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IARC Medium-Term Strategy 2026–2030

Bridging science and action for global cancer prevention

International Agency for Research on Cancer

World Health Organization

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2030

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IARC Medium-Term Strategy

Bridging science and action for global cancer prevention

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Acronyms and abbreviations

ABC-DO	African Breast Cancer – Disparities in Outcomes
AI	artificial intelligence
ANCCA	Asian National Cancer Control Alliance
ANCR	Association of Nordic Cancer Registries
BCNet	Biobank and Cohort Building Network for LMICs
CCARE	Childhood Cancer Awareness and Research Evidence Team
CI5	Cancer Incidence in Five Continents
CLIC	Childhood Cancer and Leukemia International Consortium
EPIC	European Prospective Investigation into Cancer and Nutrition
FENSA	Framework of Engagement with Non-State Actors
GCO	Global Cancer Observatory
GICC	Global Initiative for Childhood Cancer
GICR	Global Initiative for Cancer Registry Development
GPW 14	WHO Fourteenth General Programme of Work
HPV	human papillomavirus
IAEA	International Atomic Energy Agency
IACR	International Association of Cancer Registries
IARC	International Agency for Research on Cancer
ICBP	International Cancer Benchmarking Partnership
ICCC	International Classification of Childhood Cancer
IICC	International Incidence of Childhood Cancer
INTEGRAL	Integrative Analysis of Lung Cancer Risk
IIPAN	International Initiative for Pediatrics and Nutrition
IRCC	IARC Initiative for Resilience in Cancer Control
KPIs	key performance indicators
LC3	Lung Cancer Cohort Consortium
LMICs	low- and middle-income countries
LSB	Laboratory Support, Biobanking, and Services
LTS	Long-Term Surveillance
M&E	Monitoring and Evaluation
MTS	Medium-Term Strategy
NCDs	noncommunicable diseases
NCM	Nutrition, Cancer, and Multimorbidity Team
OCE	Occupational Cancer Epidemiology Team
PBCR	population-based cancer registries
R&D	research and development
SDGs	Sustainable Development Goals
SIT	Scientific IT Platform
SLC	Sustainable Lifestyle and Cancer Team
SOP	standard operating procedure
SSR	Services to Science and Research Branch
UHC	universal health coverage
UN	United Nations
UNEP	United Nations Environment Programme
UNFPA	United Nations Population Fund
UNSCEAR	United Nations Scientific Committee on the Effects of Atomic Radiation
WCACF	World Code Against Cancer Framework
WHO	World Health Organization

List of Boxes

Foreword from the IARC Director:
ELISABETE WEIDERPASS

It is my privilege to present the IARC Medium-Term Strategy 2026–2030: Bridging science and action for global cancer prevention. This Strategy sets out our shared vision of a world free from preventable cancers and with better outcomes for all. Achieving that vision requires an organization that is both responsive and forward-looking. IARC's identity has always been dynamic, both shaped by the global cancer landscape and helping to shape it. Over six decades, IARC has continuously evolved, guided by science and by the needs of the world it serves. In doing so, it has created lasting value for the global cancer ecosystem, by setting standards, building capacity, and influencing policy worldwide. This reciprocal relationship between reflection and relevance remains at the heart of our journey.

This Strategy renews that commitment. It builds on what an independent evaluation has recognized as one of IARC's greatest strengths and defining features: an integrated, four-Pillar scientific model of cancer prevention that unites data, discovery, implementation, and knowledge into a single continuum. At the same time, it repositions IARC to translate scientific knowledge into impact more effectively than ever, with five Bridges designed to ensure that science consistently reaches policy, practice, and public benefit. In this way, the Strategy represents both continuity and renewal: consolidating what has proven effective while taking a decisive step forward to deliver faster, more equitably, and at greater scale. At its core are the 100% Commitments: clear pledges of what IARC will deliver to empower countries and partners in achieving broader outcome-level results. Ambitious by design yet realistic, they are grounded in evidence; the evaluation confirmed IARC's exceptional reach and capacity to deliver impact in every region of the world. The 100% Commitments also build on what we know with certainty: prevention works. Up to half of cancers could be avoided by acting on exposure to known risks and scaling proven, effective interventions. The issues addressed in this Strategy are therefore not peripheral; they are central to the future of global health.

Yet ambition must be matched with means. Despite repeated global pledges, cancer prevention remains underfunded, fragmented, and unequal. Without renewed commitment, the cancer burden will continue to rise at an alarming pace, costing millions of lives and billions of dollars in lost productivity from premature deaths that could have been prevented. Demand for IARC's science has never been higher, but structural underfunding threatens our ability to respond when the world needs us most. Business as usual is no longer an option. Hard choices will be unavoidable. That is why this Strategy is accompanied by a Strategic Prioritization Framework, to illustrate what can be achieved with existing resources and what is at risk if stronger commitment is not secured.

Thus, this is more than a Strategy; it is our commitment and your invitation to act. I hope this Strategy will guide countries and partners in setting ambitious, evidence-based priorities for investing in cancer prevention. IARC is ready to lead with science, collaborate with purpose, and act with urgency. I call on our Participating States, our partners, and the global health community to stand with us, making the long-term commitments necessary to turn this vision into reality.

Elisabete Weiderpass

Executive Summary
IARC MTS 2026–2030

1. The world we face

Looking back to move forward

Over the past 5 years, IARC has shown what is possible when science, strategy, and partnerships align.
An independent evaluation confirmed our catalytic role in global cancer prevention.
Our new Medium-Term Strategy builds on this foundation and answers the evaluation's call for greater focus, integration, and partnership, to deliver more, faster.

- We strengthened our **four-Pillar model – Data, Discovery, Implementation, and Knowledge** – consolidating our reputation for excellent, relevant research.
  Now: Our 10 **Flagships** will be the engines of scale as globally recognized programmes that define IARC's scientific fingerprint. Their reach will be amplified by the three emerging priorities, first introduced in 2021–2025 and now fully embedded as drivers of the Pillars: the **economic and societal impact of cancer** (Data), **evolving risk factors and populations in transition** (Discovery), and **implementation research** (Implementation), supported by enabling areas such as **health economics, modelling**, and **equity**.
- We relocated to the new IARC headquarters building, a hub purpose-built to break down silos and spark collaboration.
  Now: **Cross-Pillar collaboration** will be systematically embedded to ensure coherence across the research-to-impact continuum.
- We deepened **partnerships with WHO and more than 150 countries**, half of them Low-and-Middle Income Countries (LMICs), to accelerate the translation of evidence into guidance and national programmes.
  Now: We will **extend that reach**, accelerate uptake, and ensure relevance everywhere.

Reading the global signals

The world is changing quickly, and cancer prevention must change with it. The next 5 years will be pivotal in determining whether prevention can keep pace with the accelerating cancer burden, especially as 2030 approaches: a defining milestone for global health goals. **Seven megatrends**, reshaping the environment in which we work, frame this Strategy, each one both a risk and an opportunity for science to guide action.
Our response rests on a simple truth:

Cancer prevention interventions work
and are among the smartest investments any country can make.

Acting on known risks could avert one third to one half of cancers. To realize this potential, countries need evidence they can trust and apply. As an independent, science-driven body within the UN system, **IARC is uniquely positioned to generate that evidence** and confront each megatrend, turning global challenges into opportunities for prevention, equity, and resilience.

A call to action

This Strategy comes at a time of unprecedented challenges for IARC, and international organizations, health, and science in general.
It is designed as a comprehensive package: **four interdependent Pillars, empowered by five Bridges that turn research into real-world impact**. It is a disciplined, prioritized portfolio shaped by countries' needs and by where IARC's science is most catalytic. Yet, despite this strategic focus, the reality remains that **with today's resources, IARC cannot deliver at full capacity**.

To confront this, we have developed a **prioritization scenario** that will complement this Strategy, providing a transparent framework for decision-making under financial constraints. It shows what can be achieved within current limits, but also what will inevitably be lost. Choices can be guided, but the gap between what is possible and what is needed can only be closed with **predictable, multi-year financing**. Only stable support can safeguard IARC's independence, enable long-term planning, and ensure that evidence translates into lives saved. Ultimately, achieving the Strategy's bold 100% Commitments is a **shared responsibility** and depends on **renewed solidarity and sustained commitment from IARC's Participating States and partners worldwide**.

Megatrends shaping the future of cancer prevention

1. **A growing and shifting cancer burden**
2. **Persistent health inequalities**
3. **Digital transformation & artificial intelligence**
4. **Climate change & environmental disruption**
5. **Economic & political volatility**
6. **Commercial determinants of health**
7. **The infodemic**

Executive Summary
IARC MTS 2026-2030

2. The difference we make

For this new cycle, we remain guided by our four foundational values: **scientific excellence,independence and transparency, collaboration**, and **equity at all levels**.

Our renewed vision, achievable if we join forces, is **a world free from preventable cancer, with better outcomes for all**.

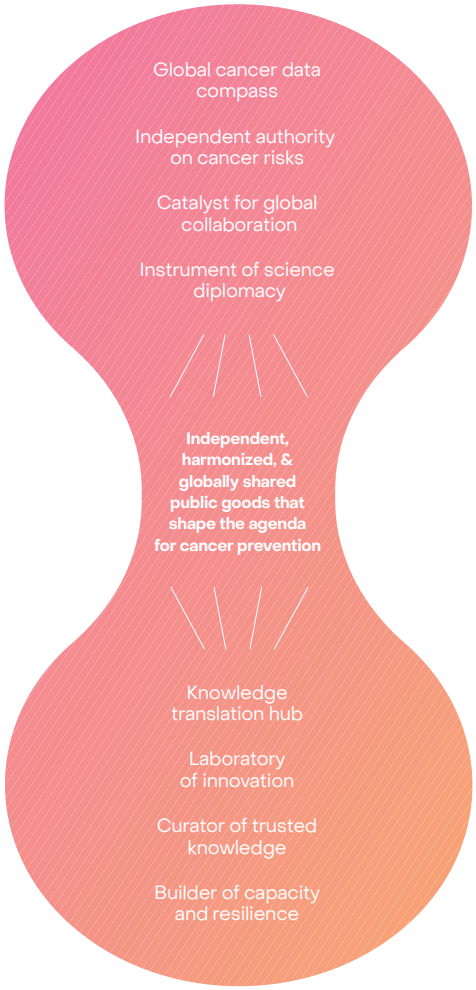
To bring this vision closer to reality, we set a new mission for 2026–2030: **to bridge research and action for global cancer prevention**.

Our strengths of engagement: creating added value in a shared ecosystem

We operate in a highly interconnected ecosystem where every actor plays a distinct role.
Our unique role is to bridge these worlds by **transforming research into independent, harmonized, and globally shared public goods** that **shape the agenda for cancer prevention** and that others adapt, regulate, deliver, and champion.

This bridging function is expressed through eight **strengths of engagement**, which reflect what we are known for and define how we create lasting value in the global cancer ecosystem:

Our contribution



What success at 100% looks like by 2030

Rooted in results-based management, this MTS defines **three interconnected outcome-level results** that require collective effort across the global cancer community. IARC's contribution to each has been captured in a bold pledge: **the 100% Commitments**, clear markers of progress that unite ambition with accountability.

1

Evidence-based policies for cancer prevention

100% policy Relevance

By 2030, 100% of IARC's research outputs will articulate their policy-relevant pathways and demonstrate clear contribution to the evidence base underpinning WHO guidance and national cancer control policies.

2

Global equity in cancer control

100% of studies designed for equity

By 2030, 100% of IARC research projects will embed equity considerations in their design and implementation, expanding inclusion, strengthening capacity, and driving strategies to close prevention gaps in all settings.

3

Future preparedness

100% future-ready

By 2030, 100% of the seven megatrends will be built into IARC's science and governance, each driving at least one cross-sectoral initiative, with preparedness embedded across both research and systems.

Three **enabling values** complement IARC's foundational values and guide how we will deliver our mission during this MTS: **country ownership** (priorities set with Participating States and LMIC partners), **joint responsibility** (no single institution can meet the challenge alone), and **built-in resilience** (foresight, crisis readiness, and agile governance).

These principles align our work with the **WHO 14th General Programme of Work** and the **Sustainable Development Goals (SDGs)**, especially SDG 3 on **health**, SDG 10 on **reducing inequalities**, SDG 13 on **climate action**, and SDG 17 on **partnerships for the Goals**.

Executive Summary
IARC MTS 2026-2030

3. The way we deliver

Our engines of impact: the Pillars

To reach our 100% Commitments, we build on one of our greatest strengths: an **integrated model that brings the entire cancer research-to-implementation cycle under one roof**. The combined strength of our four Pillars defines IARC's measurable contribution to 2030, with specific output-level results set for each to track progress. To maximize impact, the Pillars are reinforced by our **10 IARC Flagships**.

1

Who gets cancer, where, and when. Data

Through the **Global Cancer Observatory (GCO)** and the **Global Initiative for Cancer Registry Development (GICR)**, we will deliver the world's trusted reference for cancer surveillance: quality-assured indicators combining epidemiology, equity, and health economics so that countries can track, plan, and measure progress.

2

What causes cancer and how. Discovery

Using large international cohorts and integrated omics, led by the **European Prospective Investigation into Cancer and Nutrition (EPIC)** and the ***Mutographs of Cancer***, we will generate definitive evidence on cancer causes and mechanisms, with a focus on populations in transition where rapid changes create new vulnerabilities.
This work will strengthen the foundation for effective, equitable prevention.

3

From knowledge to action. Implementation

Scaling implementation research, biomarker validation, and infection-related prevention studies, we will deliver tested, cost-effective, and adaptable strategies that help countries design, expand, and monitor equitable prevention and early detection programmes.
This Pillar is powered by two Flagships: the **World Code Against Cancer Framework (WCACF)** and **Cancer Screening in Five Continents (CanScreen5)**.

4

Shaping global standards. Knowledge

We will translate complex science into authoritative public goods: the ***IARC Monographs***, the ***IARC Handbooks of Cancer Prevention***, and the ***WHO Classification of Tumours***. Through **IARC Learning** and targeted capacity-building, especially in LMICs, these resources become accessible and actionable worldwide.

The cross-cutting priorities

Some challenges demand faster, coordinated action across all four Pillars. For 2026–2030, we prioritize **three cross-cutting themes**:

- **WHO global initiatives on breast, cervical, and childhood cancers**
- **Lung health**
- **Planetary health**

How science becomes system change : The Bridges

Impact depends not only on what we research but also on how that research is organized, connected, and translated into decisions, delivery, and public trust. The Bridges are the **innovative mechanisms turning knowledge into action**, some working behind the scenes to make IARC smarter, others on the front line, shaping our science–policy interface:

Organizational synergies:

Through cross-cutting Research Teams, we will unite projects by cancer type or theme, breaking down silos and enabling rapid response to emerging risks.

Operational excellence:

Upgraded infrastructure, digital platforms, and streamlined processes will turn our data into a strategic asset, while investment in inclusion, development, and leadership will keep IARC a magnet for global talent.

Innovative governance:

Stronger engagement with current and prospective Participating States, risk-aware planning, and results-based budgeting will embed innovation, foresight, and resilience into our DNA.

Transformative partnerships:

Co-designed alliances with WHO, UN agencies, governments, regional bodies, and selected funders will expand reach, with investment cases reframing prevention as a high-return public good.

Science for society:

Open Science, knowledge translation tools, and campaigns like IARC@60 will turn communication into impact, making our science actionable and engaging.

IARC Strategic Plan 2026 – 2030 at a glance

International Agency for Research on Cancer

VISION

A world free from preventable cancers and with better outcomes for all

IARC MISSION

Bridging science and action for global cancer prevention

OUTCOME-LEVEL RESULTS

IARC 100% Commitments

1

Evidence-based policies for cancer prevention

100% policy relevant

2

Global equity in cancer control

100% of studies designed for equity

3

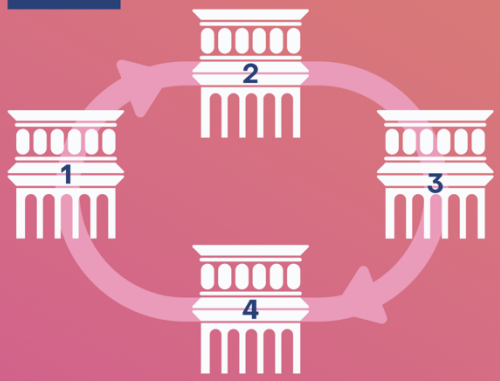
Future preparedness

100% future-ready

BRIDGES

1. Operational excellence
2. Organizational synergies
3. Innovative governance
4. Transformative partnerships
5. Science for society

PILLARS



1 – Data

IARC Flagships :
GLOBOCCAN
GICR

2 – Discovery

IARC Flagships :
Mutographs of Cancer
EPIC

3 – Implementation

IARC Flagships :
CanScreen5
World Code Against Cancer Framework

4 – Knowledge

IARC Flagships :
IARC Monographs
IARC Handbooks
WHO Classification of Tumours
IARC Learning

WHO global initiatives on breast, cervical, and childhood cancers

Lung health

Planetary health

FOUNDATIONAL AND ENABLING VALUES

- Joint responsibility
- Country ownership
- Built-in resilience
- Excellence
- Independence and transparency
- Equity at all levels
- Collaboration

Chapter 1

The Compass

The next 5 years will determine whether cancer prevention can keep pace with an accelerating global cancer burden and with the 2030 deadline for achieving many of the world's health and development targets under the Sustainable Development Goals (SDGs). IARC stands at a critical inflection point: scientific progress is faster than ever, yet the translation of that knowledge into policy and practice remains uneven. The Medium-Term Strategy (MTS) 2026–2030 responds to this challenge by setting a clear strategic direction to bridge research and action. It builds on the achievements of the 2021–2025 cycle, aligns with the evolving global health landscape, and sets a sharper focus on outcomes that deliver measurable, lasting impact.

I. Building on solid ground: lessons learned from the MTS 2021–2025

The MTS 2021–2025 marked a turning point, consolidating IARC's scientific model, modernizing its operations, and defining a stronger strategic identity. It was also the first Strategy to undergo a comprehensive independent evaluation, offering an unprecedented evidence base for improvement. The insights drawn from that process now serve as both anchor and springboard for the MTS 2026–2030: a Strategy firmly rooted in the lessons, insights, and opportunities that emerged from this pivotal review.

1. Achievements of the MTS 2021–2025

Over the past 5 years, IARC has advanced on multiple, interconnected fronts:

Scientifically, the MTS 2021–2025 confirmed IARC's effective alignment with global cancer prevention priorities. IARC deepened its expertise across its four Pillars – Data, Discovery, Implementation, and Knowledge – while consolidating its 10 IARC Flagships, programmes identified as IARC's scientific fingerprint (see Box 1). These Flagships have played a vital role in strengthening research capacity in low- and middle-income countries (LMICs), enhancing the quality and comparability of cancer data globally, and informing the design of evidence-based policies and interventions (concrete achievements are highlighted in the dedicated Flagship Boxes in Chapter 2). In addition, IARC maintained its reputation for scientific excellence, averaging more than 300 high-impact, peer-reviewed publications annually, with citation rates 2–6 times those of comparator institutions. Notably, two IARC-authored papers were recognized among the most influential scientific publications of the 21st century, ranking among the ten most cited across all disciplines. Other influential studies included proof of single-dose human papillomavirus (HPV) vaccine efficacy, now driving global shifts in immunization policy, including in IARC Participating States such as Brazil. IARC also played a central role in coordinating major international research collaborations, reinforcing its leadership in global cancer research.

Strategically, IARC expanded and deepened its partnerships with countries, academic institutions, and global health stakeholders. Today, IARC works with more than 150 countries worldwide, half of which are LMICs. This global reach is not only essential for non-Participating States; it directly enhances the value of IARC membership. Broad international participation provides the large, diverse cohorts and consortia needed to understand cancer causes and mechanisms, strengthens cancer registry systems that feed into the global cancer burden (GLOBOCAN), and expands the evidence base available for prevention policies. These benefits flow back to Participating States, ensuring that their investment yields globally representative science, stronger tools, and more accurate data for national decision-making. In addition, the strategic relationship with the World Health Organization (WHO) was significantly strengthened, with IARC's support to WHO global initiatives, such as the Cervical Cancer Elimination Initiative,

the Global Breast Cancer Initiative, and the Global Initiative for Childhood Cancer, demonstrating the transformative power of coordinated international action.

Operationally, IARC embarked on a major institutional transformation. The successful relocation to the new IARC headquarters building was not only a milestone in infrastructure development; it was also a strategic enabler. Purpose-built for collaborative, interdisciplinary work, the new building has created an environment that facilitates innovation, supports scientific synergies, and provides a robust foundation for IARC's long-term institutional growth.

Box 1. The Flagships: IARC's scientific fingerprint

Designed to respond to some of the most pressing and complex challenges in cancer prevention and control, the Flagships represent IARC's scientific hallmark and enduring commitment to public health. Far more than high-profile projects, the Flagships are concrete, internationally recognized examples of IARC's added value in the global cancer ecosystem. Each one reflects how IARC delivers on its strengths of engagement (described in Box 3), bridging science and policy, generating trusted knowledge, and working with all actors in the cancer research landscape. For 2026–2030, 10 Flagships have been selected by IARC governance and the Senior Management Team (SAT) for their scientific excellence, alignment with countries' priorities, and potential to drive lasting impact. Together, they represent IARC's most visible contributions across the cancer prevention research continuum and will serve as strategic priorities for resource mobilization.

IARC's strengths of engagement	IARC Flagships
Global cancer data compass	- **The Global Cancer Observatory (GCO)** - **Cancer Screening in Five Continents (CanScreen5)**
Laboratory of innovation	- **The *Mutographs of Cancer*** - **The European Prospective Investigation into Cancer and Nutrition (EPIC)**
Curator of trusted knowledge	- **The *WHO Classification of Tumours* (WHO Blue Books)** - **The *IARC Monographs*** - **The *IARC Handbooks of Cancer Prevention***
Builder of capacity and resilience	- **The Global Initiative for Cancer Registry Development (GICR)** - **IARC Learning** - **The World Code Against Cancer Framework (WCACF)**

2. Strategic recommendations for growth

The 31 strategic recommendations emerging from the evaluation of the MTS 2021–2025 provide a robust and coherent roadmap for IARC's continued advancement. Each recommendation has been carefully assessed and integrated into the MTS 2026-2030 where it most effectively enhances IARC's impact. Collectively, these recommendations advocate for a more transverse, integrated approach, ensuring coherence and alignment across all domains of IARC's operations to amplify global cancer prevention and control outcomes.

➔ Refining strategic focus

At the heart of this Strategy lies a sharpened focus: to concentrate IARC's efforts where its contribution is most distinctive and catalytic. The **IARC Flagships** will serve as the backbone of this approach, representing consolidated programmes that are internationally recognized, scientifically robust, and uniquely positioned to deliver measurable impact in cancer prevention and control.

The three emerging priorities of the MTS 2021–2025 have now been successfully embedded into IARC's scientific model and will become central drivers within each corresponding Pillar: the **economic and societal impact of cancer** within Pillar I (Data), **evolving risk factors and populations in transition** within Pillar II (Discovery), and **implementation research** within Pillar III (Implementation). To amplify their reach, IARC will further consolidate and elevate enabling areas such as **health economics, modelling,** and **equity,** ensuring that research translates more directly into policies and programmes that are sustainable, context-appropriate, and equitable.

IARC will also ensure **alignment with broader global health priorities**, as articulated in the WHO Fourteenth General Programme of Work (see Box 4), ensuring complementarity and added value in the international health architecture.

➔ Strengthening organizational synergies

From an organizational perspective, IARC will adopt a matrix structure to foster greater cross-Pillar collaboration, reduce fragmentation, and enhance responsiveness. This structure will enable more dynamic, interdisciplinary solutions to complex cancer challenges and promote cohesion across scientific areas. The Research Teams model, introduced during the 2021–2025 period, demonstrated promising benefits: fostering successful collaborations, generating impactful projects, and improving communication and coordination with WHO. Building on this momentum, further strengthening and alignment of the model will be essential to fully realize its potential and enhance interdisciplinary integration across IARC.

➔ Expanding strategic collaborations

Finally, to extend its global reach and long-term relevance, IARC will deepen and diversify its strategic partnerships. This includes expanding collaboration with WHO and other key global and regional stakeholders to maximize collective impact. IARC will strengthen its regional presence through local engagement hubs, reinforce collaboration with WHO headquarters, and explore synergies with the WHO Academy to broaden the reach of training and capacity-building efforts.

Box 2. Lessons learned from the MTS 2021–2025

Informed by both the evaluation of the MTS 2021–2025 and the broader body of evidence accumulated during its implementation, IARC has identified several critical lessons that will shape and accelerate progress in the next strategic cycle:

- **Enhanced visibility and demonstrated impact are essential for IARC's long-term sustainability.** The scientific and policy-making worlds operate with different languages, time frames, and incentives. To remain influential, IARC must strengthen its ability to demonstrate how research contributes to real-world outcomes. Strategically increasing the visibility of IARC's scientific achievements will reinforce IARC's international authority, attract strategic partners, and secure its role as a trusted driver of evidence-based action. A stronger culture of impact assessment and science communication will support this shift.

- **Partnership with WHO significantly amplifies IARC's impact and offers substantial opportunities for growth.** The strategic alliance between IARC and WHO has already proven highly effective, unlocking significant opportunities to broaden global reach and accelerate cancer control outcomes. Expanding this vital partnership further will leverage additional synergies and open new avenues to enhance the global impact of IARC's mission.
- **Multisectoral and multi-stakeholder ecosystems are critical for addressing complex global cancer challenges.** Continued investment in dynamic research ecosystems involving public, private, and civil society entities, including strong engagement with LMICs, is critical to effectively address the complex, multidimensional challenges of cancer prevention and control. Continued investment and strategic nurturing of these ecosystems will significantly enhance the effectiveness, sustainability, and breadth of IARC's efforts.
- **Resilience and innovation must be embedded across all levels of IARC's work to ensure sustainable progress.** Building resilience through innovative approaches, capable of addressing current and future global health challenges alongside ongoing cancer prevention research, is imperative for sustained progress and lasting public health impact. Investing systematically in internal capacities for learning, digital transformation, and operational adaptability will enhance efficiency, optimize research methodologies, and increase the dissemination and practical application of knowledge globally.
- **Flexible, diversified, and sustainable financing is essential for IARC to deliver its mission in a rapidly evolving global landscape.** Achieving sustainable and impactful outcomes requires securing predictable, flexible, and diversified funding streams. Pursuing innovative resource mobilization strategies, exploring creative financing mechanisms, and proactively engaging with a broader range of financial partners will be critical for the long-term sustainability and scalability of IARC's cancer prevention and research activities.

II. The global mirror: reflecting IARC's relevance in a changing world

In an increasingly interconnected and dynamic global landscape, the ability to look outward with clarity and purpose is as essential as internal reflection. This section serves as a global mirror, a lens through which IARC critically examines the broader forces shaping the future of cancer control and assesses its evolving role within that context to ensure that its research agenda remains not only scientifically excellent but also strategically relevant and actionable.

1. Megatrends shaping the future of cancer control

Through horizon scanning, stakeholder dialogues, and ecosystem analysis, IARC has identified seven interrelated megatrends that are reshaping the landscape of public health and research. Each megatrend presents both challenges and opportunities for IARC and requires a strategic, evidence-driven response.

- **The growing and changing global cancer burden:** The global cancer burden is rising sharply, with faster increases projected in LMICs and among younger populations. New cancer cases are projected to rise from about 20 million in 2022 to roughly 35 million in 2050, representing an increase of around 77%. This surge is driven by ageing populations, urbanization, changes in lifestyle and exposures to risk factors, and persistent inequities in prevention and health-care

access. Increasing rates among younger adults add an additional layer of complexity, because these populations often lack access to early detection or are not covered by existing screening programmes.

- **Persistent health inequalities between and within countries:** Despite notable progress in cancer research and control, persistent health inequalities, both between and within countries, remain one of the most pervasive and urgent challenges of our time. These disparities, deeply rooted in broader socioeconomic inequities, directly influence cancer incidence, access to care, treatment outcomes, and survivorship. Individuals in lower-income groups are more likely to face delayed diagnoses, inadequate treatment, and poorer outcomes. By 2050, it is projected that nearly 70% of new cancer cases will occur in LMICs, where health systems often remain under-resourced and inequitable. Marked inequalities in cancer mortality are also evident within countries, closely linked to differences in education levels. Among the identified megatrends, inequality stands out as a cross-cutting issue that underpins many of the other global shifts. Addressing it requires more than expanding access to health services; it demands comprehensive, multisectoral responses that tackle the upstream determinants of health, including commercial, social, and environmental drivers.
- **Innovation, digital transformation, and the rise of artificial intelligence:** Advances in digital technologies and artificial intelligence (AI) are accelerating change across all sectors, including health. AI-driven tools are already improving image analysis, early detection, biomarker discovery, and the personalization of treatment pathways. Digital platforms also enhance global collaboration and enable the efficient collection and analysis of large-scale health data. However, with technological advancement also come new challenges, notably in data governance, cybersecurity, data protection, and ethical considerations surrounding data privacy and the equitable deployment of digital tools. Navigating these complexities requires ongoing vigilance, adaptive governance frameworks, and proactive collaboration.
- **Climate change and environmental disruption:** Climate change is both an environmental crisis and a public health emergency, with direct and indirect implications for cancer. Rising temperatures, extreme weather events, and environmental degradation increase exposure to environmental carcinogens, disrupt food and water systems, and strain already fragile health infrastructures, particularly in vulnerable regions. These disruptions deepen existing inequities, because the populations that are least responsible for climate change often bear the heaviest burdens in terms of both exposure and reduced access to care. At the same time, climate mitigation policies such as reducing air pollution, shifting to healthier diets, and promoting active transportation deliver powerful co-benefits by lowering cancer risks and advancing planetary health. Interdisciplinary, equity-focused approaches that integrate environmental determinants of health into cancer control strategies will be essential to ensure that responses to climate change also strengthen resilience and prevention.
- **Economic volatility and shifting political landscapes:** Macroeconomic instability and global political shifts pose significant risks to sustained investment in cancer control and research. Inflation, shrinking health and development budgets, shifting global alliances, and rising nationalism may reduce international solidarity and cooperation and affect national priorities. In this context, IARC must proactively navigate political dynamics, maintaining flexibility and advocacy to ensure continued prioritization and adequate resourcing of global cancer research and prevention initiatives.
- **Commercial determinants of health as drivers of public harm:** Although commercial actors can contribute positively through goods and innovation, a subset of powerful transnational corporations, notably in tobacco, alcohol, fossil fuels, pesticides, and ultra-processed foods, are driving avoidable harm to human and planetary health. Through harmful products, exploitative business practices, and aggressive lobbying, they are now responsible for one third of global deaths and are deepening health inequities, economic burdens, and environmental crises. The imbalance of power between these actors and public interest

institutions contributes to policy inertia, limiting the implementation of well-known, effective regulatory solutions. Addressing these determinants requires a balanced approach that mitigates harm while leveraging positive contributions. Governments and global health actors must adopt effective and regulatory and fiscal tools grounded in science, such as product taxation, advertising restrictions, and conflict-of-interest safeguards – areas where IARC's research can provide critical guidance.

- **The infodemic: misinformation and erosion of public trust:** The rapid spread of misinformation in today's digital environment, commonly termed the infodemic, poses a growing threat to public trust in science and undermines the effectiveness of cancer prevention strategies. The World Economic Forum's Global Risks Report 2025 identifies misinformation and disinformation as one of the top global risks, underscoring its potential to disrupt public health progress. Mistrust in vaccines, screening programmes, and health guidance has been amplified through social media, contributing to declining uptake of proven interventions and rising scepticism towards scientific institutions. Addressing this challenge demands a coordinated, evidence-based response involving clear communication strategies, active engagement with diverse communities, and robust partnerships with trusted local and international organizations to counter misinformation and promote scientifically accurate health information.

2. The case for cancer prevention: a smart investment for global realities

Amid this complex and shifting global health landscape, one solution consistently emerges as both hopeful and actionable: **cancer prevention interventions work, and they work at scale**. Evidence shows that up to half of all cancer cases are preventable through action on well-established risk factors such as tobacco use, poor nutrition, alcohol consumption, physical inactivity, air pollution, and infections such as HPV and hepatitis B. Proven interventions, such as HPV vaccination and tobacco taxation, have already demonstrated significant impact in multiple countries, offering replicable models for scale-up.

Cancer prevention is not only a public health imperative; it is a strategic investment. As countries grapple with the dual pressures of rising cancer burdens and constrained resources, prevention offers a high-yield path forward. Scaling proven interventions can deliver substantial and measurable returns: lives saved, economic productivity gained, and health systems strengthened. In particular, prevention has the greatest impact in LMICs, where it often represents the most practical and rapid path to advancing equity. The recognition of cancer control as a smart investment is gaining traction in the global development agenda. Initiatives like the WHO global cancer initiatives and the 2030 Agenda for Sustainable Development offer clear entry points for coordinated action. Policy instruments like the WHO "best buys" for noncommunicable disease (NCD) prevention, including policies on taxation, vaccination, and environmental health, underscore the feasibility and cost–effectiveness of these approaches.

For IARC, this global momentum reaffirms a long-standing conviction: investing in prevention is not only possible; it is essential and transformative for public health systems worldwide. It also confirms that IARC's current scientific direction is well aligned with where the world needs to go, placing evidence-based cancer prevention at the heart of sustainable health and development strategies.

III. From reflection to alignment: strategic choices for 2026–2030

The transition from the 2021–2025 cycle to the new Strategy has provided an opportunity to assess IARC's performance, examine emerging global trends, and realign priorities accordingly. This reflection has clarified where IARC's scientific leadership is most needed and how its capabilities can be strengthened to deliver greater impact during 2026–2030.

1. IARC's values, vision, and mission: renewing relevance in a changing ecosystem

To meet the demands of today's complex environment, IARC must continually adapt, evolving its approaches, refreshing its partnerships, and reaffirming its added value within a shared ecosystem of partners, policy-makers, researchers, and communities (see Box 3). The megatrends reshaping global cancer control only underscore the urgency and value of IARC's mission. Guided by its foundational values, **scientific excellence, independence and transparency, collaboration**, and **equity at all levels**, IARC has earned global recognition as a trusted and impartial producer of public goods for cancer prevention, a role that enables it to **shape the global agenda for cancer prevention**.

In response to a rapidly evolving global context and a reaffirmed role within an interconnected health ecosystem, IARC sets out a renewed vision: ***a world free from preventable cancers and with better outcomes for all***. To realize this vision, IARC has redefined its mission for 2026–2030: ***bridging science and action for global cancer prevention***. Together, this mission and vision will anchor IARC's strategic direction until 2030, guiding its work in delivering measurable impact where its expertise can create the greatest added value.

Box 3. IARC's role in a shared ecosystem: where value is created

IARC's continued influence rests not only on the excellence of its scientific contributions but also on the strength and depth of its engagement across the global health ecosystem. Its unique dual position, as an international cancer research institute and as part of the United Nations (UN) system, enables IARC to convene countries, researchers, and institutions around a shared mission: advancing cancer prevention through science, collaboration, and capacity-building. IARC's added value lies in **its bridging role**: transforming research into **independent, harmonized, and globally accessible public goods that shape the global agenda for cancer prevention** and that others adapt, regulate, and deliver. This role is inherently collaborative:

- ➔ **Governments** use IARC's data and tools to design and implement national cancer control policies.
- ➔ **WHO** builds on IARC's scientific evidence to develop normative guidance and global tools for cancer control.
- ➔ **Academia** advances discovery, initiates follow-on research, and joins collaborative networks powered by IARC's shared resources.
- ➔ The **private sector** develops technologies that can be informed by IARC evidence.
- ➔ **Civil society** translates knowledge into advocacy and awareness, ensuring that evidence resonates with communities.
- ➔ In return, public health and economic priorities, as well as new scientific questions arising from countries and partners, directly **inform and shape IARC's research agenda**, creating a continuous cycle of exchange.

This bridging function is expressed through eight internationally recognized **strengths of engagement**, which capture what IARC is best known for and define how its work consistently creates added value in the global cancer ecosystem. Their sequence reflects the prioritization established through governance consultations during the recent prioritization exercise, moving from highest to lower priority (*see the MTS 2026-2030 companion document IARC Strategic Prioritization Framework*).

- ➔ **Global cancer data compass:** providing the world's authoritative reference point on the cancer burden and trends through the GCO and related tools.
- ➔ **Independent authority on cancer risks:** delivering impartial hazard classifications through the *IARC Monographs* and related evaluations, free from political or commercial influence.
- ➔ **Catalyst for global collaboration:** convening large cohorts, consortia, and networks that link discovery science with implementation through shared methods and standards.
- ➔ **Instrument of science diplomacy:** offering a neutral, evidence-based platform where countries collaborate on prevention, even across political or resource divides.
- ➔ **Knowledge translation hub:** transforming complex science into tools, frameworks, and guidance that are directly usable by WHO, national governments, and scientific partners.
- ➔ **Laboratory of innovation:** testing new methods and approaches in an independent, non-commercial environment, with particular focus on LMIC contexts.
- ➔ **Curator of trusted knowledge:** producing global standards such as the WHO Blue Books and the *IARC Handbooks of Cancer Prevention*, which ensure comparability worldwide.
- ➔ **Builder of capacity and resilience:** strengthening LMICs through training, infrastructure, and networks that link national expertise with global systems.

2. A results-based framework: IARC's 100% Commitments

What sets the MTS 2026-2030 apart from previous MTS is not a shift in scientific direction, which remains robust, relevant, and aligned with global needs, but a sharper focus on delivering measurable, outcome-level results and the pathways to achieve them. This approach aligns fully with the WHO corporate outcomes model and the broader UN system's emphasis on transparency, coherence, and public value. The shift is as much cultural as it is technical; it calls for adaptive management that fosters learning, responsiveness, and accountability. Real-time feedback loops will track progress, guide course corrections, and keep efforts aligned with emerging evidence and evolving country needs. In doing so, IARC reinforces its dual accountability: to its Participating States and to the global populations it ultimately serves.

This approach is anchored in **three interconnected outcome-level results** that reflect areas where IARC can catalyse transformative change, but whose achievement necessarily depends on the actions of multiple actors, including WHO, governments, and global partners. To clarify IARC's own contribution within this shared responsibility, each outcome-level result has been distilled into a bold, inward-facing pledge: the **100% Commitments.** These Commitments are ambitious by design but also firmly rooted in evidence: the independent evaluation of the MTS 2021–2025 confirmed IARC's exceptional global reach and its ability to deliver impact in every region of the world. Building on this foundation, the 100% Commitments establish a clear and measurable strategic direction, ensuring both ambition and feasibility. Together, they form a coherent results framework where progress can be tracked through increasingly refined performance indicators that will guide performance monitoring, strategic learning, and accountability throughout the strategy cycle.

Outcome-level result #1: Evidence-based policies for cancer prevention

- **IARC Commitment: 100% policy relevant.** By 2030, 100% of **IARC's research outputs** will articulate their policy-relevant pathways and demonstrate clear contribution to the evidence base underpinning WHO guidance and national cancer control policies.
- **Strategic approach:** This Commitment is about ensuring that scientific knowledge systematically informs action through timely, relevant, and context-sensitive measures. IARC will not prescribe policy or engage in normative work; that responsibility rests with WHO and national governments. Instead, IARC will generate high-quality, independent evidence and practical tools and collaborate with governments and partners across the policy cycle, from priority-setting and agenda-shaping to implementation and evaluation. Using IARC Participating States as a benchmark ensures measurable progress and strengthens direct communication with IARC's core constituency. At the same time, IARC research and tools are widely taken up beyond Participating States, shaping WHO normative guidance, global cancer initiatives, and national policies worldwide, uptake that IARC will also monitor and track.

Outcome-level result #2: Global equity in cancer control

- **IARC Commitment: 100% of studies designed for equity.** By 2030, **100% of IARC research projects** will embed equity considerations in their design and implementation. This will translate into expanded inclusion of underrepresented populations, stronger workforce and institutional capacity in LMICs, and evidence-based strategies to identify and close prevention gaps in all settings.
- **Strategic approach:** Achieving equity means ensuring that advances in cancer prevention are generated with, and for, all populations. IARC will collaborate with Participating States and LMIC partners to co-design studies, share data and methods, and strengthen institutions in ways that reflect local priorities and contexts. This includes supporting the growth of national and regional cancer centres, by providing high-quality cancer data, supporting surveillance systems such as population-based cancer registries, and jointly investing in workforce development. It also involves addressing the social, commercial, and environmental determinants of cancer that disproportionately affect vulnerable groups.

Outcome-level result #3: Future preparedness through research and resilience

- **IARC Commitment: 100% future-ready.** By 2030, **100% of the seven megatrends** will be built into IARC's science and governance, each driving at least one cross-sectoral initiative, with preparedness hardwired into both research and systems.

- **Strategic approach:** Preparedness means both anticipating external shocks and continuously evolving internal systems. It includes strategic planning that integrates emerging risks and opportunities, as well as strengthening institutional infrastructure, financial sustainability, workforce agility, and technological capabilities to remain responsive to evolving realities. Through this outcome, IARC commits to embedding horizon scanning, adaptability, and cross-sectoral foresight into its operating model, ensuring a proactive response to the seven megatrends outlined earlier in this chapter.

3. Enabling values for change

In addition to the four foundational values of **scientific excellence, independence and transparency, collaboration,** and **equity**, the IARC MTS 2026–2030 is guided by three enabling values. Each one mirrors one of the outcome-level results, ensuring that how IARC works is fully aligned with what it seeks to achieve:

- **Country ownership:** At the heart of IARC's strategic approach lies a foundational principle: cancer prevention and control cannot be effectively driven by global mandates alone; they must be rooted in local realities and shaped through inclusive dialogue. IARC will align its agenda with the expressed needs of Participating States and LMIC partners, respond to country requests, and support nationally led initiatives through its eight strengths of engagement (see Box 3). Regional bodies and networks will also be central to translating global goals into locally relevant action.
- **Joint responsibility:** In the face of a growing and increasingly complex global cancer burden, no single actor can succeed alone. IARC embraces the principle of joint responsibility: transformational change must be co-created through inclusive partnerships, shared accountability, and a global commitment to leaving no one behind. This principle is embedded in the 2030 Agenda for Sustainable Development and further articulated in the WHO Fourteenth General Programme of Work (GPW 14), which promotes joint outcomes and integrated action across the UN system. Through its three "100% Commitments" and the outcome-level results they are designed to achieve, IARC directly contributes to the **WHO GPW 14 Joint Outcomes**, accelerates progress towards the **Triple Billion Targets**, and supports several **Sustainable Development Goals (SDGs)**, with particular focus on **Good Health and Wellbeing (SDG 3), Reducing Inequalities (SDG 10)**, **Climate Action (SDG 13)**, and **Partnerships for the Goals** (SDG 17) (see Box 4).
- **Built-in resilience**: In line with outcome-level result #3 on future preparedness, IARC will weave foresight, agility, and crisis readiness into its science and systems, strengthening research, governance, and partnerships to remain adaptive in the face of shocks and megatrends.

Box 4. IARC's strategic contributions to global health goals

IARC outcome-level results	GPW 14 Joint Outcomes (JO)	Triple Billion Targets	SDG Contributions (with targets)
1. Evidence-based policies for cancer prevention	**JO2:** Determinants of health and root cause of ill health, especially **JO2.1, JO2.2, JO2.3** **JO3:** The primary health care approach and essential health system capacities, especially **JO3.1** **JO4:** Health service coverage and financial protection, especially **JO4.1**	- 1 Billion more people enjoying better health and well-being - 1 Billion more people benefiting from UHC	**SDG 3.4:** Reduce mortality from NCDs **SDG 3.8:** Achieve UHC **SDG 17.F:** Respect national leadership to implement policies for the SDGs **SDG 17.G:** Enhance the global partnership for sustainable development **SDG 17.I:** Enhance availability of reliable data
2. Global equity in cancer control	**JO2:** Determinants of health and root cause of ill health, especially **JO2.1, JO2.2, JO2.3** **JO3:** The primary health care approach and essential health system capacities, especially **JO3.2** **JO4:** Health service coverage and financial protection, especially **JO4.1**	- 1 Billion more people enjoying better health and well-being - Equity lens across all targets	**SDG 3.B:** Support research, development and universal access to affordable vaccines and medicines **SDG 3.C:** Substantially increase health financing and the recruitment, development and retention of the health workforce **SDG 10.2:** Promote universal social, economic and political inclusion **SDG 10.3:** Ensure equal opportunities and end discrimination **SDG 17.6:** Knowledge sharing and cooperation for access to science, technology and innovation **SDG 17.8:** Strengthen the science, technology and innovation capacity for least developed countries
3. Future preparedness through research and resilience	**JO1:** Climate change and health, especially **JO1.1** and **JO1.2:** **JO3:** The primary health care approach and essential health system capacities, especially **JO3.3** **JO5:** Prevent, mitigate and prepare for emergencies, especially **JO5.1** and **JO5.2**	- 1 Billion more people better protected from health emergencies - Institutional resilience across all targets	**SDG 3.9:** Reduce illnesses and death from hazardous chemicals and pollution **SDG 13.1:** Strengthen resilience and adaptive capacity to climate-related disasters **SDG 13.3:** Build knowledge and capacity to meet climate change

4. Implementation plan

Reaching the 100% Commitments calls for a redefined implementation model, one that builds on IARC's strengths while modernizing its operational approach to meet the needs of a changing world. This section outlines the strategic framework underpinning implementation. A more detailed action plan follows in Chapter 2.

At the core of this framework is one of IARC's greatest strengths: its **four-Pillar scientific model**, which embodies the integrated cancer prevention research continuum. The four Pillars – **Data, Discovery, Implementation**, and **Knowledge** – define what IARC does and provide a coherent structure for all scientific activities. While the programme tree remains unchanged for 2026–2030, as a continuation of the 2021–2025 period, outcome-level results for 2030 have been set to ensure measurable progress for each Pillar. These outcome-level results also consolidate the emerging priorities first established in the previous Strategy, addressing the **economic and societal impact of cancer, evolving risk factors and populations in transition**, and **implementation research**, making them central drivers of the next 5 years:

- **Pillar I – Data:** By 2030, IARC will further extend its reputation as a globally recognized authority in cancer surveillance, delivering a comprehensive, quality-assured, and accessible suite of indicators that integrate epidemiological, equity, and health-economic metrics. These data will serve as global public goods, informing the monitoring of prevention and early detection, informing the planning and evaluation of national strategies, and tracking progress against national, regional, and global cancer control targets. Central to this vision is the expansion of population-based cancer registries (PBCR), particularly in LMICs, so that every country can generate and be informed by its own high-quality data.
- **Pillar II – Discovery:** By 2030, Pillar II will have delivered definitive evidence on the causes and mechanisms of cancer across diverse populations, with a particular focus on those most affected by rapid lifestyle, environmental, and health system transitions. It will do so by advancing the identification and assessment of established and potential novel exposures and illuminating the biological pathways through which they act, creating the knowledge base needed to prevent cancer more effectively and equitably worldwide.
- **Pillar III – Implementation:** By 2030, Pillar III will have transformed proven and emerging cancer prevention strategies into routine practice worldwide through implementation research, delivering tested, cost-effective, and context-adaptable strategies, toolkits, and decision-support models that countries use to design, scale, and monitor equitable early-detection and risk-reduction programmes.
- **Pillar IV – Knowledge:** By 2030, Pillar IV will have transformed complex cancer science into trusted, globally accessible public goods, authoritative hazard evaluations, prevention guidance, harmonized tumour classifications, and scalable learning resources and courses, used routinely by governments, WHO programmes, regulators, clinicians, and researchers to interpret, adapt, and implement evidence-informed prevention and early detection, with targeted capacity-building to support LMICs.

To amplify the impact of its scientific efforts, IARC will continue to invest in and enhance the visibility of its signature research through its 10 Flagships: **the Global Cancer Observatory, the *Mutographs of Cancer*, the European Prospective Investigation into Cancer and Nutrition (EPIC), Cancer Screening in Five Continents (CanScreen5), the *IARC Monographs*, the *WHO Classification of Tumours* (WHO Blue Books), the *IARC Handbooks of Cancer Prevention*, the Global Initiative for Cancer Registry Development (GICR), the World Code Against Cancer Framework (WCACF), and IARC Learning**. Tools to assess and monitor their long-term public health impact will be developed as part of the results-based management framework.

These core activities will be complemented by three cross-cutting thematic priorities that sharpen IARC's focus on areas of highest global relevance and institutional value:

- ➔ **WHO global initiatives on cancer (breast, cervical, and childhood cancers)** will be supported by IARC as their scientific backbone, ensuring that global ambitions are matched with robust evidence, tools, and metrics for countries.
- ➔ **Lung health** will remain a stand-alone focus, reflecting the scale of lung cancer as the leading cause of cancer death and the urgent need for stronger evidence to guide equitable and cost-effective screening and prevention worldwide.
- ➔ **Planetary health** will address environmental drivers of cancer, linking prevention to the broader sustainability and climate agenda.

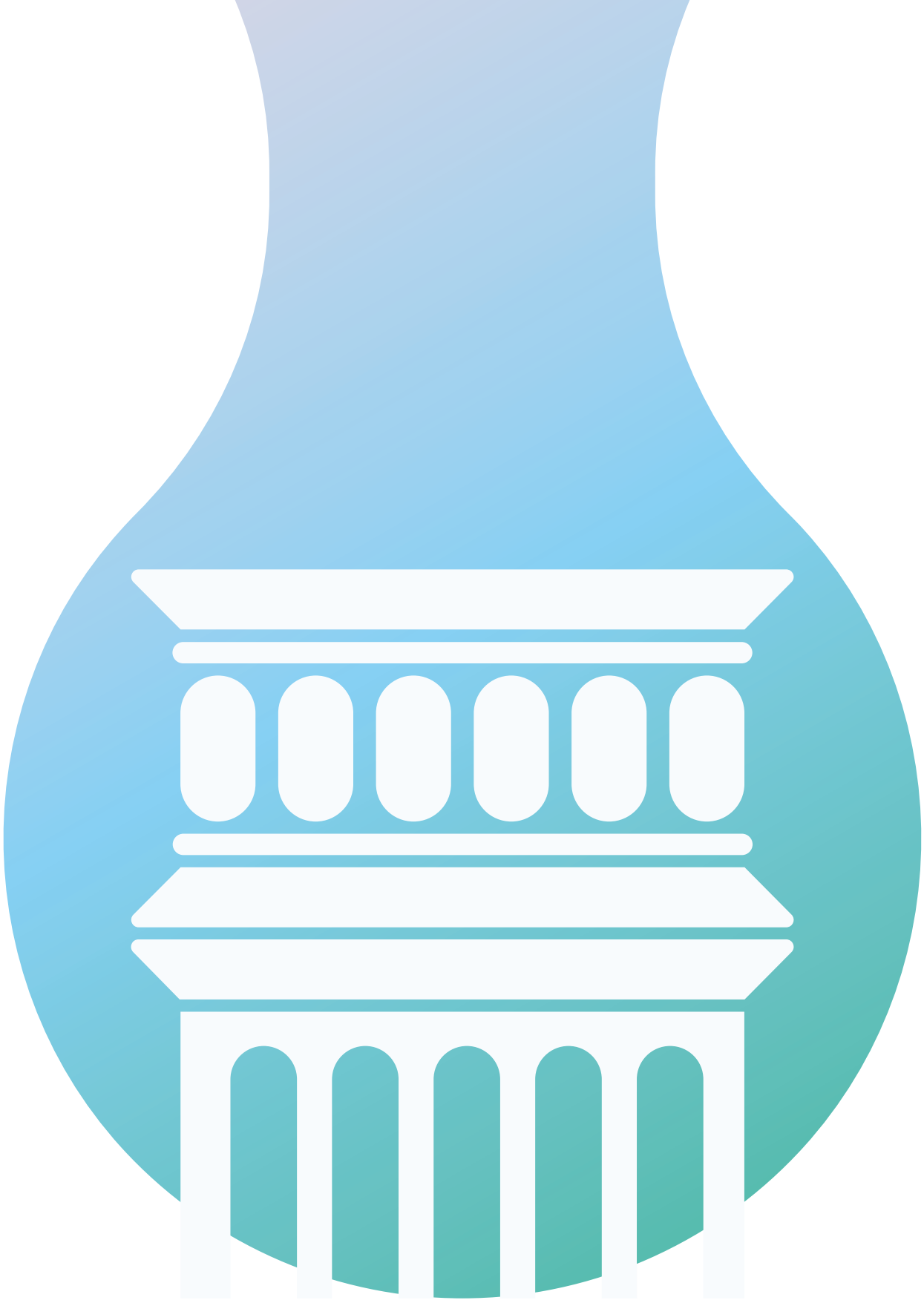
To fully operationalize this vision, IARC is introducing a new structural element: five **transverse Bridges**. While the four scientific Pillars define *what* IARC does, its core areas of research and expertise, the Bridges define *how* IARC delivers its work with maximum relevance, coherence, and impact. They are the connective tissue of the Strategy – innovative mechanisms that link research to decisions, align internal systems, and ensure that science is translated into policy and practice. Together, the Bridges form IARC's dynamic pathways from insight to real-world impact.

Behind the science: Bridges that make IARC work smarter:

- **Bridge #1 – Operational excellence:** Behind every discovery is a foundation of infrastructure, people, and processes. This Bridge modernizes IARC's laboratories, digital platforms, and human resources, embedding sustainability and inclusion so science moves faster and further.
  - ➔ **Target:** By 2030, IARC will be a fully digital, people-centred research agency where sustainability is embedded as a guiding principle, providing secure data access, world-class biobanking, and greener operations that set a standard for global cancer research.
- **Bridge #2 – Organizational synergies:** Research cannot thrive in silos. This Bridge connects projects across Pillars through cross-cutting Research Teams and a matrix structure, fostering agility, shared ownership, and coherence from discovery to prevention.
  - ➔ **Target:** By 2030, IARC will operate as a seamlessly connected agency, where Research Teams cut across disciplines and disease sites to accelerate discovery and translate science into action.

On the front stage: Bridges that drive the science–policy interface:

- **Bridge #3 – Innovative governance:** Agility is critical in a changing world. This Bridge embeds innovative approaches, foresight, risk management, and results-based accountability into IARC's systems, while deepening engagement with current and prospective Participating States and diversifying financing.
  - ➔ **Target:** By 2030, IARC will operate under transparent, participatory, and innovative governance, backed by sustainable multi-year financing and co-designed priorities that deliver demonstrable impact for national and global cancer control.
- **Bridge #4 – Transformative partnerships:** Aligned with the principle of joint responsibility, that no single institution can meet the cancer challenge alone, this Bridge extends IARC's reach through alliances with WHO, UN partners, governments, academia, civil society, and selective private sector actors, ensuring equity and country ownership.
  - ➔ **Target:** By 2030, IARC will have forged transformative partnerships across all WHO regions, with its science routinely adapted and applied by countries to accelerate cancer prevention and control.
- **Bridge #5 – Science for society:** Knowledge only makes a difference when it is understood and used. This Bridge elevates communication and engagement as strategic drivers, turning science into trusted public goods through Open Science, knowledge tools, and campaigns.
  - ➔ **Target:** By 2030, IARC will be the world's trusted source of cancer knowledge, openly shared, clearly communicated, and routinely applied by policy-makers, health professionals, educators, and civil society worldwide.



Chapter 2

The Pillars

This chapter translates IARC's vision into concrete action, setting out the strategic roadmap IARC will follow to deliver on its mission. The specific initiatives that give substance to this plan are presented in *Annex 1: Programme and project proposals 2026–2030*. The action plan is structured around the logic of the cancer prevention research continuum, offering a coherent framework that connects data, discovery, implementation, and knowledge (see Box 5). The sequence of presentation reflects the natural flow of research but does not imply prioritization. Strategic priorities are determined through a formal prioritization process (*see the MTS 2026-2030 companion document IARC Strategic Prioritization Framework*).

I. IARC's scientific framework

Box 5. All under one roof: IARC's integrated model of cancer prevention

Over the decades, IARC has built a globally unique, multidisciplinary model of cancer prevention research, continuously adapting to scientific advances and shifting global health priorities. This evolution has shaped what is now recognized as one of IARC's greatest strengths and a hallmark of its global leadership: the four-Pillar framework, which brings the entire cancer research–implementation cycle together under one roof:

- **Pillar I Data** asks the foundational question: *who gets cancer, where, and when?* Through the curation of trusted global data on incidence, mortality, and survival, IARC identifies disparities and trends, sparks hypotheses, and guides epidemiological investigations. These surveillance outputs underpin the entire continuum of cancer prevention research.
- **Pillar II Discovery** investigates the causes of cancer and how exposures trigger disease. Harnessing the convening power of IARC, it develops and brings together large-scale cohorts, case–control studies, and international consortia, applying cutting-edge multi-omic, molecular, and computational research to uncover cancer risk factors and mechanisms. These discoveries are integrated into the global evidence base, forming the foundation for prevention strategies.
- **Pillar III Implementation** transforms discovery into action. Evidence on the causes of cancer is translated into effective interventions for prevention, early detection, and improved care and survivorship. Using decision science and implementation research, IARC evaluates real-world feasibility, equity, and impact so that strategies work for all settings.
- **Pillar IV Knowledge** is IARC's translation layer, where scientific evidence is distilled into authoritative evaluations, global standards, and practical tools for prevention. Through its flagship series, the *IARC Monographs*, the *IARC Handbooks of Cancer Prevention*, and the WHO Blue Books, as well as IARC Learning and Training programmes, Pillar IV synthesizes research findings into trusted guidance for governments and public health programmes while building the skilled workforce needed to sustain prevention efforts.

Because the four Pillars operate synergistically, IARC's model minimizes duplication, identifies priority gaps through continuous feedback loops, ensures methodological consistency via shared infrastructure, and accelerates the translation of science into policy by enabling rapid mobilization on urgent and emerging issues. IARC's multidisciplinary model, combined with the authority of a WHO mandate and a global reach, has no parallel worldwide. It enables IARC to deliver evidence that is both scientifically rigorous and trusted by governments, while ensuring practical relevance for resource-limited settings where such research would otherwise be out of reach. Preserving and strengthening this model is not optional; it is the foundation on which sustainable, equitable, and globally impactful cancer prevention must be built.

1. Pillar I: Data

- **Leading Branch:** Cancer Surveillance (CSU)
- **Flagships:** The Global Cancer Observatory (GCO); the Global Initiative for Cancer Registry Development (GICR)
- **Target 2030:** By 2030, IARC will further extend its reputation as a globally recognized authority in cancer surveillance, delivering a comprehensive, quality-assured, and accessible suite of indicators that integrate epidemiological, equity, and health-economic metrics. These data will serve as global public goods, informing the monitoring of the cancer burden, informing the planning and evaluation of national strategies, and tracking progress against national, regional, and global cancer control targets. Central to this vision is the expansion of population-based cancer registries (PBCR), particularly in LMICs, so that every country can generate and be informed by its own high-quality data.

A. Results strategy

IARC will respond to growing demand for timely, comparable cancer indicators as countries confront rapid demographic change, epidemiological transitions, and widening social and economic inequalities. Building on the MTS 2021–2025, this Pillar will further integrate cancer inequalities and health-economics data generated from its descriptive research, ensuring that surveillance not only tracks the burden but also guides more equitable and cost-effective cancer control. Three interlinked lines of work will drive this effort.

➔ Turning data into global public goods

IARC will continue to deliver authoritative, freely accessible, and globally comparable cancer indicators as public goods, with the Global Cancer Observatory (GCO) as its central platform (see Box 6). The next biennial GLOBOCAN update, scheduled for 2026, will provide national incidence and mortality estimates for 185 countries, ensuring that countries have access to the most up-to-date and comparable data. Underpinning this and all activities in Pillar I is the support and collaboration of cancer registries worldwide. IARC serves as the secretariat for the International Association of Cancer Registries (IACR), the professional body dedicated to advancing the goals of PBCR worldwide, and the joint IACR-IARC publication *Cancer Incidence in Five Continents* (CI5) is a compendium of comparable data on cancer incidence in different subpopulations. The underlying incidence data are not just a reference source for studies exploring cancer variations worldwide but also the baseline from which the GLOBOCAN estimates are developed for dissemination on the GCO.

Box 6. IARC Flagship: The Global Cancer Observatory (GCO)

Developed, maintained, and hosted by IARC, the GCO is the world's interactive gateway to cancer statistics, turning descriptive research into decision-ready indicators that track the evolving scale, profile, and impact of cancer. It empowers governments, WHO, and partners to plan, monitor, and evaluate cancer control strategies with authoritative, comparable data.

Since its launch in 2016, the GCO has become one of IARC's most visible and valued contributions. *Cancer Today* provides GLOBOCAN estimates for 36 cancer types; companion subsites, *Cancer Tomorrow*, *Cancer Causes*, and *Cancer Survival*, enable forecasting, risk attribution, and survival analyses. There have been recent innovations, including several new tools under the *Cancer Impact* subsite of the GCO. The Cervical Cancer Elimination Planning Tool (EPT) models the population and economic impact of elimination strategies across 78

LMICs, helping policy-makers design, cost, and tailor national programmes across HPV vaccination, screening, and treatment. The profound economic void left behind when individuals die prematurely from cancer underscores the interconnectedness between health and economic stability. The *Cancer Economics: Productivity Loss* subsite provides a suite of data visualization tools to explore estimates of the economic value of paid and unpaid productivity loss due to premature mortality from cancer in 185 countries by sex and age group for 2022.

The GCO now underpins WHO's Global Health Estimates, regional cancer profiles, and numerous national cancer control plans. Regular biennial updates and full methodological transparency have cemented its role as the gold standard for monitoring the global cancer burden. Its influence is reflected in the scientific record: IARC's global cancer statistics papers are among the 10 most-cited papers of the 21st century, an endorsement of IARC's role as the world's trusted steward of cancer data.

Looking ahead to 2030…

New platforms will extend IARC's reach: the CHILDCAN subsite will provide dedicated indicators on childhood and adolescent cancer, linked to *International Incidence of Childhood Cancer* (IICC); the next volumes of SURVCAN, extending to SURVCAN-5, will provide updated survival estimates from 50 LMICs, and SURVMARK will move towards a real-time global survival benchmarking platform.

In parallel, NORDCAN will continue to support regional planning with updated Nordic cancer registry data and enhanced analytical features, including integration of PREVENT 2.0 to project the health and economic benefits of effective preventive interventions.

➔ Building the foundations of cancer surveillance

Robust PBCR are the foundation of effective cancer control, yet coverage and quality remain highly uneven, especially in LMICs. Without reliable incidence data, neither global estimates nor national cancer control plans can be sustained. Through the Global Initiative for Cancer Registry Development (GICR), IARC will expand PBCR coverage, improve data quality, and strengthen local expertise (see Box 7).

Box 7. IARC Flagship: The Global Initiative for Cancer Registry Development (GICR)

Launched in 2011, the GICR is IARC's flagship initiative that aims to reduce disparities in cancer surveillance. Working through 6 Regional Hubs and 14 Centres of Expertise, the GICR has delivered tailored technical assistance, on-site and online training, and a train-the-trainer model that embeds sustainable national capacity. Partnerships such as the African Cancer Registry Network (AFCRN) illustrate how registry networks can become robust sources of quality-assured national cancer data. The GICR serves as a cross-cutting link to the three signature initiatives of WHO, enabling countries to measure progress towards reaching the respective 2030 targets for cervical, breast, and childhood cancer (see II. Cross-cutting research priorities).

The GICR increases regional capacity via the creation of formal networks of IARC-GICR regional trainers, called the GICR Network (GICR*Net*). More than 120 designated trainers now serve as a resource to further assist registry staff, working with the IARC Regional Hubs and Centres of Expertise across different subject areas, including data quality, data analyses, coding and staging, childhood cancer, and registry consultancies.

ChildGICR, developed with St. Jude Children's Research Hospital, is embedded into GICR and seeks to advance childhood cancer surveillance, train regional experts, and produce

new teaching materials, while documenting the real-world challenges faced by families and health systems. An important milestone was the launch of an e-learning series of 14 modules developed in partnership with Vital Strategies and the AFCRN and supported by Bloomberg Philanthropies. Available in English, French, and Spanish, the freely available course is now hosted on the WHO Academy platform and offers the staff of cancer registries formal certification as International Cancer Registrars.

Looking ahead to 2030…

IARC will intensify this agenda by embedding cancer registration more firmly within national health information systems. The new CanReg system – the open-source registry software – will interface directly with DHIS2, enabling routine data capture and interoperability in health systems in LMICs. CI5-XIII and IICC-IV will provide the next global benchmarks for high-quality incidence data, supported by AI-assisted editorial processes and disseminated through the forthcoming IACR 2.0 platform, which will integrate CI5, IICC, and new tools for registry networking. Open calls for aggregated data will enable cancer registries to submit timely data to be included as part of the suite of CI5 data visualization tools on the IACR 2.0 website. To ensure comparability worldwide, updated classification and staging systems will be rolled out: the International Classification of Diseases for Oncology, 4th edition (ICD-O-4) and the International Classification of Childhood Cancer, 4th edition (ICCC-4), alongside further enhancements of staging tools such as CanStaging+ and Essential TNM. These standards will be supported by global training through the GICR*Net*, reinforcing registry capacity while maintaining methodological alignment across countries.

➔ Understanding trends to tackle inequalities

Understanding how cancer risk evolves across populations is essential for designing policies that are equitable, forward-looking, and cost-effective. IARC will continue to strengthen its descriptive research, analysing cancer patterns and trends by person, place, and time and quantifying the potential health, social, and economic benefits of prevention. These insights will flow into the GCO, creating a cycle where registry data, descriptive epidemiology, and the development of national indicators mutually reinforce one another to guide action. A sharper focus will be placed on inequalities. A dedicated Cancer Inequalities Research Team, working across Pillars I and II, will expand assessments of disparities by socioeconomic status, education level, gender, and geography, ensuring that inequities are systematically measured and addressed. Building on the EU-CanIneq project, which produced some of the first comprehensive mappings of cancer inequalities between and within European countries, this agenda will expand globally. The impact of overdiagnosis and overtreatment will be explored and the financial burden of inequities estimated, with the aim of ensuring that observed disparities are visible, measurable, and actionable.

In 2026–2030, IARC will advance a series of interconnected initiatives that link surveillance more directly to policy and practice. SURVMARK will evolve into a real-time international survival benchmarking platform, providing interactive dashboards within the GCO, comparative analyses across countries, and training programmes to build technical expertise in survival statistics. Building on work initiated in the Nordic countries, IARC will expand its modelling efforts to project the future health and economic benefits of reducing major risk factors such as tobacco use, alcohol consumption, and obesity, scaling this approach for global application. The *Cancer Causes* platform will continue to update estimates of cancers attributable to major risk factors and assess the impact of policy measures, from taxation to marketing restrictions. Work will also expand on the long-term outcomes of childhood cancer survivors, generating evidence to guide registries and improve follow-up care.

To complement this agenda, health economics will be integrated more systematically into surveillance. New indicators on productivity losses, financial hardship, and the costs of inequities, including gender perspectives, are being continually developed and embedded into the GCO. By 2030, GCO users will be able to view health-economic intelligence alongside epidemiological metrics.

Box 8. IARC Initiative for Resilience in Cancer Control (IRCC)

Launched in 2020 at the onset of the COVID-19 pandemic, the IRCC has evolved into a global response to health crises, extending beyond pandemics to include natural disasters, humanitarian emergencies, and other system shocks. Its mission is to safeguard cancer services when systems are under pressure by monitoring key indicators before, during, and after crises, investigating why services break down and which local mitigation strategies succeed, and modelling the consequences of disruptions to strengthen preparedness.

Since its launch, the IRCC has brokered new data-sharing agreements with cancer registries across Asia, Africa, and high-income countries, expanding the global evidence base for resilience. It has systematically documented how crises such as the COVID-19 pandemic disrupted cancer services, measuring diagnostic delays and their impact on survival. At the same time, the IRCC is developing a suite of resilience tools, integrated into the GCO, including the Cervical Cancer Elimination Planning Tool (EPT) and forthcoming health-system performance models, that will help policy-makers plan, cost, and adapt programmes to ensure that essential cancer services can be sustained even in times of crisis.

B. Strategic fit: contributions to outcome-level results

➔ Outcome-level result #1: Evidence-based policies for cancer prevention

Pillar I will equip governments and international bodies with authoritative data to design, implement, and evaluate cancer prevention and control strategies. These data feed directly into major global initiatives, including the signature WHO global initiatives on cancer, as well as national cancer control plans. Alongside core datasets such as GLOBOCAN, IARC's applied research, ranging from population attributable fractions for key risk factors to modelling the health and economic impact of prevention, guides priority actions such as tobacco control, HPV vaccination, infection control, and alcohol policy. The integration of health-economic indicators into the GCO will strengthen investment cases, while GICR technical cooperation will ensure that the evidence underpinning WHO guidance is both robust and locally relevant.

➔ Outcome-level result #2: Global equity in cancer control

Equity is embedded in the design of Pillar I. Expanding the coverage and quality of PBCR, particularly in LMICs, will close persistent gaps in data availability and ensure that all regions can measure and respond to their cancer burden. IARC works one-on-one with PBCR, providing tailored technical assistance, training, and sustained follow-up to build national ownership and capacity. At the same time, integrating inequality indicators and health-economic perspectives into surveillance frameworks will make disparities visible and actionable, enabling countries to adapt strategies to their own realities.

➔ Outcome-level result #3: Future preparedness through research and resilience

Pillar I positions IARC as the global foresight engine for cancer control. Through horizon scanning, scenario modelling, and resilience tools, it anticipates how the cancer burden will evolve in a rapidly changing world, whether through rising incidence rates in younger populations, accelerating trends in LMICs, or the consequences of climate change. These methods will enable

IARC not only to project the future burden but also to estimate the costs of inaction and the benefits of timely interventions, helping countries safeguard progress against cancer even under pressure.

A distinctive focus will be on preparing for shocks and megatrends that threaten health systems. Through the IRCC, lessons learned from the COVID-19 pandemic will be expanded to other crises, from natural disasters to humanitarian emergencies, embedding resilience models directly into the GCO. At the same time, IARC will continue to generate robust evidence on the commercial determinants of health, notably tobacco and alcohol, by quantifying how policy levers such as taxation or marketing restrictions translate into real reductions in cancer burden. Advances in digital innovation and AI will further accelerate this agenda, enabling cancer indicators that are more timely, granular, and predictive and ensuring that countries remain prepared to confront future challenges.

2. Pillar II: Discovery

- **Leading Branches:** Genomic Epidemiology (GEM); Nutrition and Metabolism (NME); Environment and Lifestyle Epidemiology (ENV)
- **Flagships:** The European Prospective Investigation into Cancer and Nutrition (EPIC); the *Mutographs of Cancer*
- **Target 2030:** By 2030, Pillar II will have delivered definitive evidence on the causes and mechanisms of cancer across diverse populations, with a particular focus on those most affected by rapid lifestyle, environmental, and health system transitions, as well as poorly understood cancer patterns and trends. It will do so by advancing the identification and assessment of established and potential novel exposures and early risk biomarkers and illuminating the biological pathways through which they act, creating the knowledge base needed to prevent cancer more effectively and equitably worldwide.

A. Results strategy

IARC will accelerate discovery by focusing on the major risk factors driving today's cancer transitions, further refining risks of known carcinogens such as obesity, diet, inactivity, tobacco, alcohol, infections, pollutants, occupational hazards, and radiation while also anticipating emerging risks from climate change, industrial and environmental contamination, and new technologies. A central priority, first identified in the MTS 2021–2025, will be the evolving profile of cancer risk factors in populations in transition, shaped by urbanization, globalization, and shifting lifestyles. These trends are exacerbated by unbalanced diets, increasing obesity, decreasing physical activity, and the introduction of new environmental and occupational hazards. Pillar II will address complex, interdependent exposures across four interconnected lines of work.

➔ **Uncovering the causes through integrated epidemiology and omics**

Although about 40% of cancers are attributable to known modifiable risk factors, major gaps remain, particularly for cancers with unexplained geographical variation or rapid increases in incidence. Pillar II will accelerate discovery by leading large-scale, multicountry epidemiological studies that integrate genomics and metabolomics to uncover new causes of cancer and refine knowledge of existing ones.

Research will give particular attention to cancers of growing concern, with unexplained geographical variation or rapid increases in incidence. For example, incidence of early-onset colorectal and breast cancers is rising sharply in younger adults, while childhood cancers demand fresh insights into how genetic, epigenetic, and environmental drivers interact. Large multicentre studies in Latin America and Africa will investigate modifiable risks and molecular

signatures of breast and oesophageal cancer, while simultaneously strengthening local research capacity. The incidence of lymphomas has undergone remarkable changes, but their underlying causes remain largely unknown; hence, genetic studies of lymphoma will be oriented towards innovative approaches to explore these unknown causes.

A complementary agenda on planetary health prevention will examine how diet and lifestyle choices can both reduce cancer risk and support environmental sustainability. Drawing on major cohorts such as EPIC (see Box 9) and UK Biobank, studies will model the cancer impact of different protein sources, food biodiversity, and processing practices, aligning cancer prevention with global climate and sustainability goals.

Box 9. IARC Flagship: The European Prospective Investigation into Cancer and Nutrition (EPIC)

EPIC is one of the world's largest and most influential cohort studies, coordinated by IARC. Since the early 1990s, EPIC has followed up more than 521 000 participants across 10 European countries, collecting harmonized lifestyle and health data and building one of the world's largest biobanks, with millions of biological samples. Today, the cohort includes more than 62 000 cancer cases, offering an unparalleled resource for studying the causes of cancer and chronic diseases.

EPIC exemplifies IARC's leadership in population-based research and international collaboration. With more than 3000 peer-reviewed publications, its findings have reshaped scientific understanding and directly informed public health. Evidence on diet, obesity, physical activity, alcohol, and tobacco has underpinned WHO recommendations, national cancer strategies, and policies such as the Nutri-Score food labelling system. By integrating genomic, metabolomic, and proteomic data, EPIC has also advanced biomarker discovery and precision risk assessment, linking molecular mechanisms with population-level trends.

Looking ahead to 2030…

EPIC will expand its role as a global reference for cancer causation and prevention. Untargeted metabolomics and proteomics will accelerate biomarker discovery, clarifying how diet, lifestyle, and metabolic health shape cancer risk. A dedicated programme will tackle the rapid rise of early-onset cancers, identifying modifiable determinants and informing tailored prevention. EPIC will also extend its focus to multimorbidity, integrating data on cancer and cardiometabolic diseases to reveal shared pathways and prevention opportunities. Continued biobank replenishment and centralization of molecular and end-point data will ensure that EPIC remains a world-class resource for increasingly sophisticated epidemiological research.

➔ Cracking the code of carcinogenesis

Understanding why cancers develop requires more than identifying exposures; it means unravelling the biological processes that connect those exposures to disease. Lifestyle and environmental factors interact in complex ways with human biology. They can damage DNA, disrupt hormones and metabolism, reshape the immune system, or trigger chronic inflammation. Rarely acting in isolation, these processes converge to create the conditions in which cells transform and tumours emerge. Pillar II will apply an integrative, multidisciplinary approach, combining IARC's strengths in epidemiology, biobanking, laboratory research, genomics, computational science, and pathology within population-based studies to map these mechanisms in detail. Researchers will trace the sequence of events from exposure to the earliest biological alterations that mark the onset of carcinogenesis. This holistic strategy illuminates not only mutational pathways but also the subtler processes – immune modulation, metabolic disruption, or epigenetic switches – that underlie high cancer incidence.

Research will focus on several critical fronts. In lung cancer, molecular profiling is helping to explain why some early-stage tumours behave so aggressively. In breast, thyroid, ovarian, and endometrial cancers, studies of hormonal and metabolic pathways are clarifying how endocrine changes drive disease, particularly in LMICs, where risk profiles differ. Work on diet, obesity, and the gut microbiome is linking metabolic shifts to cancers of the stomach, liver, pancreas, and colon. Exposome projects are mapping the biological fingerprints of carcinogens, from alcohol and tobacco to endocrine disruptors and chemical mixtures, helping to identify new risks while refining understanding of known ones. Childhood cancers remain a major priority. IARC will investigate genetic and epigenetic precursors detectable in neonatal blood or target tissues, opening the possibility of prevention before disease onset. Studies of Burkitt lymphoma in childhood are already exploring how multiple infections and exposure to mycotoxins interact with epigenetic processes to drive one of the most common paediatric cancers in parts of Africa. In parallel, IARC is investing in the development of paediatric cohorts to explore the relationship between nutrition and cancer outcomes in children and adolescents.

Across all these domains, epigenetics is emerging as a unifying lens, showing how exposures switch genes on or off without altering DNA sequence. Already, distinct molecular signatures of exposure are being identified – early markers that could one day flag elevated cancer risk long before tumours appear.

Box 10. IARC Flagship: The *Mutographs of Cancer*

Launched in 2017 under the Cancer Grand Challenges initiative, the *Mutographs of Cancer* project is a landmark global effort to uncover the causes of cancer by decoding mutational signatures, the unique DNA patterns left behind by cancer-causing processes. With £20 million in funding and a network spanning 27 countries and 46 medical centres, the project integrates whole-genome sequencing, molecular biology, and epidemiology to explain why cancer incidence varies so widely across populations and why incidence of certain cancers is rising.

The *Mutographs of Cancer* epitomizes IARC's leadership in causal cancer research and global collaboration. Analyses of more than 8000 cancer genomes have uncovered previously unrecognized mutagenic exposures, shown that some high-incidence cancers may arise through non-mutagenic pathways, and linked genotoxic bacteria to early-onset colorectal cancer. Beyond scientific discovery, the project has created enduring public resources, including open biobanks and genomic datasets, and has strengthened research capacity in partner countries through training and collaboration.

Looking ahead to 2030…

The *Mutographs of Cancer* will have a major focus on understanding the causes of early-onset colorectal cancer and will investigate specific hypotheses that the increase in incidence is caused by childhood exposure to genotoxins linked to specific bacteria that have become more frequent in the infant microbiome. Thousands of normal tissue samples from individuals with early-onset colorectal cancer and matched controls will be sequenced from diverse populations, using increasingly powerful technologies, to reveal the earliest molecular events linked to the microbiome that set colorectal cancer in motion. Another major emphasis will be to understand the causes of renal cancer, which will involve detailed mapping of the prevalence, intensity, timing, and geography of mutagenic exposures, including those driving unexplained renal cancer patterns in countries such as Romania, Serbia, and Japan, and the identification of as yet unknown causal agents. Future research will expand to non-mutagenic pathways and will investigate the promotion effect of hot beverages for oesophageal cancer, as well as the role of obesity, hypertension, and metabolic syndrome for pancreatic and renal cancers.

➔ Mapping exposure pathways to cancer

At the frontier between discovery and prevention, this programme leverages IARC's impartiality and convening power to transform signals of potential risk, whether from the environment, occupation, radiation, or lifestyle, into robust evidence that can guide exposure reduction or elimination through regulation and public health action. It brings together international epidemiological studies, advanced exposure assessment, and laboratory investigations to reveal how exposures translate into cancer risk. Priorities for 2026–2030 include underexplored exposures with growing public concern, such as tattoo inks (used by nearly half of young adults in some populations), endocrine-disrupting chemicals, and non-ionizing radiation from mobile telephony and 5G networks, with special attention to skin cancer and childhood cancers.

Another priority is cancers with unexplained patterns. IARC will build on the decade-long ESCCAPE case–control studies of oesophageal cancer in East Africa, expanding fieldwork to include home-based environmental exposure assessments. In parallel, IARC will launch the African Esophageal Cancer Consortium (AfrECC) Etiology Pooling Project, bringing together case–control studies of this cancer from across the continent. Together, these efforts will enable deeper investigations into exposures ranging from oral health and alcohol consumption to indoor air pollution, micronutrient deficiencies, and food contaminants.

Research on childhood cancers will expand, probing maternal exposures to pesticides, per- and polyfluoroalkyl substances (PFAS), and air pollution as potential contributors to leukaemia, brain tumours, and neuroblastoma, while simultaneously building capacity for cancer research in low-resource settings.

Prescription opioids are another emerging priority. IARC will investigate long-term cancer risks linked to opioid use and develop durable research resources to track the wider health consequences of the opioid crisis. This work will generate crucial evidence to inform both prevention strategies and public health policy, particularly in settings where opioid use is rapidly increasing.

Occupational cancer will remain a cornerstone. IARC will lead global studies quantifying risks linked to asbestos mining, pesticide use in agriculture, and exposures in construction, textiles, and other industries. New approaches will also explore prevention by targeting high-risk worker populations where occupational exposures interact with smoking to multiply cancer risk.

Radiation-related cancer research will continue with long-term follow-up of populations exposed to nuclear accidents and testing. These cohorts offer unique opportunities to study transgenerational effects and long-term outcomes of radiation exposure.

Finally, IARC will investigate new environmental and climate-linked risks. This includes pioneering research on vulnerable populations affected by climate change. A new programme has been launched to support people with albinism in Africa, who face exceptionally high risks of non-melanoma skin cancer. IARC is leading the first epidemiological studies to compare different photoprotective strategies, such as sunscreen use, and to evaluate the effectiveness of targeted screening approaches.

➔ Mapping cancer within the wider landscape of disease

Pillar II will explore how known and novel cancer causes contribute to multimorbidity and premature mortality, using integrated molecular, clinical, and epidemiological approaches. Research will link large cohorts, clinical studies, and omics data to uncover shared biological pathways and interactions between cancer and other chronic diseases. For example, projects will examine how genomic and behavioural markers influence survival in cancers such as head

and neck cancer, and how lifestyle changes after diagnosis, like quitting smoking or reducing alcohol consumption, can improve long-term outcomes.

A major strand of work will focus on metabolic and hormonal pathways, investigating how obesity, insulin resistance, and endocrine disruption jointly drive cancer and cardiometabolic disease. Using proteomics and metabolomics, researchers will identify biomarkers that connect diet and other modifiable risks to multiple diseases simultaneously, helping to design interventions that maximize benefit across the NCD spectrum. This multimorbidity agenda will also expand into early-onset cancers, where interactions with obesity, diabetes, and metabolic dysfunction may help explain rising trends in younger adults.

B. Strategic fit: contributions to outcome-level results

➔ **Outcome-level result #1: Evidence-based policies for cancer prevention**

Pillar II will deliver the molecular and epidemiological evidence that underpins tomorrow's prevention strategies. Building on EPIC's unparalleled lifestyle and biobank data, the *Mutographs of Cancer*'s global mapping of cancer-causing processes, and more than 20 cancer and exposure-focused epidemiological studies, IARC will identify new carcinogens, quantify their burden, and explain the biological mechanisms that link exposures to disease. Crucially, the science will be translated into policy. Findings on lifestyle, genetic, occupational, and environmental risks will inform workplace protections, consumer safeguards, and standards for emerging technologies. Research on multimorbidity will extend this reach further, guiding integrated strategies that reduce the incidence not only of cancer but also of cardiovascular and metabolic diseases, amplifying the benefits for population health.

➔ **Outcome-level result #2: Global equity in cancer control**

Pillar II will embed LMIC participation at the forefront of discovery science, ensuring that prevention strategies are relevant to diverse populations. Global consortia such as EPIC and the *Mutographs of Cancer* will expand genomic and epidemiological capacity by providing training, laboratory resources, and open-access computational tools to partners across Africa, Asia, and Latin America. Initiatives like the collaboration with Tata Memorial Hospital in India, which has already delivered training in mutational signature analysis, will be scaled to address region-specific cancers such as oesophageal and gall bladder tumours, while building a sustainable pipeline of local expertise and infrastructure.

Research will also address cancers that reflect rapid transitions in lifestyle, environment, and health systems, particularly in LMICs. These efforts will focus on identifying locally relevant drivers of cancer and on occupational exposures, where workers in informal or weakly regulated sectors continue to face disproportionate risks without adequate protection.

➔ **Outcome-level result #3: Future preparedness through research and resilience**

Pillar II will anticipate tomorrow's cancer challenges. Research on early-onset cancers will probe the drivers of rising incidence in younger adults, while work on hormonal and gastrointestinal cancers will integrate lifestyle, environmental, and microbiome indicators to uncover new risks. Studies of commercial determinants, including ultra-processed foods, alcohol, and tobacco, will quantify their long-term association with cancer and support stronger regulatory action.

Innovation will be central. By harnessing AI and advanced statistical methods, Pillar II will unlock the potential of large-scale molecular datasets, identifying molecular signatures of lifestyle exposures and accelerating the discovery of novel carcinogens.

Finally, Pillar II will contribute to the fight against health misinformation. Building on the *Mutographs of Cancer*'s strong record in public engagement and patient advocacy, it will use dialogue, education, and transparent communication to strengthen trust in science and ensure that accurate, evidence-based information guides both public understanding and policy.

3. Pillar III: Implementation

- **Leading Branches:** Environment and Lifestyle Epidemiology (ENV); Early Detection, Prevention, and Infections (EPR)
- **Flagships:** The World Code Against Cancer Framework (WCACF); Cancer Screening in Five Continents (CanScreen5)
- **Target 2030:** By 2030, Pillar III will have transformed proven and emerging cancer prevention strategies into routine practice worldwide through implementation research, delivering tested, cost-effective, and context-adaptable strategies, toolkits, and decision-support models that countries use to design, scale, and monitor equitable early-detection and risk-reduction programmes.

A. Results strategy

Pillar III will link discovery and delivery, ensuring that the causes identified in Pillar II are rapidly translated into interventions, tested in real-world settings, and scaled into national programmes. Building on the emerging priority of implementation research from the MTS 2021–2025, it will embed decision science at every stage so that findings move efficiently from research to policy and practice. To achieve this, IARC will work hand in hand with national, regional, and global partners to shape and evaluate solutions that are not only effective but also equitable and sustainable, advancing its mission through four main areas of work.

➔ **Unlocking the potential of biomarkers for early detection and outcomes**

Biomarkers are transforming cancer prevention by making it possible to assess cancer risk more accurately, detect cancer and its precursors before symptoms appear, and tailor screening to those most in need. By 2030, IARC aims to deliver a new generation of biomarker-informed strategies that bring cancer prevention closer to precision medicine, while ensuring that advances are accessible and affordable across diverse health systems. This agenda builds on IARC's unique international cohorts, case–control studies, and post-diagnostic research, drawing on blood, urine, saliva, and tissue samples to detect proteins, metabolites, circulating DNA, and molecular signatures that provide a window into cancer risk and progression. State-of-the-art metabolomics, proteomics, and machine-learning methods will accelerate discovery and validation, while research design will ensure that findings can be translated into cost-effective interventions worldwide.

Several major programmes illustrate how IARC will deliver this vision. Multicancer risk assessment models now combine lifestyle, genetic, and biomarker data to guide early detection strategies and to inform the development of multicancer early detection tests, with validation planned across diverse populations to guarantee global relevance. In lung cancer, IARC and its partners in the Lung Cancer Cohort Consortium (LC3) are validating biomarkers that could refine screening eligibility and improve the management of high-risk nodules detected by imaging (see Box 17). For bladder cancer, international teams are testing urine-based assays that offer a non-invasive and affordable path to earlier diagnosis, with studies under way in Bangladesh, Malawi, and Morocco. In HPV-related cancers, IARC is leading global research on markers such as HPV16 E6 antibodies and circulating HPV DNA as potential screening tools for oropharyngeal and anal tumours.

➔ Strengthening prevention of infection-driven cancers

Oncogenic infections remain one of the largest preventable causes of cancer, especially in LMICs, where they contribute to a disproportionate share of the burden. Pillar III will sharpen the evidence base by quantifying the incidence, mortality, and costs of infection-driven cancers, while also testing strategies for prevention, early detection, and treatment.

For gastric cancer, IARC is leading international collaborations to refine estimates of the fraction attributable to *Helicobacter pylori* infection, model the benefits of eradication, and evaluate cost-effective test-and-treat strategies in high-incidence regions. Large multicentre studies will assess prevention and endoscopic surveillance approaches, while metabolomic projects are identifying circulating biomarkers that could improve risk stratification.

In HPV-related cancers, IARC will continue to generate the evidence that underpins vaccination and screening strategies worldwide. Studies will track the durability of protection from single-dose HPV vaccines, optimize cervical and anal cancer screening, and develop risk-stratified approaches tailored to the needs of high-risk groups, including women living with HIV. Microbiome research is opening new frontiers, exploring how HPV infection alters microbial communities across different body sites and how these changes influence persistence or treatment response. Evidence from ongoing studies in Zimbabwe is already shaping better treatment strategies for cervical precancer in women living with HIV. New initiatives are reinforcing this agenda. A global centre of excellence has been created to standardize methods for monitoring the impact of HPV vaccination in low-resource settings. By piloting population-based surveys and training local scientists, it will provide countries with early, direct evidence of vaccine effectiveness while building the capacity for long-term, country-led monitoring. In addition, a flexible modelling platform is being deployed to help governments design elimination policies tailored to their own epidemiological and economic contexts. By integrating real-world data with projections of health and resource needs, this approach enables policy-makers to compare strategies, such as vaccination schedules, screening intervals, or targeted programmes for vulnerable groups, and make informed decisions on the most effective path towards elimination.

Innovation will also drive progress. Novel tools such as liquid biopsies, detecting circulating HPV DNA or proteomic signatures, are being evaluated as highly sensitive biomarkers for the early detection of anal, lung, and other cancers in people living with HIV, potentially transforming how these cancers are identified and managed.

➔ Detecting cancer early to save lives

Early detection remains one of the most powerful levers to improve cancer survival and quality of life, yet access to timely and effective early diagnosis, screening, and care is highly uneven worldwide. Pillar III will generate robust evidence on the efficacy, effectiveness, cost–effectiveness, and equity of screening and early diagnosis strategies, ensuring that programmes not only detect cancer earlier but also deliver timely, high-quality care that is accessible, acceptable, and affordable across settings.

IARC will continue to expand studies that comprehensively assess the individual, cultural, financial, and health system barriers affecting the early diagnosis of both screen-detected and symptomatic breast cancer, as well as access to high-quality, comprehensive care. Building on the landmark African Breast Cancer – Disparities in Outcomes (ABC-DO) studies across sub-Saharan Africa, these efforts are now being extended to breast cancer in multiple European settings and, within the framework of the WHO Global Initiative for Childhood Cancer, to studies of childhood cancer in Africa, Asia, and Europe.

Complementing these in-depth investigations, IARC will also work at the macro, country level. Building on the success of CanScreen5 (see Box 11), IARC will assess how screening programmes are organized and performing, identify barriers to access through an implementation research lens, and support countries in improving programme quality. Alongside this, research will evaluate a new generation of innovations, including AI-assisted diagnostics, mobile health navigation tools, and biomarker-based risk stratification, that can accelerate diagnosis and help close equity gaps. The agenda spans major cancers including cervical, breast, lung, gastric, oral, and colorectal cancers, with particular attention to LMICs where organized programmes are scarce. In these settings, IARC will test pragmatic and affordable solutions such as self-sampling, simplified triage, and digital follow-up tools to expand access and strengthen continuity of care.

Finally, the broader research domain of cancer survivorship, including survival, is growing in importance on the international cancer research agenda. In this research area, IARC will conduct a large-scale study in France of the long-term effects of cancer and its treatment on health and on quality of life, across the entire cancer survivorship life-course.

Box 11. IARC Flagship: Cancer Screening in Five Continents (CanScreen5)

CanScreen5 is a global IARC-led initiative to enhance the quality, effectiveness, and equity of cancer screening programmes. It collects, validates, and publishes information on the organization and performance of breast, cervical, and colorectal cancer screening programmes worldwide, addressing the scarcity of comparable data, especially in LMICs. The CanScreen5 online portal now hosts validated data from 114 countries, sourced from ministries of health, peer-reviewed by an international scientific committee, and cross-checked by providers. This makes it a unique resource for benchmarking, evaluating programme performance, and informing policy at both national and global levels. But CanScreen5 is more than a database; it also builds capacity. Before contributing data, countries participate in blended training through the IARC Learning platform, empowering screening managers to collect, interpret, and use their own data to drive quality improvement. Collaboration with WHO regional offices, the American Cancer Society, the Union for International Cancer Control (UICC), the Cancer Health Access Initiative (CHAIN), the Sabin Vaccine Institute, and the European Commission ensures that CanScreen5 is a global public good shaped by international expertise.

Looking ahead to 2030…

CanScreen5 will broaden its reach to include additional cancers such as lung, gastric, and prostate cancer, expand linguistic accessibility, and ensure interoperability with platforms such as GLOBOCAN and DHIS2. New modelling tools will strengthen the investment case for early detection, while a training-of-trainers approach will accelerate the global spread of best practices, helping to make high-quality screening the global norm.

➔ Turning evidence into impact

A core priority for 2026–2030 will be to ensure that evidence generated across all programmes is translated into real-world policies and practices that improve lives. The challenge is not only to prove that prevention and early detection work in clinical trials but also to adapt, scale, and sustain these interventions in routine health systems, particularly in low-resource settings where the need is greatest. Field studies will assess the real impact of interventions on populations, identifying barriers to access, tailoring strategies to local realities, and generating data to refine predictive models. In Uganda and India, for instance, projects are improving the timeliness and quality of breast, cervical, and oral cancer diagnosis by addressing barriers in rural health systems. In Europe and Latin America, implementation research is guiding the adaptation of screening

programmes to vulnerable groups, while hybrid studies are exploring integrated delivery of HPV vaccination and screening to reach underserved populations.

At the policy level, IARC will build on initiatives such as the World Code Against Cancer Framework (WCACF) and Cancer Prevention Europe (CPE), which mobilize regional collaboration, strengthen prevention literacy, and provide practical tools for governments (see Boxes 12 and 22). European Union-wide and national projects are also advancing quality-assured screening through governance models, performance indicators, and pilots of innovative approaches such as risk-stratified prostate and lung screening or novel diagnostics like breath-based multicancer detection. A major emphasis will also be placed on transferring knowledge and tools to LMICs. Open-source models and costing tools will support cervical cancer elimination planning, while imPACT reviews, carried out with WHO and the International Atomic Energy Agency (IAEA), will provide governments with tailored recommendations to strengthen cancer control across the continuum.

Box 12. IARC Flagship: The World Code Against Cancer Framework (WCACF)

Cancer prevention is not only a matter of individual choice; it is a collective endeavour that depends on shared knowledge, effective communication, and political will. The WCACF, led by IARC, embodies this principle by translating evidence into clear, actionable recommendations for both the public and policy-makers. It builds on the European Code Against Cancer and extends the approach globally, combining guidance for individuals with policy-level actions that create healthier environments. The recommendations cover everyday behaviours (such as diet, tobacco use, and physical activity), environmental and occupational hazards, and effective medical interventions. They are designed to empower individuals with evidence-based, clear, authoritative guidance to reduce their cancer risk or detect cancer early, while guiding policy-makers to implement or enact enabling structural policies. Each recommendation is the product of rigorous scientific review, broad stakeholder consultation, and regional expert working groups, coordinated by IARC in close collaboration with WHO. This ensures that Codes Against Cancer are both scientifically sound and aligned with global strategies, while tailored to local contexts.

The European Code Against Cancer, now in its fifth edition under IARC's coordination, has helped European Union Member States design national strategies, galvanize political momentum, and empower citizens to make informed health choices. In Latin America and the Caribbean, the first regional Code Against Cancer, coordinated by IARC with the Pan American Health Organization (PAHO), has already strengthened networks of experts, built political commitment, and raised awareness about modifiable risks such as tobacco, alcohol, diet, physical activity, and vaccination. By addressing shared risk factors, its influence extends beyond cancer, helping to tackle other major NCDs, including cardiovascular diseases and diabetes.

Looking ahead to 2030…

The next phase of the WCACF will focus both on developing new regional Codes and on evaluating their real-world impact. On the development side, work is already under way on the Asian Code Against Cancer, which will be tailored into two subregional versions to reflect diverse cultural and health system contexts. Preparatory exercises will also be launched in Africa and the Middle East, combining epidemiological mapping with contextual analyses to define the most appropriate subregions and country groupings for future Codes. At the same time, impact will be rigorously assessed: in Latin America, national scale-up studies and cross-country surveys will measure prevention literacy and policy uptake, while in the European Union, a systems thinking project in Romania and baseline studies across several countries will support the implementation of the fifth edition of the European Code Against Cancer.

B. Strategic fit: contributions to outcome-level results

➔ Outcome-level result #1: Evidence-based policies for cancer prevention

Pillar III is closest to the policy and implementation cycle, transforming scientific discovery into actionable guidance for prevention and early detection. Its research agenda – clarifying risks for understudied cancers, advancing prevention strategies for infection-related cancers, and integrating novel biomarkers and technologies into screening – will feed directly into global and national cancer control action.

Flagship initiatives show this translation in action: CanScreen5 provides the first worldwide benchmark of screening performance, underpinning the WHO Cervical Cancer Elimination Initiative and the Global Breast Cancer Initiative, while the WCACF distils scientific consensus into clear recommendations for both citizens and policy-makers.

➔ Outcome-level result #2: Global equity in cancer control

For Pillar III, LMICs are both contributors to and beneficiaries of the global evidence base. Proven tools such as HPV vaccination, *H. pylori* control, and organized screening are adapted to local realities, while new approaches, such as urine-based bladder cancer tests trialled in Bangladesh, Malawi, and Morocco, open paths to affordable early detection. In Africa and Asia, studies are optimizing single-dose HPV vaccination, scaling self-sampling for cervical screening, and tailoring follow-up for women living with HIV. In high-incidence regions, test-and-treat strategies for *H. pylori* are being piloted with cost–effectiveness models to guide investment.

Equity also means tackling cancers that disproportionately affect women. The ABC-DO study, coordinated by IARC, is uncovering why breast cancer survival rates remain low in sub-Saharan Africa and quantifying how survival can be improved through different strategies, while advancing a new survivorship agenda that tracks quality of life across the care continuum. The findings are shaping the WHO Global Breast Cancer Initiative and inspiring novel approaches to awareness and community engagement.

Capacity-building remains central: through CanScreen5 and regional Codes within the WCACF, more than 100 countries are strengthening their own expertise and translating evidence into culturally relevant strategies.

➔ Outcome-level result #3: Future preparedness through research and resilience

Beyond reducing today's cancer burden, Pillar III will prepare countries for the challenges ahead. It will accelerate the responsible adoption of innovations such as AI-assisted diagnostics, mobile health navigation tools, and biomarker-based risk stratification. At the same time, it will generate cost–effectiveness evidence to strengthen the case for sustained investment in prevention, helping governments weather shifting political and economic conditions without losing ground on cancer control.

Public engagement will be a defining feature of this preparedness. The WCACF will be amplified through targeted campaigns and innovative digital tools. Notably, the BUMPER mobile app for cancer prevention will translate the European Code Against Cancer into personalized, evidence-based recommendations, linking users to trusted resources and countering misinformation.

4. Pillar IV: Knowledge

- **Leading Branches:** Evidence Synthesis and Classification (ESC); Learning and Capacity-Building (LCB)
- **Flagships:** The *IARC Monographs*, the *IARC Handbooks of Cancer Prevention*, the *WHO Classification of Tumours* (WHO Blue Books), and IARC Learning
- **Target 2030:** By 2030, Pillar IV will have transformed complex cancer science into trusted, globally accessible public goods, authoritative hazard evaluations, prevention guidance, harmonized tumour classifications, and scalable learning resources and courses, used routinely by governments, WHO programmes, regulators, clinicians, and researchers to interpret, adapt, and implement evidence-informed prevention and early detection, with targeted capacity-building to support LMICs.

A. Results strategy

IARC will act as the world's trusted broker of cancer knowledge and a builder of lasting capacity, turning complex science into authoritative, accessible public goods. Anchored in its four flagships, the *IARC Monographs*, the *IARC Handbooks of Cancer Prevention*, the *WHO Classification of Tumours* (WHO Blue Books), and IARC Learning, Pillar IV brings together rigorous evaluations, harmonized standards, and practical training to ensure that evidence is not only generated but also used.

At its core, the approach rests on impartiality, methodological rigour, and equitable access. Open protocols and transparent processes will guarantee trust, while closer collaboration across the four flagships will create a coherent package of evidence and learning that spans cancer causes, prevention, and diagnosis. In this way, IARC will directly support countries, particularly LMICs, in embedding global standards into their own policies, health systems, and workforce development.

➔ **Identifying carcinogenic hazards through systematic evaluations**

Identifying which agents cause cancer is the foundation of global cancer prevention. IARC will continue to provide the world's most authoritative evaluations of carcinogenic hazards, ensuring that governments, regulators, and health systems have the evidence they need to act. This work is anchored in the *IARC Monographs* Programme (see Box 13), a global reference for hazard identification and primary prevention.

Box 13. IARC Flagship: The *IARC Monographs*

The *IARC Monographs on the Identification of Carcinogenic Hazards to Humans*, established in 1971, remain the gold standard for evaluating cancer hazards worldwide. Independent, multidisciplinary Working Groups systematically review chemicals, physical agents, biological exposures, occupations, and lifestyle factors, integrating evidence from studies in humans, experimental animals, and mechanistic data. Evaluations are guided by the modernized 2019 Preamble, ensuring rigour, transparency, and impartiality.

The *IARC Monographs* findings are routinely used by WHO, the European Chemicals Agency, the United States Environmental Protection Agency, and national governments worldwide to shape policies, workplace protections, and environmental standards. Recent evaluations, including occupational exposure as a firefighter and opium consumption, have prompted new regulations and workplace safety measures in multiple countries.

Looking ahead to 2030…

Evaluations will increasingly focus on exposures of major public health relevance in LMICs, emerging risks where evidence is rapidly evolving, and agents where clarification could unlock decisive prevention action. The programme will also re-examine several agents classified in Group 1 (carcinogenic to humans) to assess links with additional cancer sites. Methodological innovation will remain central, with greater use of bioinformatics, high-throughput screening, and omics integration to strengthen evidence synthesis. A new database, IARC-MonDO, will increase the accessibility of *IARC Monographs* evaluations to the scientific community and the general public. Training and the inclusion of early-career and LMIC scientists will be expanded, ensuring that the *IARC Monographs* remain globally relevant and directly connected to prevention. An independent Advisory Group in 2029 will guide the next wave of priorities, and a revision of the Preamble is planned during 2026–2030 to ensure that the *IARC Monographs* remain agile, transparent, and globally relevant in a rapidly changing world.

➔ Assessing what works in cancer prevention

Prevention requires more than identifying risks; it requires clear evidence on which interventions truly work, under what conditions, and for whom. IARC meets this need through its *Handbooks of Cancer Prevention*, which evaluate the effectiveness of behavioural, medical, and policy interventions to reduce cancer risk and mortality, providing a trusted bridge between science and public health action (see Box 14).

Box 14. IARC Flagship: The *IARC Handbooks of Cancer Prevention*

The *IARC Handbooks* are authoritative evaluations of interventions and strategies that can reduce cancer risk or mortality. Established in 1995 and relaunched in 2014, the programme applies rigorous systematic review methods to identify, synthesize, and evaluate the evidence for measures ranging from behavioural change to large-scale public health programmes. Each volume is developed by an independent, multidisciplinary Working Group, ensuring impartiality and scientific excellence. Each volume synthesizes evidence on interventions ranging from individual behaviours to large-scale health system programmes, integrating data from randomized trials, observational studies, and natural experiments.

The *IARC Handbooks* act as a bridge between research and policy. Their evaluations have underpinned WHO recommendations, supported tobacco control legislation, informed national screening guidelines, and strengthened public health campaigns worldwide. Increasingly, they also provide practical outputs such as evidence and gap maps, an interactive online tool that helps decision-makers adapt strategies to their own contexts.

Looking ahead to 2030…

The *IARC Handbooks* will focus on areas of greatest global need, such as lung cancer screening (including biomarkers and risk stratification) and gastric cancer prevention, covering both *H. pylori* eradication and screening strategies tailored to high-burden regions. Structural developments will seek to bring equity, cost–effectiveness, and implementation challenges into the core of evaluations, while continuous coordination with WHO headquarters and regional offices will ensure direct alignment with global cancer control priorities. An Advisory Group will be convened during 2026–2030 to prioritize future topics and revise the Preambles, to ensure that the *IARC Handbooks* remain globally relevant while adapting to future needs. A strong emphasis will also be placed on involving LMIC scientists, ensuring that the *IARC Handbooks* not only reflect global evidence but also build local expertise for implementation.

➔ Advancing tumour classification to strengthen diagnosis, care, and research

IARC will ensure that tumour classification and reporting systems remain globally authoritative, up to date, and adaptable across diverse health systems. Under the International Collaboration for Cancer Classification and Research (IC^{3}R), multidisciplinary teams will refine evidence-based standards, while the innovative Evidence Gap Map (EVI MAP) project will identify priority areas for revision and methodological innovation.

These efforts will be closely linked to the work of the IARC histopathology laboratory, which not only supports IARC research projects but also provides technical training for visiting scientists, ensuring that new findings flow directly into diagnostic standards and capacity-building. This integration is especially vital for LMICs, where diagnostic resources remain uneven but the need for high-quality, harmonized pathology is acute.

Box 15. IARC Flagship: The *WHO Classification of Tumours* (WHO Blue Books)

The *WHO Classification of Tumours* series, known worldwide as the WHO Blue Books, is the global reference standard for tumour classification. Managed by IARC since the third edition, the series brings together more than 2000 experts – pathologists, oncologists, radiologists, surgeons, geneticists, and researchers – to synthesize the latest diagnostic evidence and expert consensus. The resulting classifications underpin cancer diagnosis, reporting, research, and patient care across all WHO Member States.

Now in the sixth edition, the WHO Blue Books integrate morphology, immunohistochemistry, and molecular genetics to deliver precise, evidence-based diagnoses that guide therapy and enable the development of targeted treatments. The programme is complemented by initiatives such as IC^{3}R, which harmonizes standards and promotes evidence-based pathology worldwide, and the EVI MAP project, which systematically identifies gaps in tumour classification evidence.

Looking ahead to 2030…

By the end of 2028, the sixth edition of the WHO Blue Books will be complete, with a steadily expanding digital image library that supports education, diagnostics, and the development of AI-driven tools. Evidence gap mapping will be embedded into updates, ensuring that volumes remain responsive to emerging scientific advances. Exploratory work will integrate radiology and pathology data, with the long-term ambition of establishing a radiology image library for tumours.

Targeted collaborations will strengthen LMIC engagement, ensuring that tumour classification standards are not only scientifically rigorous but also practical and adaptable across diverse health system contexts. Joint efforts with Pillar I will improve registry compatibility, enabling better use of diagnostic data for cancer surveillance worldwide.

➔ Building capacity through training, fellowships, and lifelong learning

Training and capacity-building are central to IARC's mission, ensuring that discoveries translate into a skilled global workforce for cancer prevention and control. More than one third of IARC's personnel are early-career or visiting scientists, who not only contribute directly to research but also return home with strengthened expertise, reinforcing national and regional cancer control systems.

Through its Research Training and Fellowship Programme, IARC will continue to nurture the next generation of cancer prevention leaders. Students, postdoctoral scientists, and mid-career and

visiting scientists will be supported by structured mentoring, career development programmes, and a revitalized alumni network to sustain collaboration beyond their time at IARC. Special emphasis will be placed on LMIC scientists, with tailored fellowships, workshops, and practicum opportunities to accelerate transfer of expertise.

The IARC Learning Programme complements these efforts by offering lifelong learning opportunities for researchers and health professionals worldwide. From modular online courses to hands-on workshops, it provides flexible, high-quality training aligned with IARC's scientific priorities (see Box 16).

Box 16. IARC Flagship: IARC Learning

The IARC Learning Programme is IARC's global platform for advancing the knowledge and skills of cancer researchers and health professionals, with a strong focus on LMIC capacity-building. At its heart lies the IARC Summer School, which since 2005 has trained about 1000 professionals in cancer epidemiology, prevention, and early detection. Offered in blended formats, the Summer School combines online preparation with intensive in-person training, supported by scholarships for LMIC participants. Complementary webinars, project-based courses, and collaborative learning events extend the reach throughout the year, with more than 1500 professionals engaged annually.

The IARC Learning Portal, hosted within the WHO Academy's infrastructure, serves as a one-stop entry point for self-paced modules, lectures, webinars, and practical resources, developed in partnership with IARC research teams and collaborators. To increase impact, Regional Learning Centres, starting with partnerships in China and Brazil, bring IARC training closer to local professionals, adapting content for regional needs and embedding it into degree programmes and continuing professional education.

Looking ahead to 2030…

The IARC Learning Portal will evolve into a multilingual interactive platform closely linked with WHO Academy resources, offering accredited courses and practical toolkits for practitioners. Closer collaboration with universities and professional bodies will embed IARC training modules into formal curricula, particularly in LMICs. Alumni networks will be mobilized as a living global community of practice, driving mentorship, peer-to-peer learning, and collaborative research that extend IARC's impact well beyond Lyon, France.

B. Strategic fit: contributions to outcome-level results

➔ Outcome-level result #1: Evidence-based policies for cancer prevention

Although the *IARC Monographs* do not issue recommendations, their independent hazard evaluations are routinely used by WHO programmes and national authorities to guide regulation and exposure reduction. Their evidence also feeds directly into initiatives such as the European Code Against Cancer (and other Codes), WHO/International Labour Organization (ILO) estimates of the occupational cancer burden, and United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) radiogenic cancer assessments. Formal coordination with WHO expert committees such as the Joint FAO/WHO Expert Committee on Food Additives (JEFCA) and the Joint FAO/WHO Meeting on Pesticide Residues (JMPR) ensures smooth "hazard–risk" assessment hand-offs, accelerating translation of IARC findings into policy. Joint releases, such as the coordinated announcement on aspartame with JECFA, demonstrate how the *IARC Monographs* amplify impact through transparent communication and alignment with partners.

The *IARC Handbooks* complement this work by delivering consensus evaluations of interventions for both primary and secondary prevention. Building on a track record of shaping international policy (see Box 14), new volumes will provide governments with evidence to design cost-effective, equitable, and context-adapted strategies.

Meanwhile, the WHO Blue Books and the Cytopathology Reporting Systems series will continue to provide the diagnostic backbone for cancer care, cancer registry coding, and clinical trials. By ensuring that tumours are classified consistently across registries, hospitals, and trials, they enable countries to track trends, harmonize care, and build reliable cancer statistics.

➔ **Outcome-level result #2: Global equity in cancer control**

Equity is built into every line of work in Pillar IV. The *IARC Monographs* will increasingly prioritize exposures of major relevance to LMICs while expanding the use of region-specific data and enhancing accessibility through the MonDO digital platform. Young and early-career scientists from LMICs will be integrated into evaluation meetings, gaining hands-on experience in systematic review and evidence appraisal and returning home with strengthened expertise to support local prevention agendas.

The *IARC Handbooks* will maintain a strong LMIC focus, with evaluations on interventions such as cervical screening, oral cancer prevention, and smokeless tobacco control providing evidence for context-appropriate policies.

The WHO Blue Books will bridge diagnostic divides by combining cutting-edge molecular and digital pathology with approaches tailored to contexts where histopathology remains dominant. Online access, discounted volumes for LMIC settings, and interactive case conferences will make these resources easier to use, while updated reporting systems will offer simple, standardized approaches for resource-constrained settings.

Capacity-building amplifies these effects. Through IARC Learning and the IARC Research Training and Fellowship Programme, LMIC scientists remain at the centre: more than 90% of Summer School participants are supported from LMICs, while new Regional Learning Centres bring training closer to home and in local languages. Alumni networks further ensure that expertise is retained and applied at the national level.

➔ **Outcome-level result #3: Future preparedness through research and resilience**

Pillar IV will keep IARC a trusted, agile source of evidence in the face of fast-moving scientific, environmental, and political challenges. Modernized *IARC Monographs* methods, advanced bias appraisal, and dedicated scientific workshops ensure readiness to evaluate contentious exposures, from climate change impacts to commercial determinants of health. In tandem, the *IARC Handbooks* will continue to inform global policies on tobacco, alcohol, and other market-driven risks, extending their proven impact on international regulation.

In step with the megatrend of the rise of AI, digital transformation will be central to Pillar IV. The WHO Blue Books series is integrating whole-slide imaging, curated image libraries, and computational/molecular advisory committees, alongside the EVI MAP evidence-mapping initiative, to produce AI-ready, continuously updatable diagnostic standards.

Future preparedness also depends on a skilled workforce. IARC Learning is embedding its portfolio within the WHO Academy Learning Experience Platform (LXP), enabling agile, multilingual, and interactive training worldwide. From just-in-time teaching packs for the *IARC Monographs* and the *IARC Handbooks* to digital pathology modules linked to the WHO Blue Books, these tools will ensure that methods, standards, and evidence are rapidly disseminated and adopted.

II. Cross-cutting research priorities

This strategy builds on qualitative consultation with IARC's ecosystem and the broader analysis presented in Chapter 1. Three cross-cutting priorities have emerged as areas requiring urgent and coordinated action. These priorities will not constitute additional structural Pillars; they will be embedded across all IARC's work. This ensures that every stage of research, from surveillance and etiology to implementation and evaluation, contributes, thereby maximizing scientific impact and strengthening policy relevance. The identified cross-cutting priorities are:

- **WHO global initiatives on breast, cervical, and childhood cancers**
- **Lung health**
- **Planetary health**

1. WHO global initiatives on cancer

IARC and WHO share complementary mandates and a common agenda in cancer prevention. Their collaboration has been formalized through a joint strategic workplan (2023–2025), which establishes shared governance mechanisms and joint partnerships across the three WHO global cancer initiatives on childhood, breast, and cervical cancers. Under this framework, IARC and WHO focal points meet regularly to exchange information, review progress, and align on next steps, identifying opportunities and defining coordinated activities with timelines and benchmarks. IARC research is integral to these initiatives, providing the evidence base for WHO recommendations and for monitoring initiative targets.

To strengthen this contribution, in 2023 IARC established three dedicated Research Teams aligned with the WHO global cancer initiatives: the **IARC Global Breast Cancer Initiative (GBCI) Team**, the **IARC Cervical Cancer Elimination Initiative (CCEI) Team**, and the **Childhood Cancer Awareness and Research Evidence Team (CCARE)**. These cross-cutting Research Teams bring together all relevant IARC projects and experts on each cancer type and ensure systematic communication with the WHO Cancer Team.

IARC's flagship initiative, the **Global Initiative for Cancer Registry Development (GICR),** cross-cuts the three signature initiatives of WHO, enabling countries to measure progress towards reaching the respective 2030 targets for cervical, breast, and childhood cancer. Beyond these, IARC contributes across the WHO initiatives, which will soon include lung cancer, through training and capacity-building. The **IARC Learning platform** is expanding with new modules on screening and diagnostic quality, equipping practitioners, especially in LMICs, with the skills to deliver better care.

- **WHO Global Breast Cancer Initiative (GBCI)**

Why breast cancer? Breast cancer is now the most common cancer worldwide and the leading cause of cancer death in women**.** Yet survival depends heavily on where a woman lives. In high-income countries, more than 90% of women survive 5 years after diagnosis. In India, that proportion drops to 66%, and in South Africa to only 40%. These stark gaps reveal profound inequities in access to early detection, timely diagnosis, and high-quality treatment. To close these gaps, the WHO GBCI was launched in 2021 with the goal of reducing global breast cancer mortality by 2.5% every year**,** saving 2.5 million lives between 2020 and 2040. The initiative is built on three pillars:

- **Health promotion for early detection:** ensuring that at least 60% of invasive cancers are diagnosed at stage I or II;
- **Timely diagnosis:** completing evaluation, imaging, tissue sampling, and pathology within 60 days of first presentation to the health system;

➔ **Comprehensive management:** ensuring that at least 80% of patients receive comprehensive multimodal treatment and successfully return home.

How will IARC contribute? IARC plays a central role in generating the evidence and tools that will make these ambitions achievable, particularly in LMICs. Through its dedicated GBCI Research Team, IARC will draw on the strengths of all four of its scientific Pillars to directly support the WHO GBCI:

- **Health promotion and early detection:** IARC will provide the data that enable countries to see where they stand and track progress towards the 60% stage I/II target. Platforms such as the GCO, CI5, and CanScreen5 will deliver reliable global and national estimates on key features of the breast cancer clinical profile as well as screening characteristics. IARC collates data on stage at breast cancer diagnosis across facility-based studies as well as population-based cancer registries. Health systems strengthening activities and research are also in place, such as through IARC's digital Atlas of Breast Cancer Early Detection, testing practical solutions like clinical breast examination (CBE) to reach women where organized screening is not yet feasible. IARC is collaborating with Egypt on evaluation of its Presidential Women's Health Initiative's population-based CBE screening programme. Finally, community-level breast health awareness is facilitated by expanding educational resources through the WCACF.
- **Timely diagnosis:** IARC will continue to lead multicountry studies in India and Uganda to explore innovative technologies and digital tools that can accelerate diagnosis in resource-limited settings. These efforts aim to ensure that women can move from first health system presentation to confirmed diagnosis, or not, within 60 days, reducing delays that cost lives.
- **Comprehensive management:** IARC will document treatment pathways across regions as diverse as Morocco, Nepal, eastern Europe, and sub-Saharan Africa, identifying where patients fall through the cracks and piloting interventions to improve adherence and outcomes. Within this, ABC-DO provides the most comprehensive portrait of survivorship in African women to date, capturing determinants of quality of life across the cancer continuum, including end-of-life care. These insights are directly informing WHO's GBCI technical guidance and shaping interventions to improve equity in breast cancer outcomes.

Spanning all three GBCI pillars, IARC is performing in-depth studies to map the entire patient journey from symptoms to diagnosis and through the treatment period, identifying barriers and solutions to delays or poor-quality care. Such hospital-based studies started with the ABC-DO study in Uganda, Zambia, South Africa, Nigeria, Ghana, and Namibia and have now been extended to Belarus, Romania, the Russian Federation, and the Republic of Moldova.

Finally, IARC will continue to expand the knowledge base on the causes of breast cancer. Many agents prioritized for evaluation by the *IARC Monographs* in 2025–2029, such as plasticizers, pesticides, nutritional factors, sedentary behaviour, and other complex exposures, have emerging evidence of association with breast cancer. A selection of these will be reviewed in *IARC Monographs* meetings during 2026–2030, ensuring that governments and regulators have authoritative, independent evaluations to guide prevention and regulation.

➔ **WHO Cervical Cancer Elimination Initiative (CCEI)**

Why cervical cancer? Cervical cancer is almost entirely preventable, yet it remains one of the starkest markers of global health inequality. In 2020, more than 600 000 women were diagnosed with cervical cancer and more than 340 000 died from the disease, 90% of them in LMICs. The disease is caused primarily by persistent infection with high-risk HPV, and proven solutions exist. In 2020, WHO launched the Global Strategy to Eliminate Cervical Cancer, with ambitious 90–70–90 targets for 2030:

- 90% of girls fully vaccinated with HPV vaccine by age 15 years;
- 70% of women screened with a high-performance test by ages 35 years and 45 years;

- 90% of women with precancer treated and 90% of women with invasive cancer managed.

Meeting these targets would make cervical cancer the first cancer ever eliminated as a public health problem.

How will IARC contribute? IARC is at the heart of this historic effort. Its landmark evidence that a single dose of HPV vaccine is highly effective has already changed WHO recommendations and opened the door for millions more girls to be protected, particularly in countries where cost and logistics make multi-dose schedules difficult.

The next phase of IARC's work will focus on bringing solutions from the laboratory and pilot studies into real health systems. Research will test how self-sampling and other innovative approaches can make screening easier, more acceptable, and more widely available. Studies of screen-and-treat pathways will help countries deliver faster, simpler, and more affordable care. Alongside this, IARC will generate the economic and workforce evidence that governments need to plan, finance, and sustain elimination programmes, while strengthening data systems to track progress. Delivering rapid, tangible impact will be central to this work. The IARC CCEI Research Team will act as the scientific backbone of WHO's global strategy, ensuring that research questions are aligned with programme needs and that results feed quickly into WHO guidelines, *IARC Handbooks*, and practical tools for policy-makers and practitioners.

The IARC Public Health Decision Science Team (PHDS) complements this work through country-specific simulation models that assess the public health impact of shifting from a two-dose to a single-dose HPV vaccine schedule. In Brazil, the model estimated that redirecting resources towards female catch-up vaccination alongside a single-dose strategy could prevent a substantial number of additional cervical cancer cases – evidence that played a pivotal role in Brazil's policy decision to adopt the single-dose schedule.

➔ WHO Global Initiative for Childhood Cancer (GICC)

Why childhood cancer? Every year, about 400 000 children and adolescents aged 0–19 years are diagnosed with cancer; more than 1000 families receive this news per day. In high-income countries, survival has risen above 80%, reflecting decades of progress in treatment and care. But in many LMICs, survival remains as low as 15–45%. This stark inequality means that where a child lives largely determines whether they will survive. To close this gap, WHO launched the GICC in 2018. Its goal is clear: by 2030, achieve at least 60% survival for all children with cancer worldwide, while reducing suffering and improving quality of life. Meeting this target would save an additional 1 million young lives over the next decade.

How will IARC contribute? IARC is central to building the evidence base that will make this goal a reality. Reliable data are the foundation of progress, and IARC leads the development of international standards for registering and classifying childhood cancers, including the *International Incidence of Childhood Cancer* (IICC) series and the International Classification of Childhood Cancer (ICCC). Through ChildGICR, paediatric cancer registration has expanded across LMICs, giving countries the tools to measure their burden, monitor survival, and track progress.

But IARC's role goes beyond counting cases. Cancer survival research initiatives will continue to shed light on the long-term needs of survivors, while other projects will bring together epidemiology, genomics, and health systems research to generate indicators on burden, survival, and costs – work that is especially critical in Africa. International networks coordinated by IARC, including the Childhood Cancer and Leukemia International Consortium (CLIC), will expand understanding of causes, from environmental exposures such as pesticides and parental occupational risks to biological factors such as parental age and early-life nutrition.

IARC is also pioneering studies on the broader impact of childhood cancer. New projects examine how diet, obesity, and metabolic health influence outcomes and assess the economic toll on families in low-resource settings, providing evidence for more equitable survivorship care and supportive policies. A flagship new initiative, EPIC*kids*, will extend the renowned EPIC scientific approach to paediatric cancers, exploring lifestyle, sociodemographics, the microbiome, and the blood metabolome in relation to quality of life and clinical outcomes.

To drive this agenda, IARC created the Childhood Cancer Awareness and Research Evidence Team (CCARE), dedicated to leading IARC's contributions to the GICC, aligning research with WHO priorities, and ensuring that discoveries translate swiftly into policies and tools that countries can use to save young lives.

Finally, several of the agents prioritized for evaluation by the *IARC Monographs* programme during 2025–2029 have evidence suggesting an association with childhood cancer. This list includes many environmental agents, such as air pollution and its components and some pesticides. IARC will include some of these during its *Monographs* meetings convened in 2026–2030.

2. Lung health

Why lung health? Lung cancer is the most commonly diagnosed cancer worldwide and the leading cause of cancer death, with nearly 2.5 million new cases and more than 1.8 million deaths in 2022. It kills more people each year than breast, prostate, and colorectal cancers combined. Yet most cases are preventable. Tobacco smoking causes about 85% of lung cancers; other risk factors include second-hand smoke, outdoor and indoor air pollution, diesel exhaust, welding fumes, and asbestos.

In 2024, WHO Member States adopted a landmark resolution on lung health, recognizing lung cancer prevention as inseparable from efforts to curb tobacco use, improve air quality, and build climate resilience. The resolution calls for integrated strategies that combine prevention, affordable care, and stronger national and global action.

How will IARC contribute? IARC will tackle lung cancer across the full spectrum, from surveillance to early detection, by combining global data resources, cutting-edge molecular research, and real-world implementation studies. Through GLOBOCAN, IARC will continue to deliver authoritative global estimates confirming lung cancer as the leading cause of cancer mortality worldwide, ensuring that the issue remains a top policy priority.

At the research frontier, the Lung Cancer Cohort Consortium (LC3) offers a unique resource to investigate risk factors, discover and validate biomarkers, and refine screening strategies (see Box 17). Molecular research will shed light on aggressive subtypes such as small cell and neuroendocrine lung cancers, paving the way for more precise prevention and diagnosis.

Equally important, IARC will work to translate science into practice. Large international studies are mapping combined occupational risks, pilot projects are testing the feasibility and cost–effectiveness of low-dose computed tomography (CT) screening, and new approaches such as liquid biopsies are being evaluated for their potential to detect cancer earlier in high-risk populations, including people living with HIV. As evidence matures, CanScreen5 will broaden its scope to incorporate lung cancer, offering countries a global benchmark for programme quality and equity.

Looking ahead, the next *IARC Handbooks* volume, on lung cancer screening, will consolidate global evidence into actionable guidance, with a particular focus on feasibility in LMICs, ensuring that innovations are not just discovered but also implemented where the need is greatest.

Box 17. The Lung Cancer Cohort Consortium (LC3)

The LC3, hosted at IARC, is the world's largest collaborative platform for research on lung cancer epidemiology and risk. Bringing together data from more than 3 million participants and 70 000 incident lung cancer cases across North America, Europe, Asia, the Middle East, and Oceania, it provides an unparalleled foundation for discovery and policy impact. LC3 integrates harmonized data on lifestyle and environmental risk factors, biomarkers, and clinical outcomes, enabling scientists to tackle questions that no single study could answer. This scale and diversity make it possible to explore lung cancer across populations, validate risk models, and identify molecular signatures that could transform screening and prevention.

The consortium has already delivered major advances. Through initiatives such as the INTEGRAL programme, LC3 has developed and validated a biomarker-based risk assessment tool, which can improve the balance of benefits and harms in lung cancer screening by better targeting screening to people at high risk. Thanks to its large and diverse geographical coverage, LC3 has quantified the performance of smoking-based risk prediction models in contexts around the world, so that individual screening programmes can select well-performing risk assessment methods. Addressing aspects of inequality and equity, LC3 has described differences in lung cancer incidence and survival by education level worldwide. The LC3 Analytical Hub allows LC3 data to be accessed for non-commercial research on lung cancer prevention by investigators worldwide, resulting in unique contributions of this IARC resource to diverse research topics.

Looking ahead to 2030…

While the LC3's previous outputs move from discovery to translation, LC3 will address important and neglected topics in lung cancer prevention. The INTEGRAL-Risk biomarker-based risk assessment algorithm will be tested for acceptability and feasibility in a prospective screening study in Kentucky (USA), the state with the highest burden of lung cancer deaths. Additional research will seek to improve the method by measuring an individual's biomarker changes over time, and to evaluate whether the biomarkers can improve management of high-risk lung nodules detected during screening. Meanwhile, the LC3 database will deliver the most robust study to date on the global incidence of lung cancer among people who never smoked, and a separate characterization of tobacco-related risks, including those associated with initiation at young ages when tobacco prevention is unsuccessful. An important gap that LC3 will seek to address is the incorporation of occupational exposure to lung carcinogens in risk assessment for screening. A group of modelling studies will advance tobacco control and smoking cessation, providing direct evidence to IARC Participating States and other countries on the gains to be achieved through enhanced tobacco prevention efforts.

Taken together, the consortium will deliver knowledge tools that provide governments with the evidence they need to design and implement effective lung cancer prevention and screening programmes. Participating States will be offered direct guidance on topics including biomarker-based strategies for lung cancer screening and the growing field of multicancer early detection tests – areas where IARC's freedom from commercial influence is paramount.

3. Planetary health

Why planetary health? The health consequences of climate change are no longer abstract projections; they are here, reshaping the cancer landscape today. In both IARC's stakeholder consultation and the prioritization exercise, this megatrend emerged as one of the most pressing forces shaping the future of cancer control (see Chapter 1). In response, planetary health was identified as a defining cross-cutting priority for the MTS 2026–2030, reflecting both urgent scientific gaps and strong demand from Participating States for integrated, sustainability-focused cancer research. This aligns with global agendas, such as the European Commission's Strategic Research and Innovation Agenda on Health and Climate Change, and leverages IARC's long-standing expertise in cohorts, exposure science, and hazard evaluation.

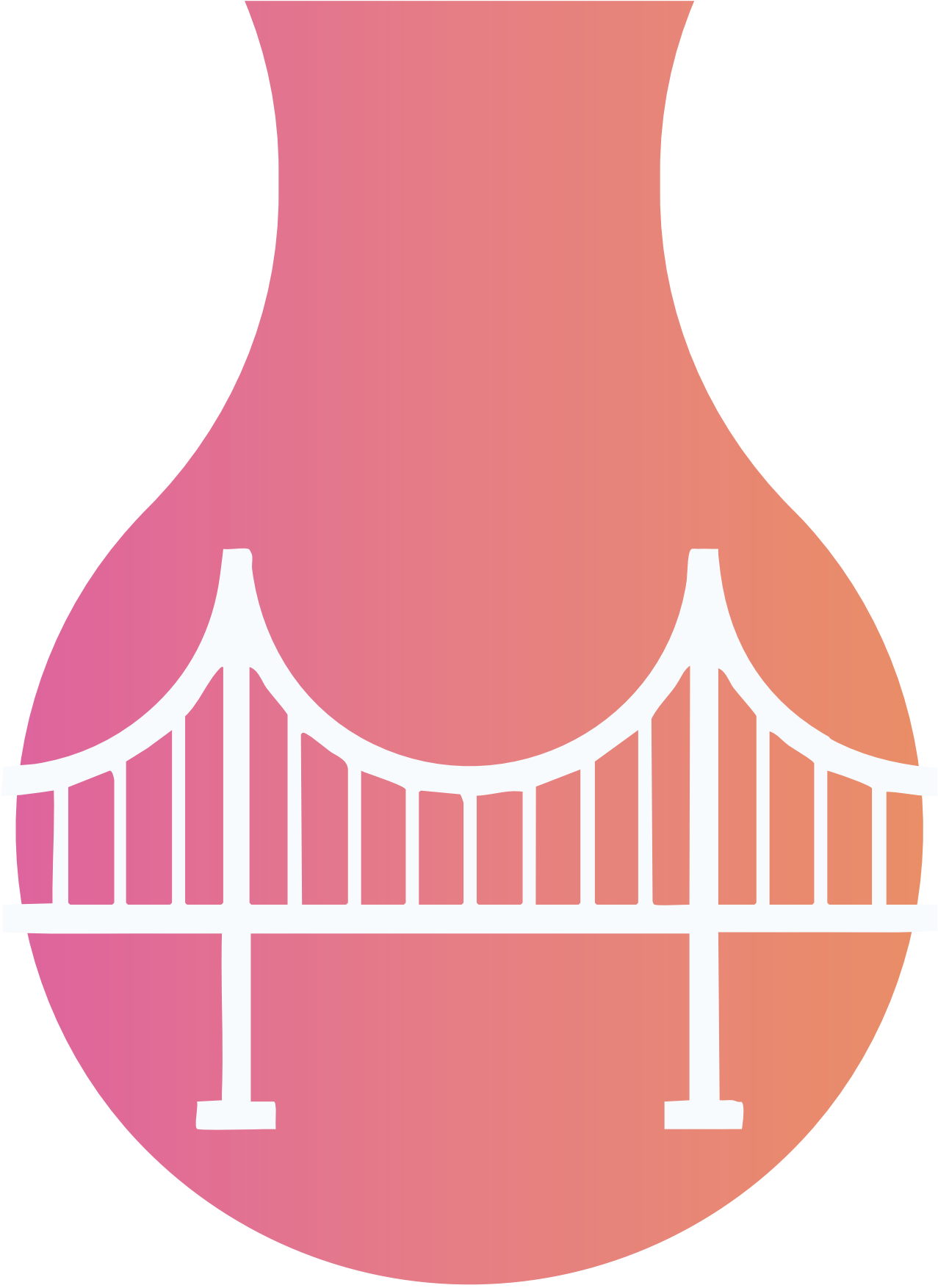
IARC is uniquely positioned to bring clarity to this complex interface. Its evaluations already shape policy; for example, the WHO/Europe Air Quality Guidelines were informed by the landmark *IARC Monographs* classification of outdoor air pollution and fine particulate matter as proven human carcinogens. With collaborations spanning WHO, the United Nations Environment Programme (UNEP), and regional partners, IARC ensures that evidence on climate and environment not only reaches the policy table but also shapes real-world decisions.

How will IARC contribute? Planetary health showcases the full strength of IARC's integrated model: Data, Discovery, Implementation, and Knowledge working in concert to connect sustainability and cancer control. A major strand of work will focus on diet and lifestyle within planetary boundaries. Large-scale cohorts will link dietary choices, such as plant-to-animal protein ratios, food biodiversity, and levels of processing, to both cancer risk and environmental impact, identifying win–win strategies that are healthier for people and sustainable for the planet. The Sustainable Lifestyle and Cancer Team (SLC) will anchor much of this work, developing innovative indicators for diet, sleep, physical activity, and stress, while embedding environmental measures such as greenhouse gas emissions, land use, and water use. With initiatives like the International Initiative for Pediatrics and Nutrition (IIPAN), it will also explore how the strong intersection between nutrition, lifestyle, and climate change shapes childhood cancer outcomes, providing a fuller picture of cancer prevention and control across the life-course.

IARC will also lead research in highly vulnerable populations, such as people with albinism in sub-Saharan Africa, who face extreme risks from rising exposure to ultraviolet radiation through a reduction in tree shade. This work will highlight how climate, genetics, and inequity intersect to create acute cancer vulnerabilities. Complementing this, many agents prioritized for evaluation by the *IARC Monographs* in 2025–2029 are directly connected to climate change, including air pollution, pesticides, and other environmental hazards, ensuring robust hazard identification in this evolving field.

Another frontier is ensuring that climate-friendly policies deliver health gains. Policies that promote clean air, sustainable food systems, and active mobility are also cancer-preventive. These synergies are already embedded in the European Code Against Cancer and will be expanded through the World Code Against Cancer Framework, connecting planetary sustainability with everyday cancer-preventive choices.

Finally, IARC will bring sustainability into the way that cancer research itself is conducted. This includes piloting tools to assess the carbon footprint of studies and infrastructures, integrating sustainability criteria into project design, and training scientists so that cancer research actively contributes to climate goals while advancing cancer prevention and control.



Chapter 3

The Bridges

IARC's strength lies not only in the excellence of its research but also in the way that the research is organized, connected, and mobilized for impact. Discoveries at IARC are not meant to remain in laboratories or databases; they are designed to move outward, shaping policy, informing clinical and public health practice, and strengthening societies' ability to prevent cancer. The Bridges are the innovative mechanisms that make this journey possible. While the four scientific Pillars define *what* IARC does, the Bridges define *how* that work is delivered with coherence, relevance, and speed. They operationalize the Pillars by turning research into action: aligning systems, strengthening partnerships, and ensuring that evidence informs decisions and endures as trusted public goods. Together, the Bridges form IARC's dynamic pathways from scientific insight to real-world impact, ensuring that excellence in research is matched by excellence in delivery.

I. Behind the science: Bridges that make IARC work smarter

These Bridges focus on *how* IARC operates, strengthening the foundation that enables science to flourish. They ensure that the four scientific Pillars function as an interconnected whole, working smarter, moving faster, and aligning seamlessly with strategic priorities to amplify IARC's impact worldwide.

1. Bridge #1: Operational excellence

- **Leading Branches:** Services to Science and Research (SSR); Laboratory Support, Biobanking, and Services (LSB)
- **Target:** By 2030, IARC will be a fully digital, people-centred research agency where sustainability is embedded as a guiding principle, providing secure data access, world-class biobanking, and greener operations that set a standard for global cancer research.

Crossing the Bridge: strategy to achieve the target: At IARC, excellence is not only a scientific principle but also an operational imperative. To stay at the forefront of global cancer prevention, IARC must evolve in step with the digital transformation and the rapid rise of AI, a defining megatrend identified in Chapter 1. This requires IARC to be agile, innovative, and collaborative, with systems and people working in harmony to enable world-class science.

The completion of the new IARC headquarters building in 2022 was a milestone, providing state-of-the-art laboratories, offices, and shared infrastructure. Building on that foundation, this Bridge will equip IARC with the platforms, processes, and culture to deliver science that is faster, safer, and greener. Data and infrastructure will be treated as strategic assets, driving insight, innovation, and global impact in an AI-enabled environment. This transformation will be tangible in the daily work of staff and partners: fewer administrative bottlenecks; faster grant and procurement processes; safer, greener, and more innovative laboratories and training; International Organization for Standardization (ISO)-certified biobanking powering international studies; and secure, on-demand computing enabling partners, including those in LMICs, to analyse sensitive data without moving it across borders.

➔ **Laying the foundations for a digital-first Agency**

Digital transformation will be the engine of IARC's evolution in 2026–2030, reshaping both scientific and administrative processes to meet the demands of a data-driven world. In the next 5 years,

IARC will complete a step change in its digital backbone, modernizing core systems, scaling computing capacity, and ensuring that data are managed as a strategic asset.

On the operational side, IARC will migrate from its legacy SAP system to partner with the United Nations Development Programme (UNDP) to join Quantum, a secure, cloud-based enterprise resource planning (ERP) platform that is already used by several agencies and organizations across the UN system. This shift will reduce costs, accelerate implementation, and unlock advanced functionalities going forward. For IARC, this means faster human resources (HR) and financial processes, streamlined procurement processes, more efficient grant management, and timelier, evidence-based decision-making – all essential to keep pace with IARC's growing scope and complexity.

On the scientific side, the Scientific IT Platform (SIT) will become the central hub for secure storage, analysis, and sharing of research data (see Box 18). This will be paired with stronger data governance: FAIR (Findable, Accessible, Interoperable, Reusable) data principles, clear data life-cycle rules, and state-of-the-art cybersecurity measures. Researchers and partners will benefit from streamlined single sign-on access to tools and datasets, creating a more agile, collaborative environment. Critically, this digital transformation will extend beyond informatics systems to include IARC's laboratories and biobank, where modern, interoperable Laboratory Information Management Systems (LIMS) and automated sample-handling technologies are increasingly essential for quality, efficiency, and scalability. Renewing these systems will be key to achieving the full potential of SIT and to supporting high-quality science across IARC.

Box 18. The Scientific IT Platform

The Scientific IT Platform (SIT) is the backbone of IARC's research infrastructure, already supporting nearly 90% of IARC's projects. It provides a secure, high-performance environment for storing and analysing sensitive datasets – from large cohorts to population-based studies – that cannot be hosted on external servers for ethical or legal reasons. More than infrastructure, the SIT is a driver of equity and innovation. Its privacy-preserving architecture allows vetted collaborators, including those in LMICs, to run analyses on IARC datasets remotely, without transferring individual-level data. This lowers barriers for partners with limited local infrastructure and helps close the digital research divide. Crucially, the SIT is not meant to replicate massive European supercomputing initiatives. Its unique value lies in secure stewardship, tailored tools, and enabling programmatic outcomes. In doing so, the SIT strengthens one of IARC's defining roles: turning protected data into actionable knowledge, and knowledge into cancer prevention.

Looking ahead to 2030…

The SIT will evolve into a more scalable and collaborative platform, expanding advanced analytics, widening global access, and ensuring that IARC's data resources continue to fuel innovation, partnerships, and real-world impact in cancer prevention.

➔ **People first: building skills and belonging**

IARC's greatest asset is its people. This Strategy places IARC personnel at the centre of transformation, positioning the organization as a knowledge organization that values talent, fosters inclusion, and builds future leaders in cancer research. In 2026–2030, IARC will strengthen strategic workforce planning to ensure that the right skills are in place where and when they are needed. IARC will promote equitable representation, fair treatment, and equal opportunity, while nurturing a culture of belonging that reflects IARC's mission and values. This includes embedding diversity and youth perspectives, accelerating gender mainstreaming, and expanding

geographical representation. A renewed emphasis will be placed on staff well-being, mental health, and accountability, underpinned by strong HR analytics to guide timely, evidence-based decisions.

Training and career development will remain cornerstones of capacity-building. IARC will cultivate an inclusive research culture that enables scientists at all career stages to thrive, with particular emphasis on cancer prevention and public health research. The IARC Fellowship Programme, which hosts about 160 early-career researchers per year, many from LMICs, will remain a flagship vehicle. Fellows will gain hands-on training and mentorship, contribute directly to live projects across Branches, forge lasting collaborations, and return home with unique expertise that strengthens national cancer control systems.

Beyond individual development, IARC will foster a collaborative and participatory leadership culture. Strategic direction will be set transparently, with staff systematically involved in shaping priorities, building on the inclusive approach used to develop this Strategy, where colleagues across IARC contributed through workshops, interviews, and open dialogue. Multiple advisory structures, ranging from committees on training, recruitment, and ethics to groups on equity, diversity, and well-being, ensure that staff voices are reflected in decision-making, and these best practices will continue throughout the period of this Strategy and beyond.

➔ **Building a world-class research infrastructure**

IARC's laboratories and Biobank are the foundation of its research engine, supporting world-class science with a unique emphasis on equity and global reach. All laboratory units are now co-located on a single floor of the new IARC building; thus, collaboration has been streamlined, sparking new cross-cutting projects and accelerating the translation of discovery into policy-relevant evidence. The IARC Biobank is one of the world's most diverse repositories of biological samples, housing more than 6 million specimens from 90 countries. It will achieve ISO 20387 certification by 2026, expand pre-analytical services, initiate the digitization of older collections, and grow to 10 million samples, ensuring that populations from LMICs remain fully represented in international cancer research. Through the BCNet network, this reach will extend further, helping to establish sustainable biobanking systems across Asia, Africa, and Latin America (see Box 19).

Beyond their technical excellence, the laboratories and Biobank play a strategic role in shaping global standards on sample collection, processing and governance, data protection, and biospecimen quality. For example, the IARC Biobank is a liaison member of ISO Technical Committee 276: Biotechnology, providing direct input into future laboratory-related global standards. The laboratories and Biobank also act as training hubs: each year, early-career scientists, particularly from LMICs, gain hands-on experience in histopathology, molecular biology, and biobanking, returning home with the expertise needed to expand national capacity.

Box 19. The Biobank and Cohort Building Network for LMICs (BCNet)

BCNet was created by IARC in 2013 to address a critical gap: although biobanking and population cohort infrastructure have advanced rapidly in high-income countries, they remain underdeveloped, or entirely absent, in many LMICs. Without such capacity, countries cannot fully participate in or benefit from global cancer research. BCNet provides a platform for LMICs to work together in a coordinated way ongovernance, technical standards for biospecimen collection and storage, and to tacklecommon biobanking challenges arising from ethical and legal frameworks. By pooling expertise, sharing protocols and guidelines, and developing joint projects, BCNet helps members strengthen their infrastructure while increasing their competitiveness in securing international research funding.

More than a technical partnership, BCNet is a community. Its online portal enables members to share information on ongoing activities, access harmonized guidelines and standard operating procedures, and engage with the wider scientific community to build new partnerships. It has become a trusted forum where countries exchange experiences, learn from one another, and co-develop sustainable solutions tailored to their contexts.

Looking ahead to 2030…

BCNet will continue to expand strategically through new regional collaborations. Partnerships in the Philippines (2025) and with the Repository Network for Latin America and the Caribbean (2026) and the Lusophone Biobanking Network (2026) will support harmonized practices and shared infrastructure across regions.

➔ **Making excellence sustainable**

For IARC, operational excellence is inseparable from responsibility. As a global cancer research agency with planetary health embedded as a cross-cutting priority (see Chapter 2), IARC must not only generate evidence on sustainable futures but also live by those principles. Scientific leadership and environmental stewardship must go hand in hand. In line with the UN Strategy for Sustainability Management 2020–2030 and the Greening the Blue Initiative, IARC will integrate sustainability into every aspect of its operations. The IARC Sustainable Research Agency Committee (SRAC) will bring together staff from science, services, and leadership to turn ambition into action, driving change, fostering innovation, and building a culture of environmental responsibility across IARC. A first step in the MTS 2026-2030 period will be to establish a comprehensive baseline of IARC's environmental footprint; the work for this is already under way. Annual targets, transparent reporting, and continuous monitoring will ensure measurable progress. The IARC Biobank, already recognized as a pioneer in low-carbon biobanking, will continue to test and scale green practices, setting models for the wider Agency and beyond.

But sustainability will not be confined to systems and infrastructure, it will become part of IARC's identity. Staff engagement through awareness campaigns, training, and innovation challenges will empower individuals to contribute their own solutions, making sustainability a shared responsibility. Partnerships with WHO, the UN system, and local and national actors will ensure alignment with best practices and amplify IARC's leadership role in sustainable science.

2. Bridge #2: Organizational synergies

- **Leading Branches:** All Branches
- **Target:** By 2030, IARC will operate as a seamlessly connected agency, where Research Teams cut across disciplines and disease sites to accelerate discovery and translate science into action.

Crossing the Bridge: strategy to achieve the target: The four-Pillar model already embeds the full science–policy cycle, but the real accelerator comes from reinforcing the links between projects, disciplines, and people. That is the purpose of the IARC Research Teams: flexible, cross-cutting units that cluster related projects across and within Branches. These Teams break down silos, pool expertise, and create shared platforms for collaboration, for example to advance WHO global initiatives, tackle occupational carcinogens, or innovate in computational genomics. By doing so, they ensure that discoveries do not remain isolated but converge into coherent knowledge with clear pathways to action.

The Research Teams are designed to be agile. When new risks, exposures, or opportunities emerge, they can mobilize expertise quickly, ensuring that IARC remains responsive to a fast-moving scientific and policy landscape. They also nurture the next generation of leaders: early-

and mid-career scientists will gain opportunities to lead multi-project efforts, developing skills and networks that strengthen global cancer prevention.

During 2026–2030, this model will maximize scientific value and accelerate translation into practice. Two complementary types of Teams will ensure both breadth and depth:

- **Cancer Types Research Teams** will concentrate expertise on high-burden cancer types where coordinated global action can make the greatest difference:
  - Childhood Cancer Awareness and Research Evidence Team (CCARE)
  - Gastric Cancer Prevention Team (GCP)
  - IARC Cervical Cancer Elimination Initiative (CCEI) Team
  - IARC Global Breast Cancer Initiative (GBCI) Team
  - Oesophageal Cancer Team (ECA)
  - Oral Cancer Team (OCT)

- **Innovations Research Teams** will cut across cancer sites to tackle the "how" of prevention, advancing methods, tools, and conceptual frameworks that can be applied across contexts and populations:
  - Biostatistics and Data Integration Team (BDI)
  - Cancer Inequalities Team (CIN)
  - Computational Cancer Genomics Team (CCG)
  - Hormones and Metabolism Team (HorM)
  - Sustainable Lifestyle and Cancer Team (SLC)
  - Nutrition, Cancer, and Multimorbidity Team (NCM)
  - Occupational Cancer Epidemiology Team (OCE)
  - Onco-Metabolomics Team (OMB)
  - Population-Based Long-Term Surveillance (LTS) IARC–Japan Team
  - Public Health Decision Science Team (PHDS)
  - Research for Implementation Team (RFI)
  - Risk Assessment and Early Detection Team (RED)

In addition to deepening scientific synergies, IARC will strengthen exchanges between research and administration so that the whole Agency works as one. By building mutual understanding, with scientists recognizing the frameworks that safeguard their work and administrative teams attuned to the realities of research, IARC will uphold the highest standards in legal compliance, grants management, and data protection (see Box 20).

Box 20. The *Legal Clinics*: bridging science and support

Scientific synergies are vital for IARC to fulfil its mission and further the progress of science, but synergies with the support services are as crucial to make these possible. As a recent initiative to this end, SSR has introduced the *Legal Clinics*: sessions designed to bring scientists and administrative and legal experts into closer dialogue on a regular basis. Tailored for each scientific Branch, these in-person clinics provide a friendly space to brainstorm together, review ongoing cases, anticipate requirements for new projects, and resolve contractual or data protection-related questions in real time. Instead of relying on lengthy email chains, project leaders, data managers, project support staff, and the legal support team meet directly, building trust and speeding up solutions.

The aim is to enhance interactions and achieve greater efficiency, fewer bottlenecks, and stronger safeguards, enabling researchers to focus on their science. In short, the *Legal Clinics* extend IARC's philosophy of breaking down silos: just as the Research Teams integrate science across disciplines, the *Legal Clinics* bridge science and support services, ensuring that all work together towards excellence.

II. On the front stage: Bridges that drive the science–policy interface

IARC's science has impact when it moves. The next three Bridges, focused on leadership, governance, strategic engagement, and communication, will reinforce IARC's role as a trusted science–policy interface. Working in synergy with allies that hold normative authority, mobilize resources, and drive change across all levels of society, these Bridges will ensure that IARC's research moves seamlessly from discovery to delivery, directly supporting the three outcome-level results.

1. Bridge #3: Innovative governance

- **Leading Branch:** IARC Director's Office
- **Target:** By 2030, IARC will operate under transparent, participatory, and innovative governance, backed by sustainable multi-year financing and co-designed priorities that deliver demonstrable impact for national and global cancer control.

Crossing the Bridge: strategy to achieve the target: Strategic planning at IARC takes place in a world of rapid change. Economic volatility and shifting political landscapes, identified as one of the seven megatrends shaping the future of cancer research (see Chapter 1), mean that scientific excellence alone is not enough. To remain resilient and relevant, IARC must also rethink how it governs, finances, and organizes itself. Innovative governance will be the foundation of this evolution, enabling IARC to stay agile in the face of uncertainty, align science with the needs of governments and partners, and safeguard its independence. At the same time, it will demonstrate the concrete added value of IARC membership, while fostering deeper collective ownership of its mission.

➔ **Strengthening governance for resilience, transparency, and impact**

Governance will evolve from a compliance function into a driver of accountability and trust. By embedding results-based management (RBM) across the organization, IARC will shift focus from activities to outcomes, systematically measuring results, learning from them, and managing risks proactively. From 2026, IARC will take a decisive step forward with results-based budgeting (RBB), aligning its financial planning with UN best practice. Instead of relying on historical allocations, budgets will be explicitly tied to the ambitions of the MTS and the delivery of its 10 Flagships. This will make programme costs fully visible, highlight funding gaps, and ensure that resources flow to areas with the greatest potential impact. A modern governance backbone will be powered by the new ERP platform, which will streamline business processes while strengthening real-time risk monitoring (see Bridge #1: Operational excellence).

Finally, accountability will be strengthened through systematic reporting on results and their contribution to the MTS. A robust Monitoring and Evaluation framework (see III. Monitoring and Evaluation framework) will make progress measurable, visible, and actionable, ensuring that governance is not only about compliance but also about driving impact where it matters most.

➔ **Securing sustainable financing**

Financial resilience is a strategic necessity for IARC to deliver on Participating States' priorities. Closely linked to the principles of results-based management outlined above, sustainable financing will provide predictability, flexibility, and independence: the ability to plan over the long term, adapt to new challenges, and safeguard scientific integrity.

IARC will transition to a predictable, multi-year financing model that secures resources for the entire MTS 2026–2030. This shift will mean strengthening core contributions, reducing reliance on short-term competitive grants, and broadening engagement with a more diverse range of partners. Dialogue with Participating States, WHO, and funding agencies will remain central, supported by transparent analyses of financing trends and by investment cases that reframe cancer prevention research as one of the highest-return health investments (see Box 21).

Box 21. Making the case for investment in prevention

Cancer prevention research saves money, reduces suffering, and strengthens health systems, delivering returns that far outweigh its costs. To mobilize resources at scale, IARC will make this value proposition visible and compelling, showing that prevention science is among the smartest investments in global health.

The first step is the development of **thematic investment cases**: focused, evidence-driven analyses that quantify the health and economic impact of IARC's work. Rather than attempting to capture IARC's full portfolio in one stroke, these cases will highlight high-impact areas with demonstrable public health benefit. The inaugural investment case, developed with partners at the Victoria Institute of Strategic Economic Studies (Australia), will focus on **cervical cancer elimination**. This is an area where IARC has had transformative impact, from discovering the role of HPV in causing cervical cancer to shaping vaccination, screening, and treatment strategies now being implemented worldwide. This analysis will serve as a template for future efforts, providing governments and donors with clear, evidence-based arguments for investing in IARC's research. The full report will be launched in 2026 during IARC's 60th anniversary scientific conference.

➔ **Building trust through inclusive governance**

Innovative governance is also about participation. The consultation model used to shape this MTS, where both the Governing Council and the Scientific Council contributed directly to external consultations and priority-setting, will become a standard feature of IARC's governance. Structured round-table sessions will further deepen this collaboration, bringing Council members and IARC scientists together for science-driven dialogue on priority themes defined by Participating States.

Strengthening participation also includes sustained engagement with countries interested in joining IARC as new Participating States. IARC will maintain an open and structured approach to responding to expressions of interest, providing clear information on the scientific and strategic value of membership, and ensuring alignment of priorities.

Building on successful informal practices, IARC will pilot a liaison officer model to strengthen engagement with Participating States and donors, including potential new ones. Under this approach, designated liaison officers will act as dedicated points of contact and cultural bridges, enhancing communication, coordinating exchanges, and consolidating information on ongoing collaborations and opportunities. This model will foster trust, responsiveness, and mutual understanding, ensuring that IARC's work remains closely aligned with the specific needs and priorities of its partners.

2. Bridge #4: Transformative partnerships

- **Leading Branches:** IARC Director's Office**,** supported by all Branches to strengthen scientific partnerships

- **Target:** By 2030, IARC will have forged transformative partnerships across all WHO regions, with its science routinely adapted and applied by countries to accelerate cancer prevention and control.

Crossing the Bridge: strategy to achieve the target: No single institution can deliver cancer prevention at the scale the world requires. Partnerships, recognized in SDG 17 as a cornerstone of the 2030 Agenda for Sustainable Development, are therefore not an end in themselves but the indispensable vehicle to turn science into system change.

Collaboration is woven into IARC's DNA. In 2021–2024, IARC partnered with more than 2200 organizations across more than 150 countries, reflecting the true breadth of its global reach. But for IARC, "transformative"" partnerships go far beyond transactional agreements or symbolic memoranda. They are about co-designing research, co-implementing studies, co-funding projects, and co-owning results. Through this Bridge, IARC will ensure that governments and partners do more than access world-class science; they will be equipped to adapt and apply it to their own contexts, closing the critical gap between discovery and delivery. With integrity safeguards firmly in place, partnerships will accelerate the translation of evidence into measurable impact – faster, at scale, and where the need is greatest.

➔ **Deepening WHO and UN-system collaboration**

IARC's partnership with WHO is at the heart of its global mission. While IARC generates the scientific evidence on cancer burden, causes, and research for implementation, WHO translates this knowledge into global guidance and supports countries in implementing programmes. Together, the two organizations form a complementary bridge from research to policy to action.

IARC science underpins almost every aspect of the WHO cancer agenda: surveillance, carcinogen evaluation, environmental and nutritional risks, prevention and early detection, cancer inequalities, and economic impact. This is especially visible in the three WHO global cancer initiatives, for which IARC evidence provides the targets, benchmarks, and performance indicators guiding countries towards measurable progress (see Chapter 2, II. Cross-cutting research priorities). To consolidate this partnership, IARC and WHO headquarters will renew their joint strategic workplan for 2026–2030, built around three pillars:

1. **Better knowledge exchange**, especially across the three global cancer initiatives;
2. **Co-designed projects** that directly inform WHO guidance and national cancer programmes;
3. **Shared governance and communication**, through leadership and executive committees and cross-agency working groups.

Since 2018, a standard operating procedure (SOP) has guided cooperation between the *IARC Monographs* and the *IARC Handbooks* and WHO headquarters. A revised SOP, to take effect in the next strategy cycle, will sharpen information flows, clarify responsibilities, and ensure smooth coordination across shared priorities.

At the same time, IARC will broaden engagement across the wider WHO system. Stronger links with regional offices will ensure that global evidence is adapted to regional and national needs, making it directly actionable for governments. Collaboration with the WHO Academy will expand IARC's reach, embedding evidence in digital, multilingual training programmes for health workers, policy-makers, and practitioners worldwide.

Beyond WHO, IARC will deepen cooperation across the UN family, building on partnerships with the International Atomic Energy Agency (IAEA), the United Nations Environment Programme (UNEP), the United Nations Population Fund (UNFPA), the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR), and Unitaid. These alliances extend IARC's science

into areas such as environmental sustainability, reproductive health, and radiation protection, ensuring that cancer prevention is embedded in a coordinated UN response to NCDs.

➔ Anchoring knowledge in local contexts

Grounded in the principle of country ownership, this MTS places stronger emphasis on ensuring that IARC's science is not only global in reach but also directly relevant at national and regional levels. IARC will deepen collaboration with existing Participating States and attract new members by clearly demonstrating the added value of membership, both in shaping international evidence and in strengthening country-level cancer control. To ensure that science translates into action, IARC will work closely with Participating States, WHO regional and country offices, and regional organizations such as the European Commission. It will also reinforce its leadership role in initiatives like Cancer Prevention Europe (see Box 22).

Beyond Europe, IARC will expand its engagement in regional collaborative platforms, knowledge hubs, and UN mechanisms, including coalitions and ministerial forums. This includes strengthened participation in initiatives such as the G7 Cancer Working Group, the Asian National Cancer Centers Alliance (ANCCA), the Association of Nordic Cancer Registries (ANCR), and the International Cancer Benchmarking Partnership (ICBP). In these arenas, IARC will not only contribute its expertise but also help shape regional agendas on cancer prevention, ensuring that local priorities feed back into IARC's global research programme.

Box 22. Cancer Prevention Europe (CPE)

CPE is a prime example of how IARC builds transformative regional partnerships that connect science with action. Bringing together leading institutions across the continent, CPE works to reduce the cancer burden in Europe by focusing on what matters most: prevention at all levels. The consortium acts as a shared platform for co-created research, joint policy advice, and capacity-building, helping countries adapt and implement evidence-based strategies in their own contexts. Through expert reviews, collaborative projects, and training, CPE informs European Union institutions, national health authorities, and prevention bodies, ensuring that cutting-edge science leads to tangible public health impact.

Anchored by IARC as chair and scientific secretariat, CPE demonstrates the power of collaboration to expand both the reach and the relevance of research from the region for the region. With a renewed vision and 5-year strategy, CPE is now set to deepen its impact in Europe while also serving as a blueprint for other regions, such as the Middle East, where collective partnerships can fast-track prevention and foster stronger national ownership of cancer control.

➔ Mobilizing resources with integrity

In lockstep with the sustainable financing agenda, IARC will expand and diversify its funding base to guarantee stability, flexibility, and long-term independence. IARC will enhance its ability to navigate an increasingly politicized health landscape while safeguarding its neutrality, building strategic alliances with independent global partners, and consolidating relationships with major funders such as the European Commission, the World Cancer Research Fund (WCRF), the United Kingdom Medical Research Council (MRC), and the Gulf Center for Disease Prevention and Control. Building on the 2020–2030 resource mobilization strategy, IARC will continue to pursue four priorities:

- Broaden membership by encouraging new countries to join as Participating States;
- Increase direct and flexible funding through deeper engagement with state and non-state actors;

- Sustain competitive grants by proactively identifying opportunities and coordinating high-quality applications with partners;
- Explore innovative fundraising campaigns, including legacy giving, targeted outreach in Lyon, and global initiatives linked to the IARC 60th anniversary campaign (IARC@60).

All partnerships will be governed by strict safeguards, with full adherence to the WHO Framework of Engagement with Non-State Actors (FENSA). This ensures that every new funding stream reinforces, rather than risks, the scientific independence, integrity, and public trust that underpin IARC's mission.

3. Bridge #5: Science for society

- **Leading Branch:** IARC Director's Office
- **Target:** By 2030, IARC will be the world's trusted source of cancer knowledge, openly shared, clearly communicated, and routinely applied by policy-makers, health professionals, educators, and civil society worldwide.

Crossing the Bridge: strategy to achieve the target: Cancer prevention can only succeed if science is not just produced but also understood, trusted, and applied beyond research circles, by everyone and for everyone, to achieve equity. This Bridge positions communication, knowledge translation, and Open Science as strategic levers of IARC's impact, ensuring that evidence moves from the laboratory to the real world, where it can drive change. In response to the global megatrend of misinformation and the infodemic, it will also strengthen trust in science by promoting transparency, clarity, and engagement across audiences. To achieve this, IARC will implement an integrated strategy for communication and knowledge transfer that links scientific discovery directly to societal benefit. This will include the following areas.

➔ Unlocking knowledge through Open Science

For IARC, Open Science will be a defining pathway to maximize the value of its research. IARC generates unique global resources, cohort data, biobank collections, and international classifications that carry impact far beyond individual studies. Open Science is how these assets become discoverable, usable, and relevant to the widest possible community, while still respecting the highest standards of ethics, privacy, and data protection. IARC will pursue a model of openness that is targeted and responsible, following the principle of being "as open as possible and as closed as necessary". This means that openness will be actively enabled wherever feasible, while safeguards will remain in place where required by law or ethics.

In practice, IARC will advance Open Science through its shared infrastructures. The Scientific IT Platform will expand secure, privacy-preserving access to sensitive datasets, including for partners in LMICs. The IARC Biobank will continue to serve as one of the world's largest high-quality collections, linked to global partners through BCNet. Publications, software, and tools will be systematically shared, supported by FAIR data principles, persistent identifiers, and training that embeds Open Science into everyday practice across IARC.

➔ Amplifying communication and public engagement

Communication will be positioned as a core driver of IARC's impact, ensuring that IARC's science not only informs policy but also shapes public discourse and mobilizes action. To achieve this, IARC will modernize its publishing programme to meet the highest international standards, treating outputs as living public goods that are continuously updated and audience-focused. At the same time, IARC will move beyond one-way dissemination towards targeted, interactive, and

accessible engagement, tailored to the needs of educators, researchers, civil society, and the wider public.

IARC will expand and professionalize its communication channels. Its social media presence will be adapted to reach both global and local audiences with tailored content, while its website and digital platforms will serve as authoritative, accessible hubs for cancer prevention knowledge. Strategic partnerships with WHO and global health organizations will amplify IARC's messages, ensuring coherence and alignment with global health priorities.

Looking ahead, IARC will position communication as a lever for societal and policy change, amplifying the relevance and benefits of cancer prevention research through compelling storytelling, evidence-driven campaigns, and innovative digital engagement. This transformation will begin with the IARC 60th anniversary celebrations (IARC@60), which will showcase both past achievements and a bold vision for the future (see Box 23).

Box 23. IARC's 60th anniversary celebrations

In May 2025, IARC marked 60 years at the forefront of global cancer research, a milestone to celebrate past achievements and spotlight its bold vision for the future. The IARC@60 campaign has unfolded across the year, culminating in a flagship international scientific conference in Lyon in May 2026. The celebrations looked back at the discoveries that have transformed our understanding of cancer since 1965, from pioneering cohort studies and authoritative *IARC Monographs* to today's breakthroughs in molecular epidemiology, biobanking, and data science.

But IARC@60 is more than a commemoration; it is a forward-looking initiative. It highlights an Agency that is more open, more connected, and more impactful, with Open Science at its core. The campaign embodies the spirit of this Bridge (science for society): turning communication into a catalyst for change and making IARC's resources discoverable, usable, and relevant to the widest possible community.

Looking ahead to 2030…

At the heart of these celebrations is the IARC@60 conference, titled Cancer Research into Action. It will bring together scientists, policy-makers, and advocates united by a shared goal: to connect discovery with delivery, research with real-world impact, and science with policy. Over 3 days, participants will explore how innovation, implementation, and collaboration are transforming cancer prevention and control worldwide. Through its three interlinked themes, the conference will tell the story of how evidence becomes action.

➔ Translating evidence into actionable guidance

Beyond shaping discourse, IARC also equips policy-makers with the practical tools they need to act. Knowledge translation and transfer ensures that complex science becomes accessible, policy-ready, and directly usable for decision-making at national and global levels. Acting as a trusted facilitator, IARC will foster stronger bridges between the scientific and policy communities, while also building the societal support needed to turn evidence into action. Joint publications with WHO and other partners will continue to translate complex scientific findings into resources that are policy-ready and practice-ready.

At the same time, IARC will expand its suite of knowledge translation tools, including the IARC Evidence Summary Briefs series (see Box 24). These concise, authoritative resources distil research into clear, actionable insights tailored to real-world policy challenges.

Box 24. IARC Evidence Summary Briefs series: knowledge translation in action

Launched in 2020, the IARC Evidence Summary Briefs (ESBs) are concise, authoritative tools that distil complex research into clear, actionable insights for decision-makers. Each ESB is designed to connect the latest evidence with real-world prevention priorities, whether informing ministries of health, professional societies, civil society, or international partners. The ESBs highlight the implications of research for public health and policy and outline concrete prevention strategies for use in diverse contexts, including LMICs.

By developing ESBs, IARC is creating a practical tool for knowledge translation and transfer:

- **Relevance:** Topics are chosen to respond directly to pressing policy needs and prevention priorities.
- **Accessibility:** Scientific information is translated into clear, non-technical language, supported by visuals and key messages for decision-makers.
- **Actionability:** A call to action is framed in ways that support implementation of the research outcomes in diverse settings, including LMICs.

ESBs exemplify how IARC transforms research into public goods. They increase visibility of prevention evidence, foster partnerships, and strengthen cross-Agency synergies. Over time, they will form a living library of cancer prevention evidence, empowering countries and partners to make informed, impactful decisions.

Looking ahead to 2030…

IARC will sustain the production of two ESBs each year, with topics chosen annually to address the most pressing cancer prevention priorities. Dissemination and evaluation approaches will be strengthened to maximize visibility, ensure uptake by the right stakeholders, and track real-world impact.

III. From the real world back to IARC: Monitoring and Evaluation framework

For IARC, Monitoring and Evaluation (M&E) goes beyond compliance; it is a driver of institutional learning and cultural change. Moving towards innovative leadership and results-based management requires more than new systems; it means embedding evidence and accountability at the heart of how IARC operates. As a science-based institution, IARC applies the same principles it demands of others: systematic assessment, openness to lessons, and continuous improvement. This commitment was clearly demonstrated in the independent evaluation of the MTS 2021–2025, identifying strengths to build on and challenges to anticipate, while directly shaping the design of the 2026–2030 cycle. Going forward, M&E will remain a cornerstone of how IARC learns, adapts, and delivers impact.

1. Tracking progress towards global health goals

By 2027, IARC will establish a comprehensive M&E framework anchored in clear, outcome-level targets and key performance indicators (KPIs). This framework will measure progress towards the three outcome-level results and their corresponding 100% Commitments, while also assessing how effectively IARC adapts and innovates. Monitoring will not stop at outputs; it will capture whether interventions accelerate progress and deliver transformative change. The M&E framework will mirror the structure of the MTS and operate on three complementary levels:

➔ **Impact** will be assessed using global health indicators. Wherever possible, IARC will align its indicators with established international frameworks, including the Sustainable Development

Goals (SDGs), the WHO Triple Billion targets, and the GPW 14 Joint Outcomes (see Chapter 1), to reinforce collective accountability. This set of indicators will also incorporate platforms developed by IARC itself, such as the GCO indicators, which offer a comprehensive view of the current and projected global cancer burden.

- **Outcome-level results:** Each of the three 100% Commitments will have dedicated indicators that link research outputs to measurable, real-world outcomes:
  - **100% policy relevant:** Tracking the integration and use of IARC evidence, data, and tools by Participating States, WHO, and partners in national and global cancer control planning.
  - **100% of studies designed for equity:** Measuring inclusion of underrepresented populations, engagement of LMIC partners, and progress in closing data and capacity gaps across settings.
  - **100% future-ready:** Assessing integration of megatrends, foresight, and resilience measures across science, governance, and institutional systems.
- **Outputs** will be monitored through performance measures directly linked to the MTS implementation plan.

Crucially, evaluation will go beyond measurement. Every major assessment will generate a formal management response, with progress on recommendations tracked through time-bound follow-up actions. In this way, M&E becomes both a mirror and a motor, driving continuous improvement, institutional agility, and accountability to IARC's Participating States and global partners.

2. Building evidence for decision-making

IARC will use a range of evidence-building activities to ensure that decisions are informed by robust data:

- **Quality and rigour:** Evaluations will use the most appropriate quantitative and qualitative methods, tailored to the context, to ensure that findings are credible and actionable.
- **Effectiveness:** Assessments will examine not only whether objectives are met but also how efficiently resources are used.
- **Independence:** Evaluations will be impartial and transparent, with safeguards against undue influence, ensuring credibility both internally and externally.

Scientific excellence will continue to be safeguarded by the Scientific Council's 5-year peer review of all research Branches. This remains IARC's primary mechanism for assessing relevance, quality, and alignment with strategic priorities, including decisions to wind down or reinforce specific programmes.

Although indicators are essential, numbers alone cannot capture the full impact of IARC's work. In addition to traditional bibliometrics, IARC is investing in innovative tools to trace the policy influence of its research. By mapping citations in policy documents, often mediated by think tanks, agencies, or advocacy groups, IARC can now track how its findings travel through real-world decision-making networks. This offers a more complete picture of impact, moving beyond academic visibility to policy relevance.

In addition, IARC will highlight high-impact success stories that illustrate how research translates into action, mobilizes change, and improves lives. Storytelling and case studies, particularly on nexus issues that link cancer with social, environmental, and economic dimensions, will make IARC's contributions visible and relatable to diverse audiences. These lessons will be adapted to local contexts, ensuring that insights are relevant not just globally but also at national and regional levels.