Digital Health and Discovery Platform (DHDP) - Digital Health Innovation Fund

May 2, 2025

Webinar Recording

This meeting is being recorded and will be published online at dhdp.ca, under the [Digital Health Innovation Fund](#) page.

FAQs will be updated based on questions we have received and today's Q&A.

Agenda

1. Background about DHDP
What is the DHDP? What gap does DHDP aim to solve in Canadian healthcare research?
What is our technical approach and development timeline?

2. Digital Health Innovation Fund
What is the purpose and of this funding opportunity?
What are the eligibility requirements, next steps in the application process, and key dates?

3. Question & Answer Period (30-40 minutes)

Background on DHDP

DIGITAL HEALTH AND DISCOVERY PLATFORM (DHDP)

Pan-Canadian initiative led by the **Terry Fox Research Institute** and over 50 Partners across Canada

Funded by **$49-million** through Canada's Strategic Innovation Fund, Stream 4 (**Innovation, Science and Economic Development - ISED**)

Supports **private and public sector collaborations** to accelerate research, discovery, innovation and commercialization

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DHDP Mission: To bring precision medicine and personalized care in cancer, neurodegeneration and other health research domains to Canadians through the application of big data and artificial intelligence.

Aligns with TFRI Mission: Inspired by Terry Fox, we invest in highly collaborative, world-class scientific teams to drive research discoveries that improve and save the lives of cancer patients.

Project completion date: March 2027.

DIVERSE AND COLLABORATIVE ECOSYSTEM

RESEARCH & DEVELOPMENT

FEDERATED DATA GOVERNANCE

FEDERATED ACCESS, LEARNING, AND DISCOVERY

LEADING TO THE ADVANCEMENT OF PRECISION MEDICINE

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DHDP Relaunch

CHANGE IN MANAGEMENT (APRIL 2022)

DHDP V.2 PARTNERSHIPS

ISED APPROVAL/ RELAUNCH (JAN 2024)

KEY PRIORITIES

PROJECT END (MARCH 2027)

New Private Sector Partners

bitnobi — Data policy management

integrate.ai — Federated machine learning system

Open Source Partner

CanDIG — Open-source federated querying and analysis of multi-omic and health data
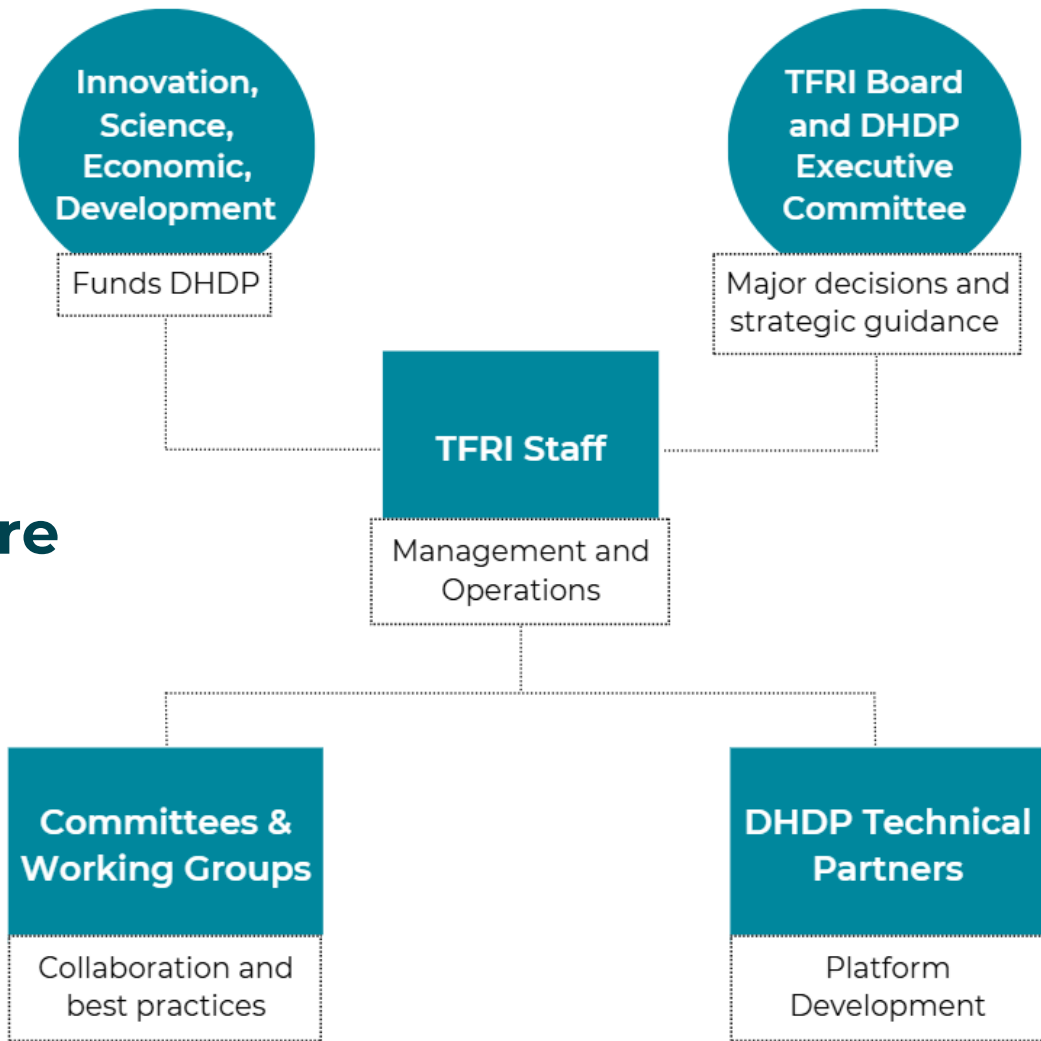
1 **Enhance DHDP Ecosystem**

2 **Innovate and Commercialize**

3 **Scale and Sustain**

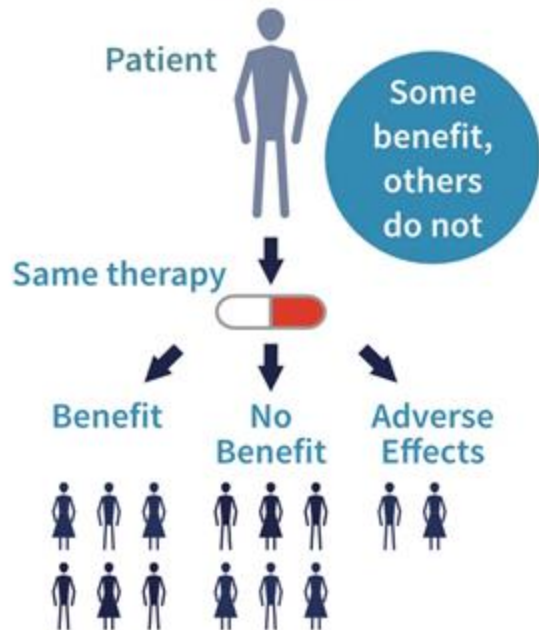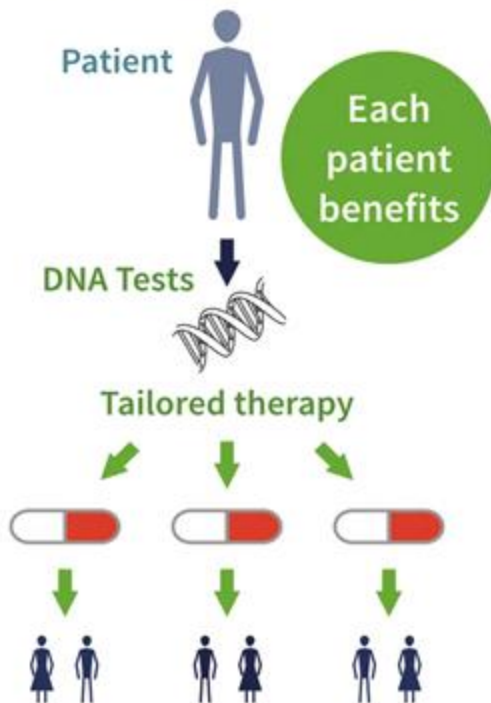Digital Health & Discovery Platform

DHDP Structure

Innovation, Science, Economic, Development

Funds DHDP

TFRI Board and DHDP Executive Committee

Major decisions and strategic guidance

TFRI Staff

Management and Operations

Committees & Working Groups

Collaboration and best practices

DHDP Technical Partners

Platform Development

Unpacking the Mission

Without precision medicine

Patient

Some benefit, others do not

Same therapy

Benefit · No Benefit · Adverse Effects

With precision medicine

Patient

Each patient benefits

DNA Tests

Tailored therapy

A **one-size fits all** approach will always fail a portion of patients.

Precision medicine can change the lives of many, especially those who are at **high-risk** and/or live with **rare diseases** like cancer.

Image source: reprocell.com/blog/5-benefits-of-pm

The Challenge with Data Sharing

- Fragmented systems and data silos.

- Data privacy and liability for sharing data.

- Data pre-processing and quality.

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Accomplish the Mission: Fostering a Network Effect

Enable data sharing among researchers and innovators across institutes through a **made-in-Canada, privacy-first** platform.

Create a **'network effect'** to accelerate collaborative health research among DHDP members.

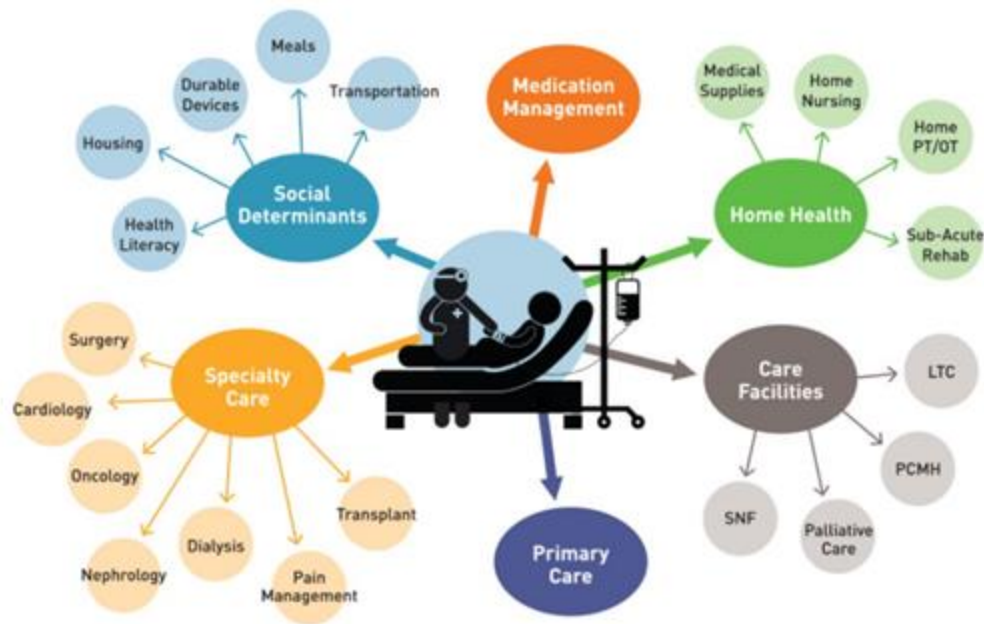Mobilize Canada's **knowledge economy** capable of using AI for healthcare innovation.

The DHDP's roadmap includes **multi-modal data** (EHR and EMR, clinical, genomic, and imaging) to prioritize **oncology, neurology**, and **other health research domains** that benefit from these data types.

Precision Medicine: Application of big data and AI

Rich and diverse patient data is powerful. When the right information is provided to decision-makers at the right time, this can prevent adverse events (e.g., clinical decision support to personalize treatment).

With rapid advancements of AI in recent years, there continues to be a **pressing need for access** to more rich patient data to train, validate, and implement reliable and trustworthy AI models in real-world settings.

Source: Roberts, 2021

Technical Framework

Platform Core Functionality

Discover. Prepare. Analyze.

Privacy-by-design

- Federated data model
- Federated learning
- Compliance with industry standards
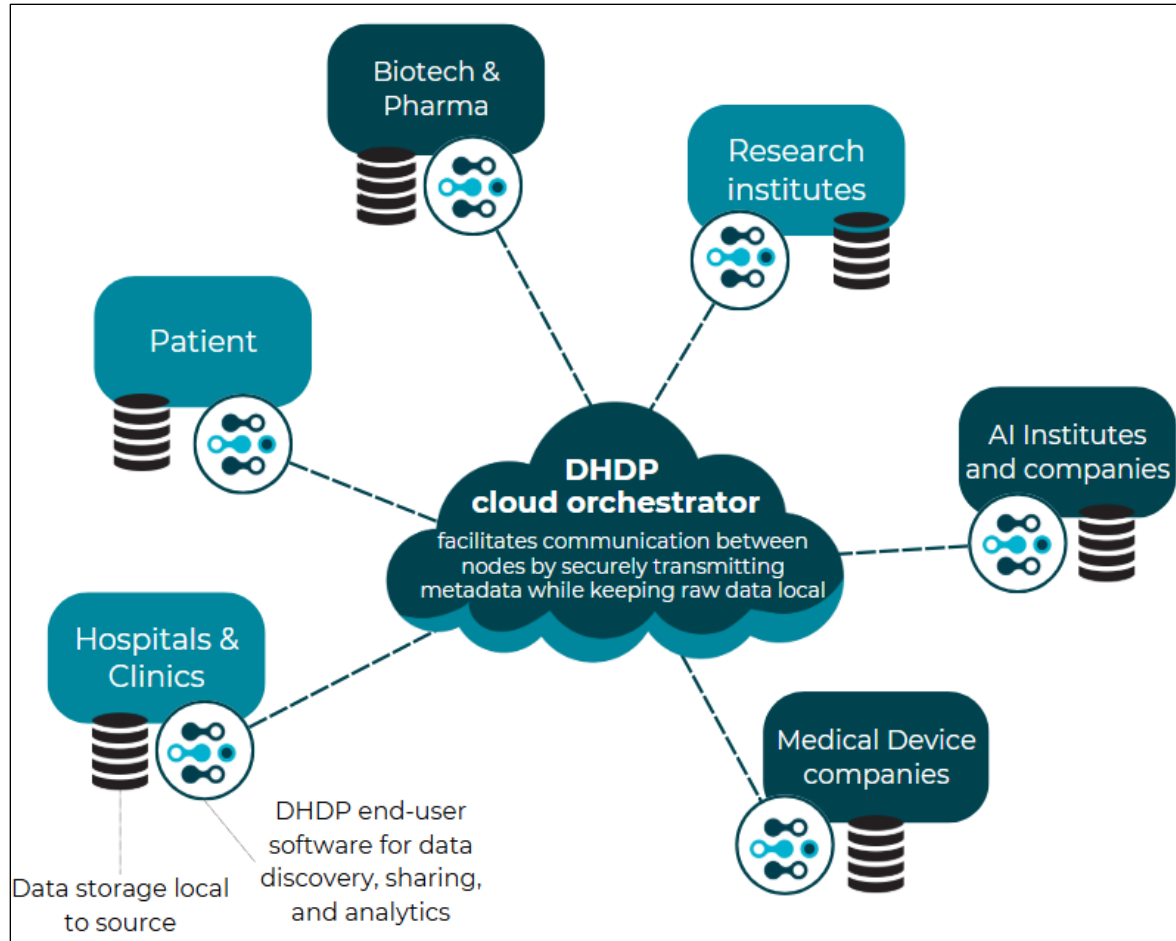- Access controls (e.g., user-based, time-bound)

Best Practices

- Observational Medical Outcomes Partnership (OMOP) Common Data Model

- FAIR Principles: Findable, Accessible, Interoperable, and Reusable

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Federated, privacy-first architecture

- DHDP uses a federated model to protect sensitive patient data.

- Under this model, patient data remains local to the participating site where it is generated, and never crosses any institutional, local or provincial borders.

- Each site handles their own data and users with complete control over who can access each dataset.

Source: DHIF Supporting documents

Federated Learning

Federated Learning (FL) is a Machine Learning (ML) paradigm that enables the development of ML models across multiple decentralized nodes (e.g., hospitals, research centers) while preserving the privacy of sensitive medical data by keeping it localized at each site.
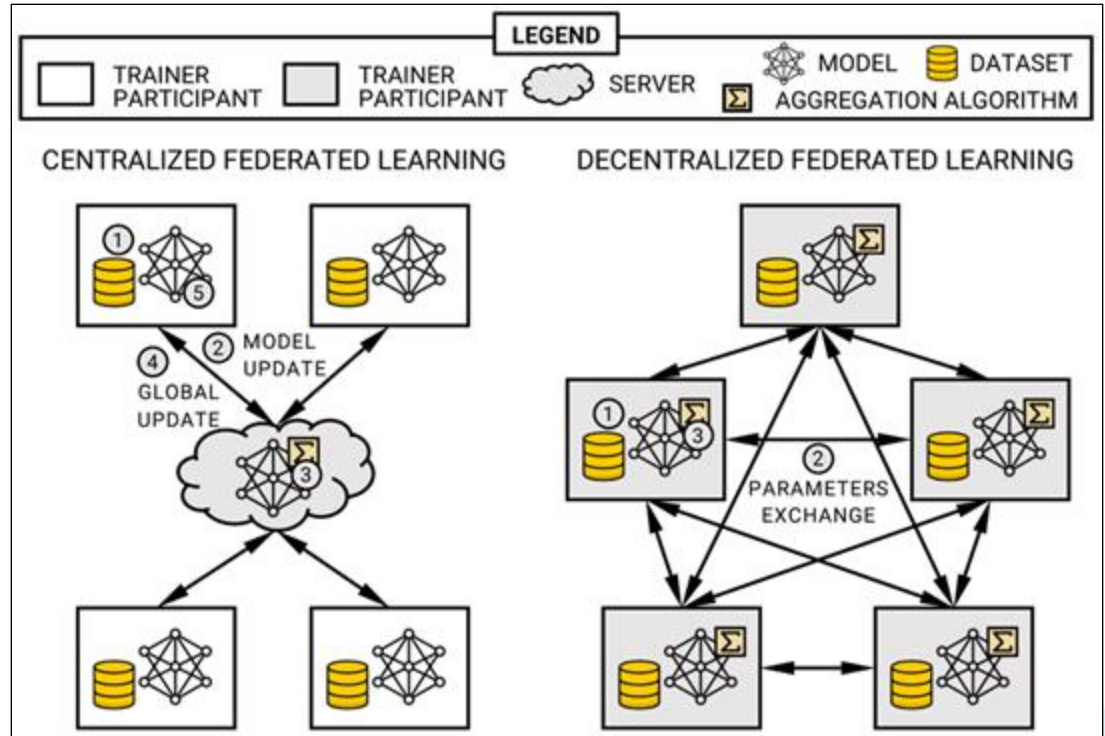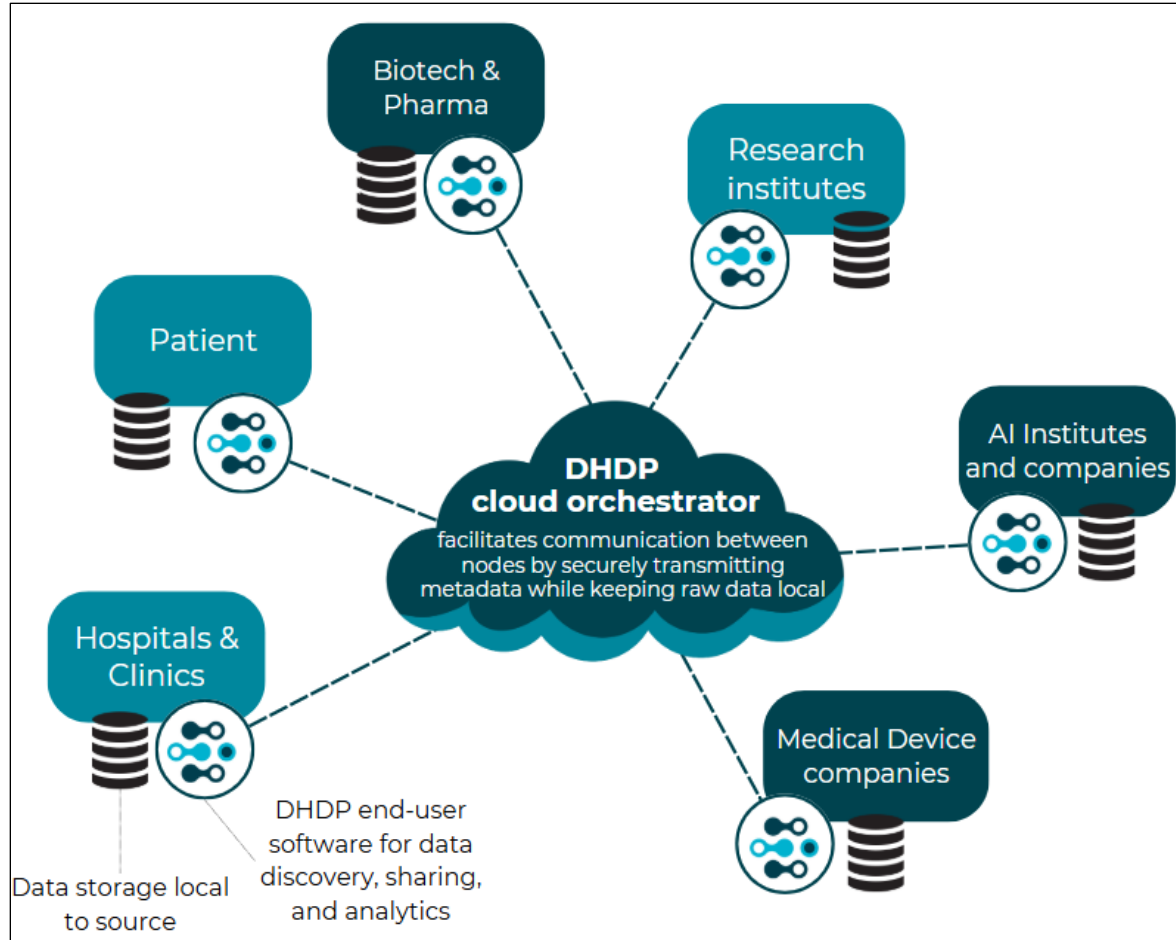

Image Source: ResearchGate

Data Ecosystem

International Data Standard:

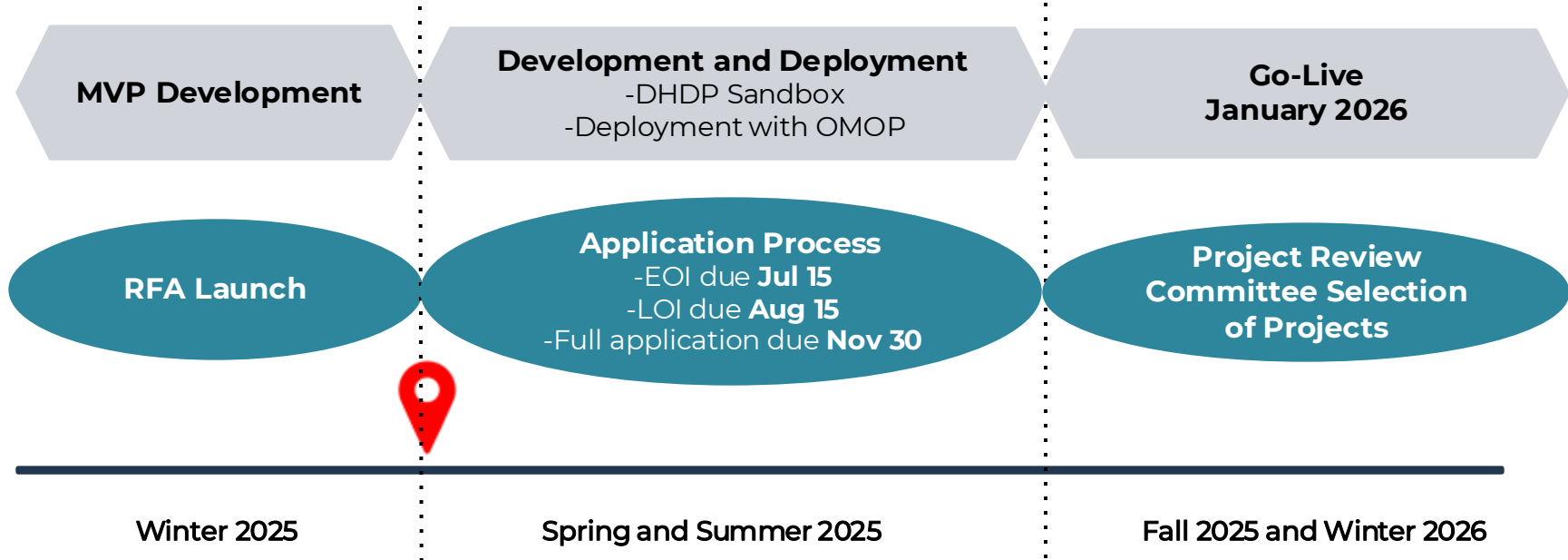- (OMOP) Common Data Model promotes extensibility to support diverse data

DHDP Data Roadmap:

- Multi-modal data starting with EHR and EMR, clinical, genomic, and imaging

Source: DHIF Supporting documents

DHDP Current vs. Future State

Technology
RFA

| MVP Development | Development and Deployment -DHDP Sandbox -Deployment with OMOP | Go-Live January 2026 |

RFA Launch

Application Process
-EOI due **Jul 15**
-LOI due **Aug 15**
-Full application due **Nov 30**

Project Review Committee Selection of Projects

Winter 2025 | Spring and Summer 2025 | Fall 2025 and Winter 2026

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**Digital Health &
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Digital · Hôpital
Découverte · Plateforme

About ▾   **Funding Opportunities** ▾   Membership ▾   Updates   Contact

Digital Health Innovation Fund

Overview

The DHDP is launching a Request for Applications for the Digital Health Innovation Fund. The purpose of this opportunity is to support the development of research programs through their use of the Platform. While the fund prioritizes oncology and neurology research programs, the DHDP is a disease agnostic initiative. Applications focused on other areas of health and AI research where similar data may be available (eg. diabetes, cardiology) will also be considered. By identifying and selecting research initiatives for their compelling science, projects will advance the design and use of the Platform to support meaningful and impactful projects. In parallel, the intention is to stimulate collaboration among small- and medium- sized enterprises (SMEs), while adopting a view toward the commercialization potential of research discoveries.

More details

Download Full RFA

More Information

dhdp.ca/funding-opportunities/digitalhealthinnovationfund

- **Application documents:** Project Eligibility, Funding Opportunity, and Next Steps

- **Supporting documents:** DHDP Federated Framework, Technology, and Infrastructure

Important documents

Application documents

- Request for Applications: EN | FR
- Expression of Interest Survey (English only)
- Eligible Costs Table: EN only - NEW

Supporting documents

- DHDP Poster 2025: EN | FR
- DHDP Technology Readiness: EN | FR
- DHDP Infrastructure: EN | FR
- DHDP Functionalities: EN | FR

Digital Health Innovation Fund
Inaugural Request for Applications

Purpose

By identifying and selecting research initiatives for their compelling science, projects will advance the design and use of the Platform to support meaningful and impactful projects.

Targeted Focus

- Research focus in oncology and neurology, however, applications focused on other health and AI research domains where similar data may be available (eg. diabetes, cardiology) will be considered.

- Stimulate collaboration among small- and medium- sized enterprises (SMEs), while adopting a view toward the commercialization potential of research discoveries.

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Eligibility

Minimum Eligibility: A minimum of <u>2 Canadian small- and medium- sized enterprises (SMEs).</u> In addition, projects must demonstrate access to data necessary to carry out the proposed project.

- Although public-private sector collaboration is not required, it is encouraged to increase data availability.

Eligible Project Requirements:

- Technical and financially feasible project approach
- Pilot protocol outlining regulatory requirements (e.g., institutional) and data pipeline activities such as mapping to OMOP
- Project will be conducted in Canada and span 8-12 months
- Includes plan for project IP and commercialization

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$25-Million Funding Opportunity

- **20-25% reimbursement ratio,** determined on a project-by-project basis

- **Stacking:** Reimbursement funds may be stacked with other federal, provincial or municipal governmental assistance, provided the collaborator does not exceed their maximum government assistance ratio (refer to RFA).

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Matchmaking Assistance

- DHDP Network **X** MEDTEQ+ Beachhead™ Network
  - Pan-Canadian reach to SMEs, AI institutes, academic and healthcare institutes, etc.

- Based on project team needs, shared research focus, and data accessibility

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Outcomes

- **FUND COMPELLING RESEARCH:** Select projects will receive funds under a reimbursement model to support the advancement of research programs through the Platform.

- **BUILD A DATA ECOSYSTEM:** DHDP will provide data providers with support for Platform onboarding.

- **FOSTER A NETWORK EFFECT:** Build a collaborative network of researchers and innovators looking to break data sharing barriers and bring research into reality.

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Next Steps

Key Dates

July 15, 2025: Expression of Interest (EOI) deadline.

- [EOI survey](#) is available under Application Documents.
- Indicate if you would like Matchmaking Assistance.

August 15, 2025: Letter of Intent (LOI) deadline.

- Refer to pages 6-8 of the RFA for LOI guidance.
- LOI document(s) to-be-posted.

September 2025 - Invitation for Full Applications will be sent.

November 30, 2025 - Full Applications deadline.

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Membership

Applicants are required to sign the **DHDP Network Member Agreement** to be eligible for funds.

Become a DHDP member:

- Obtaining membership is a step we are embedding within the RFA process.

- Additional information will be shared in the LOI and FAQ documents (to-be-posted).

Benefits:
- **Network:** Collaborative and diverse network with industry, academia, and more.
- **Innovation:** Transform the way health data is governed and used in precision medicine
- **Social & Economic Benefits:** Stimulate commercialization of Canadian research discoveries and improve health of Canadians.

How to contact us / stay in the know

If you have filled out an EOI, by default, you will receive future communications.

If you have not filled out an EOI or have questions, email dhdp@tfri.ca. Alternatively, fill out the Question form under DHIF's webpage to subscribe or submit a question.

Social Media:

We also encourage revisiting the website regularly to stay informed.

Question form

Questions about the Digital Health Innovation Fund?

Are you unsure about your eligibility? Are you unclear about the application process? Do you have *any* questions about the Digital Health Innovation Fund? Please complete the following form! We will get back to you as soon as we can!

First Name

Last Name

Institution

Email Address

Questions

I'm not a robot
reCAPTCHA
Privacy · Terms

QUESTIONS?

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