

INTRODUCTION

The **European Health Data & Evidence Network (EHDEN)** project, an Innovative Medicines Initiative, commenced a training programme for small-to-medium sized enterprises (SMEs) who had been selected via open call to work with the project on mapping Data Partner data to the OMOP CDM. An ETL certification programme was created, which was the progenitor for the development of an online educational platform, the **EHDEN Academy**.

As **OHDSI** and **EHDEN** are at the front line of developing new methodologies, analytical tools and use cases for observational health research, there is a strong need to educate colleagues. Ensuring **standardised education** for epidemiologists, data scientists, informaticians, and others involved in research utilising **observational data** is also key to improving **research quality** in OHDSI. It underpins the **open science** mission and need for rigour and quality of scientific outputs in OHDSI.

The **EHDEN Academy** was launched on 23 April, 2020 to the world as a free, online educational platform based on the open source Moodle course management system. We will regularly expand the learning pathways, inclusive of specific modules on methods, tools and data sources within the OHDSI framework.

Key to success will be the engagement of the **OHDSI community**, not just for participation, but also in generating new content for a wider audience.

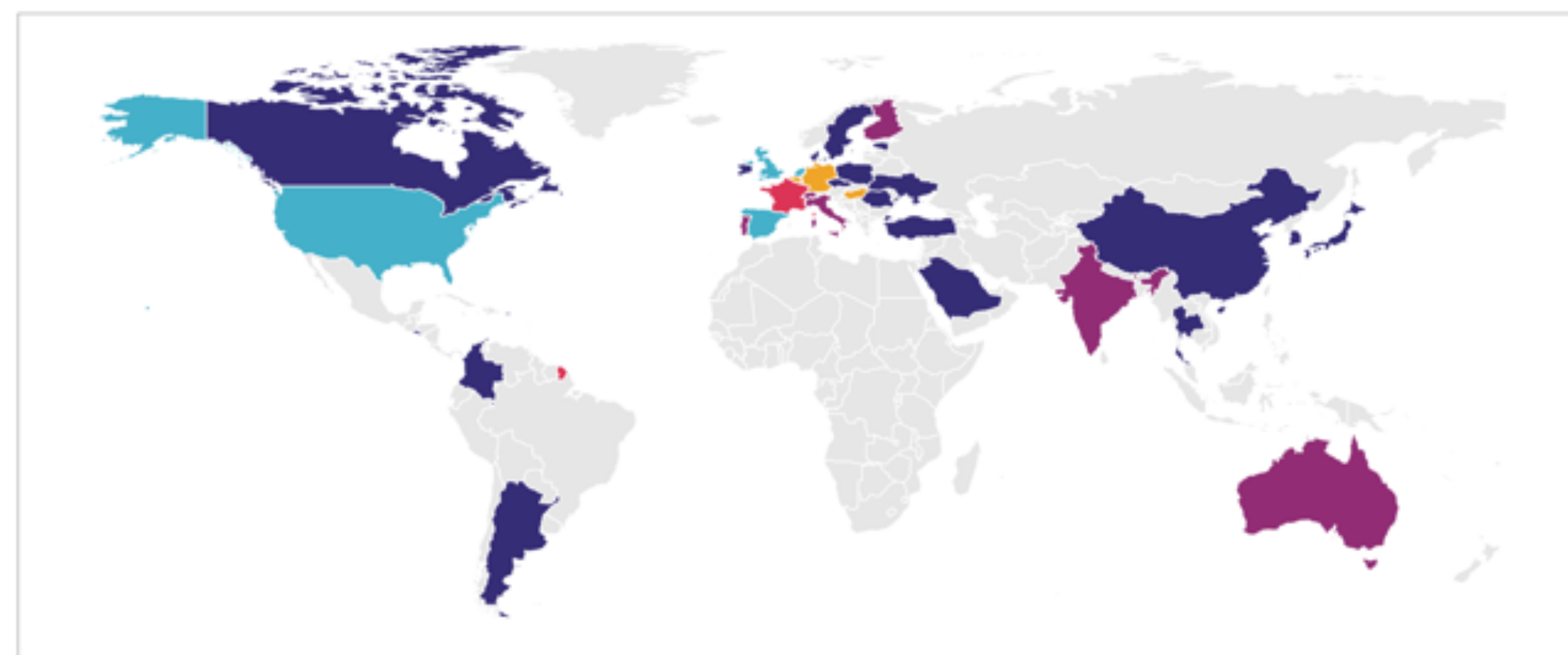


Figure 1: International distribution of enrollees globally in the EHDEN Academy.

THE ACADEMY – HOW DID WE GET TO WHERE WE ARE NOW?

The EHDEN project has three pillars of activity, (1) technical and architecture; (2) research; and, (3) sustainability, education and communications. The project's overall aim is to educate as part of its goal to develop a federated network in Europe based on the OHDSI framework and to harmonise diverse source data to the OMOP CDM.

Integral to the harmonisation of Data Partners is a programme of training and certifying SMEs in a consistent and standard approach to the ETL cycle, creating a new support network for Data Partners and beyond. Initially, an ETL curriculum was created within Moodle at the start of the EHDEN Academy, and as of the date of this writing, 26 SMEs have been trained across 14 European countries.

In April 2020, the EHDEN Academy was launched publicly, enabling anyone internationally to enrol for free on the platform and participate in educational content. A priority focus is to expand the course content from ETL across tools and methods to insights on data sources. We are fast approaching 400 enrollees across the globe, with a concentration in Europe, North America and Asia-Pacific.

The Academy has an Executive Board representing EHDEN and OHDSI, and a Project Management Team, supporting a faculty in EHDEN and OHDSI to generate educational content, as well as to maintain and develop the Moodle platform.

COURSE PARTICIPATION (SEPTEMBER 2020) *

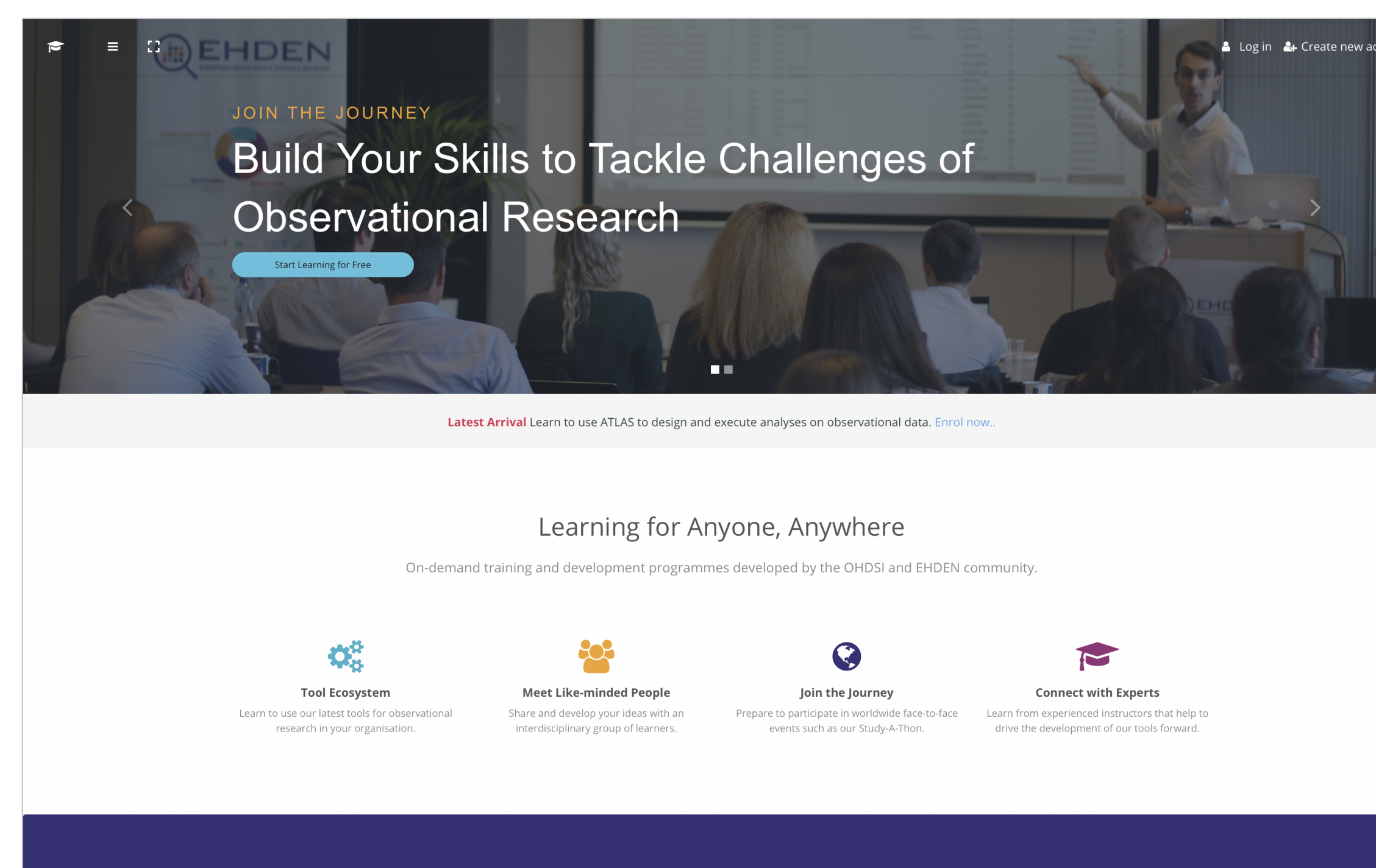
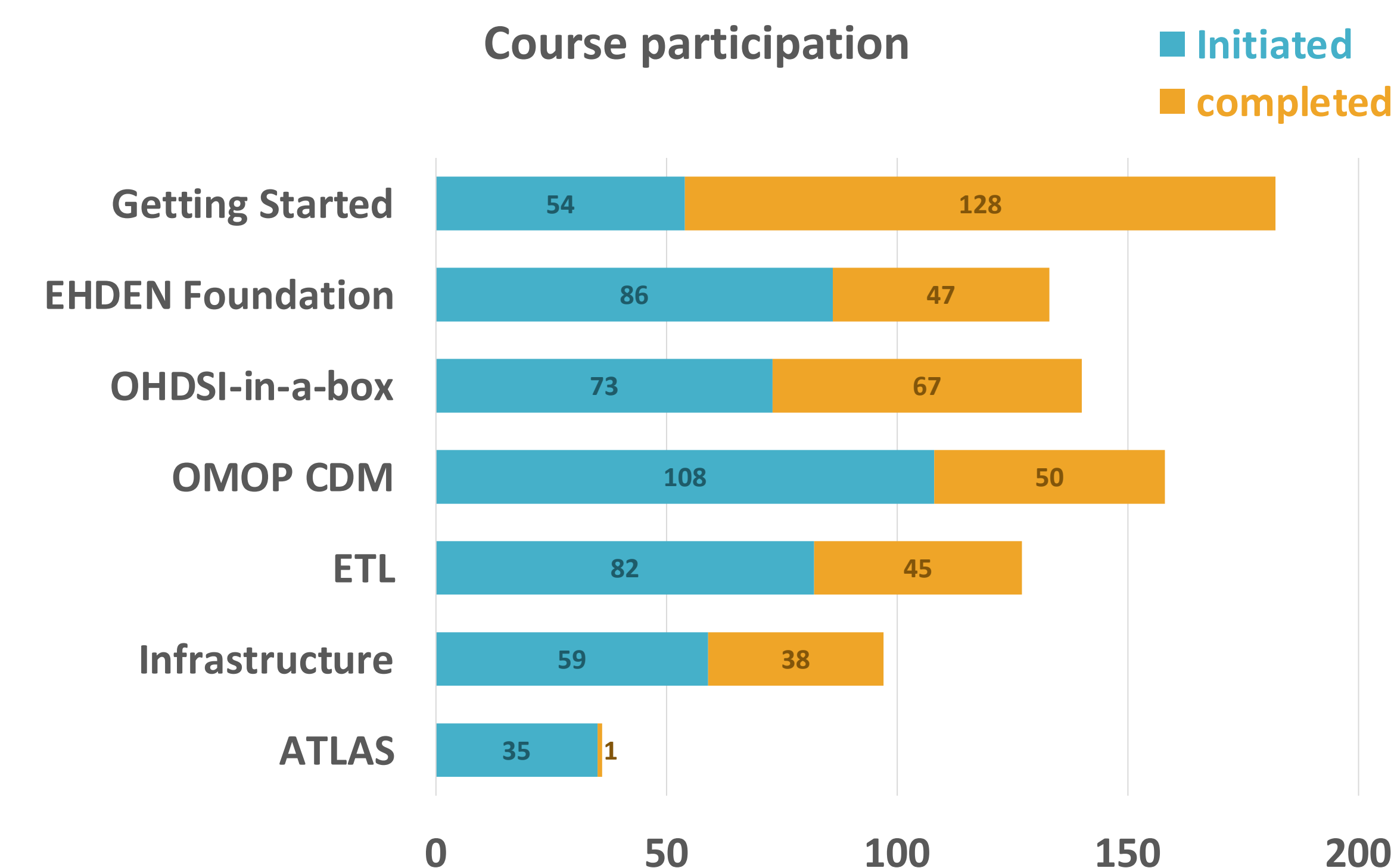


Figure 2: EHDEN Academy homepage (left) and course participation (right).



CURRICULUM DEVELOPMENT

The Academy is currently offering seven courses, with more to follow.

- **Getting started:** An introductory course on how to use the Academy and a course on the EHDEN project itself.
- **EHDEN Foundation:** Background information on the why and how of EHDEN, OHDSI and RWE in general.
- **OHDSI-in-a-box:** Setting up a virtual machine with all the OHDSI tools as well as some sample data preinstalled (courtesy of Amazon Web Services).
- **OMOP CDM:** The OMOP Common Data Model & standardised vocabularies
- **ETL:** Describes the Extract, Transform & Load process, inclusive of tools such as White Rabbit & Rabbit in a Hat.
- **Infrastructure:** Setting up the OHDSI Infrastructure such as installing the WebAPI.
- **ATLAS:** Learn how to use the ATLAS tool to design and execute observational analyses to generate real world evidence.

At present, Phenotype Definition, Characterisation & Evaluation, and Patient-level Prediction Modelling courses are being added. It's planned to add 1-2 courses per month into 2021 covering tools, data and research learning paths in combination with the Book of OHDSI.

<https://ohdsi.github.io/TheBookOfOhdsi/>

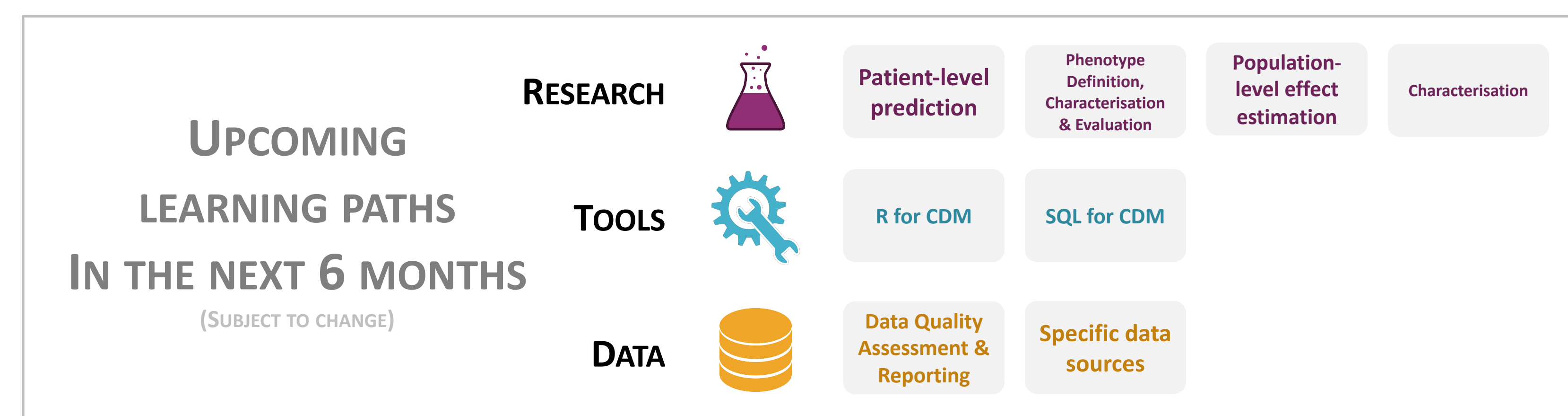


Figure 3 : Course development roadmap for the next 6 months.

CONCLUSION AND NEXT STEPS

The EHDEN Academy offers a unique opportunity to provide educational content and to promote upskilling for the OHDSI community, and ultimately the wider research community utilising observational, real-world data. It supports the wider mission of bringing harmonised data, standardised analytical tools and methods, rigour and quality to generate real-world evidence.

Via an open source platform, free to enrol and supported by the community for the community, the Academy meets the needs of the project and over time OHDSI as the go-to, global educational resource. Sustainability of the Academy, further development of the curriculum, learning pathways and modules will be addressed as part of the ongoing implementation plan.

