Enhancing Transparency in Animal Research: Public Communication and Non-Technical Summaries

Maria-Anna Tsoutsou, DVM,MLAS
Director, Animal Care and Use
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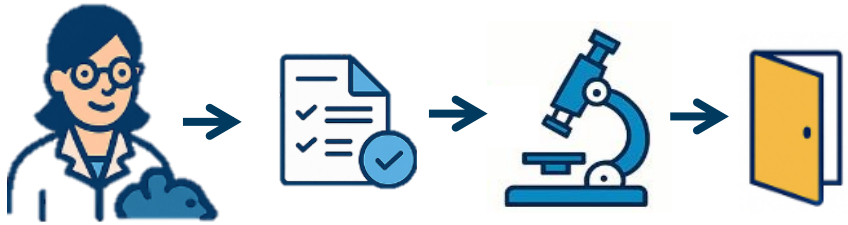
What do we mean by 'Transparency'?

Clear, open and honest communication about:

- Why animals are used
- How they are treated and protected
- What outcomes the researcher aims for

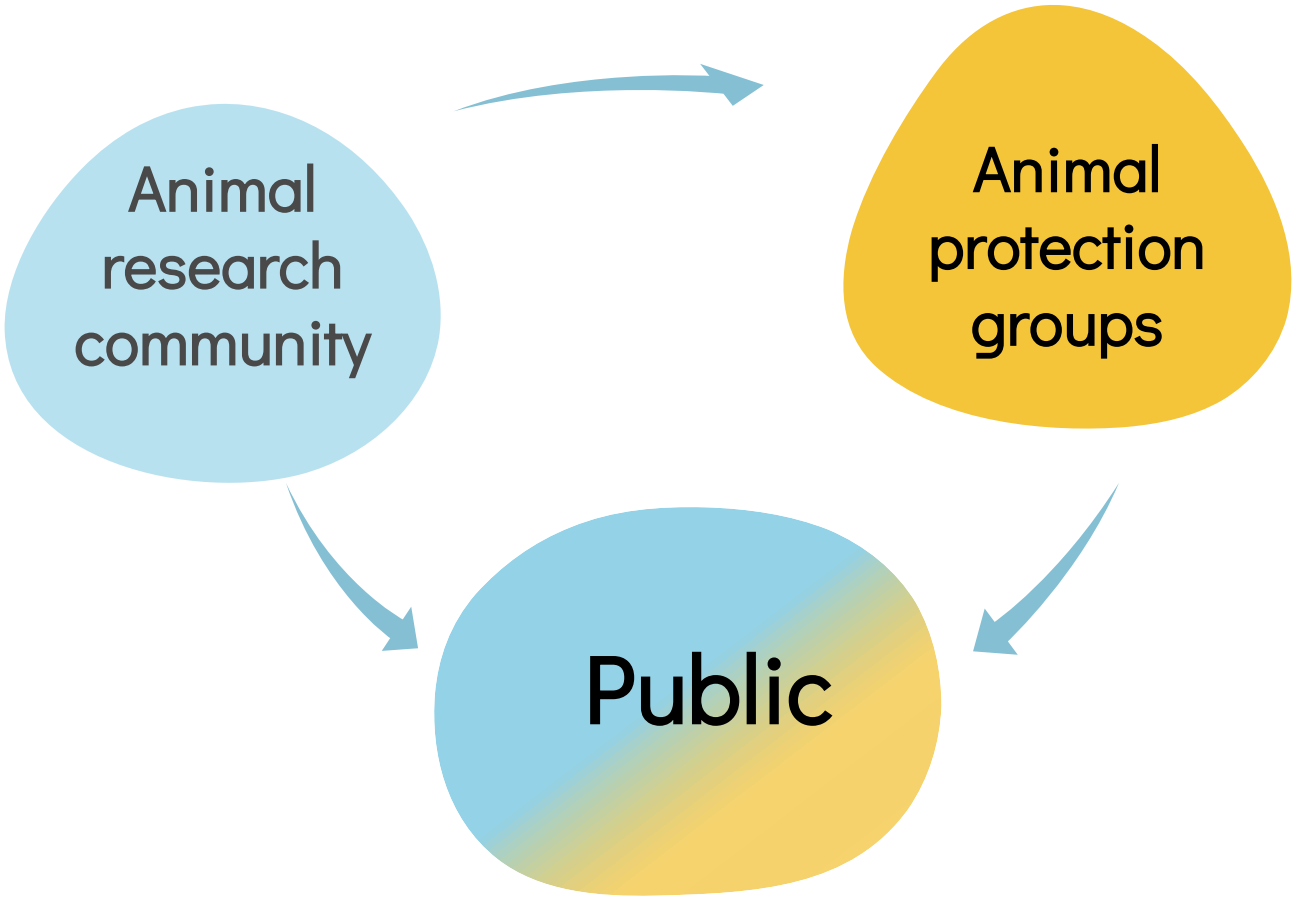


Transparency ≠ Overload

It's not about telling everything, but making key information accessible

" If we don't tell our story, someone else will- and we may not like how the tell it"

Animal-use information flow



Who shapes the Narrative about animal research?

Research Community

- Technical, cautious
- Limited engagement
- Delayed communication
- Focus on data/ results

Animal Protection Groups

- Emotive, persistent
- Proactive outreach
- Quick viral messaging
- Focus on animal suffering

But why many scientists stay silent?

Most Common Barriers to Openness and Transparency

Based on survey responses from designated persons responsible for user-authorized animal research facilities in Greece*

1. Limited institutional resources for public communication
2. Fear of negative reactions from animal rights activism
3. Conservative institutional leadership and restrictive communication culture
4. Knowledge gaps and limited communication skills among facility staff

Other possible reasons

- Emotional strain or internal ethical conflict
- Perception that “staying silent is safer” than being exposed

*Results generated for Master Thesis “Openness and transparency of animal research: A current analysis in Greece, Master of Science in Laboratory Animal Science of RWTH Aachen University, Maria-Anna Tsoutsou, 2022

Even when transparency is encouraged, many researchers pause and ask themselves:

What if I trigger backlash or misrepresent ation?"

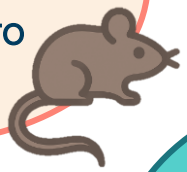
Am I even trained to talk about this effectively?

What criteria will they use to judge our work?"

Will I come across as defensive or cold?"

Is it better to stay quiet and avoid trouble?"

Will honesty lead to more questions I'm not ready to answer?

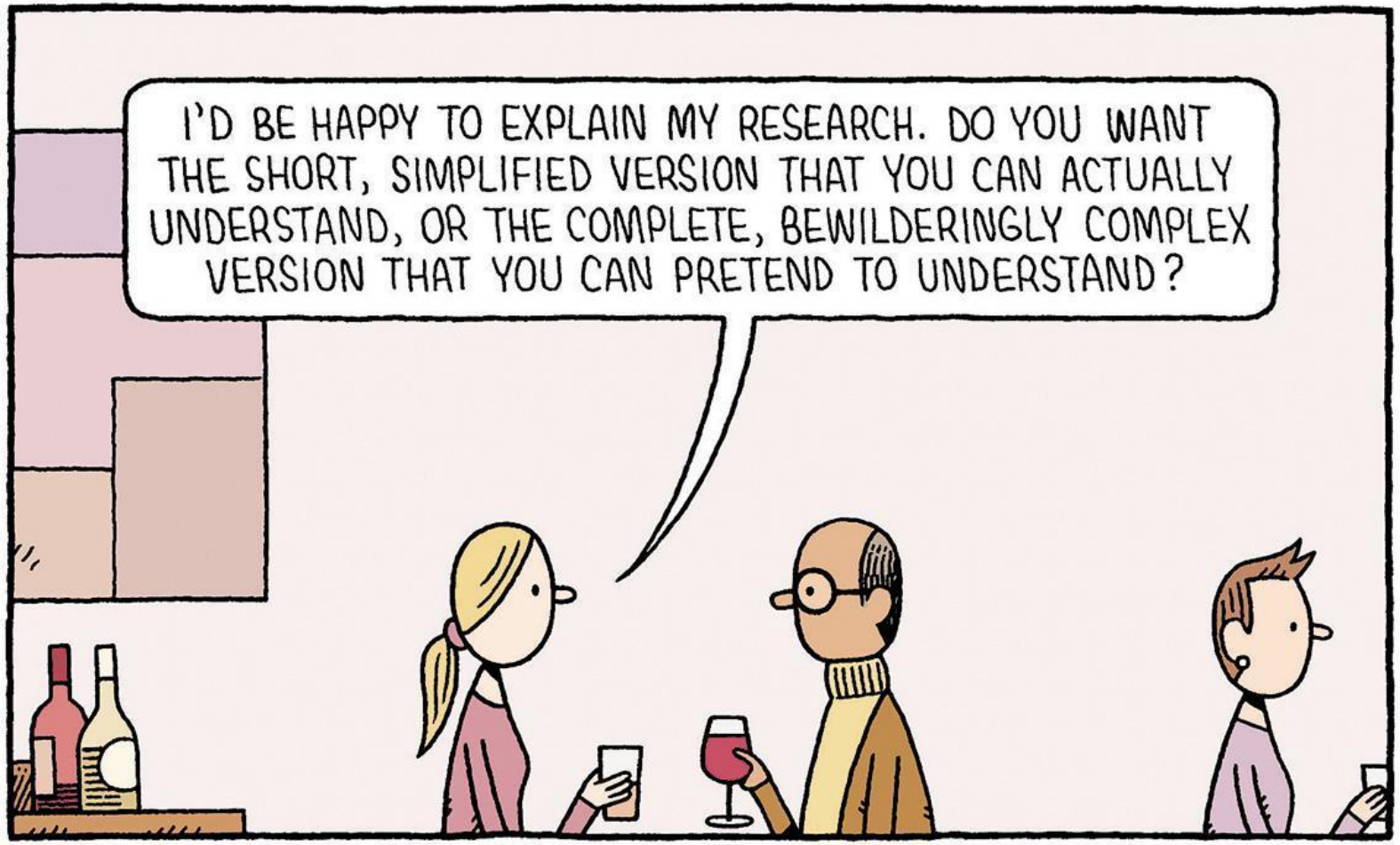


Can the public truly understand the complexity of our work?"

Why should I speak up when activists dominate the conversation anyway?"

How can non-experts fairly evaluate harm vs. benefit?

What criteria will they use to judge our work?


I'D BE HAPPY TO EXPLAIN MY RESEARCH. DO YOU WANT THE SHORT, SIMPLIFIED VERSION THAT YOU CAN ACTUALLY UNDERSTAND, OR THE COMPLETE, BEWILDERINGLY COMPLEX VERSION THAT YOU CAN PRETEND TO UNDERSTAND?
TOM GAULD for NEW SCIENTIST

How to talk about animal research clearly and ethically

DOs

- Use plain language
- Share real stories
- Explain oversight and 3Rs
- Invite questions

DON'Ts

- Don't use jargon
- Don't downplay ethical issues
- Don't hide behind 'no comment
- Don't talk at people- talk **with** them

Start from your family and friends!

The COVID-19 Pandemic

A Global Crisis That Demanded Open Science

🌎 An urgent need for answers - The world turned to scientists as lives were at stake. During this period we all desperately are looking forward to have from the scientific community “good news”

⏳ No time for secrecy - The demand for fast, transparent updates replaced traditional, slow communication.

 Mice, ferrets and non-human primates were used to test safety and immune responses.

 Vaccines were developed in record time- but not without rigorous preclinical (animal) testing

🔬 Transparency became a critical pillar of scientific credibility. Institutions that explained this openly helped normalize animal research in public discourse

Probably this period could be considered as a period of “open communication” between scientists and the public concerning the biomedical research:

Mass Media

News outlets reported daily on trials, vaccines, and policy decisions

Social Media

Scientists explained findings, addressed fears, and corrected misinformation in real time

Preprints

Unreviewed studies were shared openly, giving the public a rare glimpse into “life science”.

Science Journalish

Specialized reporters translated complex biomedical advances for general audience

Experts Interviews

Researchers became trusted voices, regularly featured in national broadcasts.

What the Pandemic taught us about Public Communication

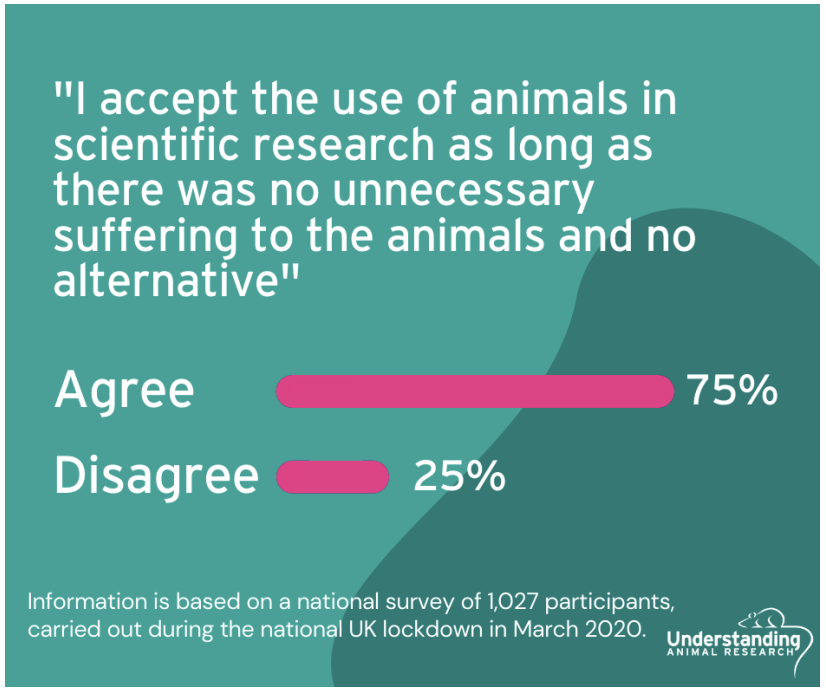
The public is ready to listen
When science is explained clearly, people respond with interest, not hostility

Transparency accelerates collaboration
Pre-prints and public data-sharing helped global science move faster

Honesty build trust
Acknowledging uncertainty, challenges, and limits made scientists more credible

Animal research can be discussed publicly
When frame with context and care, the topic doesn't alienate-it informs

The pandemic proved that transparency is not risky- it's essential

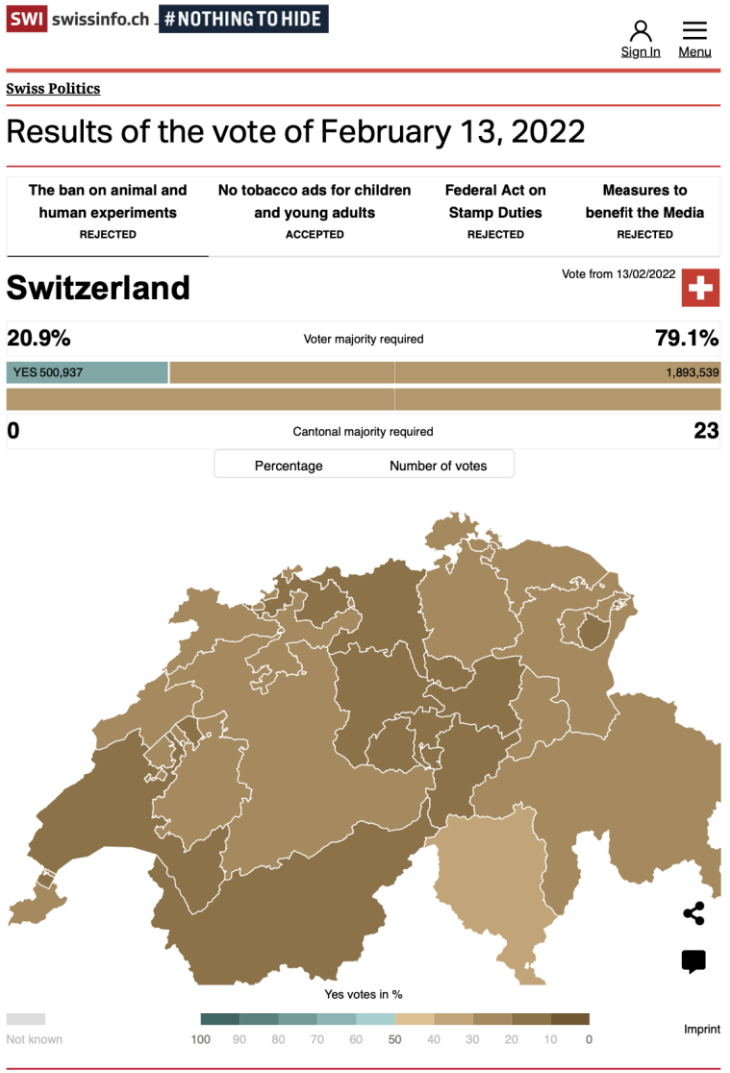


Public attitudes to animal research under COVID-19

Survey report

Understanding ANIMAL RESEARCH

Bella Williams, April 2020



Findings part 4: changes to views about animal research

Respondents were asked **do you feel that your views around animal testing and animal research have changed in light of the COVID-19 outbreak?** The responses were provided as short comments and manually coded to indicate a subjective change of views. Allowing that survey respondents tend to under-report changes in attitudes, a substantial change in views can be observed, with **11%** of respondents indicating that their views around animal research have changed. In all cases their views have become more favourable, and many cite the severity of the situation. Some reported that they had not given the matter much thought until now.

This existing situation should not be considered as an excuse to continue using animals

On the contrary

This situation demand further justification and transparency on the use of animals in research

Legislative Tools for Transparency in Animal Research (Directive 2010/63/EU)

Annual Statistical Reporting Article 54(2)
→ Member States report yearly on species, numbers, and severity of procedures.
→ Data compiled and published by the European Commission.

Retrospective Assessments Articles 38 and 39
→ Required for projects with severe procedures or using NHPs.
→ Assess whether expected benefits were achieved.
→ A rather powerful tool for facilitating critical review of the animal model use in research

National Committees for the Protection of Animals Used for Scientific Purposes Article 49
→ Promote 3Rs and consistent ethical standards.
→ Guide Animal-Welfare Bodies (AWBs) and support refinement and openness.

Non-Technical Project Summaries (NTS) Article 43(1)
→ Public summaries explaining project purpose, procedures, and 3Rs in lay language.
→ Published in national or EU-level databases (e.g. ALURES).

What is a Non-Technical Summary (NTS)?

A Non- Technical Summary (NTS) is a brief, clear overview of a research project that involves animals. Written in plain language for the general public

Purpose

Regulatory Requirement for Transparency

The NTS is a mandatory component of research project applications under EU Directive 2010/63. It ensures that the public has access to understandable information about the ethical use of animals in research.

Bridge Between Science and the Public

The NTS acts as a communication tool.

Engaging External Audiences

MPs, NGOs, and the public often read the NTS, which may be the only part of the research they see, helping to build trust and demonstrate responsibility in animal use.

Why invest time in writing an NTS?

- It is your opportunity to **explain your project** to lay people beyond your institution and scientific community!
- Helps the public understand **why animal research is necessary**, what's being done to minimize harm, and how it benefits society.
- **Improves scientific information** available to the public and prevents the dissemination of false information.
- **Encourages researchers** to develop and improve their communication skills and explain their work clearly to non-scientists.
- Support the **exchange of best practices** in the 3Rs to reduce animal use or improve experimental techniques
- Sparks new ideas and inspires fresh perspectives.

Writing an Effective NTS

Avoid Identifying Information

It is the responsibility of the project license holder to ensure the NTS does not contain any identifying or sensitive information, including intellectual property.

Audience

Your NTS is for the general public. Assume a reading age of 12 and write in a way that anyone can easily understand.

Use Clear and Simple Language

Write in a straightforward, jargon-free style.
Example: Use “pig” instead of “swine.”
Avoid acronyms—if you must use them, explain them clearly.
Short Sentences

Active Voice:

Use active verbs to make the NTS more engaging and easier to understand.
Example: "The mouse may feel discomfort" instead of "Discomfort may be felt by the mouse."

Structure of an NTS

1

Title of the project	
Duration of project (in months)	
Key Words (maximum of 5) (1)	
Purpose of project (2) (multiple choices possible)	— Basic research (3) — Translational and applied research (3) — Regulatory use and routine production: — Quality control (including batch safety and potency testing) — Other efficacy and tolerance testing — Toxicity and other safety testing including pharmacology — Routine production — Protection of the natural environment in the interests of the health or welfare of human beings or animals — Preservation of species — Higher education — Training — Forensic enquiries — Maintenance of colonies of genetically altered animals, not used in other procedures
Objectives and predicted benefits of the project	
2 Describe the objectives of the project (for example, addressing certain scientific unknowns, or scientific or clinical needs).	
3 What are the potential benefits likely to derive from this project? Explain how science could be advanced, or humans, animals or environment may ultimately benefit from the project. Where applicable, differentiate between short-term benefits (within the duration of the project) and long-term benefits (which may accrue after the project is finished).	

1 Keep it simple. Avoid jargon, abbreviations and overly technical terms. Accurately reflect the project's focus

🔬 *"Efficacy testing of a novel antimicrobial agent against multidrug-resistant bacterial strains using a murine infection model"*

👶 *"Testing a new antibiotic in mice infected with resistant bacteria."*

2 Clearly state what your research aims to achieve and why it matters. Keep it simple and explain how the findings could help in real-world applications.

🔬 *"To evaluate the neuroprotective effects of compound X in a murine model of ischemic stroke."*

👶 *"To test whether a new substance can protect the brain after a stroke, using mice"*

3 Break it into two parts- what will be gained immediately and what the long-term impact could be.

🔬 *Short-term: "Identifying potential biomarkers for response to Drug X in mouse models."*
Long-term: "Contributing to precision medicine approaches for cancer therapy."

👶 *Short-term: "Finding signs that show how well Drug X works in mice."*
Long-term: "Helping to create personalized cancer treatments for patients."

Predicted harms

4 In what procedures will the animals typically be used (for example, injections, surgical procedures)? Indicate the number and duration of these procedures.	

5 What species and numbers of animals are expected to be used? What are the expected severities and the numbers of animals in each severity category (per species)?	Species (4)	Estimated total numbers	Estimated numbers per severity			
			Non-recovery	Mild	Moderate	Severe

6 What will happen to the animals kept alive at the end of the procedure? (5) (6)	Estimated number to be reused	Estimated number to be returned to habitat/ husbandry system	Estimated number to be rehomed

6 Please provide reasons for the planned fate of the animals after the procedure.	

4 Describe the procedures (e.g., injections, surgery), including how often they occur and their duration. If anesthesia is used, be sure to mention it.

🔬 *"Rats will receive repeated daily oral doses of Drug Z for 6 weeks, followed by blood pressure monitoring using the non-invasive tail-cuff method to assess the drug's effectiveness in managing hypertension."*

👶 *"Rats will take Drug Z every day for 6 weeks, and we'll check their blood pressure by placing a cuff around their tail to see if the drug helps control high blood pressure."*

5 Some animals may experience a more serious impact depending on their group (e.g., control vs. intervention groups). Consider the cumulative impact of multiple procedures on individual animals.

6 Be clear about the animals' future and provide transparency regarding their post-procedure outcome.

🔬 *"Animals will be euthanized after the study, with 30 mice being reused."*

👶 *"Some mice will be euthanized after the study, while others will be used again in future experiments."*

7

Application of the Three Rs	
1. Replacement State which non-animal alternatives are available in this field and why they cannot be used for the purposes of the project.	
2. Reduction Explain how the numbers of animals for this project were determined. Describe steps that have been taken to reduce the number of animals to be used, and principles used to design studies. Where applicable, describe practices that will be used throughout the project to minimise the number of animals used consistent with scientific objectives. Those practices may include e.g. pilot studies, computer modelling, sharing of tissue and reuse.	
3. Refinement Give examples of the specific measures (e.g., increased monitoring, post-operative care, pain management, training of animals) to be taken, in relation to the procedures, to minimise welfare costs (harms) to the animals. Describe the mechanisms to take up emerging refinement techniques during the lifetime of the project.	
Explain the choice of species and the related life stages.	

8

Project selected for Retrospective Assessment (7)	Deadline	Contains severe procedures	Uses non-human primates	Other reason

7 Make sure to back up your decisions with solid justifications. For instance, if certain animals are used because no suitable alternatives exist, explain the rationale. If you're using a larger number of animals, highlight the measures taken to minimize harm and ensure the study's success.

8 Remember: The Protocol Evaluation Committee (PEC) will review whether a retrospective assessment is needed, based on the scale of animal use and potential harm.

Where can I find an NTS?

European Commission | ALURES – ANIMAL USE REPORTING - EU SYSTEM
EU NTS DATABASE ON THE USE OF ANIMALS FOR SCIENTIFIC PURPOSES UNDER DIRECTIVE 2010/63/EU

Download full dataset

LIST OF RESULTS

Advanced filtering

Country: Country

Title of the project:

EC NTS/RA identifier:

Keyword:

Species: Species

Purpose(s) of the project: Purpose(s) of the project

Year of publication: Year of publication

Language: Language

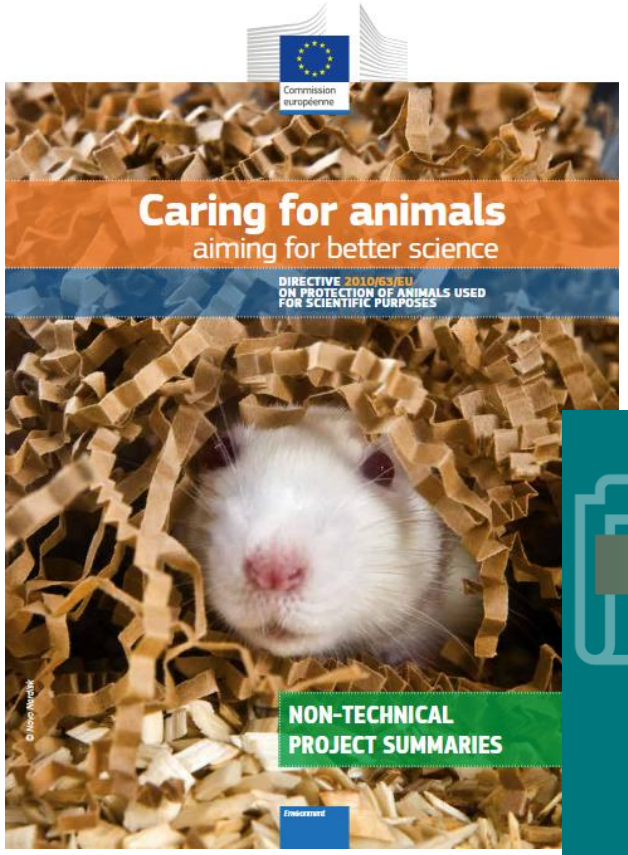
EU Submission: EU Submission

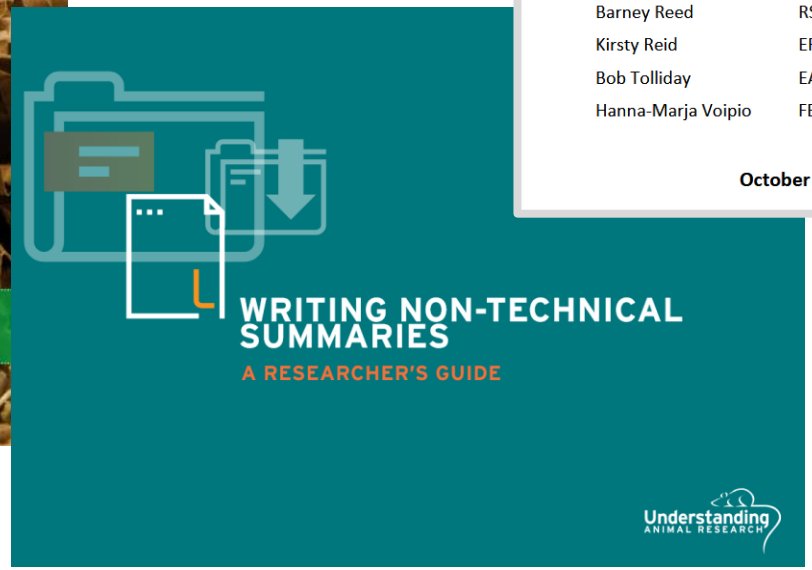
Clear | Search

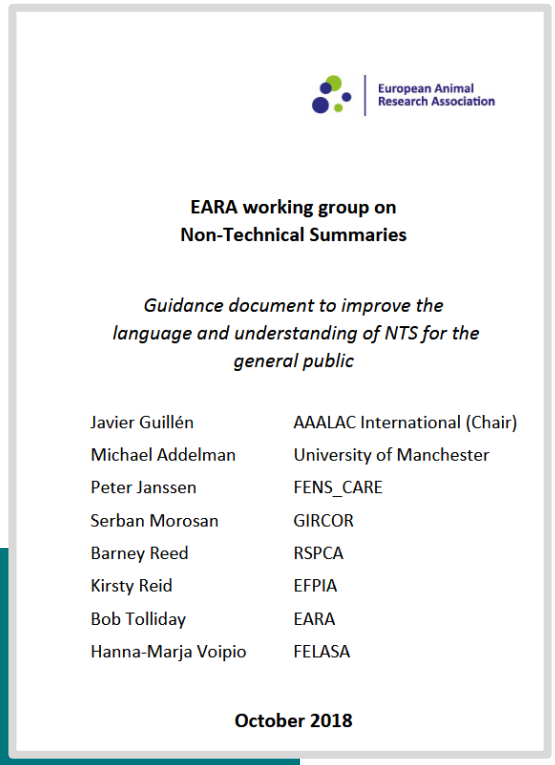
lumber of entries per page: 10 Order by column: (none)

Country	Language	Title	EC NTS/RA identifier	Publication date	Version	EU Submission	Actions
Denmark	Danish	An experimental porcine marginal kidney model	NTS-DK-109645	02-05-2025	3	Yes	View
Ireland	English	The impact of cancer cachexia on respiratory muscle function	NTS-IE-442879	01-05-2025	2	Yes	View
Denmark	Danish	Adfærds og motoriske tests samt terminale forsøg	NTS-DK-826983	02-05-2025	6	Yes	View
Netherlands	Dutch	Nutritionele ondersteuning rondom het werpen om het werpproces, de biestproductie en het moederlijk gedrag van zowel conventioneel gehuisveste zeugen als vrijloop kraamzeugen te optimaliseren.	NTS-NL-634273	01-05-2025	1	Yes	View
Netherlands	Dutch	Radiofarmaca voor beeldvorming en therapie van kanker	NTS-NL-402271	01-05-2025	1	Yes	View
Netherlands	Dutch	Voorkomen van luchtweg infecties door Haemophilus influenzae door middel van vaccinatie	NTS-NL-372987	01-05-2025	1	Yes	View
France	French	Impact de l'obésité sur l'hétérogénéité des macrophages associés aux tumeurs pancréatiques	NTS-FR-673270	30-04-2025	1	Yes	View
Belgium	Dutch	In vivo evaluatie van nieuwe gehumaniseerde L-asparaginase varianten in T-ALL	RA-BE-806019	30-04-2025	1	Yes	View
France	French	Etude de l'architecture fonctionnelle thalamocorticale dans la prise de décision adaptative	NTS-FR-941982	30-04-2025	1	Yes	View
Czech Republic	Czech	Testování antimikrobiálních vlastností podestýlky - vlastní experiment	NTS-CZ-587460	30-04-2025	1	Yes	View

Tools and Resources







References

1. Corry, P. (2019, October 19). *Openness is about more than transparency.* Medium. Retrieved from https://medium.com/serious-scrum/openness-is-about-more-than-transparency-a69c00ce0958
2. Carbone, L. (2021). *Open transparent communication about animals in laboratories: Dialog for multiple voices and multiple audiences*. Animals, 11(2), 368. https://doi.org/10.3390/ani11020368
3. Merkes, M., & Buttrose, R. (2019). *Increasing the transparency of animal experimentation: An Australian perspective*. Animal Experimentation: Working Towards a Paradigm Change, 224–243. https://doi.org/ 10.1163/9789004391192 _010
4. Directive 2010/63/EU of the European Parliament and of the Council of 22 September 2010 on the protection of animals used for scientific purposes. Text with EEA relevance. (2010) Official Journal of the European Union L 276, 20.10.2010, 33–79. Retrieved from: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex %3A32010 L0063
5. EARA working group on Non-Technical Summaries. (2018). *Guidance document to improve the language and understanding of NTS for the general public*.
6. National Competent Authorities for the implementation of Directive 2010/63/EU on the protection of animals used for scientific purposes. (2021) *A working document on Non-technical Project Summaries*. Brussels
7. Taylor, K., Rego, L., & Weber T. (2018) *Recommendations to improve the EU non-technical summaries of animal experiments*, ALTEX - Alternatives to animal experimentation; 35(2), p. 193–210. doi: 10.14573/altex.1708111.
8. ALURES - Animal Use Reporting - Eu System EU. *NTS Database on the use of animals for scientific purposes under Directive 2010/63/EU*. https://webgate. ec.europa.eu /envdataportal/web/resources/alures /submission/nts/list
9. Ormandy, E. H., Weary, D. M., Cvek, K., Fisher, M., Herrmann, K., Hobson-West, P., McDonald, M., Milsom, W., Rose, M., Rowan, A., Zurlo, J., & von Keyserlingk, M. A. G. (2019). *Animal Research, accountability, openness and public engagement: Report from an international expert forum*. Animals, 9(9), 622. https://doi.org/10.3390/ani9090622
10. MacArthur Clark, J., Clifford, P., Jarrett, W., & Pekow, C. (2019). *Communicating about animal research with the public*. ILAR Journal, 60(1), 34–42. https://doi.org/10.1093/ilar/ilz007
11. Mills, K. E., Han, Z., Robbins, J., & Weary, D. M. (2018). *Institutional transparency improves public perception of lab animal technicians and support for Animal Research*. PLOS ONE, 13(2). https://doi.org/10.1371/journal.pone.0193262
12. Tolliday, B. (2019, May 22). *Eara Communications Handbook launched*. EARA. Retrieved from https://www.eara.eu/post/eara-communications-handbook-launched
13. Hewitt, J. A., Brown, L. L., Murphy, S. J., Grieder, F., & Silberberg, S. D. (2017). *Accelerating biomedical discoveries through rigor and transparency*. ILAR Journal, *58*(1), 115–128. https://doi.org/10.1093/ilar/ilx011
14. EARA Study of EU-based websites 2020. Retrieved from https://230099ef-af46-4cc6-b2be 415f0041b55e.usrfiles.com/ugd/230099_02f8712bfc004aedaa0e120 d8d0aa9 88.pdf
15. Tsoutsou, M. (2022). *Openness and transparency of animal research: A current analysis in Greece.* Master of Laboratory Animal Science. International Academy RWTH Aachen University (Dissertation).
16. OpenAI. (2025). *ChatGPT* [Large language model]. https://chat.openai.com/ *Some clipart, animations, and text refinements were assisted by ChatGPT (OpenAI, 2025).*

Thank you for your attention!

mtsoutsou@lifetechpark.com