Beyond GDP: Wellbeing Metrics for Malta

The Malta Wellbeing INDEX Project

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Executive Summary

This report forms part of the Wellbeing INDEX project (*Wellbeing INDEX – Wellbeing in Malta*, n.d.) being undertaken by the Malta Foundation for Wellbeing of Society (MFWS) in collaboration with the University of Malta. It is intended to help pave the way towards appropriate mechanisms to measure wellbeing in Malta and its aim is to help policy- and decision-makers, journalists, researchers and other readers by curating existing metrics that measure progress, and critically evaluate their ability to shed light on wellbeing.

The main metrics reviewed are Gross Domestic Product (GDP) per capita, the Human Development Index (HDI), the European versions of the Sustainable Development Goals – the index by the Sustainable Development Solutions Network (EUSDGI) and the dashboard by Eurostat (EUSDG), the European Union Quality of Life Indicators (EUQOLI), and the Better Life Index (BLI), developed by the Organisation for Cooperation and Economic Development (OECD). Although not a metric per se, the World Happiness Report (WHR) is also reviewed, as it is an annual report which draws on data from several sources, namely the Gallup World Poll, giving a useful overview of life evaluation in almost all countries around the world.

These readily available indicators shed light on the conditions that can create wellbeing for people living in Malta, as well as on subjective wellbeing itself. Besides the unidimensional GDP, the metrics contain indicators spanning various dimensions, with health, education and material wellbeing featuring throughout. The HDI is the most limited in its indicator range, while the WHR employs a slightly higher number of indicators more pertinent to wellbeing. The EUSDG and the EUSDGI are the strongest composites in terms of environmental and economic indicators, while the EUQOLI, which adopts a dashboard approach, is substantially more comprehensive on the social dimension. The BLI, having been developed purposely to measure wellbeing, combines subjective and objective indicators into a single index.

The data gathered for Malta reveals that, in terms of material wellbeing, Malta has recorded year-on-year growth in GDP per capita in recent years. Indeed, globally, Malta ranked within the top 25% of countries in 2023, while it reports average performance by EU standards, ranking 14th out of 27 in 2022. On the HDI, which incorporates health and education, Malta ranks even better – it ranked in the top 13% globally in 2022, out-performing the EU average, mainly due to a high life expectancy. Malta also ranks in the top 25% of countries on the Global SDG index, comparable to other high-income countries around the world, but among the last compared to its European peers. In 2022, in fact, Malta ranked 28th out of 34 countries on the European SDG Index (EUSDGI). Meanwhile, according to data from the EU Quality of Life dashboard, Malta scores higher than the EU average on health, social support, housing, safety, trust, employment, financial equivalised income and life satisfaction itself, but below the EU in education attainment, equivalised income and satisfaction with time use. On the latter, the Maltese have higher than average working hours. In the WHR (where data on Malta is available from 2012), Malta typically ranks in the top 25%-30% and even higher in GDP, social support, healthy life expectancy, freedom to make choices and generosity, although it tends to rank less well on perceptions of corruption. Despite the high life-evaluation scores, the Maltese rank fairly low on positive affect (emotion) - bottom 40% - and high on negative

affect - top 30%. There is a need to examine which conditions of life cause the Maltese to fare poorly in this regard.

Together with the detailed data emerging from Malta's annual collection of wellbeing data through the Survey of Income and Living Conditions, this data already offers considerable insights on the status of wellbeing in Malta as well as its determinants. The report concludes with a critical discussion of the indicators. Existing metrics offer methodologically reliable, annual data on wellbeing and its determinants, within which Malta can be compared to other countries. Ongoing developments at the global and European Union level are likely to yield an internationally comparable and compelling wellbeing metric in the near future. Furthermore, Malta is also likely to commence wellbeing measurement using the BLI, having embarked on the process of joining the OECD. On the other hand, there is also the need to focus on issues specific to Malta and to generate regular and robust wellbeing data for vulnerable minorities, institutionalised individuals and children, among others.

The following recommendations emerge:

i. To undertake further research to examine the conditions of life which are resulting in low positive and high negative affect in Malta. While Malta is doing well on various counts, as indicated by global progress indicators, areas which merit investigation include work-life balance, educational outcomes and aspects of environmental quality.
ii. To curate data on wellbeing in a single (virtual) space, together with relevant meta-data and communication materials, as a "one-stop-shop" that continues to expand as more data becomes available.
iii. To include subjective wellbeing indicators, capable of disaggregation alongside objective indicators.
iv. To supplement existing data collection efforts with comparable data collection among children and minorities in Malta.
v. To monitor and participate in the international debate on the creation of wellbeing indices (at UN, EU and OECD level) and to consider joining global wellbeing data collection exercises in which Malta is currently absent.
vi. To regularly prioritise headline indicators in consultation with experts and stakeholders. These can be selected from the existing suite of indicators for which data is already collected and reported annually in aggregate and disaggregated form.

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List of Abbreviations

AWU	Annual Work Unit
BES	Benessere Equo e Sostenibile
BLI	Better Life Index
BMI	Body Mass Index
CiW	Canadian Index of Wellbeing
CO_2	Carbon Dioxide
DMC	Domestic Material Consumption
EEA	European Environment Agency
ERA	Environment and Resources Authority
ESS	European Social Survey
EQLS	European Quality of Life Survey
EU	European Union
EUQOLI	EU Quality of Life Indicators
EU-SILC	EU Statistics on Income and Living Conditions
EUSDG	European Sustainable Development Goals
EUSDGI	European Sustainable Development Goals Index
GPI	Genuine Progress Indicator
GDI	Gender Development Index
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GNI	Gross National Income
GVA	Gross Value Added
GWP	Gallup World Poll
HDI	Human Development Index
HIV	Human Immunodeficiency Virus
HPI	Happy Planet Index
IEEP	Institute for European Environmental Policy
IHDI	Inequality-adjusted Human Development Index
IMF	International Monetary Fund
INDEX	Indicators, Networking, Data, Exploration, Exchange
ISTAT	Italian Institute of National Statistics
JRC	Joint Research Centre
MFWS	Malta Foundation for the Wellbeing of Society
NEF	New Economics Foundation
OECD	Organisation for Economic Co-operation and Development
PHDI	Planetary pressures-adjusted HDI
PM2.5	Particulate Matter
R&D	Research and Development
SDG	Sustainable Development Goals
SDGI	Sustainable Development Goals Index
SDSN	Sustainable Development Solutions Network
SHARE	Survey on Health, Ageing and Retirement in Europe
SNA	System of National Accounts
SWB	Subjective Wellbeing

TB	Tuberculosis
UM	University of Malta
UN	United Nations
UNAIDS	United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
WEAll	Wellbeing Economy Alliance
WEF	World Economic Forum
WISE	Wellbeing, Inclusion, Sustainability and the Economy
WHO	World Health Organisation
WHR	World Happiness Report
WVS	World Values Survey

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1. Introduction

This report forms part of the Wellbeing INDEX project (*Wellbeing INDEX – Wellbeing in Malta*, n.d.) being undertaken by the Malta Foundation for Wellbeing of Society (MFWS) in collaboration with the University of Malta and is intended to help pave the way towards measuring wellbeing in Malta.

Assessments on country-level progress and prosperity have traditionally largely focused on material and economic aspects like income and wealth, where GDP has served as the main metric (Bleys, 2012; Coyle, 2014; Hoekstra, 2020). However, the quest for wellbeing has emerged as a critical issue in many contexts in recent years, permeating global research, public policy and discourse across academia, government agencies and the media alike (Helliwell et al., 2022). The main message that has emerged is that measurement systems could do better "to shift emphasis from measuring economic production to measuring people's wellbeing" (Stiglitz et al., 2009, p. 12).

This message is underscored by the European Union (EU) in its 'GDP and beyond' Communication and the Sofia memorandum (Eurostat (DGINS ESSC), 2010), by the International Monetary Fund (IMF) which has supported research examining the shortcomings of GDP (Coyle, 2017), the Economics of Health and Well-being (Bhatt, 2021) and 'A Life Well Lived' (Bala et al., 2021). The United Nations (UN) too, whose latest policy brief " Valuing what counts " makes proposals whose intention "is not to replace Gross Domestic Product but to outline a path to develop complementary metrics in which what matters to people, the planet and the future is more fully recognized" (United Nations, 2023a, p. 3).

Several initiatives have emerged in recent years to advance this quest. The Wellbeing, Inclusion, Sustainability and the Economy (WISE) Database offers a repository of such Beyond-GDP initiatives (Institute for Environmental Sciences Leiden (CML), 2023). An in-depth review by the United Nations Economic Commission for Europe (UNECE) recently highlighted the need for guidelines for measurement of wellbeing for countries that produce or consider producing wellbeing indicators. The UN is currently updating its System of National Accounts (SNA) with a dedicated chapter on Wellbeing and Sustainability, on Measuring Wellbeing and the Sustainability of Wellbeing, with an update due in 2025 (United Nations, 2022). In its briefing on Measuring the Wellbeing Economy, the Wellbeing Economy Alliance (WEAll) also advocates for the initiation of a global "Beyond GDP" harmonisation process, including an accounting framework connecting the System of National Accounts (SNA), and SDGs with other main initiatives (Hoekstra, 2020).

In Malta, calls for the measurement of wellbeing were formally made in a 2015 joint conference between the Malta Foundation for the Wellbeing of Society and the Department of Economics within the University of Malta (President's Foundation for the Wellbeing of Society & Department of Economics, 2015). A recent report by the Justice and Peace Commission of the Archdiocese of Malta entitled 'Beyond GDP' (Justice and Peace Commission, 2020) reiterated this demand, itself following the OECD's BLI approach in attempting to assess the situation of wellbeing in Malta.

However, while the concept of wellbeing is intuitively appealing, it has proven to be notoriously complex to define (Dodge et al., 2012), in part due to the complexity which surrounds its multifaceted nature (Pollard & Lee, 2003). This makes its global measurement particularly challenging as different aspects of wellbeing may be prioritised in different contexts, across different ideologies, and even over time. In turn, this complicates inter- and intra-country tracking of wellbeing progress.

Against this backdrop, the key aim of this report is to assess Malta's wellbeing over time using existing metrics that measure progress, while critically evaluating their ability to shed light on wellbeing. In Section 2, the report discusses the shortcomings of GDP as a measure of wellbeing. This sets the stage for a summary of the main alternative indicators. The report reviews the most common tensions in measuring wellbeing before proceeding to outline alternative metrics, namely the Human Development Index, the European Sustainable Development Goals Dashboard and Index, EU Quality of Life Indicators, and the OECD's BLI and the WHR. A critical analysis of the respective strengths and weaknesses of each of these metrics is provided. Other data, such as that in the Global Emotions Report, the European Social Survey (ESS), the Happy Planet Index (HPI), the World Values Survey (WVS), the European Quality of Life Survey (EQLS), as well as the Survey on Health, Ageing and Retirement in Europe (SHARE), the Human Capital Index, the Global Competitiveness Index, the Eurobarometer survey and Eurofound's Living and Working in the EU e-survey, among others, are also reviewed by way of providing a comprehensive yet practical compendium.

Following the review, Section 3 proceeds to document Malta's performance and ranking across these metrics both over time and in relation to other countries. This illustrates how the use of such metrics can shed light on wellbeing in Malta, utilizing the latest data available at the time of writing this report.

In Section 4, the report engages in the discussion of the suitability of these metrics as a proxy for wellbeing in Malta, reports some insights from a pilot stakeholder discussion undertaken on the use of wellbeing data, and concludes with a number of recommendations.

2. Review of Global Progress Indicators as Proxies for Wellbeing

2.1 GDP as a Proxy of Wellbeing

Arguably the most enduring indicator focused on the progress of a nation, and certainly the most widely used measure of economic activity with international standards to support its calculation (Stiglitz et al., 2009), is GDP. Developed after World War II, GDP has consolidated its role as the measure that assesses the development of a nation (Geiger, 2018). Its use has expanded in both a cross-sectional and time-series manner, to the extent that authors have referred to it as "the current gold standard for national prosperity" (Adler & Seligman, 2016, p. 1) and the "catchall for our collective wellbeing" (Talberth et al., 2007, p. 1), dominating policies of international financial institutions and continuing to hold priority in political and economic governance (Fioramonti, 2013).

In its standard form, GDP measures the value of goods and services produced in a given time period, generally every quarter, with three methods of measurement: the sum of all expenses (the expenditure approach), the sum of all value added (the output approach) and the sum of all incomes and costs (the income approach) (Fioramonti, 2013). Propelled by the lack of alternatives (Geiger, 2018), the relative ease to measure it and its objectivity, which frees it from possible manipulation of governments, GDP is extensively used in international comparisons on the progress of nations (Adler & Seligman, 2016).

The limitations surrounding GDP are also commonly acknowledged (e.g., Hayden & Wilson, 2018; Kubiszewski et al., 2013; Forgeard et al., 2011). GDP provides a very limited depiction of individuals' quality of life (Diener et al., 2009; Stiglitz et al., 2010). Market activity captured in GDP, neither captures the full extent of activity in an economy (for example leaving out voluntary work), nor does it capture the harmful side effects of activity (like pollution and resource depletion) (Briguglio, 2019; Pilling, 2018).

Treating GDP as a measure of economic wellbeing can, for a number of reasons, provide misleading indications about how well-off people are (Elliott et al., 2017). Indeed, GDP "was not designed to and does not adequately reflect the happiness and wellbeing of people" (United Nations, 2011, para 5). GDP "measures neither our wit nor our courage, neither our wisdom nor our learning, neither our compassion nor our devotion to our country. It measures everything in short, except that which makes life worthwhile." (John F. Kennedy Presidential Library and Museum, 1968 para. 22).

Nonetheless, an important question remains as to whether GDP can at least be considered a proxy of wellbeing. GDP can indeed be linked to wellbeing in that greater material wealth allows more desires to be met (Parfit, 1984; Dolan & Peasgood, 2008). Economic growth can also enhance life satisfaction through mediated effects like consumer confidence, and customer, income, health and job satisfaction (Enkawa, 2009). It is also strongly correlated with certain facets of quality of life and wellbeing (Diener et al., 1995; Philipsen, 2015). However, in seminal work focusing on the relationship between income and wellbeing, Easterlin (1974) concluded that while income improvements may translate into improvements

in wellbeing at the early stages of a country's development, this does not appear to be the case beyond a certain level of income. Indeed, a substantial real income growth in Western countries over the last 50 years shows no corresponding increase in reported happiness levels. This was not only noted in the US but also in Japan and Europe (Clark et al., 2008), among other countries. Opfinger (2016) concludes that GDP per capita exerts a strong positive impact on the level of life satisfaction in Eastern Europe, the Middle East, North Africa and Latin America, whereas the relationship is not as strong in East Asia and Western Europe and is actually negative in North America and parts of Africa (ibid.).

A review of the co-determinants of wellbeing sheds light as to why income alone does a poor job of predicting wellbeing. Such factors include other economic considerations like employment (including hours of work and voluntary work), but also health (both physical and mental), living environments (both internal and external), social interaction (including safety), as well as engagement in sport and artistic/cultural events, religious participation, government/institutional trust and freedom. In addition to these considerations, demographic variables (such as marriage, children, citizenship, age, gender) and personality (or genetic differences) also offer explanatory power in predicting subjective wellbeing. Research on these wellbeing determinants has grown considerably in the last 10 years, with publications bourgeoning across the world (Helliwell et al., 2022). This is also true of Malta where a growing literature now quantifies the impact of many determinants for Malta. A recent study found that the importance of non-income determinants of wellbeing has increased over time (Debono, 2021).

2.2 Beyond GDP – Towards Wellbeing Measurement

It is possible to adjust GDP to improve its potential to measure wellbeing. An example of this is the Genuine Progress Indicator (GPI) which accounts for externalities such as pollution (Cobb et al., 2007). However, broadly speaking, the approach to wellbeing measurement has involved going beyond measuring the fulfilment of material desires. Rather, it typically takes the form of a collection of building blocks (or domains) composed of objective indicators – an array of phenomena that are deemed to be objectively good or bad for us (Sen, 1999; Dean, 2009) or that would allow people to live well and flourish, as judged by an external observer (Dolan & White, 2007).

The Stiglitz-Sen-Fitoussi report, considered a milestone in the development of measuring well-being, included a recommendation for eight wellbeing dimensions, namely material living standards, health, education, personal activities including work, political voice and governance, social connections and relationships, environment (present and future conditions), insecurity of an economic as well as physical nature (Stiglitz et al., 2009). Such measures of wellbeing often rely on secondary data that is readily available from sources such as national statistics offices, ministries and other publicly available databases (Elliott et al., 2017).

Such objective indicators are often complemented by subjective wellbeing measures. Based on the OECD definition, subjective wellbeing is considered as "good mental states, including all of the various evaluations, positive and negative, that people make of their lives and the affective reactions of people to their experience" (OECD, 2013, p. 31). In their seminal work,

Diener et al. define three measures of SWB: life satisfaction, pleasant affect, and unpleasant affect (Diener et al., 1999) while Dolan and Metcalfe (2012) add a fourth component relating to purpose, being asked to report about their life purpose and worthwhileness by answering questions like: “Overall, how worthwhile are the things that you do in your life?” (Dolan & Metcalfe, 2012; Office for National Statistics, 2018). Typically, participants respond to these questions on a unipolar Likert scale from zero to 10. Respondents may thus be asked how much happiness and anxiety or nervousness they experienced over a timescale (e.g., yesterday, these days, nowadays) (MacKerron, 2011; Office for National Statistics, 2018; United Nations, 2023). For a number of reasons (including the benefit of leaving it up to individuals to ascribe their own weightings to what matters for them), Layard (2020) and Clark et al. (2018) advocate in favour of a question on self-assessed quality of life as a single unified measure to refer to wellbeing. In such a question, respondents are asked to make an overall assessment of their lives by answering a question like “Overall, how satisfied are you with your life nowadays?” (Dolan & Metcalfe, 2012; Layard, 2020; Office for National Statistics, 2018; United Nations, 2023, Annex B). These questions are typically employed in large, representative samples in a consistent way across different population groups, over time (OECD, 2013).

While asking people to evaluate their own life satisfaction and emotions can be inexpensive and valuable (Helliwell et al., 2014), reliability and comparability issues can be a problem (Tellis & Chandrasekaran, 2010), especially when comparing across countries. Outcomes also tend to vary according to the measurement tool used (Cramm & Nieboer, 2012) and on respondents’ honesty (Kenny, 2005). On the other hand, objective measures often rely on secondary data (Elliott et al., 2017) and may also not be adequate to cater for diverse contexts (Loveridge et al., 2020). Objective measures can also be criticised for making assumptions about what is important to individuals (Frijters et al., 2020; Hicks et al., 2013). In practice, objective and subjective measures of wellbeing are often used in tandem and statistical offices have been guided to capture both (Stiglitz et al., 2009). Doing so offers a more holistic, well-rounded evaluation of wellbeing and quality of life. As argued by the OECD’s Chief Statistician, “Subjective wellbeing data can provide an important complement to other indicators already used for monitoring and benchmarking countries’ performance … These data must therefore be examined alongside information about more objective aspects of well-being, to provide a full and rounded picture of how life is” (OECD, 2013, p. 3). This combination is also reflected in the definition of wellbeing proposed by the World Health Organisation (WHO), which states that: “Wellbeing exists in two dimensions, subjective and objective. It comprises an individual’s experience of life as well as a comparison of life circumstances with social norms and values” (WHO, 2013, p. 9).

Another key question faced in the measurement of wellbeing, is whether to compress indicators into a single index or a dashboard. The main advantages of a composite index are its ease of communication and comparison possibilities (Cho, 2014), while the main disadvantage is the masking of the various components that underlie it (Stiglitz et al., 2009). A related set of challenges pertains to the aggregation of individual experiences for them to be expressed as one summary number. Computing it may seem straightforward at face value, but it does involve judgement as to the weights of its component indicators. Policy-makers need to choose and weigh the indicator, a process which may involve both scientific conceptual considerations as well as stakeholder consultation and participatory processes. Indeed, an index can be ambiguous and may be “better regarded as invitations to look more

closely at the various components that underlie them" (Stiglitz et al., 2009, p. 65). The IMF proposes its own measure which not only takes into consideration inequalities when transforming personal wellbeing indices into a national index, but it also takes into account calibration questions to control for individuals' different use of scales (Benjamin et al., 2021).

Another issue is how to handle inequalities in wellbeing. Instead of computing measures of inequality (like the Gini coefficient) while continuing to rely on averages, it has been argued that measures of subjective wellbeing should be presented, communicated, and interpreted as distributions of individual outcomes. Stiglitz et al. (2018), for instance, advise that wellbeing data should be capable of being disaggregated by age, gender, disability status, sexual orientation, education and other social status markers in order to draw out group differences in wellbeing outcomes. A related tricky question is the extent to which wellbeing metrics should focus on present or future generations. For instance, some environmental indicators have long run outcomes (e.g. CO_2 emissions), performance on which may benefit the wellbeing of future generations but not necessarily of current ones – current generations may even experience a decline in wellbeing to achieve an improvement in CO_2 (Barrington-Leigh, 2022).

2.3 Progress Indicators as Proxies of Wellbeing

The need for consistent, internationally comparable measures of progress that go beyond GDP has led multilateral and supranational organisations like the UN, the OECD and the EU to develop and implement various measures that capture the factors which contribute to societies that allow individuals to thrive (Hoff et al., 2021). Some of these key metrics are now reviewed.

The Human Development Index (HDI)

The HDI was one of the first measures to challenge the hegemony of GDP growth-centric thinking (Gertner, 2010). Developed in 1990 by the United Nations Development Programme (UNDP), it offers a comprehensive index at least in terms of the number of countries it cover (Chaaban et al., 2016). The popularity of this index can be attributed to the simplicity of its characterization of development – an average of achievements in health (measured by life expectancy), education (measured by expected and average years of schooling) and income (measured by GNI per capita), together with its underlying message that development is much more than economic growth (Klugman et al., 2011). Given its reliance on four equally weighted basic metrics, the HDI is relatively simple and easy to understand. Additionally, it is available over a long timeframe (since 1990) across some 190 countries around the world, facilitating cross-country comparisons. The UNDP currently publishes an annual Human Development Report which uses the HDI as one of its main indices. The standard HDI is often used in empirical analysis to capture development beyond GDP (e.g. Quintana & Thiel, 2019).

However, the HDI also faces some criticism. It is considered to be rather simplistic, with questions circling around its choice of indicators and computational methodology (Klugman et al., 2011). Sagar and Najam (1998) had also suggested accounting for inequality, making its components multiplicative rather than additive (so that doing well in one dimension does not offset doing poorly in another, emphasising non-substitutability and essentialness of all dimensions) as well as applying the logarithm of GDP across the income distribution (to

present a more realistic intercountry comparison). The indicator has also been criticised for ignoring environmental conditions, peace, safety and governance, all of which play a role in the wellbeing of citizens (Ngoo & Tey, 2019). As a proxy for wellbeing, it also omits any measure of subjective wellbeing.

Some of these concerns have been addressed over time. Since 2010, the UNDP also publishes the Inequality-Adjusted Human Development Index (IHDI), and since 2014, the Gender Development Index (GDI). The IHDI for instance, accounts for inequality in the distribution of each dimension across the population by 'discounting' each dimension's average value according to its level of inequality (United Nations, n.d.-a). Similarly the GDI accounts for gender distribution (United Nations, n.d.-b). The Planetary-Pressures-adjusted HDI (PHDI), adjusts for CO_2 emissions per capita on the production side, as well as material footprint per capita on the consumption side (United Nations, n.d.-c).

Sustainable Development Goals' Indicators

The 17 SDGs were set up by the UN Conference on Sustainable Development in 2012 (UNDP, n.d.-a) and adopted in the United Nations General Assembly in 2015 (UNDP, n.d.-b). In turn, the SDG Dashboard was developed as a quantitative platform to keep track of individual country progress (Cambridge University Press, 2021). A more recently developed index, the Sustainable Development Goals Index (SDGI), is collated by the Sustainable Development Solutions Network (SDSN) and includes targets across each of the SDGs, spanning a wide variety of topics like no poverty, climate action, gender equality and decent work and economic growth (Cambridge University Press, 2021). The SDGI is, in fact, extremely comprehensive, covering various aspects of wellbeing, while also covering almost 200 countries around the world to ensure maximum comparability (ibid.).

Arguably, the primary drawback of the SDGs and hence, the derivative SDGI, is that with 17 goals and over 200 indicators, trade-offs are required, diluting the effectiveness of the SDGs towards a common goal (Kubiszewski, 2019). In other words, the pursuit of a favoured goal can come at the expense of others. For example, it is plausible to imagine that the pursuit of "Goal 8 – Decent work and economic growth through resource exploitation" can deter "Goal 13 – Climate Action". A second set of problems relate to the fact that, since its commencement in 2015, the dataset has accumulated only a relatively short time-series, although in this regard, retroactive scores have been assigned across countries dating back to 2000 (Cambridge University Press, 2021). Thirdly, the SDGs target both developed and developing countries alike (Kubiszewski et al., 2021) and the index has been criticised for being a one-size-fits-all, with limited applicability to small countries and developed nations.

In terms of the use of the SDGs as a proxy for wellbeing, studies suggest a strong link between the SDG index and wellbeing at higher levels of economic development (De Neve & Sachs, 2020). In fact, for Europe, Asia and the Americas, a strong statistically significant correlation between the SDG index and wellbeing is noted. In terms of the individual goals, while most of the 17 SDGs seem to correlate strongly with human wellbeing, others do not. For instance, SDGs one to eight and SDG 16 (namely 'no poverty', 'zero hunger', 'good health and wellbeing', 'quality education', 'gender equality', 'the availability of 'clean water and sanitation'', access to 'affordable and clean energy', 'decent work and economic growth' as well as 'peace, justice and strong institutions') show a positive relationship with subjective wellbeing, while

SDGs 12 and 13 ('responsible consumption and production' and 'climate action') demonstrate strong negative correlations with subjective wellbeing – in all regions irrespective of economic development. Notwithstanding this, the main take-away from the research is that countries closest to reaching SDG goals also tend to report the highest levels of subjective wellbeing (De Neve & Sachs, 2020).

To quantify the EU's progress towards the SDGs, the European Commission, through Eurostat, released a dedicated dataset starting in 2016 together with an annual report which serves as the primary SDG monitoring tool in the EU (EUSDG). In turn, the SDG Index for European countries (EUSDGI), was developed in 2017 by the SDSN, in collaboration with the Institute for European Environmental Policy (IEEP) to capture the progress of European countries (primarily EU member states) towards their SDG goals, with an annual Sustainable Development Report and a Country Profile page to fill the data gaps that existed in tracking SDGs. The methodology of the EUSDGI framework is similar to that used by the global index, although it has been tweaked to the specific requirements of Member States on recommendations made by the EU's Joint Research Centre (JRC). The latest index includes 109 indicators using data primarily from Eurostat, the JRC and the European Environment Agency (EEA). Thus, it focuses on the most relevant policy issues for the EU, leaving aside some aspects of the Agenda 2030 and the SDGs that are less relevant (e.g. mortality rate from malaria). The two documents, EUSDG and EUSDGI, complement each other to provide comprehensive information on the tracking of SDGs within the EU. The main drawback of these metrics is related to the international comparability of the score since they are limited to the EU.

The EU's Quality of Life Indicators

Eurostat's Quality of Life Indicators (EUQOLI) are classified in 8+1 dimensions, namely material living conditions, productive or main activity, health, education, leisure and social interactions, economic and physical safety, governance and basic rights natural and living environment, and (+1) overall experience of life, in line with the recommendations by the Stiglitz-Sen-Fitoussi Commission (Eurostat, 2023a).

A subset of the metrics are also presented in a dashboard related to quality of life and its various dimensions (Eurostat, 2021). The indicators cover 11 themes, namely, (1) overall life satisfaction, (2) material living conditions, (3) housing conditions, (4) employment, (5) time use, (6) education, (7) health, (8) social relations, (9) safety, (10) governance, and (11) environment. Each theme includes a number of statistics drawn from a mixture of data sources, notably from standard data routinely reported to Eurostat by EU member states (e.g., annual median equivalised net income) as well as survey-based data (e.g., satisfaction with aspects of life).

As such, the EUQOLI provides a snapshot of the various facets related to quality of life within a country, rather than an integrated metric intended to capture overall wellbeing. In fact, the EUQOLI does not include a single overall summary index for each EU member state, but rather presents a dashboard where each indicator is presented in its own right for comparisons both across countries and over time. Therefore, although its comprehensive nature is a strength, its lack of integration means that it is extremely difficult to infer overall trends in country-level wellbeing. Another important shortcoming is related to the fact that this set of

indicators is available only for EU member states and select European countries, thus limiting the scope for international cross-country comparisons.

Nonetheless, its potential for wellbeing studies is expected to grow. In a recent study carried out by Rogge and Van Nijverseel (2019), data from the EU Survey on Income and Living Conditions for 2013, a key data source for the EUQOLI, was used to compare subjective wellbeing across European countries. A multi-dimensional variable was constructed capturing the EU Quality of Life framework's domains. In their results, the authors demonstrate that there exists a happiness divide between European nations whereby Nordic and Western European countries place higher on life satisfaction measures than Southern and Eastern European countries (ibid.).

It is worth noting that the indicators and contents of the EU Quality of Life framework were considered by the Expert Group on Quality of Life indicators, which followed on from the work of the Stiglitz-Sen-Fitoussi Commission. Publishing its final report which was endorsed by the European Statistical System in 2016, the Expert Group describes the structure of the EU Quality of Life framework and the definitions of and rationale for its indicators while also presenting a list of headline indicators (European Commission, 2017). It includes recommendations for future developments in social statistics, to fill the data gaps with regard to quality of life and to ensure that the framework established is maintained and updated in line with changing requirements (ibid.).

The OECD's Better Life Index

In 2011, the OECD developed the BLI, an index consisting of a set of indicators in the domains of housing, income, jobs, community, education, environment, governance, health, life satisfaction, safety, and work-life balance, all of which are deemed to influence material living conditions and quality of life (Boarini et al., 2006). In turn, these indicators are composed of a total of 20 sub-indicators (Lind, 2014).

The OECD makes it possible to change the relative weights of the sub-indicators, so that country rankings respond to the choice of indicators which one considers as the most relevant in terms of contribution towards wellbeing – or by any other criterion. Through the selection of a set of weights to the sub-indicators, countries can be ranked according to their weighted sum (Lind, 2014). The OECD publishes the report called "How's Life?" every two to three years, with its latest update registered in 2020 (OECD, 2020).

In terms of its relevance to wellbeing, the OECD's BLI is perhaps the most targeted effort available, due to its comprehensive conceptual framework. It distinguishes between current and future wellbeing, whereby current wellbeing is measured in terms of outcomes achieved in the two broad domains – material living conditions and quality of life; while future wellbeing is assessed with the examination of key resources that drive wellbeing over time, and which are persistently affected by today's actions. These include natural, economic, human and social capital (Durand, 2015). It also focuses not only on averages, but also inequalities (OECD, 2020). Various studies have been conducted using the index. For example, a system mapping approach was used to identify direct and indirect relationships between the wellbeing indicators, synthesising the main themes to human capital (Eker & Ilmola-sheppard, 2020). As

it incorporates current wellbeing, a measure of inequality, and sustainability, it also conforms to recent theoretical frameworks on Wellbeing, Inclusion and Sustainability (Institute for Environmental Sciences Leiden (CML), 2023), although Mizobuchi (2017), among others, argues that sustainability concerns are inadequately captured.

Azevedo et al. (2020) summarise other shortcomings of the BLI illustrating that by far the most common criticism is the aggregation of the data (e.g. Decancq, 2017; Kasparian & Rolland, 2012). Moreover, country scores are not presented as absolute measures of their performance but are relative to that of the best and worst countries for this indicator. In short, a country can score badly not because its performance is intrinsically negative but because one or several other countries have better performances in a particular domain, and vice-versa. Any clear interpretation of a country's performance or its temporal evolution is inhibited and limits the relevance of the BLI for comparisons at a given time (Kasparian & Rolland, 2012). This said, much of the data used in the BLI is drawn from official sources and these can be used (and typically downloaded) for disaggregation purposes. The metric currently covers only 38 countries: namely the 35 OECD members, Brazil, Russia, and South Africa (Chaaban et al., 2016). It does not, however, cover Malta (to date).

The World Happiness Report's Life Evaluation and Determinants

Although not an international metric *per se,* one of the most well-known contributions to the global debate on wellbeing is the World Happiness Report (WHR), whose first edition was published in 2012. The report employs life evaluation data collected by Gallup using nationally representative samples of the resident population aged 15 and older in over 160 countries, and is based on the Cantril Self-Anchoring Striving Scale (Cantril, 1965; Gallup, n.d.), often referred to as the Cantril Ladder. The WHR also employs data on six variables to help understand the differences found in life evaluation, namely GDP per capita (Purchasing Power Parity adjusted to constant 2017 international dollars, taken from the World Development Indicators released by the World Bank), healthy life expectancy at birth (based on data from the World Health Organization Global Health Observatory data repository), as well as social support (national average of the binary responses to the Gallup World Poll (GWP) question), freedom to make life choices (national average of responses to the relevant GWP question), generosity (the residual of regressing national average of response to the relevant GWP question on GDP per capita), and perceptions of corruption (based on national average of the binary responses to the Gallup World Poll questions). As of 2022, the report also includes questions about balance in life, peace, calmness and prioritization of self versus others (Helliwell et al., 2022).

In addition to the WHR, Gallup's measurement of day-to-day emotional states is also released annually through the 'Global Emotions Report'. Here, positive affect is defined as the average of previous-day affect measures for feeling well-rested, being treated with respect, laughter, enjoyment, and doing or learning something interesting, while negative affect is defined as the average of previous-day affect measures for physical pain, worry, sadness, stress and anger (Gallup, 2023).

2.4 Comparative Analysis

How capable are these indicators of capturing the important wellbeing dimensions and how do they compare? To answer this question, it is necessary to assess the sub-indicators within each metric.[1] The analysis reveals that all the metrics include health indicators. On this front, it is the EUQOLI which is the most comprehensive and relevant to Malta (considering BMI, diet, physical activity, nicotine consumption, healthy life years, life expectancy, and self-perceived health). Indeed, it is worth noting that only this dashboard includes mental health measures (depressive symptoms and exposure to mental health risk). The EUSDGI also gives a broad range of health measures (including obesity, death rate, preventable mortality, healthy life years and perceived health and suicide rates). The EUSDG takes into account life expectancy, a health indicator common across all metrics, but also avoidable mortality, fatal work and road accidents, and death rates due to tuberculosis, HIV and hepatitis. The EUSDG further considers nicotine consumption as well as the proportion of households suffering from noise under the umbrella of health indicators. The OECD BLI relies simply on life expectancy and self-assessed health, while the HDI looks only at life expectancy. For health, the WHR only includes healthy life years.

Most of the composites also contain reference to education. The most commonly featured indicators in education are the expected years in education and early leavers from education. The EUQOLI includes indicators on early school leavers, and educational attainment. The EUSDGI include indicators on adult learning, early leavers, tertiary education and underachievement. The EUSDG includes similar indicators, alongside the share of adults with digital skills. The OECD BLI covers education attainment, student skills and years in education. The HDI also includes expected and mean years of schooling. The WHR is the only source that does not include any metric on education. This said, “learning something new” is included as part of positive affect in the Global Emotions Report issued annually.

On social interaction and safety, the EUQOLI is the most exhaustive, with information on frequency of contacts with family and relatives or friends, getting together, having people to ask for help and to discuss personal matters, as well as doing unpaid work. For social interaction, the WHR includes questions about social support and generosity. Meanwhile, the OECD BLI offers information on the quality of support network. In terms of crime, the EUSDGI is also exhaustive with indicators on death rate due to homicide; people killed in accidents at work; population reporting occurrence of crime in their area, victims of modern slavery and expenditure on law courts. The EUQOLI indicators also include crime, violence and vandalism in the area and recorded offences from police data. In this respect, the BLI includes data on feeling safe, walking at night and the homicide rate, as well as social support network. The HDI does not however, include such indicators.

On housing, indicators are related to overcrowding, living conditions, quality of accommodation and lack of basic facilities like baths or showers. These are tackled in some detail in the EUSDGI and the EUSDG, while the EUQOLI includes a smaller subset of these indicators like the share of people living in under-occupied dwellings (the flipside to overcrowding) and the total population living in a dwelling with leaking roofs, damp walls, floors or foundation or rot in window frames or floor. The BLI only has a limited coverage of this topic,

[1] See Appendix 1.

focusing on indicators like rooms per person and housing expenditure, although it also includes dwelling without basic facilities. The WHR and HDI on the other hand, do not include housing indicators.

On material wellbeing, the EUSDG is the most comprehensive, closely followed by the EUSDGI and the EUQOLI. The latter includes measures such as the mean and median income, arrears, inability to make ends meet and meet financial expenses, the income quintile share ratio of S80/S20 for disposable income and the main GDP aggregates per capita. The EUSDGI has similar poverty measures including on income distribution and inequality. The EUSDGI includes the poverty headcount ratio, people at risk of poverty after social transfers, the urban-rural gap for risk of poverty or social exclusion and also the relative median at-risk-of-poverty gap. Moreover, a separate "Leave-no-one-behind" score is computed. Both include measurement of people at risk of poverty or social exclusion, in-work at-risk-of-poverty and the severe material deprivation rate. The BLI considers three indicators, namely personal earnings, household net financial wealth, and household net adjusted disposable income. The WHR focuses specifically on income distribution as captured by the Gini coefficient and the log of GDP per capita. The HDI considers Gross National Income per capita.

The measures considered in this report all include some indicators related to economic activity but not all examine more detailed metrics. The EUSDGI offers indicators related to agriculture, and energy (energy productivity and import dependency). The EUSDG includes gross disposable income per capita and material footprint. By contrast, the EUQOLI focuses solely on broader measures like main GDP aggregates and mean income by age and sex, similar to the HDI (gross national income per capita) and WHR (GDP per capita and generosity). On the other hand, the BLI is more focused on earnings data, including personal earnings, household net wealth and household net disposable income.

Most of the composite indicators considered make some reference to employment, however, this aspect is covered in most detail by the EUQOLI, which includes indicators like overqualification rates, part-time employment contracts and temporary contracts, and the proportion of low-wage earners, which are not included in the others. The EUSDGI contains some core employment indicators like the employment rate as a proportion of the labour force, while the EUSDG includes the long-term unemployment rate and young people neither in employment nor in education and training. The BLI has some interesting indicators, including labour market insecurity. Another aspect of employment relates to long working hours, and this is captured by the EUQOLI and the BLI. Both the EUQOLI and the EUSDGI index also include metrics that capture the extent of gender labour force discrimination and work participation, namely the unadjusted gender pay gap and the gender employment gap, as well as inactive population due to caring responsibilities. For working conditions, the WHR and the HDI does not consider any indicator.

With respect to time use, apart from the BLI which measures 'Time devoted to leisure and personal care', the EUQOLI is the only other index which features indicators on time use – with no fewer than 12 indicators including measures on irregular working hours, flexibility at work, being able to choose methods of work, time spent and participation rate in the main activity, as well as the average number of usual weekly hours of work in one's main job. Interestingly, it also features the time spent in total work which includes unpaid work, and the frequency of, participation in, and reasons for non-participation in culture or sports activities in

the last 12 months. The EUSDG and EUSDGI look at inactive population due to caring responsibilities.

On governance, it is the EUSDG and EUSDGI which have the most exhaustive list of indicators. The latter includes gender representation in parliaments, management, governments, research and development, corruption perceptions, and regulatory failure. The EUSDG includes the Corruption Perceptions Index, Press Freedom Index, access to justice, corporate tax haven score and timeliness in administrative proceedings. The BLI is also rich in this domain, given that it provides a measure of political participation and regulatory discussions including stakeholder engagement for developing regulations and voter turnout. Perceptions of corruption are also included in the WHR.

There are also considerable disparities in the extent to which the above-mentioned indicators measure environmental quality. On air quality, the EUSDGI includes a plethora of indicators, including ammonia emissions from agriculture, greenhouse gas emissions, share of renewable energy in gross final energy consumption, average CO_2 and SO_2 emissions from various sources and exposure to air pollution by particulate matter. The EUSDG includes air emissions' intensity of industry, average CO_2 emissions from new passenger cars and net greenhouse gas emissions. In the planetary pressures-adjusted HDI, consideration is made of the level of human development adjusted by carbon dioxide emissions per person (production-based) and material footprint per capita to account for the excessive human pressure on the planet. The EUQOLI has just two indicators, namely urban population exposure to air pollution and air pollution in annual concentration in PM2.5 over 3 years. The latter is the only indicator in the BLI related to the environment, while the WHR and HDI do not include environmental information.

The EUSDG and the EUSDGI also cover a rich range of indicators on water including population connected to at least secondary wastewater treatment, nitrate in groundwater, phosphate in rivers, bathing sites with an excellent water quality , and the global mean ocean surface acidity The EUSDG is more comprehensive, further including the water exploitation index, marine waters affected by eutrophication and biochemical oxygen demand in rivers. The BLI captures people's subjective appreciation of the quality of water in the city they live. Reference to soil and land is also found in the EUSDG including terrestrial protected areas and estimated soil erosion by water. The index also considers common bird index type of species, grassland butterfly index. The EUSDGI is more focused on biodiversity in this domain, including indicators such as the mean area that is protected in terrestrial sites important to biodiversity and the Red List Index of species survival. The EUQOLI refers to the natural and living environment and satisfactions. This includes land required to provide the renewable resources people use (most importantly food and wood products), the area occupied by infrastructure and the area required to absorb CO_2 emissions.

Responsible consumption and production are only considered in the EUSDG and the EUSDGI, comprising resource productivity, generation of waste by hazardousness, circular material use rate, consumption of chemicals by hazardousness, energy productivity and material footprint. Noise receives coverage within the EUSDG and EUSDGI, as well as the EUQOLI.

In terms of capturing subjective wellbeing, the EUQOLI, the WHR, the EUSDGI, and the BLI all contain measures of SWB, with the first two containing both life satisfaction and affect and the BLI and EUSDGI containing only the single life satisfaction metric. On the other hand, the EUSDG does not explicitly include subjective wellbeing measures despite being comprehensive. The HDI similarly does not consider subjective wellbeing, but only looks at very few objective measures.

In synthesis, as summarized in Table 1, among the indicators considered, the HDI is clearly the most limited in its indicator range. The EUSDG and EUSDGI are the strongest composites in terms of environmental and economic indicators, also including one subjective wellbeing measure. Of the metrics that *do* contain subjective wellbeing, the WHR, has the smallest range of other indicators, the BLI is relatively parsimonious, while considering all the key aspects relevant to wellbeing except affect, while the EUQOLI, which adopts a dashboard approach, is substantially more comprehensive on the social dimension.

Table 1 Summary of indicators' domains contained in diverse metrics

INDICATOR	GDP per capita	WHR	HDI	BLI	EUSDGI	EUSDG	EUQOLI
Health		✓	✓	✓	✓	✓	✓
Education			✓	✓	✓	✓	✓
Social / Safety		✓		✓	✓	✓	✓
Housing				✓	✓	✓	✓
Material	✓	✓	✓	✓	✓	✓	✓
Employment				✓	✓	✓	✓
Environment				✓	✓	✓	✓
Governance		✓		✓	✓	✓	✓
Time Use				✓			✓
Subjective		✓		✓	✓		✓

2.5 Other Useful Sources for Wellbeing Measurement

Some other sources are worth noting in that they consistently provide wellbeing data together with other useful insights.

The UK-based New Economics Foundation (NEF) created and produced the Happy Planet Index (HPI), currently managed by the Hot or Cool Institute (since 2023), (Happy Planet Index – How Happy Is the Planet, n.d.; The Team behind the Happy Planet Index, n.d.). It measures wellbeing utilising the Cantril Ladder data from the Gallup World Poll, life expectancy extracted from UN data and Ecological Footprint measured from the Global Footprint Network. It integrates within its methodology the efficiency with which environmental resources are translated into wellbeing outcomes (WEAll, 2021), thereby measuring the ecological efficiency with which, country by country, people achieve long and happy lives (Marks et al., 2006, p. 2). In so doing, it highlights the shortcomings of GDP (Abdallah 2022). Malta ranked 85th out of 152 countries in 2020, scoring well on life expectancy and wellbeing, however, it scored poorly on the environment dimension.

The European Social Survey (ESS) is a bi-annual survey carried out across selected European countries and driven by academia. It includes a comprehensive number of indicators in 10 domains including media use and trust; politics; subjective wellbeing; gender age and household composition; socio-demographic profile and human values scale. There are also a vast number of subcategories such as immigration, citizen involvement, timing of life, welfare attitudes, public attitudes to climate change and many others. It allows comparisons across time and countries and meaningful time-series cross-section analyses (Schnaudt, et al., 2014). The main advantages of the ESS are its rich dataset, its robust methodology, and its ability to conduct comparisons across countries and over time with 10 waves to date. On the other hand, its main disadvantages include its limited geographical coverage, data gaps given that it is not an annual survey, as well as the costs to carry out such a resource-intensive survey. It must be noted that Malta does not participate in this survey.

The World Values Survey (WVS) is a survey by the WVS Association - a Swedish non-profit organization focusing on the measurement of people's beliefs and changing values and motivations (Minkov, 2012). Although not intended as a standalone metric to measure overall societal progress or wellbeing, its data on values and subjective wellbeing may be applied to gather a better understanding of the wellbeing picture within a particular context. Its main value, added within the wellbeing sphere, is its ability to assess wellbeing across countries over time for people of differing attitudes, beliefs and motivations. Its time-series and longitudinal data have also been applied to other contexts, including economic development, democratization, religion, gender equality and social capital, besides subjective wellbeing (*WVS Database*, n.d.). On the latter, it covers the core life satisfaction question used in other surveys, and has a section dedicated to happiness and wellbeing in its questionnaire, including other aspects such as freedom over life choices, self-reported health, satisfaction with one's financial situation, and relative perceived standard of living (WVS Database, n.d.). A disadvantage of this metric is that the data is collected over a three- to four-year period and there have only been seven waves to date. Malta does not form part of the WVS.

At a European level, the European Quality of Life Survey (EQLS), collected by Eurofound, measures SWB through three main groupings of indicators: evaluative wellbeing (life satisfaction and satisfaction in life domains), positive and negative affect, and eudaimonic wellbeing (Eurofound, 2017). A key limitation is that this survey has only been carried out four times, in 2003, 2007, 2012, and 2016, with the next one expected in 2026. Data is considerably rich, however, covering several domains including health and mental wellbeing, housing, life online, living standards and deprivation, neighbourhood quality and services, participation in society and community, quality of public services, safety and security, social exclusion and support, subjective wellbeing, trust and social tensions as well as work-life balance and care (Eurofound, 2023). Moreover, it can also be disaggregated by age and citizenship. Malta has participated in all four waves of this data collection. The 2011 and 2016 rounds have been applied to an ordered logit model in a study shown in the Quarterly Review for 2021: 2 by the Central Bank of Malta (Debono, 2021).

The SHARE (Survey of Health, Ageing, and Retirement in Europe), focusing on the elderly, has 9 waves of data to date, including two special editions due to the pandemic. It includes health, socioeconomic and environmental policies, and a vast array of wellbeing measures such as life satisfaction, loneliness, irritability, ability to concentrate, meaning in life, looking

back with happiness, and looking forward to a new day. It also includes questions from the Big Five personality traits (SHARE-ERIC, n.d.).

For the sake of completeness, the World Economic Forum (WEF)'s Global Competitiveness Index assesses the ability of countries to provide high levels of prosperity to their citizens, covering 141 countries since 2004. The Human Capital Index quantifies the contribution of health and education to the productivity of workers within a country. Developed by the World Bank in 2018, the Human Capital Index covers 174 countries from around the world, and it measures the human capital to be expected by age 18, given risks to poor health and education. At an EU level, there is also the Eurobarometer survey which assesses mental health and quality of life, while gathering public opinion data on the determinants of wellbeing themselves (European Union, n.d.). Eurofound introduced their Living, Working and COVID-19 e-survey to monitor the wellbeing effects of the pandemic (Eurofound, n.d.). Continued after the pandemic, this survey has since expanded in scope, renamed the "Living and Working in the EU e-survey".

Other metrics by private organisations include the Quality of life Indicator by CEOWORLD (Wilson, 2024), the Quality of Life Index by Numbeo (NUMBEO, n.d.) and the Quality of Living by Mercer (Mercer, n.d.). Although these are not likely sources to inform a national wellbeing framework, they are popular and do include data on quality on life, including on Malta. They are all multidimensional and cover many dimensions of wellbeing (although the Numbeo and Mercer frameworks exclude subjective well-being). More specifically, the CEOWORLD Magazine ranks the quality of life of 165 countries based on a composite indicator that comprises affordability, economic stability, family-friendly, a good job market, income equality, political neutrality and stability, safety, cultural influence, well-developed public education system, and well-developed public health system (Wilson, 2024). Numbeo, publishes its own national composite quality of life index using the indicators of purchasing power, safety, healthcare, cost of living, property price/income ratio, commuting time, pollution, and climate (NUMBEO, n.d.). Mercer produces a Global Quality of Living Index for 140 cities using no fewer than 39 indicators in domains of political and social environment, economic environment, socio-cultural environment, medical and health considerations, schools and education, public services and transport, recreation, consumer goods, housing, and natural environment (Mercer, n.d.).

2.6 Synthesis

While GDP is a long-standing and standardised indicator available worldwide, it has been criticised as falling short of yielding adequate insight on wellbeing. As argued by Stiglitz et al. (2008) more than 15 years ago, "the time is ripe to shift emphasis from measuring economic production to measuring people's wellbeing" (Stiglitz et al., 2008, p. 12). However, there are now various global metrics which shed light on wellbeing in Malta – each with their strengths and limitations. The HDI includes a very limited range of indicators, although it does include some of the key indicators linked to wellbeing. It enjoys the benefit of having a long time series and a wide coverage. Relative to the rest of the metrics surveyed, the SDGI and particularly the EUSDG and EUSDGI are the strongest composites in terms of environmental and economic indicators. The WHR and the EUQOLI consider subjective wellbeing and its key determinants. Of these, the WHR is relatively parsimonious, measuring only a handful of wellbeing co-determinants. The EUQOLI offers a strong range of social indicators but fewer

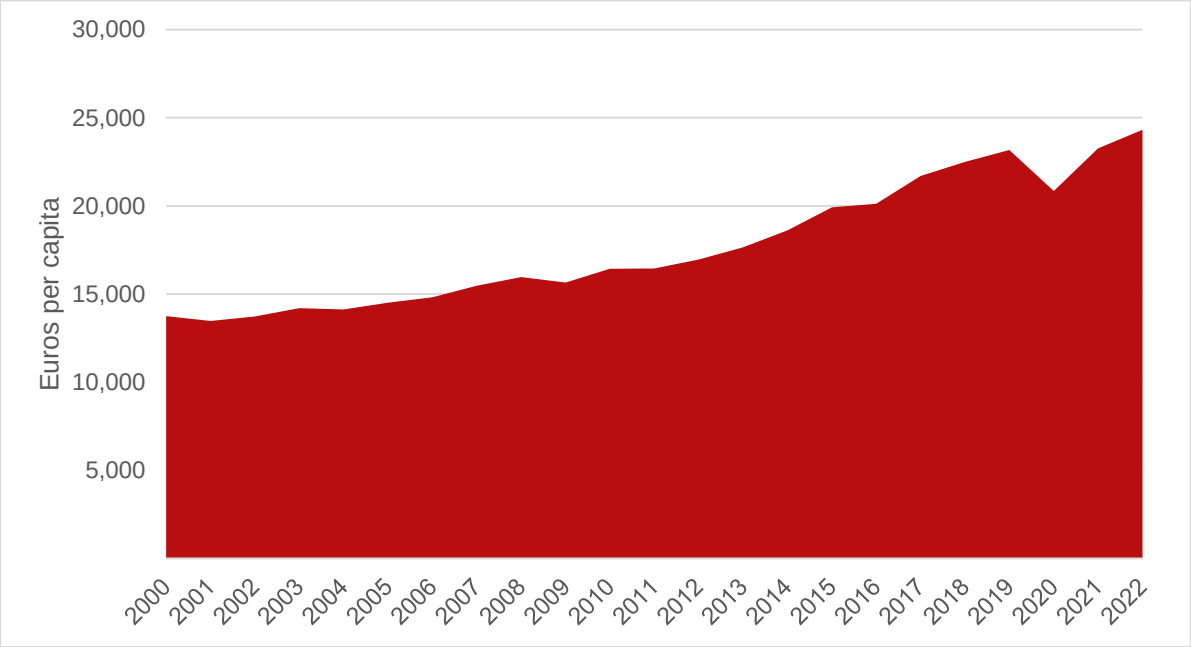
environmental ones. Additionally, there are a range of other sources of wellbeing data, including the HPI, the EQLS, the Human Capital Index, the WEF's Global Competitiveness Index, the Eurobarometer, SHARE, the Living and Working in the EU e-survey, as well as long-standing initiatives by private-sector entities.

3. Wellbeing in Malta as judged by Key Global Progress Indicators

3.1 Malta's GDP Performance

The starting point of this review is Malta's performance on GDP per capita, which has, to date, been consistently referred to as a measure of progress. As can be seen in Figure 1, Malta has repeatedly recorded robust growth in per capita GDP, registering an increase of 83.0% in 2023 relative to 2000, averaging 3.6% over the past 23 years (Eurostat, 2023b), in spite of dips in 2009 due to the aftermath of the financial crisis, and in 2020 due to the COVID-19 pandemic. In recent years, growth is considered to have been fuelled by key sectors like ICT, gaming, financial services, professional services and tourism (European Commission, 2022). Globally, Malta ranks within the top 25% of countries in terms of its GDP per capita, reinforcing Malta's status as a high-income country (IMF, n.d.)

Figure 1: Real GDP per capita in Malta in chain-linked 2010 volumes over time



Source: Eurostat (2023b)

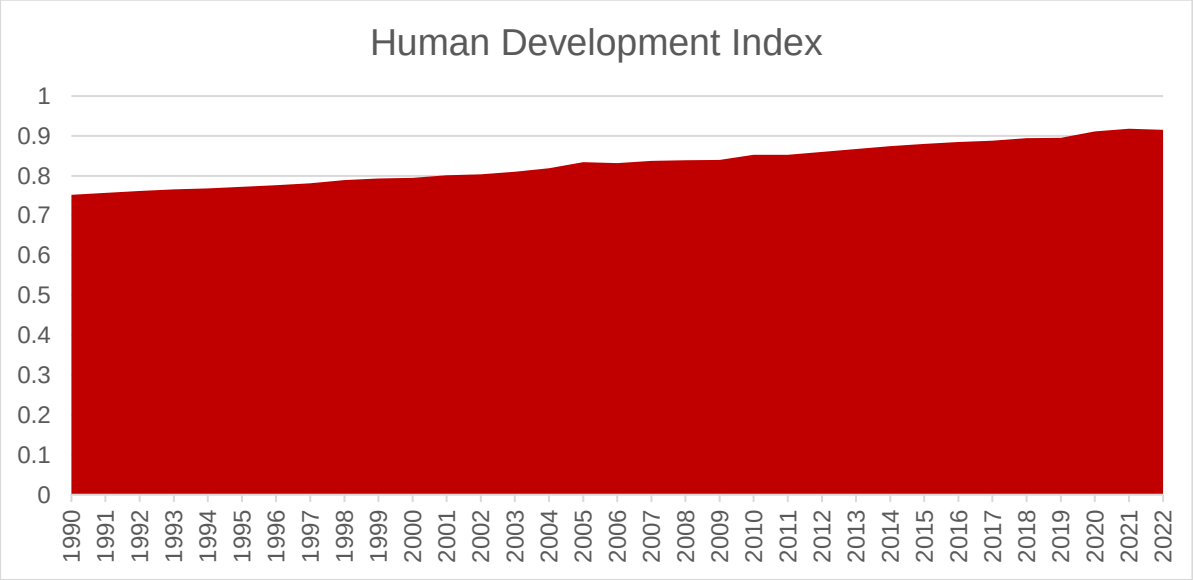
Note: Chain-linking is a method adopted to adjust GDP for inflation and measure at constant prices, by linking the time-series in such a way so as to distinguish production changes from price changes.

3.2 Malta's performance on the HDI

As per the latest HDI figures for 2022, Malta ranks 25th out of 193 countries and territories on the UNDP scale with an HDI score of 0.915, a decrease from the 2021 score of 0.918. As shown below in Figure 2, Malta's HDI performance has improved steadily over time, reflecting broader improvements in the HDI's sub-indicators, namely life expectancy, expected years of schooling, mean years of schooling and GNI per capita. When subdivided by gender, in 2021, the female HDI for Malta stood at 0.907 in contrast with the male HDI which reached 0.925.

This also underscores the extent of gender inequalities that still exist within the Maltese Islands. Nonetheless, Malta still placed in the highest grouping of countries (out of a total of five) for its medium to high equality between women and men (United Nations Development Programme, n.d.). At 0.915, Malta performs better on the HDI than the EU average of 0.80, mainly due to higher life expectancy. However, the European scores obtained for expected and mean years of schooling are higher than those registered for Malta - indicating room for improvement on educational outcomes. This could be the result of Malta's high early school leaver rate, which stood at 17.2% in 2019. This is the second-highest in the EU and well above the EU-average of 10.2% (Eurostat, 2021).

Figure 2: Malta's performance on the HDI over time



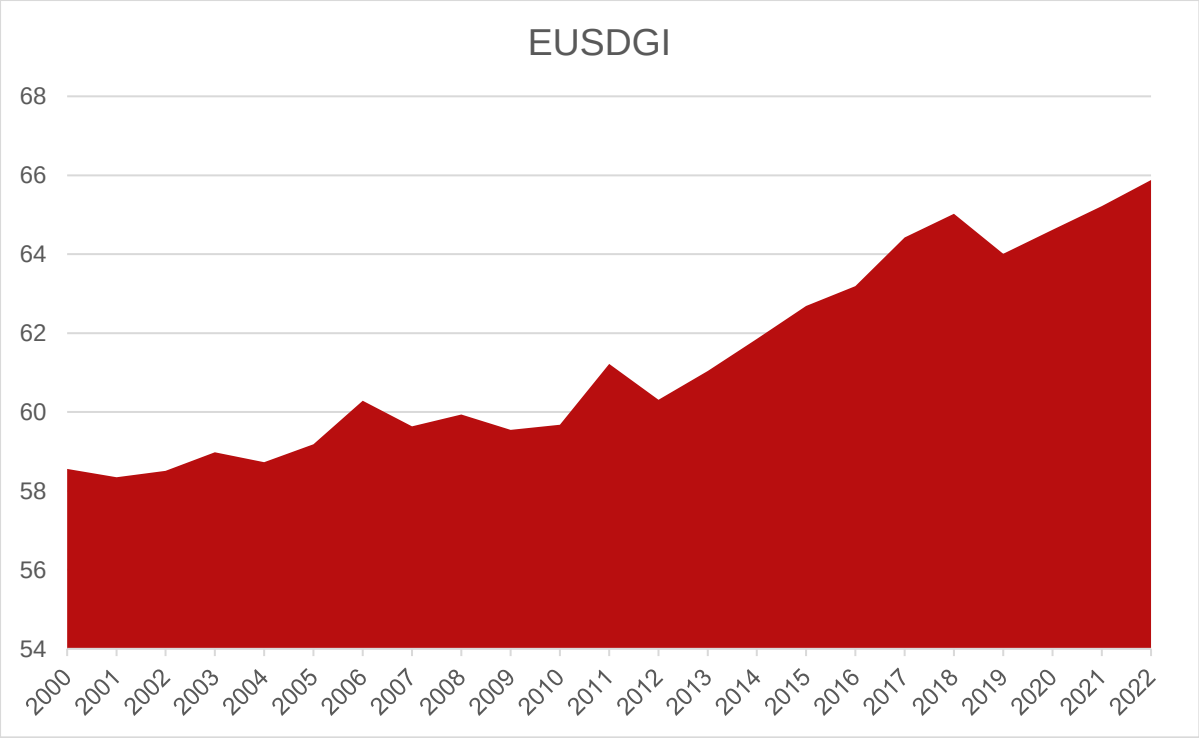
Source: United Nations (2024)

3.3 Malta's performance on the SDGs

Reporting on the SDGs takes place at the Global, EU and national levels. As mentioned earlier, the adaptation of the SDGs to the EU level has enhanced the relevance of the index for countries like Malta as it places focus on aspects of the SDGs that are the most applicable to EU member states given their socio-economic characteristics. At the time of writing this report, the latest indicators showed Malta ranking 41st out of 166 countries (Global index), comparable to other high-income countries around the world (Sustainable Development Solutions Network & Institute for European Environmental Policy, 2022). This position has remained largely consistent since 2016, continuing to be largely stable since then. However, as can be noted in Figure 3, from an EU perspective, Malta ranks 28th out of 34 countries, scoring poorly in areas like education, climate action, innovation and sustainable cities and communities (European Environment Agency, 2020). Examining the indicators in more detail reveals that that challenges exist in SDG 1 (people at risk of income poverty after social transfers), SDG 2 (obesity), SDG 4 (under-achievers in science), SDG 6 (people killed and accidents at work), SDG 9 (expenditure on R&D), SDG10 (inequality), SDG 11 (Recycling rate of Municipal Solid Waste), SDG 12 (CO_2 emissions in imports), SDG 14 (discarded fish, overexploited stocks, trawling and dredging), SDG 15 (species on Red List and nitrates in

ground water), SDG 16 (corruption perception) and SDG 17 (corporate tax haven) (Sustainable Development Solutions Network & Institute for European Environmental Policy, 2022).

Figure 3: Malta's performance on the EUSDGI over time



Source: Sustainable Development Solutions Network (2024)

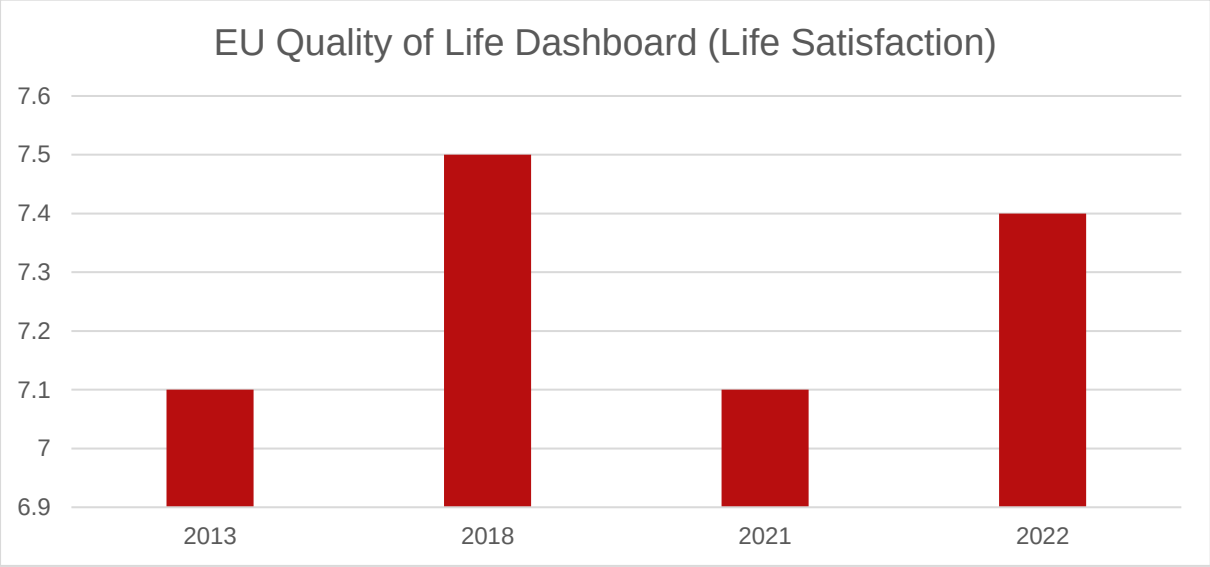
3.4 Malta's performance on the EUQOLI

As explained earlier, the EUQOLI does not issue a single composite indicator. However, data is available for various indicators including (subjective) life satisfaction, drawn from the 2013 and 2018 versions of the EU-SILC. Data for life satisfaction is also available for 2021 and 2022. The data shows the percentage of the population rating their life satisfaction as low, medium or high and the overall score of life satisfaction. According to data used on this dashboard, life satisfaction in Malta saw yearly increases until the outbreak of COVID-19. Despite these dips, it remains slightly higher than the EU average (Figure 4).

In other domains, the data populating the dashboard provides interesting insights too. It reveals moderate fluctuations in healthy life years between 2009 and 2022 with more erratic fluctuations in health perceptions, and an average performance for Malta that is higher than the EU average. In education, trends have been on the increase for the percentage of people with tertiary education and those undertaking adult education, with a narrowing gap between high and low educational attainment. However, Malta remains below the EU in average educational attainment. Malta also scores highly on social support with the Maltese having higher than average satisfaction for personal relations and a higher tendency to have someone to rely on. The Maltese also have a higher than EU average satisfaction with housing and experience a lower overcrowding rate within their household. The Maltese tend to feel safer than the EU average and government trust and freedom to make life choices both show a

relatively stable upward trend from 2013 onwards. The Maltese hold higher than EU average trust in the legal system and confidence in EU parliament. On the material front, median disposable income has been on a steady upward trend since 2009, but the number of households reportedly unable to face unexpected expenses is also rising. Despite having a lower than EU mean equivalized income, the Maltese have a high satisfaction with finance. The Maltese have a higher employment rate and a higher than EU average level of job satisfaction but the number of involuntary temporary contracts is also increasing. The data on this dashboard reveal that Maltese people work longer hours than the EU average and have a lower average satisfaction with time use. Data on the environment was missing for Malta at the time of writing this report.

Figure 4: Life Satisfaction as per EUQOLI



Source: Eurostat (2024)

Note: The data is drawn from national averages for Malta, collected using a question "Please answer on a scale of 0 to 10 where 0 means not at all satisfied and 10 means completely satisfied. Overall how satisfied are you with your life these days?"

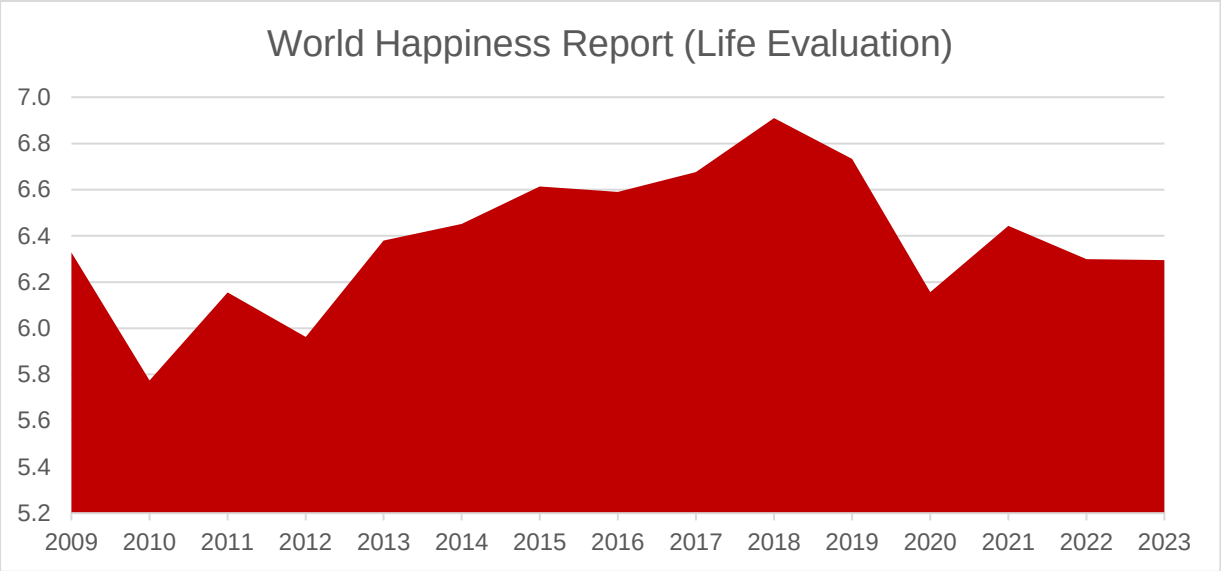
3.5 Malta's performance on the WHR

In the 2023 WHR, Malta ranked 37th out of 137 countries (Helliwell et al., 2023). Assessing life evaluation over time, Figure 5 depicts significant fluctuations, with most notable declines in the aftermath of the financial crisis and the COVID-19 pandemic, with figures ranging between a life evaluation score of 5.8 (in 2010) to 6.9 (in 2018). In the same report, Malta ranked 25th on the WHR GDP score, 22nd on social support, 13th on healthy life expectancy, 29th on freedom to make choices, 13th on generosity and 87th on perceptions of corruption

On the emotions front, however, Malta ranked 87th on positive affect and 28th on negative affect. These low scores for feelings were further confirmed in a 2022 Gallup Global Emotions Survey. Here, 64% of the Maltese (in contrast with 42% on average in the rest of the world) stated that they worry a lot, and 59% (in contrast with the world's 70%) stated that they enjoyed themselves. Maltese people also noted a higher than world average level of physical pain (Malta 37%; world 31%) and stress (Malta 49%; world 41%). More Maltese people than world averages report feeling respected (Malta 92%; world 86%), learning something new (Malta

learned 55%; world 50%) and, notably, being well-rested (Malta 78%; world 69%) (Gallup, 2023).

Figure 5: Malta's performance on the World Happiness Report (Life Evaluation) over time



Source: Helliwell et. al (2024)

Note: The data shows national averages for Malta, collected using a question "Please imagine a ladder, with steps numbered from 0 at the bottom to 10 at the top. The top of the ladder represents the best possible life for you and the bottom of the ladder represents the worst possible life for you. On which step of the ladder would you say you personally feel you stand at this time?"

3.6 Synthesis

Table 2: Malta's performance on international composite metrics of progress

Composite Metrics	Year of Data	Malta Rank	Number of Countries	Malta Rank (normalised)
World Happiness Report Life Evaluation	2023	37	137	27
Human Development Index	2022	25	193	12
GDP per capita World	2023	27	196	13
GDP per capita EU	2022	14	27	52
EU Sustainable Development Goals Index	2022	28	34	82
EU Quality of Life Dashboard Life Satisfaction	2022	11	27	41

Table 2 summarises and normalises Malta's ranking and performance across the key wellbeing metrics. For each metric, we have created a normalised rank which rescales the ranking out of 100, enabling comparison across metrics (given the differences in the number of participating countries across initiatives). Malta performs well on world rankings but not so well in comparison with other EU countries.

The insights from existing metrics also reveal that Malta does well on various dimensions of wellbeing including material considerations, health, social interaction, trust and safety, but it does less well on education, obesity, work-life balance, perceptions of corruption, Research and Development and some environmental aspects. Furthermore, it appears that while the Maltese report reasonably high life satisfaction, they report comparatively lower frequencies of positive feelings and a higher frequency of negative affect. This offers an agenda for research to investigate and for interventions to address in Malta.

4. Discussion and Recommendations

The quest for measuring wellbeing has emerged as an important challenge in many countries in recent years. The aim of this report was to examine and critically evaluate Malta's wellbeing over time using existing metrics that measure progress. The previous sections have discussed the availability of key global frameworks and data. An analysis of the data also evaluated Malta's performance by these metrics and indicators. This section now synthesis results and offers a critical reflection on the potential of these metrics and indicators to inform discussion and policy on wellbeing in Malta.

4.1 Synthesis

This report has illustrated that there are several various global metrics which already shed light on wellbeing in Malta. Each of these has their strengths and limitations. While the HDI includes a very limited range of indicators, it has a very long time series and a wide coverage. Moreover, while the EUSDG and the EUSDGI offer a strong range of environmental and economic indicators, they are weaker than the EUQOLI on some social indicators and subjective wellbeing. On the other hand, the EUQOLI is lacking in the environmental domain. The WHR, based on Gallup data assembles only a very small number of indicators – but it does offer the broadest cross section and longest time series for subjective wellbeing. In addition, a range of other available sources complement these data on wellbeing in Malta.

Some key insights emerge when Malta's performance is judged against these metrics and their sub-component indicators including (i) that Malta does well by international standards, although it tends to perform less well when judged against its European counterparts; (ii) that people in Malta fare well on material dimensions of wellbeing, health, social interaction and trust, and safety, but less well on education, work-life balance, perceptions of corruption and some environmental aspects; and (iii) that people in Malta report fairly high life satisfaction, but tend to do less well on day-to-day feelings. These are some of the priorities for future research and intervention.

4.2 Discussion of Ways Forward

As can be seen, these global indicators clearly have considerable potential to offer insights on the status of wellbeing in Malta as well as on the various domains and phenomena that determine it, in comparison with other countries, and over time. They are capable of offering both cross-section and time-series data, and they enjoy the practical benefit of low added burden to collect data. Their methodology is well-documented and defensible, the data is available in a timely manner, credible and enjoys strong communication toolkits.

Nonetheless, an important question to ask is whether these metrics are sufficient to inform wellbeing policy and discussion in Malta, and if not, what could be a suitable way forward. This question was also discussed with stakeholders in a pilot consultation meeting organized in November 2022 by the MFWS and the University of Malta, where around 15 participants

participated from public and non-governmental entities in sectors spanning social welfare, human rights, children's rights, legal aid, and local government.[2]

Improving Access to Global Data

Stakeholders provided the insight that existing metrics help by way of background reading, to shed light on the wellbeing of a particular social group, to evaluate potential policy and to monitor the impact of policy. However, the discussion also revealed that stakeholders may lack awareness of already available data on wellbeing. While many were familiar with metrics such as the HDI and the EUSDGI, several had not used the EUQOLI, and upon being familiarised with it, they stated they would consider using it in future.

This led to a recognition of the need to improve access to existing metrics and the indicators that they embody, as an important step towards their increased use in policy and discussion. Therefore, a recommendation that emerges is the need to curate the metrics and indicators reviewed in this report in a single (virtual) space, together with relevant meta-data and communication materials to serve as a "one-stop-shop". While this does not resolve the problem of cherry-picking results to suit particular agendas, it does offer transparency on the performance of Malta by diverse indicators. Moreover, the shortcomings of one framework (e.g. EUQOLI being poor on environmental indicators) can be compensated for by the strengths of another (e.g. the EUSDGI which offers rich data on environmental indicators but fewer insights on time-use, for instance).[3]

Reporting on Subjective Wellbeing

With the exception of the WHR, the emphasis of the global indicators reviewed lies on objective indicators, which report on the conditions of life that can influence wellbeing. However, as discussed in first section of this report, wellbeing is also about the evaluations that people themselves make of their lives and their emotional reactions to experiences – which avoid experts and institutions making assumptions about what is important to people. Incorporating SWB in a suite of indicators offers a more well-rounded evaluation of wellbeing, alongside information about more objective aspects of wellbeing (OECD, 2013).

Rich longitudinal data is already being collected for Malta in the shape of the Wellbeing Module (Eurostat, 2015) of the Survey of Income and Living Conditions (EU-SILC) (NSO, n.d.). A recent review concluded that most EU countries in fact base their national framework on the EU-SILC measurement framework (UNECE, 2023). This module includes questions on satisfaction with personal financial situation, job, time use, personal relationships as well as overall life satisfaction. It also includes affective measures, such as the frequency of feeling nervous, down in the dumps, calm and peaceful, downhearted or depressed, happy, or lonely (as well as receiving help, trust in others and social exclusion). Since the data is collected as part of the EU-SILC, it also enjoys a very rich range of complementary data on income and living conditions capable of explaining variations in subjective wellbeing. Each year, the sample includes individuals aged 16+, drawn from some 4000 households and over 9000

[2] Appendix 2 details the materials used for future meetings of this nature.
[3] It is on the basis of these considerations that a dashboard of global indicators together with their data sources have been assembled in www.wellbeingindex.mt, serving as a one-stop-shop for users of wellbeing data.

individuals.[4] Reporting this data together with the global indicators presented in this report can go a long way towards providing the insights that policy-makers and stakeholders need to inform wellbeing policy.

Improving Data on Underrepresented Groups

A key point that emerged from stakeholder discussions was the need for data on minorities and children, noting that the most marginalized and those with the lowest levels of wellbeing are also those who are the least likely to be included in such statistics and the least likely to have a voice to influence policy. Disabled persons and children are poorly captured in these statistics – at best being represented by their parents. Similar issues exist with migrants in Malta and those living in institutions. It was further noted that individuals may experience multiple conditions simultaneously (intersectionality).

Consequently, a key question is whether the metrics reviewed offer sufficient granularity on the state of wellbeing of particular minorities. One way to address this shortcoming is for existing indicators to be complemented by powered samples on the wellbeing of minorities, in a manner that allows micro-data to be analysed and compared with that of the population at large. Using the SWB module and relevant life conditions measured in the EU-SILC could be a useful starting point, but questions need to be adapted (translated, simplified) for accessibility by all.

Engaging in International Developments

At an international level, the field of wellbeing measurement is still very much in development and there is a move towards global harmonisation. It is quite likely that international collaborations will yield a suitable and compelling wellbeing indicator. At the EU level, this may build on existing efforts as part of the EU Quality of Life Dashboard (Eurostat, 2023a). The UN is due to issue an update on is SNA in 2025, incorporating wellbeing measurement (United Nations, 2022). Within the UNECE, a Task Force has recently been set up to develop guidelines for measurement of wellbeing to support countries that produce or consider producing wellbeing indicators, to suggest multidimensional frameworks and indicators for measuring current wellbeing, to provide definitions and terminology, to offer guidance on measurement and calculation methods for objective and subjective indicators and on aggregation and weighting of individual indicators into composite measures, on the utilisation of (new) data sources and ways to improve timeliness, and examples of good practices in dissemination and communication of current wellbeing (UNECE, 2023).

Given the rapid developments at the EU, UN and UNECE level, Malta would do well to engage with a view to ensuring that global progress indicators of which it will be part reflect its reality (including specific wellbeing issues and data collection burden). Relatedly, Malta's prospective joining of the OECD and its BLI initiative (Ellul, 2023) will shortly also yield another measure of progress. Insights from Ireland, which has recently embarked on a process to adopt the BLI framework (despite not being an OECD country), can be useful in this regard (Government of

[4]Disaggregated data on the EU-SILC indicators (detailed in Appendix 4) is now available in www.wellbeingindex.mt.

Ireland, 2021). Local consultative processes would also serve to inform discussions at OECD, UN and EU levels.

Ensuring relevance to Malta

It has repeatedly been emphasised that wellbeing indicators should focus on what matters for people's life in the context measured (UNECE 2023). None of the indices or dashboards reviewed have been purposely designed to measure wellbeing in Malta, nor to capture the realities and peculiarities of a small island state. While Malta may well continue to enjoy insights from global metrics and existing subjective wellbeing indicators/indices, the question remains as to whether Malta should embark on its own additional "Malta Wellbeing Index" which brings together subjective and objective wellbeing indicators, which is capable of disaggregation, which focuses on Malta's wellbeing priorities and which adequately represents minorities – as other countries have done to address their own particular realities[5].

Discussion with stakeholders suggests that data collection cost and timeliness, lack of time-series, lack of comparability with other countries, loss of economies of scale to communication and possible loss of data credibility constitute important barriers to the proposition of a brand-new index. This is particularly so in the light of ongoing international developments on wellbeing measurements, and the prospect of Malta's joining the BLI framework.

Nonetheless, it is useful to periodically (and regularly) identify and focus on the most relevant sub-set of indicators for Malta drawn from existing frameworks - on which data is already collected. These "headline indicators" can be selected from the EUQOLI, the EUSDG and EUSDGI and the EU-SILC wellbeing module, and if necessary, supplemented by other indicators. As a first step, this requires unpacking the global metrics reviewed here into their component indicators. The process of (periodically) selecting the most relevant indicators for Malta should be based on a consultative process (with stakeholders and the public), together with expert advice or even principled use of data to drive the design and could involve in-person discussions, online debates, and comment submissions. One way to guide the consultation of relevant indicators is to evaluate them against criteria such as (i) the extent to which the measure is linked to wellbeing (validity and relevance); (ii) the availability of data in time-series and cross-sectional form (hence international comparability); (iii) the extent to which the measure is easy to interpret by policy makers, the media and the public; (iv) the sensitivity of the measure to policy intervention (and hence the detail of the sub-indicators); (v) the applicability to the specific interests of Malta; and (vi) the extent to which it can capture the wellbeing of all people in Malta, including minorities. These considerations are informed by a review of criteria included in similar exercises by various entities.[6]

It is useful to note that a recent UNECE review (UNECE 2023) finds that among European countries that gather wellbeing data, many produce wellbeing indicators in the same 12 dimensions (income, jobs, housing, health, education, environment, subjective well-being, safety, work-life balance, community, civil engagement, and trust). The dimensions used most frequently by countries are income (29 countries), subjective wellbeing (29 countries), and health (26 countries). Some countries add other dimensions such as access to public and

[5] See Appendix 3 for some examples.
[6] See Appendix 5 for further details.

private services, quality of services, landscape and cultural heritage, arts and culture participation, innovation, research, and creativity and leisure and sports activities, politics and institutions and religiosity. Household surveys (e.g., social surveys, labour force surveys, household expenditure surveys, time use surveys) are used by all countries to gather information on wellbeing together with administrative data sources. Furthermore, wellbeing indicators are published at the regional or local level in most countries.

4.3 Recommendations

Throughout this discussion, a number of recommendations emerged, reiterated below for ease of reference.

First, in terms of performance against existing indicators, that Malta does relatively well on several global indicators of progress but it does less well in affect, scoring low in positive affect and high in negative affect. Similarly, Malta can do better when compared to its European counterparts on matters related to education, obesity, environment, perceptions of corruption, R&D and work-life balance, among others. These results merit further research and can be prioritised as interventions to enhance wellbeing in Malta.

Second, given the rich data available, and the complementarity of the metrics reviewed, and particularly the low awareness of the existing data, curating wellbeing data in a single (virtual) space, together with relevant meta-data and communication materials will provide valuable information to policy-makers and stakeholders and serve as a “one-stop-shop” that continues to expand as more data becomes available.

Third, it is important to collect regular data on SWB in Malta alongside information about more objective aspects of wellbeing. This data should be capable of disaggregation.

Fourth, it is crucial to supplement existing efforts with comparable data collection among children and minorities in Malta, including foreigners and those living in institutions, and for this data to be compatible with a view to undertake analysis. Ideally, data collection among a powered sample of minorities would take place as part of the national data collection exercise, so that micro-data can be analysed and disaggregated data can be presented.

Fifth, it is imperative for Malta to be vigilant and participate in the international debate on the creation of wellbeing indices as these evolve, including the UNECE task force on wellbeing frameworks, the OECD BLI initiative and Eurostat’s development of the EUQOLI. Malta is also missing from some global wellbeing data collection exercises (such as European Social Survey and the World Values Survey) which merit consideration.

Finally, it is useful to periodically select some indicators, within existing frameworks, to act as headline indicators to be reported annually. Regular consultation with experts and stakeholders can help identify the domains and indicators that are of particular relevance to Malta to serve this purpose.

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Appendix 1: Indicators for Wellbeing

In this Appendix, we detail the indicators found within each metric reviewed: the HDI, WHR, BLI, EUQOLI, EUSDGI, and EUSDG.

List of indicators in diverse metrics

HDI

Domain	Indicator
Economic Activity	GNI per capita (PPP $)
Health	Life expectancy at birth
Education	Expected years of schooling
Education	Mean years of schooling

WHR

Domain	Indicator
Subjective Wellbeing	Cantril Life Ladder
Subjective Wellbeing	Positive affect
Subjective Wellbeing	Negative affect
Economic Activity	GDP per capita in purchasing power parity (PPP)at constant 2017 international dollar prices
Economic Activity	Gini of household income
Economic Activity	Gini Index from the World Bank
Health	Healthy Life Expectancy (HLE)
Social	Social support
Social	Freedom to make life choices
Social	Generosity
Governance	Corruption Perception
Governance	Institutional Trust

BLI

Domain	Indicator
Income and Wealth	Household net adjusted disposable income
Income and Wealth	Household net financial wealth
Jobs and Earnings	Employment Rate
Jobs and Earnings	Long-term unemployment rate
Jobs and Earnings	Personal earnings (Average gross annual earnings of full-time employees)
Jobs and Earnings	Labour market insecurity
Housing	Rooms per person
Housing	Dwellings without basic facilities (specifically, indoor flushing toilet for the sole use of their household)
Housing	Housing expenditure
Health Status	Life expectancy at birth
Health Status	Self-reported health status
Work and Life	Employees working very long hours (usual working hours per week are 50 or more)
Work and Life	Time devoted to leisure and personal care
Education and Skills	Educational attainment
Education and Skills	Students' cognitive skills
Education and Skills	Expected years in education
Social Connections/Community	Social Network Support
Civic Engagement and Governance	Stakeholder engagement for developing regulations
Civic Engagement and Governance	Voter turnout
Environmental Quality	Air Pollution
Environmental Quality	Satisfaction with Water Quality
Personal Security/Safety	Homicides rates
Personal Security/Safety	Feeling safe walking alone at night
Subjective Wellbeing	Life Satisfaction

EUQOLI

Domain	Indicator
Material Living Conditions	Mean and median income (by age, sex)
Material Living Conditions	Income quintile share ratio S80/S20 for disposable income (by age, sex)
Material Living Conditions	At-risk-of-poverty rate (by poverty threshold, age and sex)
Material Living Conditions	At-risk-of-poverty rate anchored at a fixed moment in time (2008) (by age, sex)
Material Living Conditions	Percentage of the population rating their satisfaction as high, medium or low (by domain, sex, age and educational attainment level)
Material Living Conditions	Average rating of satisfaction (by domain, sex, age and educational attainment level)
Material Living Conditions	Main GDP aggregates per capita
Material Living Conditions	Severe material deprivation rate (by age, sex)
Material Living Conditions	Inability to make ends meet
Material Living Conditions	Total population living in a dwelling with a leaking roof, damp walls, floors or foundation, or rot in window frames or floor
Material Living Conditions	Overcrowding rate (by age, sex and poverty status - total population)
Material Living Conditions	Share of people living in under-occupied dwellings (by household type and income quintile - total population)
Productive or other Main Activity	Employment rates (by sex, age and educational attainment level (%))
Productive or other Main Activity	Unemployment rates (by sex, age and educational attainment level (%))
Productive or other Main Activity	Long-term unemployment - annual data (by sex)
Productive or other Main Activity	Persons living in households with very low work intensity (by age, sex, population aged 0 to 59 years)
Productive or other Main Activity	Involuntary part-time employment as percentage of the total part-time employment, (by sex and age (%))
Productive or other Main Activity	Low-wage earners as a proportion of all employees (excluding apprentices) (by age)
Productive or other Main Activity	Low-wage earners as a proportion of all employees (excluding apprentices) (by sex)
Productive or other Main Activity	Low-wage earners as a proportion of all employees (excluding apprentices) (by educational attainment level)
Productive or other Main Activity	Part-time employment and temporary contracts
Productive or other Main Activity	Temporary employees (by sex, age and main reason)
Productive or other Main Activity	Self-declared over-qualified employees as percentage of the total employees (by sex, age, migration status and educational attainment level)
Productive or other Main Activity	Persons reporting an accident at work (by sex, age and professional status)
Productive or other Main Activity	Persons reporting exposure to risk factors that can adversely affect mental well-being (by sex, age and educational attainment level)
Productive or other Main Activity	Persons reporting exposure to risk factors that can adversely affect physical health (by sex, age and educational attainment level)
Productive or other Main Activity	Persons reporting a work-related health problem (by sex, age and educational attainment level)
Productive or other Main Activity	Average number of usual weekly hours of work in main job, (by sex, age, professional status, full-time/part-time and economic activity)
Productive or other Main Activity	Long working hours in main job (by sex, age, professional status and occupation)
Productive or other Main Activity	Employed persons working on Saturdays as a percentage of the total employment (by sex, age and professional status)
Productive or other Main Activity	Employed persons working on Sundays as a percentage of the total employment (by sex, age and professional status)

Productive or other Main Activity	Employed persons working in the evenings as a percentage of the total employment (by sex, age and professional status (%))
Productive or other Main Activity	Employed persons working at nights as a percentage of the total employment (by sex, age and professional status (%))
Productive or other Main Activity	Employees by flexibility of their working schedule and educational attainment level (1 000)
Productive or other Main Activity	Employed persons being able to choose their methods of work or to influence their pace of work (by sex, age)
Productive or other Main Activity	Employees having a good relationship with their supervisor (by sex and age)
Productive or other Main Activity	Employed persons having a good relationship with their colleagues (by sex and age)
Productive or other Main Activity	Inactive population as a percentage of the total population (by sex, age (%))
Productive or other Main Activity	Time spent in total work (paid and unpaid work as main or secondary activity) (by sex and by form of work)
Health	Life expectancy (by age and sex)
Health	Healthy life years (by sex)
Health	Self-perceived health (by sex, age and educational attainment level)
Health	Self-perceived health (by sex, age and income quintile)
Health	Current depressive symptoms (by sex, age, income quintile, and educational attainment level)
Health	Body mass index (BMI) (by sex, age, educational attainment level, income quintile)
Health	Daily smokers of cigarettes (by sex, age, income quintile and educational attainment level)
Health	Frequency of heavy episodic drinking (by sex, age, income quintile and educational attainment level)
Health	Performing (non-work-related) physical activities (by sex, age and educational attainment level)
Health	Time spent on health-enhancing (non-work-related) aerobic physical activity (by sex, age and educational attainment level)
Health	Daily consumption of fruit and vegetables (by sex, age and educational attainment level)
Health	Self-reported unmet needs for medical examination (by sex, age, main reason declared and educational attainment level)
Education	Population (by educational attainment level, sex and age (%))
Education	Early leavers from education and training (by sex and labour status)
Education	Individuals' level of digital skills (until 2019)
Education	Number of foreign languages known (self-reported) (by sex)
Education	Participation rate in education and training (last 4 weeks) (by sex, age and educational attainment level)
Education	Participation/enrolment in education
Leisure and Social Interactions	Participation in any cultural or sport activities in the last 12 months (by sex, age and educational attainment level)
Leisure and Social Interactions	Participation in any cultural or sport activities in the last 12 months (by income quintile, household type and degree of urbanisation)
Leisure and Social Interactions	Frequency of participation in cultural or sport activities in the last 12 months (by sex, age, educational attainment level and activity type)
Leisure and Social Interactions	Frequency of participation in cultural or sport activities in the last 12 months (by income quintile, household type, degree of urbanisation and activity type)
Leisure and Social Interactions	Time spent, participation time and participation rate in the main activity (by sex and educational attainment level)
Leisure and Social Interactions	Reasons of non-participation in cultural or sport activities in the last 12 months (by sex, age, educational attainment level and activity type)
Leisure and Social Interactions	Reasons of non-participation in cultural or sport activities in the last 12 months (by income quintile, household type, degree of urbanisation and activity type)
Leisure and Social Interactions	Frequency of getting together with family and relatives or friends (by sex, age, educational attainment level, income quintile, household type and degree of urbanisation))
Leisure and Social Interactions	Frequency of contacts with family and relatives or friends (by sex, age, educational attainment level, income quintile, household type and degree of urbanisation))

Leisure and Social Interactions	Participation in formal or informal voluntary activities or active citizenship (by sex, age, educational attainment level, income quintile, household type and degree of urbanisation))
Leisure and Social Interactions	Reasons of non-participation in formal or informal voluntary activities, active citizenship in the last 12 months (by sex, age, income quintile, household type and educational attainment level)
Leisure and Social Interactions	Persons who have someone to ask for help (by sex, age and educational attainment level)
Leisure and Social Interactions	Persons who have someone to discuss personal matters (by sex, age and educational attainment level)
Leisure and Social Interactions	Average rating of trust (by domain, sex, age and educational attainment level)
Economic Security and Physical Safety	Inability to face unexpected financial expenses
Economic Security and Physical Safety	Arrears (mortgage or rent, utility bills or hire purchase)
Economic Security and Physical Safety	Labour transitions (by employment status)
Economic Security and Physical Safety	Recorded offences (by offence category - police data)
Economic Security and Physical Safety	Crime, violence or vandalism in the area
Governance and Basic Rights	Gender employment gap
Governance and Basic Rights	Gender pay gap in unadjusted form by NACE Rev. 2 activity - structure of earnings survey methodology
Governance and Basic Rights	Employment rates (by sex, age, educational attainment level, country of birth and degree of urbanisation)
Governance and Basic Rights	Participation in formal or informal voluntary activities or active citizenship (by sex, age and educational attainment level)
Natural and Living Environment	Exposure to air pollution by particulate matter
Natural and Living Environment	Pollution, grime or other environmental problems
Natural and Living Environment	Noise from neighbours or from the street
Overall Experience of Life	Average rating of satisfaction (by domain, sex, age and educational attainment level)
Overall Experience of Life	Percentage of the population rating their satisfaction as high, medium or low (by domain, sex, age and educational attainment level)
Overall Experience of Life	Frequency of being happy in the last 4 weeks (by age, sex and educational attainment level)

EUSDGI

SDG	Indicator
SDG 1 - No poverty	People at risk of income poverty after social transfer (%)
SDG 1 - No poverty	Poverty headcount ration at $6.85/day (%)
SDG 1 - No poverty	Severely materially deprived people (%)
SDG2 - Zero hunger	Prevalence of obesity
SDG2 - Zero hunger	Yield gap closure (%)
SDG2 - Zero hunger	Human Trophic Level (best 2-3 worst)
SDG2 - Zero hunger	Ammonia emissions from agriculture (kg/hectare)
SDG2 - Zero hunger	Export of pesticides banned in the EU (kg per 1000 population)
SDG 3 - Good health and well-being	Life expectancy at birth (years)
SDG 3 - Good health and well-being	Gap in life expectancy at birth among regions (years)
SDG 3 - Good health and well-being	Standardised preventable and treatable mortality (per 100000 persons aged less than 75)
SDG 3 - Good health and well-being	Population with good or very good perceived health (%of population aged 16 or over)
SDG 3 - Good health and well-being	New reported cases of tuberculosis (per 100,000 population)
SDG 3 - Good health and well-being	Suicide rate (per 100,000 population)
SDG 3 - Good health and well-being	Gap in self-reported health, by income (percentage points)
SDG 3 - Good health and well-being	Mortality rate, under-5 (per 1000 live births)
SDG 3 - Good health and well-being	Age-standardised death rate attributable to household air pollution and ambient air pollution (per 100,000 population)
SDG 3 - Good health and well-being	Gap in self-reported unmet need for medical examination and care, by income (percentage points)
SDG 3 - Good health and well-being	People killed in road accidents (per 100,000 population)
SDG 3 - Good health and well-being	Population engaging in heavy, episodic drinking at least once a week (percent)
SDG 3 - Good health and well-being	Surviving infants who received 2 WHO-recommended vaccines (percent)
SDG 3 - Good health and well-being	Smoking prevalence (percent)
SDG 3 - Good health and well-being	People covered by health insurance for a core set of services (percent)
SDG 3 - Good health and well-being	Individuals that use the internet to make appointments with a practitioner (percent)
SDG 3 - Good health and well-being	Share of total health spending financed by out-of-pocket payments (percent)
SDG 3 - Good health and well-being	Subjective Wellbeing (average ladder score, worst 0-10 best)
SDG 4 - Quality Education	Early leavers from education and training (% of population aged 18 to 24)
SDG 4 - Quality Education	Participation in early childhood education (% of children between age of 3 and starting age of compulsory primary education)
SDG 4 - Quality Education	PISA score (worst 0-600 best)
SDG 4 - Quality Education	Tertiary educational attainment (% of population aged 25 to 34)
SDG 4 - Quality Education	Underachievers in mathematics (% of population aged 15)
SDG 4 - Quality Education	Adult participation in learning (percent)
SDG 4 - Quality Education	Variation in mathematics performance explained by students' socio-economic status (percent)
SDG 5 - Gender Equality	Gender employment gap (percentage points)
SDG 5 - Gender Equality	Unadjusted gender pay gap (% of gross make earnings)
SDG 5 - Gender Equality	Population inactive due to caring responsibilities (% of population aged 20 to 64)

SDG 5 - Gender Equality	Seats held by women in national parliaments (percent)
SDG 5 - Gender Equality	Positions held by women in senior management positions (percent)
SDG 5 - Gender Equality	Proportion of ICT specialists that are women (percent)
SDG 6 - Clean water and sanitation	Population having neither a bath, nor a shower, nor indoor flushing toilet in their household (percent)
SDG 6 - Clean water and sanitation	Scarce water consumption embodied in imports (m^3/capita)
SDG 6 - Clean water and sanitation	Freshwater abstraction (% of long-term average available water)
SDG 6 - Clean water and sanitation	Population connected to at least secondary wastewater treatment (percent)
SDG 6 - Clean water and sanitation	Population using safely managed water services (percent)
SDG 6 - Clean water and sanitation	Population using safely managed sanitation services (percent)
SDG 7 - Affordable and clean energy	Population unable to keep home adequately warm (percent)
SDG 7 - Affordable and clean energy	Share of renewable energy in gross final energy consumption (percent)
SDG 7 - Affordable and clean energy	CO_2 emissions from fuel combustion per electricity output ($MtCO_2$/TWh)
SDG 8 - Decent work and economic growth	Gross disposable income (€/capita)
SDG 8 - Decent work and economic growth	Protection of fundamental labour rights (worst 0–1 best)
SDG 8 - Decent work and economic growth	People killed in accidents at work (per 100,000 workers)
SDG 8 - Decent work and economic growth	Fatal work-related accidents embodied in imports (per 100,000 population)
SDG 8 - Decent work and economic growth	Youth not in employment, education or training (NEET) (% of population aged 15 to 29)
SDG 8 - Decent work and economic growth	Unemployment Rate (% labour force)
SDG 8 - Decent work and economic growth	Victims of modern slavery embodied in imports (per 100,000 population)
SDG 8 - Decent work and economic growth	In work at-risk-of-poverty rate(percent)
SDG 9 - Industry, innovation and infrastructure	The Times Higher Education Universities Ranking: Average score of top 3 universities (worst 0–100 best)
SDG 9 - Industry, innovation and infrastructure	Patent applications to the European Patent Office (per 1,000,000 population)
SDG 9 - Industry, innovation and infrastructure	Gross domestic expenditure on R&D (% of GDP)
SDG 9 - Industry, innovation and infrastructure	Logistics performance index: Quality of trade and transport-related infrastructure (worst 1–5 best)
SDG 9 - Industry, innovation and infrastructure	Households with broadband access(percent)
SDG 9 - Industry, innovation and infrastructure	Gap in internet access, urban vs rural areas (percentage points)
SDG 9 - Industry, innovation and infrastructure	R&D personnel (% of active population)
SDG 9 - Industry, innovation and infrastructure	Population with at least basic digital skills (percent)
SDG 9 - Industry, innovation and infrastructure	Articles published in academic journals (per 1,000 population)
SDG 10 - Reduced inequalities	Gini Coefficient
SDG 10 - Reduced inequalities	Palma ratio

SDG 11: Sustainable cities and communities	Overcrowding rate among people living with below 60% of median equivalized income (percent)
SDG 11: Sustainable cities and communities	Recycling rate of municipal waste (percent)
SDG 11: Sustainable cities and communities	Exposure to air pollution: PM2.5 in urban areas (µg/m3)
SDG 11: Sustainable cities and communities	Housing cost overburden rate (percent)
SDG 11: Sustainable cities and communities	Population living in a dwelling with a leaking roof, damp walls, floors or foundation or rot in window frames or floor (percent)
SDG 11: Sustainable cities and communities	Population with access to points of interest within a 15min walk (percent)
SDG 12 - Responsible consumption and production	Exports of plastic waste (kg/capita)
SDG 12 - Responsible consumption and production	Circular material use rate (percent)
SDG 12 - Responsible consumption and production	Gross value added in environmental goods and services sector (% of GDP)
SDG 12 - Responsible consumption and production	Production-based SO_2 emissions (kg/capita)
SDG 12 - Responsible consumption and production	Production-based emissions of reactive nitrogen (kg/capita)
SDG 12 - Responsible consumption and production	Imported SO_2 emissions (kg/capita)
SDG 12 - Responsible consumption and production	Imported emissions of reactive nitrogen (kg/capita)
SDG 13 - Climate Action	CO_2 emissions embodied in fossil fuel exports (kg/capita)
SDG 13 - Climate Action	CO_2 emissions from fossil fuel combustion and cement production (tCO_2/capita)
SDG 13: Climate Action	GHG emissions embodied in imports (CO_2 equivalent/capita)
SDG 14 - Life below water	Bathing sites of excellent quality (percent)
SDG 14 - Life below water	Fish caught from overexploited or collapsed stocks (% of total catch)
SDG 14 - Life below water	Mean area that is protected in marine sites important to biodiversity (percent)
SDG 14 - Life below water	Fish caught by bottom trawling or dredging (percent)
SDG 14 - Life below water	Fish caught that are then discarded (percent)
SDG 14 - Life below water	Marine biodiversity threats embodied in imports (per million population)
SDG 15 - Life on Land	Red List Index of species survival (worst 0–1 best)
SDG 15 - Life on Land	Mean area that is protected in terrestrial sites important to biodiversity (percent)
SDG 15 - Life on Land	Biochemical oxygen demand in rivers (mg O_2/litre)
SDG 15 - Life on Land	Terrestrial and freshwater biodiversity threats embodied in imports (per million population)
SDG 15 - Life on Land	Mean area that is protected in freshwater sites important to biodiversity (percent)
SDG 15 - Life on Land	Nitrate in groundwater (mg NO3/litre)
SDG 16 - Peace, justice and strong institutions	Press Freedom Index (worst 0-100 best)
SDG 16 - Peace, justice and strong institutions	Corruption Perceptions Index (worst 0–100 best)
SDG 16 - Peace, justice and strong institutions	Population reporting crime in their area (percent)
SDG 16 - Peace, justice and strong institutions	Death rate due to homicide (per 100,000 population)
SDG 16 - Peace, justice and strong institutions	Exports of major conventional weapons (TIV constant 1990 million USD per 100,000 population)
SDG 16 - Peace, justice and strong institutions	Gap in population reporting crime in their area, by income (percentage points)
SDG 16 - Peace, justice and strong institutions	Unsentenced detainees (% of prison population)
SDG 16 - Peace, justice and strong institutions	Access to justice (worst 0–1 best)

SDG 16- Peace, justice and strong institutions	Timeliness of administrative proceedings (worst 0–1 best)
SDG 16 - Peace, justice and strong institutions	Constraints on government power (worst 0–1 best)
SDG 17- Partnerships for the goals	Official development assistance (% of GNI)
SDG 17 - Partnerships for the goals	Statistical Performance Index (worst 0-100 best)
SDG 17 - Partnerships for the goals	Shifted profits of multinationals (billion USD)
SDG 17 - Partnerships for the goals	Corporate Tax Haven Score (best 0–100 worst)

EUSDG

SDG	Indicator
SDG 1 - No poverty	People at risk of poverty or social exclusion
SDG 1 - No poverty	People at risk of monetary poverty after social transfers
SDG 1 - No poverty	Severe material and social deprivation rate
SDG 1 - No poverty	People living in households with very low work intensity
SDG 1 - No poverty	In work at-risk-of-poverty rate
SDG 1 - No poverty	Relative median at-risk-of poverty gap
SDG 1 - No poverty	Housing cost overburden rate
SDG 1 - No poverty	Self-reported unmet need for medical care
SDG 1 - No poverty	Severe housing deprivation rate
SDG2 - Zero hunger	Obesity rate
SDG2 - Zero hunger	Agricultural factor income per annual work unit
SDG2 - Zero hunger	Government support to agricultural R&D
SDG2 - Zero hunger	Area under organic farming
SDG2 - Zero hunger	Ammonia emissions from agriculture
SDG2 - Zero hunger	Nitrate in groundwater
SDG2 - Zero hunger	Estimated severe soil erosion by water
SDG2 - Zero hunger	Common farmland bird index
SDG 3 - Good health and well-being	Healthy life years at birth
SDG 3 - Good health and well-being	People with good or very good self-perceived health
SDG 3 - Good health and well-being	Smoking prevalence
SDG 3 - Good health and well-being	Obesity rate
SDG 3 - Good health and well-being	Population living in households suffering from noise
SDG 3 - Good health and well-being	Standardised death rate due to tuberculosis, HIV and hepatitis
SDG 3 - Good health and well-being	Standardised avoidable mortality
SDG 3 - Good health and well-being	Fatal accidents at work
SDG 3 - Good health and well-being	Road traffic deaths
SDG 3 - Good health and well-being	Premature deaths due to exposure to fine particulate matter (PM2.5)
SDG 3 - Good health and well-being	Self-reported unmet need for medical care
SDG 4 - Quality Education	Low achieving 15-yearolds in reading, mathematics or science
SDG 4 - Quality Education	Participation in early childhood education
SDG 4 - Quality Education	Early leavers from education and training
SDG 4 - Quality Education	Tertiary educational attainment
SDG 4 - Quality Education	Adult participation in learning in the past four weeks
SDG 4 - Quality Education	Share of adults with at least basic digital skills
SDG 5 - Gender Equality	Physical and sexual violence to women
SDG 5 - Gender Equality	Gender gap for early leavers from education and training
SDG 5 - Gender Equality	Gender gap for tertiary educational attainment
SDG 5 - Gender Equality	Gender employment gap
SDG 5 - Gender Equality	Gender pay gap in unadjusted form
SDG 5 - Gender Equality	Gender gap – people outside the labour force due to caring responsibilities
SDG 5 - Gender Equality	Seats held by women in national parliaments
SDG 5 - Gender Equality	Positions held by women in senior management
SDG 6 - Clean water and sanitation	People living in households without basic sanitary facilities (such as bath, shower, indoor flushing toilet)
SDG 6 - Clean water and sanitation	Population connected to at least secondary waste water treatment
SDG 6 - Clean water and sanitation	Biochemical oxygen demand in rivers
SDG 6 - Clean water and sanitation	Nitrate in groundwater
SDG 6 - Clean water and sanitation	Phosphate in rivers
SDG 6 - Clean water and sanitation	Inland water bathing sites with excellent water quality

SDG 6 - Clean water and sanitation	Water exploitation index (WEI+)
SDG 7 - Affordable and clean energy	Primary energy consumption
SDG 7 - Affordable and clean energy	Final energy consumption
SDG 7 - Affordable and clean energy	Final energy consumption in households per capita
SDG 7 - Affordable and clean energy	Energy productivity
SDG 7 - Affordable and clean energy	Share of renewable energy in gross final energy consumption
SDG 7 - Affordable and clean energy	Energy import dependency
SDG 7 - Affordable and clean energy	Population unable to keep home adequately warm
SDG 8 - Decent work and economic growth	Real GDP
SDG 8 - Decent work and economic growth	Investment share of GDP
SDG 8 - Decent work and economic growth	Material footprint
SDG 8 - Decent work and economic growth	Employment rate
SDG 8 - Decent work and economic growth	Long-term unemployment rate
SDG 8 - Decent work and economic growth	Young people neither in employment nor in education and training (NEET)
SDG 8 - Decent work and economic growth	People outside the labour force due to caring responsibilities
SDG 8 - Decent work and economic growth	Fatal accidents at work
SDG 8 - Decent work and economic growth	In work at-risk-of-poverty rate
SDG 9 - Industry, innovation and infrastructure	Gross domestic expenditure on R&D
SDG 9 - Industry, innovation and infrastructure	Patent applications to the European Patent Office
SDG 9 - Industry, innovation and infrastructure	R&D personnel
SDG 9 - Industry, innovation and infrastructure	Tertiary educational attainment
SDG 9 - Industry, innovation and infrastructure	Air emissions intensity of industry
SDG 9 - Industry, innovation and infrastructure	Gross value added in the environmental goods and services sector
SDG 9 - Industry, innovation and infrastructure	Share of buses and trains in inland passenger transport
SDG 9 - Industry, innovation and infrastructure	Share of rail and inland waterways in inland freight transport
SDG 9 - Industry, innovation and infrastructure	Share of households with high-speed internet connection
SDG 10 - Reduced inequalities	Income quintile share ratio
SDG 10 - Reduced inequalities	Income share of the bottom 40% of the population
SDG 10 - Reduced inequalities	Relative median at-risk-of poverty gap
SDG 10 - Reduced inequalities	Urban–rural gap for risk of poverty or social exclusion
SDG 10 - Reduced inequalities	Disparities in GDP per capita
SDG 10 - Reduced inequalities	Disparities in household income per capita
SDG 10 - Reduced inequalities	Asylum applications
SDG 10 - Reduced inequalities	Citizenship gap for risk of monetary poverty after social transfers
SDG 10 - Reduced inequalities	Citizenship gap for early leavers from education and training
SDG 10 - Reduced inequalities	Citizenship gap for young people neither in employment nor in education and training (NEET)
SDG 10 - Reduced inequalities	Citizenship gap for employment rate
SDG 11: Sustainable cities and communities	Severe housing deprivation rate

SDG 11: Sustainable cities and communities	Population living in households suffering from noise
SDG 11: Sustainable cities and communities	Premature deaths due to exposure to fine particulate matter (PM2.5)
SDG 11: Sustainable cities and communities	Population reporting crime, violence or vandalism in their area
SDG 11: Sustainable cities and communities	Road traffic deaths
SDG 11: Sustainable cities and communities	Share of buses and trains in inland passenger transport
SDG 11: Sustainable cities and communities	Settlement area per capita
SDG 11: Sustainable cities and communities	Recycling rate of municipal waste
SDG 11: Sustainable cities and communities	Population connected to at least secondary wastewater treatment
SDG 12 - Responsible consumption and production	Material footprint
SDG 12 - Responsible consumption and production	Consumption of hazardous chemicals
SDG 12 - Responsible consumption and production	Average CO_2 emissions per km from new passenger cars
SDG 12 - Responsible consumption and production	Energy productivity
SDG 12 - Responsible consumption and production	Gross value added in the environmental goods and services sector
SDG 12 - Responsible consumption and production	Circular material use rate
SDG 12 - Responsible consumption and production	Generation of waste
SDG 13: Climate Action	Net greenhouse gas emissions
SDG 13: Climate Action	Net greenhouse gas emissions from land use, land use change and forestry
SDG 13: Climate Action	Share of renewable energy in gross final energy consumption
SDG 13: Climate Action	Average CO_2 emissions from new passenger cars
SDG 13: Climate Action	Climate-related economic losses
SDG 13: Climate Action	Population covered by the Covenant of Mayors for Climate and Energy signatories
SDG 13: Climate Action	Contribution to the international USD 100bn commitment on climate related expenditure
SDG 14 - Life below water	Global mean surface seawater acidity
SDG 14 - Life below water	Marine waters affected by eutrophication
SDG 14 - Life below water	Coastal bathing sites with excellent water quality
SDG 14 - Life below water	Marine protected areas
SDG 14 - Life below water	Estimated trends in fish stock biomass
SDG 14 - Life below water	Estimated trends in fishing pressure
SDG 15 - Life on Land	Share of forest area
SDG 15 - Life on Land	Biochemical oxygen demand in rivers
SDG 15 - Life on Land	Phosphate in rivers
SDG 15 - Life on Land	Soil sealing index
SDG 15 - Life on Land	Estimated severe soil erosion by water
SDG 15 - Life on Land	Terrestrial protected areas
SDG 15 - Life on Land	Common bird index
SDG 15 - Life on Land	Grassland butterfly index
SDG 16 - Peace, justice and strong institutions	Standardised death rate due to homicide
SDG 16 - Peace, justice and strong institutions	Population reporting crime, violence or vandalism in their area

SDG 16 - Peace, justice and strong institutions	General government total expenditure on law courts
SDG 16 - Peace, justice and strong institutions	Perceived independence of the justice system: very or fairly good
SDG 16 - Peace, justice and strong institutions	Corruption Perceptions Index
SDG 16 - Peace, justice and strong institutions	Population with confidence in EU institutions
SDG 17 - Partnerships for the goals	Official development assistance
SDG 17 - Partnerships for the goals	EU financing to developing countries
SDG 17 - Partnerships for the goals	EU imports from developing countries
SDG 17 - Partnerships for the goals	General government gross debt
SDG 17 - Partnerships for the goals	Share of environmental taxes in total tax revenues
SDG 17 - Partnerships for the goals	Share of households with high-speed internet connection

Appendix 2: Stakeholder Consultation Pilot Materials

1. Information and Consent

The Malta Foundation for the Wellbeing of Society and the University of Malta are working on the Wellbeing INDEX project (www.wellbeingindex.mt). The project explores ways to measure and communicate wellbeing in Malta. Your opinion will be very valuable. By continuing with this interview, you are agreeing that your anonymised answers can be included in a summary report which will be published on the INDEX website and eventually a scientific publication. We will not publish the personal name of any respondent. If you are responding on behalf of an organisation or group, we may publish the organisation or group name alongside your response, should you so wish. You may ask any questions about this by contacting the lead researcher on marie.briguglio@um.edu.mt.

1.1 I have understood the information above ☐ Yes ☐ No (if No, please stop here)
1.2 I am aged 16 years or over ☐ Yes ☐ No (if No, please stop here)
1.3 I would like to participate ☐ Yes ☐ No (if No, please stop here)

2. Participant Information

2.1 How are you responding to this survey? ☐ As an individual ☐ On behalf of an organisation or group

2.2 What organization are you representing?
☐_____
(leave blank if you prefer not to answer).

2.3 What sector does the organization or group represent?
☐ Prefer not to answer ☐ Academia ☐ Voluntary organisation
☐ Public sector ☐ Private sector ☐ Media ☐ Other

2.4 Can we include quotes from this survey interview in our consultation report and name the organisation? ☐ Yes ☐ No

3. Composite Measures of Wellbeing

3.1 Had you heard about any of these prior to today? (Mark any with a ✓)

☐ The EU SDG Index - SDSN
☐ The Better Life Index (BLI) – OECD
☐ The EU Quality of Life Indicators – EUROSTAT
☐ The World Happiness Report – HELLIWELL ET AL
☐ The Human Development Index – UNDP
☐ Another indicator of wellbeing_____

3.2 Have you used any of these in your work to date? (Mark any with a ✓)

☐ The EU SDG Index
☐ The Better Life Index (BLI) – OECD
☐ The EU Quality of Life Indicators – EUROSTAT
☐ The World Happiness Report – HELLIWELL ET AL
☐ The Human Development Index – UNDP
☐ Another indicator of wellbeing_____

3.3 Are you likely to use any of these in your work going forward? (Mark any with a ✓)

☐ The EU SDG Index - SDSN
☐ The Better Life Index (BLI) - OECD
☐ The EU Quality of Life Indicators – EUROSTAT
☐ The World Happiness Report –HELLIWELL ET AL
☐ The Human Development Index - UNDP
☐ Another indicator of wellbeing_____

3.4 For which of these reasons would you use wellbeing measures? (Mark any with a ✓)

☐ For background reading, interest
☐ To include figures/insights in reports or articles
☐ To focus on the wellbeing of a particular social group
☐ To develop policy or assess policy proposals
☐ To evaluate policy and monitor impacts
☐ For research, modelling, forecasting
☐ Other _____

3.5 What are your views (if any) about using any of these to measure wellbeing in Malta?

The EU SDG Index – SDSN

_____

The Better Life Index (BLI) – OECD

_____

The EU Quality of Life Indicators – EUROSTAT

_____

The World Happiness Report – HELLIWELL ET AL.

_____

The Human Development Index – UNDP

_____

Another measure of wellbeing

_____

4. Choosing individual indicators

When it comes to the choice of indicators, it is possible to consider various aspects. If 1 means least important and 3 is most important, how important are these aspects for you in choosing wellbeing indicators for Malta? (Please mark with a ✓)

Timeliness: that estimates are updated frequently and published quickly	☐ 1 ☐ 2 ☐ 3
Disaggregation: that indicators are available for various sub-populations	☐ 1 ☐ 2 ☐ 3
Comparability: that they allow comparison with many countries	☐ 1 ☐ 2 ☐ 3
Time series: that they allow for comparison over many years	☐ 1 ☐ 2 ☐ 3
Method: That data collection is sound and captures what it is supposed to	☐ 1 ☐ 2 ☐ 3
Low Burden: That it is not costly to produce the data	☐ 1 ☐ 2 ☐ 3
Relevance: That indicators capture the main wellbeing concerns in Malta	☐ 1 ☐ 2 ☐ 3
Communicable: That it is easy for people in Malta to understand.	☐ 1 ☐ 2 ☐ 3

4.2 Indices of wellbeing measure several domains such as subjective well-being, social relations, safety, health, time use, housing, material and economic aspects, education, governance and environment. There exist some international indices which incorporate some or all of these domains. Consider this list of indicators drawn from the BLI, the WHR and the HDI. Which 5 indicators do you think would COMMUNICATE best with the public in Malta? Which indicators do you think are most RELEVANT to wellbeing in Malta? Do you think any of these indicators are NOT relevant to Malta? (Please mark with a ✓)

	HIGH COMMUNICATION (choose 5)	HIGH RELEVANCE TO WELLBEING (choose 5)	NOT RELEVANT IN MALTA
GDP per capita (WHR)			
Gross national income per capita (HDI)			
Household net adjusted disposable income (BLI)			
Household net financial wealth (BLI)			
Employment rate (BLI)			
Long term unemployment rate (BLI)			
Average gross annual earnings of full-time employees (BLI)			
Labour market insecurity (BLI)			
Air pollution (Particulate matter) (BLI)			
Satisfaction with water quality (BLI)			
Dwellings number of rooms per person (BLI)			
Dwellings without basic facilities (BLI)			
Housing expenditure (BLI)			
Life expectancy at birth (BLI), (WHR), (HDI)			
Self-reported health status (BLI)			
Employees working very long hours (BLI)			
Time devoted to leisure and personal care (BLI)			
Educational attainment (BLI)			
Students' average score in reading, mathematics and science (PISA) (BLI)			
Expected years in education (BLI), (HDI)			
Mean years of schooling for adults aged 25+ (HDI)			
Social network support (BLI)			
Deaths due to assault (BLI)			
Feeling safe walking alone at night (BLI)			

Generosity (WHR)			
Stakeholder engagement for developing regulations (BLI)			
Voter turnout (BLI)			
Freedom to make life choices (satisfaction) (WHR)			
Perceptions of corruption (WHR)			
Life satisfaction (BLI), (WHR)			
Positive emotions (WHR)			
Negative emotions (WHR)			

Please feel free to add another indicator that is highly relevant to wellbeing and communicates well.

5. Engagement

5.1 What is your preferred way of referring to the word “wellbeing” in Maltese?

5.2 In your view, how can we best engage stakeholders to participate in the process of developing and using wellbeing measures?

5.3 More broadly, in your view, what needs to happen with priority to stimulate policy-making for wellbeing in Malta?

5.3 Are there any specific developments that you would like to see in the future in the Wellbeing INDEX?

Thank You. For more information visit www.wellbeingindex.mt

Appendix 3: Select Wellbeing Frameworks

Country	Measure	Description
Australia	Australian National Development Index (Australian National Development Index, 2020)	The index comprises various elements namely Children & Youth, Economy, Education, Employment, Environment, Governance, Health & Wellbeing, Housing, Land Use, Population, Public Safety, Recreation, Social, and Civic Engagement (Australian Bureau of Statistics, 2012).
United Kingdom	Measures of National Wellbeing Dashboard (Office for National Statistics, 2018)	The National Wellbeing Programme includes both objective measures like life expectancy and subjective measures like life satisfaction and anxiety levels reported at frequent intervals, alongside measures for children's wellbeing (Office for National Statistics, 2024). Their domains are Personal well-being, Our relationships, Health, What we do, Where we live, Personal finance, Education and skills, Economy, Governance, and Environment (ibid.).
Canada	Canadian Index of Wellbeing (CiW) (University of Waterloo, n.d.-a)	This index is hosted by the Faculty of Health at the University of Waterloo and tracks changes in eight quality of life categories (University of Waterloo, n.d.-b).
Italy	Benessere Equo e Sostenibile (BES) (ISTAT, 2023a)	BES was developed in Italy in 2010 by the Italian Institute of National Statistics (ISTAT) having 152 indicators in 12 domains (ISTAT, 2023b).
Iceland	Wellbeing Framework (Government of Iceland, 2019)	This framework has 39 indicators: 17 societal, 7 environmental and 15 economic indicators and indicators are linked to the United Nation's Sustainable Development Goals (SDGs) (Government of Iceland, 2019).
New Zealand	Living Standards Framework (New Zealand Treasury, n.d.)	This Dashboard has a number of indicators divided into categories, also featuring one category for subjective wellbeing data. This section has 2 indicators being general life satisfaction and sense of purpose in one's life. The 21 other sections feature objective measures (Gleisner et al., 2011).
Wales	National Wellbeing Indicators Framework (*Wellbeing of Wales*, n.d.)	Wellbeing Goals in Wales include having a more prosperous, resilient, healthier, more equal and globally responsible Wales. Each of the 50 indicators within their framework ticks a number of these Wellbeing Goals (Welsh Government, 2015).

Appendix 4: The EU-SILC Wellbeing Module

The wellbeing module of the EU-SILC consists of the following 14 questions:

1. Overall life satisfaction (PW010)
2. Financial situation satisfaction (PW030)
3. Present job satisfaction (PW100)
4. Time use satisfaction (PW120)
5. Personal relationship satisfaction (PW160)
6. Feeling nervous (PW050)
7. Feeling down in the dumps (PW060)
8. Feeling calm and peaceful (PW070)
9. Feeling downhearted and depressed (PW080)
10. Feeling happy (PW090)
11. Feeling lonely (PW230)
12. Receiving material or non-material help (PW040)
13. Trust in others (PW191)
14. Perceived social exclusion (PW240)

Overall life satisfaction, Financial situation satisfaction, Present job satisfaction, Time use satisfaction and Personal relationship satisfaction as well as Trust in others and Perceived Social Exclusion, are measured on an 11-point Likert scale, where 0 is ‘not at all’ and 10 is ‘completely’.

Feeling nervous, Feeling down in the dumps, Feeling calm and peaceful, Feeling downhearted and depressed, Feeling happy and Feeling lonely use a 5-point Likert scale, where 1 is 'None of the time', 2 is 'A little of the time', 3 is 'Some of the time', 4 is 'Most of the time', and 5 is 'All of the time'. Receiving material or Non-material help is measured on 2 categories, where 1 is 'Yes' and 2 is 'No'.

Appendix 5: Criteria for Evaluating Indicators

The table below details properties against which the metrics could be evaluated.

Source	Criteria	1 Valid, Evidence	2 Statistical method	3 Comparable	4 Disaggregate	5 Time series	6 Low Burden	7 Useful for policy	8 Communicable
Statistics New Zealand (Brown, 2009)	Valid and meaningful;	X							
	Sensitive and specific to underlying phenomenon;	X							
	Grounded in research;	X							
	Statistically sound;		X						
	Easy to interpret;								X
	Relates to other indicators;	X							
	International comparison;			X					
	Ability to be disaggregated;				X				
	Consistency over time;					X			
	Timeliness;						X		
	Linked to policy or emerging issues;							X	
	Compel interest and excite								X
EU SDG Indicator Selection 2020 (European Commission, 2020)	Policy relevance;							X	
	Readiness of data;						X		
	Sustainability of statistical production;						X		
	Sound methodology;		X						
	Accessibility and transparency;								X
	Compliance with EU standards;			X					
	Frequency;					X			
	Timeliness;						X		
	Reference area;			X					
	Comparability;			X					
	Time coverage					X			
OECD Better Life Initiative (OECD, 2011)	Unambiguous interpretation;								X
	Amenability to policy changes;							X	
	Disaggregation;				X				
	Availability of high-quality data						X		
OECD Statistics and Data Directorate (OECD, 2013)	Capture wellbeing achievements at the individual or household level;				X				
	Measure outcomes;							X	
	Allow disaggregation;				X				
	Validity;	X							
	Use by other entities;								X
	Sensitivity to policy;							X	
	Comparable across countries;			X					
	Timeliness						X		
New South Wales Wellbeing Indicators (Miranti et al., 2017)	Data availability;						X		
	Frequency;					X			
	Usability;							X	
	Reliability;		X						
	Relevance;							X	
	Sensitivity to policy							X	
WHO Target-Setting for Wellbeing (WHO, 2013)	Data availability;						X		
	Normative;							X	
	Interpretation;								X
	Comparability across countries;			X					
	Minimum number;								X
	Disaggregation				X				
SDGs (European Commission, 2020)	Action-oriented;							X	
	Concise;								X
	Easy to communicate;								X
	Limited in number;								X
	Aspirational;								
	Global;			X					
	Applicability across countries			X					