

5mDeck

| AI & PUBLIC HEALTH

AI POLICY HACKATHON:

Next-Gen AI-Enhanced Epidemic Intelligence

*Policies for Equitable, Privacy-Preserving, Sustainable & Groked Innovations
for AI Applications in Infectious Diseases Surveillance*

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1.1 | BACKGROUND

Existing Gaps & Barriers in AI-Enhanced ID Surveillance

Public Health Challenge:

Infectious Disease Surveillance is critical for pandemic preparedness and response, enabling public health agencies to control outbreaks, improve health outcomes, and save lives.



Transformative potential that empowers

- ❑ Early warning of emerging IDs
- ❑ Public health threat assessment
- ❑ Predictive modelling
- ❑ Resource allocation
- ❑ Global health coordination

BUT

Gaps

- ❑ Limited to **Disease Forecasting**
- ❑ Untapped **machine learning types**

Barriers

- ❑ **Data** limitations
- ❑ **Talent** shortage
- ❑ **Resource** constraints
- ❑ **Ethical** concerns

1.2 | AIM

NextGen AI-Enhanced Infectious Disease Surveillance

Hence, our Aim is to propose for

the White House Office of Pandemic Preparedness and Response Policy (OPPR) to

drive **interagency** efforts with **public-private partnerships** that help develop



-Powered

Infectious Disease Surveillance

that

- ❑ Upholds **safety, equity, privacy and confidentiality**;
- ❑ Facilitates sustainable **innovation**; and
- ❑ Empowers **community involvement**.

2.0 | CONSIDERATIONS

Parameters for Effectiveness

Safety, Equity, Privacy & Confidentiality

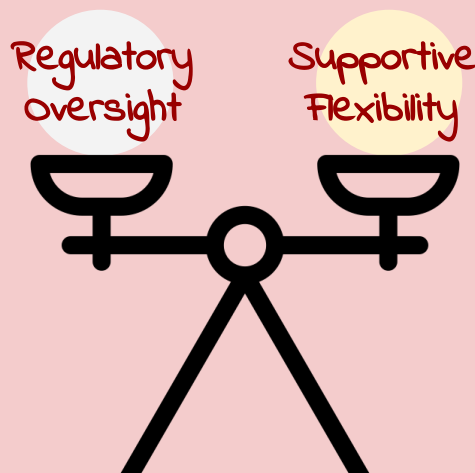
Safety – Oversight mechanisms to prevent prompt injections exploiting confidential information

Equity – Regulatory apparatus to ensure **representative data**, with regular evaluations

Privacy & Confidentiality – Robust privacy safeguards and strict **compliance with HIPAA**

Facilitate Sustainable Innovation

Regulatory measures must be **carefully calibrated to avoid hindering** innovation and adoption



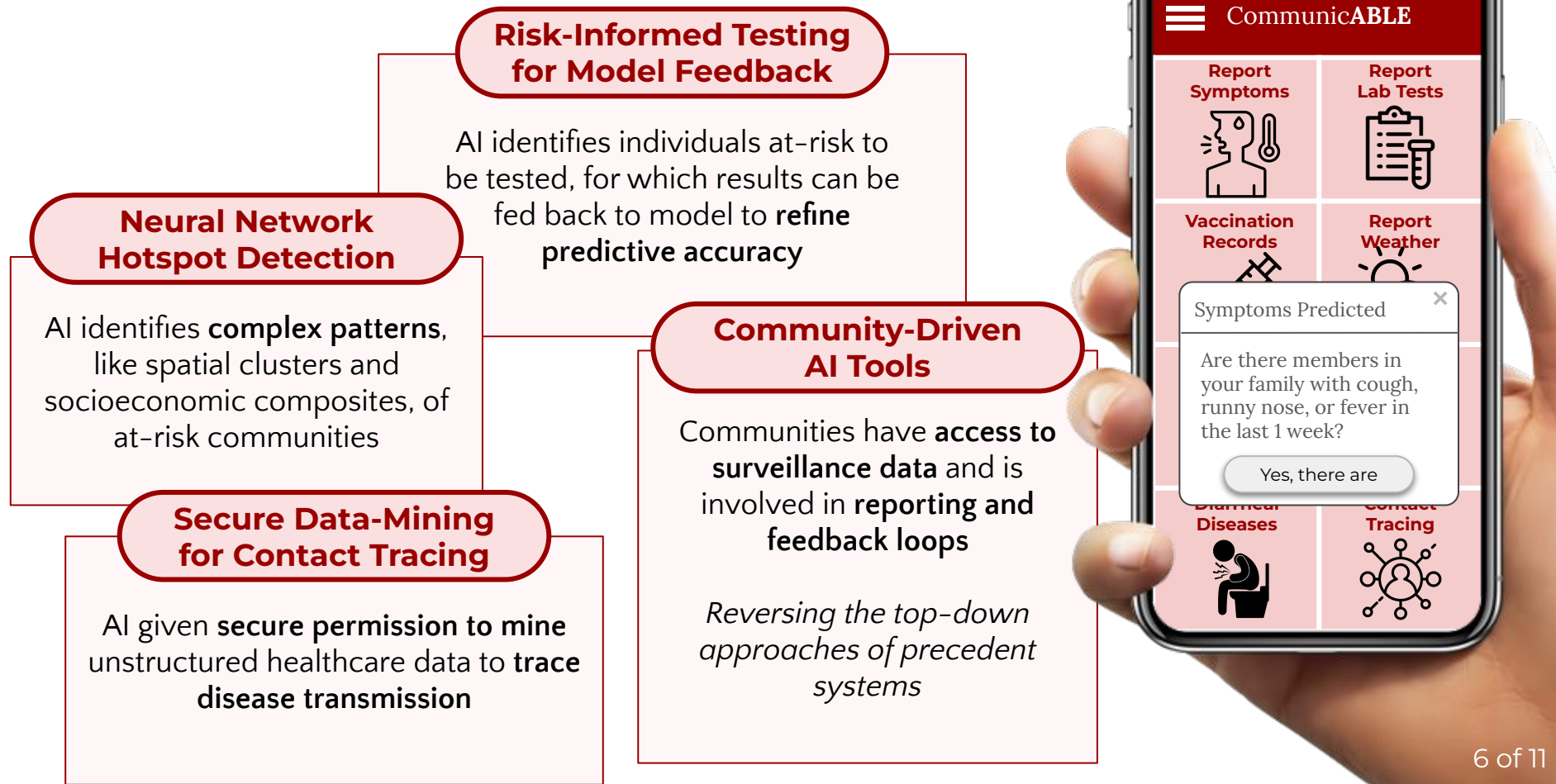
Public Private Partnerships (PPP)



To **afford the resources** (human, data and compute resources) required to develop AI-enhanced epidemic intelligence systems, **collaboration with industry, academia, and non-profit partners** ought to be considered

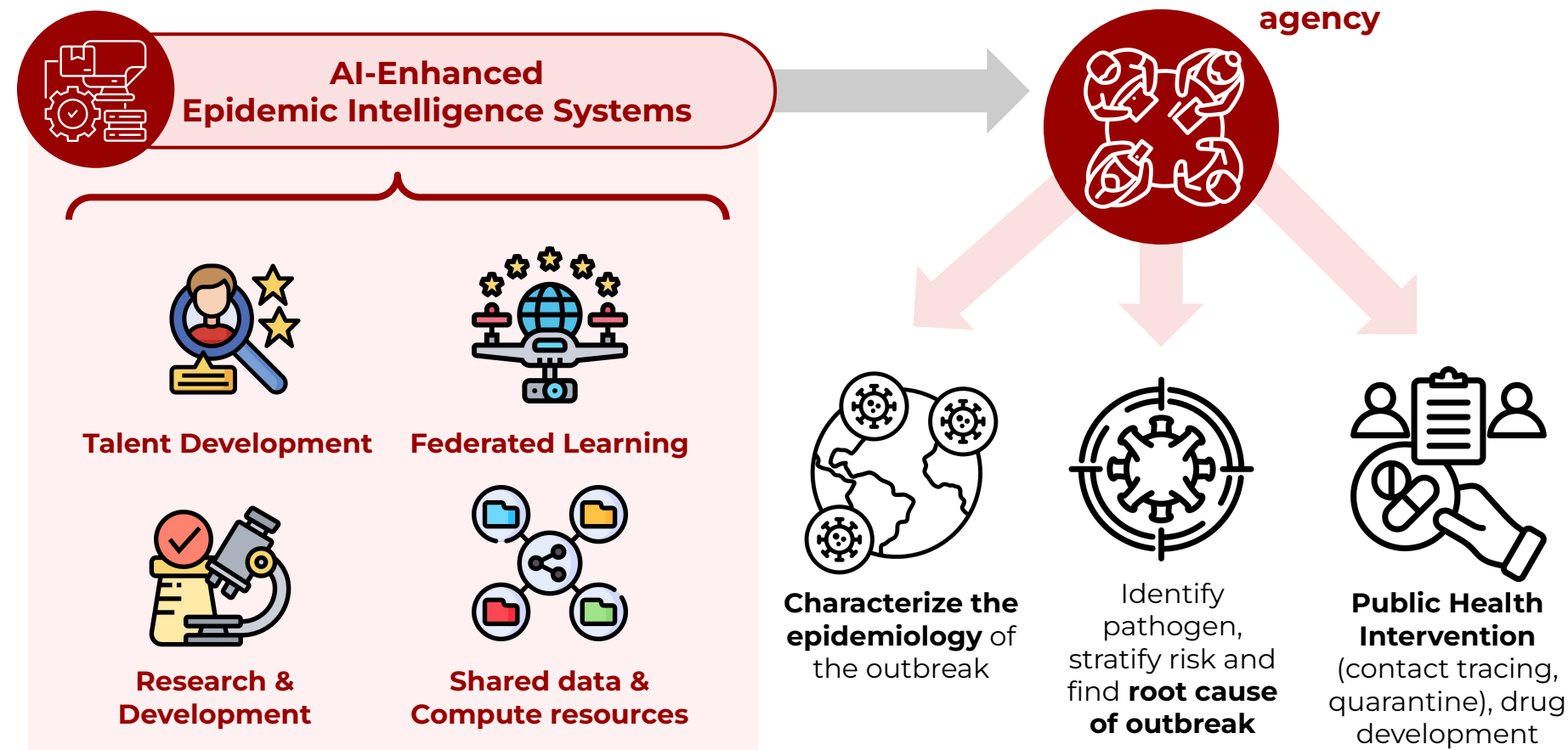
3.1 | RECOMMENDATIONS

Advance AI-Enhanced Epidemic Intelligence Systems



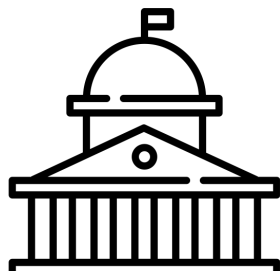
3.2 | RECOMMENDATIONS

Establish AI-Supporting Infrastructure



3.3 | RECOMMENDATIONS

Oversight Measures



Key Governing Principles

1. Equitable data collection
2. Privacy and confidentiality
3. Safe, efficient and fair AI Models
4. Equitable access to AI



AI Governance & Oversight



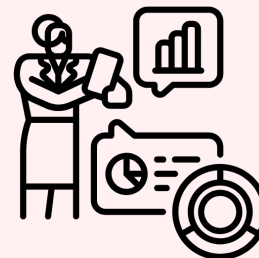
**Internal Guidelines
& Ethical Code**



**Implementation of
Algorithmic
Safeguards**



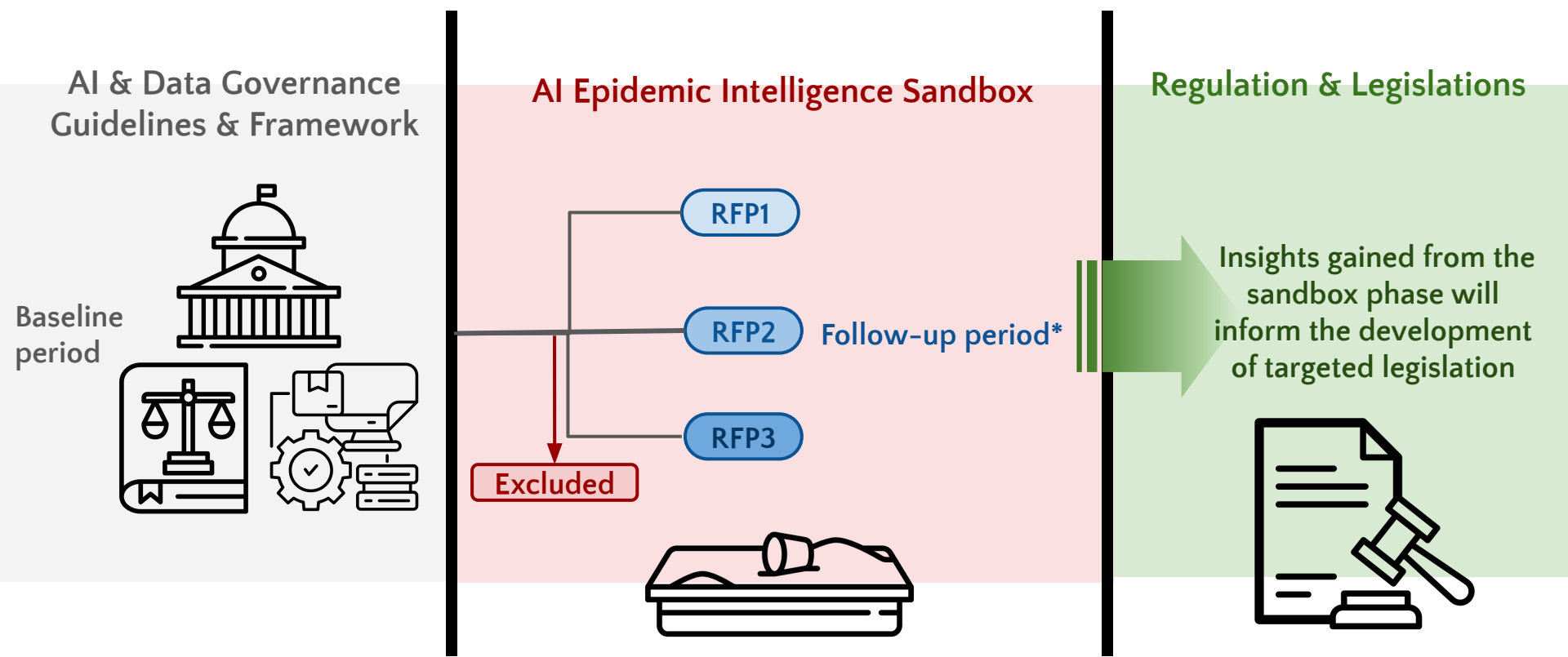
**Ethical Breach
Whistleblowing**



**Adverse Event
Reporting &
Resolution**

3.4 | RECOMMENDATIONS

Phased Regulatory Rollout



We propose to
the White House
Office of Pandemic
Preparedness and
Response Policy
(OPPR) to

- 1 Advance Adoption**
of High-potential AI-Enhanced
Epidemic Intelligence Systems
- 2 Establish**
AI-supporting Infrastructure
- 3 Implement**
Oversight Measures

References

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