

IARC Impact in practice series

The Netherlands experience



Since becoming an IARC Participating State in **1970**, the **Netherlands** has used IARC as a strategic bridge between national priorities and global cancer science. It brings together one of Europe's strongest ecosystems of cohorts, registries and screening programmes with the independence, reach and standard-setting power of an international agency. Membership gives the Netherlands both **influence**: a voice in IARC governance and priority-setting, and **reach**: access to multinational platforms no country could build alone, and evidence that strengthens public decision-making at home, across Europe and globally.

Why IARC membership made the difference for the Netherlands:

- **Scientific leadership and integration:** In the past decade, Dutch researchers produced **846 oncology publications** with IARC, typically through large international collaborations spanning **179 countries**. This places Dutch institutions at the centre of global work on cancer causes, early detection, screening, environmental risks, and the links between diet, obesity and cancer.
- **Evidence into policy and regulation:** IARC-linked research is cited in **more than 180 Dutch public-sector reports and technical papers**, informing decisions on screening, vaccination, dietary advice, chemical and occupational exposures, UV protection and mobile-phone radiation. In other words, IARC helps turn complex science into practical policy.
- **Global infrastructures using Dutch assets:** Through IARC, Dutch cohorts, registries and screening expertise feed into major international platforms on cancer inequalities, screening quality, environmental exposures, nutrition and childhood cancer. Dutch data and know-how are not used only nationally; they help generate evidence that other countries and European institutions also rely on.
- **Capacity and standards:** Since the mid-1968, nine Dutch fellows and numerous trainees have built a durable talent pipeline with IARC, while Dutch experts have contributed directly to IARC Monographs, Handbooks and WHO tumour classifications, ensuring Japan helps set the global rules of the game.

Part I. Scientific leadership through international collaboration

→ Exceptional intensity and depth of collaboration

The Netherlands' partnership with IARC is a high-integration collaboration that plugs Dutch institutions into large, coordinated, multi-country cancer epidemiology, exactly the kind of architecture needed for questions that demand scale, standardisation, and international comparability.

The publication data make this clear. Over the last decade there were **846 Netherlands-IARC co-authored oncology papers**¹. These joint outputs are produced in **large international consortia**, with a **median 34.5 institutions per paper, versus 4 in the non-IARC baseline**. In total, Netherlands-IARC co-authored work links Dutch teams with **2,477 unique institutions across 179 countries**, embedding the Dutch research and public-health community in a genuinely global network.

Web of Science micro-topic analysis shows that Netherlands-IARC outputs are concentrated in high-impact, data-intensive areas, led by:

¹ Data derived from Web of Science records of IARC-Netherlands co-authored papers published between January 2016 and January 2026.

Cancer in the Netherlands: a high-burden profile in a high-income setting

Based on [GLOBOCAN 2022 estimates](#), cancer is a major public health challenge in the Netherlands, with around **132 000 new cases** and **50 000 deaths** in 2022. In a high-income, ageing population, incidence is driven largely by lifestyle-related and metabolic risk factors. The leading cancers by incidence are **colorectal, breast and lung**, followed by prostate cancer and melanoma, while lung, colorectal and pancreatic cancers account for the largest share of deaths. This profile underlines the importance of sustained action on tobacco control, diet and obesity, physical inactivity and alcohol use, alongside continued optimisation of evidence-based early detection and screening programmes.

- **Genome-wide association studies (GWAS)** and other genomic susceptibility research;
- **Metabolomics and other omics-based approaches**, including epigenetic regulation;
- **Screening disparities, colonoscopy and early detection**, including the performance and reach of screening programmes;
- **HPV and cervical cancer prevention**, closely aligned with Dutch and European vaccination and screening policies;
- **Nutrition, obesity and metabolic risk**, including fatty acids, coffee and caffeine, folate metabolism and other diet-related mechanisms;
- **Advanced glycation end products (AGEs)**, a distinctive Dutch strength that links food processing and hepatobiliary and colorectal cancer risk;
- **Environmental and occupational exposures**, including asbestos–mesothelioma links and air-pollution-related cancer risk;
- **Major cancer sites**, notably bladder, ovarian, prostate and pancreatic cancers, as well as lymphoma.

This thematic profile is a clear signal of “**infrastructure-enabled science**”: large cohorts and biobanks, harmonised methods, and pooled international datasets, where multinational coordination is essential to achieve statistical power and to generate evidence that credibly informs prevention, screening and risk-assessment policy.

➔ Leadership in global research infrastructure

Through IARC, Dutch institutions participate in - and help shape - major international research infrastructures that generate evidence directly informing cancer prevention, screening and risk-assessment policies. *These collaborations embed Dutch cohorts, registries and modelling expertise in multi-country platforms with shared protocols and pooled analyses, something that would be extremely difficult to coordinate through domestic channels alone.* Examples from the past decade (2016–2026) include:

- **Cancer inequalities across Europe:** Erasmus MC and IARC help drive the **European Cancer Inequalities Registry**, producing harmonised indicators and factsheets on socioeconomic inequalities in cancer mortality for the European Commission and Member States (see box #3).
- **Modernising cancer screening:** Dutch expertise feeds into EU-wide screening indicators, the **LLUMINAS** project in Latvia and Luxembourg, and [screening implementation work in Slovenia](#), helping countries improve programme design, quality assurance and governance (see section II).
- **Exposome and hard-to-explain cancers:** Dutch partners are central to IARC-led consortia such as **DISCERN**, linking exposomics, metabolomics and advanced models to uncover environmental and lifestyle drivers of renal, pancreatic and colorectal cancers. [Key Dutch collaborators in DISCERN include Utrecht University and Leiden University, alongside patient-facing partners such as the International Kidney Cancer Coalition.](#) [Related work with the Hubrecht Institute](#) has also produced organoid “mini-tumours” for rare neuroendocrine cancers.
- **Childhood cancer intelligence:** Through **Cancer in Children – Epidemiology, Registration, Omics**, Dutch support helps strengthen childhood cancer surveillance, survival monitoring and burden indicators in Europe and beyond (see box #2).

Box #2: A Dutch investment turning childhood cancer from “invisible” to measurable

The **Ministry of Health, Welfare and Sport of the Netherlands** is supporting IARC to lead **Cancer in Children – Epidemiology, Registration, Omics (CICERO)**. The project is building a new international infrastructure for childhood cancer intelligence, linking population-based registries, survival data and molecular information to answer a basic but urgent question: where are children with cancer, what happens to them, and how can outcomes be improved? With a strong focus on **sub-Saharan Africa**, CICERO addresses one of the biggest blind spots in global cancer control, where many children are still never diagnosed, never registered, or reach care too late.

Through IARC's coordination, Dutch funding helps countries work to common standards, so childhood cancer data can be compared across settings rather than remaining fragmented and incomplete. That makes it possible to trace the full journey to diagnosis and treatment, including referral patterns, treatment completion and short-term survival for childhood leukaemia in **Kenya, the United Republic of Tanzania and Malawi**. CICERO also adds a forward-looking dimension by linking population-based data to **epigenomic profiling**, helping define the molecular signatures of childhood cancers and connect them to clinical outcomes. At the same time, it is developing practical indicators of the burden of childhood cancer - incidence, survival, prevalence, mortality and financial impact - that governments, WHO and partners can use to plan services and track progress.

CICERO is therefore a clear example of how the Netherlands uses IARC as a **multiplier for national funding**. A Dutch grant becomes lasting infrastructure: better data, better comparability, better service planning, and a stronger evidence base for improving outcomes for children with cancer in Africa and far beyond.

- **Nutrition and metabolic risk:** Dutch cohorts within IARC's flagship European nutrition study, together with work led by Maastricht on bladder cancer, diet and [advanced glycation end products](#), place the Netherlands at the heart of global platforms generating policy-relevant evidence on plant-based diets, ultra-processed foods and metabolic health. [Recent analyses involving Dutch cohorts have also shown that healthier plant-based dietary patterns are associated with a lower risk of multimorbidity of cancer and cardiometabolic disease](#), extending the policy relevance of Dutch nutrition research beyond single diseases.
- **Radiation and radiofrequency risks:** Dutch teams play a central role in long-term studies such as [COSMOS](#), [which test whether mobile-phone use increases brain-tumour risk](#) and provide part of the evidence base for balanced national and European guidance on radiofrequency exposure. Dutch collaboration also extends to major occupational cohorts, including the [Asbest Chrysotile Cohort Study with Utrecht University](#), [which documented clear dose, response increases in mesothelioma and lung-cancer mortality among asbestos-exposed workers](#).

→ Shaping the global cancer research agenda and standards

Dutch experts and diplomats help steer IARC's direction. Through seats on the **Scientific Council and Governing Council**, and active involvement in developing the [Medium-Term Strategy \(MTS\)](#), the Netherlands contributes directly to setting IARC's research and capacity-building priorities. This high-level engagement is a form of **soft power**. By shaping IARC's work programme, the Netherlands brings national and regional realities into global decision-making while gaining early insight into emerging priorities, methods, and partnership opportunities, aligning its own cancer plans and investments with cutting-edge international evidence.

The Netherlands also play a central role in developing widely respected **international evidence frameworks and classification standards** that shape global cancer science, prevention, and regulation. During the 2020-2025 cycle, 17 Dutch experts have contributed to the IARC's flagship evaluations, including:

- **IARC Monographs Volume 129:** *Gentian violet, leucogentian violet, malachite green, leucomalachite green, and CI direct blue 218*
- **IARC Monographs Volume 132:** *Occupational exposure as a firefighter*
- **IARC Monographs Volume 133:** *Anthracene, 2-bromopropane, butyl methacrylate, and dimethyl hydrogen phosphite*
- **IARC Monographs Volume 134:** *Aspartame, methyleugenol, and isoeugenol*
- **IARC Monographs Volume 135:** *Perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS)*
- **IARC Monographs Volume 136:** *Talc and Acrylonitrile*
- **IARC Monographs Volume 137:** *Hydrochlorothiazide, Voriconazole, and Tacrolimus*
- **IARC Monographs Volume 138:** *Automotive gasoline and some oxygenated gasoline additives*
- **IARC Monographs Volume 140:** *Atrazine, Alachlor, and Vinclozolin*
- **IARC Handbooks of Cancer Prevention Volume 18:** *Cervical cancer screening*
- **IARC Handbooks of Cancer Prevention Volume 21:** *Lung cancer screening and early detection*
- **World Health Organization Classification of Tumours (Blue Books) 5th and 6th editions:** Editorial board and expert contributions supporting international standards for tumour pathology classification, diagnostic criteria, and reporting systems across multiple organ systems

Part II. From evidence to action: IARC's impact on national Public Health

→ Evidence that informs national regulation and prevention policy

In the Netherlands, IARC-linked evidence shows up in **dietary guidelines, screening laws, vaccination policy, environmental-risk reviews and clinical guidelines**, where it directly supports regulation and prevention. An Overton analysis of Dutch public documents (2005-2026) finds **IARC-led work cited in more than 180 government reports and technical papers**, across bodies such as the **Gezondheidsraad (Health Council), RIVM, TNO, Zorginstituut Nederland, the Ministry of Health and Parliament**.

In practice, this evidence is used in five main ways:

- **Designing screening policy:** Dutch advice on cervical, colorectal and breast cancer screening, including decisions under the *Wet op het bevolkingsonderzoek*, repeatedly draws on IARC trials and evaluations to shape programme design, test choice and implementation.
- **Guiding HPV vaccination and cervical cancer prevention:** Health Council and RIVM advice on HPV vaccination and cervical cancer prevention uses IARC-linked evidence on HPV types, vaccine

effectiveness and cervical cancer risk. This evidence also underpins government communications that support adjustments to the national vaccination programme.

- **Shaping dietary guidelines:** The Dutch *Richtlijnen goede voeding* and their background documents draw on large IARC-supported cohort studies on diet, obesity and cancer. This includes evidence on red and processed meat, plant-based alternatives, alcohol, fats, fibre, fruit and vegetables, helping translate cancer epidemiology into practical nutrition advice.
- **Supporting environmental and occupational regulation:** Reports on pesticides, air pollution and other carcinogenic exposures rely on IARC Monographs and pooled occupational studies when classifying hazards, revising exposure limits and informing workplace and environmental protection policies.
- **Assessing radiation and mobile-phone risks:** Dutch reviews of UV exposure, sun protection and mobile-phone use cite IARC evaluations and large international studies on radiofrequency exposure and brain tumours. These assessments help provide balanced guidance for the public on mobile phones, ultraviolet exposure and cancer risk.

➔ **A European multiplier for evidence-based cancer policy**

Across the European Union, IARC acts as a **multiplier of national efforts**, turning scientific evidence into coordinated, practical action at scale. An Overton analysis (2005-2026) identified **over 500 EU policy and technical documents** citing IARC research, demonstrating that IARC evaluations are routinely used by EU institutions and agencies to inform legislation, guidance, and public health strategies.

IARC both generates the evidence and translates it into action. Through large research infrastructures such as [EPIC \(the European Prospective Investigation into Cancer and Nutrition\)](#) (see Section I), it produces long-term, high-quality data on risk factors and outcomes relevant to Europe. This is complemented by Europe-wide analyses that directly shape policy choices and guidance, for example, [work showing that recent increases in prostate cancer incidence in Europe are likely driven by PSA testing patterns](#) (with implications for screening approaches), [comparative burden estimates for Europe](#) (millions of new cancer cases and deaths annually), and [major studies mapping socioeconomic inequalities in cancer mortality](#) to inform targeted cancer control.

A particularly important part of this European role is **strengthening and modernising cancer screening**. Through IARC, Dutch institutions help build both the standards and the data systems that countries use to improve screening. Working with the European Commission, Dutch experts contribute to:

- **better screening intelligence**, by helping update the screening module of the European Cancer Information System (ECIS) so that countries can compare performance using common indicators and definitions;
- **practical implementation support**, through projects such as [LLUMINAS](#) in Latvia and Luxembourg, screening implementation work in Slovenia, and the [ICCCS](#) project in Latvia and Slovakia, all of which translate evidence into concrete roadmaps for programme improvement. That work has now produced [detailed country reports and roadmaps for Latvia and Slovakia](#), published on the European Commission's [Reform Support platform](#).

Box #3: Making Europe's cancer inequalities visible and actionable

Cancer inequalities are hardest to tackle when they are hardest to see. Through **Erasmus MC**, the Netherlands is helping IARC and the European Commission turn those hidden gaps into something governments can measure, compare and act on. Together, they are building the evidence base behind the **European Cancer Inequalities Registry**, one of the flagship initiatives of Europe's Beating Cancer Plan, through indicators, atlases and country factsheets on socioeconomic inequalities in cancer mortality.

This work reached [a new milestone in May 2025, when IARC, Erasmus MC and the European Commission launched country factsheets on socioeconomic inequalities in cancer mortality](#) for all EU countries plus Iceland and Norway.

This Dutch-IARC collaboration, including projects such as **EU-CanIneq** and broader work on social inequalities in cancer across Europe, does more than describe disparities. It shows **where** cancer outcomes are worst, **for whom** they are worst, and **how** those patterns differ between and within countries, by education, geography and other markers of disadvantage. Just as importantly, it translates highly technical registry and mortality data into simple, comparable tools that policy-makers can actually use.

The result is a powerful form of European cancer intelligence: evidence that allows EU institutions and Member States to identify blind spots, target resources more fairly, and track whether inequalities are narrowing over time. In this field, the Netherlands is not just contributing data; it is helping Europe build the practical architecture for **fairer cancer prevention, earlier detection and more equitable care**.

- **EU-level guidance**, through Dutch contributions to the implementation of the new EU Cancer Screening Scheme;
- **authoritative evidence reviews**, through participation in *IARC Handbooks* on cervical and lung cancer screening, which underpin both WHO and EU recommendations.

IARC also produces actionable modelling, showing that [scaling up tobacco control could prevent one in four lung cancer cases in Europe](#) (about **1.65 million fewer cases over 20 years**), and supports implementation through initiatives such as **EUROHELICAN**, [assessing the feasibility of population-based *H. pylori* test-and-treat strategies for gastric cancer prevention](#). In parallel, IARC remains a core technical partner in efforts to improve the quality, comparability and timeliness of cancer registry data and to refine indicators used in the **European Cancer Information System (ECIS)** and the **European Cancer Inequalities Registry (ECIR)**.

Together, this body of evidence feeds into one of IARC's flagship initiatives, the **European Code Against Cancer (ECAC)**, which converts evidence into clear, practical prevention recommendations for governments and citizens across Europe. IARC also strengthens Europe's prevention ecosystem by convening and supporting major collaborative platforms, such as **Cancer Mission Europe** and **Cancer Prevention Europe** (including its Learning Centre), that accelerate translation of evidence into capacity building and practice across Member States.

By combining independent evidence, harmonised methods, and implementation support, IARC enables Participating States to **benchmark performance, share best practices, and adopt proven prevention strategies faster and more efficiently** than acting alone. For the Netherlands, this collaboration provides not only access to data and expertise, but a seat at the table where **European and global cancer control standards are defined**.

Part III. Building capacity for lasting impact

➔ Talent pipeline into international cancer science

Training and knowledge exchange are also a core element of the Netherlands–IARC relationship. Since 1968, **nine Dutch scientists** have been awarded **highly competitive IARC**, creating a long-standing cadre of researchers with first-hand experience of IARC methods, infrastructures and networks.

During the **2021–2025** cycle, **five trainees from Dutch institutions** have undertaken short and medium-term research attachments at IARC. These placements give early-career Dutch scientists practical experience of multinational consortia and advanced analytical tools, and create durable links between Dutch cancer centres and international research teams.

The partnership is further anchored by formal cooperation frameworks, including a **2025 Memorandum of Understanding between IARC and the European Hematology Association (EHA)**, headquartered in the Netherlands. This MoU creates a structured framework for joint work on haematological malignancies, including shared use of cohorts and registries and opportunities for early-career researchers to engage in international projects and networks.

This engagement is part of IARC's wider capacity-building ecosystem, which includes the IARC Research Training and Fellowship Programme, the IARC Learning Programme (including the Summer School), and global networks for cancer registries, screening, and biobanking. Together, these initiatives train thousands of professionals worldwide and generate durable benefits: in a 2024 outcome survey, **98% of postdoctoral respondents reported transferable skills, 72% maintained research ties with IARC after training, and over half progressed to leadership roles (53%) or managed independent research funding (52%)**. This creates a **two-way multiplier effect**: expertise gained at IARC is reinvested in national institutions, while the priorities, data, and methodological strengths of participating countries feed back into IARC's networks, helping shape future research, standards, and capacity-building efforts.