

Key Information

Contact details

CMC: Birthe.Nielsen@pistoiaalliance.org

IDMP-O / ClinOpps:

aditya.tyagi@pistoiaalliance.org

PGO: Giovanni.Nisato@pistoiaalliance.org

Projects Website

<https://www.pistoiaalliance.org/projects/current-projects/>

Portfolio Contacts

Thierry.Escudier@pistoiaalliance.org
Christian.Baber@pistoiaalliance.org

Project Funders



Thanks to our funders who are making this project possible, without their help this community would not exist or collaborate. Thanks for all the in-kind contributions for their time and expertise.

Getting Involved

We are looking for more companies to act as funders and contributors, if you are interested in becoming involved with any of these projects, please contact the relevant project manager or email: ProjectInquiries@PistoiaAlliance.org.

Resources

<https://www.pistoiaalliance.org/projects/current-projects/idmp-ontology/>

<https://www.pistoiaalliance.org/projects/pharmaceutical-cmc-process-ontology/>

<https://www.pistoiaalliance.org/projects/current-projects/clinical-operations-ontology/>

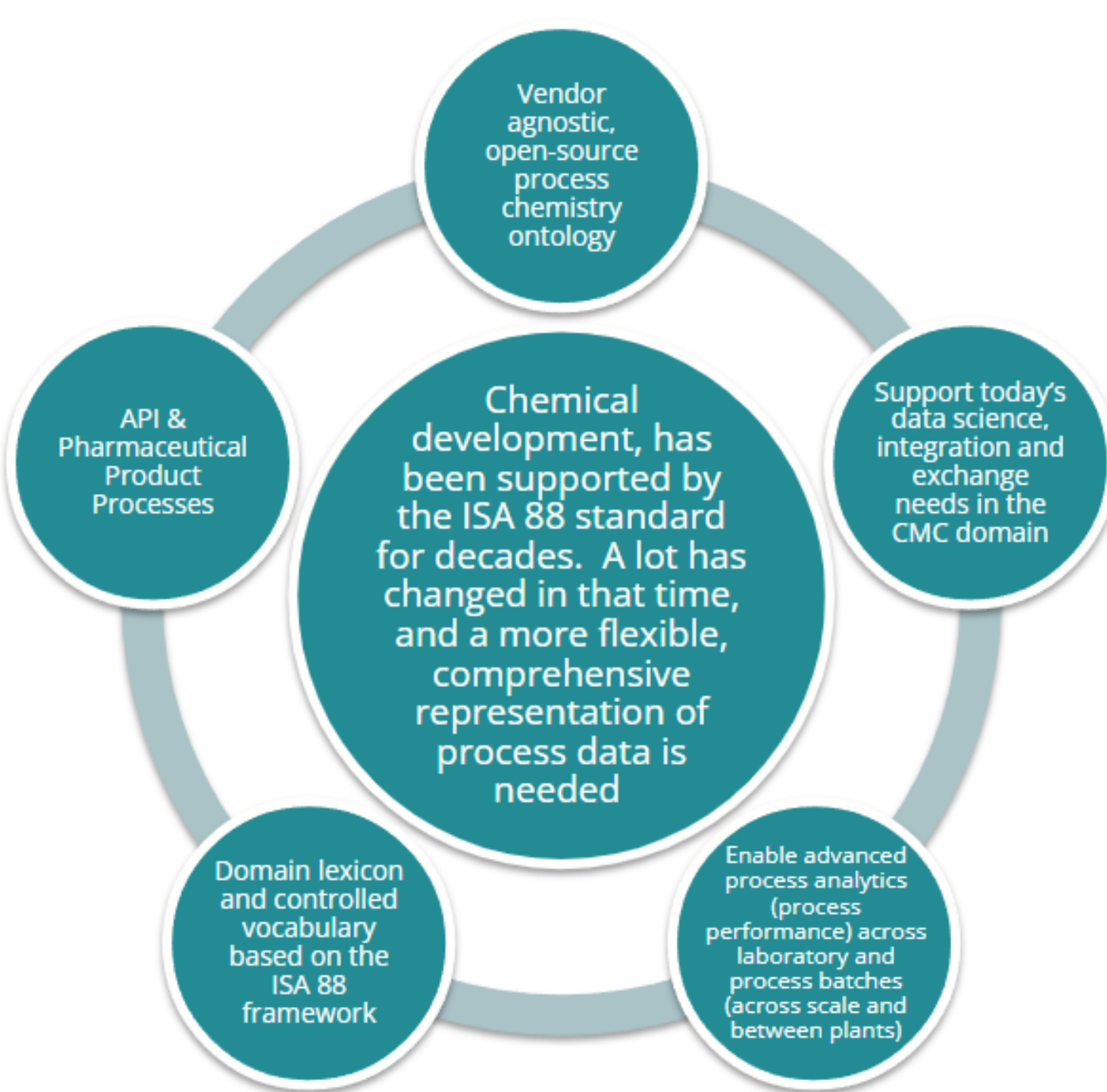
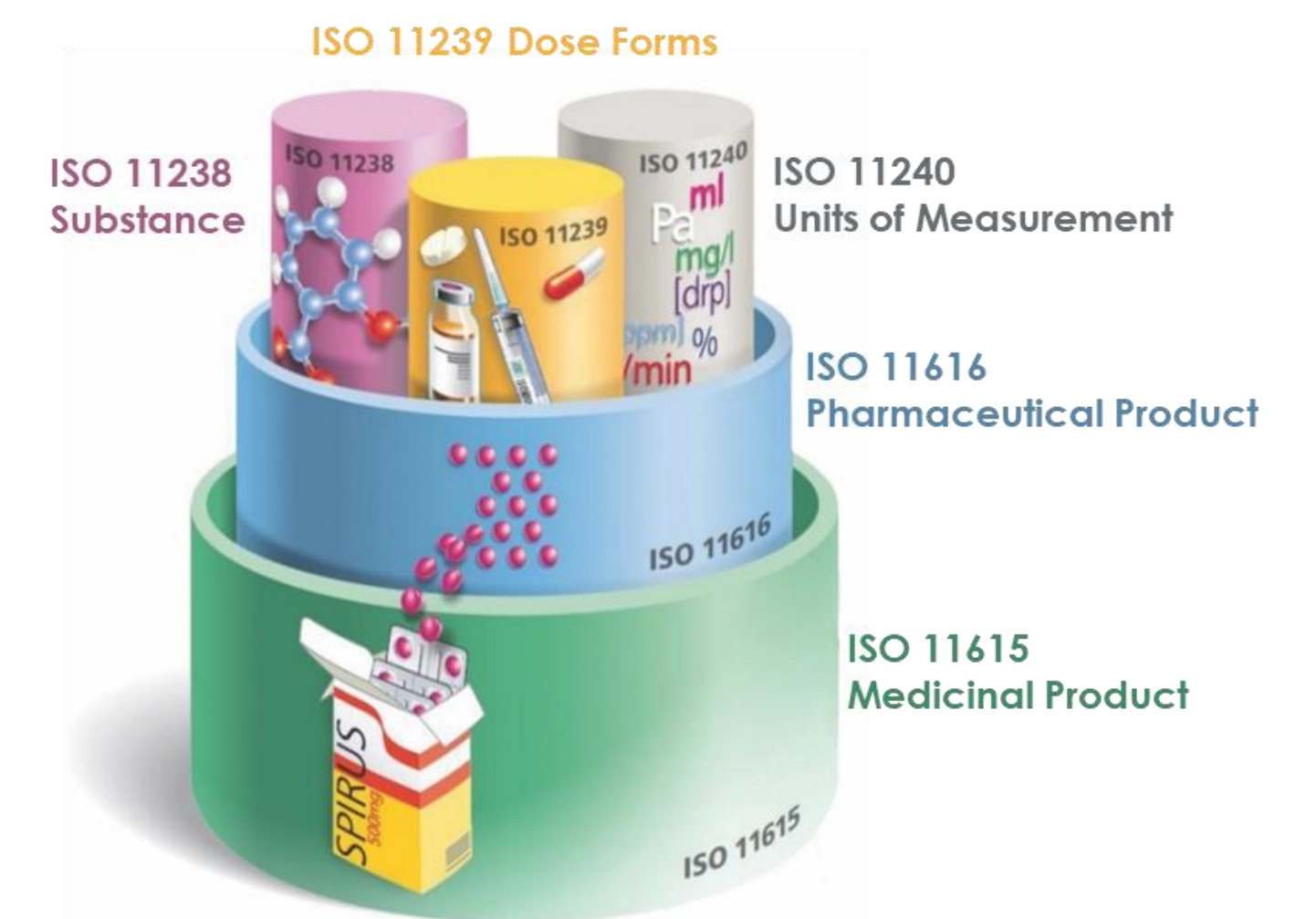
<https://www.pistoiaalliance.org/projects/pharma-general-ontology/>

A Network of Ontologies

As the life science industry increasingly relies on data-driven approaches, the adoption of ontologies has emerged as a strategic imperative to harness the full potential of data for enhancing efficiency and effectiveness. A key strategic priority of the Pistoia Alliance, a non-profit organization fostering collaboration in life sciences and healthcare, is to Deliver Data Driven Value. As part of this effort, the Alliance leads multiple projects targeting semantic data with oversight and governance provided by in-house experts to provide a holistic view and ensure that deliverables are aligned and interoperable. This poster outlines some of these initiatives: IDMP-O, CMC Process Ontology, Clinical Operations Ontology, and Pharma General Ontology.

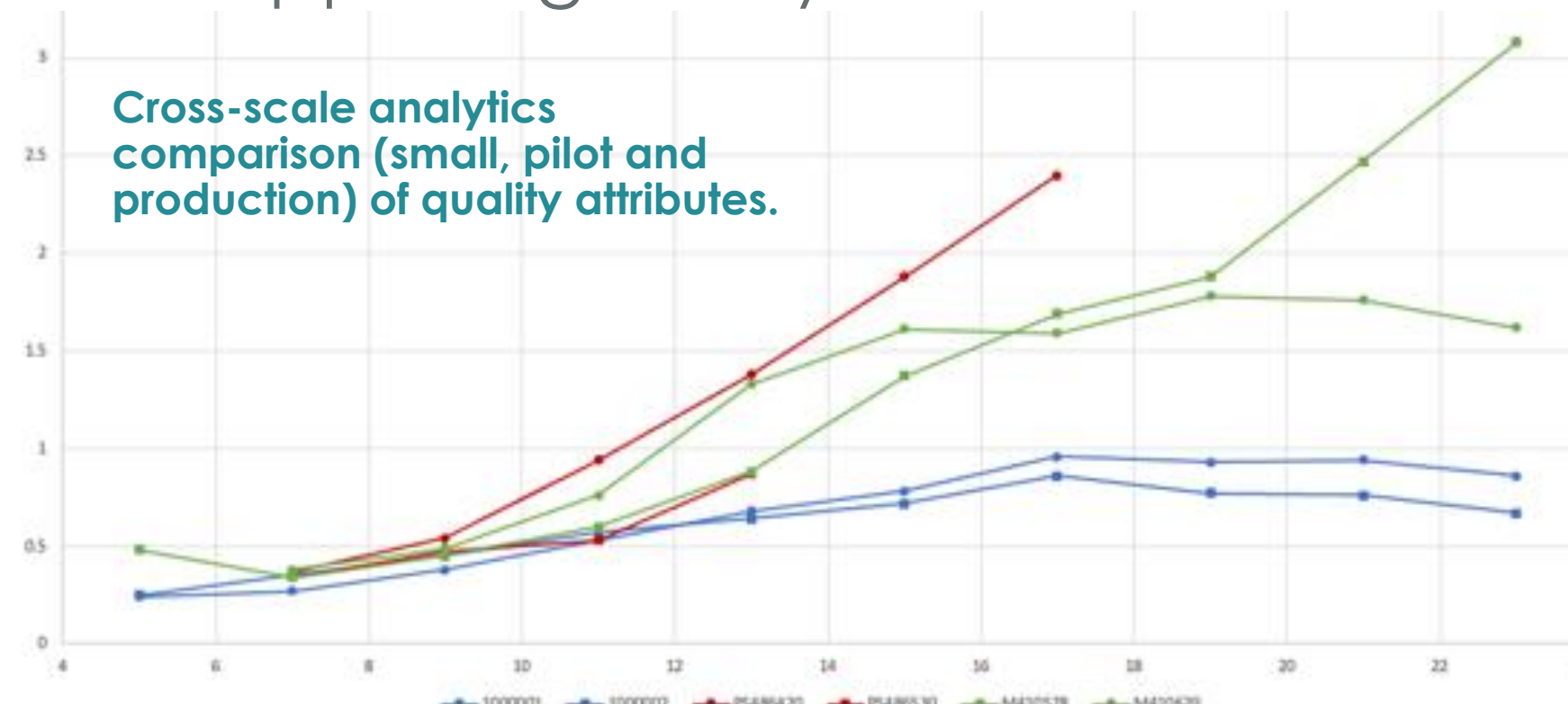
IDMP Ontology (IDMP-O)

IDMP is an ISO standard for the Identification of Medicinal Products, adopted by EMA to ensure consistent identification and exchange of medicinal product information. However, varying implementations across companies and regions reduce its effectiveness. This project is uniting the industry to develop a common ontology for standardized implementation. Key benefits of IDMP-O include improved regulatory compliance, enhanced patient safety, better data management, and efficient global product registration and supply chain optimization.



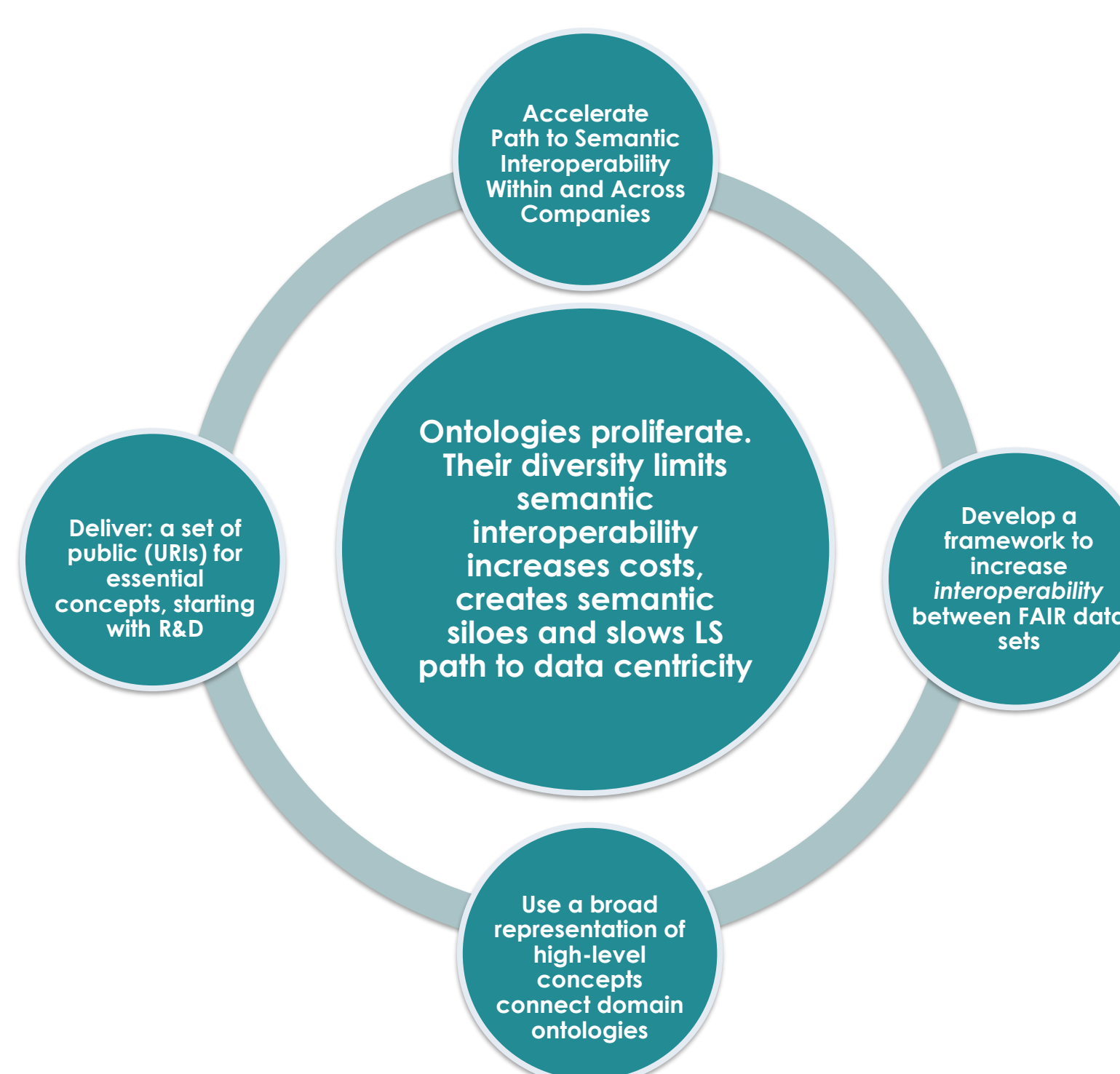
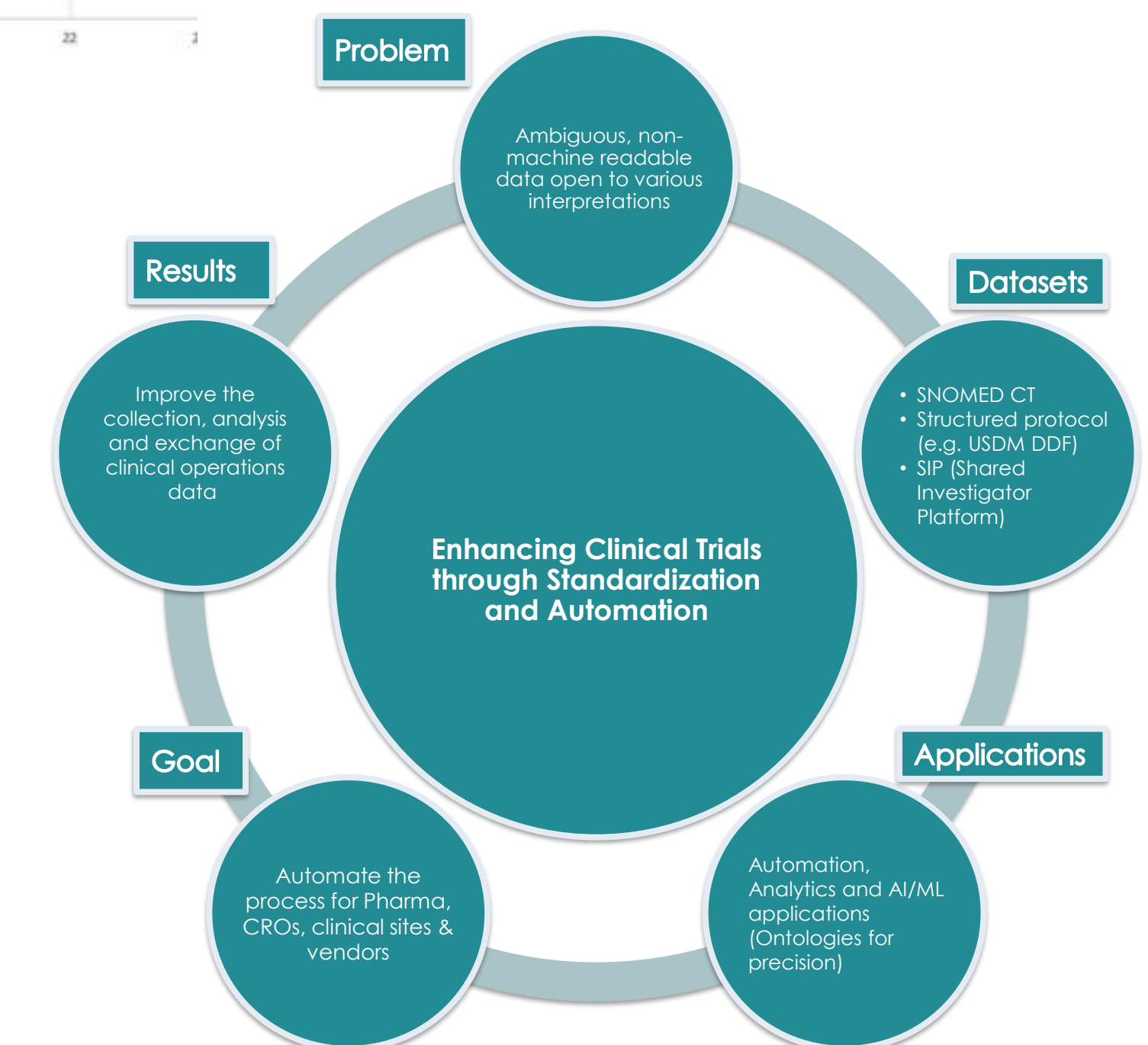
CMC Process Ontology

Our CMC Ontology project aims to standardize Chemistry, Manufacturing, and Control (CMC) recipe data describing chemical and protein production processes by developing a vendor agnostic, open source, process chemistry ontology supporting today's data science and exchange needs.



Clinical Operations Ontology

The Clinical Operations Ontology project aims to automate clinical trial execution by making data machine-readable through ontologies. Site feasibility is vital for aligning protocol requirements with site capabilities, ensuring study viability. Our proof-of-concept phase targets efficiency in planning by enhancing the manual site feasibility process. Leveraging linked data and standard methodologies, we can model clinical research designs effectively. By automating processes through ontologies and existing databases, this expedites decision-making and increases efficiency.



Pharma General Ontology (PGO)

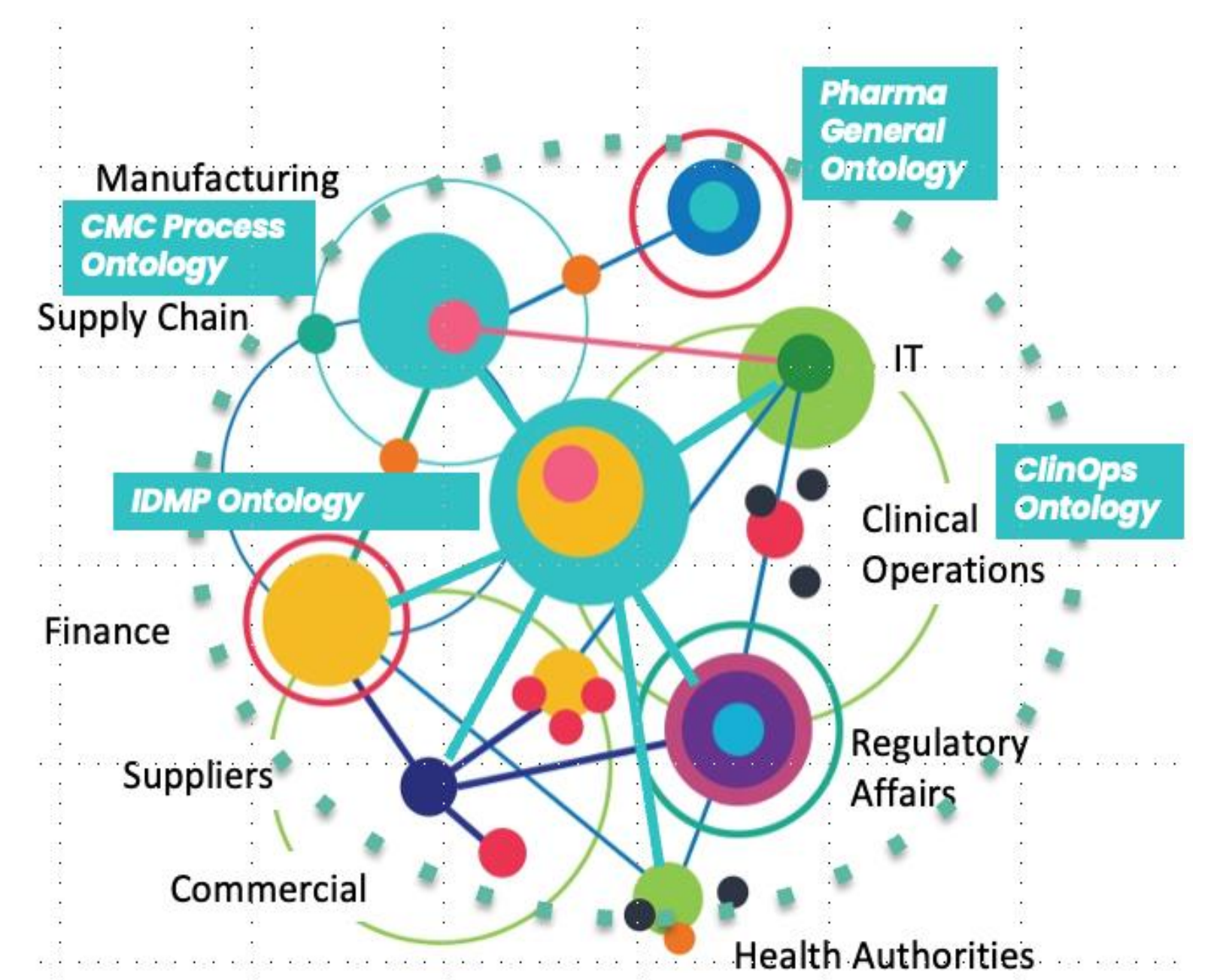
Our overarching Pharma General Ontology is developing a core framework to create interoperability between FAIR data sets across the pharmaceutical industry by identifying preferred core concepts and vocabulary for community-wide standardization of core concepts across domain ontologies.



PGO acts as a 'Rosetta Stone' providing interoperability across and within companies

Ontology Alignment

These projects utilize semantic relationships to address data heterogeneity and enhance knowledge representation, facilitating scientific discovery & development with the ultimate goal of bringing novel treatments to patients more efficiently. To do that we need to integrate data not only within a field but across fields. Within the Pistoia Alliance, as well as the activities in the PGO project, we have communities for Data Governance, FAIR-for-Pharma and an ontologies board to ensure alignment and interoperability across the entire portfolio of data assets.



Pistoia Alliance: Collaborating to lower barriers to R&D innovation

The Pistoia Alliance is a global, not-for-profit alliance of life science companies, vendors, publishers, and academic groups that work together to lower barriers to innovation in R&D.

Our members collaborate as equals on open projects that generate significant value for the worldwide life science community.