



# Sustainable and Inclusive Wellbeing, the road forward

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## **Abstract**

The triple planetary crisis (climate change, biodiversity loss and pollution), the Covid pandemic, financial crises, persisting poverty, social exclusion, increasing inequality, and societal polarisation all clearly demonstrate that GDP is incomplete as a measure of a country's economic performance and overall progress. **In this context, people's 'wellbeing' is gaining political traction as an explicit political objective.**

To progressively complement the use of GDP with wellbeing indicators in EU policymaking, also in line with the 8<sup>th</sup> Environmental Action Programme, the 2023 Strategic Foresight Report has announced Commission work on **developing Sustainable and Inclusive Wellbeing metrics**. Such complementary (especially augmented-GDP-type) metrics would highlight the contributions of environmental, health, or social policies to people's wellbeing beyond the traditional economic perspective. They would facilitate the communication of political challenges and the options to address them. Finally, they would be instrumental to **compare the capacity of the Union to deliver sustainable and inclusive wellbeing, vis-à-vis other geopolitical actors.**

The work also aims to assemble **a consensus-based medium-sized dashboard of around 120 indicators**. This concise, balanced and comprehensive list of indicators would contain the most important aspects of a country's progress. With the additional help of statistical analyses, it would also pave the way for **a small headline dashboard**, more suitable for broad communication purposes.

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## Executive summary

The triple planetary crisis, the Covid pandemic, financial crises, persisting poverty, social exclusion and increasing inequality and societal polarisation all clearly demonstrate that GDP is incomplete as a measure of economic performance and overall societal progress. **In this context, people’s ‘wellbeing’ – an objective enshrined in the Treaty of the European Union – is gaining political traction as an explicit political objective.**

Despite the wide range of wellbeing-related activities and a growing interest in moving beyond growth, today GDP and its growth remain the most important economic indicators that serve as a gauge of the overall state of an economy. To progressively complement the use of GDP with wellbeing indicators in EU policymaking, **the 2023 Strategic Foresight Report has announced the launch of Commission work on developing Sustainable and Inclusive Wellbeing metrics.**

The availability of complementary, especially augmented-GDP type metrics, would help to **demonstrate the progress of wellbeing inside and outside the EU**, highlighting in particular the contributions of environmental, health, or social policies to people’s wellbeing beyond the traditional economic perspective. Such metrics would also facilitate the communication of political challenges and the options to address them in a people- and planet-centred manner.

### The road to the 2023 Strategic Foresight Report

Commission services and the European Environment Agency reflected internally on an integrated approach to wellbeing and its measurement. This exploration resulted in the following outcomes, which gave the basis for the announcement in the 2023 SFR:

- An agreement on a **basic approach towards going beyond GDP**, by assessing ‘the wellbeing of all people of current and future generations, and of the planet’, labelled as ‘Sustainable and Inclusive Wellbeing’ (SIWB).
- An agreement on the development of a **prototype multidimensional SIWB framework and indicator dashboard**, which would **guide the development of experimental augmented-GDP type metrics** within the scope of complementing official statistics.
- A selection of the most salient monitoring tools (from the Commission and beyond) and their **first mapping** into the mentioned SIWB framework, in order to assess synergies, overlaps and gaps. The results of the mapping exercise show that many of the existing tools are sectorial and thus depict only specific aspects of SIWB, and that some important elements of SIWB are not consistently covered.
- A potential set of **additional medium-term activities** for the Commission services, e.g., model-based indicators, integrated assessment models for policymaking and projections, and methodologies to obtain more timely indicators for social and environmental aspects.

### Next steps

The two main work strands are to develop beyond-GDP metrics to complement GDP, and to construct a pilot indicator dashboard for SIWB.

**The development of experimental augmented-GDP type metrics, based on the dimensions identified via the SIWB framework**, would enable a comprehensive view and a recognition of the various linkages. One approach is to assign monetary values to relevant factors of sustainable and inclusive wellbeing and use these values to augment GDP. These can include different aspects of

quality of life (e.g., health, education, and recreation), unpaid care and domestic work, inequalities, costs of environmental damage (e.g., pollution and GHG emissions), or natural resource exhaustion. A specific pilot example (using life expectancy as a proxy for the health dimension to calculate a health-adjusted GDP) has been developed and presented in the 2023 SFR.

The dashboard work strand develops the specific monitoring framework, by populating it with key existing indicators, identifying gaps, and working towards headline indicators and composite indices. The first step is to develop **a consensus-based medium-sized dashboard of around 120 indicators**. It would be a tractable-size but balanced and comprehensive list of indicators for SIWB, containing the most important aspects of a country's progress. With the additional help of statistical analyses, it would also pave the way for the selection of indicators (including summary measures using composites and other statistical techniques) for **a small headline dashboard**, more suitable for communication purposes.

The work is complementary to the ongoing **revision of the system of national accounts and the system of environmental economic accounting**. It also builds on and joins forces with existing work in the EU (such as the European Semester and multiple wellbeing-related Horizon Europe consortia) and globally (such as the SDGs, the UN's work on Our Common Agenda and the Summit for the Future, and the UN Network of Economic Statisticians).

## 1 Introduction: the Sustainable and Inclusive Wellbeing initiative

The triple planetary crisis (climate change, biodiversity loss and pollution), the Covid pandemic, financial crises, persisting poverty, social exclusion and increasing inequality and societal polarisation all clearly demonstrate that GDP is incomplete as a measure of economic performance and overall societal progress (see Annex 1 on a brief history of 'beyond GDP'). **In this context, people's 'wellbeing' is gaining political traction as an explicit political objective.** In 2019, the OECD published a report on the economy of wellbeing (OECD, 2019), and some governments (for example Italy, Finland, New Zealand, or Scotland) have already developed or even started to put into practice their frameworks for wellbeing (see Annex 2). There is also increased interest at the EU level: 2019 Council Conclusions (Council of the European Union, 2019) call for a wellbeing economy <sup>(1)</sup>; the European Green Deal, the 8<sup>th</sup> Environment Action Programme, the European Pillar of Social Rights Action Plan, multiple Strategic Foresight Reports and the 2024 Annual Sustainable Growth Survey all point in that direction.

**Wellbeing is an objective enshrined in the Treaty on European Union** <sup>(2)</sup>, and there is a wide range of related activities across the Commission, reflecting the political attention given to wellbeing. For example, the UN's Sustainable Development Goals and the European Pillar of Social Rights are now reflected in the European Semester's competitive sustainability framework (addressing fairness and environmental sustainability aspects in social and economic policy coordination, recognising that an economy must work for the people and the planet <sup>(3)</sup>). The 8th Environment Action Programme aims to ensure wellbeing for all within the planetary boundaries, adding a sustainability dimension to wellbeing.

Despite the growing interest in wellbeing and moving beyond growth, today GDP and its growth remain the most important economic indicators that serve as a gauge of the overall state of an economy, with policymakers relying heavily on these indicators to form economic policy decisions, including fiscal and monetary policy. Environmental and social aspects are also reflected in many public and private decisions, but they need to be further mainstreamed to guide policy decisions at central programming levels.

To progressively complement the use of GDP with wellbeing indicators in EU policymaking, **the 2023 Strategic Foresight Report (European Commission, 2023, SFR from here on) has announced the launch of Commission work on developing Sustainable and Inclusive Wellbeing metrics.** It follows an integrated approach, which builds on the work done so far and brings together different strands of work for the first time, while also reflecting the evolution of wellbeing.

The availability of complementary, especially augmented-GDP type metrics, would help to demonstrate the progress of wellbeing inside and outside the EU, highlighting in particular the contributions of environmental, health, or social policies to people's wellbeing beyond the traditional economic

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<sup>(1)</sup> According to the Council conclusions: "The Economy of Wellbeing is a policy orientation and governance approach which aims to put people and their wellbeing at the centre of policy and decision-making". The Wellbeing Economy Alliance defines the wellbeing economy as an economy designed to serve people and the planet, not the other way around (<https://weall.org/what-is-wellbeing-economy>)

<sup>(2)</sup> Article 3(1) TEU says: "The Union's aim is to promote peace, its values and the well-being of its people".

<sup>(3)</sup> See the Annual Sustainable Growth Strategy 2020, in European Commission (2019).



perspective. Such metrics would facilitate the communication of political challenges and the options to address them in a people- and planet-centred manner, while ensuring that economic growth does not destroy its very foundations or hinders overall progress. Their emphasis on the wellbeing of current and future generations would help to assess the consequences of mitigating climate change and accelerating the green transition, to “enshrine solidarity between generations”, and to qualify the comparison of different generations’ wellbeing beyond income levels. Finally, they would be instrumental to **compare the capacity of the Union to deliver sustainable and inclusive wellbeing, vis-à-vis other geopolitical actors.**

## 1.1 The road to the 2023 Strategic Foresight Report

Commission services and the European Environment Agency reflected internally on an integrated approach to wellbeing and its measurement. This exploration resulted in the following outcomes, which gave the basis for the announcement in the 2023 SFR:

- An agreement on a **basic approach towards going beyond GDP**, by assessing ‘the wellbeing of all people of current and future generations, and of the planet’, labelled as ‘Sustainable and Inclusive Wellbeing’ (SIWB).
- An agreement on the development of a **prototype multidimensional SIWB framework and indicator dashboard**, which would **guide the development of experimental augmented-GDP type metrics** within the scope of complementing official statistics.
- A selection of the most salient monitoring tools (from the Commission and beyond) and their **first mapping** into the mentioned SIWB framework, in order to assess synergies, overlaps and gaps.
- A potential set of **additional medium-term activities**, guided by the SIWB framework, for the Commission services, e.g., model-based indicators, integrated assessment models for policymaking and projections, and methodologies to obtain more timely indicators for social and environmental aspects.

The results of the inter-service discussions confirmed a rich landscape of definitions, frameworks, metrics, and indicators related to wellbeing and sustainability. They also demonstrated the **need for further work**, including a reflection on whether what is currently available is **still fit for the constantly evolving socio-economic-environmental reality.**

The results of the mapping exercise (as summarised in Table 1) show that many of the existing tools are sectorial and thus depict only specific aspects of SIWB (for more details see Section 3). Some important elements of SIWB are not consistently covered, such as social and natural capital/endowment, or resilience related to digital, demographic, and geopolitical challenges. There are also gaps in relation to inclusiveness, particularly when it comes to spill-over effects beyond the EU (‘wellbeing elsewhere’, for example, the carbon content or environmental footprint of EU imports – as wellbeing here should not hamper wellbeing elsewhere). Finally, the discussion confirmed that the definition and indicators of SIWB should be tailored to the EU needs and key political objectives, related for instance to the ongoing sustainability transitions and intergenerational solidarity (i.e., wellbeing needs to be maintained over time for future generations). Building on such lessons, a new dashboard would bring added value by a comprehensive, balanced yet compact representation of SIWB.

## 1.2 Next steps

The internal work announced in the 2023 Strategic Foresight Report is currently **coordinated by an inter-service working group**. Its two main work strands are to develop beyond-GDP metrics to complement GDP, and to construct a pilot indicator dashboard for SIWB. There are further discussions about potential additional future work, based on gaps identified along the way.

**The development of experimental augmented-GDP type metrics, based on the dimensions identified via the SIWB framework**, would enable a comprehensive view and a recognition of the various linkages. The development of these metrics could build on various indicators and partial aggregates from SIWB components or dimensions <sup>(4)</sup>. One can also assign monetary values to relevant factors of sustainable and inclusive wellbeing and use these values to augment GDP. These can include different aspects of quality of life (e.g., health, education, and recreation), unpaid care and domestic work, inequalities, costs of environmental damage (e.g., pollution and GHG emissions), or natural resource exhaustion. While the former set mostly refers to current wellbeing and inclusiveness, the latter two bring in the sustainability perspective. A specific pilot example (using life expectancy as a proxy for the health dimension to calculate a health-adjusted GDP) has been developed <sup>(5)</sup>.

Table 1: Mapping of monitoring tools to SIWB components: coverage by components based on a sub-dimension-level analysis

		EC											non-EC	
		EU SDGs 2022	Quality of Life	Social scoreboard	Resilience Dashboards	TPI	EU Regional SPI	8th EAP	Statistics for EGD	Circular Economy	ES Country Reports	OECD	The Doughnut	
<b>LEGEND</b> Score describing the coverage considering both the number of subdimensions covered and the number of indicators in each subdimension: ● over 0.67 ● 0.33 to 0.67 ● 0 to 0.33 ○ 0														
Wellbeing today		●	●	●	●	●	●	○	●	○	●	●	●	●
Sustainability	Social and economic resources for future wellbeing	●	●	●	●	●	●	○	●	○	●	●	●	●
	Resilience: societal challenges and sustainability transitions	●	●	●	●	●	●	○	●	●	●	●	●	●
	Natural capital/endowment	●	○	○	○	○	○	○	○	○	○	○	○	○
	Resilience: nature and planetary boundaries	●	○	○	○	○	○	○	○	○	○	○	○	○
Inclusiveness		●	●	●	●	●	●	○	○	○	○	○	○	○
Institutional capacity and quality		●	○	○	○	○	○	○	○	○	○	○	○	○
<b>Total number of (mapped) indicators</b>		<b>100</b>	<b>103</b>	<b>39</b>	<b>119</b>	<b>27</b>	<b>55</b>	<b>24</b>	<b>25</b>	<b>22</b>	<b>155</b>	<b>79</b>	<b>28</b>	

Notes: See the notes for Table 2 about the full set of mapped tools and number of indicators. The 'coverage score' of each cell is constructed as follows. At the sub-dimension level, a 0 is assigned if there were no corresponding indicators (no coverage), 0.5 if there was one corresponding indicator (some coverage) and 1 if there were at least two corresponding indicators (good coverage). The component score is the average of all the sub-dimension scores. Relative to Table 3, the colour cut-offs were adjusted for better visualisation.

<sup>(4)</sup> These partial aggregates could include a synthetic index for current wellbeing, as well as other elements such as human and social capital, resilience, planetary boundaries, the wellbeing of nature, and inclusiveness.

<sup>(5)</sup> See pp. 10-13 of the 2023 Strategic Foresight Report, and Benczur, Kvedaras, and Preziosi (2023).

The dashboard work strand develops the specific monitoring framework, by populating it with key existing indicators, identifying gaps, and working towards headline indicators and composite indices. The first step is to develop **a consensus-based medium-sized dashboard of around 120 indicators**. It would be a tractable-size but balanced and comprehensive list of indicators for SIWB, containing the most important aspects of a country's progress. With the additional help of statistical analyses, it would also pave the way for the selection of indicators (including summary measures using composites and other statistical techniques) for **a small headline dashboard**, more suitable for communication purposes. This two-tiered approach is reminiscent of the proposal of the UN Network of Economic Statisticians <sup>(6)</sup>, planning to develop a System of Population and Social Accounts/Statistics and a specific Framework for Inclusive and Sustainable Wellbeing small indicator set.

The work will be complementary to the ongoing **revision of the system of national accounts and the system of environmental economic accounting** <sup>(7)</sup>. It also builds on and joins forces with existing work in the EU (such as the European Semester and multiple wellbeing-related Horizon Europe consortia <sup>(8)</sup>) and globally (such as the SDGs, the UN's work on Our Common Agenda and the Summit for the Future <sup>(9)</sup>, and the UN Network of Economic Statisticians). This would be a dynamic process into which new elements are progressively introduced, over a medium-term time horizon.

In parallel, proposals for medium-term activities are being identified and assessed, covering complementary streams of activities like developing new and timelier indicators through surveys and nowcasting techniques, studying and measuring social capital, or developing integrated assessment models for EU policies.

This report documents these foundations and describes the ongoing efforts and plans. By informing interested stakeholders and the public, it also serves as an important step towards a broad conversation on wellbeing and the co-development of its measurement.

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<sup>(6)</sup> <https://unstats.un.org/unsd/statcom/groups/NetEconStat/>, the Beyond GDP Sprints of 2022 and 2023, and their [proposed next steps](#).

<sup>(7)</sup> Similarly to this workstream, the SIWB framework also considers the interlinkages between the economy and the natural environment. SIWB, however, would go beyond, for example to include other areas like health in order to provide experimental augmented-GDP type metrics across these multiple dimensions.

<sup>(8)</sup> [WISE Horizons](#), [SPES](#), [ToBe](#), [REAL](#), and [WISER](#). A coordination and support action project [MERGE](#) also kicked off in February 2024, with the JRC as an associated partner.

<sup>(9)</sup> <https://www.un.org/en/content/common-agenda-report/> and <https://www.un.org/en/summit-of-the-future>

## 2 Sustainable and Inclusive Wellbeing

### 2.1 The basic approach and main ingredients

Drawing on Decancq, Fleurbaey, and Schokkaert (2015), there are *three main approaches to conceptualize (and eventually measure) wellbeing at the individual level*. The ‘objective’ approach recognizes the multidimensionality of wellbeing, including economic resources such as income, and non-economic aspects of people’s life – what they do and what they can do (including capabilities and opportunities <sup>(10)</sup>), what social connections they have, and what natural environment they live in. The *subjective wellbeing* (happiness studies <sup>(11)</sup>) approach employs surveys (or biophysical tools), where respondents assess their satisfaction with various aspects of their life, including overall life satisfaction. Finally, the *preference-based approach* (for example, money-metric utility) uses individual valuations and choices to derive utility levels (or willingness-to-pay) that can be compared across individuals <sup>(12)</sup>.

Individual wellbeing then needs to be translated to societal wellbeing, which depends on the full distribution of individual wellbeing (inclusiveness: ‘wellbeing for all’), the way different individual levels of wellbeing are added up (inequality aversion of the underlying ‘social welfare function’), and non-individualistic elements like interpersonal trust, or social connections in various layers (like families, or various ethnic, religious, geographical, territorial or even ‘virtual’ communities). Public or common goods may also enter both at the individual and the societal level, and their valuation represents an important challenge <sup>(13)</sup>. Due to correlated outcomes (for example, higher income tends to come with better life expectancy), it matters whether one aggregates wellbeing dimensions at the individual level first and then across individuals, or the other way around.

*The agreed approach was to keep the multidimensionality of wellbeing (without imposing an underlying preference structure), with subjective wellbeing as one but not the only ingredient.* Distributional aspects would then be addressed by multidimensional measures of inequality, yielding an important focus on inclusiveness.

The next important ingredient is the maintenance of societal wellbeing across generations and within planetary boundaries. This can be labelled as *sustainable wellbeing*, which can be broadly described as *wellbeing for people and the planet, today and tomorrow*. On the one hand, it continues the sustainable development notion underlying the sustainability approach of the first Stiglitz Report (Stiglitz, Sen and Fitoussi, 2009) and the OECD wellbeing framework <sup>(14)</sup>: “Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their

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<sup>(10)</sup> Sen (1985) looks at wellbeing in terms of functionings and capabilities. Wellbeing is defined by multiple functionings (achievements) of a person. These functionings have to be distinguished from the resources or commodities which are used to achieve them. In a next step, Sen introduces the notion of capabilities, to integrate the element of freedom and choice, and to capture the real opportunities of persons.

<sup>(11)</sup> A major global initiative is the UN’s Global Happiness Report and its corresponding index (<https://worldhappiness.report/>).

<sup>(12)</sup> This is thus also such a concept of individual wellbeing that does not coincide with subjective welfare, but is based on individual preferences. Instead of assessing functionalities and opportunities (the Sen approach), it uses outcomes to deduct the underlying constrained choices of individuals (their utility). It is the monetisation step that then makes different utility levels/assessments comparable even in the absence of an underlying welfarist approach.

<sup>(13)</sup> See, for example, Mazzucato (2018).

<sup>(14)</sup> See <https://www.oecd.org/statistics/measuring-well-being-and-progress.htm>

own needs” (United Nations, 1987). On the other hand, it is in line with the vision of the 8<sup>th</sup> Environment Action Programme (“living well and within planetary boundaries”, European Parliament and Council, 2022), and the most recent literature that fosters this concept as it offers “integration, from the individual locus dominant in wellbeing, to interrelated environmental (nature-ecosystems) and human systems (society-economy)” (O’Mahony, 2022). Relative to current wellbeing, the term ‘sustainable’ adds a strong ‘production’ and systems perspective.

To emphasise the notion of ‘leaving no one and no place behind’, inclusiveness has been added explicitly, leading to the final term *Sustainable and Inclusive Wellbeing* (SIWB). SIWB is about the wellbeing of all people of current and future generations, and of the planet. Coinciding with the terminology and approach of multiple parallel initiatives, like the WISE Horizons research project, the UN Network of Economic Statisticians, or the European Economic and Social Committee <sup>(15)</sup>, **SIWB can become a new shared terminology and common ground for ‘beyond GDP’.**

To get an understanding of how SIWB relates to existing practices and to identify its main ingredients (components and dimensions), an agreed selection of the most salient existing wellbeing frameworks, adopted by individual countries or international organizations, have been reviewed (see Annex 2).

The findings and subsequent discussions guided the development of a broad framework, describing the main ingredients that constitute/affect SIWB and their relationships. These are its main agreed features:

- The SIWB framework distinguishes between **wellbeing for all today** and tomorrow (**resources for future wellbeing**, as in the approach of the OECD, New Zealand, or Belgium).
- The SIWB framework considers explicitly the distributive aspects of wellbeing, hence accounting for inequalities in the distribution of wellbeing dimensions (in several domains) and giving a **central role to both inclusiveness and intergenerational fairness** <sup>(16)</sup>. The centrality of an intergenerational approach echoes the planned *Declaration on Future Generations* <sup>(17)</sup> of the United Nations.
- The SIWB framework encompasses **social, economic, and environmental aspects of sustainability** by looking at **capitals for future wellbeing** (human, social, economic, but also natural capital/endowment, following the OECD approach), and by recognizing the importance of **resilience** <sup>(18)</sup>, to guarantee the maintenance of wellbeing and its transmission to future generations under challenging circumstances and through the necessary sustainability transitions. The incorporation of resilience represents a novelty with respect to

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<sup>(15)</sup> The term has been advocated in a 2019 EESC opinion: The sustainable economy we need, <https://www.eesc.europa.eu/en/our-work/opinions-information-reports/opinions/sustainable-economy-we-need-own-initiative-opinion>

<sup>(16)</sup> In line with the aim of the European Pillar of Social Rights, “to make Europe a fairer place, inclusive and full of opportunities for everyone”. Inclusiveness also includes measures of the inequality of opportunities and intergenerational mobility, emphasising the need to prevent the transmission of disadvantages across generations.

<sup>(17)</sup> See <https://www.un.org/en/summit-of-the-future/declaration-on-future-generations>

<sup>(18)</sup> Here we use the notion of resilience from the 2020 Strategic Foresight Report (European Commission, 2020). Resilience is defined as the ability not only to withstand and cope with challenges but also to undergo transitions, in a sustainable, fair, and democratic manner. See Manca, Benczur and Giovannini (2017) for further details.

the existing approaches monitoring wellbeing. It reinforces the production/systems perspective of sustainability (as advocated in De Smedt, Giovannini, and Radermacher, 2018). The SIWB framework also aims at highlighting the importance of integrating the social, economic, and environmental aspects of sustainability, in line with the 2023 Strategic Foresight Report.

- The SIWB framework **links resilience to the megatrends** <sup>(19)</sup>, drivers of change (EEA, 2019), and various shocks, under the strategic foresight umbrella.
- The SIWB framework gives a **prominent role to nature**, in line with the existing Commission environmental frameworks (the 8<sup>th</sup> EAP in particular). It recognizes that the natural capital/endowment provides critical inputs to human existence and wellbeing that cannot be substituted ('strong sustainability', Pelenc, Ballet, and Dedeurwaerdere, 2015). It thus goes beyond the merely instrumental value of nature by considering it not only in terms of capital and ecosystem services, but bringing into consideration its status and condition, its contributions to people and prosperity (which goes beyond ecosystem services like food and flood protection, including, for instance, nature's social and cultural significance; see Díaz et al, 2018), as well as the human pressure on nature and the impact of nature on people <sup>(20)</sup>.
- The SIWB framework **integrates the concept of 'planetary boundaries'** <sup>(21)</sup>, in line with the 8<sup>th</sup> EAP, the Doughnut framework (Raworth, 2012) and the ZOE Compass towards 2030 (Barth et al, 2021) to reflect the safe and just operating space for the wellbeing of people, without compromising the equilibrium of nature and resources for future generations.
- Finally, the SIWB framework recognises the importance of **institutions and governance** for ensuring current and future wellbeing and its fair distribution, intergenerational justice and the capacity to face challenges and navigate transitions.

While these ingredients and their interconnectedness will be described in detail in section 2.2., Figure 1 already offers a simplified visualisation of the SIWB framework. This takes inspiration from the doughnut approach of social and planetary boundaries (Raworth, 2017), the capital and system approaches to sustainability (De Smedt, Giovannini, and Radermacher, 2018) and the 'system view' of the JRC conceptual framework for resilience (Manca, Benczur, and Giovannini, 2017).

Reading from the inside, the figure shows the balance between wellbeing for all today and tomorrow. This requires socio-economic and environmental sustainability. One side of sustainability is the preservation of capitals (not shown explicitly): resources set aside for tomorrow become the foundations for producing wellbeing in the future. Since shocks, various trends, transitions and other challenges may jeopardise the wellbeing of future generations, resilience is also crucial for sustainability (not shown explicitly). One part of these challenges reflect various societal shocks, trends

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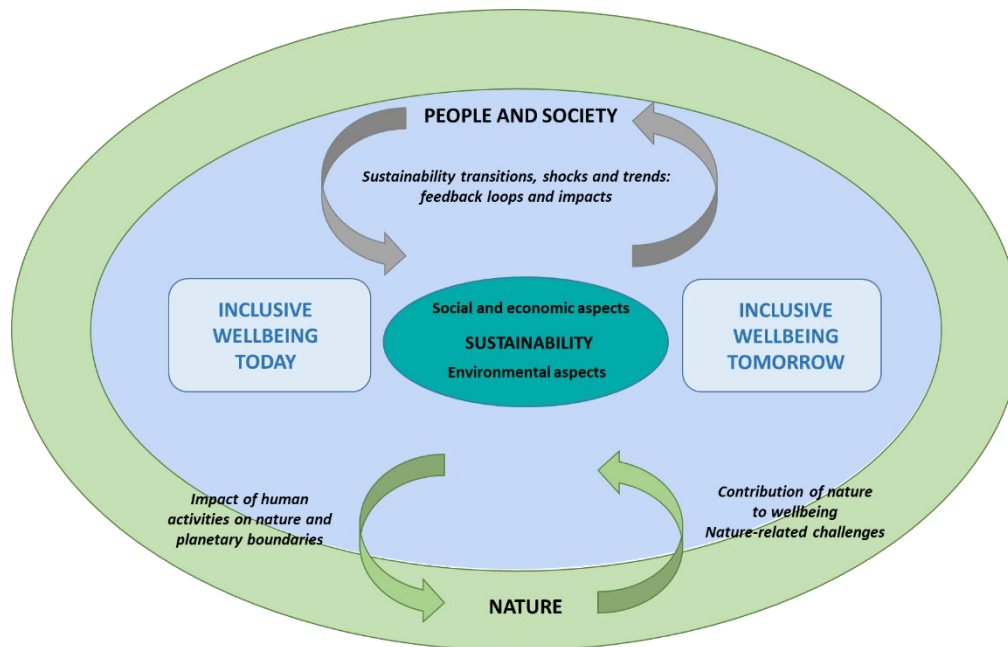
<sup>(19)</sup> "Megatrends are long-term driving forces that are observable now and will most likely have significant influence on the future" (see [https://knowledge4policy.ec.europa.eu/foresight/tool/megatrends-hub\\_en](https://knowledge4policy.ec.europa.eu/foresight/tool/megatrends-hub_en)).

<sup>(20)</sup> The framework nevertheless stops short of proposing to account for the intrinsic value of nature, mainly due to practical difficulties about measurement tools and the availability of indicators (for different approaches to value nature, see the IPBES conceptual framework, Díaz et al. (2015)).

<sup>(21)</sup> Quoting from the doughnut model's website: "The environmental ceiling consists of nine planetary boundaries, as set out by Rockstrom et al. (2009), beyond which lie unacceptable environmental degradation and potential tipping points in Earth systems."

and transitions (digital, energy, green, demographic) which are subject to feedback loops. These also include the navigation of the green transition (a sustainability transition <sup>(22)</sup>). Another part of the challenges comes from interactions between people and society and nature (pressures of human activities on nature and its planetary boundaries, nature-related challenges such as climate change or natural disasters). These interactions also include the contribution of nature to people and societal wellbeing, both current and future. Finally, the figure shows that the wellbeing of people and society is strongly embedded within nature, and nature plays a role beyond being one of the capitals (institutions are not shown for simplicity).

Figure 1: Visual representation of the SIWB framework



## 2.2. The prototype multidimensional framework for SIWB

To move towards monitoring SIWB, the conceptual framework is translated into a detailed structure (a measurement framework), which is presented in Figure 2. It depicts the various components and dimensions of SIWB and will be used as the organisational basis for the indicators that will be selected for its monitoring.

The SIWB framework builds on several selected existing Commission monitoring tools<sup>23</sup>. Indicators from these tools will be regrouped and streamlined to contribute to different components and dimensions of SIWB, highlighting synergies and complementarities and minimising the overlaps. The linkages among the SIWB framework and the EU SDG indicator set will require particular attention, as the latter represents one of the most prominent holistic frameworks adopted by the Commission. Any

<sup>(22)</sup> See, for example, <https://www.eea.europa.eu/themes/sustainability-transitions>

<sup>(23)</sup> The list of selected monitoring tools and frameworks can be found in Annex 4. These are typically lists of statistical indicators, and represent a subset of all Commission monitoring tools, covering aspects linked to SIWB. The selection was done during the exploratory discussions before the 2023 SFR.

identified gap will be addressed either by complementing with other sources or providing recommendations for future data collection.

Figure 2: Main components and their dimensions of the SIWB framework

WELLBEING TODAY	SUSTAINABILITY		WELLBEING TOMORROW
Material living conditions Housing Productive and other main activity Health Education Leisure and social interactions Physical safety Governance and basic rights Natural and living environment Overall experience of life	SOCIAL AND ECONOMIC RESOURCES FOR FUTURE WELLBEING	RESILIENCE: SOCIETAL CHALLENGES AND SUSTAINABILITY TRANSITIONS	Model-based projections of selected indicators
	Human capital Social capital Economic capital	Social and economic resilience Digitalisation and technological change Geopolitical resilience Demography and urbanisation	
	NATURAL CAPITAL/ENDOWMENT	RESILIENCE: NATURE AND PLANETARY BOUNDARIES	
	Biodiversity Land, soil and forests Air and water	Safeguarding ecosystems and biodiversity Zero pollution and toxic-free environment Climate change mitigation and adaptation Sustainable use of resources Green economy and policies	
<b>INCLUSIVENESS</b> (Inequalities and spillover effects beyond the EU)			
<b>INSTITUTIONAL CAPACITY AND QUALITY</b>			

The **components** refer to the **major elements of the framework**. They complement the structure shown on Figure 1, explaining further some critical elements:

1. The component **Wellbeing today** refers to all the relevant aspects of the quality of life, including how different population groups and territories experience and perceive it.
2. The component **Social and economic aspects of sustainability** includes **social and economic resources for future wellbeing** and aspects of **resilience** with respect to **societal challenges and sustainability transitions**.
3. The component **Environmental aspects of sustainability** includes the status and condition of nature **(as an endowment, a source of contributions to people, and a resource for the future)** and aspects of **resilience** with respect to **nature-related challenges and the planetary boundaries**.
4. The component **Wellbeing tomorrow** would contain model-based projections of selected indicators of wellbeing and inclusiveness. Though added here only as ‘placeholders’, explicit measures of future wellbeing could reveal ongoing trends and emerging challenges better than statistical measures of capitals and resilience. At the same time, they would need to rely on modelling choices and assumptions.
5. The component **Inclusiveness** collects the key fairness and distributional aspects of wellbeing across all the other components and subcomponents.
6. The component **Institutional capacity and quality** points to fundamental characteristics that institutions and governance need in order to ensure the delivery of current and future wellbeing in a fair distribution, intergenerational justice, and the capacity to face challenges and navigate transitions (resilience).



The **dimensions spell out** the more detailed **aspects of the main components** (such as education or health under wellbeing today, or land, soil and forests, under natural capital/endowment). The broad description of the components and their dimensions is as follows (see Annex 3 for a full description and illustrative examples).

*Wellbeing today* refers to the range of aspects that influence the quality of living also beyond the material side and living standards. Coherent with (but slightly adjusted from <sup>(24)</sup>) the Quality of Life (Eurostat, 2017) framework, it includes the dimensions of *Material living conditions and economic security, Housing, Productive and other main activity, Health, Education, Leisure and social interactions, Physical safety, Governance and basic rights, Natural and living environment, and Overall experience of life*.

*Sustainability* refers to the assessment of wellbeing over time in its *social, economic, and environmental* aspects (following Stiglitz, Sen, and Fitoussi, 2009). Measuring sustainability requires an assessment of whether the current level of wellbeing can be maintained for future generations; or in other words, there is intergenerational fairness and solidarity. One factor to take into account is resources for future wellbeing, and another important aspect of sustainability is resilience. This latter reflects both a shock- and a (sustainability) transition perspective, and has been gaining an increasingly important role in policy frameworks <sup>(25)</sup>.

#### *Social and economic aspects of sustainability*

- *Social and economic resources for future wellbeing* refer to a broad compendium of assets (typically stocks and flows/changes in stocks) that support wellbeing over time. They include *Human capital, Social capital, and Economic capital*.
- *Resilience: societal challenges and sustainability transitions* points to vulnerabilities and capacities in making progress amidst present and future societal challenges, and in relation to the management of sustainability transitions. It connects to the drivers of change and ongoing

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<sup>(24)</sup> Based on the comments received during the first exploratory consultations, the proposal differs from the QoL in the following: i) housing, given its importance, is taken out from the material living conditions, ii) economic security, due to the inherent similarities, is put together with material living conditions.

<sup>(25)</sup> Initiated in the 2020 Strategic Foresight Report, the Commission has published its [Resilience Dashboards](#) in 2021. Starting in 2023, the dashboards are incorporated in the country reports of the Spring package of the European Semester. The 2024 Council document on the Economic Governance Review (Council of the European Union, 2024) emphasises that reforms and investments should be “growth and resilience-enhancing” (p11). For a recent overview, see Benczur et al (2023).

megatrends <sup>(26)</sup> and is organized in four dimensions <sup>(27)</sup>: *Social and economic resilience, Digitalisation and technological change, Geopolitical resilience, Demography and urbanisation.*

#### *Environmental aspects of sustainability*

- *Natural capital/endowment* refers to the status and condition of the biotic and abiotic natural systems and their contributions to people <sup>(28)</sup>. Its dimensions include *Biodiversity, Land, soil and forests, and Air and water*. These are broadly aligned with existing definitions of natural capital <sup>(29)</sup> and the System of Environmental Economic Accounting (SEEA) classification of environmental assets <sup>(30)</sup>.
- *Resilience: nature and planetary boundaries* are designed to reflect pressures from human activities to nature and planetary boundaries (e.g. greenhouse gas emissions) <sup>(31)</sup>, vulnerabilities to challenges that the environment may pose to human wellbeing (e.g. fatalities from climate extremes), and capacities to mitigate and cope with these pressures and vulnerabilities (e.g. technological development) <sup>(32)</sup>. Its dimensions include *Safeguarding ecosystems and biodiversity, Zero pollution and toxic free environment, Climate change mitigation and adaptation, Sustainable use of resources* <sup>(33)</sup>, and *Green economy and policies*.

*Inclusiveness* refers to the ability of the society to achieve distributional fairness and equity, and leave no one and no place behind. It is considered as an analytical lens through which the other dimensions in the framework are observed, by looking at vertical (at-risk of poverty, wealth and income

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<sup>(26)</sup> [https://knowledge4policy.ec.europa.eu/foresight/tool/megatrends-hub\\_en](https://knowledge4policy.ec.europa.eu/foresight/tool/megatrends-hub_en)

<sup>(27)</sup> These four dimensions are closely related to the three non-environmental dimensions of the Resilience Dashboards, with two differences. One is to broaden the digital dimension to incorporate other aspects of technological change. The other is to create a separate demography and urbanisation challenge, which were previously covered partly by the geopolitical and partly by the social and economic dimension. This slight adjustment allows a more balanced alignment with the 14 Megatrends.

<sup>(28)</sup> The dimension *Natural and living environment* in the component *Wellbeing today* also includes elements that directly affect people's surroundings and quality of life (e.g. access to green areas or exposure to grime, pollution and other environmental problems).

<sup>(29)</sup> OECD Glossary of Statistical Terms and the United Nations Glossary of Environmental Statistics.

<sup>(30)</sup> <https://seea.un.org/content/seea-central-framework>

<sup>(31)</sup> Although the violation of planetary boundaries is not always possible to quantify (especially at the Member State level), it is foreseen that the framework will incorporate several indicators that point to the pressure and impact of societal activities on the planetary boundaries.

<sup>(32)</sup> Nature's own vulnerabilities and capacities are included in the natural capital/endowment component, as they are difficult to be distinguished from the current status of nature.

<sup>(33)</sup> This component of SIWB is strongly linked to the 8<sup>th</sup> EAP and is aligned with it the following way. *Climate change mitigation and adaptation* are present in both, as well as *Zero pollution and toxic free environment*. The areas that the 8<sup>th</sup> EAP labels as *regenerative circular economy, environmental and climate pressures related to EU production and consumption, and enabling conditions*) broadly correspond to the dimension *Sustainable use of resources* in the SIWB proposed structure. SIWB dimension of *Safeguarding ecosystems and biodiversity* includes the area in 8<sup>th</sup> EAP called *biodiversity and ecosystems* and elements of *living well within planetary boundaries*. See Annex 3 for more details on the definition of the dimensions.

inequalities) and horizontal inequalities<sup>(34)</sup> (i.e. health<sup>(35)</sup>, environmental and climate impacts or education<sup>(36)</sup>) disaggregated by, for example, income quintiles, age, sex, race and/or ethnic origin, disability status, territories, or showing urban-rural gaps). There is also a dimension on the inequality of opportunity, including intergenerational mobility. Furthermore, this component includes spillover effects beyond the EU, i.e. the impact of the EU lifestyle beyond the EU borders (for example, the carbon content of EU imports). Although their measurement might pose challenges, it is important to reflect the principle that wellbeing in the EU should not come at the expense of wellbeing of people *elsewhere* (spatial fairness and equity)<sup>(37)</sup>.

*Institutional capacity and quality* refers to those characteristics of institutions<sup>(38)</sup> (formal and informal) and governance that can enable all citizens to be actively involved and to shape the country's development path, its capacity to deliver wellbeing and to deal with challenges. Typical aspects are voice and accountability, political stability, government effectiveness, regulatory quality, rule of law, and control of corruption<sup>(39)</sup>.

### 2.3. Using SIWB as a guide towards augmented-GDP type metrics

To progressively complement the use of GDP with sustainable and inclusive wellbeing indicators in EU policymaking, and to communicate political challenges and the options to address them in a people- and planet-centred manner, it is important to develop indicators that summarise the progress of wellbeing. The broad SIWB structure of Figure 1, sometimes reinforced with detailed elements (dimensions) of Figure 2 can also be instrumental to identify important areas of sustainable and inclusive wellbeing which GDP itself does not properly address.

The *current (and future) wellbeing* dimensions underline many non-market or non-material aspects of wellbeing, like leisure, security, and social interactions, governance and basic rights, natural and living conditions, and overall experience of life. Though the health and education sectors are included in national accounts (and hence GDP), they are typically valued based on expenditures and not by the measured economic value that they produce. Important material aspects are produced out of the market, like home production and care. There are existing (statistical) approaches to account for such items in satellite accounts (value-based measures for education, leisure, volunteering, home production and care), in composite indicators (see Annex 1 for some examples), or in various GDP augmentations

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<sup>(34)</sup> Vertical inequality refers to inequality among individuals or households within a given socioeconomic group, while horizontal inequality is defined as inequality among specific groups (typically by age, gender, education). One particular aspect of horizontal inequality is regional inequality. Another approach to inequality is the inequality of opportunity and intergenerational mobility.

<sup>(35)</sup> A specific type of health inequalities is cancer inequality (see <https://cancer-inequalities.jrc.ec.europa.eu/> for the EU).

<sup>(36)</sup> See the Education and Training Monitor 2023 (<https://op.europa.eu/webpub/eac/education-and-training-monitor-2023/en/>) for the EU.

<sup>(37)</sup> For instance, spillovers (intended as wellbeing “elsewhere”) are considered in the wellbeing approaches of Belgium and the Netherlands. At the EU level, different footprint indicators were published in recent years, measuring the environmental and climate spillovers of EU production and consumption. The footprint of imported consumption can be considered as a direct spillover measure, while the overall footprint is only a related but not a direct measure.

<sup>(38)</sup> Institutions here have a broad definition as “the rules of the game in a society or, more formally, the humanly devised constraints that shape human interaction” (North, 1990).

<sup>(39)</sup> As in the European Quality of Government Index, and the Worldwide Governance Indicators.

(like the full income concept advocated by a few researchers <sup>(40)</sup> adding an income equivalent measure of increased life expectancy <sup>(41)</sup>). Such measures resemble the consumption ('final expenditure') approach to national accounts, extending living standards from income to (current) wellbeing.

There are also promising, typically model-based, approaches to augment GDP for the social costs of negative externalities (based on the arrows 'impact of human activities on nature', 'transitions, shocks and trends' and potential feedback loops). Leading examples include carbon emissions and air pollution (see, for example, Nordhaus, 2021), but social topics can also be explored (like the social costs of inequality <sup>(42)</sup>, poverty, or polarisation). These measures reflect the sustainability aspect of SIWB, and resemble more the production approach of national accounts. At the same time, the costs of externalities may be traced through the production process and eventually to final expenditures <sup>(43)</sup>, yielding monetary values that are relevant both from a wellbeing and a sustainability perspective (or inclusiveness, in the case of inequalities).

Though the main areas where GDP would need to be augmented can be derived already from the structure of SIWB, it can be **useful to consider various partial aggregates across SIWB components or dimensions as an intermediate step**. Such aggregates would summarise a certain sub-set of SIWB, enabling an immediate, though partial comparison across different countries. Still, they may not immediately lead to a monetary value, or a measure that could be used for augmenting GDP directly.

These partial aggregate metrics could include a current wellbeing index, as well as other elements such as human and social capital, resilience, planetary boundaries, the wellbeing of nature, and inclusiveness. **Building on these, the goal is to progressively augment GDP to reflect issues like inequality, poverty or exclusion, health, education, the essential value of human life, volunteering, leisure, and nature's value to people** (i.e. essential services like food production, but also beyond, including nature's social and cultural significance).

Although simple summary measures, especially augmented-GDP type metrics, are valuable to simplify complexity, their use comes with caveats and challenges. Chapter 3 of the 2022 World Happiness Report, for example warns not to "sum across different domains, [...] sum across people, or [...] address both current outcomes and ones in the far future". The first Stiglitz Report (Stiglitz, Sen and Fitoussi, 2009) called for the "development of a statistical system that complements measures of market activity by measures centred on people's well-being and by measures that capture sustainability. Such a system must, of necessity, be plural – because no single measure can summarize something as

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<sup>(40)</sup> For example: Jamison et al. (2013), Becker, Philipson, and Soares, R. (2005), Fleurbaey and Gaulier (2009), Boarini, Fleurbaey, Murtin, and Schreyer (2022).

<sup>(41)</sup> As explained in Fleurbaey and Gaulier (2009), one fixes a reference level for mortality and, for each country, computes the willingness to pay of the population in order to obtain this reference level. This is then added to current income (GDP). Such a measure is directly comparable across countries because it corresponds to a level of income that, when combined with the reference level for mortality, gives a situation that is, in the eyes of the population, equivalent to their current situation. The JRC pilot study on health-adjusted income (mentioned in footnote 5) also followed this approach.

<sup>(42)</sup> Boarini et al. (2022) uses an adjustment for inequality, similarly to the UN's Inequality-adjusted Human Development Index (<https://hdr.undp.org/inequality-adjusted-human-development-index#/indicies/IHDI>).

<sup>43</sup> For example, Insee, the French statistical office is working on augmented national accounts, including carbon accounts. Emission accounts would be connected to carbon footprints using bridge tables, enabling various breakdowns. See <https://blog.insee.fr/augmenter-les-comptes-nationaux-pour-mesurer-plus/> as a first public announcement.

complex as the well-being of the members of society, our system of measurement must encompass a range of different measures.” Their recommendation was to obtain “a limited number of indicators.” Such a set can start from selected partial aggregates/indices of SIWB and core variables <sup>(44)</sup>, and eventually contain augmented-GDP metrics. One can even consider to include multiple variants for certain elements, indicating the limitations of each individual metric.

At the same time, dashboards and composite indices also have limitations <sup>(45)</sup>. Dashboards do not provide an aggregate welfare measure, making it difficult to make comparisons across countries or over time. Composite indicators do provide a single overall metric, but they tend to rely on ad hoc (or at least agnostic) aggregation weights. This implies important limitations to interpret trade-offs among different dimensions. Moreover, many such indices are based on the distribution of the underlying indicators only in a given year, which limits intertemporal comparisons <sup>(46)</sup>. Even in the case of an index which is comparable over time, the quantitative meaning of its change is not necessarily clear. Finally, non-monetary measures do not allow a direct cost-benefit analysis of policies and investment decisions. There is thus a revival in academic papers about monetary welfare aggregation, in particular the already mentioned equivalent income approach. It is therefore imperative to explore their applicability for policy assessment and communication.

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<sup>(44)</sup> The UN Network of Economic Statisticians envisages a similar structure for their Framework for Inclusive and Sustainable Wellbeing (see United Nations, 2024): subjective wellbeing measures, principal objective measures of material wellbeing, distributional data, sustainability data, and a GDP-style metric to indicate a country’s ‘budget constraint’.

<sup>(45)</sup> Here we draw on arguments developed in Boarini et al. (2022).

<sup>(46)</sup> The HDI is a notable exception, where the indicators are normalised using time-invariant minimum and maximum values.

### 3 Main outcomes of the stock-taking of monitoring tools and their mapping into SIWB

Several monitoring tools that cover narrow or sometimes broad aspects of SIWB already exist (or are under development) within the Commission and outside (e.g. governmental, intergovernmental and stakeholder initiatives). A first stock-taking of such tools has been developed to analyse their links with the proposed SIWB framework and to shed light on the similarities, complementarities and gaps between them <sup>(47)</sup>. In addition, these are the natural starting points to fill the framework with indicators. A short description of each considered tool is provided in Annex 4, together with a qualitative assessment of their comprehensiveness and coverage with respect to SIWB.

Table 2 shows an indicative and non-exhaustive mapping of the indicators in these tools into the components and dimensions of the SIWB framework <sup>(48)</sup>. The mapping was performed at the indicator level, where each indicator has been assigned to the dimension(s) it measures/relates to, following the SIWB logic and structure and according to the definition of the dimensions (see Annex 3). Though most indicators are allocated into a single dimension, some of the indicators in the health and education domains were mapped both into current wellbeing and human capital (e.g. adult skills in literacy and numeracy, or the number of healthy life years) <sup>(49)</sup>.

Table 3 presents the outcome of a more detailed mapping for those frameworks that cover a broad part of SIWB, using tentative sub-dimensions of the SIWB structure. Table A3 in Annex 3 contains the list of sub-dimensions, which is still subject to further refinements. This version of the mapping employed the following methodology. First we refined the mapping of indicators (as in Table 1) from the dimension to the sub-dimension level <sup>(50)</sup>. Then each indicator framework was assigned a 'coverage score' at the sub-dimension level: 0 if there were no corresponding indicators (no coverage), 0.5 if there was one corresponding indicator (some coverage), and 1 if there were at least two corresponding indicators (good coverage). The dimension's *coverage score* is the average of the sub-dimension scores. This way one can distinguish between situations when a framework covers only a specific part of a dimension with many indicators or covers the entire dimension. Such situations can be detected by comparing the colours of the two columns of the same framework, since the distribution of colours is similar in the two mapping versions.

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<sup>(47)</sup> The selection of the relevant monitoring tools was agreed in the working group and was oriented towards those that have strong links with sustainability, inclusiveness and wellbeing. Their mapping is fully contextualised to the proposed SIWB framework. Some indicator sets (for example, the [Zero pollution](#) monitoring and Outlook) may be added to the exercise later on.

<sup>(48)</sup> Although the focus is on Commission tools, some additional monitoring tools have also been considered, because of their comprehensive nature and similar scope. Although many national frameworks were reviewed with the aim to learn from the different practices (see Annex 2), these were not mapped into SIWB because of their narrow geographical scope.

<sup>(49)</sup> Relative to an earlier version, we have adopted a stricter allocation approach here, eliminating most of the cross-listing cases. There are around 70 cases when indicators are assigned to more than one dimension.

<sup>(50)</sup> This would also facilitate the analysis of linkages among the various tools: a link between two frameworks can be defined by common sub-dimensions. This is work in progress.

Table 2: Mapping of selected Commission and non-Commission monitoring tools into the components and dimensions of the proposed framework

		EC														non-EC								
		EU SDGs 2022	Quality of Life indicators	Social scoreboard	Resilience Dashboards	Transitions Performance Index	EU Regional Social Progress Index	European Statistical Recovery Dashboard	EU Regional Competitiveness Index	European Innovation Scoreboard	8th EAP	Statistics for EGD	EU Biodiversity strategy	Circular Economy Monitoring	Resource efficiency scoreboard	Energy union scoreboard	Eco-Innovation Scoreboard	ES Country Report annexes 2022	OECD - Well-being framework	The Doughnut (2017)	ZOE - Compass to 2030	UN - Planetary pressures adjusted HDI	The Recoupling dashboard	
		<b>LEGEND</b> Number of indicators in each monitoring tool (column) that can be mapped ● 5 or more ● 3 - 4 ● 1 - 2 ○ 0																						
Wellbeing today	Material living conditions and economic security	●	●	●	●	●	○	○	●	○	○	○	○	○	○	○	○	●	●	●	●	●	●	
	Housing	●	●	●	○	○	●	○	○	○	○	○	○	○	○	○	○	●	●	●	●	○	○	
	Productive and other main activity	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
	Health	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
	Education	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
	Leisure and social interactions	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
	Physical safety	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
	Governance and basic rights	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
Natural and living environment	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		
Overall experience of life	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		
Sustainability	Social and economic resources for future wellbeing	Economic capital	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
		Human capital	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
		Social capital	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
	Resilience: societal challenges and sustainability transitions	Social and economic resilience	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
		Digitalisation and technological change	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
		Geopolitical resilience	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
	Natural capital/endowment	Demography and urbanisation	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
		Biodiversity	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
		Land, soil and forests	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
	Resilience: nature and planetary boundaries	Air and water	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
		Safeguarding ecosystems and biodiversity	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
		Zero pollution and toxic-free environment	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
Climate change mitigation and adaptation		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		
Inclusiveness	Sustainable use of resources	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		
	Green economy and policies	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		
	Inequalities (vertical and horizontal)	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		
Inclusiveness	Inequality of opportunity	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		
	Spillovers (beyond the EU)	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		
Institutional capacity and quality		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		
<b>Total number of (mapped) indicators</b>		100	103	39	119	27	55	17	64	32	24	25	10	22	30	18	10	155	79	28	28	6	9	

Note: The total number of indicators across the monitoring tools and the Semester Country Report annex indicator set is 1,174, from which 1,033 were mapped. From the 141 unmapped indicators, the majority are from the Country Report annexes (100). These unmapped indicators refer to the current status and condition of the economy, or to very specific sectors, trade, taxes and costs. As such, they were considered too specific to assess their direct link with wellbeing. The column for the Digital Economy and Society Index is not shown (33 indicators), as it contains only one non-white cell. The EU Multidimensional Inequality Monitoring Framework contains more than 300 indicators, providing a multitude of vertical and

horizontal inequality measures for almost all dimensions of wellbeing, and some measures for the inequality of opportunity and intergenerational mobility. The corresponding column is not reported, as it would contain only two non-white cells.

**Table 3:** Mapping of selected monitoring tools to the proposed framework: number of indicators by dimension and coverage scores based on a sub-dimension-level analysis

		EC														non-EC						
		EU SDGs 2022	Quality of Life indicators	Social scoreboard	Resilience Dashboards	Transitions Performance Index	EU Regional Social Progress Index	European Statistical Recovery Dashboard	EU Regional Competitiveness Index	European Innovation Scoreboard	8th EAP	Statistics for EGD	Circular Economy Monitoring	Resource efficiency scoreboard	Eco-Innovation Scoreboard	ES Country Report annexes 2022	OECD - Well-being framework	The Doughnut (2017)	ZOE - Compass to 2030	UN - Planetary pressures adjusted HDI	The Recoupling dashboard	
<b>Wellbeing today</b>		Material living conditions and economic security	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	
		Housing	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
		Productive and other main activity	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
		Health	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
		Education	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
		Leisure and social interactions	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
		Physical safety	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
		Governance and basic rights	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
		Natural and living environment	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
Overall experience of life	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●		
<b>Sustainability</b>	Social and economic resources for future wellbeing	Economic capital	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	
		Human capital	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	
		Social capital	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	
	Resilience: societal challenges and sustainability transitions	Social and economic resilience	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	
		Digitalisation and technological change	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	
		Geopolitical resilience	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	
	Natural capital/endowment	Demography and urbanisation	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	
		Biodiversity	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	
		Land, soil and forests	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●		
	Resilience: nature and planetary boundaries	Air and water	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	
		Safeguarding ecosystems and biodiversity	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	
		Zero pollution and toxic-free environment	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	
Climate change mitigation and adaptation		●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●		
Inclusiveness	Sustainable use of resources	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●		
	Green economy and policies	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●		
	Inequalities (vertical and horizontal)	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●		
Inequality of opportunity		●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●		
Spillovers (beyond the EU)		●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●		
Institutional capacity and quality		●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●		
<b>Total number of (mapped) indicators</b>		<b>100</b>	<b>103</b>	<b>39</b>	<b>119</b>	<b>27</b>	<b>55</b>	<b>17</b>	<b>64</b>	<b>32</b>	<b>24</b>	<b>25</b>	<b>22</b>	<b>30</b>	<b>10</b>	<b>155</b>	<b>79</b>	<b>28</b>	<b>28</b>	<b>6</b>	<b>9</b>	

Note: Relative to Table 2, we have omitted those frameworks that cover at most 3 dimensions (the Digital Economy and Society Index, the EU Biodiversity Strategy, and the Energy Union Scoreboard). The 'coverage score' of each cell is constructed as follows. At the sub-dimension level, a 0 is assigned if there were no corresponding indicators (no coverage), 0.5 if there was one corresponding indicator (some coverage) and 1 if there were at least two corresponding indicators (good coverage). The dimension score is the average of the sub-dimension scores. The cut-off values for the colours were selected in a way that the share of the colours is similar in Table 2 and Table 3



Overall, the mappings show that many of the existing monitoring tools are sectorial and thus depict only specific aspects of SIWB (see Annex 4 for a more detailed assessment). Many tools address several dimensions of *Wellbeing today* and *Social and economic aspects of sustainability*. However, only few cover *Governance and basic rights*, *Leisure and social interactions*, *Natural and living environment*, *Overall experience of life*, *Physical safety*, *Social capital*, and some of the *Resilience: societal challenges and sustainability transitions* dimensions (*Geopolitical resilience*, *Demography and urbanisation*). Regarding *Natural capital/endowment*, fewer indicators are present. The *Institutional capacity and quality* component is covered only by a few monitoring tools, while there are indicator gaps in the *Inequality of opportunity* and *Spillovers (beyond the EU)* dimensions of the *Inclusiveness* component <sup>(51)</sup>.

When comparing Table 2 and Table 3, it is not surprising to see that coverage is somewhat lower in Table 3 for dimensions with a large number of sub-dimensions (especially for *Material and living conditions*, *Housing*, and *Social and economic resilience*). There are some dimensions where even frameworks with many indicators provide only a partial coverage at the sub-dimension level (*Productive and other main activity*, *Health*, *Education*, *Economic capital*, *Human capital*). This may point to the presence of some rather nuanced or hard-to-measure sub-dimensions. Finally, in environmental dimensions like *Air and water*, *Sustainable use of resources*, and *Green economy and policies*, many frameworks manage to achieve a balanced coverage of sub-dimensions with a minimal number of indicators.

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<sup>(51)</sup> It is important to note that monitoring systems also evolve over time: they measure what is meant to be relevant at a certain point in time, which may change dynamically. Yet, because of path-dependency, there is often a significant gap between new framings and relevant dimensions to be measured, and what is actually measurable today and tomorrow.

## 4 Conclusion and potential additional medium-term activities

Connecting many related EU and global work streams (e.g., the revision of the system of national accounts and the system of environmental economic accounting, the SDGs, various UN initiatives, the work of Horizon research consortia), this work aims to progressively complement the use of GDP with sustainable and inclusive wellbeing indicators in EU policymaking. This will help monitor progress towards wellbeing, facilitate the communication of political challenges, and design the strategies to address them in a people- and planet-centred manner, while ensuring that economic growth does not destroy its very foundations (European Commission, 2023).

Internal discussions have already revealed important areas where medium-term activities can be warranted. The list below is only a starting set of such topics. After prioritisation and feasibility assessments, services in the working group may agree to launch some of these activities.

1. *Indicator gaps.* The exercise may uncover data gaps, for example in the domains of planetary boundaries, transport, discrimination, or social capital and cohesion. More localised approaches, based on the identification of local ‘hotspots’ for risks or vulnerabilities may be considered. Provided their inherent limitations are fully transparent, model-based indicators can also play an important role, for example for planetary boundaries, future wellbeing, or societal stress-testing.
2. *Timeliness of the indicators.* Statistical lags of many indicators (for example, in the social or the environmental domain) can be an important constraint. For certain indicators (like income, poverty, GHG emissions), flash estimates already exist <sup>(52)</sup>. Nowcasting a broader set of such variables would boost the practical value of the wellbeing framework, as then these indicators would be up to date and would reflect better the latest developments and policies. Policy monitoring can be further reinforced by short-term (2-5 years) forecasts.
3. *Integrated modelling.* Models that integrate, or at least connect, the social, economic, climate, and other environmental aspects can support policymaking by providing medium-term projections (beyond 5 years), or even scenario-based analyses (similar to the original 1972 Limits to growth report, Meadows et al (1972), and its updates in Dixson-Declève et al, 2022).
4. *Citizen and stakeholder engagement.* The emerging framework could be reinforced further with a public consultation and a “deliberation among citizens on what wellbeing is and should be” (Jany-Catrice and Méda, 2021). The 8<sup>th</sup> Environment Action Programme also foresees a stakeholder consultation for the development of a “summary dashboard and indicator set measuring ‘beyond GDP’”. Such a public consultation is a long-term process, but it may reinforce the next Commission’s political agenda, similarly to the Conference on the Future of Europe series.
5. *Practical use in policymaking.* A wellbeing framework can enter the policy cycle at different stages: shaping the policy debate, impact assessment of interventions, or shaping budgeting decisions. However, its success hinges crucially on the appropriate governance structure (see Kaufmann et al, 2023 for a detailed exposition). Hence, more work is necessary to understand how this framework might be incorporated across different policy domains and in the policy cycle and monitoring (i.e., in ex-ante impact assessments and ex-post evaluations), and how augmented-GDP and summary measures can be utilised.

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<sup>(52)</sup> For monetary poverty (at-risk-of-poverty rate) and income inequality, see <https://ec.europa.eu/eurostat/web/experimental-statistics/income-inequality-poverty-indicators>. For quarterly GHG emissions, see Eurostat (2024)

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## Annexes

### Annex 1. Brief history of the beyond GDP initiative

GDP (gross domestic product) and its growth rate are the most wide-spread, common and frequently used macroeconomic indicators, and are often viewed as a “yardstick of economic success or failure of countries”<sup>(53)</sup>. The ‘beyond GDP’ initiative aims to “develop indicators that are as clear and comparable as GDP but more inclusive of environmental and social aspects of progress”<sup>(54)</sup>. One of its manifestos is the 2009 Stiglitz-Sen-Fitoussi report (Stiglitz, Sen, and Fitoussi, 2009), recommending a shift of the emphasis from measuring economic production to measuring people’s wellbeing – including economic resources such as income, and non-economic aspects of people’s life – what they do and what they can do, how they feel, what social connections they have, and the natural environment they live in.

As wellbeing needs to be maintained for future generations, assessing its *sustainability* is crucial. This requires evaluating the “preservation or increase in several ‘stocks’: quantities and qualities of natural resources, and of human, social and physical capital”. Finally, the report argues that “such a system must, of necessity, be plural – because no single measure can summarize something as complex as the wellbeing of the members of society, our system of measurement must encompass a range of different measures.”

These considerations have been highly influential for the adoption of the SDGs and the OECD’s Framework for Measuring Wellbeing and Progress<sup>(55)</sup>. Several other frameworks of wellbeing and sustainability have been developed in parallel. Since 2017 the Eurostat webpage features an online publication and data collection on the ‘Quality of Life’, closely resembling the OECD’s compilation of indicators<sup>(56)</sup>. The Stockholm Resilience Centre developed the SDGs wedding cake model, showing that a clean environment, healthy biodiversity and ecosystem services (environmental SDGs) are the basis for a healthy and inclusive society (social SDGs) and a resilient and sustainable economy (economic SDGs)<sup>(57)</sup>. Another example is the doughnut economy model<sup>(58)</sup>, which stresses the need to ensure human development within planetary and social boundaries<sup>(59)</sup>. Related efforts include the UN’s Human Development Index (HDI)<sup>(60)</sup>, the World Bank’s Changing Wealth of Nations report series<sup>(61)</sup>,

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<sup>(53)</sup> As in <https://est.etuc.org/wp-content/uploads/2021/05/FINAL-BEYOND-GDP-SOCIAL-PARTNERS-EU.pdf>

<sup>(54)</sup> Slightly adjusted from [https://ec.europa.eu/environment/beyond\\_gdp/index\\_en.html](https://ec.europa.eu/environment/beyond_gdp/index_en.html)

<sup>(55)</sup> <https://www.oecd.org/statistics/measuring-well-being-and-progress.htm>

<sup>(56)</sup> <https://ec.europa.eu/eurostat/web/quality-of-life/overview> and Eurostat (2017).

<sup>(57)</sup> <https://www.stockholmresilience.org/research/research-news/2016-06-14-the-sdgs-wedding-cake.html>

<sup>(58)</sup> <https://www.kateraworth.com/doughnut/>

<sup>(59)</sup> Quoting from the doughnut model’s website: “The environmental ceiling consists of nine planetary boundaries, as set out by Rockstrom et al (2009), beyond which lie unacceptable environmental degradation and potential tipping points in Earth systems. The twelve dimensions of the social foundation are derived from internationally agreed minimum social standards, as identified by the world’s governments in the SDGs in 2015.”

<sup>(60)</sup> <http://hdr.undp.org/en/content/human-development-index-hdi>, with an inequality-adjusted version <http://hdr.undp.org/en/content/inequality-adjusted-human-development-index-ihdi> and also a planetary pressure adjusted HDI <https://hdr.undp.org/en/content/planetary-pressures%E2%80%93adjusted-human-development-index-phdi>

<sup>(61)</sup> <https://www.worldbank.org/en/publication/changing-wealth-of-nations>

the Social Progress Index <sup>(62)</sup>, ETUC’s Decent Work & Sustainable Growth Index <sup>(63)</sup>, GSI’s Recoupling Dashboard <sup>(64)</sup>, or ZOE’s Compass towards 2030 (Barth et al, 2021).

The European Commission played a key role in promoting the milestone 2007 Conference on Beyond GDP <sup>(65)</sup>, co-organised with the European Parliament, OECD, the Club of Rome and the WWF. As a follow-up, in 2009 the Commission presented a roadmap to move towards beyond GDP in the EU, with the adoption of the Communication on ‘GDP and beyond: measuring progress in a changing world’ (European Commission, 2009). It was followed by the 2013 follow-up ‘Progress on ‘GDP and beyond’ actions’ (European Commission, 2013). The Beyond GDP website provides an overview of progress in the EU and beyond <sup>(66)</sup>. The European Parliament, the Council and the Commission proclaimed the European Pillar of Social Rights in 2017, which promotes key principles that underpin strong social Europe that is “fair, inclusive and full of opportunity”. The Social Scoreboard is monitoring the implementation of the pillar while the Action Plan turns the principles into concrete actions to benefit citizens and sets headline targets for the EU to reach by 2030 through progress towards the national 2030 targets Member States have set subsequently <sup>(67)</sup>. The EU SDGs indicator set also point in this direction, while the current transition-led political agenda reinforces the momentum for such a paradigm shift. In particular, the European Green Deal aims to foster sustainable wellbeing aiming at a fair and prosperous society, “with a modern, resource-efficient and competitive economy” neutral in terms of emissions and decoupling growth from resource use, which leaves no one behind.

Drawing on the follow-up (Stiglitz, Fitoussi, and Durand, 2018) of the first Stiglitz report, the OECD <sup>(68)</sup> has assigned an explicit role to resilience in its wellbeing framework. The framework looks at multiple dimensions of *current wellbeing and its distribution* (the first two components of SIWB), like income, jobs, health, environmental quality, and social connections <sup>(69)</sup>. Sustainability (the third component) is then assessed by looking at *resources for future wellbeing* (economic, natural, human, and social capital), and for each capital, indicators assess their *stocks, flows, risks* that may threaten them and the *capacities* to cope with these risks <sup>(70)</sup>.

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<sup>(62)</sup> <https://www.socialprogress.org/framework-0>

<sup>(63)</sup> <https://www.etuc.org/en/document/etucs-decent-work-sustainable-growth-index-briefing-note>

<sup>(64)</sup> <https://www.global-solutions-initiative.org/recoupling-dashboard-homepage/>

<sup>(65)</sup> [https://ec.europa.eu/environment/beyond\\_gdp/2007\\_conference\\_en.html](https://ec.europa.eu/environment/beyond_gdp/2007_conference_en.html)

<sup>(66)</sup> [https://ec.europa.eu/environment/beyond\\_gdp/index\\_en.html](https://ec.europa.eu/environment/beyond_gdp/index_en.html)

<sup>(67)</sup> [https://ec.europa.eu/info/strategy/priorities-2019-2024/economy-works-people/jobs-growth-and-investment/european-pillar-social-rights\\_en](https://ec.europa.eu/info/strategy/priorities-2019-2024/economy-works-people/jobs-growth-and-investment/european-pillar-social-rights_en) and [https://ec.europa.eu/info/strategy/priorities-2019-2024/economy-works-people/jobs-growth-and-investment/european-pillar-social-rights/european-pillar-social-rights-action-plan\\_en](https://ec.europa.eu/info/strategy/priorities-2019-2024/economy-works-people/jobs-growth-and-investment/european-pillar-social-rights/european-pillar-social-rights-action-plan_en)

<sup>(68)</sup> The OECD also set up the WISE centre (<https://www.oecd.org/wise/>) to generate new data and approaches to improve people’s wellbeing and reduce inequalities.

<sup>(69)</sup> The OECD’s key dimensions for current wellbeing are income and wealth, work and job quality, housing, work-life balance, health, knowledge and skills, social connections, civic engagement, environmental quality, safety, and subjective wellbeing. In a similar fashion, Eurostat’s Quality of Life employs the following dimensions: material living conditions, productive or other main activity, health, education, leisure and social interactions, economic security and personal safety, governance and basic rights, natural and living environment, and overall experience of life.

<sup>(70)</sup> Stiglitz, Fitoussi and Durand (2018) promotes the shift from measuring the ‘four capitals’ (the ‘capital approach’) to the full complex system and its interdependent elements that shape wellbeing (the ‘systems approach’). It highlights the importance of coping with shocks and long run changes in a way that does not jeopardise the wellbeing of current and future generations. Resilience is thus a key connector between current and future wellbeing.

In a related manner, the Commission’s resilience dashboards <sup>(71)</sup> assess resilience as the ability to make progress amidst present and future challenges, which is needed to achieve the wellbeing of current and future generations amidst uncertain circumstances, and within planetary boundaries. This is a similar, although intentionally broader and more ambitious, interpretation of the role of resilience than in the OECD wellbeing framework. As such, the resilience dashboards “are an important step towards a more integrated approach for measuring wellbeing beyond GDP” (European Commission, 2021).

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<sup>(71)</sup> [https://ec.europa.eu/info/strategy/strategic-planning/strategic-foresight/2020-strategic-foresight-report/resilience-dashboards\\_en](https://ec.europa.eu/info/strategy/strategic-planning/strategic-foresight/2020-strategic-foresight-report/resilience-dashboards_en)



## **Annex 2. Overview of national initiatives to measure wellbeing**

Besides the 19 reviewed Commission monitoring tools (see Annex 4), 17 nationally adopted frameworks for measuring wellbeing and prosperity were reviewed, with a good balance of EU and non-EU countries: Austria, Belgium, Finland, France, Germany, Italy, Ireland, the Netherlands, United Kingdom, Wales, Scotland, Israel, Bhutan, Japan, Ecuador, New Zealand, United States.

Wellbeing frameworks in these countries are mostly focused on current wellbeing of people and society, and nature is considered mostly as instrumental for human wellbeing. The only countries where sustainability aspects are extensively covered are Belgium, the Netherlands, Bhutan and New Zealand. Belgium and the Netherlands also include aspects of “wellbeing elsewhere”, similar to the SIWB framework. The only framework that incorporates resilience, in a similar fashion to the OECD, is found in New Zealand.

There are several EU countries that use the SDGs in national strategies for sustainable development and/or wellbeing: Bulgaria, Croatia, Greece, Estonia, Hungary, Poland, Romania, Slovakia, Slovenia and Spain. These were not reviewed in detail, but are signalled in Table A1 of this Annex.

### **The use of national wellbeing frameworks in policy**

A wellbeing framework can enter into the policy cycle at different stages: shaping the policy debate, impact assessment of the policy interventions, or shaping the budgeting decisions. In certain countries, wellbeing frameworks were developed without aiming at a specific policy mechanism or use, but to start a public debate about what matters for people’s quality of life (for instance in Ecuador). In many other countries, wellbeing frameworks were shaped explicitly with having the policy orientation in mind (such as France or Italy).

The benefits from integrating a wellbeing framework into policies, according to Durand et al (2018), are several:

- Regular reporting on wellbeing can **provide important insights and stimulate a public debate**. It can provide a more complete and coherent picture about living conditions and quality of life, often by showing aspects that are not usually considered in traditional policy analysis (i.e. social interactions, or life satisfaction).
- People-centric granular approach can provide **insights about inequalities and other distributional aspects** of wellbeing and diversity of experience, that go beyond aggregate measures of overall performance.
- A wellbeing framework can support **the alignment of political priorities**, by breaking the silos between the political stakeholders via a holistic view on interconnectedness between different aspects of wellbeing and a common understanding between different agencies.
- Considering **sustainability is essential**, to safeguard the environment and to avoid that government decisions for wellbeing today go in conflict with the future generations’ wellbeing by depleting the resources.
- A wellbeing framework can provide **overarching principles that serve as a basis for impact assessment of policies**. In defining the vision of the desired outcomes, it can provide an analytical lens supporting policy interventions with novel indicators related to wellbeing that can expand the ex-post policy evaluation to a wider set of target outcomes.

Table A1 summarizes the main features of national wellbeing frameworks, in terms of their conceptual framing, indicators, relation with the SDGs and their policy use. National practices show that there are very few cases in which wellbeing frameworks are used in every step of the policy cycle. One such example is Wales, with its Wellbeing of Future Generations Act, designed to be used from agenda setting to the definition of the financial budget. Most wellbeing frameworks are used for agenda setting and shaping the policy formulation (such as FR, IT, NZ). Some countries use the wellbeing framework to guide the impact assessment (AUS, FR, IT, SE, UK, UAE, Scotland). In Italy, the headline indicators (whose selection criteria was the availability to forecast them for 3 years) are also used for the budget law, with parliamentary reporting at the start of the budget process. In the US, the “GDP and Beyond” initiative is mainly used to inform the discussion of wellbeing, without any explicit integration into the policy cycle, although there were several local initiatives to take into account wellbeing for policy formulation.

The number of indicators in national frameworks varies a lot and appears to be related to the policy use. In New Zealand and the UK, where the frameworks are used to broadly align the political agenda, and for ex-post policy evaluation or cost-benefit analyses, the number of indicators is high (103 for NZ and 41 for the UK). In France this number is much smaller (6-10 indicators, depending on their use). Although the Italian framework comprises 130 indicators, only 12 headline indicators are embedded strongly into the policy cycle.

Country strategies to measure wellbeing ‘beyond-GDP’ are often linked or strongly aligned with the national implementation of the SDGs. For instance, in Scotland the National Performance Framework integrates 17 SDGs together with 11 National Outcomes for wellbeing, and puts both sustainable development and wellbeing central to its policy making. Another example is Wales, where the Wellbeing of Future Generations Act is both an institutional framework for sustainable development and a wellbeing framework. In Finland there is a long-term strategy document (National Roadmap for the 2030 Agenda) that links SDG implementation and wellbeing.

The **main barriers for integrating wellbeing indicators into policy**, as identified in the BRAINPOOL Project <sup>(72)</sup>, are:

- **Political barriers**, such as a lack of clear narratives and political imperatives for change, and a lack of democratic legitimacy (i.e. public consultations).
- **Indicator-related barriers**, such as the lack of common understanding of methodologies and the theoretical basis for new indicators (especially summary indicators and augmented-GDP type metrics).
- **Process barriers**, such as analytical challenges related to the multidimensionality of indicators, but also a lack of institutional willingness to change.

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<sup>(72)</sup> <https://cordis.europa.eu/project/id/283024/reporting>

Table A1: Main characteristics of wellbeing frameworks and their use in policy cycle across selected EU and non-EU countries

	<b>EU countries</b>	<b>Extra-EU countries</b>
<b>Conceptual framing</b>		
Refers to sustainability	BE, NL	Bhutan, New Zealand
Refers to inclusiveness	BE, DE, FR, IT, NL	Bhutan, New Zealand
Refers to resilience	NL	New Zealand
Refers to impact on wellbeing elsewhere	BE, NL	
Based on public consultations	IT, DE, FR	Iceland, New Zealand, UK
<b>Indicators</b>		
Has headline indicators	IT	
Includes subjective measures	AT, BE, FI, IT, SI, PT, CZ	Bhutan, Ecuador, Iceland, UK
<b>Relation to SDGs</b>		
Uses <u>only SDGs</u> as its wellbeing framework	BG, HR, EE, EL, HU, PO, RO, SK, SI, ES	Switzerland
Uses <u>both SDGs and a wellbeing</u> framework	AT, BE, CZ, FI, FR, DE, IE, IT, LV, LT, LU, PT, SE	Iceland, New Zealand, UK, Scotland
<b>Policy use</b>		

No explicit policy integration	AT, NL	US
Agenda/priority setting	FR, IT, SE	Ecuador, UAE, UK, Scotland, Wales
Policy formulation	FR, IT, IE	Ecuador, Australia, New Zealand, UAE, UK, Wales
Impact assessment and policy evaluation	FR, IT, SE	Ecuador, Australia, UK, UAE, Scotland, Wales
Budgeting decisions	IT, FR	UAE, Wales

Note: This table is based on the reviews in Berger (2022) and Exton and Shinwell (2018).

### Annex 3. Details on the structure of the prototype SIWB multidimensional framework

*Table A2: Description of the dimensions under each SIWB component, with selected examples of potential indicators. The indicators are listed only for illustrative purposes. Their number and content do not indicate any starting selection, the actual choice of the indicators will be done by the working group.*

<b>Wellbeing today</b>	<b>Examples of indicators</b>
<p><b>Material and living conditions and economic security</b> include income, consumption and material conditions. Economic security refers to the exposure to difficult economic situations that can threaten the material independence of individuals/households. It includes income insecurity, household wealth and debt.</p> <p>In Quality of Life framework, economic security is a part of the dimension called “Economic security and physical safety”, but given that the underlying indicators are more related to the ones included in the material and living conditions, in the SIWB framework the two have been split and reorganized.</p>	<p>Material and living conditions: mean household income, at risk of poverty, inability to make ends meet.</p> <p>Economic security: inability to face unexpected financial expenses, arrears.</p>
<p><b>Housing</b> is a particularly relevant aspect of material living conditions, referring to housing conditions and affordability. In Quality of Life, it is considered within material living conditions, but given the relevance of the topic it has been here proposed as a separate aspect, in line with the OECD.</p>	<p>Overcrowding rate, % population living in a dwelling with a leaking roof, damp walls, floors or foundation, or rot in window frames or floor.</p>
<p><b>Productive or other main activity</b> includes labour market outcomes and satisfaction, and covers the quantity (intensity) and quality of employment. The former points to employment/unemployment and underemployment levels, while the latter is about job/contract quality, health and safety at work, work/life balance, over-qualification and job satisfaction <sup>(73)</sup>.</p>	<p>Employment rate, involuntary part-time employment, persons reporting accident at work.</p>

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<sup>(73)</sup> This dimension refers also to other key household activities (such as unpaid domestic work), however these are often underrepresented by existing indicators.

<p><b>Health</b>, as a fundamental aspect of physical and mental wellbeing, refers to health outcomes (such as health status and life expectancy), determinants of health including social and environmental factors (healthy/unhealthy behaviours/exposure to environmental pressures risks), and access to healthcare and health equity.</p>	<p>Body mass index, self-reported unmet needs for medical examination, life expectancy at birth.</p>
<p><b>Education</b>, as an important driver of better career opportunities, health, empowerment and life satisfaction, covers areas such as current competences and skills, lifelong learning and opportunities for education.</p>	<p>Educational attainment, adult skills, early leavers from education and training.</p>
<p><b>Leisure and social interactions</b> are key building blocks for social cohesion, with an important impact on the community and societal outcomes. This area covers quality and access to leisure, social activities, social networks, trust and social inclusion.</p>	<p>Participation in any cultural or sport activities in the last 12 months, frequency of getting together with family and relatives or friends.</p>
<p><b>Physical safety</b> includes subjective and objective measures of personal safety (crime, and perceptions of security). In Quality of Life, it is considered together with economic security, but given that the two topics are very different, here they are proposed separately.</p>	<p>Recorded offences by offence category, feeling safe at night.</p>
<p><b>Governance and basic rights</b> covers institutions and public services (trust and satisfaction), discrimination and equal opportunities (i.e. gender employment gap) and active citizenship. These topics are related to the ability to fully and actively participate in society and enjoy basic universal freedoms.</p>	<p>Trust in institutions, voter turnout.</p>
<p><b>Natural and living environment</b> covers those aspects that have direct influence on the human life and its current quality, such as pollution, noise or access to services.</p>	<p>Exposure to air pollution, noise from neighbours or from the street, access to green areas.</p>
<p><b>Overall experience of life</b> includes subjective measures of life satisfaction, affects, meaning and purpose of life.</p>	<p>Average overall life satisfaction, frequency of being happy</p>
<p><b>Sustainability</b></p>	
<p><b>Social and economic resources for future wellbeing</b></p>	<p><b>Examples of indicators</b></p>

<p><b>Human Capital</b> includes future oriented aspects of knowledge, competencies, skills, and health status of individuals. Besides having its own value for wellbeing, it is assumed to contribute to production of economic and other capitals.</p>	<p>Premature mortality, educational attainment among young adults.</p>
<p><b>Social capital</b> covers aspects of social values, norms and institutional support that enables bonding, engagement and collaboration of different groups of people that ensure future stability and social cohesion.</p>	<p>Trust in people, % population involved in voluntary activity.</p>
<p><b>Economic capital</b> allows sustaining future living standards, lifestyles and material conditions (e.g. income, wealth, work) and supports the production of goods and services for human consumption. It refers to the <i>produced capital</i> and assets such as roads, railways, buildings and machinery; intellectual property, R&amp;D, computer software and art works; etc.</p>	<p>Intellectual property rights, net worth of the total economy, gross and net fixed capital formation.</p>
<p><b>Resilience: societal challenges and sustainability transitions</b></p>	<p><b>Examples of indicators</b></p>
<p><b>Social and economic resilience</b> refers to the “the ability to tackle economic shocks and achieve long-term structural change in a fair and inclusive way.” In this context, it includes vulnerabilities and capacities that can enhance or put at risk the social, economic and human capital. This dimension relates mostly (but not exclusively) to the following megatrends: changing nature of work, diversification of education and learning, widening inequalities and shifting health challenges.</p>	<p>Employment in energy intensive sectors, macroeconomic skills mismatch rate, degree of specialization of the economy.</p>
<p><b>Digitalisation and technological change</b> expands the notion of digital resilience to technological change in general, and it is broadly “about ensuring that the way we live, work, learn, interact, and think in this digital age preserves and enhances human dignity, freedom, equality, security, democracy, and other European fundamental rights and values” (SFR 2020). It refers to the accelerating technological changes that are transforming our systems of production, management, and governance. It represents an important challenge that can impact current and future wellbeing in a transversal way. This dimension relates mostly (but not exclusively) to the following megatrends: accelerating technological change and hyperconnectivity, diversification of education and learning.</p>	<p>Enterprises without ICT training programmes, digital skills, e-government, Global Cybersecurity Index.</p>

<p><b>Geopolitical resilience</b> is the ability to pursue open strategic autonomy and a global leadership role. It is anchored in the expression of the EU's values within a highly interdependent world of competing powers. It is an important future challenge that can impact current and future wellbeing in a transversal way. This dimension relates mostly (but not exclusively) to the following megatrends: changing security paradigm, expanding influence of East and South, increasing influence of new governing systems.</p>	<p>Import dependence in energy and raw materials, supplier concentration</p>
<p><b>Demography and urbanization</b> refers to challenges rising from increasing population and depopulation in many rural areas in the same time, change in the aging structure and increasing migration pressures, with the expectation that 2/3 of the world population will be living in urban areas by 2030. This dimension relates mostly (but not exclusively) to the following megatrends: increasing demographic imbalances, increasing significance of migration, continuing urbanization.</p>	<p>Net-migration rate, total fertility rate, share of total built-up area in a country</p>
<p><b>Natural capital/endowment</b></p>	<p><b>Examples of indicators</b></p>
<p><b>Biodiversity</b>, as defined by the EEA, refers to the variety of ecosystems, species and genes that is essential to environmental sustainability and human wellbeing, as it plays a key role in the functioning of ecosystems and delivers services that sustain our society. Biodiversity is crucial to ecosystem services — the services that nature supplies — such as pollination, climate regulation, flood protection, soil fertility etc. Within this dimension, the aim is to capture the status and condition of biodiversity and the contributions it provides.</p>	<p>Farmland bird index, Grassland Butterfly Index, threatened species.</p>
<p><b>Land, soil and forests</b> are the foundation for producing food, feed and providing critical ecosystem services (EEA). Productive land and fertile soil are part of natural capital; forests, among other things, play an important role as carbon sink for emissions. Within this dimension, the aim is to capture the status, condition of these ecosystem assets and the contributions they provide.</p>	<p>Soil carbon content, forest area.</p>
<p><b>Air and water</b> includes two other essential assets for human wellbeing. Water (both groundwater and marine) is an essential resource for human health, agriculture, energy production, transport and nature (EEA). Air quality has a direct impact on people's health. Within this dimension, the aim is to capture the status, condition of these ecosystem assets and the contributions they provide.</p>	<p>Air pollution, water exploitation index.</p>



<b>Resilience: nature and planetary boundaries</b>	<b>Examples of indicators</b>
<p><b>Safeguarding the ecosystems and biodiversity.</b> This dimension reflects the pressure human activities pose on ecosystems and biodiversity, or those actions that can favour its healthy condition and flourishing. This dimension relates mostly (but not exclusively) to the following megatrends: climate change and environmental degradation.</p>	<p>Soil sealing index, area under organic farming, net land take.</p>
<p><b>Zero pollution and toxic-free environment</b> Pollution and the use of chemicals are strongly driven by intensive industrial activity, agricultural practices and energy production (EEA). This dimension relates mostly (but not exclusively) to the following megatrends: climate change and environmental degradation, aggravating resource scarcity.</p>	<p>Use of more hazardous chemicals, use and risk of pesticides, premature deaths due to air pollution by particulate matter (PM2.5 or PM10), exposure to transport noise.</p>
<p><b>Climate change mitigation and adaptation</b> refers to the vulnerabilities and capacities that can hinder or favour the EU path towards climate neutrality, and to tackle the challenge of climate change in a general. Climate change is creating risks for the nature and society, and the adverse impacts are expected to intensify as the climate continues to change (EEA). To limit the adverse effects of climate change, it is important to employ strong mitigation and adaptation capacities. This dimension relates mostly (but not exclusively) to the following megatrends: climate change and environmental degradation.</p>	<p>GHG emissions per capita, fatalities from climate extremes.</p>
<p><b>Sustainable use of resources.</b> Increasing resource efficiency, preventing waste generation and using waste as a resource are at the core of the circular economy, and have considerable potential to reduce environmental pressures both within Europe and outside Europe's borders (EEA). This dimension refers to the vulnerabilities/capacities that hinder/enable the EU's capacity to foster a circular economy, manage the sustainable use of resources and reduce pressure on raw materials. This dimension relates mostly (but not exclusively) to the following megatrends: climate change and environmental degradation, aggravating resource scarcity.</p>	<p>Resource productivity, material footprint, waste generation per capita, circular material use.</p>
<p><b>Green economy and policies.</b> This dimension encompasses the scale of environmentally friendly economic activities, advancements in environmental innovation, and investments in sustainable initiatives. This also encompasses spending on environmental protection, as well as taxes levied on activities that contribute to environmental degradation, pollution, and resource depletion.</p>	<p>National expenditures on environmental protection, Share of environmental taxes in total tax revenues, Environmental technology patents per capita</p>

<b><i>Inclusiveness</i></b>	<b><i>Examples of indicators</i></b>
<p>All the dimensions of SIWB can be viewed through an inclusiveness angle. <b>Vertical inequality</b> refers to inequality among individuals or households, while <b>horizontal inequality</b> is defined as inequality among specific groups (age, gender, educational attainment).education). One particular aspect of horizontal inequality is <b>regional inequality</b>. <b>The inequality of opportunity</b> and intergenerational mobility are also included. <b>Spillover effects</b> refer to a particular aspect broadly related to inclusiveness (over locations), referring to the impact the EU activities and lifestyles might generate to places outside the EU. Inclusiveness will be considered also as a separate component, presenting the most representative inequalities and, eventually, present its own headline indicator.</p>	<p>Gini coefficient or the S80/S20 income share, gender employment gap, senior management positions held by women, regional dispersion of household income. Inequality of opportunity. Imported content of the consumption footprint.</p>
<b><i>Institutional capacity and quality</i></b>	<b><i>Examples of indicators</i></b>
<p><b>Institutional capacity and quality</b> refer to those characteristics of the institutions and governance that can enable a country to shape its development path, its capacity to deliver wellbeing and to deal with challenges. This includes the process by which governments are selected, monitored and replaced; the capacity of the government to effectively formulate and implement sound policies; and the respect of citizens and the state for the institutions that govern economic and social interactions among them (World Bank Worldwide Governance Indicators).</p>	<p>Trust in institutions, political stability, Corruption Perceptions Index.</p>

Note: Definitions of the dimensions within wellbeing today (people) are taken from or inspired by the Quality of Life (Eurostat). Definitions of the human, social and economic capital are based on the OECD Framework for Measuring Well-being and Prosperity. Definitions of challenges and resilience in the social and economic resilience, digitalisation and technological change, geopolitical resilience, demography and urbanization, and nature dimensions are inspired by the 2020 Strategic Foresight Report and the EU Knowledge Hub on Megatrends. The definitions of the resilience with respect to nature and planetary boundaries is based on European Environment Agency (2020)

Table A3: Detailed structure of the SIWB framework, used in the detailed mapping exercise

<b>1. Wellbeing today</b>	<b>2. Social and economic resources for future wellbeing</b>	<b>4. Natural capital/endorowment</b>
1.1. Material living conditions and economic security 1.1.1. Economic and financial security 1.1.2. Income 1.1.3. Material deprivation 1.1.4. Poverty 1.1.5. Savings 1.1.6. Wealth	2.1. Economic capital 2.1.1. Financial capital 2.1.2. Knowledge capital 2.1.3. Produced capital	4.1. Biodiversity status
1.2. Housing 1.2.1. Housing affordability 1.2.2. Housing deprivation 1.2.3. Housing quality 1.2.4. Access to water and sanitation	2.2. Human capital 2.2.1. Health Determinants 2.2.2. Knowledge, skills and competencies 2.2.3. Physical and mental health	4.2. Land, soil and forest status 4.2.1. Land status 4.2.2. Soil status 4.2.3. Forest status
1.3. Productive and other main activity 1.3.1. Employment quality 1.3.2. Employment quantity 1.3.3. Unpaid work and inactive	2.3. Social capital 2.3.1. Active citizenship - volunteering 2.3.2. Trust in others	4.3. Air and water status and quality 4.3.1. Air status 4.3.2. Water status
1.4. Health 1.4.1. Access to healthcare 1.4.2. Health Determinants 1.4.3. Physical and mental health status	<b>3. Resilience: societal challenges and sustainability transitions</b>	<b>5. Resilience: nature and planetary boundaries</b>
1.5. Education 1.5.1. Educational achievement 1.5.2. Educational attainment 1.5.3. Access to education	3.1. Social and economic resilience 3.1.1. Economic and financial resilience 3.1.2. Education and health resilience 3.1.3. Policies to facilitate transitions and decrease the vulnerabilities 3.1.4. Social impact of transitions	5.1. Safeguarding ecosystems and biodiversity 5.1.1. Biodiversity preservation 5.1.2. Land, soil and forests preservation 5.1.3. Water preservation
1.6. Leisure and social interactions 1.6.1. Leisure 1.6.2. Social interactions	3.2. Digitalisation and technological change 3.2.1. Cybersecurity 3.2.2. Digital economy 3.2.3. Digital public services 3.2.4. Digital skills	5.2. Zero pollution and toxic-free environment
1.7. Physical safety 1.7.1. Crime 1.7.2. Safety	3.3. Geopolitical resilience 3.3.1. Financial globalization 3.3.2. Raw materials and energy supply 3.3.3. Value chains and trade	5.3. Climate change mitigation and adaptation 5.3.1. Drivers: Energy 5.3.2. Drivers: Transport 5.3.3. Emissions 5.3.4. Pressures and policies
1.8. Governance and basic rights 1.8.1. Active citizenship - political participation 1.8.2. Trust in institutions	3.4. Demography and urbanisation 3.4.1. Migrant integration 3.4.2. Migration flows 3.4.3. Population dynamics 3.4.4. Urbanisation	5.4. Sustainable use of resources 5.4.1. Circular material use and waste 5.4.2. Material efficiency and footprint
1.9. Natural and living environment 1.9.1. Living environment 1.9.2. Natural environment		5.5. Green economy and policies 5.5.1. Green economy and finance 5.5.2. Green policies
1.10. Overall experience of life 1.10.1. Affect 1.10.2. Satisfaction with life overall		<b>6. Inclusiveness</b>
		6.1. Inequalities
		6.2. Inequality of opportunity
		6.3. Spillovers
		<b>7. Institutional capacity and quality</b>

## Annex 4. Details of the stock taking and mapping exercise

Detailed findings of the mapping exercise

- The dimensions of **Wellbeing today** are covered by several of the assessed EU monitoring tools, such as the EU SDGs, Quality of Life, the Social Scoreboard <sup>(74)</sup>, the EU Regional Social Progress and Regional Competitiveness Indices (which provide the important extension to the subnational level), the European Semester Country Report annexes, and also by the OECD wellbeing framework. The dimensions that present a large number of indicators are *Education, Health, Material living conditions and economic security*, and *Productive and other main activity*. Since this latter has many sub-dimensions (see Table A3 in Annex 3), its coverage score is relatively low. Other dimensions, like *Governance and basic rights, Housing, Leisure and social interactions, Physical safety*, and *Natural and living environment* relate to fewer indicators across the tools. *Overall experience of life* is included only in the Quality of life and OECD frameworks.
- In terms of **Social and economic resources for future wellbeing**, several Commission tools such as the EU SDGs, the Social Scoreboard, the EU Regional Progress Index and the EU Regional Competitiveness Index, or the European Semester Country Report annexes, have an extensive coverage of *Human capital* and *Economic capital*, but *Social capital* would require more indicators, as in the Quality of Life and to a smaller degree the OECD.
- **Resilience: societal challenges and sustainability transitions** is covered by several EU monitoring tools (such as the EU SDGs, the Social Scoreboard, the Resilience Dashboards, the EU Regional Social Progress Index, and the EU Regional Competitiveness Index), and also by the European Semester Country Report annexes and (to a smaller degree) the OECD wellbeing framework. *Demography and urbanisation* is linked to a small number of indicators. The *Digitalisation and technological change* and *Geopolitical resilience* dimensions are mostly concentrated in a few dedicated frameworks like the Digital Economy and Society Index and the Energy Union Scoreboard. Besides the dedicated Resilience Dashboards, the European Semester Country Report annexes and the EU SDGs have many indicators that point to the resilience to societal challenges and transitions (except for *Demography and urbanisation*).
- **Inclusiveness** is treated as a crosscutting feature in several EU monitoring tools (e.g. EU SDGs, the Social Scoreboard, and the Quality of Life) and in the OECD wellbeing framework <sup>(75)</sup>. The EU Multidimensional Inequality Monitoring Framework (EUMIMF) offers a comprehensive view on country level inequality indicators (including also the inequality of opportunity and generational mobility <sup>(76)</sup>), structured around key life domains while the SDGs and the Social Scoreboard recognise inclusiveness as a fully articulated dimension on

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<sup>(74)</sup> Other related (but not considered here) monitoring tools are the Social Protection Performance Monitoring (SPPM) and the Employment Performance Monitor (EPM).

<sup>(75)</sup> These frameworks address inclusiveness as a crosscutting feature by presenting distributional measures for many indicators (beyond averages, e.g. vertical inequalities and horizontal inequalities/gaps by different socio-economic groups).

<sup>(76)</sup> Inequality of opportunity indicators are usually model- (regression-) based, and are available for single years.

its own <sup>(77)</sup>. *Spillovers (beyond the EU)* are not addressed directly in any of the frameworks <sup>(78)</sup>, and the *Inequality of opportunities* is covered only in the EUMIMF (column not reported).

- Looking at **Natural capital/endowment**, the dimensions of *Biodiversity, Land, soil and forests* as well as of *Air and water* are broadly captured by the SDGs, the Resilience Dashboards, the OECD and the Doughnut frameworks, and by the environment-oriented tools such as the monitoring framework for the 8<sup>th</sup> EAP, the Statistics for EGD, the Biodiversity Strategy Dashboard, and the Resource Efficiency Scoreboard <sup>(79)</sup>. However, there is still an underrepresentation of the status and condition of the natural capital/endowment in many transversal and thematic tools.
- **Resilience: nature and planetary boundaries** is covered to a large degree by the EU SDGs, the Resilience Dashboards, the Transitions Performance Index, the European Semester Country Report annexes, by most of the environmental EU tools (in particular the 8<sup>th</sup> EAP, the Statistics for EGD, the Circular Economy Monitoring framework, and the Resource Efficiency Scoreboard), as well as by the OECD, the Doughnut and the ZOE frameworks. The most covered dimensions are *Climate change mitigation and adaptation* and *Sustainable use of resources*. The other dimensions, especially their planetary boundary aspects, are covered less extensively across the monitoring tools.
- About one third of the tools cover aspects of **Institutional capacity and quality** (with at least two indicators), but not consistently. This component is covered to some extent by the EU SDGs, the Transitions Performance Index, the EU Regional Social Progress Index, and the EU Regional Competitiveness Index. The annexes of the Country Reports in the European Semester, the OECD and the Doughnut frameworks are also covering this component to some degree.

Focussing on the 2022 EU SDGs, the 2022 Social Scoreboard, and the 2022 European Semester Country Report <sup>(80)</sup> annexes, the following can be highlighted:

- The **EU SDGs** cover most of the dimensions of the SIWB framework. Most of the dimensions in the *Wellbeing today, Social and economic resources for future wellbeing* and *Resilience: societal challenges and sustainability transitions* components are represented to a large degree; however fewer or no indicators are present in relation to *Governance and basic rights, Leisure and social interactions, Overall experience of life, Physical safety, Social capital, Digitalisation and technological change, and Demography and urbanisation*. The *Natural capital/endowment* and *Resilience: nature and planetary boundaries* components are largely covered. Although the SDGs cover the *Inequalities* dimension of *Inclusiveness* (especially in terms of income inequality), they lack some of the horizontal inequalities

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<sup>(77)</sup> In the EU SDGs framework two goals cover explicitly the aspect of inclusiveness: goal 5 (Gender equality) and goal 10 (Reduced inequalities). The Social Scoreboard, also used in the context of the European Semester, includes an area on Equal opportunities and access to the labour market. It nevertheless does not contain indicators dedicated to the inequality of opportunity itself.

<sup>(78)</sup> As explained earlier, the overall (material or environmental) footprint of consumption includes the footprint of the imported content, which would be a spillover measure. In our updated mapping exercise, we did not allocate the overall footprint indicators to the Spillovers dimension.

<sup>(79)</sup> The environmental frameworks tend to put more emphasis on the resilience component, looking at challenges and planetary boundaries/pressures. There is however some subjectivity in the distinction of the two environmental components. In future work these may become consolidated into a single component.

<sup>(80)</sup> See [https://ec.europa.eu/info/publications/2022-european-semester-country-reports\\_en](https://ec.europa.eu/info/publications/2022-european-semester-country-reports_en). Analysis of the SDGs and the Social Scoreboard are included in separate Annexes of their own.

present in other frameworks (i.e. Quality of Life or the EU Multidimensional Inequality Monitoring Framework). Aspects of *Institutional capacity and quality* are covered to some extent, in goal 16. There are also some dimensions where coverage is not complete at the sub-dimension level (*Material living conditions and economic security, Social and economic resilience*).

- The **Social Scoreboard** is mostly focused on *Wellbeing today* and *Inclusiveness*, with some indicators referring to *Social and economic resources for future wellbeing (Human capital)* and *Resilience: societal challenges and sustainability transitions* (mainly *Social and economic resilience*) components. With respect to *Wellbeing today*, indicators cover around half of the dimensions, with the exception of *Leisure and social interactions, Physical safety, Governance and basic rights, Natural and living environment, and Overall experience of life*. There is a good crosscutting coverage of *Inequalities* in *Inclusiveness*. Given that the purpose of this tool is to identify challenges and monitor progress and upward social convergence, it has no coverage of the environmental aspects of sustainability.
- The **European Semester Country Report annexes** provide a rich collection of sets of indicators, with a strong focus on economic performance, macroeconomic stability, and productivity. In recent years the coverage was gradually expanded towards fairness and the green transition. The annexes cover to a large degree aspects of *Resilience: societal challenges and sustainability transitions* (except *Demography and urbanisation*), and they have important insights on *Inequalities* (but not as transversal as in the Quality of Life). Their coverage of the dimensions *Leisure and social interactions, Physical safety, Governance and basic rights, Overall experience of life, and Social capital* is rather limited. *Natural capital/endowment* and its dimensions are not covered. *Resilience: nature and planetary boundaries* is covered to a large degree, particularly the dimensions *Climate change mitigation and adaptation, Sustainable use of resources, and Green economy and policies*.

Table A4: Description of the main EC and non-EC monitoring tools mapped into the SIWB, with the evaluation of linkages between the given framework and the SIWB components/dimensions

	<b>Dashboard/Score-board/Framework</b>	<b>Description</b>	<b>Mapping comments</b>
1	<a href="#">EU Sustainable Development Goals (SDGs)</a>	Sustainable development is a core principle of the Treaty on European Union and a priority objective for the Union's internal and external policies. The United Nations 2030 Agenda includes 17 Sustainable Development Goals (SDGs) intended to apply universally to all countries. It is a commitment to eradicate poverty and achieve a sustainable world by 2030 and beyond, with human wellbeing and a healthy planet at its core. The 102 EU SDG indicators have been chosen both for their policy relevance for the EU and their statistical quality. The indicator set is reviewed annually and the mapping in Table 2 is done for the 2022 review.	SDGs cover to a large degree most of the components of the SIWB framework. It does not cover <i>Leisure and social interactions</i> , <i>Overall experience of life</i> , and <i>Social capital</i> , and has only a limited number of indicators that point to the <i>Physical safety</i> and <i>Governance and basic rights</i> dimensions of Wellbeing today, and the <i>Digitalisation and technological change</i> and <i>Demography and urbanisation</i> dimensions of resilience. In relation to the <i>Environmental sustainability</i> component, SDG indicators are spread across the dimensions of <i>Natural capital/endowment</i> and <i>Resilience: nature and planetary boundaries</i> ; they cover less aspects of the status and condition of <i>Land, soil and forests</i> and <i>Air and water</i> . Although the SDGs dedicate one explicit goal to <i>Inclusiveness</i> and have several indicators in this domain (especially in terms of income inequality), they lack some of the horizontal inequalities present in other frameworks (i.e. Quality of Life or the OECD wellbeing framework). Aspects of <i>Institutional capacity and quality</i> are covered to some extent in goal 16.
2	<a href="#">Quality of Life indicators</a>	Quality of life indicators cover 8+1 dimensions. Eight of them concern the functional capabilities citizens should have to effectively pursue their self-defined wellbeing, according to their own values and priorities. The last dimension refers to the personal assessment of life	Quality of life is the benchmark framework for <i>Wellbeing today</i> , hence it has the most extensive coverage of all its dimensions (though <i>Physical safety</i> has only one indicator). Although it is not designed to cover <i>Resources for future wellbeing</i> or <i>Resilience</i> , many of its indicators touch upon these subcomponents as well, especially in terms of dimensions such as <i>Human</i> and <i>Social</i>

	<b>Dashboard/Scoreboard/Framework</b>	<b>Description</b>	<b>Mapping comments</b>
		satisfaction and wellbeing. It consists of 96 indicators, most of which are presented in terms of central tendencies and inequalities by groups.	<i>capital</i> . It has an extensive coverage of the <i>Inequality</i> dimension of the <i>Inclusiveness</i> component.
3	<a href="#">Social Scoreboard</a>	Delivering on a more social and fair Europe is a key priority for the European Commission. The European Pillar of Social Rights serves as a compass for a process leading to renewed socio-economic convergence. The scoreboard is divided into three main dimensions in the field of employment and social policies: equal opportunities, fair working conditions, and social protection and inclusion. It consists of 14 headline indicators, and is complemented by a number of complementary monitoring tools (including SPPM, EPM, JAF).	It has a strong focus on <i>Wellbeing today</i> , <i>Social and economic resources for future wellbeing</i> and <i>Resilience: societal challenges and sustainability transitions</i> . With respect to <i>Wellbeing today</i> , indicators cover around half of the dimensions with the exception of <i>Leisure and social interactions</i> , <i>Physical safety</i> , <i>Governance and basic rights</i> , <i>Natural and living environment</i> and <i>Overall experience of life</i> . It has an extensive coverage of <i>Human capital</i> . With respect to <i>Resilience</i> , the framework focuses mostly on the <i>Social and economic resilience</i> dimension. It also has a very good crosscutting coverage of <i>Inequalities</i> .
4	<a href="#">Resilience Dashboards (RDBs)</a>	The resilience dashboards aim to provide a holistic assessment of resilience in the EU and its Member States. Through a broad set of 124 indicators, the resilience dashboards assess the relative strengths and weaknesses of countries across four dimensions: social and economic, green, digital, and geopolitical.	These dashboards focus on <i>Resilience: societal challenges and sustainability transitions</i> and <i>Resilience: nature and planetary boundaries</i> , with a balanced distribution across vulnerabilities and capacities. Certain capacities and vulnerabilities also refer to the status of <i>Wellbeing today</i> and <i>Resources for future wellbeing</i> , but they do not cover all their dimensions ( <i>Housing</i> , <i>Leisure and social interactions</i> , <i>Physical safety</i> , <i>Governance and basic rights</i> , <i>Natural and living environment</i> , <i>Overall life experience</i> ). In relation to the <i>Resilience: nature and planetary boundaries</i> subcomponent, many



	<b>Dashboard/Score-board/Framework</b>	<b>Description</b>	<b>Mapping comments</b>
			indicators in the RDBs point to <i>Climate change mitigation and adaptation</i> , and <i>Sustainable use of resources</i> . There is a lower coverage of the <i>Natural capital/endowment</i> subcomponent.
5	<a href="#">Transitions Performance Index (TPI)</a>	The TPI consists of 28 indicators, and monitors and ranks countries based on their transitions to fair and prosperous sustainability. The transition is measured in four dimensions: economic, social, environmental, and governance. These measurements are the basis for a new model of prosperity for Europe and the world.	Given its parsimonious structure and low number of indicators, it covers many areas but does not go in depth in the specific dimensions. It dedicates three indicators to <i>Human capital</i> , three to <i>Inequalities</i> , and four to <i>Institutional capacity and quality</i> ...
6	<a href="#">European Regional Social Progress Index (EU-SPI)</a>	The EU Regional Social Progress Index is a measure of societal development and quality of life that goes beyond the GDP, presented at the regional level. It measures social progress using twelve components described by a total number of 55 social and environmental indicators, across three dimensions: basic human needs, foundations of wellbeing, and opportunity.	It spans most of the dimensions of <i>Wellbeing today</i> , except <i>Overall experience of life</i> and <i>Material living conditions and economic security</i> . It has several indicators related to <i>Human capital</i> and <i>Resilience: socioeconomic challenges and sustainability transitions</i> , but it has a low coverage of the nature-related dimensions, as they mostly refer to <i>Air and water dimension</i> . It has a partial coverage of <i>Inequalities</i> , and several indicators refer to <i>Institutional capacity and quality</i> .
7	<a href="#">EU Multidimensional Inequality Monitoring</a>	The EU MIMF has been conceived as a comprehensive dashboard of country level inequality indicators, structured around 10 key life domains. The 346 country level	The framework is focused on <i>Inclusiveness</i> across all the dimensions of <i>Wellbeing today</i> . The framework considers around 75 indicators by different type of inequalities (vertical and horizontal). Although it is not designed to cover <i>Resources for</i>

	<b>Dashboard/Score-board/Framework</b>	<b>Description</b>	<b>Mapping comments</b>
	<a href="#">Framework (EU MIMF)</a>	indicators included in the EU MIMF across the 10 relevant life domain provides insights on the disparities in life outcomes between those at the top and those at the bottom, on the gaps between sexes, age groups or urban and rural dwellers, on the actual levels of social mobility and equality of opportunities, or on the prevalence of social norms and practices that arbitrarily discriminate between individuals and groups.	<i>future wellbeing</i> or <i>Resilience</i> , many of its indicators touch upon these components as well, especially in terms of <i>Human and Social capital</i> , and <i>Social and economic resilience</i> . It has the most extensive coverage of <i>Inequalities</i> , and offers (model-based) indicators for the <i>Inequality of opportunity</i> dimension, including also intergenerational mobility.
8	<a href="#">European Statistical Recovery dashboard</a>	The dashboard contains monthly and quarterly indicators from a number of statistical areas relevant for tracking the economic and social recovery from the COVID-19 pandemic. It covers topics in three main areas: economy and environment, business and trade, people and work. It consists of 27 indicators, of which 6 are not mapped (being related to the size of specific sectors, trade and economic performance).	It mainly focuses on <i>Wellbeing today</i> and <i>Resilience – societal challenges and sustainability transitions</i> . With respect to the former, mapped indicators look at <i>Productive and other main activity, Health, and Leisure and social interactions</i> . With respect to <i>Resilience: societal challenges and sustainability transitions</i> , it centres on the <i>Social and economic</i> dimension. The focus is much narrower in terms of the coverage of environmental aspects of <i>Sustainability</i> .
9	<a href="#">EU Regional Competitiveness Index</a>	The Regional Competitiveness Index contains more than 70 indicators to measure the ability of a region to offer an attractive and sustainable environment for firms and residents to live and work. It	This framework mostly deals with <i>Wellbeing today, Economic and Human capital</i> , and the <i>Social and economic resilience</i> , and <i>Digitalisation and technological change</i> dimensions of <i>Resilience: societal challenges and sustainability transitions</i> . By design, it does not have a strong focus on environmental aspects of

	<b>Dashboard/Scoreboard/Framework</b>	<b>Description</b>	<b>Mapping comments</b>
		covers governance, infrastructure, including the digital networks, health, human capital and labour market and innovation.	<i>Sustainability</i> or <i>Inclusiveness</i> . It covers with many indicators (12) the <i>Institutional capacity and quality</i> component.
10	<a href="#">European Innovation Scoreboard</a>	The European Innovation Scoreboard provides a comparative assessment of the research and innovation performance of countries and the relative strengths and weaknesses of their research and innovation systems. It consists of 32 indicators, distinguishing four main types of activities: framework conditions, investments, innovation activities, and impacts.	Innovation and intellectual property assets, following the OECD classification, are mostly covered in <i>Economic capital</i> . However, the scoreboard includes also capacities necessary to build resilience with respect to challenges in the <i>Social and economic resilience</i> and <i>Digitalisation and technological change</i> dimensions. By design, it does not have a strong focus on the environmental aspects of <i>Sustainability</i> , or <i>Inclusiveness</i> .
11	<a href="#">Digital Economy and Society Index (DESI)</a>	The Digital Economy and Society Index is a composite index that summarises relevant indicators on Europe's digital performance and tracks the evolution of EU countries in digital competitiveness. The index covers four key areas: human capital, connectivity, integration of digital technology, and digital public services. It is based on 33 indicators.	The index and its underlying indicators focus mainly on the <i>Digitalisation and technological change</i> dimension. The index contains a couple of indicators that could be cross-listed with <i>Human capital</i> (digital skills) or <i>Productive and other main activity</i> . In this version, however, we have eliminated almost all of such cross-listings.
12	<a href="#">8th Environmental Action Programme monitoring</a>	The action programme reiterates the EU's long-term vision to 2050 of living well, within planetary boundaries. It sets out	All indicators refer to the components in environmental aspects of <i>Sustainability</i> , with somewhat lower coverage for <i>Natural capital/endowment</i> and higher coverage for <i>Resilience: nature and</i>

	<b>Dashboard/Score-board/Framework</b>	<b>Description</b>	<b>Mapping comments</b>
	framework (Headline indicators)	priority objectives for 2030 and the conditions needed to achieve these. The headline indicators follow the priority objectives: climate change and adaptation, a regenerative circular economy, zero pollution and a toxic free environment, biodiversity and ecosystems, environmental and climate pressures related to EU production and consumption, enabling conditions, and living well, within planetary boundaries. It consists of 26 indicators, of which one is not mapped (placeholder for an indicator on environmental inequalities).	<i>planetary boundaries</i> . Particular attention is paid to <i>Climate change mitigation and adaptation</i> .
13	<a href="#">Statistics for the European Green Deal</a>	The European Green Deal (one of the six European Commission priorities for 2019 – 2024) aims at eliminating greenhouse gases emissions by 2050 and decoupling economic growth from resource use, while leaving no person or place behind while trying to accomplish this. The monitoring statistics are divided into three categories: reducing our climate impact, protection of our planet and health, and activities enabling a green and just transition.	The 25 indicators of the EGD statistics mostly refer to the <i>Resilience: nature and planetary boundaries</i> , along the dimensions of Zero pollution and toxic-free environment, <i>Climate change mitigation and adaptation</i> , and <i>Sustainable use of resources</i> , but it also covers some <i>Biodiversity</i> aspects.

	<b>Dashboard/Scoreboard/Framework</b>	<b>Description</b>	<b>Mapping comments</b>
14	<a href="#">EU Biodiversity Strategy Dashboard</a>	This dashboard shows the progress of the EU and its Member States towards the targets set in the EU Biodiversity Strategy for 2030. The targets refer to protected land and sea areas, species conservation and organic farming. At the time of the mapping exercise (2023), it had 10 indicators.	This dashboard has a specific focus on the status and conditions of <i>Biodiversity</i> , but has some indicators related to <i>Land, soil and forests</i> , and resilience with respect to <i>Safeguarding ecosystems and biodiversity</i> .
15	<a href="#">Circular Economy Monitoring Framework</a>	A circular economy aims to maintain the value of products, materials and resources for as long as possible, by returning them into the product cycle at the end of their use, while minimising the generation of waste. The less materials we extract, the fewer products we discard, the more we use secondary materials, the better for our environment, economy and society. At the time of the exercise, this framework had four dimensions: production and consumption, waste management, secondary raw materials, competitiveness and innovation. It contained 19 indicators.	This dashboard has a specific though not exclusive focus on the <i>Sustainable use of resources</i> dimension. The revised version includes a couple of footprint indicators for measuring Spillovers.
16	<a href="#">Resource Efficiency Scoreboard (archived)</a>	The Resource Efficiency Scoreboard presents indicators that illustrate the progress towards increased resource efficiency. It consists of 32 indicators	The majority of indicators refers to <i>Resilience: nature and planetary boundaries</i> , especially the dimensions of <i>Climate change</i>

	<b>Dashboard/Scoreboard/Framework</b>	<b>Description</b>	<b>Mapping comments</b>
		arranged under a three-tiered approach: an overall lead indicator for ‘resource productivity’; a second-tier ‘dashboard’ of complementary macro indicators for materials, land, water and carbon; and a third tier of theme-specific indicators to measure progress towards key thematic objectives, actions and milestones.	<i>mitigation and adaptation, and Sustainable use of resources. One indicator is not mapped, as it refers to (energy) taxes.</i>
17	<a href="#">Energy Union Scoreboard</a>	The aim of the energy union strategy is to ensure secure, affordable and clean energy to European households and businesses. The scoreboard shows progress in five dimensions: security, solidarity and trust; a fully-integrated internal energy market; energy efficiency climate action – decarbonising the economy research; innovation and competitiveness. It has 28 indicators (3 are not mapped as they refer to costs and population).	The scoreboard’s indicators refer mostly to <i>Climate change mitigation and adaptation</i> . It also covers with several indicators the <i>Geopolitical</i> dimension of resilience, in particular with reference to energy security and integrated internal energy market.
18	<a href="#">Eco-innovation Scoreboard</a>	The Eco-Innovation Scoreboard aims to capture different aspects of eco-innovation, in five dimensions: eco-innovation inputs, eco-innovation activities, eco-innovation outputs, resource efficiency, and socio-economic outcomes. It consists of 16 indicators.	The majority of the indicators refer to <i>Green economy and policies</i> .

	<b>Dashboard/Score-board/Framework</b>	<b>Description</b>	<b>Mapping comments</b>
19	<a href="#">European Semester Country Report annexes</a>	The European Semester is a cycle of economic, fiscal, labour and social policy coordination within the EU. It is part of the European Union's economic governance framework. It covers different areas: structural reforms (promoting growth and employment), social and labour policies (following the European Pillar of Social Rights), structural reforms (set out in the national recovery and resilience plans), fiscal policies ensuring the sustainability of public finances (following the Stability and Growth Pact) and the prevention of excessive macroeconomic imbalances. In 2022, its Country Report annexes included 255 indicators.	The European Semester has an extremely rich collection of indicators with a strong focus on economic performance, macroeconomic stability, and productivity. Many of its indicators (100 – mostly the ones related to productivity) were not mapped in the wellbeing framework, being too specific or loosely related to wellbeing. The Semester annexes cover well the resilience components (both <i>societal challenges and sustainability transitions</i> and <i>nature and planetary boundaries</i> ), with an important focus on <i>Inequalities</i> (but not fully crosscutting as in the Quality of Life). It lacks coverage on <i>Leisure and social interactions</i> , <i>Physical safety</i> and <i>Overall experience of life</i> , as well as <i>Social capital</i> and <i>Natural capital/endowment</i> .
20	<a href="#">OECD Framework for Measuring Well-Being and Progress</a>	The framework consist of 79 indicators organized in three main components: current wellbeing, inequality in wellbeing outcomes, and resources for future wellbeing (natural, human, social, and economic capital). The current wellbeing component comprises 11 dimensions that relate to material conditions that shape people's economic options and to quality of life factors that encompass personal experiences and environmental conditions.	The OECD framework is balanced across the proposed SIWB components. It has a strong focus on <i>Wellbeing today</i> and <i>Resources for future wellbeing</i> . While indicators in the <i>Resilience: societal challenges and sustainability transitions</i> subcomponent mainly focus on <i>Social and economic resilience</i> , the parts on <i>Natural capital/endowment</i> and <i>Resilience: nature and planetary boundaries</i> have no specific focus. It covers quite extensively the <i>Inequality</i> dimension across all the <i>Wellbeing today</i> indicators, with four specific measures on (vertical) inequalities.

	<b>Dashboard/Score-board/Framework</b>	<b>Description</b>	<b>Mapping comments</b>
		Inequality considers gaps between population groups (horizontal inequalities); gaps between those at the top and those at the bottom (vertical inequalities); and deprivations (share of the population falling below a given threshold).	
21	<a href="#">The Doughnut of social and planetary boundaries 2017</a>	The Doughnut consists of two concentric rings: a social foundation (20 indicators), to ensure that no one is left falling short on life's essentials, and an ecological ceiling (8 indicators), to ensure that humanity does not collectively overshoot the planetary boundaries that protect Earth's life-supporting systems. Between these two sets of boundaries lies a doughnut-shaped space that is both ecologically safe and socially just: a space in which humanity can thrive.	The Doughnut is focused on social needs and environmental boundaries, therefore it covers well the <i>Wellbeing today</i> component and the environmental aspects of <i>Sustainability</i> . The dimensions not covered in the social foundation part are the <i>Governance and basic rights</i> , <i>Natural and living environment</i> , and <i>Overall experience of life</i> dimensions. It does not cover the <i>Social Capital</i> and <i>Economic Capital</i> dimensions. On the environmental side, it covers well the <i>Natural capital/endowment</i> and <i>Resilience: nature and planetary boundaries</i> subcomponents, given its strong link with the planetary boundaries. It is often difficult to distinguish between the endowment and planetary boundary aspects of indicators.
22	<a href="#">ZOE Compass 2030</a>	It aims to monitor progress in the EU towards 2030 in terms of environmental sustainability, a resilient economy, and individual and societal wellbeing. It contains 30 indicators with available EU data: environmental indicators (8 <sup>th</sup> EAP, EGD and SDGs), social indicators (Social Pillar and SDGs), and policy lever indicators aiming to depict a resilient and	The framework spans the <i>Wellbeing today</i> and the <i>Sustainability</i> components in a concise and systematic way. The framework mainly looks at <i>Wellbeing today</i> , along all dimensions, with the exception of <i>Physical safety</i> and <i>Overall experience of life</i> . On the resilience side, it focuses more on the <i>Social and economic</i> dimension. For what concerns the environmental aspects of <i>Sustainability</i> , the framework looks at almost all of its dimensions, with slightly more indicators about <i>Climate change mitigation and</i>



	<b>Dashboard/Score-board/Framework</b>	<b>Description</b>	<b>Mapping comments</b>
		regenerative economy (8 <sup>th</sup> EAP, European Semester and RDBs).	<i>adaptation</i> . Few <i>Inequality</i> indicators are present, and <i>Institutional capacity and quality</i> is not covered (directly).
23	<a href="#">Planetary pressures adjusted Human Development Index (PHDI)</a>	The HDI is a summary measure of average achievement in key dimensions of human development: a long and healthy life, being knowledgeable, and having a decent standard of living. The PHDI adjusts the level of human development (HDI) by carbon dioxide emissions per person and the material footprint per capita, to account for the excessive human pressure on the planet.	This is a synthetic index of six indicators giving equal weight to three main <i>Wellbeing today</i> dimensions ( <i>Material living conditions</i> , <i>Health</i> , and <i>Education</i> – this latter having two indicators, one of which can be viewed more as a <i>Human capital</i> indicator) and two dimensions referring to <i>Resilience: nature and planetary boundaries</i> ( <i>Climate change mitigation and adaptation</i> , and <i>Sustainable use of resources</i> ).
24	<a href="#">The Recoupling Dashboard</a>	The dashboard consists of 10 indicators. It aims to measure societies' wellbeing beyond GDP and illustrates the interdependence of economic prosperity, social prosperity and environmental sustainability. It is composed of four main indexes: solidarity (people's social needs and purposes), agency (individual empowerment, civil liberties, and human capabilities), material gain (GDP) and environmental sustainability (the value and moral status of the environment).	The dashboard focuses on selected aspects of the <i>Wellbeing today</i> (six dimensions), <i>Resources for future wellbeing</i> ( <i>Human capital</i> and <i>Social capital</i> ), and <i>Resilience: societal challenges and sustainability transitions</i> (Social and economic resilience) components, tackling several dimensions even if with very few indicators.

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