

Generative AI for Foresight and Policy Making: Drones, Robots and Human Augmentation

Franco Accordino, Monika Lanzenberger

@5th ACM Digital Humanism Summer School
Vienna, 6 July 2026

Summary

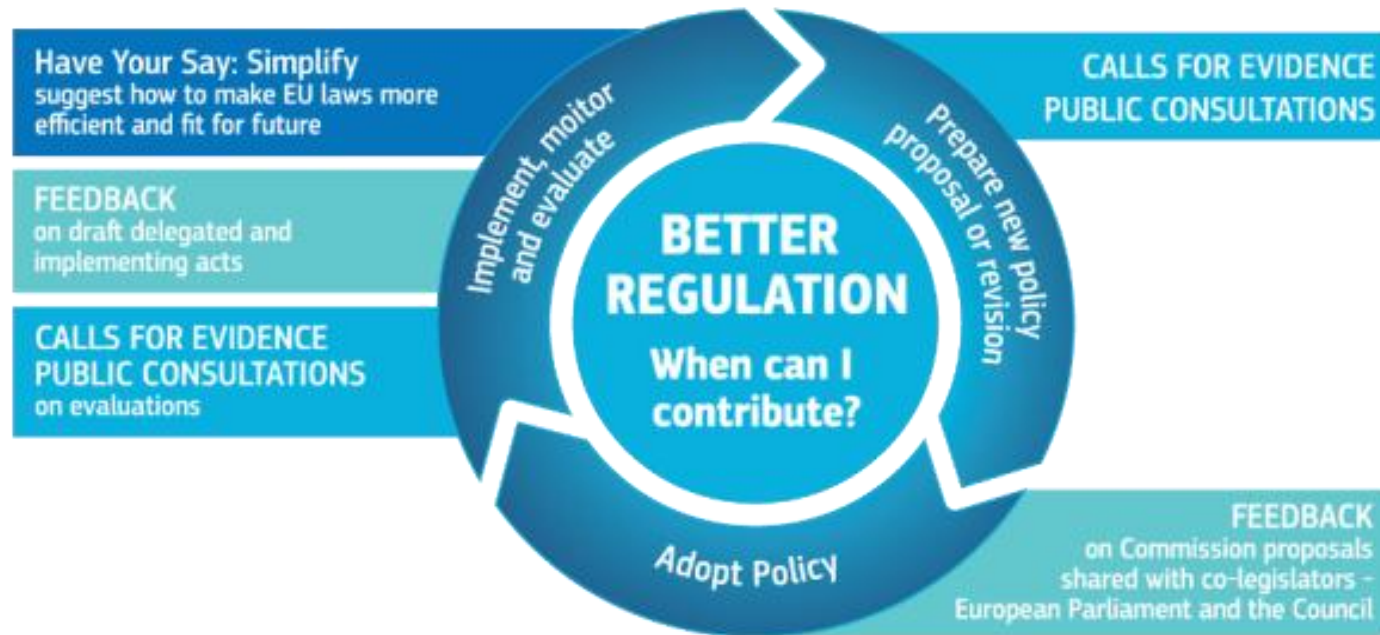
- Scope of the exercise
- Brief intro to policy making and foresight
- Students' assignment
- Next steps

Scope

Develop a vision and policy recommendations informed by foresight, stakeholders' views, and supported by AI.

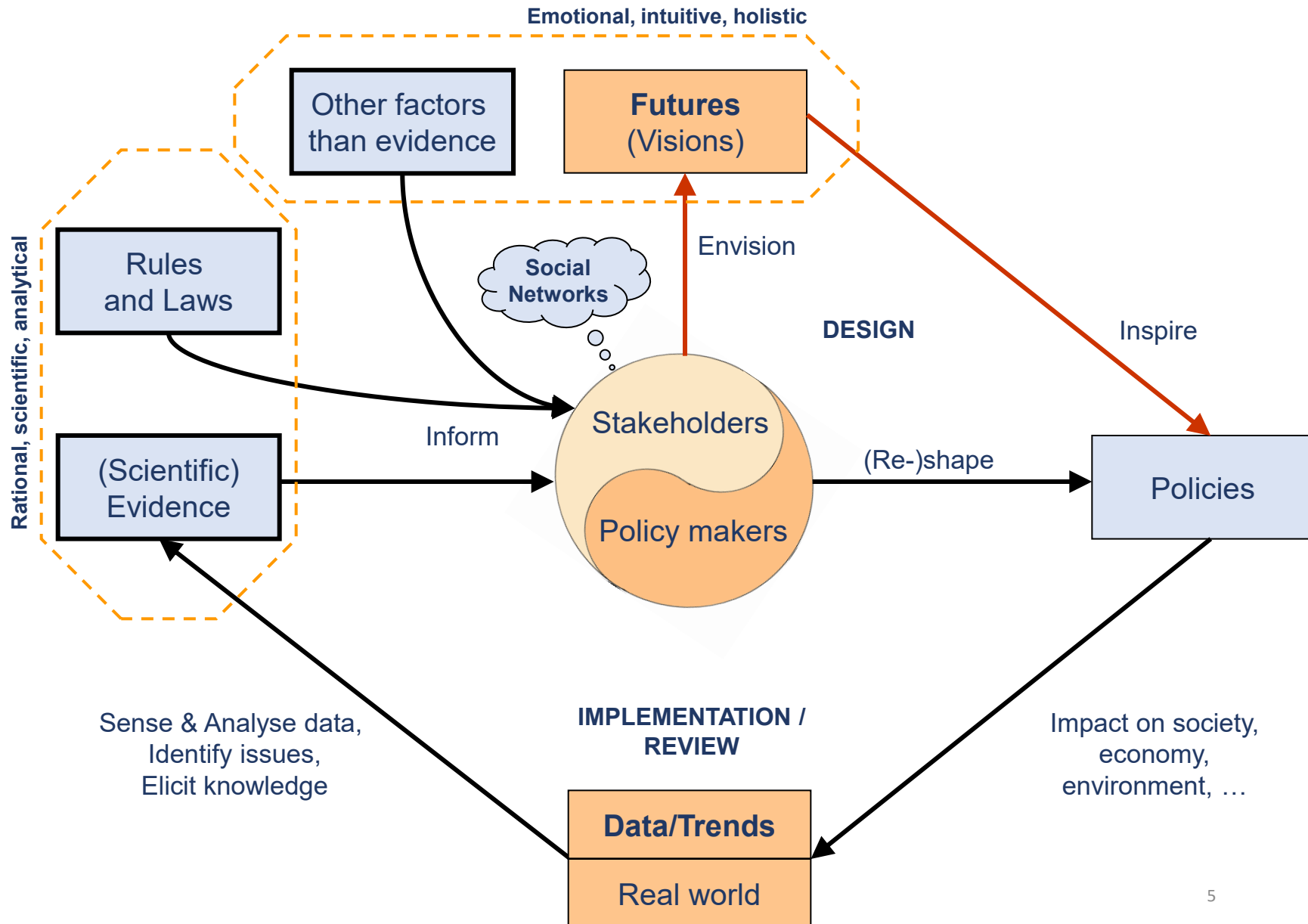
- Sponsor: Government of United Communities of Europe
- Time Horizon: 2040
- Topics: Physical AI, Cyber-Physical Systems, Robotics, Drones, Autonomous Vehicles, Embodied Intelligence, Human Augmentation

Policy making within the European Union



- Ensure EU policymaking is based on evidence
- Making EU laws simpler and better, and avoiding unnecessary burdens
- Involving citizens, businesses and stakeholders in the decision-making process

Policy making – combining evidence with participation



Two Complementary Approaches to Foresight

EXPLORATORY

TODAY → FUTURE

Forecasting

- Horizon scanning
- Trend analysis
- Weak signals
- Wild cards
- Scenario planning

Output: Plausible futures

"What could happen?"

NORMATIVE

FUTURE → TODAY

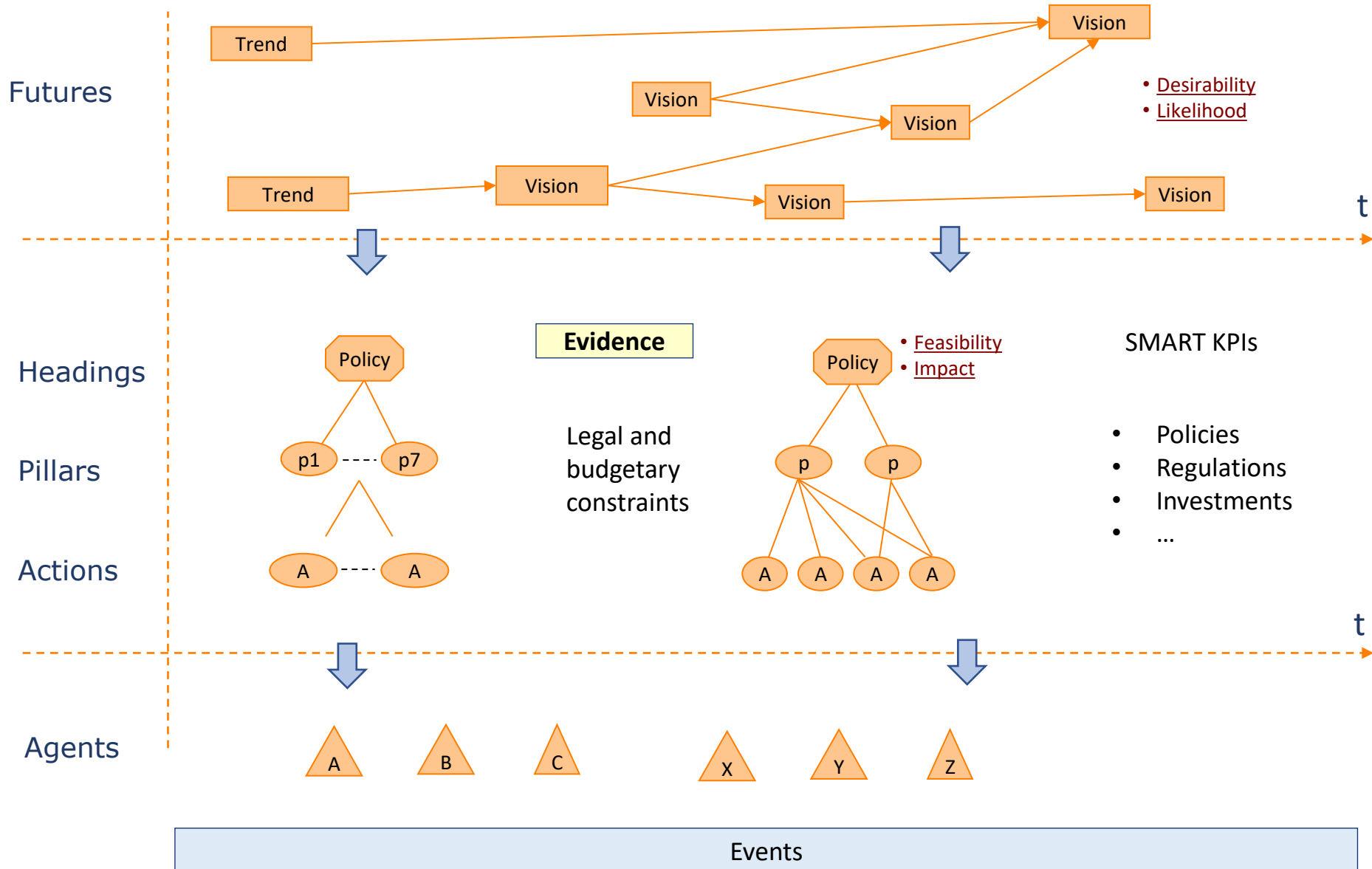
Backcasting

- Visioning
- Backcasting
- Transition pathways
- Roadmapping
- Strategic implementation

Output: Preferred future & action plan

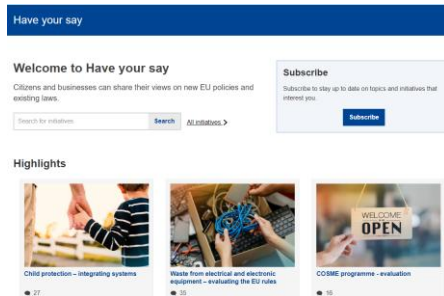
"What I would like to happen?"

Policy making semantic model



How to engage with the community?

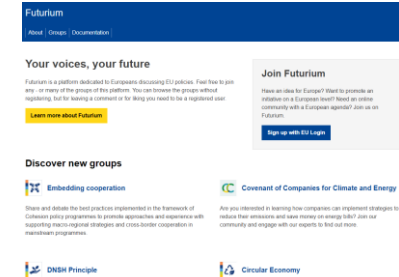
Dedicated platforms



Structured consultations



Social media - type



30+ departments, thousands of consultations, (growing every month), millions of respondents

How to make sense of the community's inputs ?

Can LLMs and GPTs solutions help?

Stakeholder feedback's Data Model

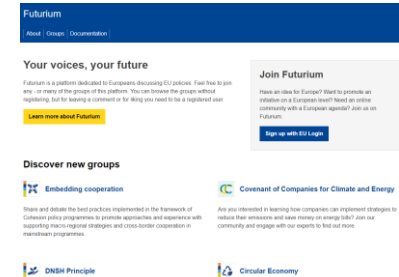
Dedicated platforms



Structured consultations



Social media - type



Structured input

Free text

User	Question 1	...	Qm	Qm+1	...	Question n
UID1						
UID2						
...						
UIDn						

Answers



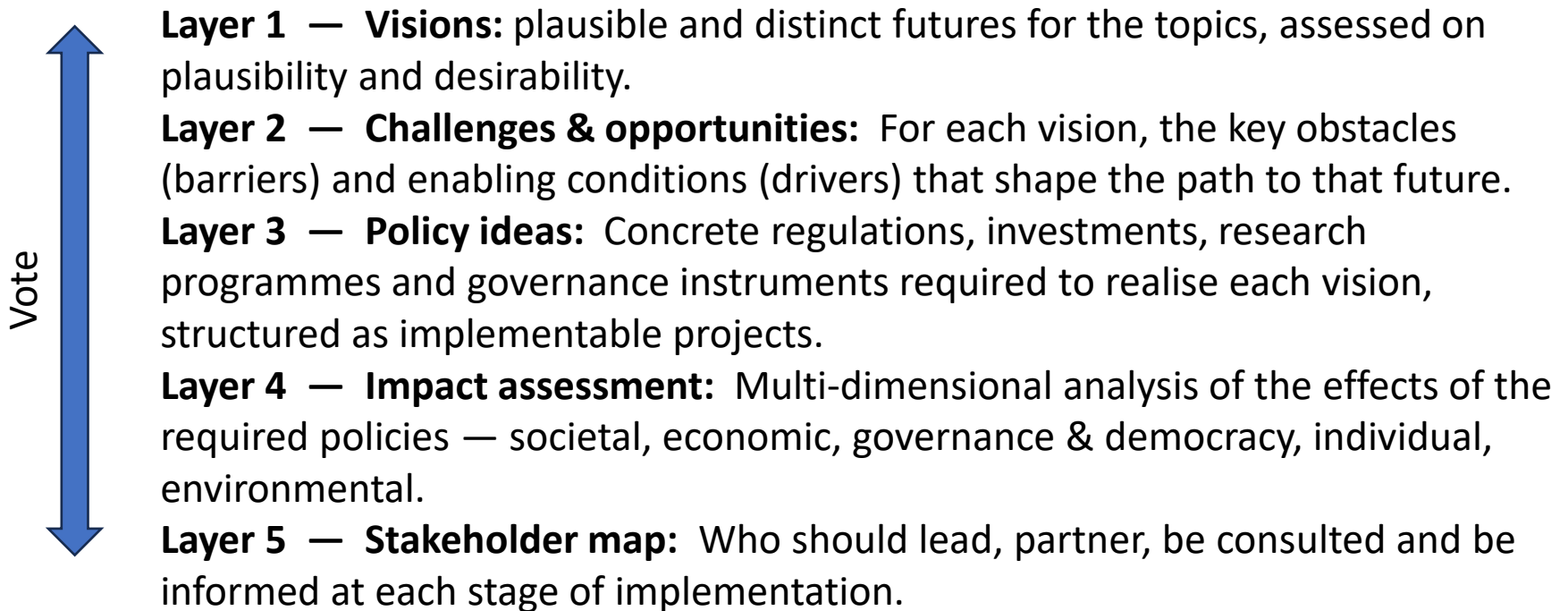
The Challenge

Generative AI for Foresight and Policy Making:
Physical AI, Cyber-Physical Systems, Robotics, Drones,
Autonomous Vehicles, Embodied Intelligence, Human
Augmentation

How would the world look like in 2040?

Structure of the foresight

The exercise moves from vision to implementation across five analytical layer:



The roles and actors...

Imagine you are experts representing different areas (e.g. technologies or social science or policy or civil society).

Franco and Monika would be policy makers at the Government of United Communities of Europe asking your advice.

You can decide which input you consider from **other people** or **AI-simulated profiles** (synthetic data) representing stakeholders, for example **national governments, education, science, industry, civil society, youth, vulnerable groups, health, labour organisations...**

The Challenge

- **Draft a brief vision** for 2040: How will autonomous drones/vehicles/robots impact our life?
- **Create a set of guidelines** for policy makers at the EU level. From your view as an expert what recommendations would you give? What investments should be done? How should the vision be implemented?
- To prepare your recommendations, **analyse the provided documents** and **search for additional input documents** and **develop prompts** for:
 - Search, summaries, comparison, linking
 - SWOT analysis
 - Opportunities/drivers
 - Challenges/barriers/blocking factors
 - Open questions

Students Assignment

- Use **Generative AI tools** to support your work
- **Explain** what was done by AI and what was done by yourself
- **Draft a document** about a vision and policy ideas together with supporting documents and references, max 15 pages. Evidence can be provided as links, summaries, diagrams, etc.
- **Prepare a short presentation** (around 10 min) to show your summary and discuss:
 - What worked well ? What did you like?
 - What did not work and what are the risks?
 - How did you approach the challenge?
 - Which tools did you use?
 - Which sources did you use?
 - Which prompts did you use?
 - What surprised you? What worked out as expected?

References

- COM(2026) 81 **Action Plan on Drone and Counter Drone Security** [https://ec.europa.eu/transparency/documents-register/api/files/COM\(2026\)81_0/090166e52b192afc](https://ec.europa.eu/transparency/documents-register/api/files/COM(2026)81_0/090166e52b192afc)
- Regulation (EU) 2019/947 **Rules and procedures for the operation of unmanned aircraft** [COMMISSION IMPLEMENTING REGULATION \(EU\) 2019/ 947 - of 24 May 2019 - on the rules and procedures for the operation of unmanned aircraft](https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=OJ:L_2019_1689)
- Regulation (EU) 2024/1689 **AI Act** https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=OJ:L_202401689
- Regulation (EU) 2019/2144 **type-approval requirements for motor vehicles as regards their general safety and the protection of vehicle occupants and vulnerable road users** eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019R2144

References

- Press release 26/04/2025 [skeyes and SkeyDrone support the deployment of drones by the Brussels police force](#)
- Reuters News 19/04/2026 [Humanoid robots race past humans in Beijing half-marathon, showing rapid advances | Reuters](#)
- Luxembourg Times 26/06/2026 [Autonomous driving bill paves the way for driverless cars | Luxembourg Times](#)

Contact

For remote support on Tuesday 16:00-17:30:

Monika: monika.lanzenberger@gmail.com,

Signal/WhatsApp: +32 460762440

and

Franco: franco.accordino@ec.europa.eu,

Signal/WhatsApp: +32 498998272

In presence support on Wednesday 14:00-17:30.