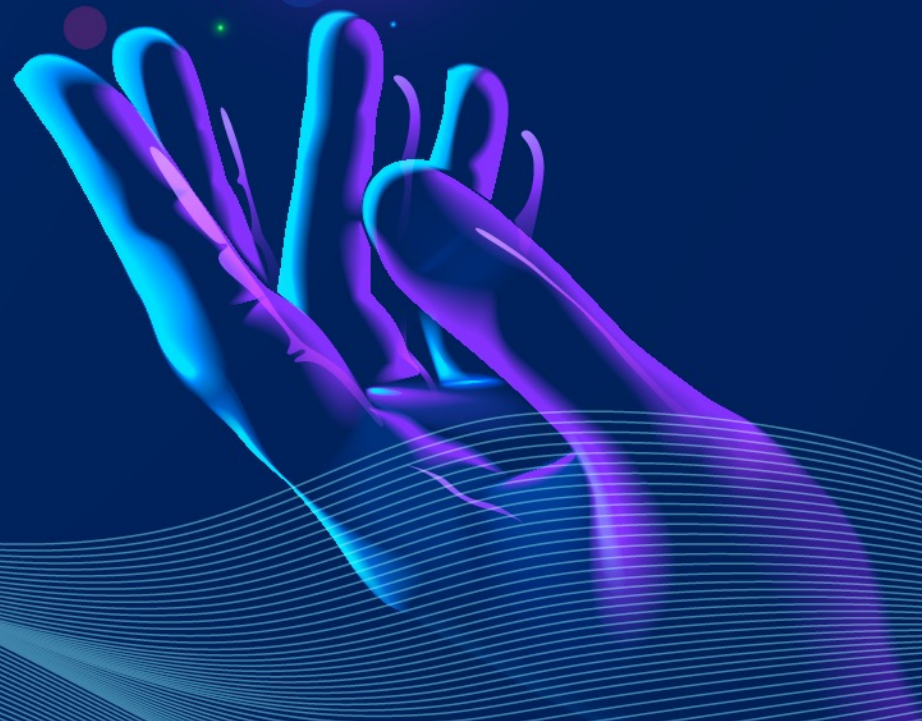




EXCELLENCE
& TRUST



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DG CNECT, European Commission

20 May 2021

AI is good ...

- For citizens
- For business
- For the public interest



... but creates some risks

- For the safety of consumers and users
- For fundamental rights



2021 European Commission AI Package



- **Communication: “Fostering a European approach to AI”**
- **Coordinated Plan on AI 2021 review**
- **Proposal for the Artificial Intelligence Act**



Proposal for the Artificial Intelligence Act

Why a EU regulation on AI?

Complexity—○ Opacity
Unpredictability—○
Autonomy—○ Data

**Solid framework
of EU legislation**
already in place at
EU and national
level

HOWEVER



Certain
specific features of AI
can make application
and enforcement of the
existing rules more
challenging and generate
**risks to safety and
fundamental rights**



**A tailored regulatory
response needed**



The
Commission's
**proposal for a
regulatory
framework on AI**



Proposal for the Artificial Intelligence Act

The scope – what is covered?

Definition of Artificial Intelligence

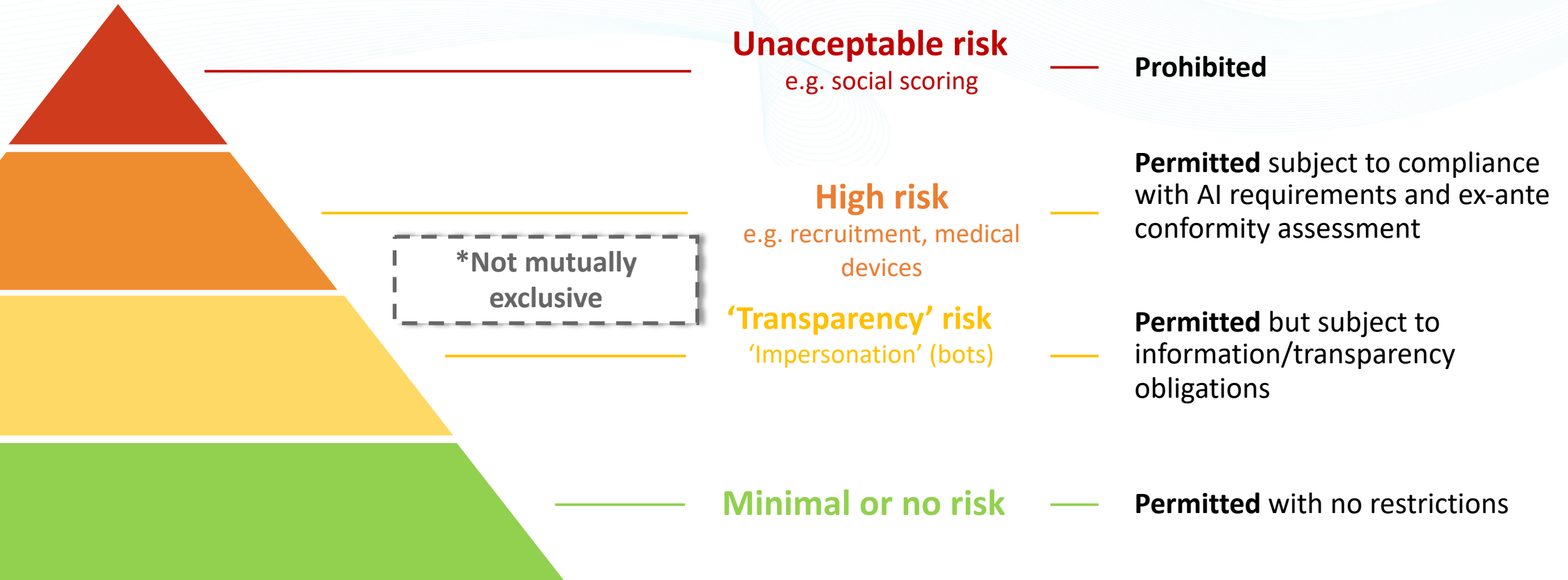
“a software that is developed with one or more of the techniques and approaches listed in Annex I and can, for a given set of human-defined objectives, generate outputs such as content, predictions, recommendations, or decisions influencing the environments they interact with”

- ▶ Definition of AI should be **as neutral as possible** in order to cover techniques which are not yet known/developed
- ▶ **Overall aim is to cover all AI**, including traditional symbolic AI, Machine learning, as well as hybrid systems
- ▶ **Annex I:** list of AI techniques and approaches should provide for legal certainty (adaptations over time may be necessary)

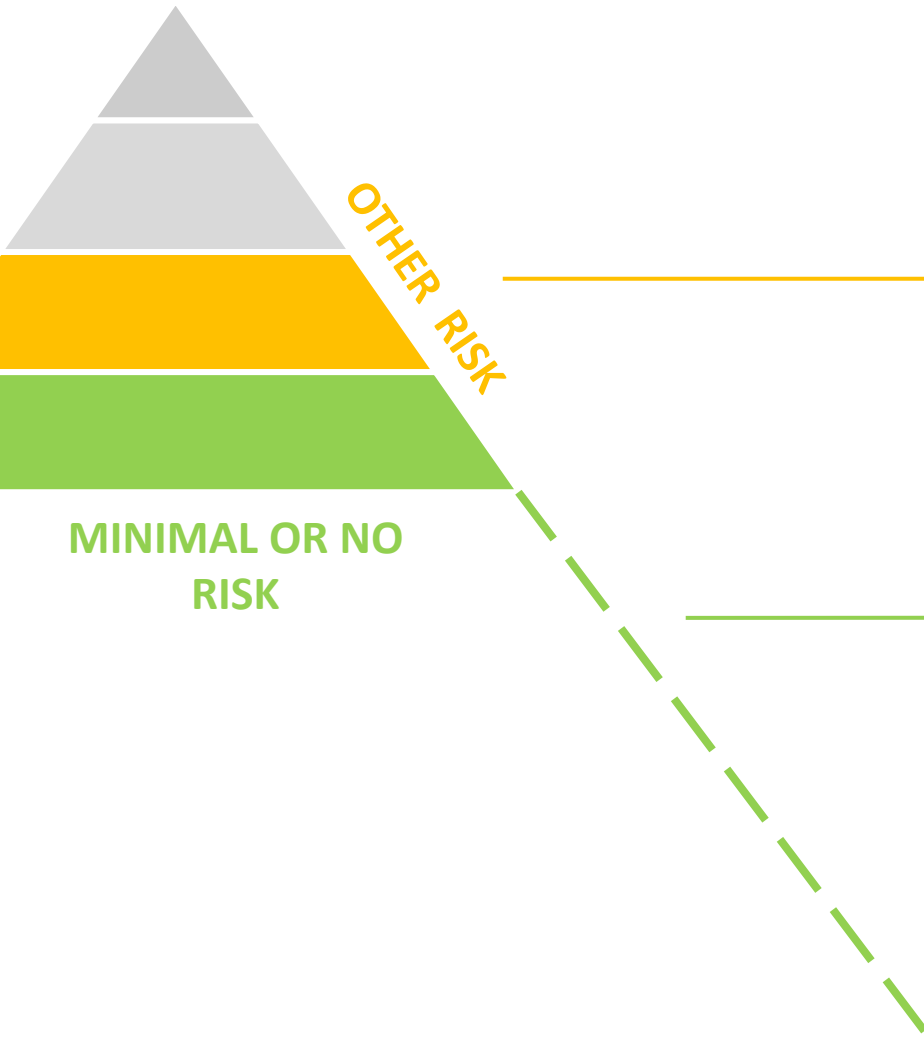


Proposal for the Artificial Intelligence Act

Risk-based approach: overview



Most AI systems will not be high-risk (Titles IV, IX)



New transparency obligations for certain AI systems (Art. 52)

- ▶ **Notify humans** that they are **interacting with an AI system** unless this is evident
- ▶ Notify humans that emotional recognition or biometric categorisation systems are applied to them
- ▶ Apply **label to deep fakes** (unless necessary for the exercise of a fundamental right or freedom or for reasons of public interests)

Possible voluntary codes of conduct for AI with specific transparency requirements (Art. 69)

- ▶ No mandatory obligations
- ▶ Commission and Board to encourage drawing up of codes of conduct intended to foster the **voluntary application of requirements to low-risk AI systems**



Proposal for the Artificial Intelligence Act

Risk-based approach: high risk AI systems

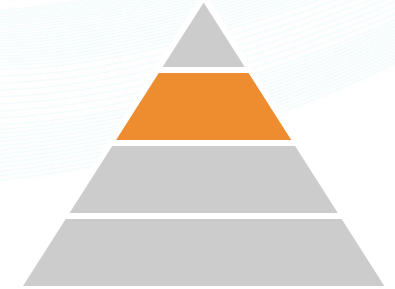
High-risk AI Systems (Title III, Chapter 1 & Annexes II and III)

1 SAFETY COMPONENTS OF REGULATED PRODUCTS

(e.g. medical devices, machinery) which are subject to third-party assessment under the relevant sectorial legislation

2 CERTAIN (STAND-ALONE) AI SYSTEMS IN THE FOLLOWING AREAS

- ✓ Biometric identification and categorisation of natural persons
- ✓ Management and operation of critical infrastructure
- ✓ Education and vocational training
- ✓ Employment and workers management, access to self-employment
- ✓ Access to and enjoyment of essential private services and public services and benefits
- ✓ Law enforcement
- ✓ Migration, asylum and border control management
- ✓ Administration of justice and democratic processes





Proposal for the Artificial Intelligence Act

Requirements for high-risk AI systems

Establish and
implement **risk
management
processes**

&

In light of the
**intended
purpose** of the
AI system

Use high-quality **training, validation and testing data** (relevant, representative etc.)

Establish **documentation** and design logging features (traceability & auditability)

Ensure appropriate certain degree of **transparency** and provide users with **information**
(on how to use the system)

Ensure **human oversight** (measures built into the system and/or to be implemented by
users)

Ensure **robustness, accuracy** and **cybersecurity**

Provider obligations

- ▶ Establish and Implement **quality management** system in its organisation
- ▶ Draw-up and keep up to date **technical documentation**
- ▶ Undergo **conformity assessment** and potentially re-assessment of the system (in case of substantial modification)
- ▶ **Register AI system** in EU database
- ▶ Affix **CE marking** and sign declaration of conformity
- ▶ Conduct **post-market monitoring**
- ▶ **Collaborate** with market surveillance authorities

User obligations

- ▶ Operate AI system in accordance with **instructions of use**
- ▶ Ensure **human oversight** when using of AI system
- ▶ **Monitor** operation for possible risks
- ▶ **Inform the provider or distributor about any serious incident or any malfunctioning**
- ▶ **Existing legal obligations** continue to apply (e.g. under GDPR)



Proposal for the Artificial Intelligence Act AI that contradicts EU values are prohibited

X

Subliminal manipulation
resulting in physical/
psychological harm

Example: An **inaudible sound** is played in truck drivers' cabins to push them to **drive longer than healthy and safe**. AI is used to find the frequency maximising this effect on drivers.

X

Exploitation of children
or mentally disabled persons
resulting in physical/psychological harm

Example: A doll with an integrated **voice assistant** encourages a minor to **engage in progressively dangerous behavior** or challenges in the guise of a fun or cool game.

X

General purpose
social scoring

Example: An AI system **identifies at-risk children** in need of social care **based on insignificant or irrelevant social 'misbehavior'** of parents, e.g. missing a doctor's appointment or divorce.

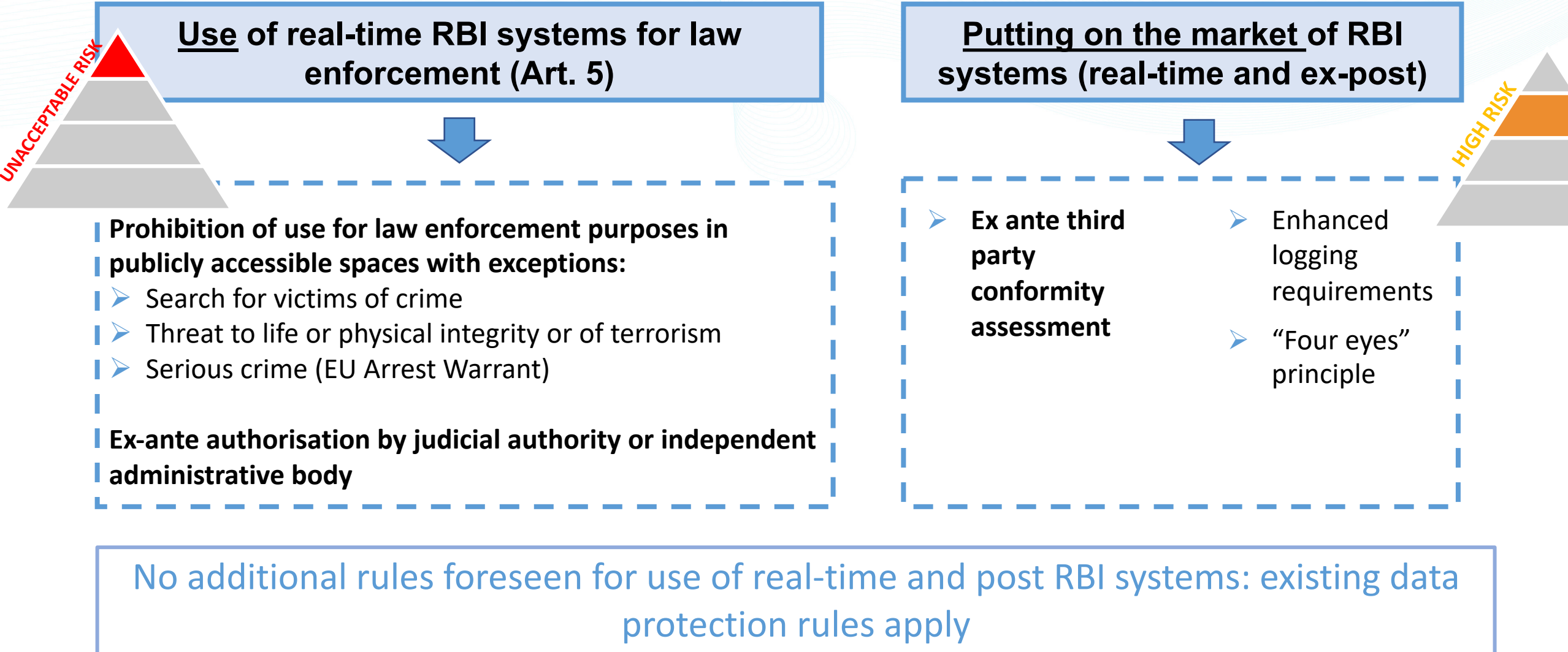
X

Remote biometric identification for law
enforcement purposes in publicly accessible
spaces (with exceptions)

Example: All faces captured live by video cameras checked, in real time, against a database to identify a terrorist.



Proposal for the Artificial Intelligence Act Specific regulation on remote biometric identification



Pre-market – conformity assessment

AI that is safety component of products
(regulated by product legislation)

conformity assessment
(already existing under the relevant sectoral legislation)

Other high-risk AI systems
("stand-alone")

Ex ante conformity assessment through internal checks *

Registration
(EU database)

Post-market

Market surveillance (authorities)

Post-market monitoring (providers)

Reporting system for serious incidents (providers and users)

Re-assessment by the provider in case of substantial changes to AI systems

Human oversight and monitoring (users)

Supporting innovation (Title V)

**Regulatory
sandboxes
Art. 53 and 54**

**Support for
SMEs/start-ups
Art. 55**



The governance structure (Titles VI and VII)

European level

European Commission to act as Secretariat

Artificial Intelligence Board



Expert Group*



National level

National Competent Authority/ies



*Not foreseen in the regulation but the Commission intends to introduce it in the implementation process



Artificial Intelligence Act

1

- The European Parliament and the Council as co-legislators will negotiate the proposal and agree on a compromise in the ordinary legislative procedure

2

- Once adopted, there will be 2 years of transitional period before the **Regulation becomes directly applicable** across the EU.

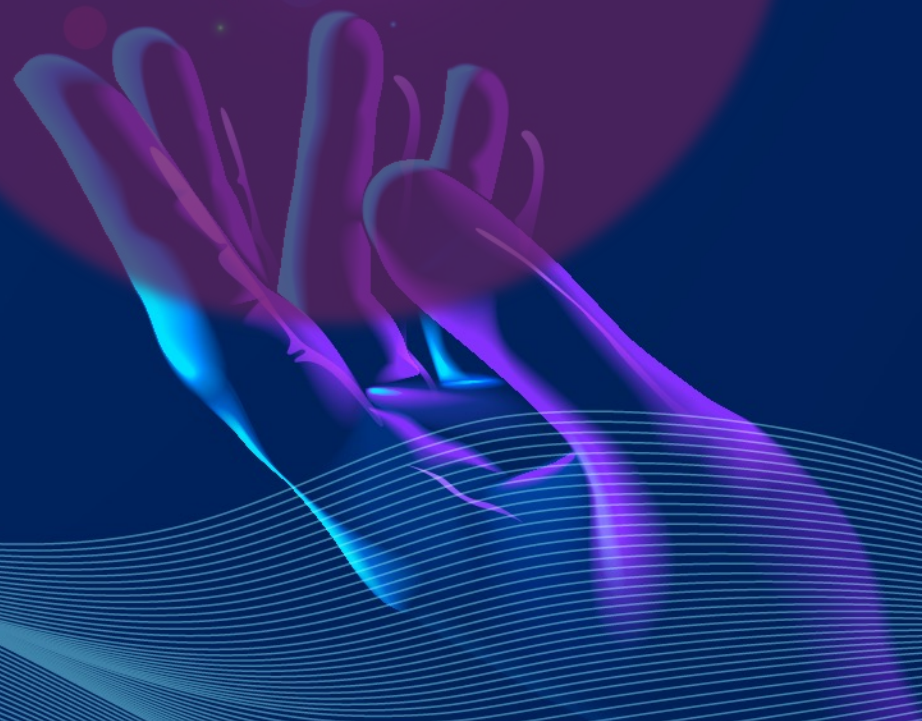
3

- In parallel, **harmonized standards of CEN/CENELEC** should be ready and support operators in the practical implementation of the new rules & conformity assessment procedures

AI
ARTIFICIAL
INTELLIGENCE

EXCELLENCE
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Thank you!



CE marking = indication that product complies with requirements of applicable Union legislation

In order to affix a CE marking, **provider** shall undertake **the following steps**:

