



ANNUAL REPORT 2025

Co-Chairs

Dr. May Siksik | Mr. Dino Cataldo Dell'Accio

Submitted to the IGF Secretariat | 2025

1. Introduction

1.1 Background and Establishment

The Dynamic Coalition on Emerging Technologies (DC-ET) was established in 2025 as a UN IGF-recognized Dynamic Coalition operating within the multistakeholder framework of the United Nations Internet Governance Forum. DC-ET is co-chaired by Dr. May Siksik - CEO of Innovation Network Canada and Innovation Network Global - and Mr. Dino Cataldo Dell'Accio, Deputy Chief Executive of the United Nations Joint Staff Pension Fund and key architect of the UN's blockchain-based Digital Identity system.

DC-ET was established to address a critical gap in global digital governance: the absence of governance frameworks capable of addressing emerging technologies - artificial intelligence, federated systems, agentic AI, quantum computing, and their intersections - at the design stage rather than through reactive regulation after deployment.

1.2 Governance Philosophy

DC-ET is grounded in a governance-by-design philosophy: the principle that trust, privacy, sovereignty, and accountability must be embedded into the architecture of AI and digital systems from the outset. The Coalition's core thesis: the future of digital trust depends less on regulating data after it moves, and more on designing systems where harmful data movement never occurs.

A defining feature of DC-ET's work is its recognition of the collective privacy gap - the structural inadequacy of existing privacy frameworks, including GDPR, PIPEDA, and their national equivalents, to address group-level, community-level, and population-level harms from AI systems. Current frameworks protect individuals. They have no mechanism for communities. DC-ET's work addresses this gap through governance-by-design architectures grounded in Indigenous data sovereignty principles including OCAP and UNDRIP.

1.3 Membership

DC-ET membership comprises institutional and individual stakeholders drawn from its active initiatives, spanning research, government, civil society, Indigenous governance, and international organizations. Members include representatives from CERN, the World Privacy Forum, the Tsleil-Waututh Nation, CMC Microsystems, IEEE, UNESCO, the UN Joint Staff Pension Fund, OECD, Innovation Network Global, Sapius Inc., the Canadian Institute for Health Information, and government and civil society partners across North America, Africa, Asia, and Europe.

1.4 Scope of Activities - Three Core Initiatives

DC-ET's work is anchored in three major initiatives, each grounded in the principle of digital sovereignty - the right of communities, Nations, and institutions to govern the AI and digital systems that affect them. These initiatives are interconnected: each demonstrates governance-by-design in a different domain, and together they constitute a coherent, implementation-oriented contribution to the global governance agenda.

Initiative 1 - Healthcare Without Borders / Tsleil-Waututh Nation Wellness Centre: The First of a Global Series of Sovereign Community Health Implementations

A sovereign, community-governed clinical AI health system - the first of its kind in Canada - built in collaboration with the Tsleil-Waututh Nation, CERN, the World Privacy Forum, OECD, and the Government of British Columbia. Demonstrates Indigenous data sovereignty operationalized through federated learning architecture, OCAP principles, and UNDRIP - a reference model for global replication.

Initiative 2 - Global Quantum and Exponential Technology Education Initiative (GQEI)

An international capacity-building program developed in collaboration with the UNESCO International Year of Quantum 2025 (IYQ), the IEEE Quantum Week Chair, and the Perimeter Institute for Theoretical Physics. Addresses global governance literacy gaps and capability divides in quantum computing, artificial intelligence, and exponential technologies - framing education as governance readiness, not merely technical training.

Initiative 3 - Governance Testbed for Trusted AI Systems

A public-interest governance framework addressing the execution control gap in agentic and multi-agent AI systems - the structural inability of existing frameworks to govern autonomous AI that cannot distinguish between data and commands. Grounded in CERN's Federation of Agents research, the World Privacy Forum's collective privacy work, and direct engagement with Canada's Privacy Commissioner and Minister of AI and Digital Innovation.

2. IGF Engagement and Multistakeholder Activities

2.1 IGF 2025 Annual Meeting - Lillestrom, Norway

DC-ET Co-Chair Mr. Dino Cataldo Dell'Accio attended the 20th Annual Meeting of the Internet Governance Forum, hosted by the Government of Norway in Lillestrom from June 23-27, 2025, under

the theme "Building Digital Governance Together." The 20th anniversary IGF was a landmark event, directly preceding the WSIS+20 review and the formal confirmation of the IGF's permanent status (UN General Assembly Resolution 80/173, December 17, 2025).

2.2 WSIS Forum 2025 - Panel Discussion with UNJSPF

DC-ET participated in a panel discussion at the WSIS Forum 2025 in Geneva, in collaboration with the United Nations Joint Staff Pension Fund (UNJSPF). The panel contributed DC-ET's governance-by-design perspective to the WSIS+20 review process, addressing the intersection of digital identity, AI governance, and institutional trust.

2.3 WSIS+20 Submissions - Three Action Line Proposals

DC-ET submitted three formal session proposals to the WSIS 2026 programme, aligned with WSIS Action Lines and the Global Digital Compact implementation framework:

Submission 1 - Action Line C7 (E-Health)

Sovereign Health Systems and the Collective Privacy Gap: What the World's First Indigenous-Sovereign AI Health Initiative Reveals About the Limits of Current Governance. A panel discussion and governance working session presenting the TWN Wellness Centre as a governance-by-design reference model, surfacing the structural gap in global frameworks for governing AI systems that process data belonging to a community rather than an individual. Outputs formally submitted to the C7 and C5 roadmaps.

Submission 2 - Action Line C4 (Capacity Building)

Deep Skilling for the Quantum Age: A Global Education Model for Women and Girls. An interactive workshop presenting the Global Deep Skilling Program in Quantum and Exponential Technologies, co-designed with the UNESCO IYQ 2025 Executive Committee Chair and the IEEE Quantum Week Chair. Produces a Global Quantum Skilling Framework submitted as a formal C4 roadmap contribution.

Submission 3 - Action Line C5 (Cybersecurity and Confidence)

Governance-First AI: Closing the Multi-Agent Sovereignty Gap. A high-level DC-ET roundtable addressing the governance gap in agentic and multi-agent AI systems. Draws on CERN's Federation of Agents architecture, ING's AI Governance Testbed, and the World Privacy Forum's collective privacy research. Produces formal DC-ET recommendations submitted to the C5/C6 roadmap and the Global Digital Compact follow-up process.

2.4 Geneva Side Event - WSIS 2026 Planning

DC-ET confirmed a half-day governance working session and panel discussion to be hosted during WSIS week in Geneva in July 2026, co-hosted with the Tsleil-Waututh Nation, CERN, the World Privacy Forum, and Innovation Network Global. The event will include a live demonstration of the sovereign federated clinical AI platform, community voices and storytelling, a governance working session, and formal policy recommendations output submitted to the WSIS C7 and C5 roadmaps.

Confirmed participants: Chief Justin Sky George and Elder Jennifer Thomas (Tsleil-Waututh Nation); Dr. Luigi Serio, inventor of the CAFEIN Federated Learning Platform at CERN; Pam Dixon (World Privacy Forum); the Hon. Juliana Hamboudi, Chairperson, Town Council of Ongwediva, Namibia; and the Canadian Institute for Health Information (CIHI). Room booking at ITU headquarters in Geneva has been initiated.

3. Indigenous Sovereign Healthcare - Tsleil-Waututh Nation Wellness Centre

3.1 Historic Launch - December 2025

In December 2025, DC-ET - in partnership with the Tsleil-Waututh Nation, Innovation Network Global, Sapius Inc., and in collaboration with Dr. Luigi Serio, inventor of the CAFEIN Federated Learning Platform at CERN - launched Canada's first by-Indigenous-for-Indigenous sovereign AI health system at Tsleil-Waututh Nation headquarters in North Vancouver, British Columbia. Attendees included: CERN, the World Privacy Forum, the UN Joint Staff Pension Fund, OECD, a WHO board member, the Government of British Columbia, and DC-ET leadership.

The TWN Wellness Centre is the first Canadian implementation of the Healthcare Without Borders framework - built on five core commitments: local data control, learning without extraction, governance embedded in system design, cultural grounding as a requirement, and interoperability without surrendering sovereignty. It is explicitly framed as the first of a global series of sovereign community health implementations.

3.2 Technical Architecture

The clinical layer is PHIP - a generation-five AI clinical intelligence platform built on the CAFEIN federated learning architecture and operating entirely on-device through Sapius DAX, with no protected health information transmitted to any external cloud service. No raw health data leaves

Nation-controlled infrastructure. The system models disease trajectories through integrated systems biology, multimorbidity reasoning, and longitudinal patient intelligence.

3.3 Governance Architecture - Three Working Groups

Working Group 1 - Sovereign AI and Federated Learning

In collaboration with Dr. Luigi Serio, inventor of the CAFEIN Federated Learning Platform at CERN, this working group developed the Sovereign Federated Learning Demonstrator - proving that predictive clinical models can be trained through parameter exchange rather than data extraction, with no raw health data leaving Nation-controlled infrastructure.

Working Group 2 - Governance, Identity and Stewardship

In partnership with the World Privacy Forum, IEEE-aligned standards participants, and OECD/UN governance contributors, this working group produced the foundational governance charter defining decision rights, consent models, data stewardship boundaries, and participation rules for external partners - grounded in OCAP and UNDRIP.

Working Group 3 - Health Interface and Clinical Learning

Women's health was established as the clinical anchor for the first phase. PHIP was integrated as the learning layer - a continuous health intelligence system spanning first symptoms through diagnostic evaluation, chronic disease monitoring, and preventive intervention.

3.4 Ministerial Report - Premier of British Columbia

DC-ET produced a formal report to the Premier of British Columbia on the TWN Sovereign Healthcare Initiative, positioning the Wellness Centre as a reference model for Indigenous health system transformation in BC and establishing the governance-by-design framework as a contribution to provincial digital health strategy.

3.5 OECD Collaboration

The OECD engaged with DC-ET's sovereign healthcare initiative throughout 2025. OECD representatives attended the December 2025 TWN Wellness Centre launch - formally acknowledging the initiative's relevance to global digital governance frameworks and international health data governance discussions.

4. Collaboration with Dr. Luigi Serio, Innovation Lead at CERN

4.1 CAFEIN Federated Learning Platform

DC-ET established collaboration with Dr. Luigi Serio, inventor of the CAFEIN Federated Learning Platform at CERN. This provides DC-ET with access to the CAFEIN federated AI architecture - already deployed across multiple European hospital systems with over 11,000 patients, including hospitals in Barcelona, Leuven, and Rome - as the technical foundation for the TWN Wellness Centre and the Healthcare Without Borders global architecture.

5. World Privacy Forum - Collective Privacy Research

5.1 Academic Collaboration

DC-ET collaborated with Pam Dixon, Founder and Executive Director of the World Privacy Forum, on foundational research addressing the collective privacy gap. The resulting paper - Group Privacy, Data, and AI: Collective forms of privacy and its relationship to technology and policy frameworks - was published September 2, 2025.

5.2 Key Findings and Policy Implications

The research established that existing privacy law is structurally inadequate for group-level and community-level harms from AI. It introduced the concept of entitativity - the degree to which a collection of persons are perceived as bonded together as a coherent unit - as a framework for determining when collective privacy protections are warranted. Three case studies were analyzed:

- The Maori algorithmic charter with the New Zealand government - the world's most advanced model of Indigenous AI governance
- The NIH All of Us genetic biobank - demonstrating that technically deidentified genetic data can re-identify individuals to their tribal group, and that existing law cannot address this risk
- Lewit v. Austria (European Court of Human Rights) - demonstrating that collective groups face systematic barriers to exercising privacy rights under individual-rights frameworks

The research directly substantiates DC-ET's governance-by-design approach and establishes that Indigenous governance frameworks - particularly OCAP in Canada - represent the world's most advanced existing models of collective privacy protection.

6. Governance Testbed for Trusted AI Systems

6.1 Initiative Development

DC-ET advanced the Governance Testbed for Trusted AI Systems from concept to structured initiative in 2025. The Testbed addresses the execution control gap in agentic and multi-agent AI systems: the structural inability of current governance frameworks to govern AI agents that act autonomously and cannot reliably differentiate between data and commands - the prompt injection vulnerability. This is not merely a security problem; it is a fundamental governance failure requiring architectural solutions.

6.2 Privacy Commissioner of Canada - Roundtable Engagement

DC-ET Co-Chair Dr. May Siksik participated in a high-level roundtable convened by the Privacy Commissioner of Canada, Philippe Dufresne. Commissioner Dufresne noted Dr. Siksik as the participant who most precisely articulated the execution control gap and the need for a governance testbed - establishing DC-ET as a recognized voice in Canadian AI governance.

6.3 Ministerial Briefing

DC-ET produced a formal ministerial briefing on the Governance Testbed, addressed to the Privacy Commissioner for onward routing to the Minister of AI and Digital Innovation (Minister Evan Solomon) and the Minister of Industry. The briefing articulated five specific asks, including Canadian participation in international AI standard-setting processes relevant to agentic AI governance.

6.4 Meeting with Minister Evan Solomon

DC-ET Co-Chair Dr. May Siksik met directly with the Honourable Evan Solomon, Canada's Minister of AI and Digital Innovation, in 2025. The meeting established direct ministerial awareness of the Governance Testbed initiative and DC-ET's governance-by-design framework.

7. Global Quantum and Exponential Technology Education Initiative (GQEI)

7.1 Initiative Overview

DC-ET advanced the Global Quantum and Exponential Technology Education Initiative (GQEI) into active international collaboration in 2025. GQEI addresses the global governance literacy gap around quantum computing, artificial intelligence, and exponential technologies - framing education not merely as technical training but as governance readiness. The initiative targets two talent streams:

quantum scientists and researchers; and domain experts in chemistry, biology, engineering, finance, and other sectors who need quantum literacy to lead sector transformation.

7.2 International Year of Quantum at UNESCO - Partnership

DC-ET engaged with Dr. Joseph Niemela, Chair of the UNESCO International Year of Quantum 2025 Executive Committee, who joined as a scientific advisor to GQEI. DC-ET initiated engagement with UNESCO to formalize the institutional partnership for the GQEI program.

7.3 IEEE Quantum Week Partnership

Prof. Hausi Muller, Chair of IEEE Quantum Week and University of Victoria researcher, joined DC-ET's GQEI core planning team. IEEE Quantum Week was identified as the primary annual recruitment and announcement channel for the initiative.

7.4 India Engagements

DC-ET conducted substantive engagements in Asia as part of GQEI development, including meetings with academic institutions and collaboration with India's Federal AI Mission on talent development and quantum education ecosystem building. These engagements were also presented at the Commonwealth Summit in Namibia, establishing GQEI's relevance across Commonwealth member states.

7.5 Ministerial Report - AI Minister

DC-ET produced a formal report to Canada's Minister of AI and Digital Innovation on the GQEI education initiative, positioning the program within Canada's national AI and quantum strategy and establishing DC-ET's education work as a contribution to Canada's international science diplomacy.

8. Canadian Government and Institutional Engagement

8.1 Federal Government

In addition to the Minister Solomon meeting and Privacy Commissioner roundtable described above, DC-ET engaged with senior federal officials including Deputy Minister Philip Jennings (ISED) and Mark Schaan, PCO Deputy Secretary for AI - positioning DC-ET as a policy-to-implementation bridge across Canada's whole-of-government AI governance agenda.

8.2 Government of British Columbia

The Government of British Columbia attended the December 2025 TWN Wellness Centre launch, formally acknowledging the initiative's significance as a reference model for Indigenous health system transformation in BC.

8.3 Reboot Healthcare Summit - Vancouver

DC-ET Co-Chair Dr. May Siksik participated as a panelist at the Reboot Healthcare Summit in Vancouver, with the panel titled "Building Canada's First Sovereign Healthcare System" - bringing DC-ET's governance-by-design approach to the Canadian health innovation community.

9. International Engagement and Global Outreach

9.1 Namibia - Ministry of Health and Social Services

DC-ET engaged with Namibia's Ministry of Health and Social Services regarding the country's digital health transformation priorities. Dr. May Siksik attended the Commonwealth Trade Ministers' Meeting and Business Summit in Windhoek, Namibia, speaking on behalf of Innovation Network Global. A formal proposal was submitted to the Minister's office; the Ministry subsequently confirmed referral to the Executive Director's office for consideration.

The Hon. Juliana Hamboudi, Chairperson of the Town Council of Ongwediva, Namibia - who is driving community healthcare innovation in her municipality - emerged as a key collaborator, connecting DC-ET's work to the Global South context and confirming her participation as a panelist at the Geneva WSIS 2026 side event.

9.2 OECD Collaboration

DC-ET collaborated with the OECD on sovereign healthcare governance throughout 2025. OECD representatives attended the December 2025 TWN Wellness Centre launch - formally connecting DC-ET's implementation work to OECD's global AI governance and health data policy agendas.

9.3 Commonwealth Summit - Namibia

DC-ET Co-Chair Dr. May Siksik spoke at the Commonwealth Trade Ministers' Meeting and Business Summit in Windhoek, Namibia - presenting DC-ET's governance-by-design framework and the GQEI education initiative to Commonwealth member state governments and business leaders.

10. Publications and Formal Outputs

10.1 Research Publications

- Pam Dixon (World Privacy Forum) - Group Privacy, Data, and AI: Collective forms of privacy and its relationship to technology and policy frameworks. September 2, 2025.
- Dr. Luigi Serio et al. (CERN) - Federation of Agents: A Semantics-Aware Communication Fabric for Large-Scale Agentic AI. arXiv:2509.20175v1, September 24, 2025.

10.2 Government Reports and Briefings

- Governance Testbed for Trusted AI Systems - Ministerial Briefing to the Privacy Commissioner of Canada, for onward routing to the Minister of AI and Digital Innovation and the Minister of Industry. 2025.
- Global Quantum and Exponential Technology Education Initiative (GQEI) - Report to Canada's Minister of AI and Digital Innovation (Evan Solomon). 2025.
- TWN Sovereign Healthcare Initiative - Report to the Premier of British Columbia. 2025.

10.3 WSIS Submissions

- Action Line C7 (E-Health): Sovereign Health Systems and the Collective Privacy Gap - submitted to WSIS 2026 programme
- Action Line C4 (Capacity Building): Deep Skilling for the Quantum Age: A Global Education Model for Women and Girls - submitted to WSIS 2026 programme
- Action Line C5 (Cybersecurity and Confidence): Governance-First AI: Closing the Multi-Agent Sovereignty Gap - submitted to WSIS 2026 programme

10.4 Technical and Governance Documentation

- TWN Wellness Centre Reference Model - governance architecture document establishing the reference model for Indigenous-sovereign AI health system design
- Healthcare Without Borders Framework - structural framework documentation for global replication

11. Looking Ahead - 2026 Priorities

DC-ET enters 2026 at an inflection point. The IGF's permanent status (Resolution 80/173), the Global Digital Compact's implementation requirements, the WSIS+20 Action Line roadmap development, and the acceleration of agentic AI deployment across every sector create a convergence of opportunity and urgency that DC-ET is uniquely positioned to address.

- WSIS Geneva - hosting the confirmed half-day governance working session during WSIS week and advancing the three formal WSIS session submissions
- TWN Wellness Centre - deploying and demonstrating the sovereign federated clinical AI system; advancing the women's health learning pathway
- Governance Testbed - formal engagement with Canadian federal government and international standard-setting bodies; contributing to Global Digital Compact implementation
- GQEI - formalizing the UNESCO partnership; launching global education programming through IEEE Quantum Week
- Namibia - advancing the Ministry of Health relationship and the Ongwediva community health initiative
- Healthcare Without Borders - expanding the reference model to additional communities and geographies
- WSIS+20 Action Line Roadmaps - contributing DC-ET case-based evidence to C4, C5, and C7 roadmap development as required by ECOSOC resolution (April 2026)