SYADEM

DIGITAL VACCINATION RECORD (DVR)

A modular and interoperable tool for lifelong immunisation management

OVERVIEW

The Digital Vaccination Record (**DVR**) is a lifelong, structured, secure, and actionable record of all vaccines received by an individual. It serves both as a personal tracking tool and a professional-grade system for decision support and traceability, fully compatible with health systems worldwide.

DUAL ACTIVATION MODE: CITIZEN- OR PROVIDER-INITIATED

CITIZEN-INITIATED

Any individual can create a **DVR**, enter their own or their family's vaccine data, and choose to share it with healthcare professionals of their choice.

PROVIDER-INITIATED

In clinical or public health settings, a healthcare provider may create a **DVR**, validate its contents, share it with the patient, and update it to ensure continuity of care.

Note: Depending on the needs of the implementing country or institution, either mode (citizen or provider) can be restricted or configured. For example, DVR creation can be limited to providers, with citizens granted read-only access.

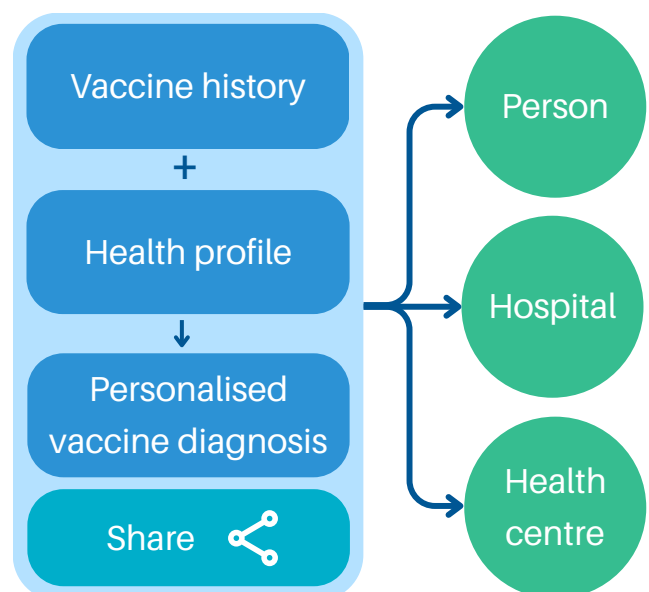## PUBLIC HEALTH IMPACT

FOR CITIZENS

clarity on vaccine status, automatic reminders, improved adherence, greater vaccine confidence

FOR PROFESSIONALS

trustworthy data, decision support, reduced errors

FOR AUTHORITIES

granular indicators, forecasting, enhanced pharmacovigilance

CORE FEATURES

STRUCTURED VACCINATION HISTORY

- Current and past administered vaccines
- Automated reading of DataMatrix codes or similar
- Capture of brand name, lot number, serial number, administration date, site, route, and prescriber or vaccinator
- Upload of scanned documents (paper records, certificates)
- Automatic transcoding of scanned forms into **NUVA** codes (proof of concept established using Mistral generative AI)
- Secure, country-hosted storage

PERSONALISED RECOMMENDATIONS VIA VADES (VACCINE DECISION SUPPORT SYSTEM)

- Rules aligned with national immunisation schedules or the WHO Expanded Programme on Immunisation (EPI)
- Takes into account individual factors and environmental context
- Outputs: vaccine status, next doses, justifications, and alerts

INTEROPERABILITY AND SCALABILITY

- Modular API-based architecture
- Integration-ready with EHRs, national systems, and mobile apps
- Multilingual and multi-territorial by design

CONTROLLED SHARING AND VALIDATION

- Validation option by authorised healthcare providers
- Once validated, vaccine entries are locked (non-editable by user) and can be used to generate a Digital Vaccination Card (**DVC**)
- Access is user-controlled, ensuring a citizen-centred approach

DEPLOYMENT AND ACCESS

- Public and professional web portals
- Integrates with vaccination centre software or any EHR system
- Multi-profile support (families, caregivers)
- SaaS architecture
- No local installation required

A PROVEN AND ADAPTABLE SOLUTION

The **DVR** is a core component of **SYADEM**'s modular Immunisation Information System, already deployed in several European countries. Its flexible architecture allows full adaptation to national or institutional contexts.