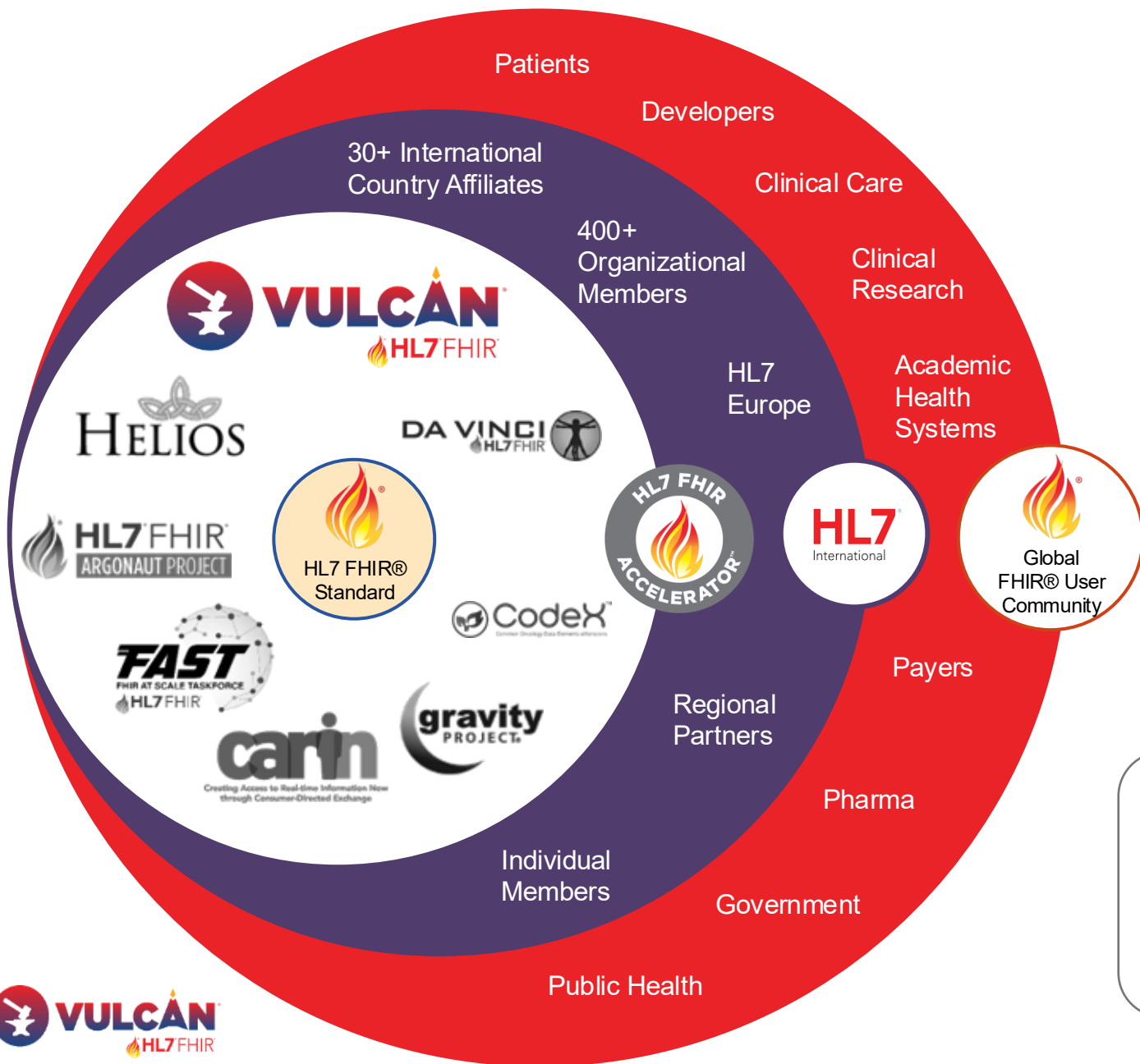


# Vulcan HL7 FHIR Accelerator

## Introduction and Overview



# Vulcan and the HL7 FHIR® Ecosystem



Founded in 1987, **Health Level Seven® International (HL7)** is an ANSI-accredited, not-for-profit standards developing organization with the mission of empowering global health interoperability. With affiliates in over 30 countries, HL7’s global membership envisions **a world in which everyone can securely access and use the right data when and where they need it.**

The **HL7 FHIR ACCELERATOR** program is designed to assist communities and collaborative groups across the global health care spectrum in the **creation and adoption of high quality FHIR Implementation Guides or other standard artifacts** to move toward the realization of global health data interoperability.

**Vulcan** aims to establish a global community that accelerates interoperability along the Research-to-Care Continuum through the adoption of HL7 FHIR®.

## HL7



### New CEO Rachel Dunscome

Background in healthcare delivery, national digital strategy, and leadership in international standards communities.



### New COO Patrick McGinn

Former director of Director of the Utility Engineering & Surveying Institute, leading strategic planning, program development, and standards initiatives

## HL7 Vulcan



Jose Galvez  
IgniteData

Chair



Chris Decker  
CDISC

Vice Chair



Anita Walden  
UNC



Michael Buckley  
MSKCC

Academia



Beverly Buckta  
Pfizer

BioPharma & CRO



Don Jennings  
Eli Lilly



Nersey Rastan  
The Synergist

Consortia & SDOs



Rob DiCicco  
TransCelerate



Stephen Konya  
HSS - ASTP/ONC

Government Agencies



Mitra Rocca  
FDA



David Champeaux  
Evidentii

Implementers



Steve Heard  
J2 Interactive

## New Steering Committee

Our new steering committee brings together 12 elected representatives from across the research to care continuum.

This is an exciting for new chapter for HL7 and Vulcan and it doesn't stop there...



New Projects..



New Collaborations..



**FHIR (Fast Healthcare Interoperability Resources)** is a specification that is a standard for exchanging healthcare information electronically. FHIR R4 is the modernization of and best feature reutilization from HL7s v2, v3, and CDA products. Development of resources follows an 80/20 rule and aims to focus on what is required in 80% of existing systems and to regard the remaining 20% as edge cases. The 20% can then be dealt with through the extension mechanism built into FHIR.

FHIR simplifies implementation without sacrificing information integrity. It leverages existing logical and theoretical models to provide a consistent, easy-to-implement, and rigorous mechanism for exchanging data between healthcare applications.

**Why?**

Interoperability out-of-the-box, Using established systems to exchange data across the research to care continuum

**How?**

FHIR is built on web standards (e.g., XML, JSON, HTTP, and OAuth)

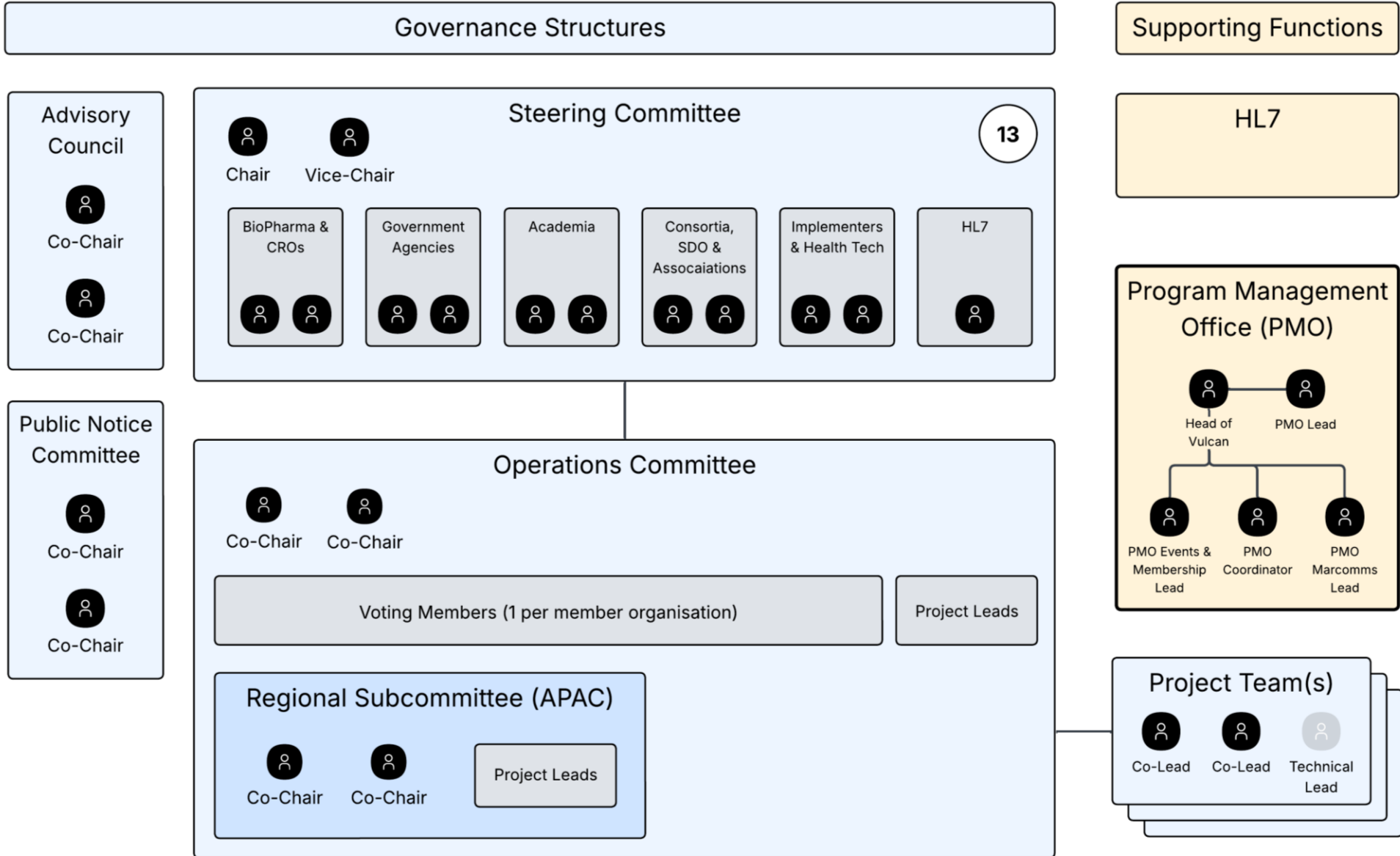
**What?**

FHIR is a flexible standard with over 150 resources to cover a wide array of use cases

**Who?**

FHIR has a diverse global community (hospitals, academia, vendors, biopharma, regulators)

# Vulcan Leadership and Support Structure



## Our Vision



“A world where everyone has access to secure, timely and accurate health information, empowering informed decisions throughout the research to care continuum.”

## Our Mission



“To establish a global community accelerating interoperability in the research to care continuum through the adoption of HL7 FHIR®.”

Joining the Vulcan community gives you the ability to:

- **Collaborate** as part of a global **network**, uniquely composed of implementers, pharma group, academia and regulators
- **Proactively shape the future**, by promoting interoperability at scale
- **Gain early access to** HL7 FHIR® Implementation Guides based on real-world, end-to-end use cases that reflect the needs and priorities of Vulcan members and advance interoperability
- Proactively **improve** research processes and **accelerate** digital transformation of translational and clinical research
- **Be ambassadors** in the global health data standards community

# Strategic Goals

**Mission:** “To establish a global community accelerating interoperability in the research to care continuum through the adoption of HL7 FHIR®.”

## Engage the research-to-care Community with FHIR



Engage with communities at key points in the research-to-care continuum and align HL7 FHIR with existing or emerging data standards such as the Common Data Model (CDM) and international guidelines (e.g., ICH M11) to ensure global coherence and practical interoperability.

## Engage Members to Develop FHIR IGs and Use Cases



Engage membership across the research, care, regulatory, and implementer communities, enabling volunteers to lead the development, testing, and adoption of HL7 FHIR Implementation Guides and to extend FHIR throughout the global research-to-care continuum.

## Support the Adoption of FHIR



Support the practical adoption of HL7 FHIR by facilitating its application in priority areas such as real-world data analytics, AI-driven research, and pharmacovigilance, demonstrating measurable value and HL7 FHIR as the standard for interoperability across the research-to-care continuum.

## Develop Vulcan to foster long-term growth and impact



Continue to develop Vulcan into a robust, transparent, democratic, and sustainable organization. Fostering long-term growth and impact in the global research and care ecosystem.

# Strategic Objectives

As part of our strategic refresh, we've established a new living backlog of **over 20 SMART objectives** that will guide Vulcan's focus and investment over the coming years. This slide highlights seven priority items from that backlog, key areas we will continue to review, refine, and advance together with our community.



# Research to Care Interoperability

The research-to-care continuum is the vital loop where clinical discoveries inform patient care, and real-world care data cycles back to fuel new research. HL7 Vulcan sits at the heart of this loop, where our community uses HL7 FHIR® to enhance healthcare interoperability.

We use FHIR to establish new connections throughout the research to care continuum, supporting solutions that benefit patients, clinicians, researchers, and society.

Our community unites BioPharma, CRO, Government, Academia, Consortia & SDOs, and Implementers.



Our projects work to turn use cases into tested FHIR solutions that simplify the acquisition, exchange, and secondary use of data.

We build and test Implementation Guides (IGs) that solve real-world data exchange challenges

# Vulcan is a Diverse, Global Community

Membership as of March 2026

★ indicates a convening or Founding member of Vulcan






## Academia

 Cedars Sinai	 Duke University School of Medicine	 JOHNS HOPKINS SCHOOL of MEDICINE	 Memorial Sloan Kettering Cancer Center	 国立がん研究センター 東病院 National Cancer Center Hospital East	 OREGON HEALTH & SCIENCE University
 UAMS University of Arkansas for Medical Sciences	 UiO University of Oslo	 THE UNIVERSITY of NORTH CAROLINA at CHAPEL HILL	 UT Health San Antonio Joe R. & Teresa Lovano Long School of Medicine	 University of Colorado Anschutz Medical Campus	

## Consortia, SDOs & Associations

 ALS ASSOCIATION	 cdisc	 CROHN'S & COLITIS FOUNDATION	 HL7 International	 iHD The European Institute for Innovation through Health Data	 TransCelerate BIOPHARMA INC.
 The Synergist	 phuse	 Scientific Knowledge Accelerator Foundation (SKAF)			

## Governmental Agency

 ASTP	 FDA U.S. FOOD & DRUG ADMINISTRATION	 NIH National Center for Advancing Translational Sciences	 NIH NATIONAL CANCER INSTITUTE	 NIH National Library of Medicine
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## Implementers & Health Tech

 accenture	 BioVeras	 carelane	 Droice Labs	 OpenClinica	 ESPERO	 evidentl	 FELLESKATALOGEN
 IgniteData	 infor	 J2 INTERACTIVE	 MITRE	 FUJITSU			

## BioPharma & CRO

 Johnson & Johnson	 Lilly	 Pfizer	 Roche
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# Current Projects

Each Vulcan project addresses a specific barrier to more connected, efficient, and interoperable clinical research. From protocol design to data capture and regulatory submission, these use cases demonstrate how FHIR can open connections across the research to care continuum.

## Adverse Events (AE)

Adoption

Improving how adverse events are captured and shared by leveraging FHIR to align EHR data with research standards.

## FHIR to OMOP

Development

Building a standard FHIR-to-OMOP data pipeline to streamline the creation of research data warehouses.

## Electronic Product Information (ePI)

(V1) Adoption

Defining a global FHIR standard for exchanging structured product information across regions.

(V2) Development

## Phenomics Exchange (PE)

Development

Exploring how FHIR can support the capture of rich phenotypic information using formats like Phenopackets.

## Schedule of Activities (SoA)

(V1) Adoption

Creating a FHIR-based digital schedule that links study protocols to patient care workflows.

(V2) Development

## Real World Data (RWD)

Adoption

Developing FHIR profiles to extract research-ready data from EHRs and support regulatory submissions.

## Utilizing the Digital Protocol (UDP)

Development

UDP is a collaborative effort between Vulcan, CDISC and TransCelerate to develop a FHIR Implementation Guide aligned with ICH M11. The protocol's shift from static documents to a machine-readable format will streamline study design, sharing, and execution.

## API Exchange for Medicinal Products (APIX)

Development

APIX is creating a FHIR-based, API-first framework to enable real-time, interoperable exchange of medicinal product information.



**Connect with Vulcan!**

