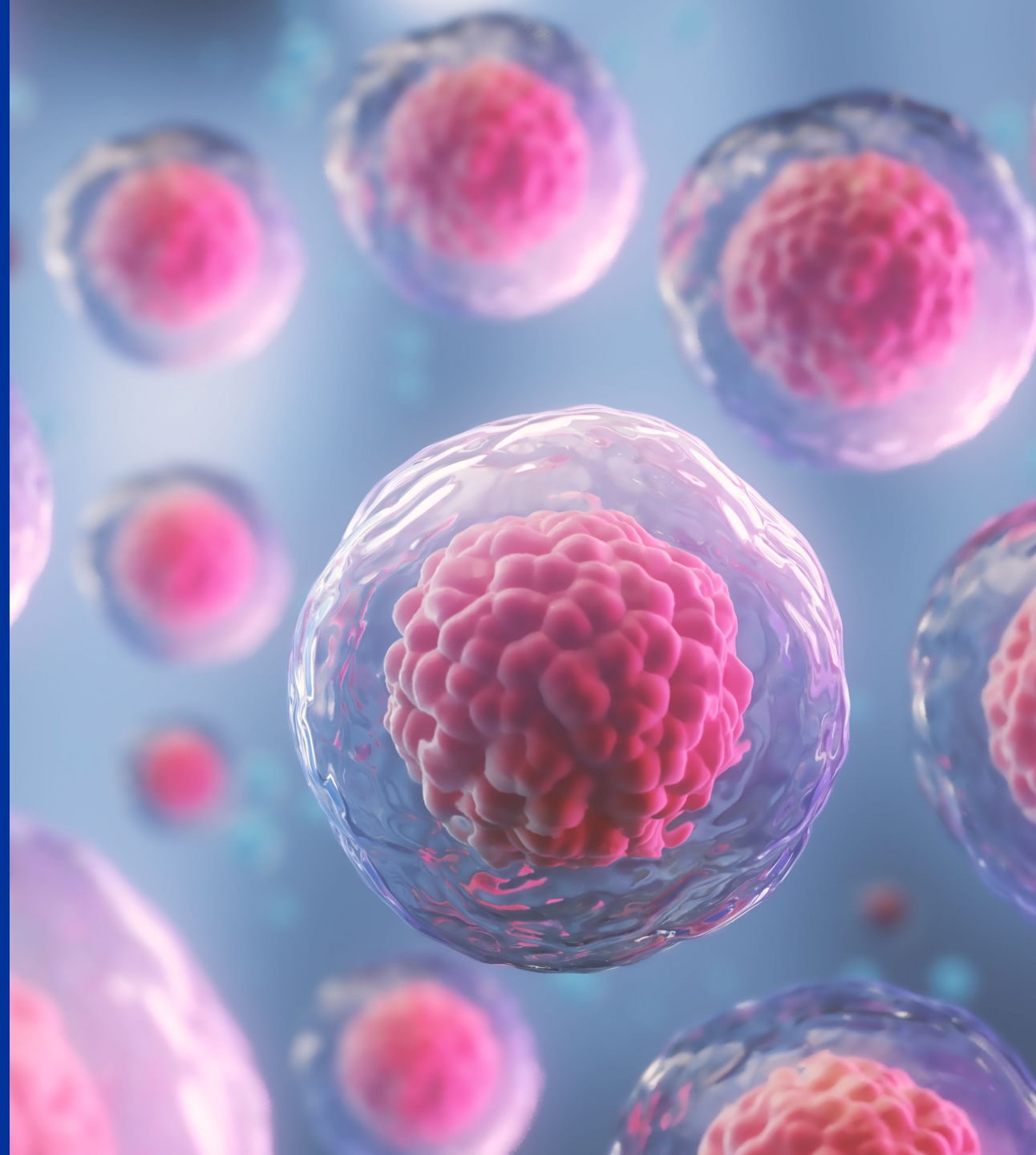


# Support to innovative veterinary medicines

Overview of regulatory tools  
available

Dr Noemi Garcia del Blanco  
Head of Veterinary Biologicals and Emerging  
Therapies

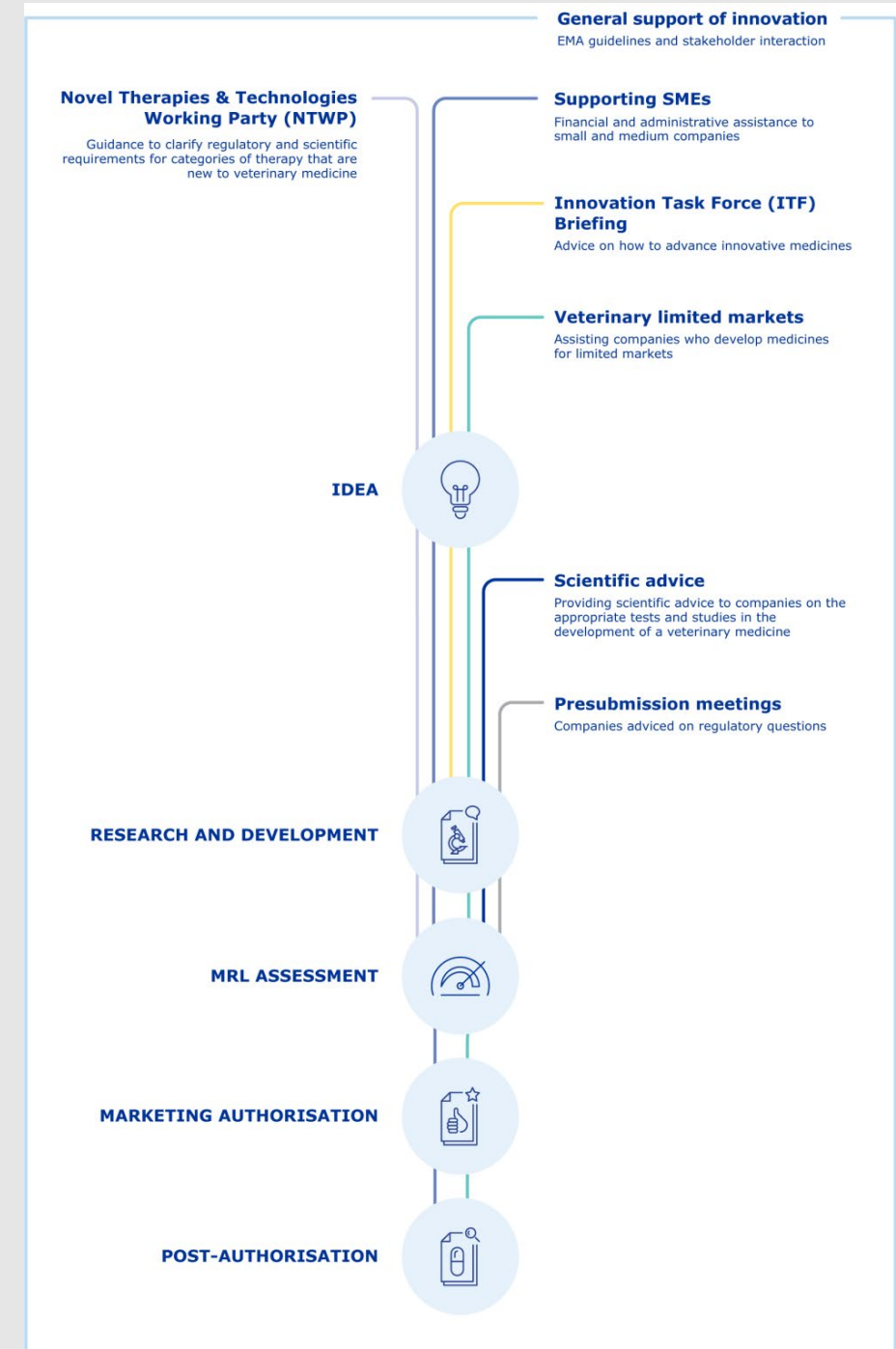


# Support to innovation

**Goal:** create a regulatory framework that fosters innovation while ensuring veterinary medicines of adequate quality, safety and efficacy.

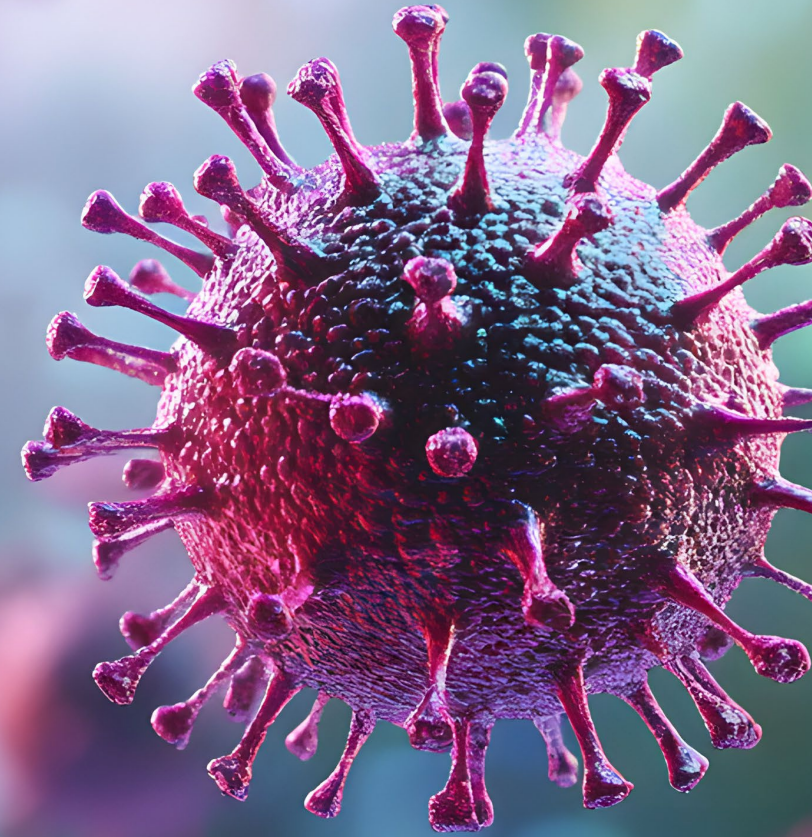
## Fostering innovation

- Innovative vaccines
- Novel therapies and technologies
- Novel approaches to meet unmet needs
- Regulatory innovation



# Innovative vaccines

- Modernisation of old vaccine ranges
- Implementation of available regulatory tools (e.g. VAMF, vPTMF)
- mRNA technology
- Next-generation vaccine approaches (virus-like particles, DNA vaccines)
- Vaccine platforms (DNA, RNA, vector)
- New delivery systems (nanoparticles)
- New adjuvants and immunomodulators
- Vaccines against parasitic diseases





# Vaccine Antigen Master File (VAMF)

## Definition

- Stand-alone part of marketing authorisation application (MAA) dossier containing all quality data for an antigen.
- Common to one or more MAs.

## Certification

- Centralised evaluation procedure handled by EMA.
- As part of an initial MAA or as a separate procedure.
- Certificate valid throughout the EU (*for any authorisation route*).

## Use of VAMF

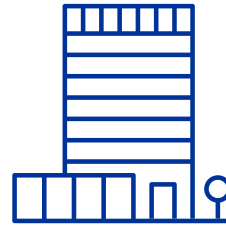
- VAMF certificate can be used to support future applications for vaccines containing the same antigen.

# Vaccine Antigen Master File (VAMF)



## Main benefits

- Single assessment for authorities / single dossier to be handled by applicants
- Speed up assessment procedure – data in VAMF not reassessed
- Increase predictability



## EMA guidance

- Procedural advice for VAMF certification ([link](#))
- Guideline on data requirements for VAMFs ([link](#))



## Experience to date

- 9 certifications issued in 2024

# Vaccine Platform Technology Master File (vPTMF)

## Definition

- Technologies with common backbone carrier/vector that can be modified with different antigens/inserts for each vaccine.
- Stand-alone part of MAA dossier containing all data that will be common to the vaccines based on the platform (Q, S, E).

## Certification

- Centralised evaluation procedure handled by EMA.
- As part of an initial full MAA or as a separate procedure.
- Certificate valid throughout the EU (*for any authorisation route*).

## Use of vPTMF

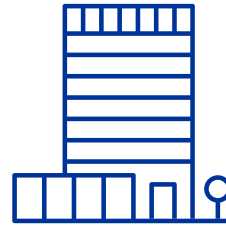
- vPTMF certificate can be used to support future MAAs for vaccines based on the same platform.

# Vaccine Platform Technology Master File



## Main benefits

- Single assessment for authorities / single dossier handled by applicants
- Speed up assessment procedure – data in MF not reassessed
- Foster the use of platforms for development of vaccines
- Reductions in data requirements for vaccines using the same PT
- Increase predictability



## EMA guidance

- Procedural advice for vPTMF certification ([link](#))
- Guideline on data requirements for vPTMF ([link](#))



## Experience to date

- 2 certifications issued in 2024

# Novel therapies and technologies

- **Novel Therapies**

- Gene therapy, regenerative medicine, tissue engineering, blood product therapy, phage therapy
- Veterinary medicinal products issued from nanotechnologies
- Any other therapy considered a nascent field (in veterinary medicine)

- **Novel Technologies**

- AI applications
- Advanced manufacturing methods (continuous processing)
- 3D bioprinting of tissues and implants
- Digital monitoring solutions for precision medicine

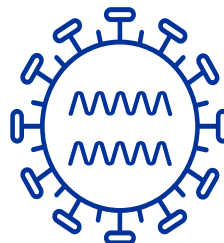




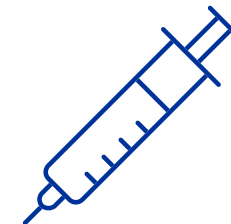
# Novel therapies classification



**Veterinary medicinal products**  
other than biological



**Biological** veterinary medicinal  
products **other than immunological**



**Biological immunological**  
veterinary medicinal products

- Vaccines including nanotechnology (delivery system or adjuvants)
- Vaccines including novel technologies (novel adjuvants, delivery systems)
- Nucleid acid vaccines (mRNA, DNA; recombinant; viral vector vaccines)

Questions and answers on classification of  
veterinary medicinal products

# Novel therapies and Regulation (EU) 2019/6

- Taking into account the specificities of novel therapy products, specific requirements additional to the standard requirements for evaluation of quality, safety and efficacy may be appropriate.
- Deviations from the requirements in the annex may be possible when scientifically justified.
- To address data gaps or uncertainties at the time of product authorisation, implementation of post-authorisation measures or studies may be considered on a case-by-case basis.
- Risk management plan to be included in the dossier.

# Novel approaches to meet unmet needs

- Rapid response frameworks for emerging disease threats
- Targeted solutions for therapeutic gaps in minor species
- Alternatives to combat antimicrobial resistance
- Next-generation antiparasitics to address resistance
- Environmentally sustainable product formulations and delivery
- One health solutions



# Applications for Limited Markets (Article 23)

## Definition

- VMPs for diseases that occur infrequently or in a limited geographical area or
- VMPs for species other than cattle, sheep (meat), pigs, chickens, dogs and cats

## Applications under Art. 23

- Marketing authorisation (MA) can be granted if benefit of availability outweighs certain gaps in safety or efficacy
- Validity limited to 5 years (renewable)

## Eligibility

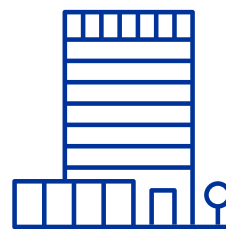
- Eligibility to be confirmed by EMA (also for national authorisation)
- Voluntary
- Valid at the time of eligibility (re-evaluated at submission)

# Applications for Limited Markets (Article 23)



## Main benefits

- Some data requirements may be lifted for safety and/or efficacy
- Flexibility on data requirements for LMs **not eligible** under Art.23



## EMA guidance

- Reflection paper on eligibility (*currently under revision*)
- Guidelines for IVMPs and non-IVMPs on efficacy, safety and residue data requirements for LM Art. 23



## Experience to date

- **13 products** confirmed as eligible for Art. 23 in 2022.
- **13 products** confirmed as eligible for Art. 23 in 2023.
- **11 products** confirmed as eligible for Art. 23 in 2024.



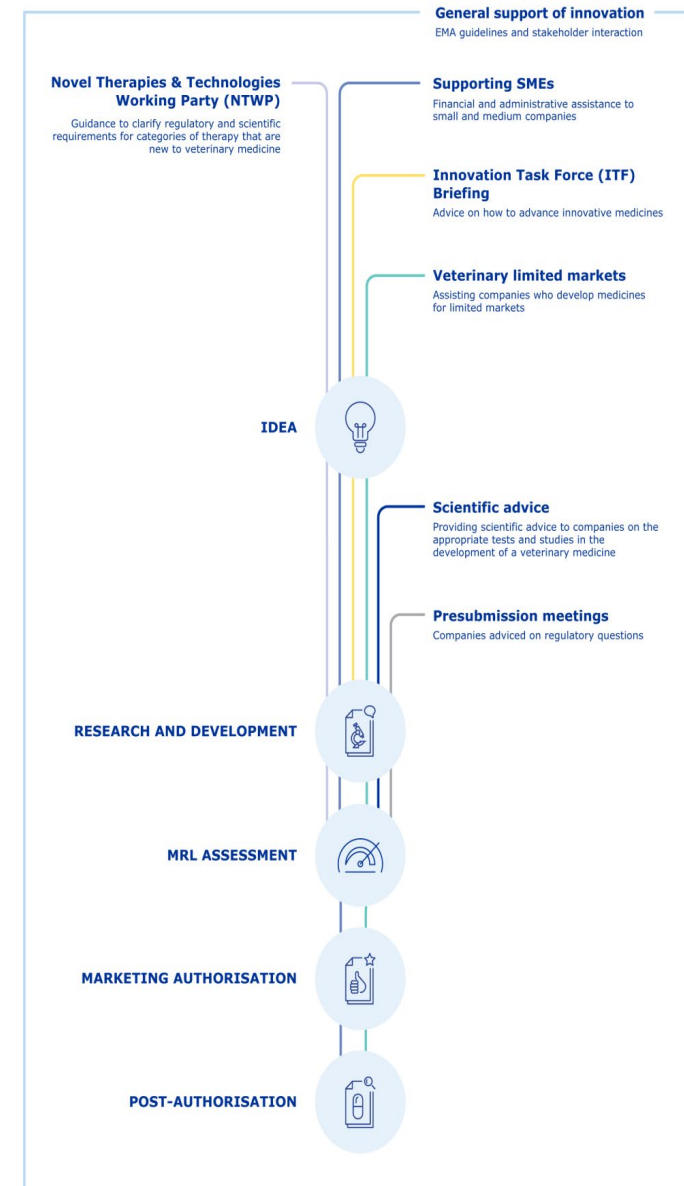
# Regulatory innovation

- New regulatory tools and pathways for faster approval.
- Big data RWD/RWE integration in safety and efficacy assessment.
- AI applications (manufacturing, development, pharmacovigilance).
- One Health approach to regulatory decision-making.
- Collaborative frameworks between industry and regulators.
- Flexible approach for novel therapies.
- Improve processes to remove unnecessary administrative and regulatory burden.
- Regulatory efficiency and predictability.



# Support to innovation: available tools

- Early enquiries (**AskEMA**).
- **Pipeline/portfolio and technology** meetings with industry.
- Innovation task force (**ITF**): early stages of development, general or product-specific, advice on legal, regulatory and /or scientific aspects.
- **Academia** liaison.
- **SME Office**: provides regulatory, financial and administrative assistance to companies designated as micro, small and medium-sized enterprises.
- **Guidance and guidelines** on procedural, regulatory and scientific issues.
- **Scientific advice**: later stages of development, pre-submission or during evaluation.
- **Pre-submission meetings**: final stages of development, product-specific.



# Support to innovation: available tools

## Scientific advice (SA)

Of the **27 scientific advice reports** finalised in 2024:

- 7 for immunologicals, 12 for chemicals and 8 for biologicals.
- 14 claimed to include a new active substance.
- including companion and food-producing animals.

## Pre-submission meetings

- More than **13 meetings** (including pipeline) held in 2024
- Additionally, seven written responses were prepared for enquiries on product development.

## Guidance and guidelines

- Since July 2021, more than **22 guidelines** were finalised and published
- Guidance on phages, VAMF, vPTMF, DNA vaccines, benefit-risk, live recombinant vaccines, limited markets, etc.



# Key regulatory considerations

- **Early planning:** regulatory requirements for the authorisation of innovative medicines should be considered early in research.
- **Adequate preparation:** a clear strategy for regulatory procedures.
- **Collaborative approach:** strengthen collaboration between regulators and developers.
- **Early communication:** efficient dialogue with regulatory bodies at key stages of development.
- **Address gaps** in available guidance to ensure predictability.
- **Clear regulatory support** for innovative product development.
- **Increase awareness** of available support.
- **Efficient use** of available support.



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