RaDAR InfoDay

This presentation is an indication of a potential future procurement activity and is subject to change until the publication of the RfT
All the information regarding RaDAR project will be published on the following website:
https://radar-ppi.com/

Antimicrobial Resistance Problem

The Problem

In 2019:
- **4.95 million** people died from illnesses in which bacterial AMR played a part.
- **1.27 million** as direct result of AMR.

More deaths than cancer by **2050**

High economic burden: **1.5 billion** euros annually in healthcare costs and productivity losses in EU

The manner we treat infections now will endanger our health in the future

The Need

To respond Joint Action on Antimicrobial Resistance (EU-JAMRAI) and EU Action plan (2017-2020):

- Improve **early detection systems** to ensure **quality care process**

- **Screen drug-resistance and virulence** to improve **treatment effectiveness**

- **Reduce** both healthcare and governmental **costs**

- Reporting and **rapid communication** to increase **system resilience***

*Covid-19 pandemic has showed the importance of effective infection detection and control systems in controlling the rapid spread of infections

Consortium

Buyers

1. RESAH (Lead Procurer) - France

2. Basque Health Service - Spain

3. Catalan Institute of Oncology - Spain

4. University of Naples Federico II - Public Health Department – Italy

Supporting Entities

5. AQuAS (Coordination) – Spain

6. INSERM – France

7. INSME – Italy

8. JERA- UK

9. BG-HRI- Spain

RaDAR Buyers Group

Osakidetza

Basque Health Service

16 hospitals
160 Primary Care Centers
2.71 million population

Catalan Institute of Oncology (ICO)

Reference Oncology Center in Catalonia

4 oncology centers
VINCat: 73 hospitals; 370 Primary Care Centers;
92 socio-health centers
7.57 million population

Central Purchasing Body in France

Preparatory phase at the University
Hospital of Limoges

130 regional hospitals
67.75 million population

Department of Public Health – University of Naples Federico II

Federico II University Hospital - 1500 medical staff members.

Provides specialized services for: Local health agencies, hospitals, public and private organizations.
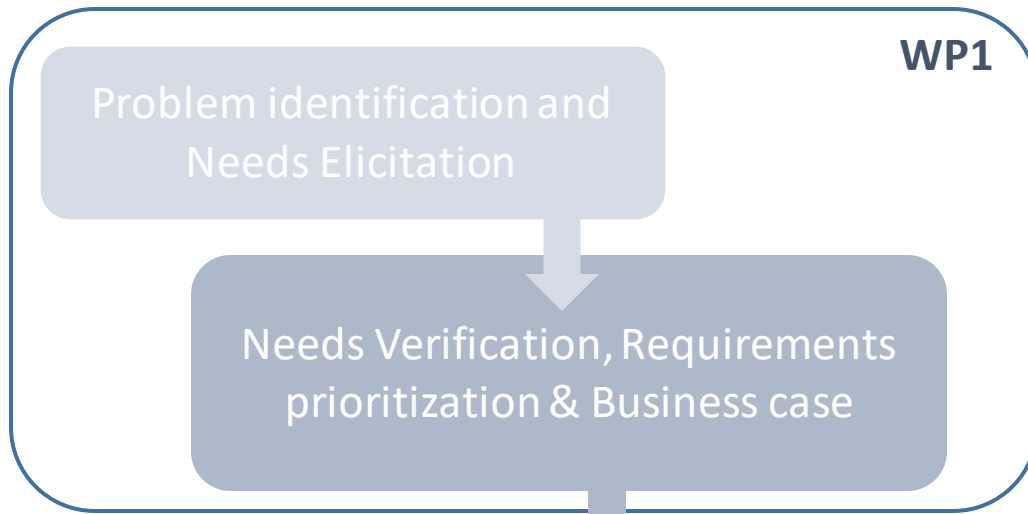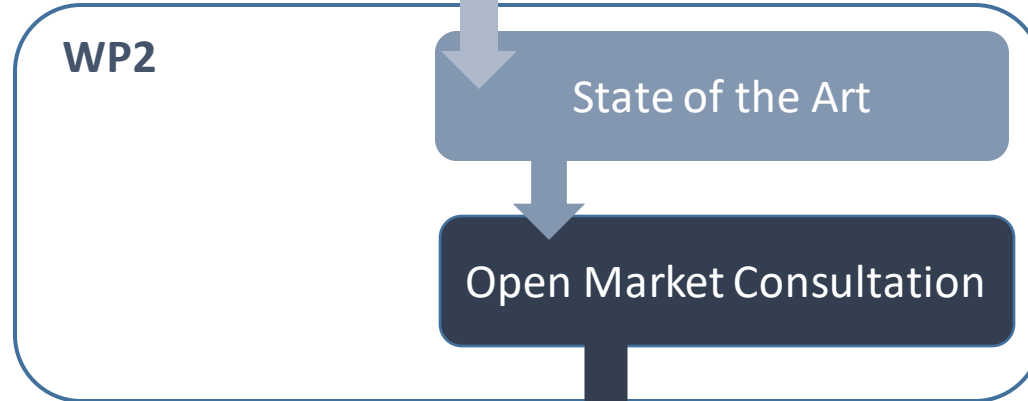
5.87 million population

Resah   UNINA -Campania

From needs to CfT definition methodology

Demand/Needs Desirability Assessment

WP1

Problem identification and Needs Elicitation

Needs Verification, Requirements prioritization & Business case

Market Maturity and Feasibility Assessment

WP2

State of the Art

Open Market Consultation

Demand Feasibility and Viability Assessment

WP3

Challenge Brief

Contract permeable to the value

Governance allocating decision rights and risks with suppliers

Unbundled approach: R&D Agreement/Pre-Commercial Procurement followed by a Public Procurement of Innovation

Bundled approach: Innovation Partnership

Public Procurement of Innovation

Regular Public Procurement

Salut/ Agència de Qualitat i Avaluació Sanitàries de Catalunya

Co-funded by the COSME programme of the European Union

Current workflow

Suspicion of infection → **Test selection & Sample extraction** → **Sample transfer** → **Sample processing at the lab & Empiric treatment to patient** → **Test results** → **Diagnosis** → **Treatment decision & Control measures** → **Treatment & Patient follow-up**

- ✓ Lack of screening
- ✓ Difficulties for key data visualization

- ✓ Complex sample extraction
- ✓ Lab-based slow diagnostic test
- ✓ Specialized personnel for testing and data interpretation
- ✓ Not appropriate use of broad spectrum antimicrobial (empiric treatment)
- ✓ Difficulties for communication between important stakeholders
- ✓ Difficulties for key patient data visualization before decision making
- ✓ Difficulties for stewardship data visualization (local & regional)

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- ✓ Not targeted antimicrobial prescription

RaDAR

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RaDAR

RaDAR Market Readiness Assessment

Market Sounding

PIN launch: 25 November 2022
Deadline: 27 February 2023

International Open Market Consultation Event

ONLINE

International: 1st March 2023

Local Market Consultation Events

F2F / ONLINE

Naples: 2 March 2023
Paris: 8 March 2023
Barcelona : 9 March 2023
San Sebastian :10 March 2023

Bilateral Meetings

Open to any interested part of the supply chain.
Mid-March/April 2023

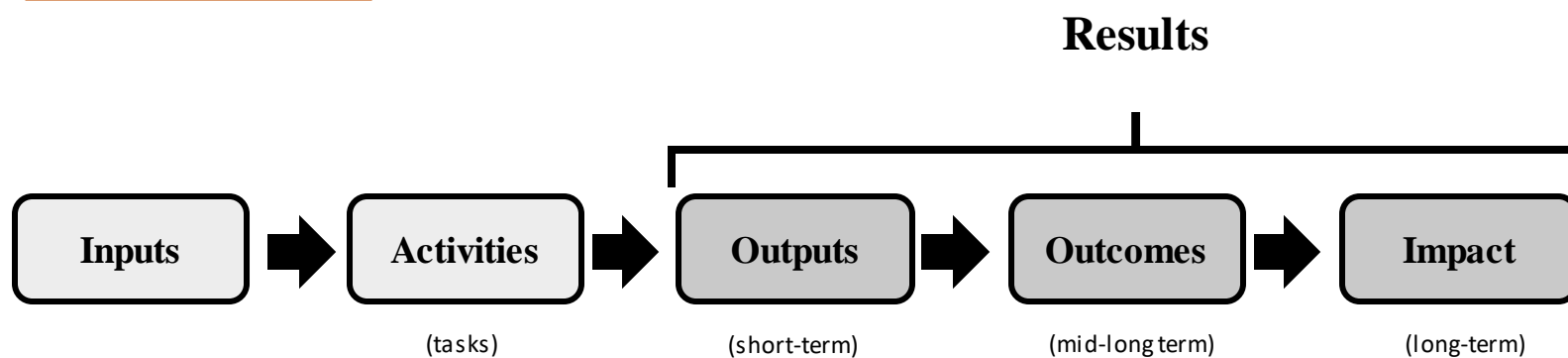| Market engagement	Numbers
PINs	5
Market Consultation Events	5
Responses to the market sounding	67
Total (market) participants in market consultation events	**164**
Market contacts informed of market sounding launch	263
Bi-lateral (buyer - suppliers) meetings*	**48**
Countries represented in bi-lateral meetings	**12**

RaDAR

RaDAR Evaluation Framework: Value-based permeability methodology

Theory of Change presented in a result chain per stakeholder

Theory of Change

Results

Inputs	→	Activities	→	Outputs	→	Outcomes	→	Impact
		(tasks)		(short-term)		(mid-long term)		(long-term)

Challenge-agnostic results for a PCP/PPI

1. **Patient-level results**
   a) PROM
   b) PREM
   c) Determinants of health
   d) Long-term treatment improvement
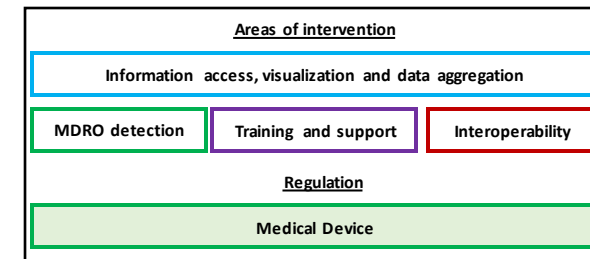
2. **HC-Professionals-level results**
   a) Benefits healthcare providers
   b) Workplace environement / culture

3. **HC-Provider results**
   a) Organizational aspects
   b) Costs
   c) Process
   d) Technological aspects

4. **Health System-level results**
   a) Economic sustainability
   b) Safety and sustainability
   c) Long-term treatment improvement

5. **Socio-economic-level results**
   a) Social determinants
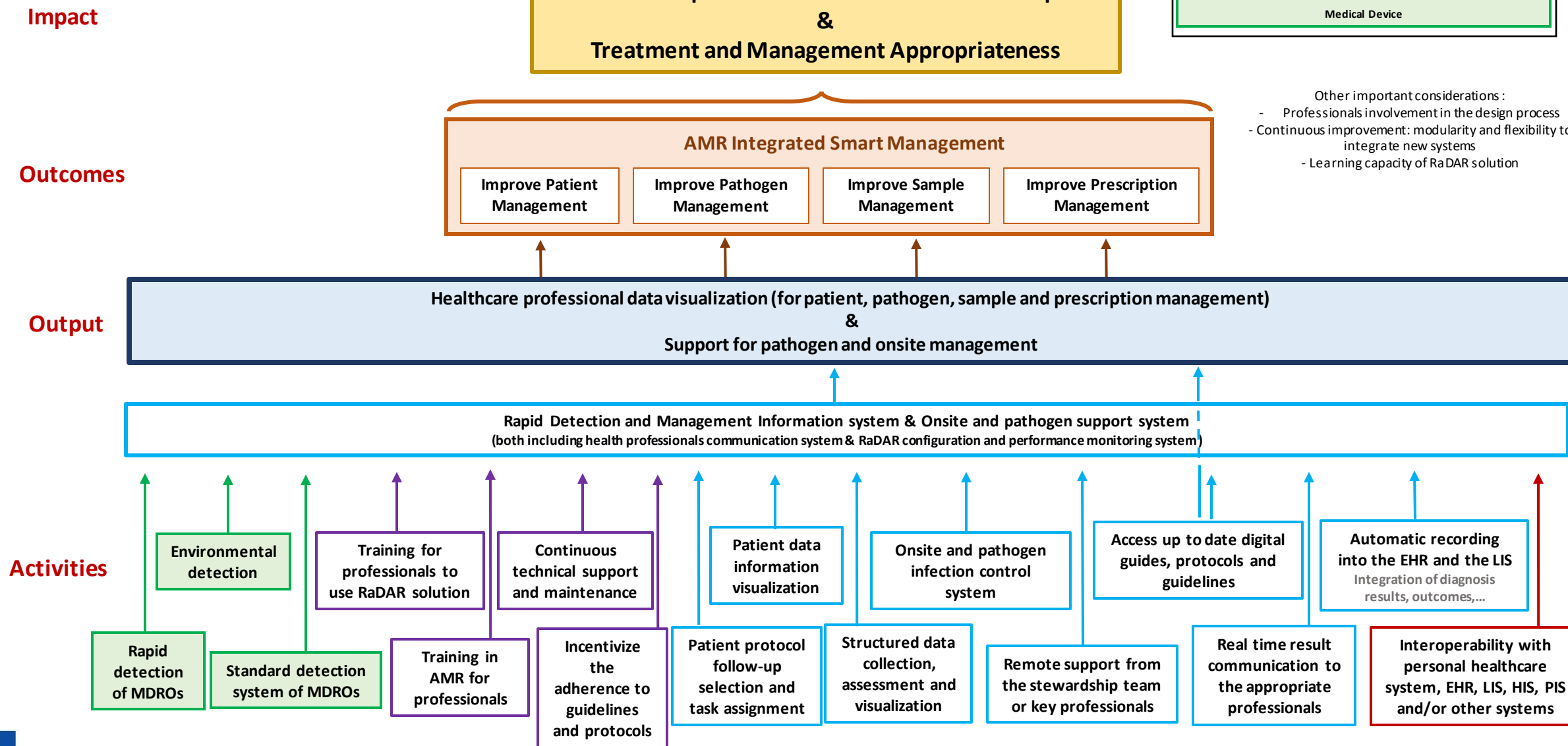   b) Economic evaluation and HTA

Theory of change: RaDAR PPI results

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Theory of change

Impact

Infection prevention control and stewardship
&
Treatment and Management Appropriateness

Other important considerations :
- Professionals involvement in the design process
- Continuous improvement: modularity and flexibility to integrate new systems
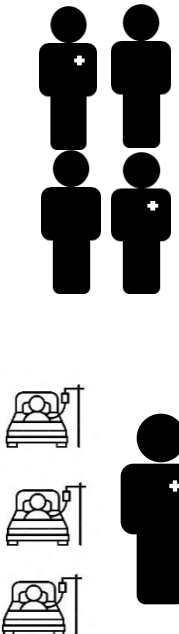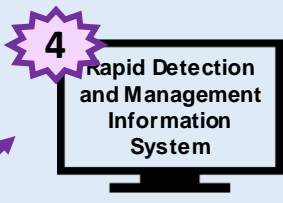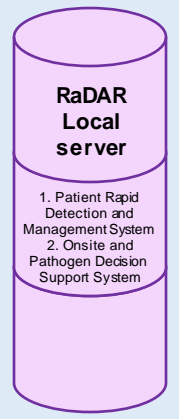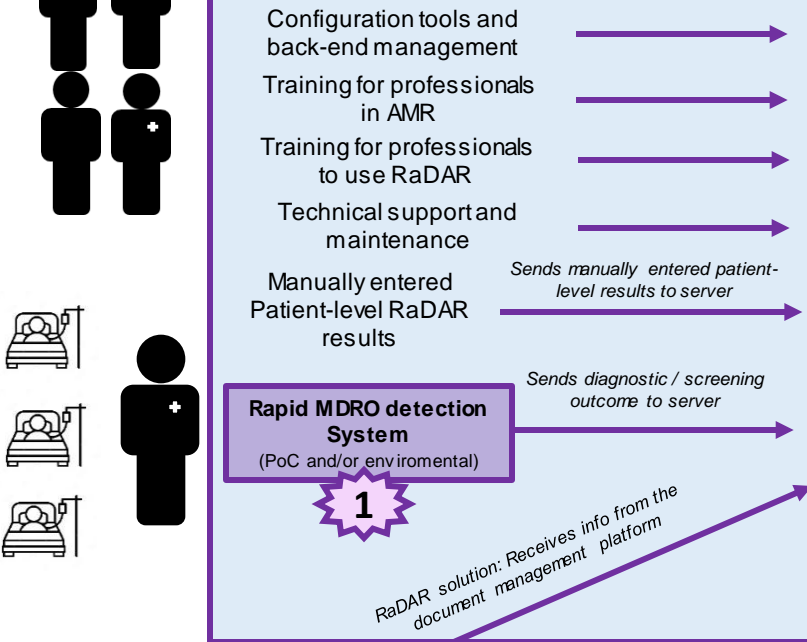- Learning capacity of RaDAR solution

Outcomes

AMR Integrated Smart Management

| Improve Patient Management | Improve Pathogen Management | Improve Sample Management | Improve Prescription Management |

Output

Healthcare professional data visualization (for patient, pathogen, sample and prescription management)
&
Support for pathogen and onsite management

Rapid Detection and Management Information system & Onsite and pathogen support system
(both including health professionals communication system & RaDAR configuration and performance monitoring system)

Activities

Environmental detection

Training for professionals to use RaDAR solution

Continuous technical support and maintenance

Patient data information visualization

Onsite and pathogen infection control system

Access up to date digital guides, protocols and guidelines

Automatic recording into the EHR and the LIS
Integration of diagnosis results, outcomes,…

Rapid detection of MDROs

Standard detection system of MDROs

Training in AMR for professionals

Incentivize the adherence to guidelines and protocols

Patient protocol follow-up selection and task assignment

Structured data collection, assessment and visualization

Remote support from the stewardship team or key professionals

Real time result communication to the appropriate professionals

Interoperability with personal healthcare system, EHR, LIS, HIS, PIS and/or other systems

RaDAR solution

collect, retrieve by interoperating (His), store, process and visualize

Configuration tools and back-end management

Training for professionals in AMR

Training for professionals to use RaDAR

Technical support and maintenance

Manually entered Patient-level RaDAR results

Sends manually entered patient-level results to server

Rapid MDRO detection System
(PoC and/or enviromental)

1

Sends diagnostic / screening outcome to server

RaDAR Local server

1. Patient Rapid Detection and Management System
2. Onsite and Pathogen Decision Support System

4

Rapid Detection and Management Information System

- Patient data information visualization
- Real time result communication
- Patient protocol follow-up selection and task assignment
- Incentivize the adherence to guidelines and protocols
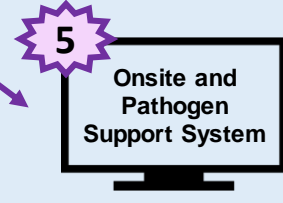- Structured data collection and visualization

6

Both systems should include:
- Assessment of RaDAR user access, support and maintenance and training
- RaDAR configuration and performance monitoring system
- Remote support from the stewardship team and/or other key stakeholders (Health professionals communication system)

5

Onsite and Pathogen Support System

- Onsite and pathogen infection control system
- Real time result communication
- Incentivize the adherence to guidelines and protocols
- Structured data collection, assessment and visualization

7

Users with access:

- Near to patient healthcare professionals
- Microbiology team professionals
- Pharmacy team professionals
- Stewardship team- Onsite management
- Financial management team

Interoperable engine

RaDAR solution: Receives info from the document management platform

Digital guidelines and protocols

2

RaDAR solution: Receives info from the HIS

RaDAR solution: Push XML, CSV, PDF for visualization + push relevant data

Interoperable engine

3

Hospital Information System

Laboratory Information System (Standard detection system of MDRO)	Nursing Information System	Patient Administration Information System
Pharmacy Information System	Electronic Health Record	Managerial Information System
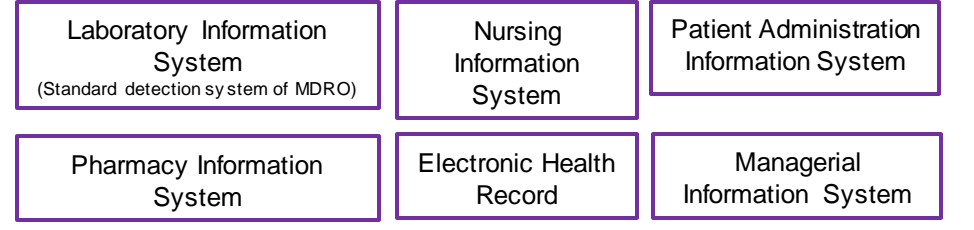
Object of the Contract

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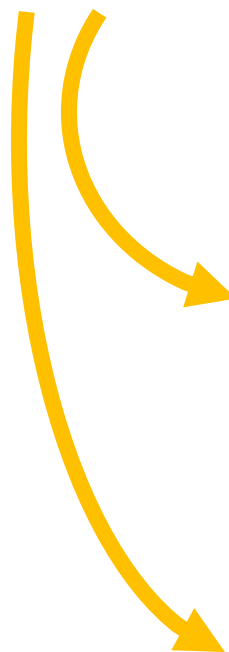
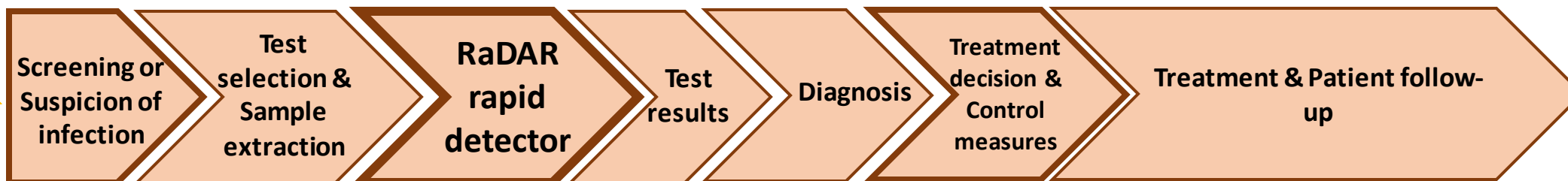Co-funded by the COSME programme of the European Union

RaDAR

Workflow after RaDAR implementation

Suspicion of infection → Test selection & Sample extraction → Sample transfer → Sample processing at the lab & Empiric treatment to patient → Test results → Diagnosis → Treatment decision & Control measures → Treatment & Patient follow-up

Rapid Detection and Management Information System

Screening or Suspicion of infection → Test selection & Sample extraction → **RaDAR rapid detector** → Test results → Diagnosis → Treatment decision & Control measures → Treatment & Patient follow-up
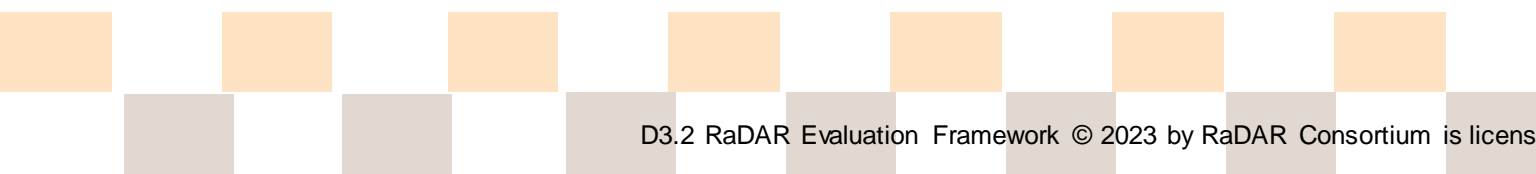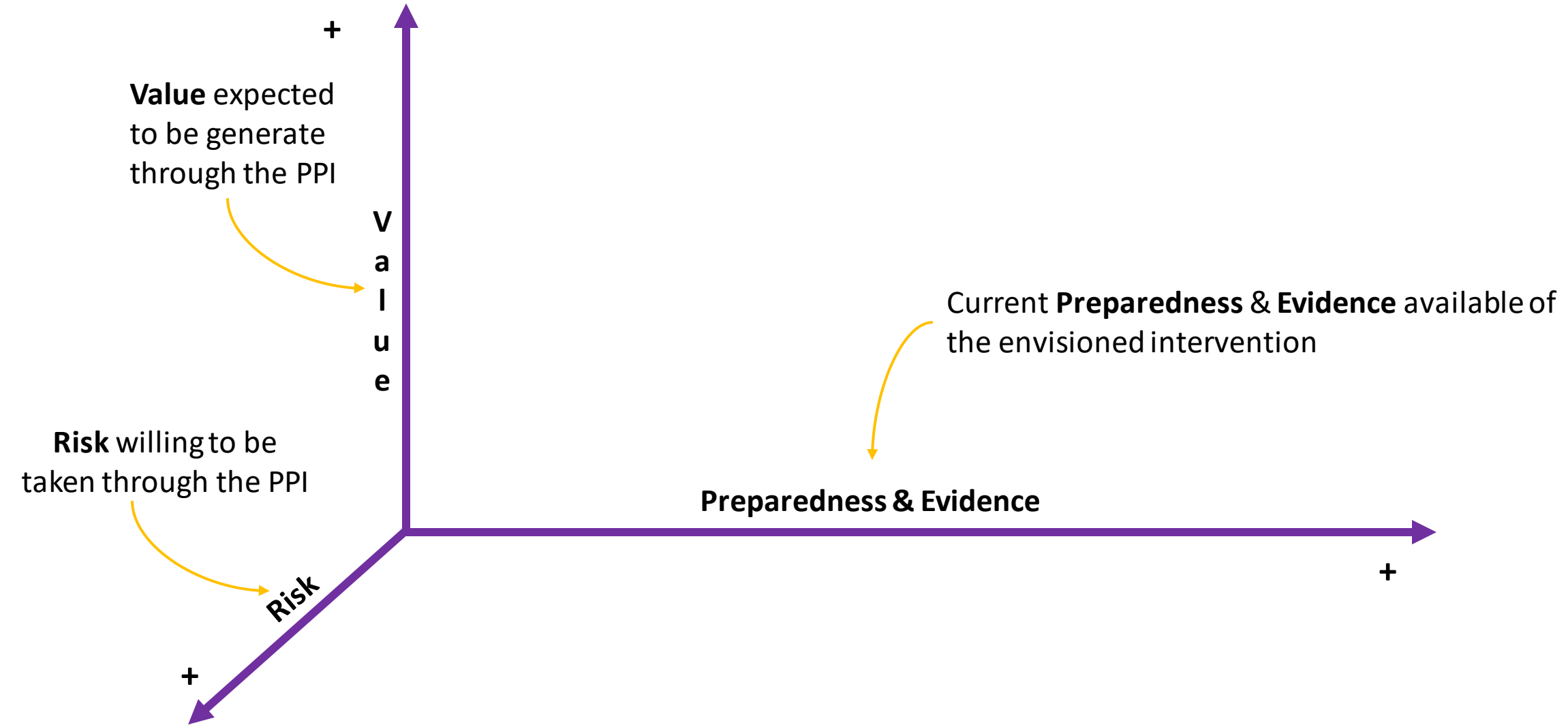
Onsite and Pathogen Support System

RaDAR configuration and performance monitoring system

Health professionals communication system

Training & Continuous support and maintenance

RaDAR

Levels of value, risk, preparedness and evidence

Value expected to be generate through the PPI

V
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Current **Preparedness** & **Evidence** available of the envisioned intervention

Preparedness & Evidence

Risk willing to be taken through the PPI
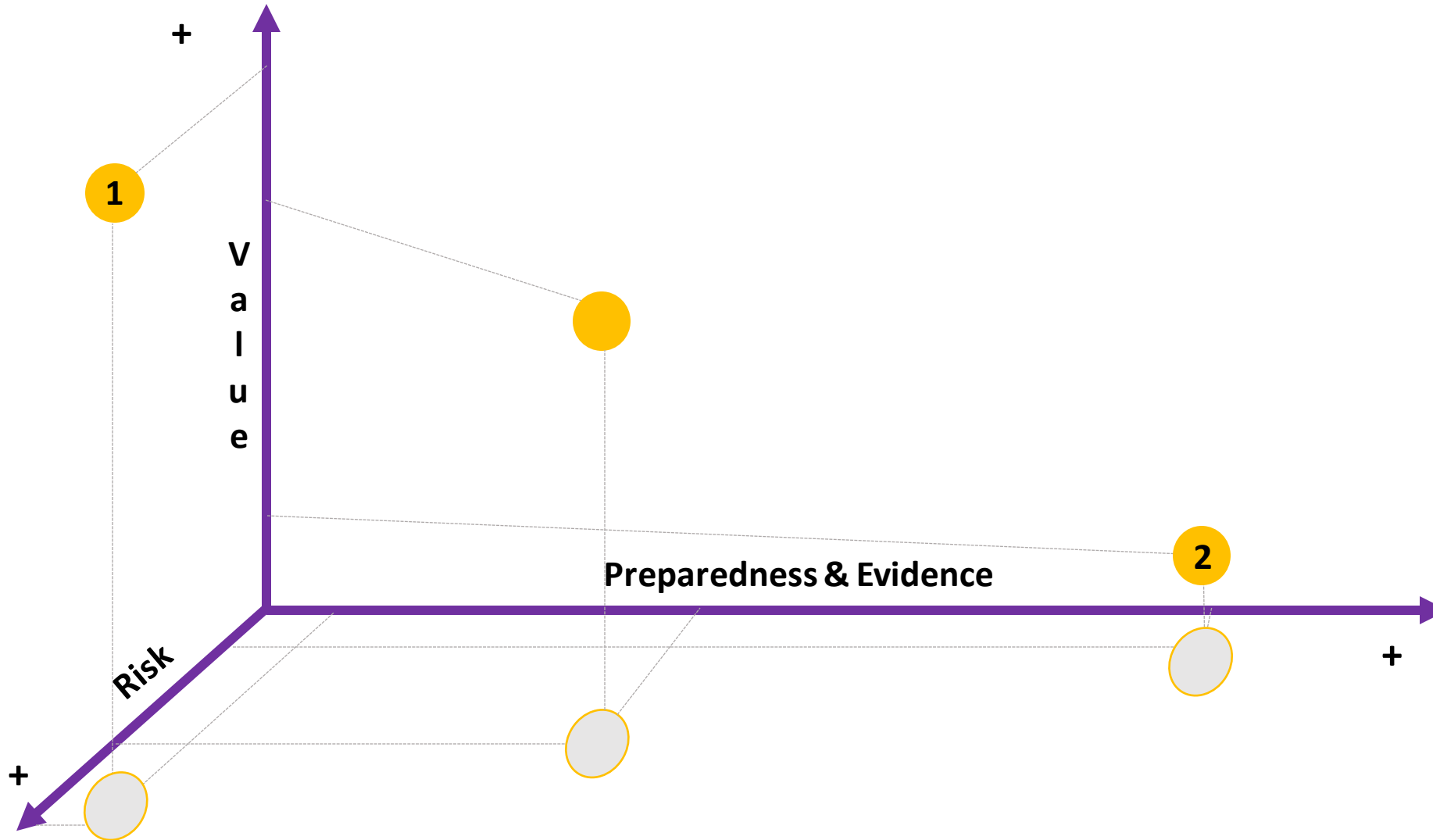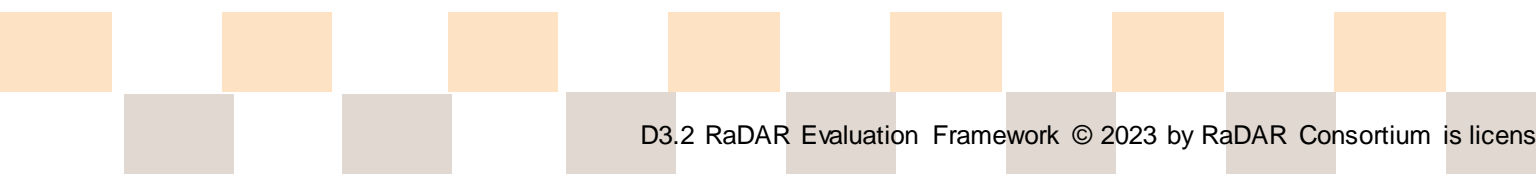
Risk

+

+

+

RaDAR

Levels of value, risk, preparedness and evidence

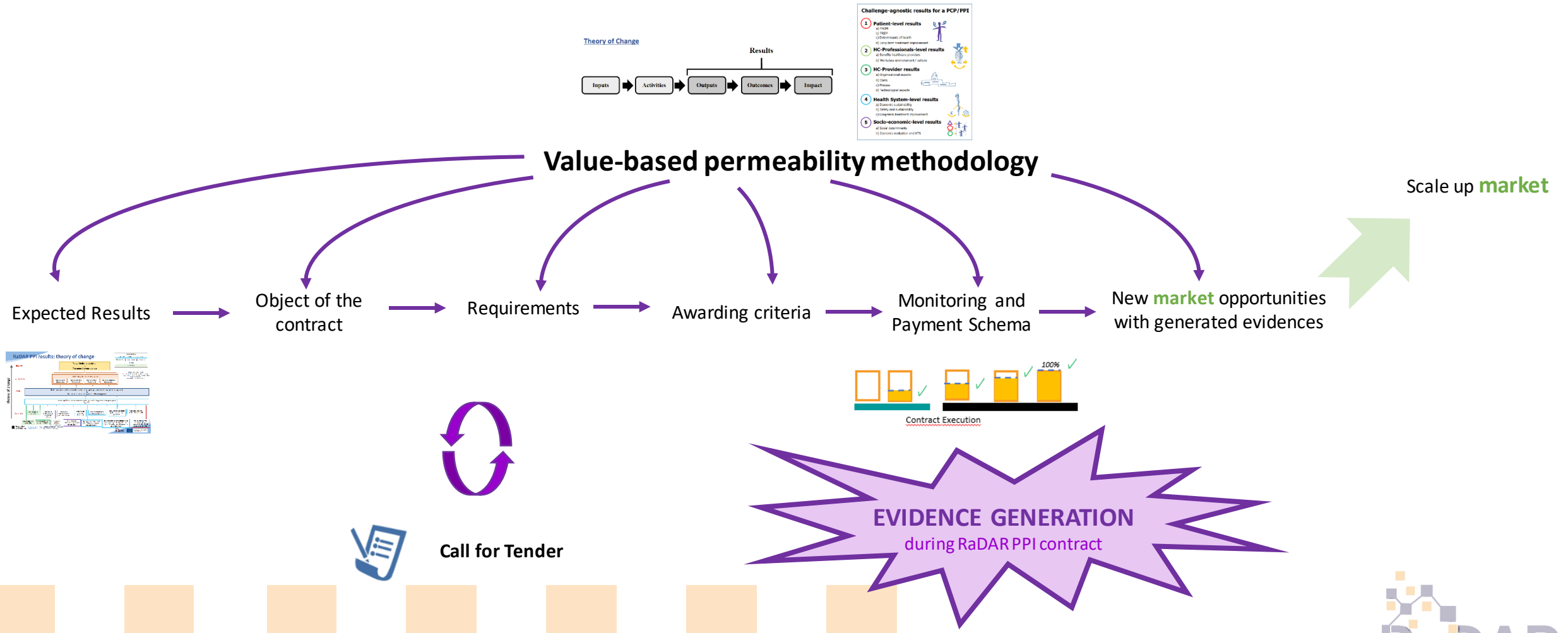# Levels of value, risk, preparedness and evidence

1. Higher innovation level
(not necessarily technological)

+ Evidence generation

+ Technological Integration

+ New relation procurer/economical operator

+ New processes

1

V a l u e

2.Less ambitious innovation level
related to technological Integration

2

Preparedness & Evidence

+

Risk

+

+
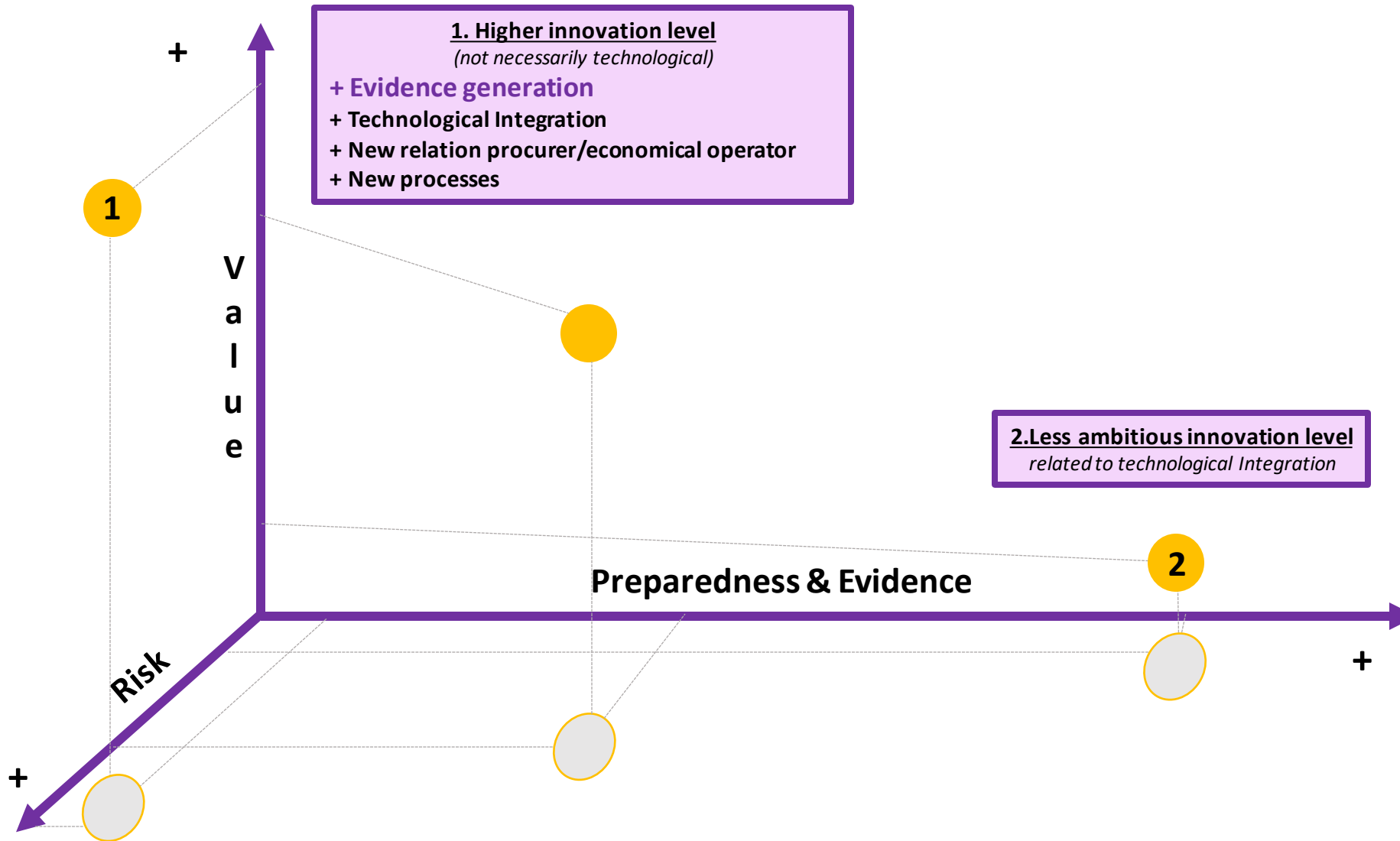
RaDAR

Value-based permeability methodology applied to RaDAR to elaborate the Evaluation Framework

Value-based permeability methodology

Scale up **market**

Expected Results → Object of the contract → Requirements → Awarding criteria → Monitoring and Payment Schema → New **market** opportunities with generated evidences

Call for Tender

Contract Execution

EVIDENCE GENERATION
during RaDAR PPI contract

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Thank you!

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