

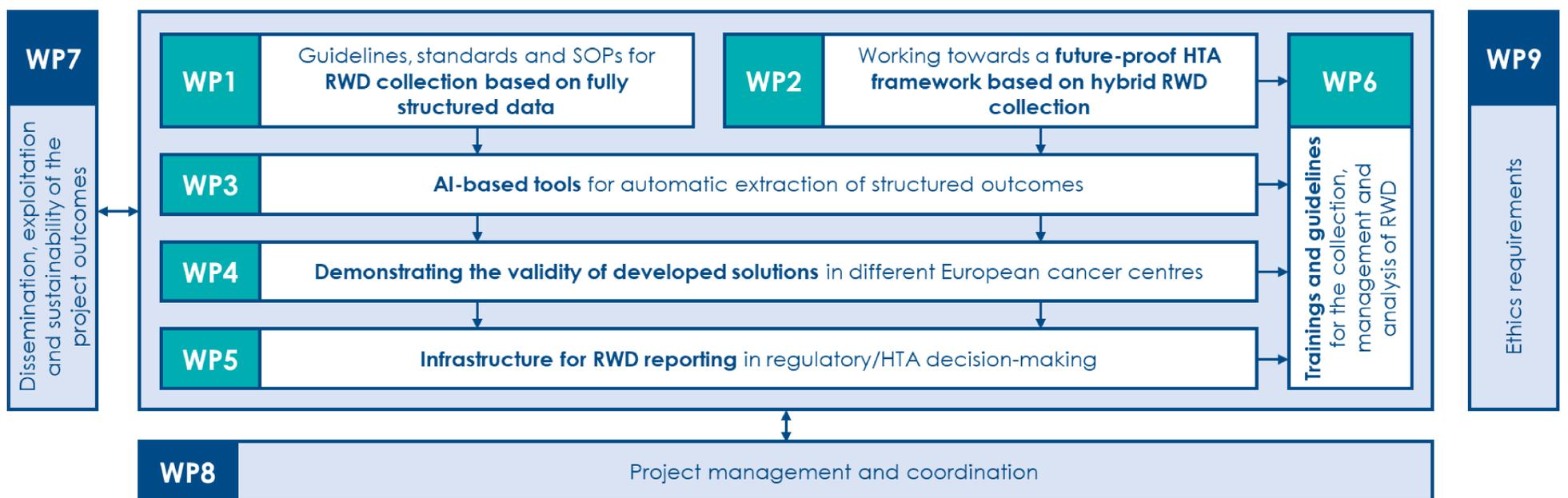
# Implementing value-based oncology care at European cancer hospitals



**Background:** Patients in clinical trials never perfectly represent the patients met in the clinic due to strict in- and exclusion criteria. Consequently, this may lead to a disconnection between clinical efficacy in a controlled environment and the real effectiveness that is seen in clinical practice. Furthermore, new treatments targeting individual genetic alterations create opportunities for many patients with cancer, but they also represent a challenge for regulators, who are faced with the challenge of balancing access for patients and budgetary constraints. These new treatments are of high cost and may be challenged by uncertainties in clinical evidence due to low patient volumes and difficulties in conducting large phase III studies.

An opportunity for establishing real-world effects lies in the use of real-world data (RWD) that is collected in standard clinical practice. Advances in technology have led to hospitals creating centralized repositories or “data lakes”, containing large amounts of structured, semi-structured, and unstructured data. However, unlocking this data comes with obstacles, as different hospitals use different electronic medical record (EMR) systems, in which data structure does not conform to a common standard.

## Work Packages (WP)



**Aims and methods:** ONCOVALUE is a Horizon Europe-funded project that aims to improve cancer care by enabling cancer clinics to collect, harmonize, and analyze high-quality RWD. To address the challenge of varying data models used across clinics, we aim to implement the OMOP common data model (CDM). This will enable us to perform multicenter phase IV studies and create improved HTA models capable of assessing real-life effectiveness of novel anti-cancer treatments across several cancer centers in Europe.

The real-world oncology data will need to be structured, collected, and processed from various EMR systems in multiple cancer hospitals. ONCOVALUE will ensure the implementation of the developed methods by creating guidelines and trainings for the collection and management of high-quality RWD.

Besides the structured data, unstructured data originating from medical notes and medical images will be transformed into structured data with the use of artificial intelligence technologies that are developed for this project by Siemens Healthineers and IQVIA.

**Conclusion:** Innovative solutions based on RWD are needed to address the increasing demand and cost of new anti-cancer medications. To scale such solutions to national and international scopes, the OMOP CDM will be an essential component, allowing streamlined analyses and aggregated results based on data originating from multiple European cancer centers.

