

<http://www.pwc.co.uk/totalimpact>

# *Defining and measuring social value*

Stuart Jefford, PwC Sustainability &  
Climate Change

**Think Deep UK**  
28<sup>th</sup> September 2017

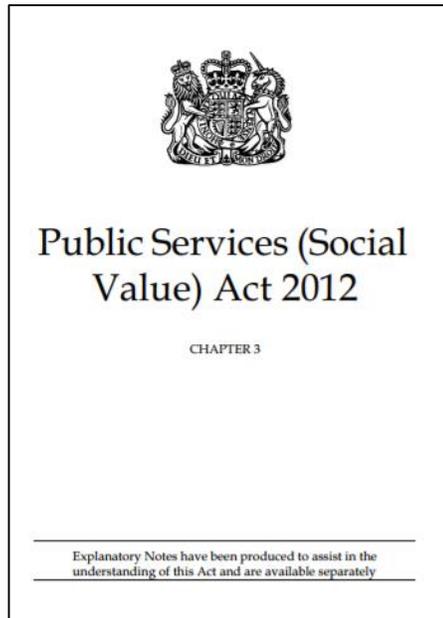
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## *Defining and measuring social value*

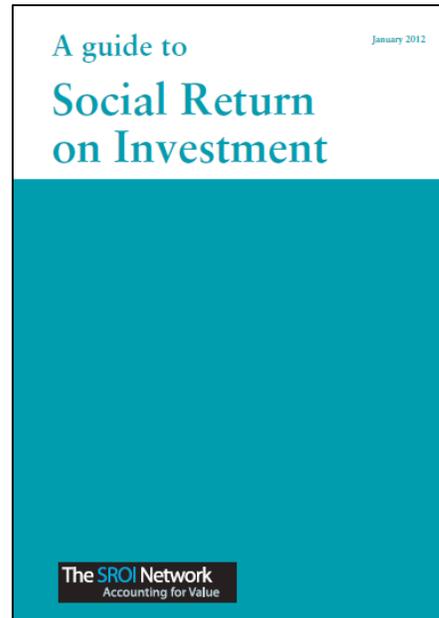
1. Some of the different ways that social value is defined
2. The approach we use to measure social value
3. Real life example

# *What do we mean by social value?*

# What do we mean by 'social value'?



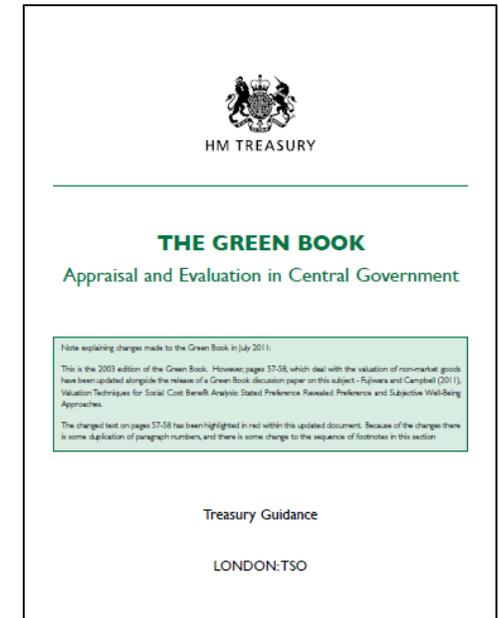
*“economic, social and environmental well-being”*



*“‘Social value’ is used to describe social, economic and environmental value.”*



*The value of “resources and relationships provided by people and society.”*



*Sum of the opportunity costs of the resources used by the agent carrying out the activity, plus any additional costs imposed on society from the activity*

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***... and by ‘Social Impact Valuation’?***

***Taking each word in turn...***

# Social

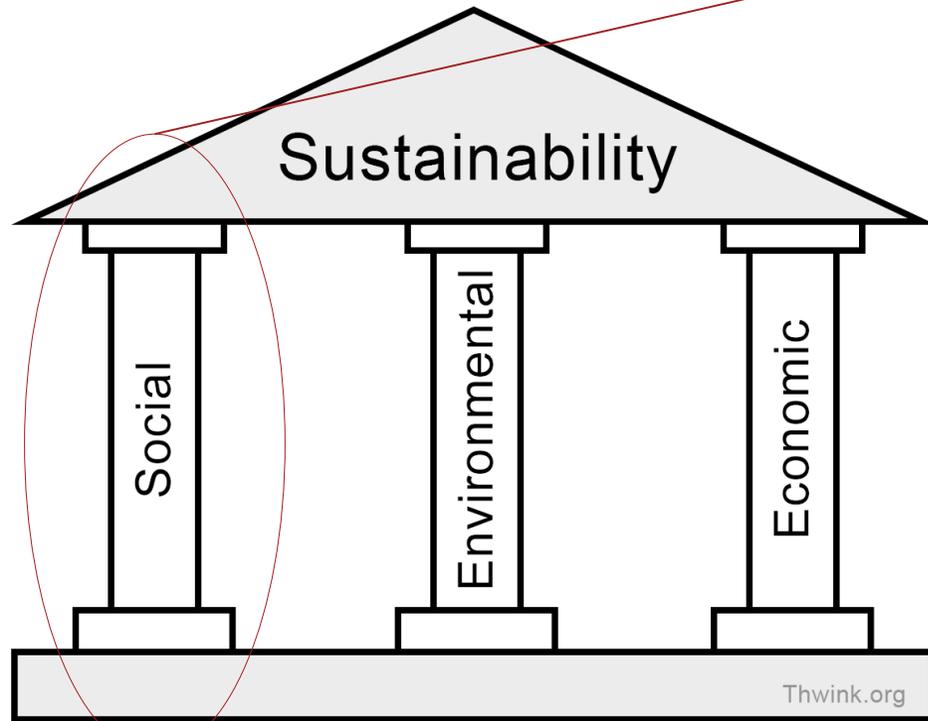
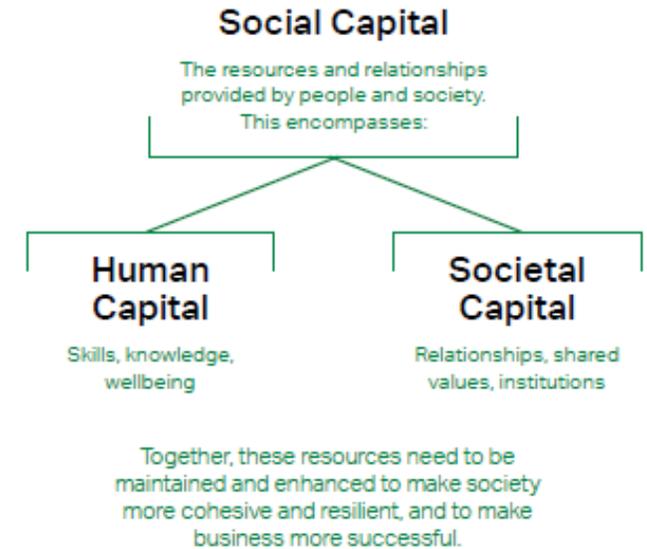
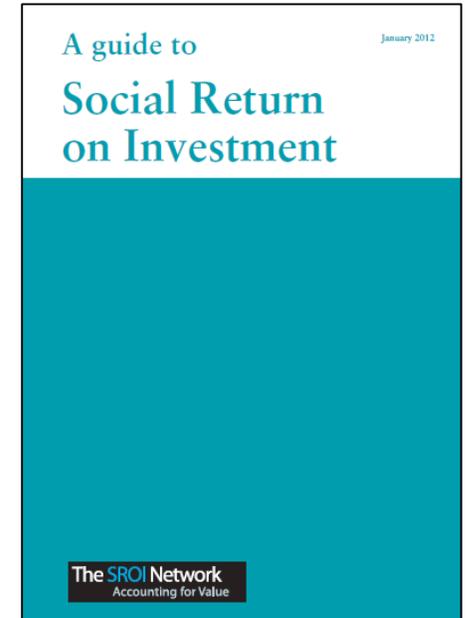
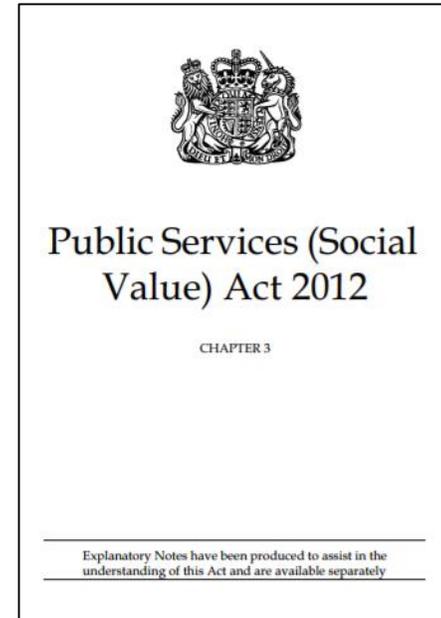
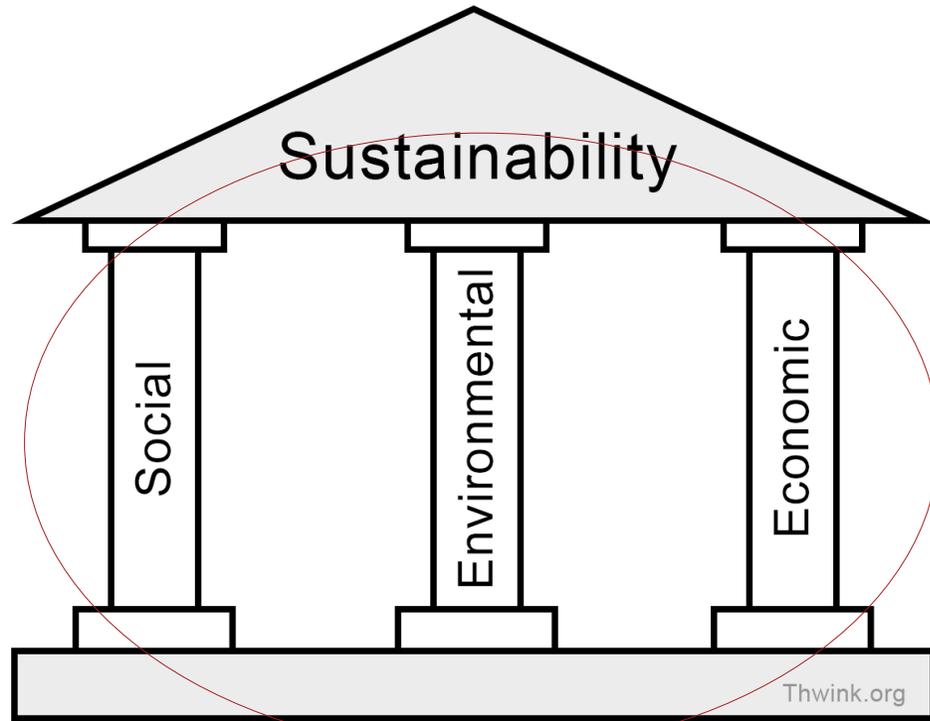


Figure 3: What is social capital?

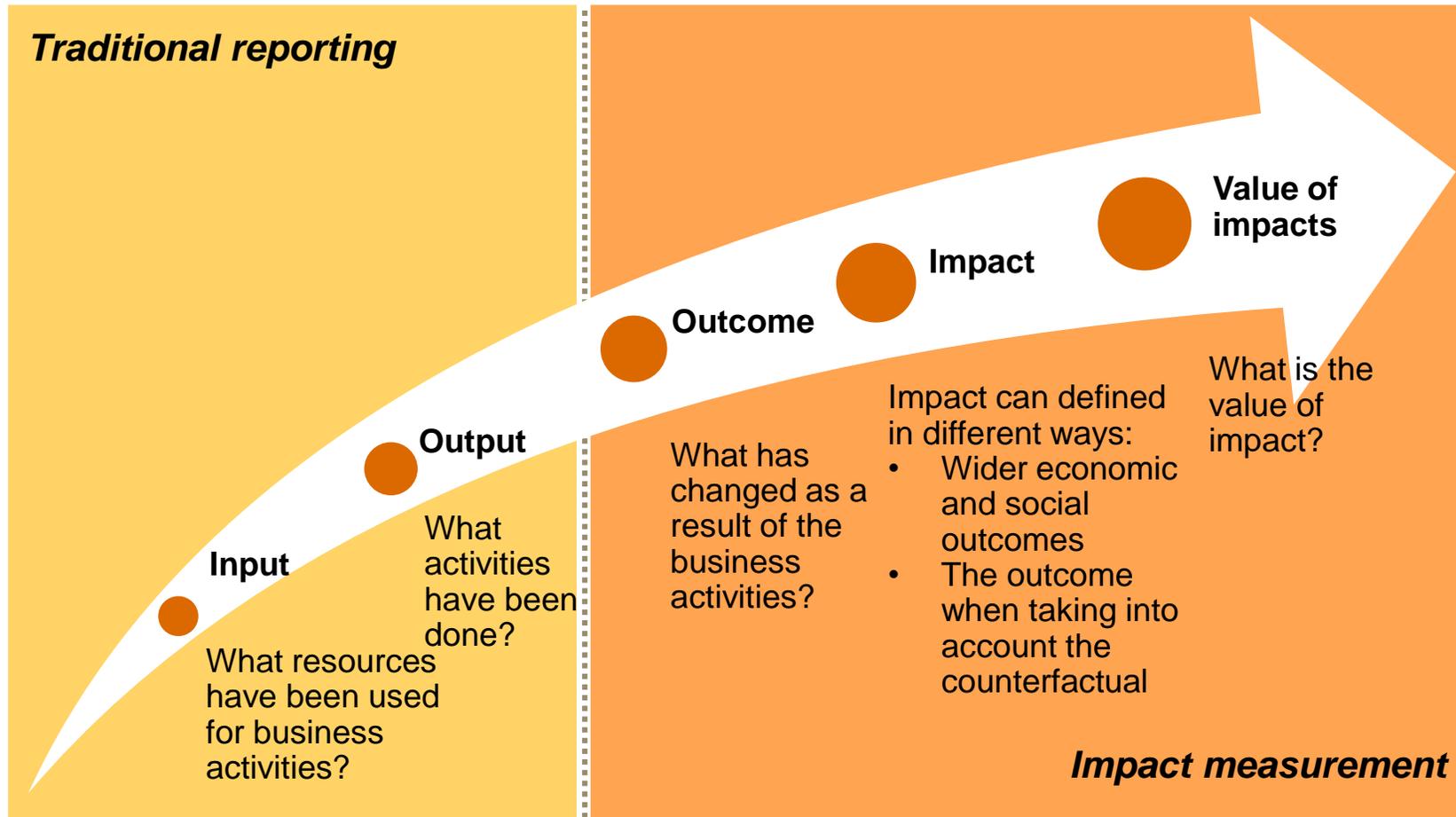


- Intellectual
- Human
- Social & relationship

# Social



# Impact



# Valuation

“The practise of **attributing value** to a diverse set of measures, in order to **compare or aggregate them**”

The Social Capital Protocol (2016) WBCSD

Most important  
...  
...  
Least important

| Aims = criteria for comparison                                 | Change today to Alternative |
|--|-----------------------------|
| <b>Service level and costs of the traffic system</b>           |                             |
| - public transport service level, competitiveness, modal share | +                           |
| - car traffic functioning                                      | -                           |
| - prerequisite for walking and cycling                         | -                           |
| - intermodality  | -                           |
| - freight transport functioning                                | -                           |
| - public transport connections to working areas                | +                           |
| - system efficiency  | -                           |
| - restraining car traffic growth                               | (0)                         |
| - financial share to public transport and walking/cycling      | -                           |
| <b>Safety and health</b>                                       |                             |
| - traffic safety   | +                           |
| - traffic emissions, influence on air quality                  | +                           |
| - extent of noise zones, population exposed                    | -                           |
| <b>Social sustainability</b>                                   |                             |
| - accessibility/occluses                                       | +                           |
| - travel possibilities of those without car                    | ++                          |
| - accessibility to basic services                              | -                           |
| - car dependence of the communities                            | -                           |
| <b>Development of areas and communities</b>                    |                             |
| - city structure that supports PT and W+C                      | -                           |
| - livability of sub centers                                    | -                           |
| - restraining city sprawl                                      | -                           |
| - functionality, safety and healthiness of the surroundings    | +                           |
| - obstacles from traffic routes                                | -                           |
| - city scene and cultural landscape                            | -                           |
| - consistency of green area network                            | 0                           |
| <b>Impacts on nature</b>                                       |                             |
| - CO2 emissions from traffic, energy consumption               | +                           |
| - biodiversity, nature values of protected objects             | -                           |
| - the use of arical and natural resources                      | -                           |
| - traffic measures that save the environment                   | -                           |

<http://www.petus.eu.com/left.php?set=4&sbsct=2&pageid=35&page sect=0&pagelang=en>

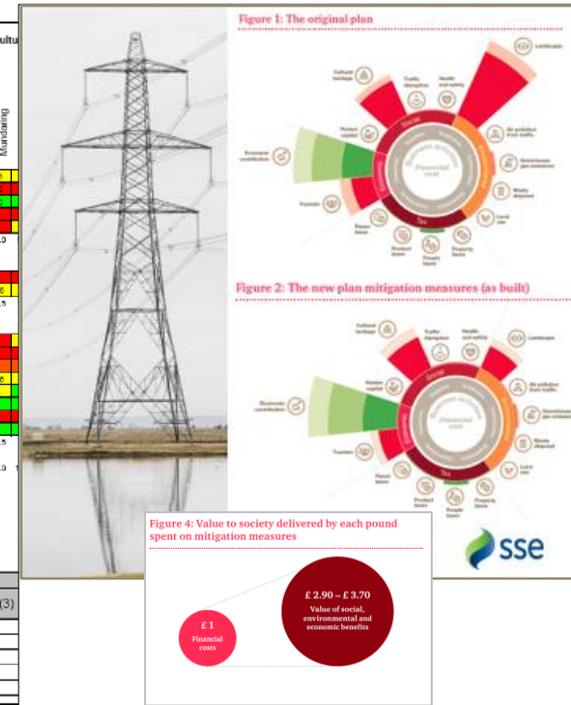
South West Agricultural Region (North of Mandurah) - Suitability of Areas for Irrigated Annual Horticulture

|                                       | West Chiglin | Gelgan | Dandargan Plateau | Binloan | Chattering | Ellen Brook | Carabood-Wanneroo | Bulkibrock | Sween Valley | Mandurang |
|---------------------------------------|--------------|--------|-------------------|---------|------------|-------------|-------------------|------------|--------------|-----------|
| <b>Productivity factors</b>           |              |        |                   |         |            |             |                   |            |              |           |
| Climatic conditions (1)               | 18           | 18     | 18                | 18      | 18         | 18          | 18                | 18         | 18           | 18        |
| Water quantity (1)                    | 22           | 22     | 2                 | 12      | 15         | 10          | 15                | 15         | 15           | 15        |
| Water quality (1)                     | 20           | 20     | 2                 | 10      | 10         | 10          | 10                | 10         | 10           | 10        |
| Water accessibility (2)               | 18           | 18     | 2                 | 15      | 15         | 15          | 15                | 15         | 15           | 15        |
| Landforms/soils (2)                   | 22           | 22     | 2                 | 15      | 15         | 15          | 15                | 15         | 15           | 15        |
| (Sub total)                           | 75.0         | 72.5   | 40.0              | 45.0    | 52.5       | 55.0        | 72.5              | 67.5       | 67.5         | 55.0      |
| <b>Conservation factors</b>           |              |        |                   |         |            |             |                   |            |              |           |
| Land degradation (2)                  | 2            | 2      | 2                 | 2       | 2          | 2           | 2                 | 2          | 2            | 2         |
| Off-site environmental impacts (2)    | 7.5          | 7.5    | 7.5               | 7.5     | 7.5        | 7.5         | 7.5               | 7.5        | 7.5          | 7.5       |
| (Sub total)                           | 12.5         | 15     | 12.5              | 12.5    | 12.5       | 12.5        | 15                | 10         | 15           | 12.5      |
| <b>Development factors</b>            |              |        |                   |         |            |             |                   |            |              |           |
| Range of crops (2)                    | 7.5          | 10     | 1                 | 1       | 7.5        | 7.5         | 7.5               | 7.5        | 7.5          | 7.5       |
| Export significance (2)               | 7.5          | 15     | 2                 | 1       | 15         | 15          | 15                | 15         | 15           | 15        |
| Processing facilities (3)             | 1            | 1      | 1                 | 1       | 1          | 1           | 1                 | 1          | 1            | 1         |
| Transport infrastructure (2)          | 7.5          | 7.5    | 2                 | 2       | 7.5        | 10          | 7.5               | 10         | 7.5          | 7.5       |
| Transport infrastructure (export) (3) | 3            | 3      | 3                 | 3       | 3          | 3           | 3                 | 3          | 3            | 3         |
| Services and facilities (3)           | 1            | 1      | 1                 | 1       | 1          | 1           | 1                 | 1          | 1            | 1         |
| Land for expansion (3)                | 1            | 1      | 1                 | 1       | 1          | 1           | 1                 | 1          | 1            | 1         |
| Labour requirements (3)               | 3            | 3      | 3                 | 3       | 3          | 3           | 3                 | 3          | 3            | 3         |
| (Sub total)                           | 39           | 41.5   | 27                | 27      | 28.5       | 33          | 45                | 34         | 37.5         | 31.5      |
| <b>TOTAL</b>                          | 128.5        | 122.0  | 79.5              | 84.5    | 94.5       | 109.5       | 132.5             | 101.0      | 125.0        | 96.0      |

Table 2. Values attributable to assessment criteria

| Degree to which assessment criteria are met | Shading | Weighting     |               |               |
|---|---------|---------------|---------------|---------------|
|   |         | Essential (1) | Important (2) | Desirable (3) |
| High degree                                 | Green   | 20            | 10            | 4             |
| Moderate degree                             | Yellow  | 15            | 7.5           | 3             |
| Low degree                                  | Red     | 10            | 5             | 2             |
| Not currently                               | Orange  | 5             | 2.5           | 1             |
| Not at all                                  | Blue    | 0             | 0             | 0             |

<https://ikininmonth.wordpress.com/category/environmental-planning-2/multi-criteria-analysis-mca/>



<http://www.pwc.co.uk/services/sustainability-climate-change/total-impact/accounting-for-the-impact-of-capital-projects.html>

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***So what's 'best practice'??***

# *How do you value social impacts?*

## What is PwC's TIMM framework?

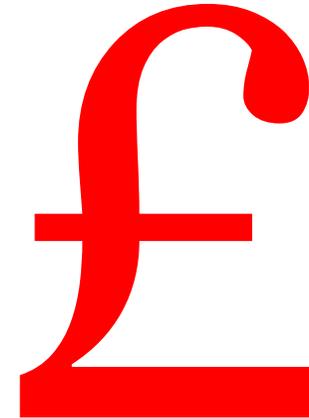
|                    |   |
|--------------------|---|
| <b>Total</b>       | A <b>holistic view</b> of social, environmental, fiscal and economic dimensions – the big picture |
| <b>Impact</b>      | Look beyond inputs and outputs to <b>outcomes</b> and impacts – understand your footprint         |
| <b>Measurement</b> | Quantify and <b>monetise</b> the impacts – value in a language business understands               |
| <b>Management</b>  | Evaluate options and <b>optimise</b> trade-offs – make better decisions                           |

# What is PwC's TIMM framework?

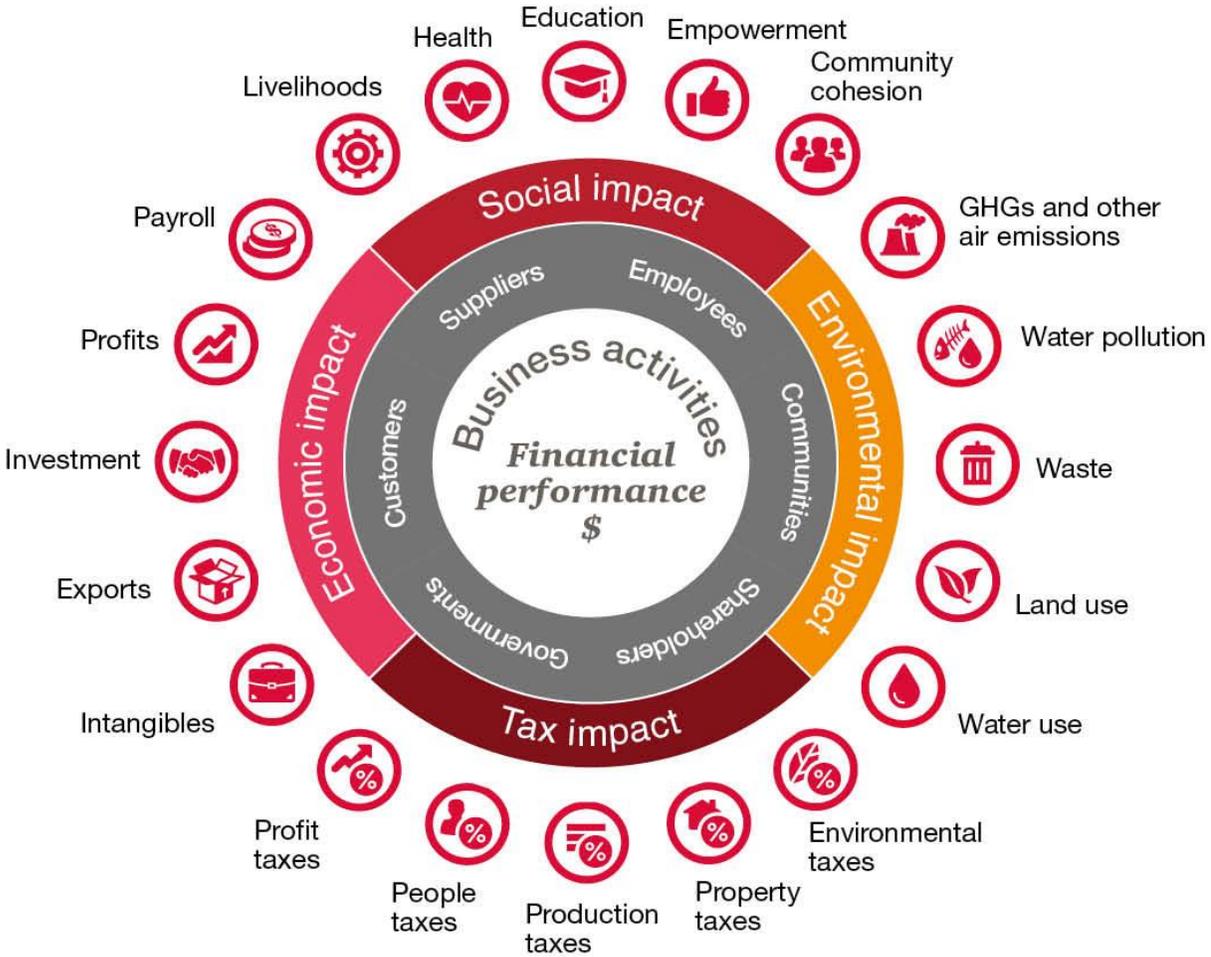
Takes these....



and expressed them *all* in these...



# What is PwC's TIMM framework?



# *Valuing social impacts from transmission infrastructure: SHE Transmission*

# *Valuing impacts for SHE Transmission*

## The Beauly-Denny line upgrade



132 kV lines



400 kV lines

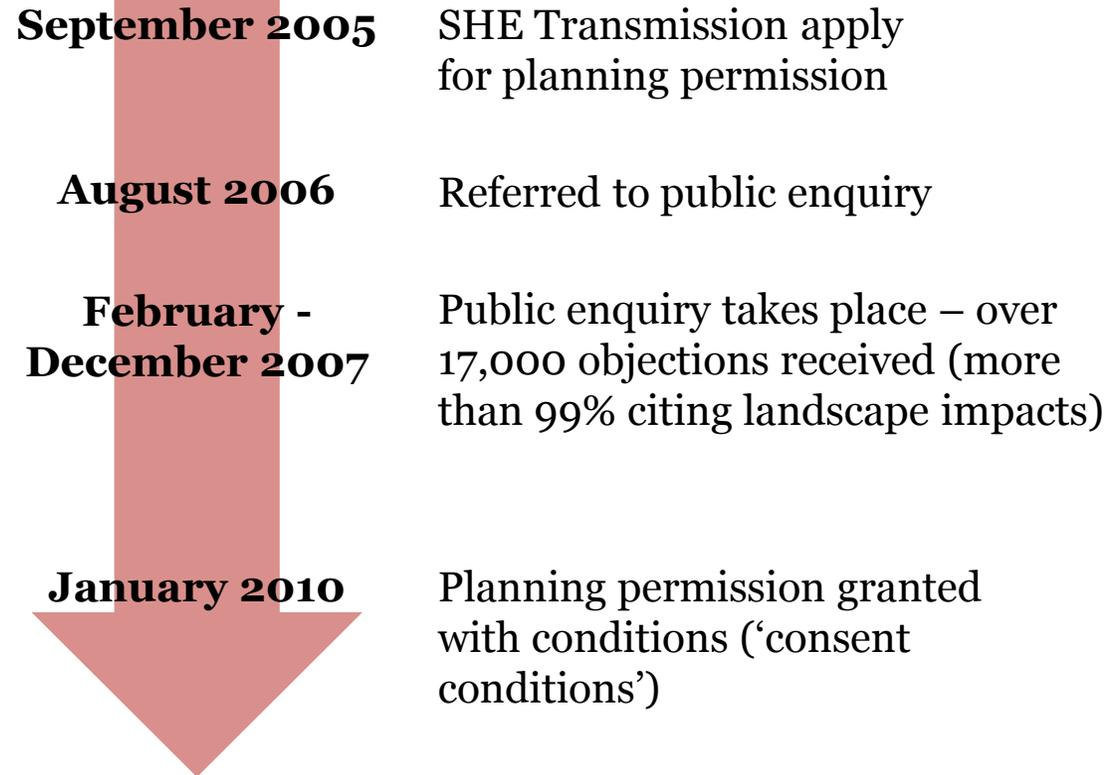
**220 km** of line being upgraded

**600 new towers replacing over 1,000 old ones**

**£500+ million** being spent by SSE on the project

# ***Valuing impacts for SHE Transmission***

## The challenge



***5 years to get  
planning consent...  
and with extra  
conditions...***

***How else to engage  
with planning &  
regulatory process?***

***Were the consent  
conditions 'worth  
it'?***

# Valuing impacts for SHE Transmission

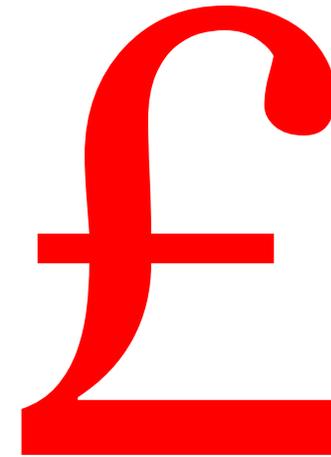
## What we did

### Existing data from:

- Environmental Impact Assessment
- SHE Transmission
- UK & EU Governments
- Academic literature

### New data from:

- Focus Groups
- Surveys (5,500 respondents)



Environmental  
impacts

Social  
impacts

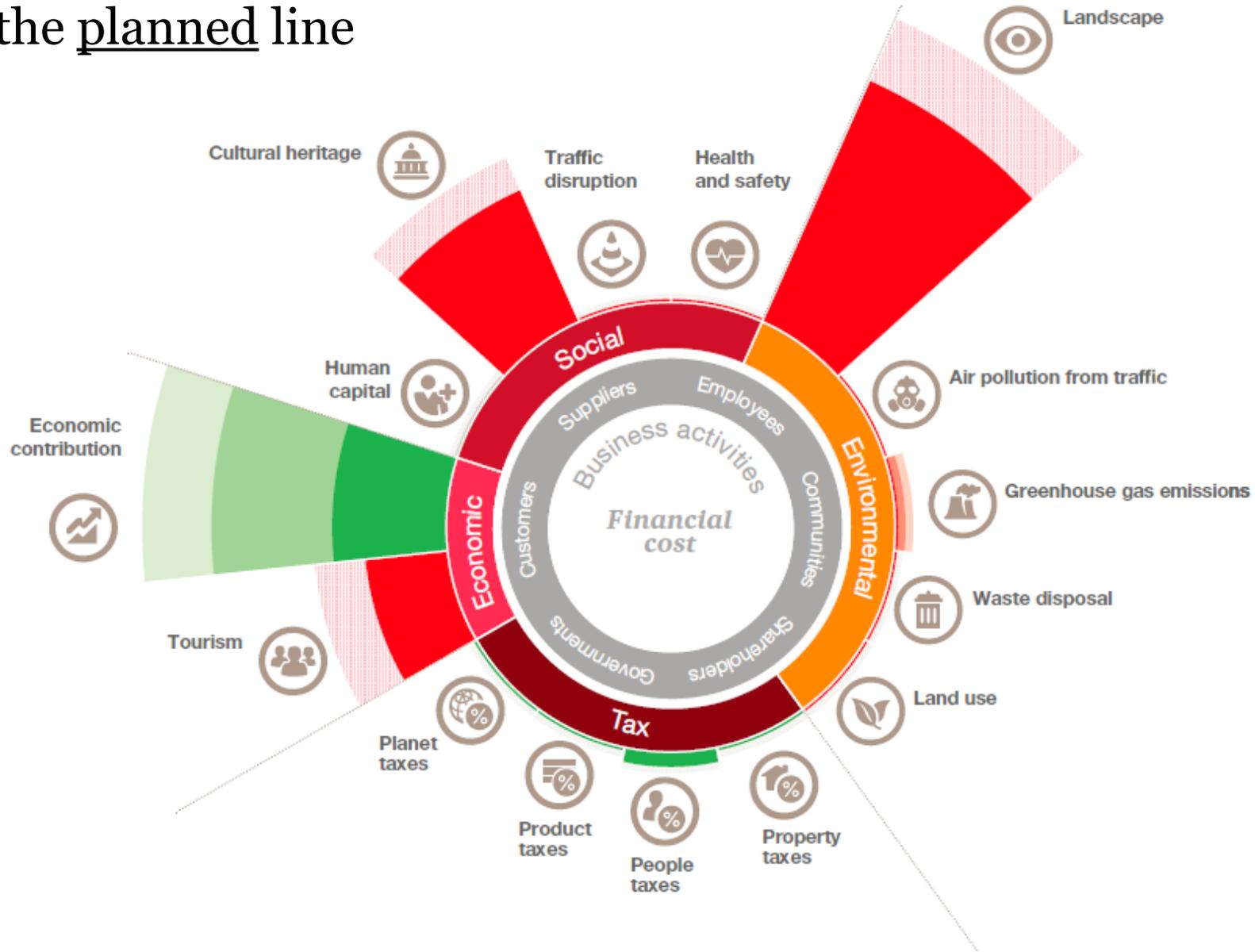
Economic  
impacts

Tax  
impacts

Input and review by Advisory Panel of academics, government and civil society stakeholders

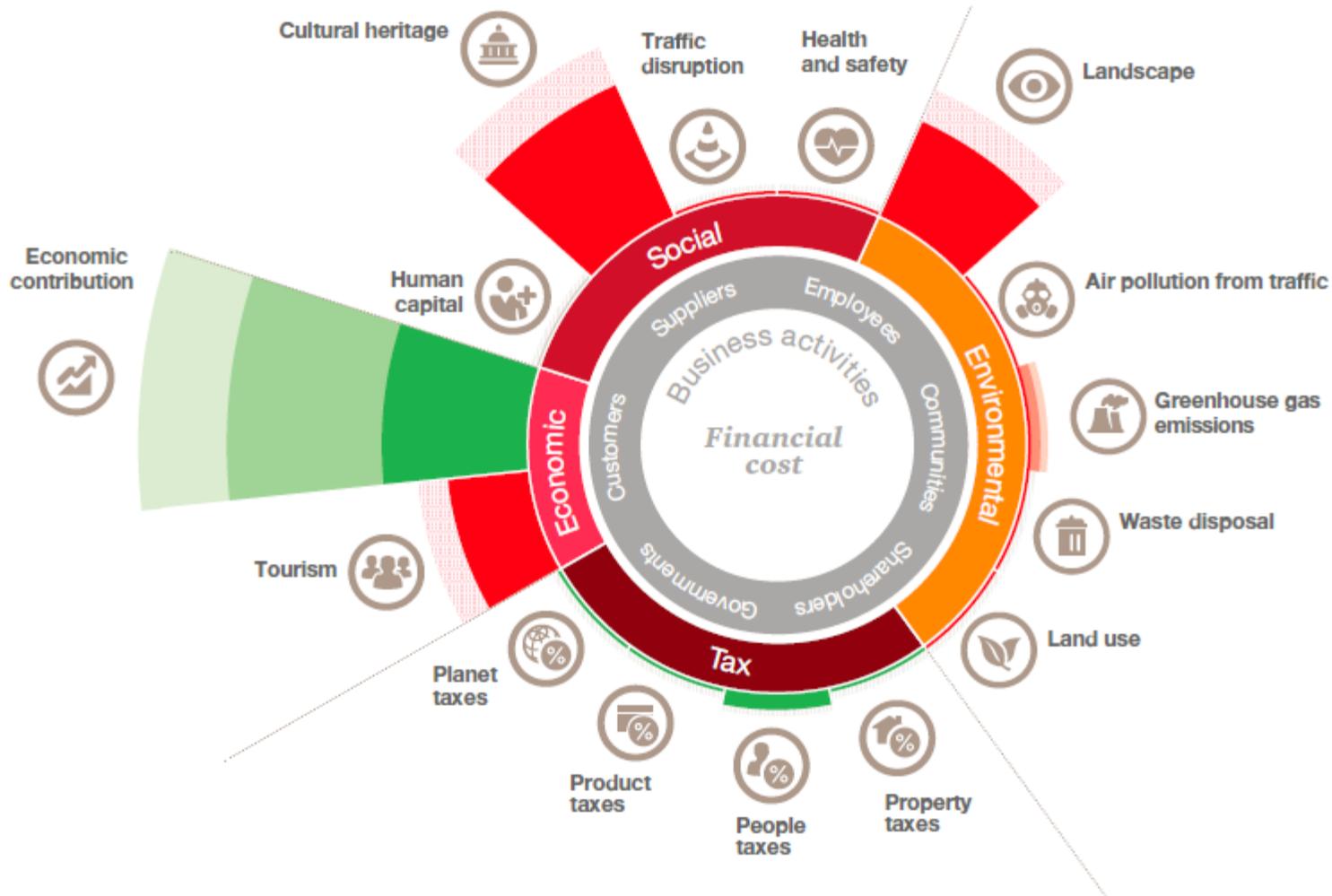
# Total Impact Measurement & Management

## Impact of the planned line



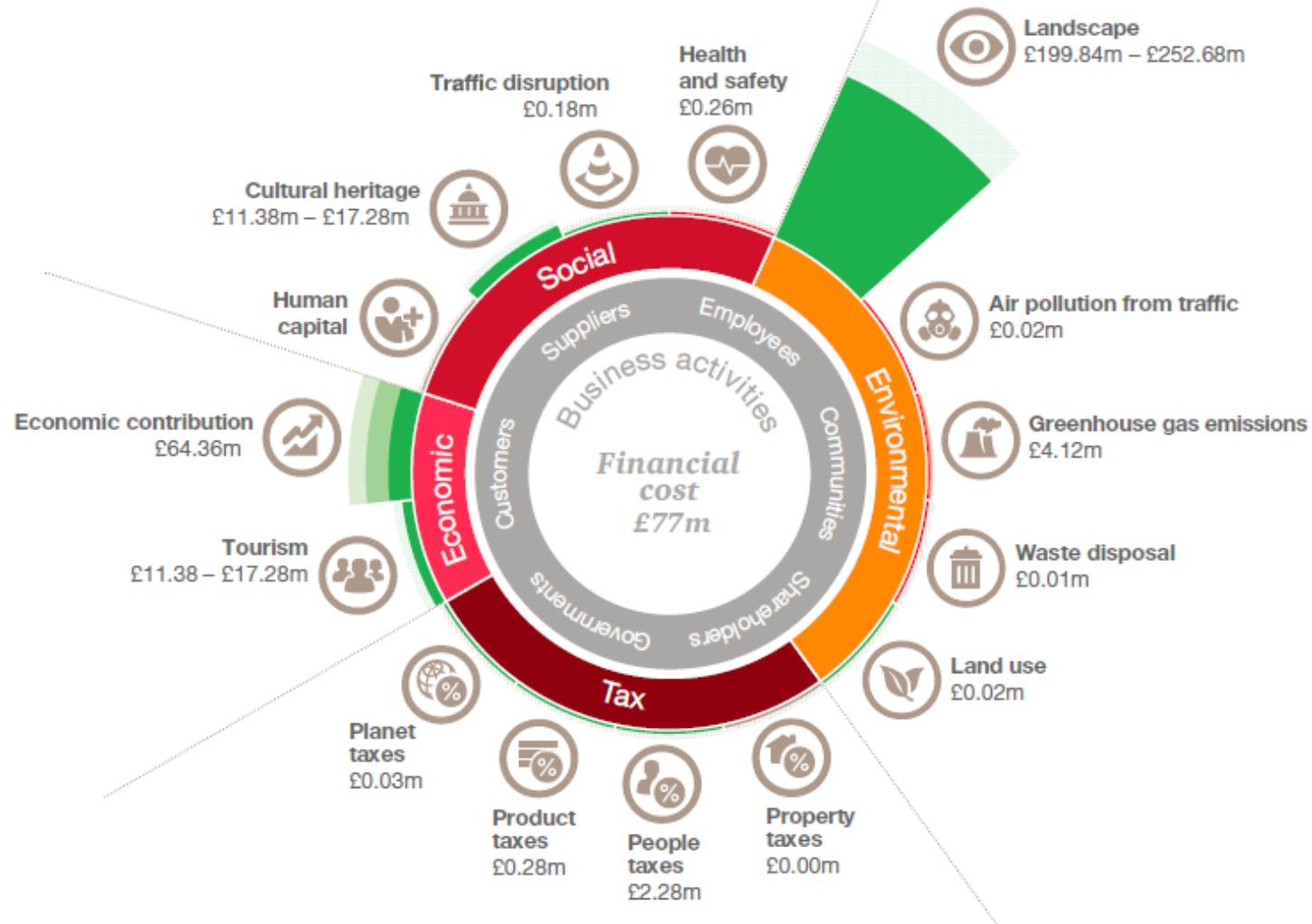
# Total Impact Measurement & Management

## Impact of the line that was built



# Total Impact Measurement & Management

## Value created for society by the mitigation measures



# ***Total Impact Measurement & Management***

Value created for every pound spent on mitigation measures



# So what are the benefits of doing all this ?

## Benefits to Network Operators

- Communicate impacts to key stakeholders (regulator and wider public).
- Enhance internal project planning.
- Work through the planning system with greater efficiency for key infrastructure projects.
- Contribute faster to a lower carbon energy network.

Overall, build infrastructure that is economically efficient while making sure negative impacts are minimised and positive impacts maximised for both the environment and society.

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***Thank you!***

*If you would like to find out more about measuring your social impact and using the results to manage your business, please contact:*



**Stuart Jefford, Assistant Director  
PwC Sustainability & Climate Change**

*Direct: +44 (0) 7715 211704*

*Email: [stuart.g.jefford@pwc.com](mailto:stuart.g.jefford@pwc.com)*

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