

Veterinary Big Data

Strategy and workplan update

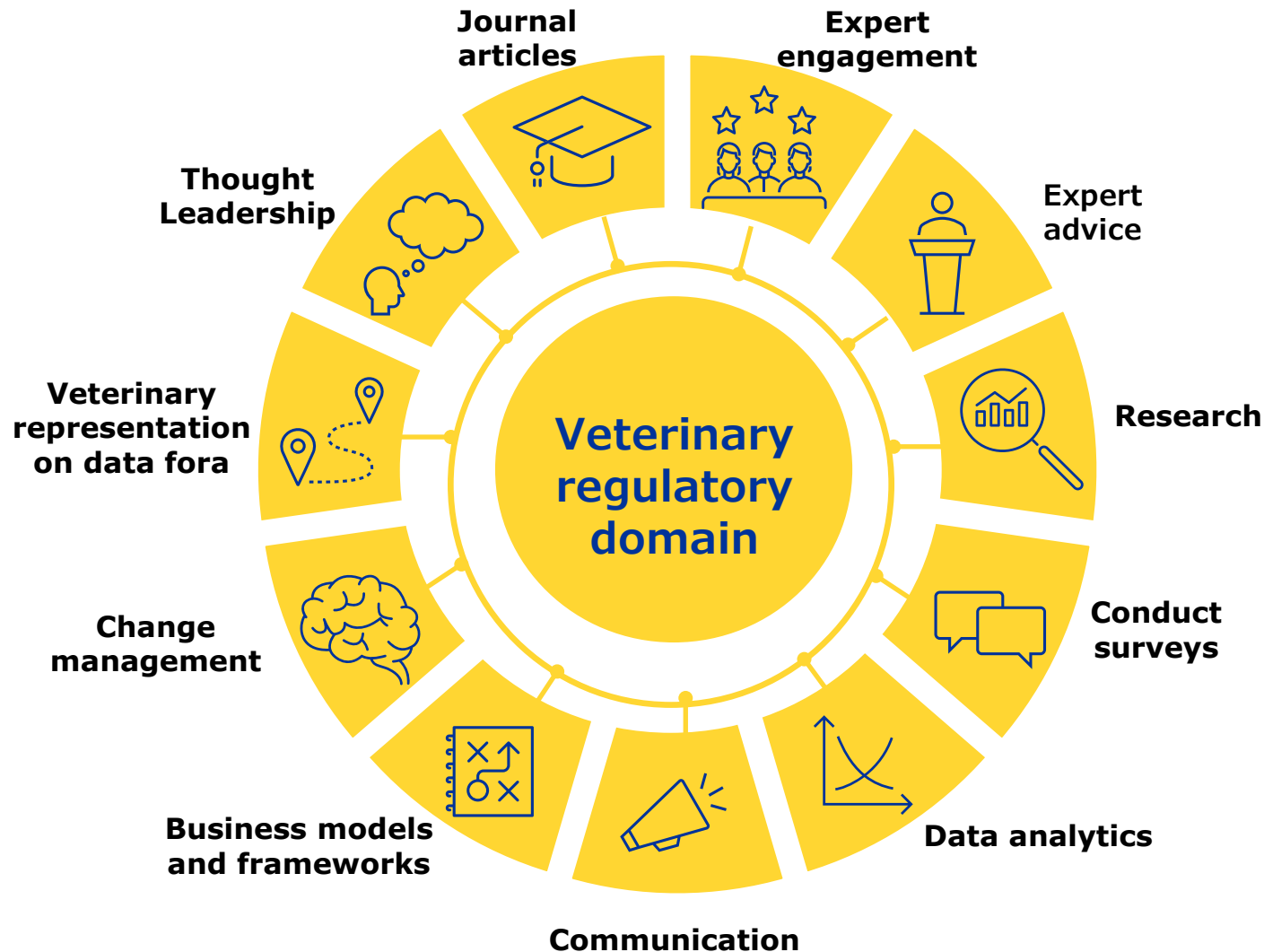
Paul Damien Lynn
Veterinary Division Lead Data Scientist



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Veterinary big data and analytics team

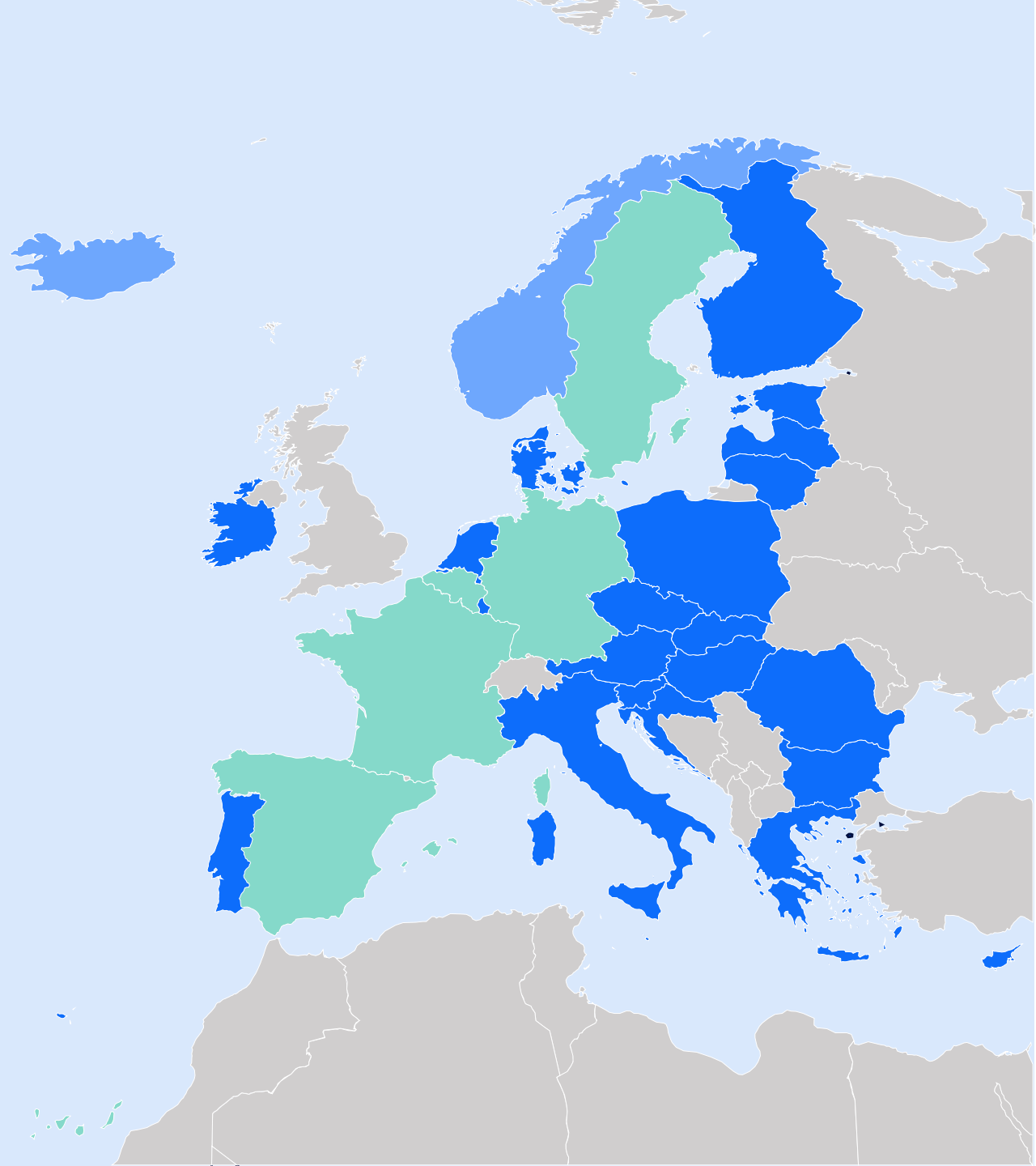


How we drive veterinary strategy implementation through data, artificial intelligence, data science, and data analytics.

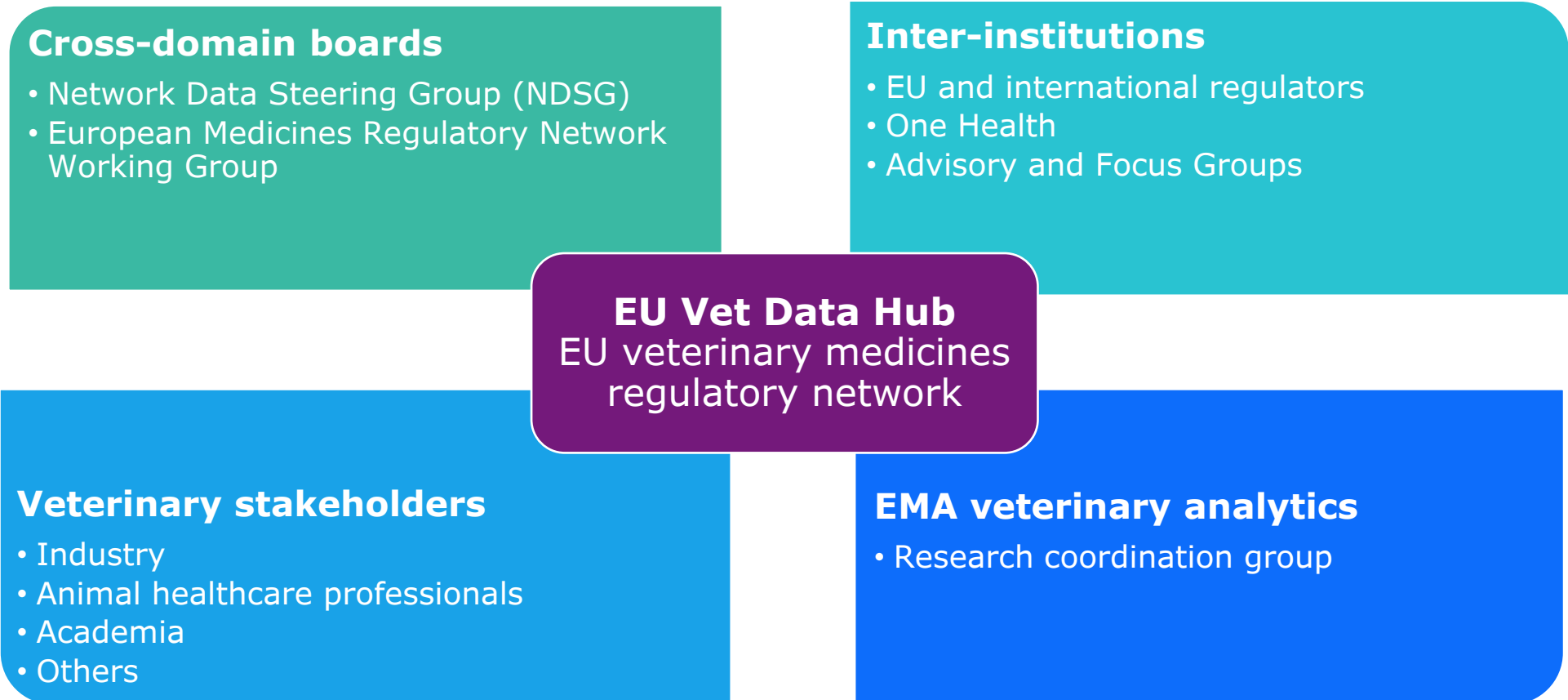
Veterinary Big Data Hub

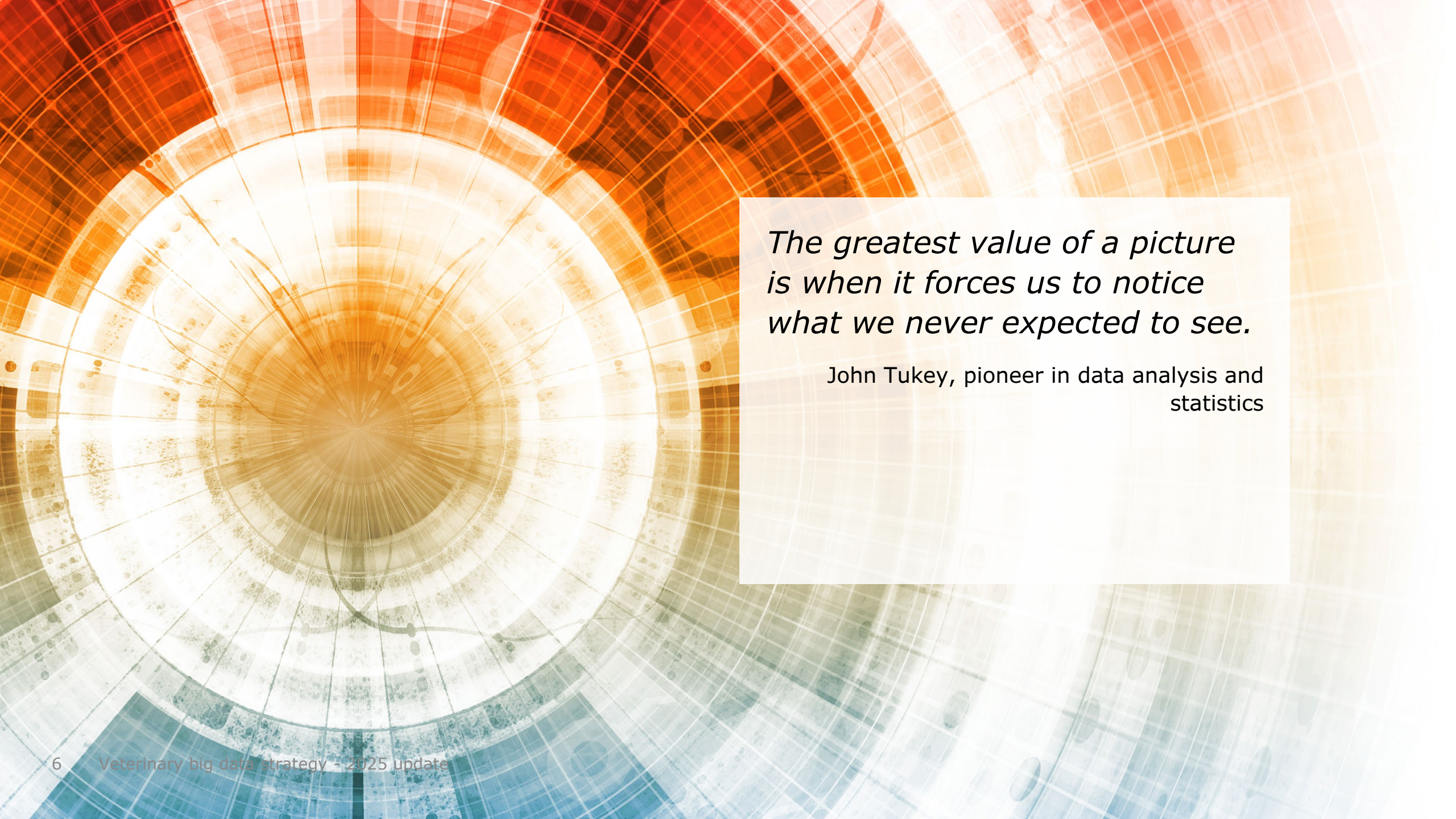
Multidisciplinary forum of experts from the EU medicines regulatory network contributing to the:

1. identification, prioritisation and support data-related initiatives.
2. definition of technical and structural guidance on utilisation.
3. implementation of new digital technologies to support veterinary regulatory activities.
4. guidance on data needs relevant to the veterinary regulatory domain.



Governance in Veterinary big data



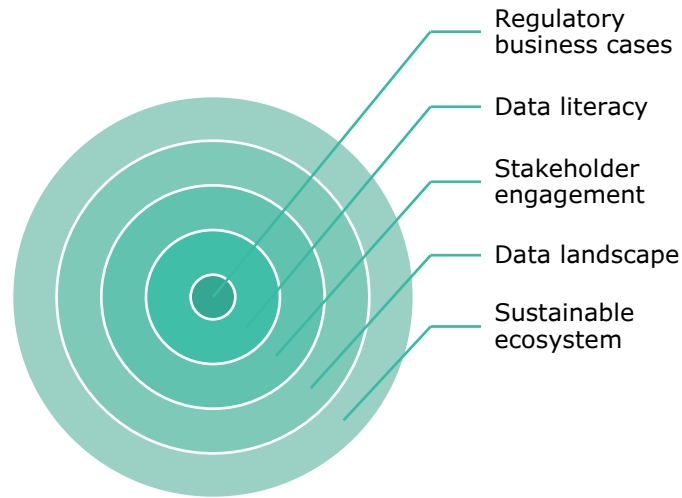


*The greatest value of a picture
is when it forces us to notice
what we never expected to see.*

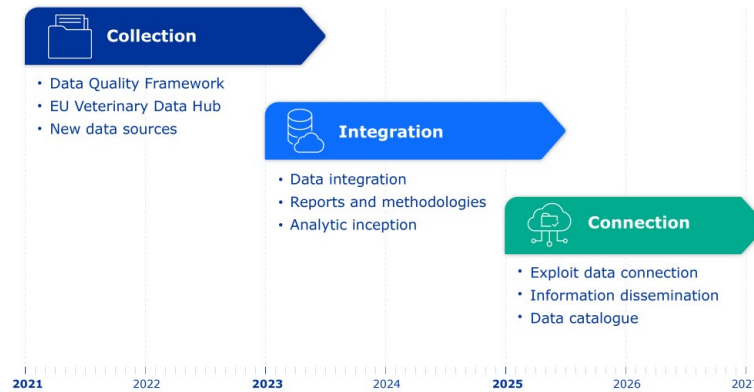
John Tukey, pioneer in data analysis and
statistics

EU Veterinary Data Strategy is...

- based on 5 key principles,



- with an agreed timeline,

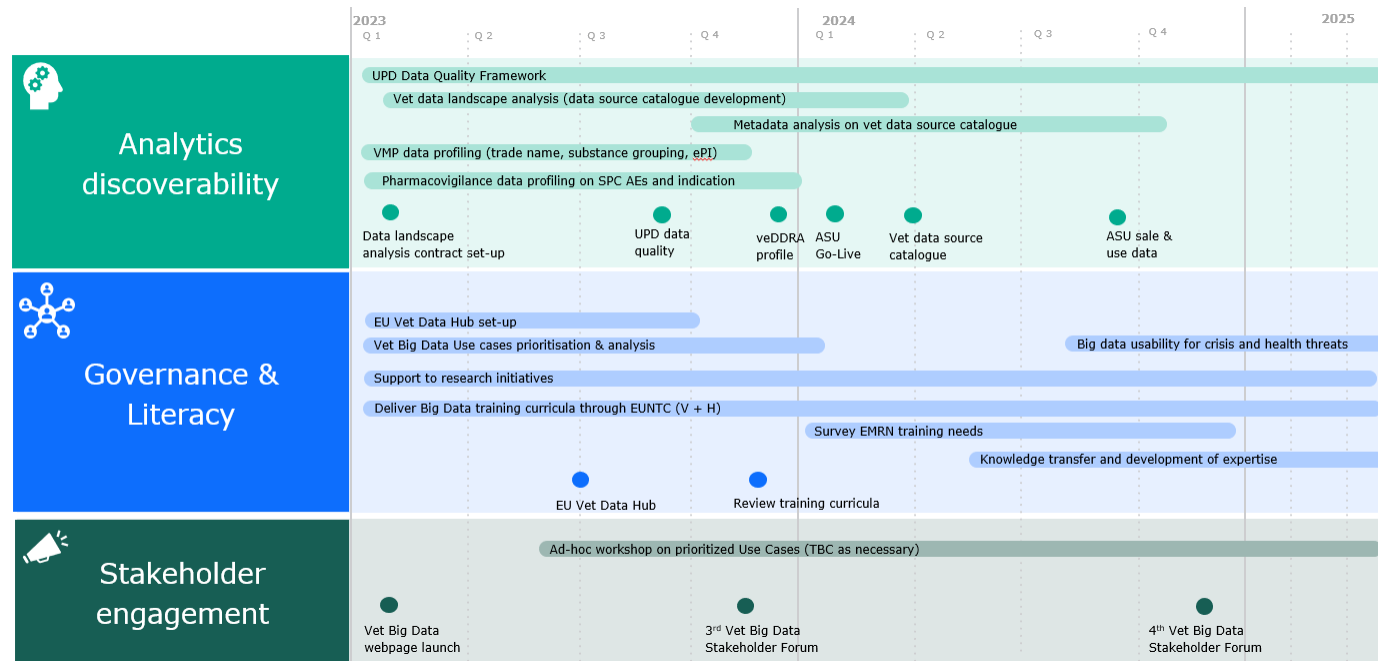


- and according to a plan.

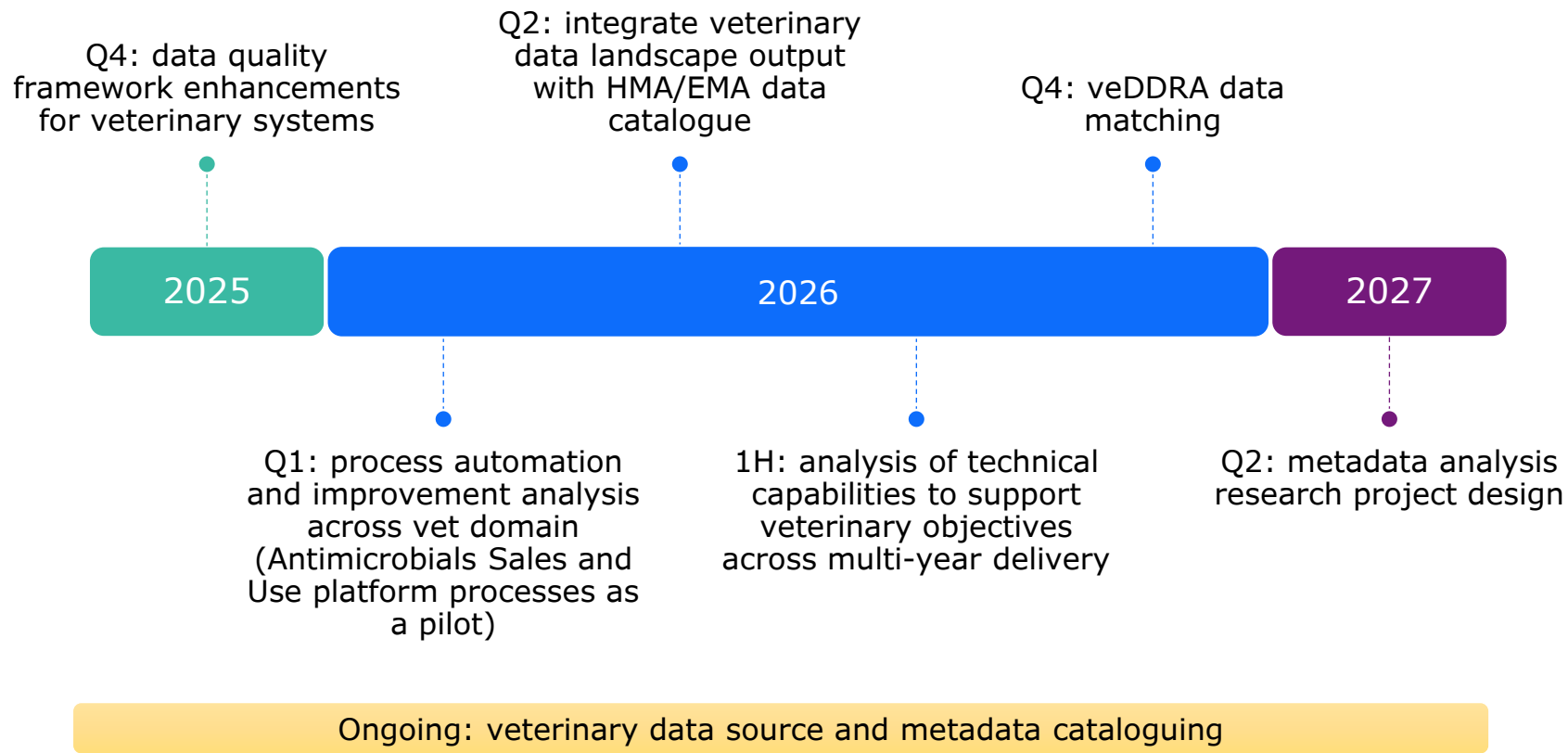


EU Veterinary Data Strategy is...

- From 2022 to 2025 **>95% delivery** across three workstreams.
- **Next iteration of the workplan is starting the stakeholder consultation phase.**



Workplan to 2028: analytics discoverability workstream



Includes activities related to data discoverability, data quality standardisation and representativeness and examines the use and implementation of sustainable analytics capabilities.

Workplan to 2028: governance and literacy workstream



Support to
prioritised research
and implementation
initiatives



Analyse and
prioritise use cases
to support vet
regulatory activities



Revision of data
literacy training on
the EU Network
Training Centre



Assessment of
data usability

Ongoing

Workplan to 2028: stakeholder engagement activities

Ongoing

- Multi-channel communication centred on EU Veterinary Big Data webpage.
- Veterinary involvement in relevant NDSG and other data/AI initiatives.

Quarterly

- Reporting via the Veterinary Medicines Highlights newsletter.

Annually

- Veterinary Big Data Stakeholder forum.

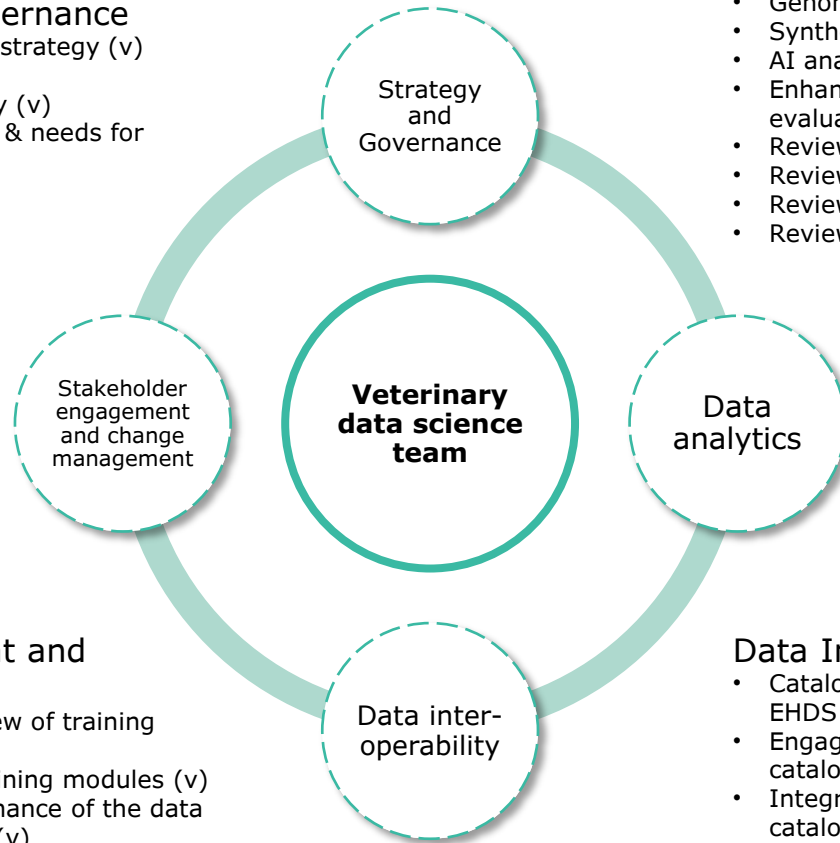
Individual events

- Hackathon/innovation challenge to engage stakeholders

Veterinary involvement in other groups

Strategy and Data Governance

- EMRN data standardisation strategy (v)
- EMRN data strategy (v)
- EMRN data analytic strategy (v)
- Discuss impact assessment & needs for Interoperability (v)



Data Analytics

- Genomic (v)
- Synthetic data & Digital twins (v)
- AI analytics for regulatory use (v)
- Enhancing Pharmacovigilance signal detection and evaluation (v)
- Review of synthetic data & digital twins (v)
- Review of AI analytics for regulatory use (v)
- Review of genomic data (v)
- Review of Pharmacovigilance signal detection (v)

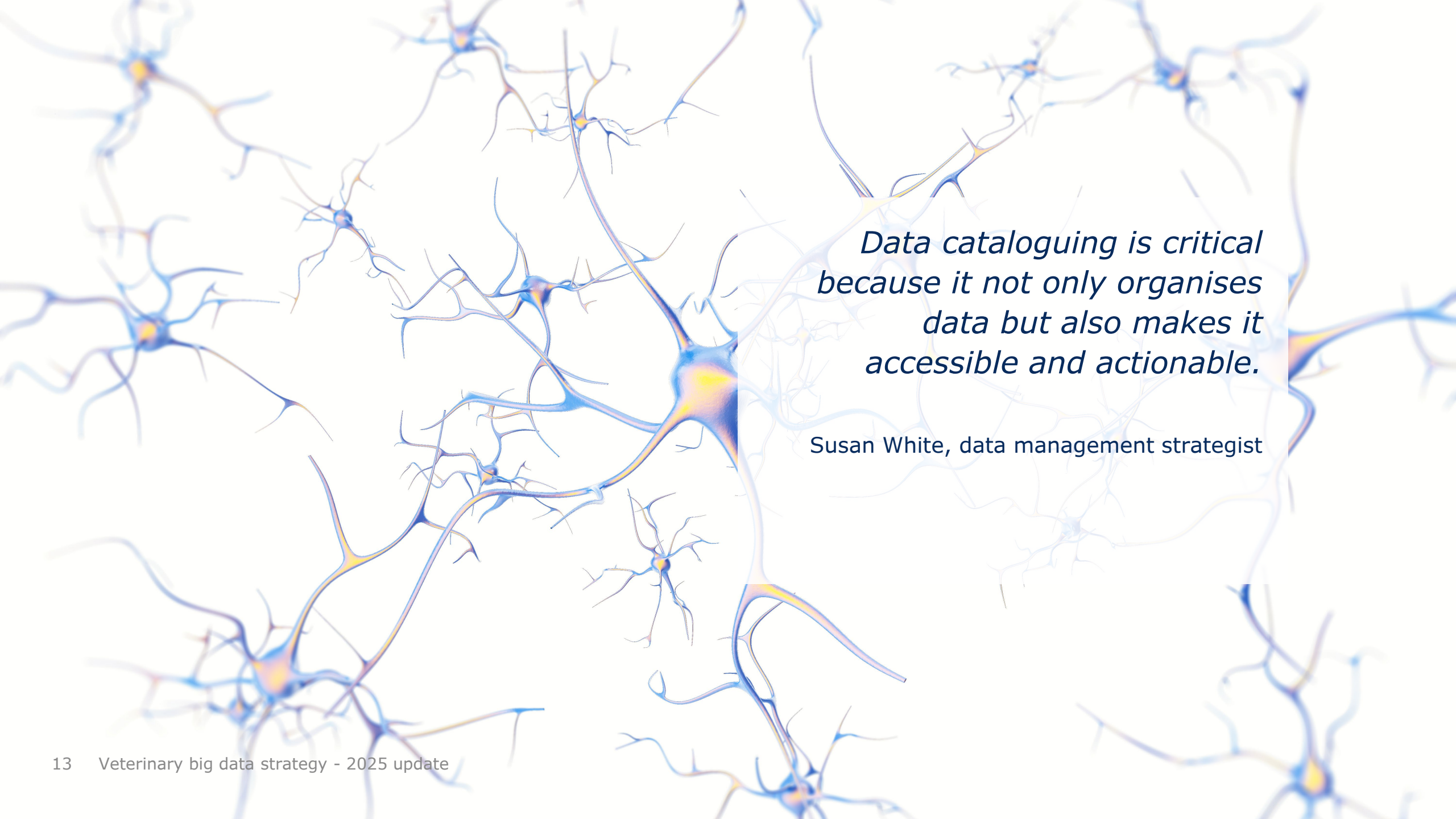
Stakeholder Engagement and Change Management

- Skill needs analysis and review of training curricula (v)
- Rollout of data protection training modules (v)
- Support delivery and maintenance of the data training curriculum modules (v)
- Network and stakeholder communications (v)
- NDSG/industry meeting (v) – repeated across multiple years

Data Interoperability

- Catalogue EMRN Data Assets, in preparation of EHDS and EMRN use cases (v)
- Engage with stakeholders to populate HMA EMA catalogues (v)
- Integration of veterinary data sources into the catalogue (v)
- Population of EMRN Data Assets catalogue (v)
- Develop data quality approach (including indicators) for Network critical data assets (v)

The Network Data Steering Group (NDSG) workplan to 2028 currently has **25 items** that are shared between human and veterinary stakeholders.



Data cataloguing is critical because it not only organises data but also makes it accessible and actionable.

Susan White, data management strategist

Veterinary Data Sources Landscape

HMA-EMA Catalogues of real-world data sources and studies

The Catalogues for real-world data sources, studies, institutions and networks replace and enhance the previous EU PAS Register® and ENCePP Resource Database.



269

Data sources



3214

Studies



807

Institutions



187

Networks

<https://catalogues.ema.europa.eu/>

- The second phase of **Data Landscape** project is in progress.
- Call to action: Do you know any veterinary data sources?
- Provide information via QR code below.





You can have all of the fancy tools, but if [your] data quality is not good, you're nowhere.

Veda Bawo, Director of data governance,
Raymond James



UPD Data Quality Framework

- Framework launched in April 2023.
- Phase 2 went live in September 2025.
- Data in FHIR format.
- Configurable python-based data quality framework.
- 3rd most popular dashboard in EMA.
- More than 109 data quality checks; ongoing project to add more data quality rules.

Leap forward in our data quality framework capability



What themes are emerging?

2024 themes

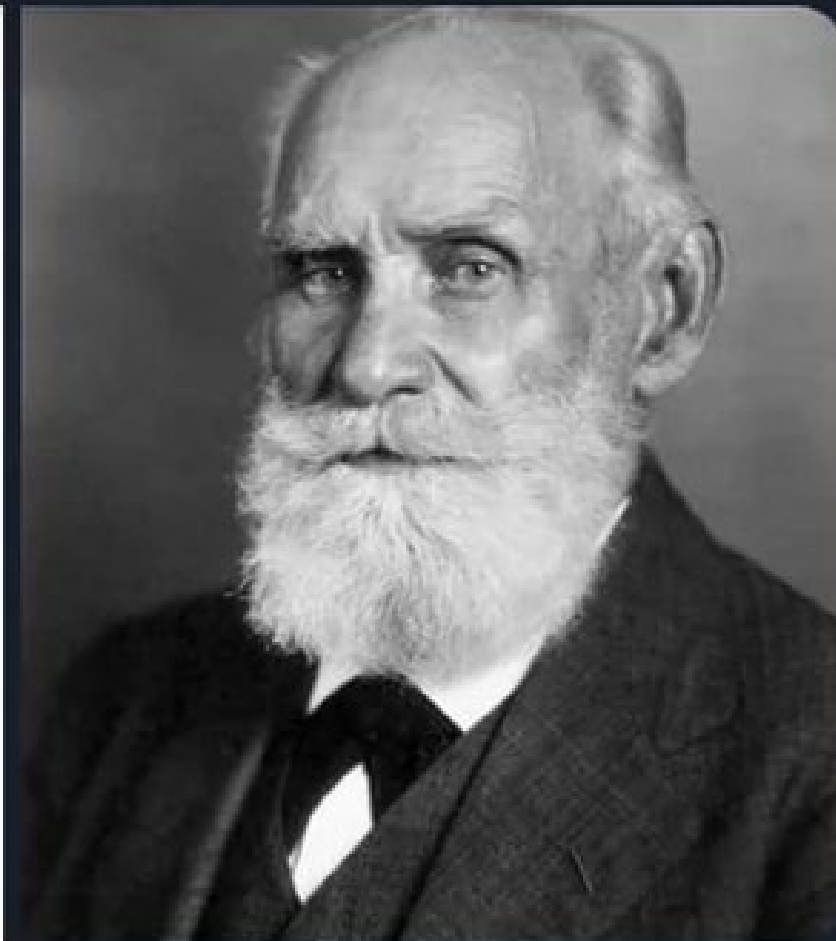
- AI
- Data spaces
- Data self-service capabilities for business users

2025 themes

- Use of AI tools
- Process automation

dog shampoo

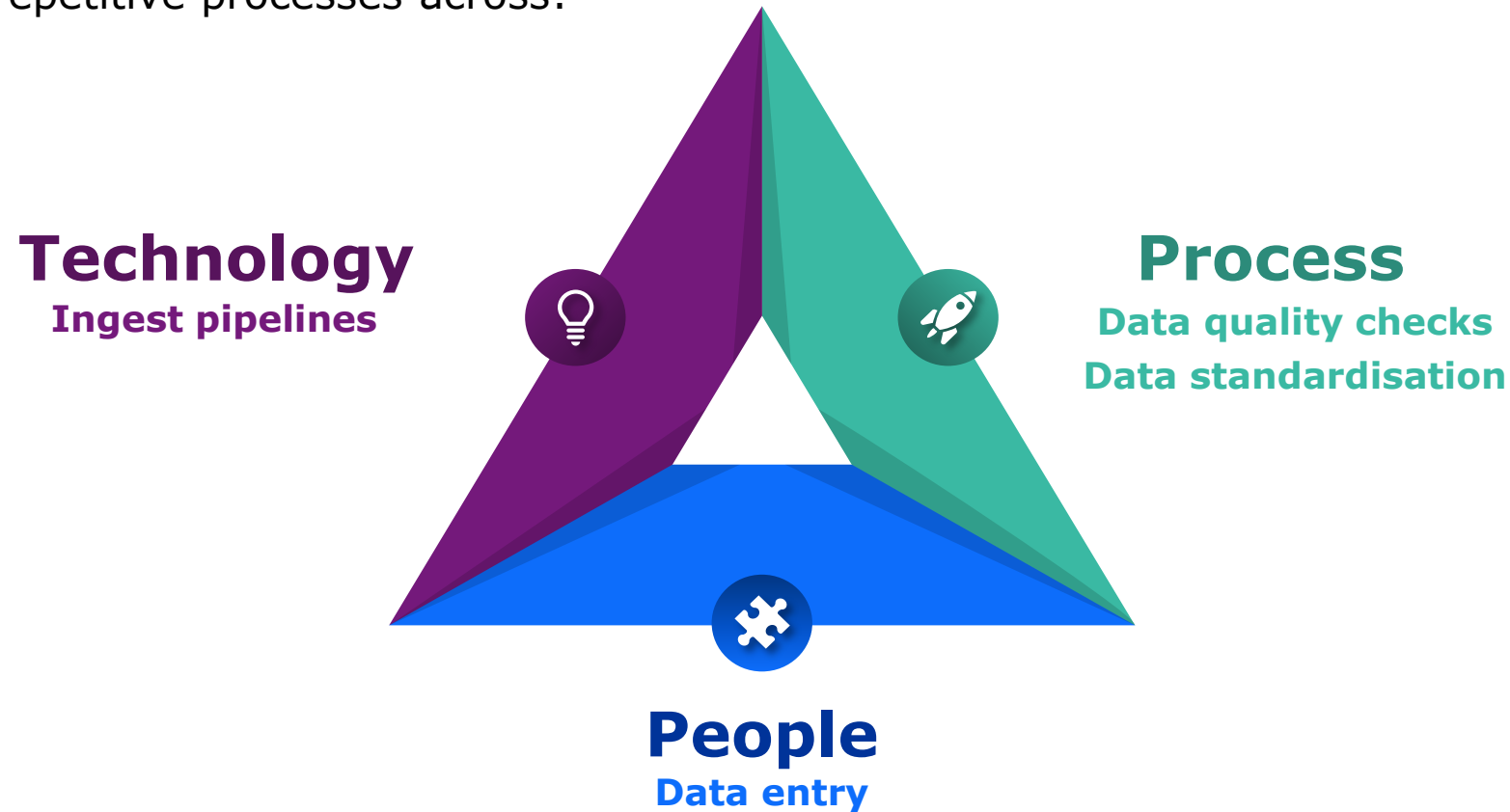
dog conditioner



An example of advances in AI?

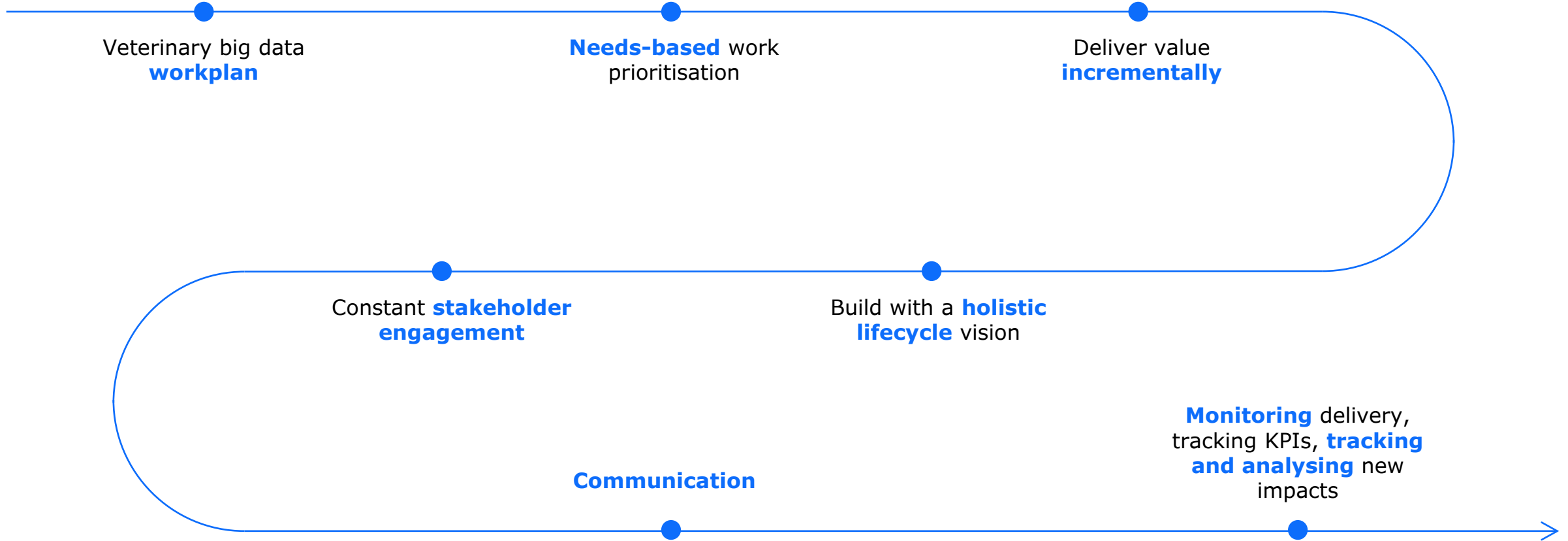
Process automation

- Strong interest in the potential of automation to accelerate and streamline repetitive processes across:



- What if we adopt an automate by default approach?
- Appropriate use of automation is a key focus for 2026.
- A clear understanding of the business need drives the right outcome.

In the next 12 months



Diary placeholders

- **20-21 November 2025**
HMA/EMA multi-stakeholder workshop on artificial intelligence
 - Keynotes and updates on HMA/EMA activities on AI
- **9 December 2025**
HMA/EMA annual data forum
 - Update of the HMA-EMA Big Data Steering Group workplan.
 - Discuss progress in evidence generation, interoperability, and the use and exchange of medicines data across the EU network.

<https://www.ema.europa.eu/en/events/upcoming-events>



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