, we plan to strengthen our profile towards external stakeholders and further improve the communication about IPN to the computer science community at large and investigate how we can help the research community further.

In April 2026, we will close the celebration of IPN's 25th anniversary.
It is great to see what has been achieved and how IPN has grown in the last 25 years, and we believe many more wonderful things will happen in the next 25 years.

On behalf of the IPN board, Marieke Huisman

## 1.1 Mission

*IPN is a platform that unites and represents scientists in the academic ICT field and acts as a single point of contact for all matters relating to ICT innovation and its importance for our current and future society. IPN builds and maintains a national community and develops policy to advance the field. The platform actively enhances diversity, equity, and inclusion by stimulating the participation of women and minority communities in ICT.*

## 1.2 Vision

*IPN unites, strengthens, and advocates curiosity driven as well as use-inspired academic research and education on ICT in The Netherlands, to face the (ICT) challenges of today and tomorrow to ensure a bright and sustainable future for our digital society.*

## 2 Positioning

In 2025, IPN strengthened its role as the central voice of academic Computer Science in the Netherlands by actively engaging with national funders, ministries, sector councils, and strategic innovation platforms. Through sustained dialogue, targeted interventions, and close collaboration with partners across the ecosystem, IPN worked to ensure that the needs, practices, and ambitions of the Computer Science community are recognised and embedded in national research policy, funding instruments, and long-term strategic agendas.

Across the year, IPN positioned itself as a connector and advocate: monitoring funding dynamics, addressing structural challenges in evaluation processes, contributing to national strategy discussions, aligning with neighbouring Science, Technology, Engineering and Mathematics (STEM) domains, and ensuring that academic ICT perspectives are represented in innovation programming and European developments. This broad engagement reinforces IPN's mission to support a thriving, future-proof Computer Science landscape—one that is well-integrated in national decision-making and equipped to address societal and technological challenges.

**Dutch Research Council (NWO)**
In 2025 IPN maintained an active, constructive dialogue with both the Science and the Applied and Engineering Sciences (AES) Domains of the Dutch Research Council (NWO) via regular contact. In 2025, IPN members approved to make the Round Table Computer Science an IPN supporting member, formalising and further strengthening the ties and information exchange between NWO and IPN. The Round Table, together with the IPN board, did more than signalling problems and opportunities for Computer Science researchers. IPN additionally monitored award flows of the NWO research instruments OC-XS/M/XL, TTW OTP, talent schemes and maintained a two-way channel for community signals (e.g., concerns about declining OC success rates and workload in committees) to inform adjustments by funders and to help researchers better navigate national instruments. This also led to the initiation by the NWO Round Table Computer Science for a meeting with the Science Domain Board to discuss structural problems with success rates of Computer Science proposals at NWO. IPN worked closely with the Round Table Computer Science to address structural issues in evaluation and programming. A joint working line produced guidance for Computer Science panel members/reviewers (in addition to the discipline sketch), explicitly targeting the mismatch between Computer Science practices and generic criteria that often depress Computer Science success rates in open competitions. Together with NWO stakeholders, IPN supported rubric development and contributed to the NWO Science Strategy Day on AI & Big Data, aiming to strengthen discipline-appropriate assessment and fairer outcomes. Furthermore, it explored an initiative to pool Computer Science and Mathematics OC-XS proposals to improve panel balance. In 2025 the Round Table's composition changed and a new chair will start in 2026. The new chair is also IPN board member, ensuring the tight links between IPN and NWO.

**Ministries**
In the last few years, IPN has strengthened its relationship with Ministry of Education, Culture and Science. The initiative of IPN board member Gerard Barkema regarding European Sector Plan for Computer Science has opened more lines of communication between several ministries. When new parliamentary elections were announced in summer 2025, IPN provided multiple ministries with advice, e.g. around sector-plan fiches and broader formation discussions, advocating for the role of Computer Science in national strategy. The board emphasized the importance of curiosity-driven research, long-term infrastructure, and clear positioning of academic institutions (alongside applied organisations), while avoiding short-term fixes that overlook systemic needs.

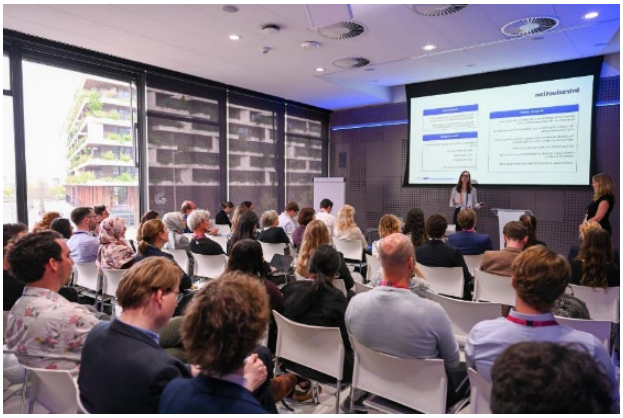
**Other platforms/councils**
IPN kept up regular exchanges with Platform PRIO (practice-based ICT research) and neighbouring STEM councils such as PWN (Mathematics), aligning positions on education, talent, and proposal culture. In OC-XS, for instance, Computer Science and Mathematics (PWN) communities both in the NWO Round Tables and IPN/PWN explored coordinated submission windows to achieve better-balanced evaluation panels. IPN also

joined multi-council conversations with i.e. the Dutch Defense Cyber Command (DCC) and the Government Public and Communications Service (DPC) ahead of the elections to articulate a shared STEM message and to synchronise feedback to deans and ministries. Regarding Platform PRIO, IPN specifically discussed information flows, who attends which meetings, how results are shared between higher education (HBO) and academic institutions (WO) and joint sessions during community events. The guiding principle is complementarity: leverage Platform PRIO's practice-based perspective while keeping IPN's academic research focus. IPN and Platform PRIO work together in the steering committee for NWO ICT.OPEN.

**Topsector ICT / KIA Digitalisation**
IPN maintained regular and constructive dialogue with Topsector ICT / Knowledge and Innovation Agenda (KIA) Digitalisation on political developments, innovation priorities, industry collaboration, and the National Technology Strategy (NTS) action agendas for AI & Data and Cybersecurity. This ensured that academic Computer Science perspectives were embedded in national programming and calls (e.g., Digital Identities; Dataspaces for Energy; Digital Twinning; exploration of Software Engineering call with VERSEN). Given evolving governance (incl. rebranding toward Digital Holland), IPN kept the community informed about how NTS priorities feed into future Knowledge and Innovation Covenant (KIC) programming and how IPN's Special Interest Groups (SIGs) and IPN Working Groups can supply expertise early, so calls reflect frontier Computer Science challenges as well as societal needs. The IPN board and the IPN SIGs were represented in the Advisory Board of the KIA digitalisation.

**Science deans & engineering deans**
IPN engaged the science deans (*betadecanen)* to share the 2025 sector portrait results (rising student and staff numbers; stable student-to-staff ratio) and to discuss how a broad STEM sector-plan could secure structural investment while safeguarding CS-specific needs (capacity, infrastructure, talent). Ahead of the elections, the science deans invited STEM representatives (incl. IPN) to craft a one-pager on the importance of STEM; IPN contributed Computer Science angles (digital sovereignty, pipelines, research–education integration). Contacts with the engineering deans (*techniekdecanen*) started to improve cross-faculty alignment on topics like research software engineering roles, joint calls, and shared infrastructures. The goal is a standing channel that complements the science deans dialogue and surfaces opportunities where an engineering perspective accelerates Computer Science impact and vice versa.

**Others**
IPN reviewed how to best structure ties with The Netherlands Institute for Research on ICT and comprises all ICT research of the universities of technology in the Netherlands (4TU.NIRICT) and the Innovation Centre for Artificial Intelligence (ICAI). Because both are already part of the Computer Science ecosystem, IPN will organise regular information exchange via portfolio holders and SIG links (e.g., SIG AI), avoiding duplication while ensuring that strategic updates flow both ways. With other stakeholders, IPN has little contact on a regular basis, but has open communication channels with specific contact points. For example, with Dutch initiatives like *I-Partnerschap* and the *Beta-lerarenkamer*.



**International**
IPN strengthened international ties in 2025, including interactions with Informatics Europe and ACM Europe, and contributed to knowledge-exchange among national associations (e.g., a pitch at the ECSS conference). The board discussed how to channel the IPN European sector-plan ambitions and ensure that academic ICT remains visible in EU-level initiatives.

# 3 ICT-research and ICT-education

## 3.1 ICT-education

**Sector Analysis - Update 2025**

IPN initiated and compiled the report *Sector Analysis Update 2025*, an updated overview of developments in Computer Science education since the introduction of the national sector plans. This update builds on the figures presented in the *Sector Portrait Computer Science 2022* and reflects changes and progress over the past years. The report was compiled under the responsibility of IPN, with board member Gerard Barkema serving as chair. Its goal is to provide fresh data to assess the impact of structural investments in research and education through the sector plans. In addition, the update connects national developments to the European context, where similar coordinated efforts are still limited. With this update, IPN aims to contribute to a well-informed dialogue on the future of Computer Science in the Netherlands and the EU, and to reinforce the foundation for a resilient and forward-looking digital society.


**European sector plan**
In the context of digitalisation and digital transformation, IT & Computer Science research and education plays a crucial role in addressing economical, societal & political challenges and shaping opportunities that emerge for a secure, prosperous, and sustainable future. Addressing these challenges and opportunities requires coordinated and robust European investment in IT & Computer Science education and research. Following the success of the two Dutch sector plans where computer science was involved, the IPN board led by Gerard Barkema started in 2024 to take stock of whether setting up a European sector plan for IT & Computer Science would be feasible. To this end, many discussions were held in 2024 and 2025 with various stakeholders at ministries, departments, (international) computer scientists, (international) interest groups and other bodies. Due to the elections and possible national opportunities in the Netherlands, the European Sector Plan is temporarily put on hold. We will provide further updates as soon as more information becomes available.

**IPN ICT-education meetings**
IPN convened its twice-yearly education meetings with all *onderwijs directeuren* to exchange experiences on enrolment, numerus fixes, and national policy developments. In 2025, the board noted a decline in first-year inflow contrasted by rising Master graduations, and prepared input for visitations and assessments. IPN also initiated a collaboration with NIDAP to analyse the enrolment and positioning of Information Science and Business Information Technology programmes.

**IPN leadership courses**
In spring 2025, IPN organised its first leadership course aimed at senior researchers: potential or new department heads, potential or new IPN board members, and professors who either possess or aspire to gain national influence. All IPN members send a participant for this first edition of the senior course.

In a series of four intense, in-depth meetings, ten computer scientists from all over the Netherlands explored themes such as strategic leadership, diversity, financial policy, and administrative expertise. These topics were illustrated and explained by inspiring speakers such as Ed Brinksma, Isabel Arends, Maarten van Steen, Machteld Roos and Mirije van Dijk.

In spring 2026, IPN will organise a second leadership course aimed at juniors who have the capacity to develop into academic leaders in the future: ambitious assistant professors with at least several years of experience, novice associate professors, and tenure trackers.

**Research schools**

IPN intensified collaboration with the Dutch research schools (ASCI, IPA, SIKS), planning a shared calendar and a survey on topical coverage and needs. The strategic discussion included whether adjustments to the structure are desirable and how information of research-school activities can be better disclosed to PhD students, for example via IPN channels and more collaboration.

### 3.2 NWO-funded ICT-research

In cooperation with NWO and other relevant players in the Computer Science field, IPN provides input on the opening of grant rounds of the Dutch Research Council. IPN keeps track of NWO-funded ICT-research to individual researchers. Also in 2025, several Dutch ICT researchers received significant awards in the field of ICT.

**Awarded projects NWO**

Open competition ENW-XS

Awarded grants in 2025 (rounds XS24-3, XS24-4, XS25-1, XS25-2):

- Dr. Y.D. Iren, OU - Healing Mirror: Enabling Biofeedback for Blended Care of Facial Paralysis using Generative AI
- Dr. E.A.H. Ghaleb, Max Planck Instituut voor Psycholinguïstiek - Grounded Gesture Generation in Context: Object- and Interaction-Aware Generative AI Models of Language Use
- Dr. B.J.C. van Werkhoven, LEI - Learning From The Past: Making Software Greener and Faster By Mining Past Performance Data"

Open competition ENW-M

Awarded grants in 2025 (rounds M24-1, M24-2, M24-3):

- Dr. A.J. Wijs & Dr. Ir. M.A. Reniers, TU/e - GUESS: GPU Enhanced Synthesis of Supervisory controllers
- P.S.H. Koopmann (VU) - PICON — Practical methods for Concept Interpolation in realistic Ontologies
- Dr. Benno van den Berg, University of Amsterdam - More powerful proofs and programs with geometry.
- Dr. Rebecca Reiffenhäuser, UvA - Fair Allocation for Strategic Agents (FAStA) Dr. Justus Bogner & Prof.dr. Patricia Lago, VU - GAT4ML: Reducing the Environmental Impact of ML-Enabled Systems via Green Architectural Tactics
- Prof.dr.ir. Geert Leus, TUD - CYCLONE: DynamiC TopologY IdentifiCation and FiLtering Techniques for Higher-Order NEtworks

Open competition ENW-M - WEAVE pilot FWO

- G. Perez/ Alfons Laarman, UAntwerpen/ LEI - KR2IQS: Kennisrepresentatie en redenering in quantumsystemen
- J. Aelterman, M. Boone/ Dr. Felix Lucka, UGent/ CWI - Gezamenlijke µCT-reconstructie en -analyse via impliciete neurale representaties

Open competition ENW-XL

- Dr. S. Samardjiska, RU – Efficient and SCA – aware post-quantum cryptographic design for embedded systems (ESCAPE)
- Prof. dr. Jorge Pérez, RUG - Cyclic Structures in Programs and Proofs: New Harmonies of Theory and Praxis

Open Technology Programme

Awarded grants in 2025 (packages 25-1, 25-2):

- Prof. Dr. T. van Leeuwen, CWI - UNIQUE - a Unified framework for wave-based Inversion, Quantification of Uncertainties, and Experimental design

Rubicon

Awarded grants in 2025 (rounds 24-2, 24-3, 25-1, 25-2):

- Dr. K. He, University of Oxford, United Kingdom - Integrated Learning and Optimisation for Safety-Critical Control
- Dr. ir. A. Popov (The University of Sydney, Australia) - Graph Algorithms under Locational Uncertainty

Veni – ENW/Science domain

- Dr. S. Brooke, UvA - From Exclusion to Empowerment: AI Tools for Inclusive Programming
- Dr. D. van der Hoeven, LEI - High expectations, low variance: reliable statistical learning algorithms through interactive decision making
- Dr. ing. J. Krüger, TU/e - Conceptualizing Human Assumptions in Software Evolution (CHASE)
- Dr. A.A. Lassota, TU/e - Making the Hard Tractable: Exploring New Parameters for Integer Programs
- Dr. A.L.D. Latour, TUD - Finding Variables that Matter
- Dr. S. Poeller, UU - Strengthening Community Values, Communication, and Collaboration in Online Games
- Dr. D. Ravi, UvA - Practical Multi-Party Computation with Cheater Identification
- Dr. J. Wagemaker, RU - Foundations of Runtime Verification of Hyperproperties (VerHyp)

Veni – TTW/AES domain

- Dr. Qinyu Chen, LEI - Portable Real-Time Audio Large Language Model System for Speech Disorder Therapy
- Dr. Ranjith Kuttantharappel Soman, TUD - Neuro-Symbolic AI for Infrastructure Management
- Dr. Paula Chanfreut, TU/e - Dynamic Home Energy Management: Optimizing for a Sustainable Future [DHEMOS]

Vidi – ENW/Science domain

- Dr. S. Magliacane, UvA - CANES: a CAusal NEuro-Symbolic approach to integrating perception and abstract reasoning
- Dr. T.A.E. Ophelders, UU - Algorithmic Foundations of Geometric Network Similarity
- Dr. M. Khosla, TUD - PriXAI: A Paradigm Shift in Explainable AI for Privacy and Decision Support
- Dr. S. Samardjiska, RU - Understanding the effect of side-channel information in post-quantum cryptography (PQ-HINTS)
- Dr. N. Strisciuglio, UT - ReVision: Robust and Data-Efficient Vision Foundation Models
- Dr. P.S.M. Mettes, UvA - HyperVision: Hyperbolic Computer Vision

Vidi – TTW/AES domain

- Dr. Bahar Haghighat, RUG - An Autonomous Miniaturized Robot Swarm for Real-Time Vibration-Based Inspection of Infrastructure
- Dr. ir. Andrea Continella, UT - HIVA: Holistic Infrastructure-centric Vulnerability Analysis
- Dr. Maria Pregnolato, TUD - FlooDT - Digital Twin for flood-resilient infrastructure management
- Dr. Maximilian Rimbach-Russ, TUD - RADIO Quantum: RApid and DIgital Operations for semiconductor Quantum processors

Vici – ENW/Science domain

- Dr. J.C. van Gemert, TUD - AI with less data
- Dr. M.A. Kitsak, TUD – Finding the shortest path
- Dr. T.A.L. van Erven, UvA - Mathematical Foundations for Explainable Artificial Intelligence

Computing Time on National Computing Facilities

Snellius

- Dr. J.H.G. Dauwels (TUD): 'Delft AI4WF: Delft Artificial Intelligence for Weather Forecast'
- Prof. Dr. T. Shimizu (AMOLF): 'Next Generation Mycorrhizal Network Analysis'
- Dr. I.C. Dedoussi (TUD): 'Simulating aviation's impacts on the atmosphere, climate, and surface air quality'
- Prof. Dr. T.G. Gevers (UvA): 'A Large-scale Dataset of Gaussian Splats and Their Self-Supervised Pretraining'
- prof. dr. C.G.M. Snoek, UvA - Inference Time Scaling for Image Generation
- prof. dr. M. de Rijke, UvA - Towards Effective Text Embeddings for Reasoning and with Reasoning
- prof. dr. M.C. Schut, AUMC - Large Laboratory Models (LLabM)

HPC Cloud

- Prof. dr. M.C. Schut, AUMC - Large Laboratory Models (LLabM)

Data Processing (Grid/Spider)

- Dr. H. Holstege (AUMC-AMC): 'The role of VNTRS / 100+' Life sciences
- Dr. R.F. Pizzo (ASTRON): 'LOFAR Data Valorisation'
- prof. dr. J.H. Veldink, UMC Utrecht - Project MinE

LUMI

- Prof. Dr. C.G.M. Snoek (UvA): 'Multilingual Image Generation'
- Prof. Dr. C.G.M. Snoek (UvA): 'Hallucination-free Open Vision Language Model of the NL' Computer Science (LUMI application)
- Dr. A.C. Yates (UvA): 'Robust Search with Open-Source LLMs'
- prof. dr. E. Kanoulas, UvA - Next-Generation Search with Open-Source LLMs

Take-offspring round 2024, Phase 1 – feasibility studies – cluster Commit2Data

- Prof. Dr. G. van Dijck, MU - Case Law Explorer feasibility study
- Dr. W.L. van Jaarsveld, TU/e - Supply Chain Copilot – Deep Reinforcement Learning voor Logistieke Optimalisatie
- Dr. S.M. Kelders, UT - From Predictions to Practice: Feasibility of Implementing Machine Learning Solutions for Diabetes Complications
- A.C. Criscuolo, MU - a Body-Brain Waves monitoring Platform
- M. Haqiqatkhah, UU - Adaptive natural language psychological assessment with differentially-private profiling and data handling
- Prof. Dr. J.C.M van Weert, UvA - Klinische beslissingsondersteuning bij het verlagen van medicatie-gerelateerd valrisico: een haalbaarheidsstudie naar duurzame implementatie van de SNWODROP interventie in de huisartsenpraktijk
- Prof. Dr. B.J.J.M. Brundel, AUMC - MyAfib: Better Manage Atrial Fibrillation Together
- R.M. Schouten MSc, TU/e - Enabling teachers by developing a digital assessment tool that provides personalized learning analytics

NWO Scientific Meetings and Consultations Domain Science 2025 (including start date events)

- Dr. A.Y. Ying (TUD), PowerWeb Annual Conference: Power Grid Cyber Resilience &Sustainable Edge AI, 6-11-2025
- Dr. M. Balvert (TiU), AIM Workshop on Mathematics and AI, 12-6-2025
- Dr I.I.A. Groen (UvA), 8th Annual Conference on Cognitive Computational Neuroscience in Amsterdam, 12-8-2024
- Dr. A. F. Cantero Vinuesa (TUD), Beyond Occupants: Towards an Inclusive and Responsive Built Environment in the Netherlands, 12-11-2025
- prof. dr. L. Leppert (UT), Dutch Computational Science Day (DUCOMS) 2025, 20-11-2025
- dr. ir. U.K. Gadiraju (TUD), 48th European Conference on Information Retrieval (ECIR 2026), 29-3-2026
- Dr. M.J. van Duijn (LEI), [Human AI]volution, 15-4-2026
- Prof. Dr. I. Malavolta (VU), International Conference on Software Architecture (ICSA 2026), 22-6-2026
- Dr. Giacomo Spigler (UvT), Belgium-Netherlands Workshop on Reinforcement Learning (BeNeRL) 2026, 26-6-2026
- Dr. J. Wildfeuer (RUG), Building Bridges: Multimodal AI, Semiotics and Socio-technical Future(s), 29-10-2025
- Dr. Thiago D. Simão (TU/e), BeNeRL Workshop 2025, 04-7-2025
- Prof. dr. Mykola Pechenizkiy (TU/e), EWAF 2025: 4th European Workshop on Algorithmic Fairness, 30-06-2025
- Dr. J.M. Weber (TUD), AI unleashed - Reshaping the boundaries of biosciences, 15-4-2025

Knowledge and Innovation Covenant (KIC):

HTSM 2024

- Prof. Dr. K.J., Batenburg, LEI - DUAL-mode IMaging for Production and Automated Control Technologies (DUAL-IMPACT)
- Smart Materials: From responsive to adaptive
- Prof. Dr. Ir. W.G. van der Wiel, UT - Smart Materials for Information Processing (SMIP)

KIC MISSIE “Cybersecurity voor digitale weerbaarheid”

- Dr. Ir. C. Hernandez Ganan, TUD -EGOS: Effective Governance for cybersecurity and Online Safety
- Tilburg University -NEPTARGOS: Nautical Empowerment for Initiative-taking Threat Analysis and Resilience with Guardian Oversight Systems
- Dr. K. Papagiannopoulos, UvA - Improved Secure Semiconductor Evaluation (ISSE): From Lab Techniques to Legal Frameworks
- Dr. R.J.W. Sluis-Thiescheffer, HAN University of Applied Sciences -Building on Digital Identity
- Dr. T. van Steen, LEI - From ‘what went wrong?’ to ‘what works well?’: Using Safety 2 principles to develop new cybersecurity solutions
- Dr. Ir. S.E. Verwer, TUD - Find2Fix: reducing software errors using transparent AI

KIC MISSIE “AI voor Landbouw Horticultuur, Water en Voedsel”

- Prof.Dr. Tamás Keviczky, TUD - A Layered, Explainable Approach to Intelligent Greenhouse Horticulture
- Dr. Patrick Langenhuizen, TU/e - AI for better animal welfare and smaller footprint: Real-time analysis systems for automated phenotyping of livestock (RealTimeAI4Livestock)

NGF AiNed ELSA Labs

- Ming Cao, RUG - ELSA Lab for Technical Industry
- Johan Kwisthout, RU - Legal, Regulatory, and Policy Aspects of Clinical Decision Support Systems
- Anniek de Ruijter, UvA - ELSA Lab AI for Health Equity: Towards Fairness & Justice in Medical AI
- Maaike Snelder, TNO - Mobility DesAIgn Lab

NGF AiNed XS Europe Grant

Awarded grants round 24-3:

- Dr. Y. Berezutskaya, UMC Utrecht - BCI Foundational model for robust, generalizable, and versatile neural implant performance (BCI-Found)
- Dr. Y.C.G. Gültekin, TU/e - AI-SUSAT: Artificial Intelligence for Secure Underwater and SATellite Communications
- Dr. J.L.A. Heyninck, OU - SaTSNASP: Safe and Transparent Scheduling with Neuro-Symbolic Answer Set Programming
- Dr. W.M. Kouw, TU/e- CONTACT-AI: CONTact in ACTion through Active Inference
- Dr. K.S. Luck, VU - ETAPE: Embodiment- and Task-Aware Parameter Embeddings for Robotic Foundation Models
- Dr. M. Menzel, TUD - AI-Driven Cancer Diagnostics: Explainable and Transparent AI Tools for Personalized Treatment
- Dr. C.M. Scannell, TU/e - QP-GPT: A foundation model for quantitative perfusion MRI
- Dr. C. Strydis, Erasmus MC - A Multimodal Brain-Signal Foundation Model (MBFM) for unified brain analysis and disease diagnosis
- Dr. G. Tang, MU - Brain-inspired MatMul-free Deep Learning for Sustainable AI on Neuromorphic Processor
- Dr. F.V.Y. Tjong, Amsterdam UMC - Multimodal Representation Learning for Evolving Cardiac State and Risk Estimation

NXTGEN Hightech 2024

- Prof. Dr. ir. N. van de Wouw, TU/e - Modular design of complex dynamical systems
- Dr.Ir. R. Tóth, TU/e - AI-driven Holistic Design and Control Tools for Planar Motors

**Special recognitions in ICT research**

Awarded Dutch ICT researchers in 2025

- NWO Domain Science Diversity & Inclusion Initiative Award 2025
  The Steering Committee of Alice & Eve, Prof. Dr. Marieke Huisman, Dr. Cynthia Liem, Dr. Sophie Lathouwers, Dr. Alma Schaafstal, Prof. Dr. Alexander Serebrenik, Prof. Dr. Marielle Stoelinga.
- Officer of the Order of Orange Nassau in Bergschenhoek/Lansingerland
  Geert-Jan Houben, Professor of Web Information Systems at the Faculty of Electrical Engineering, Mathematics and Computer Science (EEMCS).
- The Outstanding Service Recognition Award 2025
  Andy Pimentel is honoured for his Outstanding Service to the EDA Community as DATE General Chair in 2024

## 3.3 Special Interest Groups

The special interest groups (SIGs) of IPN are communities within the larger IPN organisation with a shared interest in advancing a specific area of knowledge, learning or technology where members cooperate to affect or to produce solutions within their field, and may communicate, meet, and organise conferences.

The special interest groups (SIGs) of IPN are:

- Future Computer Systems and Networking (FCSN)
- Special Interest Group Cyber Security (SIG SEC)
- Dutch National Association for Software Engineering (VERSEN)
- Special Interest Group Human-Computer Interaction (SIG HCI)
- Special Interest Group Algorithms and Complexity (SIG Algo)
- Data Science Platform Nederland (DSPN)
- Special Interest Group Artificial Intelligence (SIGAI)

**IPN SIG Strategy**
On 27 February 2025, IPN organised its first so-called cross-SIG meeting, with representatives of all IPN SIGs present. By bringing the SIGs closer, the IPN board aims to strengthen all SIGs and the ICT-research community. The cross-SIG meeting helps to align themes that cut across multiple SIGs. This edition for example also sparked the development of the first IPN position paper on Digital Sovereignty.

## 3.4 Working Groups

The IPN working groups, composed of, and chaired by IPN members, perform activities related to the multiple specific topics that affect the ICT research field. IPN working groups are communities within the larger IPN organization with a shared interest in advancing knowledge and information about this specific area:

- Equity, Diversity, and Inclusion Working Group
- Ethics Working Group
- External Relations Working Group*
- Prizes & Awards in Computer Science Working Group*
- Mental Wellbeing Working Group*

The members within the IPN working groups work together to be able to exert influence by communicating, organizing meetings and conferences.

*In 2025 three new IPN Working Groups started:

**External Relations Working Group**
As IPN unites scientists in the academic ICT field, it also represents the contributions that ICT science brings to the wider science and society. These contributions are developing all the time, since demands and possibilities change as well. IPN therefore aims to manage the relationships with major stakeholders in the wider field of science and society, to benefit the uptake of the scientific contributions. The working group on External Relations coordinates for IPN these relations and their continuing development, for example with governmental and industrial stakeholders.

**Prizes & Awards in Computer Science Working Group**
The IPN board expects that by proactively targeting existing prizes, more computer scientists will win prizes and awards and thereby enhance the visibility of computer scientists and research in general. One action of the working group is an overview of existing national and international prizes and awards, deadlines, and nomination policy, and ensuring that Computer Science candidates move structurally forward in the field for existing initiatives. Furthermore, this working group also arranges the yearly IPN Distinguished Service Award.

**Mental Wellbeing Working Group**

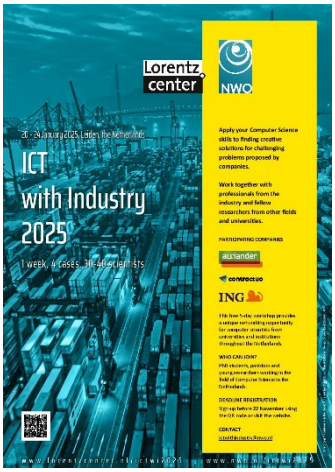
The Academic's Mental Wellbeing Working Group is established by the IPN Board to collaborate on improving the mental health and well-being of computer scientists and Computer Science professionals through policy recommendations, resource sharing, and advocacy.

# 4 Knowledge sharing and dissemination

IPN manifests itself through activities that the platform develops. Think of collecting, recording, and sharing current knowledge and information with the constituency and bringing together researchers, teachers, students, producers, consumer, and policy makers to improve knowledge and expertise about Computer Science research.

## 4.1 ICT with Industry

IPN is actively involved in the annual organisation of ICT with Industry, a workshop that focuses on devising innovative solutions for scientifically challenging, commercial business cases. NWO organises this workshop together with the Lorentz Centre. The aim is to stimulate collaboration and knowledge exchange between science and industry. Scientists and researchers from both academia and industry work together for a week to find original solutions for challenging industrial problems. The teams consist of PhD students and postdocs from research institutes and universities throughout the Netherlands. Each team has a company representative and senior researcher at its disposal to ensure progress and scientific quality. During the workshop, which lasts a week, participants contact the industry by working on a business case. Together with the company, the problem is explored, and a solution is sought in a team.




The four different cases in 2025 were:

- Case 1 with Alliander: Data Driven Approach towards More Efficient Newton-Raphson Power Flow Calculation
- Case 2 with Contractuo: How to make an LLM change its mind?
- Case 3 with ING: Legacy software
- Case 4 with ING: Software refactoring

## 4.2 IPN Strategic Dinner at NWO ICT.OPEN

IPN is actively involved in the annual organisation of NWO ICT.OPEN by chairing the steering committee of this large Dutch Computer Science conference. In the steering committee, IPN works together with PRIO and other stakeholders to keep the conference aligned with the needs of the ICT-research community, while reflecting on the evolving governance and format. IPN will keep advocating for strong representation of fundamental academic ICT-research and clearer roles for stakeholders in future editions.

On the evening of April 15, 2025, around eighty participants gathered in the Stage Entertainment Lounge of the Beatrix Theatre in Utrecht for IPN's annual strategic dinner**.** The overarching theme of the IPN strategic dinner 2025 was Stronger Together. Catholijn Jonker opened the evening as acting chair of the IPN board. Together with moderator Marloes ten Kate, she looked back on the previous year. After a brief discussion of the drastic budget cuts orchestrated by the current government, there also was much to celebrate, and many topics came up. Jonker then addressed the Special Interest Groups, which are taking on more responsibilities in representing their fields. Also, the newly started IPN leadership courses, the intensified relations with PRIO, and the strengthening of the cooperation with industry were briefly discussed. Jonker announced some of the activities IPN has in store to celebrate its 25$^{th}$ anniversary, such as a series of colloquia with top speakers. At the end of her talk, Jonker officially handed over the chairpersonship to Marieke Huisman, who thanked Jonker for everything she has done for the Dutch Computer Science community.


*In 2025 Catholijn Jonker(l) handed over the IPN Chair Hamer to Marieke Huisman (r)*

### 4.3 IPN Distinguished Service Award

During IPN's annual strategic dinner on April 15, 2025, Maarten van Steen received the first ever IPN Distinguished Service Award. This Award recognises a person that has provided outstanding service to the IPN community. Maarten van Steen, currently Scientific Director of the Digital Society Institute and full Professor of Computer Science at the University of Twente, chaired IPN from 2015-2020. During this period, he showed exceptional, visionary leadership and functioned as a pivotal force behind the transformation of IPN from its traditional structure into the successful organisation it is today.

When Maarten started as chair at IPN, the organisation was facing a steady decline in status and impact. Up to 2015, the IPN Board had primarily comprised representatives from Computer Science research schools and some large-scale electrical engineering research programs funded by the former STW. However, with the waning influence of these research schools and the limited sustainability of temporary research programs, the need for a transformative approach became evident. Maarten not only recognised this but also acted decisively.

Under Van Steens leadership, the IPN Board was restructured to include representatives from the Computer Science departments of all Dutch universities, creating a more robust and inclusive foundation. He further strengthened the organisation by incorporating representatives from associated Computer Science organisations, ensuring a more comprehensive and strategic dialogue across the Dutch Computer Science landscape. This new governance structure enabled IPN to address the complex, strategic discussions that were critical in maturing the Dutch Computer Science sector. A hallmark achievement was the development of the first-ever Computer Science sector plan. Thanks to the trust and collaboration fostered within the new Board structure, joint discussions resulted in a widely applauded sector plan that led to significant national investments in new Computer Science faculty positions.


*Maarten van Steen accepts the IPN Service Award from Catholijn Jonker (l.)*

Beyond his transformative work at IPN, Maarten has consistently contributed to shaping national initiatives, including the COMMIT program and the Netherlands AI Coalition. In his current role as Scientific Director of the Digital Society Institute at the University of Twente, he continues to champion the pivotal role of Computer Science in addressing interdisciplinary challenges facing modern society. Maarten's impact on the Computer Science community in the Netherlands is unparalleled. His strategic foresight, collaborative spirit, and unwavering dedication have not only strengthened IPN, but have also elevated the entire field of Computer Science in the Netherlands. Therefore, Maarten van Steen is the more than worthy first recipient of the IPN Distinguished Service Award.

### 4.4 Dutch Prize for ICT research 2025

At the conference NWO ICT.OPEN2025, on 16 April in the Jaarbeurs Utrecht, the Dutch Prize for ICT research 2025 was awarded to Prof. Dr. Hannes Mühleisen, senior researcher at the Centrum Wiskunde & Informatica (CWI) in Amsterdam and Professor of Data Engineering at Radboud University Nijmegen. Prof. Marieke Huisman, representing the ICT-research platform Nederland (IPN), and Prof. Ad Ijzerman, representing the Royal Dutch Science Association (KHMW), presented the prestigious prize.

Mühleisen is rewarded for his main contribution, the DuckDB system. DuckDB is an open-source column-oriented relational database management system that executes complex queries on large databases and focuses on online analytical processing. DuckDB was created as part of the ongoing research into database architectures at CWI together with former student Dr. Mark Raasveldt. The impact of DuckDB is impressive: the system is simple and is downloaded more than ten million times per month. It is in active production use by Fortune 500 companies. DuckDB is at the core of several innovative start-up companies world-wide, for example, MotherDuck has raised over $100 million to build a data warehouse product using DuckDB. The project team has spun off CWI into a separate company, DuckDB Labs, which provides commercial services around DuckDB which was co-founded by Mühleisen and Raasveldt. The project is governed by the non-profit DuckDB Foundation, whose bylaws ensure that DuckDB remains open source under the MIT license. The prize includes an amount of € 50,000, which may be freely used by the winner to strengthen his research.

The prestigious Dutch Prize for ICT research is awarded annually to a senior academic scientific researcher who has conducted innovative research or who has been responsible for a scientific breakthrough in ICT. Members of the ICT research platform Nederland (IPN) fund the prize* with a grant from COMMIT\, through the Royal Holland Society of Sciences and Humanities (KHMW). In addition to the prize money, a video is produced explaining the award-winning work of Prof. Dr. Hannes Mühleisen. This will be distributed to schools and other knowledge institutes.

*Hannes Mühleisen, Ad IJzerman and Marieke Huisman (l.t.r.)*

### 4.5 Series of Colloquia

To celebrate the achievements of 25 years IPN, IPN organised a special, online series of colloquia in which world-renowned computer scientists give their view on the progress in, and future of the field of computer science. These colloquia feature thought-provoking presentations that are of interest to a broad (academic) Computer Science audience. Although these colloquia are initially aimed at the Dutch Computer Science community, they are open to interested people around the world!

- IPN Colloquium 6: **Professor Andreas Zeller** (Saarland University, DE), “Should AI Coders Experiment More?”, 15 December 2025
- IPN Colloquium 5: **Professor Marietje Schaake** (Stanford University, USA), “The Tech Coup, Trump and the Test for Europe “, 28 November 2025
- IPN Colloquium 4: **Professor Bart Preneel** (KU Leuven, BE), “Crypto Wars Revisited”, 28 October 2025
- IPN Colloquium 3: **Professor Edward A. Lee** (UC Berkeley, USA), “Certainty or Intelligence: Pick One!”, 18 September 2025
- IPN Colloquium 2: **Professor Juliana Freire** (New York University, USA), “The Promise and Peril: How LLMs Are Revolutionizing Computer Science Research”, 19 June 2025
- IPN Colloquium 1: **Professor Moshe Vardi** (Rice University, USA), “Efficiency, Resilience, and Artificial Intelligence”, 19 May 2025

### 4.6 I/O Magazine

I/O Magazine is a publication of IPN that and is sent free of charge to ICT researchers and relations of the platform. IPN consists of the ICT research schools ASCI, IPA,and SIKS;the ICT-related themes of NWO domains Science(ENW) and Applied and Engineering Sciences (AES); the institutes of the technical universities, united in NIRICT; the institutes of the general universities; SURF; e-Science Centre; CWI; Dutch Platform for Mathematics; Data Science Platform Netherlands; Dutch Tech Centre for Life Sciences; VERSEN; TNO and COMMIT. In 2025, IPN I/O Magazine is published twice and addressed many topics of concern to its readers.

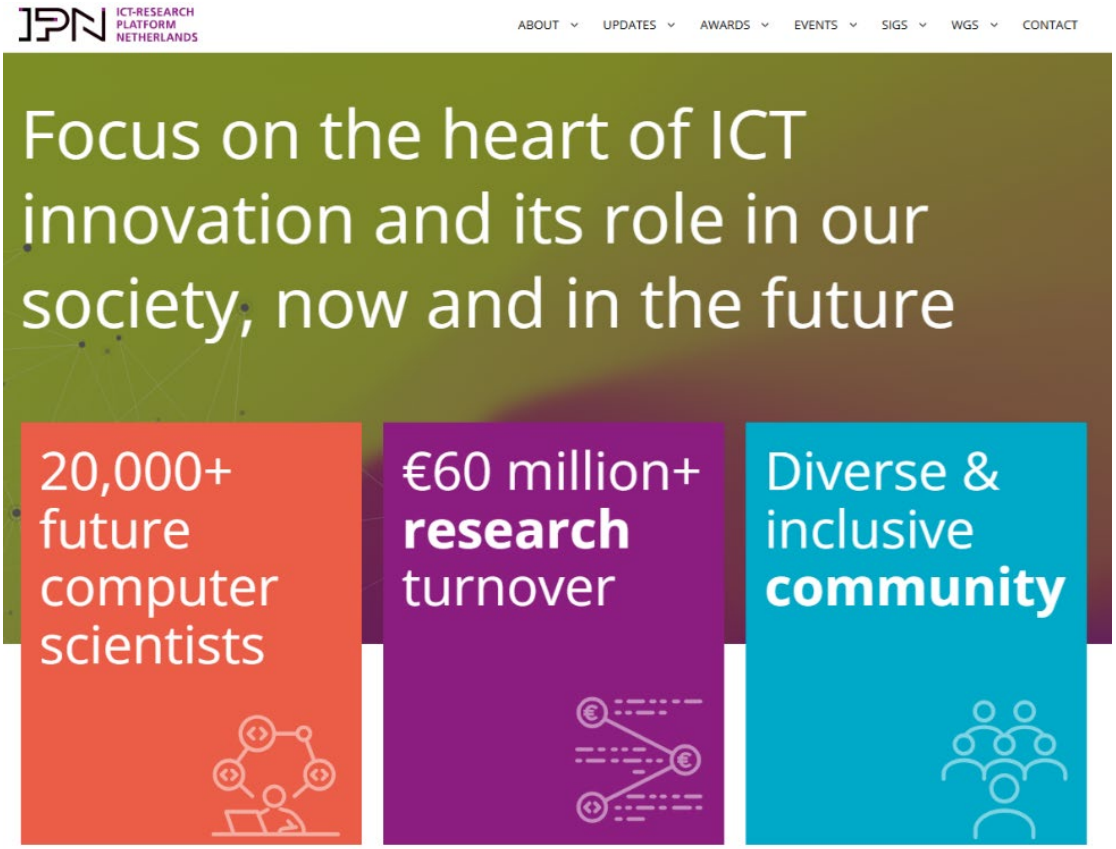

October 2025

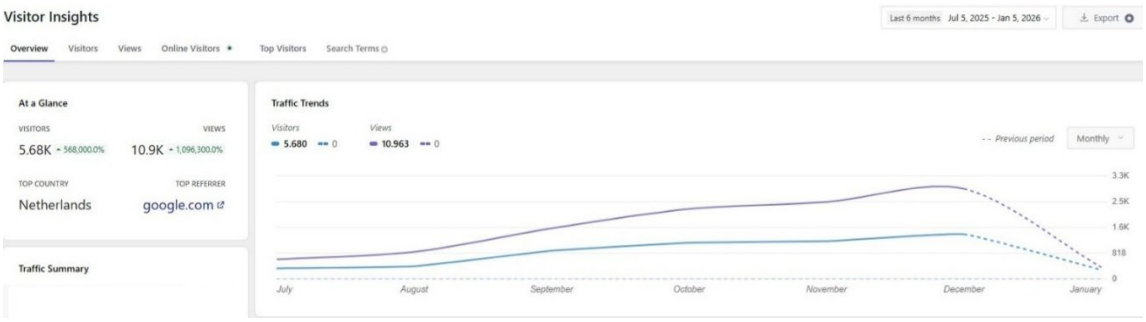

April 2025

## 4.7 IPN Digital

**IPN Website**

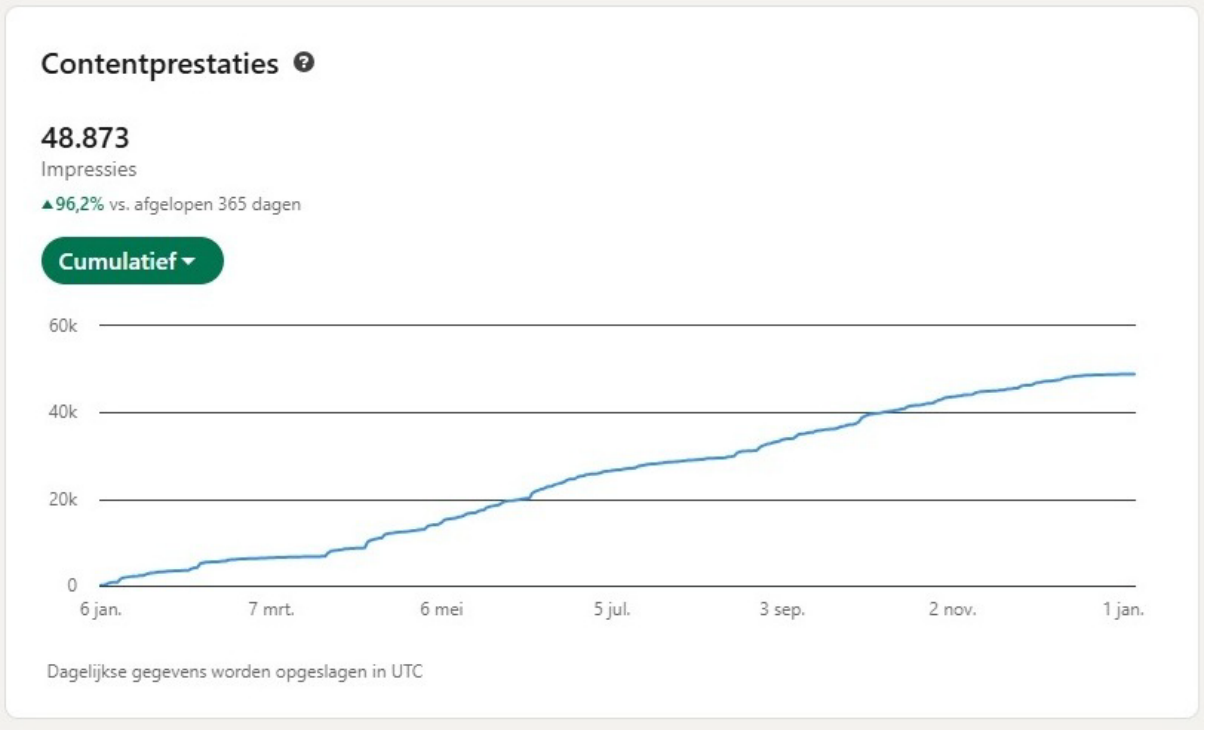
In the context of the 25th anniversary of IPN, the IPN website ict-research.nl is optimized. The experience for the user, the design of the website and improvements in maintaining possibilities of the website have been central to this update.



**IPN LinkedIn profile**

Below the statistics of the IPN LinkedIn profile, also redesigned in 2025 to attend to new content on the website, but also to share relevant information with the IPN community by reposting is

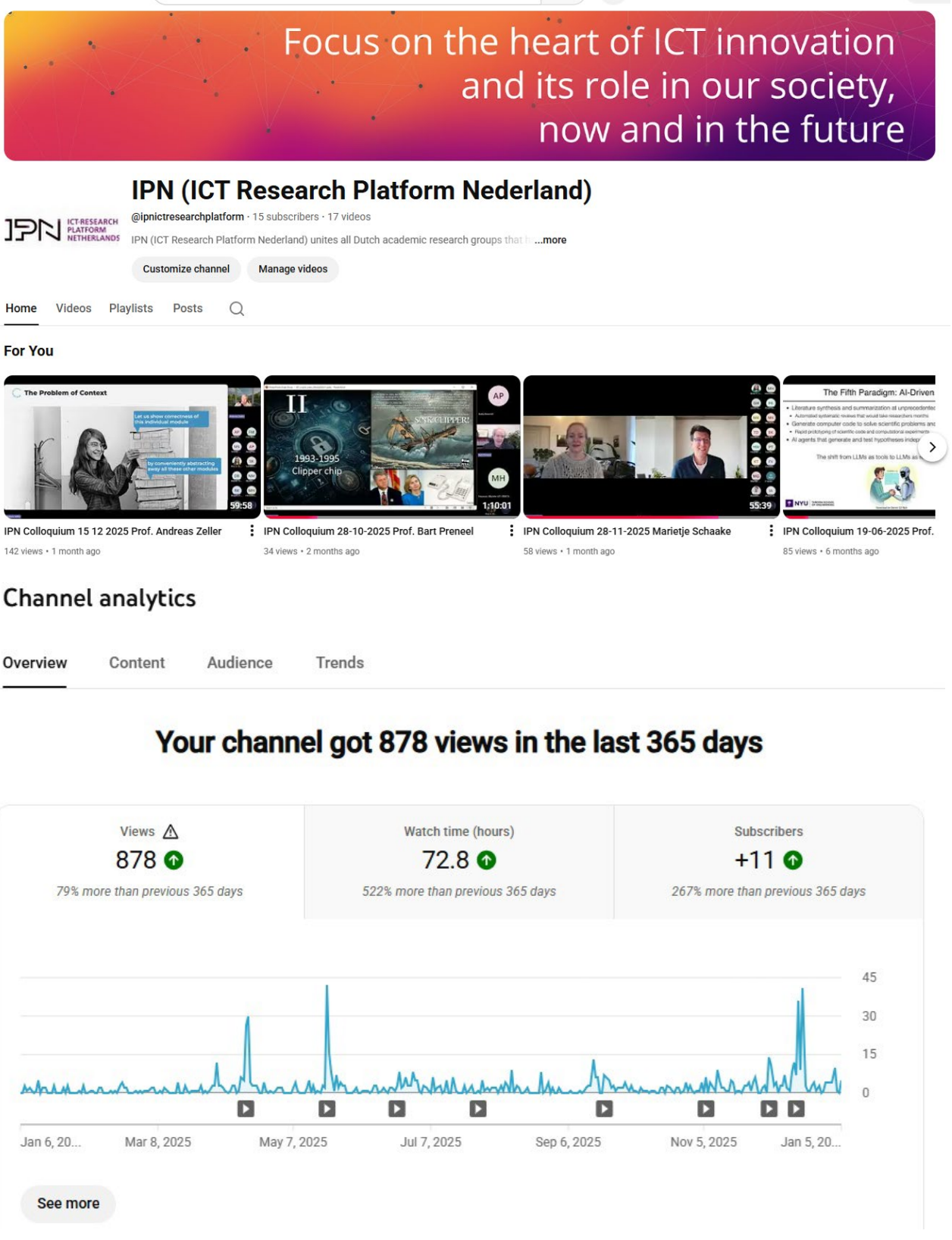




**Company Page launched**

On Dember 11th 2025 an IPN LinkedIn company page was launched on special request of the IPN Board.

**IPN op YouTube**

On the redesigned IPN YouTube channel, where IPN-related videos are posted, several items have been added in 2025, such as the productions of several IPN colloquia, the video of the ICT prize winner in 2025 and the compilation of NWO ICT.OPEN 2025.



# 5 Board and members

## 5.1 IPN board

In 2025, the IPN board met ten times. The meeting dates in 2025 were on 30 January, 24 February, 9 April, 13 June, 11 July, 27 August, 26 September, 10 October (strategy meeting), 28 October, and 28 November.

In 2025 the composition of the IPN Board changed. The term of four board members ended. At the IPN member meeting on 21 March 2025, the IPN members officially voted in five new board members, who started at various times during the calendar year.

IPN Board on 1 January 2025*

*l.t.r.*
Gerard Barkema (UU) ends 31/12/2025
Catholijn Jonker (TUD/UL) ends as Chair 1/4/2025 and as member 31/12/2025
Andy Pimentel (UvA) ends 31/12/2025
** Marieke Huisman (UT) remains on board!*
Han de la Poutré (CWI/TUD) ends 31/12/2025

IPN Board composition changes in 2025*


*l.t.r.*
Balder ten Cate (UvA) starts 1/1/2026
Nava Tintarev starts 1/1/2026
** Marieke Huisman (UT) starts as Chair 1/4/2025*
Geert Jan Houben starts 1-4-2025
Judith Masthoff starts 1/1/2026
Dimka Karastoyanova (RUG) starts 1/4/2025

## 5.2 Portfolio responsibilities IPN board

**Catholijn Jonker, TU Delft**
Catholijn Jonker resigned as IPN Chair on April 15th, 2025. Her portfolio responsibilities were Contacts with NWO, with Topsector ICT and with other platforms/councils, Communication, SIG Security, SIG VERSEN, Diversity, the Working group: External Relations, IPN Courses, Advisory Board PRIO, Connection Beta Deans and IPN Colloquia.

**Marieke Huisman, University of Twente**
IPN welcomed Marieke Huisman as IPN Chair on April 15th, 2025, and took over all Catholijn Jonker's portfolio responsibilities (above).

**Andy Pimentel, University of Amsterdam**
Andy Pimentel's term as IPN board member ended December 31st, 2025. His portfolio responsibilities were SIG DSPN, SIG FCSN, SIG HCI, SIG strategy /cross-SIG events/broad vision, Working group: External Relations, Research Schools, Education, and IPN Colloquia.

**Gerard Barkema, Utrecht University**
Gerard Barkema's term as IPN board member ended December 31st, 2025. His portfolio responsibilities were: IPN Courses, Research Schools, Education, Advisory Board PRIO, Connection Beta Deans, and Gerard participated in Steering Committee *I-Partnerschap*.

**Han La Poutré CWI / TU Delft**
Han La Poutré's term as board member ended December 31st, 2025. Hiss portfolio responsibilities were SIG AI, SIG Algo, Diversity, International contacts, and Han participated the ICT.OPEN Steering Committee 2025.

**Dimka Karastoyanova, University of Groningen**
Dimka Karastoyanova's term as board member started April 1st, 2025. Her portfolio responsibilities are Communication, SIG FCSN, Diversity, Working group: Prizes & Awards, International contacts.

**Geert-Jan Houben, TU Delft**
Geert-Jan Houben's term as board member started April 1st, 2025. His portfolio responsibilities are Contacts with Topsector ICT, SIG DSPN, SIG AI, SIG strategy /cross-SIG events/broad vision, Working group: External Relations and the IPN Strategic Diner 2025.

**Support of the NWO Board**
NWO IPN secretary Loes van Bree and Sanne Pot, temporarily supported by Femke Stephan and Job Fermie.

## 5.3 IPN members

IPN has an assembly meeting four times a year, in which all universities, NWO and CWI (the ordinary members) are represented. Twice a year, the associated members, SIGs and working group representatives are also invited to those IPN assembly meetings. The member assemblies were on 21 March, 20 June, 5 September, and 5 December.

The IPN member representatives by the end of 2025:

- University of Amsterdam (Paola Grosso and Evangelos Kanoulas)
- Vrije Universiteit Amsterdam (Stefan Schlobach and Halima Mouhib)
- Leiden University (Todor Stefanov and Nele Mentens)

- Delft University of Technology (Andy Zaidman and Alan Hanjalic)
- Tilburg University (Drew Hendrickson and Richard Starmans)
- Eindhoven University of Technology (Johan Lukkien and Nirvana Meratnia)
- Utrecht University (Marc van Kreveld and Pinar Yolum)
- Radboud University (Lejla Batina and Arjen de Vries)
- University of Twente (Geert Heijenk and Giancarlo Guizzardi)
- University of Groningen (Paris Avgeriou and Jilles Dibangoye)
- Maastricht University (Rachel Cavill and Mark Winands)
- CWI (Tijs van der Storm and Peter Boncz)
- Wageningen University (Bedir Tekinerdogan)
- Open University (Tanja Vos and Arjen Hommersom)

Changes in IPN representative's database:

- Jilles Dibangoye took over RUG representation from Rineke Verbrugge in 2025.
- Andy Zaidman took over TUD representation from Arie van Deursen in 2025.
- Pinar Yolum took over UU representation from Judith Masthoff in 2025.
- Drew Hendrickson took over UvT representation from Marie Postma in 2025.
- Halima Mouhib took over VU representation from Jaap Heringa in 2025.
- Arjen Hommersom was added as second representation for OU in 2025 after a vacancy.

### 5.4 Associated IPN members

In addition to ordinary members, IPN also has associated members. IPN associated members represent organisations that are active in the ICT field, want to stay involved and are willing to engage in joint activities. Twice a year, the associated members, SIGs and working group representatives are also invited to the IPN assembly meetings. The member assembly meetings with associated members in 2025 were on 20 June and 5 December.

The associated IPN members are:

- The Advanced School for Computing and Imaging (ASCI)
- The Institute for Programming research and Algorithmics (IPA)
- Netherlands Research School for Information and Knowledge Systems (SIKS)
- Platform Informatics Education Netherlands (PION)
- Platform for Practice-based ICT Research (PRIO)
- Platform Mathematics Netherlands (PWN)
- The Netherlands Research School for Information and Knowledge Systems (SIKS)
- Netherlands e-Science Centre (NLeSC)
- SURF
- TNO
- Association for Logic (VvL)
- Dutch Techcentre for Life Sciences (DTL)
- NWO Round Table Computer Science

## 6 Finance IPN

The Netherlands Organisation for Scientific Research supports IPN and contributes *in kind* through staff and administrative support. In addition, NWO contributes financially to IPN's activities through NWO Science *Tafel Informatica* budget, which the NWO Science budgets annually in consultation with IPN.

| Activity | Budgeted | Expenditure |
|---|---|---|
| | | |
| ICT-Prize 2025 | € 55.000 | € 55.736 |
| | | |
| I/O Magazine & online communications | € 44.000 | € 54336 |
| | | |
| IPN-Activities | €19.900 | €19.172 |
| | | |
| **Total** | **€118.900** | **129.244** |