SENTINEL

Bridging the security, privacy and data protection gap for smaller enterprises in Europe

Project Overview

The European Strategy for Data

> Create a **single market for data** that will ensure Europe's global competitiveness and data sovereignty.
>
> Common European data spaces will ensure **more data are available for use**, while keeping companies and individuals **in control of their data**.

Data can flow within the EU and across sectors

Availability of high-quality data to create and innovate

European rules and values are fully respected

Rules for access and use of data are fair, practical and clear data governance mechanisms are in place

The landscape of security and personal data protection in EU SMEs/MEs

- **SMEs represent 99% of all EU businesses (25M SMEs)**
- **Created around 85% of new jobs (2/3 of private sector)**

Role of SMEs in the Data Value Chain
- **Data owner, data acquisition, data aggregator, data storage, data analysis, data user, data services**
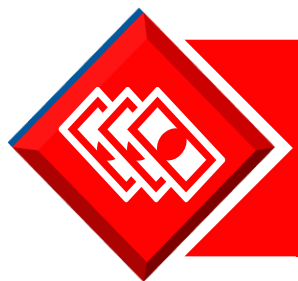
Data Economy Value
- **4% impact on EU GDP & 15.7% growth rate in 2020**
- **SME/MEs accounted for 60% of the increase**

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SENTINEL Statement

" SENTINEL **bridges the security and personal data protection gap** for small enterprises in Europe, by raising awareness and boosting their cyber capabilities through innovation at a cost-effective level.

This vision will be realized by **integrating tried-and-tested security and privacy technologies** into a unified digital architecture and then applying disruptive **intelligence for compliance**.

Combined with a well-researched **methodology for application and knowledge sharing** and a wide-reaching plan for **experimentation for innovation**, SENTINEL will help small enterprises become more secure and safeguard their and their customers' assets. "

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SENTINEL at a glance
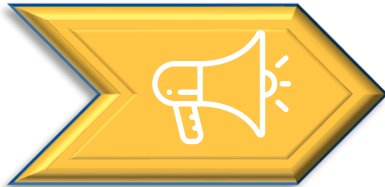
PROJECT CONSORTIUM

- **13 partners**

PROJECT TYPE

- **Innovation Action**

MAX EU CONTRIBUTION

- **€ 3,998,982.50**

START DATE
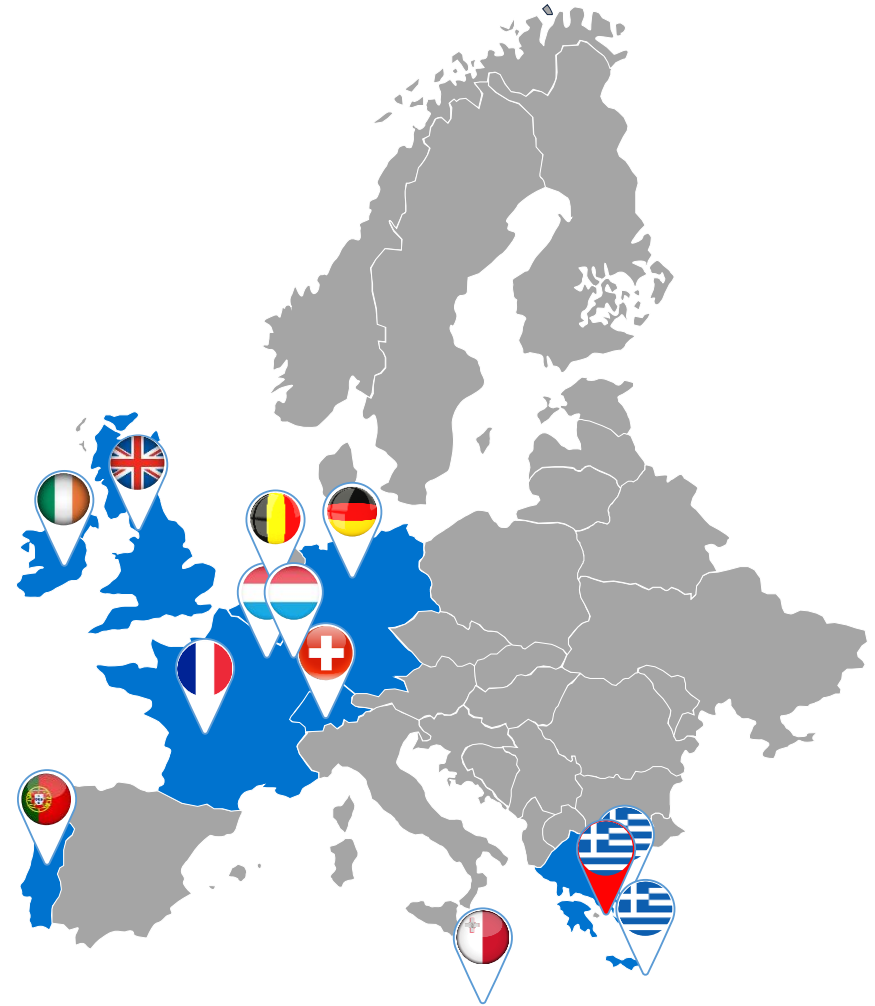
- **1 June 2021**

DURATION

- **36 months**

SENTINEL Consortium
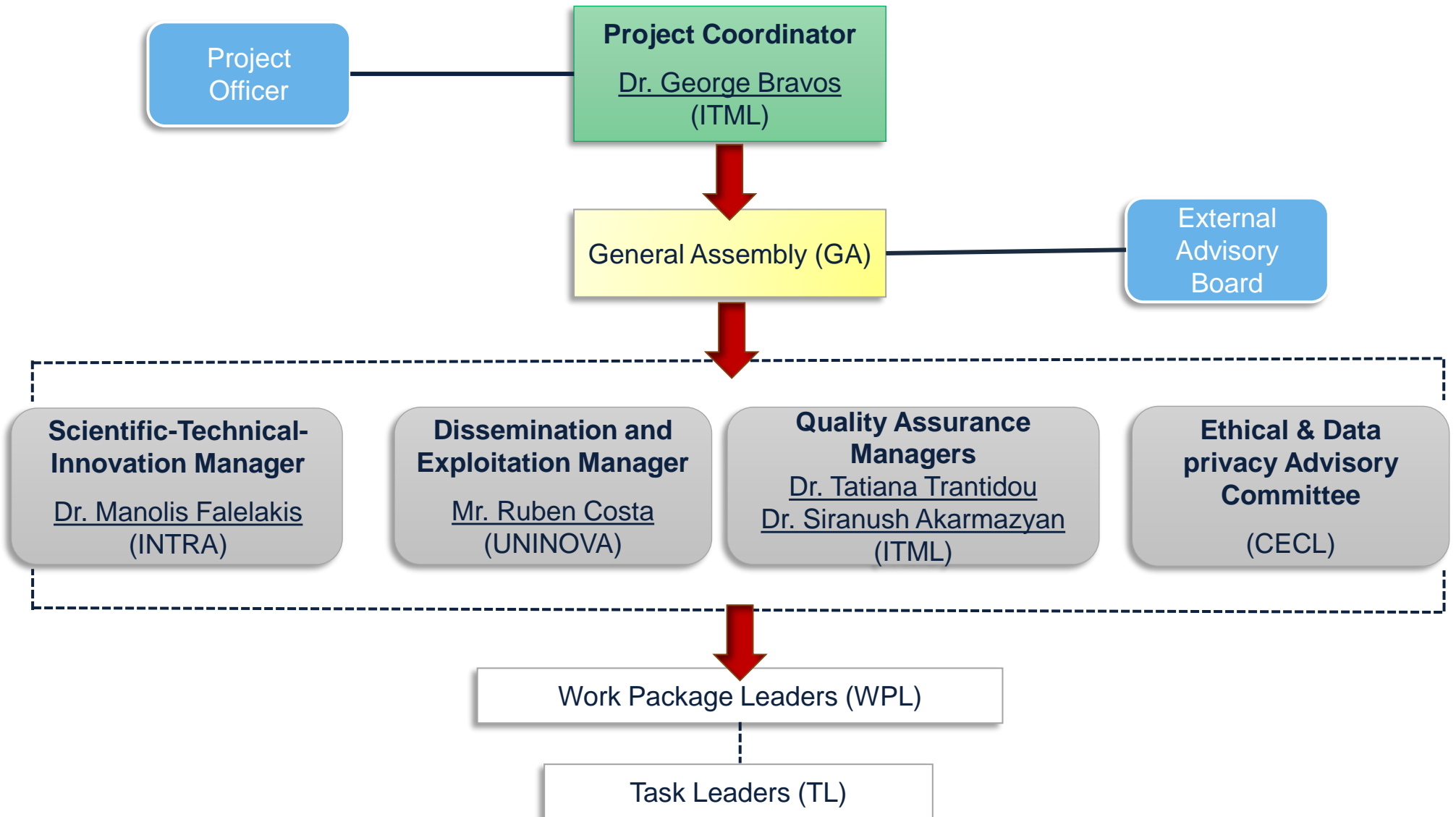
1. INFORMATION TECHNOLOGY FOR MARKET LEADERSHIP **(ITML)**

2. LUXEMBOURG INSTITUTE OF SCIENCE AND TECHNOLOGY **(LIST)**

3. INSTITUTE OF DIGITAL INNOVATION AND RESEARCH LTD **(IDIR)**

4. INTRASOFT INTERNATIONAL SA **(INTRA)**

5. SPHYNX TECHNOLOGY SOLUTIONS AG **(STS)**

6. AEGIS IT RESEARCH GMBH **(AEGIS)**

7. EREVNITIKO PANEPISTIMIAKO INSTITOUTO TILEPIKOINONIAKON SYSTIMATON **(TSI)**

8. AIRBUS CYBERSECURITY SAS **(CCS)**

9. UNINOVA-INSTITUTO DE DESENVOLVIMENTO DE NOVAS TECNOLOGIAS-ASSOCIACAO **(UNINOVA)**

10. CLINGENICS (UK) LTD **(CG)**

11. TRISTONE INVESTMENT GROUP LTD **(TIG)**

12. KENTRO EVROPAIKOU SYNTAGMATIKOU DIKAIO IDRYMA THEMISTOKLI KAI DIMITRI TSATSOU **(CECL)**

13. FOCAL POINT **(FP)**

Project Management Structure

Project Officer

Project Coordinator
Dr. George Bravos
(ITML)

General Assembly (GA)

External Advisory Board

Scientific-Technical-Innovation Manager
Dr. Manolis Falelakis
(INTRA)

Dissemination and Exploitation Manager
Mr. Ruben Costa
(UNINOVA)

Quality Assurance Managers
Dr. Tatiana Trantidou
Dr. Siranush Akarmazyan
(ITML)

Ethical & Data privacy Advisory Committee
(CECL)

Work Package Leaders (WPL)

Task Leaders (TL)

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SENTINEL Objectives and drivers

1 Develop and support an end-to-end digital Privacy and Personal Data Protection (PDP) compliance framework and Identity Management System (IdMS)

2 Provide scientific and technological advances in SMEs/MEs' data protection compliance assessment, orchestrated towards the comprehensive digital Privacy and PDP compliance framework for SMEs/MEs

3 Provide novel tools and services for enabling highly-automated PDP compliance in SMEs/MEs

4 Validate SENTINEL framework in real-world settings via use cases driven by complementary industries

5 Consolidate international and European links, raise awareness and ensure the technology transfer of project's results
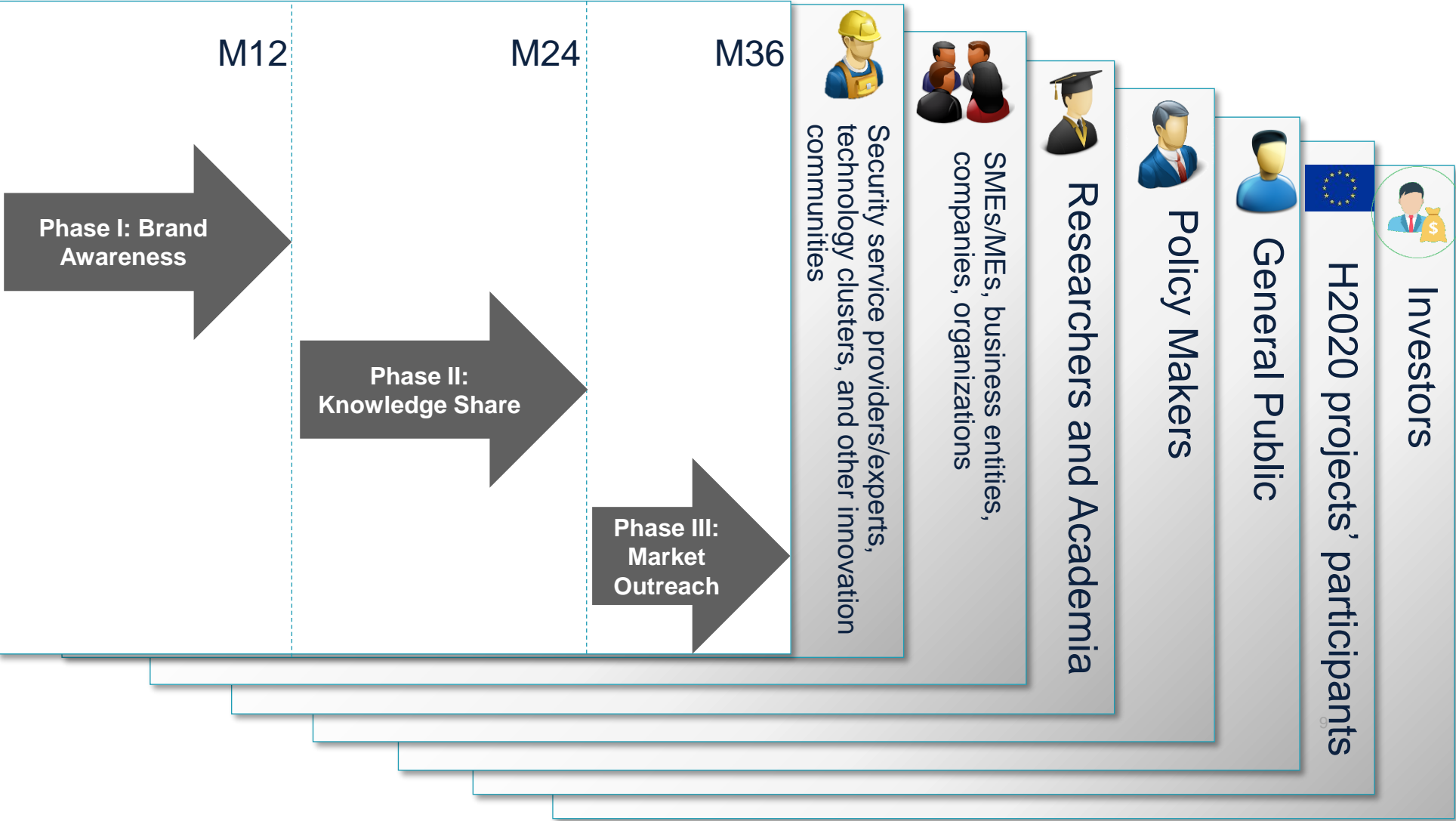
6 Boost the effectiveness of the EU data economy by offering high TRL solutions (6-7)

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SENTINEL Stakeholders and their Engagement Phases

M12   M24   M36

Phase I: Brand Awareness

Phase II: Knowledge Share

Phase III: Market Outreach

Security service providers/experts, technology clusters, and other innovation communities

SMEs/MEs, business entities, companies, organizations

Researchers and Academia

Policy Makers

General Public

H2020 projects' participants
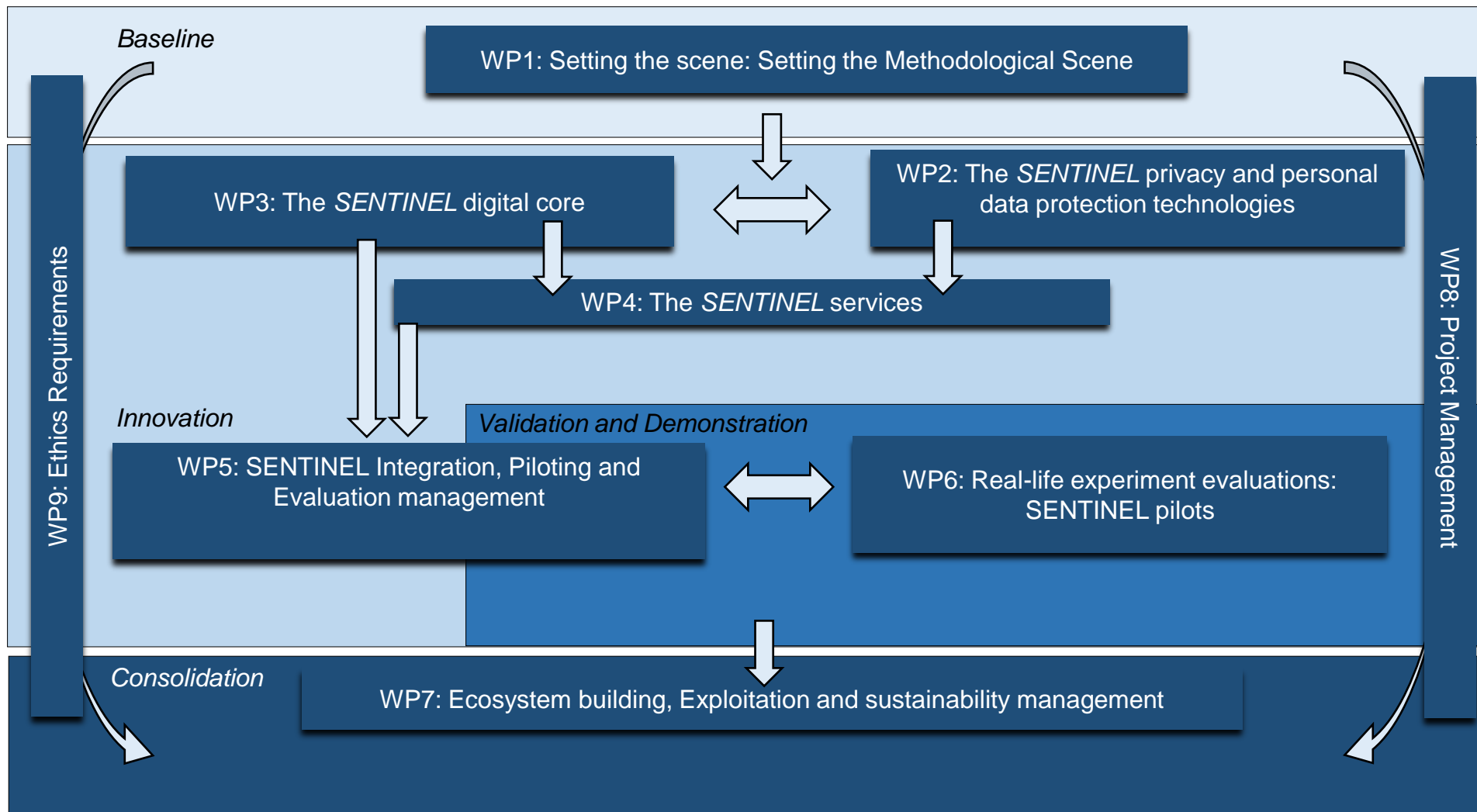
Investors

SENTINEL Key Performance Indicators (KPIs)

KPIs

> 20 novel cybersecurity services and tools utilized and integrated > 10 dedicated to personal data protection and privacy assurance

Contribution to > 6 standards

> 8 Digital Hubs and > 10.000 SMEs/MEs engaged

> 40% improved privacy compliance efficiency

> 10 critical aspects addressed (maintenance and software update) for long-term sustainability

> 40% reduction in compliance-related costs via automation

27 Technical

17 Impact

25 Dissemination

SENTINEL Work Plan Overview

Baseline

WP1: Setting the scene: Setting the Methodological Scene

WP3: The *SENTINEL* digital core

WP2: The *SENTINEL* privacy and personal data protection technologies

WP4: The *SENTINEL* services

Innovation

Validation and Demonstration

WP5: SENTINEL Integration, Piloting and Evaluation management

WP6: Real-life experiment evaluations: SENTINEL pilots

Consolidation

WP7: Ecosystem building, Exploitation and sustainability management

WP9: Ethics Requirements

WP8: Project Management

SENTINEL Milestones

MS1

Project's baseline
- System architecture
- Dissemination & exploitation plans
- Quality and project management

WP1, WP7, WP8

MS2

Innovation Flame
- First version of SENTINEL technologies
- Dissemination and exploitation activities

WP2, WP3, WP4, WP5, WP7, WP8

MS5

Demonstration Fire
- Final version of SENTINEL integrated framework

WP3, WP4, WP5, WP6

MS6

Consolidation
- Final framework's evaluation
- Final business plan
- Final dissemination and exploitation reports

WP5, WP6, WP7, WP8

MS4

Demonstration Flame
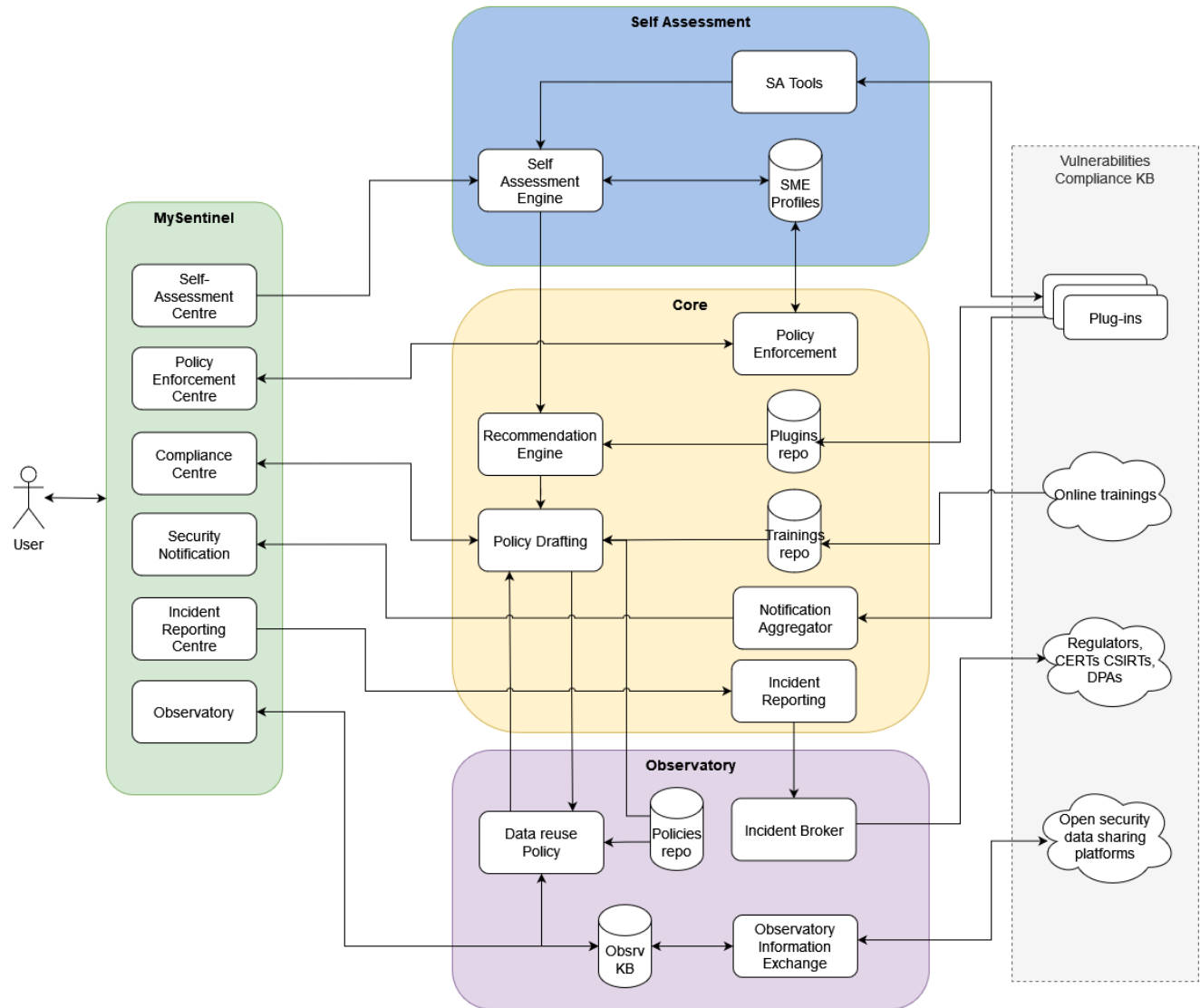- First execution round of pilots
- SENTINEL framework evaluation

WP6, WP7

MS3

Innovation Fire
- First version of integrated platform of SENTINEL MVP
- Dissemination and exploitation reports

WP2, WP3, WP4, WP5, WP7

M1 Kick off

M6

M12

M18

M24

M30

M36

The SENTINEL Architecture

Main characteristics:

Contexts

Plugins

SME registration and profiling

Completing a self-assessment workflow

Acquiring policy recommendations

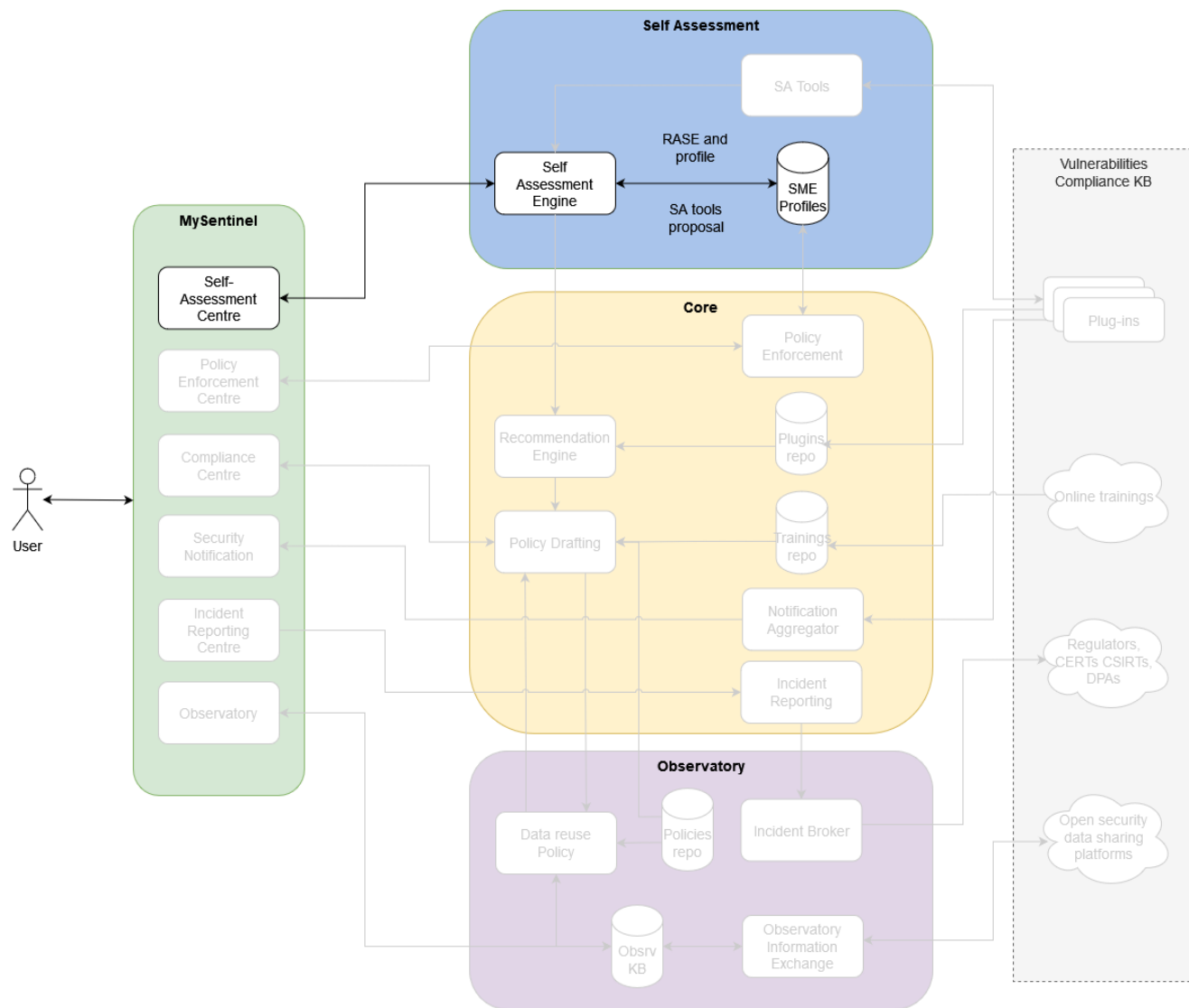Receiving security notifications

Policy enforcement monitoring

Consulting the Observatory Knowledge Base
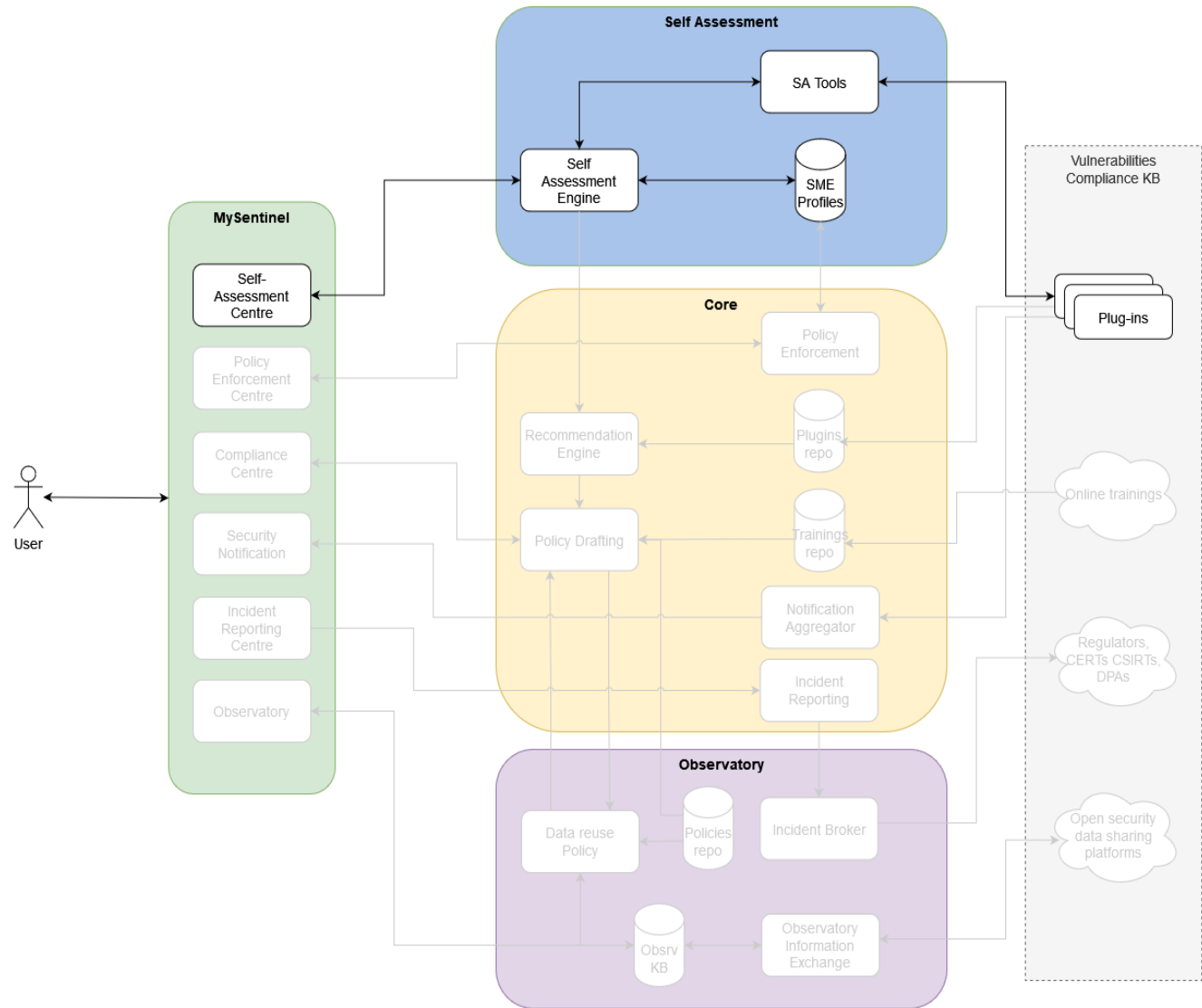
Incident reporting and sharing

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The SME representative registers the company and fills in a related questionnaire.

**The system stores a profile of the company.**

The user completes a self-assessment workflow that has been proposed by the SENTINEL platform, adjusted to the SME profile.
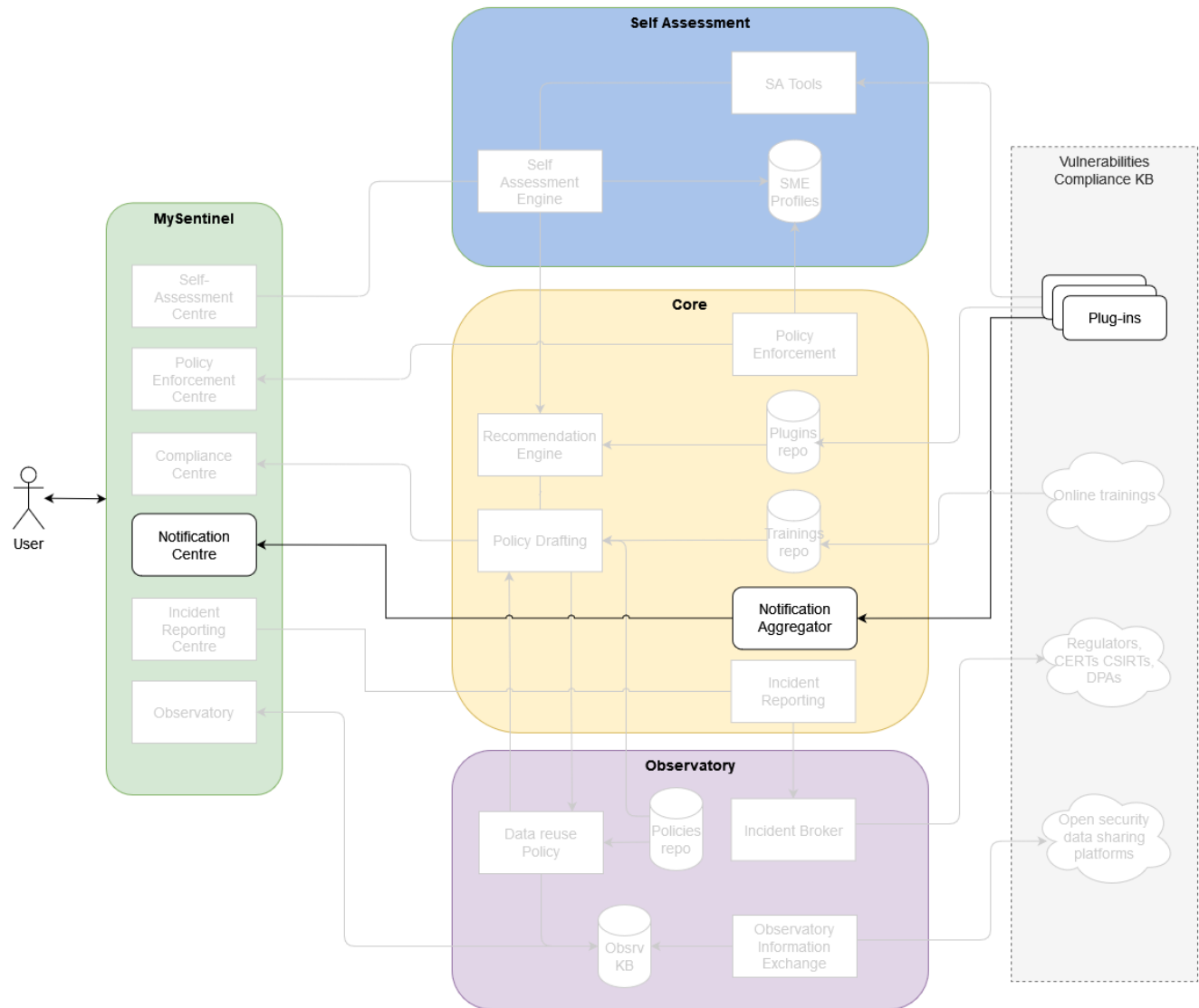
The SME representative fills in the company security profile and performs related self-assessment tasks indicated by the system.

The system returns a tailor-made set of security policies.

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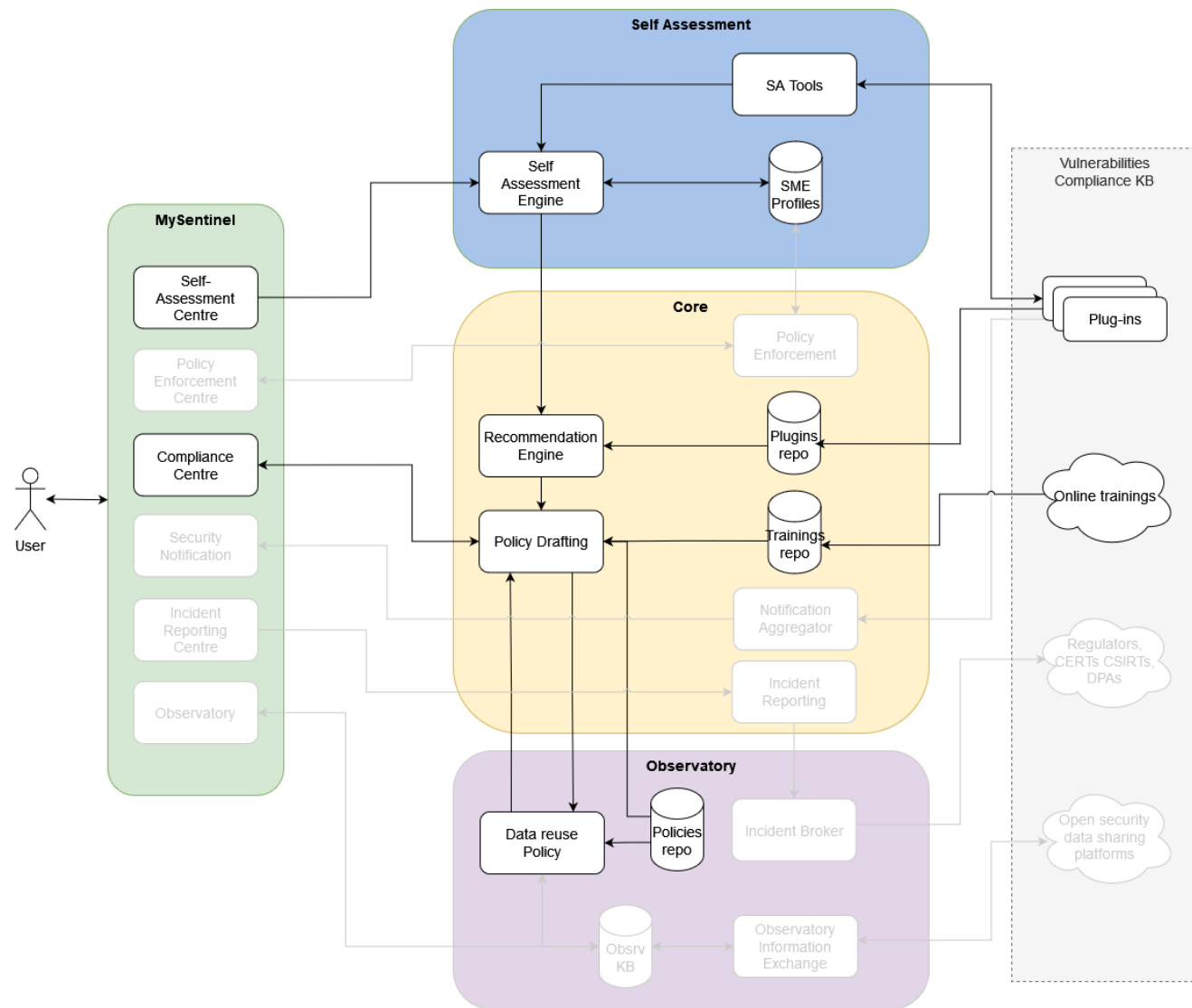
The system detects a CS or PDP incident that affects an SME and alerts the SME representative so that they attend to it.

UC5: Monitoring policy enforcement

The SME representative provides an update to the system concerning the status of implementation of policies they have received as recommendations from the SENTINEL platform.
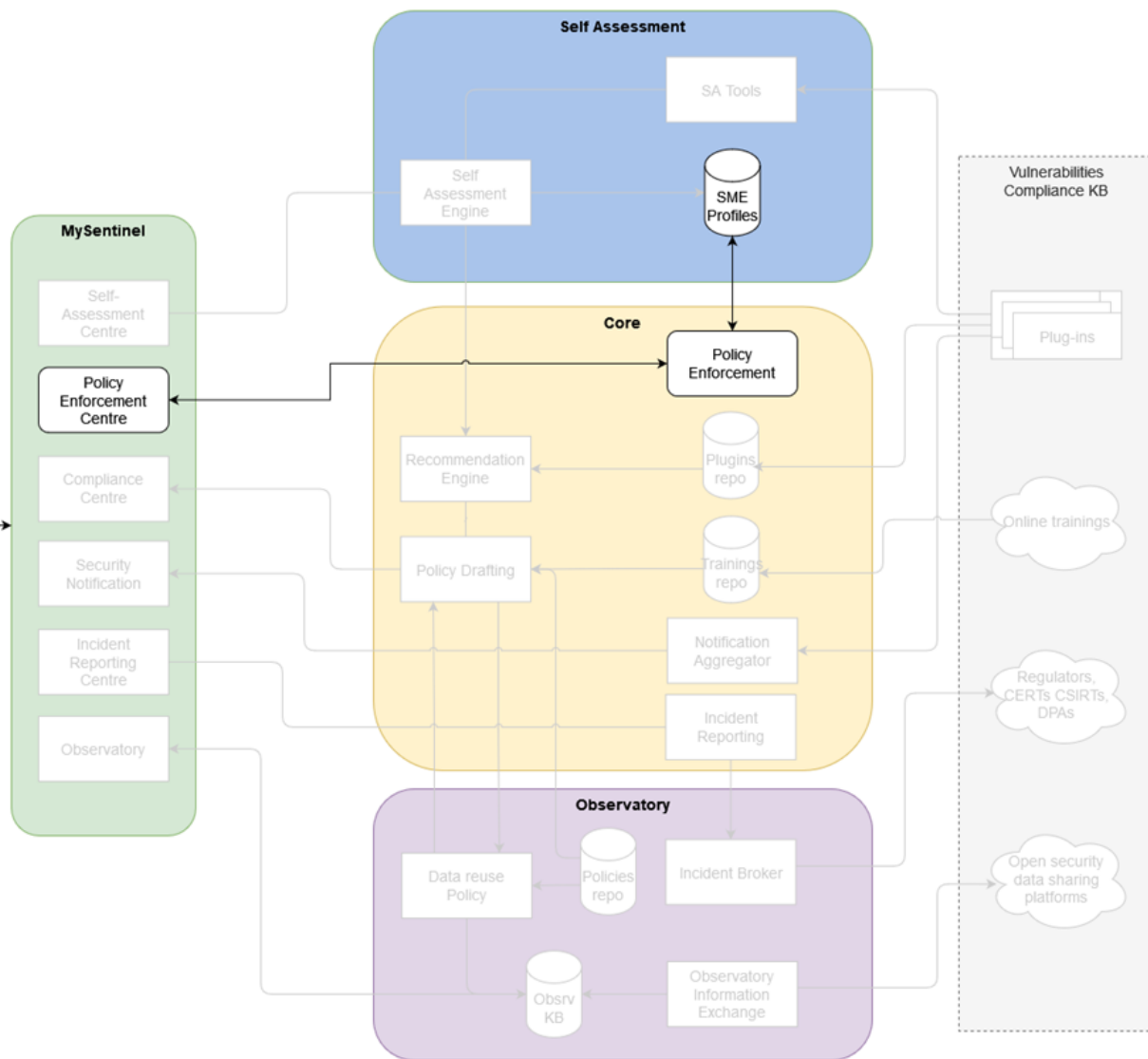
The SME browses the SENTINEL Observatory Knowledge Base and accesses information about recently identified data and privacy breaches.

The Knowledge Base is continuously updated and synchronised with external resources.
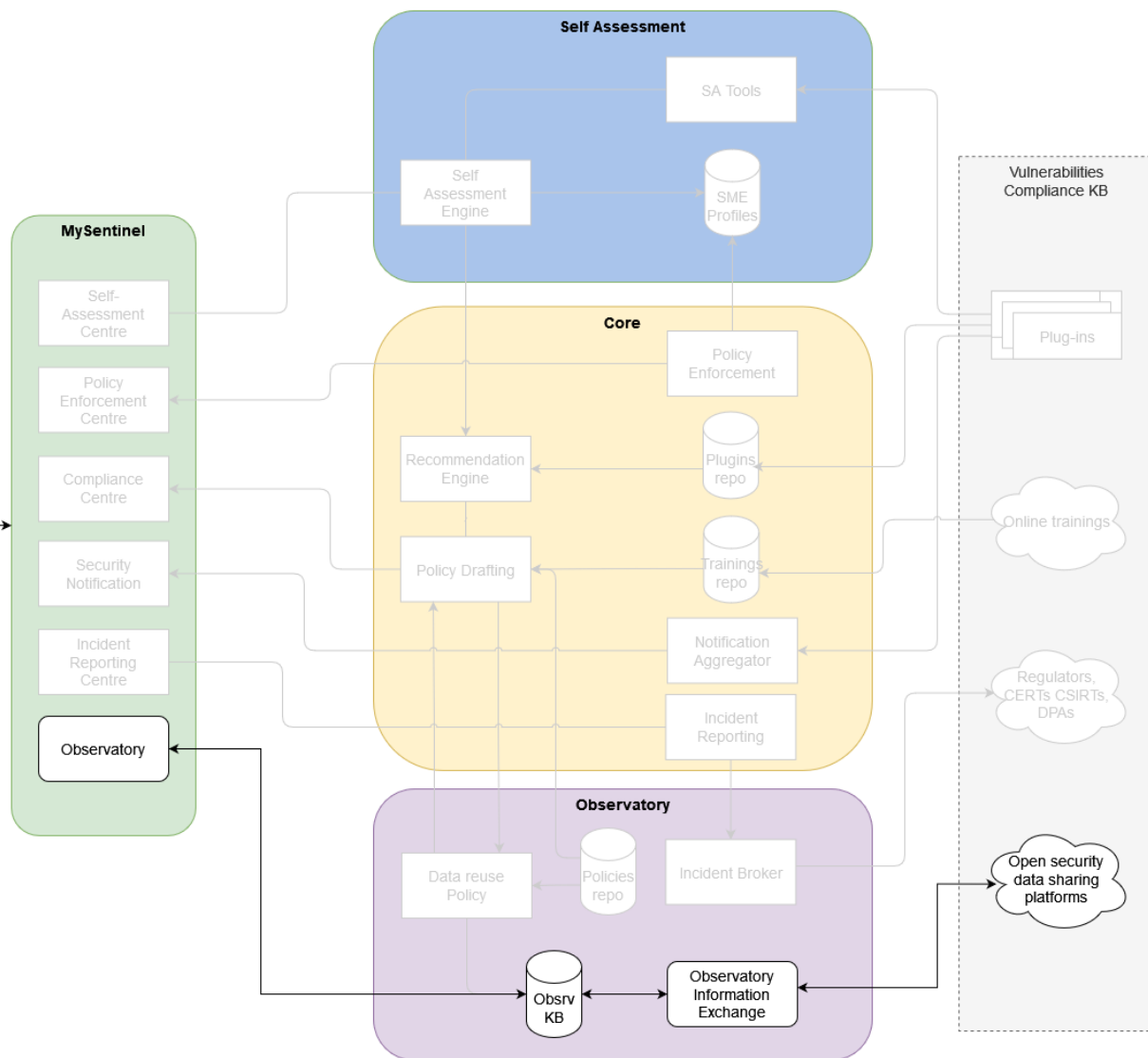
A security incident has been detected and the SME wants to report and share it with appropriate response teams and/or open security data platforms.

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Plan towards the MVP

MVP use cases

M9 (late Feb)

- Define use cases and involved modules
- Set up CI/CD infrastructure

M10 (mid Mar)

- Finalise UI mockups
- Specify module interactions

MVP setup

D5.4: The SENTINEL MVP (ToC)

M10 (late Mar)

M11 (Apr)

First working prototype (internal). To check component interactions

MVP draft implementation

MVP

M12 (May)

Deployed MVP and submission of D5.4
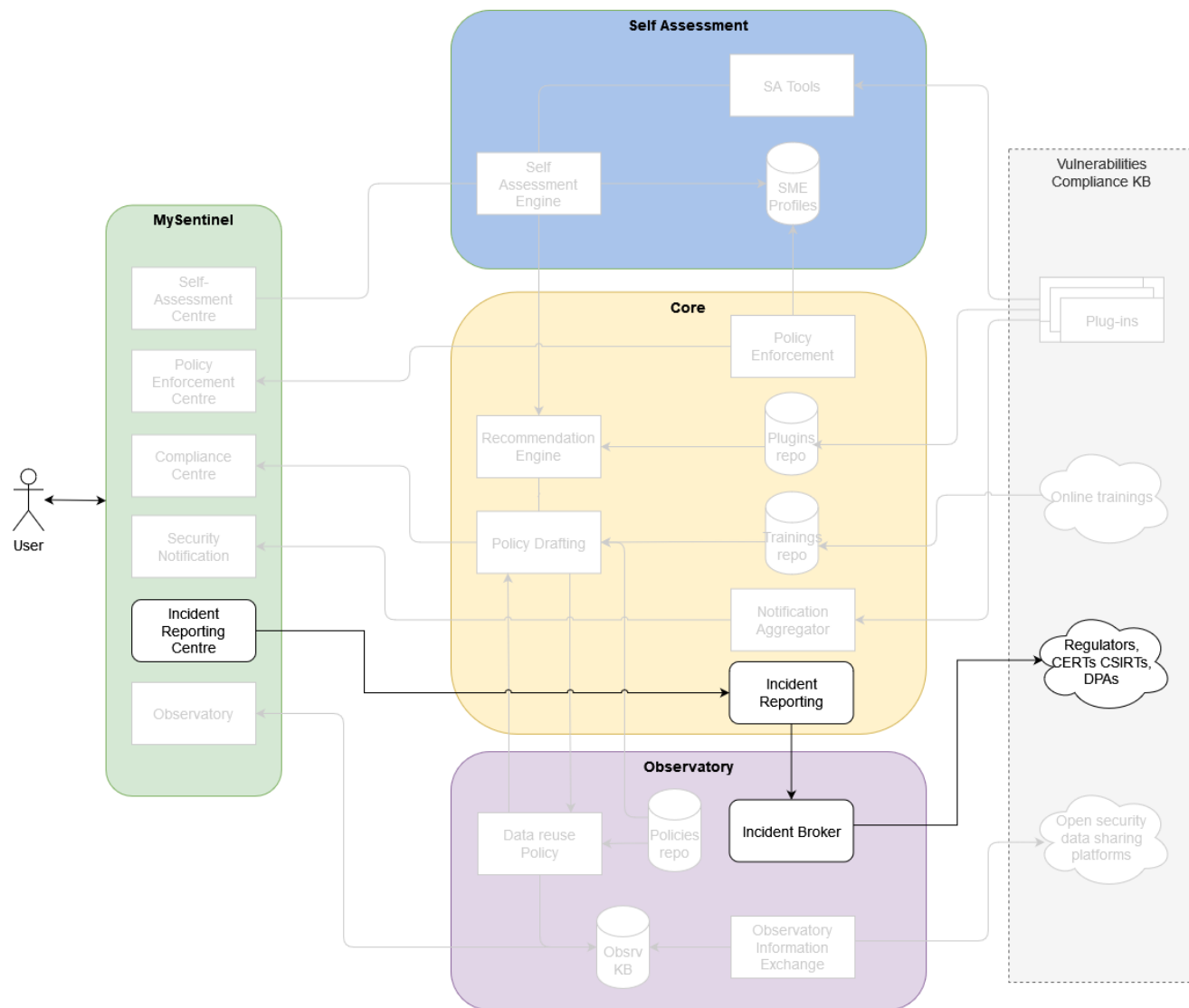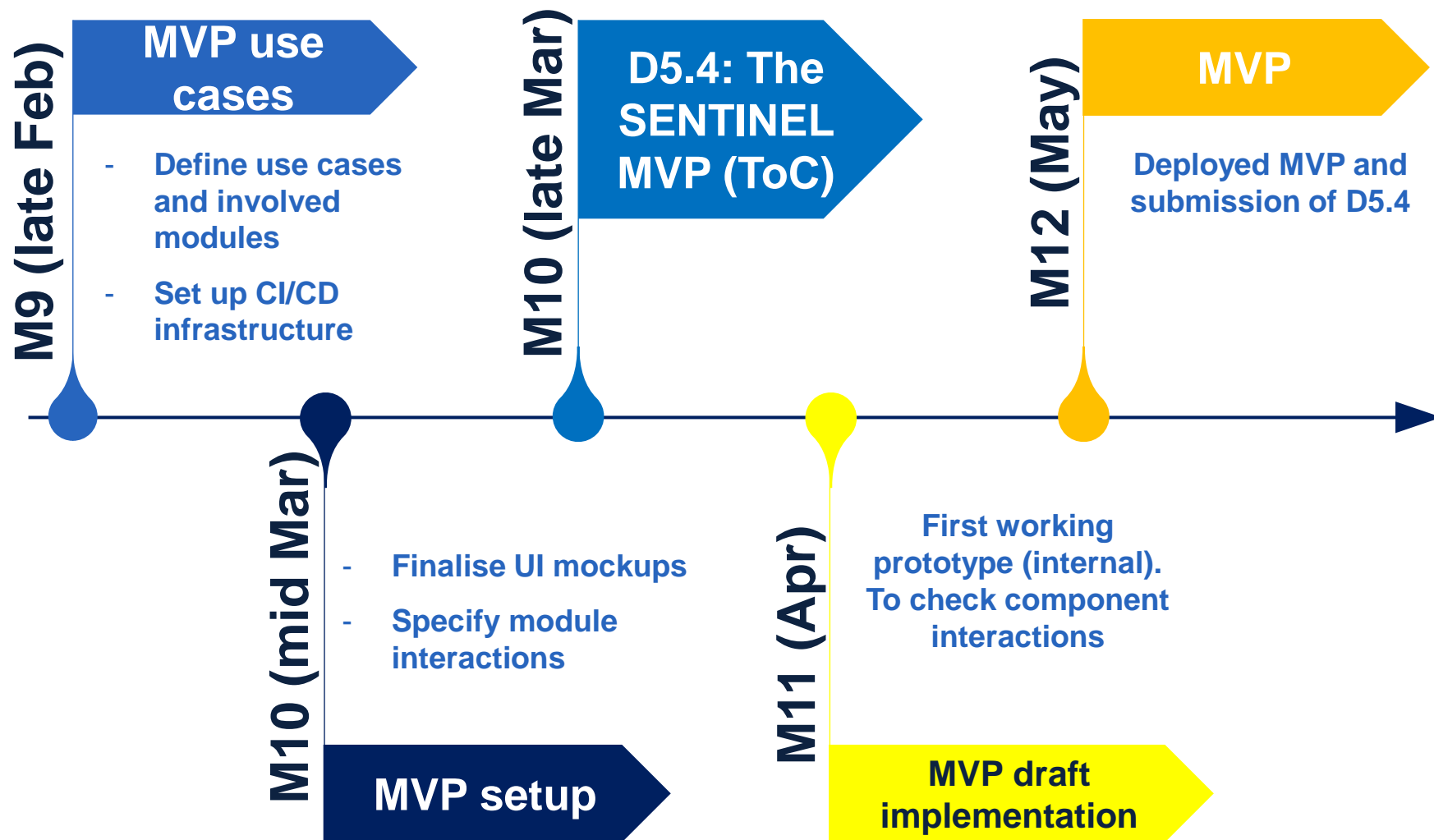
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Project-related achievements

1. Project Setup
2. Visual Identity
3. SENTINEL ambition
4. EDAC meeting

1. KPIs revision
2. 2nd Newsletter

MS1

MS2

1. Dissemination report
2. Project report
3. Webinar with cluster projects

1. Info Day *(originally scheduled for M12 hosted by LIST)*
2. Continuous integration

1. Dissemination
2. Exploitation
3. Collaboration DIH
4. Ethics
5. Project Review

MS3

M10

March/2022

M4

M6

M8

M12

M13-M14

M18

M1

Technical-related achievements

5. Requirements
6. 1st Newsletter
7. Website & social media

1. Data value chains
2. Data Manag. Plan
3. Business models
4. Architecture
5. Experimental protocol

3. Advisory Board meeting
4. Definition of Working Groups

4. MVP – 1 use case
5. MVP technologies
6. MVP Core
7. MVP Services
8. Visualisation component

3. Tech evaluation against benchmarks
4. Initial demo execution

5. 1st Integrated solution
6. Full featured versions (Technologies, Core, Services, UI)
7. Info Day (hosted by ITML)

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www.sentinel-project.eu

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Sentinel - EU Project

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