



Responsible Limits on Facial Recognition: the Law Enforcement Investigations Use Case

Odhran McCarthy
Programme Officer, UNICRI

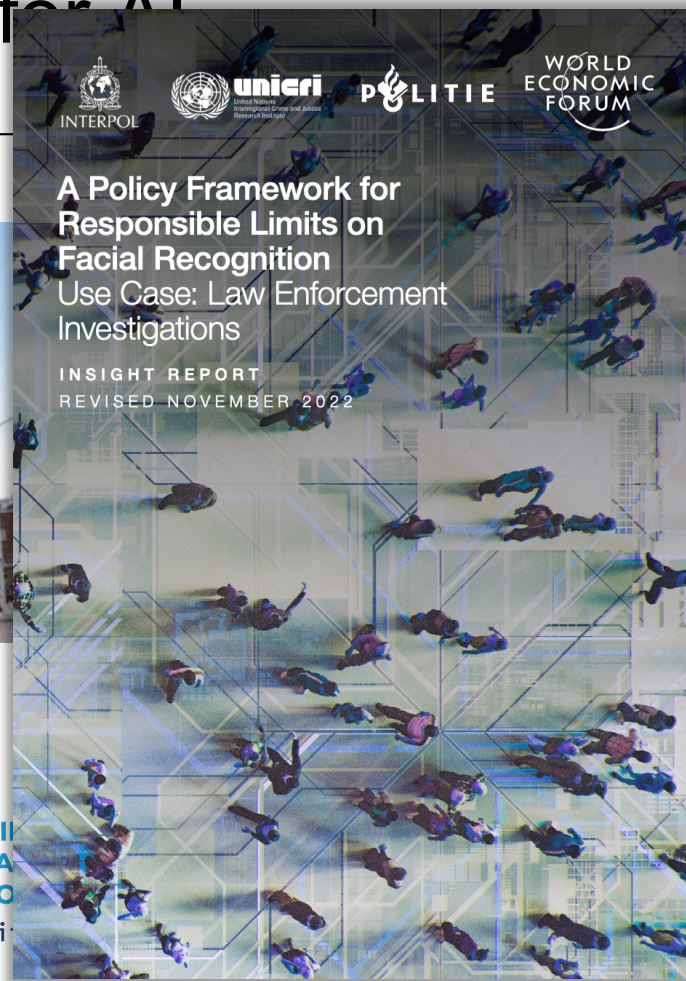
About UNICRI

A UN Research and Training Institute

- Established in 1968 by UN Economic and Social Council – Resolution 1086 B (XXXIX)
- Support Member States design and implement criminal justice policies
- Headquarters in Turin, Italy



UNICRI's Centre for AI



Justice Innovation Hub

2017 with support of Netherlands

the City of Peace, Justice and

and related technology from
and rule of law

ities of new technology



RESPONSIBLE
AI INNOVATION
LAW ENFORCEMENT
AI Toolkits



Facial recognition technology for law enforcement

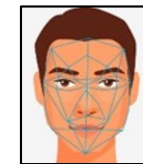
Facial recognition presents new opportunities

- Biometric technology can help support the identification of criminals and fugitives, missing persons, victims and other persons of interest
- It can help conduct faster and more accurate investigations.
- The technology is only one step in the identification process which includes face experts' evaluation, peer review, and further investigation – always only an *investigative lead*.

However, it also represents a new challenge

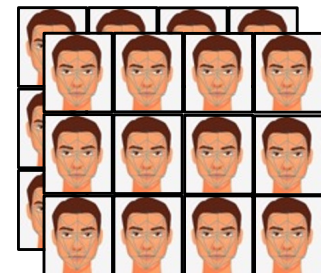
- Acute and specific risks in law enforcement
- Unintended biases could lead to discrimination and consequential misidentifications, undermining presumption of innocence, freedom of expression, freedom of assembly and association, and the right to privacy.

Step 1

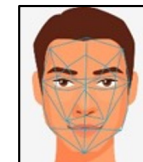


Probe image

Automated Face Identification

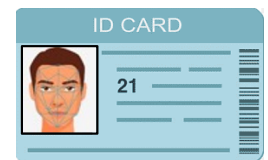


Reference database



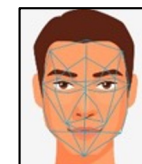
Probe image

Automated Face Verification



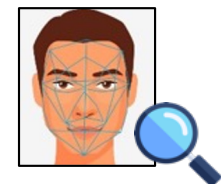
Reference image

Step 2



Probe image

Manual Examination



Candidate image

Facial recognition technology for law enforcement

“Advances such as facial recognition software, robotics, digital identification and biotechnology, must not be used to erode human rights, deepen inequality or exacerbate existing discrimination.”

*- United Nations Secretary-General, Antonio Guterres
at the Human Rights Council in Feb. 2020*



Motions to regulate facial recognition

Concerns have resulted in intensified policy activity

- A court in **Brazil** blocked in 2021 the deployment of facial recognition in the public transport system.
- In 2019, the **Dutch government** requested additional privacy, ethical and human rights impact assessments before authorizing any more pilots.
- In the **US**, some local and state governments have banned the use of facial recognition by public agencies, including law enforcement.
- Large US **technology companies** stopped selling or placed moratoriums on police use of its facial recognition software.
- The **European Commission** proposal for the AI Act submitted in April 2021 prohibits the use of real time facial recognition in public spaces and classifies other facial recognition uses as 'high-risk' applications.
- The **United Nations** Office of the High Commissioner for Human Rights recommended banning AI applications that cannot be used in compliance with international human rights law.



Our contribution to policy discourse

A Policy Framework for Responsible Limits on Facial Recognition in Law Enforcement Investigations

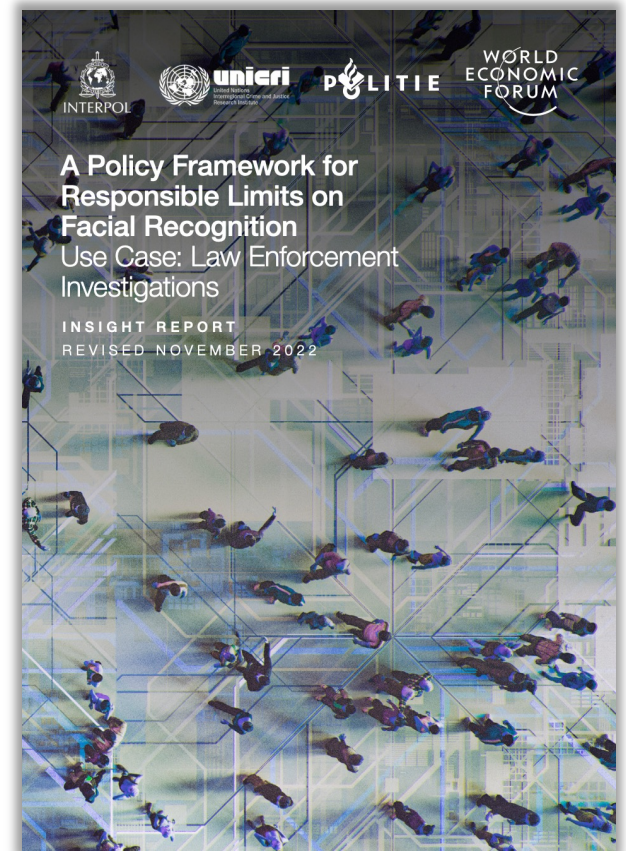
GOAL

To **promote and ensure** the **safe, trustworthy and inclusive** application of facial recognition by law enforcement agencies

OUTCOME

A **policy framework designed to** proactively **mitigate the risks** related to facial recognition technology use in criminal investigations:

1. A tool to help **law enforcement** improve their use of facial recognition technology.
2. A tool to support **policy-makers** across the globe in the design of governance frameworks for facial recognition technology.



A multi-stakeholder approach for a policy framework



Co-design a list of **Principles for action**

- These principles guide how FRT should be used by law enforcement agencies
- General and universal principles with the vision of being largely adopted by law-enforcement agencies worldwide



Co-draft a **Self-Assessment Questionnaire**

- Tool to help law enforcement agencies check their compliance with the principles for action
- To review and improve their daily practices
- Results can be made public to help build transparency and trust among citizens



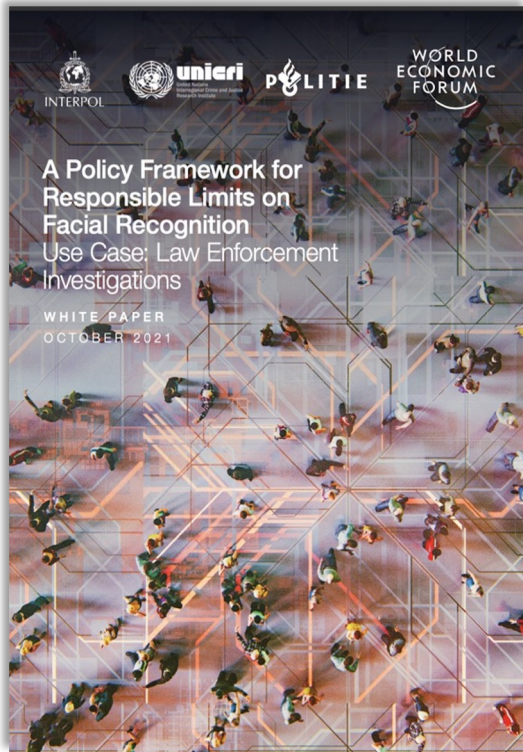
Test the policy framework with law enforcement

- Piloting the policy framework, with law enforcement agencies from different countries
- To attest its the achievability, relevance and usability
- The results and findings help iterate on the policy framework

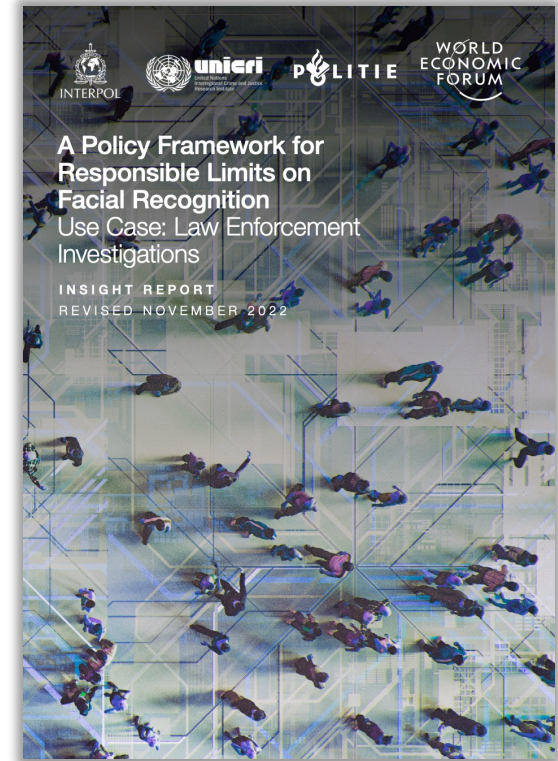
The pilot phase



Testing the policy framework

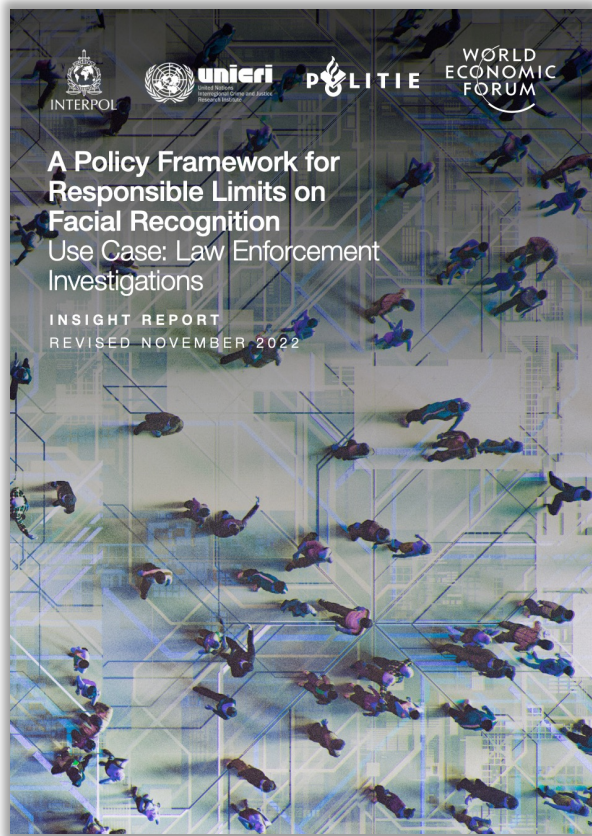


Version 1: October 2021



Version 2: November 2022

A look inside the policy framework



The extent of our work

Law enforcement *investigations*

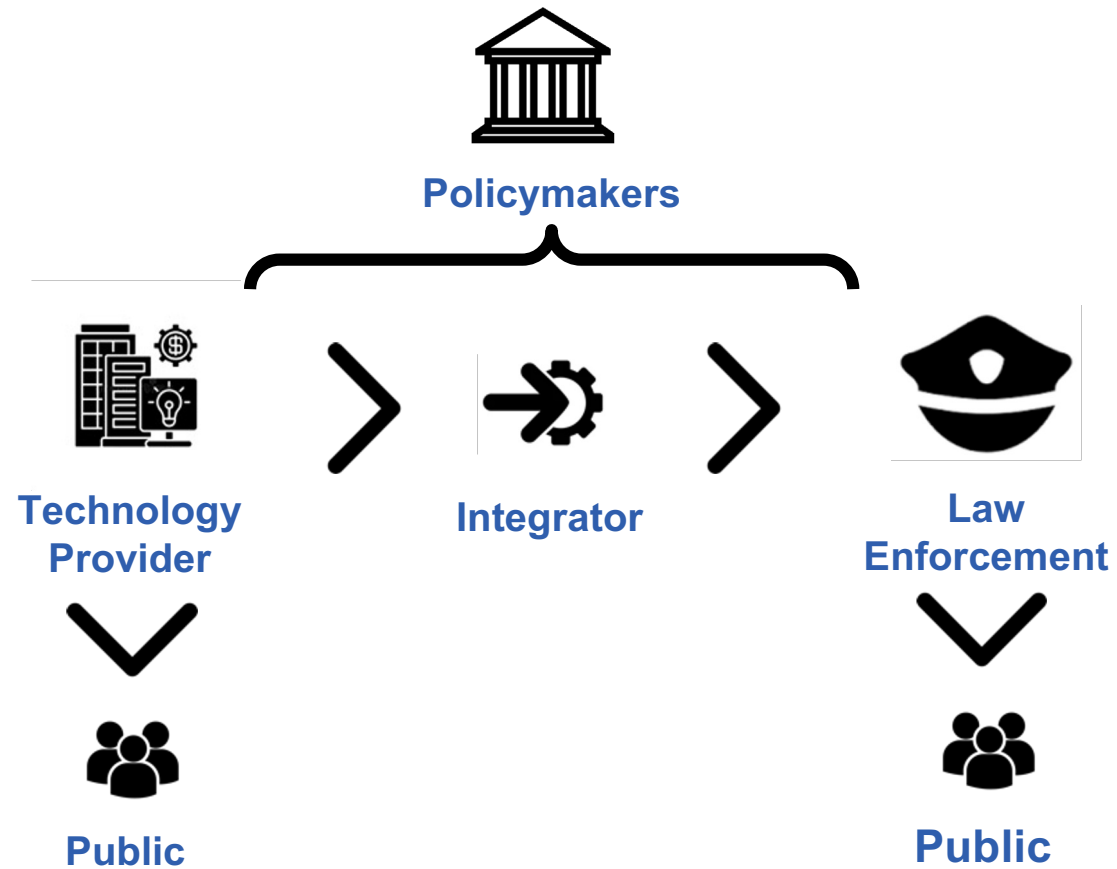
- FRT has many uses in law enforcement context.
- Policy framework focuses exclusively on law enforcement investigations.
- All other law enforcement activities related to passport, residence permit and ID card issuance/verification etc. are outside its scope

Why?

- Potential impact on human rights is the highest, particularly sensitive and controversial
- Nuance – each use case presents its own challenges, e.g., passing through an airport border control with face identification is uniquely different than employing facial recognition in investigations



System lifecycle and stakeholders' chain

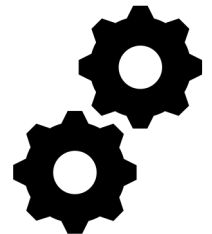


Proposed principles

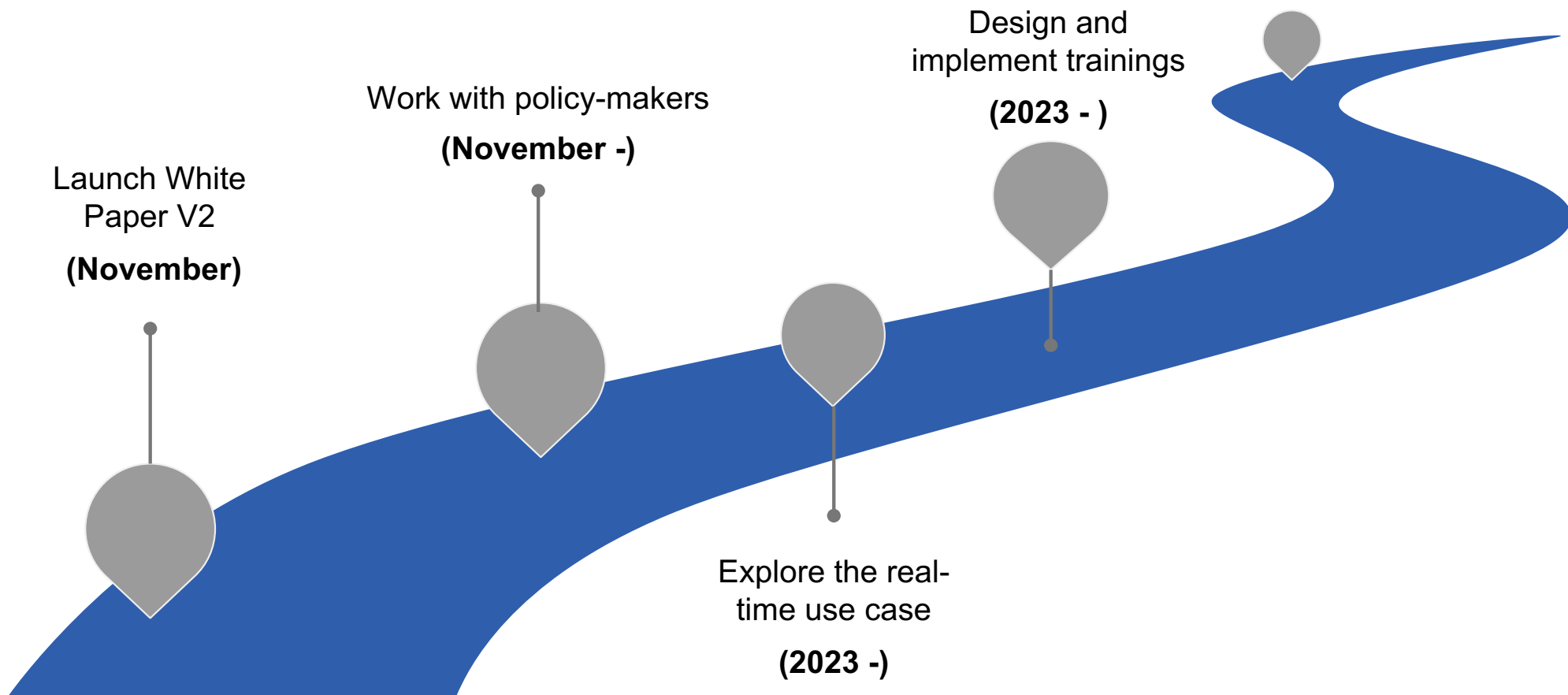
1	Respect for human and fundamental rights	2	Necessary and proportional use	3	Human oversight and accountability
4	Optimization of system performance	5	Mitigation of error and bias	6	Legitimacy of probe images and reference databases
7	Integrity of image and metadata	8	Skilled human interface and decision-making	9	Transparency

Takeaways from the pilot

- Very different procedures exist, showing a lack of guidance and standardization
- Training is not always provided, and when it is, it is inconsistent
- The fundamental importance of being at most an 'investigative lead' is clear
- The importance of transparency and the challenge of communication is recognized
- Real-time presents unique challenges that need to be further explored
- Testing systems is essential, but lab and field tests are very distinct. Field testing may not always be possible
- The distinction between biometric template and facial images is important and should be emphasized, as each may require different treatment
- Management and storage of unidentified probe images can be complex and require specific policies



Next steps

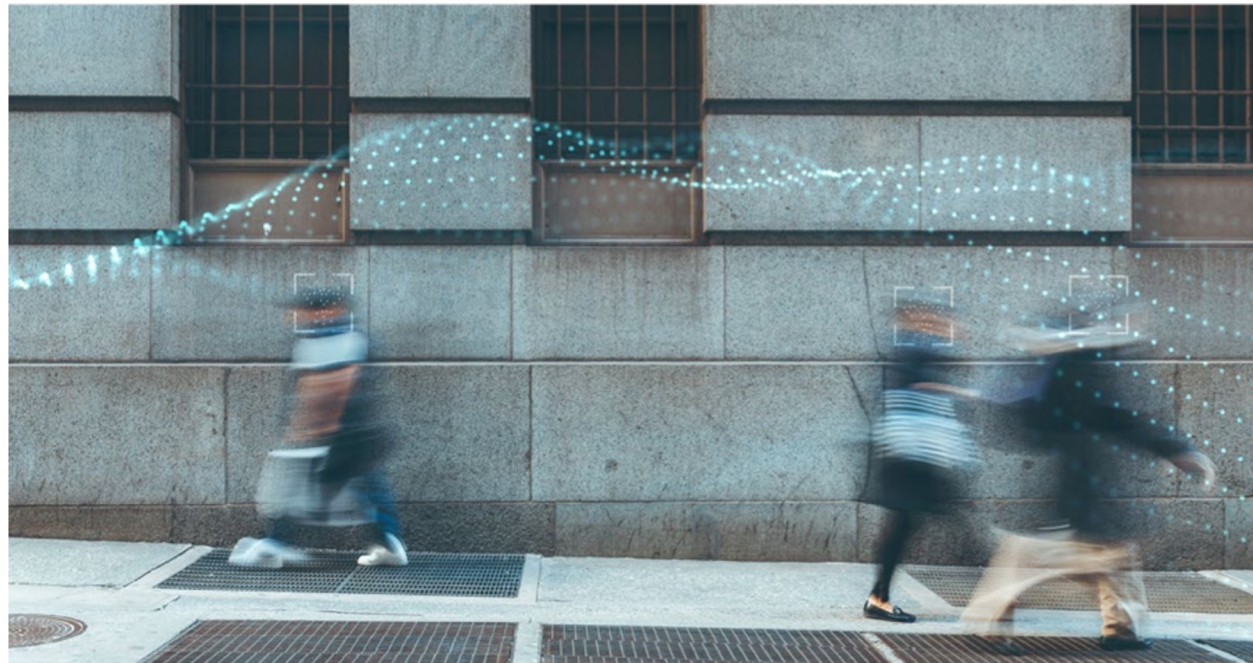


Thank you

Odhran McCarthy

Programme Officer
Centre for AI and Robotics
UNICRI

odhran.mccarthy@un.org





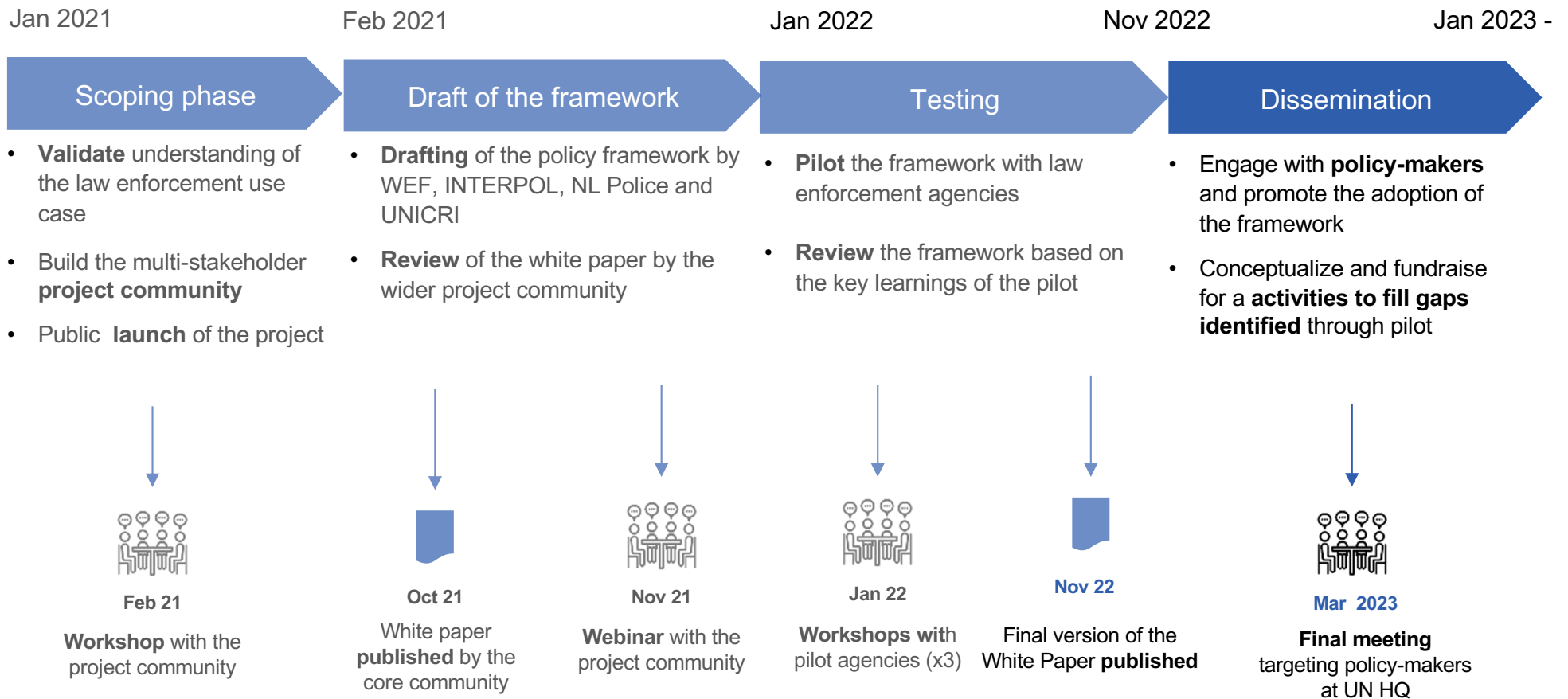
Questions?







Timeline



Jan 2021

Feb 2021

Jan 2022

Nov 2022

Jan 2023 -

Scoping phase

Draft of the framework

Testing

Dissemination

- **Validate** understanding of the law enforcement use case
- Build the multi-stakeholder **project community**
- Public **launch** of the project

- **Drafting** of the policy framework by WEF, INTERPOL, NL Police and UNICRI
- **Review** of the white paper by the wider project community

- **Pilot** the framework with law enforcement agencies
- **Review** the framework based on the key learnings of the pilot

- Engage with **policy-makers** and promote the adoption of the framework
- Conceptualize and fundraise for a **activities to fill gaps identified** through pilot



Feb 21

Workshop with the project community



Oct 21

White paper **published** by the core community



Nov 21

Webinar with the project community



Jan 22

Workshops with pilot agencies (x3)



Nov 22

Final version of the White Paper **published**



Mar 2023

Final meeting targeting policy-makers at UN HQ