

Aligning Bristol's One City Plan with the SDGs

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ABOUT

The Local Data Action Solutions Initiative (LDA-SI) was established as a joint effort between the Sustainable Development Solutions Network's Thematic Research Network on Data and Statistics (SDSN TReNDS) and the U.S.A. Sustainable Cities Initiative as a program with one primary objective: to identify and promote replicable methods for sub-national Sustainable Development Goal (SDG) monitoring that facilitate local action in support of the “leave no one behind” principle. A growing number of subnational actors are attempting to implement the SDGs locally and are confronting specific questions related to data collection and monitoring. With this has grown the need for real, practical lessons and guidance that can be applied to different contexts worldwide.

For this reason, LDA-SI launched a microgrant initiative to support learning from existing subnational SDG data initiatives, harnessing this tacit local knowledge and informing a learning exchange. In 2018, five grantees were chosen both for their proven ability to support SDG implementation in a specified location and for their model's relevance and potential benefit for other sub-national SDG initiatives in the world. Each grantee has prepared a guidance brief that describes SDG localization challenges in the place where they are operating and the data solutions they have designed to support efforts toward SDG achievement.

Learn more at sdstrends.org/ldasigrants.

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ABSTRACT

The City of Bristol in the United Kingdom has pledged its support to the Sustainable Development Goals (SDGs) and has worked to identify alignment between the Goals and the recently launched One City Plan. This plan articulates a vision for the city and a set of explicit targets to be achieved by 2050. Alignment with the goals was achieved through a 12-month partnership between the University of Bristol, Bristol City Council, and two key networks of stakeholders. Through this process, a mapping exercise was undertaken to identify a framework for monitoring progress against the targets embedded in both the One City Plan and the SDGs. This process highlighted obstacles such as the paucity of local-level indicators that matched the official indicators of the Inter-agency and Expert Group on SDG Indicators (IAEG-SDG) and the limited relevance of some official IAEG-SDG indicators to city-level monitoring. A methodology was developed to assess the relevance of target areas and to identify contextually-relevant local indicators and proxies to assess progress. This involved consulting city council experts, partner organizations, civic leaders, and academics, and has helped increase resources with which key Bristol institutions can engage to understand the SDGs at the local level.

PROBLEM

Bristol is a thriving U.K. city experiencing strong economic growth¹. It is also widely seen as the UK's most sustainable city and was awarded the status of European Green Capital in 2015. The city has a diverse and nationally-renowned cultural, arts, and music scene, and is frequently voted one of the best places to live in the U.K.² and even the world³. Yet

Bristol faces challenges: There are around 300 premature deaths a year due to poor air quality; the disparity in access to higher education is almost 80 percent between local government wards; 19,700 (24 percent) of all Bristol's children live in income-deprived households; nearly 16 percent of the population live in parts of the city that are in the top 10 percent of most deprived of areas in England; and the gap in life expectancy between some wards is as large as 12 years⁴.

In an effort to develop a more coherent and joined-up approach to tackling these challenges against the backdrop of a prolonged program of budget cuts imposed by central government, the city embarked on a major new strategic planning initiative and reform of governance structures.

The result was Bristol's One City Plan⁵ (Box 1) and new governance arrangements designed to improve coordination between units within the Council, and between the Council and key stakeholders in the city.

This reform moment offered a unique opportunity to align the city's strategic One City Plan with the SDGs and develop a harmonized monitoring framework to track progress against both. However, while there was political will both within the Mayor's Office and among many external stakeholders to integrate the SDGs into the One City Plan and in a planned "city dashboard," there was insufficient capacity and expertise to achieve this. Lack of capacity was compounded by the complexities of monitoring the SDGs locally, for which there was limited freely available guidance. Aside from the IAEG-SDG indicators (many of which are irrelevant to cities⁶) there is an ever-expanding number of city sustainability metrics, but none map perfectly to the IAEG-SDG indicator framework⁷.

In sum, Bristol faced the challenge of aligning a locally-developed strategic plan with the SDGs and establishing a harmonized framework for monitoring progress against the backdrop of acute resource and capacity constraints.

Box 1. Bristol's One City Plan

In January 2019 Bristol launched the first iteration of the One City Plan, outlining the following vision:

By 2050, Bristol is a fair, healthy, and sustainable city. A city of hope and aspiration, where everyone can share in its success.

The One City Plan was championed by the mayor and the city council and developed through extensive consultation, including five “city gatherings” with key city leaders across the public, private, and nonprofit sectors; over 30 engagement events with more than 300 attendees from all sectors of society; and weekly drop-in sessions over the course of a year for residents, stakeholders, and civil servants to share their opinions on how the plan should develop. The resulting document is meant to reflect the city’s collective direction of progress and the current ideas as to how to move there. However, while it is intended to be a strategic document, it is not meant to be static. The aim is to annually update the plan through iterative consultation to be responsive to shifting priorities, challenges, and political change. The plan is organized around six core themes: Connectivity, Economy, Environment, Health and Well-being, Homes and Communities, Learning and Skills. These are not to be understood in isolation, but rather

Box 1 continued

as interconnected. A systems thinking approach embedded in the plan encourages leaders from these areas to understand and consider the implications that their policies and decisions have on other themes and objectives for the city. By considering the interrelations and interactions within the plan in a holistic manner, decision-makers are better able to improve positive interactions and reduce the negative. This inherent inter-relatedness of the plan lends itself to the application of the SDGs.

SOLUTION

Our solution to these challenges involved three steps: (1) establishing knowledge partnerships, (2) target mapping, and (3) indicator identification and harmonization.

The first obstacle to overcome was the lack of capacity and expertise needed to align the developing One City Plan with the SDGs and establish a harmonized monitoring framework. This was overcome through a unique partnership between the University of Bristol, Bristol City Council, and two networks. The first, Bristol Green Capital Partnership, is a well established network of over 800 organizations committed to “working towards Bristol becoming a sustainable city with a high-quality of life for all.” The second is a more recently established stakeholder network known as the Bristol SDG Alliance (Box 2), devoted explicitly to promoting the implementation and monitoring of the SDGs locally.

Box 2. The Bristol SDG Alliance

The Alliance is a network of 70-plus stakeholders from across Bristol who are interested in driving the Sustainable Development Goals in Bristol. Established at the start of 2016 after meetings to consider how the SDGs could be applied in Bristol, the Alliance incorporates members from public, private, and third sector organizations, including groups that focus on all three aspects of sustainable development (economic, environmental, and social). The Alliance has been involved in local, regional, and national advocacy for the uptake of the SDGs more broadly and it has been key in leveraging resource to develop SDG activity in Bristol⁸.

These partnerships helped to establish the capacity needed to undertake a target mapping exercise. By applying the tool outlined in “Hacking the SDGs for US Cities”⁹, which provides a methodology for understanding the SDG targets and the IAEG-SDG indicators in the context of a city, we identified a sub-set of 75 relevant targets and 50 relevant indicators for Bristol.

The final step involved identifying specific indicators that could be used to monitor objectives set out in the One City Plan and the SDGs.

This involved a wide-ranging review of existing city monitoring frameworks and the identification of specific indicators that overlapped with both One City Plan objectives and the SDGs. This has been complemented by ongoing consultation with City Council teams responsible for delivering these objectives and with the city’s data team to identify what data are actually available. While this process is not complete as of this writing, the final result will be a set of indicators suitable for monitoring both locally defined priorities and the SDGs.

BUILDING PROCESS

1 Building Knowledge Partnerships

The formation of strategic partnerships began in 2016 when the Bristol SDG Alliance submitted a proposal to the University of Bristol for a graduate student research project. A group of students was tasked with conducting an initial assessment of the relevance of the goals to the city and a survey of local SDG initiatives. As a result of this report and increased interest in understanding the SDGs in the context of Bristol, the Alliance and the Bristol Green Capital Partnership teamed up with an academic at the university to apply for funding to pursue further local implementation through the creation of an SDG Research and Engagement Associate (“Associate”) position; this aimed to provide increased capacity for the University of Bristol, the City Council, and the Bristol Green Capital Partnership to engage with the SDGs. This full-time paid position was funded for 12 months from the university’s Strategic Research Fund. Follow-on funding to extend the post for six months in order to produce a Voluntary Local Review (VLR) was subsequently secured from the University’s Economic and Social Research Council Impact Acceleration Account. The Associate position was filled through a competitive recruitment process.

The Associate was tasked with supporting coordination among stakeholders in the Alliance in collaboration with the Bristol Green Capital Partnership and serving as an embedded advocate for the SDGs within the City Council. The creation of this post was particularly important for the City Council as it added dedicated capacity to explore integrating the SDGs into planning and monitoring processes at a time of wide-ranging budget cuts.

The Associate began by reviewing existing academic and practitioner literature on SDG localization, including those produced by the Global Taskforce of Local and Regional Governments. The next step involved consulting with members of the Alliance and city partners (including Bristol's European Union Office). The online publication of a report outlining Bristol's growing engagement with the SDGs¹⁰, which coincided with the 2018 High-level Political Forum, as well as blog posts and social media activity helped increase awareness of the work being done in Bristol and led to new international contacts and knowledge sharing opportunities. Over the course of 12 months, we received invitations to attend workshops and conferences where we were able to learn from other cities undertaking similar initiatives at the time, such as Baltimore, Manheim, Malmö, Hannover, Los Angeles, New York, San José, Mexico City, Bogotá, and Nairobi. The insights gained from this research, consultation, and networking were used to provide direct advice and support to the City Council team working on developing the One City Plan. The result was successful alignment of locally generated goals with the SDGs.

2 Target Mapping

As the One City Plan was being developed, the Associate undertook a mapping exercise with colleagues from the City Office team, the Council data team and the thematic leads from the One City Plan to assess the local relevance of SDG targets. There were two mapping stages:

First, the "Hacking the SDGs" methodology developed at the Urban Institute¹¹ was adapted and applied to assess the relevance of the SDG

targets to Bristol. A target was deemed relevant if city leaders could directly influence progress through public policies, programs and initiatives.

Generally, there were three reasons why a target was deemed irrelevant: (1) if the target focused on or was limited to developing or least developed countries, (2) if the target explicitly referenced laws or policies at higher levels of government, or (3) if the target addressed sustainable development issues that occur outside urban contexts. This process, which was undertaken early in the development of the One City Plan, identified 75 SDG targets relevant for Bristol.

Second, we identified SDG targets that were relevant to the specific objectives articulated in the final One City Plan, which contains 558 initiatives, objectives, and milestones—many of which were adapted directly from the SDGs or aligned to the SDGs. This exercise yielded a set of 79 targets that were directly relevant to the plan and contained most, but not all, of the 75 targets that the “Hacking the SDGs” method had identified as relevant to Bristol. The discrepancy between the research methodology and the applied target mapping can largely be attributed to a more expansive interpretation of the SDG targets in the second round of mapping.

One such example is SDG target 9.c: “Significantly increase access to information and communications technology [ICT] and strive to provide universal and affordable access to the Internet in least developed countries by 2020.” Our initial mapping excluded this target for Bristol because it refers explicitly to “least developed countries.” However, there is a big digital divide within Bristol, and addressing this by improving broadband access in social housing is one of the objectives in the One City Plan.

While Bristol cannot monitor progress on expanding ICT in least developed countries, it can and should monitor and report on progress in addressing its own digital divide in the spirit of the SDG's underlying principle of "leave no one behind."

In sum, an initial mapping using the "Hacking the SDGs" approach identified 75 locally relevant SDGs targets that could be monitored, while the second mapping against the final One City Plan yielded a slightly different set of 79 locally relevant targets when a more expansive interpretation of the goals was applied. Although the final monitoring framework has yet to be finalised, this latter set is likely to form the basis for Bristol's efforts to monitor progress against both local priorities and the SDGs.

3 Indicator Identification and Harmonization

Having conducted a mapping of targets, the final step was to identify specific indicators that were suitable for monitoring the One City Plan objectives alongside the SDGs. This was done through consultation with the city's data team, as well as a survey of existing city data frameworks used elsewhere in the world. The objective was to develop a harmonized indicator framework that allows us to monitor progress towards locally-defined goals and the SDGs in a way that also facilitates comparison with other cities around the world.

Using the Greene and Meixell methodology for identifying suitable city-level indicators, we identified 50 out of the 244 that were relevant for Bristol. We arrived at this figure by discounting all IAEG-SDG indicators linked to targets that had been found irrelevant in Step 2 and reviewing

the remainder, many of which were irrelevant because of their national or international focus. For example, while Target 13.1 (“Strengthen resilience and adaptive capacity to climate related hazards”) is certainly relevant for the city, two of the three associated indicators are inappropriate due to their national and international scope.

To fill gaps in our indicator framework, we then turned our focus to the ever-growing number of alternative urban indicator frameworks, many of which have been mapped onto the SDGs. To generate ideas about the best indicators for Bristol, we compared the most popular indicator frameworks to identify overlaps, omissions, and synergy with the One City Plan objectives and the SDGs (see Table 1).

This overlap assessment provided us with an extra set of common urban sustainability indicators, often filling gaps left in the IAEG-SDG indicators (e.g. Gini coefficient, Average Daily Travel time, and square meters of public indoor/outdoor recreation space per capita). These additional 58 indicators were added to the 50 SDG indicators previously identified to form the basis for our monitoring framework.

Table 1. Indicator Framework

Indicator Framework	Number of Indicators	Number of Cities
SDGs ¹²	232	N/A
World Council on City Data ISO 37120 ¹³	100	79+
United Smart Cities Smart Sustainable Cities ¹⁴	90	50+
IESCE Cities in motion index ¹⁵	79	180
SDSN U.S.A. Cities Index ¹⁶	44	100
Arcadis Sustainable Cities ¹⁷	32	100
Indicators for Sustainability ¹⁸	32	11
UN-Habitat City Prosperity Index ¹⁹	25	400
Urban Ecosystem Europe ²⁰	25	32

The indicator frameworks assessed including the number of indicators they contain and the number of cities that are currently monitored by these frameworks.

Our final step was to assess the availability of data through consultation with the City Council’s data experts. Potential sources include council plans and documents, Bristol’s “Quality of life” survey, the “State of Bristol” documents, and the Bristol Open Data platform. Many of these indicators mapped well onto the targets for the city or filled in the gaps where SDG indicators were not relevant. In a handful of cases, we drafted our own alternative indicators where no suitable precedent was found (Table 2). The wording of these was designed (a) to be suitable to the city scale, and (b) to reflect the fact that progress is not necessarily the sole responsibility of city governments by referring to “policies or initiatives.”

Using the SDG targets that had been mapped onto local priority aims, proxy measurements were developed in place of irrelevant or unrecorded IAEG-SDG indicators. Using the indicators that local experts were already

monitoring and that the city was already assessing made it easier to understand the progress the city was making towards the SDGs through indirect measures. The final proposed indicator framework is provided in Annex A.

Table 2. Alternative Indicators to Monitor Specific Targets

SDG Target	Alternative Indicator
5.6 Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences	Have new policies or initiatives been implemented in Bristol to improve access to sexual and reproductive health care?
5.c Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels	Have new policies or initiatives been implemented to improve gender equality and the empowerment of all women and girls in Bristol?
13.2 Integrate climate change measures into (national) policies, strategies and planning	Have new climate change policies or initiatives been introduced by city stakeholders?
15.9 By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts	Have new ecosystem and biodiversity values been integrated into planning processes or development initiatives in Bristol?
17.17 Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships	Have new public, public-private and civil society partnerships formed in Bristol to enhance capacity to achieve local sustainability goals?

STRENGTHS AND WEAKNESSES

Strengths

The integration of the SDGs into the One City Plan and the development of a harmonized indicator framework was made possible through partnerships and the creation of a dedicated post funded by the University of Bristol.

For other cities facing similarly acute resource constraints, leveraging partnerships may be the only means of securing the resources required to overcome the considerable “learning costs” associated with developing a practical framework for monitoring the SDGs locally.

A second strength of our approach was the harmonization of the monitoring framework achieved by identifying indicators that were directly relevant to locally defined objectives as well as the SDGs. This will institutionalize SDG monitoring going forward as it will not require a separate or additional activity for the Council. Moreover, the process of harmonization required extensive consultation, which increased awareness of the SDGs within the council.

Finally, adopting a more expansive interpretation of the SDG targets and drawing on alternative indicator frameworks to fill gaps where IAEG-SDG indicators were simply irrelevant has allowed for the development of a framework that is both comprehensive and locally appropriate. Moreover, because the alternative indicators were drawn from indicators already in use by many other cities, this will increase comparability between Bristol and other cities.

Weaknesses

Like many cities, the functional area of Bristol is much larger than the area controlled and monitored by Bristol City Council. The City of Bristol has a population of roughly a half million people. However, the functional area of the city is over one million people. Monitoring progress towards the SDGs in the core could be highly misleading. For example, a reduction in homelessness in the City of Bristol could correspond with an increase in a local authority area that is just meters away. Resolving the appropriate geographic scale of measurement for local monitoring is an unresolved challenge.

A second weakness relates to the limited consultation on data sources, largely due to time and resource constraints. We know that “official” data developed and curated by the U.K.’s Office for National Statistics has significant limitations and omissions. Although we did look at other sources, there is likely a wealth of information being collected by firms and nonprofit organizations that could provide more granular insight into changes directly relevant to the SDG progress. Expanding the sources of data used for local monitoring could greatly enrich our understanding of relevant local conditions and trends, as evidenced by the work of the Sustainable Development Solutions Network’s Local Data Action grantees.

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Indicator Framework

SDG	SDG Target	Indicator	Indicator 2	Indicator 3	Indicator 4	Indicator 5	Source 1	Source 2	Source 3	Source 4	Source 5
SDG 1: No Poverty	1.2 By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions	1.2.1 Proportion of population living below the national poverty line, by sex and age	1.2.2 Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions	Reduce the gap in earnings between the top 10% and bottom 10% of wages			SDGs/City Sustainability Indexes		Bristol City Council Data Team		
	1.3 Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable	1.3.1 Proportion of population covered by social protection floors/systems, by sex, distinguishing children, unemployed persons, older persons, persons with disabilities, pregnant women, newborns, work-injury victims and the poor and the vulnerable									
	1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters	11.5.2 Direct economic loss in relation to global GDP, damage to critical infrastructure and number of disruptions to basic services, attributed to disasters						SDGs			

	<p>3.b Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all</p>	<p>Rate of inappropriate prescribing of antibiotics</p>	<p>3.b.1 Proportion of the target population covered by all vaccines included in their national programme</p>	<p>% of children achieving 8 GCSEs (attainment 8 score) – broken down by areas of deprivation</p>	<p>Key Stage 4: Attainment 8 – Reduce the Points gap between the Disadvantaged and Non-Disadvantaged</p>	<p>OCP</p>	<p>SDGs</p>	<p>City Sustainability Indexes</p>	<p>City Sustainability Indexes</p>	<p>Bristol City Council Data Team</p>	
<p>SDG 4: Quality Education</p>	<p>4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes</p>	<p>4.1.1 Proportion of children and young people (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex</p>	<p>% of students completing secondary education: survival rate</p>	<p>% of children achieving 8 GCSEs (attainment 8 score) – broken down by areas of deprivation</p>	<p>Key Stage 4: Attainment 8 – Reduce the Points gap between the Disadvantaged and Non-Disadvantaged</p>	<p>SDGs</p>	<p>SDGs</p>	<p>City Sustainability Indexes</p>	<p>City Sustainability Indexes</p>	<p>Bristol City Council Data Team</p>	

	<p>4.2 By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education</p> <p>4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university</p>	<p>4.2.1 Proportion of children under 5 years of age who are developmentally on track in health, learning and psychosocial well-being, by sex</p> <p>4.2.2 Participation rate in organized learning (one year before the official primary entry age), by sex</p>	<p>A reduction in the gap between children in the 30% most deprived areas achieving a good level of development at Early Years foundation stage compared to those not in</p>	<p>Differences in school readiness between boys and girls; for children with English as a second language; and BME children.</p>	<p>SDGs/Happy City</p>	<p>SDGs</p>	<p>Bristol City Council Data Team</p>	<p>One City Plan Theme Leads</p>		
	<p>4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship</p>	<p>% of school leavers identified as not in education or employment or training.</p>	<p>% of young people entering further or higher education.</p>	<p>% of young people entering jobs with training</p>	<p>City Sustainability Indexes</p>	<p>One City Plan Theme Leads</p>	<p>One City Plan Theme Leads</p>	<p>One City Plan Theme Leads</p>		<p>Happy City</p>
	<p>4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations</p>	<p>% of young people entering further or higher education.</p> <p>4.2.2 Participation rate in organized learning (one year before the official primary entry age), by sex</p>	<p>% of adults without a full Level 2 qualification (equivalent to 5 GCSEs)</p> <p>% of female school-aged population in school/% of male school-aged population enrolled in schools</p>	<p>% of young people entering jobs with training</p> <p>% of adults who have participated in education or training in the last four weeks</p>	<p>One City Plan Theme Leads</p>	<p>One City Plan Theme Leads</p>	<p>One City Plan Theme Leads</p>	<p>One City Plan Theme Leads</p>	<p>City Sustainability Indexes</p>	<p>SDGs</p>

4.6 By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy	4.6.1 Proportion of population in a given age group achieving at least a fixed level of functional (a) literacy and (b) numeracy skills, by sex	SDGs/City Sustainability Indexes/Happy City								
4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development	4.7.1 Extent to which (f) global citizenship education and (i) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment	SDGs								
5.1 End all forms of discrimination against all women and girls everywhere	5.5.1 Proportion of seats held by women in (a) national parliaments and (b) local governments	SDGs								
	5.5.2 Proportion of women in managerial positions	SDGs								
SDG 5: Gender Equality										

	<p>5.2 Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation</p>	<p>5.2.1 Proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months, by form of violence and by age</p>	<p>5.2.2 Proportion of women and girls aged 15 years and older subjected to sexual violence by persons other than an intimate partner in the previous 12 months, by age and place of occurrence</p>				SDGs	SDGs			
<p>5.3 Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation</p>	<p>5.3.1 Proportion of women aged 20–24 years who were married or in a union before age 15 and before age 18</p>	<p>5.3.2 Proportion of girls and women aged 15–49 years who have undergone female genital mutilation/cutting, by age</p>				SDGs	SDGs	SDGs/OCF			
<p>5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate</p>	<p>5.4.1 Proportion of time spent on unpaid domestic and care work, by sex, age and location</p>					SDGs					
<p>5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life</p>	<p>5.5.1 Proportion of seats held by women in (a) national parliaments and (b) local governments</p>	<p>5.5.2 Proportion of women in managerial positions</p>				SDGs	SDGs	SDGs			

<p>SDG 6: Clean Water and Sanitation</p>	<p>5.6 Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences</p> <p>5.c Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels</p> <p>6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally</p>	<p>Have new policies or initiatives been implemented in Bristol to improve access to sexual and reproductive health care?</p> <p>Have new policies or initiatives been implemented to improve gender equality and the empowerment of all women and girls in Bristol?</p> <p>6.3.1 Proportion of wastewater safely treated</p>	<p>6.3.2 Proportion of bodies of water with good ambient water quality (Ecological Status of Bristol Water Catchment)</p>				<p>Alternative Indicator</p>	<p>Alternative Indicator</p>	<p>Alternative Indicator</p>		
							<p>SDGs/City Sustainability Indexes</p>	<p>SDGs/One City Plan Theme Leads</p>			

	<p>6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity</p>	<p>6.4.1 Change in water-use efficiency over time</p>	<p>6.4.2 Level of water stress: freshwater withdrawal as a proportion of available freshwater resources</p>								
<p>SDG 7: Affordable and Clean Energy</p>	<p>7.1 By 2030, ensure universal access to affordable, reliable and modern energy services</p>	<p>7.1.2 Proportion of population with primary reliance on clean fuels and technology</p>	<p>Total Electrical energy use per capita (residential + city wide)</p>			<p>SDGs</p>	<p>SDGs</p>	<p>SDGs</p>	<p>SDGs</p>	<p>City Sustainability Indexes</p>	
<p>SDG 8: Decent work and Economic Growth</p>	<p>7.2 By 2030, increase substantially the share of renewable energy in the global energy mix</p> <p>7.3 By 2030, double the global rate of improvement in energy efficiency</p> <p>8.1 Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 per cent gross domestic product growth per annum in the least developed countries</p>	<p>7.2.1 Renewable energy share in the total final energy consumption</p> <p>7.3.1 Energy intensity measured in terms of primary energy and GDP</p>	<p>GVA growth rate</p>			<p>SDGs/City Sustainability Indexes</p>	<p>SDGs</p>	<p>SDGs</p>	<p>SDGs</p>	<p>One City Plan Theme Leads/SDGs</p>	<p>Bristol City Council Data Team/SDGs</p>

	<p>8.2 Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors</p>	<p>8.2.1 Annual growth rate of real GVA per employed person</p>					<p>SDGs</p>	<p>City Sustainability Indexes</p>	<p>City Sustainability Indexes</p>	<p>Bristol City Council Data Team</p>	
	<p>8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services</p>	<p>City's unemployment rate</p>	<p>Number of businesses per 100 000 population</p>	<p>Increased number of business startups in deprived areas</p>							

<p>8.4 Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-Year Framework of Programmes on Sustainable Consumption and Production, with developed countries taking the lead</p>	<p>8.4.1 Material footprint, material footprint per capita, and material footprint per GDP</p>				<p>SDGs</p>	<p>SDGs</p>	<p>SDGs</p>	<p>SDGs</p>	<p>SDGs</p>	<p>SDGs</p>
<p>8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value</p>	<p>8.5.1 Average hourly earnings of female and male employees, by occupation, age and persons with disabilities</p>	<p>8.5.2 Unemployment rate, by sex, age and persons with disabilities</p>	<p>Difference between high performing and poorly performing areas in the number of unemployed people</p>	<p>% of young people of academic age 16 to 17 years who are NEET & destination unknown</p>	<p>% of young people who have experience of work/apprenticeship by school age 16.</p>	<p>SDGs</p>	<p>SDGs</p>	<p>SDGs</p>	<p>SDGs</p>	<p>SDGs</p>
<p>8.6 By 2020, substantially reduce the proportion of youth not in employment, education or training</p>	<p>8.6.1 Proportion of youth (aged 15–24 years) not in education, employment or training</p>	<p>Youth unemployment rate</p>				<p>SDGs</p>	<p>SDGs</p>	<p>SDGs</p>	<p>SDGs</p>	<p>SDGs</p>

<p>SDG 9: Industry, Innovation and Infrastructure</p>	<p>8.7 Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and the elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms</p> <p>8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment</p> <p>8.9 By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products</p> <p>9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all</p>	<p>8.7.1 Proportion and number of children aged 5–17 years engaged in child labour, by sex and age</p> <p>8.8.1 Frequency rates of fatal and non-fatal occupational injuries, by sex and migrant status</p> <p>8.9.2 Proportion of jobs in sustainable tourism industries out of total tourism jobs</p>	<p>Number of Bristol based companies reporting on modern slavery</p> <p>8.9.1 Tourism direct GDP as a proportion of total GDP and in growth rate</p> <p>Km of high capacity public transport system per 100 000 population</p> <p>Km of light passenger transport public transport systems per 100 000 population</p>				<p>SDGs</p> <p>SDGs</p> <p>SDGs</p> <p>SDGs</p> <p>SDGs</p>	<p>Tiscreport</p> <p>City Sustainability Indexes</p> <p>City Sustainability Indexes</p>		
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<p>9.2 Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries</p>	<p>9.2.1 Manufacturing value added as a proportion of GDP and per capita</p>	<p>9.2.2 Manufacturing employment as a proportion of total employment</p>	<p>SDGs</p>	<p>SDGs</p>	<p>City Sustainability Indexes</p>	<p>Bristol City Council Data Team</p>
<p>9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities</p>	<p>9.4.1 CO2 emission per unit of value added</p>		<p>SDGs</p>			
<p>9.c Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020</p>	<p>Number of internet connections per 100 000 population</p>	<p>% living in the most deprived areas who have access to the internet at home via home broadband, mobile phone or mobile broadband</p>				

SDG 10: Reduced Inequalities	10.1 By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average	Gini Coefficient	80/20 percentile ratio of weekly earnings (a bigger ratio means a bigger difference between percentiles and thus more inequality)	10.2.1 Proportion of people living below 50 per cent of median income, by disabilities	10.2.1 Proportion of people living below 50 per cent of median income, by ethnicity	City Sustainability Indexes/Bristol City Council Data team/One City Plan Theme Leads	Happy City				
	10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status	10.2.1 Proportion of people living below 50 per cent of median income, by sex	10.2.1 Proportion of people living below 50 per cent of median income, by age	Gender pay gap		SDGs	SDGs				
	10.3 Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard	10.3.1 Proportion of population reporting having personally felt discriminated against or harassed in the previous 12 months on the basis of a ground of discrimination prohibited under international human rights law		Race pay gap			SDGs	SDGs		Bristol City Council Business strategy	
	10.4 Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality	% of full-time employees with low relative income (less than 70% of UK median wage)					SDGs	SDGs		Bristol City Council Business strategy	

SDG 11: Sustainable Cities and Communities	<p>11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums</p>	<p>11.1.1 Proportion of urban population living in slums, informal settlements or inadequate housing</p>	<p>Social and private housing in poor condition (proportion)</p>	<p>Number (per 100 households) accepted as being homeless and in priority need under the homelessness provisions of the 1996 Housing Act</p>	<p>Overall satisfaction with your current accommodation - by tenure</p>	<p>SDGs</p>	<p>Happy City</p>	<p>Happy City</p>	<p>Bristol City Council Data Team</p>	
	<p>11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons</p>	<p>11.2.1 Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities</p>	<p>Modal split, focus on sustainable and active transport</p>	<p>Km of light passenger transport public transport systems per 100 000 population</p>	<p>Annual number of public transport trips per capita</p>	<p>SDGs</p>	<p>One City Plan Theme Leads</p>	<p>City Sustainability Indexes</p>	<p>City Sustainability Indexes</p>	<p>City Sustainability Indexes</p>
	<p>11.3 By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries</p>	<p>11.3.1 Ratio of land consumption rate to population growth rate</p>	<p>Voter participation in last municipal election (as % of eligible voters)</p>	<p>Women as a % of total elected to city-level office</p>		<p>SDGs</p>	<p>City Sustainability Indexes</p>	<p>City Sustainability Indexes</p>		

	11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management	11.6.1 Proportion of urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated, by cities	11.6.2 Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (population weighted)	Nitrogen Dioxide (NO2) concentration	Sulphur Dioxide (SO2) concentration	Ozone (O3) concentration	SDGs	SDGs	City Sustainability Indexes	City Sustainability Indexes	City Sustainability Indexes
	11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities	% of residents visiting a park or open space at least once a week	Green area (hectares) per 100 000 population				Bristol City Council Data Team	SDGs	City Sustainability Indexes		
SDG 12: Responsible Production and Consumption	12.2 By 2030, achieve the sustainable management and efficient use of natural resources	12.2.1 Material footprint, material footprint per capita, and material footprint per GDP	12.2.2 Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP					SDGs			
	12.3 By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses	Food waste per capita					One City Plan Theme Leads				

<p>SDG 13: Climate Action</p>	<p>12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature</p>	<p>4.7.1 Extent to which (i) global citizenship education and (ii) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment</p>							
	<p>13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries</p>	<p>13.1.1 Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population</p>				<p>SDGs</p>			
	<p>13.2 Integrate climate change measures into (national) policies, strategies and planning</p>	<p>Have new climate change policies or initiatives been introduced by city stakeholders?</p>				<p>SDGs</p>			<p>Alternative Indicator</p>

		13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning	4.7.1 Extent to which (i) global citizenship education and (ii) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment																
SDG 14: Life Under Water		14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution	14.1.1 Index of coastal eutrophication and floating plastic debris density	Ecological status of Bristol's water catchment					One City Plan Theme Leads		Bristol City Council Data Team		City Sustainability Indexes		Happy City				
SDG 15: Life on Land		15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements	Ecological status of Bristol's water catchment	Tree canopy cover in Bristol	Green area (hectares) per 100 000 population				One City Plan Theme Leads										Alternative Indicator
		15.9 By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts	Have new ecosystem and biodiversity values been integrated into planning processes or development initiatives in Bristol?																

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