

The Evolution of One Health Concept – A European Perspective

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Keywords:

conflict of values,
public
commercial law,
state intervention
in the economy

Abstract: Over the past years, the European Union has been engaged in activities aimed at finding solutions to protect health in accordance with interdisciplinary and transdisciplinary thinking in line with the One Health approach. The experiences related to the COVID-19 pandemic, clearly demonstrated the close connection between humans, animals, and the shared environment and increased interest for this approach to be applied and translated into action. This paper seeks to present the readiness of the European Union and its institutions for the challenges related to the political and legal approach and implementation of One Health concept.

1. Introduction

Health, which is one of the fundamental values to be protected, is constantly exposed to risk factors. The aim of medical sciences and the policy measures taken by public authorities is to diagnose these risks and effectively prevent them. In this area, the operating model of public authorities relies on the achievements of these sciences. Searching for sources and methods of diagnosing threats to public health, the authorities have developed the One Health concept as a tool allowing for more effective and targeted identification of risk foci. From the very beginning, the concept required a multi-sectoral approach, involving doctors, veterinarians, and epidemiologists, as well as other stakeholders, including public authorities themselves.

Today, it seems obvious that the One Health concept¹ is necessary for enabling interdisciplinary and transdisciplinary thinking and action from a public health perspective. It is based on the general assumption that human health, animal health, and environmental conditions are interconnected, and the influence of these areas on each other is not neutral. This interaction must therefore always be taken into account in all measures aimed at protecting the health of people, animals, plants, and ecosystems.² Therefore, it can be argued that the presented approach should have a universally accepted cross-sectional value.

The approach based on the One Health concept, which originated in medical sciences, over time attracted interest in the area of social sciences, initially mainly for theoretical merits. The experience of the last few years shows that this concept has also impacted the political introversion, including the law. It is taken into account in the planned strategies and legal regulations adopted by EU institutions.³ Intensified activities in this area are determined, on the one hand, by the recent crises, including the related failures that the international community has suffered, in particular in connection with the COVID-19 pandemic, and, on the other hand, by the inevitable conclusion that continued application of the current approach, based on the paradigm of separation and autonomy of the spheres of human, animal, and environmental health, cannot allow for effective achievement of public health objectives.

The paper examines political and legal documents issued by EU bodies, and initiatives undertaken to identify the current stage of implementation of the concept into the political and legal systems of the EU. By tracing its penetration from the field of medical sciences, the paper asks an additional question regarding the EU's readiness to operationalize this concept, primarily from the point of view of institutional preparation. For the One

¹ Sarah J. Pitt and Alan Gunn, "The One Health Concept," *British Journal of Biomedical Science* 81 (2024): 12366, <https://doi.org/10.3389/bjbs.2024.12366>.

² Ronald M. Atlas, "One Health: Its Origins and Future," *Current Topics in Microbiology and Immunology* 365 (2013): 1–13, https://doi.org/10.1007/82_2012_223.

³ See as an example: Regulation (EU) 2021/522 of The European Parliament and of the Council of 24 March 2021 establishing a Programme for the Union's action in the field of health ('EU4Health Programme') for the period 2021–2027, and repealing Regulation (EU) No 282/2014 (O.J.E.C. L107/1, 26 March 2021).

Health concept to be fully implemented, certain conditions must be met, as both political strategies and the framework set by the law must refer to the effects achieved as a result of research carried out, in particular in the field of medical science, and their applications. In light of the above, the author aim to examine the extent to which the EU authorities are ready to adopt and implement policies in line with the One Health approach, referring to international factors that provide the motivation and support for these measures.

The article employs methods of descriptive and sociological analysis. The focus was on describing the impact of concepts originating from life sciences as a factor determining the area of social functioning related to public health and its impact on the administrative policies and the legal provisions adopted by the EU. This method was complemented by a law-dogmatic analysis.

2. One Health Concept in the Medical Sciences

To better understand the assumptions underlying the concept, which permeates the EU's political and legal system, it is necessary to refer to the conceptual and terminological findings made in the field of broadly understood medical sciences. The framework of the One Health concept, or the new perspective on ways to identify the sources of threats to public health, is not easy to define or rigorous. There is currently no universal standard definition of One Health.⁴ However, there is no doubt that it is based on the assumption that human health, animal health, and environmental health are interconnected.⁵

⁴ Michael Bresalier, Angela Cassidy, and Abigail Woods, "One Health in History," in *One Health: The Theory and Practice of Integrated Health Approaches*, eds. Jakob Zinsstag et al. (CAB International, 2015), 1–14, accessed April 5, 2024, <https://www.cabi.org/wp-content/uploads/Chap1-9781789242577.pdf>; Maria Cristina Schneider et al., "One Health" From Concept to Application in the Global World," *Oxford Research Encyclopedia of Global Public Health*, April 26, 2019, accessed April 6, 2024, <https://oxfordre.com/publichealth/view/10.1093/acrefore/9780190632366.001.0001/acrefore-9780190632366-e-29>.

⁵ Francesca Coli and Hanna Schebesta, "One Health in the EU: The Next Future?," *European Papers* 8, no. 1 (2023): 301–16.

Going back to its origins, it should be emphasized that the history of this concept is, in a sense, an extension of the One Medicine concept.⁶ Sometimes these terms are used interchangeably, however, this is incorrect, as they are distinct from each other. One Medicine emphasized the cooperation between human and veterinary medicine,⁷ and had a rather clinical connotation, which insufficiently reflected the interactions between human and animal health that reach far beyond individual clinical issues and include ecology, public health, and broader societal dimensions. It is observed that One Medicine is thus evolving into One Health through the practical implementation and careful validation of contemporary thinking on health and ecosystems and their relevance to the development of global public health and animal health.⁸ The new approach embodied in the One Health concept also takes into account elements of the ecosystem and the environment as interdependent links that connect the other two.⁹

The integrated and systemic idea of health is of key importance here, as it not only determines the development of science but is also integrated into policies that are implemented in response to ongoing global changes. At the same time, bearing in mind the need to revise the current approach, it should be proposed that, for the effectiveness of the assumptions adopted in medical sciences, as well as the implementation of the developed

⁶ The origin of the One Medicine concept has been linked to the 19th century German physician and pathologist, Rudolf Virchow, whose discoveries on *Trichinella spiralis* in pork led to valuable public health measures. However, Calvin Schwabe made major advances in the field of public health through his writings and his position as Chair of a new Department of Epidemiology and Preventive Medicine at the University of California, Davis School of Veterinary Medicine. He is credited with having coined the term “One Medicine” and he strongly advocated for collaboration between professionals in human and veterinary public health to address zoonotic disease concerns. See: Carlton Gyles, “One Medicine, One Health, One World,” *The Canadian Veterinary Journal* 57, no. 4 (2016): 345–6.

⁷ Tracey A. King, “The One Medicine Concept: Its Emergence from History as a Systematic Approach to Re-Integrate Human and Veterinary Medicine,” *Emerging Topics in Life Sciences* 5,5 (2021): 643–54, <https://doi.org/10.1042/etls20200353>.

⁸ Jakob Zinsstag et al., “From ‘One Medicine’ to ‘One Health’ and Systemic Approaches to Health and Well-Being,” *Preventive Veterinary Medicine* 101, no. 3–4 (2011): 148–56, <http://dx.doi.org/10.1016/j.prevetmed.2010.07.003>.

⁹ One Health has seen an unprecedented revival in the last decade with scientific debate, research programs (www.onehealthcommission.org), integrated disease surveillance (www.promedmail.org), and an open toolbox in the fields of disease surveillance, epidemiological studies and healthcare provision.

scientific outcomes in social policies and policies adopted in processes based on the One Health approach, it is necessary to ensure full communication, coordination, cooperation, and capacity building that will enable development.¹⁰ Such conclusions follow from the multi-sectoral nature of this concept.

3. The One Health Concept as a Challenge for International Authorities

Findings made in the medical sciences have implications for the social and political spheres and pose a challenge to the international community. The challenge was to implement the arrangements introduced in the area of medicine in connection with the new approach to the social sphere. The first recommendations related to the One Health approach, addressed to governments and politicians, as well as scientific institutions, were contained in the “Manhattan Principles”¹¹ document issued in 2004. It was, in a way, the result of the impact of the global outbreak of Severe Acute Respiratory Syndrome coronavirus (SARS-CoV-1), which sharply highlighted the risks posed to humans by zoonoses.¹² The document emphasized the need for a broader understanding of the demands of health and disease and unity of approach achievable only through a consistent focus on human, domestic animal, and wildlife health, converging in the concept of One Health.

It was stressed that phenomena such as species loss, habitat degradation, pollution, invasive alien species, and global climate change are fundamentally altering life on the planet, from the wild areas on the land and ocean depths to the most densely populated cities. The rise of new and re-emerging infectious diseases threatens not only humans (and their food supplies and economies) but also the fauna and flora comprising the

¹⁰ Tomas C. Mettenleiter et al., “The One Health High-Level Expert Panel (OHHLEP),” *One Health Outlook* 18, no. 5 (2023), <https://doi.org/10.1186/s42522-023-00085-2>.

¹¹ The principles were developed during a symposium organized in New York by the Wildlife Conservation Society “Building Interdisciplinary Bridges to Health in a Globalized World” in New York – “The Manhattan Principles,” Wildlife Conservation Society, accessed April 6, 2024, <https://oneworldonehealth.wcs.org/About-Us/Mission/The-Manhattan-Principles.aspx>.

¹² John S. Mackenzie and Martyn Jeggo, “The One Health Approach—Why Is It So Important?,” *Tropical Medicine and Infectious Disease* 4, no. 2 (2019): 88, <https://doi.org/10.3390%2Ftropicalmed4020088>.

critically needed biodiversity that supports the living infrastructure of our world. In 2019, the “Manhattan Principles” were replaced by the “Berlin Principles,”¹³ which focused on the need to update the previous document by reintegrating ecosystem health and integrity while also addressing current pressing issues, such as climate change and antimicrobial resistance that are intrinsically connected with human activity and profoundly influenced by it.¹⁴ This update identified two main interdependent needs, which are still relevant today: to shed light on the environmental component of One Health, and to broaden the scope of One Health, which is largely limited to the epidemiological, medical, and veterinary fields.¹⁵ The discussions on aspects of health and the factors that determine them, due to the multi-sectoral nature of the issue itself and the lack of terminological clarity, tended to concentrate on its conceptual and social dimensions.

Finally, the proposal for a comprehensive approach to One Health put forward in 2021, was made by the One Health High-Level Expert Panel (OHHLEP), a group of 26 independent experts on One Health, created thanks to the so-called Quadripartite (or Tripartite Plus), the partnership on One Health involving four international organizations: FAO, WHO, OIE, and UNEP.¹⁶ According to the definition:

One Health is an integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals and ecosystems. It recognizes that the health of humans, domestic and wild animals, plants, and the wider environment (including ecosystems) are closely linked and inter-dependent.

¹³ In 2019, the “One Planet, One Health, One Future” conference, “The 2019 Berlin Principles on One Health,” Wildlife Conservation Society, accessed April 6, 2024, <https://oneworlddone-health.wcs.org/About-Us/Mission/The-2019-Berlin-Principles-on-One-Health.aspx>.

¹⁴ Kim Gruetzmacher et al., “The Berlin Principles on One Health – Bridging Global Health and Conservation,” *Science of The Total Environment* 764 (2021): 142919, <https://doi.org/10.1016/j.scitotenv.2020.142919>.

¹⁵ Coli and Schebesta, “One Health in the EU,” 306.

¹⁶ The One Health Quadripartite was launched on 17 March 2022; it consists of four global organizations: The World Health Organization (WHO), the World Organization for Animal Health (WOAH, formerly OIE), the UN Food and Agriculture Organization (FAO) and the UN Environment Programme (UNEP), see: “Quadripartite Memorandum of Understanding (MoU) Signed for a New Era of One Health Collaboration,” UNEP, April 29, 2022, accessed April 6, 2024, <https://www.unep.org/resources/publication/quadripartite-memorandum-understanding-mou-signed-new-era-one-health>.

The approach mobilizes multiple sectors, disciplines and communities at varying levels of society to work together to foster wellbeing and tackle threats to health and ecosystems, while addressing the collective need for clean water, energy and air, safe and nutritious food, taking action on climate change, and contributing to sustainable development.¹⁷

A new, important element in the proposed definition is a clear reference to the methodology and approach that allow for the practical implementation of the assumptions that lie at the core of this concept. OHHLEP provided input into the One Health Joint Plan of Action,¹⁸ a strategic document outlining the way forward for the successful implementation of the One Health approach to tackle global problems at the human-animal-ecosystem interface. The purpose of adopting of the One Health Joint Plan of Action was also to support One Health implementation by member countries, enable collaboration across sectors and regions, identify synergies and overlaps to support coordination and mobilize investment including better use of resources. It should be noted here that the One Health Joint Plan of Action is also consistent with the key needs to achieve the United Nations Sustainable Development Goals¹⁹ and provides guiding principles for policymakers, scientists and practitioners. The One Health Joint Plan of Action has six interdependent Action Tracks which are focused on enhancing One Health capacities to strengthen health systems, reducing the risk of emerging zoonotic epidemics and pandemics, controlling and eliminating endemic zoonotic, neglected tropical and vector-borne diseases, strengthening the assessment, management and communication of food safety risks, curbing the silent pandemic of antimicrobial resistance and integrating the environment into One Health.

It was an important piece of advice for public authorities, but it also remains valid here. According to Principle 8 of the “Berlin Principles,” enhancing the capacity for cross-sectoral and trans-disciplinary health

¹⁷ Mettenleiter et al., “The One Health.”

¹⁸ World Health Organization, Food and Agriculture Organization of the United Nations, World Organisation for Animal Health & United Nations Environment Programme, *One Health Joint Plan of Action (2022–2026): Working Together for the Health of Humans, Animals, Plants and the Environment* (Rome: World Health Organization, 2022), <https://doi.org/10.4060/cc2289en>.

¹⁹ “The 17 Goals,” United Nations, 2023, accessed April 6, 2024, <https://sdgs.un.org/goals>.

surveillance and clear, timely information-sharing to improve coordination of responses between governments and non-governmental organizations, health, academia, and other institutions, the private sector, and other stakeholders. In this context, guidelines for public authorities seem to be clear, although in each specific case, questions remain as to what exactly should be done to ensure that the strategies adopted allow for the effective implementation of the One Health concept.

In this context, the One Health Quadripartite is a helpful initiative to guide the activities of stakeholders participating in One Health strategies. While the importance of cooperation at the global level cannot be overestimated, the implementation of the One Health approach cannot take place without significant involvement of authorities at the level of national policies and strategies. Notwithstanding the above, it should be borne in mind that, despite progress towards a common approach, specific approaches adopted in these areas may differ.

In this context, it is worth recalling the impact of the work and arrangements established by One Health Quadripartite and adopted in December 2023 as “The guide to implementing the One Health Joint Plan of Action at national level.”²⁰ The document highlights actionable pathways such as governance, sectoral integration, and knowledge, with the view to ensuring a successful implementation of One Health. It is designed to support countries at different stages of implementing One Health by encouraging teamwork and the engagement of different sectors. In this perspective, which is aligned with the 2030 Sustainable Development Goals, One Health is recognized as a key part of keeping people healthy in the long term. It brings different sectors such as health, agriculture, and education together to work towards common goals and make sure that everyone’s health is covered. While the members of the Quadripartite have a mandate to focus on tackling challenges across human, animal, plant, and environmental domains, their efforts aim to foster a more integrated and coordinated approach.

²⁰ The guide to implementing the One Health Joint Plan of Action at the national level was launched during the United Nations Climate Change Conference (COP28) held from November 30 to December 13 at Expo City in Dubai, United Arab Emirates. See: “The Guide to Implementing the One Health Joint Plan of Action at National Level,” UNEP, December 10, 2023, accessed April 6, 2024, <https://www.unep.org/resources/report/guide-implementing-one-health-joint-plan-action-national-level>.

Another positive value of the cited document is the indication of six areas where actions should be taken to implement the One Health approach. In particular, the six areas to focus on include laboratory services, control of zoonotic diseases, neglected tropical diseases, antimicrobial resistance, food safety, and environmental health,²¹ and, above all, the paths and stages of implementation of One Health into national policies,²² also affecting the actions taken by the EU authorities.

In the context of the assumptions of the One Health concept outlined above, action at the international level seems to be necessary, primarily due to the integrated and coordinated approach adopted in the One Health assumptions, which is not only helpful at the national level but also positively affects the way tasks are carried out by a supra-national organization such as the EU.

4. One Health Concept in EU Policies

In the area of EU policies assigned to the executive body of the European Union responsible for current policy, the One Health approach has undergone a certain evolution, similar to that which happened in the medical sciences. A detailed analysis in this respect has been provided in the article by F. Coli and H. Schebesta, who pointed to the clear evolution of this concept since 2010.²³ By dividing the timelines defining the measures taken by the European Commission in relation to the One Health concept into four parts, they indicated that there has been an evolution both with regard to the One Health concept itself and to the way it has been approached. The authors pointed out that in the first period, One Health was not perceived as an autonomous concept, separate from the “Manhattan Principles”; instead, it appeared at best as an “initiative” of the international arena. In fact, initially, the European Commission recognized One Health as an expression of the unique link between human and animal health, without taking environmental health into account. The breakthrough came with the adoption

²¹ Pitt and Gunn, “The One Health Concept.”

²² See: “The Guide to Implementing the One Health Joint Plan of Action at National Level,” 11.

²³ See: Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions The EU Role in Global Health SEC(2010)380 SEC(2010)381 SEC(2010)382, COM/2010/0128 final.

of the European Green Deal²⁴ in 2019; from then on, the documents refer directly and explicitly to the One Health concept. The European Green Deal as an example of policy initiatives of the European Commission responds to problems related to the climate and the natural environment, considering this to be the most important task facing the current generation. First of all, the document refers to the fact that the atmosphere is warming and the climate is changing every year. It is a new growth strategy that aims to transform the EU into a fair and prosperous society with a modern, resource-efficient and competitive economy that achieves net zero greenhouse gas emissions by 2050 and decouples economic growth from the use of natural resources. It also aims to protect, conserve and enhance the EU's natural capital, and protect the health and well-being of citizens from environment-related risks and impacts.

During the transition period, in 2017, the EU One Health Action Plan Against Antimicrobial Resistance AMR²⁵ was launched, bringing a change of direction in the approach to the above-mentioned issue. Importantly, the cited document introduced a legal definition of the concept of One Health, according to which:

One Health: is a term used to describe a principle which recognizes that human and animal health are interconnected, that diseases are transmitted from humans to animals and vice versa and must therefore be tackled in both. The One Health approach also encompasses the environment, another link between humans and animals and likewise a potential source of new resistant microorganisms.²⁶

It may seem that the perspective on the issue is narrow because the European Commission did not consider the three dimensions of One Health as equally important. Yet, it should be emphasized that the Action Plan

²⁴ See: Communication From The Commission To The European Parliament, The European Council, The Council, The European Economic And Social Committee And The Committee Of The Regions The European Green Deal Brussels, 11 December 2019, COM(2019) 640 final. See: Communication From The Commission To The Council And The European Parliament A European One Health Action Plan against Antimicrobial Resistance (AMR), COM/2017/0339 final.

²⁵ Ibid.

²⁶ Ibid., 3.

document itself refers to the need to address a broad concept that includes environmental factors, identifying AMR as one of the problems to which the One Health concept should be applied in such a broad approach.

Following the open adoption of the assumptions of the One Health concept, there are several policy strategies under the European Green Deal, including the Biodiversity Strategy to 2030,²⁷ the Zero Pollution Action Plan,²⁸ the Farm to Fork strategy,²⁹ the Chemical Strategy for Sustainability,³⁰ and the Pharmaceutical Strategy for Europe.³¹ The latter refers directly to the Plan Against AMR, which is the European One Health action plan to combat antimicrobial resistance. Moreover, the adopted policies also indicate other important areas of One Health including pandemic prevention, biodiversity loss, chemical pollution, and food system sustainability.

Therefore, there has been a clear change over time in the way the One Health concept has been approached, understood, and implemented. This is particularly clear in the document on Building a European Health Union,³² which pointed out that it currently requires a systemic,

²⁷ Communication From The Commission To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions, EU Biodiversity Strategy for 2030 Bringing nature back into our lives, Brussels, 20 May 2020, COM(2020) 380 final.

²⁸ Communication From The Commission To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions Pathway to a Healthy Planet for All EU Action Plan: Towards Zero Pollution for Air, Water and Soil, Brussels, 12 May 2021, COM(2021) 400 final.

²⁹ Communication From The Commission To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system, Brussels, 20 May 2020, COM(2020) 381 final.

³⁰ Communication From The Commission To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions Chemicals Strategy for Sustainability Towards a Toxic-Free Environment, Brussels, 14 October 2020, COM(2020) 667 final.

³¹ Communication From The Commission To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions Pharmaceutical Strategy For Europe {Swd(2020) 286 Final}, Brussels, 25 November 2020, COM(2020) 761 final.

³² Communication From The Commission To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions Building a European Health Union: Reinforcing the EU's resilience for cross-border health threats, Brussels, 11 November 2020, COM(2020) 724 final.

forecast-based approach that takes into account the interactions between human and animal health and the environment to develop structural solutions adapted to future challenges, in line with the One Health approach.

This approach is continued in the EU Global Health Strategy.³³ One of its guiding principles refers to applying a comprehensive One Health approach and intensifying the fight against antimicrobial resistance. The Commission identifies two critical challenges that have become more urgent in recent years. The first can be defined as the complexity and the consequences of animal, environmental, and human interactions, which require a multisectoral, integrated, and transdisciplinary One Health approach. The second is the invisible pandemic of antimicrobial resistance. To develop this guiding principle, the Commission identifies lines of action that should be prioritized. These include intensifying cooperation with the Quadripartite to implement its One Health Joint Plan of Action, as well as seeking “deep prevention,”³⁴ which stands for identifying and addressing threats before pathogens cross from animals to humans, rather than after human outbreaks have occurred, and strengthening the capacity to prevent pollution-related health threats.

This was highlighted in the document on the Future of Europe,³⁵ stressing the need for a broader understanding of health. This approach would lead to the adoption of a holistic approach to health, addressing, beyond diseases and cures, health literacy and prevention, and fostering a shared understanding of the challenges faced by people who are ill or disabled, in

³³ Communication From The Commission To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions EU Global Health Strategy Better Health for All in a Changing World, Brussels, 30 November 2022, COM(2022) 675 final.

³⁴ Jorge Vinales et al., “A Global Pandemic Treaty Should Aim for Deep Prevention,” *The Lancet* 397, no. 10287 (2021): 1791–2, accessed April 6, 2024, [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(21\)00948-X/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)00948-X/fulltext).

³⁵ See: Communication From The Commission To The European Parliament, The European Council, The Council, The European Economic And Social Committee And The Committee Of The Regions Conference On The Future Of Europe Putting Vision into Concrete Action, Brussels, 17 June 2022, COM(2022) 404 final.

line with the One Health approach, which should be describe as a horizontal and fundamental principle encompassing all EU policies.³⁶

In light of this abbreviated and simplified overview of EU policies on the timeline of changing approaches to One Health, it should be noted that, during the period under review, One Health has gained greater legitimacy than in the past, when it was recognized as an “initiative” or a “concept.” While it is still undergoing transformation, it is currently perceived as a “principle” and an “approach.” This change has a direct impact on the meaning of One Health within the European system. The term “approach” suggests a methodology that should be applied by institutions in their procedures and that should be taken into account by policy-makers in the policy-cycle process, as well as by the judicial bodies in their legal interpretation. Meanwhile, the term “principle” paves the way for a new configuration of One Health and means that it should be taken into account by policy-makers in the policy-cycle process, and by the judicial bodies in their legal interpretation.³⁷ Over time, there has been an evolution in the way in which One Health is perceived as a policy tool, as well as in the scope of the area to which the European Commission addresses tasks.

5. One Health in EU Legislation

Legislation is the area where the principles that guide the EU’s policies are implemented. This is a place where they acquire normative force, and where specific institutions and legal instruments are put in place to implement them. Assuming that One Health is treated in EU policies both as a principle and as an approach directed, in particular, at public authorities, it has also been reflected in the adopted legislation. However, as the concept itself has evolved, so did the normative approach, reflecting the state of the current public debate and the way issues are dealt with.³⁸

In the area of legislation related to One Health, the earliest references to this concept can be found, in particular, in recitals of the Animal Health

³⁶ See: COM(2022) 404 final, Annex, 8.

³⁷ Coli and Schebesta, “One Health in the EU,” 310.

³⁸ Ibid., 311.

Law Amendment³⁹ or the Veterinary Medicinal Products⁴⁰ regulations, which referred to a narrow understanding, emphasizing the interdependence of human and animal health in the context of AMR.⁴¹ Similar references can be found in Official Controls from Third Countries Regulation,⁴² and the Horizon Europe Regulation.⁴³ It seems, however, that the concept of One Health understood in a broad sense currently begins to dominate in the adopted law. This perspective is reflected primarily in the presentation adopted in the EU4Health Programme Regulation.⁴⁴ Basically the EU4Health Programme Regulation focuses on reinforcing the EU's resilience for cross-border health threats including actions directed at strengthening preparedness planning and response capacity at national and Union level, at reinforcing the role of the European Centre for Disease Prevention and Control (ECDC) and the European Medicines Agency (EMA), and at establishing a health emergency preparedness and response authority. Such actions could include building capacity for responding to health crises, preventive measures related to vaccination and immunization, strengthened surveillance programs, provision of health information, and

³⁹ Regulation (EU) 2016/429 Of The European Parliament And Of The Council Of 9 March 2016 on transmissible animal diseases and amending and repealing certain acts in the area of animal health ('Animal Health Law', O.J.E.C. L84/1, 31 March 2016), 1–208.

⁴⁰ Regulation (EU) 2019/6 of the European Parliament and of the Council of 11 December 2018 on veterinary medicinal products and repealing Directive 2001/82/EC (Text with EEA relevance, O.J.E.C. L4, 7 January 2019), 43–167.

⁴¹ See: Adriana Kalicka-Mikołajczyk, "Unia Europejska wobec kwestii zwalczania oporności na środki przeciwdrobnoustrojowe," in *Prawo międzynarodowe wobec wyzwań społecznych*, eds. Ewelina Cała-Wacinkiewicz et al. (Warsaw: C.H. Beck, 2023), 261–8.

⁴² Regulation (EU) 2021/1756 of the European Parliament and of the Council of 6 October 2021 amending Regulation (EU) 2017/625 as regards official controls on animals and products of animal origin exported from third countries to the Union in order to ensure compliance with the prohibition of certain uses of antimicrobials and Regulation (EC) No 853/2004 as regards the direct supply of meat from poultry and lagomorphs (O.J.E.C. L357/27, 8 October 2021).

⁴³ Council Regulation (EU) 2021/2085 of 19 November 2021 establishing the Joint Undertakings under Horizon Europe and repealing Regulations (EC) No 219/2007, (EU) No 557/2014, (EU) No 558/2014, (EU) No 559/2014, (EU) No 560/2014, (EU) No 561/2014 and (EU) No 642/2014 (O.J.E.C. L427/17, 30 November 2021).

⁴⁴ Regulation (EU) 2021/522 of the European Parliament and of the Council of 24 March 2021 establishing a Programme for the Union's action in the field of health ('EU4Health Programme') for the period 2021–2027, and repealing Regulation (EU) No 282/2014 (Text with EEA relevance, O.J.E.C. L107, 26 March 2021).

platforms to share best practices. In this context, the Programme should foster Union-wide and cross-sectoral crisis prevention, preparedness and surveillance, and the management capacity and response capacity of actors at Union and Member State levels, including contingency planning and preparedness exercises, in keeping with the “One Health” and “Health in All Policies” approaches.⁴⁵

It directly considers the One Health approach⁴⁶ as a multi-sectoral approach, which recognizes that human health is linked to animal health and the environment, and that actions to counteract health threats must take these three dimensions into account. Additionally, it identifies the objectives of the Regulations 2021/522 which have to improve human health across the Union and ensure a high level of protection of human health in all Union policies and activities, taking the One Health approach into account where applicable. An example of the implementation of such an approach in terms of an eligible action⁴⁷ is supporting actions aimed at increasing the supply, availability, and affordability of medicinal products, medical devices, and products relevant in the context of the crisis by supporting sustainable production and supply chains and innovation in the Union. The aforementioned actions should be implemented to facilitate the establishment and functioning of a cross-sectoral coordination mechanism in accordance with the One Health approach.⁴⁸

In the context of the regulations adopted, the question arises as to whether the new approach, so openly manifested and used as a political instrument, affects the current way of achieving the goals set in the area of health. It was accurately pointed out that this way of perceiving the One Health approach may be recognized as a binding legal principle and constitute a new paradigm not only for the health sector in the strict sense but also for related sectors, i.e. food, pharmaceutical, chemical, or environmental.⁴⁹ At the same time, it should be noted that no mechanisms have been introduced to enable the decoding of the One Health principle in direct connection with Article 168(1) TFEU which lays down directives

⁴⁵ See: Recital 11 Regulation (EU) No 282/2014.

⁴⁶ Article 2(5) of the Regulation 2021/522.

⁴⁷ Article 12 of the Regulation 2021/522.

⁴⁸ See: Annex 1 to the Regulation 2021/522.

⁴⁹ Coli and Schebesta, “One Health in the EU,” 312.

concerning the maintenance of a high standard of protection of human health in all Union policies and activities, as well as with Article 11 TFEU which refers to environmental protection requirements or Article 13 TFEU which refers to animal welfare. There is no doubt that One Health has become a useful tool in policy planning and implementation, which clearly defines the chosen direction; one should not forget about the strong recommendation expressed in Communication 2022 that One Health should be conceptualized as a “horizontal and fundamental principle encompassing all EU policies,”⁵⁰ although fitting legislation and effective implementation, monitoring, and enforcement of the One Health approach continue to be a challenge for the EU.

6. Institutionalization of the One Health Approach in the EU

Given that the concept of One Health is understood as a new approach or principle in implementing public policies related to health in the broad sense, there is a need to provide it with institutional support. Looking from a relatively short-term perspective, which adopts the agreed One Health approach, no new institutional solutions dedicated exclusively to the implementation of the One Health approach in the EU have been created so far. At most, we can see their beginnings stemming from cooperation and joint activities launched between EU institutions. This is undoubtedly influenced by the fact that the concept itself and the way it is understood are changing and, above all, regardless of the currently adopted idea, there is still a huge challenge in operationalizing One Health,⁵¹ due to its intersectoral and interdisciplinary nature. At the same time, there is no doubt that transdisciplinary cooperation in providing scientific advice to policy-makers in this regard is necessary, as this approach seems to be the most effective and sustainable in ensuring the prevention, preparedness, and early detection of risks and threats to health and wellbeing.⁵²

⁵⁰ See: COM(2022) 404 final Annex, 8.

⁵¹ Patricia A. Conrad, Laura A. Meek, and Joe Dumit, “Operationalizing a One Health Approach to Global Health Challenges,” *Comparative Immunology, Microbiology and Infectious Diseases* 36, no. 3 (2013): 211–6.

⁵² Jakob Zinsstag et al., “Advancing One Human–Animal–Environment Health for Global Health Security: What Does the Evidence Say?” *The Lancet* 401, no. 10367 (2023): 591–604.

In the network of European institutions, EU agencies are usually perceived as knowledge centers, bringing together know-how to support decision-makers in formulating, adopting, implementing, and assessing policies. However, while they have traditionally dealt with aspects of human, terrestrial and aquatic animal, plant, and ecosystem health in silos, now they need to take a broader perspective and move towards One Health approach.⁵³ They need to be redesigned,⁵⁴ increase their ability to understand cooperation, and ensure greater flexibility.⁵⁵ It should be noted that the experience resulting from cooperation during the COVID-19 pandemic⁵⁶ has undoubtedly been helpful and has contributed to the development of certain standards. Since that time, the range of competences of EU Agencies, and methods of cooperation in acquiring and exchanging data needed to implement the One Health approach have been strengthened, but there is still a need for remodeling.

Soft change has been carried out through joint initiatives, including programs involving other stakeholders, an example of which is *The One Health European Joint Programme* (OHEJP), established in 2018 to address challenges of interdisciplinary coordination. It boasts a landmark partnership between 37 partners across 19 member states in Europe and the Med-Vet-Net-Association.⁵⁷ The OHEJP is in active dialogue with the key European agencies, the European Centre for Disease Prevention and Control (ECDC), and the European Food Safety Authority (EFSA), to ensure that One Health needs are addressed synergistically. This approach aims to improve cross-disciplinary collaboration and communication, which in

⁵³ Stef Bronzwaer et al., “One Health Collaboration with and among EU Agencies – Bridging Research and Policy,” *One Health* 15 (2022), accessed March 13, 2024, <https://www.sciencedirect.com/science/article/pii/S2352771422000969>.

⁵⁴ Ibid., 3.

⁵⁵ In October 2020, the European Court of Auditors released a Special Report 22/2020: “Future of EU agencies – Potential for more flexibility and cooperation,” accessed March 14, 2024, <https://op.europa.eu/webpub/eca/special-reports/agencies-performance-audit-22-2020/en/>.

⁵⁶ Claudia Seitz, “The European Health Union and the Protection of Public Health in the European Union: Is the European Union Prepared for Future Cross-Border Health Threats?,” *ERA Forum* 23 (2023): 543–66.

⁵⁷ Helen L. Brown et al., “The One Health European Joint Programme (OHEJP) 2018–2022: An Exemplary One Health Initiative,” *Journal of Medical Microbiology* 59, no. 8 (2020): 1037–9, accessed April 13, 2024, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7642980/>.

turn facilitates the OHEJP's efforts to translate science into policy and enables it to tackle foodborne zoonoses, antimicrobial resistance, and emerging infectious threats on a much larger scale.

Further examples of interinstitutional initiatives include the cooperation between the European Environment Agency (EEA) and the European Chemicals Agency (ECHA); as well as the European Environment Agency (EEA), the European Food Safety Authority (EFSA), and the European Medicines Agency (EMA). They were undertaken to ensure that scientific advice by EU agencies can be increasingly integrated and aligned with the One Health approach. Since 2023, this collaboration has been further strengthened by the establishment of a cross-agency task force on One Health. In order to support the implementation of a One Health approach within and among the agencies, the task force focuses on five strategic objectives. They refer to facilitating strategic coordination of the work of agencies, promoting research coordination, providing a forum for the coordination of activities to update, inform and support the EU, policy-makers and other relevant stakeholders in their goal to prioritize One Health. Providing scientific advice in key areas such as food safety, global public health, biodiversity, and chemical pollution is also an important element as well as strengthening joint activities and the sharing of information on One Health aspects among the agencies, including by identifying interlinkages, interdependencies and fields of cooperation and providing a platform for the exchange of good practices within individual agencies.⁵⁸ The five EU agencies published the joint statement titled "Cross-agency knowledge for One Health action" on the occasion of the "One Health for All, All for One Health" conference organized by the European Commission.⁵⁹ The statement outlines the agencies' shared commitment to the One Health agenda in Europe and highlights a number of priorities for One Health action.

⁵⁸ See: "One Health Cross-Agency Task Force. Strengthening EU Agencies' Scientific Advice on One Health," EFSA, accessed March 13, 2024, <https://www.efsa.europa.eu/sites/default/files/documents/news/one-health-cross-agency-task-force.pdf>.

⁵⁹ See: "Cross-Agency Knowledge for One Health Action," European Environment Agency, published 13 November 2023, modified 23 May 2024, accessed April 6, 2024, <https://www.eea.europa.eu/en/topics/at-a-glance/health/cross-agency-knowledge-for-one-health-action-statement>.

Following these actions, in May 2024, the five agencies presented a framework for action that aims to guide the work of the cross-agency One Health task force for the period 2024–2026.⁶⁰ Its main objective is to strengthen cooperation to support the implementation of the One Health agenda in the European Union (EU).

The presented sequence of actions corresponds to a certain extent to the postulates reported in the literature, as there is an urgent need to define research requirements from a One Health perspective. However, the recommendations go much further, and call for the establishment of a transdisciplinary One Health Research and Innovation governance, both at national and EU levels.⁶¹

The measures taken so far are not based on a strongly institutionalized mechanism and therefore do not provide long-term funding. The lack of institutional support that would adequately coordinate the collection and use of information from various areas of medicine, veterinary medicine, and environmental sciences hinders the effective implementation of the One Health approach.

7. Summary

It seems obvious that the One Health concept is necessary for enabling interdisciplinary and transdisciplinary thinking and action from a public health perspective.

The concept itself, in its theoretical assumptions, does not seem to raise any major doubts. However, its conceptualization and implementation raise many practical problems. They undoubtedly require a change in the current systemic approach, starting with the preparation of representatives of medical, veterinary, and environmental sciences to act in line with the One Health approach, through the creation of institutional solutions, including financial ones, to enable research to be carried out according to the proposed approach. It is fundamentally different from the previous one.

⁶⁰ See: “Cross-Agency One Health Task Force Framework for Action, 2024–2026,” European Centre for Disease Prevention and Control, 7 May 2024, accessed May 16, 2024, <https://www.ecdc.europa.eu/sites/default/files/documents/cross-agency-one-health.pdf>.

⁶¹ Stef Bronzwaer et al., “One Health Collaboration,” 4.

There is also the issue of transdisciplinary cooperation in providing scientific advice to policy-makers.

The presented policy initiatives and legal solutions adopted by EU bodies in relation to One Health show a slow but visible change in approach. It concerns both the scope of this concept and the way it is used in the social, political, and legal contexts. Both in the narrow sense, limited to actions taken in relation to combating antibiotic resistance, as well as in a broad sense, related to the efforts made towards achieving health, while taking all relevant factors into account, One Health recognizes the interconnection between human health, the environment, and animal health. Thus, the new paradigm resulting from the One Health approach becomes a factor that directly affects not only the health sector in the strict sense, but also related sectors (food, pharmaceutical, chemical, or environmental). In this way, it has evolved from a concept into a principle and an approach that binds public authorities. Although this course of action appears to be necessary, it is not free of moral and legal dilemmas.⁶²

However, the noticeable change in conceptual approach is not the only challenge in this area. Many doubts remain about the operationalization of One Health. Additionally, it should be noted that the rationality of the efforts made at the EU level, in terms of policies, legislation, and institutions, depends largely on the initiative and level of involvement of the Member States. Here, high significance should be attached to the intensification of work with the Quadripartite on implementing its One Health Joint Plan of Action, which should serve public authorities as a standard determining the direction in the quest for individual institutional solutions enabling the adoption of the One Health approach at the national level. The direction set for public authorities in connection with the adoption of the One Health concept seems to be a foregone conclusion to the policies adopted at the EU level. The question of whether its full implementation is possible, both at the level of the EU and in individual member states, should be left open at this point.

⁶² Chris Degeling et al., “Implementing a One Health Approach to Emerging Infectious Disease: Reflections on the Socio-Political, Ethical and Legal Dimensions,” *BMC Public Health* 15, no. 1307 (2015), <https://doi.org/10.1186/s12889-015-2617-1>.

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