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## **Main expertise (1-2 lines):**

Paediatric infectious diseases, vaccines and vaccination strategies, leading researcher-scientific project manager in several ongoing studies regarding vaccines and vaccine-controlled infections



# Pilot from Latvia: implementation of Clinical Decision Support (CDS) system



**euwabeco**

EUROPEAN VACCINATION BEYOND COVID-19

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**RSU** Riga  
Stradins  
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# What is EUVABECO?

The **EUVABECO** (European Vaccination Beyond COVID-19) project (January 2024 - March 2027), funded by the European Commission's EU4Health program, aiming to create conditions for innovative vaccination practices across Europe

# EUVABECO is set to launch five transformative tools, each aimed at enhancing vaccination efforts:

**Medical Tool:** A decision support system (CDS) for healthcare professionals and patients, facilitating informed vaccination choices

**Social Tool:** A screening tool (LNK) facilitating targeted vaccine campaigns and monitoring for more effective vaccine delivery

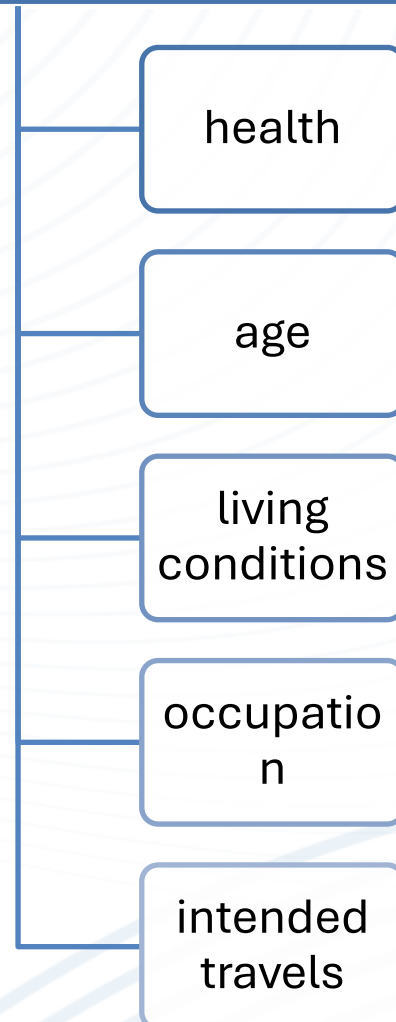
**Industrial Tool:** An electronic leaflet (ePIL) for vaccines to enable more flexible vaccine distribution

**Research and secondary use:** A disease simulator (FOR) to raise awareness on infection dynamics and the impact of public health intervention

**Digital Tool:** A cross-border vaccination card (EVC), enabling lifelong continuity of care

# CDS - Clinical Decision System

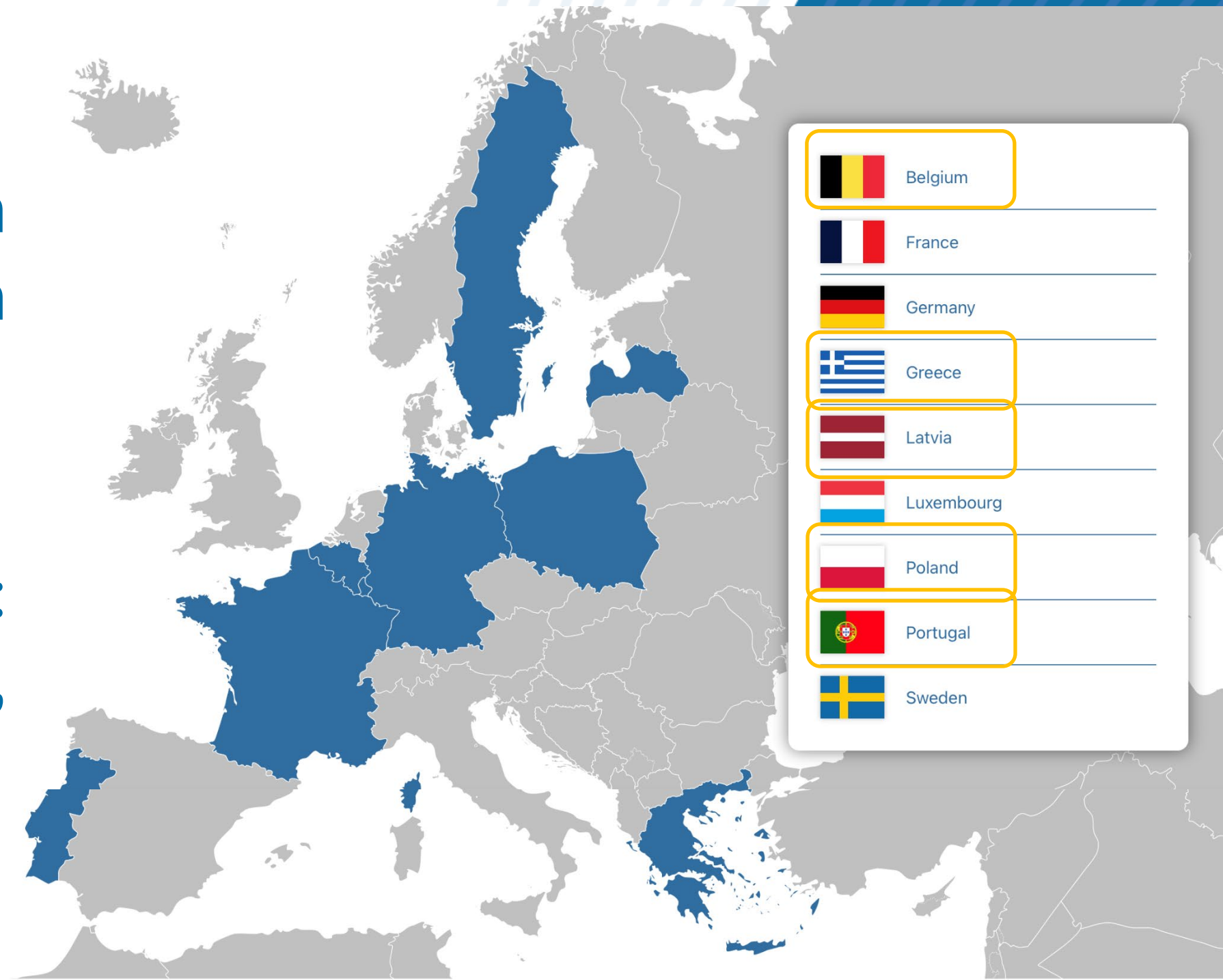
Delivers **personalized immunization recommendations** to citizens or to prescribing health professionals, based upon:



Supports patient adherence by providing detailed and scientifically sound justifications about the due vaccinations and helps the health professionals in **adopting the most recent recommendations from their national/regional health authorities**

# CDS piloting countries

- The current CDS model is based on the systems already implemented in France and Luxembourg
- CDS was piloted in 5 countries: **Belgium, Greece, Latvia, Portugal, Poland**



# Vaccination Records in Latvia: Past and Transition



- Historically, Latvia has **lacked a national digital tool** comparable to CDC systems that allows both physicians and patients to view lifetime vaccination records in one place
- Before COVID-19, vaccination data were stored:
  - In **paper vaccination passports** or
  - Within **medical records at healthcare providers**
- Information was **fragmented, difficult to access** and lacked continuity across a patient's lifetime
- **COVID-19 vaccination marked a turning point:**
  - COVID-19 vaccines were the **first fully digitalized vaccines**
  - Introduction of **electronic vaccination records and digital certificates**

# Current Status and Remaining Gaps

- **2023:** Pilot testing of digital vaccination recording in the national e-health system
- **Since 2024:** Entry of **all administered vaccines into e-health is mandatory**
- Despite improved documentation, the e-health vaccination module:
  - Does **not include national vaccination recommendations**
  - Provides **no reminders for upcoming or overdue doses**
  - Lacks **decision support based on age or health status**
- The system primarily functions as a **registry**, not as a comprehensive vaccination management or decision-support tool

# CDS Pilot in Latvia

October 2024 – March 2026 (17 months)

Oct 2024

A first version of the CDS was delivered with a first set of rules. Two primary users started using CDS

Oct 2024 – Mar 2025

Bi-weekly meetings with tool experts → Bug fixes on the localized version of the IIS, fixing translations, improvements of the rules for the CDS

Apr 2025

It was considered to open the application to further users and to patients (Quick Start Guide)

Sept 2025

Extension of the RSU Ethics Committee approval and two more members joined the team, allowing for the inclusion of additional users and patients

Mar 2026

>280 patients enrolled

Mar 2026

Successfully completed the verification phase for the Electronic Vaccination Card (EVC) integration

## CDS Pilot in Latvia

**It was used  
in four  
settings:**

- The children hospital of Riga, addressing complex cases with specific risk factors
- A general practitioner facility in rural area Staļģene
- A general practitioner facility in capital suburb Olaine
- Rīga Stradiņš university 6th grade students, addressing occupational needs in vaccinology



Add a note >

Characteristics filled ✔ Profile validated

- History of measles ✘
- History of mumps infection ✘
- History of chickenpox ✘
- History of rubella ✘

Complete the health profile here

Search ✘ Expand all Shrink all

- General information ▼
- Medical history ▼
- Environment / Living conditions ▼
- Profession ▼
- Treatments ▼
- Vaccination refusal ▼
- Contraindications ▼



✔ Up to date

Measles-Mumps-Rubella

Protection acquired

No dose received

- ♥ [History of measles](#)
- ♥ [History of rubella](#)
- ♥ [History of mumps infection](#)

Up to date against measles, mumps and rubella.

Chickenpox

Protection acquired

No dose received

- ♥ [History of chickenpox](#)

Up to date with chickenpox.

Immunization Health profile Vaccines to be done Identity Share Documents

 Marta Daina 

 Individual Pro Mode 

 Patients

 Archived records

 Pending requests

 Pro Team Mode

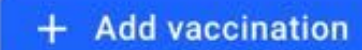






Sort by  







19 vaccinations

### Diphtheria, Tetanus, Poliomyelitis



**DTIPV vaccine, unspecified**

Administered the 09/10/1981 at 18 years and 2 months old.

 Info

 Edit



**DTIPV vaccine, unspecified**

Administered the 25/06/1975 at 11 years and 11 months old.

 Info

 Edit

### Diphtheria, Tetanus, Pertussis, Poliomyelitis



**REPEVAX**

Administered the 07/02/2012 at 48 years and 6 months old.

 Info

 Edit



**TETRACOQ**

Administered the 12/10/1972 at 9 years and 2 months old.


 Info

 Edit



**TETRACOQ**

 Info

 Edit

[Knowledge](#)

[Help center](#)



### Vaccine Diagnosis

Synthetic  Detailed

#### To be done without delay

##### Meningococcus A-C-W-Y

Late

No dose received



Due

##### Diphtheria

Late

10 doses received, latest on 07/02/2012 [Display](#)

Due

Booster vaccination 10 years after the last dose.

##### Tetanus

Late

12 doses received, latest on 07/02/2012 [Display](#)

Due

Booster vaccination 10 years after the last dose.

##### Shingles

Late

No dose received



Due

##### COVID-19

Late

4 doses received, latest on 06/10/2023 [Display](#)

Due

##### Hepatitis B

Late

No dose received



Due

A vaccination catch-up must be carried out.

#### To be done within 6 months

##### Influenza

To do in 5 months

No dose received

Next dose from 01/10/2026 until 01/03/2027.



Vaccination recommended in Latvia, from the age of 18, in the presence of risk factors.

### Vaccination Record at 2026-04-21

**LAST NAME:** DUCK  
**CUSTOMARY NAME:**  
**FIRST NAMES:** Daisy  
**SEX:** Female  
**BIRTH DATE:** 1963-07-19  
**SOCIAL SECURITY N°:**

#### VACCINATION STATUS *According to the recommendations of the health authorities*

DISEASES	STATUS	DOSES	LATEST DOSE	NEXT DOSE
Meningococcus A-C-W-Y	To be done urgently	0	-	-
Diphtheria	To be done urgently	10	2012-02-07	-
Tetanus	To be done urgently	12	2012-02-07	-
Shingles	To be done urgently	0	-	-
COVID-19	To be done urgently	4	2023-10-06	-
Hepatitis B	To be done within 6 months	0	-	From 2026-04-21
Influenza	To be done within 6 months	0	-	From 2026-10-01
Measles, Mumps, Rubella	Up to date	0	-	-
Pertussis	Up to date	7	2012-02-07	-
Poliomyelitis	Up to date	10	2012-02-07	-
Tuberculosis	Up to date	3	1979-10-12	-
Chickenpox	Up to date	0	-	-

#### VACCINAL HISTORY *Validated*

DATE	VACCINE NAME	DISEASES	VALIDATED BY
1964-02-11	Diphtheria-Tetanus-Pertussis-Polio vaccine, unspecified	Diphtheria, Pertussis, Poliomyelitis, Tetanus	Marta Daina
1965-04-05	Diphtheria-Tetanus-Pertussis-Polio vaccine, unspecified	Diphtheria, Pertussis, Poliomyelitis, Tetanus	Marta Daina
1965-04-26	Diphtheria-Tetanus-Pertussis-Polio vaccine, unspecified	Diphtheria, Pertussis, Poliomyelitis, Tetanus	Marta Daina
1965-06-01	BCG vaccine, unspecified	Tuberculosis	Marta Daina
1967-02-04	TETRACOQ	Diphtheria, Pertussis, Poliomyelitis, Tetanus	Marta Daina
1970-09-09	TETRACOQ	Diphtheria, Pertussis, Poliomyelitis, Tetanus	Marta Daina
1971-06-14	BCG vaccine, unspecified	Tuberculosis	Marta Daina
1972-10-12	TETRACOQ	Diphtheria, Pertussis, Poliomyelitis, Tetanus	Marta Daina
1975-06-25	DTIPV vaccine, unspecified	Diphtheria, Poliomyelitis, Tetanus	Marta Daina
1979-10-12	BCG vaccine, unspecified	Tuberculosis	Marta Daina
1981-10-09	DTIPV vaccine, unspecified	Diphtheria, Poliomyelitis, Tetanus	Marta Daina
1985-10-15	VACCIN DT TAB PASTEUR	Diphtheria, Tetanus, Typhoid	Marta Daina

### Vaccination Record at 2026-04-21

**LAST NAME:** DUCK  
**CUSTOMARY NAME:**  
**FIRST NAMES:** Daisy  
**SEX:** Female  
**BIRTH DATE:** 1963-07-19  
**SOCIAL SECURITY N°:**

DATE	VACCINE NAME	DISEASES	VALIDATED BY
1992-06-24	TETAVAX	Tetanus	Marta Daina
2001-02-08	T POLIO MERIEUX	Poliomyelitis, Tetanus	Marta Daina
2012-02-07	REPEVAX	Diphtheria, Pertussis, Poliomyelitis, Tetanus	Marta Daina
2021-04-14	VAXZEVRIA ASTRAZENECA	COVID-19	Marta Daina
2021-07-09	VAXZEVRIA ASTRAZENECA	COVID-19	Marta Daina
2021-12-17	SPIKEVAX 0,2 mg/mL MODERNA	COVID-19	Marta Daina
2023-10-06	COMIRNATY OMICRON XBB.1.5 30 µg	COVID-19	Marta Daina

### European Vaccination Card (EVC)

By scanning this 2D code, it is possible to import all vaccines listed in this document into an EVC enabled medical software. This document can also be uploaded to an EVC enabled website for processing it or displaying it in a different language. A list of EVC enabled medical software and website can be consulted at: <https://euvabeco.eu/evc-compatible-systems>

The 2D code is digitally signed



# System Use and Translation Experience

- Was **technically easy**, but difficulties occasionally arose due to the **unknown context** in which a sentence or phrase would appear in communications to doctors or patients
- **Automatic translation was not always possible or fully accurate**
- Some initial time was needed to **explore and understand the system structure and functionality**
- Overall, **entering vaccination data was easy, smooth, and intuitive**
- The system proved to be **reliable in daily use**
- Only **minor technical issues** occurred, all of which were **promptly resolved by the expert team**

# Future possibilities

- The CDS system was evaluated by all involved professionals as **user-friendly, easy to use, and clear for all parties**
- **The user** immediately **get a valuable result** (the vaccination audit) as a compensation for the effort of registering the vaccination history
- **Nationwide implementation** of the CDS system depends on **decisions by state authorities**, including **financial considerations**
- The **currently used systems for recording vaccination data are incomplete**
- Therefore, **implementation of the CDS system would be highly desirable**
- A **critical and challenging issue** is the **migration of existing data from other systems**, which frequently presents significant difficulties

# Pilot in Latvia: piloting members



Prof. Dace Zavadska



Dr. Liene Čupāne



Dr. Ainis Dzalbs



Dr. Līga Soida



Kristīne Lauva



Paula Ozoliņa



Marta Daina

A special thank you to  
our dedicated pilot  
team!

# Thank you for your attention!



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