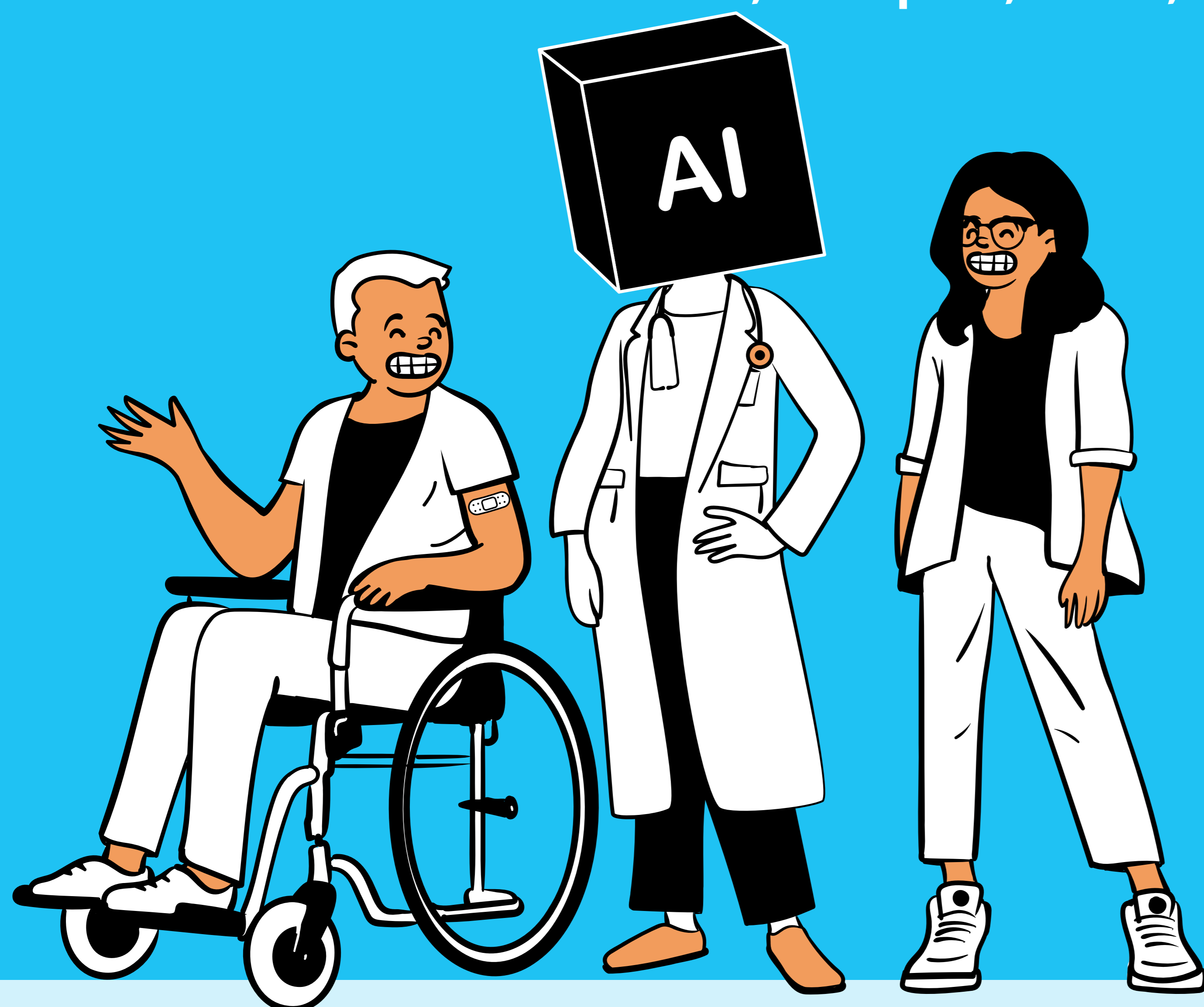


Artificial Intelligence in Personalised Medicine

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Challenges

- Adoption is hindered by **high initial costs** and **uncertainty** of returns in long-term investment.
- Possibility of **health anxiety**.
- **Liability gaps** make current legislation unfit to accommodate AI.
- Opacity (black box effect) poses issues of **privacy** and **responsibility**.
- **Biased data leads to biased outcomes**, including prima-facie 'innocent' data (i.e. postal code).

Context

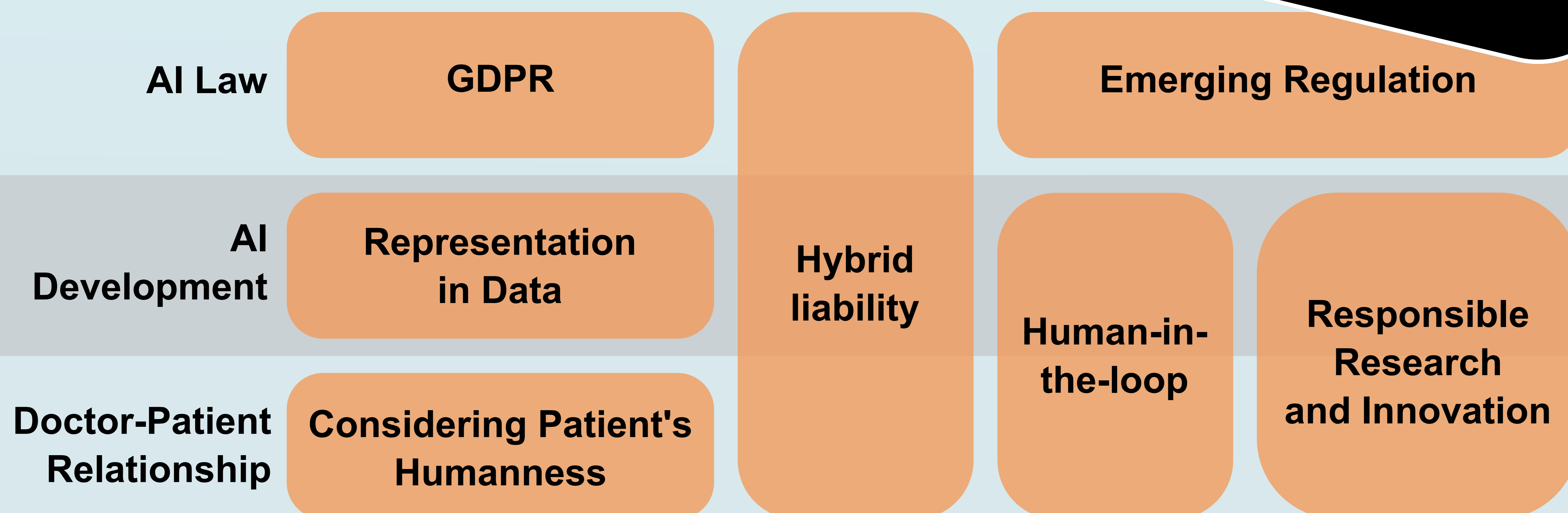
- The healthcare systems, including the EU are **understaffed, underfunded, and underprepared** (OECD, 2023).
- AI could help the healthcare system work better and enable personalised medicine.

Benefits

- Automation **can improve administrative efficiency**, freeing up time, increasing patient throughput, and **reducing staff burnout**.
- By enhancing diagnostic accuracy, **clinical errors are reduced**.
- **Enhancing diagnosis** treatment planning, risk factor identification, **saving time and reducing cost** in the process.
- **Optimising analysis** of disease patterns and drug response.

The **black box effect** input & output are measurable, but computation is hidden. **Explainable AI**, build to mitigate this, performs badly.

The Future



References:

OECD. (2023). Ready for the Next Crisis? Investing in Health System Resilience. OECD. <https://doi.org/10.1787/1e53cf80-en>