

## INTRODUCTION

- Innovative pricing and payment schemes have been proposed as solutions to some of the challenges raised by new technologies, such as **affordability or uncertainty about their effectiveness in the long-term**. The array of contemporary issues facing third-party payers worldwide suggests different approaches are needed to ensure financial sustainability, R&D productivity, and fast access to high-cost innovative treatments.
- The goal of this study is to **map innovative pricing and payment schemes of health technologies together with principles that may guide their successful adjustment** and flexible implementation to the context of use. The focus will be posed on pricing and payment schemes either implemented or theorized for pharmaceuticals and medical devices.
- For the purposes of this study, schemes will be considered regardless of the *ex-ante* perceived innovativeness of the scheme, the rationale being that **it is not the scheme per se which is innovative, but rather its application or use** in a given context.

## METHODS

A scoping literature review was performed to map pricing and payment schemes, referring both to **manufacturers' approaches to pricing** and **payers' solutions to pay for innovation**, respectively.

These **schemes were then classified according to several criteria**, such as their purpose, nature, governance, product category, data collection needs, foreseen distribution of risk, and implementation challenges.

- Exploratory mapping of pricing and payment schemes illustrated in seminal papers from top journals
- Development of a preliminary taxonomy matrix characterizing a variety of pricing and payment schemes
- Draft of the study protocol outlining search details and guidelines for data extraction (Prospero: CRD42023444824)
- Comprehensive scoping review of the scientific and gray literature based on the rigorous PRISMA-ScR checklist
- Finetuning of the dimensions of the framework and comprehensive mapping of schemes, either applied or theorized

## RESULTS

### Data extracted from all schemes:

- Name/denomination of the scheme
- Qualitative description of the scheme
- Main objective of the scheme
- Type of scheme (i.e., theoretical vs. applied)
- Perspective (i.e., patient-level vs. population-level)
- Distribution of risk, if any

### Data extracted from implemented schemes only:

- Case of application
- Country of implementation
- Date/length/time horizon of the scheme
- Current status (i.e., closed vs. ongoing)
- Product category (i.e., drug vs. device)
- Drug type (i.e., on-patent vs. generic)
- Therapeutic area
- Type of treatment (ie, single administration, life-time)
- Setting (i.e., inpatient vs. outpatient)
- Manufacturer
- Type of healthcare system
- Needs for data collection
- Study used in the evaluation, data to be collected, and outcome measures (if outcome-based)
- Scheme consequences (e.g., removal of coverage)
- Responsibilities (e.g., governance, data collection)

### Key figures

**148** Full-text papers/reports

**80** Papers/reports selected for analysis

(Progress to date: 95%)

**70** Unique pricing and payment schemes identified

**25** Theoretical

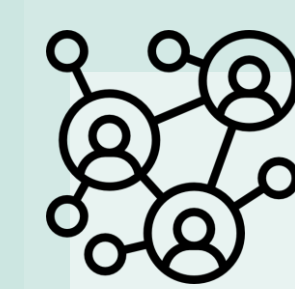
**45** Implemented

**56** Cases of application



### Types of technology

Schemes can be designed to incorporate the unique features or challenges of technologies, such as generics, patented products, vaccines, or ATMPs.



### Risk sharing

Schemes can foresee some form of risk sharing between stakeholders (typically manufacturers and payers), depending on the degree with which transactions are conditional on therapeutic success

### Timeline of the agreement

Transactions can happen upon treatment delivery or be deferred over time, in the form of annuities or periodic installments, that could be tied to some form of performance guarantees

### Disease areas

Schemes can be tailored to account for the specificities of certain therapeutic courses, as it was observed for oncology drugs, Alzheimers disease, gene therapies, or chronic diseases

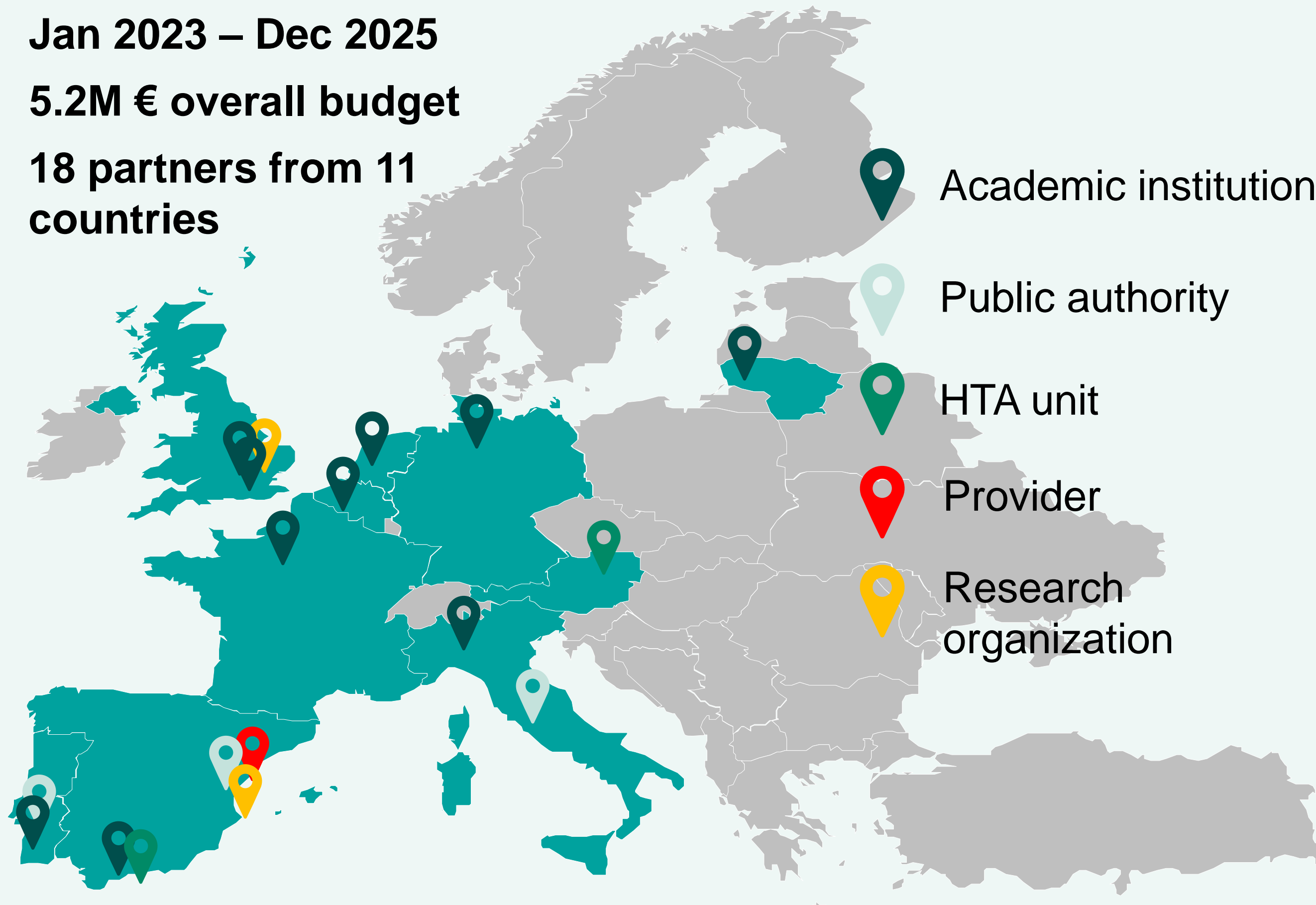
Pricing and payment schemes could be classified in a variety of clusters, based on the value drivers considered

## HEALTH INNOVATION NEXT GENERATION PAYMENT & PRICING MODELS (HI-PRIX):

Balancing Sustainability of Innovation with Sustainability of Health Care



- Jan 2023 – Dec 2025
- 5.2M € overall budget
- 18 partners from 11 countries



### WP1 Mapping of payment and pricing schemes for health innovation in the EU: implementation, barriers and enablers

**WP2** Role of Public Contributions to the Development of Health Innovations and its Integration in Value Assessment and Pricing / Reimbursement Decisions

**WP3** Widening the scope of economic evaluations for pricing and reimbursement decisions: the role of indirect medical and environmental costs

**WP4** Pricing dynamics throughout the lifecycle of pharmaceutical products

**WP5** Novel payment schemes and methods and planning for purchasing and delivering services that incorporate novel technologies or products

**WP6** Impact of innovative payment schemes on long-term competition in health technology markets, in particular the pharmaceutical market

**WP7** Incentives for pharmaceutical innovation and equitable access to innovation

**WP8** Equity-issues mitigation strategies in innovation pricing and payment models