

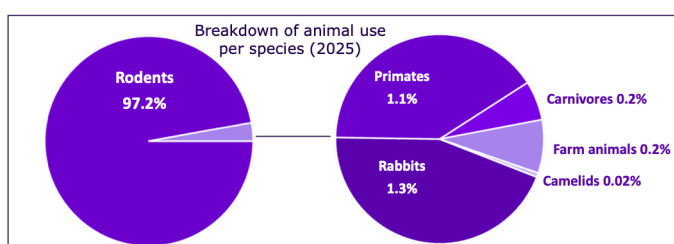
Key Achievements on Animal Welfare and the 3Rs Summary for the year 2025

Sanofi is committed to the responsible use of animals in research and production, guided by the 3Rs principle — Replace, Reduce, Refine the use of animals for scientific purposes. In 2025, Sanofi sites worldwide delivered significant progress across all three dimensions, reflecting both scientific innovation and our organizational commitment to animal welfare. This document highlights the key achievements recorded across Sanofi's global network of research and manufacturing sites during 2025.

Animal Use Numbers

2025 Animal Use

In 2025, the total number of animals used at Sanofi sites was 117,352, to which a total of 37,963 animal used externally must be added¹. In total, this represents 155,315 animals used which provides for a 7% reduction compared with figures reported for 2024 (167,408 animals).



Most animals used (97%) were rodents. Other species used were rabbits, primates, carnivores, farm animals, and camelids.

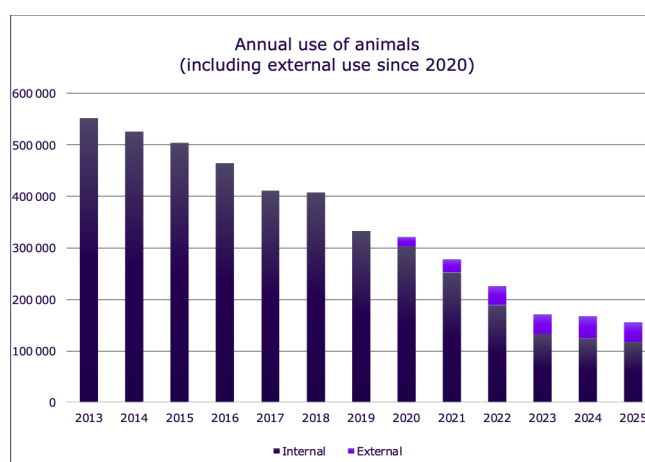
The choice of the species is systematically made on scientific and ethical grounds depending on each specific purpose.

Global Animal Use Reduction

A 52% reduction has been achieved in animal use between FY2020 and FY2025, combining internal and external animal use (vs. original target of 50% for 2030).

Every year, a comprehensive mapping of animal use in Sanofi facilities is conducted, *evidencing a constant decrease in the use of animals.*

Since 2020, the baseline includes both animals used at Sanofi sites (i.e., internal use) and those used on behalf of Sanofi (at contract research organizations and through collaborations where Sanofi is a sponsor, i.e., external use). For this global picture, Sanofi's aim is to reduce the total number of animals used in research and testing by 50%, between 2020 and 2030.



¹ Calculated in accordance with national legislation in each country where we use animals. For European sites, the reference is Commission Implementing Decision 2020/569, available at www.eur-lex.europa.eu.

Annual animal use	2020	2021	2022	2023	2024	2025	...	Target 2030
Internal use	302,890	252,312	188,821	132,799	124,905	117,352		-
External use	18,323	25,532	37,839	38,302	42,503	37,963		-
Total	321,213	277,844	226,660	171,101	167,408	155,315		160,000
Reduction y/y-1		-13.5%	-18.4%	-24.5%	-2.2%	-7.2%		-
Reduction y/2020		-13.5%	-29.4%	-46.7%	-47.9%	-51.6%		-50%

In 5 years, our reduction target was achieved. Nevertheless, Sanofi entities maintain their firm intention to continue the reduction trend.

3Rs Achievements

Fundamental to responsible use of animals, the 3Rs principles are anchored in our research and testing strategy, fostering continuous practice improvement and triggering key achievements. Here are concrete illustrations for the year 2025.

Replacement achievements

On the specific topic of animal-derived reagents, our vaccines teams have been publishing² and presenting at the 13th World Congress on Alternatives and Animal Use in the Life Sciences³ the results of their work to pave the way to *replace the use of bovine serum for the cryopreservation of specific blood cells*, isolated from human samples, which are essential for examining the immune response in clinical trial participants.

On the aspect of quality control of our injectable products, thanks to the scientific / analytical expertise of our teams, we were able to remove specific *in vivo* safety tests from the regulatory testing profile of one of our life-saving drugs, avoiding obsolete or redundant use of animals before the product is released on the market, globally.

One of our major vaccines sites obtained regulatory approvals from both the US FDA Center for Biologics Evaluation and Research (CBER) and the European Medicines Agency (EMA) to replace *in vivo* potency tests for Diphtheria and Tetanus by *in vitro* tests for several vaccines. As a result, the number of guinea pigs and mice used in batch release testing will be permanently and significantly reduced.

In addition, the adoption of New Approach Methodologies (NAMs) — advanced *in vitro*, *ex vivo* and *in silico* tools that can replace or reduce animal use — accelerated across Sanofi's global research network. For instance:

- iPSC-derived cardiomyocytes are now routinely used in place of animal organs and cells for cardiac safety assessments,
- Organoids, cell tissue cultures and *in vitro* screening models are deployed prior to *in vivo* work,
- An integrative de-risking strategy using Central Nervous System 2D and 3D *in vitro* models is applied to reduce the need for *in vivo* studies.

This multi-site approach reflects a systemic organizational shift toward next-generation science.

² https://www.linkedin.com/posts/harenberg_frontiers-evaluation-of-the-viability-and-share-7360646654254866432-QkY3?utm_source=share&utm_medium=member_desktop&rcm=ACoAAABMxGABXa7xeq0NxbVxO3oSPM3f1_dqWTq

³ <https://www.wc13rio.org/>

A concrete example where innovation reduces animal use: Anti-NANOBODY® Tools (ABH)

Sanofi's anti-NANOBODY® tools are specialized monoclonal antibodies developed through hybridoma technology, where mice are immunized with NANOBODY® molecules as antigens to generate highly specific detection reagents. These tools, known as ABH (ABlynx Hybridoma) tools, represent a comprehensive panel of over 250 well-characterized antibodies that serve critical functions across Sanofi's research and development operations. Each ABH tool undergoes extensive characterization including binding assessment against broad NANOBODY® panels, neutralization capacity evaluation, off-rate determination, and epitope mapping when feasible. Our robust characterization process includes passport generation and decision tree development to guide researchers in selecting the optimal tools for their specific applications. *The availability of this extensive, pre-validated panel has significantly reduced the need for new tool generation, supporting Sanofi's commitment to the 3Rs principle (Replacement, Reduction, Refinement) by minimizing animal use in research.* These globally utilized ABH tools support diverse teams across Discovery, Drug Metabolism and Pharmacokinetic, and numerous other departments, enabling consistent and reliable NANOBODY® detection and analysis throughout Sanofi's scientific operations.

Reduction achievements

At another of our sites, removal of obsolete *in vivo* safety testing allowed a 10% reduction in the use of animals for quality control of vaccines compared to the previous year.

Other reduction achievements were obtained thanks to the refinement of techniques (e.g., blood micro-sampling) allowing for the same animals to be monitored along the same study, and to improved study design (e.g., reduced control groups in specific studies, well-defined reuse strategy with all due respect to animal welfare considerations).

Eventually, careful animal colony management in better housing conditions allowed for the reuse of primates, rabbits and rats after mild or moderate procedures, with due consideration for animal welfare and legal obligations, and reduced the number of animals ordered for scientific purposes.

Refinement achievements

- Digitalized home cage monitoring now effective at several sites, improving the welfare monitoring of rodents housed in groups especially in study conditions.
- Improvement in animal handling techniques, e.g. tunnel handling and cupping of mice, to reduce manipulation-induced stress.
- Review of the housing and environmental enrichment program at all sites, resulting in, for example, new toys for camelids, new play areas for rats, increased time in play area for dogs, pair-housing for rabbits (previously single-housed for study purpose).
- Culture of Care: setting up of a transverse global working group to reshape our culture of care program, fostering local uptake, e.g. by establishing a Culture of Care award at site level.

And more...

- Rehoming Program: Successful rehoming of laboratory animals including 2 dogs, 26 rabbits, and 114 rats,
- Governance: All Sanofi animal care and use programs maintained or renewed their AAALAC accreditation,
- Awareness: Organization of BRAD (Biomedical Research Awareness Day) events across multiple sites, connecting animal welfare and good science altogether.