

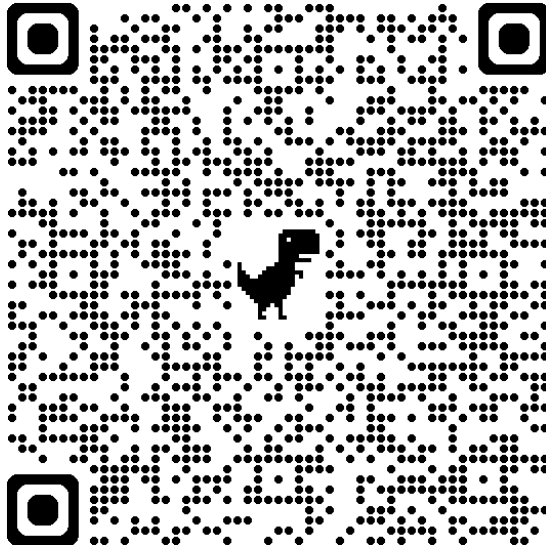
Multi-annual AI Workplan - Update

HMA/EMA Big Data Steering Group

PCWP/HCPWP meeting with all eligible organisations
20 November 2024

Luis Pinheiro
Data Analytics and Methods Taskforce

Artificial Intelligence (AI) Workplan



- Or use a search engine to search:
 - EMRN artificial intelligence workplan

Vision

Enabling safe and responsible use of AI for the benefit of public and animal health

A regulatory system harnessing the capabilities of AI for personal productivity, process automation, systems efficiency, increased insights into data and stronger decision-support mechanisms and extracting benefits for public and animal health.

Workplan pillars

Guidance, policy and product support

Continuous support to products as well as the development and evaluation of appropriate guidance for the use of AI in the lifecycle of a medicine. Preparations to support the implementation of the EU AI Act.

Tools & technologies

Identify and provide frameworks across the network to use AI tools to increase efficiency, enhance understanding and analysis of data and support decision-making. Full compliance with data protection legislation.

Collaboration and change management

Initiatives designed to continuously develop capacity and capability of the network, partners and stakeholders to keep ahead of the evolving field of AI.

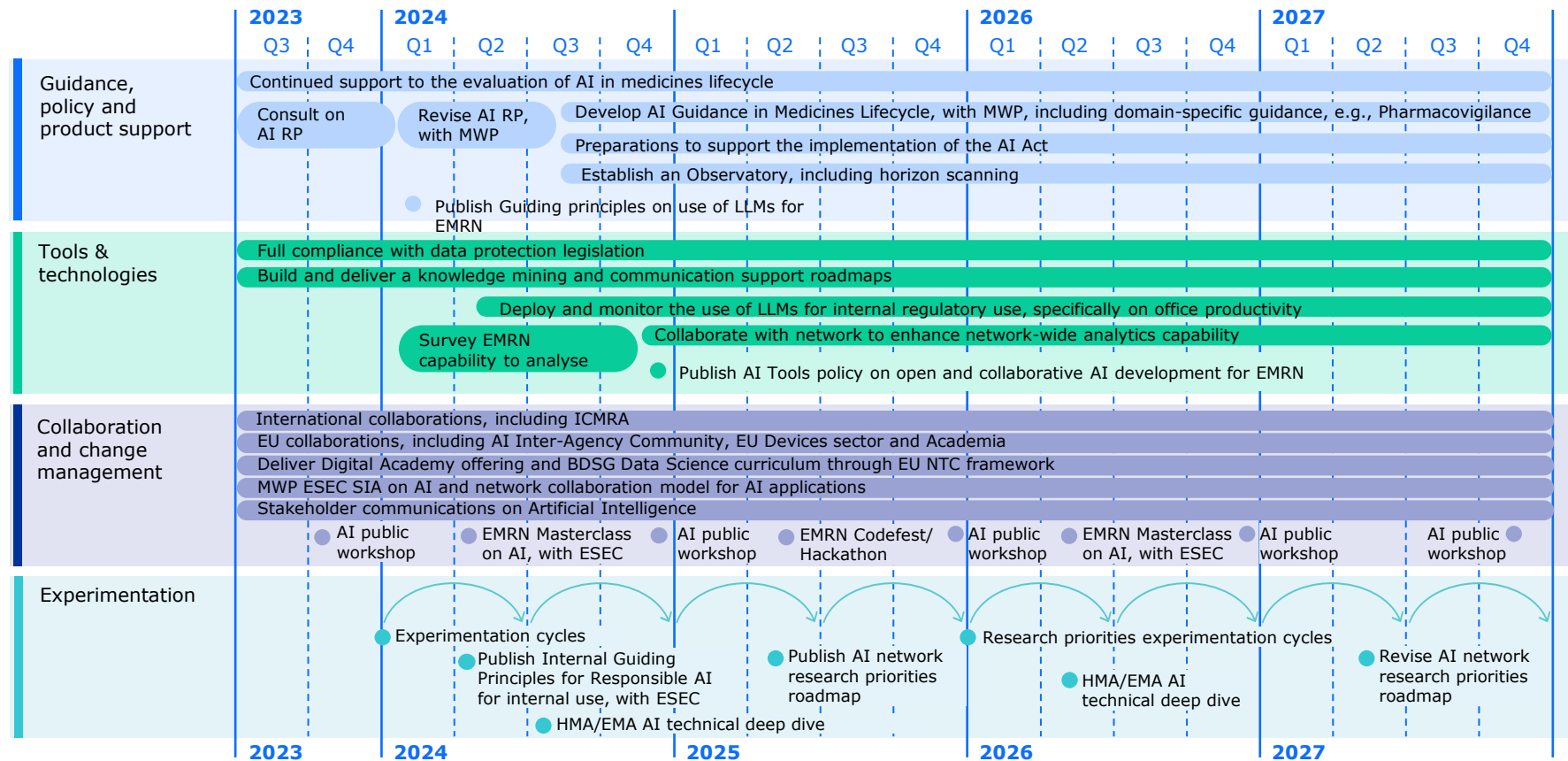
Experimentation

Several actions are proposed to ensure a structured approach to experimentation across the network to accelerate learning and gain new insights.

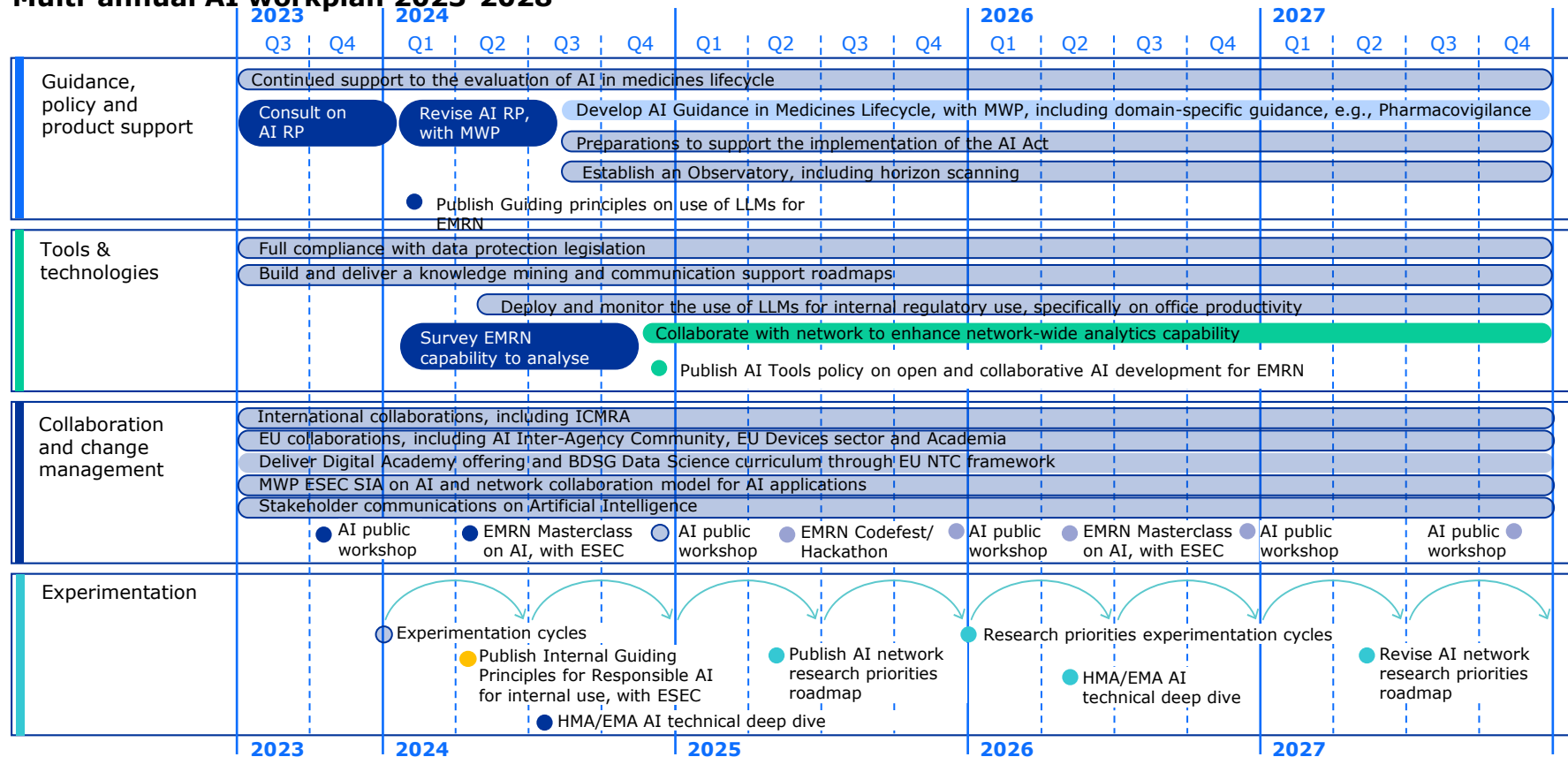
Multi-annual AI workplan 2023-2028

● Events

▬ Timeframe



Multi-annual AI workplan 2023-2028



Completed

Revise AI RP, with MWP
Consult on AI RP
Publish Guiding principles on use of LLMs for EMRN
Survey EMRN capability to analyse
AI public workshop
EMRN Masterclass on AI, with ESEC
HMA/EMA AI technical deep dive

Ongoing/on track

Continued support to the evaluation of AI in medicines lifecycle
Preparations to support the implementation of the AI Act
Establish an Observatory
Full compliance with data protection legislation
Build and deliver a knowledge mining and communication support roadmaps
Deploy and monitor the use of LLMs for internal regulatory use, specifically on office productivity
International collaborations
EU collaborations
Deliver Digital Academy offering and BDSG Data Science curriculum
MWP ESEC SIA on AI and network collab.
Stakeholder communications on AI
Experimentation cycles
Publish Internal Guiding Principles for Responsible AI for internal use, with ESEC

In planning/not started

Develop AI Guidance in Medicines Lifecycle, with MWP, including domain-specific guidance, e.g., Pharmacovigilance
Collaborate with network to enhance network-wide analytics capability
Publish AI Tools policy on open and collaborative AI development for EMRN
AI public workshop(s)
EMRN Codefest/Hackathon
EMRN Masterclass on AI, with ESEC
Research priorities experimentation cycles
Revise AI network research priorities roadmap
HMA/EMA AI technical deep dive
Publish AI network research priorities roadmap

Guidance | AI Reflection Paper



9 September 2024
EMA/CHMP/CVMP/83833/2023
Committee for Medicinal Products for Human Use (CHMP)
Committee for Medicinal Products for Veterinary Use (CVMP)

Reflection paper on the use of Artificial Intelligence (AI) in
the medicinal product lifecycle

Draft agreed by Committee for Medicinal Products for Human Use (CHMP) Methodology Working Party	July 2023
Draft adopted by CVMP for release for consultation	13 July 2023
Draft adopted by CHMP for release for consultation	10 July 2023
Start of public consultation	19 July 2023
End of consultation (<i>deadline for comments</i>)	31 December 2023
Final version agreed by MWP	6 September 2024
Final version adopted by CHMP	9 September 2024
Final version adopted by CVMP	11 September 2024

Table of contents

1. Introduction	3
2. Discussion	3
2.1. Definitions and scope	3
2.2. General considerations	4
2.3. AI in the lifecycle of medicinal products	4
2.3.1. Drug discovery	5
2.3.2. Non-clinical development	5
2.3.3. Clinical trials	5
2.3.4. Precision medicine	7
2.3.5. Product information	7
2.3.6. Manufacturing	7
2.3.7. Post-authorisation phase	7
2.4. Regulatory interactions	8
2.5. Technical aspects	8
2.5.1. Data acquisition and augmentation	8
2.5.2. Training, validation, and test datasets	9
2.5.3. Model development	9
2.5.4. Performance assessment	10
2.5.5. Interpretability and explainability	10
2.5.6. Model deployment	10
2.6. Governance	11
2.7. Integrity aspects and data protection	11
2.8. Ethical aspects and trustworthy AI	12
3. Conclusion	12
4. Glossary	13
5. Related methodology guidance	14
5.1. Guidance concerning human medicines	14
5.2. Guidance concerning veterinary medicines	15
6. References	16

Guiding principles on the use of LLMs | EMRN-specific



29 August 2024

European Medicines Agency



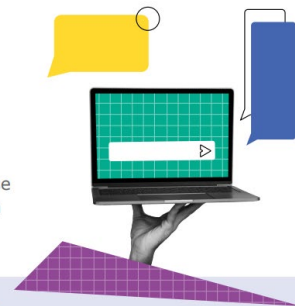
Guiding principles on the use of large language models in regulatory science and for medicines regulatory activities

Factsheet

4 principles for safe and responsible use of LLMs

Large language models (LLMs) are a category of generative artificial intelligence trained on large amounts of text. You can use LLMs to draft emails, create, proofread and rephrase text, search and summarise information, for learning, coding and more.

Recommendations for medicines regulatory staff



AI Workplan

Taking stock

- Much has been done in 12 months, but AI is a fast evolving ethical, legal, technological, and regulatory topic
- The multi-annual AI workplan was created to be flexible and allow annual take stocks
- The AI Workshop was a key opportunity for stakeholders to offer their views on the future of this workplan:
 - New topics
 - Topics that have become redundant
 - Reprioritisations
- Following stakeholder comments, revision is ongoing