Senedd Cymru | Welsh Parliament

Y Pwyllgor Cydraddoldeb a Chyfiawnder Cymdeithasol | Equality and Social Justice Committee

Ymateb gan: Unigolyn| Evidence from: Individual

Submission of Evidence

by Annie Tubadji to the Equality and Social Justice Committee

This evidence is submitted by me, Annie Tubadji, a current resident of Wales and Senior Lecturer at Swansea University, to the Equality and Social Justice Committee in response to their latest inquiry. The inquiry addresses the following terms of reference:

- **how far** the intended objective of the Act is being achieved; any action which should be taken to improve the effectiveness of the Act and its implementation, including any specific drafting issues; whether the review and reporting requirements under the Act are being met;
- the **effectiveness** of guidance made under the Act;
- how far the Act has been **legally binding and enforceable**; and how far the Act has represented, and will continue to represent, **value for money**.

The evidence I am submitting here is based on research I conducted at Swansea University as part of the ***Ma**naging **the R**oadmap (**MATHER**)* Project, implemented through my ESRC funded role as an Investment in Places Policy Fellow of The Productivity Institute, Manchester. The MATHER Project explores how to provide consistent, quantitative evidence across Public Services Boards (PSBs) to complement the existing qualitative assessments of their performance since their inception (i.e. to complement their Annual Reports with quantitative evidence).

The rationale of the MATHER Project is that to evaluate what PSBs have achieved, we must map the WFGA's objectives as desired outcomes for the PSB projects and trace the PSBs' contributions toward these outcomes. This requires gathering of quantitative trace of what resources entered the PSB and for what type of projects (outputs) they were used. Then we can delve into establishing how effective and efficient this use of resources has been according to standard estimation of these aspects of the job done by the PSB.

Below it is clarified how each of the three points in the terms of reference are informed by my evidence contribution. Each terms of reference point is covered as a separate section marked with a roman number I, II and III respectively.

I.

To address the first term of reference—**how far the WFGA's objectives have been met and reported about**—the MATHER Project establishes a framework for measuring PSB performance and success. This framework serves quantifying the inputs used by PSBs **to assess the value-for-money outcomes** they deliver.

The MATHER Project provides this framework as a blueprint—referred to as the **MATHER TOOL**—to support PSBs and the Senedd in evaluating PSB activity using three key indicators:

1. **Intensity of Use Indicator**: Measures how intensively PSBs have used eight types of capital—financial, physical, human, intangible, ecological, cultural, social, and institutional—to pursue WFGA goals.
2. **Effectiveness Indicator**: Assesses how effective each type of capital has been in contributing to the WFGA's seven well-being goals (which were further grouped in 4 types for simplifying the data gathering task for the PSBs).
3. **Efficiency Indicator**: Identifies which forms of capital are most crucial for achieving value-for-money outcomes.

Methodology

To develop these indicators, we created the MATHER TOOL framework and collected data according to it from the PSB Annual Reports since their establishment. We extracted information about the projects the PSB has implemented since its establishment, and the associated resources forms of capital) it had in its hands to operate with; then we conducted co-creative workshops with PSBs to validate and refine the data. This ensured all projects were accounted for and the used resources were accurately recorded in the data.

We applied the MATHER TOOL to this data to generate the three MATHER TOOL quantitative indicators. A second workshop was then held to interpret these indicators in the context of the PSB operations. This process was complemented by qualitative co-creation to extract a SWOT analysis—identifying strengths & weaknesses of the past operation by the PSB since 2018 and identified future opportunities and threats in PSB performance now on.

Key Findings and Recommendations

- **Funding Dependency**: PSBs have only been able to function effectively when supported by Shared Prosperity Fund (SPF) resources. Beyond this, they have relied heavily on goodwill from internal networks and the third sector. This goodwill is now exhausted, utilized at its maximum, and future productivity growth depends on stable, long-term funding.
- **Staff Turnover and Employment Stability**: High staff turnover and unstable contracts undermine PSB continuity. Permanent staffing is essential to ensure sustainable operations.
- **Resource Tracking and Management**: There is currently no systematic way to track PSB resources and activities over time. Annual Reports are qualitative and lack detailed matched resource to output data that can establish clearly the value for money. Institutional memory is fading due to staff changes, making retrospective analysis is costly and unreliable. A robust management system is needed to track resources, projects, and outcomes in alignment with the WFGA goals. The MATHER TOOL offers a blueprint for such a management system, improving transparency, continuity, and reporting.

Pilot Case: Neath Port Talbot PSB

Our example in this evidence focuses on Neath Port Talbot PSB – one of our pilot cases. The MATHER Team—comprising a quantitative lead, a qualitative researcher, and a junior researcher—collected and transformed qualitative data from their Annual Reports into quantitative indicators. This enabled a comprehensive assessment of the PSB Neath Port Talbot performance since 2018.

We attach the full MATHER TOOL Report prepared for Neath Port Talbot PSB based on using the data they collected by applying the MATHER TOOL blueprint for its analysis. We submit this report with their permission of the PSB to do so. The Neath Port Talbot PSB report presented as an appendix to this submission is intended to illustrate the potential of the MATHER TOOL to generate identical consistent, comparable reports for all PSBs in Wales.

PLEASE NOTE:

Continuation of the MATHER Project and Reflections on the Effectiveness of Guidance under the WFGA

Following the launch of the MATHER Project, we successfully secured an ESRC continuation grant for the WISERD project. As part of this WISERD extension, we incorporated a dedicated work package to expand the use of the MATHER TOOL across other PSBs—at no additional cost to the Senedd. This initiative reflects our strong sense of civic duty and our commitment to providing the specialist support needed to establish effective management systems for PSBs that best serve the community to achieve its value for money targets and fulfil its WFGA goals in most efficient ways.

We are fully aware of the current financial constraints across the board and have therefore taken these proactive steps to offer this support independently. We are pleased to share this development and hope our contribution will be welcomed and utilised.

II.

Response to Term of Reference 2: Effectiveness of Guidance under the Act

To address the second term of reference—**the effectiveness of guidance issued under the Act**—we offer the following reflection:

While the guidance has been detailed and explicit, in practice, **more is sometimes less**. The WFGA outlines 50 national indicators, grouped under its 7 well-being goals. However, the sheer volume and complexity of these indicators have made it difficult for PSBs to engage with them meaningfully. The extensive list can be overwhelming, especially given the limited financial and human resources available for data collection—an activity that is both time-consuming and requires quantitative expertise that many PSBs currently lack.

We propose three practical actions to improve the situation:

1. **Raise awareness** that the 50 indicators are structured under the 7 overarching goals, making them more approachable and conceptually manageable.
2. **Encourage PSBs** to report their activities in a simple but consistent manner aligned with the 7 goals, even if full 50 indicators coverage is not yet feasible.
3. **Build data capacity gradually**, supporting PSBs to improve data collection and move step-by-step toward comprehensive measurement of all 50 indicators.

PLEASE NOTE:
Clarifying a Key Misunderstanding

A major source of confusion for PSBs lies in the distinction between **locality-level performance** and **PSB-level contribution**. The 50 indicators measure the overall well-being of the locality, reflecting the combined efforts of local authorities, businesses, third-sector organisations, and communities. This is akin to measuring a region's GDP—it captures the big picture, not the specific contribution of any single actor.

The PSB, however, is just one player in this ecosystem. It can act as a catalyst or amplifier of collective efforts, but it cannot be held solely accountable for all outcomes. This is analogical to the following example, if an NGO works to reduce hunger, its success should be measured not by the total number of people fed in the locality, but by how many people the NGO directly helped or contributed to helping.

Using the 50 indicators to evaluate PSB performance risks two major pitfalls:

- **Over-crediting** PSBs when the locality performs well, without clear evidence of their specific contribution.
- **Unfairly penalising** PSBs when the locality performs poorly, even if the PSB has been highly effective within its remit.

This distinction is clear to those with quantitative training, but for many PSB staff, it will only become apparent when the consequences of mismeasurement are felt. The latter is likely to happen too late to be correctable, since a measurement system once put in place, is difficult to change due to all the cost that putting a measurement system in place entails at the first place.

Final Recommendation

It is essential to distinguish between:

- The **50 WFGA indicators**, which measure the overall performance of the locality in relation to the WFGA goals.
- The **need for PSB-specific tracking**, which should focus on the resources allocated to PSBs and the projects they support in relation to the WFGA goals.

Only by establishing a clear, evidence-based system for tracking PSB inputs and activities can we accurately assess their contribution to the WFGA. The MATHER TOOL offers a practical blueprint for this purpose that leads to evidence based value for money conclusions.

III.

To address the third term of reference—**how far the Act has been legally binding and enforceable, and how far it has represented and will continue to represent value for money**—our findings suggest the following:

There is a **genuine commitment and concern among PSBs** to support the WFGA to the best of their ability. Based on our research, the challenges PSBs face do not stem from a lack of commitment or a need for stronger legal enforcement. On the contrary, PSBs have sincerely endorsed the Act and demonstrate a high level of dedication to fulfilling its goals. They also collaborate effectively across PSBs to support each other in achieving shared objectives.

However, despite this strong commitment, PSBs are now encountering **serious operational challenges**. These include:

- Insufficient resources to retain staff.
- Limited capacity to employ the necessary skills for specific projects.
- A lack of robust management systems to track the growing volume of operational data over time.

In short, **value for money depends on the initial investment**. To assess this properly, we need a clear system for managing and mapping input resources and outputs in relation to the 7 WFGA goals. This requires:

- Systematic data collection on PSB inputs.
- Detailed tracking of PSB outputs, specifically in terms of projects aligned with the WFGA goals.

Implementing such a management and reporting system would enable PSBs to monitor their activities more effectively and demonstrate their contributions. It would also help the Senedd determine:

- What resources PSBs require.
- What strategic objectives to set.

- How to monitor whether PSBs are using resources effectively (covering all 7 goals) and efficiently (delivering the best value for money).

PLEASE NOTE:
A Case in Point: Cultural Capital

For example, our pilot research – including work with Neath Port Talbot PSB and other PSBs – revealed a strong commitment to issues related to **culture and cultural capital**, which is one of the 7 WFGA goals. PSBs are acutely aware of the importance of cultural interventions, particularly in:

- Supporting self-appreciation and identity.
- Maintaining cohesion across diverse communities.
- Addressing the socio-economic pressures and wellbeing aftermath of deprivation, unemployment, and global uncertainty.

These humanistic interventions are essential for fostering mutual respect of peoples' dignity and collective resilience. However, they **cannot be sustained by goodwill alone**. In economic terms, cultural capital is an **endogenous resource**—to activate it, PSBs need access to:

- Financial resources.
- Physical infrastructure.
- Intangible inputs such as creativity and ideas from all segments of society.

Therefore, PSBs should be empowered to **distribute financial incentives** that encourage equitable participation in offering intangible capital by all members of the community and ensuring a joint community-building effort by all citizens. This would allow the PSBs to mobilize local cultural capital effectively and support local flourishing through targeted, endogenous interventions. For further details, see Tubadji (2025).

I hope the above evidence is clearly presented. I remain available to provide further detail if needed.

I am submitting this evidence as an individual to ensure it is received within the deadline. Our final PSB workshop with Neath Port Talbot PSB took place on Monday of this week. Organising an institutional submission would require additional time. However, I am happy to submit this as the lead researcher of a project implemented with my team, in cooperation with the newly established **Local Challenges Research Office (LCRO)** at Swansea University. This office is dedicated to supporting the university's civic mission—helping the community and the Welsh Government access the knowledge and skills available at the university to promote the development and prosperity of Wales and its people.

Reference:

Tubadji, A. (2025) *Culture Based Development – Modelling Cultural Bias in Economic Choice*. Cheltenham: Edward Elgar.

TheProductivity Institute:

Investment in Places Policy Fellowship:
MAnaging THE Roadmap (MATHER) Project

A MATHER TOOL

Project REPORT

for

PSB Neath Port Talbot

Version 19/06/2025

Introduction

The **MAnaging THE Roadmap (MATHER)** Project is led by Swansea University's Local Challenges Research Office (LCRO) and is funded by ESRC through the Investment in Places Policy Fellowship of The Productivity Institute, Manchester. The MATHER Project aims to evaluate and enhance the strategic work of the Swansea and Neath Port Talbot Public Services Boards (PSBs) by mapping their activities since 2015 against the six Levelling Up capitals and 50 national wellbeing indicators under the Welsh Well-being of Future Generations Act (WFGA). Through a combination of quantitative and qualitative analysis, the project will produce an academic paper and a strategic SWOT analysis to inform future investment strategies and improve PSB effectiveness. This work is embedded within broader place-based research efforts through the Wales Institute of Social and Economic Research and Data (WISERD) and aligns with Welsh Government economic strategy, fostering dialogue and proposing new methods for evaluating long-term wellbeing outcomes.

The MATHER Project employs a comprehensive methodology (based on mixed methods, i.e. quantitative and qualitative ones) to evaluate the work of Swansea and Neath Port Talbot PSBs. It involves secondary data analysis of annual wellbeing reports since 2015, obtaining project lists with costs, conducting focus groups to map projects to the six capitals and 50 wellbeing indicators, and performing econometric analysis using multinomial logit models. Additionally, a SWOT analysis identifies strengths, weaknesses, opportunities and threats and untapped capitals in relation to the desired outcomes under the WFGA. The project aims to deliver cross-checking the quantitative results and backing them with further detailed understanding by conducting a SWOT analysis of the use of the capitals in co-creation effort with the PSB partners. Two workshops, academic papers, and feedback events synthesize progress and provide useful insights for future investment strategies. This report is the central outcome of these efforts.

In a nutshell, the core of the project entails mapping the resources utilized by the PSBs over their creation (INPUTS) and the projects they have delivered classified in form of Welsh Future Generations Act type of 50 possible outputs (grouped in 4 larger categories: a. Productivity, b. Wellbeing, c. Identity & Participation and d. Empowerment).

Well-being in WFGA	Levelling Up Capitals
a. Productivity b. Wellbeing c. Identity & Participation d. Empowerment	Social Intangible Physical Financial Human Institutional

The MATHER Project generates the MATHER TOOL – a protocol for quantitative reporting for the intensity of use, effectiveness and efficiency with which the PSB taps on the various forms of capitals in order to achieve the WFGA-prescribed four big types of outcomes. This enables quantitative reporting for the work of the PSB with direct evidence based on which to start and motivate a strategic planning effort that appraises the work done in the past and plans for the future (as a SWOT analysis does). The MATHER Tool quantitative reporting entails specifically the gathering of data and its utilization to report on the PSB activity along three **performance indicators**:

Indicator 1: ***Intensity of use*** *of each form of capital*

Indicator 2: ***Effectiveness Indicator*** *– shows the impact from using 1 unit of capital for generating the output*

Indicator 3: ***Efficiency Indicator*** *– shows the PSB dependence on each capital for producing one unit of output*

From the above indicators, Indictors 2 & 3 can be classified in terms of **effectiveness** and **efficiency**, along the following reasoning:

Indicator 2: Impact from the use of a capital for the generation of each type of output

- **Classification**: **Effectiveness indicator**
- **Why**: This indicator measures the **outcome or impact** achieved from using a specific capital. It reflects how well 1 unit of capital contributes to achieving desired results (e.g., improved wellbeing, productivity, etc.). Effectiveness is about **doing the right things**—achieving the intended goals or outcomes.

Indicator 3: Capital/Output Ratio for the use of each capital

- **Classification**: **Efficiency indicator**
- **Why**: This indicator assesses the **input-output relationship**, i.e., how much capital is used to produce a unit of output. It reflects how economically resources are used—**doing things right**. A higher score implies lower efficiency, as less capital is needed per unit of output. Hence to improve PSB efficiency one has to pay highest attention to the highest scoring outcomes and how intensively they need to be used indeed.

The structure of this report is as follows. We will first summarize how the MATHER Project in co-creation exercise with the PSB Neath Port Talbot generated the data on INPUTS used and OUTPUTS generated by the PSB since its creation in 2018/2019 till today, based on the secondary information from the annual reports by the PSBs and the qualitative analysis, collaboration and cleaning of the data in a joint effort by the MATHER Project Team and the PSB Neath Port Talbot Team. Then we will implement the quantitative analysis using the MATHER Tool comprised of calculating the three types of indicators (Intensity of use, Effectiveness and Efficiency). Finally, we will complete the findings from the quantitative evaluation with a SWOT analysis by mapping the strategic findings from the SWOT to the obtained quantitative evidence (the three MATHER TOOL indicators) regarding the forms of capital and their use to obtain WFGA-desirable outcomes. The Structure of the rest of the report is as follows:

I. INPUTS
II. OUTPUTS
III. MATHER TOOL REPORT ON THE USE OF INPUTS FOR WFGA OUTPUTS
IV. A SWOT Analysis Application of the MATHER TOOL Indicators
V. STRATEGIC RECOMMENDATIONS

I. INPUTS

A collaborative workshop was held with the Public Services Board (PSB) of Neath Port Talbot, facilitated by the MATHER Project team. The session established a shared understanding of six foundational forms of capital, which were then expanded to align with the eight forms of capital relevant within the framework of the Welsh Future Generations Act (WFGA) (see Tubadji, Jain & Avery 2025 for more details n this). These capitals serve as essential inputs in the PSB's strategic planning and delivery processes, ensuring a holistic and sustainable approach to future development.

The eight forms of capital, along with their definitions, are presented below:

Form of Capital	Definition
Financial Capital	The financial resources available for investment, including savings, investments, and access to credit. It is crucial for funding businesses, infrastructure projects, and other economic activities.
Physical Capital	Infrastructure such as transport, energy, and digital networks. It encompasses the tangible assets that support economic activities and improve quality of life.
Human Capital	The skills, knowledge, and health of people. Investing in education, training, and healthcare enhances human capital, leading to a more productive and capable workforce.
Ecological Capital	The natural resources and ecosystems that provide essential services and benefits to humans, such as clean air, water, fertile soil, and biodiversity.
Intangible Capital	Non-physical assets such as intellectual property, innovation, and brand reputation. It represents the value derived from creativity, research, and development.
Cultural Capital	The amalgam of local attitudes, traditions, and beliefs represented in the arts, modern cultural participation, and preserved rituals.
Social Capital	The networks, relationships, and trust within a community. Strong social capital fosters cooperation, social cohesion, and collective action, which are essential for community development.
Institutional Capital	The quality and effectiveness of institutions, including governance, legal systems, and public services. Effective institutions create a stable environment for economic growth and social well-being.

This shared framework will support the PSB in embedding long-term thinking, collaboration, and sustainability into their decision-making processes by finding the quantitative evidence how much effort

it has put in and how much it can best organize itself in the future, in line with the goals of the Welsh Future Generations Act.

The projects implemented by the PSB Neath Port Talbot were extracted by the TPI MATHER Project Team and provided to the PSB Neath Port Talbot to clean. The PSB Neth Port Talbot identified four projects to be removed from the list. They also verified that each form of capital which has a 1 in the column opposite a project has been utilized for the implementation of this project. The form of capital that has a 0 in the column opposite a project has not been utilized for the implementation of this project.

Summary of OUTPUTS Section

The projects implemented by the PSB Neath Port Talbot were extracted by the TPI MATHER Project Team and provided to the PSB Neath Port Talbot to clean. The PSB Neath Port Talbot cleaned them and this informed the compilation of a database in which every project is a row and every form of capital is a column. When a capital is used in the project it is denoted with 1 and 0 otherwise in the corresponding column and row related to this project, as seen in the image below.

1	project	financial	physical	human	ecologica	intangible	cultural	social	institutional
2	Early years	1	1	1	0	0	0	1	1
3	Safe Resili	1	1	1	0	1	1	1	1
4	Ageing We	0	0	1	0	1	0	1	1
5	~Making e	0	0	1	0	1	0	1	1
6	Well-being	0	0	1	0	1	0	1	1
7	Green Infr	1	1	1	1	1	0	1	1
8	Digital Incl	1	1	1	0	1	0	1	1
9	Sandfields	1	1	1	0	0	0	1	1
10	Building sa	1	1	1	0	1	0	1	1
11	Ageing We	0	0	1	0	0	0	1	1
12	Green Infr	1	1	1	1	1	0	1	1
13	Digital Incl	1	1	1	0	0	0	1	1
14	Substance	1	0	1	0	0	0	1	1
15	Suicide Pre	0	0	1	0	0	0	1	1

OUTPUTS

Next, the MATHER Team has classified all projects according to their fit to the 50 indicators for fulfilment of the Welsh Futures Generations Act (WFGA). The protocol for this classification is explained below:

Each WFGA **Indicator** has been categorized as one of four types: (i) a - PRODUCTIVITY; (ii) b - WELLBEING & ACCESS; (iii) c - IDENTITY & PARTICIPATION or (iv) d - EMPOWERMENT. Put differently, type a Productivity summarizes WFGA indicators that refer to unemployment, poverty, innovation and production in Wales. Type b. Wellbeing encompasses the health and wellbeing indicators, children rights and education. Type c. Identity & Participation encompasses the WFGA indicators that relate to equality, engagement of the community. Type d. Empowerment groups WFGA indicators concerned with leadership and agency by individuals in the community leading to social innovation and change, i.e. empowering community leaders.

This helps us to simplify, by grouping the 50 Indicators in a smaller number of categories of outputs. Thus, we can organize the detailed 50 Indicators list and their definition and technical measurement provided by the WFGA. Here is a succinct example of the application of the logic for classification:

EXAMPLE: Classification of Row 4 under "a - PRODUCTIVITY"

Table Snippet:

Indicator	Measurement	Technical Measurement
a - PRODUCTIVITY	Levels of nitrogen dioxide (NO_2) pollution in the air	Annual average levels of NO_2 pollution exposure measured in $\mu g/m^3$ (micrograms of gaseous pollutant per cubic meter of ambient air). Figures are calculated by modelling annual average concentrations, calibrated against national monitoring data, of nitrogen dioxide. A value is assigned to each residential dwelling (based on its square kilometre), and these are averaged across each census output area (geographic unit comprising around 150 properties). Average NO_2 concentrations for higher geographies are calculated by taking a population weighted average over the constituent census output areas.

Explanation:

Thematic Relevance: Although air pollution is often associated with environmental or health concerns, in this context, it is classified under productivity because:
- Productivity affects air quality directly through the NO2 emissions during production
-Reduced productivity will mean less movement of cars as well so indirectly it will also affect the environment.
- Environmental quality is a key enabler of sustainable economic activity, especially in urban and industrial areas because it attracts or repels inflow of workers, which are a vital input in productivity.

Policy Framing: The classification reflects a systems-thinking approach, where environmental indicators are not siloed but linked to broader economic and social outcomes.

Strategic Use: By placing this under 'PRODUCTIVITY', the indicator emphasizes the economic cost of pollution and the benefits of clean air for a productive society, focusing on what can be done to achieve reduction in the pollution and improvement in the air quality.

See Appendix 1 for the implementation of this logic for classification of all 50 WFGA indicators.

Summary of OUTPUTS Section

In a nutshell, the **"Indicator"** column provided by the WFGA List of Indicators is grouped in a **concise thematic label** (i.e. , *a – PRODUCTIVITY, b – WELLBEING, c– IDENTITY & PARTICIPATION, d – EMPOWERMENT*) that groups and contextualizes the detailed data in the rest of the rows in the WFGA List of Indicators. It serves three main purposes:

1. **Categorization**: It classifies each data point into a broader policy or outcome area (e.g., economic, social wellbeing, equality and leadership relate doutcomes), helping users quickly understand better the focus of each of the 50 WFGA indicators.

2. **Navigation**: It allows for easier filtering, comparison, and analysis across datasets of various projects (related to the output WFGA indicators) by grouping similar projects under a common theme.

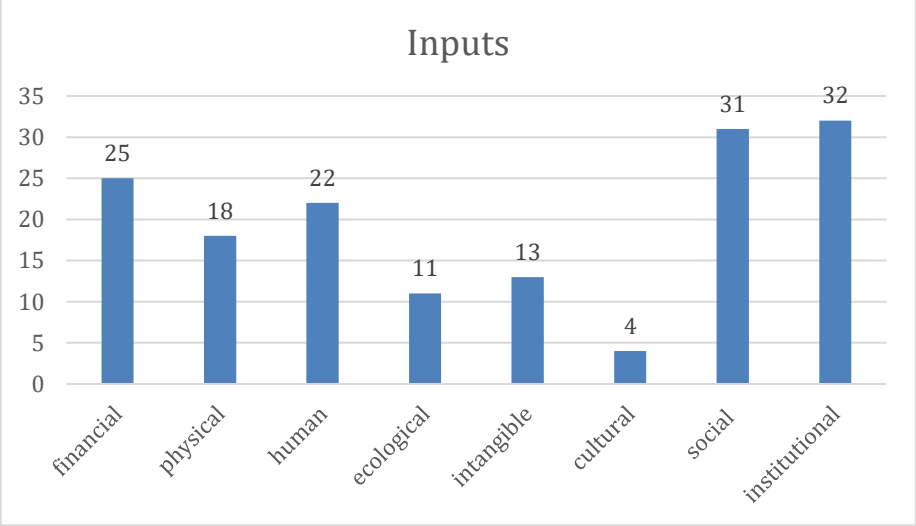
3. **Interpretive Anchor**: It gives meaning to the technical and contextual details in the row, helping stakeholders interpret the relevance of the data in relation to strategic goals (e.g., improving wellbeing or reducing pollution).

This resulted in completing the dataset of inputs with four columns of outputs, aligned with the WFGA. The resulting full final dataset is presented on the image below:

project	financial	physical	human	ecologica	intangible	cultural	social	institutional	possibleme	aproductiv	bwellbeing	cidentitypa	dempower
Early years	1	1	1	0	0	0	1	1	Early years	1	1	1	1
Safe Resili	1	1	1	0	1	1	1	1	Safe Resili	1	1	1	1
Ageing We	0	0	1	0	1	0	1	1	Ageing We	1	1	1	0
~Making e	0	0	1	0	1	0	1	1	~Making e	1	1	1	0
Well-being	0	0	1	0	1	0	1	1	Well-being	1	1	1	0
Green Infr	1	1	1	1	1	0	1	1	Green Infr	1	1	1	0
Digital Incl	1	1	1	0	1	0	1	1	Digital Incl	1	0	1	1
Sandfields	1	1	1	0	0	0	1	1	Sandfields	0	1	1	
Building sa	1	1	1	0	1	0	1	1	Building sa	1	1	1	1
Ageing We	0	0	1	0	0	0	1	1	Ageing We	0	1	1	0
Green Infr	1	1	1	1	1	0	1	1	Green Infr	1	1	1	1
Digital Incl	1	1	1	0	0	0	1	1	Digital Incl	1	0	1	0
Substance	1	0	1	0	0	0	1	1	Substance	0	1	1	1
Suicide Pre	0	0	1	0	0	0	1	1	Suicide Pre	0	1	1	1
Early years	1	0	1	0	1	0	1	0	Early years	0	1	1	0
Sandfields	1	1	1	0	0	0	1	1	Sandfields	1	1	1	1
Safe and W	1	1	1	0	1	0	1	1	Safe and W	1	1	1	1

II. MATHER TOOL REPORT ON THE USE OF INPUTS FOR WFGA OUTPUT

Indicator 1: Intensity of use of each form of capital

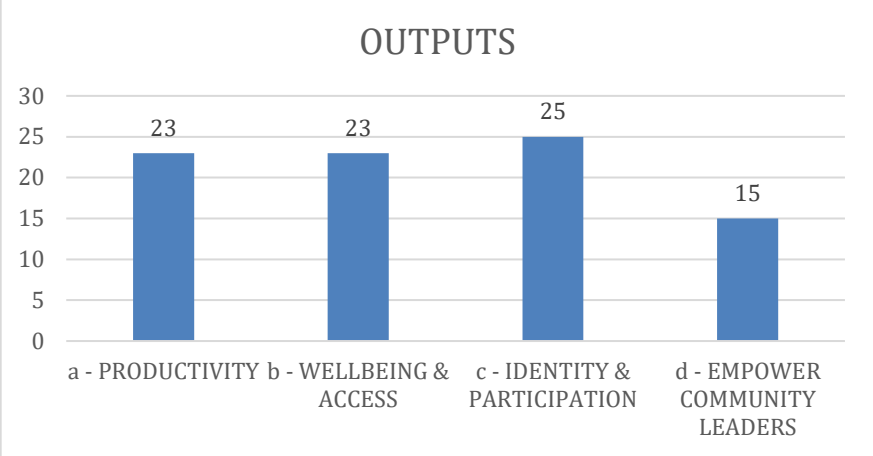


According to the co-created definitions for six forms of capitals, these capitals have been used with a varying intensity in the PSB Neath Port Talbot Projects. Namely, the PSB has been focused on using

financial, human and then physical capital most intensely, with heavy reliance on social capital and institutional capital across all types of projects in a non-discriminatory basis.

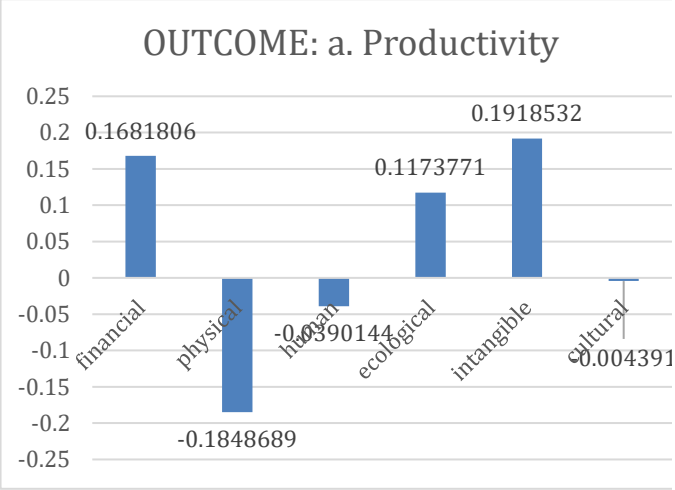
Put differently, the social and institutional capitals have been stretched to the limits. What has increased the output is mostly the availability of further finance, human capital (employment facilitation) and physical capital for the work of the PSB to be possible.

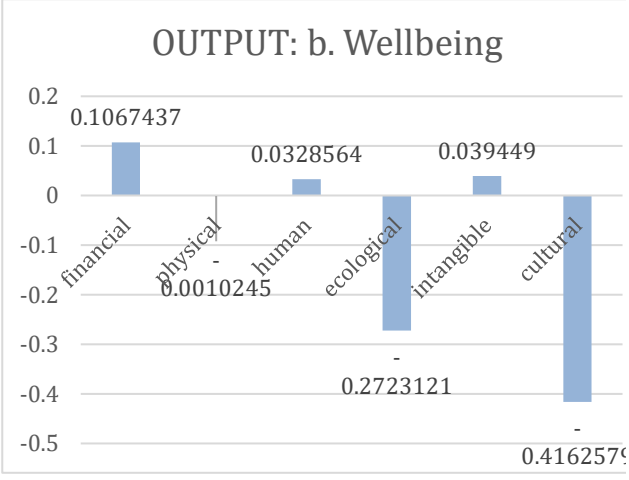
With these inputs projects in four types of outputs were generated. The figure below shows the total number of projects contributing to the WFGA type of output. Projects classed as a. and b. category are not the same, although their total number is the same.

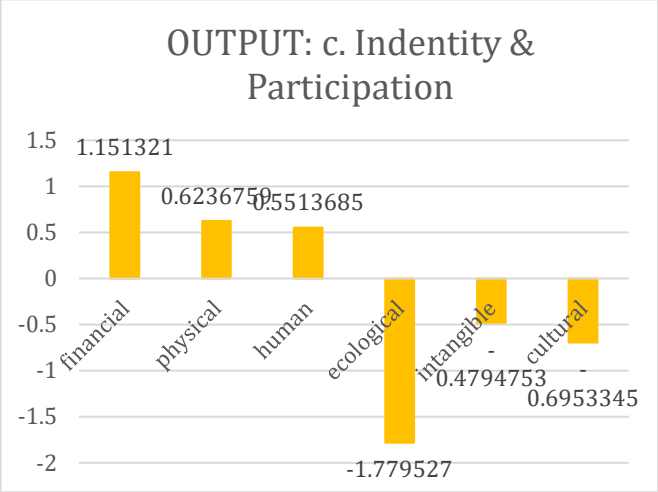


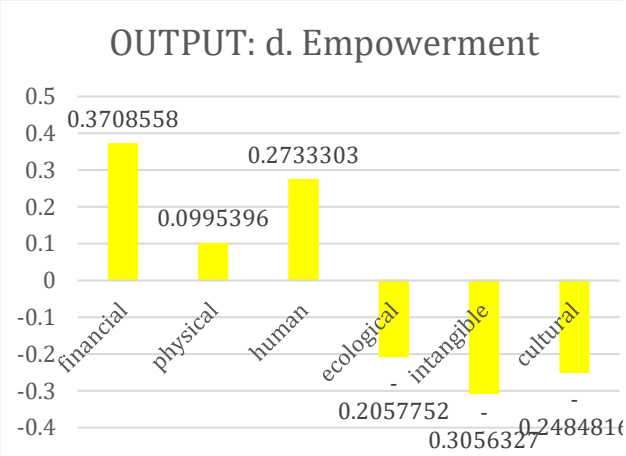
The next two indicators, Indicato2 and Indicator 3 help us link the use of capital to the outputs produced. This is done vis a vis how much output is produced per unit of input (Indicator 2) and how much capita is needed per unit of output (Indicator 3).

Indicator 2: Impact from the use of 1 unite of capital (***EFFECTIVENESS***)









The bars present the size of the marginal effect from a probit model estimating the effect of one unit of each form of capital on the output of interest to be in the particular category of output (see Tubadji, Jain & Avery 2025). The marginal effect at the means (MEM) ris used which refers to the change in the predicted probability of the outcome occurring, given a one-unit change in the use of a form of capital, holding all other variables at their mean values. The meaning of the above visuals is as follows:

Output a. Productivity has been generated mostly thanks to using intangible capital, and next financial capital, with ecological capital third in contribution to projects contributing towards productivity as in the WFGA.

Output b. Wellbeing has been generated mostly thanks to using financial capital, and next intangible capital, with human capital third in contribution to projects contributing towards wellbeing as in the WFGA.

Output c. Identity & Participation has been generated heavily thanks to using financial and next physical capital, with human capital third in contribution to projects related to identity & participation to be fulfilled.

Output d. Empowerment has been generated mostly thanks to using first financial and second human capital, and third relying on physical capital for generating projects important for empowerment as defined in the WFGA.

Indicator 3: Need for capital per 1 unit of output (***EFFICIENCY***)

Indicator 3 uses the ratio between Indicator 1 and Indicator 2. This ratio entails dividing the capital intensity of use versus capital intensity of impact, as shown in Table 1 below. It is best for use within a type of output but also between types of outputs especially when the number of projects in our case is one and the same. Below we will explain why.

	financial	physical	human	ecological	intangible	cultural	social	institutional
intensity of use of capital	25	18	22	11	13	4	31	32
impact of capital on OUTPUT a PRODUCTIVITY	0.17	-0.18	-0.04	0.12	0.19	0.00		
	148.65	-97.37	-563.89	93.72	67.76	-910.95		

	financial	physical	human	ecological	intangible	cultural	social	institutional
intensity of use of capital	25	18	22	11	13	4	31	32
impact of capital on OUTPUT b WELLBEING	0.11	0.00	0.03	-0.27	0.04	-0.42		
	234.21	-17569.55	669.58	-40.39	329.54	-9.61		

	financial	physical	human	ecological	intangible	cultural	social	institutional
intensity of use of capital	25	18	22	11	13	4	31	32
impact of capital on OUTPUT c IDENTITY & PARTICIPATION	1.15	0.62	0.55	-1.78	-0.48	-0.70		
	21.71	28.86	39.90	-6.18	-27.11	-5.75		

	financial	physical	human	ecological	intangible	cultural	social	institutional
intensity of use of capital	25	18	22	11	13	4	31	32
impact of capital on OUTPUT d EMPOWERMENT	0.37	0.10	0.27	-0.21	-0.31	-0.25		
	67.41	180.83	80.49	-53.46	-42.53	-16.10		

The table above presents the calculations for Indicator 3 for each type of output. This means, that we have divided the number of projects generated per type (output) on the marginal impact on the output from one unit of increase of the particular input (capital). In other words, this is a more precise measure how strategically important is the effect of a capital for the generation of its impact on the outcome. The analysis can be done most meaningfully within a type of output. But it can be also used to compare across outcomes, especially as long as the number of projects and the forms of capitals used are the same or at least comparable in number.

Across outputs, financial capital, human capital and intangible seem most crucial for the efficiency of the PSB to produce wellbeing type of outputs. Physical capital is most crucial for the PSB efficiency to generate empowerment. Ecological capital is most crucial for PSB efficiency contribution to productivity. Cultural capital is most crucially related with efficiency of the PSB in association with identity & participation outcomes. (see top table on next page)

Within a type of output, productivity seems most crucially affected efficiency-wise by inputs of type financial capital. Wellbeing is most importantly affected efficiency-wise by the use of human capital. The same applies for identity and participation as an outcome. Empowerment outcomes seem most importantly efficiency affected by physical capital among all forms of capital. (see bottom table on next page).

Analysis of An Input across Outputs

	financial	physical	human	ecological	intangible	cultural	social	institutional
intensity of use of capital	25	18	22	11	13	4	31	32
impact of capital on OUTPUT a PRODUCTIVITY	0.17	-0.18	-0.04	0.12	0.19	0.00		
	148.65	-97.37	-563.89	**93.72**	67.76	-910.95		

	financial	physical	human	ecological	intangible	cultural	social	institutional
intensity of use of capital	25	18	22	11	13	4	31	32
impact of capital on OUTPUT b WELLBEING	0.11	0.00	0.03	-0.27	0.04	-0.42		
	234.21	-17569.55	**669.58**	-40.39	**329.54**	-9.61		

	financial	physical	human	ecological	intangible	cultural	social	institutional
intensity of use of capital	25	18	22	11	13	4	31	32
impact of capital on OUTPUT c IDENTITY & PARTICIPATION	1.15	0.62	0.55	-1.78	-0.48	-0.70		
	21.71	28.86	39.90	-6.18	-27.11	**-5.75**		

	financial	physical	human	ecological	intangible	cultural	social	institutional
intensity of use of capital	25	18	22	11	13	4	31	32
impact of capital on OUTPUT d EMPOWERMENT	0.37	0.10	0.27	-0.21	-0.31	-0.25		
	67.41	**180.83**	80.49	-53.46	-42.53	-16.10		

Analysis Inputs within An Output

	financial	physical	human	ecological	intangible	cultural	social	institutional
intensity of use of capital	25	18	22	11	13	4	31	32
impact of capital on OUTPUT a PRODUCTIVITY	0.17	-0.18	-0.04	0.12	0.19	0.00		
	148.65	-97.37	-563.89	93.72	67.76	-910.95		

	financial	physical	human	ecological	intangible	cultural	social	institutional
intensity of use of capital	25	18	22	11	13	4	31	32
impact of capital on OUTPUT b WELLBEING	0.11	0.00	0.03	-0.27	0.04	-0.42		
	234.21	-17569.55	669.58	-40.39	329.54	-9.61		

	financial	physical	human	ecological	intangible	cultural	social	institutional
intensity of use of capital	25	18	22	11	13	4	31	32
impact of capital on OUTPUT c IDENTITY & PARTICUPATION	1.15	0.62	0.55	-1.78	-0.48	-0.70		
	21.71	28.86	39.90	-6.18	-27.11	-5.75		

	financial	physical	human	ecological	intangible	cultural	social	institutional
intensity of use of capital	25	18	22	11	13	4	31	32
impact of capital on OUTPUT d EMPOERMENT	0.37	0.10	0.27	-0.21	-0.31	-0.25		
	67.41	180.83	80.49	-53.46	-42.53	-16.10		

III. A SWOT Analysis Application of the MATHER TOOL Indicators

Strengths	Weaknesses
Finance Shared Prosperity Funds (SPF) Grant funding for staff to drive work Financial Warm Hubs Grant Food Poverty Grant from Welsh Local Government Association (WLGA) **Social** Third sector goodwill Goodwill of PSB partners **Intangible** Low Income Family Tracker (LIFT) **Human** Staff employed to drive work of the PSB **Institutional & Human** Input of the Health Board has increased	**Finance** PSB grant limited criteria for spending **Financial of Physical** Problems with storage of budgets WLGA grants – example Food Poverty and Warm Hubs programmes Year on year funding **Physical** Transport Access to opportunities Difficult to get meeting room for free
Opportunities	**Threat**
Human Data analysis Trailblazer (economic inactivity project) More staff with specialized skills (e.g. AI, econometrics) Opportunities to work with educational partners to grow skills for new jobs e.g. green **Human or institutional** Health Board increased engagement in PSB **Physical and Intangible** Wellbeing data portal **Cultural capital** Promote the heritage across the area **Ecological** Electric furnace TATA **Intangible** Wales as a Marmot nation	**Financial** SPF don't know when it will come to an end *Short term funding not fit for long term partnership engagement and WLGA principles and envisioned outputs* Limited budgets for supporting outputs of type d. Empowerment and development of local intangible capital - 'think outside the box' Partner budget getting tighter **Human** Lack of skills/reskilling for new jobs e.g. green Threat to young people health and wellbeing and increasing economic inactivity – young people are not choosing the skills relevant for the future Young people not choosing skills for the future – e.g. digital, data, green **Human & intangible** If overlooked to support outcome type d. Empowerment to develop human and intangible capitals locally then people psychology will spiral downwards, polarization, loss of optimism in case of job loss, illness and mental health issues will increase **Institutional** Regional partnership boards and funding – fire-fighting vs PSB thinking long-term **Institution & finance** Not having the right people at the senior level **Cultural** Perceptions around the future, e.g. TATA Steel and leadership **Social & institutional** Governance matters - equality of opportunity between partner organizations (e.g. power of Regional Council versus Communities for Voluntary Services (CVS))

The PSB participants in Workshop 2 were prompted to deliberate on each form of capital in terms of past strength or weakness for their activity and if seen as a future opportunity or threat. They were given 3 min for this deliberation. Yet, their discussion was much more intense on certain forms of capital than others. Below, we match this qualitative strategic exercise to the quantitative findings presented aforehand.

INTENSITY OF USE INDICATOR 1 & SWOT

Financial capital

Financial capital has stood out in the quantitative analysis according to Indicator 1 as the most often tapped on form of capital. The qualitative SWAT analysis concords with this importance of finance, which was noted in both Strength and Opportunities and very well detailed in terms of Threats considerations.

The Strengths come from the enabling role of SPF and WLGA. The Weaknesses of SPF is that it is accessed by application and there is no guarantee for this money to be available on a sustainable basis.

Threats were particularly articulated over the SWOT analysis discussion. Finance wise, the SPF might be interrupted as funding. Also, funding is provided with short term orientation while the WLGA envisioned and required outputs are for long term results and future generations oriented. Furthermore, it is felt that special type of activities require more financial support, such as finance for outputs of type d. Empowerment. Further to this, the dependence of PSB on partner's budget makes them sensitive to threats for cuttings in their partners' budgets.

Thus overall, a need for financial stability and sustainability, as well as finance channeled in particular strategic priorities is required.

Physical Capital

Physical capital seems to be third in intensity of use by PSB according to Indicator 1. However, the PSB has noted it as a weakness in its practice. The reason for this is that they have no real physical base and need to share and rely on partners eventual availability of physical resources, meeting space etc. This creates a lack of stability and sustainability of the work process.

Yet, the PSB sees some of its current pilot initiatives such as the creation of a joined data portal as an opportunity to have some special physical capital in the hands of the PSB specifically. Yet, physical capital seems not prioritized among what the PSB perceives as threats for the future and the reason for this is concurrent with the fact that still physical capital was available and employed heavily in their output even if made available through partners.

Human Capital

Human capital is second in intensity of use according to Indicator 1, closely following only after financial capital in importance. Its relevance was clearly confirmed as a strength in the PSB operation. Yet, it was often discussed that the PSB does not actually have specially hired staff but shares human resource from partners, which itself creates instability in the system, especially if people rotate at certain positions. And also the PSB considers working along the lines of ensuring skilled employment in the PSB team and working with educational partners in the spirit of learning cities as an opportunity for the future. However, their concerns about human capital extend beyond the remit of the PSB and were discussed in terms of what human capital the localities need to breed through education especially of the young but also reskilling unemployed people. In these terms, the PSB felt that cultural capital and intangible capitals

need to be flagged as more important and put forward in planning outputs of type d. Empowerment. Put differently, it was a shared opinion that local leadership and support for positive attitude formation in the society and creative ideas will be a crucial overlooking if outputs are not focused on these types of interventions by the PSB and the local authorities more broadly in order to support the human capital in the localities.

Ecological Capital

Ecological capital is overall almost out of the focus of the SWOT considerations. According to the quantitative analysis ecological and cultural capital are the least exploited types of capital by the PSB. The SWOT makes provisions for certain higher level of consideration of cultural capital, and some consideration of the wetlands and air turbines were mentioned as a potential opportunity, as well as the electric furnace of TATA. But still it seems that ecological capital was generally the most deprioritized capital in the discussions of the SWOT.

Intangible

Intangible is the third least used form of capital according to Indicator 1. It was also not very intensively discussed in the SWOT discussion. The strength mentioned in relation to the intangible capital was the success story of the Low Income Family Tracker (LIFT), which the PSB initiated and created as a knowhow and database to be relied on and can help for future work with financial vulnerability and deprivation character. Weakness-wise, it was also relatedly mentioned that even when ideas for cooperation emerge sometimes the funds are not available to ensure these novel ideas from the PSB can be implemented.

Intangible capital is still highly regarded by the PSB, as the members see various opportunities for novel ideas for cooperation in the lines of health equality (Marmot nation) and creation of blue print for data portal and quantitative reporting by the PSB. However, clearly these opportunities are also financially endogenous and dependent on financial support. It was clearly mentioned as a threat that overlooking not only PSB but also local intangible capital can lead to loss of social cohesion and going down in the spiral of human flourishing.

Cultural Capital

Cultural capital was the least utilized form of capital according to Indicator 1. That is particularly striking given the high regard and attention that the WFGA bestows to culture and participation. In contrast to this, the PSB discussed very avidly cultural capital in terms of future opportunities and threats. They perceive the cultural heritage of the place (wetlands) as well as the living culture (festivals) as opportunities for intervening in the local attitudes and social climate in a positive way. However, they are very keenly aware that it is a threat for the localities if cultural capital interventions are not deployed locally and people are left alone to handle their shifting perceptions due to loss of job (TATA Steel) and similar increasing deprivation circumstances.

Social Capital

Social capital was one of the almost inevitably tapped on resources according to Indicator 1. It was used in 31 out of the 33 projects. This means that the connections between people in the PSB and their networking is what ensured the functioning of the PSB and its ability to operate in spite of having no physical base of its own. That is why clearly social capital was mentioned as a strength in the past but also as a threat for the future to keep over-relying on social capital as input since its applicability is only to be

an amplifier. Therefore, without more financial and human resources just the good will of partners and third sector cannot sustainably ensure further growth and sustainable flourishing trajectory.

Institutional Capital

Institutional capital is the most highly tapped on form of capital according to Indicator 1. It was used in 32 out of 33 projects. And it is indeed mentioned throughout the swot discussion in all boxes, but Weaknesses. It was, however, highlighted that the institutional success was with a heterogenous character. Among strengths, the success story of the Health Board was mentioned, where indeed human capital was ensured and institutional restructuring was made to enable better PSB engagement. Carrying this example into the future and replicating it in other domains was seen also as an opportunity. However, it was flagged that due to institutional power dominance of the Regional Partnership Boards (RPB), financial capitalfor the PSB might not be secured due to between-institutions competition for resources. Further to this, concerns for the lack of communication between lower and more senior levels of the institutional structure in PSBs was discussed.

In conclusion, the SWOT analysis seems consistent with the quantitative results of Indicator 1 and clarified the economic meaning of Indicator 1 through the qualitative discussion during SWOT. Let us reconsider the SWOT analysis from the view point of Indicator 2 (effectiveness) and Indicator 3 (efficiency).

EFFECTIVENESS INDICATOR 2 & SWOT

According to Indicator 2, for outcomes of type a. Productivity, what contributes most is intangible, financial and then ecological capital. Financial and intangible were somewhat discussed in the SWOT (even though finance got more attention that intangible, while Indicator 2 shows the latter is more effective for generating a. Productivity type outputs). Moreover, ecological capital which is third in effectiveness for this type of outcome was very little debated. **So, the quantitative analysis highlights eventual omission of a strategic priority (using ecological capital) for a. Productivity outcomes.**

Regarding output type b. Wellbeing, the most impactful capitals are financial, intangible and human. All of these forms of capitals were heavily considered during the SWOT analysis and this gives a very positive signal that the PSB are strategically indeed oriented towards ensuring what drives most impactfully the local wellbeing both in the past and looking forward.

Regarding the effectiveness of generating output of type c. Identity & Participation, the most important forms of capital according to Indicator 2 are financial, physical and human capital. Again, the SWOT discussion confirmed and clarified and engaged with these forms of capital. And it did so with clear consideration of equality (esp. health equality but also other forms of deprivation locally)

Regarding d. Empowerment, most impactful forms of capital as input are: financial, human and physical. It is noteworthy that while the PSB has clear strategic focus on this type of outputs and praises its importance, the PSB also flags the need of special physical capital and human capital as well as further focused financial capital especially secured for output in the domain of d. Empowerment. This is fully justified as a claim both in terms of the relevance of these capitals as most effective inputs for d. Empowerment type outputs according to the quantitative evidence given by Indicator 2 and also based on general economic knowledge of endogeneity of tapping on cultural capital that affects attitudes and empowerment (see Tubadji 2025).

EFFICIENCY INDICATOR 3 & SWOT

Let us now reconsider the Efficiency Indicator 3 and its meaning in the context of our SWOT analysis. Indicator 3 was discussed in terms of across outputs and within an output, we will follow this logic here.

According to Indicator 3, the most important for efficiency improvement forms of capital across all forms of outputs per se are human, intangible and then financial. The SWOT demonstrated that these are well tapped on, strategically considered, however all of them were categories as experiencing certain threats. This means that the most powerful fuels of the PSB work are not so readily available to the PSBs at present and they see this situation potentially worsening in the future. An Indicator 3 supports this with quantitative evidence.

Within each type of output, Indicator 3 tells us the following story:

- Regarding output a. Productivity, the most important efficiency-wise input is financial capital.
- Regarding output b. Wellbeing, the most important efficiency-wise input is human capital
- Regarding output c. Identity & Participation, it is human capital
- Regarding output d. Empowerment, the most important efficiency-wise input is physical capital

All these three types of capitals – financial, human and physical are seen un the SWOT by the PSB as potentially insufficient in availability in the future. It is highly important to note the poor availability of physical capital that apparently is most efficiency-sensitive for achieving outputs of type d. Empowerment is not available. Put differently, it seems it takes most public good, transport infrastructure and accessibility to be available as an input to generate outputs of type d. Empowerment. When these are scarce this output type will suffer the most in its efficiency. The PSB flagged clearly concerns about the utmost importance to ensure leadership and agency related outputs, in the context of growing deprivation, and related polarization and mental health complication among the population. Yet, they did not underline the importance of physical capital in this regard. While the quantitative analysis shows that providing them with physical capital seems to mean providing them with the most critical capital through which they can tackle these issues and produce output relevant to type d. Empowerment.

Cultural capital was very much marginal in the SWOT discussion. It is also across all indicators 1,2 & 3 shown to be least intensively used, but according to Indicator 3, it is most crucial for efficiency of producing outputs of type c. Identity & Participation. This means that tapping on local cultural capital more intensively in the future will help the most for the achieving outputs related mostly to achieving the WFGA indicators which concern equity, inclusion, participation and above all – leadership and agency.

IV. STRATEGIC RECOMMENDATIONS

We will synthesize below the strategic recommendations on the basis of the use of the quantitative MATHER Tool in combination with a qualitative SWOT analysis. These recommendations will be structured as follows: recommendations to the PSB itself and then towards the Welsh Government.

Recommendations to PSB

Firstly, clearly the quantitative Indicator 1 shows that cultural capital is the most under-utilized form of capital by the PSB. This is a discrepancy with the WFGA focus on culture. Using cultural capital is also theoretically and according to Indicator 3 in the case of this PSB most crucial for the efficient delivery of the d. EMPOWERMENT outputs, which the PSB highlighted as crucial in terms of the need of leadership in times of rising deprivation, joblessness and related shifting perceptions and mental health issues of the local population. The performance of the PSB till now quantitatively demonstrates the relevance of this form of capital and its underutilization. Hence, the PSB is entitled to ask for the necessary financial, human and physical resources with which to activate its use of the endogenous cultural capital of places for enabling local socio-economic wellbeing and flourishing through stimulating leadership locally. See also Tubadji (2025)on why cultural capital is crucial for d. EMPOWERMENT outcome and how local policy makers can tap on cultural capital most successfully. **Secondly,** ecological capital has to be more actively considered as well, since it seems related to productivity outputs. It was somewhat marginalized just as human capital, but with relevance to output a. Productivity in this case.

Recommendations to the Welsh Government

Firstly, the PSB seems to have exploited social capital and the existing institutional capital to their limits. They need to receive more stable access to financial capital and human capital as well as expanded institutional capital opportunities in order to be able to bring growth in the output of the PSB. **Secondly,** according to Indicator 1, cultural capital is the most underexploited form of capital while most critical for efficient delivering outputs of type d. Empowerment. The PSB should be provided by the Government with special line of financial, human and physical resources through which to activate its use of the endogenous cultural capital of places for enabling local socio-economic wellbeing and flourishing locally. There is clear commitment by the PSB to work on cultural capital related issues as important for the wellbeing of the community, to widen the PSB consultation and to work on local attitudes. Using cultural capital, however, depends on having the means (financial, human and physical) to tap on cultural capital. **Thirdly,** alignment should be ensured between the short-term temporal horizon of providing funding and the expected long-term-oriented outcomes desired by the WFGA and its 50 indicators. To achieve this alignment, the room for power competition between the regional boards and the PSBs should be diminished too. Finally, human capital should be available on a permanent basis to avoid dissipation of resource and loss of sustainability due to human capital turnover.

References:

Tubadji, A., Jain, Y & T. Avery (2025) *Quantifying the Six Forms of Capital and their Impact on Welfare & Wellbeing in Wales*. The TPI Institute, forthcoming.

Tubadji, A. (2025) Culture Based Development: Modelling Cultural Bias in Economic Choice. Cheltenham: Edward Elgar.

Appendix 1

output	Indicator	Measurement (this is the indicator as laid)	Technical measurement (this is the full technical description of the indicator, where appropriate)
b - WELLBEING & ACCESS	1	Percentage of live single births with a birth weight of under 2,500g	Low birth weight is associated with health risks in an infant's first year of life. The indicator will be based on singleton births (with a stated birth weight) and will be calculated as the percentage of births that are <2,500 grams. Denominator: All singleton live births.
b - WELLBEING & ACCESS	2	Healthy life expectancy at birth including the gap between the least and most deprived.	Healthy life expectancy at birth, plus the gap in healthy life expectancy between the most and least deprived areas. The gap is measured using the slope index of inequality initially, planned to change to the absolute gap. Separate figures will be provided for males and females.
b - WELLBEING & ACCESS	3	Percentage of adults with two or more two healthy lifestyle behaviours	Percentage of adults (aged 16+) with two or more two healthy lifestyle behaviours (not smoking, healthy body mass index, eat five portions fruit or vegetables, not drinking above weekly guidelines, meet guidelines on weekly minutes of physical activity)
a - PRODUCTIVITY	4	Levels of nitrogen dioxide (NO2) pollution in the air.	Annual average levels of nitrogen dioxide (NO2) pollution exposure measured in µg/m^3 (micrograms of gaseous pollutant per cubic meter of ambient air). Figures are calculated by modelling annual average concentrations, calibrated against national monitoring data, of nitrogen dioxide. A value is assigned to each residential dwelling (based on its square kilometre), and these are averaged across each census output area (geographic unit comprising around 150 properties). Average NO2 concentrations for higher geographies are calculated by taking a population weighted average over the constituent census output areas.
b - WELLBEING & ACCESS	5	Percentage of children with two or more two healthy lifestyle behaviours	Percentage of children with two or more two healthy lifestyle behaviours (not smoking, eat fruit or vegetables daily, never or rarely drink, physically active for an hour a day). Uses the Student Health and Wellbeing Survey which runs every two years, and covers school years 7-11 (children aged 11-16).
b - WELLBEING & ACCESS	6	Measurement of development of young children	A measurement of the development of young children using the on-entry assessments of children in reception class in schools, which are part of the Foundation Phase Profile. Progress will be tracked using the Personal, Social Development, Well-Being and Cultural Diversity area of learning. Further information on the Foundation Phase Profile can be found at: https://beta.gov.wales/foundation-phase-framework
b - WELLBEING & ACCESS	7	Average capped 9 points score of pupils, including the gap between those who are eligible or are not eligible for free school meals. (This has replaced the level 2 threshold measure)	Average capped 9 points score of pupils. The capped 9 measure was introduced in 2016/17 and focuses on Year 11 pupils' results from a maximum of nine of the qualifications available in Wales, including subject specific requirements. These will include analysis of the gap between those who are eligible or are not eligible for free school meals. (This has replaced the level 2 threshold measure)
a - PRODUCTIVITY	8	Percentage of adults with qualifications at the different levels of the National Qualifications Framework.	Percentage of adults of working age with qualifications at the different levels of the National Qualifications Framework for England, Wales and Northern Ireland. (NQF EWNI) In Wales the NQF EWNI forms part of the Credit and Qualifications Framework for Wales
a - PRODUCTIVITY	9	Gross Value Added (GVA) per hour worked (relative to UK average)	Gross Value Added (GVA) per hour worked (relative to UK average) using the income measure of GVA
a - PRODUCTIVITY	10	Gross Disposable Household Income per head	Gross Disposable Income per head according to ONS definition

a - PRODUCTIVITY	11	Percentage of businesses which are innovation-active	Innovation-active businesses defined as per the BIS community innovation survey.
a - PRODUCTIVITY	12	Capacity (in MW) of renewable energy equipment installed	Capacity (in MW) of renewable energy equipment installed. This represents the maximum continuous rating of the generating sets in the renewable energy stations in Wales in megawatts. This is often referred to as 'installed capacity'.
b - WELLBEING & ACCESS	13	Concentration of carbon and organic matter in soil	Concentration of carbon and organic matter in soil; measured as soil carbon and organic matter content of topsoil (0-15cm) measured in grams of carbon per kilogram (gC per kg). Measured from soil samples using the loss on ignition methodology to determine the soil carbon concentration Samples are taken from across all of Wales' 26 land classes, for the Countryside survey element of the Glastir Monitoring and Evaluation Programme (GMEP). This is conducted in 300 1km sample squares and is intended to cover all of Wales. The survey does, however, exclude densely developed city areas and therefore it should not be considered as an inventory for brownfield sites.
a - PRODUCTIVITY	14	The global footprint of Wales	An global footprint is an indicator of the total environmental burden that society places on the planet. It represents the area of land needed to provide raw materials, energy and food, as well as absorb pollution and waste created and is measured in global hectares. The global footprint for a particular population is defined as: "the total area of productive land and water ecosystems required to produce the resources that the population consumes and assimilate the wastes that production produces, wherever on Earth that land and water may be located". The global footprint is influenced by the food people eat, the way they travel and the energy they use in the home. It also accounts for the purchase of products and services from insurance to televisions to items of clothing. Finally, it also includes impacts from construction activity and investment in infrastructure.
a - PRODUCTIVITY	15	Amount of waste generated that is not recycled, per person.	Total amount (kg) of residual waste (i.e. waste that is not reused, recycled or composted) in Wales, by all sectors, on a per person basis. This indicator is calculated from three separate elements - Household waste, Construction and Demolition (C&D) waste and Industrial and Commercial (I&C) waste.
a - PRODUCTIVITY	16	Percentage of people in employment, who are on permanent contracts (or on temporary contracts, and not seeking permanent employment) and who earn at least the real Living Wage	Permanent contracts and those on temporary contracts and not seeking permanent employment as defined by questions in the Labour Force Survey. Further details on the measure of those earning the real Living Wage will be added as soon as possible
b - WELLBEING & ACCESS	17	Pay difference for gender, disability and ethnicity	Difference in average (median) full-time hourly earnings between males and females. In December 2021, this indicator was extended to include ethnicity and disability pay gaps as well as gender. These are sourced from the Annual Population Survey and are measured as the difference in average (median) hourly earnings between disabled and non-disabled employees, and between White British and other ethnic groups. Both indicators are based on those who report being either full-time or part-time employees and they both include overtime.
a - PRODUCTIVITY	18	Percentage of people living in households in income poverty relative to the UK median, measured for children, working age and those of pension age.	Percentage of people living in households below 60% of the median UK income, measured for children, working age and those of pension age (measured after housing costs).
a - PRODUCTIVITY	19	Percentage of people living in households in material deprivation.	Percentage of households who cannot afford particular goods and activities that are typical in society at a given point in time, irrespective of whether they would choose to have these items, even if they could afford them.

			A score is calculated for each household based on weighted totals across a maximum of nine different measures. The weight for each measure is the proportion of the total population who have that item. For each measure a household is then assigned the weight if they do not have that item, these are summed across all items (and divided by a factor to ensure all scores fall on a scale from 0 to 100) to make a total deprivation score. Items that most people have are weighted more heavily, so if a household lacks that item then it counts more towards the overall deprivation score than an item that fewer people have. Households with a score of 25 and over are classified as materially deprived. Note: The Family Resources Survey (FRS) produces material deprivation scores for the UK but these are not comparable to National Survey deprivation figures due to different methods used.
c - IDENTITY & PARTICIPATION	20	Proportion of employees whose pay is set by collective bargaining	Further details on the measure ofor this indicator will be added as soon as possible
a - PRODUCTIVITY	21	Percentage of people in employment.	Percentage of the working age population in work.
a - PRODUCTIVITY	22	Percentage of people in education, employment or training, measured for different age groups.	Percentage of people in education, employment or training at the end of each calendar year measured for different age groups.
d - EMPOWER COMMUNITY LEADERS	23	Percentage who feel able to influence decisions affecting their local area.	Percentage of adults (aged 16+) who agree or strongly agree with the statement: I can influence decisions affecting my local area.
b - WELLBEING & ACCESS	24	Percentage of people satisfied with their ability to get to/ access the facilities and services they need.	Percentage of adults (aged 16+) who feel satisfied that good services and facilities are available in their local area, and with their ability to get to these services and facilities.
b - WELLBEING & ACCESS	25	Percentage of people feeling safe at home, walking in the local area, and when travelling.	Percentage of adults (aged 16+) who report feeling very safe or fairly safe in all of the following situations: at home after dark, walking alone after dark, travelling by public transport after dark, and traveling by car after dark.
c - IDENTITY & PARTICIPATION	26	Percentage of people satisfied with local area as a place to live.	Percentage of adults (aged 16+) who report feeling very or fairly satisfied with their local area as a place to live
c - IDENTITY & PARTICIPATION	27	Percentage of people agreeing that they belong to the area; that people from different background get on well together; and that people treat each other with respect.	Percentage of adults (aged 16+) agreeing with three statements about their local area; feeling they belong to the area; that people from different background get on well together; that people treat each other with respect.
c - IDENTITY & PARTICIPATION	28	Percentage of people who Volunteer.	Percentage of people (aged 16+) who volunteer: measured by the percentage of adults who give their time for free to help clubs or organisations (formal or informal) ; or who support family members, friends, neighbours or others because of long-term physical or mental ill-health or disability, or problems related to old age.
b - WELLBEING & ACCESS	29	Mean mental well-being score for people.	For adults (aged 16 or over), the mean mental well-being score according to the Warwick-Edinburgh Mental Well-being Scale (WEMWBS). http://www2.warwick.ac.uk/fac/med/research/platform/wemwbs/ For children, the mean score using the Strengths and Difficulties Questionnaire (information from the Understanding Society survey). http://www.sdqinfo.com/

b - WELLBEING & ACCESS	30	Percentage of people who are lonely.	Percentage of adults (aged 16+) who are lonely according to the De Jong Gierveld loneliness scale.
b - WELLBEING & ACCESS	31	Percentage of dwellings which are free from hazards.	Percentage of dwellings which are free from Category 1 Housing Health and Safety Rating System (HHSRS) hazards. Category 1 hazards are those providing the greatest risk to occupants. Data on hazards come from the Welsh Housing Conditions Survey (WHCS) 2017-18. Qualified surveyors carried out non-invasive inspections on a sample of dwellings in Wales across all tenures.
b - WELLBEING & ACCESS	32	Number of properties (homes and businesses) at medium or high risk of flooding from rivers and the sea.	Total number of properties (residential and non-residential) at high or medium risk of flooding from rivers and the sea High risk: greater than 1:30 chance of flooding Medium risk: 1:30 to 1:100 chance of flooding
a - PRODUCTIVITY	33	Percentage of dwellings with adequate energy performance.	Percentage of dwellings with a Standard Assessment Procedure (SAP) rating of 65 or above. The Standard Assessment Procedure (SAP) is a methodology used by Government for assessing the energy performance of dwellings. The SAP rating is expressed on a scale of 1 to 100 – the higher the number, the lower the running costs.
b - WELLBEING & ACCESS	34	Number of households successfully prevented from becoming homeless per 10,000 households.	Number of household threatened with homelessness(within 56 days) who were successfully prevented from becoming homeless for at least 6 months – rate per 10,000 households
c - IDENTITY & PARTICIPATION	35	Percentage of people attending or participating in arts, culture or heritage activities at least 3 times a year.	Percentage of adults (16+) who have attended arts events, particpated in arts activities, or visited heritage sites, museums, libraries and/or archives at least 3 times in the last 12 months. Arts events include: film showing, theatre, live music, dance performance, storytelling or reading events, and other arts events. Arts activities include: music, drama/theatrical activity, dance, film-making/photography, visual arts and crafts, creative writing, making art work/animation using digital technology, and circus skills.
c - IDENTITY & PARTICIPATION	36	Percentage of people who speak Welsh daily and can speak more than just a few words of Welsh.	Percentage of people who report in response to questions in the National Survey for Wales (for adults 16+ annually) and Welsh Language Use Surveys (for people 3+) that they are able to speak more than 'just a few words' in Welsh and that they speak Welsh on a daily basis.
c - IDENTITY & PARTICIPATION	37	Number of people who can speak Welsh.	Number of people who reported in the census that they can speak Welsh
b - WELLBEING & ACCESS	38	Percentage of people participating in sporting activities three or more times a week.	Percentage of the population who report taking part in any outdoor or indoor sporting activity, and the frequency of their participation
c - IDENTITY & PARTICIPATION	39	Percentage of museums and archives holding archival/heritage collections meeting UK accreditation standards.	Percentage of museums and archives holding archival/heritage collections that have been assessed as meeting the standard of the UK museum accreditation or the UK archives accreditation. Definitions: https://gweddill.gov.wales/topics/culture-tourism-sport/museums-archives-libraries/archives/accreditation/?skip=1&lang=en https://gweddill.gov.wales/topics/culture-tourism-sport/museums-archives-libraries/museums/accreditation/?skip=1&lang=en
c - IDENTITY & PARTICIPATION	40	Percentage of designated historic environment assets that in stable or improved conditions.	Percentage of scheduled monuments in Wales that are in stable or improving condition or listed buildings that are neither 'vulnerable' nor 'at risk'
a - PRODUCTIVITY	41	Emissions of greenhouse gases within Wales.	Territorial emissions of greenhouse gases by sector (Million tonnes carbon dioxide equivalent MtCO2e), where territorial emissions are the emissions released directly within Wales. It includes international shipping and aviation but does not include emissions associated with the production of goods and services outside of Wales even if they are imported into Wales. Equally emissions associated with the production of

			goods and services in Wales are counted as Welsh emissions even if these are exported for consumption elsewhere.
a - PRODUCTIVITY	42	Emissions of greenhouse gases attributed to the consumption of global goods and services in Wales.	Emissions of greenhouse gases, whether in Wales or elsewhere, that may reasonably be attributed to the consumption and use of goods and services in Wales during the period
b - WELLBEING & ACCESS	43	Area of healthy ecosystems in Wales.	To be measured initially through the extent of terrestrial semi-natural habitat, presented as losses and gains of broad habitat group by area (hectares)., for example, native woodland, hay meadows, grasslands etc. The term 'natural habitat' refers to habitats which are unaltered by human activities over the course of history. There are very few such habitats in Wales that are truly natural habitats. The term 'semi-natural habitat' is therefore used to describe vegetation communities that, albeit in an altered state, sustain native plants and animals. They are key components of a biodiverse natural environment that deliver a wide range of benefits or ecosystem services. Ecosystem services relate to the benefit that can be provided by the natural environment to society and economic prosperity.
b - WELLBEING & ACCESS	44	Status of biological diversity in Wales.	Work has been commissioned through the Welsh Government ERAMMP (Environment and Rural Affairs Monitoring & Modelling Programme) on developing the national indicator on Status of biological diversity in Wales. The focus of this work has been on combining annual estimates into a single indicator of change in the distribution of priority species over time. An experimental indicator has recently been developed as part of this work.
b - WELLBEING & ACCESS	45	Percentage of surface water bodies and groundwater bodies achieving good or high overall status.	*Water quality:* Percentage of surface water bodies and groundwater bodies achieving good or high overall status under the Water Framework Directive. Surface water: 'Good surface water status' is that achieved by a surface water body when both its 'ecological status' and its 'chemical status' are at least good. Ground Water 'Good groundwater status' is that achieved by a groundwater body when both its quantitative status and chemical status are good.
d - EMPOWER COMMUNITY LEADERS	46	Active global citizenship in Wales	From 2021 new questions about whether people in Wales are active global citizens will be included in the National Survey for Wales and will contribute to a revised indicator in 2022. The questions ask whether respondents have donated or raised money, volunteered or supported any activities tackling global issues such as human rights, refugees, or global environmental issues.
c - IDENTITY & PARTICIPATION	47	Percentage of people who have confidence in the justice system	To be measured using an appropriate social survey, such as the National Survey for Wales. Further details on the measure for this indicator will be added as the detail of the indicator is developed.
b - WELLBEING & ACCESS	48	Percentage of journeys by walking, cycling or public transport	To be measured intitally using usual method of travel to work from the Labour Force Survey. A National Travel Survey for Wales is in development which will provide the measure for all journeys in future.
a - PRODUCTIVITY	49	Percentage of households spending 30% or more of their income on housing costs	To be measured using further analysis from the Family Resources Survey/Households Below Average Income dataset. Further details on the measure for this indicator will be added as soon as possible
b - WELLBEING & ACCESS	50	Status of digital inclusion	Currently under development, alongside the development of a minimum digital living standard. Further details on the measure for this indicator will be added as the indicator is developed.