



QUALITY OF LIFE UNDER PRESSURE: SPATIAL INEQUALITIES ACROSS EUROPEAN COUNTRIES IN THE AGE OF POLYCRISIS

Kvetoslava MATLOVIČOVÁ^A, Radoslav KLAMÁR^{B*}, Monika IVANOVÁ^C

Received: March 31, 2025 | Revised: November 18, 2025 | Accepted: November 22, 2025
Paper No. 25-67/2-750

A University of Economics in Bratislava, Department of Tourism, Slovakia

 <https://orcid.org/0000-0001-9635-4177>, kvetoslava.matlovicova@euba.sk

B* University of Presov, Department of Geography, Slovakia

 <https://orcid.org/0000-0002-5153-8412>, radoslav.klamar@unipo.sk (corresponding author)

C University of Presov, Department of Geography, Slovakia

 <https://orcid.org/0000-0002-2015-4918>, monika.ivanova@unipo.sk

Citation: Matlovicova, K., Klamar, R., Ivanova, M. 2025. Quality of Life Under Pressure: Spatial Inequalities Across European Countries in the Age of Polycrisis. *Folia Geographica*, 67(2), 96-130.

Abstract

The study aims to examine the spatiotemporal aspects of quality-of-life differentiation across European countries in 2018 and 2023, with consideration of the potential impacts of the polycrisis. Specifically, we identify and quantify the key determinants of quality of life and the latent factors shaping it. We also assess the potential shifts that occurred between 2018 and 2023, as well as whether and to what extent disparities among the observed countries have deepened or diminished. The research is based on a set of 27 quality-of-life indicators grouped into eight thematic domains, following the Eurostat database section titled Quality of Life (QoL). To evaluate and compare QoL across countries, the study employs a scoring method, correlation and regression analyses, and principal component analysis (PCA). The results confirm the existence of a northwest–southeast axis of differentiation among European countries. The highest levels of quality of life are consistently observed in Switzerland, Norway, and the countries of Northern and Western Europe, whereas those of Southern and Southeastern Europe remain at the opposite end of the spectrum. PCA results reveal the dominance of factors associated with material living conditions, the working environment, and socio-cultural participation. The analysis demonstrates that the polycrisis has affected the hierarchy of individual expectations. These changes are corroborated by both correlation and PCA analyses, which indicate an increased importance of indicators reflecting economic resilience. Specifically, in high-welfare countries, the polycrisis has reduced the relative importance of satisfaction and happiness (a decline in the significance of indicators C and ZA), whereas in economically weaker countries it has heightened the emphasis on material security and resistance to financial shocks. Quality of life in the context of a polycrisis is therefore not merely a reflection of economic parameters but also of the resilience of social and institutional structures within individual countries. The findings suggest that the polycrisis has not led to a convergence in living



conditions; on the contrary, it has often exacerbated disparities in quality of life, primarily through the deterioration of economic security and subjective well-being.

Key words

Quality of life, polycrisis, resilience, spatial inequalities, European countries.

INTRODUCTION

Over the past decade, the issue of quality of life has acquired exceptional research relevance as a result of profound transformations in the economic, social, and security conditions across Europe. The simultaneous impact of the COVID-19 pandemic, inflationary and energy destabilisation, geopolitical uncertainty, and the fragmentation of global supply chains has been described by several authors as a polycrisis a state in which individual crises not only accumulate but also mutually reinforce one another (e.g. Matlovič & Matlovičová, 2024; 2025; Tooze, 2022; Homer-Dixon et al., 2015). The polycrisis represents not merely a framework of external conditions, but also a significant factor in the transformation of life situations and the hierarchy of individual expectations, leading to changes in the relative weights of the various dimensions of quality of life, such as material and economic conditions, health, social ties, cultural participation, and subjective well-being (OECD, 2020; Ira & Andráško, 2007). Thus the polycrisis not only reshapes the objective structures of societies, but also reconfigures the subjective experience of (un)certainly, social stability, and the meaningfulness of everyday life (Beck, 2009; Inglehart, 2018).

The concept of quality of life transcends purely economic indicators, encompassing the interplay between material conditions, social relations, and the individual interpretation of what constitutes a good life (Heřmanová, 2012; Džuka, 2013). Research in geography and social gerontology (i.e. studies focusing on older people, ageing, and ageing societies) has long indicated that quality of life is spatially differentiated depending on the socio-economic profile of countries, the quality of institutions, the level of social capital, and the cultural patterns of everyday life (Horňák & Rochovská, 2007; Ira & Andráško, 2007; Matlovič & Matlovičová, 2012).

In geographical research, this concept has traditionally been examined in a multidimensional manner, at the intersection of material conditions, social cohesion, territorial accessibility of resources, and established cultural models of everyday life (Horňák & Rochovská, 2007; Ira & Andráško, 2007). However, the ongoing polycrisis has been modifying spatial patterns of quality of life in differentiated ways depending on the degree of resilience of individual countries. Existing comparative studies focusing on European countries repeatedly point to the presence of a northwest–southeast axis of differentiation in quality of life. This dividing line across Europe is characterised by significant differences in



income levels, opportunities for civic and social participation, and the subjective (psychosocial) well-being of inhabitants in the respective territories (Halás & Kládvo, 2012). The relevance of this line of research lies in the fact that the polycrisis does not merely serve as a neutral backdrop; rather, it affects this northwest–southeast axis in differentiated ways and selectively increases the vulnerability of those European countries that entered it with weakened resilience, thereby altering both the intensity and form of existing disparities. The countries of Northern and Western Europe entered the polycrisis with robust welfare states, diversified economies, and a high level of social (interpersonal) trust, which endowed them with greater resilience. By contrast, countries in Southeastern Europe, particularly post-socialist states with historically weaker social infrastructures, a higher share of economically vulnerable households, and lower levels of social trust, are therefore significantly more sensitive to such shocks. These countries tend to exhibit greater vulnerability to external disturbances, less stable health and social systems, and higher levels of economic uncertainty among households (Eurofound, 2022; OECD, 2024). As a result, the impact of the polycrisis has not led to a reduction, but rather to a deepening of spatial disparities in quality of life. It can therefore be assumed that the polycrisis functions not merely as a contextual framework, but as an active process in the reproduction of spatial inequalities in quality of life.

OBJECTIVES

Building on the above assumptions, the aim of this study is to examine the spatio-temporal aspects of quality-of-life differentiation among European countries in 2018 and 2023, in the context of the potential impacts of the polycrisis. Specifically, the study seeks to:

- (i) identify and quantify the key determinants of quality of life;
- (ii) determine the latent factors shaping quality of life and their possible shifts between 2018 and 2023; and
- (iii) assess whether, and to what extent, the differences among the observed countries have widened or narrowed.

The formulation of these objectives rests upon the assumption that there are long-term, empirically demonstrated inequalities in the level of quality of life between the countries of Northwestern and Southeastern Europe, which are further exacerbated by the differing capacities of individual states to absorb external shocks and social uncertainties (Helliwell, Layard & Sachs, 2022).



CONCEPTUALISING QUALITY OF LIFE (QOL) IN THE CONTEXT OF POLYCRISIS

Assessing *quality of life* represents a complex and methodologically demanding area of research that cannot be reduced to a single interpretative framework. *QoL* is a multidimensional phenomenon encompassing the simultaneous influence of material conditions, social relations, health status, cultural opportunities, and subjectively experienced well-being. The terminological diversity of this concept has been highlighted in numerous studies in the field of human geography and other social sciences (e.g. Ira & Andráško, 2007; Heřmanová, 2012; Džuka, 2013; Babinčák, 2014; Murgaš et al., 2023). As noted by Woźniak and Tobiasz-Adamczyk (2014), the most common definitions describe quality of life as the degree of satisfaction or dissatisfaction that individuals experience in relation to various aspects of their lives, encompassing dimensions such as happiness, subjective well-being, and personal fulfilment. In the academic literature, quality of life is often interpreted as the outcome of the interaction between objective and subjective living conditions. The objective dimension includes material living standards, social background, the level of public services, and the health status of the population, whereas the subjective dimension reflects individuals' self-assessment of life, satisfaction, sense of meaning, and inner psychological balance (Horňák & Rochovská, 2007). In this context, several related concepts, well-being, subjective well-being, life satisfaction, human development, and social welfare are sometimes used interchangeably in the literature, although their meanings are not always conceptually identical (Heřmanová, 2012; Petrovič & Murgaš, 2020). A significant contribution to the theoretical conceptualisation of quality of life is Veenhoven's (2000, in Babinčák, 2014) concept of the four qualities of life. This model distinguishes between:

- (a) liveability of the environment – the extent to which the environment provides suitable conditions for human life, including housing, accessibility, infrastructure, safety, and, in a broader sense, ecological and social aspects;
- (b) life-ability of the person – the individual's internal capacity to lead a good or fulfilling life, that is, their personal ability to cope with life's challenges;
- (c) utility of life – the value or satisfaction an individual derives from life or from specific activities; and
- (d) appreciation of life – the perception of the value of life as a subjective reflection of its worth, referring to the individual's existential and moral relationship to their own life. It carries a more introspective and existential meaning, concerning how a person values their life and its fulfilment (Veenhoven, 2000; Babinčák, 2014).

This framework demonstrates that quality of life cannot be reduced solely to economic or health parameters; rather, it also encompasses issues of personal



identity, life meaning, and social embeddedness. In other words, human life is situated within a network of social relations, norms, and institutions. In the context of quality of life, this implies that life satisfaction and identity depend not only on individual factors but also on the quality of social bonds.

Despite terminological differences, most scholars agree that quality of life comprises two fundamental dimensions – an objective and a subjective one (Pacione, 2003; Ira & Murgaš, 2008; Murgaš, 2016). The distinction between objective and subjective approaches to assessing quality of life has a long-standing tradition within the European research context. The Nordic socio-political tradition, represented particularly by Allardt (1976), emphasises objective living conditions – especially the categories of having–loving–being, known as Allardt’s triad (material security, social relationships, and opportunities for self-realisation). This approach is based on the measurement of socioeconomic and institutional indicators such as income, education, housing, and social services (Avdic & Avdic, 2023). Conversely, the subjective approach, developed primarily within the American psychological tradition, accentuates experienced life satisfaction and subjective well-being, regarding the individual as the “most competent evaluator” of their own quality of life. The key concepts of subjective well-being and life evaluation were elaborated in detail by Diener, Emmons, Larsen, and Griffin (1985) and later by Diener (1999), who demonstrated that subjective assessments of life may be independent of objective living conditions. This distinction between the objective and subjective dimensions of quality of life in European research is also reflected in Noll (2002), who argues that a comprehensive assessment of quality of life must integrate both types of indicators.

Major syntheses and policy initiatives aimed at developing new approaches to measuring quality of life (Stiglitz, Sen & Fitoussi, 2009; OECD, 2020) have contributed to a broader shift beyond purely economic indicators, integrating social, environmental, and subjective dimensions.

In the health and psychological sciences, a well-established framework for the multidimensional assessment of quality of life had already emerged, represented most notably by the World Health Organization’s Quality of Life (WHOQOL) approach (The WHOQOL Group, 1998). This approach is founded on the assumption that quality of life cannot be reduced to health status or the mere absence of disease, but must instead be understood as a subjectively perceived degree of life satisfaction situated within the context of an individual’s culture, values, goals, expectations, and personal priorities. The WHOQOL model therefore highlights the multidimensional character of quality of life, encompassing not only physical health, psychological well-being, and social relationships, but also the level of independence, material conditions, the spiritual dimension, and environmental quality (The WHOQOL Group, 1998). The primary aim of the WHOQOL framework is thus to capture the subjective experience of quality of life within its culturally spe -



cific and personal contexts, thereby building a bridge between medical indicators of health and the psychosocial dimensions of human existence (The WHOQOL Group, 1998).

In addition to the dichotomy outlined above, a further distinction can be made between positive and negative approaches – that is, the selection and evaluation of indicators enhancing quality of life (or determinants of well-being, such as education level, availability of services, social cohesion, environmental quality, or a sense of life fulfilment) versus those that diminish it (e.g. poverty, unemployment, crime, social exclusion, environmental pollution, stress, or health risks). Beyond positive and negative determinants of quality of life, its assessment may also employ either a partial or a holistic (comprehensive) approach. The holistic approach integrates indicators from various spheres of life, covering a broad range of domains that can be combined into coherent analytical frameworks (OECD, 2020; Stiglitz et al., 2009; Ira & Murgaš, 2008; Rišová, 2016). The partial approach focuses on assessing individual dimensions of quality of life (for example, economic, health or environmental) in isolation, according to specific thematic domains. The holistic approach, by contrast, seeks a comprehensive and integrated evaluation that interconnects physical, psychological, social, environmental, and cultural aspects within a single framework, thereby capturing the internal interrelations among them.

In the context of the current polycrisis, methodological diversity in assessing quality of life acquires particular importance. The polycrisis does not manifest merely as the sum of discrete crises but as a synergistic structure in which individual crisis processes mutually amplify their effects and propagate across social and spatial structures (Matlovič & Matlovičová, 2024; 2025; Tooze, 2022; Homer-Dixon et al., 2015). This dynamic leads to a restructuring of expectations regarding the attainment of a good quality of life. Such developments modify the relative weight of individual dimensions of quality of life: there is a discernible shift from post-material values towards the fundamental aspects of survival, such as a sense of security and social stability, whose importance in individuals' lives is increasing (Inglehart, 2018; Čaušević, 2023). This is further reflected in the different dynamics of individual quality-of-life indicators. Negative indicators such as financial vulnerability, unemployment, and psychological distress tend to exhibit accelerated and intensified dynamics under polycrisis conditions, often manifesting abruptly and with marked regional disparities. In contrast, positive indicators, such as cultural participation, social trust, and a sense of meaning, tend to recover much more slowly after a disruption. It is therefore essential to combine a detailed examination of the most vulnerable domains with a holistic assessment capable of capturing the cumulative effects of crises on quality of life (OECD, 2020; The WHOQOL Group, 1998; Veenhoven, 2000).

This shift also helps explain the currently observable changes in the weights of latent factors of quality of life in the period before and after the COVID-19



pandemic (the years 2018 and 2023 as examined in this study), as well as the deepening disparities between more resilient and more vulnerable European countries (Stiglitz et al., 2009; OECD, 2020; Homer-Dixon et al., 2015; Tooze, 2022). In empirical research on countries or regions, quality of life cannot therefore be measured directly, but only indirectly through indicators and thematic domains (Murgaš, 2016; Ira & Šuška, 2006). Numerous international comparisons employ different sets of domains, most commonly between five and nine thematic areas, usually encompassing economic conditions, health, education, the social environment, and environmental factors (Lagas et al., 2015; Macků & Voženílek, 2019; Matlovič & Matlovičová, 2016; Sánchez-Sellero et al., 2021; Ivanová et al., 2022).

Phenomenon of polycrisis is not only a widely debated issue in contemporary global discourse but also represents an analytical lens that enables an understanding of interrelated crises as a dynamic and mutually constitutive system. It is a concept that emphasises that environmental, economic, social, security and cultural disruptions do not overlap randomly but are causally interconnected and mutually reinforcing. This creates new conditions for examining and measuring quality of life, particularly in terms of the vulnerability and resilience of social systems. Recent synthesising studies published after 2023 indicate that the polycrisis functions as a framework for mapping configurational patterns of risk rather than being a one-off description of instability (Rakowski, 2025). This perspective shifts research on quality of life away from static, averaged indicators towards an exploration of the dynamics, variability, and uneven distribution of crisis impacts across populations.

In this context, it is important to highlight the sustainability dimension of quality of life, which in recent years has been conceptually linked to the framework of planetary boundaries and the so-called *doughnut logic*, that is, an understanding of well-being as a condition that can be maintained in the long term only within an ecologically safe and socially just space. This framework, developed in the work of Kate Raworth (2017), represents a synthesis of the environmental and social dimensions of development. Within this approach, sustainable quality of life is understood as a balance between the minimum social foundations that ensure dignified living conditions and the environmental limits whose transgression would disrupt the ecological stability of the planet. The space of sustainable well-being thus defined, whether expressed in terms of the *doughnut logic* or the *safe and just space* refers to a conceptual framework or range of conditions, rather than to a spatial entity in the physical-geographical sense (Raworth, 2017). The sustainability dimension of quality of life therefore provides an integrative bridge between indicators of quality of life and indicators of environmental sustainability, shifting the discussion from a purely anthropocentric towards an ecosystem-anchored evaluative framework. Recent literature on social transformation in the



era of polycrisis demonstrates that quality of life cannot be sustainable if it rests upon ecological degradation, social inequality, and dependence on unstable economic regimes. Accordingly, quality of life must be understood as a relational variable simultaneously grounded in (i) *social structures*, (representing social relations, norms, rules, and mechanisms of solidarity), (ii) *collective infrastructures of care*, that is, the social mechanisms, institutions, and relations that enable people to sustain life and well-being (e.g. public services, community care, mutual aid and health and social infrastructure) and (iii) *ecological limits* (planetary boundaries), meaning the physically sustainable thresholds of our planet (Siirilä et al., 2024; Steffen et al., 2015; Rockström et al., 2009).

This connection paves the way for models of *resilient well-being* that are capable of functioning under conditions of polycrisis, rather than only after it. The concept of resilient well-being conceives quality of life as the dynamic capacity of societies to sustain dignified, meaningful, and ecologically sustainable forms of living even amid the persistent shocks associated with polycrisis (Siirilä & Salonen, 2024). This represents a shift from a static understanding of well-being towards a processual and adaptive conception of quality of life that integrates social resilience, ecological stability, and collective capacities for regeneration (Folke et al., 2016; Shrivastava & Zsolnai, 2022). Understood in this way, resilient well-being highlights the interrelationship between individual fulfilment and the resilience of socio-ecological systems, assuming that sustainable forms of well-being must be grounded within planetary boundaries and the social foundations of a dignified life (Raworth, 2017; Samuelsson et al., 2019; Béné et al., 2014).

DATA AND METHODS

The spatial scope of the research encompasses 29 European countries representing the opposing poles of the northwest–southeast axis of quality of life: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovenia, Slovakia, Spain, Sweden, and Switzerland. The selection of countries was conditioned by the availability of statistical data over the monitored period. The statistical analysis draws upon a set of 27 carefully selected indicators, aggregated into eight thematic categories, as defined within the Quality of Life section of the Eurostat database. The data were harmonised to enable comparison between the years 2018 and 2023. Specifically, these include:

- A – Median income
- B – At risk of poverty rate threshold
- C – Life satisfaction
- D – Inability to make ends meet



- E – Main GDP aggregates per capita
- F – Employment rates
- G – Unemployment rates
- H – Long-term unemployment
- I – Average number of usual weekly hours of work in main job
- J – Employed persons working on Saturdays as a percentage of the total employment
- K – Employed persons working on Sundays as a percentage of the total employment
- L – Employed persons working in the evenings as a percentage of the total employment
- M – Employed persons working at nights as a percentage of the total employment
- N – Life expectancy
- O – Healthy life years
- P – Self-perceived health
- Q – Population by educational attainment level (Tertiary education)
- R – Persons participating in any cultural or sport activities in the last twelve months
- S – Persons getting together with family/relatives or friends every week
- T – Persons getting together with family/relatives or friends once a month
- U – Inability to face unexpected financial expenses
- V – Arrears (mortgage or rent, utility bills or hire purchase)
- W – Persons participating in formal/informal voluntary activities or active citizenship
- X – Pollution, grime or other environmental problems
- Y – Noise from neighbours or from the street
- ZA – Overall life satisfaction
- ZB – Persons being happy in the last four weeks.

In examining the above set of indicators and their impact on quality of life, three methods were employed: (i) the point method, (ii) correlation and regression analysis, and (iii) the principal component analysis (PCA) method.

The point method belongs to the category of indirect methods. The main reason for its application in this study lies in its ability to normalise a set of indicators expressed in different measurement units into a single synthetic, dimensionless measure. This form of normalisation enables the comparison of multiple regions or countries through one aggregated indicator of quality of life (Klamár et al., 2019). In the overall evaluation of quality of life as a synthetic variable, the most favourable value of each selected indicator was defined as the value that maximises its contribution to the overall assessment, regardless of whether



it is numerically higher or lower. This value was identified within the observed set of countries and adopted as the benchmark for comparison. Depending on the nature of the indicator (i.e. whether it exerted a positive or negative influence), the corresponding maximum or minimum value was determined and defined as 100 points. This benchmark subsequently served as the reference base for all further calculations, which followed the formulas below:

$$u_r = \frac{U_r}{U_{max}} \cdot 100 \quad \text{for positive indicators} \quad (1)$$

$$u_r = \frac{U_{min}}{U_r} \cdot 100 \quad \text{for negative indicators} \quad (2)$$

where: u_r – recalculated point value of the indicator in a given country,
 U_r – actual value of the indicator in the country,
 U_{max} – the maximum value of the indicator within the analysed set of countries in case of positive indicators,
 U_{min} – the minimum value of the indicator within the analysed set of countries in case of negative indicators.

By assessing the point values of the selected indicators for each country and summing their scores, a quality-of-life index was obtained for the given country. The maximum achievable value of this composite index was 2,700 points.

Correlation and regression analyses were employed to determine the strength of the relationship between the monitored indicators and the resulting quality of life. The dependent variable was the quality of life, while the independent variables were the individual indicators under observation. The aim was to establish whether a relationship could be inferred between the variables and to determine the strength of this relationship. Assuming that a link exists between two variables whose strength can be expressed by their shared variability, one variable can be approximated by the other, thereby creating a regression model. The suitability of the model was verified using an analysis of variance (ANOVA) in the STATISTICA software, where the null hypothesis H_0 ("The model is not suitable for use") was tested. The F-value represented the test statistic, and its significance was determined by the p-value, indicating the lowest possible level of significance required to reject the null hypothesis. When $p \leq 0.05$, the null hypothesis was rejected at the significance level $\alpha = 0.05$. The strength of the linear relationship was assessed using Pearson's correlation coefficient (R), whose absolute values approaching 1 indicated a stronger relationship between quality of life and the respective indicator. The coefficient of determination (R^2) expressed the percentage of variability in the dependent variable that could be explained by the variability of the independent variable. The relationships among the monitored indicators were evaluated using a correlation matrix.



The principal component analysis (PCA) method, as applied in the works of Andráško (2008) and Macků and Voženilek (2019), was used to identify the factors influencing the quality of life. This method reduces the dimensionality of the dataset by transforming a large number of original variables into a smaller number of uncorrelated principal components. These components are ordered in descending order of explained variance, with the first principal component accounting for the largest share of the total variance of the original variables. The basic equation can be expressed as:

$$X = TP^T + E \quad (3)$$

(data structure + noise)

where: X – matrix of source data,
 T – component score matrix,
 P^T – transposed component loadings (weight) matrix,
 E – residual matrix.

The appropriate number of principal components can be determined using the eigenvalue table and Cattell's scree plot. In the scree plot, significant principal components are distinguished from the less important ones (representing the lower part of the plot) by a visible drop in the curve. In practice, Kaiser's criterion is often applied, according to which components with eigenvalues greater than one are considered statistically significant. The percentage of explained variance criterion is also used to determine the optimal number of components. In the natural sciences, a higher threshold is typically required (around 95%), while in the social and human sciences, a level of approximately 60% is generally acceptable (Meloun et al., 2012).

RESULTS AND DISCUSSION

Based on the results of the point-based method (Tables 1 and 2), Norway (2018 – 1,987.2 points; 2023 – 1,904.2 points) and Switzerland (1,863.4 points and 1,826.8 points, respectively) achieved the highest overall level of quality of life in both years analysed, despite the recorded decline in their scores (–83.0 points and –36.6 points, respectively). These two countries were the only ones to exceed the threshold of 1,800 points in both years, which can be attributed to as many as 17 placements (2018) and 9 placements (2023) in the Top 5 highest-ranked countries across individual indicators in the case of Norway, and 11 and 10 such placements in the case of Switzerland. However, for Switzerland in 2023, it is also necessary to note its three placements among the Top 5 lowest-ranked countries for the indicators with the highest share of employees working on Saturdays (J), Sundays (K), and in the evening (L).



This pair of countries was complemented in 2018 by Sweden, which reached 1,920.4 points, but subsequently dropped by 187.7 points in 2023, falling to eighth place, and by the Netherlands in 2023 (1,918.9 points), which recorded a substantial increase of 137.6 points compared to 2018, the second highest increase among all countries. This rise of the Netherlands was driven by as many as 12 entries in the Top 5 best-performing countries, particularly for the indicators Life satisfaction (C), Inability to make ends meet (D), Employment rates (F), Long-term unemployment (H), Inability to face unexpected financial expenses (U), and Arrears (mortgage or rent; utility bills or hire purchase) (V).

The next group of countries (above 1,600 points) consisted of the Scandinavian states Denmark (1,764.9 points), Sweden (1,732.6 points), and Finland (1,642.2 points) together with the Benelux countries Luxembourg (1,746.3 points) and Belgium (1,641.9 points). This group also included other highly developed Western European countries, namely Ireland (1,738.4 points), Austria (1,651.7 points), and Germany (1,605.6 points). Countries in this tier, particularly those above the 1,700-point threshold, recorded between 4 and 8 placements in the TOP 5 best-performing countries across individual indicators, with the highest counts observed for Denmark (2018–8; 2023–8), Ireland (2018–8), and Luxembourg (2023–8).

A comparison between 2018 and 2023 reveals a decline in QoL amongst the Scandinavian countries, most notably in Finland (–97.8 points, a drop of three positions) and Denmark (–15.7 points). In Finland, the weaker performance in 2023 was associated with a higher proportion of employees working in the evening (L) and at night (M), as well as poorer outcomes in health-related indicators (O–Healthy life years; P–Self-perceived health). A moderate decline was likewise recorded for Luxembourg (–21.8 points) and Ireland (–27.0 points). Among the remaining countries, Austria experienced a decrease of –73.9 points (down one place), while Germany declined by –56.2 points (down three places). The lower scores of Austria and Germany were partly due to only two and three placements, respectively, in the Top 5 best countries in 2023; in the case of Germany, however, the decline was compounded by three placements in the Top 5 worst-performing countries for the indicators Pollution, grime or other environmental problems (X), Noise from neighbours or from the street (Y), and Overall life satisfaction (ZA).

A distinct subgroup within this tier in 2023 comprised three countries of the “former Eastern Bloc” (highlighted in yellow in Tables 1 and 2), namely Poland (1,782.8 points), Lithuania (1,699.0 points), and Czechia (1,695.1 points). While Czechia experienced a decline of –53.6 points compared with 2018 (a drop of two positions), Poland recorded an increase of +125.5 points (up eight positions) and Lithuania an increase of +273.8 points (up twelve positions). Poland held a particularly notable position, achieving as many as nine placements in the Top 5, primarily for indicators associated with the lowest shares of employees working



on Saturdays (J), Sundays (K), in the evening (L), and at night (M). Lithuania exhibited a similar profile, with seven placements in the Top 5.

The third group of countries (above 1,400 points) displayed a different configuration. It consisted mainly of other “former Eastern Bloc” states such as Slovenia (1,573.1 points), Estonia (1,521.3 points), Hungary (1,493.1 points), and Croatia (1,431.7 points). Among these countries, the quality of life between 2018 and 2023 increased most markedly in Slovenia (+97.4 points, up five positions), while it declined substantially in Croatia (−104.1 points, down five positions) and Hungary (−72.0 points, also down five positions). This group was further joined by Malta (1,539.3 points) and Cyprus (1,505.5 points), which, alongside the post-socialist states, entered the EU in 2004. The only Western European country included in this tier was France, which fell into this group due to a decrease of −156.4 points in quality of life compared with 2018, corresponding to a drop of six positions in the overall ranking.

The fourth group consisted of the Southern European countries Italy (1,372.5 points), Portugal (1,342.1 points), and Spain (1,316.3 points). In comparison with 2018, the quality of life in Portugal declined by five positions (−159.3 points), while Spain recorded a drop of two positions (−57.7 points). These countries also registered a relatively high number of placements among the top five worst-performing countries, specifically 9, 6, and 7 placements, respectively. The only “former Eastern Bloc” country in this group was Slovakia (1,371.6 points), which showed only a slight increase of +13.5 points compared with 2018, yet recorded as many as 8 placements in the top five worst-performing countries.

The final group consisted almost exclusively of countries from the “former Eastern Bloc” with the lowest quality-of-life scores, namely Latvia (1,312.9 points), Bulgaria (1,291.6 points), and Romania (1,224.3 points), accompanied by Greece in the last position (1,196.5 points). The weak performance of these countries stemmed from poor outcomes across the majority of indicators. Greece and Bulgaria appeared as many as 14 and 15 times, respectively, among the top five worst-performing countries, while the remaining countries registered 10 to 12 such placements. Bulgaria displayed a somewhat specific profile, as it recorded four placements in the top five best-performing countries for indicators capturing the lowest shares of employees working on Saturdays (J), Sundays (K), in the evening (L), and at night (M), a pattern directly opposite to that observed for the highly ranked Switzerland. A further negative feature of this group is that, except for Bulgaria, all countries experienced a slight deterioration in quality of life compared with 2018, ranging from −4.7 to −21.2 points, whereas Bulgaria showed only a marginal increase of +1.0 point.



Tab. 1 Quality of Life in Selected European Countries (by Selected Indicators, 2018)

2018	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	ZA	ZB	Σ
Norway	91.7	74.4	100	81.0	71.0	96.0	57.9	53.8	90.3	48.2	45.3	27.8	45.2	98.8	96.7	60.8	82.6	100	88.7	59.4	70.6	56.6	51.8	72.4	74.1	98.8	83.3	1 987.2
Sweden	59.4	58.5	100	48.6	46.5	99.9	34.4	77.8	83.2	56.3	38.4	30.4	39.6	98.6	100	61.9	91.6	95.5	81.8	62.3	88.8	83.8	100	98.4	47.1	96.3	81.4	1 920.4
Switzerland	100	85.8	94.7	38.6	73.0	100	46.8	41.2	87.0	27.2	28.6	25.8	41.3	100	83.1	75.6	93.1	96.8	78.4	65.6	88.1	34.5	85.9	72.4	46.5	98.8	94.7	1 863.4
Netherlands	55.8	72.2	97.4	77.3	46.3	96.0	57.9	58.3	100	26.9	23.0	13.2	21.8	97.7	81.3	50.5	81.5	95.1	98.3	47.1	84.7	78.9	80.8	39.4	29.5	95.1	95.2	1 781.3
Denmark	70.0	75.6	100	48.6	52.6	93.9	43.1	70.0	91.1	52.3	35.3	26.1	42.2	96.7	83.7	55.9	80.5	95.0	62.6	80.3	55.2	34.5	30.4	77.8	44.0	96.3	87.1	1 780.5
Luxembourg	80.1	57.5	92.1	38.2	100	87.4	39.3	50.0	81.4	48.8	45.3	29.8	38.8	98.2	83.4	49.7	94.8	69.5	77.8	45.9	70.6	48.4	55.0	42.0	41.5	92.6	92.5	1 768.1
Ireland	57.9	64.4	94.7	23.6	89.3	89.8	37.9	33.3	84.1	24.8	22.9	29.6	39.6	98.1	95.3	97.9	100	83.7	80.8	51.2	37.3	26.8	41.5	96.9	85.1	100	98.8	1 765.4
Czechia	21.1	100	88.2	37.8	20.5	96.8	100	100	76.0	50.9	42.5	43.3	38.0	94.4	86.1	42.6	63.6	91.7	75.0	58.6	58.6	100	13.4	53.4	54.8	91.4	69.9	1 748.7
Finland	57.1	80.0	100	73.9	42.6	92.5	29.7	35.0	82.5	33.9	28.1	18.7	25.3	97.6	78.8	38.3	92.1	93.6	85.1	56.6	51.1	28.0	77.3	72.4	59.7	100	100	1 740.0
Austria	58.5	67.1	96.1	37.8	43.9	92.4	44.9	41.2	83.7	29.6	32.0	36.5	31.7	97.6	78.2	68.5	74.3	84.3	75.0	75.8	89.2	61.2	38.0	67.7	45.7	98.8	95.9	1 725.6
Germany	52.8	80.0	89.5	100	41.9	98.8	64.7	50.0	86.7	32.9	37.2	22.5	37.3	96.7	90.4	38.5	62.3	83.7	64.5	58.2	49.5	65.2	44.4	25.4	28.8	91.4	90.6	1 681.8
Poland	15.3	64.9	82.9	32.1	13.4	87.5	56.4	70.0	75.6	66.4	84.2	57.5	86.4	92.7	85.7	33.2	67.2	62.6	44.2	95.5	43.8	30.0	23.3	43.4	58.0	95.1	81.0	1 657.3
France	51.7	71.6	86.8	37.8	35.5	86.4	24.4	28.0	82.1	27.6	32.7	69.4	63.3	98.8	87.8	49.3	81.0	87.1	74.1	43.9	44.3	33.0	79.2	42.9	44.0	90.1	81.6	1 654.2
Belgium	55.1	58.5	92.1	21.0	40.7	84.5	36.7	26.9	82.3	36.5	40.0	42.4	63.3	97.5	87.1	60.8	88.9	78.4	100	33.2	56.7	49.2	15.7	43.2	45.2	93.8	92.7	1 622.3
Hungary	12.6	75.0	72.4	14.0	14.2	90.2	59.5	50.0	77.3	93.1	78.7	35.9	31.1	90.9	83.9	34.9	53.8	59.2	70.1	73.8	41.7	23.4	15.0	64.9	94.1	80.2	75.0	1 665.1
Croatia	15.3	49.7	68.4	12.1	13.1	79.0	25.9	20.6	77.3	58.7	75.0	100	100	93.3	79.0	61.5	54.3	47.2	52.0	48.0	26.3	16.1	18.2	100	100	77.8	56.9	1 635.8
Estonia	24.5	43.8	77.6	39.5	20.3	95.9	40.7	53.8	79.5	39.1	29.6	20.1	27.5	93.7	74.0	18.8	84.2	77.9	52.4	100	40.1	37.5	27.8	71.6	93.0	86.4	69.1	1 518.7
Malta	34.4	57.1	89.5	43.6	28.6	90.8	55.0	36.8	78.3	30.6	32.0	35.0	21.8	98.2	99.9	52.2	61.0	59.1	86.1	25.8	100	37.0	31.3	21.2	28.4	52.6	87.5	1 513.9
Portugal	21.7	55.5	71.1	12.8	20.1	91.4	31.0	21.9	76.8	100	100	44.2	67.9	97.3	80.5	20.8	55.8	71.5	82.5	32.0	40.1	45.5	31.6	48.8	34.8	82.7	63.5	1 501.4
Slovenia	30.8	72.2	82.9	30.4	22.2	91.4	43.1	31.8	77.9	42.4	38.1	20.6	22.6	97.3	76.2	43.0	70.9	79.8	74.8	72.5	42.0	22.1	31.3	38.4	55.9	88.9	76.1	1 475.7
Lithuania	16.0	41.9	68.4	30.9	16.5	94.3	35.5	35.0	78.9	49.4	50.0	42.4	73.1	90.7	79.3	14.8	89.1	69.0	48.5	95.5	28.5	29.1	20.1	37.1	54.1	79.0	58.2	1 425.3
Cyprus	35.7	62.3	80.3	8.2	25.4	89.6	26.2	25.9	77.9	26.0	32.7	37.2	50.0	98.9	85.4	100	97.3	61.4	72.0	11.9	28.1	13.9	6.7	64.3	40.8	87.7	71.6	1 417.3
Spain	34.4	44.7	82.9	16.3	26.3	81.2	14.4	10.9	81.4	26.0	28.8	21.0	31.1	99.6	93.4	48.4	84.0	87.2	86.5	34.8	38.7	31.9	25.2	42.1	90.1	87.1	1 374.0	
Slovakia	17.3	78.7	78.9	20.2	16.8	87.8	33.8	14.9	76.6	38.8	29.4	17.8	12.7	92.4	77.1	47.8	54.3	73.8	64.7	41.0	44.1	30.3	8.9	65.6	71.4	87.7	75.2	1 358.1
Italy	39.2	47.3	84.2	17.5	30.1	76.4	20.8	10.8	82.3	22.7	31.4	25.6	22.6	99.5	91.8	32.1	42.5	53.6	88.2	32.8	39.6	50.0	20.1	53.8	73.4	86.4	51.0	1 325.7
Latvia	17.0	41.2	71.1	16.5	14.8	93.1	29.7	20.6	78.7	42.9	44.0	32.5	57.6	89.5	71.8	11.8	74.3	72.3	51.7	87.3	25.1	21.7	17.9	33.0	58.4	82.7	41.5	1 318.8
Bulgaria	8.3	43.6	56.6	6.4	8.5	87.8	42.3	19.4	75.4	46.3	81.5	37.8	44.2	89.5	90.4	42.2	61.2	34.6	44.7	85.2	43.3	9.4	11.8	44.7	85.1	66.7	43.5	1 290.5
Romania	7.6	40.9	86.8	12.7	10.7	84.7	52.4	31.8	77.1	31.0	36.4	29.0	35.2	89.9	81.6	56.5	38.3	32.0	57.7	54.5	30.3	18.2	11.5	42.6	39.8	91.4	65.1	1 245.5
Greece	18.3	51.9	68.4	4.5	17.0	72.1	11.4	5.6	73.1	19.3	28.6	10.9	31.1	97.7	89.8	99.1	68.4	85.4	72.9	36.1	27.6	7.0	26.8	30.7	41.5	79.0	56.9	1 201.2

Note:

- (Green) – Top 5 best-rated countries for the given indicator
- (Red) – Top 5 worst-rated countries for the given indicator
- (Yellow) – Countries of the former Eastern Bloc

A–Median income, B–At risk of poverty rate threshold, C–Life satisfaction, D–Inability to make ends meet, E–Main GDP aggregates per capita, F–Employment rates, G–Unemployment rates, H–Long-term unemployment, I–Average number of usual weekly hours of work in main job, J–Employed people working on Saturdays as a percentage of the total employment, K–Employed people working on Sundays as a percentage of the total employment, L–Employed people working in the evenings as a percentage of the total employment, M–Employed people working at nights as a percentage of the total employment, N – Life expectancy, O–Healthy life years, P–Self-perceived health, Q – Population by educational attainment level (Tertiary education), R – People participating in any cultural or sport activities in the last 12 months, S–People getting together with family /relatives or friends every week, T–People getting together with family/relatives or friends once a month, U–Inability to face unexpected financial expenses, V – Arrears (mortgage or rent, utility bills or hire purchase), W–People participating in formal/informal voluntary activities or active citizenship, X–Pollution, grime or other environmental problems, Y–Noise from neighbours or from the street, ZA–Overall life satisfaction, ZB–People being happy in the last 4 weeks.

Source: Authors' own calculations based on Eurostat (2024)



Tab. 2 Quality of Life in Selected European Countries (by Selected Indicators, 2023)

2023	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	ZA	ZB	Σ
Netherlands	59.1	75.4	100	100	50.3	100	72.2	100	100	25.5	26.0	34.4	55.2	96.7	83.3	29.7	82.4	92.9	85.2	57.8	100	100	45.9	28.6	23.8	97.4	97.0	1918.9
Norway	84.4	85.2	97.4	58.6	68.4	96.3	72.2	100	91.6	18.5	16.7	39.1	40.0	97.4	96.0	48.9	89.9	93.8	79.2	70.2	65.7	32.5	100	44.2	48.6	97.4	71.8	1904.2
Switzerland	100	59.4	98.7	53.1	78.1	99.5	63.4	38.5	87.5	12.4	14.0	32.5	29.1	100	84.2	63.9	86.3	96.6	72.2	86.2	84.6	33.3	66.0	54.5	39.2	100	93.6	1826.8
Poland	20.3	70.0	85.5	44.7	16.8	93.3	92.9	62.5	78.6	45.2	55.6	92.9	94.1	92.7	88.9	29.5	71.2	65.6	60.9	83.9	61.9	51.0	9.1	59.2	72.0	97.4	87.0	1782.8
Denmark	68.5	83.1	93.4	37.8	53.3	95.6	51.0	100	93.2	27.5	20.2	35.1	40.0	96.6	79.6	54.4	76.2	98.5	55.8	94.0	68.8	33.3	25.1	57.5	42.9	96.2	87.2	1764.9
Luxembourg	96.2	52.1	89.5	77.3	100	89.6	50.0	29.4	83.4	28.1	30.5	32.9	25.0	98.3	85.8	45.1	98.1	100	76.3	54.6	66.0	29.9	54.8	44.2	22.2	93.6	93.4	1746.3
Ireland	62.0	81.7	89.5	26.6	81.1	94.7	60.5	45.5	88.3	14.0	14.3	34.2	32.0	97.4	94.0	81.9	100	85.7	70.4	75.2	46.4	24.5	19.0	55.3	67.0	97.4	100	1738.4
Sweden	55.0	60.9	97.4	48.6	43.0	98.9	33.8	31.3	82.5	21.5	16.0	43.3	34.8	98.3	94.7	41.1	89.9	85.0	58.8	98.2	72.9	38.8	51.3	84.0	62.6	96.2	93.9	1732.6
Lithuania	22.8	47.6	84.2	88.0	21.6	94.0	37.7	21.7	80.8	100	100	100	100	91.2	85.9	16.5	88.0	59.7	50.6	86.7	39.3	36.6	14.5	38.5	66.3	92.3	54.5	1699.0
Czechia	27.6	100	88.2	45.9	24.6	97.8	100	62.5	79.8	27.3	26.3	50.5	31.4	94.3	88.0	51.1	50.4	76.4	78.6	61.9	80.7	89.7	13.2	53.2	43.2	94.9	57.5	1695.1
Austria	63.5	65.8	96.1	34.0	43.6	92.5	51.0	45.5	88.0	16.4	19.2	53.6	31.4	96.2	86.8	56.5	72.1	74.1	75.1	77.1	69.7	37.7	30.5	52.5	33.5	98.7	90.8	1651.7
Finland	55.2	80.3	100	85.0	41.3	93.7	36.1	31.3	88.5	23.0	18.5	26.1	25.0	96.3	82.5	29.1	76.6	87.3	77.0	70.6	61.2	27.4	58.4	43.3	29.1	100	99.4	1642.2
Belgium	58.6	79.7	93.4	28.3	42.6	86.3	47.3	22.7	86.8	17.6	20.5	44.4	47.1	97.3	90.7	59.3	83.9	78.5	100	42.7	74.3	56.5	13.7	31.6	46.5	98.7	92.8	1641.9
Germany	53.1	68.1	89.5	54.8	41.7	91.7	83.9	50.0	90.5	21.6	26.9	34.2	34.8	95.8	87.0	41.6	62.2	94.5	71.0	63.8	45.4	31.3	39.8	25.0	26.6	89.7	85.7	1605.6
Slovenia	36.5	77.2	88.2	38.6	25.4	92.8	70.3	35.7	80.2	26.0	28.7	34.2	25.8	96.7	95.0	46.8	63.9	74.4	70.2	83.0	70.0	35.6	19.5	28.2	48.2	98.7	83.2	1573.1
Malta	38.2	59.0	89.5	30.4	31.2	97.4	74.3	62.5	81.0	13.5	13.0	34.0	16.3	98.6	100	71.3	68.1	50.5	89.7	41.7	100	45.6	22.8	12.1	21.4	94.9	84.1	1539.3
Estonia	30.5	43.6	82.9	83.0	23.5	98.3	40.6	38.5	83.8	33.9	27.2	33.5	30.2	92.9	84.5	24.3	77.3	77.3	43.6	97.7	52.3	44.8	19.5	48.8	69.8	92.3	66.6	1521.3
Cyprus	38.1	70.5	84.2	23.9	28.5	95.2	44.8	27.8	79.4	14.4	20.3	63.4	84.2	97.3	84.0	92.6	98.7	53.2	67.3	7.3	42.3	18.2	5.1	40.0	36.0	96.2	82.4	1505.5
France	48.8	63.6	84.2	19.8	34.8	89.1	35.6	27.8	84.9	13.4	17.0	68.4	42.1	98.0	91.7	50.4	80.7	72.2	66.5	72.0	54.1	26.0	30.2	26.3	31.8	91.0	75.4	1497.9
Hungary	15.0	74.8	77.6	21.5	17.3	96.6	63.4	35.7	79.8	55.9	48.1	61.2	36.4	90.7	89.2	36.5	55.2	52.0	78.2	61.5	50.5	24.1	8.9	28.8	67.0	92.3	75.1	1493.1
Croatia	19.9	50.8	75.0	25.4	16.7	84.8	42.6	23.8	79.4	23.0	26.9	52.0	33.3	92.7	85.9	70.7	53.4	48.8	66.0	44.0	38.4	20.5	7.4	100	100	91.0	59.2	1431.7
Italy	40.0	51.9	88.2	30.9	30.4	79.4	33.8	11.9	84.5	10.9	15.8	41.3	25.0	98.8	96.0	36.3	41.2	48.2	96.6	40.8	55.2	52.0	5.6	42.4	59.8	92.3	61.4	1431.7
Slovakia	18.6	68.5	76.3	16.3	19.0	92.8	44.8	13.2	79.8	24.1	20.5	30.6	14.3	92.1	81.6	48.9	55.4	53.0	73.7	41.3	54.3	29.5	10.4	72.4	77.9	93.6	68.7	1371.6
Portugal	23.9	57.6	78.9	17.0	21.3	93.4	40.0	20.0	79.4	16.5	18.9	40.9	28.6	97.2	84.2	25.5	58.2	68.6	86.8	47.7	52.1	50.0	23.6	27.5	23.3	91.0	69.9	1342.1
Spain	30.7	48.5	82.9	18.1	26.1	84.4	21.3	11.6	84.4	13.2	14.5	30.2	30.8	99.1	87.2	32.9	79.6	77.3	77.4	57.8	42.7	19.1	14.2	39.3	28.4	92.3	66.3	1316.3
Latvia	22.7	43.6	77.6	22.1	17.5	92.6	40.0	27.8	81.2	23.6	25.0	61.9	39.0	89.5	77.2	9.3	73.0	51.2	45.7	100	35.5	32.9	8.4	27.3	54.0	88.5	45.8	1312.9
Bulgaria	13.2	47.6	60.5	16.8	12.4	91.3	60.5	21.7	78.8	40.4	51.0	65.0	50.0	89.4	95.0	29.5	57.3	26.0	50.4	41.7	34.0	13.8	4.8	40.4	77.0	75.6	47.2	1291.6
Romania	13.3	46.4	92.1	17.3	14.3	82.3	46.4	22.7	78.8	21.5	30.1	33.3	29.1	90.3	84.0	57.2	34.5	29.7	60.5	51.8	34.3	18.1	7.9	35.9	34.4	98.7	59.3	1224.3
Greece	20.3	51.9	69.7	4.6	18.0	80.7	23.4	8.1	77.3	9.1	15.7	14.6	34.8	96.2	95.4	100	64.2	48.8	68.8	35.3	35.9	5.5	16.0	20.5	31.6	88.5	60.7	1196.5

Note:

- (Green) – Top 5 best-rated countries for the given indicator
- (Red) – Top 5 worst-rated countries for the given indicator
- (Yellow) – Countries of the former Eastern Bloc

A–Median income, B–At risk of poverty rate threshold, C–Life satisfaction, D–Inability to make ends meet, E–Main GDP aggregates per capita, F–Employment rates, G–Unemployment rates, H–Long-term unemployment, I–Average number of usual weekly hours of work in main job, J–Employed people working on Saturdays as a percentage of the total employment, K–Employed people working on Sundays as a percentage of the total employment, L–Employed people working in the evenings as a percentage of the total employment, M–Employed people working at nights as a percentage of the total employment, N – Life expectancy, O–Healthy life years, P–Self-perceived health, Q – Population by educational attainment level (Tertiary education), R – People participating in any cultural or sport activities in the last 12 months, S–People getting together with family/relatives or friends every week, T–People getting together with family/relatives or friends once a month, U–Inability to face unexpected financial expenses, V – Arrears (mortgage or rent, utility bills or hire purchase), W–People participating in formal/informal voluntary activities or active citizenship, X–Pollution, grime or other environmental problems, Y–Noise from neighbours or from the street, ZA–Overall life satisfaction, ZB–People being happy in the last 4 weeks.

Source: Authors' own calculations based on Eurostat (2024)



In the next phase of the analysis, we focused on determining the strength of the relationship between the quality of life (expressed using the point method) on the one hand, and the individual indicators monitored on the other. The regression model proved to be suitable for application in almost two-thirds of the indicators analysed.

Strong correlations (0.68 and above) were observed in both periods between the quality of life and indicators reflecting material living conditions: A–median income, C–life satisfaction, and E–GDP and main components per capita. A strong correlation was also evident between quality of life and indicator R–people participating in any cultural or sport activities in the last 12 months, as well as between quality of life and indicator ZB–people being happy in the last four weeks (most of the time) or between the quality of life and indicator U–inability to face unexpected financial expenses. Conversely, very weak correlations were found (in both time horizons) between the quality of life and the following indicators: J–employed persons working on Saturdays as a percentage of total employment, K–employed persons working on Sundays as a percentage of the total employment, L–employed people working in the evenings as a percentage of total employment, M–employed people working at night as a percentage of total employment, O–healthy life years, P–self-perceived health, and Y–noise from neighbours or from the street (Table 3).

A more detailed examination of the mutual correlations among all monitored indicators revealed strong relationships between the following pairs: C–life satisfaction and ZA–overall life satisfaction (0.95 in 2018, 0.85 in 2023); V–arrears (mortgage or rent, utility bills or hire purchase) and D–inability to make ends meet (0.93 in 2018, 0.92 in 2023); F–employment rates and H–long-term unemployment (-0.78 in 2018, -0.75 in 2023); W–people participating in formal or informal voluntary activities or active citizenship and A–median income (0.70 in 2018, 0.79 in 2023); G–unemployment rate and H–long-term unemployment (0.90 in 2018, 0.80 in 2023); C–life satisfaction and ZB–people being happy in the last four weeks (most of the time) (0.83 in 2018, 0.71 in 2023); R–people participating in any cultural or sport activities in the last 12 months and A–median income (0.79 in 2018, 0.82 in 2023); A–median income and E–GDP and main components per capita (0.93 in 2018, 0.94 in 2023).



Tab. 3 Pearson's correlation coefficient between quality of life and selected indicators

Indicator	Pearson correlation coefficient (2018)	Suitability of linear regression model (2018)	Pearson correlation coefficient (2023)	Suitability of linear regression model (2023)
A	0.78	suitable	0.71	suitable
B	-0.64	suitable	-0.60	suitable
C	0.77	suitable	0.72	suitable
D	-0.69	suitable	-0.64	suitable
E	0.74	suitable	0.68	suitable
F	0.64	suitable	0.65	suitable
G	-0.50	suitable	-0.55	suitable
H	-0.65	suitable	-0.72	suitable
I	-0.67	suitable	-0.65	suitable
J	-0.24	not suitable	-0.27	not suitable
K	0.08	not suitable	0.00	not suitable
L	-0.13	not suitable	-0.22	not suitable
M	-0.18	not suitable	-0.25	not suitable
N	0.46	suitable	0.37	suitable
O	0.24	not suitable	-0.02	not suitable
P	0.16	not suitable	-0.05	not suitable
Q	0.53	suitable	0.60	suitable
R	0.82	suitable	0.78	suitable
S	0.40	suitable	0.12	not suitable
T	0.13	not suitable	0.43	suitable
U	-0.70	suitable	-0.72	suitable
V	-0.62	suitable	-0.53	suitable
W	0.69	suitable	0.64	suitable
X	-0.34	not suitable	-0.25	not suitable
Y	0.08	not suitable	0.04	not suitable
ZA	0.72	suitable	0.57	suitable
ZB	0.76	suitable	0.68	suitable

Source: Authors' own calculations based on Eurostat (2024)

From the above results, it is evident that the quality of life is largely dependent on material living conditions, the amount of time spent at work, and the ways in which this time is spent, which in turn is reflected in the perception of happiness.



The final stage involved identifying the factors that most strongly influence quality of life in the evaluated European countries. To this end, we applied the principal component method, which serves to reduce the number of variables and the overall dimensionality of the dataset. The scree plot of eigenvalues for 2018 (Figure 1) indicates that the first principal component explains 37.72% of the variance in the original variables, while the second accounts for 19.82%. A distinct inflection is visible at component number three, suggesting, according to established methodological conventions, the selection of three principal components, which together explain 65.46% of the total variance. From the perspective of the explained variance criterion, this level of explanation can be regarded as sufficient, given the social-scientific nature of the data. Kaiser's criterion of eigenvalues greater than one is not considered decisive in this case, as it would retain up to six principal components, which we regard as an overestimation.

The scree plot of eigenvalues for 2023 (Figure 2) likewise points to the presence of three main components. The first explains 33.71% of the variance in the original variables, the second 21.10%, and the third 8.98%. Together, these three components account for 63.79% of the total variance, yielding results that are broadly comparable to those obtained for 2018.

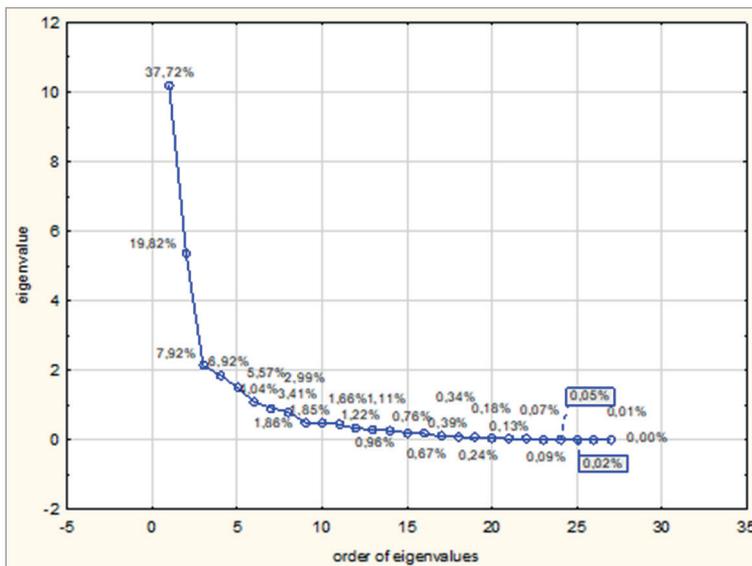


Fig. 1: Scree plot of eigenvalues (2018)

Source: Authors' own calculations based on Eurostat (2024)

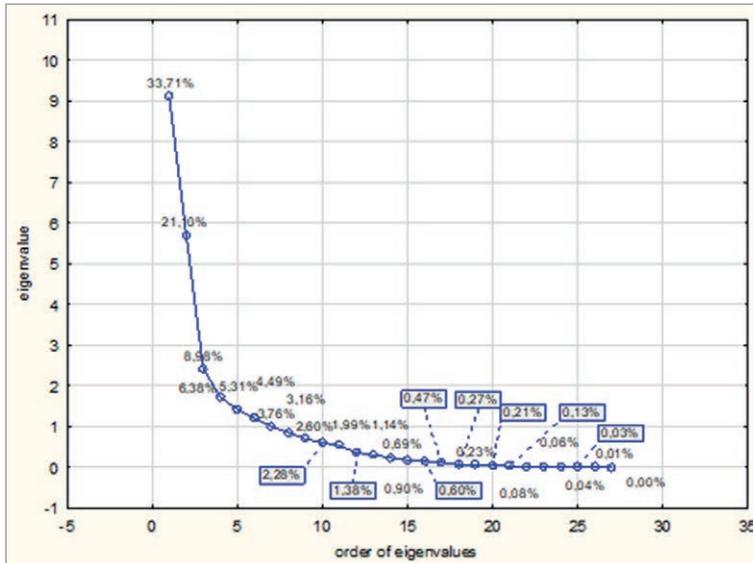


Fig. 2: Scree plot of eigenvalues (2023)

Source: Authors' own calculations based on Eurostat (2024)

The component loading graph highlights the importance of individual indicators as well as significant correlations among them. In 2018, the following indicators proved to be of major importance: C–life satisfaction, A–median income, ZA–overall life satisfaction, ZB–persons being happy in the last four weeks (most of the time), N–life expectancy, D–inability to make ends meet, H–long-term unemployment, and R–persons participating in any cultural or sport activities in the last 12 months. These indicators largely reflect the state of material living conditions. Although many of these indicators continued to play an important role in 2023 (A–median income, ZB–people being happy in the last four weeks (most of the time), C–life satisfaction, N–life expectancy, D–inability to make ends meet, H–long-term unemployment), the importance of indicators related to subjective life satisfaction (ZA–overall life satisfaction, C–life satisfaction) declined. Conversely, the indicators M–employed persons: working at night as a percentage of total employment, Y–noise from neighbours or from the street, X–pollution, grime or other environmental problems, and O–healthy life years had only a negligible influence on the factors affecting quality of life in both periods analysed.

In the component loading graph for 2018 (Figure 3), several groups of mutually correlated indicators can be observed. The first group consists of the indicators A–median income, ZA–overall life satisfaction, ZB–people being happy in the last four weeks (most of the time), R–people participating in any cultural or sport



activities in the last 12 months, E–GDP per capita and main components, C–life satisfaction, W–people participating in formal/informal voluntary activities or active citizenship, and Q–population by educational attainment level. The strongest correlations were observed between the indicators ZA–overall life satisfaction and C–life satisfaction ($r=0.95$), and between A–median income and E–GDP per capita and main components, ($r=0.93$). High correlations were also evident between ZA–overall life satisfaction and ZB–persons being happy in the last four weeks (most of the time) ($r=0.84$), as well as between ZB–people being happy in the last four weeks (most of the time) and C–life satisfaction ($r=0.83$). In 2023 (Figure 4), within this group of indicators, the highest correlations were recorded between A–median income and E–GDP per capita and main components ($r=0.94$), ZA–overall life satisfaction and C–life satisfaction ($r=0.85$), and A–median income and R–persons participating in any cultural or sport activities in the last 12 months ($r=0.82$). The above group of indicators correlates negatively with indicators I–average number of usual weekly hours of work in main job, B–at risk of poverty rate threshold, and U–inability to face unexpected financial expenses.

In both periods under review, more pronounced correlations were also observed between the indicators G–unemployment rates and H–long-term unemployment ($r=0.9$ in 2018, $r=0.8$ in 2023), D–inability to make ends meet and V–arrears (mortgage or rent, utility bills or hire purchase) ($r=0.93$ in 2018, $r=0.92$ in 2023), and H–long-term unemployment ($r=0.76$ in 2018, $r=0.77$ in 2023). Moderate correlations were also evident between the indicators B–at risk of poverty rate threshold and U–inability to face unexpected financial expenses ($r=0.58$ in 2018, $r=0.62$ in 2023). These indicators correlate negatively with indicators C–life satisfaction, A–median income, E–GDP per capita and main components, R–persons participating in any cultural or sport activities in the last 12 months, S–persons getting together with family (relatives) or friends every week, ZA–overall life satisfaction, and ZB–persons being happy in the last four weeks (most of the time).

In the component loading graph, the indicators T–persons getting together with family (relatives) or friends once a month (negatively correlated with indicator S–persons getting together with family (relatives) or friends every week ($r= -0.66$ in 2018, $r= -0.51$ in 2023) and F–employment rates (strongly negatively correlated with indicator G – unemployment rates ($r= -0.72$ in 2018, $r= -0.59$ in 2023) appear separately. Strong correlations are also evident between the variables S–people getting together with family (relatives) or friends every week and N–life expectancy ($r=0.77$ in 2018, $r=0.58$ in 2023).

The table of factor coordinates of variables according to their respective correlations for 2018 (Table 4) shows the contribution of individual indicators to the respective factors (principal components). The table reveals that the largest contributions to the first factor are made by indicators C–life satisfac-



tion, A–median income, R–persons participating in any cultural or sport activities in the last 12 months, ZA–overall life satisfaction, ZB–people being happy in the last four weeks (most of the time), E–GDP and its main components per capita, I–average number of usual weekly hours of work in the main job, B–at-risk-of-poverty threshold, and W–people participating in formal/informal voluntary activities or active citizenship.

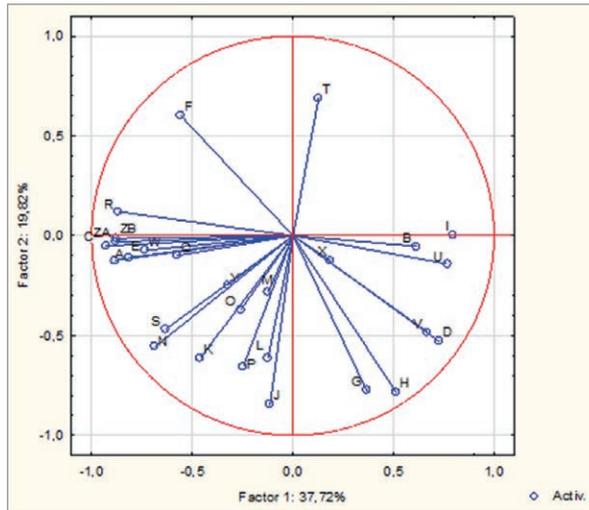


Fig. 3: Projection of variables onto the factor plane (2018)
Source: Authors' own calculations based on Eurostat (2024)

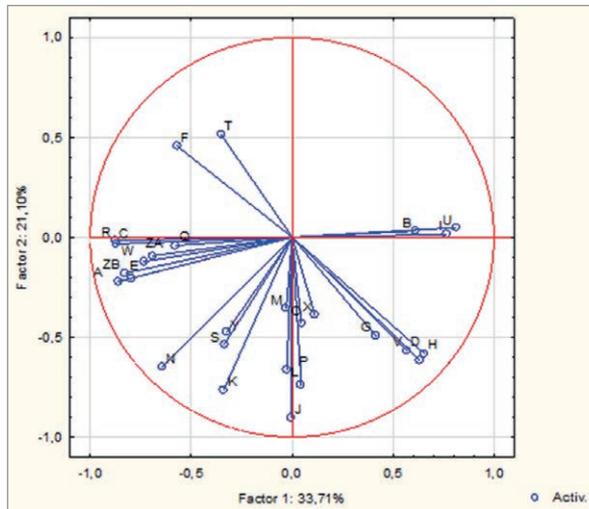


Fig. 4: Projection of variables onto the factor plane (2023)
Source: Authors' own calculations based on Eurostat (2024)



These indicators may be regarded as factor-pure, as their loadings on the remaining factors are negligible and thus reveal a distinct and unambiguous association with the first principal component. The first principal component is, however, also shaped by indicators D–inability to make ends meet, N–life expectancy, U–inability to face unexpected financial expenses, and V–arrears (mortgage or rent, utility bills, or hire purchase). Since these indicators also exhibit substantial loadings on the second or third factor, they cannot be considered strictly factor-pure.

In 2023 (Table 5), the first principal component was, similarly to the preceding period, defined by the same set of factor-pure indicators: A–median income, C–life satisfaction, E–GDP and its main components per capita, I–average number of usual weekly working hours in the main job, R–persons participating in any cultural or sports activities in the past twelve months, ZA–overall life satisfaction, and ZB–persons reporting happiness for most of the time during the last four weeks. Relative to 2018, the number of factor-impure indicators increased. Although these indicators continued to contribute substantially to the first factor, their loadings on the second or third factor were no longer negligible and, in certain cases, even exceeded their contribution to the first. The most notable among these were indicators D–inability to make ends meet, N–life expectancy, U–inability to face unexpected financial expenses, and V–arrears (mortgage or rent, utility bills, or hire purchase) observed consistently since 2003. These were accompanied by additional indicators, namely F–employment rates, H–long-term unemployment, and Q–population by educational attainment level. Furthermore, the contribution of indicator W–persons participating in formal or informal voluntary activities or in active citizenship – to the third factor increased perceptibly, indicating a gradual redistribution of variance among latent dimensions.

In light of the above, the first principal component in both examined periods may be interpreted as representing a *satisfactory working environment* one, that provides not only a sufficient and stable source of income and a sense of inner well-being, but also adequate resources for leisure and recreation through participation in cultural or sporting activities. The degree to which this environment can be considered satisfactory is reflected in the source data pertaining to the perception of quality of life. Events that unfolded between 2018 and 2023 suggest that, by 2023, the factor identified as a satisfactory working environment became more strongly associated with indicators of unemployment and long-term unemployment.

Although, in 2018, the second principal component was shaped by several indicators reflecting material living conditions, Saturday and evening work, employment, long-term unemployment, and health, only indicator J–employed persons working on Saturdays as a percentage of the total – could be considered *factor-pure*. The situation in 2023, however, exhibited a slight shift. Indicators J–employed persons working on Saturdays as a percentage of the total em-



ployment – and P–self-perceived health – could be regarded as almost factor-pure, even though the second factor was also significantly influenced by indicators relating to Sunday and evening work, inability to make ends meet, mortgage burden, employment and associated long-term unemployment, frequency of contact with family and friends, and overall life satisfaction. Taken together, these findings suggest that the second principal component in both periods can be characterised as *income earned at the expense of family, leisure, and health*, a latent dimension capturing the trade-offs inherent in the pursuit of economic stability under contemporary social and labour conditions.

Tab. 4 Factor coordinates of variables based on correlations (2018)

Variable (indicator)	Factor loadings of variables derived from the correlation matrix		
	Factor 1	Factor 2	Factor 3
A	-0.886	-0.124	-0.270
B	0.615	-0.053	-0.097
C	-0.929	-0.052	0.050
D	0.725	-0.529	-0.202
E	-0.818	-0.110	-0.284
F	-0.559	0.603	0.047
G	0.365	-0.773	-0.230
H	0.511	-0.781	-0.015
I	0.794	0.002	0.022
J	-0.114	-0.843	0.071
K	-0.461	-0.611	0.129
L	-0.124	-0.611	0.278
M	-0.123	-0.283	0.612
N	-0.686	-0.556	-0.084
O	-0.260	-0.371	-0.032
P	-0.247	-0.653	-0.357
Q	-0.577	-0.099	-0.565
R	-0.867	0.121	-0.131
S	-0.635	-0.469	0.137
T	0.127	0.690	-0.193
U	0.766	-0.140	-0.287
V	0.669	-0.483	-0.250
W	-0.735	-0.073	-0.131
X	0.184	-0.123	0.646
Y	-0.325	-0.248	0.541
ZA	-0.883	-0.031	0.022
ZB	-0.881	-0.014	0.063

Source: Authors' own calculations based on Eurostat (2024)



Tab. 5 Factor coordinates of variables based on correlations (2023)

Variable (indicator)	Factor loadings of variables derived from the correlation matrix		
	Factor 1	Factor 2	Factor 3
A	-0.863	-0.222	-0.283
B	0.612	0.031	-0.397
C	-0.873	-0.033	0.013
D	0.634	-0.617	-0.160
E	-0.795	-0.205	-0.286
F	-0.570	0.457	0.095
G	0.414	-0.494	-0.529
H	0.654	-0.582	-0.221
I	0.765	0.014	0.208
J	-0.006	-0.905	-0.045
K	-0.339	-0.763	-0.044
L	0.045	-0.741	-0.243
M	-0.030	-0.357	0.346
N	-0.644	-0.650	-0.017
O	0.046	-0.432	0.346
P	-0.026	-0.662	0.128
Q	-0.577	-0.041	-0.484
R	-0.877	-0.015	-0.309
S	-0.336	-0.537	0.560
T	-0.352	0.514	-0.454
U	0.813	0.048	-0.353
V	0.569	-0.566	-0.337
W	-0.735	-0.123	-0.277
X	0.112	-0.390	0.423
Y	-0.323	-0.472	0.135
ZA	-0.691	-0.093	0.122
ZB	-0.827	-0.180	0.051

Source: Authors' own calculations based on Eurostat (2024)

The third principal component in 2018 was predominantly shaped by indicators Q–population by educational attainment level, X–pollution, grime, or other environmental problems, Y–noise from neighbours or from the street, and M–employed persons working at night as a percentage of total employment. In 2023, it was primarily influenced by indicators G–unemployment rates, Q–population by educational attainment level, S–people meeting family (relatives) or friends on a weekly basis, T–people meeting family (relatives) or friends once a month, and X–pollution, grime, or other environmental problems. In both years, the third factor exhibited strong correla -



tions with qualitative indicators reflecting environmental quality, educational attainment, and the strength of social and familial ties. This suggests that the latent dimension captured by the third principal component can be broadly interpreted as the *quality of the living environment and social connectedness*, integrating aspects of ecological conditions, education, and interpersonal relations within the wider context of well-being.

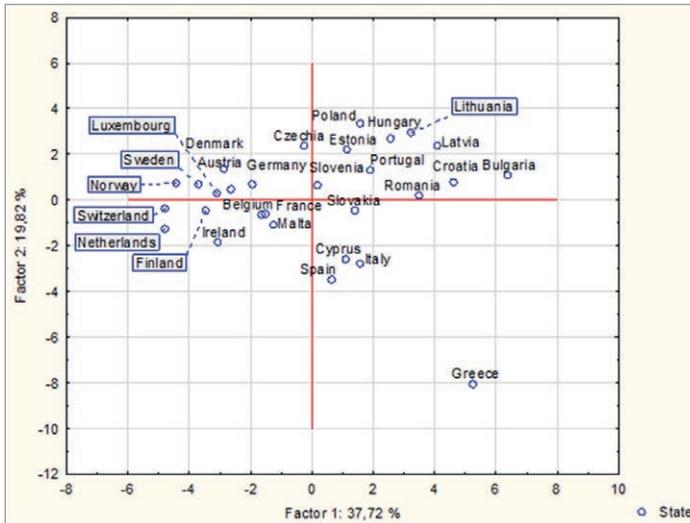


Fig. 5: Projection of cases onto the factor plane (2018)
Source: Authors' own calculations based on Eurostat (2024)

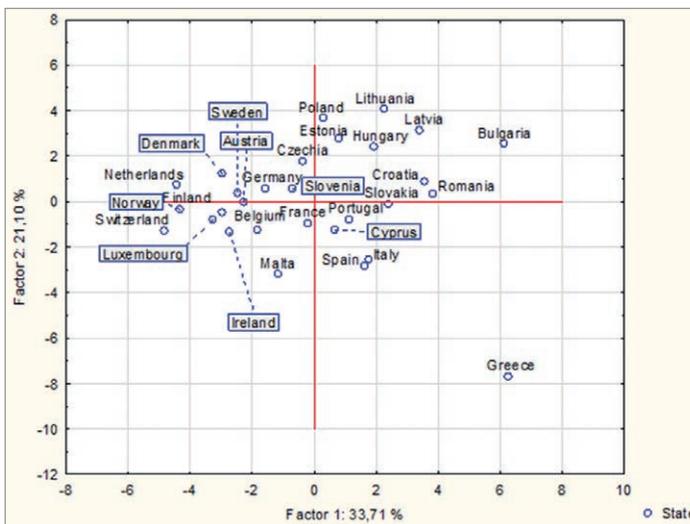


Fig. 6: Projection of cases onto the factor plane (2023)
Source: Authors' own calculations based on Eurostat (2024)



By overlaying the graphs of component loadings (Figures 3 and 4), and component scores (Figures 5 and 6) into a single plot, it is possible to visualise the relationships between indicators and objects (i.e., selected countries). The proximity of the indicator vectors labelled B—at-risk-of-poverty rate threshold and I—average number of usual weekly hours of work in the main job – to countries such as Bulgaria and Romania suggests a close association between these indicators and the respective national profiles. In Romania, the value of indicator B reached 23.5% in 2018 (compared with the overall mean of 16.52%), and in Bulgaria 22% (overall mean 16.52%). In 2023, the figures were 21.1% for Romania and 20.6% for Bulgaria (overall mean 16.03%). In both countries, people spend a substantial proportion of their lives at work – in 2018, 39.8% in Romania and 40.7% in Bulgaria (EU mean 37.98%), and in 2023 both countries recorded 40.1% (EU mean 37.82%). Bulgaria may also be regarded as a heavily indebted country. Following Greece, it recorded the second-highest level of mortgage arrears (indicator V) in the EU in both observed periods – 31.9% in 2018 and 18.8% in 2023. Although the figure declined over time, it remained markedly high (18.8%). Romania (16.5% in 2018, 14.4% in 2023) and Cyprus (21.6% in 2018, 14.3% in 2023) likewise exhibited comparatively elevated values. The poor economic conditions in Romania and Bulgaria are further evidenced by the high values of indicator U— inability to face unexpected financial expenses – which reached 45.9% in Romania in 2018 and 46.4% in 2023, and 32.1% in Bulgaria in 2018, rising to 46.7% in 2023 (EU mean 32.4% in 2018 and 30% in 2023).

As previously noted, Greece exhibited high values for indicator V, a pattern clearly reflected in the component loadings plot through its proximity to this indicator. A similar configuration was observed for indicators D— inability to make ends meet, G—unemployment rates, and H—long-term unemployment. The critical condition of Greece’s public finances became evident in March 2012, when the government admitted its inability to service a national debt exceeding EUR 260 billion. Despite the introduction of as many as fourteen recovery packages since 2017, including the abolition of early retirement, increases in value-added tax, income tax, and the so-called luxury tax (Odkladal, 2023), these austerity measures have left a lasting imprint on the population. Consequently, the quality of life in Greece tends to be perceived predominantly through economic factors such as the inability to make ends meet (D—38.2% in 2018, 36.7% in 2023), inability to cope with unexpected financial expenses (U—50.4% in 2018, 44.3% in 2023), and arrears on mortgages, rent, energy bills, or instalment purchases (V—43% in 2018, 47.3% in 2023), the highest levels recorded within the EU in both reference periods. These are accompanied by persistently high unemployment (G—19.3% in 2018, 11.1% in 2023) and long-term unemployment (H—12.5% in 2018, 6.2% in 2023). The adverse effects of unemployment (G) and long-term unemployment (H) on quality of life are also evident in Spain (G – 15.3% in 2018, 12.2% in 2023;



H–6.4% in 2018, 4.3% in 2023) and Italy (G–10.6% in 2018, 7.7% in 2023; H–7.7% in 2018, 4.2% in 2023). In these countries, people also tend to work frequently on Saturdays (J–41.9% in Greece in 2018, 41.7% in 2023; 35.7% in Italy in 2018, 34.9% in 2023; 31.2% in Spain in 2018, 28.7% in 2023; compared with a median of 20.9% across all countries in 2018 and 17.6% in 2023) or during evening hours (L–38.6% in Greece in 2018, 35.7% in 2023; 20% in Spain in 2018, 17.2% in 2023). This pattern may, to some extent, be associated with the cultural and climatic characteristics of southern Europe, particularly the prominence of social life, and higher evening activity levels during the warmer summer months.

A variety of economic factors negatively affecting quality of life also appear to be of particular relevance to respondents in Latvia (B–23.3% in 2018, 22.5% in 2023; I–39.0% in 2018, 38.9% in 2023; U–55.3% in 2018, 44.8% in 2023), Lithuania (B–22.9% in 2018, 20.6% in 2023; I–38.9% in 2018, 39.1% in 2023; U–48.8% in 2018, 44.8% in 2023), and Estonia (B–21.9% in 2018, 22.5% in 2023; V–30.4%). In 2023, Latvia and Estonia recorded the highest values for indicator B (at-risk-of-poverty rate threshold) among all countries under review, while Latvia also registered the highest value of indicator U (inability to face unexpected financial expenses) in 2018. By contrast, the perception of quality of life in several northern and north-western European countries such as Norway, Sweden, Finland, the Netherlands, Luxembourg, and Switzerland appears to be shaped by different priorities. Owing to their relatively high levels of economic development (Luxembourg, the Netherlands, Denmark, Sweden, Ireland, and Finland all display GDP per capita in purchasing power parity well above the EU average), the values of indicator A (median income) exceeded twice the average of all observed countries in Switzerland (43,013 in 2018, 49,524 in 2023) and Luxembourg (34,472 in 2018, 47,636 in 2023), and were likewise very high in Norway (39,438 in 2018). In these economically advanced societies, people tend to focus more strongly on qualitative dimensions of well-being, for instance, participation in cultural and sporting activities during the last twelve months (R–Norway 92.5% in 2018, 76.8% in 2023; Switzerland 89.5% in 2018, 79.1% in 2023; Sweden 88.3% in 2018, 69.6% in 2023; the Netherlands 88% in 2018, 76.1% in 2023; Denmark 87.9% in 2018, 80.7% in 2023; Finland 86.6% in 2018, 71.5% in 2023; Luxembourg 82.8% in 2018, 81.9% in 2023; Ireland 77.4% in 2018, 70.2% in 2023) and regular contact with family and friends (S). These indicators point to a broader understanding of life satisfaction, one grounded less in economic security and more in social engagement and cultural participation. Frequent contact with family or friends (at least once a week) remains an important aspect of social life for residents of Malta (43.6% in 2023), Italy (47.9% in 2023), and Portugal (42.2% in 2023). In 2018, the highest values for this indicator were recorded in Belgium (46.8%), the Netherlands (46.0%), Finland (44.5%), Norway (41.5%), Italy (41.3%), Spain (40.5%), and Malta (40.3%). The significance of maintaining contact with family



and friends, albeit at a lower frequency than in Italy and Portugal, is also evident in Estonia (24.4% in 2018; 21.3% in 2023) and Latvia (21.3% in 2018; 21.8% in 2023). More than 20% of respondents reported monthly contact with family or friends in Bulgaria (20.8%), Lithuania (23.3%), and Poland (23.3%) in 2018, and in Sweden (21.4%) and Denmark (20.5%) in 2023. Overall, the data indicate a decline in participation in cultural and sporting events between 2018 and 2023 across most of the countries mentioned above. Fourteen of the twenty-nine countries surveyed experienced a decrease in the frequency of weekly social contact. The sharpest decline was observed in Sweden (a reduction of 9.7%), whereas the largest increases were recorded in Poland (8.9%), followed by Italy (6.6%) and Slovakia (5.5%).

Having sufficient time to maintain close relationships and to engage in leisure activities such as cultural and sporting events is reflected in higher overall life satisfaction (Finland 8.1% in 2018, 7.8% in 2023; Ireland 8.1% in 2018, 7.6% in 2023; Norway 8.0% in 2018, 7.6% in 2023; Switzerland 8.0% in 2018, 7.8% in 2023), and contributes to the conditions fostering a sense of happiness. In 2023, the pattern of overall life satisfaction changed only marginally compared to 2018, with the highest scores observed in Switzerland and Finland (7.8%), followed by Belgium, Austria, Poland, Romania, and Slovenia (7.7% each). Nevertheless, the results of the descriptive data analysis indicate very small differences among countries (coefficient of variation of 8.86% in 2018 and 5.25% in 2023). In both periods, Bulgaria recorded the lowest values (5.4% in 2018 and 5.9% in 2023).

More than 60% of respondents in Ireland (63.3%), Finland (64.1%), Austria (61.5%), the Netherlands (61.0%), and Switzerland (60.7%) reported in 2018 that they had felt happy most of the time during the previous four weeks. In 2023, this share exceeded 60% in Ireland (67.1%), Finland (66.7%), the Netherlands (65.1%), Sweden (63.0%), Switzerland (62.8%), Luxembourg (62.7%), Belgium (62.3%), and Austria (60.9%). Differences across countries were again minimal (coefficient of variation: 21.9% in 2018; 21.3% in 2023). The lowest levels of happiness were consistently found in Bulgaria (27.9% in 2018, 31.7% in 2023) and Latvia (26.6% in 2018, 30.7% in 2023). In most of the countries surveyed (21 out of 29), the perception of happiness over the last four weeks increased between 2018 and 2023. The most pronounced improvements were recorded in Sweden (+10.8%), Cyprus (+9.4%), and Italy (+8.5%).

CONCLUSIONS

Spatial differentiation in the quality of life across Europe, examined using the point method (Tables 1 and 2), clearly confirms a stable northwest–southeast gradient that corresponds to the long-term trajectory of socio-economic convergence and divergence within the European space. The countries of north-western Europe (Switzerland, Norway, Denmark, Sweden, Finland, Luxembourg, and the Netherlands) exhibited the highest levels of the composite quality-of-life indicator.



Their profile is characterised not only by favourable material conditions but also by a high degree of subjective life satisfaction, active participation in cultural and social life, and a relatively harmonious balance between work and leisure. This pattern may be described as a model of quality of life “as cultivated well-being,” wherein, once basic economic security has been achieved, post-material dimensions of well-being come to the fore (Pacione, 2003; Woźniak & Tobiasz-Adamczyk, 2014; Murgaš, 2016). In contrast, the south-eastern part of Europe (Romania, Bulgaria, Greece, Latvia, and, to a lesser extent, Slovakia and Croatia) was characterised by a higher proportion of economically vulnerable households, lower income levels, an increased risk of indebtedness, and limited capacity to cope with unexpected expenses. In these countries, quality of life is primarily conceptualised as existential stability, which is consistent with the results of the correlation analysis (Table 3), where indicators reflecting economic security (U, V, D) proved to be strong predictors of the overall level of quality of life.

A positive convergence trajectory can be observed in the Central European countries, particularly Slovenia, Poland, Lithuania, and Estonia, where a shift towards higher quality-of-life values was evident between 2018 and 2023. This development was primarily driven by real income growth, labour market stabilisation, and the gradual strengthening of cultural and civic participation. These changes are further corroborated by the PCA results (Figures 1–4), according to which countries with improving economic performance have moved from a factor zone dominated by economic stressors to one characterised by a stronger presence of post-material qualitative values. The PCA confirmed the existence of three dominant dimensions of quality of life:

1. Economic prosperity and subjective well-being (A, E, C, ZA, ZB, R) – the fundamental axis of differentiation, weakened in 2023 by rising uncertainty.
2. Tension between work, leisure, and health (I, J, L, M, D, H) – particularly pronounced in Southern Europe.
3. Social relations, education, and environmental conditions (Q, S, T, X, Y) – more prominent in countries with established economic stability.

The period under review (2018–2023) was profoundly shaped by a polycrisis – a sequence of several concurrent and mutually reinforcing crises (notably the COVID-19 pandemic, the energy crisis, inflation, and growing security uncertainty) that altered the perception of quality of life (Matlovičová, 2024). The findings revealed that the polycrisis reshaped the relative weight of the quality-of-life dimensions. Whereas in 2018, factors such as subjective satisfaction, cultural participation, and social integration played a dominant role in high-well-being countries, during the polycrisis, dimensions associated with income security, employment, energy affordability, and social stability came to the forefront (Eurofound, 2022; OECD, 2024).



Both the correlation and PCA analyses confirm these shifts, demonstrating an increased weight of indicators reflecting economic resilience (U, V, D). In other words, the polycrisis has altered the hierarchy of individual expectations: in highly prosperous countries, it has reduced the salience of satisfaction and happiness (decline in the importance of indicators C and ZA), while in economically weaker countries, it has intensified the emphasis on material security and resilience to financial shocks.

The differences between European regions have not been levelled out as a result of the polycrisis; rather, they have deepened. Northern and Western Europe entered the polycrisis with high levels of social capital, robust institutions, and diversified economies (Esping-Andersen, 1999; Nolan, 2021). These countries were able to absorb the crisis shocks without a significant deterioration in quality of life, as evidenced by stable or only slightly declining levels of subjective well-being (Eurostat, 2023). In these contexts, quality of life has evolved from an ideal of *prosperity* towards an ideal of *resilient well-being* (Helliwell, Layard & Sachs, 2022). In contrast, the countries of South-Eastern Europe entered the same period with pronounced structural vulnerabilities, such as slower wages, a high share of the working poor, weaker healthcare infrastructure, and strong energy dependence (Halás & Kladiivo, 2012; World Bank, 2023). Consequently, the polycrisis accelerated economic stress at the household level, which manifested in a substantial decline in life satisfaction and a rise in social insecurity. In other words, in North-Western Europe, quality of life shifted from *well-being* to *well-being under uncertainty*, whereas in South-Eastern Europe it shifted from *survival* to an *experienced threat to survival*. Our research thus supports the argument of Homer-Dixon et al. (2015) and Beck (2009) that the polycrisis does not operate as a primary source of divergence but rather as an accelerating framework within which the varying levels of institutional stability, social capital, and economic resilience across countries become more visible and effective in differentiating the resultant quality of life. The polycrisis can therefore be understood as a mechanism that amplifies pre-existing inequalities. It did not create new disparities per se but has deepened existing ones by imposing greater demands on the economic and social resilience of territories, factors that determine the extent to which countries are able to process uncertainty and absorb unpredictable shocks (Beck, 2009; Homer-Dixon et al., 2015).

In light of these findings, policies aimed at enhancing quality of life should extend beyond measures focused solely on economic growth to encompass social dimensions, with the objective of achieving a more balanced relationship between economic performance and psychosocial capital such as care infrastructure, social cohesion, and cultural participation. Strengthening household resilience is also crucial, particularly in South-eastern European countries where reducing



vulnerability to financial shocks is a key priority. This involves encouraging savings, ensuring affordable access to energy, and reducing household debt. Finally, investment in the soft factors of regional resilience, such as education, community participation, volunteering, as well as cultural and leisure activities, has proven pivotal in countries with a higher quality of life.

Acknowledgement

The paper was supported by the Scientific Grant Agency of the Slovak Republic under the projects: VEGA No. 1/0812/25, "Sustainable family business in the context of the challenges of the 21st century," and VEGA No. 1/0271/25, "The Impact of Global Environmental Problems on the Political-Spatial Structure of the State and Its Participation in Environmental Governance."

REFERENCES

- ALLARDT, E. (1976). *Dimensions of welfare in a comparative Scandinavian study*. *Acta Sociologica*, 19(3), 227–239. <https://doi.org/10.1177/000169937601900302>.
- ANDRÁŠKO, I. (2005). Dve dimenzie kvality života v kontexte percepcií obyvateľov miest a vidieckych obcí. In: Vaishar, A., Ira, V. (eds.) *Geografická organizace Česka a Slovenska v súčasnom období*, Brno: Ústav geoniky AV ČR, 6-13.
- ANDRÁŠKO, I. (2006). Sociálno-demografická dimenzia kvality života v Bratislave (vo svetle multivariačnej analýzy). *Folia Geographica*, 10, ISSN 1336-6157, 10-17.
- ANDRÁŠKO, I. (2008). Regionálne typy vnútornej štruktúry Bratislavy z hľadiska kvality životných podmienok. *Geographia Slovaca*, 25, 159-173.
- AVDIC, A., AVDIC, B. (2023). Center and Periphery in Bosnia and Herzegovina – Social and Spatial Indicators of Regional Disparities. *Folia Geographica* 65(2), 103-126.
- BABINČÁK, P. (2014). Kritériá pre meranie kvality života v psychológii a ich aplikácia prostredníctvom rozdielového modelu kvality života. *Psychologie pro praxi*, 1-2, XLIX, 77-87.
- BECK, U. (2009). *World at Risk*. Cambridge: Polity Press, 269 s.
- BÉNÉ, C., NEWSHAM, A., DAVIES, M., ULRICHS, M., GODFREY-WOOD, R. (2014). Review article: Resilience, poverty and development. *Journal of International Development*, 26(5), 598–623. <https://doi.org/10.1002/jid.2992>.
- ČAUŠEVIĆ A., (2023). The Impact of the War Between Russia and Ukraine on the Attitudes of the Inhabitants Regarding Tourist Trips: The Case of Bosnia and Herzegovina. *Folia Geographica* 65(2), pp. 31-52.
- DIENER, E., EMMONS, R. A., LARSEN, R. J., & GRIFFIN, S. (1985). The Satisfaction with Life Scale. *Journal of Personality Assessment*, 49(1), 71–75.
- DIENER, E., SUH, E. (1997). Measuring quality of life: Economic, social, and subjective indicators. *Social indicators research*, 40, 189-216.



- DIENER, E. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, 125(2), 276–302.
- DŽUKA, J. (2013): Multidimenzionálny model subjektívne hodnotenej kvality života a jeho empirické overenie – výsledky predvýskumu. *Československá psychologie*, 57(5), 474-487.
- EUROFOUND (2022). *Fifth round of the Living, working and COVID-19 e-survey: Living in a new era of uncertainty*. Publications Office of the European Union. <https://doi.org/10.2806/190361>.
- EUROSTAT (2024). Quality of life indicators (database). European Commission, Eurostat. <https://ec.europa.eu/eurostat/web/quality-of-life>.
- ESPING-ANDERSEN, G. (1999). *Social Foundations of Postindustrial Economies*. Oxford University Press, 218 p.
- FOLKE, C., BIGGS, R., NORSTRÖM, A. V., REYERS, B., ROCKSTRÖM, J. (2016). Social-ecological resilience and biosphere-based sustainability science. *Ecology and Society*, 21(3), 41. <https://doi.org/10.5751/ES-08748-210341>.
- HALÁS, M., KLADIVO, P. (2012): Quality of life in an urban environment: a typology of urban units of Olomouc. *Quaestiones Geographicae*, 31 (2), 49-60, DOI: 10.2478/v101117-012-0018-4.
- HELLIWELL, J., LAYARD, R., SACHS, J. (2022). *World Happiness Report 2022*. New York: Sustainable Development Solutions Network. <https://worldhappiness.report/ed/2022>.
- HEŘMANOVÁ, E. (2012). Kvalita života a její modely v současném sociálním výzkumu. *Sociológia*, 44, č. 4, 407-425.
- HOMER-DIXON, T., WALKER, B., BIGGS, R., CRÉPIN, A.-S., FOLKE, C., LAMBIN, É. F., PETERSON, G., ROCKSTRÖM, J., SCHEFFER, M., STEFFEN, W., & TROELL, M. (2015). Synchronous failure: The emerging causal architecture of global crisis. *Ecology and Society*, 20(3), 6. <https://doi.org/10.5751/ES-07681-200306>.
- HORŇÁK, M., ROCHOVSKÁ, A. (2007). Vybrané aspekty kvality života vo vnútorných perifériách Slovenska. *Geographia Cassoviensis*, 1, 55-60.
- INGLEHART, F. R. (2018). *Cultural Evolution: People's Motivations Are Changing, and Reshaping the World*. Cambridge: Cambridge University Press, 288 s.
- IRA, V., ŠUŠKA, P. (2006). Percepčia kvality života v mestskom prostredí (na príklade mesta Partizánske). *Geografická revue*, 2, 309–332.
- IRA, V., ANDRÁŠKO, I. (2007). Kvalita života z pohľadu humánnej geografie. *Geografický časopis*, 59, 159-179.
- IRA, V., MURGAŠ, F. (2008). Geografický pohľad na kvalitu života a zmeny v spoločnosti na Slovensku. *Geographia Slovaca*, 25, 7-24.
- IVANOVÁ, M., KLAMÁR, R., FECKOVÁ ŠKRABULÁKOVÁ, E. (2022). Identification of Factors Influencing the Quality of Life in European Union Countries Evaluated by Principal Component Analysis. *Geographica Pannonica* 26, 1, 13–29, doi: 10.5937/gp26-34191.



- KLAMÁR, R., MATLOVIČ, R., IVANOVÁ, M., IŠTOK, R., KOZOŇ, J. (2019). Local Action Group as a Tool of Inter-municipal Cooperation: Case Study of Slovakia. *Folia Geographica*, 61(1), ISSN 1336-6157, 36-67.
- LAGAS, P., VAN DONGEN, F., VAN RIJN, F., VISSER, H. (2015). Regional quality of living in Europe. *REGION*, European Regional Science Association (ERSA), 2, 2, ISSN 2409-5370, 1-26, <http://dx.doi.org/10.18335/region.v2i2.43>.
- MATLOVIČ, R., MATLOVIČOVÁ, K. (2012). The Social Relevance and Branding of Geography 2012. *Geografie* 117(1), pp.33-51.
- MATLOVIČ, R., MATLOVIČOVÁ, K. (2016). The position of tourism and territorial marketing in the context of paradigmatic change to tertiary geography education in Slovakia, *Geojournal of Tourism and Geosites*, 2016, 18(2), pp. 133–144.
- MATLOVIČ, R., MATLOVIČOVÁ, K. (2024). Polycrisis in the Anthropocene as Key Research Agenda for Geography: Ontological Delineation and the Shift to a Post-disciplinary Approach. *Folia Geographica*, 66(1), 5–33.
- MATLOVIČ, R., MATLOVIČOVÁ, K. (2025). The Metamodern Shift in Geographical Thought: Oscillatory Ontology and Epistemology, Post-disciplinary and Post-paradigmatic Perspectives. *Folia Geographica*, 67(1), 22–69.
- MATLOVIČOVÁ, K. (2024). The Triadic Nexus: Understanding the Interplay and Semantic Boundaries Between Place Identity, Place Image, and Place Reputation. *Folia Geographica* 66(1), pp. 69-102.
- MACKŮ, K., VOŽENÍLEK, V. (2019). Statistická syntéza indikátorů kvality života – návrh tvorby indexu v evropských regionech. *Geographia Cassoviensis*, XII(2), 196-209.
- MELOUN, M., MILITKÝ, J., HILL, M. (2012). Statistická analýza vícerozměrných dat v příkladech. Praha: Academia, 750 s.
- MURGAŠ, F. (2016). Geographical conceptualization of quality of life. *Ekológia*, 35, 4, 309-319, DOI:10.1515/eko-2016-0025.
- MURGAŠ, F., MACKŮ, K., GREŽO, H., PETROVIČ, F. (2023). The concept of quality of life and its application using the World Value Survey Wave 7: Slovak experience. *GeoJournal*, 88, 6285-6302, <https://doi.org/10.1007/s10708-023-10969-5>.
- MURGAŠ, F., TIRPÁKOVÁ, A., & PETROVIČ, F. (2023). Self-Reported Health of University Students in Slovakia During the End Phase of the COVID-19 Pandemic and Its Impact on the Quality of Life. *Folia Geographica*, 65(2), 78–102.
- NOLAN, B. (2021). Social inequality and welfare states in crisis. *Journal of European Social Policy*, 31(4), 389–403.
- NOLL, H.-H. (2002). Towards a European system of social indicators: Theoretical framework and system architecture. *Social Indicators Research*, 58(1–3), 47–87.
- OECD (2020). *How's Life? 2020: Measuring Well-Being*. Paris: OECD Publishing. 244 s.
- OECD (2024). *How's Life? Well-being Database: Definitions and Metadata*. Paris: OECD Publishing. (online dataset).
- ODKLABDAL, M. (2023). *Európsky kráľ bankrotov Grécko sa nakoniec zachránilo a definitívne odvrátilo svoj krach*. Retrieved from: <https://www.aktuality.sk/clanok/>



- kUGWtEI/europsky-kral-bankrotov-grecko-sa-nakoniec-zachranilo-a-definitivne-odvrtilo-svoj-krach/ (Accessed on 10.9.2024).
- PETROVIČ, F., MURGAŠ, F. (2020). Holistic and Sustainable Quality of Life – Conceptualization and Application. *Folia Geographica*, 62, 1, ISSN 1336-6157, 77-94.
- PACIONE, M. (2003). Urban environmental quality and human well-being – a social geographical perspective. *Landscape and Urban Planning*, 65, 19-30.
- RAKOWSKI, J. J. (2025). Understanding the Polycrisis: Interlinked Risks and the Dynamics of Societal Resilience. *Annual Review of Environment and Resources*, 50(1). Advance online publication.
- RAWORTH, K. (2017). *Doughnut economics: Seven ways to think like a 21st-century economist*. Chelsea Green Publishing, 384 p.
- RIŠOVÁ, K. (2016). Meranie subjektívnej a objektívnej dimenzie kvality života z geografického hľadiska – prehľad prístupov. *Folia Geographica*, 58 (2), ISSN 1336-6157, 54-69.
- ROCKSTRÖM, J., STEFFEN, W., NOONE, K., PERSSON, Å., CHAPIN, F. S. III, LAMBIN, E. F., LENTON, T. M., SCHEFFER, M., FOLKE, C., SCHELLNHUBER, H. J., NYKVIST, B., DE WIT, C. A., HUGHES, T., VAN DER LEEUW, S., RODHE, H., SÖRLIN, S., SNYDER, P. K., COSTANZA, R., SVEDIN, U., FALKENMARK, M., KARLBERG, L., CORELL, R. W., FABRY, V. J., HANSEN, J., WALKER, B., LIVERMAN, D., RICHARDSON, K., CRUTZEN, P., FOLEY, J. A. (2009). A safe operating space for humanity. *Nature*, 461(7263), 472–475. <https://doi.org/10.1038/461472a>.
- SAMUELSSON, K., BARTHEL, S., COLDING, J., MACASSA, G., GIUSTI, M. (2019). Urban resilience at eye level: Spatial analysis of empirically defined experiential landscapes. *Landscape and Urban Planning*, 190, 103590. <https://doi.org/10.1016/j.landurbplan.2019.103590>.
- SHRIVASTAVA, P., ZSOLNAI, L. (2022). Wellbeing-oriented organizations: Connecting human flourishing with ecological regeneration. *Business Ethics, the Environment & Responsibility*, 31(2), 386–397. <https://doi.org/10.1111/beer.12421>.
- SIIRILÄ, J., SALONEN, A.O. (2024). Towards a sustainable future in the age of polycrisis. *Frontiers in Sustainability*, 5, 1436740. <https://doi.org/10.3389/frsus.2024.1436740>.
- STEFFEN, W., RICHARDSON, K., ROCKSTRÖM, J., CORNELL, S. E., FETZER, I., BENNETT, E. M., BIGGS, R., CARPENTER, S. R., DE VRIES, W., DE WIT, C. A., FOLKE, C., GERTEN, D., HEINKE, J., MACE, G. M., PERSSON, L. M., RAMANATHAN, V., REYERS, B., SÖRLIN, S. (2015). *Planetary boundaries: Guiding human development on a changing planet*. *Science*, 347(6223), 1259855. <https://doi.org/10.1126/science.1259855>.
- STIGLITZ, J. E., SEN, A., & FITOUSSI, J.-P. (2009). *Report by the Commission on the Measurement of Economic Performance and Social Progress*. Paris: CMEPSP, 291 p.
- THE WHOQOL GROUP. (1998). The World Health Organization quality of life assessment (WHOQOL): Development and general psychometric properties. *Social Science & Medicine*, 46(12), 1569–1585.



- TOOZE, A. (2022). The polycrisis: What it is and why it matters. (*Verejná prednáška / esej publikovaná online*).
- VEENHOVEN, R. (2000). The four qualities of life. Ordering Concepts and Measures of the Good Life. *Journal of Happiness Studies*, 1, 1-39.
- WOŹNIAK, B., TOBIASZ-ADAMCZYK, B. (2014). Quality of life and well-being. Working paper no 1.5 "Gender Equality and Quality of Life - State of Art Report", 22 p., chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://geq.sociologia.uj.edu.pl/documents/32447484/75036585/WP1.5.Tobiasz_Adamczyk_Wo%C5%BAniak_quality_of_life.pdf.