

Follow-up to the European Parliament non-legislative resolution on plans and actions to accelerate a transition to innovation without the use of animals in research, regulatory testing and education

- 1. Resolution tabled pursuant to Rules 132(2) and (4) of the European Parliament's Rules of procedure**
- 2. Reference number:** 2021/2784 (RSP) / RC9-0425/2021 / P9_TA-PROV(2021)0387
- 3. Date of adoption of the resolution:** 16 September 2021
- 4. Competent Parliamentary Committee:** N.A.
- 5. Brief analysis/assessment of the resolution and requests made in it:**

The resolution recalls the objectives of the Directive on the protection of animals used for scientific purposes (2010/63/EU) and notably the replacement of procedures on live animals as soon as it is scientifically possible. It asks that these objectives be observed in all sector-specific pieces of legislation that require testing (**recitals A and B**). It stresses the responsibility of several Commission's Directorates-General and Executive Agencies for this topic (**recitals I and J**). It further summarises the sectors where animals are used, recognises progress made, and stresses that enforcement and funding remain inadequate (**recitals D, E, F and G**). It states the European citizens are attached to this issue, and refers the impact of the animal testing ban for cosmetics has been positive for animal welfare without jeopardising the development of the cosmetics sector (**recitals H and K**). The importance of a ban on animal testing for the EU health and environmental goals and the heterogeneous implementation by the Member States is emphasised (**recitals L and M**).

The resolution requires the Commission to establish an inter-service taskforce, including Member States and agencies, to develop action plans (with timelines, indicators and milestones) to better achieve the objectives of Directive 2010/63/EU, to accelerate the development of the alternative animal-free methods, technologies and instruments (**paragraphs 1 and 3**), and to address implementation and enforcement issues (**paragraph 4**). The private sector should be involved. Government bodies - but also the cross-sectoral European Partnership for Alternative Approaches to Animal Testing - must improve their coordinating role (**paragraph 7**). While animal experiments are still needed in several areas (e.g. research on pharmaceuticals), alternative models could also enable new breakthroughs (**paragraph 2**).

The resolution calls for a mechanism for the preferential and targeted funding of non-animal methods across all EU research and innovation initiatives. It points out the Commission's commitment to the grouping of substances for risk assessment and the use of generic risk assessments, as they will contribute to reducing animal testing (**paragraph 5**). It also asks for reduction goals, and stresses the importance of updating test method requirements as soon as non-animal methods become available (**paragraph 6**).

The resolution urges the Commission and the Member States to prioritise actions on education and training, to share best practices, to ensure the widest possible knowledge of alternatives and processes, to raise awareness of validated non-animal models and attribute necessary funding (**paragraphs 8 and 9**). Finally, the resolution recognises the importance of academic institutions to promote alternatives and to disseminate new knowledge and practices, and highlights the importance to work within international structures (knowledge transfer,

financial support to non-EU countries) (**paragraphs 10 and 11**).

6. Response to requests and overview of action taken, or intended to be taken, by the Commission:

Concerning **paragraphs 1 to 4, and recitals A and B**, the Commission welcomes the European Parliament's resolution aiming at accelerating a transition to innovation without the use of animals in research, regulatory testing and education. This is our common goal and is laid down in the EU Directive 2010/63/EU on the protection of animals used for scientific purposes. In addition, also the Chemicals Strategy for Sustainability (COM(2020) 667) provides to foster multidisciplinary research and digital innovations for advanced tools, methods and models, and data analysis capacities to move away from animal testing. The Commission also welcomes the recognition of other Union objectives including the protection of human health and the environment.

As rightly stated, the progress in continuously reducing reliance on animal-based methods is driven by scientific progress. Accelerating scientific progress depends on research activities, the related funding and on efforts in the fields of education and training. It is important to note that education and training are areas under the competence of the Member States. In the research field, the Union has competence to carry out activities, in particular to define and implement programmes without preventing the Member States from exercising their competence in the field. The Commission is actively contributing to work in the research area, e.g. with its Research and Innovation (R&I) funding programmes (see in particular the multiannual framework programme as per Article 182 of the Treaty on the Functioning of the European Union (TFEU)). It is further noted that

- the ultimate goal of full replacement is enshrined in EU legislation; the legal obligation to replace the use of animals when new non-animal methods become available is firmly embedded in EU legislation, providing a step-wise approach as science advances;
- although the science behind alternatives is no doubt progressing, it is not possible to predict when scientifically valid methods will become available that can replace particular animal procedures. The EU leads in transparency in animal use for scientific purposes providing open access data mining tools to support all concerned stakeholders in their efforts to identify appropriate new strategic initiatives to support the transition to innovation without the use of animals;
- animal use in science is heterogeneous therefore non-animal alternatives are most efficiently developed in clearly defined contexts of use; however, drawing knowledge across sectors can help to address scientific challenges hindering the progress towards non-animal methodologies;
- the European Partnership on Alternative Approaches to Animal Testing (EPAA) is a firmly established structure within the Commission with a leading role in bringing together all relevant Commission services responsible for sectoral legislation and research, the relevant industry sectors, including small and medium sized enterprises (SMEs), and EU agencies.

Accordingly, the Commission considers that a transition to innovation without the use of animals is best supported by focusing on and intensifying current efforts, reinforcing existing structures and networks, and by identifying potential areas where new actions could be undertaken within the Commission's remit.

In line with the resolution, the Commission will assess the possibility of further widening and enforcing the existing interservice steering group of the EPAA, in which two key agencies,

(the European Chemical Agency - ECHA and the European Food Safety Agency – EFSA), actively participate. This platform is ideally placed to allow wider, cross-sectoral acceleration measures to be discussed in an inclusive manner between all concerned. The recently published recommendation¹ [from JRC’s EU Reference Laboratory for alternatives to animal testing ([EURL ECVAM](#))] on the validity of non-animal derived antibodies is a concrete example of concerted efforts to focus on a specific area where scientific valid alternatives are becoming more widely available.

The introduction of the full ban on animal testing for cosmetics in the EU in March 2013 was unquestionably a pivotal milestone. The Commission, together with the EU cosmetics industry, have been at the forefront of developing alternatives to animal testing for regulatory safety assessment for more than 30 years. Science, research and innovation have been key drivers for maintaining the EU cosmetics industry’s leading role in the world. The EU has shown strong, sustained commitment—and made significant investment—to build on scientific progress, develop new approaches and drive innovative paradigm shifts in safety testing and safety assessment that meet regulatory needs. The Commission is fully committed to continuing its work in this field. In reference to **paragraph 1** on improving co-ordination, the Commission already established, in 2005, the EPAA. It “aims to replace animal testing by innovative, non-animal testing methods, to reduce the number of animals used and to refine procedures where no alternatives exist or are not sufficient to ensure the safety of substances (the 'Three R principle)’”. The EPAA is a well-established, successful public-private partnership, a structure that brings together all relevant Commission services responsible for sectoral legislation, research and the service responsible for the legislation on the protection of animals used for scientific purposes, the relevant EU agencies and from the private sector, the relevant industry sectors, including SMEs.

In addition, within each of the sectoral areas and in the area of research activities, the Commission is collaborating closely with the Member States and relevant stakeholders.

In response to **paragraphs 2 and 3** and **recitals A and B**, which confirm remaining scientific challenges resulting in a need for a continued use of some animals for the unforeseeable future, it is important to note that the EU has indeed one of the most advanced legislations in the world protecting animals still needed for scientific purposes. Directive 2010/63/EU embeds not only a strategic goal but also sets out a legally binding stepwise approach by ensuring that non-animal alternative approaches are used instead of animals as soon as these become available. Furthermore, it requires the implementation of the principles of reduction and refinement to ensure that whenever animals are still required, they are used in optimal conditions that minimise pain, distress and suffering.

Regarding the statement of a lack of transparency in the EU in **recital B**, the Commission would like to point out that the EU is the only region in the world where detailed annual statistics are not only published but also made available to all interested stakeholders to allow data-mining, using the recently launched open-access ALURES statistical database².

In addition, since July 2021, the EU launched a second open-access database containing non-technical project summaries of authorised projects³ to provide more context in the areas where animals are still used – this too is unique in the world.

Finally, the EU is also transparent about the information that was so far missing to obtain a

¹ [JRC Publications Repository - EURL ECVAM Recommendation on Non-Animal-Derived Antibodies \(europa.eu\)](#)

² https://ec.europa.eu/environment/chemicals/lab_animals/alures_en.htm

³ https://ec.europa.eu/environment/chemicals/lab_animals/alures_nts_en.htm

full picture of the total number of animals involved in supporting EU research and testing. As part of the EU report on the implementation of the directive by the Member States, once every five years the Commission publishes the numbers of animals bred for research and testing and killed without being used. With these major milestones in improving transparency on animal use for scientific purposes, it is safe to say that the EU sets an example for others to follow.

Contrary to the claim in **recital A**, the total use of animals in research and testing between 2008 and 2018 is estimated (using comparable data) to have significantly reduced by over 25% with the new legislation having taken effect in 2013⁴. The most recent data from the first four years (2015-2018) under the new directive shows a decrease of 7%. The potential solutions for replacing animal use with non-animal methods will however become more challenging when moving from e.g., topical toxicity to system toxicity, when adverse effects can impact multiple organs and involve entire organisms. The Commission continues to pay close attention to animal use data to identify areas where further scientific efforts could be directed.

In reference to **paragraph 4**, the enforcement of the directive (through national legislation) is the responsibility of the Member States. The directive requires regular, risk-based inspections to verify compliance with it, including unannounced inspections. The first implementation report⁵ confirmed that regular inspections took place since the directive entered into effect, including around 40% unannounced inspections. The Commission continues to facilitate this task for Member States by developing further guidance⁶, where appropriate.

Concerning the **first part of paragraph 5**, the European Commission has been a strong supporter of the development of alternatives to animal testing over the past two decades. Through its successive multi-annual framework programmes (FP) for research and innovation, the Commission has provided more than 800 million euro to more than 230 projects in this field. For FP5 (1998-2002), the annual budget to alternatives was around 11 million euro. This budget has tripled from FP5 to FP6, and has further increased by 50 % from FP6 to FP7. The annual budget remained stable during the last 14 years throughout FP7 and H2020 at a figure of about 48 million euro per year. In addition, industrial sectors have complemented this effort by providing at least an additional 150 million euro. This is clearly visible from FP7 onwards with the creation of the Innovative Medicine Initiative (IMI), which is a formal Public-Private partnership between the Commission and the pharma sector.

Funding of EU projects developing non-animal methods can be either preferential by specifically calling on animal-free alternative methods, or can also be based on a bottom-up approach. Examples of the first mechanism include 7 new projects from Horizon 2020 starting in 2021 for a total funding of 84 million euro. Three projects are on animal-free safety assessment of chemicals and the four other projects focus on next-generation organ-on-chip models for several diseases. Examples of the second mechanism include projects from the European Research Council (ERC) that develop novel non-animal tools and methods that can be applied not only in safety assessment across different sectors, but in a wide range of biomedical sciences. Other actions for innovation are targeted at small and medium sized Enterprises to bring new tools close to the market, such as 3D cell cultures that can be applied to predictive toxicology or cardiotoxicity high-throughput screening with zebrafish embryos. The further development of alternatives to animal testing will be pursued in Horizon Europe, through these two mechanisms at a funding foreseen to be at least in the same range as that of Horizon 2020.

⁴ https://ec.europa.eu/environment/chemicals/lab_animals/reports_en.htm

⁵ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0015&from=EN>

⁶ https://ec.europa.eu/environment/chemicals/lab_animals/pdf/guidance/inspections/en.pdf

Concerning **the second part of paragraph 5**, the Commission, as anticipated in the Chemicals Strategy for Sustainability, wishes to stress its commitment to the increased efficiency of assessing substances by grouping. The strategy also states that the Commission will extend the generic approach to risk management to ensure that consumer products – including, among other things, food contact materials, toys, childcare articles, cosmetics, detergents, furniture and textiles - do not contain chemicals that cause cancers or genetic alterations, affect the reproductive or the endocrine systems, or are persistent and bioaccumulative and potentially to chemicals that are persistent and mobile. In addition, the Commission will launch a comprehensive impact assessment to define the modalities and timing for extending the same generic approach, with regard to consumer products, to further harmful chemicals, including those affecting the immune, neurological or respiratory systems and chemicals toxic to a specific organ. While implementing the extension of the generic approach to risk management to those additional hazard classes, the Commission is planning to prioritise all the above-listed substances for restrictions for all uses and through grouping, instead of regulating them one by one. Both grouping of chemicals and the generic approach to risk management will be an opportunity to support the reduction of animal testing. In addition, with regard to the introduction of new hazard classes in the Regulation (EC) No 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation), the Commission is considering to introduce specific wording in the hazard classification criteria supporting the use of New Approach Methodologies.

The Pharmaceutical Strategy for Europe recognises the need to promote the ethical use of animals in medicine testing. This is largely supported through the use of the so called ‘Three Rs’ principles (replace, reduce, refine). The strategy promotes new technologies which in turn affects the discovery and research of medicines including replacement of animal testing with non-animal methods.

Concerning **paragraph 6**, the Commission wishes to refer to its goals in the Chemicals Strategy for Sustainability summarised under the topic “One Substance, One Assessment”.

Today, chemical safety assessments are conducted under various pieces of legislation separately. The Commission is striving to make those assessment processes simpler and more transparent, in order to reduce the burden on all stakeholders as well as minimising animal use, and to make decision-making faster, more consistent and predictable. This process will also support the gradual move away from assessing and regulating chemicals on a substance-by-substance basis to regulating them by groups. ‘One substance, one assessment’ will ensure that the initiation and priority setting of the safety assessments are done in a coordinated, transparent and synchronised manner, to the extent possible, taking into account the specificities of each sector. When an assessment is proposed under one piece of legislation, planning under other pieces of legislation will be taken into account, ensuring coordinated action. To avoid duplication of work, early agreement on the problem formulation will be key, favouring the assessment by groups of substances with structural or functional similarities. The use of available resources and expertise will be optimised, through a clear allocation of responsibilities as well as good cooperation among all actors.

The ‘one substance, one assessment’ approach aims to ensure that assessment methodologies are made as coherent and harmonised as possible. This should avoid any duplicate testing. It strives to remove any technical or administrative obstacles to data access, according to the principles that data should be easily findable, interoperable, secure, shared and reused by default. Data will be made available in appropriate formats and tools – e.g., via IUCLID⁷ and

⁷ [IUCLID](#) is the IT tool for an organisation or an individual to record, store, submit and exchange data on chemical substances in the format of the OECD

IPCHEM⁸ - to ensure interoperability.

In line with the abovementioned commitments, EFSA is organising a ‘ONE – Health, Environment, Society – Conference 2022’⁹ in Brussels in June 2022.

The Conference aims to put food and feed safety in the broader perspective of sustainable food systems. The intention is to explore how risk and policy assessments need to advance to remain fit for purpose, while contributing to current and new policy targets and societal demands, and to reflect on the future strategic goals and directions for regulatory/ policy science. It will offer an opportunity to share knowledge and expertise and address key topics on the EU political agenda. The Conference is an important landmark. For the first time, it is co-organised by EFSA and its European sister agencies (the European Centre for Disease Prevention and Control (ECDC), the European Chemicals Agency (ECHA), the European Environment Agency (EEA) and the European Medicines Agency (EMA) and the European Commission’s Joint Research Centre (JRC) embracing the ‘One Health – One Environment’ approach. It is a step toward the gradual implementation of the One Health goals that require a collaborative, multisectoral and transdisciplinary approach going beyond the efforts of one region or one sector. It is planned that the conference programme will feature a section on New Approach Methodologies in Risk Assessment, which will focus on conducting risk assessment without the use of animals.

The Commission is working on the next update of the Test Method Regulation to adapt to technical progress. This regulation recognises international test methods for the purpose of REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals). Since several of new methods are based on non-animal testing, this update supports alternative methods.

In medicines, the EMA supports¹⁰ the implementation of the ethical use of animals in medicine testing across the European Union through regulatory acceptance of the Three Rs testing approaches and has issued specific guidance¹¹ in this respect.

The above-mentioned actions respond to the Parliament’s proposal in **paragraph 7** for a better-coordinated, cross-sectoral and EU-wide approach across all Member States and all EU agencies. Furthermore, the Commission is exploring the possibility of more systematic knowledge sharing in the field of the Three Rs. There is still some lack of passing on knowledge from one sector to the other – for example between the chemicals and the pharmaceuticals sectors concerning toxicological testing or between different areas of basic and applied research - even though a number of platforms and networks already exist today (e.g. the network of national regulators PARERE¹² which is EURL ECVAM’s cross-sectoral network on the preliminary assessment of regulatory relevance of non-animal method and approaches). The Commission is assessing how the sharing of knowledge can be improved to further accelerate the development of Three Rs approaches.

Further, in line with Article 13 of REACH¹³ (which states that test methods to be used for

⁸ [IPCHEM](#) - the Information Platform for Chemical Monitoring is the European Commission’s reference access point for searching, accessing and retrieving chemical occurrence data collected and managed in Europe

⁹ [Homepage | ONE \(one2022.eu\)](#)

¹⁰ [Working Group on the Application of the 3Rs in Regulatory Testing of Medicinal Products | European Medicines Agency \(europa.eu\)](#)

¹¹ [Regulatory acceptance of 3R \(replacement, reduction, refinement\) testing approaches | European Medicines Agency \(europa.eu\)](#)

¹² [PARERE](#) – EURL ECVAM Network for Preliminary Assessment of Regulatory Relevance

¹³ [Regulation \(EC\) No 1907/2006](#) of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

REACH purposes shall be regularly reviewed and improved with a view to reducing testing on vertebrate animals and the number of animals involved), the Commission has continuously amended the REACH information requirements when replacement or refinement methods became available (see e.g., amendments to technical progress for skin and eye irritation, skin sensitisation and reproductive toxicity testing). Currently the Commission is working towards an amendment of the information requirements in a proposal for the targeted revision of REACH planned for 2023 to implement the ambitions in the Chemicals Strategy for Sustainability, while at the same time maximising the use of non-animal approaches through amendments of Annexes VII – X and XI of REACH.

ECHA is working to ensure compliance with the REACH provisions, and a separate reduction and replacement strategy going beyond the REACH provisions would not be compatible with that goal. ECHA's support to these changes and their future application in REACH Evaluation will then lead to the reduction and replacement of animal use.

EPAA accelerates the implementation of new approach methodologies by improving collaboration between companies, research organisations, EU agencies and the EU's reference laboratory for alternatives to animal testing (EURL-ECVAM).

Concerning **paragraphs 8 to 10**, the Commission continues with several activities in the area of education and training.

The reviews conducted by JRC on non-animal methods being used in biomedical research has been shared with the scientific community at large, teachers and students, via dedicated sessions at global conferences, thematic workshops, publications and summer schools and with other networks such as National Contact Points and National Committees under the Directive to inform the project evaluation process.

With the support of the European Parliament's pilot project, the Commission produced guidance for secondary and third-level educators and institutions, identifying Masters Course programmes related to the Three Rs as well as subject areas where the Three Rs could be covered. Moreover, the Commission prepared a set of ready-to-use learning scenarios for secondary schools, universities and professionals (now available in a JRC catalogue), teaching resources like slide sets, storyboards and infographics and ran a MOOC (Massive Open Online Course) with live sessions, fora and webinars. The first MOOC gathered 264 participants, reaching 8000 students in 2020. The MOOC edition for 2021 is now available with 20 new learning scenarios, teacher training programs and material for outreach to ministries. It reached 1115 registrations with completions already higher than that of the first MOOC while the course is still active.

At university level, the JRC is convening a group of specialists in teaching the Three Rs to discuss ways to practically support the continuous professional development of teachers and lecturers interested in introducing this topic into their curricula. The proposed work will be instrumental to produce, deliver and disseminate a set of tools for education harmonised across Europe.

The Commission has created a series of open access eLearning modules to facilitate training of those working with animals, those responsible for project evaluation and inspections with focus on replacement ('Searching for non-animal alternatives') and to facilitate Reduction and Refinement both at the design phase and during the course of a project involving the use of live animals. The series also includes an eModule on the development of *in vitro* assays with a view of their uptake in the regulatory context, which should facilitate faster regulatory acceptance of new methods. Further eModules are planned to address elements such as inspections and competence assessment. The Commission has also supported the European

Education and Training Platform for Laboratory Animal Science, ETPLAS, as a central repository of the eModules and tools for competence assessment to support well-trained and competent staff across the EU.

Concerning **paragraph 9**, the Commission funds projects such as EU's Marie Skłodowska-Curie Action - Innovative Training Network (MSCA-ITN) that aims to drive the synergistic development and utilisation of *in vitro* and *in silico* tools for human chemical and nanomaterial safety assessment.

Concerning **paragraph 11**, the Commission would like to reiterate its respective commitments in the Chemicals Strategy for Sustainability: The Commission commits to promote the development of common standards and innovative risk assessment tools internationally, notably within the Organisation for Economic Cooperation and Development (OECD), in the interests of harmonised assessments and to shift further away from animal testing. To this end, sharing knowledge internationally is important to support efficient progress in the use of non-animal methods and assist in levelling the knowledge in countries that are contributing less to this development, but also for the benefit of mutual acceptance of data among OECD and other relevant countries. This is key to avoid duplication of work, save resources (including animals) and support international standards. The existing knowledge base and experience of EU agencies, within their mandate and resources, will also benefit EU international policies and leadership. The strategy commits the EU to step up its international advocacy to meet the 2030 Agenda's goals and targets for the sound management of chemicals, in particular by taking a leading role and promoting the implementation of existing international instruments as well as EU standards globally.

The Commission also actively contributes to the work on alternatives by GHS (the United Nations sub-committee on Globally Harmonised System of Classification and Labelling of Chemicals), APCRA (Accelerating the Pace of Chemical Risk Assessment), ICATM (the International Cooperation on Alternative Test Methods), ICCR (International Cooperation on Cosmetics Regulation) and ICH/VICH initiatives. The aim of APCRA is to promote collaboration and dialogue on the scientific and regulatory needs for the application and acceptance of non-animal approaches in regulatory decision-making. ICATM was created to foster dialog among national validation organisations to facilitate international cooperation in the critical areas of validation studies, independent peer review, and development of harmonised recommendations.

The Commission takes note of the Parliament's position and recommendations and will carefully consider those when reflecting further on the most appropriate way forward.