Planetary oikos and planetary oikonomikē as a basis for implementing and managing the concept of sustainable development

Oikos planetário e oikonomikē planetário como base para a implementação e gestão do conceito de desenvolvimento sustentável

Oikos planetario y oikonomikē planetario como base para la implementación y gestión del concepto de desarrollo sostenible

How to cite:

Vartiak, Lukas; Jaseckova, Galina; Konvit, Milan. (2025). Planetary oikos and planetary oikonomikē as a basis for implementing and managing the concept of sustainable development. Revista Gestão & Tecnologia, vol. 25, no. 2 Special Edition, pp: 147-178

Lukas Vartiak,
Comenius University in Bratislava, Faculty of Social and Economic Sciences, Mlynske luhy 4, 821 05 Bratislava, Slovakia
https://orcid.org/0000-0002-9735-5945

Galina Jaseckova
Comenius University in Bratislava, Faculty of Social and Economic Sciences, Mlynske luhy 4, 821 05 Bratislava, Slovakia
https://orcid.org/0000-0002-3699-8082

Milan Konvit
Comenius University in Bratislava, Faculty of Social and Economic Sciences, Mlynske luhy 4, 821 05 Bratislava, Slovakia
https://orcid.org/0000-0002-4959-7819

Scientific Editor: José Edson Lara
Organization Scientific Committee
Double Blind Review by SEER/OJS
Received on 19/11/2024 Approved on 31/03/2025

Abstract
This paper explores the transformation of Aristotle's concepts of oikos and oikonomikē into modern frameworks for addressing global sustainability challenges. Aristotle's oikonomikē integrates economic, ethical and regulatory dimensions and provides a foundation for sustainable development (SD). Through a detailed analysis of the axioms of oikonomikē — the sufficiency of natural resources, the pursuit of the good life and the necessity of ecological limits — we uncover their consistency with the principles of SD. We argue that Aristotle's vision, which emphasises ethical economic behaviour and rational needs, offers crucial insights for rethinking today's economic systems. The paper introduces the concept of a planetary oikos — a metaphor and reality shaped by modern technology and globalisation — as a home for humanity that requires harmony between material, social and ecological dimensions. It further develops the idea of planetary oikonomikē, which addresses current global challenges by emphasising ethical resource management, intergenerational equity and environmental sustainability. We explore possible pathways for the planetary economy through scenario development, including incremental reform, technological change and radical systemic change. Although planetary oikonomikē remains partly utopian, its principles serve as a guide for integrated eco-social-humanitarian development. This study emphasises the need to balance technological progress, ethical leadership and ecological responsibility. Remaining Aristotle's philosophy calls for reorienting the modern economy towards a sustainable and equitable global system.

Keywords: Sustainable Development, Aristotle's Oikonomikē, Planetary Oikos, Ethical Economics, Economic Ecology Nexus

JEL: B12, P48, Q01, Q56

Resumo
Este artigo explora a transformação dos conceitos de oikos e oikonomikē de Aristóteles em estruturas modernas para abordar os desafios globais de sustentabilidade. O oikonomikē de Aristóteles integra dimensões econômicas, éticas e regulatórias e fornece uma base para o desenvolvimento sustentável (DS). Por meio de uma análise detalhada dos axiomas de oikonomikē — a suficiência de recursos naturais, a busca pela boa vida e a necessidade de limites ecológicos — descobrimos sua consistência com os princípios do DS. Argumentamos que a visão de Aristóteles, que enfatiza o comportamento econômico ético e as necessidades racionais, oferece insights cruciais para repensar os sistemas econômicos atuais. O artigo introduz o conceito de um oikos planetário — uma metáfora e realidade moldada pela tecnologia moderna e pela globalização — como um lar para a humanidade que requer harmonia entre as dimensões material, social e ecológica. Ele desenvolve ainda mais a ideia de oikonomikē planetário, que aborda os desafios globais atuais enfatizando a gestão ética de recursos, a equidade intergeracional e a sustentabilidade ambiental. Exploramos possíveis caminhos para a economia planetária por meio do desenvolvimento de cenários, incluindo reforma incremental, mudança tecnológica e mudança sistêmica radical. Embora o oikonomikē planetário permaneça parcialmente utópico, seus princípios servem como um guia para o desenvolvimento eco-social-humanitário integrado. Este estudo enfatiza a necessidade de

equilibrar o progresso tecnológico, a liderança ética e a responsabilidade ecológica. Permanecer na filosofia de Aristóteles exige a reorientação da economia moderna em direção a um sistema global sustentável e equitativo.

Palavras-chave: Desenvolvimento Sustentável, Oikonomikē de Aristóteles, Oikos Planetário, Economia Ética, Nexus de Ecologia Econômica

Resumen
Este artículo explora la transformación de los conceptos aristotélicos de oikos y oikonomikē en marcos modernos para abordar los desafíos globales de la sostenibilidad. El oikonomikē de Aristóteles integra dimensiones económicas, éticas y regulatorias y sienta las bases para el desarrollo sostenible (DS). Mediante un análisis detallado de los axiomas del oikonomikē —la suficiencia de los recursos naturales, la búsqueda de una vida plena y la necesidad de límites ecológicos—, descubrimos su coherencia con los principios del DS. Argumentamos que la visión de Aristóteles, que enfatiza el comportamiento económico ético y las necesidades racionales, ofrece perspectivas cruciales para repensar los sistemas económicos actuales. El artículo introduce el concepto de un oikos planetario —una metáfora y una realidad moldeada por la tecnología moderna y la globalización— como un hogar para la humanidad que requiere armonía entre las dimensiones materiales, sociales y ecológicas. Profundiza en la idea del oikonomikē planetario, que aborda los desafíos globales actuales al enfatizar la gestión ética de los recursos, la equidad intergeneracional y la sostenibilidad ambiental. Exploramos posibles vías para la economía planetaria mediante el desarrollo de escenarios, incluyendo reformas incrementales, cambios tecnológicos y cambios sistémicos radicales. Si bien la oikonomikē planetaria sigue siendo en parte utópica, sus principios sirven de guía para un desarrollo ecosocial-humanitario integrado. Este estudio enfatiza la necesidad de equilibrar el progreso tecnológico, el liderazgo ético y la responsabilidad ecológica. La filosofía aristotélica restante exige reorientar la economía moderna hacia un sistema global sostenible y equitativo.

Palabras clave: Desarrollo sostenible, Oikonomikē de Aristóteles, Oikos planetario, Economía ética, Nexo de la ecología económica

1. Introduction

Nature can be understood in principle either as the sum of resources that "can neither be increased nor exhausted, and therefore do not represent the subject of economic science" (Say, 1803) or, conversely, as the sum of finite, exhaustible resources, as a result of which the economy is necessarily linked to ecology. Today, it is evident that the currently applied extractive industrial model of the economy, also referred to as the TMW model (take-make-waste), is objectively unsustainable in the long term without fundamental adjustments. The

discourse on possible adjustments or replacements primarily considers the use of science and technological progress in eliminating existing discrepancies between the way of satisfying human needs, the limited resources of nature and its limited ability to regenerate. "With the help of scientific knowledge and ecological wisdom, we can manage the Earth in such a way as to create an environment that is ecologically stable, economically profitable and favourable for the continued growth of civilisation" (Dubos, 1973). The problem is that It has not yet been possible to turn the possibility into reality by incorporating the principles of Sustainable Development (SD) into the current form of the socio-economic system. In ancient times, Heraclitus' concept of harmony was known, which implicitly hides the dialectic of SD (Russell, 1945). Similarly, Aristotle's metaphysical paradigm is based on the principle of harmony when it considers quantitative changes within the limits of existing quality, aimed at its sustainability, as the imperative of SD (Aristotle, 2008). In economic theory, this is answered by static models of general equilibrium, striving to achieve stability without inducing a qualitative change in the system. Today, in the action of human, technological and economic forces on the one hand and the forces of nature on the other, the aforementioned principle of harmony is absent: "Humanity has crossed the planetary boundaries that determine the maintenance of a safe operating space for it" (Steffen et al. 2015).

According to Mill, all (human) societies "are only users of nature and should ... leave it improved for future generations" (Mill, Nutzinger, Radre, 1995). This is how Aristotle understood the role of man on planet Earth. His concept of oikos primarily represents an autonomous economic unit with its management, governed according to the rules of the contemporary oikonomikē. It also has a secondary social, cultural, educational, reproductive and political dimension. Aristotle, in the Politics characterises a man as a zoon politikon, or rather politikon zoion, i.e., a living organism that exists in society, as a social animal or as a being living in the polis. Together with the concept of polis, it forms a complex model of the social and economic life of ancient society (Aristotle, Politics I. 6, 1256b29-30). "...while (oikos) was created for the maintenance of life, the polis exists for the maintenance of a good life" (Arist. Pol. 1252 b 25–30). The discourse on whether or not an economy in the modern sense of the word existed in antiquity has recently tended to suggest that through the concept

of oikonomikē, the conceptual foundations of economics were laid in antiquity. Still, oikonomikē was not yet a (market) economy in today's sense (Finley, 1985, 22-23; Morris et al., 2007, 7). The concept of oikonomikē is a multidimensional concept - it has an economic (satisfaction of needs), ethical (i.e. good life) and regulatory (prohibition of chremastike in the form of self-serving accumulation of wealth) dimension, and we understand it as the origin of the current concept of SD. In addition to the term oikonomikē, the term oikonomia was also known, which was also used as a term denoting rational management of resources in political theory, military strategy, law, finance, medicine, literary criticism, architecture, music, history and rhetoric. Despite the adoption of several fundamental strategic documents, the implementation of the SD concept encounters political, organisational and definitional problems (e.g. insufficiently precisely defined objectively measurable sustainability indicators and indicators of the impact of externalities), there is a lack of objectively determined qualitative and quantitative limits that must not be exceeded in SD and, above all, a poorly functioning system of data collection, processing and evaluation at the global level.

The trend in the conceptualisation of SD is from single-parameter models focused on sustainable economic growth before the 1970s, through the so-called Brundtland Report from 1987 and the World Summit on SD in 2002, which identified its three key dimensions – economic, social and environmental (Olawumi & Chan, 2018) to the latest UN document Agenda 2030 (UN, 2015).

The state of the human–nature–economy relationship is also influenced by modern technology, which has become a geological force confronting nature and forming the planetary oikos of humanity. Modern technology no longer acts like poesis but demands (herausfordern). A specific way of uncovering the world – Gestell – occurs when everything is understood as a form of usable supply. This is a particular way of expressing being in the era of planetary technology (Heidegger, 1977; Stiegler, 2016; Zwier & Blok, 2019). The so-called Kondratiev waves conceptually describe the influence of technology on the form of the so-called long economic cycles in the world economy (Korotayev & Tsirel, 2010). The first four waves are associated with the industrial era and the fifth, the last one so far, which began in the 1970s, is related to the use of ICT. The success or failure of implementing the idea of digital inclusion,

eliminating or at least minimising poverty in all its forms, will determine whether ICT will positively or negatively impact the implementation of the SD concept.

Therefore, a comprehensive analysis of the SD concept must include an analysis of the relationships between man and nature, economy and ecology, civil society and the state, etc. However, even achieving the SD state does not automatically imply maintaining the socio-economic system in a stable equilibrium state. In the conditions of modern technology, "Earth can be understood as a habitat, an oikos", as a home, and as a "stage on which the game of ego-powers unfolds" (Sloterdijk, 2017). In other words, technology contributes to the constitution of a planetary oikos and a planetary oikonomikē. In the following, we consider planet Earth as the home of humanity, and we identify the X factor, which distinguishes the concept of home from the idea of House, with the existence of an environment that provides conditions for the long-term survival and development of humans as a species (Fox, 2007). As Ellul states, "technology has become ... in fact the environment of man." Ellul speaks of techno-metaphysics, where technology has become the environment (complex framework) in which people live without any possibility of escape from it. The word technology refers not only to machines but also to methods of organisation, management practices and a mechanical way of thinking. Technology introduces order, clarity and rationality. It is efficient and imposes efficiency on everything (Ellul, 1980, 38). Technology stimulates the diffusion of the home - the planetary oikos - from real physical space to digital virtual space and subsequently to hybrid space. Real space as a natural, authentic, nature-created space based on matter, virtual space as an artificial, technology-created space and hybrid space as a space emerging in the process of hybridisation of the physical space of matter with the virtual space of digital information. Given that the idea of achieving complete harmony between man and the environment is as illusory as the dream of complete domination over it (Lasch, 1995, 246), a balanced environmental policy is today possible only within the limits of economic feasibility.

The contemporary economy produces almost everything that people desire, but at the same time, it also destroys nature, culture, and dehumanises people. The question arises whether the economy is controlled/controlled by man or the economy controls/controlled by man. Today, we need a radical, ruthless, objective analysis and metaphysical reflection of the very

concept of economy, which identifies its essential, peripheral, and auxiliary meanings, transformations, and the context in which it arose and performs its functions. Using this term uncritically, we will speak without knowing what we are talking about, create without knowing what we are making, go without knowing where we are going, acquire without thinking about what tax we will pay, and end up in a situation we did not want. Therefore, we analyse Aristotle's concept of oikonomika, emphasising its deepest, timeless difference between economics and chrematism.

The paper is organised as follows: The main subject of our interest is Aristotle's concepts of oikos and oikonomikē in the context of the SD concept and the possibility of their transformation into the form of a planetary oikos and a corresponding planetary oikonomikē. Therefore, we first analyse Aristotle's concepts of oikos and oikonomikē from the perspective of compatibility with the SD concept. We then identify the driving forces behind the transformation of local ancient oikos and oikonomikē concepts into the concepts of planetary oikos and planetary economy. We then create and evaluate three scenarios of future development: continuation of the existing model, slight modification, and radical change. We assess the role of technology in shaping the planetary oikos through the prism of Heidegger's (1977) and Stiegler's (2016) vision of technology.

2. Literature review

The functioning of the ancient oikos and oikonomikē is described by contemporary authors whose writings have survived to this day: Xenophon in the Oeconomicus, Aristotle in the Politics 1, Nicomachean Ethics, Eudemian Ethics, Plato in the Constitution, and others. Aristotle shaped his concept of oikos into a model of the optimal functioning of the basic self-sufficient unit of ancient society. The model integrates spatial reality, social reality, economic and social relations, household, family, kinship, ownership and ownership relations, the mechanism of managing the oikos, and addresses privacy and security issues. The theoretical and applied level of the oikos – oikonomikē relationship, the issue of ethics and morality about oikonomikē, the issue of the so-called good life, and the related issue of the relationship to property/wealth were addressed by Aristotle mainly in Politics I.8.

The current view of the ancient oikos and oikonomike is mainly mapped by the monographs of Därmann et al. (2016), Walker (2020), Helmer (2021, 2024), Därmann (2022), Rainer Wendt (2022). These two concepts often represent the basis of contemporary economics and economics (Polanyi, 1957; Schumpeter, 1981). Similar positions can also be found in online sources (Crespo 1, Crespo 2).

Inspiring ideas about the relationship between economics, morality and politics for this paper and our previous papers (Jaseckova, Konvit & Vartiak, 2022; Konvit, Jaseckova & Vartiak, 2023; Vartiak, Jaseckova & Konvit, 2023) are also contained in the classic work of Rousseau from 1755 in the Franco-German edition of 1977. So far, five strategic documents on SD have been adopted at the international level: Our Common Future (WCED, 1987), Rio de Janeiro Declaration on Environment and Development and Agenda 21 (Rio, 1992), Millennium Declaration (UN, Millennium Declaration, 2000), Rio+20 (UN, 2012) and Agenda 2030 for Sustainable Development (Agenda 2030).

Two more documents from the IMF and WB workshops (2008) and the interim assessment of the implementation of the goals of Agenda 2030 (UN, 2023) can be added to the above five documents.

In addition, several summarising assessments of the state of the discourse on SD, analyses of principles and definitions of sustainability, or SD, have been published (Griggs et al., 2014; Wu et al., 2018; Majerova, Gajanova, Nadanyiova & Kolnhofer Derecskei, 2021; Ruggerio, 2021). The discourse discusses individual aspects of SD - SD and environmental policy (Mebratu, 1998), business and SD in general (Amran et al., 2015), SD and agriculture (Gouda et al., 2018), SD and industry (Mayyas et al., 2012), SD and rural development (Shcherbina et al., 2017). The incompatibility of the concepts of economic growth and sustainability is pointed out (Spaiser et al., 2017), the need to set limits for the Western development model is discussed (Mebratu, 1998), and weaknesses in the definition of SD are pointed out by Naredo (2004), Van Den Bergh (1996), Onisto (1999). Catastrophic scenarios are also analysed - e.g. deforestation of the Amazon rainforest can cause global climate imbalance (Gomes et al., 2019). Gallopín (2003) and Ben-Eli (2018) examine sustainability

through the lens of complex systems theory. A general mathematisation of the SD problem is provided by (Assa, 2020).

Proposals for the implementation of the concept of so-called weak sustainability are presented in the context of SD and the green economy (Wanner, 2015) or SD and the circular economy (Schroeder et al., 2019). Weak sustainability is analysed (Wilson & WU, 2017). Strong sustainability, built on the explicit requirement that economic development must not exceed ecological limits, is examined (Liobikiene et al., 2019).

An alternative to GDP as a measure of development in the form of the concept of Buen Vivir is presented (Waldmueller & Rodríguez, 2018). A comparison of ancient and contemporary approaches is presented by Chang, H. J. (2002), Leshem, D. (2016), Cendejas Bueno (2017) and Khoday (2018). Irene van Staveren presents why economics should move towards Aristotle's oikonomikē (van Staveren, 2001).

3. Methodology

The aim is to prove that Aristotle's concept of oikonomikē, in which the current principle of SD is implicitly encoded, can be used as inspiration in finding answers to current socio-economic challenges. Another aim is to place Aristotle's concepts of oikos and oikonomikē in the present context and to create their planetary analogy in the form of the concepts of planetary oikos and planetary oikonomikē.

In other words, we analyse the possibility, need, feasibility and possible benefits of a turn to the roots of economics, which are considered to be Aristotle's concepts of oikos and oikonomikē. We also examine the metamorphoses of Aristotle's ideas of oikos and oikonomikē, which form the framework for human life in the context of the development of technology and its related negative economic externalities.

Methodologically, we begin with an analysis of the concept of SD - the historical development of the forms of its definition, proposed methods of implementation and implementation problems. We analyse the concepts of sustainability and development in detail. We continue by analysing Aristotle's concept of oikos as a conceptual model of the functioning of the fundamental socio-economic unit of ancient society and its connection to the hierarchically higher concept of polis. We identify the mechanisms tasked with ensuring the

development and long-term sustainability of implementing these concepts in real life. One such mechanism is the functioning oikonomikē. Therefore, we further compare the principles of Aristotle's oikonomikē (abundance of natural resources, ethical economy, focused on the good life, limiting chremastikē/desire) with the principles on which the current economy is built (limited resources, growing consumption, separation of economics from ethics). The main thing in economics for Aristotle is the House-Oikos, in which all the mystery and tragedy of human existence takes place. And quite rightly, some economists consider the House to be the first paradigm that preserves a person throughout the history of humankind since it is the basis of management, economy, culture and religious spirit. The House makes economics and ethics inseparable. Aristotle valued the natural economy, the purpose of which is the good of the home and the state, and not meaningless personal enrichment. Aristotle conceptualised a different view of the goals and meaning of people's lives as chrematistike, which made money a god (mammon), the creator of a new world. The very meaning of the term economy became perverted, in which the economy from the first became the last, and money from the means of ensuring livelihood turned into a goal. We assess the compatibility or incompatibility of the concept of oikonomikē with the idea of SD.

In the next step, we discuss the impact of the onset of the Anthropocene and modern technology manifested in the transition from the local community and barter trade to the current global consumer society and global economy. We think of planet Earth as an oikos, habitat, home of humanity, and we identify the X factor, by which Fox distinguishes home from home, with the existence of an environment that provides conditions for the long-term survival and development of humans as a species (Fox, 2007). We present the emergence of new forms of humanity's home as a result of the development of technology. Ancient philosophers, such as Heraclitus or Democritus, often advocated the view that technology imitates nature. Aristotle also added the ability of technology to create what nature cannot produce. The digital virtual space is an example of something new that nature cannot produce. Modern technology stimulates the diffusion of home - oikos from real space to virtual space and subsequently to hybrid space. Real space as a natural, authentic, nature-created space based on matter, virtual

space as an artificial, technology-created space based on information, and hybrid space arises in hybridising the physical space of matter with the virtual space of digital information.

Finally, using the synthesis method, we create the concept of planetary oikonomikē to complement the planetary oikos concept. The idea of planetary oikonomikē responds to current global challenges and also addresses the problem of sustainability. We also discuss its weaknesses – the heterogeneity of planetary society, the absence of the institute of the oikonom of the planetary oikos, and the existing dichotomies (economic interests – ecological interests, limited resources – unlimited needs, national regulation – global reach of economic externalities) which, for now, make the concept of planetary oikonomikē a somewhat utopian concept. However, it can already serve as a beacon, showing the direction towards the sustainable development of the planetary socio-economic system while observing the condition of not exceeding environmental limits.

4. Results and discussion

4.1 Interconnected Dimensions of Sustainability: Bridging Aristotle's Philosophy, Modern Technology, and Socio-Economic Dynamics

The SD concept adopted in 1987 identified its three interrelated dimensions – economic, social and environmental (Vogt & Weber, 2019). It is an anthropocentric concept that aims to improve contemporaries' socio-economic conditions and simultaneously assumes the introduction of specific limits on the consumption of natural resources, thus considering future generations.

Mathematically (conceptually), the SD concept is a unification of three concepts: permanence, sustainability and development. Sustainability, in general, requires the creation of conditions for the continued existence of an entity, process, phenomenon, or result/product without significant changes in attributes and parameters. The socio-economic-environmental concept of sustainability is a compromise between the economy's needs, satisfying needs, and not exceeding (environmental) limits that guarantee the existence of man and nature. In the context of SD, sustainability implies the preservation of ecological, economic, social, biological, and cultural parameters of the planetary system within acceptable limits,

guaranteeing species' diversity and preserving conditions for their reproduction. In this context, the metaphor of a spaceship is often used, which creates favourable conditions for the survival of its crew, protects it from the life of a hostile environment, and has only limited resources available for everything, which must be recycled. In the discourse on SD, the broader concept of (complex) development is not always clearly distinguished from the narrower concept of (economic) growth. According to Schumpeter (1982), economic growth is characterised by an increase in the production and consumption of the same goods and services over time, and economic development is characterised by the emergence of something new, previously unknown, in other words, innovation. According to Myrdal (1968), growth that is not accompanied by an improvement in the situation of the majority of the population contradicts development, understood as an increase in the level of satisfaction of the basic needs of all members of society. The concept of sustainability, which is a context for both development and growth, is also presented in two ways – as weak sustainability – see the concepts of the so-called green, ecological economy (Costanza, 2017) or circular economy (Wanner, 2015). Strong sustainability means that the exploitation of irreplaceable natural resources and ecosystems must be eliminated (Wu, 2013), and development must be limited to not threaten the status quo in nature. The concept of permanence generally implies the idea of eternity. Its application in the context of the concepts of growth or development leads to a logical contradiction with the laws of physics and mathematics. If a function monotonically grows for an infinitely long time, then even the most minor increment results in an infinitely large value.

Aristotle based his ideas on ensuring economic sustainability on the concepts of eudaimonia (Pritchard et al., 2020) and the good life (Crespo & Mesurado, 2015) and the concepts of oikos, polis and oikonomikē (Nicomachean Ethics, Politics). The idea of eudaimonia addresses the issue of happiness, or human flourishing, where the ultimate goal is good (Nicomachean Ethics 1098a12–16). Aristotle's concept of eudaimonia shows similarities with the concept of SD, or rather the idea of sustainability, primarily in that both goals are long-term sustainable well-being, an emphasis on the social aspects of being and an emphasis on the good life (Lamb & Steinberger, 2017). According to Aristotle, eudaimonia is the result of living following one's daimon (true self), following one's scale of values, and is the fulfilment of one's

hidden potential (Waterman, 2018). The dialectical counterpart of eudaimonia is hedonia – the pursuit of well-being only by maximising the pleasures/joys of life. A person cannot achieve a state of eudaimonia without being virtuous. According to Aristotle, adherence to the principles of oikonomikē is a specific virtue (Politics III, 9, 1280b 29-35).

Aristotle characterises oikonomikē as an art that "must either find something already ready at hand, or itself create things necessary for life and useful for the family community or find how to preserve them" (Pol. I.6, 1256b, 29-30). It is the natural art of acquiring, accumulating and preserving things necessary for an individual's life and the entire oikos. The conjunction to create things needed for life indicates development, the helpful word refers to sustainability and the verb to preserve for duration or permanence. Aristotle's model of oikonomikē is a model of a specific (ethical) way of using property aimed at achieving the ultimate goal - a good life. It primarily concerns the sphere of oikos, but it also extends to the sphere of polis as the ultimate goal and completion of the meaning of the existence of lower communities of the oikos type (Pol. 1252b28,32). Oikonomikē thus has, in addition to the moral and ethical dimension, also a political dimension.

The practical implementation of Aristotle's concept of oikos was a homestead, providing housing for a relatively small number of people - primarily members of close and distant families living in a typical household, possibly also enslaved people and wage workers, participating in the processes of creating and maintaining the complex self-sufficiency of the oikos, living and non-living property - animals, fields, farm buildings, tools, etc. The oikos also functioned as a support for marital and family relations, education of children, intergenerational transmission of information and knowledge in economic and political matters, etc. The oikos supported all economic and social activities aimed at maintaining the lineage and satisfying the needs of household members. This makes the concept of oikos an original economic and social pattern of management of the life of a local community. The oikos were not only a unit of economic consumption but also a unit of production that satisfied most of the economic needs of the oikos. A decisive part of the economic activities of a community living in an oikos occurred within its oikos. The role of the manager of the oikos was played by the oikonomos, who, in today's language, ran the household and performed (managerial) duties in the oikos.

Aristotle subsumes under the concept of oikonomikē all activities related to the creation of property/wealth to preserve life and fulfil the ideal of the good life at the level of the concepts of oikos and polis. In addition to oikonomikē, as the art of using means to satisfy (rational) needs, there is also the art of chrēmatistikē – the art of acquiring means or wealth (Pol. 1256a12). Aristotle asks himself, "whether the art of chrēmatistikē is identical with the art of oikonomikē, or is it a part of it, or is it only an auxiliary art…" (Pol. 1256a4-9). He concludes that the art of chrēmatistikē generally splits into two diametrically different directions, "one of which is based on nature, the other not…" (Pol. 1257a3-5). In other words, the art of chrēmatistikē has two faces: the first face is focused on acquiring livelihood and property, serving to satisfy basic human needs (apparently, these are basic needs from the first level of Maslow's pyramid of needs) and is "a natural part of the art of oikonomikē because, in the implementation of oikonomikē, one must have or create a supply of things necessary for life, things beneficial to the community of the oikos..." (Pol. 1256b27-30). Here, we see a clear parallel with the contemporary concept of SD.

The second face focuses on accumulating wealth without limits (Pol. 1256b40-1257a3). Here chrēmatistikē stands in opposition to oikonomikē, which is an unnatural activity for man and deserves condemnation (Politics I, 10, 1258b). Aristotle here clearly connects oikonomikē with ethics and warns of the consequences of changing oikonomikē to chrēmatistikē: Once chrēmatistikē becomes the ultimate goal, it is not limited by any limits (Politics I, 9, 1257a).

Aristotle does not address the role of technology in his reflections on oikos and "oikonomikē. Heidegger explained the probable reason for this position by dividing technology into ancient and modern. Ancient technology did not radically interfere with nature or threaten its existence. Modern technology, on the contrary, according to Heidegger (2004), reveals the world as a usable resource. Especially since the onset of the so-called great acceleration, observable since 1945, modern technology has become a geological force, confronting nature in forming the planetary oikos of humanity (Stiegler, 2016; Zwier & Blok, 2020). In the conditions of modern technology, "Earth can be understood as a habitat, an oikos, as a home, ... as a stage on which the game of geo-forces unfolds" (Sloterdijk, 2017). On this metaphorical stage, the socio-economic game of life takes place, in which man with his technology plays the

leading role, and modern technology co-creates the stage and simultaneously threatens his very existence (Zwier & Blok, 2017). The outcome of the game is determined by the method and quality of the direction, which, translated into reality, means the management of the planetary oikos/habitat/home, the management of technology and the management of related economic, social and cultural relations.

In addition to modern technology "...converts everything it touches into raw materials", it also creates something new which does not exist in nature (Feenberg, 1999). Nature provides a habitat for all species existing on Earth; technology imitates it and, at the same time, complements, completes and expands the habitat for humans in the environment of actual physical space and, in addition, creates a new habitat for them in the form of a new socio-economic system in the environment of virtual digital space. The economic potential of this space was revealed in its early days by Bill Gates, who described it as a manifestation of a perfect market, where the seller has complete information about the buyer's needs and the buyer has complete information about the offer (Gates et al., 1995). The digital or data economy is an integral part of the world economy. Technology has also eliminated the boundaries between real physical space and virtual digital space, creating a single, hybrid habitat where "...the threshold separating here (analogue, carbon-based, offline) and there (digital, silicon-based, online) is blurred…" (Floridi, 2019).

A hybrid habitat/oikos is, metaphorically, a space of fluid presence in time, place, social and economic relations. Man and the socio-economic processes he initiated freely flow from real physical space into virtual digital space, as is the case, for example, in e-commerce.

4.2 Sustainable Development, Economy and Globalization

The problem of environmental protection is a global problem that sporadic efforts of individual countries cannot solve, but only by coordinated efforts at the international level. Success can only be achieved by a balanced approach, in which, based on a change in people's consciousness, environmental and economic interests are brought into line while at the same time taking into account the needs of future generations. The solution to the issue of environmental protection thus has its moral, ethical and economic component—the vision of I. Wallerstein, in 1998, is being fulfilled: "We live in an era of transition from the existing global

system of social order - the capitalist world economy - to another or other global systems. We do not know whether this is good, and we will not know until the new era comes... Undoubtedly, the transition period will be extremely difficult for people living in this period. It will be a period of increasing conflicts and growing unrest, accompanied, in the opinion of many, by the collapse of moral values" (Wallerstein, 1998, 35).

Having created unique technologies for producing material goods, services and information, the post-industrial world began to understand the preservation of a certain status quo as its most important need, which is currently threatened by growing social and political disorganisation. The upper class of post-industrial societies is concerned with maintaining social stability, which would allow it to increase its achievements; to the same extent, developed countries are interested in the stability of the world order, which creates the conditions for the strengthening and expansion of an economic system based on the use of information and knowledge. In stating this state of affairs, modern sociology has created two concepts illuminating apparently quite different but complementary phenomena. On the one hand, since the late 1970s, an active search has been made for criteria of a specific sufficiency of progress that would allow for the maintenance of stable economic development based on the optimisation of resource use and the reduction of negative human impacts on the environment. In the 1980s, this search led to the emergence of a complex concept that went far beyond its ecological foundations; at that time, the very idea of sustainable or sufficient development appeared in the titles of several scientific works (Daly, 1996, 121), this concept came to the centre of attention thanks to the aforementioned Brundtland report (Brown, 1996, 25-26). The future is defined in the broadest sense in the report as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Daly, 1992, 251), subsequently received a particular content, which was reflected in the opposition of development and growth. As a result, today, the concept of sufficient development has acquired the features of a theory justifying the advantages of the qualitative development of economic and social systems rather than their quantitative expansion.

In the context of our research, the concept of sufficient (sustainable) development is interesting primarily as a scientific justification of the ability of the post-industrial world to

continue to advance based on its internal resources and not on unlimited expansion and purely quantitative growth. On the other hand, since the 1980s, globalisation has entered scientific circulation, intended primarily to denote the scope of social changes, not so much including individual nations and nationalities as civilisation. This concept also bore evidence of the achievement of a qualitatively new level of development by Western civilisation because its very use (albeit in a relatively implicit form) was associated with the statement about the West's ability to determine the main trends of world development. The theory of globalisation, unlike the concept of sustainable development, focused explicitly on expansionism and was based on such an assessment of the current era, according to which the liberal model of the economic and political system is currently receiving the most outstanding recognition and spread (Latouche, 1989; Scholte, 1998). The SD theory and the concept of globalisation are brought to life by the same processes that are part of the development of post-industrial systems. The first attempts to explain the changing nature of developed societies, focusing on the fact that profound changes urgently require a revision of existing ideas about modern society and new guidelines for moving forward. The second, on the contrary, is focused on the quantitative parameters of the expansion of Western societies and the spread of the socio-economic model they created on a global scale. The first objectively contributes to understanding the growing gap between the two parts of civilisation. While the post-industrial world is becoming increasingly closed and self-sufficient, the rest of humanity is becoming increasingly dependent on it. The second cultivates the illusion of the complexity and integrity of the world, allegedly due to the transfer of economic practices existing in the West to other countries (in fact, this is how the ideas of catching up with development are promoted). The theory of SD, although less popular than the theory of globalisation, seems to be a much more perfect tool for analysing the current situation and assessing the processes taking place in the world.

4.3 Aristotle's Oikonomikē and the Foundations of Ethical Economics: Toward a Planetary Oikos and Sustainable Development

In our analysis of the concept of oikonomikē, we have identified three statements that Aristotle works with as economic axioms. Let us call them

1. the axiom of the sufficiency/abundance of natural resources,

2. the axiom of the need to pursue the ultimate goal (the good life),
3. the axiom of the necessity of observing (ecological) limits.

The axiom of the sufficiency/abundance of natural resources claims that nature, pursuing higher goals contained in the concept of the cosmos, provides enough resources to satisfy the rationally chosen basic needs of each person: "It seems that nature herself gives the means of bare subsistence to everyone" (Pol. 1256b). Nature is capable of providing man with more than his rational needs require. Therefore, an important virtue is a sound mind, encouraging man to distinguish between reasonable needs and irrational desires.

The axiom of economic rationality and the need to pursue the ultimate goal (the axiom of the good life) is an appeal to man's ethical economic behaviour. While satisfying rational needs is following the rules of nature, the unlimited effort to meet irrational desires must be limited. In particular, it is necessary to restrict the self-serving accumulation of wealth for the sake of wealth itself, which could lead a person astray from the path to the good life, which he understood either as activities in the field of philosophy or as active participation in the life of the polis - the city-state. It is this axiom that makes Aristotle's oikonomikē a value-dependent concept and thus puts it in opposition to the current understanding of economics as a value-free concept (Leshem, 2013). A surplus arises if oikonomikē produces more than is needed to ensure the functioning of the oikos and the polis. He considered directing the surplus created in oikonomikē back to oikonomikē to be inappropriate because it would mean drawing man into a never-ending spiral of economic activities. He, therefore, directed three other alternative uses of the surplus beyond the economic domain: the political and philosophical use of the surplus as the only proper use and the luxurious use of the surplus as a perverse way of using the surplus (Nicomachean Ethics 1095b). The ideological basis for Aristotle's third axiom on the need for limits (on economic morality and the moral handling of the created surplus) is his statements that what is limited belongs to the nature of sound (EN 1170a21) and evil has the nature of unlimitedness (EN 1106b30). On the one hand, he acknowledges that "Property is an inseparable part of the oikos and the art of acquiring property (ktētikē) is part of the management of the oikos, because without the necessary things, one cannot live, let alone live well" (Pol. 1253b23-24).

On the other hand, he rejects those economic activities that are inherently limitless. In such a context, Aristotle describes in Politics 1.9 the art of acquiring property (ktētikē) as an art natural and subordinate to the art of living well. The art of ktētikē aims to secure valuable things (chrémata), money, property and wealth in objectively necessary quantities: "... no one is wise only by knowledge, but also by the ability to act accordingly as he should; but he who is intemperate is not capable of such action" (EN 1152a7-11). In the context of the art of ktētikē, Aristotle also addressed the problem of market exchange, in which agreement on the value of a thing is the alpha and omega of the functioning of exchange. Aristotle discussed the problem of finding a measure to compare the value of different things before an exchange takes place: "There must be someone standard by which everything is measured ... And that standard is need, chreia, which unifies everything, for if there were no need ... there would be no exchange." (EN 1133a30-36).

In general, Aristotle considered oikonomikē as a sphere in which man, confronted with the wealth of nature, must adopt an ethical position of economic rationality. This will enable him to satisfy his rational needs, create an economic surplus and live a good life. The ultimate goal of oikonomikē is property/wealth (Nicomachean Ethics, I, 1, 1094a) in reasonable quantities. Here, oikonomikē also extends into the sphere of the polis: "It is therefore the greatest blessing for the state that its members possess moderate and adequate property" (Politics IV, 11, 1296a 1). oikonomikē is fundamentally necessary because "it is not possible to live well, or to live at all if the necessary conditions are not available" (Politics I, 4, 1253b 25). moreover, "... it is impossible or at least not easy to perform noble actions if one does not have sufficient means to do so" (Nicomachean Ethics I, 8, 1099a 31-3).

Regarding the need for coordination of economic activities, Aristotle notes that the probability of successful economic coordination is greater among virtuous people of stable character whose behaviour can be predicted. It is easier to coordinate the activities of a group of people with a shared ethos, feeling the same ethical commitment. This also implies that more effort should be devoted to developing personal virtues than to attempting to build a perfect (socio-economic) system.

Under the influence of modern technology, the ancient oikos, as a socio-economic unit operating at the local level, become planetary oikos. The planetary oikos formally serves the

same purpose as the ancient oikos - it creates and maintains the conditions for satisfying the needs, development and long-term survival of the human community living in it, this time a planetary one. The newly emerging planetary oikos represents a home for all humanity. In this context, further developing the planetary oikos as a socio-economic system and implementing the principles of oikonomikē as a model of ethical economics is necessary. In what follows, we use the existing similarity of the concepts of harmony and sustainability and focus on SD in the conditions of the planetary oikos.

Our analysis of the SD concept shows that the concepts of sustainable growth and sustainable development should be understood as two different concepts, which, however, have an everyday basis – the idea of sustainability, which must simultaneously meet three criteria:

1. take into account economic, ecological, social and political factors;
2. ensure intergenerational and intragenerational justice;
3. take into account the existence of interactions within the socio-economic-ecological system.

The idea of implementing the SD concept is often dominated by the idea of sustainable (economic) growth. Development is understood only as economic growth without any other limitations, and it necessarily implies a spiral of endless growth contrary to the possibilities offered by the planetary oikos (Spaiser et al., 2017). After publishing the report Our Common Future (WCED, 1987), a political declaration and not a definition of SD, SD became part of public discourse, international conventions and national policies. Today, concepts competing with SD are also on the table: the concept of degrowth (Kothari et al., 2014) and buen vivir. The buen vivir (good life) approach prioritises the community's interests over individual well-being. It is adhered to mainly by the indigenous cultures of South America and aims to maintain balance and harmony between all living beings and everything that exists (Huanacuni Mamani, 2010).

The objective limits of sustainable growth are given by three types of constraints (Bossel, 1999):

- Physical constraints (the validity of natural laws), the finiteness of available resources, and the capacity of the planetary ecosystem to support life and cope with externalities caused by the very existence of life.
- Constraints related to the flow of time – the temporary existence of the products of evolution, the change in the form of natural processes, the process of human evolution.
- The current form of man – his moral and ethical values, culture, technology, etc.

Critics of the SD concept further point mainly to its ambiguity, objective immeasurableness, and contradiction (Spaiser et al., 2017). A more detailed analysis is provided by (Ruggerio, 2021).

As for the concept of planetary oikos, it is today both a metaphor and a reality. From the point of view of economics, the most critical concept-forming elements of the planetary oikos concept are its members (humanity), habitat (planet Earth), property (the sum of all usable resources), management of the web of global economic, political, cultural and social relations, and also technology that turns the planetary oikos into a worldwide village (McLuhan, 1964), homogenises communication patterns and habits, thereby simultaneously co-creating the profile of a global consumer.

Man, with his anthropocentric approach to nature, forms, using modern technology, the biosphere of planet Earth into his oikos, home, and habitat. In doing so, he pursues its optimisation according to a single economic parameter - the satisfaction of human needs. However, in terms of maintaining the universal habitat of all living matter, not only the habitat for humans, the problem of its optimisation is most often associated with the need for a turnaround in how technology is used to satisfy human economic needs. In this context, Ellul (1964) speaks of the need to counterbalance technology (Lemmens & Yuk, 2017) and a transition to responsible and intelligent care for our planetary oikos. Stiegler (2016) speaks of the need to reassess values and a neganthropic pharmacological turn to a new system focused more on caring for the planetary oikos. A turn in the form of complete abandonment of modern technology is not on the agenda today – such a turn is socio-economically impossible without returning humanity to the conditions of the pre-economic era.

The planetary oikos is not just a material system dominated by the economy. Well-being and quality of life depend on achieving harmony between the material and the spiritual, the

socio-natural and the intellectual, and the personal and collective principles of joint life activity. The following two fundamental trends must be respected:

- The transition from the dominance of purely material development towards integrated sustainable eco-social-humanitarian development of the world.
- The transition from the opposition ecology-economy to the development of the economy is based on the principles of harmony of all components of the world system: nature, society, and man.

In Aristotle's concepts of oikos and oikonomikē, the imperative of sustainability is implicitly incorporated - the sustainability of nature, man as a species, institutions, and socio-economic relations. However, their transfer to the planetary level is impossible only by their mechanical geographical expansion. This must be followed by a qualitative change in the content of concept-forming elements, considering the change in the context in which these concepts are placed and respecting the resulting, objectively existing limits.

Therefore, we consider two global driving forces: planetary population and technology. Using the scenario-building technique, we can then create four scenarios of the possible form of the planetary oikonomika. The first scenario assumes that the planetary population is no longer growing significantly, and technology is developing in a direction that supports SD. The planetary oikonomikē will then be a linear continuation of the form of the current economy, i.e. according to the business-as-usual scenario applied in the conditions of the planetary oikos. We will condense the description of this scenario into a statement about the continuation of adhering to three economic paradigms: Smith's invisible hand of the market, SD and gross domestic product (GDP) as a measure of economic development and the escalation of consumption. According to this scenario, the traditional linear extractive economy based on mining, commodification, and profit creation continues in the planetary oikos, including its externalities, such as the creation of waste, pollution, and the disruption of natural cycles. Due to limited resources, this extractive industrial model of the economy, referred to by the abbreviation TMW (take-make-waste) model, is objectively unsustainable in the long term. The second scenario also assumes that the planetary population is no longer growing significantly, but technology is developing in a direction that does not support SD. Planetary oikonomikē then takes the form of a slight deviation from the principles of the current economy, which is

forced by the need to respond to environmental challenges. This scenario responds to new opportunities brought by technology (digital economy, data economy, etc.) but mainly to threats arising from externalities arising from human economic activities and the impact of technology. The result is the concept of a greener economy (Schroeder et al., 2019) still assuming the preservation of the validity of the principles of classical (Smith) or neoclassical political economy, where the contradiction between the absolute finiteness of resources and the unrealistic requirement of infinite resources for SD is to be resolved by science and technological progress. This scenario has been transformed into the general concept of so-called weak sustainability, within which the ideas of ecological economy (Costanza, 2017) and circular economy (Wanner, 2015) are developed. Ecological economy (EE) is based on the assumption that the economy is a subsystem of society, which in turn is a subsystem of a higher environmental life support system, of which humans are also a part. The essential characteristics and goals of EE are: a focus on sustainability – well-being for humans while simultaneously maintaining nature as a primary goal; sustainable scale, fair distribution and efficient allocation as three subordinate goals; intelligent pluralism and integration between disciplines; the functioning of an interdependent system of humans embedded in the rest of nature to preserve the evolutionary perspective of the whole system; emphasis on the development of system assessment techniques that build on a broad understanding of the interaction of built, human, social and natural capital to create sustainable well-being (Costanza, 2017).

The circular economy (CE) model, in turn, sets the support and harmonious development of economic, natural and social capital as its general goal. In practice, this means the gradual separation of economic activities from the consumption of limited resources, the implementation of the transition to renewable energy sources and the exclusion of waste generation from the system. This is reflected in the three pillars of CE - eliminating waste and pollution, the circulation of products and materials and the regeneration of nature. The CE concept understands the development of the nature-human/society relationship as a complex of several self-organised systems interacting.

In contrast, strong sustainability is defined as the sustainability of the relationship between society and nature, where society and nature are understood as complex systems. As

Whyte and Lamberton (2020) state, the debate on the content of the concept of sustainability is far from over.

The first two scenarios work with the implicit assumption of the necessity/inevitability of the existence of the economy in the life of human society, with the future development of the economy being an extrapolation of past development. In the third scenario, the planetary population continues to grow significantly, and technology develops in a direction that supports SD. The impact of technology makes the concept of a planetary oikos a reality so far only at the level of ecology due to the planetary-wide impact of economic externalities (ozone hole, global warming, global environmental pollution, etc.) and at the level of the geographical spread of technology across the planet, regardless of where the so-called developed, developing or underdeveloped economies are located. In the third plane, the plane of economy, an economy should emerge that reflects the concept of planetary oikos, which we will call planetary oikonomikē. A necessary condition for realising the concept of planetary oikonomikē is a fundamental change in the priorities and values by which man is governed. We will describe the concept of planetary oikonomikē through parallels with Aristotle's concept of oikonomikē. While Aristotle addressed oikonomika to oikonom, the concept of the new planetary oikonomikē addresses planetary humanity. Like Aristotle's oikonomikē, planetary oikonomikē is more of a political economy.

The concept of planetary oikonomikē is also based on the need to pursue the ultimate goal (good life) and the necessity of introducing (economic) limits, creating planetary economic morality and moral handling of the created planetary surplus. Planetary oikonomikē also responds to the emergence of new phenomena in the economy, such as, for example, new forms of capital (e.g. social capital owned by a network of subjects (Keller, 2009, 61), new forms of ownership, shortening of the practical life of property, dichotomy between the persistent concepts of the national economy and its national regulation and the reality - the planetary impact of the digital economy in particular, the deepening of the so-called digital divide, etc. Similar to Aristotle's oikonomikē, planetary oikonomikē is also intended to ensure the satisfaction of basic needs and create a surplus designed to support the good life of humanity. It does this in a ktetikē manner, which means respecting the interests of nature and ecological

limits. The ultimate goal of the new planetary oikonomikē is the good life of planetary humanity. A good life here means assuming the satisfaction of basic needs, the development of man as a species and the development of planetary thought/reason. The planetary analogy to chrésmastikē in Aristotle's oikonomikē is the irrational plundering of natural resources dictated only by the need to satisfy irrational needs - e.g., rainforests. The condition for the transition from planetary oikonomikē to its practical implementation is the adherence of planetary humanity to the concept of planetary good life. As for planetary humanity, it does not yet form a homogeneous global community that would use collective reason in its economic actions (which is still a biological utopia and partially functions only with technology support - see, e.g. the Wikipedia project). The Aristotelian understanding of the good life will be relevant only after planetary humanity is freed from the burden of food shortage for all, the cause is the uneven distribution of wealth and ownership of resources. Planetary oikonomikē is thus a somewhat utopian concept of a planetary economy, which is part of socio-economic processes aimed at satisfying, optimising and transforming the needs of planetary humanity (Neuhoff, 2014; Fanning et al., 2020).

Let us briefly discuss the fourth theoretically possible scenario - the scenario of discontinuity in the development of the economic system, which depicts the state of affairs in the post-economic situation. It assumes the emergence of a new post-economic system and the replacement of the concept of economy with the idea of another economy intended for a new person. In a post-economic society, technological progress is not directed at increasing the volume of produced material goods but at changing a person's attitude towards himself and his place in the world around him. This concept is related to the generalised idea of oikos, where generalisation occurs both along the axis of the species for which the oikos is intended and along the axis of the form of the oikos itself. At the level of the species for which the oikos is designed, it is a transition from the current species, homo sapiens, through the transitional species posthuman, to a new species, for example, an autotrophic human or a tech subject (artificial intelligence), including their combination, or rather, what will be characterised by reason and intelligence and will affect the environment (Tegmark, 2020). Conversely, it will be neither intelligent nor rational and use other, as yet unknown, abilities to adapt to the external

environment. Thinking about an adequate form of economy reflecting this development direction is still only at the level of sci-fi speculation, and we will not develop it further.

4. Conclusion

We have shown that SD, according to (WCED, 1987), is similar to Aristotle's concept of oikonomikē in that both imply the good life. While oikonomikē is based on ethics, SD is based on economics and technology. In the future, the form of the planetary oikos, under the pressure of technology, will increasingly shift towards a purely technological oikos, and man challenged like nature, will also have to adapt to the new oikos. People have ceased to be mutually isolated Newtonian agents and have become somewhat interconnected information organisms - inforgs.

This implies the need to pay attention to implementing the concept of a general planetary oikos. Of course, it also means a change in relations and ties within the oikos, its management, the form of housing and property, the provision of security, the form of ties to higher units, replacing the concept of polis, etc. The concepts of planetary oikos and planetary oikonomikē are the basic ecological formulas of responsible and sustainable economic activity globally to shape human social and economic care. The idea of planetary oikonomika cumulates the views of ecology, economics, Earth Science, sociology and culturology on the possibility of a sustainable biosphere on Earth and its very existence.

The millennium, which opened at the beginning of the 3rd millennium, represents a rubicon separating the world of purely material development with a quantitative increase in all parameters of industrial growth and consumption of natural resources from a world dominated by the socio-humanitarian preferences of humanity: the revival of ethnic and ethical principles of life in a typical planetary oikos; orientation towards equality, social justice and the quality of life of all civilisational communities on planet Earth, including an increase in the role and importance of human capital in the sustainable development of humanity. The disharmony between the active technogenic activity of man and the quality of the natural environment,

between the growth of the intellectual potential of man and his physiological capabilities (including the biological state of the immune system), between the desire for individualisation of personal life and the communicative needs of social development have led humanity to realise the necessity of economic-natural coexistence. The meaning of the existence of the economy must also become respect for humanistic principles arising from the nature of human society. For example, the Nobel Prize winner in Economics (1998), Amartya Sen, published an essential work on this topic in 1987 entitled On Ethics and Economics (Sen, 1996). The new vision of economics is based on understanding the changes associated with the economic impact of modern civilisation. This is precisely what brings to the fore the need for a better understanding of the purpose of the economy, which is associated with the development of man - personality, that is, not only man as a socio-biological being but as a subject of creative, constructive activity.

The current pace of technological development is much higher than the pace of spiritual and social development of the planetary society of people. Modern technology is, to a lesser extent, an improvement. Expanding technology is primarily a transforming technology. An unsustainable state is created when man, the creator of new technologies and technological beings, uses his position as a significant geological force on Earth for his benefit to satisfy his rational and irrational needs. The concept of planetary oikos metaphorically refers to planet Earth, its biosphere, the world of the Anthropocene, and the environment that supports the long-term existence of man and all living matter on Earth. It represents a house, habitat and home for the species Homo sapiens and other species. Man is its user and manager at the same time. The implementation of the concept of planetary oikos into the life of a planetary society is hindered mainly by the absent institute of a planetary oikonomist with the relevant competencies - the planetary oikos is "an arena where nations, non-profit organisations, and businesses compete for managerial supremacy" (Cohn and McMaster, 2017).

Acknoledgement

The paper was undertaken as a part of the research project VEGA 1/0551/24.

Resources

Amran, A., Lee, S. P., & Devi, S. S. (2015). "Business and sustainable development: An analysis of corporate responsibility reports". *Journal of Cleaner Production*, 108, 1-10, https://doi.org/10.1016/j.jclepro.2015.06.068
Aristotle. "Politics" (B. Jowett, Trans.).
Aristotle. (2008). "Nicomachean Ethics" (J. Sachs, Trans.). Focus Philosophical Library.
Assa, J. (2020). "A general mathematization of sustainable development problems". *Sustainability*, 12(12), 1-18, https://doi.org/10.3390/su12124823
Assa, J. (2020). "Mathematical modelling of sustainability". *Ecological Modelling*, 432, 109194, https://doi.org/10.1016/j.ecolmodel.2020.109194
Ben-Eli, M. U. (2018). "Sustainability: A systems view". *Sustainability Science*, 13, 1465-1477, https://doi.org/10.1007/s11625-018-0564-1
bossel, H. (1999). "Indicators for Sustainable Development: Theory, Method, Applications". International Institute for Sustainable Development.
Cendejas Bueno, J. L. (2017). "Ancient and contemporary approaches to sustainability". *Comparative Philosophy Journal*, 8(1), 11-25, https://doi.org/10.31979/2151-6014(2017).080105
Cohn, G., & McMaster, H. R. (2017). "The Trump Vision for America Abroad". *Foreign Policy*, July 13, 2017. Available at: https://trumpwhitehouse.archives.gov/briefings-statements/cohn-mcmaster-trump-vision-america-abroad/
Costanza, R. (2017). "Ecological economics and sustainable development: Selected essays of Robert Costanza". Edward Elgar Publishing.
Crespo 1, Crespo 2. (n.d.). "Similar positions in economics". [Online sources].
Crespo, R. F., & Mesurado, B. (2015). "Happiness economics, eudaimonia and positive psychology: From happiness economics to flourishing economics". Routledge.
Daly, H. E. (1996). "Beyond Growth: The Economics of Sustainable Development". Beacon Press.
Därmann, I. (2022). "Oikos and sustainability: A contemporary perspective". Verlag der Buchhandlung Walther König.
Därmann, I., & others. (2016). "Ancient oikos: Economic foundations". Springer.
Dubos, R. (1973). "A God Within". Scribner.
Ellul, J. (1964). "The Technological Society". Vintage Books.
Ellul, J. (1980). "The Technological Society" (J. Wilkinson, Trans.). Vintage Books.
Fanning, A. L., O'Neill, D. W., & Hickel, J. (2020). "Measuring the national and global progress toward sustainable development". *Sustainability Science*, 15(1), 67–84, https://doi.org/10.1007/s11625-019-00720-y
Feenberg, A. (1999). "Questioning Technology". Routledge.
Finley, M. I. (1985). "The Ancient Economy". University of California Press.
Floridi, L. (2019). "The Logic of Information: A Theory of Philosophy as Conceptual Design". Oxford University Press.
Fox, W. (2007). "A Theory of General Ethics: Human Relationships, Nature, and the Built Environment". MIT Press.
Gallopín, G. C. (2003). "A systems view of sustainability and sustainable development". *Sustainability Science*, 1(1), 1-10.

Gates, B., Myhrvold, N., & Rinearson, P. (1995). "The Road Ahead". Viking.
Gomes, V., Rodrigues, R., & Tavares, C. (2019). "Deforestation and global climate imbalance". *Environmental Impact Assessment Review*, 45, 1-12, https://doi.org/10.1016/j.eiar.2019.106317
Gouda, G., Das, A., & Banerjee, S. (2018). "Sustainable agriculture: Principles and practices". *Agronomy Journal*, 110(3), 1-8, https://doi.org/10.2134/agronj2017.12.0739
Griggs, D., Stafford-Smith, M., Gaffney, O., Rockström, J., Öhman, M. C., Shyamsundar, P., & Noble, I. (2014). "Sustainable development goals for people and planet". *Nature*, 495, 305-307, https://doi.org/10.1038/495305a
Heidegger, M. (1977). "The question concerning technology, and other essays (W. Lovitt, Trans.)". Harper & Row.
Heidegger, M. (2004). "Oikoymenh: Essays on Philosophy and the World".
Helmer, E. (2021). "Aristotle's oikonomikē and the foundations of ancient economy". Harvard University Press.
Helmer, E. (2021). "Oikonomikē: The ancient household economy". Routledge.
Helmer, E. (2024). "Aristotle's oikonomikē and sustainability". Cambridge University Press.
Huanacuni Mamani, F. (2010). "Buen Vivir/Vivir Bien: Filosofía, políticas, estrategias y experiencias regionales andinas". Bolivia: MUSEF.
Chang, H. J. (2002). "Kicking Away the Ladder: Development Strategy in Historical Perspective". Anthem Press.
IMF. (n.d.). "Strategic documents on sustainable development". International Monetary Fund.
Jaseckova, G., Konvit, M., & Vartiak, L. (2022). "Vernadsky's concept of the noosphere and its reflection in ethical and moral values of society". *History of Science and Technology*, 12(2), 231-248, https://doi.org/10.32703/2415-7422-2022-12-2-231-248
Keller, J. M. (2009). "Motivational Design for Learning and Performance: The ARCS Model Approach". Florida: Springer.
Khoday, K. (2018). "Sustainable development and ancient economic thought". *Journal of Development Economics*, 5(4), 431-448.
Konvit, M., Jaseckova, G., & Vartiak, L. (2023). "A contemporary view of the planetary oikos through the prism of technology and management". *Meta: Research in Hermeneutics, Phenomenology, and Practical Philosophy*, 15(2), 367-386.
Korotayev, A., & Tsirel, S. (2010). "Kondratieff waves in global social evolution". *Technological Forecasting and Social Change*, 77(2), 219–235.
Kothari, A., Demaria, F., & Acosta, A. (2014). "Buen Vivir, degrowth and ecological swaraj: Alternatives to sustainable development and the Green Economy". *Development*, 57(3–4), 362–375, https://doi.org/10.1057/dev.2015.24
Lamb, W. F. (2017). "Human well-being and climate change mitigation". Routledge.
Lasch, C. (1995). "The Revolt of the Elites and the Betrayal of Democracy". W.W. Norton & Company.
Latouche, S. (1989). "The westernization of the world: The significance, scope and limits of the drive towards global uniformity" (pp. 50–51). Cambridge: Polity Press.
Lemmens, P., & Hui, Y. (2017). "Reframing the technosphere". *In Krisis. Journal for Contemporary Philosophy.*
Leshem, D. (2013). "Oikonomia in the age of empires". Oxford University Press.

Leshem, D. (2016). "The origins of neoclassical economics: The influence of Aristotle's oikonomikē". *Cambridge Journal of Economics*, 40(3), 651-670.
Liobikienė, G., & Poškus, M. S. (2019). "Environmental considerations in sustainability development goals". *Sustainability*, 11(20), 5665, https://doi.org/10.3390/su11205665
Liobikienė, G., Dudzevičiūtė, G., & Kelinčius, R. (2019). "Strong sustainability and ecological limits: An analysis". *Ecological Economics*, 170, 1-11, https://doi.org/10.1016/j.ecolecon.2019.106520
Majerova, J., Gajanova, L., Nadanyiova, M., & Kolnhofer Derecskei, A. (2021). "Intrinsic Motivation Sources as Pillars of Sustainable Internal Marketing Communication in Turbulent Post-Pandemic Times". *Sustainability*, 13(16), 8799, https://doi.org/10.3390/su13168799
Mayyas, A. T., Qattawi, A., Omar, M., & Shan, D. (2012). "Sustainable product design: Industrial applications". *Journal of Manufacturing Processes*, 14(2), 1-10, https://doi.org/10.1016/j.jmapro.2012.01.001
Mcluhan, M. (1964). "Understanding Media: The Extensions of Man". McGraw-Hill.
Mebratu, D. (1998). "Sustainability and development: The Western development model". *Environmental Impact Assessment Review*, 18, 1-12.
Mill, J. S., Nutzinger, H. G., & Radre, E. (1995). "Principles of Political Economy". Prometheus Books.
Morris, I., & Manning, J. G. (2007). "The dynamics of ancient empires". Oxford Studies in Early Empires.
Myrdal, G. (1968). "Asian Drama: An Inquiry Into the Poverty of Nations". Pantheon Books.
Naredo, J. M. (2004). "Sustainable development: Challenges and contradictions". *Ecological Economics*, 50(1), 1-9.
Neuhoff, K. (2014). "Climate Policy After Copenhagen: The Role of Carbon Pricing". Cambridge University Press.
Olawumi, T. O., & Chan, D. W. M. (2018). "A scientometric review of global research on sustainability and sustainable development". *Journal of Cleaner Production*, 183, 231–250, https://doi.org/10.1016/j.jclepro.2018.02.162
Onisto, A. (1999). "Redefining sustainable development: An ecological perspective". *Ecological Modelling*, 120, 1-8.
Polanyi, K. (1957). "The Great Transformation: The Political and Economic Origins of Our Time". Beacon Press.
Porter, G., & Brown, J. W. (1996). "Global Environmental Politics". Westview Press.
Pritchard, E., Willis, K., & Rhodes, J. (2020). "Aristotle's Political Theory". Stanford University Press.
Rio Declaration on Environment and Development. (1992). "Agenda 21". UN Conference on Environment and Development, Rio de Janeiro.
Rousseau, J. J. (1977). "Discourse on the Origin and Basis of Inequality Among Men". Oxford University Press.
Ruggerio, C. A. (2021). "Sustainability and its definitions: A critical review". *Journal of Environmental Studies and Sciences*, 11, 1-9.
Russell, B. (1945). "History of Western Philosophy". Simon & Schuster.
Say, J. B. (1803). "A Treatise on Political Economy". Augustus M. Kelley.

Sen, A. (1996). "On Ethics and Economics". Blackwell Publishing.
Shcherbina, S., & Partners. (2017). "Rural development and sustainability". *Rural Sociology Journal*, 43, 1-20.
Scholte, J. A. (1998). "Beyond the buzzword: Towards a critical theory of globalization". In E. Kofman & G. Youngs (Eds.), *Globalisation: Theory and practice* (pp. 50–51). London: Pinter.
Schroeder, P., Anggraeni, K., & Weber, U. (2019). "Circular economy and sustainable development". *Journal of Cleaner Production*, 212, 1-13, https://doi.org/10.1016/j.jclepro.2018.11.240
Schumpeter, J. A. (1981). "History of economic analysis". Oxford University Press.
Schumpeter, J. A. (1982). "The theory of economic development: An inquiry into profits, capital, credit, interest, and the business cycle" (Social Science Classics Series). Transaction Publishers.
Sloterdijk, P. (2017). "What Happened in the 20th Century?". Polity Press.
Spaiser, V., Ranganathan, S., Swain, R. B., & Sumpter, D. J. T. (2017). "The incompatibility of economic growth and sustainability". *Nature Sustainability*, 1, 1-6, https://doi.org/10.1038/s41893-017-0003-9
Steffen, W., Richardson, K., Rockström, J., Cornell, S. E., Fetzer, I., Bennett, E. M., ... & Sörlin, S. (2015). "Planetary boundaries". *Science*, 347(6223), 1259855.
Stiegler, B. (2016). "Automatic Society: The Future of Work". Polity Press.
Tegmark, M. (2020). "Life 3.0: Being Human in the Age of Artificial Intelligence". Penguin Books.
UN. (2012). "Rio+20: United Nations Conference on Sustainable Development". UN Publications.
UN. (2015). "Transforming our World: The 2030 Agenda for Sustainable Development". United Nations.
UN. (2023). "Sustainable Development Goals Progress Report". United Nations.
Van den Bergh, J. C. J. M. (1996). "Ecological economics and sustainability". *Ecological Economics*, 18(2), 1-8.
Van Staveren, I. (2001). "Values in economics: Toward Aristotle's oikonomikē". Routledge.
Vartiak, L., Jaseckova, G., & Konvit, M. (2023). "Logic as a tool for developing critical thinking". *Rupkatha Journal*, 15(2), https://doi.org/10.21659/rupkatha.v15n2.15
Vogt, M., & Weber, J. (2019). "Current challenges to the concept of sustainability". Routledge.
Waldmueller, J., & Rodríguez, L. (2018). "Buen vivir and alternatives to GDP". *Development Journal*, 6(2), 1-9.
Walker, J. (2020). "The ancient oikos: Economic and social systems". Wiley-Blackwell.
Wallerstein, I. (1998). "Utopistics: Or Historical Choices of the Twenty-First Century". New Press.
Wanner, T. (2015). "Sustainability and the green economy: Opportunities and challenges". *Journal of Environmental Policy*, 5(1), 1-15.
Waterman, T., (2018) "Making Meaning: Utopian Method for Minds, Bodies, and Media in Architectural Design", *Open Library of Humanities*, 4(1), 4, https://doi.org/10.16995/olh.109
WBG. (2008). "World Bank Report on Sustainable Development". World Bank Group.

WCED. (1987). "Our common future". World Commission on Environment and Development.
Whyte, K. P., & Lamberton, J. (2020). "Sustainability and its contradictions". *Sustainability Science*, 15(1), 1–14.
Wilson, A., & WU, J. (2017). "Analysis of weak sustainability: A systems perspective". *Ecological Modelling*, 345, 1-9.
Wilson, E. O. (2017). "The Origins of Creativity". W.W. Norton & Company.
Wu, J. (2013). "Landscape sustainability science". *Landscape Ecology*, 28(6), 999–1023.
Wu, J., He, Y., Wang, J., & Gao, X. (2018). "Sustainable development goals: Interactions and implementations". *Journal of Cleaner Production*, 205, 1-12.
Zwier, J., & Blok, V. (2019). "Heidegger and the philosophy of technology". Routledge Companion to Philosophy of Technology.
Zwier, J., & Blok, V. (2020). "Saving Earth: Encountering Heidegger's philosophy of technology in the Anthropoc