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ESPON Territorial Studies

Quality of Life in the Alpine Convention space

Annexes to Final Report / February 2024

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Table of contents

1 Annex A – Visualisation elements. Maps of TQoL indices and trends in the Alpine area

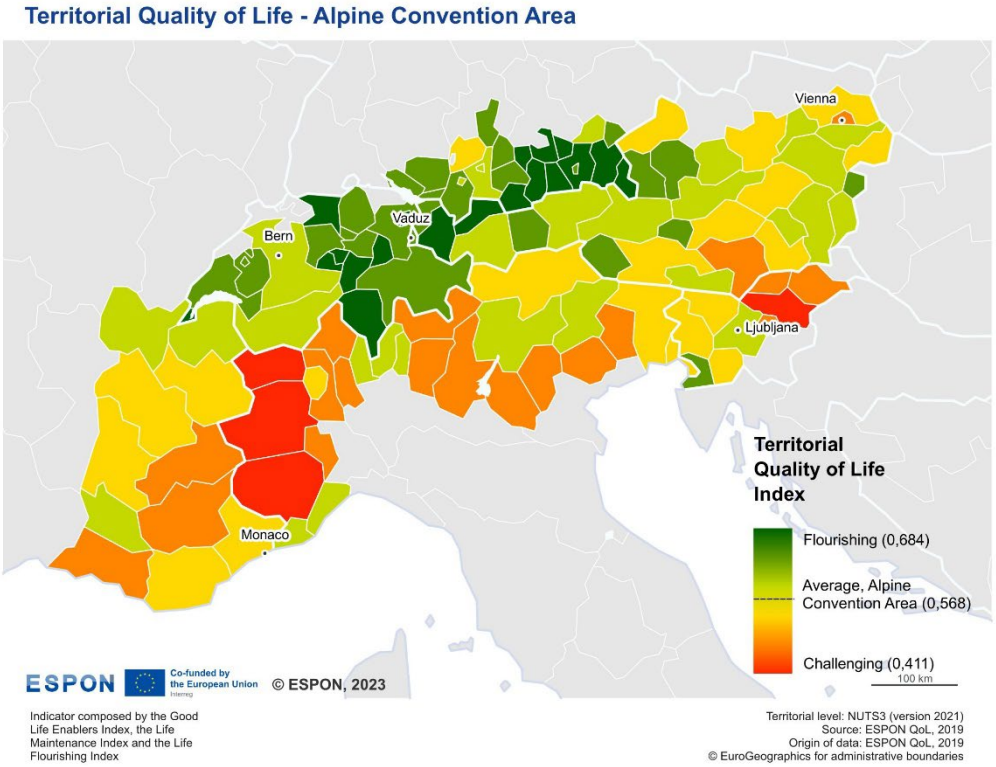
Within the framework of Territorial Quality of Life (TQoL), the three dimensions, nine domains, 22 subdomains and indicators associated to each sub-dimension, collectively provide a comprehensive assessment of the multifaceted aspects of quality of life in the Alpine area. The Good Life Enablers dimension explores personal, socio-economic and ecological factors enabling good living conditions in the region. Life Maintenance focuses on personal health and safety, economic and societal health and ecological health conditions. Life Flourishing delves into personal, community and ecological flourishing, covering people's self-esteem and self-actualisation, interpersonal and institutional trust and the quality of ecosystems and biodiversity wealth in the region.

Good Life Enablers			**Life Maintenance**			**Life Flourishing**		
Personal Enablers	Socioeconomic Enablers	Ecological Enablers	Personal Health and Safety	Economic and Societal Health	Ecological Health	Personal Flourishing	Community Flourishing	Ecological Flourishing

1.1 Territorial Quality of Life Index

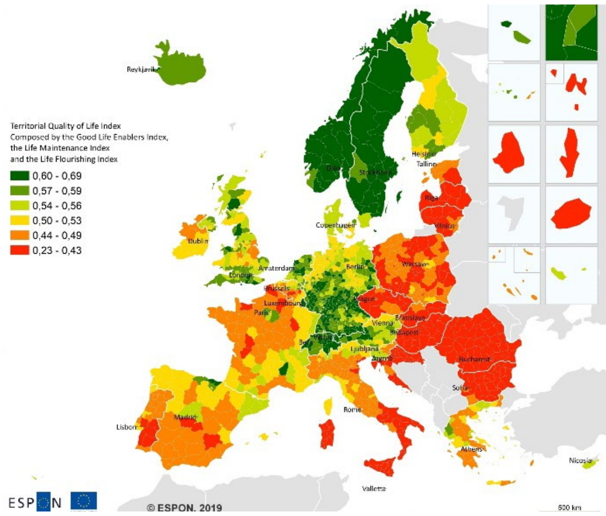
The index in a nutshell

The composite TQoL index combines the proxy indicators measured for all the 22 Good Life Enablers, Life Maintenance and Life Flourishing sub-domains. Each indicator is standardised, and a simple average score computed within each sub-domain. The simple average scores are then computed at the aggregate dimensions' level – delivering Good Life Enablers, Life Maintenance and Life Flourishing indices – and finally the composite index is produced by averaging the values of the three dimensions. This comprehensive approach facilitates the evaluation of different regions, allowing for an assessment of their positions within the range of values observed for the whole Alpine area. The index aids in discerning whether the Quality of Life in these regions is characterised by flourishing, average or challenging conditions.



Main territorial patterns in the Alpine area

The Alpine area presents a mosaic of diverse territories, encompassing both rural and urban areas situated amidst mountainous landscapes. Broadly, the northern central part of the Alpine space stands out for its flourishing quality of life. As shown later, this mostly depends on strong performance in Life Maintenance, a dimension directly influencing the general index. Conversely, challenging regions are predominantly located in the south, including Piemonte, the northern area of the Pianura Padana, Les Alpes Maritimes, and the eastern portions of Slovenia and Austria. As also shown later, these challenging positions mostly stem from lower rates in the Good Life Enablers index.



1.2 Good Life Enablers

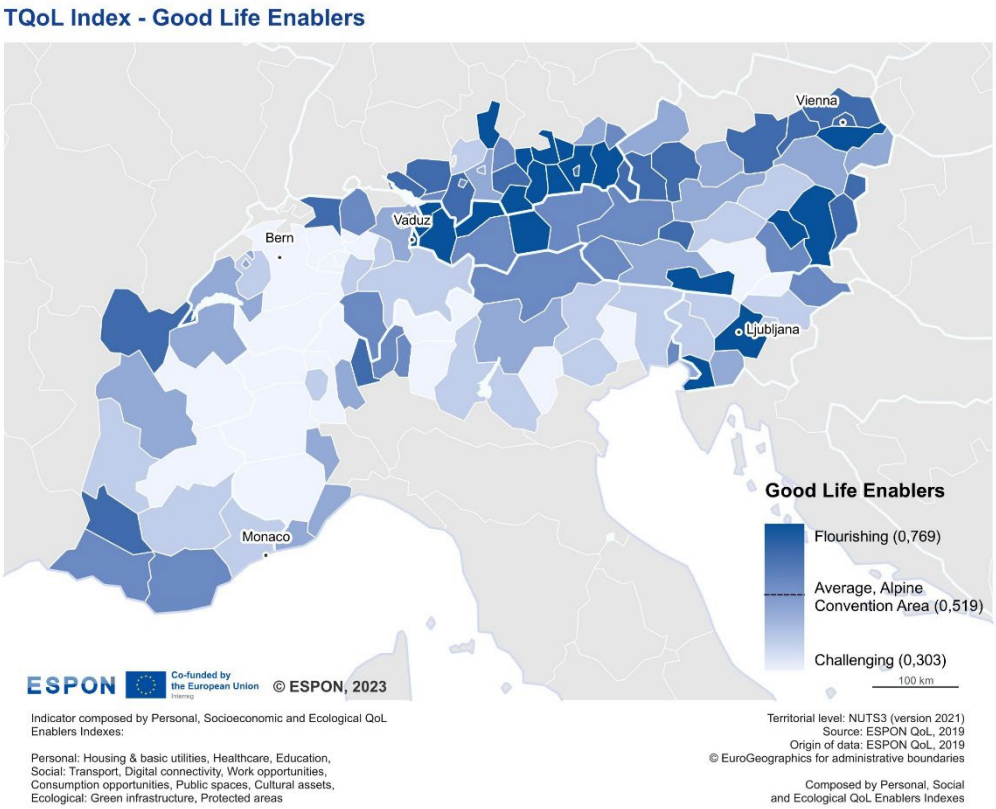
Good Life Enablers encompass the essential elements that facilitate a good quality of life in each area, spanning personal, socio-economic and ecological conditions. These include provisions such as adequate housing, basic utilities (energy, water supply, etc.), fundamental healthcare and education services, well-developed transportation and digital connectivity infrastructure, accessibility to life necessities (employment, cultural opportunities, etc.), the presence of public spaces and the existence of green infrastructure and protected areas for enjoying the natural environment. The quality score for each Good Life Enabler condition is measured by the following standardised indicators, providing a comprehensive assessment of the enabling factors that contribute to the overall quality of life of individuals in a region:

Good Life Enablers																		
Personal Enablers							Socioeconomic Enablers									Ecological Enablers		
Housing & basic utilities (b11)				Healthcare (b12)		Education (b13)	Transport (b21)	Digital connectivity (b22)			Work opportunities (b23)	Consumption opportunities (b24)	Public spaces (b25)	Cultural assets (b26)		Green infrastructure (b31)		Protected areas (b32)
Sanitation conditions % uncollected sewerage & %	Households lacking of adequate heating	Household overcrowding	Burdensome cost of housing	Availability of Hospital	Accessibility to health (pharmacies, doctors and hospitals)	Accessibility to education (primary and secondary schools)	Access to high-level transport infrastructure	Efficiency of digital networks	Internet at home	Online interaction with public authorities	Labour market accessibility (accessibility to jobs)	Accessibility to commercial services (shops and banks)	Not applicable at NUTS3 level	Availability of cultural landmarks (Unesco World Heritage)	Accessibility to cultural services (cinemas)	Availability of Natural Areas	Farmland abandonment (% of abandoned land)	Existence of Protected Areas

1.2.1 Good Life Enablers index

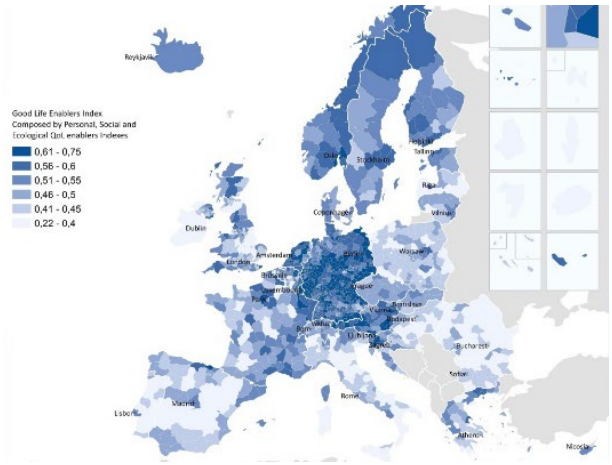
The index in a nutshell

The Good Life Enablers index is the aggregate (simple) average of the scores computed for the following sub-domains: housing and basic utilities, healthcare services, education, transport, digital connectivity, work opportunities, consumption opportunities, public spaces, cultural assets, green infrastructure and protected areas.



Main territorial patterns in the Alpine area

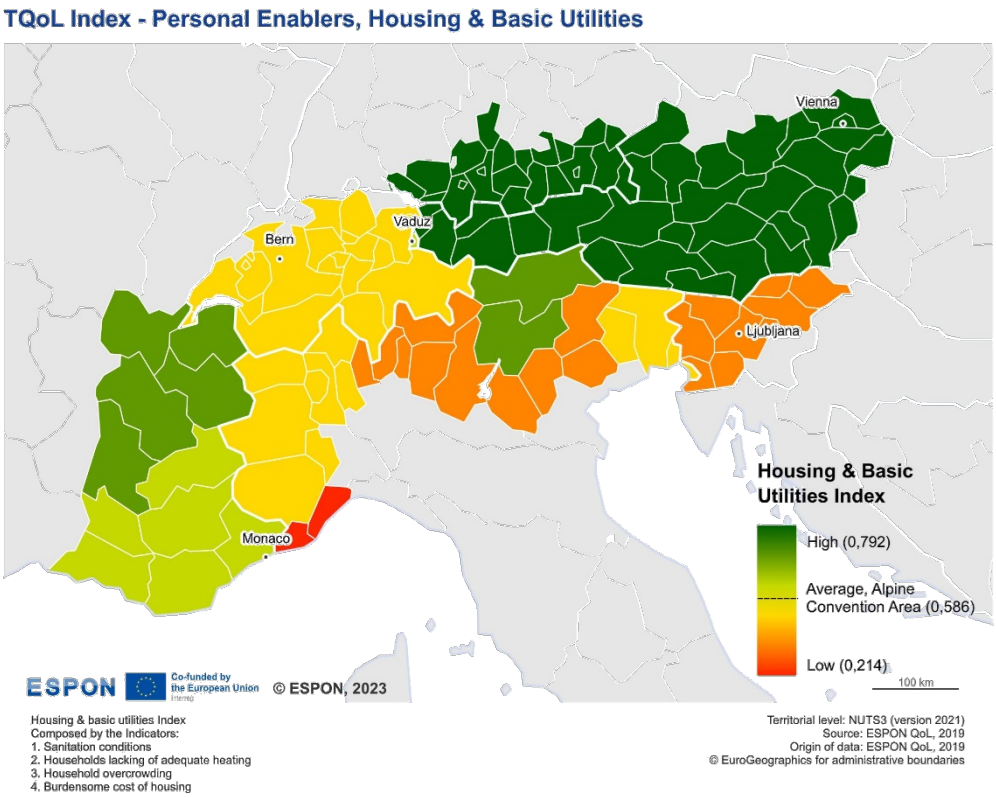
The analysis of Good Life Enablers in the region reveals a distinct pattern, with flourishing quality of life scores mostly concentrated in the northeastern section of the Alpine area. Considering the underpinning of personal, socioeconomic and ecological domains, this pattern is mostly caused by flourishing personal and ecological enablers, while socioeconomic indicators tend to maintain an average status. In contrast, the more challenging areas distributed across the southern and southeastern regions, exhibit significant shortcomings in both personal and ecological enablers.



1.2.2 Housing & Basic Utilities index

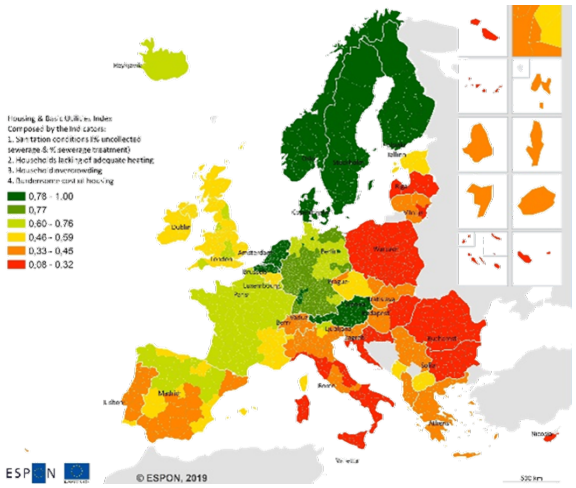
The index in a nutshell

The Housing & Basic Utilities index is the simple average of the scores computed for the following indicators: 1) *sanitation conditions*, which evaluates the effectiveness of sewerage systems by assessing the percentage of uncollected sewerage and the proportion of undergoing treatment; 2) *households lacking adequate heating*, measuring the availability and sufficiency of heating facilities for residents' comfort; 3) *household overcrowding*, measuring the degree of crowding or insufficient living space in households; and 4) *burdensome cost of housing*, evaluating the affordability and financial strain associated with housing in the region.



Main territorial patterns in the Alpine area

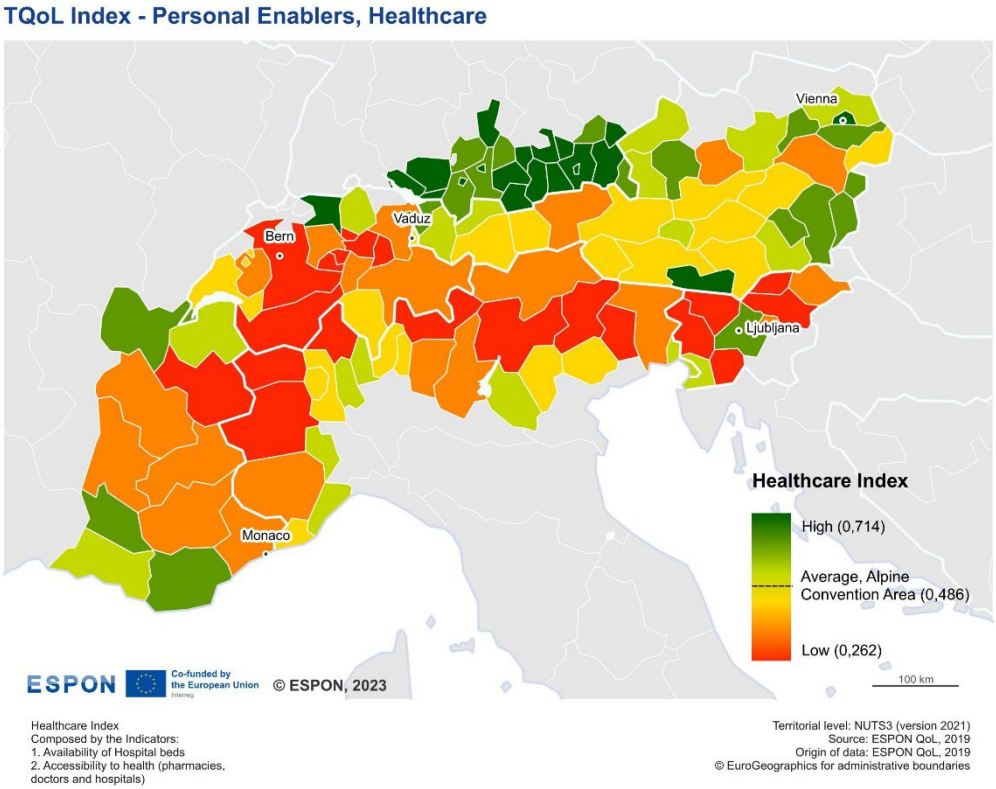
The evaluation of housing and basic utilities unveils a clear pattern, with the northeastern Alpine regions exhibiting uniform flourishing scores. This pattern is partly evident also in the western Alps (France), albeit with slightly lower values. In Switzerland, rates tend to be average. However, significant challenges arise in the southern Alpine area, including territories in Slovenia and Italy (except for Trento and Bolzano) where housing and basic utilities' indicators show more challenging conditions.



1.2.3 Healthcare index

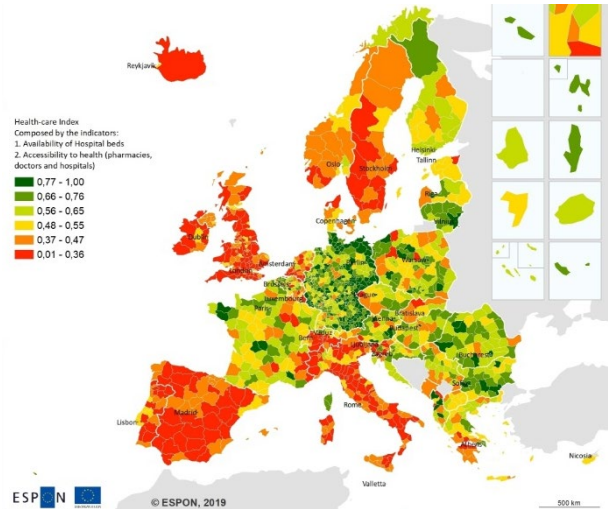
The index in a nutshell

The Healthcare index is the simple average of the scores computed for the following indicators: 1) *availability of hospital beds;* and 2) *accessibility to essential healthcare services*, including pharmacies, doctors and hospitals.



Main territorial patterns in the Alpine area

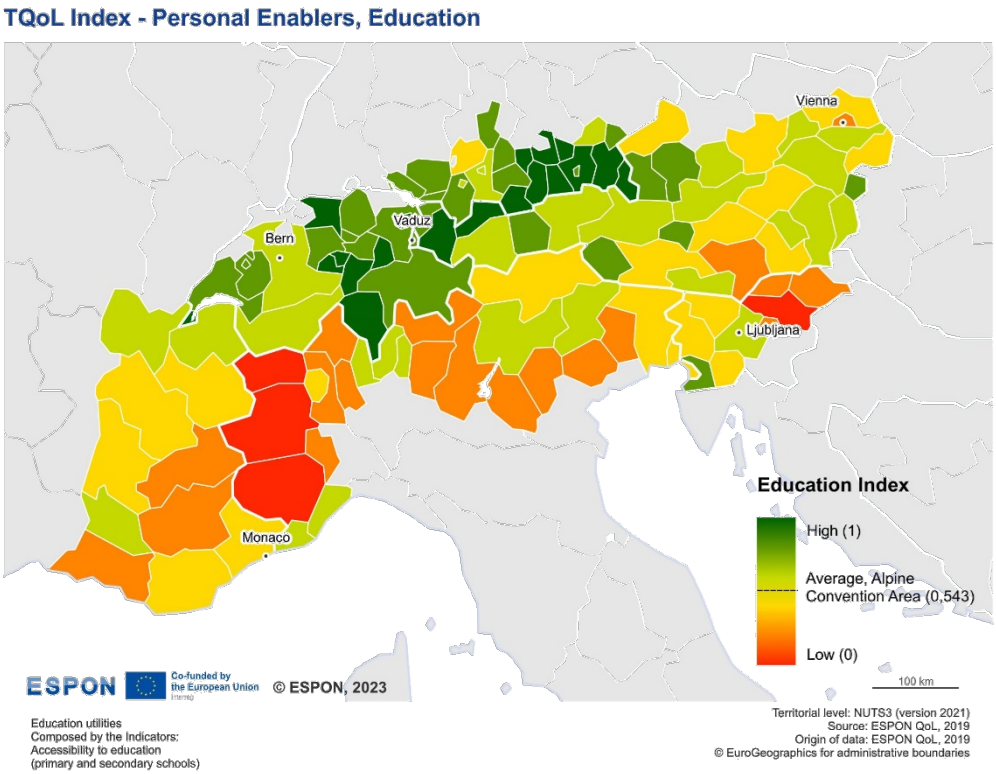
The pattern of healthcare services availability and accessibility is more variegated, diverging from the north-south gradient observed before for the housing services. There is a "corridor" of regions in challenging conditions starting in the Western Alpine area, in France, touching the Bern region in the North of Switzerland and continuing eastwards in the South side of the Alpine area. In the surrounding regions, healthcare conditions tend to be more average. Conversely, the northern part of the German Alps stands out with flourishing healthcare rates, indicating a more favourable healthcare landscape in that specific area.



1.2.4 Education index

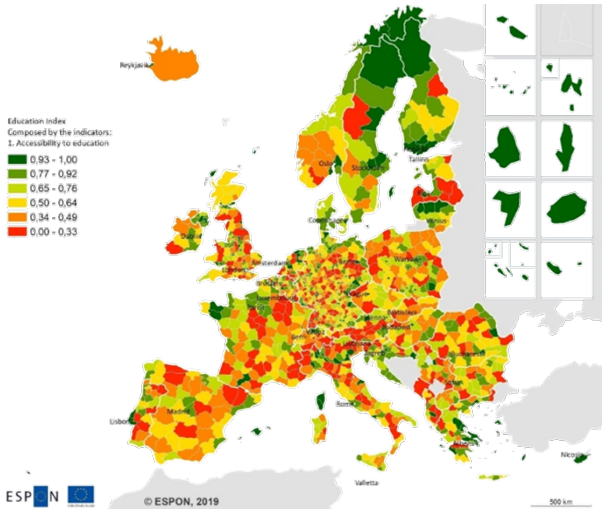
The index in a nutshell

The Education index considers the *distribution of primary and secondary schools* in the Alpine regions, offering valuable insights into the accessibility to basic and higher-level education facilities.



Main territorial patterns in the Alpine area

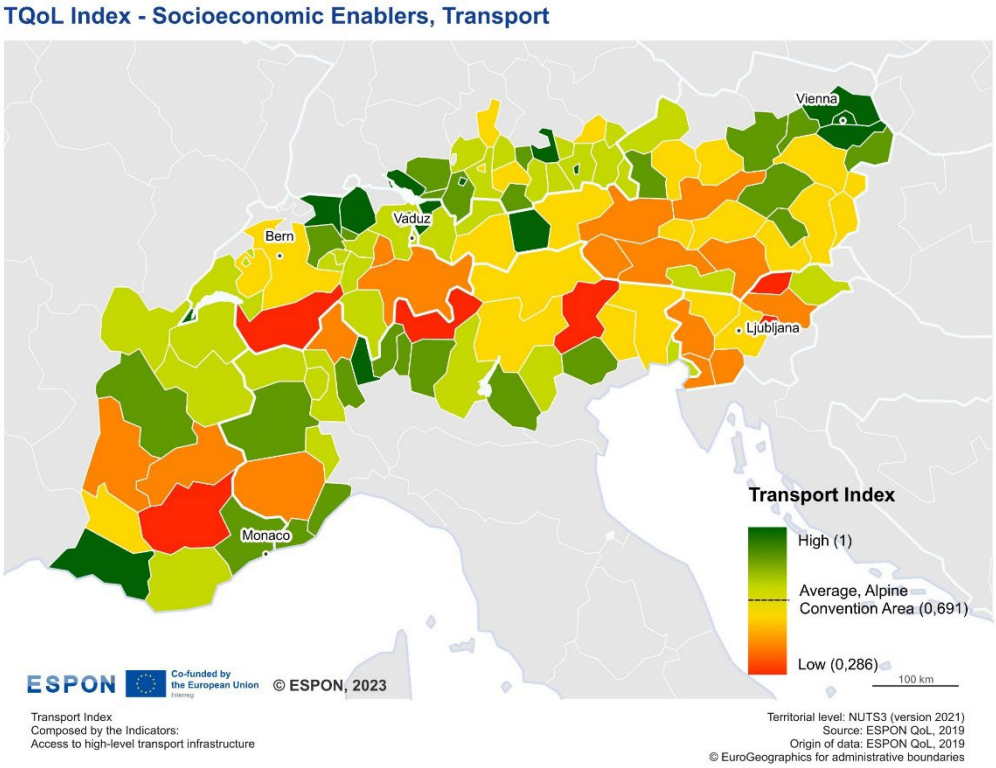
In the realm of education services, certain regions within the Alpine area present challenges, revealing an irregular distribution often associated with high mountain areas, though with a few exceptions. Conversely, the most flourishing educational conditions are commonly observed on the outer periphery of the Alpine region. Regions with average scores are scattered between these extremes. This nuanced educational landscape reflects the diverse topography and demographics within the Alpine region, contributing to a varied educational experience for residents.



1.2.5 Transport index

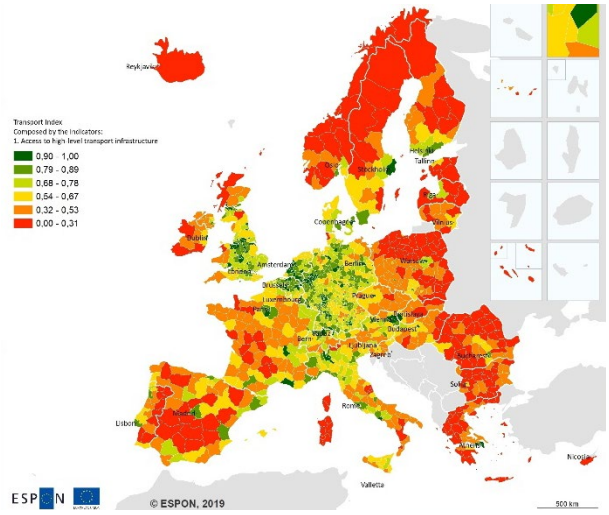
The index in a nutshell

The Transport index considers the *access to high-level passenger transport infrastructure*, which assesses the availability and accessibility of advanced transportation systems facilitating the movement of people within and from/to the region.



Main territorial patterns in the Alpine area

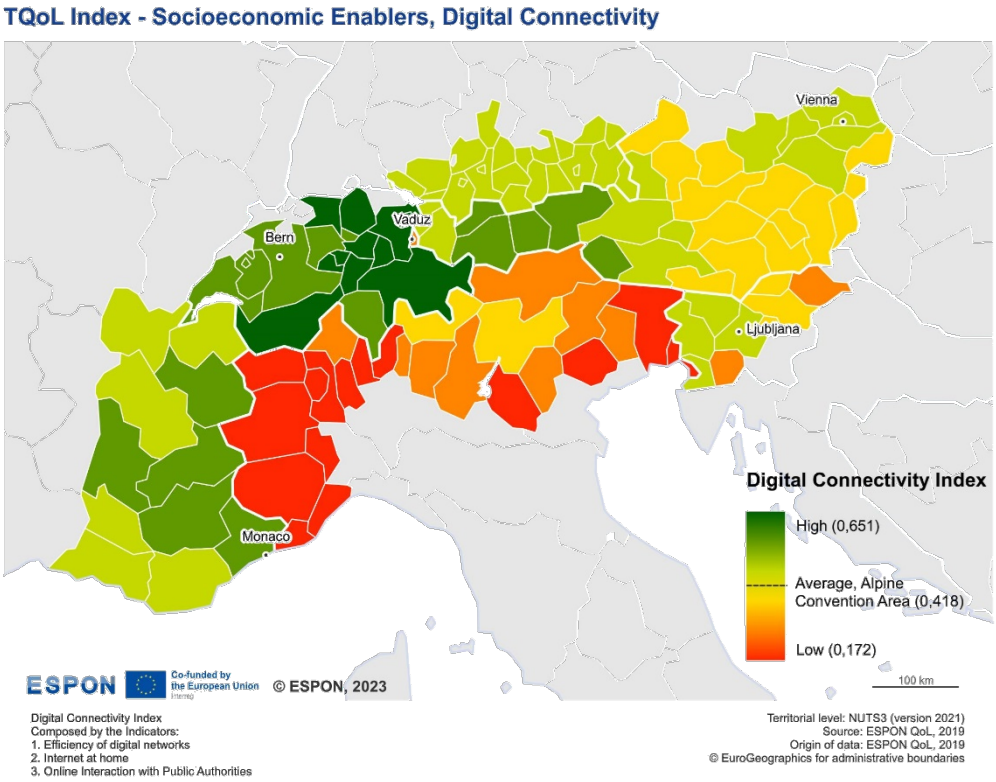
Not surprisingly, the Alpine regions with challenging high-level transport access conditions are scattered mainly in the inner areas, including Drome, Hautes Alpes, Alpes de Haute Provence and Cuneo. On the other hand, regions such as Pinzgau-Pongau, Unterkärnten, Oberkärnten, Lienz, Osttirol, Koroška and Belluno are crossed by transit corridors. Flourishing transportation conditions are predominantly observed on the outer ring of the Alpine area and in proximity to significant urban centres like Vienna and Milan. These contrasting patterns underline the varied transport services landscape, with challenges more prevalent in certain interior regions and efficient transport infrastructure in the outer regions and around major urban centres.



1.2.6 Digital Connectivity index

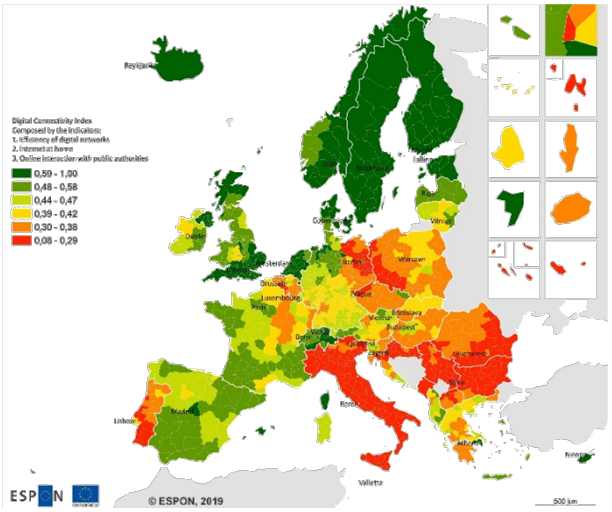
The index in a nutshell

The Digital Connectivity index is the simple average of the scores computed for the following indicators: 1) *network efficiency*, measuring the efficiency of digital networks; 2) *internet at home*, measuring residential internet availability; 3) *online interaction with public authorities*, reflecting the ease of digital engagement with government agencies.



Main territorial patterns in the Alpine area

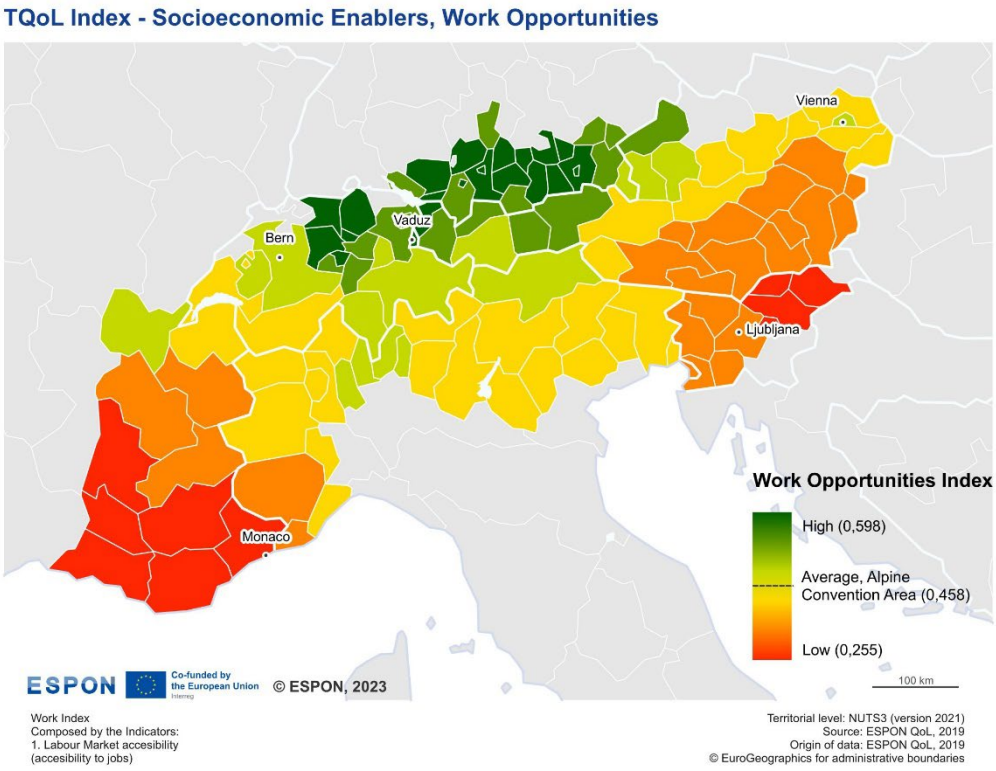
The distribution of digital connectivity scores in the Alpine area exhibits pronounced disparities, mostly aligning with national borders. Flourishing digital connectivity is notable in scattered regions, including Switzerland, specific areas in eastern France, and southern Germany. Conversely, most northeastern regions show average digital connectivity scores, while Italy grapples with considerable challenges, particularly in its western regions. This variability underscores the impact of national boundaries on the digital landscape, highlighting contrasting connectivity experiences across the Alpine region.



1.2.7 Work Opportunities index

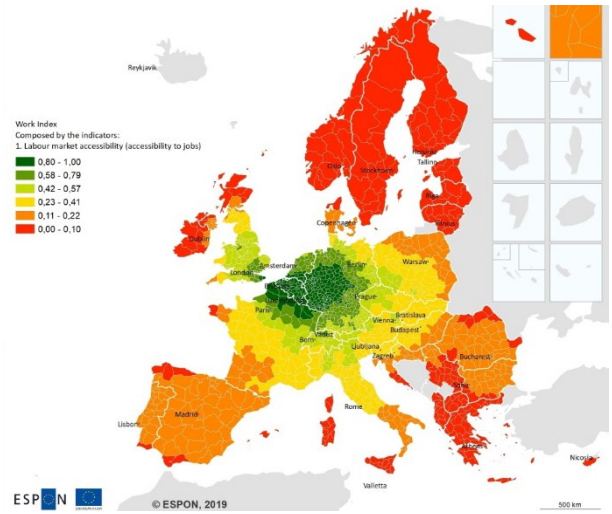
The index in a nutshell

The Work Opportunities index considers *accessible job opportunities*, factoring in elements like daily commuting and the proximity of workplaces to residential areas, as the key indicator to gauge the accessibility to employment opportunities in the Alpine regions.



Main territorial patterns in the Alpine area

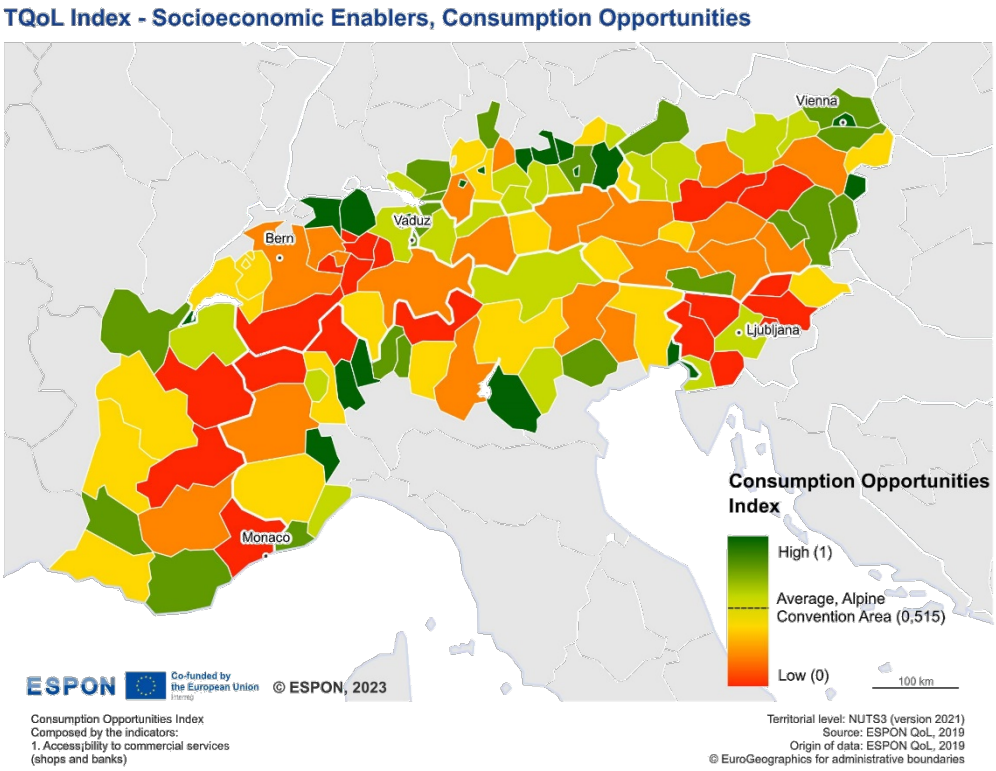
The landscape of work opportunities in the Alpine area reveals a distinct pattern, with flourishing employment scores predominantly concentrated in the central -northern Alpine area. In contrast, the peripheral regions in southern France and eastern Austria and Slovenia present more challenging conditions. The transitional regions between these areas mostly show average work opportunity scores.



1.2.8 Consumption Opportunities index

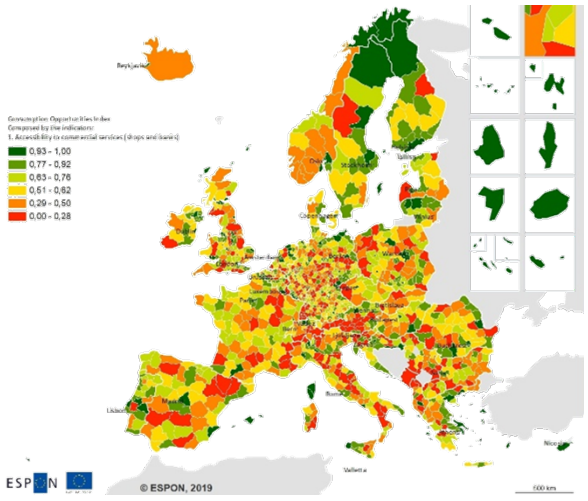
The index in a nutshell

The Consumption Opportunities index considers *accessibility to shops and banks* as the key indicator to measure the availability of essential commercial services in a region.



Main territorial patterns in the Alpine area

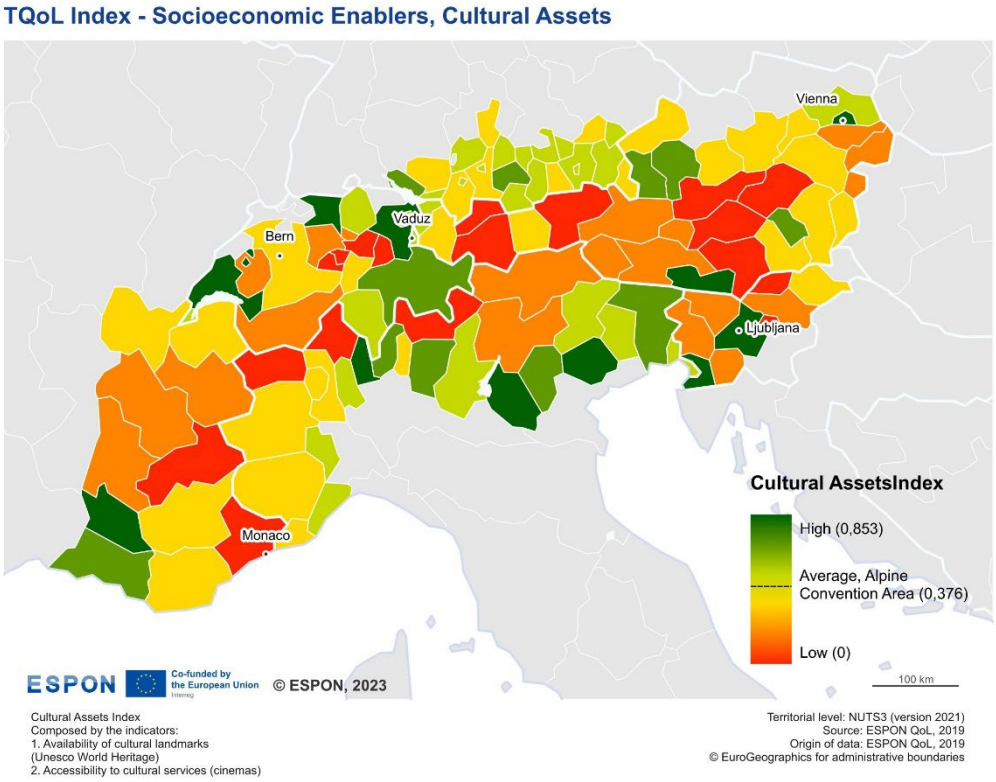
Flourishing regions are scattered mostly along the south and north borders of the Alpine area, while regions on average and challenging conditions are represented more in the inner Alpine area. Within this inner area, many regions exhibit average scores and challenges in terms of quality of life are limited to scattered areas. This pattern reflects the higher standards of living and consumption of several regions bordering the core Alpine area, compared to several inner regions.



1.2.9 Cultural Assets index

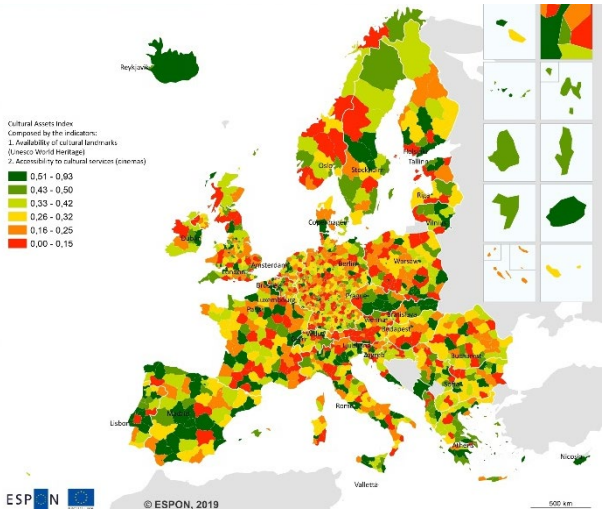
The index in a nutshell

The Cultural Assets index is the simple average of the scores computed for the following indicators: 1) *availability of cultural landmarks* (Unesco World Heritage), measuring the presence of sites within the region included in the World Heritage List; and 2) *accessibility to cinemas*, considering the distribution of cinemas within the region as the most basic cultural facilities.



Main territorial patterns in the Alpine area

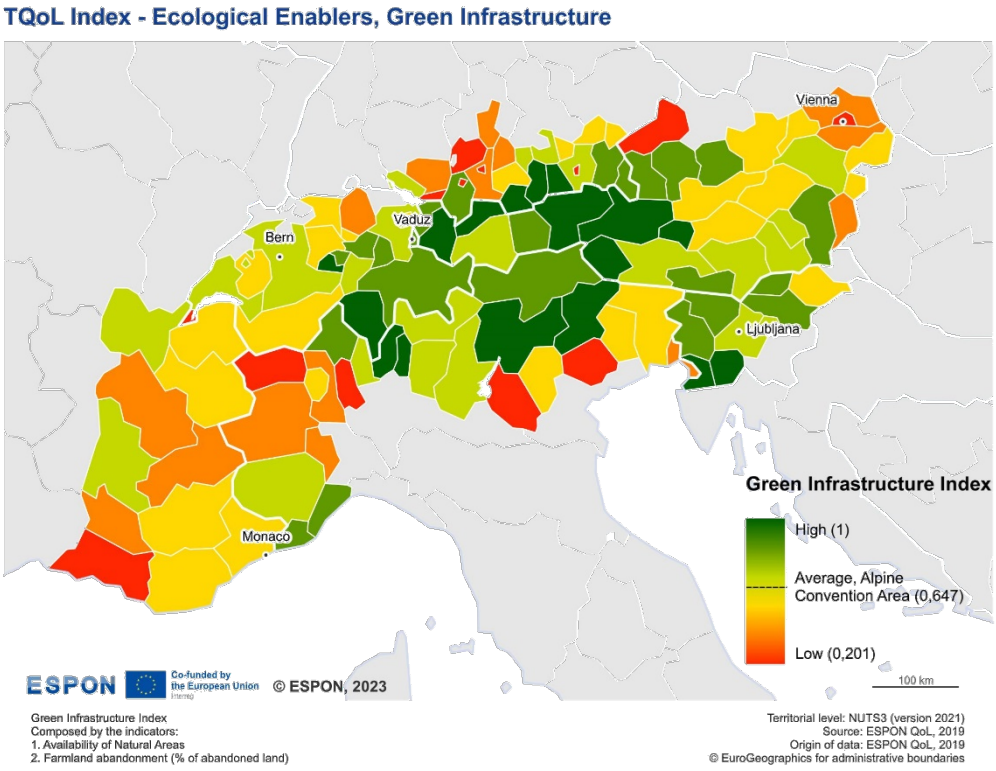
Cultural assets in the Alpine area present a predominantly challenging scenario, particularly within the inner ring, encircled by regions exhibiting average scores. Flourishing cultural assets are observed in only a few territories, aligning with the historical trend of this area having a relatively lower population density. This pattern highlights the unique cultural landscape of the Alpine region, with some areas experiencing richer cultural offerings while others face more pronounced challenges in this regard.



1.2.10 Green Infrastructure index

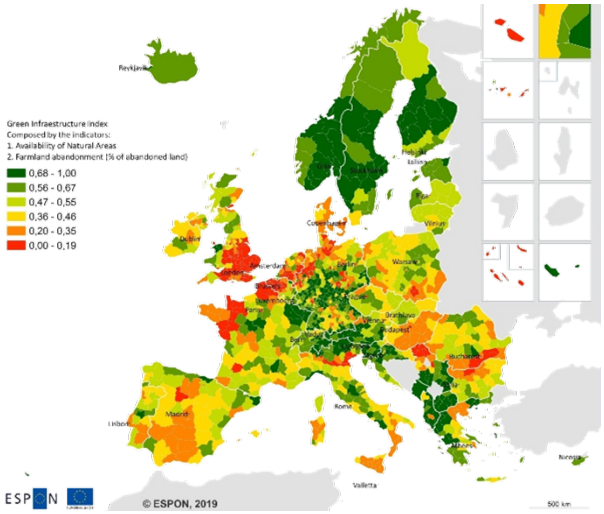
The index in a nutshell

The Green Infrastructure index is the simple average of the scores computed for the following indicators: 1) *availability of natural areas*, measured by the proportion of natural landscapes within the region; and 2) *farmland abandonment*, measured by the percentage of abandoned land.



Main territorial patterns in the Alpine area

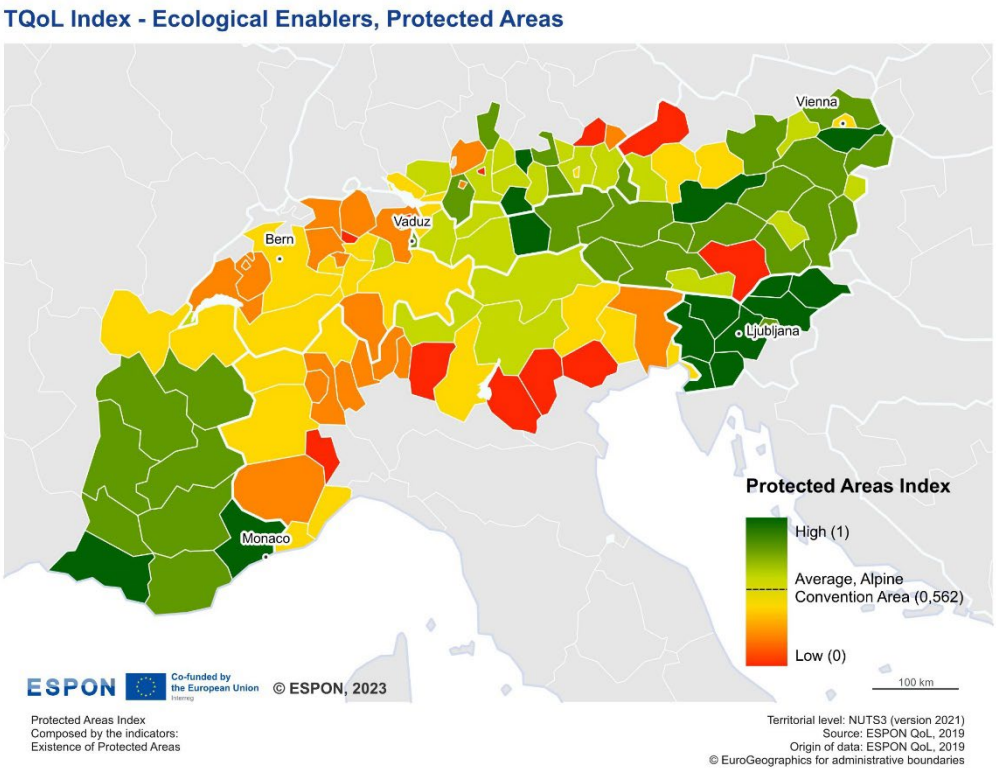
Green infrastructure exhibits a pattern of ecological diversity within the Alpine area, with areas flourishing in terms of green infrastructure mostly concentrated in the central Alps while some regions in the western and eastern sections of the Alps show average or – in few cases – challenging conditions. The varied distribution reflects the complex interplay of environmental factors and human activities, contributing to the coexistence of diverse ecological landscapes within the Alpine area.



1.2.12 Protected Areas index

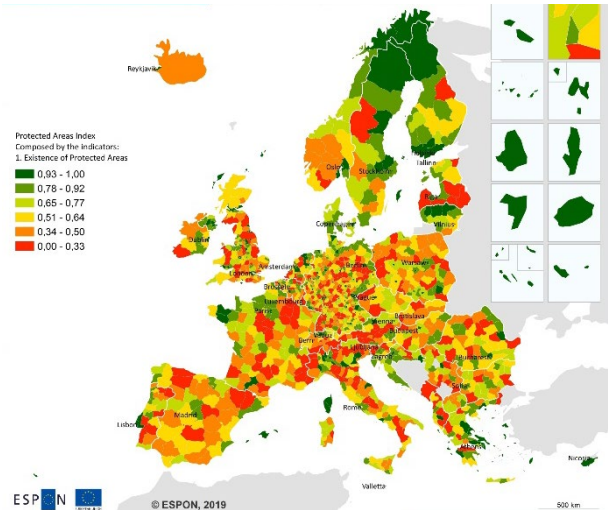
The index in a nutshell

The Protected Areas index is the simple average of the scores computed for the following indicators: 1) *existence of protected areas*, which determines whether such areas are present within the region; and 2) *proportion of protected areas*, quantifying the percentage of the region's territory classified as protected.



Main territorial patterns in the Alpine area

Regarding protected areas, the Alpine region showcases a diverse distribution. Flourishing zones are notably present in the western and eastern parts, especially due to the robust conservation efforts evident in the southern French Alps and the Slovene regions. In contrast, the central Alps do not exhibit outstanding scores, with a prevalent mix of regions in average and challenging conditions. This distribution underscores the varied approaches to environmental preservation and conservation adopted across different countries within the Alpine area.



1.3 Life Maintenance

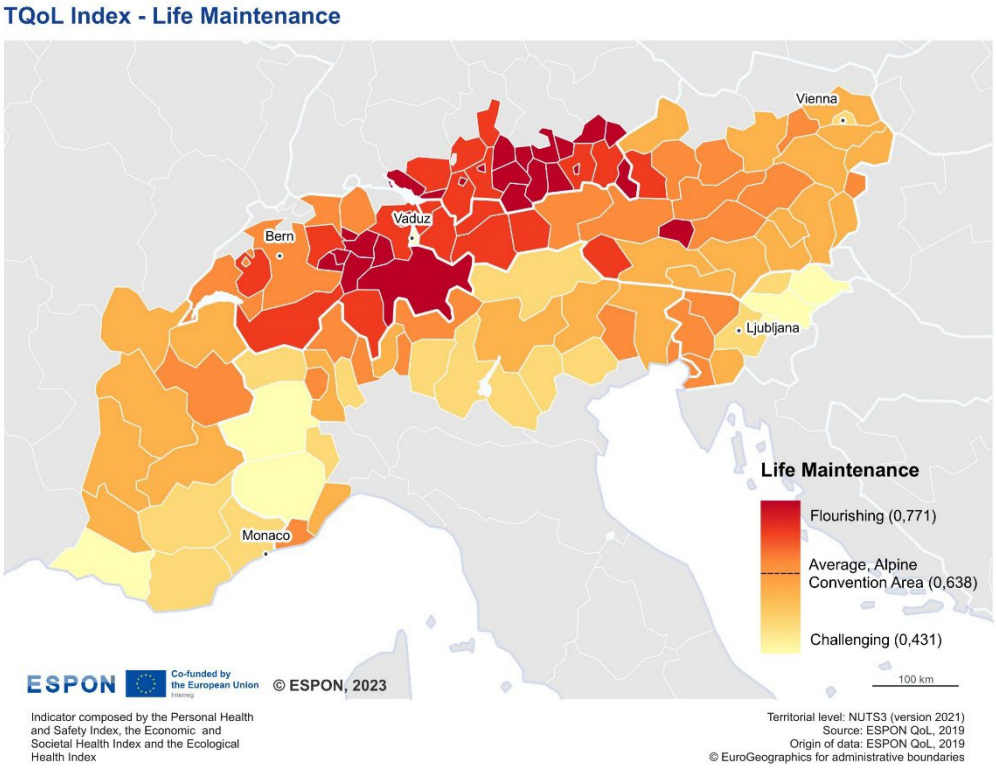
Life Maintenance encompasses several aspects, in the personal sphere (personal health and safety), in the socio-economic sphere (inclusive economy and healthy society) and in the ecological sphere (healthy environment and climate change impacts). The quality score for each Life Maintenance condition is measured by the following standardised indicators, providing a comprehensive assessment of the life maintenance factors:

Life Maintenance											
Personal Health and Safety		**Economic and Societal Health**							**Ecological Health**		
Personal Health (m11)	Personal Safety (m12)	Inclusive Economy (m21)			Healthy Society (m22)				Healthy Environment (m31)	Climate Change (m32)	
Life expectancy at birth	Standardised homicide death rate	Household disposable income per capita	Gender employment gap	Unemployment rate	People at risk of poverty rate	Tertiary Educational Attainment (25-64)	NEET 15-24	Early Leavers from education (18-24)	Air Quality	Aggregate expected impact of climate change by 2070	Population covered by Sustainable Energy (and Climate) Action Plans

1.3.2 Life Maintenance index

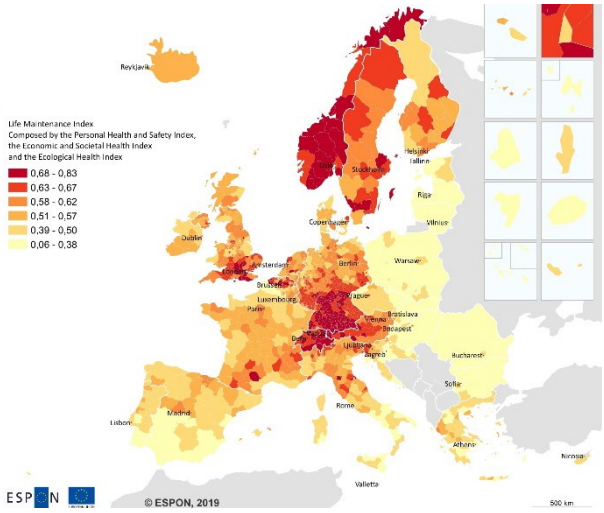
The index in a nutshell

The Life Maintenance index is the aggregate (simple) average of the scores computed for the following sub-domains: personal health, personal safety, inclusive economy, healthy society, healthy environment, climate change.



Main territorial patterns in the Alpine area

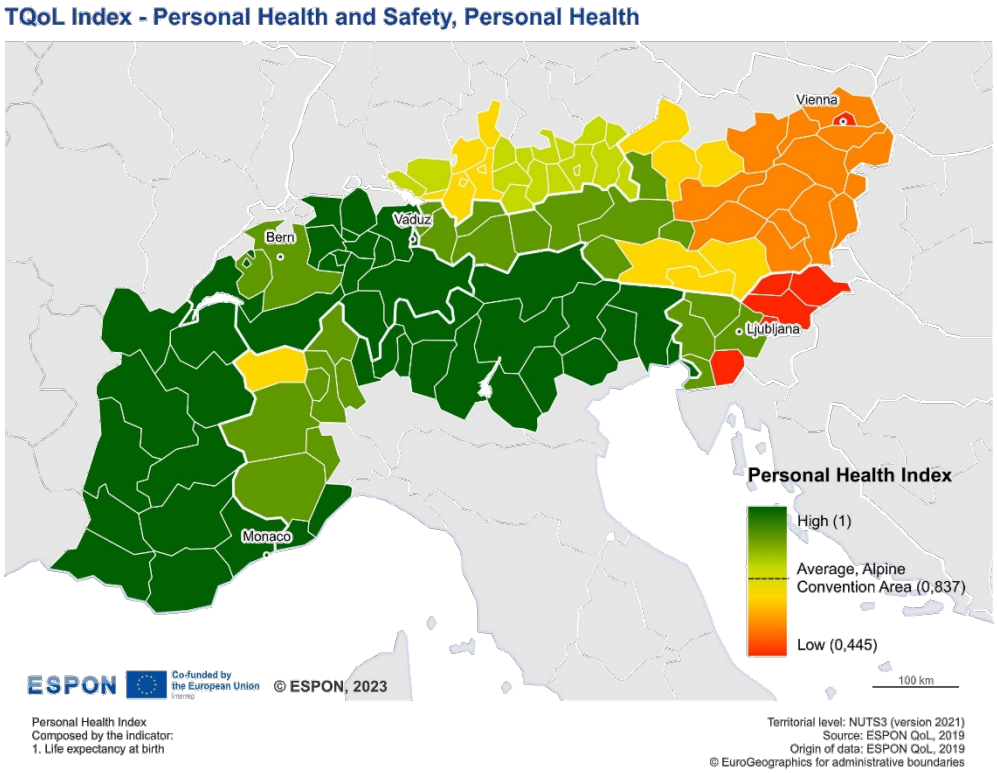
In relation to life maintenance, flourishing regions are notably centred around Vaduz in the northern part of the central Alpine area. Remarkably, these high scores are closely linked to Economic and Societal Health indicators. Conversely, regions in challenging conditions are more concentrated in the southern part of the western Alps. The rest of the Alpine area includes regions with average scores, dispersed sporadically across the region.



1.3.3 Personal Health index

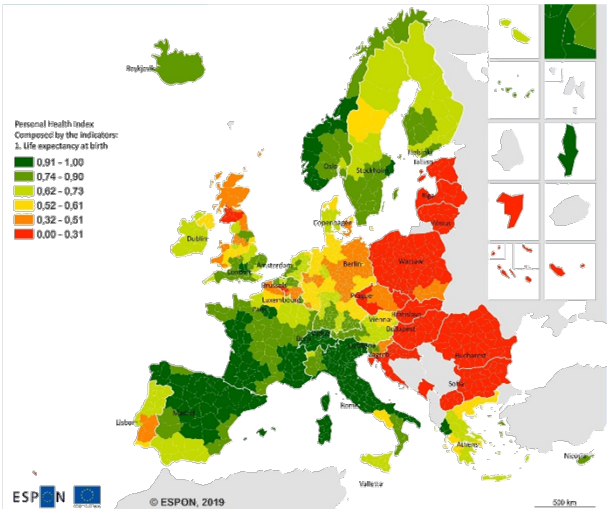
The index in a nutshell

The Personal Health index considers the indicator *life expectancy at birth*, quantifying the average number of years a person can expect to live from the moment of birth. This indicator is the most synthetic proxy of the overall health and longevity of the population.



Main territorial patterns in the Alpine area

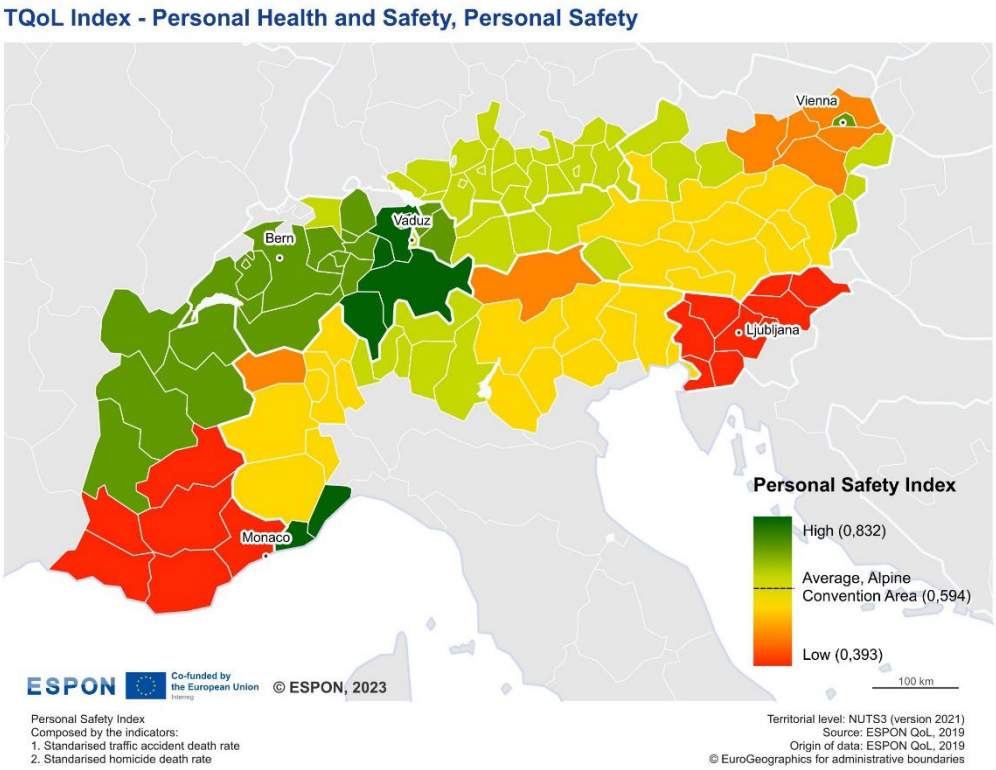
Regarding Personal Health, a noticeable flourishing score extends across the Alpine area, spanning from the central Alpine region to the western part and including all regions from Switzerland, Italy (except Valle d'Aosta scoring average) and France. In contrast, the eastern side of the Alpine area presents a more varied situation, with scores ranging from average to challenging, the latter for some regions in Slovenia. The overall picture seems to convey the message that living in the Alpine Mountain regions encourages longevity.



1.3.5 Personal Safety index

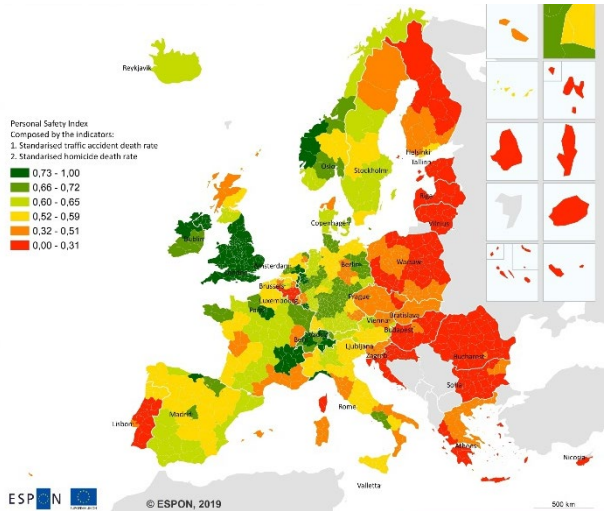
The index in a nutshell

The Personal Safety index is the simple average of the scores computed for the following indicators: 1) *standardised traffic accident death rate*, quantifying the number of traffic-related fatalities per unit of the population; and 2) *standardised homicide death rate*, measuring the number of homicides per unit of population.



Main territorial patterns in the Alpine area

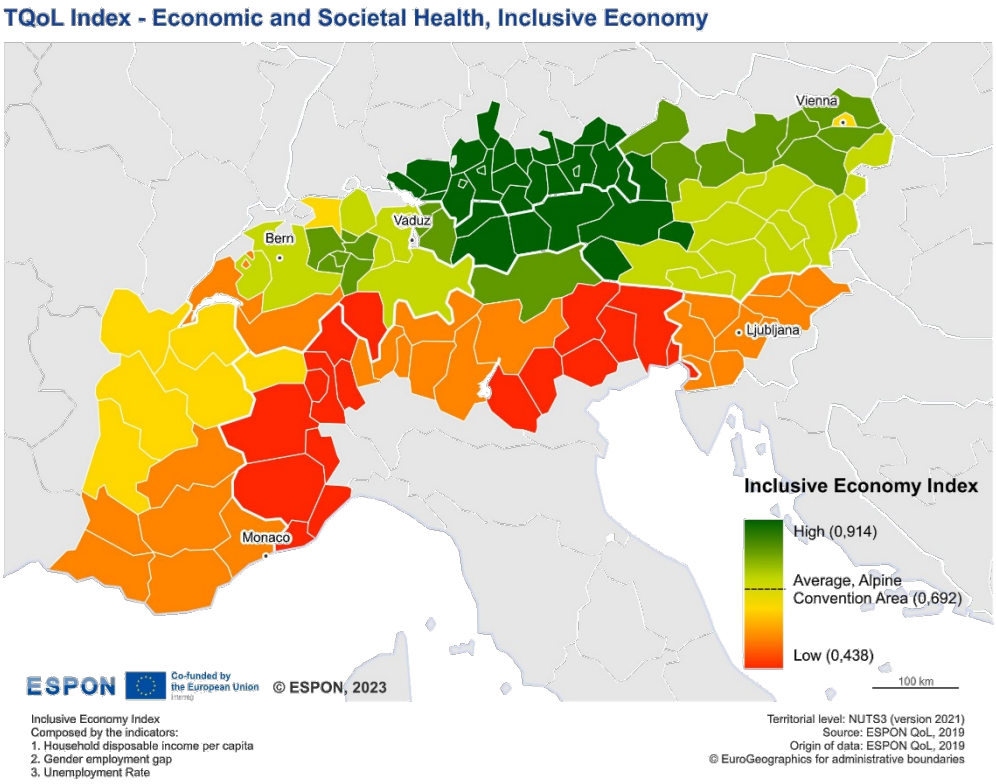
In relation to personal safety, Alpine regions in flourishing conditions are concentrated in Switzerland, the north regions in France and Liguria in Italy, while those in challenging conditions are concentrated in the south regions in France and in Slovenia. The other regions in Italy and Austria score mostly around average, with few moderately challenging and some moderately flourishing. Scores for the German regions are all moderately flourishing. This pattern eventually highlights a remarkable performance of the northeastern Alpine regions.



1.3.6 Inclusive Economy index

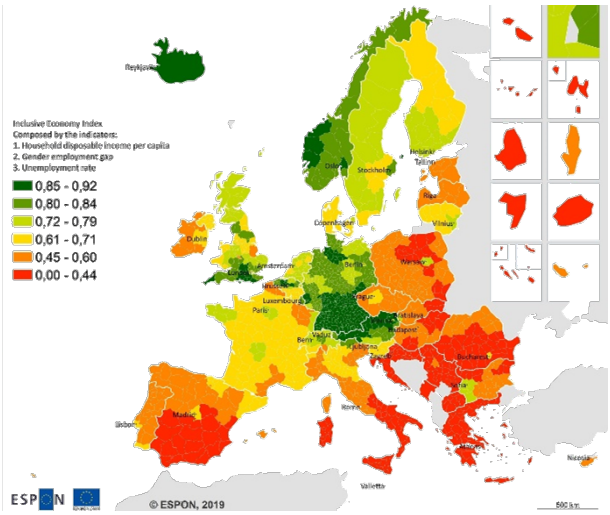
The index in a nutshell

The Inclusive Economy index is the simple average of the scores computed for the following indicators: 1) *household disposable income per capita*, measuring the average economic well-being of households; 2) *gender employment gap*, measuring gender-related employment imbalances; and 3) *unemployment rate*, taken as a proxy of labour market health (the higher unemployment, the lower the matching of labour supply and demand).



Main territorial patterns in the Alpine area

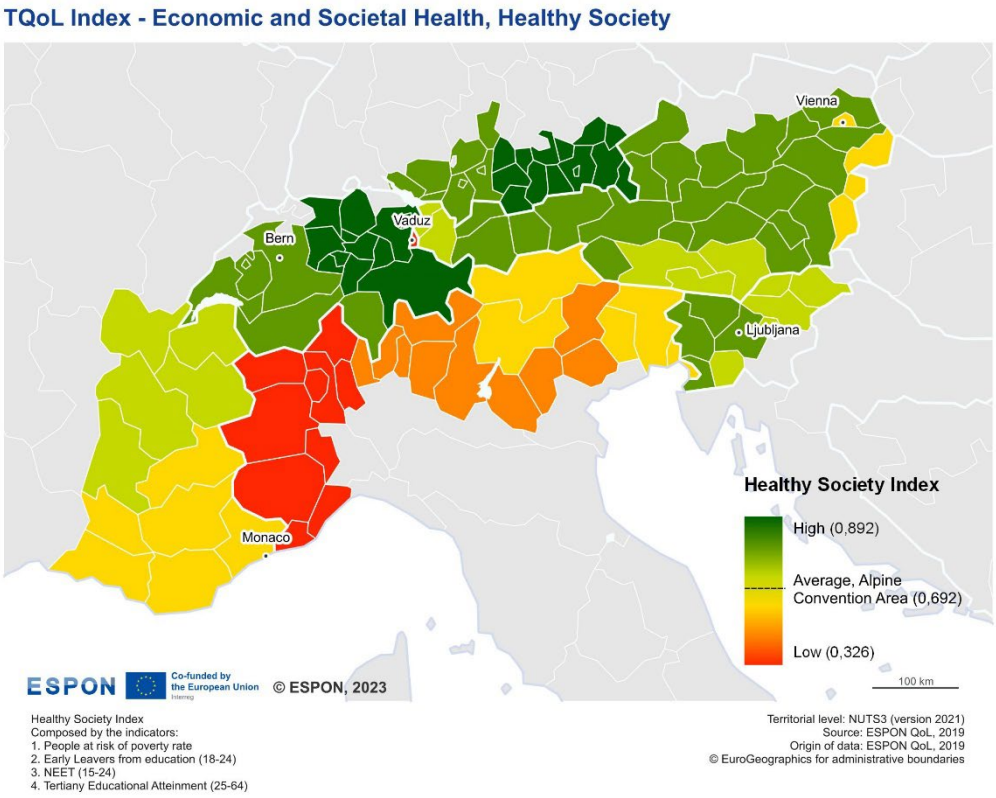
Not surprisingly, the inclusive economy index picture shows a clear north-south pattern, with the northern Alpine regions of Germany, Austria and Switzerland (except Canton Ticino) almost all in flourishing or moderately flourishing conditions, while the southern regions in Italy, France and Slovenia are in challenging or moderately challenging conditions. The northern Alpine regions of France show average scores. This pattern clearly reflects the north-south economic prosperity divide, with the wealthier regions in the north experiencing more inclusive economy conditions.



1.3.8 Healthy Society index

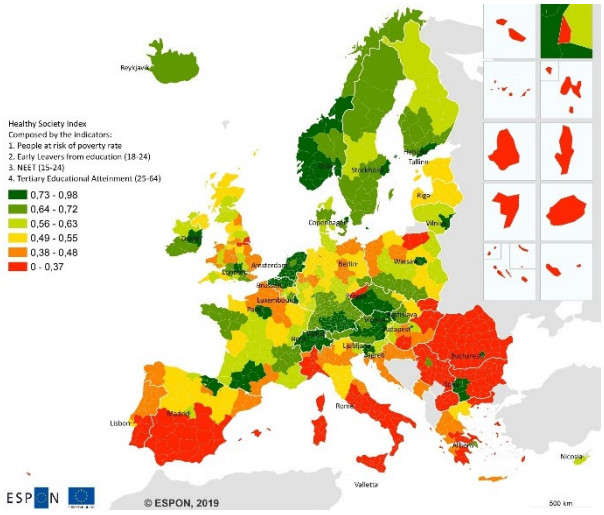
The index in a nutshell

The Healthy Society index is the simple average of scores computed for the following indicators: 1) *people at risk of poverty rate*; 2) *tertiary educational attainment* (class of ages 25-64), measuring the educational achievements of the adult population; 3) *early leavers from education* (class of ages 18-24); and 4) *young aged 15-24 Not in Employment, Education or Training (NEET)*. It is important to notice that the latter two indicators are obviously strongly correlated, both are used in the healthy society index formula, but using for the sake of data parsimony only one of the two indicators would not affect in practice the values of the composite index.



Main territorial patterns in the Alpine area

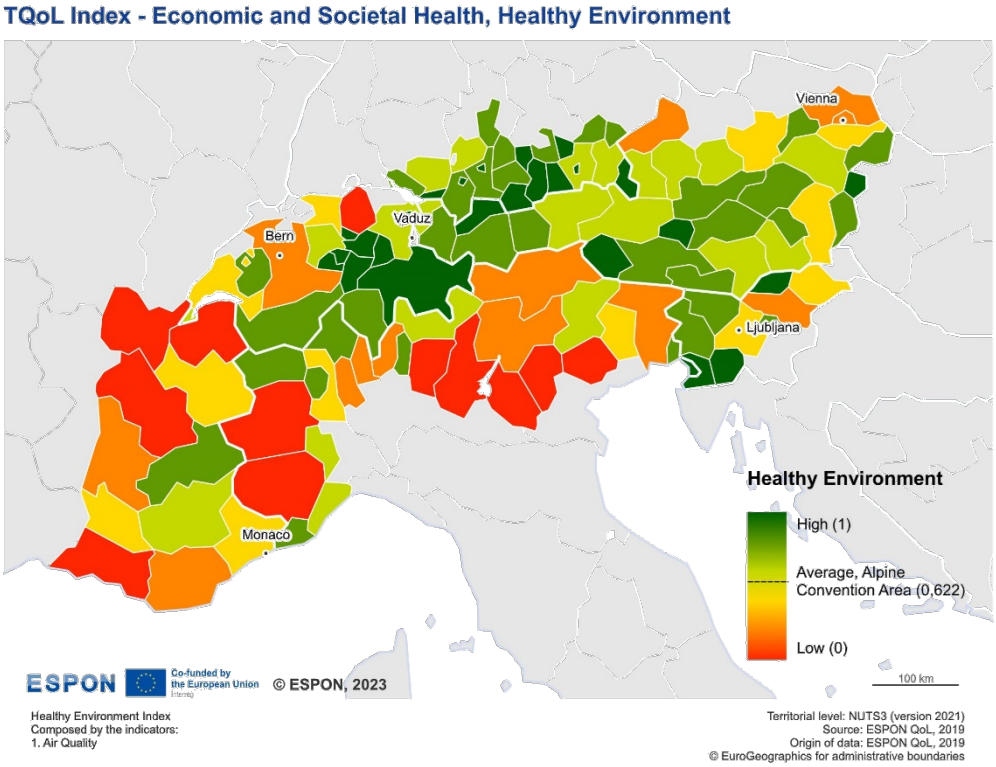
In a way more remarkable than the inclusive economy index, the Healthy Society scores show a notable divide between the flourishing regions of Switzerland, Germany and Austria in the northern Alps and the challenging and moderately challenging regions of Italy in the south (with the exception of Trentino Alto Adige and Friuli Venezia Giulia regions which show average scores). Somehow diverging from this pattern are the regions of Slovenia in the east, in flourishing conditions, and those of France in the west, showing average or moderately flourishing scores.



1.3.9 Healthy Environment index

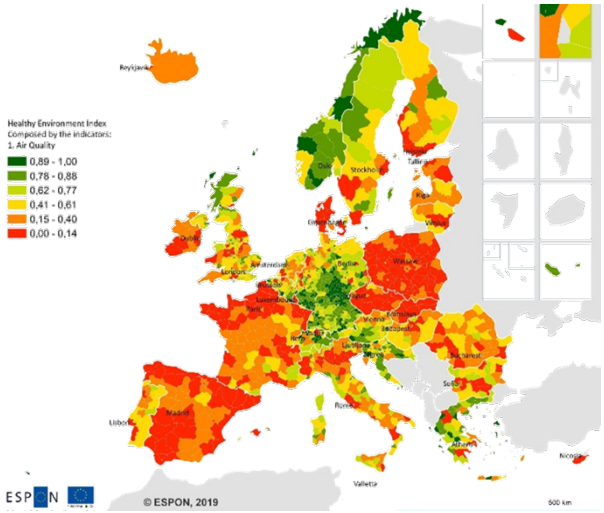
The index in a nutshell

The Healthy Environment index considers the only indicator which is sufficiently harmonised across all Alpine (and Europe) NUTS3 regions, i. e., the *air quality index*.



Main territorial patterns in the Alpine area

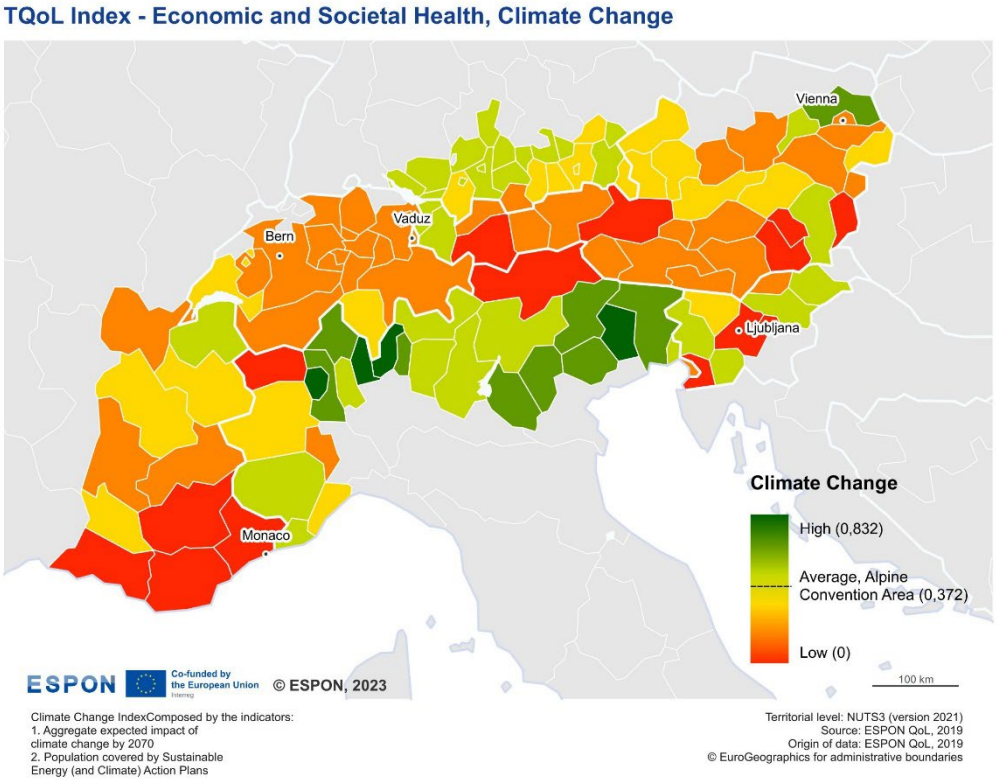
The environmental (air) quality in the Alpine region is significantly influenced by industrial activities and traffic patterns, mostly concentrated in urban centres and their surrounding areas. Cities such as Milan, Turin, Grenoble, Zurich, Vienna and Marseille are particularly noteworthy in this regard and contribute to the emergence of areas with challenging rates of environmental health. In contrast, the northern, central and eastern parts of the Alpine area exhibit a spectrum of scores ranging from average values to flourishing, reflecting a more positive environmental outlook in these areas.



1.3.11 Climate Change index

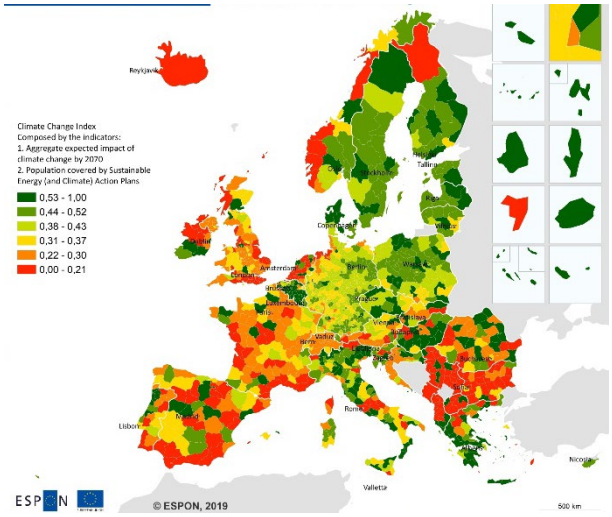
The index in a nutshell

The Climate Change index is dedicated to assessing the environmental implications of climate change within the Alpine region. It is the simple average of scores computed for the following two indicators: 1) the *aggregate expected impact of climate change by 2070*, and 2) *population covered by sustainable energy and climate action plans*, which reflects the region's commitment to mitigating and adapting to climate change effects. Together, these indicators enable a thorough assessment of the Alpine area's vulnerability to climate change and its efforts to adopt sustainable energy and climate action plans for a more global warming resilient future.



Main territorial patterns in the Alpine area

The most negative climate change impacts are expected in the Alpine inner area, with Valle d'Aosta and Bolzano in Italy, Switzerland and inner regions in Austria being in challenging or moderately challenging conditions. Other regions in challenging conditions include the south Alps regions of France and two regions in Slovenia. Most of the regions with flourishing or moderately flourishing scores are located in Italy.



1.4 Life Flourishing

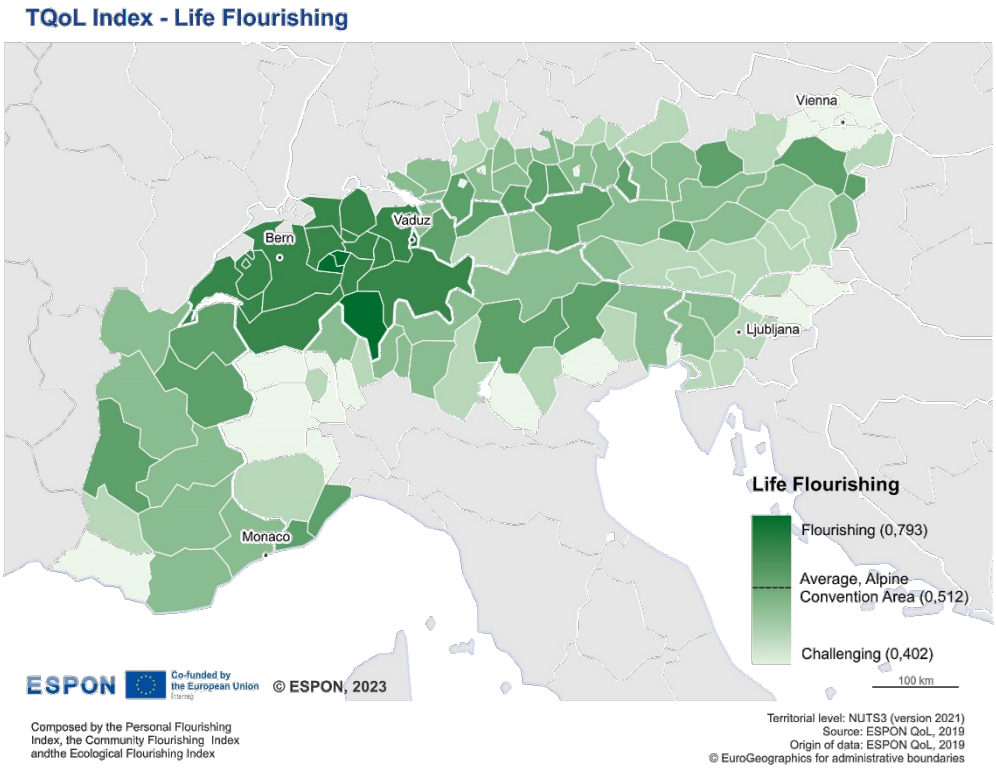
Life Flourishing encompasses several aspects, respectively in the personal sphere (self-esteem and self-actualisation), in the socio-economic sphere (interpersonal trust and trust in institutions) and in the ecological sphere (ecosystems services and biodiversity wealth). The quality score for each Life Flourishing condition is measured by the following standardised indicators, providing a comprehensive assessment of the life flourishing factors:

Life Flourishing									
Personal Flourishing			Community Flourishing					Ecological Flourishing	
Self- esteem (f11)		Self-actualisation (f12)	Interpersonal Trust (societal belonging) (f21)		Institutional Trust (good governance) (f22)			Ecosystems services and Biodiversity wealth (f31)	
Standardised suicide death rate	Attitudes toward people with disabilities	No Data available	Voluntary work perception	Participation in Community work	European Quality of Government Index	Trust in the Administration	Quality and accountability of government services	Invasive Alien Species	Ecosystem services net value (Supply-Demand)

1.4.2 Life Flourishing index

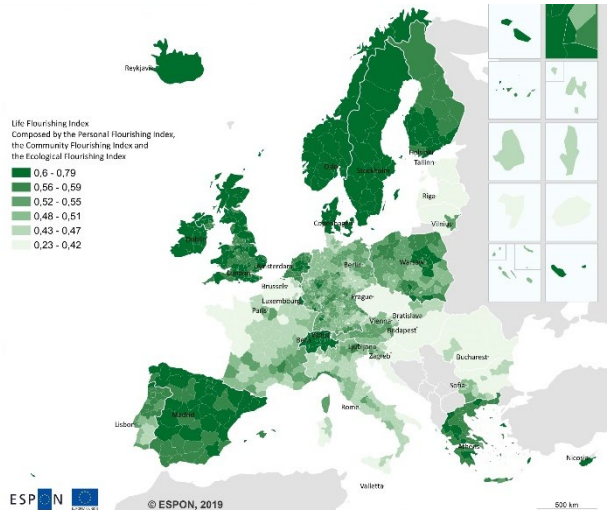
The Index in a nutshell

The Life Flourishing index is the aggregate (simple) average of the scores computed for the following sub-domains: self-esteem, self-actualisation (although indicators harmonised across the Alpine regions could not be found for this sub-domain, leading to its exclusion), interpersonal trust, institutional trust, ecosystems services and biodiversity wealth.



Main territorial patterns in the Alpine area

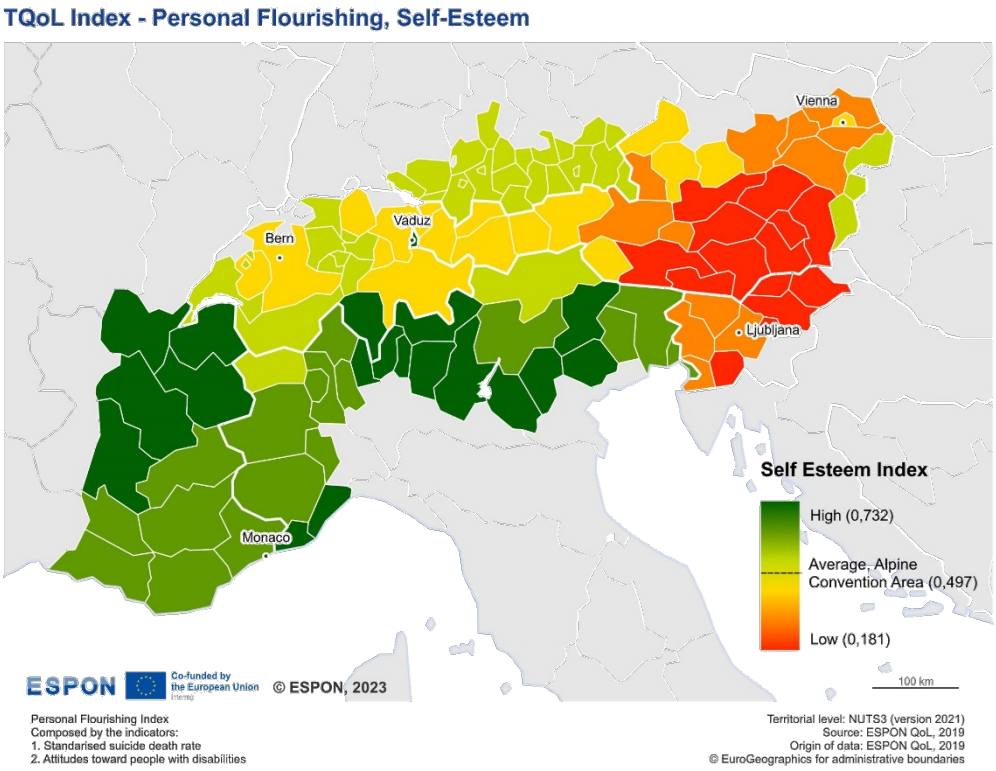
In relation to life flourishing, the regions with higher performance are concentrated in Switzerland, with Canton Ticino the only one in fully flourishing conditions and the other Swiss cantons scoring as moderately flourishing. Most of the other Alpine regions exhibit average scores, especially in the eastern area and in the southern French Alps. Finally, few regions in Italy and in the eastern corners of the Alpine area show challenging conditions.



1.4.3 Self – Esteem index

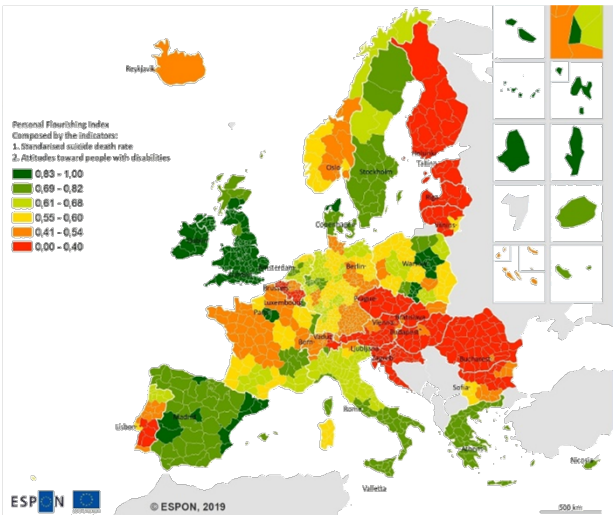
The index in a nutshell

The Self-Esteem index is the simple average of the scores computed for the following indicators: 1) the *standardised suicide death rate,* and 2) *attitudes toward people with disabilities*.



Main territorial patterns in the Alpine area

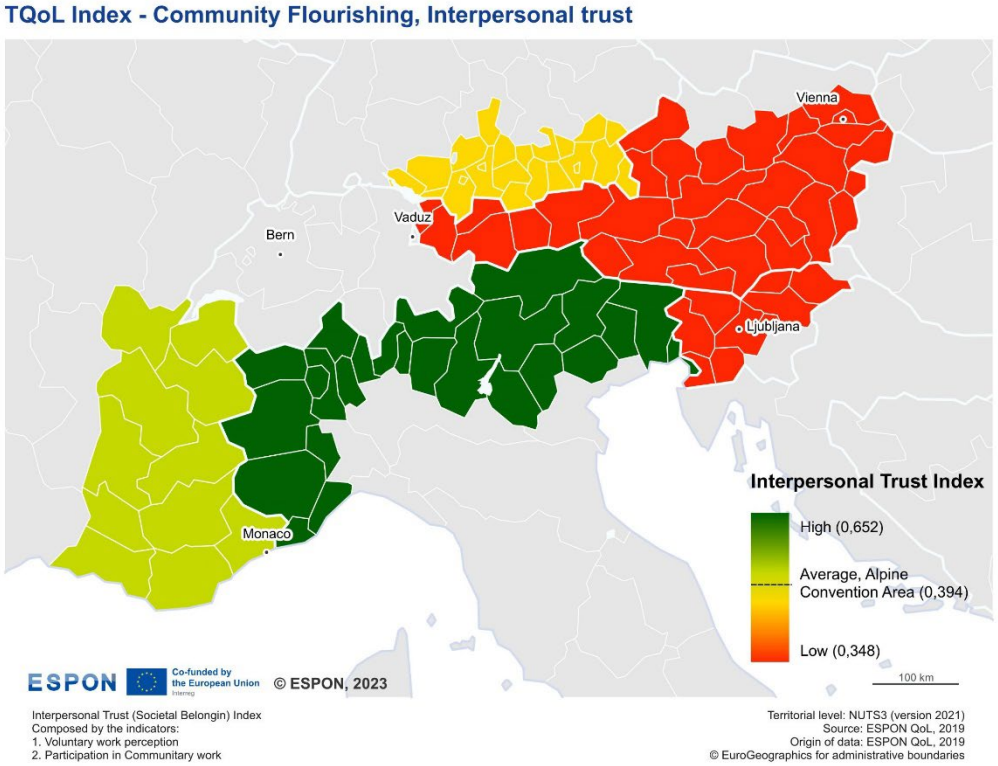
The Index shows a clear territorial pattern. Self-Esteem conditions are challenging in the eastern Alpine area (Slovenia and east Austria), on average in the north-central area (western Austria, German alpine regions and Switzerland, with the significant exception of the flourishing Canton Ticino, the only located on the south side of the Alps) and flourishing in the westerns area (French Alpine regions) and in the Italian regions on the south side of the Alps.



1.4.4 Interpersonal Trust index

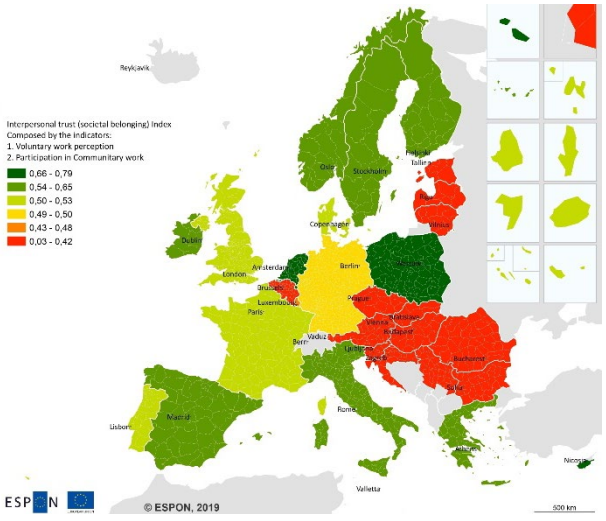
The index in a nutshell

The Interpersonal Trust (societal belonging) index is the simple average of the scores computed for the following indicators: 1) *voluntary work perception*, measured by the percentage of the population deeming voluntary work as crucial; and 2) *participation in community work*, measuring the level of engagement in associative life and community activities. Harmonised data for these indicators were only available at the more aggregate level of NUTS2 regions.



Main territorial patterns in the Alpine area

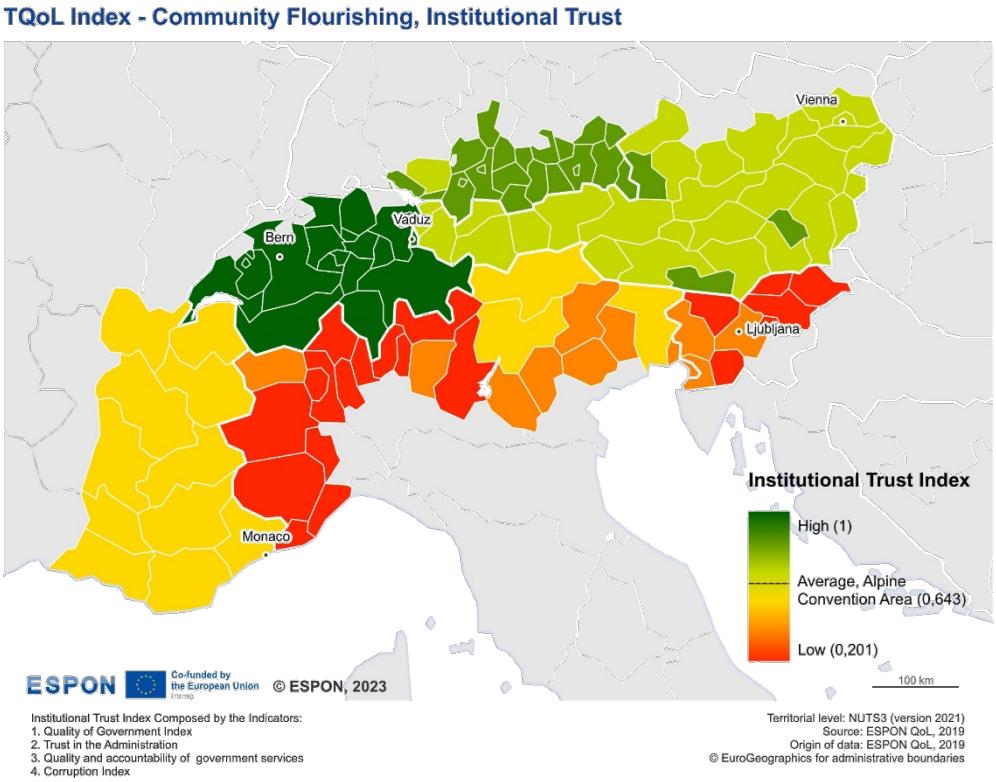
The interpersonal trust index computed with NUTS2 data must be interpreted with caution. First, data for Switzerland are lacking harmonisation with the other countries and the index could not consider this area that notoriously has long standing traditions of direct democracy and participation. Second, using the NUTS2 level data available for the other countries means that all NUTS3 regions nested within the higher NUTS2 layer have the same score and this contributes to the uniform pattern closely mirroring national borders shown in the map, with all Italian regions in flourishing conditions, French regions in moderately flourishing conditions, German regions on average and the regions of Austria and Slovenia in challenging conditions. However, these results are not statistically robust, based on few NUTS2 level observations and indirectly demonstrate how strong the TQoL index validity depends on the availability of detailed (NUTS3 or below) information.



1.4.5 Institutional Trust index

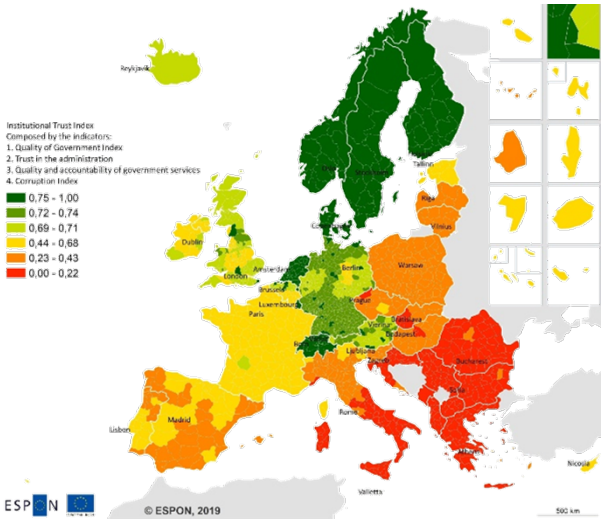
The index in a nutshell

The Institutional Trust (good governance) index is the simple average of the scores computed for the following indicators: 1) *European quality of government index*, 2) *trust in administration* and 3) *quality and accountability of government services*.



Main territorial patterns in the Alpine area

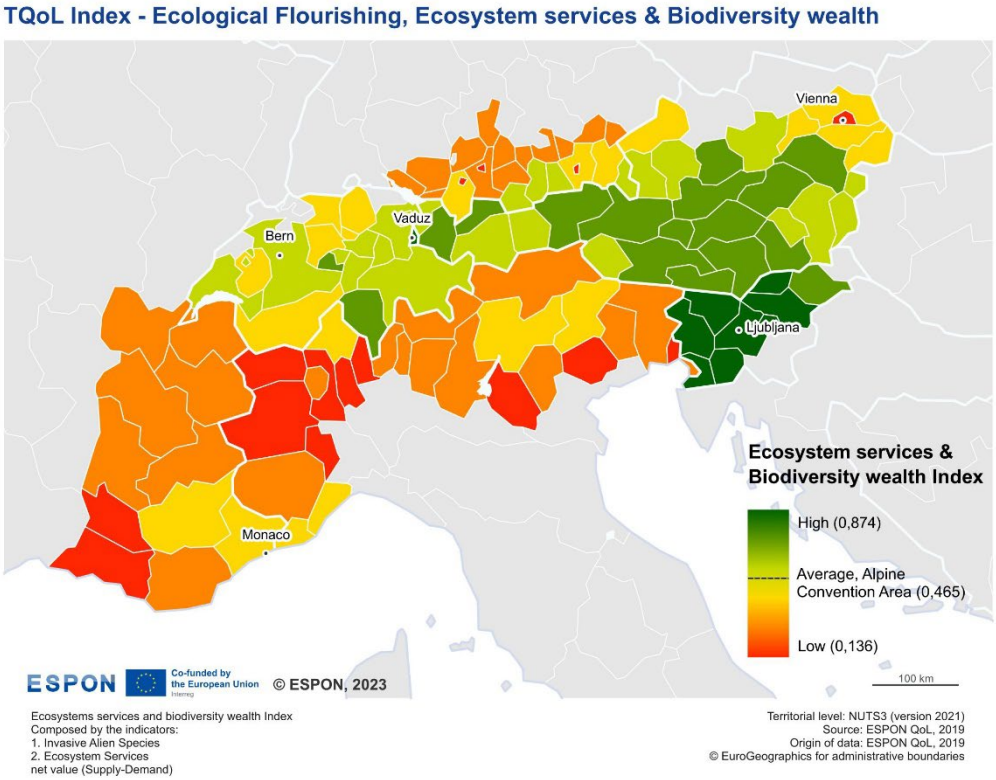
The Institutional Trust index pattern is clearly influenced by national and in some cases regional government traditions. All regions in Switzerland are in flourishing conditions, followed by regions in Germany and Austria. French regions' scores are on average in France, together with the Trentino Alto-Adige and Friuli Venezia-Giulia autonomous regions in Italy. Finally, regions in challenging conditions are concentrated in the rest of Italy and in Slovenia. Overall, the index unveils a distinct north-south divide in the Alpine area.



1.4.7 Ecosystem services and Biodiversity wealth index

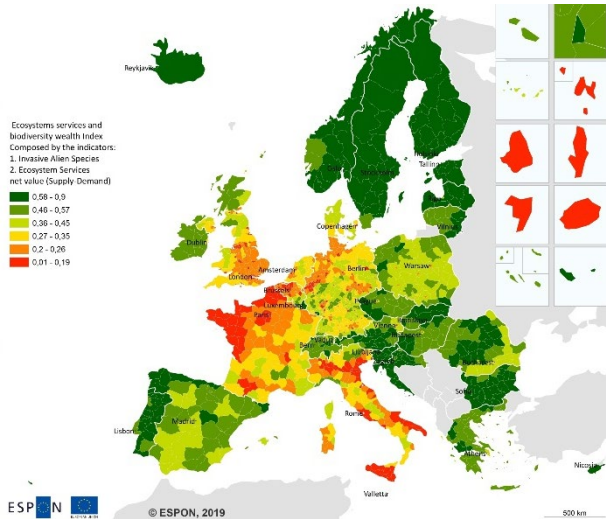
The index in a nutshell

The Ecosystem Services and Biodiversity Wealth index is the simple average of the scores computed for the following indicators: 1) *invasive alien species*, measuring the presence of harmful invasive species jeopardising local ecosystems; and 2) *ecosystem services net value (supply-demand)*, a complex indicator assessing the equilibrium between the supply and demand for essential ecosystem services.



Main territorial patterns in the Alpine area

The status of Ecosystem Services and Biodiversity in the Alpine area is a cause for concern, with certain territories, such as Rhône-Alpes, Provence-Alpes-Côte d'Azur, Piemonte, Lombardia, Veneto, and Bozen, encountering notably challenging circumstances. Conversely, the Slovenian Alps, Steiermark and Kärnten exhibit flourishing conditions. These disparities in biodiversity and ecosystem health underscore the necessity for focused conservation and management initiatives to safeguard the natural resources and ecological equilibrium across the Alpine area, especially in the western and south side of the Alps, and in the German regions on the north.



2 Annex B – Synoptic table of TQoL indicators suggested by the living labs and expected differences of QoL conditions in urban and rural areas

Dim.	Dom.	Sub-domain	QoL conditions	Indicators suggested by case studies stakeholders	Expected differences of QoL conditions in urban and rural areas
Good Life Enablers	Personal Enablers	**Housing & basic utilities (b11)**	House availability	Distinguish between owner-occupied and rented housing and between houses and flats Development of number of detached houses & apartment blocks (energy requirements, space requirements differ) Number and % of single-family buildings Number and % of unoccupied homes Number of housing vacancies (private, public) Availability of building land Accessibility of buildings for disabled people Period of construction of buildings (Number and % of buildings built after 2011) Percentage of unoccupied homes used for short-term rentals	House availability House availability can differ significantly between urban and rural areas due to various factors, including population density, land use patterns, economic development, and infrastructure. ✓ *Urban areas* ○ High population density: Urban areas are characterized by higher population density, leading to a higher demand for housing. As a result, urban housing markets may experience greater competition, potentially impacting the availability and affordability of housing. ○ Vertical development: Urban areas often feature vertical development, including apartment buildings and high-rise structures, to accommodate a large population within limited space. This form of development may influence the overall availability and types of housing. ○ Land use pressure: The pressure on land use for commercial, industrial, and residential purposes in urban areas can limit the availability of space for housing. Zoning regulations and land scarcity may contribute to challenges in expanding housing availability. ○ Diverse housing options: Urban areas typically offer a diverse range of housing options, including apartments, condominiums, townhouses, and single-family homes. The availability of different types of housing can cater to the diverse preferences and needs of the urban population. ○ Rental market dynamics: Urban areas often have active rental markets, and a significant portion of the population may rely on rented accommodations. The availability of rental properties is influenced by factors such as demand, vacancy rates, and rental market trends. ✓ *Rural areas* ○ Lower population density: Rural areas generally have lower population density, resulting in less competition for available land and housing. This can contribute to greater availability of housing options in rural settings. ○ Simpler housing structures: In rural areas, housing structures may be simpler, with a prevalence of single-family homes, farmhouses, and smaller communities. The lower demand for housing compared to urban areas may influence the types and styles of available housing. ○ Agricultural land use: Rural areas often prioritize agricultural land use, and residential development may be interspersed with farmland. However, the availability of housing can be influenced by the balance between agricultural and residential land uses. ○ Limited multifamily housing: The prevalence of multifamily housing options, such as apartment complexes or condominiums, may be limited in rural areas. Single-family homes may be more common, reflecting the rural lifestyle.

					○ Community expansion: In some rural areas, there may be opportunities for community expansion and the development of new housing. However, this expansion should be balanced with the need to preserve the rural character and environmental resources. Period of construction of buildings (Number and % of buildings built after 2011) Number and % of single-family buildings ✓ More old and single-family buildings in low density areas requires greater maintenance efforts. Percentage of unoccupied homes used for short-term rentals (e.g. airbnb, seasonal renting to tourists) ✓ This may affect the availability of housing on the long rent market in the urban areas.
			House overcrowding	Household overcrowding Average useful floor space of occupied dwellings Average number of occupants per dwelling Overcrowded homes: Number and % of homes occupied with more than one person per room Square meters of green spaces available for the condominium	House overcrowding House overcrowding can vary between urban and rural areas due to differences in population density, housing infrastructure, economic conditions, and cultural factors. ✓ *Urban areas* ○ Limited space: Urban environments often have limited space for housing, and the pressure on available land may lead to smaller living spaces or a higher number of individuals sharing a single dwelling. ○ Rental housing challenges: In urban areas, rental housing markets may experience higher demand, and individuals or families may face challenges in finding affordable and adequately sized housing. This can contribute to overcrowded living conditions. ○ Economic disparities: Economic disparities in urban areas may result in certain populations facing difficulties in accessing spacious and affordable housing. Low-income households, in particular, may be more susceptible to overcrowded living situations. ○ Informal settlements: Informal settlements, characterized by inadequate housing and infrastructure, are more common in urban areas. These settlements may experience severe overcrowding due to rapid urbanization and a lack of formal housing options. ✓ *Rural areas* ○ Lower population density: Rural areas generally have lower population density, and there may be more available space for housing. This lower population density can contribute to reduced instances of house overcrowding. ○ Spacious living conditions: In rural settings, housing structures may be more spread out, providing more space between dwellings. Individuals or families in rural areas may have larger plots of land for housing, contributing to less crowded living conditions. ○ Traditional housing styles: Rural housing often includes traditional styles that prioritize larger spaces, reflecting the availability of land and a more expansive rural landscape. This can contribute to less crowded living conditions. ○ Cultural Norms: Cultural norms in rural areas may influence housing patterns, with an emphasis on larger, family-oriented living spaces. Customary housing practices may contribute to less overcrowded conditions. Average useful floor space of occupied dwellings ✓ More floor space in rural houses as compared to urban flats.

					Square meters of green spaces available for the condominium ✓ This may affect the quality of living in urban areas.
			House cost	Burdensome cost of housing Offer of residential facilities with costs suitable for average salaries Individuals in families where the total cost of housing represents more than 40% of the family income as a percentage of the total individuals in families * 100 Share of generalized costs (expenses) for housing in the total family budget Social housing: percentage of homes reserved for fragile families or families in a situation of poverty out of the total Incentives (tax relief/financing) offered to people who sell or rent homes to workers of Trentino companies	House cost The cost of housing can differ significantly between urban and rural areas due to various factors, including land values, demand and supply dynamics, population density, and local economic conditions. ✓ *Urban areas* o Higher demand: Urban areas typically experience higher demand for housing due to population density, economic opportunities, and access to amenities. High demand can contribute to increased competition and higher housing costs. o Limited space: The limited availability of land in urban areas, combined with higher demand, can lead to increased land prices. This, in turn, affects the overall cost of housing, as land is a significant component of housing expenses. o Infrastructure costs: Urban housing often comes with additional infrastructure costs, such as proximity to public transportation, utilities, and amenities. These factors can contribute to the overall cost of housing in urban areas. o Higher standard of living: Urban living often corresponds to a higher standard of living, and housing costs may reflect the desire for amenities, modern conveniences, and proximity to cultural and recreational facilities. o Rental market dynamics: Urban areas may have more active rental markets, and the demand for rental properties can influence housing costs. Rental costs can contribute to the overall housing expenses for individuals and families in urban settings. ✓ *Rural areas* o Lower demand: Rural areas generally experience lower population density and, consequently, lower demand for housing. Lower demand can contribute to more affordable housing options in rural settings. o More available space: Rural areas often have more available space for housing, leading to lower land prices. This abundance of space can contribute to lower overall housing costs. o Simpler infrastructure: Rural housing may have simpler infrastructure requirements compared to urban housing. This can result in reduced construction costs and, consequently, more affordable housing options. o Economic conditions: Rural areas may have different economic conditions, and the cost of living may be lower. This can influence housing costs, as local economic factors play a role in determining affordability. o Housing styles: The style of housing in rural areas may be different, with a prevalence of single-family homes, farmhouses, and traditional structures. The cost of construction and housing materials can impact overall housing costs. Share of generalized costs (expenses) for housing in the total family budget ✓ Generalized costs of housing (value/rents, heating, maintenance etc.) are different in rural and urban areas, and an affordable share on the total budget is a key aspect of households' quality of life. Social housing: percentage of homes reserved for fragile families or families in a situation of poverty out of the total. ✓ Relevant in urban areas, to make the cost of housing affordable for vulnerable families, with good social cohesion consequences in the urban community.

			House services	Sanitation conditions (% uncollected sewerage & % sewerage treatment) Share of population connected to a public sewage system in agglomerations Wastewater collection and treatment rate (%) Households lacking adequate heating Percentage of homes without adequate heating/air conditioning systems ("adequate" in terms of energy efficiency classes) Share of the population connected to the public water supply network Irregularities in the distribution of water Irregularities in the electricity service Separate waste collection service Availability, average consumption, and quality of water supply Percentage of buildings that use renewable energy for their energy needs	✓ House services needs are the same across rural and urban areas, but the solutions to deliver efficiently sanitation, water, energy, waste collection services may be different in low- and high-density areas. *Urban areas* typically have well-developed utility services, including reliable water supply, electricity, and sewage systems. *Rural areas* may rely on different water supply systems, including wells, springs, or local water authorities. The availability and quality of water services can vary, and some rural areas may face challenges related to water access. While electricity is available in rural areas, the infrastructure may be less robust, and some remote areas may experience intermittent power supply. Renewable energy sources may play a significant role in rural electrification.
		Healthcare (b12)	Availability of health facilities	Availability of Hospital beds Hospital beds per 100,000 inhabitants Availability of healthcare centres Availability of emergency centres No. beds in specialty high-care facilities * 10.000 inhabitants Proportion of care places, care beds, hospital beds Rehabilitation options, e.g. logotherapy services Coverage by community nurses Number of pharmacies, dentists, general practitioners, and physiotherapists services per 100 homes Ratio between people who come to Trento for treatment compared to people who go outside	✓ Health facilities are highly specialized services usually available in urban centres or otherwise central locations, serving a wide basin of potential users. Accessibility to hospitals and emergency centres – i.e. the time needed to get there in case of need – is a key QoL concern for people living in distant and sparse settlements. Some health services (e.g. community nurses, defibrillators, etc.) could be distributed in rural centres, and telemedicine solutions adopted as well, to increase health services availability in low density areas.
			Accessibility to health services	Accessibility to health services (pharmacies, doctors and hospitals) Accessibility to health centres at the primary level by car, share of inhabitants within a ten-minute drive to a health centre. Maximum time to emergency medical assistance Accessibility to mental health (e.g., share of regions overlaid by psychotherapists) Waiting times in healthcare Range of 24-hour care Coverage of organized screening programs	Accessibility to basic health services (pharmacies, doctors) Accessibility to specialized health services (hospitals, etc.) ✓ As mentioned, some health services (pharmacies, doctors) are basic and shall be distributed in high and low density areas, while highly specialized services (hospitals, mental health, emergency centers) are concentrated in central locations. Maximum time to emergency medical assistance ✓ This is a key QoL need for people living in rural locations far from emergency centers, and can be partly answered by tele-medicine services to filter (first screening) and activate fast responses to the emergency cases (e.g. heli-assistance)
			Availability of healthcare staff	Number of doctors per 1,000 inhabitants Number of psychiatrists, psychologists and psychotherapists per 1,000 inhabitants No. nurses and midwifes over total resident population *1,000 Number of therapists (physio, ergo, logo etc.) Number of psychotherapists	✓ As for the accessibility to healthcare facilities, the distinction is made between basic health staff (generic doctors) that should be available everywhere and specialized staff, usually available in urban centers
			Healthcare cost	Percentage of people with supplementary health insurance of any form out of the total population Reduce the costs of medical care for children regardless of family income Healthcare costs per inhabitant Health care insurance: subsidized insured and paid subsidies, according to the type of household	✓ Whatever are the provision to cover the healthcare costs adopted in the different national health systems, the price of health services should be the same everywhere in the region

		Education (b13)	Availability of education facilities	Educational facilities in the municipality, by type of school (Centrality level: 1. Public university; 2. College, university faculty, or academy; 3. Junior colleague or high school; 4. Nine-year primary school; 5. Branch primary school) Number of compulsory schools and nursery schools for every 100 homes Increase the places available in nursery schools and kindergarten to give children more space Number of kindergartens/secondary/vocational schools Number of tertiary institutions	Compulsory schools and nursery schools for every 100 homes ✓ This basic educational services should be available either in low and high density areas, and accessible within a 15 minutes' walk (in cities) or drive/public transport ride (in low density areas)
			Accessibility to education facilities	Accessibility to education (primary and secondary schools) Accessibility to primary schools, share of inhabitants within a ten-minute drive to a primary school Accessibility to pre-school education Accessibility to tertiary education Accessibility to vocational education Accessibility to non-formal kinds of education	Accessibility to secondary schools ✓ These higher level of education facilities should be accessible in a reasonable time (e.g. 30 minutes) by public transport in high density areas as well as in low density areas (by scheduling bus rides according to entrance/exit times) Accessibility to tertiary education ✓ Highly specialized service usually located in central cities, it should be accessible with frequent public transport services
			Education supply	Measurements of class heterogeneity (socio-economic and cultural) Number of integration/inclusion classes Average number of students per teacher Further education programmes (lifelong learning) Survey of language skills	Average number of students per teacher ✓ A same standard should be adopted for low- and high-density areas
	Socioeconomic Enablers	**Transport (b21)**	Road transport and parking infrastructure	Access to high-level transport infrastructure Accessibility to freeways or expressways by car Accessibility by private car to other places Number of personal cars per 1,000 inhabitants Quality of roads (proportion of macadam roads, number of construction works, etc.) Car parks in the outskirts of the city frequently served by shuttle Availability of (private/public) parking spaces in the neighborhood and at park & ride areas Motor vehicle fleet by propulsion engine (% fossil/electric) Daily average of kilometers traveled by car and motorbike per inhabitant	Access to high-level transport infrastructure ✓ A key QoL need for all people living in the region – in low or high density areas - is a reasonable time to access a high-level transport rail or road infrastructure (e.g. 30 minutes), by walk, bicycle, public transport depending on the distance of the rail station from home, or by car for accessing to a freeway Quality of roads (proportion of macadam roads, number of construction works, etc.) ✓ Road quality should be the same everywhere in the region, but the maintenance costs differ between urban and rural – and especially mountain – areas. A good quality road connection is crucial for people living in peripheral areas and mountain villages. Availability of (private/public) parking spaces in the neighborhood and at park & ride areas ✓ The availability of parking space reduces the time spent by drivers to find a parking place, and park & ride areas are especially important to make PT stops accessible from low density areas.
			Public Transport services	Share of population living 1 km from a public transport stop with at least eight pairs of rides per day Number and % of homes located within public transport quality classes A, B, C and D Accessibility by public transport (buses and railway) to other places Reduction of waiting times between one trip and another on urban public transport, especially in certain time slots Places-km offered by local public transport Total and daily average number of public transport passengers (regional trains and buses) Daily average of kilometers traveled by train/bus per inhabitant % 14+ year old users utilizing public transport multiple times a week	Share of population living within 15 minutes' walk from a public transport stop ✓ The standard of bus rides frequency at the public transport stop should be different, with more frequent rides in the high density areas and less frequent in rural areas, but well-spaced to cover day and also late evening travel demand Reduction of waiting times between one trip and another on urban public transport, especially in certain time slots ✓ This indicator is important to detect and optimise the quality of public transport connections, reducing the users idle time especially at commuting peak hours. It should be applied to bus interchanges in the urban public transport network as well as to the interconnections with regional train and bus services, for the benefit of users living outside the central cities Occupancy rate of public transport during peak times

				Satisfaction with mobility services: Users rating 8+ all public transport used (multiple times a week) over total users of at least one public transport mode*100 Families perceiving poor public transport access around residence over total families *100 Average travel time from home to work by public transport/private vehicle Average time and cost of public transport to reach the economic poles from the place of residence Occupancy rate of public transport during peak times	✓ This indicator depends on the demand at peak times, and it is obviously influenced by the frequency of PT rides, measuring the comfort of travelling, a key QoL need Average travel time from home to work by public transport/private vehicle. ✓ The indicator is used to measure the convenience of the public transport choice against travelling by car, it is influenced by the frequency of PT rides and the waiting times at interchanges by one side and by road congestion on the other sides, and eventually measures the time spent to commute, which is an everyday need. Satisfaction with mobility services: Users rating 8+ all public transport used (multiple times a week) over total users of at least one public transport mode*100 ✓ Indicator of perceived quality, it may be interesting to compare the perceptions of people living in the urban centres vs people living in the outskirts
			Slow mobility (walking & cycling)	Increase in kilometres of cycle path to reach the workplace Daily average of kilometers traveled by bike and on foot per inhabitant Km of marked cycle network Daily average of bikes detected at the cycle network counting stations	Km of marked cycle network ✓ The extension and capillarity of the cycle network is key to improve cycling opportunities, safety, and experience
		Digital connectivity (b22)	Availability of digital connection	Internet at home Share of households with very high-capacity optical broadband Share of households not covered by broadband internet due to a lack of economic interest by the service providers Availability of at least one computer and internet connection in the family Presence and quality of the fixed and/or mobile digital network Mobile network coverage - signal availability Presence of fast and free wifi networks in public areas Public areas with wi-fi access	Mobile network coverage Share of households with very high optical broadband Public areas with Wi-Fi access ✓ These indicators are key QoL conditions in high density areas, while in rural areas a good mobile network coverage can be sufficient
			Quality of digital connection	Efficiency of digital networks Stability of the internet connection Network performance (upload/download rate) Potential electromagnetic pollution	Stability/efficiency/performance of digital network ✓ These indicators are especially relevant in high density areas, while in rural areas network stability can be sufficient Potential electromagnetic pollution ✓ It is more relevant in densely populated areas
			Intensity of fruition	Online interaction with public authorities Simplification and dematerialisation of the relationship between citizens/businesses and public administration Active users and volume of digital transactions with the public administration Type and quantity of digital services in the region (public sector + businesses) Digital literacy of the population Digital training of public administration workers Digitalization of businesses: measuring the increase year on year Regular internet users: 11+ year old using internet 1+ times a week in previous 3 months Number of residential Internet users	Online interaction with public authorities (number of active users) ✓ This QoL condition should be ensured to the whole population of potential users, in urban and rural areas, and contribute to enhance the accessibility to public services which can be delivered virtually for people living in remote places. Digital literacy ✓ It is expected to be higher in urban zones as compared to rural areas.
		Work opportunities(b23)	Accessibility to job opportunities	Labour market accessibility (accessibility to jobs) Persons in employment (excluding farmers) whose workplace is in their municipality of residence Labor migration index (surplus of jobs in municipality of residence - jobs/workplaces ratio)	Accessibility to/availability of jobs ✓ Urban areas often offer a more diverse range of job opportunities across various industries, including finance, technology, healthcare, and services. Rural areas may have a more limited range of job options, with a focus on agriculture, natural resource-based industries, and a smaller service sector.

				Workers in the secondary and tertiary sectors per 100 inhabitants, divided into sectors of economic activity (by municipality and by area of daily accessibility from the place of residence, e.g. within 60 minutes of travel) Workers in the primary sector per 100 inhabitants (by municipality) Indicators describing teleworking or working from home Number of open apprenticeship positions Percentage of cross-border workers arriving from Italy out of the total number of employees, by municipality	Persons in employment (excluding farmers) whose workplace is in their municipality of residence ✓ This indicator clearly depends on the dimension of the municipality, it is usually lower in low dense suburban zones and higher in mixed use central urban areas. Working outside your place of residence may involve greater commuting times (e.g. from the suburbs to the central business district). Workers in the secondary and tertiary sectors by area of daily accessibility, e.g. within 60 minutes of travel. ✓ Urban workers may face longer commutes and higher transport costs due to the larger geographical spread of jobs and higher population density. Rural workers might have shorter commutes, but transportation options could be limited, and they may face challenges if job opportunities are distant. Workers in the primary sector per 100 inhabitants ✓ This indicator is relevant to measure the level of activity in rural municipalities. Indicators describing working from home (smart working) activities. ✓ These indicators should be better specified, by defining what is measured on the ground (one source of data could be business mobility management reports recording the total number of smart working hours of the employees). They are particularly relevant to measure "post-covid" lifestyles in both low and high density settlements.
			Quality of job opportunities	Composition and need for jobs by complexity/education/sector Level of talent attraction and retention in the region Access to jobs with added value (possibility of promotion) Indicators of matching education with labour market needs Annual report of innovative start-ups Increase the establishment of foreign companies Proportion of employed residents and cross-border workers according to training level and position in the profession Number of green jobs Clustering of job types, e.g. circular economy, green jobs Number of language skills in the region, public administration Jobs stability	Level of talent attraction in the region/Access to high value added jobs ✓ Usually measured for the whole region, although the jobs are often concentrated in urban/territorial poles within the region. Indicators of matching education with labour market needs ✓ Urban areas typically have better access to educational institutions, training centers, and professional development opportunities. This can contribute to a more skilled and diverse workforce in urban settings. Rural areas may face challenges related to limited access to higher education and professional development programs. Number of green/circular economy jobs ✓ Working in sustainable sectors may enhance the workers satisfaction. Jobs stability ✓ Employment in rural areas may be more stable in certain industries, such as agriculture, but may also be subject to seasonal fluctuations. ✓ Urban areas may have more dynamic and diverse job markets but may be susceptible to economic downturns in specific industries.
			Labour market conditions	Average level of wages Level of supportive environment in the region Increase in employment agency activities in the area and in schools to raise awareness of the use of these services Increase exchange activities between schools and businesses to reduce the gap between professional qualifications and those required by the job market Activate moments of proactive discussion between companies, even of different types, to increase the possibilities of collaboration Evaluate a tourism model in Trento starting from the development of sporting activities not linked to seasonality	Average level of wages ✓ Wages tend to be higher in urban areas due to the higher cost of living. Jobs in urban centers often come with higher salaries to compensate for the increased living expenses. Rural areas may have lower wages on average, but the cost of living is also generally lower.
		Consumption opportunities(b24)	Accessibility to commercial services	Accessibility to commercial services (shops and banks) Accessibility to ATMs, share of population within a five-minute drive to an ATM	Accessibility to commercial services (various categories) ✓ Higher urban population density often attracts more businesses and services due to the larger customer base, while lower rural population density may result in fewer businesses and services, as there might be a smaller market.

				Accessibility to post offices, share of population within a five-minute drive to a post office Accessibility to specific services (post office, banks, etc.) Food services: Number of food shops per 100 homes Body care services: Number of hairdressers and beauty centers per 100 homes Postal and banking services: Number of banks and post offices per 100 homes Restaurant and bar services: Number of restaurants and bars per 100 homes Accessibility of services (average distances from buildings in meters) for daily services (S1), specialized regular services (S2), specialized occasional services (S3), specialised irregular services (S4), public services (S5) Area of restaurants, bars, and shops Indicators relating to cross-border consumption opportunities (for differences in prices of consumption items, causing higher densities of e.g. petrol pumps and pharmacies near the border with Italy)	
			Sustainable consumption options	Presence of commercial activities that offer sustainable services and products (e.g. second-hand markets, "organic" shops, resale of loose food products without the use of packaging, etc.) Consumption of local zero-mile products (presence of farmer markets and exchange volumes) Degree of self-sufficiency (supply of regional products) Degree of self-sufficiency in terms of energy Product diversity from local production	Presence of commercial activities that offer sustainable products and services ✓ *Urban areas* often have a larger and more diverse population, which can lead to a higher demand for sustainable products and services. Urban consumers may be more exposed to sustainability trends and have greater awareness. Urban areas may also have better access to a variety of sustainable resources, including eco-friendly materials, renewable energy, and ethical supply chains. The concentration of businesses and infrastructure can facilitate the adoption of sustainable practices. ✓ Consumer demand for sustainability can also exist in *rural areas*, but it may be influenced by factors such as local traditions, economic considerations, and access to information. Access to sustainable resources may vary depending on the local environment. For example, rural areas might have a focus on sustainable agriculture practices, but access to certain sustainable technologies could be limited. Consumption of local zero-miles products ✓ *Rural dwellers* often have more direct access to local farmers and producers, making it easier to obtain fresh, locally sourced products. ✓ *Urban Dwellers* typically face challenges in accessing products directly from producers due to the distance between urban areas and agricultural regions. However, farmers' markets and community-supported agriculture (CSA) initiatives can help bridge this gap. Degree of self-sufficiency in terms of energy ✓ While urban areas tend to have more established energy infrastructure, rural areas can leverage their unique characteristics, such as available land for renewable projects, to enhance self-sufficiency in terms of energy. Both urban and rural communities may benefit from a balanced approach that incorporates centralized and decentralized energy solutions based on local needs and resources.
	Public spaces (b25)	Availability of public spaces	Sports infrastructure (e.g., stadiums, swimming pools, gyms) Leisure areas: Number, surface area and % of historic areas, public parks, community gardens, swimming pools and sports areas per home Number/area of playgrounds for children Degree of soil sealing of public spaces Sales area per capita	Availability of public spaces ✓ *Urban Areas* typically have higher population density, which often leads to a greater concentration of public spaces, such as parks, plazas, and recreational areas. Urban planners may allocate more space for public use to accommodate the larger number of residents. Larger communities may have a variety of public spaces catering to diverse interests, from sports facilities to cultural venues. Public spaces are usually more accessible	

					due to better transportation infrastructure, including public transit options and walkable neighborhoods. ✓ *Rural areas* with lower population density, rural areas may have fewer designated public spaces. However, natural landscapes and open areas may serve as informal gathering places. Smaller communities may have fewer formal public spaces, and communal activities may revolve around local facilities like community halls, schools, or churches. Accessibility may be a challenge, especially in remote rural areas, where residents may need to travel longer distances to access public spaces or community facilities.
			Quantity and quality of public space fruition	Diversity of sports programmes and facilities Unsatisfaction with the quality of public space: 14+ year old perceive lived public space as degraded over total*100	Quality of public space fruition ✓ *Urban dwellers*: Public spaces in urban areas are often more formalized and may feature well-designed infrastructure, landscaping, and amenities. Quality may be measured by the presence of cultural venues, well-maintained parks, and the availability of recreational facilities. Urban public spaces often host cultural events, festivals, and diverse community activities. The cultural significance is reflected in the dynamic and multicultural nature of urban public life. ✓ *Rural dwellers*: Quality in rural public spaces may be characterized by the natural beauty of the surroundings, preservation of agricultural landscapes, and the community-driven use of spaces. While formal amenities may be limited, the quality can be found in the authenticity and simplicity of rural public spaces. Cultural significance in rural public spaces may be tied to local traditions, agricultural practices, and community gatherings that celebrate the unique identity of the area.
		Cultural assets (b26)	Availability of cultural facilities	Availability of cultural landmarks (Unesco World Heritage) Accessibility to cultural services (cinemas) Number of libraries per 100 homes Number of cinemas per 100 homes Number of theatres per 100 homes Number of museums per 100 homes Places of worship for every 100 homes Number of public infrastructure units in the field of culture per 100,000 inhabitants Availability of cultural centres Availability of (cultural and sport) associations Density and importance of museum heritage: No. of permanent exhibition facilities per 100 km2, weighted over visitors no. Number of cultural institutions (museums etc.)	Availability of cultural facilities ✓ *Urban areas* typically have a higher concentration of cultural facilities, including museums, art galleries, theatres, concert halls, and cultural centres. The larger population and diverse demographic often support a vibrant cultural scene. Urban residents often have greater access to educational institutions, art schools, and specialized training centers. The proximity to cultural hubs enhances exposure to a variety of artistic disciplines. ✓ *Rural areas* may have fewer cultural facilities due to lower population density. However, they may still feature community centres, local museums, and spaces for traditional cultural events. Access to educational and artistic institutions may be more limited in rural areas. However, local community initiatives, workshops, and partnerships with regional organizations can still provide cultural opportunities.
			Quantity and quality of cultural facilities fruition	Number of visits to public libraries per potential user Use of libraries: % 3+ year old using libraries 1+ in the year Use of libraries: number of active users in cantonal and school libraries Opening days and number of visitors at museums and similar institutions (by district and municipality) Number and active users of cultural, sporting and leisure associations (e.g. choirs and bands) Satisfaction of young people with cultural assets	Quantity and quality of cultural facilities fruition ✓ *Urban dwellers*: Cultural facilities in urban areas often engage with diverse communities, offering a wide range of programming that caters to different interests and backgrounds. This can contribute to a high level of community engagement. Urban cultural facilities may have better resources for digital access, providing online exhibitions, virtual performances, and educational content. This enhances the quality of cultural engagement through technology. ✓ *Rural dwellers*: Cultural facilities in rural areas may focus on building strong community ties, preserving local heritage, and encouraging active participation in cultural activities. The quality lies in the deep connection to local communities. Digital access may be more limited in rural areas, affecting the quality of online cultural experiences. However, efforts to improve digital outreach can contribute to expanding access in rural communities.
			Cultural activities and events	Neighbourhood cultural activities organized by voluntary associations	Cultural activities and events

				Readings books and newspapers: % 6+ year old reading 4+ books/year and 3+ newspapers/week Cultural participation outside the home: % 6+ year old participating in 2+ cultural activities Distribution of cultural operators in the municipalities, by field (music, visual arts, cultural mediation, literature and linguistics, performing arts-theater, cinema and audiovisuals, ethnography and popular culture, human sciences, political and social sciences, dance) Cultural mediation activities: number of guided tours and number of temporary exhibitions in museums and similar institutions Cinema attendance: number of seats and number of paid entries in cinemas Average daily television consumption per capita (in minutes,) by sex and age group of viewers Cultural expenditure of the Canton and the Municipalities per capita Cultural initiatives (creative artists) Cultural and creative occupation: Percentage of people aged 6 and over who have practiced 2 or more cultural activities	✓ *Urban areas*: Cultural activities in urban settings often reflect a mix of global influences, contemporary trends, and multicultural expressions. Events may highlight diversity and modern artistic forms. Cultural events in urban areas often occur more frequently and throughout the year, reflecting a busy and dynamic cultural calendar. Cities may host events regularly, including weekly markets, art walks, and ongoing exhibitions. ✓ *Rural areas*: Cultural activities in rural settings may place a strong emphasis on preserving and celebrating local cultural heritage, including traditional music, dance, crafts, and storytelling. Cultural events in rural settings may be more seasonal, aligning with agricultural cycles, traditional festivals, or specific times of the year. The frequency may be influenced by the availability of resources and the pace of rural life.
	Ecological Enablers	**Green infrastructure (b31)**	Availability of green areas	Availability of Natural Areas Proportion of Natural Areas Available m^2 of urban green over total residents Extension of historical green over total urban area % of built-up areas % of green areas (other intensive cultivation, vineyard, other humus, field, meadow, pasture, garden, other forest, dense forest, densely wooded pasture, sparsely wooded pasture) Availability, extent, and accessibility to natural leisure areas Percentage of equipped green spaces (sports facilities, public parks, roadsides, golf courses, campsites, cemeteries, family gardens) Number and sqm local recreation areas Green spaces in district towns	Availability of green areas ✓ *Urban areas*: While urban areas may have parks and green spaces, the quantity can vary widely depending on factors like population density, city planning, and available land. Larger cities may have numerous parks, botanical gardens, and recreational areas, while smaller urban areas might have fewer green spaces. Green spaces in urban settings may include parks, community gardens, rooftop gardens, and tree-lined streets. Urban planners may incorporate green spaces into the design of the city to provide recreational areas and improve the overall quality of life. ✓ *Rural areas*: Rural areas often have more expansive green areas, including farmland, forests, and natural landscapes. The overall quantity of green spaces is typically higher in rural settings, as these areas are often characterized by vast open spaces. Green spaces in rural settings are more diverse and can include agricultural fields, meadows, forests, and bodies of water. These spaces are often natural and essential components of the rural environment.
			Quality and management of green areas	Farmland abandonment (% of abandoned land) Proportion of abandoned land Percentage of abandoned agricultural land Constraints in spatial planning Efficiency of state administration for granting building permits Increase in trees and green spaces in the streets and squares of the city Reduce summer temperatures using fountains and small water pools Urban greenery: Number of tall trees and share of trees subject to a plan for monitoring the state of health and preventive maintenance (for the purposes of protection and conservation of the arboreal heritage in an urban environment, which tends to mitigate the heat island effect of built surfaces) Intensification/extension of uses of rural green areas (indicator of the quality of uses of rural areas, measures the variations, in hectares, from extensive uses - arable land, olive groves, meadows and pastures, woods - to more intensive uses - arboriculture, orchards, vineyards - and vice versa)	Quality of green areas ✓ *Urban areas*: o Design and Amenities: Urban green spaces are often designed with recreational amenities, landscaping, and infrastructure. Parks in urban areas may have features like playgrounds, sports facilities, and well-maintained walking paths. o Access to Services: Urban green areas may be integrated with services such as waste management, lighting, and security to enhance the overall quality of the space. o Biodiversity: Urban green spaces may exhibit a range of biodiversity, but the focus is often on curated landscaping rather than preserving natural habitats. ✓ *Rural areas:* o Natural Landscape: Rural green areas often encompass vast natural landscapes, including forests, farmland, and open fields. The quality is often defined by the authenticity of the natural environment. o Agricultural Use: Green areas in rural settings may include agricultural land, contributing to the rural economy. The quality is closely tied to sustainable farming practices.

				Utilized agricultural land and intactness of the agriculturally utilized areas Km of hiking trails (cantonal plan)	○ Wildlife Habitat: Rural green spaces may support a higher level of biodiversity, serving as habitats for various plant and animal species. Management of green areas ✓ *Urban areas*: ○ Professional Maintenance: Urban green spaces are typically managed by municipal authorities or dedicated park management teams. Professional maintenance ensures cleanliness, safety, and well-kept facilities. ○ Programming and Events: Urban green areas often host programmed events, cultural activities, and community initiatives that are actively managed to engage residents. ○ Regulatory Oversight: Urban green spaces are subject to local regulations and zoning, ensuring responsible land use and adherence to environmental standards. ✓ *Rural areas*: ○ Community Involvement: Green areas in rural settings may be managed with a more significant degree of community involvement. Local residents, agricultural cooperatives, or community groups may actively participate in the maintenance of these spaces. ○ Natural Management: In rural areas, some green spaces may be managed with a more hands-off approach to preserve natural ecosystems. This can involve sustainable agricultural practices and conservation efforts. ○ Traditional Land Management: Agricultural land within green areas is often managed traditionally, with agricultural practices passed down through generations.
		Protected areas (b32)	Existence of Protected Areas	Existence of protected areas Proportion of protected areas Protected areas over total urban area*100 Extension of protected natural areas	Presence of protected areas ✓ *Rural areas* are more likely to host traditional protected areas, such as national parks, wildlife reserves, and natural habitats. These areas often cover expansive landscapes, encompassing diverse ecosystems and serving as habitats for various plant and animal species. In rural settings, protected areas may also include agricultural conservation areas or zones where sustainable farming practices are encouraged to preserve soil health, biodiversity, and water resources. ✓ *Urban areas*: While urban areas may not have large traditional protected areas, they often have smaller-scale protected green spaces such as city parks, botanical gardens, and urban nature reserves. These areas contribute to biodiversity conservation within the urban environment. In some urban settings, efforts are made to repurpose and restore brownfield sites—formerly developed areas—with an emphasis on environmental conservation and sustainable land use.
			Quality and management of protected areas	Existence of managing body/protected area management Indicators on what is happening with protected areas (management indicators) Indicators on opportunities for development in protected areas Maintenance of protected areas Percentage of forests/agrosystems covered by Natura 2000 areas and/or national/regional parks and reserves Share of protection forests (%) and share of forests covered by a management plan (%)	Biodiversity conservation ✓ *Rural areas*: Protected areas in rural settings are crucial for conserving biodiversity, maintaining natural ecosystems, and providing habitats for various species. Conservation efforts in these areas often focus on preserving native flora and fauna. ✓ *Urban areas*: Urban protected areas contribute to biodiversity conservation within the city. These areas may support native plants, provide habitat for urban wildlife, and serve as green corridors for species to move through fragmented urban landscapes. Recreational and Educational use ✓ *Rural areas*: Protected areas in rural settings may offer opportunities for recreation, eco-tourism, and environmental education. Visitors may engage in activities like hiking, bird watching, and nature-based tourism. ✓ *Urban areas*: Urban protected areas serve as recreational spaces within the city, providing opportunities for outdoor activities, environmental education programs, and community engagement. They contribute to the overall well-being of urban residents. Management of protected areas

					✓ *Rural areas*: ○ Traditional Conservation Practices: Rural protected areas often involve traditional conservation practices that aim to maintain natural processes and ecosystems. Management may include strategies for sustainable forestry, habitat restoration, and wildlife conservation. ○ Human-Wildlife Interface: Rural protected areas may require management strategies to address interactions between human activities (such as agriculture) and wildlife. This could involve measures to mitigate conflicts and promote coexistence. ✓ *Urban areas*: ○ Intensive Management: Urban protected areas often require intensive management due to higher levels of human activity, potential pollution, and limited space. Management efforts may include landscaping, invasive species control, and habitat restoration projects. ○ Community Engagement: Urban protected areas benefit from community engagement initiatives that involve residents in conservation efforts, educational programs, and stewardship activities. Building community awareness and support is often a key aspect of urban protected area management.
Life Maintenance	**Personal Health and Safety**	**Personal Health (m11)**	Healthy life expectancy	Life expectancy at birth Healthy life expectancy (HALE) at birth (years) Unlimited life expectancy in activities at 65: Average number of years a 65-year-old person can expect to live without experiencing limitations in activities due to health problems. Life expectancy at 65 years, by sex (total and in good health) Age-standardized death rate (per Slovenian population on July 1st, 2014) by residence / 100,000 Mortality from cancer (20-64 years) Mortality from dementia and nervous system diseases (65 years and older) Avoidable mortality: Deaths of individuals aged 0-74 years whose cause of death is preventable per 10,000 residents. Child mortality: Deaths in the first year of life per 1.000 live births	Hearly life expectancy Healthy life expectancy, also known as disability-free life expectancy, is a measure that estimates the number of years an individual is expected to live in good health without experiencing disability or significant illness. The comparison of healthy life expectancy between rural and urban areas can be influenced by various factors, including healthcare access, lifestyle, socio-economic conditions, and environmental factors. However, it's important to note that health outcomes can vary widely, and generalizations may not capture the full complexity of the situation. ✓ *Urban areas*: Generally, urban areas tend to have better access to healthcare facilities, specialized medical services, and health infrastructure. Proximity to hospitals, clinics, and healthcare professionals may contribute to early detection and management of health issues. Urban areas may have better access to preventive healthcare services, health education programs, and screenings. This can contribute to early detection and management of health conditions, potentially impacting healthy life expectancy. Urban lifestyles may vary, but access to recreational facilities, gyms, and a variety of fitness activities may contribute to healthier living. On the flip side, urban areas may also experience higher stress levels and sedentary lifestyles. Urban environments may face challenges related to air pollution, noise, and a fast-paced lifestyle, which can impact overall health. On the positive side, urban areas may benefit from more extensive healthcare options and health awareness programs. ✓ *Rural areas*: In some cases, rural areas may face challenges related to healthcare access, including limited availability of medical facilities and healthcare providers. This can impact the timely diagnosis and treatment of health conditions. Limited access to preventive healthcare services may be a challenge in some rural areas. However, community-based health initiatives and outreach programs can play a crucial role in promoting health awareness. Rural lifestyles may involve more physical activity, outdoor work, and exposure to natural environments. However, limited access to fitness facilities and recreational opportunities can also impact lifestyle choices. Rural environments often offer cleaner air, lower noise levels, and closer proximity to nature. However, challenges like exposure to agricultural chemicals and limited healthcare facilities can affect health outcomes.

			Morbidity conditions	Recipients of diabetes medications, age-standardized rate per 100 Indicators of the most common diseases Multi-chronicity and severe limitations (age 75 and over) Lead in the blood of children above the limit value Number of people affected by multiple morbidities (cardio-vascular, diabetes, etc.) Sick days	Prevalence of chronic conditions ✓ *Urban areas*: Urban lifestyles may be associated with a higher prevalence of certain chronic conditions, such as cardiovascular diseases, diabetes, and obesity. Factors like sedentary lifestyles, dietary choices, and stress levels can contribute to these health issues. ✓ *Rural areas*: While rural areas may have a different set of lifestyle factors, they can also experience the prevalence of chronic conditions, including cardiovascular diseases and diabetes. Access to healthy food options, recreational facilities, and healthcare services can influence these patterns. Infectious diseases ✓ *Urban areas*: Urbanisation can facilitate the spread of infectious diseases due to higher population density and increased travel. Urban areas may be more vulnerable to outbreaks of communicable diseases. ✓ *Rural areas*: Rural areas may face different challenges related to infectious diseases, such as limited access to healthcare services, difficulties in disease surveillance, and issues related to water and sanitation infrastructure. Environmental factors ✓ *Urban areas*: Urban environments may expose residents to environmental pollutants, noise, and stressors that can impact health. Conditions such as respiratory illnesses and mental health issues may be influenced by urban living conditions. ✓ *Rural areas*: Exposure to agricultural chemicals, air quality related to farming practices, and environmental factors unique to rural settings can contribute to health challenges, including respiratory conditions and pesticide-related illnesses.
			Mental health	Recipients of medications for mental disorders, age-standardized rate per 100 Number of users of medicines for mental illness Mental Health Index: Summary of scores obtained by individuals aged 14 and older on 5 questions related to the four main dimensions of mental health Indicators relating to mental health, with reference to the condition of lonely young and elderly people (see the work carried out by the WHO on the subject - World Happiness Report)	Access to mental health services ✓ *Urban areas*: Generally, urban areas tend to have better access to mental health services, including psychiatric care, counseling, and support groups. The concentration of healthcare facilities and mental health professionals in urban settings may contribute to improved access to treatment. ✓ *Rural areas*: Access to mental health services can be more limited in rural areas. The shortage of mental health professionals, fewer healthcare facilities, and challenges related to transportation may hinder access to timely and appropriate mental health care. Stress factors ✓ *Urban areas*: Urban living can be associated with higher stress levels due to factors such as traffic congestion, noise, pollution, and a fast-paced lifestyle. Additionally, urban areas may have greater occupational and academic pressures that can impact mental well-being. ✓ *Rural areas*: While rural areas may offer a quieter and less hectic environment, they can also have unique stressors. Economic challenges, isolation, and limited employment opportunities may contribute to stress and mental health concerns. Stigma and attitude towards mental health ✓ *Urban areas*: Urban areas may have more diverse and progressive attitudes toward mental health, with increased awareness and advocacy efforts. This can lead to reduced stigma and greater acceptance of mental health issues. ✓ *Rural areas*: Stigma related to mental health may persist in some rural communities due to cultural norms, lack of awareness, or limited exposure to mental health discourse. This can impact help-seeking behavior. Nature and environment ✓ *Urban areas*: Urban environments may lack green spaces and natural settings, which are known to have positive effects on mental health. Limited access to nature can contribute to stress and mental fatigue.

				✓ *Rural areas*: Rural areas often offer proximity to nature and outdoor spaces, which can have therapeutic benefits for mental well-being. The presence of natural environments may support stress reduction and overall mental health.
		Healthy lifestyle	Excess weight (child/adult overnutrition) Health literacy Self-assessment of good health, data are calculated on a statistical model Sedentary lifestyle (standardized rates): Individuals aged 14 and older who do not engage in any physical activity as a percentage of the total population aged 14 and older multiplied by 100. Indicators of the level of physical activity (walking, cycling, gym, fitness, etc.) and/or vice versa of the level of sedentary lifestyle (for example average daily time spent at the work desk, in front of the television, etc.) Adequate nutrition (standardized rates): Individuals aged 3 and older who consume at least 4 servings of fruits and/or vegetables daily as a percentage of the total population aged 3 and older multiplied by 100.	Physical Activity ✓ *Urban areas*: Urban settings may offer various options for physical activity, such as gyms, fitness studios, and organized sports leagues. The built environment in urban areas often includes sidewalks and parks that encourage walking and outdoor activities. ✓ *Rural areas*: While rural areas may lack fitness facilities, they often provide opportunities for outdoor activities like hiking, cycling, and farming. The natural environment in rural settings can contribute to physically active lifestyles. Nutrition and Food Availability ✓ *Urban areas*: Urban areas may have a diverse range of food options, including supermarkets, farmers' markets, and restaurants offering various cuisines. However, the prevalence of fast food and processed options can be higher in some urban settings. ✓ *Rural areas*: Access to fresh, locally grown produce may be more prevalent in rural areas. However, some rural areas may face challenges in accessing a variety of foods, especially if they are in food deserts. Transportation ✓ *Urban areas*: Urban residents may rely more on public transportation or walking, contributing to incidental physical activity. However, traffic congestion can also lead to sedentary behaviours during commutes. ✓ *Rural areas*: Personal vehicles may be more common in rural areas due to limited public transportation options. The need for longer commutes may contribute to sedentary lifestyles.
	Personal Safety (m12)	Road safety	Standarised traffic accident death rate Persons killed in traffic accidents per 1,000 inhabitants per year Persons injured in transport accidents Reduce the speed limit in the pedestrianized historic centre Better differentiating bicycles lanes both from those for pedestrians and from those reserved for mechanical vehicles (reduce the risk of incidents)	Road safety Road safety conditions can differ between rural and urban areas due to various factors, including traffic patterns, road infrastructure, population density, and the presence of pedestrians and cyclists. ✓ *Urban areas:* o Traffic Density: Urban areas typically have higher population densities and more vehicular traffic, leading to increased congestion and the potential for more frequent accidents. o Pedestrian and Cyclist Activity: Urban settings often have higher numbers of pedestrians and cyclists sharing the roads with motorized vehicles. Interactions between different modes of transportation can contribute to safety challenges. o Intersection Complexity: Urban intersections can be more complex with multiple lanes, traffic signals, and diverse road users. The increased complexity raises the risk of accidents, especially at busy intersections. o Speed Limits: In urban areas, lower speed limits are common due to the proximity of buildings, intersections, and pedestrian activity. These lower speed limits are intended to improve safety for all road users. o Road Infrastructure: Urban areas often have better-developed road infrastructure with well-maintained roads, traffic signals, signage, and pedestrian crossings. However, ongoing construction and maintenance activities can temporarily impact road safety.

				○ Emergency Services: Proximity to emergency services in urban areas typically allows for faster response times in the event of accidents or emergencies. ✓ *Rural areas* ○ Lower Traffic Density: Rural areas generally experience lower population density and fewer vehicles on the roads. This lower traffic density can reduce the frequency of accidents. ○ Limited Pedestrian and Cyclist Activity: Rural roads may have fewer pedestrians and cyclists, but interactions with these road users may still occur. Roads in rural areas are often designed primarily for vehicular traffic. ○ Straighter Roads: Rural roads tend to be straighter and have fewer intersections compared to urban roads. While this may contribute to faster travel, it can also lead to a false sense of security and increased speeds. ○ Higher Speed Limits: Speed limits on rural roads are often higher than those in urban areas due to longer stretches of road and fewer obstacles. However, higher speeds can increase the severity of accidents. ○ Limited Road Infrastructure: Some rural areas may have less developed road infrastructure, including narrower roads, fewer traffic signs, and fewer safety features. This can impact overall road safety. ○ Wildlife Crossings: Rural areas may face challenges related to wildlife crossings, with the potential for collisions between vehicles and animals. Wildlife-related accidents can be more common on rural roads. ○ Response Time for Emergency Services: Emergency response times may be longer in rural areas due to the greater distances between emergency service providers and accident locations. ○ Weather Conditions: Rural areas may be more susceptible to adverse weather conditions, such as ice, snow, or heavy rain, which can impact road safety.
			Standardised homicide death rate Crime rates: homicide (*100,000 inhabitants), home burglaries, pickpockets, robberies (*1,000 inhabitants) Rate of physical/sexual violence against women Crime clearance rate Indicators of organized crime/smuggling (the phenomenon may be relevant in border regions such as the Canton of Ticino and affects the quality of the economic-social system, but is not detected in official judicial statistics; specific studies are needed to define indicators and data collection methods)	Criminality Crime rates can vary between rural and urban areas due to a range of factors, including population density, socio-economic conditions, law enforcement resources, and community dynamics. ✓ *Urban areas* ○ Population Density: Urban areas typically have higher population densities, which can contribute to higher crime rates. The concentration of people in urban centers can create more opportunities for criminal activity. ○ Diversity of Crime Types: Urban settings often experience a wider variety of crimes, including property crimes (e.g., theft, burglary) and violent crimes (e.g., assault, robbery). The diversity of crime types is influenced by the complex social and economic factors present in urban environments. ○ Economic Disparities: Urban areas may have higher levels of economic disparity, with both affluent and economically disadvantaged neighborhoods. Higher levels of poverty in certain urban areas can be associated with increased crime rates. ○ Law Enforcement Presence: Urban areas tend to have a higher concentration of law enforcement personnel and resources. However, the effectiveness of law enforcement can vary, and challenges such as high call volumes and rapid response times may impact crime prevention efforts. ○ Community Policing Challenges: In densely populated urban areas, implementing effective community policing strategies may be more challenging. Building trust and partnerships between law enforcement and communities can be complex due to the diverse and transient nature of urban populations.
			Criminality	

				✓ *Rural areas* o Population Density: Rural areas generally have lower population densities, resulting in fewer opportunities for certain types of crimes. However, lower population density does not necessarily mean lower crime rates. o Crime Types: While rural areas may experience property crimes, such as theft or vandalism, they may have lower rates of certain violent crimes compared to urban areas. However, the nature of crimes in rural settings can be influenced by factors like agricultural and livestock-related offenses. o Close-Knit Communities: Rural communities often have close-knit social structures, and residents may be more connected to each other. This sense of community can contribute to lower crime rates, as residents may be more vigilant and supportive of law enforcement efforts. o Limited Economic Disparities: Some rural areas may have fewer economic disparities compared to urban centers, potentially contributing to lower crime rates. However, economic challenges in certain rural communities can still be a factor. o Law Enforcement Challenges: Rural areas may face challenges related to law enforcement resources, including limited staffing and longer response times due to the vastness of the area. These challenges can impact crime prevention and investigation efforts. o Unique Crime Patterns: Rural areas may experience unique crime patterns, such as crimes related to agriculture, forestry, or natural resource theft. Additionally, drug-related offenses, including illicit cultivation, may be more prevalent in some rural settings.
		Working environment safety	Healthy working environment (exposure to occupational diseases, recording of injuries and accidents, sick leave, etc.) Percentage of employed people exposed to physical risks in the workplace Number of fatal injuries and permanent disabilities per total employed * 1,000	Occupational health ✓ *Urban areas*: Urban occupations may involve exposure to industrial pollutants, long working hours, and sedentary office work, potentially leading to occupational health issues such as musculoskeletal disorders and stress-related conditions. ✓ *Rural areas*: Agricultural and manual labor in rural areas may present occupational health risks, including injuries, exposure to agricultural chemicals, and conditions related to physical labor.
		Living environment safety	Perception of safety walking alone when it is dark Number of people who say they feel unsafe in the neighborhood (for example when returning home in the evening) Perception of the risk of crime Law enforcement representatives operating on the street per 1,000 inhabitants Share of population at risk from natural disasters	Perception of risks for personal safety The perception of risks for personal safety can differ between rural and urban areas, influenced by various factors related to the characteristics of each setting. However, it's important to note that individual perceptions of safety are subjective and can be influenced by personal experiences, cultural factors, and individual characteristics. ✓ *Urban areas* o Crime Rates: Urban areas often have higher reported crime rates, including property crimes and violent offenses. This can contribute to heightened perceptions of personal safety risks among residents. o Population Density: The high population density in urban settings can create a perception of anonymity and, at times, a feeling of vulnerability. The presence of a large number of strangers in close proximity may influence how individuals perceive their personal safety. o Nightlife and Entertainment: Urban areas may have vibrant nightlife and entertainment options, but these settings can sometimes be associated with an increased risk of certain crimes, such as assaults or robberies. This may affect perceptions of safety, particularly during nighttime hours.

					○ Public Spaces: The presence of parks, plazas, and other public spaces in urban areas can offer recreational opportunities but may also be perceived as locations where personal safety risks are higher, particularly after dark. ✓ *Rural areas* ○ Crime Rates: While rural areas may have lower reported crime rates compared to urban areas, certain types of crimes, such as property crimes or drug-related offenses, may still occur. However, the lower overall crime rates may contribute to a perception of greater personal safety. ○ Community and Familiarity: Rural communities often have a stronger sense of community and familiarity among residents. This can lead to a perception of greater safety, as individuals may feel more connected to their neighbors and believe there is a collective responsibility for community well-being. ○ Limited Nightlife: Rural areas may have limited nightlife compared to urban settings, which can result in fewer nighttime activities and potentially lower perceived risks during evening hours. ○ Law Enforcement Presence: The visibility and accessibility of law enforcement in rural areas may influence perceptions of safety. The close-knit nature of some rural communities may enhance the relationship between residents and local law enforcement. ○ Access to Emergency Services: Response times for emergency services, including law enforcement, fire, and medical assistance, may vary between rural and urban areas. Longer response times in rural settings may impact perceptions of safety.
	Economic and Societal Health	**Inclusive Economy (m21)**	Income distribution	Household disposable income per capita Net income received by the population Distribution of disposable household income per capita (highlights income inequalities) Income inequality index: Ratio of the total equivalent income received by the top 20% of the population with the highest income to that received by the bottom 20% of the population with the lowest income Standardized gross monthly wages in the private sector: low, medium and high wages in % (used to measure levels of wage inequality)	Income distribution Income distribution can vary between rural and urban areas due to differences in economic structures, employment opportunities, and the overall socio-economic landscape. ✓ *Urban areas* ○ Economic Diversity: Urban areas often have more diverse economies with a mix of industries, including services, technology, finance, and manufacturing. This diversity can contribute to a wider range of income levels. ○ Job Opportunities: Urban centers typically offer a broader array of job opportunities across various sectors, attracting a diverse workforce. This can result in a more varied income distribution within the urban population. ○ Professional Services: Urban areas tend to have a higher concentration of professional services, including finance, law, and information technology, which may lead to higher incomes for individuals employed in these sectors. ○ Cost of Living: The cost of living in urban areas is often higher, including housing costs, transportation, and other living expenses. While this can contribute to income inequality, it may also reflect higher incomes needed to meet urban living standards. ✓ *Rural Areas* ○ Economic Specialization: Some rural areas are characterized by economic specialization, such as agriculture, forestry, or mining. In such cases, income distribution may be influenced by the economic performance of these specific sectors. ○ Limited Job Diversity: Rural areas may have fewer job opportunities and a more limited range of industries. This can result in a narrower distribution of incomes, with a significant portion of the population engaged in similar types of employment. ○ Agricultural Economy: In regions where agriculture is a dominant economic activity, income distribution may be affected by factors such as crop yields, commodity prices, and government policies related to agriculture.

					○ Cost of Living: The cost of living in rural areas is often lower compared to urban areas. While this can contribute to a more equitable distribution of disposable income, it may also reflect lower average incomes. ○ Small Business Ownership: Entrepreneurship, including small business ownership, may play a more significant role in rural areas. The success of these enterprises can impact local income distribution.
			Gender gaps	Gender employment gap Increase the female employment rate Reduce the wage gap Employment rate for women aged 25-49 with at least one child aged 0-5 as a percentage of the employment rate for women aged 25-49 without children * 100 Salary difference between the medians of men and women with similar characteristics (in %), according to sector and type (highlights gender inequalities) Indicators of time management (work-life balance) Indicators relating to work-life balance, by gender, age group and type of household Presence of nursery schools, according to the number of places, and permanent resident children aged between 0 and 3 years (affects the possibility of going daily to work) Presence of school canteen services (idem) Women in policy-making bodies: Women elected in regional councils over the total elected * 100 Women on the board of directors of listed companies: Female executives, entrepreneurs, and professionals over the total executives, entrepreneurs, and professionals * 100	Gender gaps Gender gaps, referring to disparities between men and women in various aspects of life, can manifest differently in rural and urban areas due to distinct socio-economic, cultural, and structural factors. ✓ *Urban areas* ○ Economic opportunities: Women in urban areas may have relatively more access to diverse employment opportunities, including jobs in the formal sector, services, and technology. However, gender wage gaps and occupational segregation can still persist. ○ Education: Urban settings often provide better access to educational institutions, including schools and universities. Gender gaps in education may be narrower in urban areas, with more girls having access to quality education. ○ Healthcare access: Women in urban areas may have better access to healthcare facilities, reproductive health services, and family planning resources. However, socio-economic factors can still contribute to disparities in healthcare outcomes. ○ Political participation: Women in urban areas may have more opportunities for political engagement, including participation in local government and community organizations. However, gender disparities in political representation may still exist. ○ Gender-based violence: Urban settings may have more awareness and resources for addressing gender-based violence, including support services and legal interventions. However, the prevalence of such violence can still be a concern. ○ Infrastructure and services: Urban infrastructure may be better developed, providing amenities such as public transportation, sanitation, and recreational spaces that can impact women's daily lives. ✓ *Rural areas* ○ Economic opportunities for women in rural areas may be influenced by the predominant industries, such as agriculture. Women may engage in farming or work in agribusiness, facing challenges related to access to resources, land ownership, and market participation. ○ Education: In some rural areas, challenges such as limited access to schools, long distances to travel, and traditional gender roles may contribute to gender disparities in education. However, efforts to improve educational access for girls in rural regions are ongoing. ○ Healthcare access: Rural women may face challenges related to access to healthcare, especially in remote areas. Limited healthcare infrastructure, transportation issues, and cultural factors can affect healthcare utilisation. ○ Political participation: Women in rural settings may be engaged in community leadership and grassroots activities. However, cultural norms and traditional gender roles can influence the extent of women's participation in formal political processes. ○ Gender-based violence: Gender-based violence may be underreported in rural areas due to cultural factors, stigma, and limited access to support services. Community-based initiatives are essential for addressing these challenges.

					○ Infrastructure and services: Limited infrastructure in rural settings may pose challenges for women, particularly in terms of transportation, access to nursery and primary school catering, and sanitation facilities.
			Employment quantity and quality	Unemployment rate Registered unemployment rate Unemployment rate by age group Employment of vulnerable groups (e.g., people with disabilities, immigrants, migrants) Recruitment of highly qualified staff Employee satisfaction in the public and private sectors Individuals aged 15-64 who work more than 60 hours per week in paid and/or family work as a percentage of the total individuals aged 15-64 * 100 Low paid employees with hourly salary 2/3 lower than the median * 100 Perception of employment security: Employed people feeling they might lose their job in the next 6 months and unlikely to find another one Employed individuals who state that they work part-time because they have not found a full-time job as a percentage of the total employed * 100 Incidence of elderly workforce: Workforce aged 65 and older as a percentage of the total workforce * 100	Employment quantity and quality can differ significantly between rural and urban areas due to various economic, structural, and demographic factors. Employment quantity: ✓ *Urban areas* ○ Higher job density: Urban areas tend to have higher job density due to the concentration of businesses, industries, and services. This can result in a larger number of job opportunities for residents. ○ Diverse industries: Urban centres often host a diverse range of industries, including finance, technology, healthcare, and services, leading to a broad spectrum of employment options. ○ Formal sector dominance: The formal sector, including jobs with regular salaries and benefits, is typically more prevalent in urban areas. ✓ *Rural areas* ○ Limited job density: Rural areas generally have lower job density, especially in regions dominated by agriculture or where specific industries are less concentrated. ○ Industry specialization: Economic activities in rural areas may be more specialized, such as agriculture, forestry, or mining. This specialization can influence the types and quantity of available jobs. ○ Informal and seasonal employment: Informal and seasonal employment may be more common in rural settings, particularly in agriculture, where work may be tied to specific seasons. Employment quality ✓ *Urban areas* ○ Higher skill jobs: Urban areas often offer a broader range of higher-skilled jobs, including those in the technology, finance, and professional services sectors. ○ Career progression: Career progression opportunities and access to specialized training and education are generally more available in urban settings. ○ Better working conditions: Urban jobs may have better working conditions, including occupational safety standards and access to healthcare benefits. ✓ *Rural areas* ○ Agricultural employment: Rural areas may have a significant portion of the population engaged in agriculture, which can include both skilled and unskilled labour. ○ Limited specialized jobs: The diversity of job types, particularly those requiring specialized skills, may be more limited in rural areas. ○ Challenges in professional development: Professional development opportunities and access to advanced education may be more limited in some rural settings.
	Healthy Society (m22)	Poverty risk	People at risk of poverty rate At-risk-of-poverty rate: Percentage of people with an income below 60% of the median of the individual income distribution Individuals under 60 years old living in families with very low work intensity as a percentage of the total individuals under 60 years old * 100 Percentage of people who report having great difficulty making ends meet	People at risk of poverty The risk of poverty can vary between rural and urban areas due to a combination of economic, social, and demographic factors. ✓ *Urban areas* ○ Job diversity: Urban areas often offer a more diverse range of employment opportunities across various sectors, including services, technology, finance, and industry. This diversity can contribute to higher average incomes and lower poverty rates. ○ Access to education and training: Urban residents generally have better access to educational institutions, vocational training centers, and skill development programs.	

					Higher educational attainment can enhance employability and reduce the risk of poverty. o Formal employment: Urban areas typically have a higher prevalence of formal employment with regular salaries, benefits, and job security. This can contribute to greater economic stability and a lower risk of poverty for those in formal employment. o Cost of living: While urban areas may offer higher wages, the cost of living is often elevated. Housing, transportation, and other living expenses may be higher, potentially impacting disposable income and contributing to poverty risk. o Informal employment: Informal employment can be prevalent in some urban areas, with workers engaged in activities such as street vending or informal services. While providing income, these jobs may lack stability and benefits. o Income inequality: Urban areas may experience higher levels of income inequality, with disparities between high and low-income households. While some individuals in urban areas may enjoy high incomes, others may face challenges associated with lower-wage jobs and housing costs. ✓ *Rural areas* o Economic structure: In some rural areas, economies may be based on agriculture or resource-dependent industries. Economic fluctuations, dependence on seasonal employment, and exposure to commodity price changes can contribute to income instability and poverty risk. o Limited job opportunities: Rural areas may have fewer employment opportunities, particularly in sectors that offer higher wages. Limited access to diverse industries and skilled job opportunities can impact income levels and increase the risk of poverty. o Agricultural challenges: Rural poverty can be influenced by challenges in the agricultural sector, including weather-related risks, crop failures, and fluctuations in commodity prices. Farmers and agricultural workers may be vulnerable to economic uncertainties. o Access to education and healthcare: Limited access to quality education and healthcare services in some rural areas can contribute to intergenerational poverty. Educational attainment and health outcomes are key factors influencing long-term economic well-being.
			Young at risk of social exclusion	Young people aged 15-29 who are not employed and not in education or training (NEET) per total population of 15-29 years * 100	NEET stands for "Not in Education, Employment, or Training." Young NEET individuals are those who are neither enrolled in education nor participating in the labour market. The characteristics and reasons for being NEET can vary between rural and urban areas due to differences in economic structures, educational opportunities, and access to resources. ✓ *Urban areas* o Educational access: Urban areas generally have better access to schools, colleges, and vocational training centres. However, factors such as high competition and academic pressures may contribute to some young individuals becoming NEET. o Job market dynamics: Urban centres offer a more diverse job market with opportunities in various industries and services. However, intense competition and high entry barriers in certain sectors may result in some youth being unemployed or NEET. o Cost of living: Urban living often comes with a higher cost of living, including expenses related to accommodation, transportation, and daily needs. Financial constraints may lead to young individuals opting out of education or facing challenges in finding suitable employment.

					○ Informal employment: Some young individuals in urban areas may engage in informal or gig economy work, which may not be captured in formal employment statistics. While they may not be NEET, they might be outside the formal education system. ○ Educational pressures: In urban areas, the pressure to succeed academically and the emphasis on specific career paths may contribute to stress and disengagement from education or employment among some young individuals. ○ Social support services: Urban areas often have better-developed social support services, including counseling, mentorship programs, and employment assistance. However, challenges in accessing these services may still contribute to NEET status. ✓ *Rural areas* ○ Limited educational opportunities: Some rural areas may have limited access to educational institutions, including schools and vocational training centers. This can contribute to a higher proportion of young people being NEET due to challenges in pursuing education. ○ Agricultural dependence: In regions where agriculture is a dominant economic activity, young individuals may be engaged in family farming or agricultural work, leading to delayed entry into formal education or the job market. ○ Limited job opportunities: Rural areas may have fewer job opportunities, particularly in non-agricultural sectors. Limited access to diverse industries can contribute to higher rates of youth unemployment and NEET status ○ Transportation challenges: Lack of reliable and affordable transportation options in rural areas may pose challenges for young people in accessing educational institutions or job opportunities located at a distance. ○ Cultural factors: Cultural expectations and norms in some rural communities may prioritize traditional roles or discourage certain educational and employment paths, impacting the choices made by young individuals.
			Social support services	Share of people with social support Effectiveness of social support Increase awareness of existing public services Per capita spending by local authorities on interventions and social services Ratio of youth population (15-29 years) to the total volunteers employed in the various associations Index of severe material and social deprivation - Europe 2030: Individuals experiencing at least seven out of thirteen signs of material and social deprivation as a percentage of the total population * 100. Cases receiving social assistance (in %) according to the type of household Cases and people beneficiaries of a supplementary family allowance (AFI) and an early childhood allowance (API)	Social support services can vary between rural and urban areas due to differences in population density, infrastructure, and community characteristics. ✓ *Urban areas* ○ Specialized social services: Urban areas typically have a more extensive range of specialized social services provided by government agencies, nonprofits, and private organizations. These may include mental health services, employment assistance, housing support, and more. ○ Healthcare facilities: Urban areas usually have better-equipped healthcare facilities and a higher concentration of medical professionals. Access to healthcare services, including hospitals, clinics, and specialized care, is generally more accessible. ○ Educational support: Urban areas often have a higher number of educational institutions and academic support services, including tutoring programs, after-school activities, and mentorship opportunities. ○ Crisis intervention: Urban areas may have specialized services for crisis intervention, including hotlines, shelters for individuals experiencing homelessness, and emergency response services. ○ Diverse community resources: The diversity of urban populations often leads to a broader range of community resources. Cultural and identity-specific organizations may provide targeted support for various communities. ○ Professional counseling services: Access to professional counseling services, therapists, and mental health professionals is typically more available in urban areas. There may be a greater variety of options for addressing mental health needs.

					○ Government support programs: Urban areas often host government offices and support programs that provide assistance with housing, food security, employment, and other social welfare needs. ✓ *Rural areas* ○ Community networks: Rural areas often have strong community networks and close-knit social structures. Informal support systems, such as neighbors helping each other, can play a significant role in providing assistance. ○ Local nonprofits and community organizations: Rural communities may rely on local nonprofits and community organizations to provide social services. These organizations may offer support in areas such as healthcare, education, and community development. ○ Limited access to specialized services: While there may be a sense of community and mutual support, rural areas may have limited access to specialized social services, including mental health counseling, rehabilitation services, or support for specific health conditions. ○ Volunteerism is often a strong aspect of rural communities. Residents may actively engage in volunteering, contributing to social support networks and community well-being. ○ Challenges in accessibility: Geographic distances and transportation challenges can pose obstacles to accessing social services. Individuals may need to travel long distances to access healthcare facilities or government services. ○ Family and informal support: Due to smaller populations and closer family ties, family and informal support play a crucial role in rural areas. Family members often provide emotional and practical support.
	Ecological Health	**Healthy Environment (m31)**	Air Quality	Air quality index Air pollution index based on three main pollutants: PM10, Ozone and Nitrogen Dioxide Families complaining about air pollution as a percentage of the total families * 100	Air quality can differ significantly between urban and rural areas due to variations in sources of pollution, population density, and environmental factors. ✓ *Urban areas* ○ Traffic emissions: Urban areas often experience higher levels of traffic congestion, leading to increased emissions from vehicles. Exhaust emissions, including nitrogen oxides (NOx) and particulate matter (PM), contribute to poor air quality. ○ Industrial activities: Many urban centers host industrial facilities, power plants, and manufacturing operations. These activities release pollutants such as sulfur dioxide (SO2), volatile organic compounds (VOCs), and particulate matter, impacting air quality. ○ Construction and demolition: Urban development and construction activities can generate dust and particulate matter, affecting air quality. Demolition projects may release asbestos and other pollutants into the air. ○ Higher population density: The concentration of people, buildings, and infrastructure in urban areas can lead to localized air pollution. Cooking, heating, and other daily activities contribute to emissions of indoor pollutants that can affect outdoor air quality. ○ Limited green spaces: Urban environments may have limited green spaces, reducing the natural capacity for air purification through processes like photosynthesis. ✓ *Rural areas* ○ Agricultural activities: Rural areas often have significant agricultural activities. While essential for food production, agricultural operations can contribute to air pollution through the release of ammonia (NH3), methane (CH4), and particulate matter.

				○ Biomass burning: In some rural areas, the use of biomass for cooking, heating, and agricultural practices can lead to the release of pollutants such as carbon monoxide (CO) and particulate matter. ○ Wildfires: Rural and forested areas may be prone to wildfires, especially during dry seasons. Wildfires release large amounts of pollutants, including smoke particles and gases, impacting air quality over extensive areas. ○ Natural sources: Rural areas may have fewer anthropogenic sources of pollution compared to urban areas, but natural sources such as pollen, dust, and biogenic volatile organic compounds (BVOCs) can contribute to air quality variations. ○ Lower population density: The lower population density in rural areas generally results in less localized pollution from human activities. However, certain agricultural practices and natural sources can still impact air quality.
			Noise	Noise exposure	Noise exposure can differ significantly between rural and urban areas due to variations in population density, land use, and the presence of various noise sources. ✓ *Urban areas* ○ Traffic noise: Urban areas typically experience higher levels of traffic, resulting in elevated noise levels from cars, buses, trucks, and motorcycles. Traffic-related noise is a significant contributor to urban noise pollution. ○ Industrial and commercial activities: Urban centers often host industrial and commercial activities, including manufacturing, construction, and entertainment venues. These activities can generate high levels of noise, impacting nearby residents. ○ Densely populated neighborhoods: High population density in urban areas can lead to increased human activities, social events, and gatherings, contributing to higher ambient noise levels. ○ Public transportation: Urban areas with extensive public transportation systems, such as trains and subways, can experience elevated noise levels at stations and along transit routes. ○ Nightlife and entertainment: Urban nightlife and entertainment districts may contribute to elevated noise levels during evening hours, affecting nearby residential areas. ✓ *Rural areas* ○ Lower traffic density: Rural areas generally have lower traffic density, resulting in reduced noise from vehicles. However, certain roads or highways passing through rural regions may still contribute to noise levels. ○ Agricultural activities: Agricultural machinery, including tractors and equipment, can produce noise in rural areas. Livestock and other farm animals may also contribute to ambient noise. ○ Natural sounds: Rural environments often feature natural sounds, such as bird calls, wind in trees, and flowing water. While these sounds can be pleasant, they contribute to the overall acoustic environment. ○ Limited industrial and commercial noise: The absence or lower intensity of industrial and commercial activities in rural areas generally results in less noise pollution compared to urban settings. ○ Nighttime quiet: Rural areas tend to have quieter nighttime environments due to lower levels of human activity. This can contribute to more tranquil conditions during nighttime hours.
			Water quality	Water quality Heavy metal in water	Water quality can differ between rural and urban areas due to variations in pollution sources, land use practices, infrastructure, and population density. ✓ *Urban areas*

				Water quality: pollution levels of surface waters (concentration of nitrogen and phosphorus, concentration of organic pollutants, metals, pesticides)	○ Industrial and commercial activities: Urban areas often have higher concentrations of industrial and commercial activities, which may contribute to the discharge of pollutants into water bodies. Industrial effluents can contain chemicals and heavy metals that impact water quality. ○ Stormwater runoff: Urbanization can lead to increased impervious surfaces (such as roads and pavement), reducing natural infiltration. This can result in higher volumes of stormwater runoff, which may carry pollutants, debris, and contaminants into water bodies. ○ Sewage and wastewater: Urban areas typically have centralized sewage and wastewater treatment systems. However, inadequacies in infrastructure or combined sewer overflows during heavy rain events can lead to the discharge of untreated or partially treated wastewater into waterways. ○ Housing density: High housing density in urban areas can contribute to the use of fertilizers and pesticides in lawns and gardens. Runoff from these areas may introduce nutrients and chemicals into water bodies. ○ Population density: The concentration of people in urban areas can result in higher per capita water use and increased wastewater generation, influencing the overall water quality. ✓ *Rural areas* ○ Agricultural practices: Rural areas are often characterized by agricultural activities. Runoff from agricultural fields may carry fertilizers, pesticides, and soil sediments into water bodies, impacting water quality. ○ Septic systems: In rural areas, properties may rely on septic systems for wastewater treatment. Improperly maintained or failing septic systems can contribute to groundwater contamination and affect water quality. ○ Livestock farming: Runoff from livestock farming operations, including animal waste, can introduce bacteria, nutrients, and pathogens into nearby water sources. ○ Land use practices: Rural landscapes may experience logging, mining, or other land use practices that can alter the natural composition of water bodies and introduce sediment and pollutants. ○ Limited industrial presence: While rural areas may have some industrial activities, the concentration is generally lower compared to urban areas, leading to a reduced industrial impact on water quality.
			Soil quality	Soil quality Heavy metal in soil State of the soil and landscape: Forest surface and change in forest cover (changes in hectares), fragmentation of the forest landscape by roads and other linear infrastructures, landslides (number and surface), concentration of heavy metals and micro-pollutants in the soil	Soil quality can vary significantly between rural and urban areas due to differences in land use, pollution sources, and management practices. ✓ *Urban areas* ○ Impervious surfaces: Urbanization often leads to the creation of impervious surfaces such as roads, pavements, and buildings. This reduces natural soil infiltration and water retention capacity, impacting soil structure and nutrient cycling. ○ Contaminants: Urban soils may be exposed to contaminants from industrial activities, traffic emissions, and improper waste disposal. Common contaminants include heavy metals, petroleum products, and hazardous chemicals, which can degrade soil quality. ○ Compaction: Urban soils can experience compaction due to construction activities, traffic, and heavy foot traffic. Compacted soils have reduced porosity, limiting water infiltration and root growth. ○ Land use changes: The conversion of natural landscapes into urban areas often involves changes in land use, including the removal of vegetation and alteration of soil profiles. These changes can affect soil fertility and microbial activity.

					○ Effects of stormwater runoff: Urban areas generate increased stormwater runoff, which can carry pollutants and sediments into nearby water bodies. This runoff affects soil erosion and nutrient levels. ○ Green spaces: Urban planning that includes green spaces, parks, and urban forestry can contribute positively to soil quality by promoting vegetation cover, enhancing organic matter content, and providing habitat for soil organisms. ✓ *Rural areas* ○ Agricultural practices: Rural areas are often characterized by agricultural activities, which can impact soil quality through the use of fertilizers, pesticides, and intensive cultivation practices. Soil erosion from agricultural fields can lead to sedimentation in water bodies. ○ Livestock grazing: Grazing by livestock in rural areas can influence soil compaction and nutrient cycling. Concentrated animal feeding operations (CAFOs) may result in localized soil degradation. ○ Land management practices: Practices such as deforestation, logging, and mining can alter soil composition and structure. Sustainable land management practices are crucial for maintaining soil health in rural areas. ○ Nutrient management: Nutrient management in agriculture, including the application of fertilizers, can impact soil fertility. Proper management practices are essential to prevent nutrient imbalances. ○ Natural Vegetation: Rural areas with natural vegetation and ecosystems contribute to soil health by promoting biodiversity, organic matter accumulation, and microbial activity.
			Waste	Waste produced in kilograms per resident population Waste separation/recycling rate as a percentage of the total waste collection * 100 Families complaining about dirtiness in the streets as a percentage of the total families * 100 Heat pollution Heavy metal exposure	Waste characteristics and management practices can differ significantly between rural and urban areas due to variations in population density, infrastructure, and lifestyle. ✓ *Urban areas* ○ Higher population density: Urban areas typically have higher population density, leading to increased waste generation. The concentration of households, businesses, and industries contributes to higher quantities of municipal solid waste. ○ Diverse waste streams: Urban waste streams are often diverse, comprising residential, commercial, and industrial waste. This includes household waste, packaging materials, electronic waste, and construction debris. ○ Formal waste collection systems: Urban areas usually have formal waste collection systems, with scheduled pickups and disposal services provided by municipal authorities. Collection infrastructure may include garbage trucks, recycling facilities, and waste sorting centers. ○ Recycling facilities: Urban areas are more likely to have recycling facilities and programs. Separation of recyclables from general waste is commonly practiced, and recycling centers may process materials like paper, glass, plastics, and metals. ○ Waste-to-Energy plants: Some urban areas invest in waste-to-energy technologies, such as incineration plants, to generate energy from municipal solid waste. This can contribute to waste reduction and energy recovery. ✓ *Rural areas* ○ Lower population density: Rural areas generally have lower population density, resulting in lower per capita waste generation. However, waste management challenges may still exist, especially in areas with tourism or agriculture-related activities. ○ Simpler waste streams: Rural waste streams are often simpler, primarily consisting of household waste, agricultural waste, and, in some cases, small-scale industries waste.

					○ Limited formal waste Collection: In some rural areas, there may be limited formal waste collection services. Residents may need to manage waste individually, using methods such as on-site disposal, composting, or community collection points. ○ Less diverse recycling facilities: Rural areas may have fewer recycling facilities and programs compared to urban areas. Limited infrastructure and lower demand for recycled materials can impact recycling efforts. ○ Open burning and dumping: In the absence of formal waste disposal services, open burning and unregulated dumping may occur in rural areas, potentially leading to environmental pollution and health risks.

		Climate Change (m32)	CO2 Emissions	Population covered by Sustainable Energy and Climate Plans CO2 emissions reduction objectives expressly cited in the plan documents (e.g. Cantonal Energy Plan) Carbon footprint of households and businesses Number of renewable energy production plants by type of source and percentage of population served	CO2 (carbon dioxide) emissions can vary between rural and urban areas due to differences in land use, economic activities, transportation patterns, and energy sources. ✓ *Urban areas* o Transportation emissions: Urban areas often experience higher levels of transportation-related CO2 emissions due to increased vehicular traffic. The concentration of cars, buses, and trucks, as well as the use of fossil fuels in urban transportation, contributes to elevated emissions. o Industrial and commercial activities: Urban centers are hubs for industrial and commercial activities that may result in higher CO2 emissions. Manufacturing, energy production, and other industrial processes often occur in or near urban areas. o Building energy consumption: Urban areas have a higher density of buildings, and energy consumption for heating, cooling, and powering structures contributes to CO2 emissions. The type of energy sources used for buildings, such as fossil fuels or renewable energy, influences emissions. o Waste management: Urban waste management processes, including landfill operations and waste treatment facilities, can generate CO2 emissions. The decomposition of organic waste in landfills produces methane, a potent greenhouse gas. o Infrastructure development: Construction and maintenance of urban infrastructure, including roads, bridges, and buildings, may involve the use of energy-intensive materials and processes, contributing to emissions. ✓ *Rural areas* o Agricultural emissions: Rural areas may have significant emissions from agricultural activities, including the use of fertilizers, pesticides, and methane emissions from livestock. The type of agricultural practices employed influences emissions. o Land use changes: Changes in land use, such as deforestation or conversion of natural landscapes for agriculture, can release stored carbon into the atmosphere, contributing to emissions. o Transportation patterns: While rural areas may have lower overall transportation emissions, reliance on personal vehicles and longer travel distances can still contribute to CO2 emissions. o Energy sources: Rural areas may be more dependent on certain energy sources, such as wood or other biomass, for heating and cooking. The combustion of these materials can release carbon dioxide. o Waste management: Waste management practices in rural areas, such as open burning or uncontrolled dumping, can contribute to CO2 emissions. Lack of proper waste treatment facilities may result in organic waste decomposition and methane emissions.

			Climate change and impacts	Weather indicators: Atmosphere temperature, precipitation, summer/tropical/very hot days, freezing/winter/thawing days, tropical/frosting nights Aggregate expected impact of climate change by 2070 Economic damage from natural hazards per inhabitant Proportion of building land in flooded areas Population exposed to the risk of floods: Resident population in areas with medium danger as a percentage of the total resident population *100 Population exposed to the risk of landslides: Resident population in areas with high and very high landslide danger as a percentage of the total resident population * 100 Impact of forest fires: Forest area (wooded and non-wooded) affected by fire per 1,000 km2 Climate impact indicators: a) changes in river flow and lake levels, melting of permafrost/shrinkage of snow cover/shrinkage of glaciers, risk of landslides/debris flows; b) frequency of extreme events (cold/heat waves, strong storms/hail, floods, windstorms), people affected by the heat/cold, people evacuated/affected by accidents/affected by the loss of inhabited or work surfaces due to extreme events, deaths and injuries; c) impact on forest: hectares of forest damaged by storms, number of forest fires and burned area, tree mortality caused by drought and heat Climate change-related deaths Relocation after natural disasters Damage to property after natural disasters Fire-brigade operations due to natural disasters (e.g. insurance carriers, fire brigades)	Climate change impacts can differ between rural and urban areas due to variations in geography, land use, infrastructure, and vulnerability. ✓ *Urban areas* o Urban heat island effect: Urban areas often experience higher temperatures compared to surrounding rural areas due to the "urban heat island" effect. Heatwaves in cities can be more intense and prolonged, posing health risks to urban populations. o Extreme weather events: Urban areas may face increased vulnerability to extreme weather events, such as heavy rainfall, storms, and flooding. Impervious surfaces in cities can lead to rapid runoff, exacerbating flood risks. o Sea-level rise: Coastal urban areas are particularly vulnerable to sea-level rise, which can result in flooding, erosion, and saltwater intrusion into freshwater sources. Many major cities are located along coastlines, increasing their exposure to these risks. o Air quality concerns: Climate change can influence air quality in urban areas. Higher temperatures may enhance the formation of ground-level ozone, exacerbating air pollution and affecting respiratory health. o Infrastructure Vulnerability: Urban infrastructure, including buildings, transportation systems, and water supply networks, may face increased risks from extreme weather events, leading to disruptions, damage, and the need for costly repairs. ✓ *Rural areas* o Agricultural impacts: Climate change can affect rural areas through changes in temperature, precipitation patterns, and the frequency of extreme events. These changes can impact crop yields, growing seasons, and the viability of certain crops. o Water scarcity: Changes in precipitation patterns and increased evaporation may lead to water scarcity in rural areas, affecting agriculture, livestock, and overall water availability for communities. o Extreme weather events: Rural areas are susceptible to extreme weather events, including droughts, floods, wildfires, and storms. These events can have profound impacts on local ecosystems, agriculture, and rural infrastructure. o Livelihoods: Rural communities that depend on agriculture, forestry, and traditional livelihoods may face challenges as climate conditions change. Shifts in temperature, precipitation, and the prevalence of pests and diseases can affect rural economies. o Ecosystem changes: Climate change can alter natural ecosystems in rural areas, impacting biodiversity, migration patterns, and the overall health of ecosystems. This, in turn, can affect the availability of ecosystem services and resources.
			Climate change awareness and adaptation activities	Climate change adaptation activities Adaptation of households and businesses to alternative energy sources Concern about climate change: Percentage of individuals aged 14 and older who consider climate change among the top 5 priority environmental concerns	Climate change awareness Climate change awareness can vary between rural and urban areas due to differences in access to information, education levels, and the nature of community engagement. ✓ *Urban areas* o Access to information: Urban areas generally have better access to various sources of information, including mainstream media, educational institutions, and community organizations. This can contribute to higher levels of awareness about climate change issues. o Education and awareness programs: Urban settings often have more opportunities for formal education and awareness programs. Schools, universities, and community organizations in urban areas may conduct campaigns and events to educate residents about climate change.

					○ Media coverage: Climate change issues are more likely to receive extensive media coverage in urban areas. News outlets, documentaries, and online platforms in urban centers may cover climate-related events, policies, and initiatives more prominently. ○ Environmental advocacy groups: Urban areas are more likely to host environmental advocacy groups and NGOs focused on climate change awareness and action. These organizations may organize events, workshops, and campaigns to engage the urban population. ○ Civic engagement: Urban residents may be more actively engaged in civic activities and discussions related to environmental and climate issues. Public forums, town hall meetings, and local government initiatives in urban areas may involve discussions on climate change. ✓ *Rural areas* ○ Limited access to information: Rural areas may face challenges in terms of access to information. Remote or less populated regions might have fewer resources, making it harder for residents to stay informed about global and local climate change issues. ○ Educational opportunities: Educational opportunities may be more limited in rural areas, impacting the availability of formal climate change education. However, agricultural extension services and local community initiatives can play a role in disseminating information. ○ Dependence on traditional knowledge: In some rural communities, there may be a reliance on traditional knowledge systems related to agriculture, weather patterns, and natural resource management. While valuable, this knowledge may not always incorporate a global understanding of climate change. ○ Direct connection to the environment: Rural residents often have a direct connection to the natural environment through agriculture and resource-dependent livelihoods. While this can enhance awareness, it may not always be framed within the context of global climate change. ○ Community-based initiatives: Climate change awareness in rural areas may be fostered through community-based initiatives. Local leaders, NGOs, and grassroots organizations may work to inform and engage rural communities in sustainable practices. Climate change adaptation Climate change adaptation strategies can differ between rural and urban areas due to variations in the nature of impacts, vulnerabilities, available resources, and community characteristics. ✓ *Urban areas* ○ Infrastructure resilience: Urban adaptation often involves enhancing the resilience of infrastructure to withstand extreme weather events. This includes improvements to buildings, transportation systems, and water management infrastructure to cope with increased temperatures, storms, and flooding. ○ Green infrastructure: Urban areas may invest in green infrastructure, such as parks, green roofs, and permeable surfaces, to mitigate the urban heat island effect, improve air quality, and manage stormwater. ○ Integrated urban planning: Adaptation in urban settings requires integrated urban planning that considers climate risks. This involves zoning regulations, land-use planning, and building codes that incorporate climate-resilient principles. ○ Community engagement: Urban adaptation strategies often involve community engagement to ensure that residents are aware of climate risks and can actively participate in resilience-building activities. This may include education campaigns, public forums, and participatory decision-making processes.

					○ Emergency response planning: Urban areas may develop and update emergency response plans to address climate-related events such as heatwaves, floods, and hurricanes. Coordination among emergency services, local authorities, and community organizations is crucial. ✓ *Rural areas* ○ Agricultural adaptation: Rural adaptation often focuses on the agricultural sector, incorporating practices that enhance resilience to changing weather patterns. This may include crop diversification, soil conservation, and water management strategies. ○ Ecosystem-based approaches: Rural areas may employ ecosystem-based adaptation strategies, such as the restoration of natural habitats and the preservation of biodiversity. Healthy ecosystems contribute to climate resilience and support livelihoods. ○ Community-based adaptation: Adaptation strategies in rural communities are often community-driven, drawing on local knowledge and practices. Community-based adaptation may involve the development of early warning systems, sustainable resource management, and traditional farming techniques. ○ Water management: Rural areas may implement water management strategies to address changing precipitation patterns and increasing water scarcity. This includes the construction of water storage facilities, rainwater harvesting, and sustainable irrigation practices. ○ Livelihood diversification: Rural adaptation may involve diversifying livelihoods to reduce dependence on climate-sensitive activities. For example, communities may explore alternative income sources beyond agriculture, such as eco-tourism or small-scale enterprises.
Life Flourishing	**Personal Flourishing**	**Self-esteem (f11)**	Self-respect	Standardised suicide death rate Standardized suicide death rate, age-standardized rate per 100,000 Suicide rates per 1,000 inhabitants Level of alcoholism and drug abuse People's social competences Percentage of physical ailments and negative moods People who declare feelings of loneliness (in targeted surveys)	Self-respect is a personal and subjective aspect of an individual's identity and sense of worth. It is not inherently tied to rural or urban settings; rather, it is shaped by individual experiences, values, and cultural influences. However, certain factors related to lifestyle, community dynamics, and societal norms in rural and urban areas may influence how individuals perceive and express self-respect. ✓ *Urban areas* ○ Individual achievement: Urban settings often emphasize individual achievement and career success. People in urban areas may derive a sense of self-respect from their professional accomplishments, educational attainment, and personal goals. ○ Diversity and inclusion: Urban areas tend to be more diverse, with exposure to various cultures, lifestyles, and perspectives. Individuals in urban settings may find self-respect in embracing diversity, practicing inclusivity, and valuing differences. ○ Career and personal development: The dynamic nature of urban life may place a strong emphasis on career growth, personal development, and pursuing one's passions. Individuals may derive self-respect from their ability to adapt, learn, and progress in their urban environments. ○ Independence and autonomy: Urban living may promote a sense of independence and autonomy. Individuals in urban areas may find self-respect in their ability to make independent choices, navigate complex environments, and assert their individuality. ✓ *Rural areas* ○ Community influence: In some rural communities, there may be a strong sense of community and interconnectedness. Individuals may derive a sense of self-respect from their roles within the community, family ties, and adherence to shared cultural values.

				○ Traditional values: Rural areas may uphold traditional values and customs, and individuals may derive a sense of self-respect from adherence to these values. Respect for elders, community traditions, and cultural practices may be emphasized. ○ Nature of work: The type of work prevalent in rural areas, often related to agriculture or natural resource-based activities, may influence how individuals perceive their contributions to their families and communities, contributing to a sense of self-respect. ○ Close-knit relationships: Smaller, close-knit rural communities may foster strong interpersonal relationships. Positive interactions and mutual support within these communities can contribute to individuals' feelings of self-worth and respect.
		Human dignity rights	Attitudes toward people with disabilities Indicators of attitude/behavior towards disabled people (for example presence of options for disabled people in infrastructures and services) Degree of Implementation of the UN Convention on the Rights of Persons with Disabilities Implementation of the accessibility requirements stipulated by the EU Percentage of people exposed to psychosocial risks in the workplace	Human rights encompass a broad range of civil, political, economic, social, and cultural rights that are applicable to everyone, regardless of their geographical location. While the principles remain universal, the realization and fulfillment of these rights can be influenced by various factors, including the social, economic, and political contexts of rural and urban areas. ✓ *Urban areas* ○ Social inclusion: Urban settings may present opportunities for social inclusion and cultural diversity. However, certain urban populations, such as marginalized or homeless individuals, may face challenges that impact their human rights. ○ Employment opportunities: Urban areas often provide diverse employment opportunities, but issues like job insecurity, informal labor, and discrimination may affect the realization of economic and labor rights for certain urban populations. ○ Access to education and healthcare: While urban areas may have better access to educational and healthcare facilities, disparities can exist, especially for marginalised urban populations. Ensuring equal access to these services is crucial for upholding human dignity. ○ Housing and shelter: Adequate housing is a fundamental human right. In urban areas, issues like homelessness, inadequate housing, and forced evictions can impact the right to housing and, consequently, human dignity. ✓ *Rural areas* ○ Access to Services: In some rural areas, individuals may face challenges in accessing essential services such as healthcare, education, and infrastructure, impacting the realization of certain human rights. ○ Natural resource-based livelihoods: Rural communities often engage in agriculture and natural resource-based livelihoods. Ensuring the rights of individuals in these communities involves promoting sustainable agricultural practices and protecting land rights. ○ Community participation: Human dignity is closely tied to the ability of individuals to participate in community life. In rural areas, community engagement and participation in decision-making processes are vital for upholding human rights.
	Self-actualization(f12)	Learning experience	Educational and professional choices of students who have finished the 4th grade (affect prospects for self-realization in the adult life) High school students transitioning to university in t/t+1 Percentage of young people obtaining a tertiary level qualification by age 25 Participation in continuing education Transfers and changes of residence within the canton, towards the rest of Switzerland and abroad in the 18-24 age group, for people born in Canton Ticino (indicates movements leaving families of origin at a	The learning experience can differ between rural and urban areas due to various factors related to infrastructure, access to educational resources, cultural considerations, and community dynamics. ✓ *Urban areas* ○ Greater educational infrastructure: Urban areas typically have more extensive educational infrastructure, including a higher concentration of schools, libraries, and educational facilities. This can provide urban students with a wider range of educational opportunities.

				young age, and the possibility of doing so while remaining in the canton or not)	○ Access to technology: Urban students generally have better access to technology, including computers, the internet, and digital learning tools. This can enhance their exposure to online resources and educational technology. ○ Diverse academic programs: Urban schools often offer a more diverse range of academic programs, extracurricular activities, and specialized courses. This can provide students with a broader spectrum of educational experiences. ○ Cultural diversity: Urban areas tend to be more culturally diverse, leading to exposure to a variety of perspectives, traditions, and languages. This diversity can enrich the learning experience and promote cultural understanding. ○ Extracurricular opportunities: Urban students may have more opportunities for extracurricular activities, such as sports, arts, and community service, due to the availability of facilities and a larger pool of potential participants. ✓ *Rural areas* ○ Limited educational infrastructure: Some rural areas may have limited educational infrastructure, including schools, libraries, and technology resources. This can impact the quality of education and the range of subjects offered. ○ Access to technology: Rural students may have limited access to modern technology, including computers and the internet. This can affect their exposure to digital learning tools and online educational resources. ○ Small class sizes: In certain rural schools, smaller populations may result in smaller class sizes. While this can allow for more personalized attention, it may also limit the diversity of academic programs and extracurricular activities. ○ Agricultural and vocational focus: In agricultural-based rural communities, the curriculum may be tailored to include subjects related to farming, agriculture, and vocational skills, reflecting the local economic activities. ○ Community involvement: Learning experiences in rural areas may involve strong community ties. Teachers, students, and parents may work closely together, fostering a sense of community involvement in education.
			Working experience	Percentage of people working in the fields they studied (e.g., if you studied geography, do you now have a job as a geographer) Over-educated employees: Employed individuals who possess a higher level of education than the most common qualification required for their profession as a percentage of total employed * 100 Opportunity to certify the skills acquired on the job and the continuous updating in which one has participated Percentage of young people who obtain a job/are in continuous training within 1 year of graduating in Ticino, in the rest of Switzerland or abroad (with distinction between Italy and elsewhere) Mobility of graduates: Net migration balance (difference between registrations and cancellations due to change of residence) over residents with tertiary education (degree, AFAM, Ph.D.) * 1,000 Dynamics of residents who become cross-border workers and vice versa, and of those who move with these people, in absolute value and in relation to the overall figures of international arrivals and departures (%), by sex, age, marital status and district Satisfaction with the work done: Average satisfaction with certain aspects of the work done on a scale from 0 to 10	The working experience can vary significantly between rural and urban areas due to differences in economic activities, job opportunities, lifestyle, and the nature of employment. ✓ *Urban areas* ○ Diverse employment opportunities: Urban areas typically offer a more diverse range of job opportunities across various industries, including finance, technology, healthcare, and services. This diversity allows for a broader spectrum of career choices. ○ Corporate and professional settings: Urban work environments often include corporate offices, professional services, and large-scale enterprises. Employees may work in formal office settings with established hierarchies. ○ Career advancement opportunities: Urban areas provide more extensive opportunities for career advancement, professional development, and specialization. There may be a higher demand for specialized skills and education. ○ Highly structured workplaces: Urban workplaces tend to have more structured and formalized environments, with clear hierarchies, standardized processes, and established professional norms. ○ Cultural and ethnic diversity: Urban workforces are often more culturally and ethnically diverse due to the influx of people from various backgrounds. This diversity can contribute to a dynamic and multicultural work environment. ✓ *Rural areas*

					○ Agricultural and natural resource-based Jobs: Many rural areas are characterized by agriculture and natural resource-based industries. Working in these sectors often involves farming, forestry, fishing, and other activities closely tied to the local environment. ○ Small-scale enterprises: Rural economies may be dominated by small-scale enterprises and businesses. Individuals in rural areas may be more likely to engage in entrepreneurship and work in smaller, community-oriented businesses. ○ Limited employment opportunities: Rural areas may face challenges in providing a diverse range of employment opportunities, leading to potential limitations in career choices and professional growth. ○ Close-knit communities: Workplaces in rural areas often foster close-knit communities where employees may have strong personal connections. This can create a sense of camaraderie but may also lead to a lack of privacy. ○ Less formal work environments: In some rural settings, the work environment may be less formal compared to urban areas. There may be a stronger emphasis on informal relationships and local customs.
			Living experience	Self-assessment of overall life satisfaction, % of persons Satisfaction with one's life: People aged 14 and over who declare themselves very satisfied with their life over the total population of people aged 14 and over * 100 Leisure time satisfaction: People aged 14 and over who declare themselves very or quite satisfied with their free time over the total population of people aged 14 and over * 100 Positive judgement on future prospects: People aged 14 and over who believe that their personal situation will improve in the next 5 years over the total population of people aged 14 and over * 100 Negative judgement on future prospects: People aged 14 and over who believe that their personal situation will worsen in the next 5 years over the total population of people aged 14 and over Survey on perceived levels of personal satisfaction and autonomy/control of one's life, by gender and age group Satisfaction with family relationships: People aged 14 and over who are very satisfied with family relationships over the total population of people aged 14 and over * 100 Satisfaction with friendship: People aged 14 and over who are very satisfied with relationships with friends over the total population of people aged 14 and over * 100	The living experience is a subjective and personal aspect influenced by individual preferences, priorities, and lifestyle choices. Some individuals may prefer the vibrancy and amenities of urban living, while others may value the tranquillity and community bonds associated with rural living. The decision between urban and rural living often depends on personal and family needs, career considerations, and lifestyle preferences. Housing options usually differ, with urban areas often characterized by high-rise buildings, apartments, and condominiums, while rural areas may have single-family homes and a more dispersed housing layout. The cost of living can vary between urban and rural areas. Urban living may involve higher costs for housing, transportation, and certain services, while rural living may have lower costs but may involve longer travel distances. The level of infrastructure development, including roads, utilities, and communication networks, influences the overall living experience. Urban areas generally have more advanced infrastructure. Ultimately, the living experience in urban and rural areas can differ significantly due to various factors, including lifestyle, infrastructure, community dynamics, and access to services: ✓ *Urban areas* ○ Population density: Urban areas are characterized by higher population density. This can lead to a more bustling and fast-paced lifestyle, with crowded public spaces, increased traffic, and a greater demand for services. ○ Diverse amenities: Urban living often provides access to a wide range of amenities, including shopping centers, cultural institutions, entertainment venues, and a variety of restaurants. The diversity of services and activities contributes to a vibrant urban lifestyle. ○ Employment opportunities: Urban areas tend to offer a greater diversity of employment opportunities across various industries. Individuals may have access to a broader range of professional and career options. ○ Public transportation: Urban living often involves the availability of public transportation systems, such as buses, trains, and subways. This facilitates mobility within the city and reduces reliance on personal vehicles. ○ Cultural diversity: Urban areas are typically more culturally diverse, with residents from various backgrounds. This diversity contributes to a rich cultural tapestry, providing exposure to different languages, customs, and traditions. ✓ *Rural areas*

					○ Lower population density: Rural areas have lower population density, leading to a quieter and more spacious living environment. Residents may experience a closer connection to nature and a sense of tranquillity. ○ Natural surroundings: Rural living often means being surrounded by natural landscapes, including farmland, forests, and open spaces. This can contribute to a slower pace of life and a closer relationship with the natural environment. ○ Community relationships: Rural communities are often characterized by close-knit relationships among residents. There may be a strong sense of community, with individuals supporting each other in various aspects of life. ○ Limited amenities: Access to amenities in rural areas may be more limited compared to urban areas. Residents may need to travel greater distances for shopping, healthcare, and other services. ○ Agricultural lifestyle: In many rural settings, residents may be involved in agricultural or natural resource-based activities. The lifestyle may be influenced by seasonal changes and a dependence on the land for livelihoods.
	Community Flourishing	**Interpersonal Trust (societal belonging)(f21)**	Sense of belonging	Neighbourhood belonging (% of people that can easily obtain neighbourhood assistance when they need it) Integration policies: reduction of ethnic neighbourhoods Presence of mixed classes in all school buildings to facilitate cultural integration People you can rely on: People aged 14 and over who have people to rely on over the total population of people aged 14 and over * 100 Generalized trust: People aged 14 and over who believe that most people are trustworthy over the total population of people aged 14 and over * 100	The sense of belonging can vary between urban and rural areas due to differences in community dynamics, social structures, and lifestyle. ✓ *Urban areas* ○ Diversity of population: Urban areas are often characterized by a diverse population with people from various cultural, ethnic, and socio-economic backgrounds. While this diversity can enrich the community, it may also pose challenges to a strong and shared sense of belonging. ○ Transience: Urban areas may experience higher rates of population turnover, with people moving in and out for work, education, or other reasons. This transience can affect the stability and continuity of social connections, potentially impacting the sense of belonging. ○ Individualistic culture: The urban lifestyle is often associated with a more individualistic culture, where residents may prioritize personal goals and career advancement. This focus on individual pursuits can influence the strength of community ties and the sense of collective belonging. ○ Social fragmentation: In larger urban centres, there may be a sense of social fragmentation, where individuals identify more strongly with smaller, specialized communities (e.g., neighbourhoods, interest groups) rather than the city as a whole. ○ Access to diverse opportunities: Urban living provides access to a wide range of amenities, services, and opportunities. While this can be enriching, it may also lead to a sense of anonymity, as individuals interact with a vast array of people without necessarily forming deep connections. ✓ *Rural areas* ○ Close-knit communities: Rural areas are often characterized by close-knit communities where residents have longstanding connections. The smaller population and shared experiences contribute to a strong sense of belonging. ○ Interconnected lives: In rural settings, people's lives may be more interconnected through family ties, community events, and shared responsibilities. This interconnectedness fosters a sense of mutual support and belonging. ○ Shared values and traditions: Rural communities may be more rooted in shared values, traditions, and cultural practices. These shared elements contribute to a sense of identity and belonging among residents.

					o Stability and continuity: Rural populations may experience less population turnover, leading to greater stability and continuity in social relationships. This stability can strengthen the sense of belonging over time. o Collective identity: In rural areas, residents may identify strongly with the community as a whole. The collective identity is often tied to the shared history, traditions, and a common way of life.
			Participation in community work	Voluntary work perception Participation in Community work Average number of volunteer hours per inhabitant Participation in associations Voluntary activities: People aged 14 and over who, in the last 12 months, have carried out unpaid activities for associations or volunteer groups over the total population of people aged 14 and over * 100 Percentage of people who volunteer outside the home economy, according to the type of volunteering Non-profit organizations: Number of non-profit organizations per inhabitants * 10,000 Number of clubs/associations per 1,000 p.e. Number of club members per 1,000 inhabitants Number of voluntary associations vs. non-voluntary associations Funding for programmes and activities of various social groups (e.g. sport, culture, youth, NGOs, social affairs, ecology) Funding of associations: People aged 14 and over who, in the last 12 months, have financially supported associations over the total population of people aged 14 and over * 100 Social participation: People aged 14 and over who, in the last 12 months, have engaged in at least one social participation activity over the total population of people aged 14 and over * 100 Management practices of common goods (number and people actively involved, for example in energy communities, management of natural resources - water, wood, urban gardens - and co-housing)	Participation in community work can differ between urban and rural areas due to various factors such as community size, lifestyle, access to resources, and the nature of community needs. ✓ *Urban areas* o Diverse opportunities: Urban areas often provide a wide range of community work opportunities due to the diversity of organizations, nonprofits, and social initiatives. Residents may find volunteer opportunities in areas such as education, healthcare, environmental conservation, and social services. o Specialized roles: Urban communities may have more specialized roles and a higher demand for specific skills in community work. Residents might contribute to niche causes or organizations that align with their expertise or interests. o Professional associations: Urban areas may have more professional associations and networking groups that facilitate community engagement. Individuals may participate in community work as part of their professional development or as a way to network with like-minded professionals. o Event-based Initiatives: Urban areas often host a variety of events, festivals, and community gatherings that attract volunteers. Residents may participate in organizing and supporting these events, contributing to the vibrancy of urban life. o Diverse population: The diverse population in urban areas can result in a wide range of community work initiatives catering to different needs and interests. Individuals may engage in community work that aligns with their cultural or social affiliations. ✓ *Rural areas* o Close-knit communities: Rural areas often have close-knit communities where residents know each other well. This can foster a strong sense of community responsibility, with individuals actively participating in local initiatives. o Generalist roles: In smaller communities, individuals may engage in community work with a broader range of responsibilities. Residents might wear multiple hats, contributing to various aspects of community development. o Agricultural and environmental focus: Rural community work may have a focus on agriculture, environmental conservation, and sustainable practices, reflecting the local economy and lifestyle. o Volunteer Fire/Civic Protection Departments: Many rural areas rely on volunteer fire/civic protection departments, where community members actively participate in emergency response and disaster relief efforts. o Limited formal organizations: Rural areas may have fewer formal organizations or nonprofits, and community work may be organized through informal channels. Residents might collaborate on projects based on immediate needs.
		Institutional Trust (good governance)(f22)	Trust in the institutions	Corruption Index (the higher opacity and corruption, the lower trust in administrations) Families who have had requests for money, favours or other or who have given money, gifts or other in exchange for favours or services Trust in the police Trust in public institutions Trust in the judicial system	Trust in institutions is often influenced by transparency, accountability, and perceived fairness. Institutions that demonstrate transparency in their operations and responsiveness to community needs may be more trusted. Institutions that effectively communicate their goals, actions, and outcomes may build trust more successfully. Clear and transparent communication can bridge gaps in understanding and foster trust. Moreover, establishing mechanisms for community feedback and incorporating citizen input can enhance trust in institutions. Residents are more likely to trust institutions that actively seek and respond to community feedback. Finally,

				Trust in parties Activate collaborations and strategic partnerships between the public and private sectors Exchange and collaboration programs with Euregio associations and companies	regardless of the urban or rural setting, effective and reliable service delivery is crucial for building and maintaining trust in institutions. This includes services related to healthcare, education, infrastructure, and public safety. However, trust in institutions can vary between urban and rural areas due to differences in community dynamics, access to services, perceptions of governance, and historical context. ✓ *Urban areas* o Diversity of institutions: Urban areas often host a wide array of institutions, including government agencies, educational institutions, healthcare facilities, and private organizations. Trust levels may vary across these diverse institutions. o Information accessibility: Urban residents may have better access to information through media, online sources, and social networks. This access can influence how residents perceive and trust institutions based on the information they receive. o Professional and specialized services: Urban areas tend to have a concentration of professional and specialized services. Trust in institutions may be influenced by the perceived competence and efficiency of these services. o Governance perception: Trust in urban institutions may be influenced by perceptions of local governance, effectiveness of law enforcement, and responsiveness of public services. Residents may assess institutions based on their experience with urban governance structures. o Civil Society and advocacy: Urban areas often have active civil society organizations and advocacy groups. Trust in institutions may be shaped by the presence and activities of these groups, which may hold institutions accountable. ✓ *Rural areas* o Community-centric institutions: Trust in rural areas may be closely tied to institutions that serve the community directly, such as local government offices, community centres, and healthcare clinics. Personal relationships and familiarity may play a significant role. o Limited access to information: Rural residents may have more limited access to information compared to their urban counterparts. Trust in institutions may be influenced by personal experiences, word of mouth, and traditional sources of information. o Reliance on local services: Rural areas may rely heavily on local services and institutions. Trust may be built over time through consistent and reliable services that meet the immediate needs of the community. o Community engagement: Trust in rural institutions may be linked to community engagement and participatory decision-making. Residents may trust institutions that involve them in the decision-making process and address local concerns. o Historical context: The historical relationship between rural communities and institutions, including government entities, can impact trust. Historical events and interactions may shape perceptions of institutional trust over the long term.
			Quality and accountability of government services	European Quality of Government Index Effectiveness of transferring good practice from elsewhere (abroad) to the region Level of institutional awareness or education Duration of civil proceedings: Average effective duration in days of proceedings concluded in ordinary courts Reduce the excessive burden of bureaucracy for both citizens and businesses	The quality and accountability of government services can vary between urban and rural areas due to factors such as infrastructure, resource allocation, population density, and governance structures. ✓ *Urban areas* o Better infrastructure: Urban areas often benefit from better-developed infrastructure, including transportation, healthcare facilities, educational institutions, and utilities. This can contribute to the perceived quality of services.

				Indicator of aggregation of municipalities (tends to increase the efficiency of services but to reduce the diversity and direct participation of citizens in municipal affairs)	○ Higher population density: The concentration of people in urban areas may lead to economies of scale and more efficient service delivery. However, it can also pose challenges in terms of managing demand for services. ○ Specialized services: Urban areas may have specialized services and facilities, such as advanced healthcare centres, specialized educational institutions, and diverse recreational amenities. These services can contribute to a higher perception of quality. ○ Complex governance structures: Urban governance structures can be more complex due to the diverse needs of a larger and more heterogeneous population. This complexity may influence the accountability mechanisms in place. ○ Citizen advocacy groups: The presence of civil society organizations and advocacy groups in urban areas may contribute to increased accountability. These groups can play a role in monitoring and influencing government service delivery. ✓ *Rural areas* ○ Limited infrastructure: Rural areas may face challenges related to limited infrastructure, including roads, healthcare facilities, and educational institutions. This can impact the quality and accessibility of government services. ○ Sparse population: Lower population density in rural areas may result in fewer resources allocated to service delivery. However, it can also contribute to a more intimate and community-focused approach to governance. ○ Basic services: Government services in rural areas may prioritize basic needs such as primary healthcare, basic education, and agricultural support. The focus may be on addressing essential requirements of the local population. ○ Simplified governance structures: Rural governance structures may be simpler due to the smaller scale of operations. This simplicity can enhance direct communication between local authorities and residents, potentially contributing to accountability. ○ Community involvement: Rural residents may have a more direct role in decision-making processes and community initiatives. Community involvement can contribute to a sense of accountability and responsiveness in local governance.
			Political participation	Participation in parliamentary elections (national, EU) Participation in regional/local elections Civic and political participation: People aged 14 and over who engage in at least one civic and political participation activity over the total population of people aged 14 and over * 100 Percentage of people who carry out political volunteering	Political participation can indeed differ between urban and rural areas due to various factors, including demographics, community dynamics, access to resources, and the nature of political engagement. ✓ Urban areas ○ Diverse Demographics: Urban areas often have more diverse and heterogeneous populations, which may lead to a wider range of political views, affiliations, and issues. Political participation may involve engagement with a variety of causes and movements. ○ Access to Information: Residents in urban areas generally have better access to information through media, the internet, and social networks. This can facilitate awareness about political events, candidates, and issues, influencing political engagement. ○ Youth Activism: Urban areas may see more youth activism and engagement in political causes. The concentration of educational institutions and diverse opportunities for civic involvement can contribute to a more active youth population. ○ Civil Society Organizations: Urban areas tend to have a higher concentration of civil society organizations, advocacy groups, and political activism. Residents may participate in these organizations to address various social and political issues. ✓ *Rural areas*

					○ Close-Knit Communities: Rural areas often have close-knit communities where residents may have more direct personal connections. Political participation may be influenced by community relationships and shared values. ○ Limited Access to Information: Residents in rural areas may have limited access to information, which can impact their awareness of political events and candidates. Traditional sources of information and word of mouth may play a significant role. ○ Community Decision-Making: Rural areas may have a tradition of community-based decision-making. Political participation may involve town hall meetings, community forums, and local governance structures where residents have a direct say. ○ Limited Youth Participation: In some rural areas, there may be challenges in engaging the youth population in political activities due to factors such as limited educational opportunities and outmigration to urban centres.
	Ecological Flourishing	**Ecosystems services and Biodiversity wealth(f31)**	Ecosystems services	Ecosystem services net value (Supply-Demand) Share of forests in a total area Health status of forest areas (windthrow areas, clear-cut areas) Connection between ecosystem services and people (*to be better defined*) Level of human satisfaction with the environment Fragmentation of natural and agricultural land: Fragmented surface due to the presence of infrastructure and urbanized areas as a percentage of the total surface Per capita soil sealing and land consumption: Surface covered by artificial sealing per resident population Water withdrawn from sources in m3/year Supply of wood (volume of wood that can be removed) and ratio between annual felling (m3/ha/year) and net annual increase (m3/ha/year) Aquifer recharge (estimated considering the hydrological balance P – E = R + G +ΔV, where P is the total precipitation, E the real evapotranspiration, R the surface run-off, G the recharge of the aquifers and ΔV the storage of water volumes in the soil and in the snow cover) Water purification (mass of nutrients - nitrogen and phosphorus - deriving from fertilizers used in agricultural activities retained by semi-natural vegetation) Flood protection (quantification of surface runoff avoided using flood risk mitigation models that estimate runoff reduction – i.e. the amount of runoff retained by ecosystems, compared to the total volume of precipitation during an intense event) Erosion retention (quantification of the mass of retained soil, calculated by using a model that quantifies the role of vegetation in preventing erosion from occurring, or in limiting it) Carbon sequestration (quantification of the mass of CO2 sequestered by vegetation, generally calculated using models that consider only the CO2 absorbed by forests, although other types of land uses – pastures, agricultural areas, other soils – should be considered as well) Crop diversity (number of crops/10 km2) Density of linear elements (square meters per hectare) in the agricultural landscape (the linear elements of vegetation - hedges,	Ecosystem services refer to the benefits that people obtain from ecosystems, and these services can be classified into various categories, whose nature and relevance can vary between urban and rural areas due to differences in land use, vegetation cover, population density, and human activities ✓ *Urban areas* ○ Regulating services: Urban areas may have engineered systems for water purification, flood control, and air quality management. These services are often more heavily managed through infrastructure such as stormwater management systems and green spaces. ○ Cultural services: Urban areas provide cultural and recreational services through parks, green spaces, and cultural amenities. These areas contribute to the aesthetic value, recreation, and overall well-being of urban residents. ○ Provisioning services: While urban areas may not have the same level of agricultural production as rural areas, they often rely on provisioning services such as water supply, locally sourced foods, and urban agriculture initiatives. ○ Supporting services: Urban ecosystems support built infrastructure by providing services such as soil stabilisation, habitat for pollinators, and biodiversity conservation. Green infrastructure, including street trees and green roofs, contributes to supporting services in urban areas. ○ Diversity of Ecosystems: Urban areas may have a mix of natural and built ecosystems. Urban planning can influence the diversity of ecosystems and their ability to provide various services. ✓ *Rural areas* ○ Supporting services: Rural areas often have natural ecosystems that provide critical supporting services, including soil fertility, habitat for wildlife, and biodiversity conservation. These services are essential for sustaining agricultural practices. ○ Provisioning services: Rural areas are often primary providers of provisioning services, including agricultural products, freshwater resources, and timber. These services are vital for supporting rural livelihoods and supplying urban populations. ○ Cultural services: Rural areas can offer cultural services through traditional landscapes, heritage sites, and natural attractions. Rural settings may provide opportunities for tourism, recreation, and cultural experiences. ○ Regulating services: Natural ecosystems in rural areas contribute to regulating services such as water purification, climate regulation, and flood control. Wetlands, forests, and grasslands play key roles in these processes.

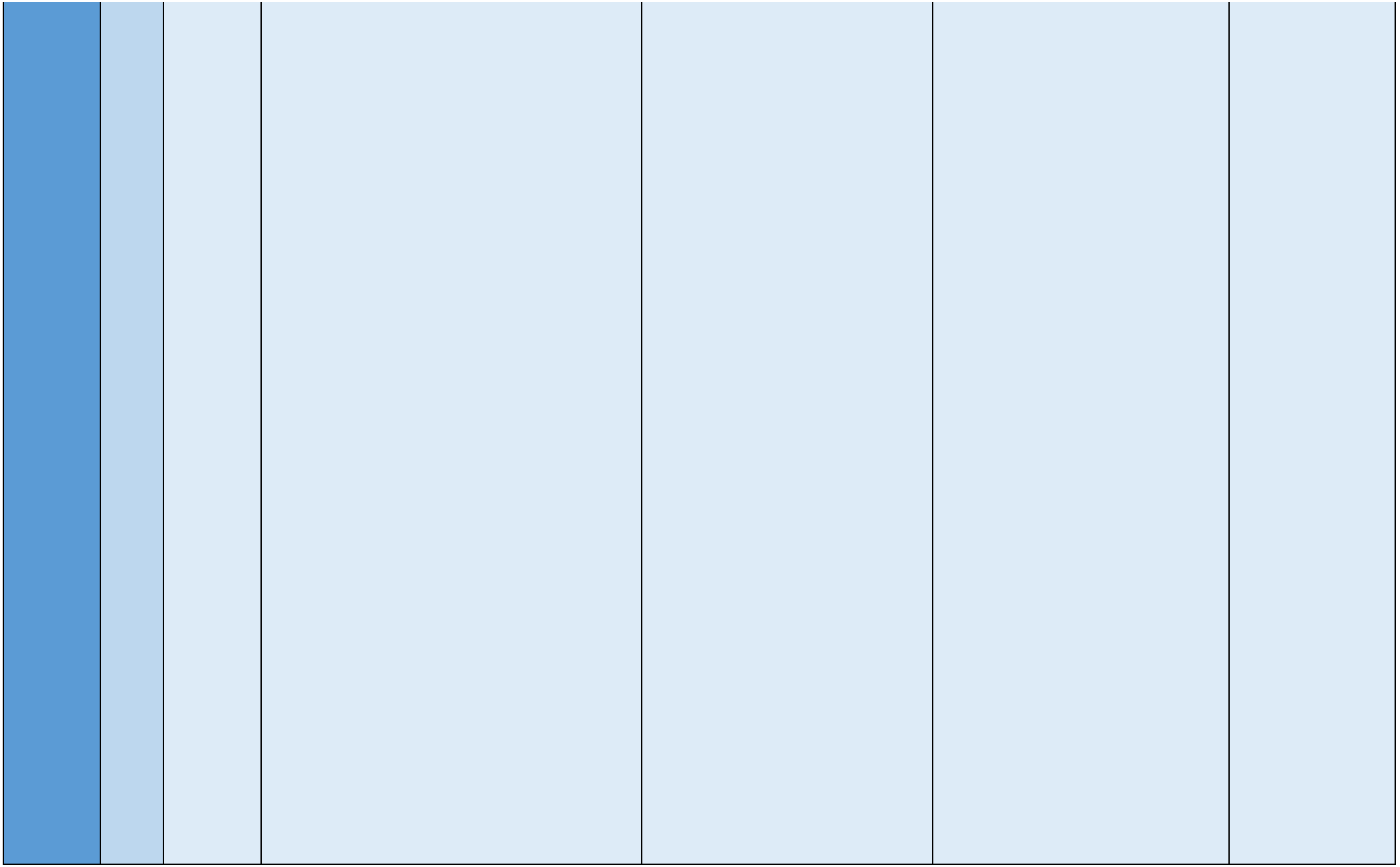
				buffer strips, groups and rows of trees, etc. - contribute significantly to many ecosystem functions - e.g. water purification and erosion retention – as well as improving the aesthetic quality of the landscape)	o Carbon sequestration: Rural areas, particularly forests and natural landscapes, contribute significantly to carbon sequestration, helping mitigate the impacts of climate change.
			Biodiversity wealth	Invasive Alien Species Number of invasive species reported per km² (animal and plant) Presence of invasive alien species (number) in agricultural ecosystems Presence of invasive alien species (number) in aquatic ecosystems Use systems thinking techniques to reduce pests without harming nature Concerns about the loss of biodiversity: Individuals aged 14 and over who consider the extinction of plant/animal species among the top 5 priority concerns out of the total individuals aged 14 and over Rate of growth of organic farming: Organic farming area in year (t) over organic farming area in year (t-1) * 100 – 100 Areas used for organic farming Share of organic farming in the utilized agricultural surface Number and density of livestock (cattle, horses, pigs, sheep, goats, poultry, other animals) Demographic conditions and trends in bird species associated with agricultural areas (farmland bird indicators), pastures and forest areas Species richness of wild pollinators Diversity and richness of species in the forest and undergrowth Damage from insects and parasites in forest ecosystems Damage from wild animals	Biodiversity refers to the variety of life on Earth, including the variety of species, ecosystems, and genetic diversity within species. Biodiversity wealth can differ between urban and rural areas due to variations in land use, habitat fragmentation, human activities, and environmental conditions. ✓ *Urban areas* o Habitat fragmentation: Urbanization often leads to habitat fragmentation, where natural habitats are divided or reduced in size. This can result in the loss of biodiversity, especially for species that require large and interconnected habitats. o Invasive species: Urban areas may experience higher levels of invasive species due to human activities and the introduction of non-native plants and animals. Invasive species can compete with and threaten the survival of native species. o Pollution and habitat degradation: Urban environments are often associated with pollution, habitat degradation, and the loss of green spaces. These factors can negatively impact biodiversity, particularly for species sensitive to pollutants or those dependent on specific habitats. o Urban green spaces: Well-designed urban green spaces, parks, and urban forests can support biodiversity by providing habitats for various species. However, the quality and size of these green spaces vary, influencing overall biodiversity wealth. o Urban wildlife: Some urban areas may have adapted to human presence, leading to the presence of urban-adapted wildlife species. While these species may thrive in urban environments, they may contribute to a different composition of biodiversity compared to rural areas. ✓ *Rural areas* o Diverse natural habitats: Rural areas often encompass a variety of natural habitats, including forests, wetlands, grasslands, and agricultural landscapes. This diversity can support a wide range of plant and animal species. o Agricultural practices: Depending on farming practices, agriculture can either enhance or reduce biodiversity. Traditional and sustainable farming methods may promote biodiversity, while intensive and monoculture practices can lead to habitat loss and reduced species diversity. o Less habitat fragmentation: Rural landscapes, especially in less densely populated areas, may experience lower levels of habitat fragmentation. Larger, interconnected habitats can support a more diverse array of species. o Wildlife corridors: Rural areas may include wildlife corridors or migration routes that facilitate the movement of species between habitats. These corridors contribute to genetic diversity and the health of populations. o Conservation areas: Rural regions may contain designated conservation areas, national parks, or protected reserves that serve as important refuges for biodiversity. These areas contribute significantly to the overall biodiversity wealth.

3 Annex C – TQoL indicators suggested by the four living labs

3.1 Table C1 - Canton Ticino

QoL dim	QoL dom	QoL sub-dom	Suggested Indicators	Data source	Lowest territorial level of availability	Recent period
Good Life Enablers	Personal Enablers	Housing & basic utilities (b11)	Period of construction of buildings (Number and % of buildings built after 2011)	Statistica degli edifici e delle abitazioni GWS_GEB/WHG [UST, Neuchâtel]	Micro-neighborhood	2020
			Number and % of single-family buildings	Statistica degli edifici e delle abitazioni GWS_GEB/WHG [UST, Neuchâtel]	Micro-neighborhood	2020
			Overcrowded homes: Number and % of homes occupied with more than one person per room	Statistica degli edifici e delle abitazioni GWS_GEB/WHG [UST, Neuchâtel]	Micro-neighborhood	2020
			Number and % of unoccupied homes	Statistica degli edifici e delle abitazioni GWS_GEB/WHG [UST, Neuchâtel]	Micro-neighborhood	2020

				Catasto rumore stradale (DT-UPR, Bellinzona) & Statistica degli edifici e delle abitazioni GWS_GEB/WHG [UST, Neuchâtel]		
			Overnight road noise: Number and % of homes exposed during the night to noise levels due to road traffic exceeding the immission limit		Micro-neighborhood	



			• Percentage of homes without adequate heating/air conditioning systems ("adequate" in terms of energy efficiency classes)	Ufficio di Statistica, Censimento federale della popolazione Statistica degli edifici e delle abitazioni (dal 2009)		2021-22

			• Percentage of unoccupied homes used for short-term rentals (affects the availability of housing on the long rent market)	USTAT/ Ufficio di Statistica		2023
			• Share of generalized costs (expenses) for housing in the total family budget	UST: Sezione Reddito, consumi e condizioni di vita		2017
			• Availability, average consumption and quality of water supply	UST/ USTAT		2021
			• Wastewater collection and treatment rate (%)			
			• Accessibility of buildings for disabled people			
			• Percentage of buildings that use renewable energy for their energy needs	UST		2022
		Healthcare (b12)	Health services: Number of pharmacies, dentists, general practitioners, and physiotherapists per 100 homes	Statistica delle imprese STATENT [UST, Neuchâtel] & Statistica degli edifici e delleabitazioni GWS_GEB / WHG [UST, Neuchâtel]	Accessibility area	2019
			• Hospital beds per 1,000 inhabitants	USTAT- Statistica ospedaliera federale (KS		2021
			• Healthcare costs per inhabitant	UST		2023
		Education (b13)	Education services: Number of compulsory schools and nursery schools for every 100 homes	Statistica delle imprese STATENT [UST, Neuchâtel] & Statistica degli edifici e delle	Accessibility area	2019
			• Measurements of class heterogeneity (socio-economic and cultural).	abitazioni GWS_GEB / WHG [UST, Neuchâtel]		
			• Average number of students per teacher	Repubblica e Canton Ticino - DECS		2023
	Socioeconomic Enablers	Transport (b21)	Number and % of homes located within public transport quality classes A, B, C and D	Classi di collegamento dei TP ARE [ARE, Berna] & Statistica degli edifici e delle abitazioni GWS_GEB/WHG [UST, Neuchâtel]	Micro-neighborhood	2020
			• Motor vehicle fleet by propulsion engine (% fossil/electric)	Repubblica e Canton Ticino - Dipartimento del Territorio		2021
			• Motorization rate (cars per 1,000 inhabitants)	UST		2021

			• Daily average of kilometers traveled by car and motorbike per inhabitant	UST		2021
			• Availability of (private/public) parking spaces in the neighborhood and at park & ride areas	Ufficio dei trasporti pubblici		
			• Total and daily average number of public transport passengers (regional trains and buses)	USTAT		2021
			• Daily average of kilometers traveled by train/bus per inhabitant	USTAT		2021
			• Average travel time from home to work by public transport/private vehicle	UST		2021
			• Average time and cost of public transport to reach the economic poles from the place of residence			
			• Occupancy rate of public transport during peak times			
			• Daily average of kilometers traveled by bike and on foot per inhabitant	UST		2021
			• Km of marked cycle network			
			• Daily average of bikes detected at the cycle network counting stations			
		Digital connectivity (b22)	• Presence and quality of the fixed and/or mobile digital network			
			• Number of residential Internet users	UST Omnibus		From december 2023
			• Public areas with wi-fi access			
			• Active users and volume of digital transactions with the public administration			
			• Potential electromagnetic pollution			
		Work opportunities (b23)	• Workers in the primary sector per 100 inhabitants (by municipality)	USTAT		2022

			• Workers in the secondary and tertiary sectors per 100 inhabitants, divided into sectors of economic activity (by municipality and by area of daily accessibility from the place of residence, e.g. within 60 minutes of travel)	USTAT		2022
			• Percentage of cross-border workers arriving from Italy out of the total number of employees, by municipality	USTAT/UST		2023
			• Proportion of employed residents and cross-border workers according to training level and position in the profession	USTAT/ UST		2023
		Consumption opportunities(b24)	Food services: Number of food shops per 100 homes	Statistica delle imprese STATENT [UST, Neuchâtel] & Statistica degli edifici e delle	Accessibility area	2019
				abitazioni GWS_GEB / WHG [UST, Neuchâtel]		
			Body care services: Number of hairdressers and beauty centers per 100 homes	Statistica delle imprese STATENT [UST, Neuchâtel] & Statistica degli edifici e delle	Accessibility area	2019
				abitazioni GWS_GEB / WHG [UST, Neuchâtel]		
			Postal and banking services: Number of banks and post offices per 100 homes	Statistica delle imprese STATENT [UST, Neuchâtel] & Statistica degli edifici e delle	Accessibility area	2019
				abitazioni GWS_GEB / WHG [UST, Neuchâtel]		
			Restaurant and bar services: Number of restaurants and bars per 100 homes	Statistica delle imprese STATENT [UST, Neuchâtel] & Statistica degli edifici e delle	Accessibility area	2019
				abitazioni GWS_GEB / WHG [UST, Neuchâtel]		
			• Accessibility of services (average distances from buildings in metres) for daily services (S1), specialized regular services (S2), specialized occasional services (S3), specialized irregular services (S4), public services (S5)	UST		2018

			• Accessibility to commercial activities that offer sustainable services and products (e.g. second-hand markets, "organic" shops, resale of loose food products without the use of packaging, etc.)			
			• Consumption of local zero-mile products (presence of farmer markets and exchange volumes)	UST		2022
			• Indicators relating to cross-border consumption opportunities (for differences in prices of consumption items, causing for example higher densities of petrol pumps and pharmacies across borders)			
		Public spaces (b25)	Leisure areas: Number, surface area and % of historic areas, public parks, community gardens, swimming pools and sports areas per home	swissTLM3D [swisstopo, Wabern]	Accessibility area	2020
			• Number/area of playgrounds for children			
		Cultural tangible and intangible assets (b26)	Number of libraries per 100 homes	Banca dati degli operatori culturali [Osservatorio culturale del Cantone Ticino, DECS, Bellinzona]	Accessibility area	2020
			Number of cinemas per 100 homes	Banca dati degli operatori culturali [Osservatorio culturale del Cantone Ticino, DECS, Bellinzona]	Accessibility area	2020
			Number of theaters per 100 homes	Banca dati degli operatori culturali [Osservatorio culturale del Cantone Ticino, DECS, Bellinzona]	Accessibility area	2020

			Number of museums per 100 homes	Banca dati degli operatori culturali [Osservatorio culturale del Cantone Ticino, DECS, Bellinzona]	Accessibility area	2020
			Places of worship for every 100 homes	Banca dati degli operatori culturali [Osservatorio culturale del Cantone Ticino, DECS, Bellinzona]	Accessibility area	2020
			• Distribution of cultural operators in the municipalities, by field (music, visual arts, cultural mediation, literature and linguistics, performing arts-theater, cinema and audiovisuals, ethnography and popular culture, human sciences, political and social sciences, dance)	Banca dati degli operatori culturali [Osservatorio culturale del Cantone Ticino, DECS, Bellinzona]		2020
			• Opening days and number of visitors at museums and similar institutions (by district and municipality)	USTAT		2022
			• Cultural mediation activities: number of guided tours and number of temporary exhibitions in museums and similar institutions			
			• Use of libraries: number of active users in cantonal and school libraries	USTAT/ UST		2022
			• Cinema attendance: number of seats and number of paid entries in cinemas	UST		2022
			• Average daily television consumption per capita (in minutes,) vy sex and age group of viewers (the greater the television consumption, the less time dedicated to other cultural and social leisure activities)	UST		2022
			• Cultural expenditure of the Canton and the Municipalities per capita	UST		2020
	Ecological Enablers	**Green infrastructure (b31)**	% of built-up areas	Misurazione ufficiale [UCR, Bellinzona]	Accessibility area	2020

			% of green areas (other intensive cultivation, vineyard, other humus, field, meadow, pasture, garden, other forest, dense forest, densely wooded pasture, sparsely wooded pasture)	Misurazione ufficiale [UCR, Bellinzona]	Accessibility area	2020
			• Availability, extent and accessibility to natural leisure areas			
			• Percentage of equipped green spaces (sports facilities, public parks, roadsides, golf courses, campsites, cemeteries, family gardens)			
			• Urban greenery: Number of tall trees and share of trees subject to a plan for monitoring the state of health and preventive maintenance (for the purposes of protection and conservation of the arboreal heritage in an urban environment, which tends to mitigate the heat island effect of built surfaces)			
			• Percentage of abandoned agricultural land (farmland abandonment)	UST		2023
			• Intensification/extension of uses of rural green areas (indicator of the quality of uses of rural areas, measures the variations, in hectares, from extensive uses - arable land, olive groves, meadows and pastures, woods - to more intensive uses - arboriculture, orchards, vineyards - and vice versa)			
			• Km of hiking trails (cantonal plan)	https://www.myswitzerland.com/		
		Protected areas (b32)	• Extension of protected natural areas	SST		
			• Percentage of forests/agrosystems covered by Natura 2000 areas and/or national/regional parks and reserves	Ufficio della natura e del paesaggio (UNP), Bellinzona Sezione forestale (SF), Bellinzona		2021
			• Share of protection forests (%) and share of forests covered by a management plan (%)	Canton Ticino - DT e DFE - STAR STATISTICA TICINESE DELL'AMBIENTE E DELLE RISORSE NATURALI		2022

	QoL	QoL	Suggested Indicators	Data Source	Lowest territorial level of availability	Recent Period
	dom	sub-dom				
	Personal Health and Safety	Personal Health (m11)	· Life expectancy at birth, according to sex	UST		2023
			· Life expectancy at 65 years, according to sex (total and in good health)	UST		2023
			· Number of people affected by multiple morbidities (cardio-vascular, diabetes, etc.)	UST - MARS		
			· Indicators relating to mental health, with particular reference to the condition of lonely young and old people (see the work carried out by the WHO on the subject - World Happiness Report)	UST		2021
			· Indicator that measures the situation relating to alcohol and drug addictions	UST		2023
			· Indicators of the level of physical activity (walking, cycling, gym, fitness, etc.) and/or vice versa of the level of sedentary lifestyle (for example average daily time spent at the desk, in front of the television, etc.)	UST		2017
		Personal Safety (m12)	Number of serious and fatal road accidents (total, involving at least one pedestrian or cyclist)	[USTRA, Berna]	Accessibility area	2020

			· Homicide rate per 10,000 inhabitants	UST		2022
			· Number of thefts and robberies per 1,000 inhabitants	UST / SCP		2021
			· Victims of sexual harassment or violence (number and %)	UST		2022
			· Victims of domestic violence (number and %)	UST + Dipartimento delle Istituzioni Ticino		2022
			· Percentage of employed people exposed to physical risks in the workplace	UST		2012
			· Number of people who say they feel unsafe in the neighborhood (for example when returning home in the evening)			
			· Law enforcement representatives operating on the streets per 1,000 inhabitants	Polizia Cantonale Ticinese / USTAT		2021
	Economic and Societal Health	**Inclusive Economy (m21)**	· Distribution of disposable household income per capita (highlights income inequalities)	UST		2021
			· Standardized gross monthly wages in the private sector: low, medium and high wages in % (used to measure levels of wage inequality)	UST		2020

			· Unemployment rate by age group (inverse relationship: the higher it is, the less inclusive the economy is)	UST (ILO)		2022
			· Salary difference between the medians of men and women with similar characteristics (in %), according to sector and type (highlights gender inequalities)	USTAT/ UST		2020
			· Presence of nursery schools, according to the number of places, and permanent resident children aged between 0 and 3 years (affects the possibility of going to work every day)	Dipartimento dell'educazione, della cultura e dello sport - Cantone Ticino		2022
			· Presence of school canteen services (idem)	Dipartimento dell'educazione, della cultura e dello sport - Cantone Ticino		2022
		Healthy Society (m22)	· Absolute poverty rate and risk of poverty rate, by age group (in %)	UST & USTAT		2021
			· Cases receiving social assistance (in %) according to the type of household economy	UST		2021
			· Cases and people beneficiaries of a supplementary family allowance (AFI) and an early childhood allowance (API)	UST		2021
			· Health care insurance: subsidized insured and paid subsidies, according to the type of household economy	UST		2019
			· Indicators of organized crime/smuggling (the phenomenon may be relevant in border regions such as the Canton of Ticino and affects the quality of the economic-social system, but is not recorded in official judicial statistics; specific studies are needed to define indicators and data collection methodologies)	O-TiCO		

	Ecological Health	**Healthy Environment (m31)**	Air quality: Air pollution index based on three main pollutants: PM10, Ozone and Nitrogen Dioxide	Osservatorio Ambientale della Svizzera Italiana [OASI, Bellinzona]	Micro-neighborhood	2018
			· Water quality: pollution levels of surface waters (nitrogen and phosphorus concentrations, concentrations of organic pollutants, metals, pesticides)	USAV / SWGW		2023
			· State of the soil and landscape: Forest surface and change in forest cover (in hectares), fragmentation of the forest landscape by roads and other linear infrastructures, landslides (number and surface), concentration of heavy metals and micro-pollutants in the soil	UST		2023
		Climate Change (m32)	· CO2 emissions reduction objectives expressly cited in plan documents (e.g. Cantonal Energy Plan)	UST + USTAT		2021
			· Number of renewable energy production plants by type of source and percentage of population served	UST		2022
			· Climate indicators: Atmosphere temperature, precipitation, summer/tropical/very hot days, freezing/winter/thawing days, tropical/frosting nights	UST + USTAT		2021
			· Climate impact indicators:	UST/ NCCS		2020
			o changes in river flow and lake levels, melting of permafrost/shrinkage of snow cover/shrinkage of glaciers, risk of landslides/debris flows;	FOEN		
			o frequency of extreme events (cold/heat waves, strong storms/hail, floods, wind storms), people affected by heat/cold, people evacuated/affected by accidents/affected by the loss of inhabited or work surfaces due to extreme events , dead and injured;	UST		2023

			o hectares of forest damaged by storms, number of forest fires and burned area, tree mortality caused by drought and heat			
	Personal Flourishing	**Self-esteem(f11)**	· Suicide rates per 1,000 inhabitants	UST		2020
			· Indicators of attitude/behavior towards disabled people (for example presence of options for disabled people in infrastructures and services)			
			· Percentage of physical ailments and negative moods			
			· Percentage of people exposed to psychosocial risks in the workplace			
			· People who report feelings of loneliness (in purposeful surveys)	UST		2021
		Self-actualization(f12)	· Educational and professional choices of students who have finished the 4th grade (affect future prospects for self-realization)	USTAT		2023
			· NEET: Percentage of unemployed young people, not enrolled in high schools/universities or professional training courses, in the 16-24 age group (inverse relationship: indicates difficulties in the transition to adult working life)	UST		2022
			· Percentage of young people obtaining a tertiary level qualification by age 25	USTAT		2000
			· Percentage of young people who obtain a job/are in continuous training within 1 year of graduating in Ticino, in the rest of Switzerland or abroad (with distinction between Italy and elsewhere)			

			· Transfers and changes of residence within the canton, towards the rest of Switzerland and abroad in the 18-24 age group, for people born in the Canton of Ticino (indicates movements leaving families of origin at a young age, and the possibility of doing so while remaining in the canton or not)	MOVPOP		2021
			· Survey on perceived levels of personal satisfaction and autonomy/control of one's life, by gender and age group	USTAT		2021
			· Indicators relating to work-life balance, for example gender, age group and type of household economy	UST		
			· Dynamics of residents who become cross-border commuters and vice versa, and of family members who move with these people, in absolute value and in relation to the overall figures of international arrivals and departures (%), by sex, age, marital status and district	USTAT		2021
	Community Flourishing	**Interpersonal Trust (societal belonging)(f**	· Percentage of people who volunteer outside the home economy, according to the type of volunteering	UST		2022
			· Management practices of common goods (number and people actively involved, for example in energy communities, management of natural resources - water, wood, urban gardens - and co-housing)			
			· Number and active users of cultural, sporting and leisure associations (e.g. choirs and bands)	UST		2014
		Institutional Trust (good governance	· Percentage of people who carry out political volunteering	UST		2014
			· Participation in cantonal elections (in % of registered and registered members), according to the ten-year age group	UST		2023

			· Indicator of aggregation of municipalities (tends to increase the efficiency of services but reduce the diversity and direct participation of citizens in municipal affairs)	USTAT		2022
	Ecological Flourishing	Ecosystems services and Biodiversity	· Water supply (water withdrawn from sources in m3/year)	SPAAS		2023?
			· Supply of wood (volume of wood that can be removed) and ratio between annual felling (m3/ha/year) and net annual increase (m3/ha/year)	UST		2022
			· Aquifer recharge (estimated considering the hydrological balance P – E = R + G +ΔV, where P is the total precipitation, E the real evapo-transpiration, R the surface runoff, G the aquifer recharge and ΔV the storage of water volumes in the soil and in the snow cover)			
			· Water purification (mass of nutrients – nitrogen and phosphorus – deriving from fertilizers used in agricultural activities retained by semi-natural vegetation)	UFAM		2021
			· Flood protection (quantifying avoided surface runoff, computed with flood risk mitigation models that estimate runoff reduction, i.e. the amount of runoff retained by ecosystems, compared to the total volume of precipitation during an intense event)			
			· Erosion retention (quantification of the mass of soil retained, calculated by applying a model that quantifies the role of vegetation in preventing erosion from occurring, or in limiting it)			
			· Carbon sequestration (quantification of the mass of CO2 sequestered by vegetation, generally calculated using models that consider only the CO2 absorbed by forests, although other types of land uses – pastures, agricultural areas, other soils – should be considered in the calculation as well)	USTAT		2021

			· Crop diversity (number of crops/10 km2)	USTAT		2021
			· Density of linear elements (square meters per hectare) in the agricultural landscape (the linear elements of vegetation – hedges, buffer strips, groups and rows of trees, etc. – contribute significantly to many ecosystem functions - e.g. water purification and retention of erosion – as well as improving the aesthetic quality of the landscape)			
			· Share of organic farming in the used agricultural area	USTAT		2021
			· Number and density of livestock (cattle, horses, pigs, sheep, goats, poultry, other animals)	USTAT		2021
			· Demographic conditions and trends in bird species associated with agricultural areas (farmland bird indicator), pastures and forest areas	UST & Swiss Ornithological Institute		2022
			· Species richness of wild pollinators			
			· Presence of invasive alien species (number) in agricultural ecosystems	UST		2022
			· **Presence of invasive alien species (number) in aquatic ecosystems**	UST		2022
			· **Diversity and richness of species in the forest and undergrowth**			

			· **Damage from insects and parasites in forest ecosystems**			
			· **Damage from wild animals**	Axa Winterthur		2021

3.2 Table C2 - Trento

Legenda of colours: Indicators used by previous TQoL study; Indicators suggested by this template; Relevant indicators available in Trento

QoL dim	QoL dom	QoL sub-dom	Indicators (selected in the ESPON QoL project + *suggested for the Alpine area*)	Measurement	Data source	Recent period
Good Life EnablersUltra	Personal Enablers	Housing & basic utilities (b11)	Irregularities in the distribution of water	No. families reporting irregularities over total families * 100	ISPAT BES	2022
			Irregularities in the electricity service	Average no. irregularities per user	ISPAT BES	2020
			Sanitation conditions (% uncollected sewerage & % sewerage treatment)			
			Households lacking adequate heating			
			Household overcrowding			
			Burdensome cost of housing			
			Accessibility to at least three essential services	Total families * 100	ISPAT BES	2021
			Separate waste collection service	% of population with separated waste collection service > 65%	ISPAT BES	2021
		Healthcare (b12)	High-care specialty beds	No. beds in specialty high-care facilities * 10.000 inhabitants	ISPAT BES	2020
			Hospital emigration to other regions	% ratio between hospital discharges in regions other than that of residence and total discharges in the region of residence	ISPAT BES	2020
			Beds in socio-sanitary facilities	No. beds in socio-sanitary facilities * 10.000 inhabitants	ISPAT BES	2020
			Doctors	No. doctors over total resident population *1.000	ISPAT BES	2021
			Nurses and midwives	No. nurses and midwifes over total resident population *1.000	ISPAT BES	2020
			Availability of Hospital beds			
			Accessibility to health (pharmacies, doctors and hospitals)			
		Education (b13)	Participation in the school system of 4-5 year old	% 4-5 year old enrolled in school over total	ISPAT BES	2021
			People with at least a diploma (25-64 year old)	People with at least a diploma (25-64 years) over total *100	ISPAT BES	2022
			Graduates and other tertiary qualifications (30-34 year old)	Graduates and other tertiary qualifications (30-34 years) over total *100	ISPAT BES	2022
			Transition to university	High school students transitioning to university in t/t+1	ISPAT BES	2020
			Participation in continuing education	People (25-64 years) continuing education over total *100	ISPAT BES	2022

			Inadequate literacy skills (second grade secondary school students)	% second grade secondary school students with insufficient literary skills	ISPAT BES	2022
			Inadequate numerical competence (second grade secondary school students)	% second grade secondary school students with insufficient numerical skills	ISPAT BES	2022
			High digital skills	16-74 year old with high digital skills over total	ISPAT BES	2019
			0-2 year old children enrolled in the nursery	0-2 year old children enrolled in the nursery over total *100	ISPAT BES	2021
			Accessibility to education (primary and secondary schools)			
	Socioeconomic Enablers	Transport (b21)	Places-km offered by local public transport	Travelled km*available places	ISPAT BES	2021
			Satisfaction with mobility services	Users rating 8+ all public transport used (multiple times a week) over total users of at least one public transport mode *100	ISPAT BES	2022
			Frequent users of public transport	% 14+ year old users utilizing public transport multiple times a week	ISPAT BES	2022
			Poor public transport accessibility	Families perceiving poor public transport access in the area of residence over total families *100	ISPAT BES	2022
			Access to high-level transport infrastructure			
		Digital connectivity (b22)	Availability of at least one computer and internet connection in the family	Availability of at least one computer and internet connection in the family		2022
			Regular internet users	11+ year old using internet 1+ times a week in previous 3 months		2022
			Accessibility to ultra-fast internet	% of families reached by ultra-fast internet (VHCN)	ISPAT BES	2021
			Efficiency of digital networks Internet at home Online interaction with public authorities			
		Work opportunities(b	Missed work participation	Unemployed 15-74 year old + potential work force over total + potential work force *10	ISPAT BES	2022
			Incidence of low-pay permanent employment	Employees with hourly salary 2/3 lower than the median * 100	ISPAT BES	2020
			Perception of employment security	Employed people feeling they might lose their job in the next 6 months and unlikely to find another one	ISPAT BES	2022
		Consumptio n	Difficulty accessing basic services (farmacies, emergency, post office, police station, municipal offices, kindergardens and primary school, dairy food shops)			
			Accessibility to commercial services (shops and banks)			
		P u	Unsatisfaction with the quality of public space	14+ year old perceive lived public space as degraded over total * 100	ISPAT BES	2022

		Cultural tangible and intangible assets (b26)	Density and importance of museum heritage	No. of permanent exhibition facilities per 100 km2, weighted over visitors no.	ISPAT BES	2021
			Consistency of the historical urban buildings			
			Use of libraries	% 3+ year old using libraries 1+ in the year	ISPAT BES	2022
			Reading books and newspapers	% 6+ year old reading 4+ books/year and 3+ newspapers/week	ISPAT BES	2022
			Cultural participation outside the home	% 6+ year old participating in 2+ cultural activities	ISPAT BES	2022
			Availability of cultural landmarks (Unesco World Heritage) Accessibility to cultural services (cinemas)			

	Ecological Enablers	Green infrastructure (b31)	Availability of urban green	Available m2 of urban green over total residents	ISPAT SDI	2022
			Density of historical green	Extension of historical green over total urban area	ISPAT SDI	2021
			Availability of Natural Areas Farmland abandonment (% of abandoned land)			
		Protected areas (b32)	Existence of Protected Areas	Protected areas over total urban area *100	ISPAT BES	2021

QoL dim	QoL dom	QoL sub-dom	Indicators (selected in the ESPON QoL project + *suggested for the Alpine area*)	Measurement	Data source	Recent period
Life Maintenance	Personal Health and Safety	Personal Health (m11)	Life expectancy at birth	Average number of years a person born in the year (t) can expect to live.	ISPAT BES	2022
			Healthy life expectancy at birth	Average number of years a child born in the year (t) can expect to live in good health.	ISPAT BES	2022
			Mental Health Index (SF36)	Summary of scores obtained by individuals aged 14 and older on 5 questions related to the four main dimensions of mental health.	ISPAT BES	2022
			Avoidable mortality (0-74 years)	Deaths of individuals aged 0-74 years whose cause of death is preventable per 10,000 residents.	ISPAT BES	2020
			Child mortality	Deaths in the first year of life per 1,000 live births.	ISPAT BES	2020
			Mortality from cancer (20-64 years)	Standardized cancer mortality rates in the 20-64 age group per 10,000 residents.	ISPAT BES	2020
			Mortality from dementia and nervous system diseases (65 years and older)	Mortality in the age group 65 and older for dementia and diseases of the nervous system standardized (EU population as of 2013).	ISPAT BES	2020
			Multichronicity and severe limitations (age 75 and over)	Percentage of people aged 75 and older who report having 3 or more chronic and/or severe limitations.	ISPAT BES	2022
			Unlimited life expectancy in activities at 65	Average number of years a 65-year-old person can expect to live without experiencing limitations in activities due to health problems.	ISPAT BES	2022
			Excess weight (standardized rates)	Standardized proportion of individuals aged 18 and older who are overweight or obese as a percentage of the total population aged 18 and older.	ISPAT BES	2022
			Smoking (standardized rates)	Individuals aged 14 and older who report smoking regularly as a percentage of the total population aged 14 and older multiplied by 100.	ISPAT BES	2022
			Alcohol (standardized rates)	Individuals aged 14 and older who exhibit at least one risky behavior in alcohol consumption as a percentage of the total population aged 14 and older multiplied by 100.	ISPAT BES	2022
			Sedentary lifestyle (standardized rates)	Individuals aged 14 and older who do not engage in any physical activity as a percentage of the total population aged 14 and older multiplied by 100.	ISPAT BES	2022

QoL dim	QoL dom	QoL sub-dom	Indicators (selected in the ESPON QoL project + *suggested for the Alpine area*)	Measurement	Data source	Recent period
			Adequate nutrition (standardized rates)	Individuals aged 3 and older who consume at least 4 servings of fruits and/or vegetables daily as a percentage of the total population aged 3 and older multiplied by 100.	ISPAT BES	2022
		Personal Safety (m12)	Road accidents mortality rate (15-34)	Deaths from road accidents in the age group 15-34 per population of 15-34 years * 10,000 – Total	ISPAT BES	2021
			Road mortality in suburban areas			
			Incidence rate of fatal occupational injuries [or injuries leading to permanent disability]	Number of fatal injuries and permanent disabilities per total employed * 1,000	ISPAT	2021
			Homicide rate	Number of homicides per total population * 100,000	ISPAT BES	2021
			Home burglaries	Number of residential burglaries per total households * 1,000	ISPAT BES	2022
			Pickpockets	Number of pickpocketing incidents per total inhabitants * 1,000	ISPAT BES	2022
			Robberies	Number of robberies per total inhabitants * 1,000	ISPAT BES	2022
			Perception of safety walking alone when it is dark	Individuals aged 14 and older who feel safe walking alone in the dark in their area per total individuals aged 14 and older * 100	ISPAT BES	2022
			Presence of elements of degradation in the area where you live	Individuals aged 14 and older who often observe signs of decay in their area per total individuals aged 14 and older * 100	ISPAT BES	2022
			Perception of the risk of crime	Families who consider the area at risk of crime per total families * 100	ISPAT BES	2022
			Standardised traffic accident death rate	Deaths in road accidents - as a percentage of the total accidents * 100	ISTAT	2022
			Standardised homicide death rate	Number of homicides per total population * 100,000	ISPAT	2021
			Rate of physical violence against women	Women aged 16-70 who have experienced physical violence in the last 5 years prior to the interview per total women aged 16-70 * 100	ISPAT BES	2014
			Rate of sexual violence against women	Women aged 16-70 who have experienced sexual violence in the last 5 years prior to the interview per total women aged 16-70 * 100	ISPAT BES	2014
			Rate of avoidable mortality (0-74 years)	Deaths of individuals aged 0-74 years whose cause of death is preventable per 10,000 residents	ISPAT BES	2020

QoL dim	QoL dom	QoL sub-dom	Indicators (selected in the ESPON QoL project + *suggested for the Alpine area*)	Measurement	Data source	Recent period
	Economic and	Inclusive Economy (m21)	Employment rate (20-64 years)	Employed individuals aged 20-64 as a percentage of the total population aged 20-64 * 100	ISPAT BES	2022
			Rate of non-participation in work	Unemployed individuals aged 15-74 + part of the potential labor force aged 15-74 as a percentage of the total labor force aged 15-74 + part of the potential labor force aged 15-74 * 100	ISPAT BES	2022
			Employed in short-term jobs for at least 5 years (1 Year)	Individuals employed in temporary jobs for at least 5 years as a percentage of the total employed in temporary jobs * 100	ISPAT BES	2022
			Low-paid employees	Employees with an hourly wage less than 2/3 of the median wage as a percentage of total employees * 100	ISPAT BES	2020
			Over-educated employees	Employed individuals who possess a higher level of education than the most common qualification required for their profession as a percentage of total employed * 100	ISPAT BES	2022
			Relationship between the employment rates (25-49 years) of women with preschool children and women without children	Employment rate for women aged 25-49 with at least one child aged 0-5 as a percentage of the employment rate for women aged 25-49 without children * 100	ISPAT BES	2020
			Asymmetry in family work			
			Satisfaction with the work done	Average satisfaction with certain aspects of the work done on a scale from 0 to 10	ISPAT BES	2022
			Perception of job insecurity	Employed individuals who, in the next 6 months, consider it likely to lose their current job and find it unlikely or not at all likely to find a similar one	ISPAT	2022
			Involuntary part time	Employed individuals who state that they work part-time because they have not found a full-time job as a percentage of the total employed * 100	ISPAT	2022
			People working from home		ISPAT	2022
			Available income per households		ISPAT	2021
			Youth employment			
			Household disposable income per capita		ISPAT	2021
			Gender employment gap			
			Unemployment rate		ISPAT	2022

QoL dim	QoL dom	QoL sub-dom	Indicators (selected in the ESPON QoL project + *suggested for the Alpine area*)	Measurement	Data source	Recent period
			Average disposable income (per capita) of resident families	Disposable income of consumer households per total resident population (in Euros)	ISPAT BES	2021
			Income inequality index	Ratio of the total equivalent income received by the top 20% of the population with the highest income to that received by the bottom 20% of the population with the lowest income	ISPAT BES	2021
			Risk of poverty	Percentage of people with an income below 60% of the median of the individual income distribution	ISPAT BES	2022
			Index of severe material and social deprivation - Europe 2030	Individuals experiencing at least seven out of thirteen signs of material and social deprivation as a percentage of the total population * 100.	ISPAT BES	2021
			Index of poor housing quality	Individuals living in overcrowded housing conditions, in homes lacking certain services and with structural problems as a percentage of the total resident population * 100	ISPAT BES	2021
			Great difficulty in making ends meet	Percentage of people who report having great difficulty making ends meet	ISPAT BES	2021
			People under 60 living in families with very low work intensity	Individuals under 60 years old living in families with very low work intensity as a percentage of the total individuals under 60 years old * 100	ISPAT BES	2021
			Housing cost overload	Individuals in families where the total cost of housing represents more than 40% of the family income as a percentage of the total individuals in families * 100	ISPAT BES	2022
			Transition from unstable employment to stable employment	Individuals in unstable jobs at time t0 (fixed-term employees + collaborators) who, one year later, have stable employment (permanent employees) as a percentage of the total individuals in unstable jobs at time t0 * 100	ISPAT BES	2020
			Percentage of the population aged 15-64 engaged in more than 60 hours per week of paid and/or family work	Individuals aged 15-64 who work more than 60 hours per week in paid and/or family work as a percentage of the total individuals aged 15-64 * 100	ISPAT	2014
		Healthy Society (m22)	Pensioners with a low pension			
			Absolute poverty (incidence)			
			Young people who do not work and do not study (NEET)	Young people aged 15-29 who are not employed and not in education or training (NEET) per total population of 15-29 years * 100	ISPAT BES	2022

QoL dim	QoL dom	QoL sub-dom	Indicators (selected in the ESPON QoL project + *suggested for the Alpine area*)	Measurement	Data source	Recent period
			Early exit from the education and training system	Persons aged 18-24 years with at most a lower secondary school diploma not possessing vocational qualifications and not included in an education or training course out of the total of persons aged 18-24 * 100	ISPAT BES	2022
			People at risk of poverty rate		ISPAT BES	2022
			Early Leavers from education (18-24)		ISPAT BES	2022
			Tertiary Educational Attainment (25-64)	Individuals aged 25-64 participating in training and educational activities as a percentage of the total individuals aged 25-64	ISPAT BES	2022
			Incidence of elderly workforce	Workforce aged 65 and older as a percentage of the total workforce * 100	ISPAT	2020
	Ecological Health	Healthy Environment (m31)	Leakage from the municipal water network		ISPAT BES	2020
			Delivery of municipal waste to landfill		ISPAT BES	2021
			Air quality - PM2.5		ISPAT BES	2021
			Satisfaction with the environmental situation		ISPAT BES	2022
			Electricity from renewable sources		ISPAT BES	2021
			Collected municipal waste	Tons	ISPAT BES	2021
			Separate collection of municipal waste	Waste separation/recycling rate as a percentage of the total waste collection * 100	ISPAT BES	2021
			Air Quality			
			Families complaining about air pollution	Families complaining about air pollution as a percentage of the total families * 100	ISPAT PSP	2022
			Families complaining about dirtiness in the streets	Families complaining about dirtiness in the streets as a percentage of the total families * 100	ISPAT PSP	2022
			Per capita waste production	Waste produced in kilograms per resident population	ISPAT BES	2021
		ClimateChange (m32)	Emissions of CO_2 and other climate-altering gases			
			Concern about climate change			
			Aggregate expected impact of climate change by 2070			

QoL dim	QoL dom	QoL sub-dom	Indicators (selected in the ESPON QoL project + *suggested for the Alpine area*)	Measurement	Data source	Recent period
			Population covered by Sustainable Energy (and Climate)			
			Action Plans			
			Population exposed to the risk of floods	Resident population in areas with medium danger as a percentage of the total resident population *100	ISPAT	2020
			Population exposed to the risk of landslides	Resident population in areas with high and very high landslide danger as a percentage of the total resident population * 100	ISPAT	2020
			Impact of forest fires	Forest area (wooded and non-wooded) affected by fire per 1,000 km2	ISPAT	2017
			Concern about climate change	Percentage of individuals aged 14 and older who consider climate change among the top 5 priority environmental concerns	ISPAT	2022

QoL dim	QoL dom	QoL sub-dom	Indicators (selected in the ESPON QoL project + suggested for the Alpine area)	Measurement	Data source	Recent period
Life Flourishing	Personal Flourishing	Self-esteem(f11)	Standarised suicide death rate	Number of suicide deaths in a year, divided by the population and multiplied by 100 000	ISPAT	2020
			Attitudes toward people with disabilities			
		Self-actualization(f12)	Satisfaction with one's life	People aged 14 and over who declare themselves very satisfied with their life over the total population of people aged 14 and over * 100	ISPAT BES	2022
			Leisure time satisfaction	People aged 14 and over who declare themselves very or quite satisfied with their free time over the total population of people aged 14 and over * 100	ISPAT BES	2022
			Positive judgment on future prospects	People aged 14 and over who believe that their personal situation will improve in the next 5 years over the total population of people aged 14 and over * 100	ISPAT BES	2022
			Negative judgment on future prospects	People aged 14 and over who believe that their personal situation will worsen in the next 5 years over the total population of people aged 14 and over	ISPAT BES	2022
			Cultural and creative occupation	Percentage of people aged 6 and over who have practiced 2 or more cultural activities	ISPAT BES	2022

QoL dim	QoL dom	QoL sub-dom	Indicators (selected in the ESPON QoL project + suggested for the Alpine area)	Measurement	Data source	Recent period
			Mobility of Italian graduates (25-39 years)	Net migration balance (difference between registrations and cancellations due to change of residence) over residents with tertiary education (degree, AFAM, Ph.D.) * 1,000	ISPAT	2021
	Community Flourishing	Interpersonal Trust (societal belonging)(f21)	Satisfaction with family relationships	People aged 14 and over who are very satisfied with family relationships over the total population of people aged 14 and over * 100	ISPAT BES	2022
			Satisfaction with friendships	People aged 14 and over who are very satisfied with relationships with friends over the total population of people aged 14 and over * 100	ISPAT BES	2022
			People you can rely on	People aged 14 and over who have people to rely on over the total population of people aged 14 and over * 100	ISPAT BES	2022
			Social participation	People aged 14 and over who, in the last 12 months, have engaged in at least one social participation activity over the total population of people aged 14 and over * 100	ISPAT BES	2021
			Civic and political participation	People aged 14 and over who engage in at least one civic and political participation activity over the total population of people aged 14 and over * 100	ISPAT BES	2022
			Voluntary activities	People aged 14 and over who, in the last 12 months, have carried out unpaid activities for associations or volunteer groups over the total population of people aged 14 and over * 100	ISPAT BES	2022
			Funding of associations	People aged 14 and over who, in the last 12 months, have financially supported associations over the total population of people aged 14 and over * 100	ISPAT BES	2022
			Non-profit organizations	Number of non-profit organizations per inhabitants * 10,000	ISPAT BES	2020
			Generalized trust	People aged 14 and over who believe that most people are trustworthy over the total population of people aged 14 and over * 100	ISPAT BES	2022
			Voluntary work perception			
			Participation in community work			
		Institutional Trust (good governance)	EU election participation	Percentage of people who voted in the elections for the European Parliament over the total eligible population * 100	ISPAT BES	2019
			Regional election participation	Percentage of voter turnout in the most recent provincial administrative elections over the total eligible population * 100	Servizio elettorale PAT	2023

QoL dim	QoL dom	QoL sub-dom	Indicators (selected in the ESPON QoL project + suggested for the Alpine area)	Measurement	Data source	Recent period
			Trust in the Italian Parliament	Average score of trust in the Italian Parliament expressed by individuals aged 14 and over (on a scale of 0-10)	ISPAT BES	2022
			Trust in the judicial system	Average score of trust in the judicial system (on a scale of 0-10) expressed by individuals aged 14 and over	ISPAT BES	2022
			Trust in parties	Average score of trust in political parties (on a scale of 0-10) expressed by individuals aged 14 and over	ISPAT BES	2022
			Trust in the police and the fire brigade	Average score of trust in law enforcement and firefighters (on a scale of 0-10) expressed by individuals aged 14 and over	ISPAT BES	2022
			Women in decision-making bodies	Women elected in regional councils over the total elected * 100	ISPAT BES	2022
			Women on the boards of directors of listed companies	Female executives, entrepreneurs, and professionals over the total executives, entrepreneurs, and professionals * 100		
			Duration of civil proceedings	Average effective duration in days of proceedings concluded in ordinary courts	ISPAT BES	2022
			European Quality of Government Index			
			Quality and accountability of government services			
			Trust in the Administration			
			Corruption Index	Families who have had requests for money, favors or other or who have given money, gifts or other in exchange for favors or services	ISPAT	2015
	EcologicalFlourishing	Ecosystems services and Biodiversity wealth(f31)	Concern about the loss of biodiversity	Individuals aged 14 and over who consider the extinction of plant/animal species among the top 5 priority concerns out of the total individuals aged 14 and over	ISPAT BES	2022
			Protected terrestrial areas	Extent of protected terrestrial areas as a percentage of total land area.	ISPAT BES	2021
			Frammentation of natural and agricultural land	Fragmented surface due to the presence of infrastructure and urbanized areas as a percentage of the total surface	ISPAT PSP	2021
			Concern for climate change	Percentage of individuals aged 14 and over who consider climate change among the top 5 priority environmental concerns	ISPAT	2022

QoL dim	QoL dom	QoL sub-dom	Indicators (selected in the ESPON QoL project + suggested for the Alpine area)	Measurement	Data source	Recent period
			Per capita soil sealing and land consumption	Surface covered by artificial sealing per resident population	ISPAT	2021
			Rate of growth of organic farming	Organic farming area in year (t) over organic farming area in year (t-1) * 100 - 100	ISPAT	2021
			Invasive alien species			
			Ecosystem services net value (Suppy-Demand)			

3.4 Table C3 – Koroška

Legend of colours: Indicators used by previous TQoL study; Indicators used by the Atlas of Quality of Life in Slovenia; Indicators proposed for analysis at regional level (NUTS 3) by interviewed stakeholders and/or participants of the stakehoders' workshop in the Koroška region

Dim.	Dom.	Sub-domain	Indicators selected by the ESPON QoL project for analysis at European level	Measurement units	Data source	Recent period
Good Life Enablers	Personal Enablers	Housing & basic utilities (b11)	Sanitation conditions (% uncollected sewerage & % sewerage treatment)			
			Households lacking of adequate heating			
			Household overcrowding			
			Burdensome cost of housing			
			Share of population connected to a public sewage system in agglomerations	%	MOP: Ministry of the Environment and Spatial Planning Data on population connected to a public sewage system in agglomerations, Unpublished data MNZ: Ministry of the Interior Central Register of the Population	2019
			Average useful floor space of occupied dwellings	m^2	SURS: Republic of Slovenia, Statistical Office Indicators for housing standards, municipalities, Slovenia, multiannually. Available at: https://pxweb.stat.si/SiStatData/pxweb/en/Data/-/0861101S.px/table/tableViewLayout2/	2021
			Average number of occupants per dwelling	Number	SURS: Republic of Slovenia, Statistical Office Indicators for housing standards, municipalities, Slovenia, multiannually. Available at: https://pxweb.stat.si/SiStatData/pxweb/en/Data/-/0861101S.px	2021

			Distinguish between owner-occupied and rented housing and between houses and flats	Number of dwellings Number of occupants	SURS: Republic of Slovenia, Statistical Office Occupied dwellings by type of ownership and type of building,statistical regions, Slovenia, multiannually Available at: https://pxweb.stat.si/SiStatData/pxweb/en/Data/-/0861210S.px	2021
			Social housing (state and municipal level)	%	SURS: Republic of Slovenia, Statistical Office Percentage of households receiving material and/or financial help from charities in the past year, statistical regions, Slovenia, annually Available at: https://pxweb.stat.si/SiStatData/pxweb/en/Data/-/0871919S.px	2022
			Availability of building land	Number of building permits issued per 1,000 population	SURS: Republic of Slovenia, Statistical Office Building permits - selected indicators, statistical regions, Slovenia, annually Available at: https://pxweb.stat.si/SiStatData/pxweb/en/Data/-/1970720S.px	2022
		Healthcare (b12)	Availability of Hospital beds			
			Accessibility to health (pharmacies, doctors and hospitals)			
			Hospital beds per 100,000 inhabitants	Per 100,000 inhabitants	NIJZ: National Institute of Public Health Number of inpatient beds, by statistical region of hospitals, Slovenia, annually. Available at: https://podatki.nijz.si/Selection.aspx?px_path=NIJZ%20podatkovni%20portal__5%20Viri%20v%20zdravstvu__3%20Bolni%c5%a1ke%20postelje&px_tableid=Postelje3.px&px_language=sl&px_db=NIJZ%20podatkovni%20portal&rxid=a4de54fa-ada6-4669-b509-0483ad375dc6 SURS: Republic of Slovenia, Statistical Office	2022

			Accessibility to health centers at the primary level by car, share of inhabitants within a ten-minute drive to a health center	%	UL FGG: University of Ljubljana, Faculty of Civil and Geodetic Engineering Travel distances to selected public and private services, Unpublished data MNZ: Ministry of the Interior Central Register of the Population, Data on demand ZRC SAZU: Research Center of the Slovenian Academy of Sciences and Arts	2021
			Availability of healthcare centres	%	UL FGG: University of Ljubljana, Faculty of Civil and Geodetic Engineering Travel distances to selected public and private services, Unpublished data MNZ: Ministry of the Interior Central Register of the Population, Data on demand ZRC SAZU: Research Center of the Slovenian Academy of Sciences and Arts	2021
			Availability of emergency centres	%	UL FGG: University of Ljubljana, Faculty of Civil and Geodetic Engineering Travel distances to selected public and private services, Unpublished data MNZ: Ministry of the Interior Central Register of the Population, Data on demand ZRC SAZU: Research Center of the Slovenian Academy of Sciences and Arts	2021
			Accessiblity to mental health (e.g., share of regions overlaid by psychotherapists)		Not available	

			Number of doctors per 1,000 inhabitants	Number	NIJZ: National Institute of Public Health Health professionals - Employees by occupational group and statistical region, Slovenia, to 2020. Available at: https://podatki.nijz.si/pxweb/sl/NIJZ%20podatkovni%20portal/NIJZ%20podatkovni%20portal__5%20Viri%20v%20zdravstvu__1%20Izvajalci%20zdravstvene%20dejavnosti/RIZDDZ_TB01.px/	2023
			Number of psychiatrists, psychologists and psychotherapists per 1,000 inhabitants	Number	NIJZ: National Institute of Public Health Health professionals - Employees by occupational group and statistical region, Slovenia, to 2020. Available at: https://podatki.nijz.si/pxweb/sl/NIJZ%20podatkovni%20portal/NIJZ%20podatkovni%20portal__5%20Viri%20v%20zdravstvu__1%20Izvajalci%20zdravstvene%20dejavnosti/RIZDDZ_TB01.px/	2023
			Maximum time to emergency medical assistance	Minutes	UL FGG: University of Ljubljana, Faculty of Civil and Geodetic Engineering Travel distances to selected public and private services, Unpublished data MNZ: Ministry of the Interior Central Register of the Population, Data on demand ZRC SAZU: Research Center of the Slovenian Academy of Sciences and Arts	2021
		Education (b13)	Accessibility to education (primary and secondary schools)			
			Accessibility to primary schools, share of inhabitants within a tenminute drive to a primary school	%	UL FGG: University of Ljubljana, Faculty of Civil and Geodetic Engineering Travel distances to selected public and private services, Unpublished data MNZ: Ministry of the Interior Central Register of the Population, Data on demand ZRC SAZU: Research Center of the Slovenian Academy of Sciences and Arts	2021

			Educational facilities in the municipality, type of school	Centrality level: 1. Public university; 2. College, university faculty, or academy; 3. Junior colleague or high school; 4. Nine-year primary school; 5. Branch primary school	ZRC SAZU: Research Center of the Slovenian Academy of Sciences and Arts Nared, J., Bole, D., Breg Valjavec, M., Ciglič, R., Goluža, M., Kozina, J., Razpotnik Visković, N., Repolusk, P., Rus, P., Tiran, J., Černič Istenič, M. (2017) Centralna naselja v Sloveniji leta 2016. Acta geographica Slovenica, 57(2). Ljubljana. doi: http://dx.doi.org/10.3986/AGS.46	2016
			Accessiblity to pre-school education	%	UL FGG: University of Ljubljana, Faculty of Civil and Geodetic Engineering Travel distances to selected public and private services, Unpublished data MNZ: Ministry of the Interior Central Register of the Population, Data on demand ZRC SAZU: Research Center of the Slovenian Academy of Sciences and Arts	2021

			Accessibility to tertiary education	%	UL FGG: University of Ljubljana, Faculty of Civil and Geodetic Engineering Travel distances to selected public and private services, Unpublished data MNZ: Ministry of the Interior Central Register of the Population, Data on demand ZRC SAZU: Research Center of the Slovenian Academy of Sciences and Arts	2021
			Accesibility to vocational education		Not available	
			Accessibility to non-formal forms of education		Not available	
			Consider accessibility to different types of education in a cross-border context (e.g. Slovenia-Austria)		Not available	
			Languages of immigrants		Not available	
	Socioeconomic Enablers	**Transport (b21)**	Access to high-level transport infrastructure			
			Share of population living 1 km from a public transport stop with at least eight pairs of rides per day	%	ZRC SAZU: Research Center of the Slovenian Academy of Sciences and Arts Gabrovec, M., Razpotnik Visković, N., Bole, D., Hrvatin, M., Repolusk, P., Tiran, J., Volk Bahun, M. (2019) Analiza dostopnosti do javnega potniškega prometa z identifikacijo glavnih vrzeli v njegovi ponudbi. Znanstvenoraziskovalni center Slovenske akademije znanosti in umetnosti, Geografski inštitut Antona Melika, Ljubljana. Available at: https://www.care4climate.si/_files/196/Izrocek-ZRC-SAZU.pdf	2019

			Accessibility to freeways or expressways by car	Minutes	UL FGG: University of Ljubljana, Faculty of Civil and Geodetic Engineering Travel distances to selected public and private services, Unpublished data MNZ: Ministry of the Interior Central Register of the Population, Data on demand ZRC SAZU: Research Center of the Slovenian Academy of Sciences and Arts	2021
			Number of personal cars per 1,000 inhabitants	Rate per 1,000 inhabitants	SURS: Republic of Slovenia, Statistical Office Selected data on municipalities, Slovenia, annually. Available at: https://pxweb.stat.si/SiStatData/pxweb/en/Data/-/2640010S.px	2023
			Accessibility by public transport (buses and railway) to other places		Not available	
			Accessibility by private car to other places		Not available	
			Freight transport (e.g., how much freight transport comes in and out of the region and by what mode – roads/railways)	Tonnes	SURS: Republic of Slovenia, Statistical Office Road goods transport by statistical regions of loading, Slovenia, annually Available at: https://pxweb.stat.si/SiStatData/pxweb/en/Data/-/2207716S.px SURS: Republic of Slovenia, Statistical Office Road goods transport by statistical regions of unloading, Slovenia, annually Available at: https://pxweb.stat.si/SiStatData/pxweb/en/Data/-/2207717S.px	2022
			Environmental indicators of transport (e.g., amount of CO2 emissions)		Not available	

			Quality of roads (number of accidents, proportion of macadam roads, number of construction works, etc.)	Number of persons killed in road traffic accidents by 10,000 inhabitans	SURS: Republic of Slovenia, Statistical Office Some indicators of transport by statistical regions, Slovenia, annually Available at: https://pxweb.stat.si/SiStatData/pxweb/en/Data/-/2221105S.px	2022
		Digital connectivity (b22)	Efficiency of digital networks			
			Internet at home			
			Online interaction with public authorities			
			Share of households with very high-capacity optical broadband	%	AKOS: Communications Networks and Services Agency of the Republic of Slovenia Data on broadband connections, Unpublished data	2021

			Share of households not covered by broadband internet due to a lack of economic interest by the service providers	%	MJU: Ministry of Public Administration MJU (2021) Javni razpis za sofinanciranje gradnje odprtih širokopasovnih omrežij naslednje generacije »GOŠO 5«. Priloga 2. Available at: https://www.gov.si/assets/ministrstva/MJU/DID/GOSO-5/PRILOGA_2_GOSO5_BL_cist.xlsx MKGP: Ministry of Agriculture, Forestry and Food MKGP (2021) 1. javni razpis za podukrep 7.3 Podpora za širokopasovno infrastrukturo, vključno z njeno vzpostavitvijo, izboljšanjem in razširitvijo, pasivno širokopasovno infrastrukturo ter zagotavljanjem dostopa do širokop. interneta in rešitev v zvezi z e-upravo. Seznam belih lis. Available at: https://www.gov.si/assets/ministrstva/MKGP/JAVNI-RAZPISI/2020/Podukrep-7-3-Podpora-za-sirokopasovno-infrastrukturo/seznam_belih_lis-v2.xlsx ZRC SAZU: Research Center of the Slovenian Academy of Sciences and Arts Nared, J., Zavodnik Lamovšek, A., Čok, G., Foški, M., Mrak, G., Kavaš, D., Koman, K., Tiran, J., Logar, E., Repolusk, P. (2021) Medresorsko usklajeno spodbujanje razvoja v obmejnih problemskih območjih v okviru Ciljnega raziskovalnega programa »CRP-2019« v letu 2019. Končno poročilo. ZRC SAZU, Ljubljana.	2021
			Type and quantity of digital services in the region (public sector + businesses)		Not available	
			Education in the sphere of digital connectivity	Several indicators showing people's behaviour on	SURS: Republic of Slovenia, Statistical Office Regional overview - Davelopment and technology Available at: https://pxweb.stat.si/SiStat/en/Podrocja/Index/583/regional-overview/?development-and-technology---statistical-regions#631	2023

			the internet		
		Mobile network coverage - signal availability		Not available	
	Work opportunities(b23)	Labour market accessibility (accessibility to jobs)			
		Persons in employment (excluding farmers) whose workplace is in their municipality of residence	%	SURS: Republic of Slovenia, Statistical Office Labour Migrations. Available at: https://pxweb.stat.si/ SiStatData/pxweb/en/Data/Data/0772750S.PX/	2022
		Labor migration index (surplus of jobs in municipality of residence)	Index	SURS: Republic of Slovenia, Statistical Office Labour Migrations. Available at: https://pxweb.stat.si/ SiStatData/pxweb/en/Data/Data/0772750S.PX/	2022
		Composition and need for jobs by complexity/education/sector	Several indicators showing the characteristic of the labour market	SURS: Republic of Slovenia, Statistical Office Persons in employment by statistical regions of employment, employment status, educational attainment and sex, Slovenia, annually Available at: https://pxweb.stat.si/SiStatData/pxweb/en/Data/-/0764710S.px	2022
		Level of supportive environment in the region		Not available	
		Level of talent attraction and retention in the region		Not available	

		Indicators describing teleworking or working from home		Not available	
		Access to jobs with added value (possibility of promotion)		Not available	
		Healthy working environment (exposure to occupational diseases, recording of injuries and accidents, sick leave, etc.)	Several indicators on healthy working environament (e.g., sick leave)	SURS: Republic of Slovenia, Statistical Office Working time structure by cohesion and statistical regions, Slovenia, multiannually Available at: https://pxweb.stat.si/SiStatData/pxweb/en/Data/-/0724602S.px	2020
		Indicators of matching education with labour market needs		Not available	
		Share of people with social support	%	SURS: Republic of Slovenia, Statistical Office Percentage of households receiving material and/or financial help from charities in the past year, statistical regions, Slovenia, annually Available at: https://pxweb.stat.si/SiStatData/pxweb/en/Data/-/0871919S.px	2022
	Consumption opportunities(b24)	Accessibility to commercial services (shops and banks)			
		Area of restaurants, bars, and shops	m^2 per inhabitant	GURS: Surveying and Mapping Authority Building Cadaster. Available at: https://ipi.eprostor.gov.si/jgp/data ZRC SAZU: Research Center of the Slovenian Academy of Sciences and Arts	2023

			Accessibility to ATMs, share of population within a five-minute drive to an ATM	%	UL FGG: University of Ljubljana, Faculty of Civil and Geodetic Engineering Travel distances to selected public and private services, Unpublished data MNZ: Ministry of the Interior Central Register of the Population, Data on demand ZRC SAZU: Research Center of the Slovenian Academy of Sciences and Arts	2021
			Accessibility to post offices, share of population within a five-minute drive to a post office	%	UL FGG: University of Ljubljana, Faculty of Civil and Geodetic Engineering Travel distances to selected public and private services, Unpublished data MNZ: Ministry of the Interior Central Register of the Population, Data on demand ZRC SAZU: Research Center of the Slovenian Academy of Sciences and Arts	2021
			Accessibility to specific services (post office, banks, etc.)	%	UL FGG: University of Ljubljana, Faculty of Civil and Geodetic Engineering Travel distances to selected public and private services, Unpublished data MNZ: Ministry of the Interior Central Register of the Population, Data on demand ZRC SAZU: Research Center of the Slovenian Academy of Sciences and Arts	2021
		Public spaces (b25)	Not applicable at NUTS3 level			
			Not available			
			Sports infrastructure (e.g., stadiums, swimming pools, gyms)		Not available	
			Diversity of sports programmes and facilities		Not available	

			Availability of cultural landmarks (Unesco World Heritage)			
			Accessibility to cultural services (cinemas)			
			Number of public infrastructure units in the field of culture per 100,000 inhabitants	Number	MK: Ministry of Culture Data on public infrastructure units in culture, Unpublished data SURS: Republic of Slovenia, Statistical Office Population data on 1 July 2023. Available at: https:// pxweb.stat.si/SiStatData/pxweb/en/Data/-/05C4003S.px	2023
		Cultural assets (b26)	Number of visits to public libraries per potential user	Number	NUK: National University Library Statistični podatki o knjižnicah. Available at: https://bibsist. nuk.uni-lj.si/statistika/index.php SURS: Republic of Slovenia, Statistical Office	2022
			Availability of cultural centres	Number of museums and exhibition grounds per 10,000 population	SURS: Republic of Slovenia, Statistical Office Number of museums and exhibition grounds per 10,000 population, statistical regions, Slovenia, 2007 - 2015 Available at: https://pxweb.stat.si/SiStatData/pxweb/en/Data/-/1072910S.px	2015
			Availability of associations	Number of associations	Slovenia Bussiness Register Available at: https://www.ajpes.si/?language=english	2023
			Satisfaction of young people with cultural assets		Not available	

	Ecological Enablers	Green infrastructure (b31)	Availability of Natural Areas			
			Farmland abandonment (% of abandoned land)			
			Proportion of natural areas	%	MKGP: Ministry of Agriculture, Forestry and Food Evidenca dejanske rabe kmetijskih in gozdnih zemljišč. Available at: http://rkg.gov.si/GERK/WebViewer/	2023
			Proportion of abandoned land	%	MKGP: Ministry of Agriculture, Forestry and Food Evidenca dejanske rabe kmetijskih in gozdnih zemljišč. Available at: http://rkg.gov.si/GERK/WebViewer/	2023
			Constraints in spatial planning		Not available	
			Efficieny of state administration for granting building permits		Not available	
		Protected areas (b32)	Existence of Protected Areas			
			Proportion of protected areas	%	EEA: European Environment Agency EEA (2016) Natura 2000 End 2016 – Shapefile. Available at: https://www.eea.europa.eu/data-and-maps/data/natura-8/natura-2000-spatial-data/natura-2000-shapefile-1 EEA (2021) Nationally designated areas (CDDA). Available at: https://www.eea.europa.eu/data-and-maps/data/nationally-designated-areas-national-cdda-12	Natura 2000–2016, Nationally designated areas, 2017
			Existence of managing body		Not available	
			Indicators on what is happening with protected areas		Not available	
			Indicators on opportunities for development in protected areas		Not available	

Life Maintenance	Personal Health and Safety	Personal Health (m11)	Life expectancy at birth			
			Age-standardized death rate (per Slovenian population on July 1st, 2014) by residence / 100,000	Rate per 100,000 inhabitants	NIJZ: National Institute of Public Health Zdravje v občini. Available at: https://obcine.nijz.si/kazalniki/ SURS: Republic of Slovenia, Statistical Office	2023
			Recipients of diabetes medications, age-standardized rate per 100	Rate per 100,000 inhabitants	NIJZ: National Institute of Public Health Zdravje v občini. Available at: https://obcine.nijz.si/kazalniki/ SURS: Republic of Slovenia, Statistical Office	2023
			Weight (in diffeent life stages)	Child overnutrition Adult overnutrition	NIJZ: National Institute of Public Health dravje v občini. Available at: https://obcine.nijz.si/kazalniki/	2023
			Indicators of the most common diseases	Different indicators	NIJZ: National Institute of Public Health dravje v občini. Available at: https://obcine.nijz.si/kazalniki/	2023
			Lead in the blood of children above the limit value	Levels of lead in children's blood in the Upper Meža Valley (not covering the whole	Slovenian Environmental Agency. Available at: https://kazalci.arso.gov.si/en/content/levels-lead-childrens-blood-upper-meza-valley-2	2018

				Koroška region)		
			Level of alcoholism and drug abuse	Different indicators	NIJZ: National Institute of Public Health Zdravje v občini. Available at: https://obcine.nijz.si/kazalniki/	2023
			Healthy life expectancy (HALE) at birth (years)	Expected healthy years of life at different ages	NIJZ: National Institute of Public Health Healthy life years by sex, Slovenia, annually. Available at: https://podatki.nijz.si/pxweb/sl/NIJZ%20podatkovni%20portal/NIJZ%20podatkovni%20portal__1%20Zdravstveno%20stanje%20prebivalstva__01%20Zdrava%20leta%20%C5%BEivljenja/HLY%201.px/	2021
			Number of users of medicines for mental illness	%	NIJZ: National Institute of Public Health Proportion of people receiving treatment for mental disorders. Available at: https://podatki.nijz.si/pxweb/sl/NIJZ%20podatkovni%20portal/NIJZ%20podatkovni%20portal__9%20Prikazi%20po%20ob%C4%8Dinah__1%20Dejavniki%20in%20tveganja%20za%20zdravje%20(K2)/90100007.px/	2017
		Personal Safety (m12)	Standarised traffic accident death rate			
			Standarised homicide death rate			
			Persons killed in traffic accidents per 1,000 inhabitants per year	Rate per 100,000 inhabitants	Police Prometna varnost. Available at: https://www.policija.si/o-slovenski-policiji/statistika/prometna-varnost ZRC SAZU: Research Center of the Slovenian Academy of Sciences and Arts	2022
			Persons injured in transport accidents	Age-standardized rate per 1,000 (‰)	NIJZ: National Institute of Public Health Zdravje v občini. Available at: https://obcine.nijz.si/kazalniki/	2023

			Crime rate	Convicted adults and juveniles per 1000 population	SURS: Republic of Slovenia, Statistical Office Convicted adults and juveniles by the statistical region, Slovenia, annually. Available at: https://pxweb.stat.si/SiStatData/pxweb/en/Data/-/1372202S.px	2022
			Share of population at risk from natural disasters		Not available	
	Economic and Societal Health	Inclusive Economy (m21)	Household disposable income per capita			
			Gender employment gap			
			Unemployment rate			
			Net income received by the population	€	SURS: Republic of Slovenia, Statistical Office Net income received by the population, municipalities, Slovenia, annually. Available at: https://pxweb.stat.si/SiStatData/pxweb/en/Data/-/0883206S.px	2021
			Registered unemployment rate	%	ZRSZ: Employment Service of Slovenia Stopnja registrirane brezposelnosti. Available at: https://www.ess.gov.si/partnerji/trg-dela/trg-dela-v-stevilkah/stopnja-registrirane-brezposelnosti/	2023
			Employment of vulnerable groups (e.g., people with disabilities, immigrants, migrants)	Different indicators	SURS: Republic of Slovenia, Statistical Office Disabled persons in employment (excluding farmers) by statistical regions of employment, employment status, educational attainment and sex, Slovenia, annually. Available at: https://pxweb.stat.si/SiStatData/pxweb/en/Data/-/0765504S.px	2022
			Recruitment of highly qualified staff		Not available	

			Growth in the income of the economy	Several indicators on GDP	SURS: Republic of Slovenia, Statistical Office GDP and national accounts - statistical regions. Available at: https://pxweb.stat.si/SiStat/en/Podrocja/Index/583/regional-overview/?gdp-and-national-accounts---statistical-regions#618	2021
			Employee satisfaction in the public and private sectors		Not available	
		Healthy Society (m22)	People at risk of poverty rate			
			Early Leavers from education (18-24)			
			NEET 15-24			
			Tertiary Educational Attainment (25-64)			
			Tertiary educational attainment (age 25 to 64)	%	SURS: Republic of Slovenia, Statistical Office Data on tertiary educational attainment, Unpublished data	2020
			At-risk-of-poverty or social exclusion rate	%	SURS: Republic of Slovenia, Statistical Office Quality of life. Available at: https://pxweb.stat.si/SiStatData/pxweb/en/Data/-/0867206S.px	2022
			Health literacy		Not available	
			Waiting times in healthcare	Waiting time according to level of emergency (regular, fast, very fast) and type of	NIJZ: National Institute of Public Health Waiting times. Available at: https://cakalnedobe.ezdrav.si/	2023

				health service		
	Ecological Health	Healthy Environment (m31)	Air Quality			
			Noise exposure	%	NIJZ: National Institute of Public Health Zdravje v občini. Available at: https://obcine.nijz.si/kazalniki/	2023
			Heavy metal exposure		Not available	
			Air quality		Not available	
			Water quality		Not available	
			Soil quality		Not available	
			Heavy metal in blood of children		Not available	
			Heavy metal in water		Not available	
			Heavy metal in soil		Not available	
			Share of the population connected to the public water supply network	Water supplied from public water supply for households per capita [m^3]	SURS: Republic of Slovenia, Statistical Office Water indicators, cohesion and statistical regions, Slovenia, annually Available at: x	2022
		Climate Change (m32)	Aggregate expected impact of climate change by 2070			
			Population covered by Sustainable Energy (and Climate) Action Plans			

			Economic damage from natural hazards per inhabitant	€ per inhabitant	URSZR: Administration of the RS for Civil Protection and Disaster Relief Portal Ajda. Available at: https://ajda.projekti.si/ ZRC SAZU: Research Center of the Slovenian Academy of Sciences and Arts	2018
			Climate change adaptation activities	€ per inhabitant	Eco Fund: Slovenian Environmental Public Fund Seznam izplačanih nepovratnih spodbud, občine, ukrepi za 2015–2020, Unpublished data	2015–2020 (sum)
			Adapation of households and businesses to alternative energy sources	€ per inhabitant	Eco Fund: Slovenian Environmental Public Fund Seznam izplačanih nepovratnih spodbud, občine, ukrepi za 2015–2020, Unpublished data	2015–2020 (sum)
			Carbon footprint of households and businesses		Not available	
			Proportion of building land in flooded areas		Not available	
			Proportion of seismically unsafe buildings		Not available	
			Share of building and agricultural land exposed to erosion		Not available	
Life Flourishing	**Personal Flourishing**	**Self-esteem(f11)**	Standarised suicide death rate			
			Attitudes toward people with disabilities			
			Standardized suicide death rate, age-standardized rate per 100,000	Per 100,000 inhabitants	NIJZ: National Institute of Public Health Zdravje v občini. Available at: https://obcine.nijz.si/kazalniki/ SURS: Republic of Slovenia, Statistical Office	2023

			Recipients of medications for mental disorders, age-standardized rate per 100	Per 100,000 inhabitants	NIJZ: National Institute of Public Health Zdravje v občini. Available at: https://obcine.nijz.si/kazalniki/ SURS: Republic of Slovenia, Statistical Office	2023
			Diseases directly attributable to alcohol in 2021	Per 100,000 inhabitants	NIJZ: National Institute of Public Health Zdravje v občini. Available at: https://obcine.nijz.si/kazalniki/ SURS: Republic of Slovenia, Statistical Office	2023
			People's social competences		Not available	
			Indicators of time management (work-life balance)	Several indicators on time management	SURS: Republic of Slovenia, Statistical Office Working time structure by cohesion and statistical regions, Slovenia, multiannually Available at: https://pxweb.stat.si/SiStatData/pxweb/en/Data/-/0724602S.px	2020
		Self-actualization(f12)	No Data available			
			Self-assessment of overall life satisfaction, % of persons	%	SURS: Republic of Slovenia, Statistical Office Quality of life. Available at: https://pxweb.stat.si/SiStat/en/ Podrocja/Index/53/kakovost-zivljenja	2022
			Self-assessment of good health, data are calculated on a statistical model	%	NIJZ: National Institute of Public Health Zdravje v občini. Available at: https://obcine.nijz.si/kazalniki/ SURS: Republic of Slovenia, Statistical Office	2023
			Effectiveness of social support		Not available	
			Percentage of people working in the fields they studied (e.g., if you studied geography, do you now have a job as a geographer)		Not available	

			Funding for programmes and activities of various social groups (e.g. sport, culture, youth, NGOs, social affairs, ecology)	Municipal budgets for different sectors (€)	Municipal budget execution data collected by the online reporting application MF-OPPrA (Ministry of Finance - Municipal Budgeting and Analysis) Available at: https://www.gov.si/teme/financiranje-obcin/	2022
	Community Flourishing	Interpersonal Trust (societal belonging) (f21)	Voluntary work perception			
			Participation in Communitary work			
			Average number of volunteer hours per inhabitant	Number	MJU: Ministry of Public Administration Skupno poročilo o prostovoljstvu v Republiki Sloveniji za leto 2022. Available at: https://www.prostovoljstvo.org/prostovoljstvo-danes	2022
			Neighborhood belonging (% of people that can easily obtain neighborhood assistance when they need it)	%	NIJZ: National Institute of Public Health Zdravje v občini. Available at: https://obcine.nijz.si/kazalniki/ SURS: Republic of Slovenia, Statistical Office	2023
			Participation in associations		Not available	
		Institutional Trust (good governance)(f22)	European Quality of Government Index			
			Trust in the Administration			
			Quality and accountability of government services			
			Corruption Index			

			Participation in parliamentary elections	%	DVK: State Election Commission Volitve v Državni zbor RS - 2022. Končni izid po voliščih. Available at: https://www.dvk-rs.si/volitve-in-referendumi/drzavni-zbor-rs/volitve-drzavnega-zbora-rs/volitve-v-dz-2022/ GURS: Surveying and Mapping Authority Data on polling station areas, Unpublished data ZRC SAZU: Research Center of the Slovenian Academy of Sciences and Arts	2022
			Trust in the police, average score per region	Average score; 1 = very dissatisfied, 5 = very satisfied	Police Ocene in stališča prebivalcev Slovenije o delu policije 2018. Poročilo. Ljubljana. Available at: https://www.policija.si/medijsko-sredisce/sporocila-za-javnost/sporocila-za-javnost-gpue/115802-javnomnenjska-raziskava-o-ocenah-in-staliscih-prebivalcev-slovenije-o-delu-policije-v-letu-2022-porocilo	2022
			Quality or efficiency of public administration		Not available	
			Effectiveness of transferring good practice from elsewhere (abroad) to the region		Not available	
			Level of institutional awareness or education		Not available	
			Trust in public institutions		Not available	
			Participation in local elections	%	Lokalne volitve - 2022. Končni izid po voliščih. Available at: https://www.dvk-rs.si/arhivi/volitve2022/lv2022/#/rezultati	2022
	Ecological Flexibility	**Ecosystems services and Biodiversit**	Invasive Alien Species			
			Ecosystem services net			

		y wealth(f31)	value (Suppy-Demand)			
			Number of invasive species reported per km²	Number per km²	GIS: Slovenian Forestry Institute Invazivke - Osrednji elektronski informacijski sistem za invazivne tujerodne vrste v Sloveniji. Gozdarski inštitut Slovenije, LIFE ARTEMIS (LIFE15 GIE/SI/000770). Available at: www.invazivke.si ZRC SAZU: Research Center of the Slovenian Academy of Sciences and Arts	2023
			Share of forests in a total area	% of total area	ZGS: Slovenian Forest Service Podatki občine ZGS 2021 za SURS, Ljubljana, Unpublished data	2020
			Connection between ecosystem services and people		Not available	
			Level of human satisfaction with the environment		Not available	

3.6 Table C4 - Unterkärnten

Dim.	Dom.	Sub-domain	Indicators selected by the ESPON QoL project for analysis at European level	Indicators proposed for analysis at regional level by experts (interviews) in the Carinthia/Unterkärnten region	Measurement units	Indicators proposed for analysis at regional level by stakeholders and focus group participants in the Unterkärnten region	Measurement units
Good Life Enablers	Personal Enablers	Housing & basic utilities (b11)	Sanitation conditions (% uncollected sewerage & % sewerage treatment)	building data and energy efficiency (renewable energy; no knowledge about the materials used for buildings; data on refurbishment - would be important for energy space planning; no overview of heating systems (only rough estimates on type of heating and age; very difficult to gather this information)	qualitative data	Number of Housing vacancies (private, public)	Number
			Households lacking of adequate heating			Development of number of detached houses & apartment blocks (energy requirements, space requirements differ)	Qualidative information
			Household overcrowding: Indicator not so relevant für Unterkärnten				
			Burdensome cost of housing				
		Healthcare (b12)	Availability of Hospital beds			Number of therapists (physio, ergo, logo etc.)	Number
						Rehabilitation options, e.g. logotherapy	Number
						Number of psychotherapists	Number
						Coverage by community nurses	%
						Range of 24-hour care	%
						Health prevention	%
			Accessibility to health (pharmacies, doctors and hospitals)			Number of care places, care beds, hospital beds	Number

						Proportion of people in need of care	%
		Education (b13)	Accessibility to education (primary and secondary schools)			Number of kindergarten	Number
						Number of secondary schools	Number
						Number of vocational schools	Number
						Number of tertiary educational institutions	Number
						Further education programmes (lifelong learning)	Number
						Survey of language skills	%
	Socioeconomic Enablers	**Transport (b21)**	Access to high-level transport infrastructure			Number of private cars per 1,000 inhabitants (VCÖ Brochure)	Number
		Digital connectivity (b22)	Efficiency of digital networks			Degree of connection to the broadband network	%
			Internet at home			Network performance (upload/download rate)	upload/download rate
			Online interaction with public authorities			Digital literacy of the population	%
		Work opportunities(b23)	Labour market accessibility (accessibility to jobs)	Research quota of SMEs, enterprises etc.	%	Number of green jobs	Number
				Research department of public and private enterprises	Number; %	Clustering of job types, e.g. circular economy, green jobs	Number
				Innovation rate in enterprises	%	Number of language skills in the region, public administration	Number

						Unemployment rate (youth, long-term, old-age unemployment)	%
		Consumption opportunities(b24)	Accessibility to commercial services (shops and banks)			Degree of self-sufficiency (supply of regional products)	%
						Degree of self-sufficiency in terms of energy	%
						Product diversity from local production	%
		Public spaces (b25)	Not applicable at NUTS3 level			Degree of soil sealing of public spaces	%
						Sales area per capita	&
		Cultural assets (b26)	Availability of cultural landmarks (Unesco World Heritage)	Cultural assessets	Number	Number of cultural institutions (museums etc.)	Number
						Number of registered associations and clubs per municipality	number;
						Survey of language skills	Number
			Accessibility to cultural services (cinemas)			Cultural initiatives (creative artists)	Number
	Ecological Enablers	**Green infrastructure (b31)**	Availability of Natural Areas			Green spaces in district towns	%
						Degree of sealing	%
						Health status of forest areas (windthrow areas, clear-cut areas)	&
						Number of local recreation areas/sqm of local recreation areas	Number
						Utilised agricultural land	m^2
						Areas used for organic farming	m^2
			Farmland abandonment (% of abandoned land)			Intactness of the agriculturally utilised areas	m^2

		Protected areas (b32)	Existence of Protected Areas			Existence of protected area management	Text
Life Maintenance	**Personal Health and Safety**	**Personal Health (m11)**	Life expectancy at birth	cancer rate, obesity, cardiovascular diseases	%	Sick days	Number
						Climate change-related deaths	Number; %
		Personal Safety (m12)	Standarised traffic accident death rate			Relocation after natural disasters	%
						Fire brigade operations due to natural disasters (e.g. insurance carriers, fire brigades)	Number
						Crime clearance rate	
						Crime rate	
			Standarised homicide death rate: Indicator not so relevant für Unterkärnten			Damage to property after natural disasters	Number
	Economic and Societal Health	**Inclusive Economy (m21)**	Household disposable income per capita	impacts of regional funding measures	qualitative data	Number of open apprenticeship positions	Number
			Gender employment gap			Graduates of vocational schools	%
			Unemployment rate				
		Healthy Society (m22)	People at risk of poverty rate				
			Early Leavers from education (18-24)				
			NEET 15-24				
			Tertiary Educational Attainment (25-64)				
	Ecological	**Healthy Environment (m31)**	Air Quality			Water quality	qualidata data
						Noise pollution	Qualitative data

						Environmental pollution (particulate matter, nitrogen oxide, etc.)	
						Heat pollution	
		Climate Change (m32)	Aggregate expected impact of climate change by 2070			Intact/not intact forest area (windthrow, bark beetles, landslides)	
			Population covered by Sustainable Energy (and Climate) Action Plans				
Life Flourishing	**Personal Flourishing**	**Self-esteem(f11)**	Standarised suicide death rate	Happiness index and personal satisfaction	%	Number of integration/inclusion classes	Number
						Implementation of the accessibility requirements stipulated by the EU	
			Attitudes toward people with disabilities	regional attractiveness	qualitative data	Inclusive jobs on the 1st & 2nd labour market	Number
						Degree of Implementation of the UN Convention on the Rights of Persons with Disabilities	%
		Self-actualization(f12)	No Data available				
	Community Flourishing	**Interpersonal Trust (societal belonging)(f21)**	Voluntary work perception	Indicator on social cohesion	Voluntary work report;	Number of clubs/associations per 1,000 p.e.	Number
				voluntary engagement	qualitative data	Number of club members per 1,000 inhabitants	Number
			Participation in Communitary work	Regional identity	qualitative data	Number of voluntary associations vs. non-voluntary associations	Number

		Institutional Trust (good governance)(f22)	European Quality of Government Index			Duration of administrative proceedings (Deviation from the average)	
			Trust in the Administration				
			Quality and accountability of government services				
			Corruption Index				
	Ecological Flourishing	**Ecosystems services and Biodiversity wealth(f31)**	Invasive Alien Species			Number of Invasive animal species in %	Number
			Ecosystem services net value (Suppy-Demand)			Number of Invasive plant species in %	Number

4 Annex D – Citizens focus groups reports.

This annex includes the reports of the citizens' focus groups organized in the Canton Ticino, Koroška region and Unterkärnten region case studies. In the Trento case study selected citizens have been involved directly in the stakeholders workshops, without organizing a separate focus group.

4.1 Canton Ticino focus group report

The ESPON study "Quality of life in the Alpine Convention Space" engaged citizens from different localities of Canton Ticino to participate in a focus group, to discuss their perceptions of the quality of life in the region and expectations about the future. The aim was to help data experts and policy stakeholders to select quality of life indicators and implement policies better aligned with the citizens' needs and expectations. The focus group was well attended by 7 citizens living in different typologies of low (rural/mountain areas), medium (peri-urban) and high (urban) density settlements of the region, involved in an always lively and interesting dialogue.

The meeting, held on 13 December 2023, took place online (Teams), and lasted 1 hour and 45 minutes. After an introduction to the context and purpose of the focus group (15 min.), the first phase of discussion with participants of about 40 min. was held. Each participant gave his or her opinion on the quality of life from the perspective of everyday problems of living in the area. In particular, he or she answered the question: What are the best and worst aspects of quality of life in the region, based on your experience? After a short break (5 minutes), the second round of discussion was started. Participants were asked to focus on what they think are the necessary aspects that need to be addressed in the canton of Ticino in the future, and what are their future expectations for living in the region, leaving their own key messages for the policy makers.

The main outcomes of the discussion are described in the table below, highlighting the answers of the panelists ordered by urban/periurban/rural gradient of the place of living.

Table 1 – Synopsis of the Canton Ticino citizens' focus group outcomes

<table>
<tr><td colspan="2">Fabrizio (20-30 years), living in the central zone of Lugano</td></tr>
<tr><td>Good QoL aspects

Transport: he considers transport services efficient enough, and has always been able to get from one part to another easily, but…</td><td>Bad QoL aspects

… is limited from the point of view of timetables, which stop at a certain time in the evening. For someone like him who works in the hotel industry, this is a disadvantage.

Salary: He works in the hotel industry and feels that the salary is not balanced in relation to the cost of living. He sees the cost of living increasing (rent increase and VAT increase), but there is no parallel increase in salary.

Job opportunities: many young people in Ticino are moving to work in Switzerland or abroad. With a focus on the hotel industry, he specifically noted that out of twenty of his "colleagues from school" he is the only one still living in Ticino. He therefore sees more opportunities beyond Gotthard, in the other cantons.</td></tr>
<tr><td colspan="2">Key message

• Make the average wage comparable with the (increasing) average cost of living in the region, and improve the quality of work (not only wages).</td></tr>
<tr><td colspan="2">Maria Cristina (40-50 years), living in an urban neighborhood located 4-5 km away from the center of Lugano</td></tr>
<tr><td>Good QoL aspects</td><td>Bad QoL aspects</td></tr>
</table>

Healthcare: Overall the quality of life is perceived as very good, and especially the healthcare service is good enough, but… *Transport*: she is very satisfied with the frequency and reliability of the train services, including also the good connection with the Zurich airport, but …	… not enough updated to keep track of the new principles of preventive health and customized healthcare solutions. Health insurance has increased by 10% recently, and this negatively affects the households' budget. … she believes that younger people who do not live in large centers (and who do not yet have a driving license) are disadvantaged because public transport is lacking and ends rather early in the evening. Cultural activities: despite several initiatives, these are not very well communicated and promoted through the right channels (e.g. social media)
Key message • Traffic is real challenge in Canton Ticino, it should be addressed with better mobility and urban planning solutions.	
Susanna (20-30 years), living in a 4.000 inhabitants town located 20 minutes away from Lugano	
Good QoL aspects *Transport*: the new transport projects (tram-train 2030, Luganese) are good, but … *Education and cultural activities*: she is satisfied with education, and with the possibilities of recreation Ticino offers to young people, thanks to the cultural projects that have been promoted (e.g., the music city project in Besso and the new Lugano cultural center).	Bad QoL aspects … she feels that the central problem in the area she is living is traffic. Despite numerous efforts, she is not satisfied with the transport efficiency Ticino offers. *Job opportunities*: she is concerned about the poor job opportunities that Ticino has for young people.
Key message • More support is needed for young people, especially it would be good to promote public-private partnerships and projects to amplify the housing offer in the region, making housing costs more affordable.	
Maria Luisa (40-50 years), living in a small village (1.000 inhabitants) located 20 minutes away from Lugano.	
Good QoL aspects *Healthcare*: she appreciate a lot the easy and fast access to care, and the great support this gives to families and the elderly. *Education*: Child-rearing is very positive *Transport*: she noted improvements in the area where she lives (Mendrisiotto), as transport became easier and more accessible over time. *Governance*: Public Administration is very effective in Canton Ticino	Bad QoL aspects *Economic inclusion*: there is a serious problem of gender inequality, although there are no monitoring data (only one sporadic study from USTAT). For women in Ticino, the opportunity to access the labor market is limited and they suffer from a burdening care and family role: living as a working mother, or even worst for a single mother, is very difficult, if not impossible. *Interpersonal trust*: people mentality is tendentially conservative, there is no or little self-criticism
Key message • Listening more and giving a voice to young people and citizens, investing in more activities aimed to them.	
Francesca (20-30 years), living in a village within the urban sprawled area of Sottoceneri	
Good QoL aspects	Bad QoL aspects *Transport*: compared to other Swiss regions (she lived for an education stage in inner Switzerland),

Green infrastructure: the territory landscape is beautiful, varied and with great opportunities to make most of it. *Institutional trust*: she feels that, as a citizen, she can make her voice heard. This is a stimulating and positive aspect.	she notices a big (negative) difference with the availability of public transport rides, especially in evening hours. *Education*: she feels that the school system is somewhat limited and not very modern. As for education opportunities, the offer in Ticino is limited, so young people mostly move outside the region to study. *Interpersonal trust (societal mentality)*: compared to the rest of Switzerland, there is a lack of self-criticism. We tend to always blame others without ever reflecting on what we as a canton could change and improve.
Key message • Reform the education system through modernization to make it attractive on all levels.	
Mariangela (40-50 years), living in a small valley floor village	
Good QoL aspects *Healthcare*: she appreciates the availability of shops, pharmacy and doctors in the village where she live, but … *Healthy society*: she feels a good sense of belonging and social support in the community, but being directly involved in households support activities … *Climate change*: Ticino is making a commitment to sustainability and offers attractive incentives for those who, for example, implement solar panels in their homes.	Bad QoL aspects … is worried about the closure of emergency services nearby in the valley floor. … she recently noted a worsening of social cohesion, with an increasing number of families asking for financial help to sustain the increase of health insurance costs or other extraordinary expenses. *Transport*: the heavy passenger and goods transit traffic is creating problems of air quality and mobility for the people living in the valley floor crossed by the Gotthard highway. *Job opportunities*: these are lacking for the young people, and those that moved to study outside the region have difficulties to return
Key message • It is necessary to invest more on local initiatives and sustainability to create more job opportunities for the young	
Daniela (30-40 years), living in a mountain village	
Good QoL aspects *Healthy environment*: she leads a modern rural life with many advantages for those that – as she does – appreciate being immersed in the nature, the silence (far away from the highways and rail), conducting a simple life. *Interpersonal trust*: good personal relations are a key quality of life aspect when living in a rural and mountain area, life is not "anonymous" as in the urban context.	Bad QoL aspects *Transport*: public transport is lacking in the evening (the last ride is at 10.30 pm), although she does not see the necessity of frequent/daily trips and interactions with the urban poles, her family and professional life being centered in the village and the pastures she manages in the mountain area. *Climate change*: this is creating evident problems of water scarcity in the mountain pastures, she has noticed the situation worsening year by year.
Key message	

Invest more in ecological jobs to preserve the natural environment from climate change impact, creating in this way also local jobs that may attract young people and amateurs of a "modern" rural life (increasingly attractive for many after the COVID pandemic).

4.2 Koroška region focus group report

The citizens' focus group was organised on 9 November 2023 between 16:00 and 18:30 at the MPIK - Network Business Incubator Koroška in Slovenj Gradec. The organisation of the focus group was a joint initiative of ZRC SAZU and Regional Development Agency for Koroška (RDA Koroška). ZRC SAZU was responsible for leading the process, while RDA Koroška took on the responsibility for the organisational issues and for inviting the participants. For this reason, the news was published on the RDA Koroška website, the RDA Koroška FB page, the MojaObcina.si portal (My Municipality portal) and the Koroške novice portal (Koroška News portal). KOROCIV (Koroška Regional NGO Centre) and RaumAU (NGO in Slovenj Gradec) were also invited to participate and to make an appeal through their channels. In total, five local participants and two moderators from ZRC SAZU participated at the event. The local participants included two women and three men, and all were in the middle adult age group (40-59). All of them live and work in urban settings – four of them live in Slovenj Gradec and one person in Dravograd, while two people work in Slovenj Gradec, two in Dravograd and one in Ljubljana. However, participants were asked to discuss the territorial quality of life in the Koroška region as a collective phenomenon by also considering other social groups (e.g., young people and elderly people) and other territorial settings (e.g., rural areas).

After an introduction to the 22 sub-domains of the TQoL framework and the context of the focus group, the discussion with the participants centred on quality of life from the perspective of everyday problems of living in the Koroška region, answering the following questions: In your experience, what are the best and worst aspects of quality of life in the region? How do you see your future in the region? What do you think should be improved to meet your future expectations of life in the region? Participants were in this context asked to select up to three sub-domains to succinctly describe what the plus points are and also up to three sub-domains for the minus points. The expected results of the discussions are therefore qualitative responses to the positive and negative aspects in each sub-domain (see Table 2).

The strengths of the Koroška region were unanimously identified as proximity to nature, the diversity of ecosystem services provided by forests, water, wetlands and grasslands, and the green infrastructure in the form of bike and hiking trails and mountain paths. Participants also see a high level of personal safety as very positive, which they associate with living in small places where people are connected to each other. Other positive aspects were the accessibility to healthcare and cultural events, and the greater possibility of self-actualisation by creating their own projects.

Among the negative aspects of the quality of life in the Koroška region, participants unanimously ranked transport accessibility in terms of poor inter-regional and inter-urban connectivity by public transport, poor road infrastructure and the absence of some transport modes such as railways and taxi service. It was largely agreed that the lack and high cost of housing, especially for young people and the lack of jobs, especially for the more educated workforce and in the non-industrial sector, are also a disadvantage of living in the Koroška region. Other weaknesses mentioned were the lack of public spaces for subcultures, the increased level of risk from natural disasters as a consequence of climate change and the lower level of institutional trust.

Table 2 – The 'plus' and 'minus' of living in the Koroška region.

Please select your 'plus' (tick up to 3 boxes) and tell us why it is a 'plus' (concise statement)	**Please select your 'minus' (tick up to 3 boxes) and tell us why it is a 'minus' (concise statement)**
Housing & basic utilities (b11)	
	Housing shortages and high property prices, especially for young people
Healthcare (b12)	
Availability of regional hospitals and health centres; shorter waiting times for health services	
Education (b13)	

Please select your 'plus' (tick up to 3 boxes) and tell us why it is a 'plus' (concise statement)	Please select your 'minus' (tick up to 3 boxes) and tell us why it is a 'minus' (concise statement)
Transport (b21)	
	Poor inter-regional and inter-local connectivity by public transport, especially during weekends and holidays; poor road infrastructure; absence of rail and taxi services
Digital connectivity (b22)	
Work opportunities (b23)	
	Shortage of jobs in the tertiary sector and for the highly educated
Consumption opportunities (b24)	
Public spaces (b25)	
	Lack of space for subcultures
Cultural assets (b26)	
Wide range of events and lively social activities	
Green infrastructure (b31)	
Proximity to nature; cycle paths, hiking and mountain trails	
Protected areas (b32)	
Personal Health (m11)	
Personal Safety (m12)	
No particular threat to personal safety in a small place where people know each other; children can play freely in open spaces	
Inclusive Economy (m21)	
	(Too) strong focus on manufacturing
Healthy Society (m22)	
Healthy Environment (m31)	
Climate Change (m32)	
	Absence of traditional winter conditions (e.g., snow and cold); increased incidence of storms and floods
Self-esteem (f11)	
Self-actualization (f12)	

Please select your 'plus' (tick up to 3 boxes) and tell us why it is a 'plus' (concise statement)	Please select your 'minus' (tick up to 3 boxes) and tell us why it is a 'minus' (concise statement)
Opportunity to create your own projects	
Interpersonal Trust (societal belonging) (f21)	
Connected people and trust in fellow citizens	
Institutional Trust (good governance) (f22)	
	First-in-the-village syndrome
Ecosystems services and Biodiversity wealth (f31)	
Variety and proximity to nature: forests, waters, wetlands, grasslands, etc.	

4.3 Unterkärnten region focus group report

In collaboration with the regional management '*Regionalkooperation Unterkärnten*', the stakeholder workshop and the citizen focus group have been held on 13 November 2023. Both activities took place one after the other in the afternoon of 13 November 2023 at the Völkermarkt Chamber of Commerce and were held between 1.30 and 6 p.m.

A total of 10 experts took part in the stakeholder workshop and eight people took part in the citizen focus group. Finally, people who had already taken part in the stakeholder workshop took part in the focus group. Only people who live or grew up in the Lower Carinthia region (with a focus on the districts of Völkermarkt and Wolfsberg) took part in the focus group. Both the citizen focus group and the stakeholder workshop showed that the local players always wear several 'hats' at the same time. This is very common in rural, rather small-scale areas. This also results in various multiple responsibilities, which, however are mutually beneficial.

The participants in the citizens' focus group identified the following (similar) topics as important future scenarios:

- demographic change;
- deficit in infrastructure (pavements, cycle paths, public transport);
- migration to the countryside (climate reasons, security needs, price/performance;)
- strengthening town centres, densification of living space;
- digitalisation makes place of residence less important, people no longer have to live near their work.

During the focus group, the participants were also asked to select and describe the **three aspects of the Unterkärnten region that they personally value the most and the three that they value the least** from the list provided. The results are documented in the following overview. As the results show, the area of 'Housing and basic utilities' is rated best with a total of seven pluses. The sufficient and affordable housing supply and the provision of local amenities are particularly positively emphasised. The 'Healthy Environment' area was also rated very positively with four pluses. The good air and water quality were particularly emphasised here. The lowest rating was given to the topic of 'mobility'. Public transport could be greatly improved. Inhabitants, especially those who live in remote areas, dependent on cars.

Please select your 'plus' (tick up to 3 boxes) and tell us why it is a 'plus' (concise statement)	Please select your 'minus' (tick up to 3 boxes) and tell us why it is a 'minus' (concise statement)
Housing & basic utilities (b11)	
Enough and affordable housing offers Intact local supply	

Please select your 'plus' (tick up to 3 boxes) and tell us why it is a 'plus' (concise statement)	Please select your 'minus' (tick up to 3 boxes) and tell us why it is a 'minus' (concise statement)
There are several possibilities Affordable living with plenty of greenery and tranquillity Good and affordable housing; good local supply, good water quality (own water) Intact environment	
Healthcare (b12)	
Basic care in the region is provided by the regional hospital (Landeskrankenhaus Wolfsberg) and specialist centre; hospitals in the cities of Graz and Klagenfurt are nearby Good health infrastructure, insurances and medical care Sufficient; 2 doctors, 1 spa centre	Shortage of doctors and specialists, especially for children
Education (b13)	
School and kindergartens are available	Missing higher education and tertiary educational facilities (university, FH - university of applied sciences, HTL – Higher Technical College) Educational facilities for adults are missing
Transport (b21)	
	People are forced to use the car Public transport should be extended Public transport; poor condition of streets Few public transport options, especially in remote locations Insufficient public transport, need to use the car (to be dependent) Public transport; cycling infrastructure
Digital connectivity (b22)	
	Broadband expansion urgently needed Broadband infrastructure should be extended
Work opportunities (b23)	
	Few jobs in the environment/climate change sector
Consumption opportunities (b24)	
Are plentiful	Especially for the youth
Public spaces (b25)	
Cultural assets (b26)	
Good facilities and many offers	
Green infrastructure (b31)	

Please select your 'plus' (tick up to 3 boxes) and tell us why it is a 'plus' (concise statement)	Please select your 'minus' (tick up to 3 boxes) and tell us why it is a 'minus' (concise statement)
Local supply centres; sports and cultural facilities	Too less activities are done to preserve the green infrastructure Too little renewable energy; existing grid too weak
Protected areas (b32)	
Personal Health (m11)	
Good health system	
Personal Safety (m12)	
Rural region with low criminality Feels safe in the own environment Low criminality; respect and acceptance within the community	
Inclusive Economy (m21)	
Healthy Society (m22)	
Healthy Environment (m31)	
Good water supply and supply with food Good air, green meadows, blue sky, drinking water can be consumed from the tap Good and broadly diversified; promotion of biodiversity, especially in agriculture High quality of air and water	
Climate Change (m32)	
	Natural disasters Good understanding among the population, but still insufficient in companies and politics Is increasingly being felt: floods, landslides, hurricane storms
Self-esteem (f11)	
	Low regional identity; long duration of the ethnic group conflict (Slovenian minority and Carinthian majority) that undermines what the people have in common
Self-actualization (f12)	
Interpersonal Trust (societal belonging) (f21)	
	Parochial thinking (Kirchturmdenken)
Institutional Trust (good governance) (f22)	
In Carinthia: high level of trust, also in the municipalities	Due to the actions in politics, there is not much trust in municipalities either
Ecosystems services and Biodiversity wealth (f31)	

Please select your 'plus' (tick up to 3 boxes) and tell us why it is a 'plus' (concise statement)	Please select your 'minus' (tick up to 3 boxes) and tell us why it is a 'minus' (concise statement)

5 Annex E – Considerations related to Vienna region underperforming scores in the TQoL Composite Index

Reviewing the case of Vienna region score, the TQoL composite index appears lower in relation to other regions in the Alpine area, and in particular, lower values than other Austrian regions.

This is a good opportunity to review the background dada used in each of the subcomponents of the index, to seek overall consistency of the results, or to identify possible inconsistencies, or even errors in the calculation of the index. Given the unexpected result for Vienna, seemingly underperforming in relation to what could be a general perception of good quality of life in the city, this is a good chance to apply the proposed analytical methodology by the ESPON QoL project, and to go through the analysis of specific conditions in the region.

In general terms, we see that Vienna shows:

a) Excellent performance in housing, healthcare and education services
b) Excellent performance in transport, digital connectivity, labour market
c) Excellent performance in trust in institutions and social networks
d) Excellent performance in tolerance and self-esteem (low suicide rates)

But also, we see...

e) Poor environmental performance (air quality, Natura 2000 sites, ….)
f) Poor health (premature deaths, life expectancy, …)
g) Relatively poor social health (high NEET rate, people at risk of poverty…)

Among others.

Overall scores for the Vienna NUTS2 region

The table below provides the general scores of the TQoL of Vienna for the different components of the index, where for each component value 1 indicates maximum performance in the area, and values closer to 0 reflect low performing components of the index.

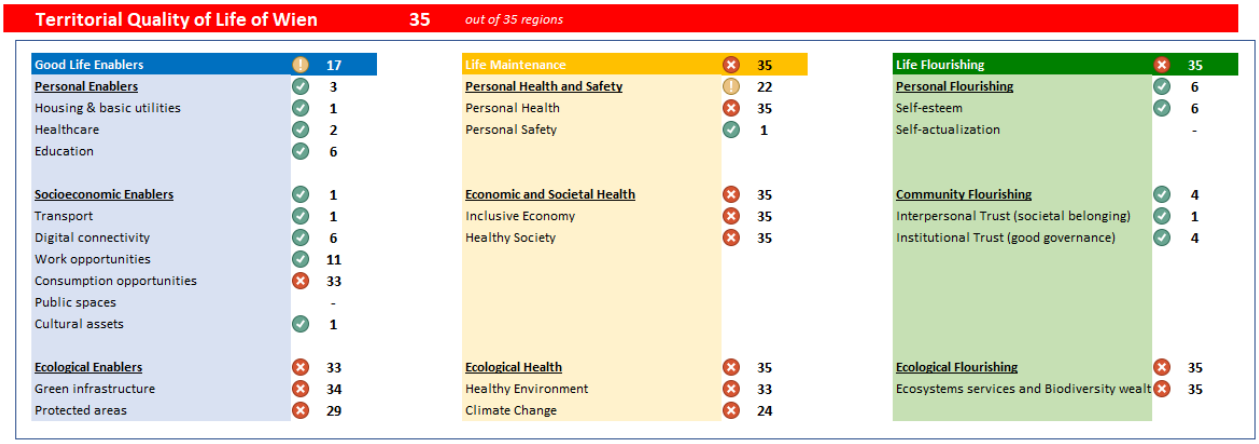
	Personal Enablers	Socioeconomic Enablers	Ecological Enablers	Personal Health and	Economic and Societal Health	Ecological Health	Personal Flourishing	Community Flourishing	Ecological Flourishing	Good Life Enablers	Life Maintenance	Life Flourishing
Wien	0.782	0.743	0.320	0.600	0.599	0.301	0.445	0.542	0.255	0.615	0.500	0.414

Analysis of performance and underperformance in relation to the Austrian averages

A comparison of the dashboard results of the Vienna as shown below, to the rest of Austrian regions shows the relative performance of Vienna in each of the components and subcomponents of the TQoL index and also the relative position of the region in the national context. We can see for Vienna that:

- The region shows among the worse values in Austrian NUTS3 in the components related to **Green Infrastructure** (in the ecological enablers component), **Personal Health**, **Inclusive economy** and **Healthy Society** (in the Economic and Societal Health component), **Healthy Environment**, and **Ecological Flourishing**.

- Otherwise, Vienna scores best in terms of Personal Enablers and Socioeconomic Enablers, as well as Personal Flourishing and Community Flourishing.



Variables behind the scores in each of the TQoL components

Tracking back to which indicators these areas correspond, the list of the indicators considered for the calculations in each specific case is as follows:

Green Infrastructure:

a) Availability of Natural Areas (proportion in relation to total) (ESPON DB)
b) Farmland abandonment (% of abandoned land) (EuRe_DB)

Personal Health

a) Life expectancy at birth (in years) (ESPON DB)

Inclusive economy

a) Household disposable income per capita (in euros PPP) (Eurostat)
b) Gender employment gap (%) (Eurostat)
c) Unemployment rate (%) (Eurostat)

Healthy Society

d) People at risk of poverty rate (%) (Eurostat)
e) Early Leavers from education (%18-24) (EuRe_DB)
f) NEET 15-24 (%) (EuRe_DB)
g) Tertiary Educational Attainment (among 25-64) (%) (EuRe_DB)

Healthy Environment

h) Air quality index (ESPON DB)

Ecological Flourishing

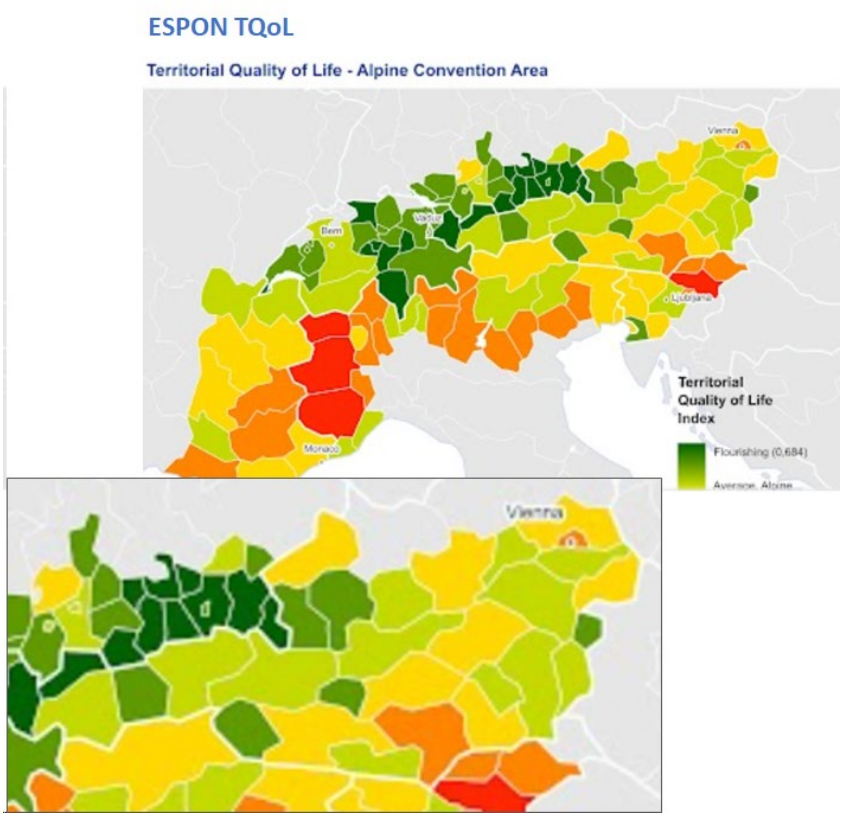
i) Worst Invasive Alien Species (EEA)
j) Ecosystem services net value (EUR/ha) (ESPON DB)

The values of these indicators in relation to the rest of the Austrian regions is shown in the table below. Red values indicate relative underperformance to national average:

		Green Infrastructure		Personal Health	Inclusive economy			Healthy Society			Healthy environment	Ecological Flourishing	
Region	Code	196-Proportion of Natural Areas (ESPON Monitoring Tool)	118-% of abandoned land (EuRe_DB)	129-Life expectancy (ESPON_DB_C)	199-Unemployment rate (Eurostat)	206-Disposable income of private households (Eurostat)	46-Gender employment gap (Eurostat)	81-Early Leavers from education (18-24) (EuRe_DB)	83-Tertiary Educational Attainment (25-64) (EuRe_DB)	127-People at risk of poverty rate (ESPON_DB_C)	114-NEET 15-24 (Total) (EuRe_DB)	190-Air Quality Index (ESPON QoL)	204-Worst Invasive Alien Species (IAS) (EEA)	208-Ecosystem Services value (€/Ha) (ESPON QoL)
		2018	2015	2015	2019	2016	2019	2018	2018	-	2018	2015	2010	-
Austria Average		0,53	1,51	81,56	3,52	21.977,14	9,02	6,87	30,33	10,50	6,09	0,88	62,00	8,25
Mittelburgenland	AT111	0,47	1,82	81,20	4,00	22.300	10,20	8,10	28,40	12,33	8,10	0,98	62,00	8,12
Nordburgenland	AT112	0,30	0,41	81,20	4,00	22.300	10,20	8,10	28,40	12,33	8,10	0,91	62,00	5,02
Südburgenland	AT113	0,44	2,21	81,20	4,00	22.300	10,20	8,10	28,40	12,33	8,10	0,89	62,00	7,90
Mostviertel-Eisenwurze	AT121	0,45	0,65	81,00	3,60	22.600	8,90	5,10	31,90	8,95	5,50	0,81	62,00	8,32
Niederösterreich-Süd	AT122	0,69	3,15	81,00	3,60	22.600	8,90	5,10	31,90	8,95	5,50	0,91	62,00	10,69
Sankt Pölten	AT123	0,36	0,50	81,00	3,60	22.600	8,90	5,10	31,90	8,95	5,50	0,93	62,00	6,91
Waldviertel	AT124	0,43	1,75	81,00	3,60	22.600	8,90	5,10	31,90	8,95	5,50	0,82	62,00	7,87
Weinviertel	AT125	0,16	0,53	81,00	3,60	22.600	8,90	5,10	31,90	8,95	5,50	0,90	62,00	4,62
Wiener Umland/Nordte	AT126	0,25	0,51	81,00	3,60	22.600	8,90	5,10	31,90	8,95	5,50	0,78	62,00	5,24
Wiener Umland/Südtei	AT127	0,30	0,64	81,00	3,60	22.600	8,90	5,10	31,90	8,95	5,50	0,84	62,00	5,38
Wien	AT130	0,21	0,00	80,40	3,70	20.700,00	8,00	10,80	42,30	17,37	10,40	0,68	62,00	0,27
Klagenfurt-Villach	AT211	0,67	0,41	81,40	4,10	21.300	10,80	6,21	30,60	16,64	6,00	0,93	62,00	9,91
Oberkärnten	AT212	0,72	2,71	81,40	4,10	21.300	10,80	6,21	30,60	16,64	6,00	0,92	62,00	10,25
Unterkärnten	AT213	0,68	1,20	81,40	4,10	21.300	10,80	6,21	30,60	16,64	6,00	0,90	62,00	10,66
Graz	AT221	0,54	3,27	81,30	4,00	21.500	9,20	5,00	28,70	9,86	5,20	0,88	62,00	8,26
Liezen	AT222	0,77	3,80	81,30	4,00	21.500	9,20	5,00	28,70	9,86	5,20	0,93	62,00	10,88
Östliche Obersteierma	AT223	0,81	5,94	81,30	4,00	21.500	9,20	5,00	28,70	9,86	5,20	0,89	62,00	11,68
Oststeiermark	AT224	0,46	1,57	81,30	4,00	21.500	9,20	5,00	28,70	9,86	5,20	0,85	62,00	8,31
West- und Südsteierma	AT225	0,57	1,83	81,30	4,00	21.500	9,20	5,00	28,70	9,86	5,20	0,89	62,00	9,39
Westliche Obersteierm	AT226	0,77	7,67	81,30	4,00	21.500	9,20	5,00	28,70	9,86	5,20	0,93	62,00	11,03
Innviertel	AT311	0,26	0,00	81,50	3,00	21.900	8,00	8,90	29,00	8,05	6,10	0,75	62,00	6,07
Linz-Wels	AT312	0,21	0,01	81,50	3,00	21.900	8,00	8,90	29,00	8,05	6,10	0,72	62,00	4,65
Mühlviertel	AT313	0,43	0,09	81,50	3,00	21.900	8,00	8,90	29,00	8,05	6,10	0,86	62,00	8,06
Steyr-Kirchdorf	AT314	0,61	0,87	81,50	3,00	21.900	8,00	8,90	29,00	8,05	6,10	0,85	62,00	9,88
Traunviertel	AT315	0,61	0,09	81,50	3,00	21.900	8,00	8,90	29,00	8,05	6,10	0,84	62,00	9,29
Lungau	AT321	0,76	0,82	82,40	2,50	22.400	7,90	6,89	32,30	8,95	6,10	0,99	62,00	10,29
Pinzgau-Pongau	AT322	0,66	1,36	82,40	2,50	22.400	7,90	6,89	32,30	8,95	6,10	0,88	62,00	9,63
Salzburg und Umgebun	AT323	0,56	0,13	82,40	2,50	22.400	7,90	6,89	32,30	8,95	6,10	0,85	62,00	8,90
Außerfern	AT331	0,72	0,40	82,40	2,20	21.600	8,60	6,80	29,90	11,40	5,30	0,97	62,00	9,80
Innsbruck	AT332	0,60	4,17	82,40	2,20	21.600	8,60	6,80	29,90	11,40	5,30	0,91	62,00	8,55
Osttirol	AT333	0,56	2,29	82,40	2,20	21.600	8,60	6,80	29,90	11,40	5,30	0,97	62,00	8,47
Tiroler Oberland	AT334	0,51	0,76	82,40	2,20	21.600	8,60	6,80	29,90	11,40	5,30	0,93	62,00	7,72
Tiroler Unterland	AT335	0,68	1,10	82,40	2,20	21.600	8,60	6,80	29,90	11,40	5,30	0,83	62,00	9,81
Bludenz-Bregenzer Wal	AT341	0,72	0,02	82,40	3,20	22.900	10,30	10,86	27,60	7,69	7,81	0,92	62,00	9,43
Rheintal-Bodenseegeb	AT342	0,57	0,00	82,40	3,20	22.900	10,30	10,86	27,60	7,69	7,81	0,87	62,00	7,57

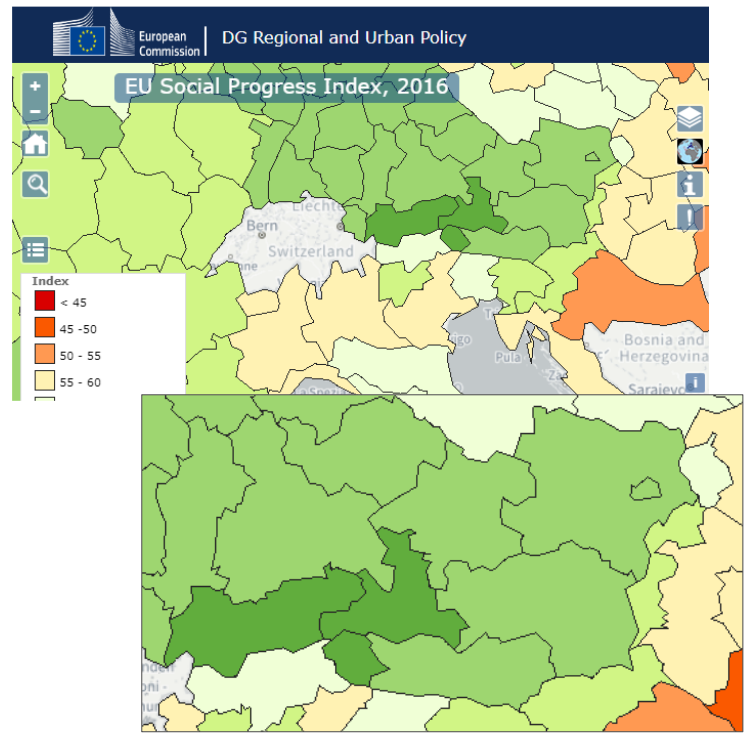
Contrast of results with other European quality of life reference indexes

To seek consistency of results, we compared results with the EU-SPI Social Progress Indicator, produced by EUROSTAT in 2016 and in 2020. We observed a general alignment of results.



In the ESPON maps we see a general pattern where TQoL is maximum in German and Swiss NUTS regions and is also performing relatively well in Austri and France. Italian and Slovenian NUTS regions are lagging somehow behind.

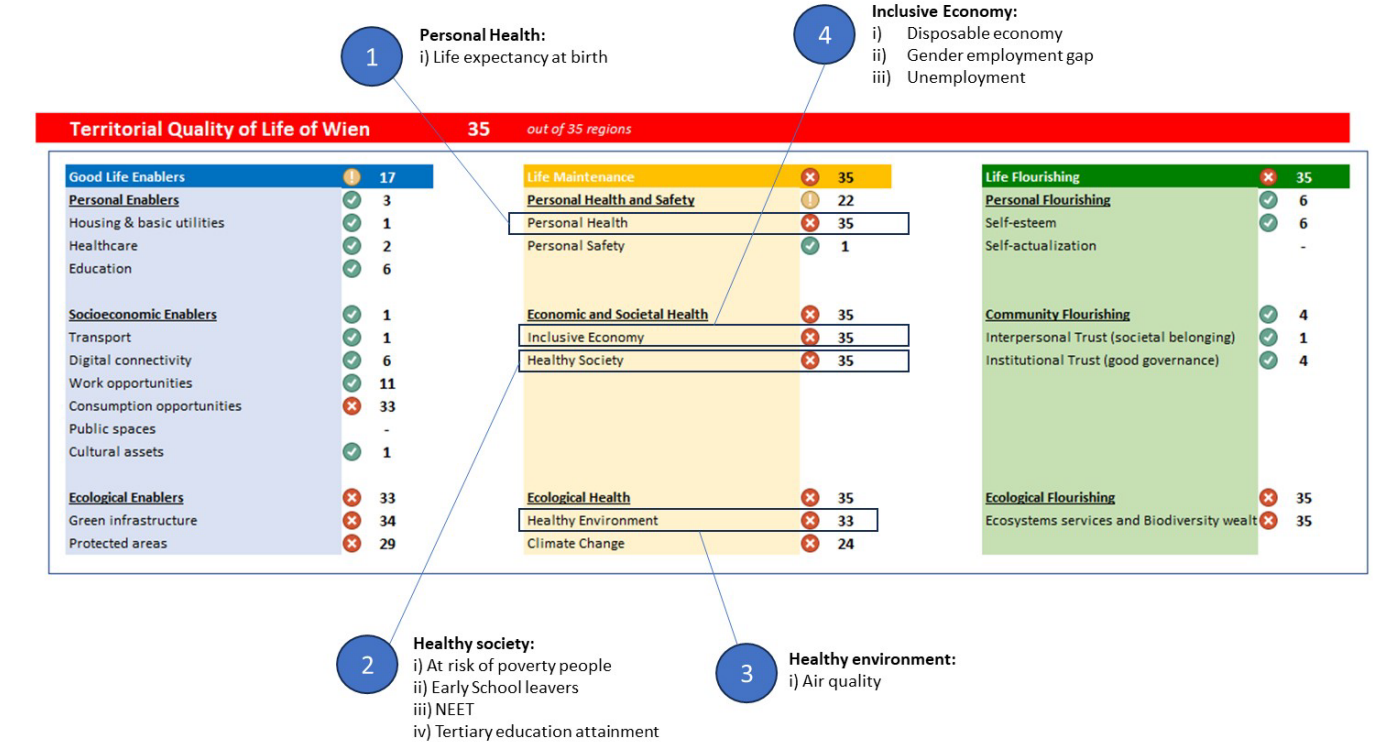
In relation to Vienna, the central NUTS3 region relative to the city score low (red), and the surrounding NUTS of Wiener Umland/Nordteil, and Südteil score also relatively low (orange)



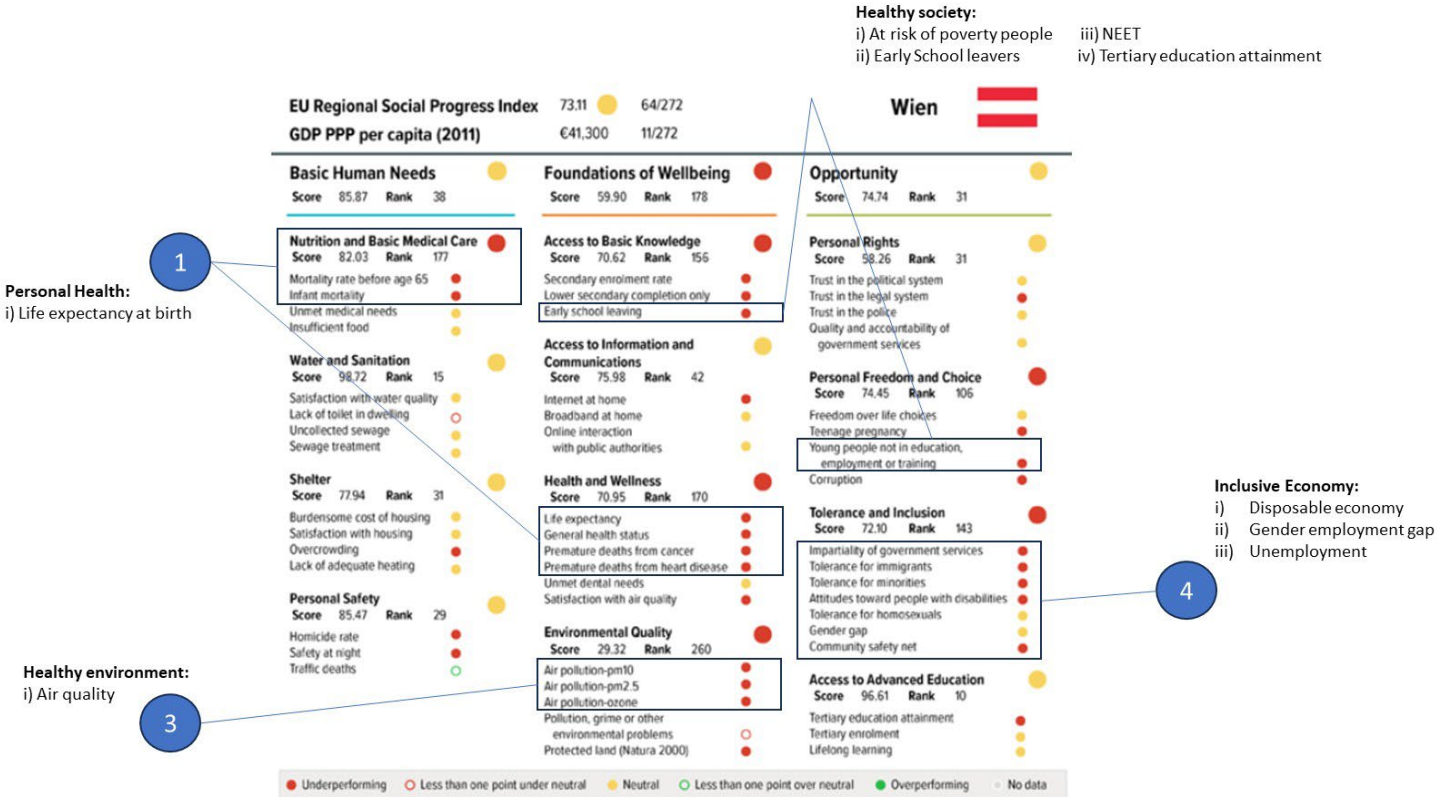
Similar patterns are reproduced in the Eurostat maps (now at NUTS2 level), only the colours are less contrasted as the cartography references to European averages. But again Italy and Slovenia tend to show poorer patterns than Germany and western Austria. Eurostat does not consider Swiss NUTS regions.

The underperforming indicators tend to be similar in both the ESPON TQoL system (top) and the EU-SPI index by Eurostat (bottom).

ESPON TQoL Index



EUROSTAT EU-SPI Index



Finally, if we again spot the variables that drag the results of Vienna short, we come across similar indicators in relation to our ESPON TQoL index.

			Personal Health: i) Life expectancy at birth	Healthy environment: i) Air quality			Healthy society: i) At risk of poverty people ii) Early School leavers iii) NEET iv) Tertiary education attainment	
			1	3			2	
Region Code	Region	Country	Life expectancy	Air pollution-pm10	Air pollution-pm2.5	Protected land (Natura 2000)	Teenage pregnancy	Young people not in education, employment or training
AT11	Burgenland (AT	Austria	80,90	24,56	18,35	27,97	0,66	
AT12	Niederösterreic	Austria	80,70	22,62	17,09	29,08	0,72	7,07
AT13	**Wien**	**Austria**	**80,10**	**28,07**	**23,45**	**13,35**	**1,47**	**10,5**
AT21	Kärnten	Austria	81,30	18,60	14,54	8,37	0,85	7,33
AT22	Steiermark	Austria	81,45	21,79	16,15	16,61	0,86	5,9
AT31	Oberösterreich	Austria	81,50	19,27	14,71	6,27	0,74	5,73
AT32	Salzburg	Austria	82,00	16,39	13,11	15,27	0,66	5,9
AT33	Tirol	Austria	82,25	12,48	10,1	14,62	0,68	5,9
AT34	Vorarlberg	Austria	82,35	14,05	10,63	8,19	0,81	7,37
		Average	81,39	19,76	15,35	15,53	0,83	6,96

Some considerations can be made in view of the observed results:

Vienna tends to score worse under the framework by ESPON TQoL than in the framework of Eurostat and its EU-SPI index. The latter index provides for more "supply-driven" (i.e. related to the provision of infrastructure and services) indicators and subcomponents of the final indicators, subcomponents that under the ESPON TQoL proposed framework tend to get grouped under fewer categories, more specifically in the Personal Enablers and Socioeconomic Enablers. In these specific categories, Vienna performs very well, most of the times it has a leader position in the region. However, ESPON TQoL proposes several additional subcomponents in relation to Eurostat where Viena underperforms, overall Vienna tends to perform worse in the ESPON index than in the Eurostat index.

Complexity of the territorial unit comparison. The metropolitan area of Vienna is divided in two regions, Central Vienna as the downtown and the peripheral areas as the surrounding region. Many of the appealing attributes of the whole metropolitan area, especially the ecological aspects, are attributed to the neighbouring region. For example, a more diverse land use can be expected in the peripheral areas. In the ecological category Green Infrastructure, the indicator farmland abandonment is measured by collecting the data of the available green areas from land uses, which is relatively low in Central Vienna. The indicator protected areas shows the same pattern and is also subject to a tighter definition of "protected areas" in Austria which excludes urban parks that may be present in the central area.

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