Decommissioning; the sustainability challenge

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FOI release

Government definitions of sustainability

Definitions of sustainability.

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From: Department for Environment, Food & Rural Affairs and Dan Rogerson

Applies to: **England**

Documents

Related content

Government efficiency, transparency and accountability

Sustainable development

UK'S SUSTAINABILITY INDICATORS

1. Economic Prosperity
2. Long Term Unemployment
3. Poverty
4. Knowledge and Skills
5. Healthy Life Expectancy
6. Social Capital
7. Social Mobility in Adulthood
8. Housing Provision
9. Greenhouse Gas Emissions
10. Natural Resource Use
11. Wildlife
12. Water Use
13. Population Demographics
14. Debt
15. Pension Provision

Department for Environment Food & Rural Affairs

16. Physical Infrastructure
17. Research and Development
18. Environmental Goods and Services Sector
19. Avoidable Mortality
20. Obesity
21. Lifestyles
22. Infant Health
23. Air Quality
24. Noise
25. Fuel Poverty
26. UK CO_2 Emissions by Sector
27. Energy from Renewable Sources
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29. Waste Disposal and Recycling
30. Land Use
31. Origins of Food Consumed in the UK
32. Water Quality
33. Sustainable Fisheries
34. Priority Species and Habitats
35. UK Biodiversity Impacts Overseas

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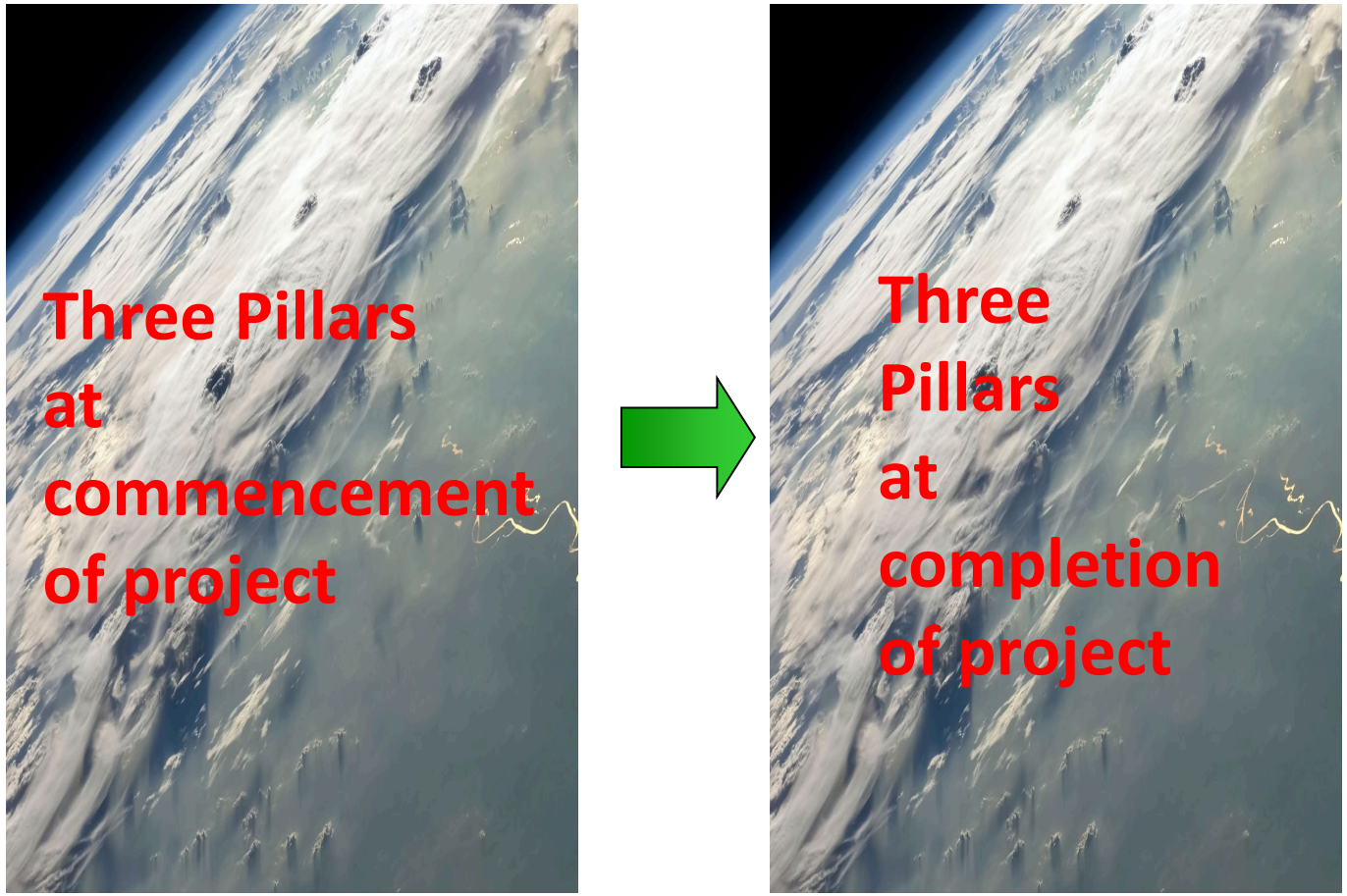
UK'S SUSTAINABILITY INDICATORS - ECONOMICS

All business decisions have economic, resource, environmental and social impacts.

The three pillars;

PEOPLE
PLANET
PROFIT

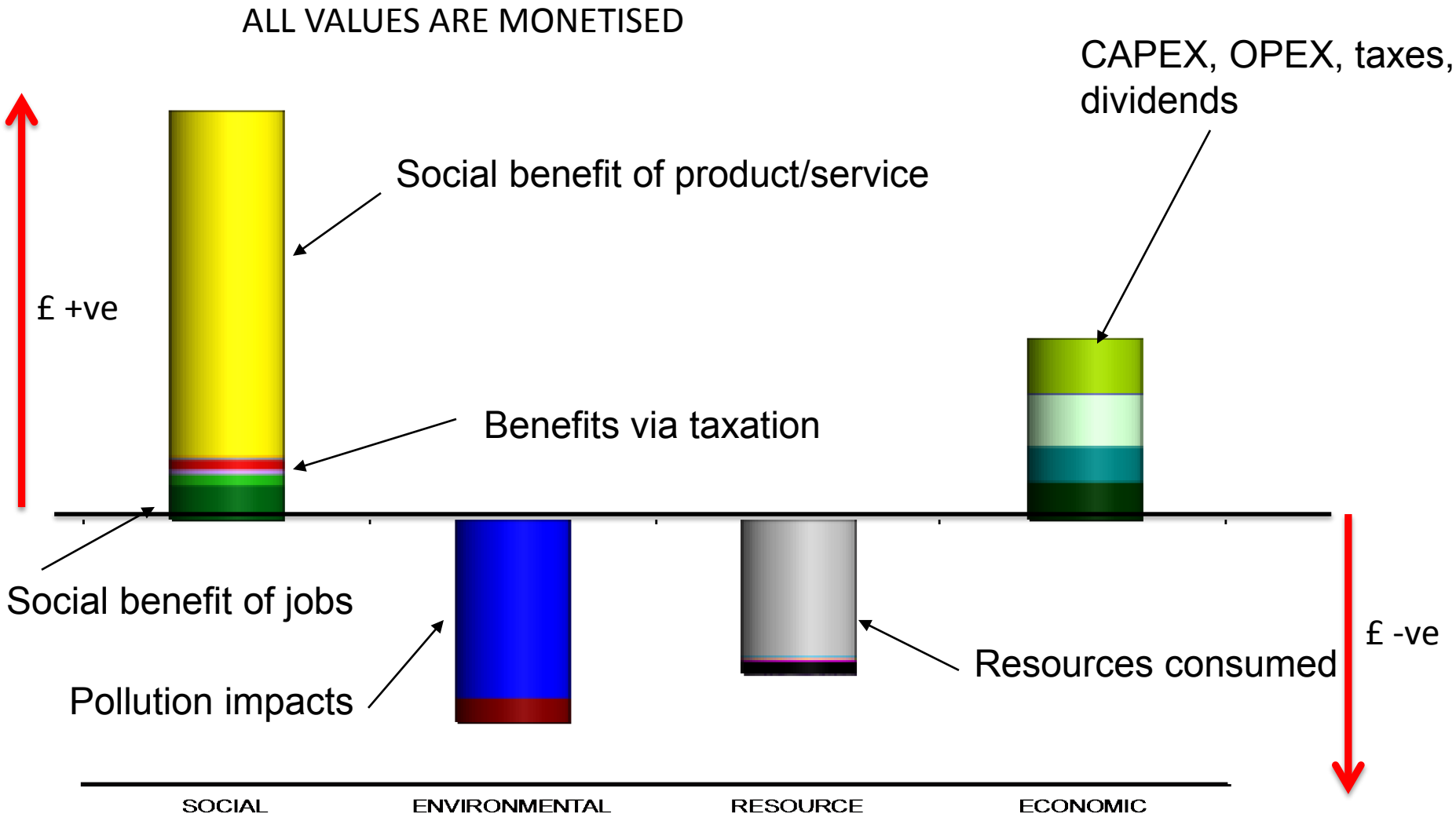
The triple bottom line



Measure changes to:

- Social Progress
- Environmental Quality
- Availability of Resources
- Economic Prosperity

THE SUSTAINABILITY ASSESMENT MODEL (SAM)

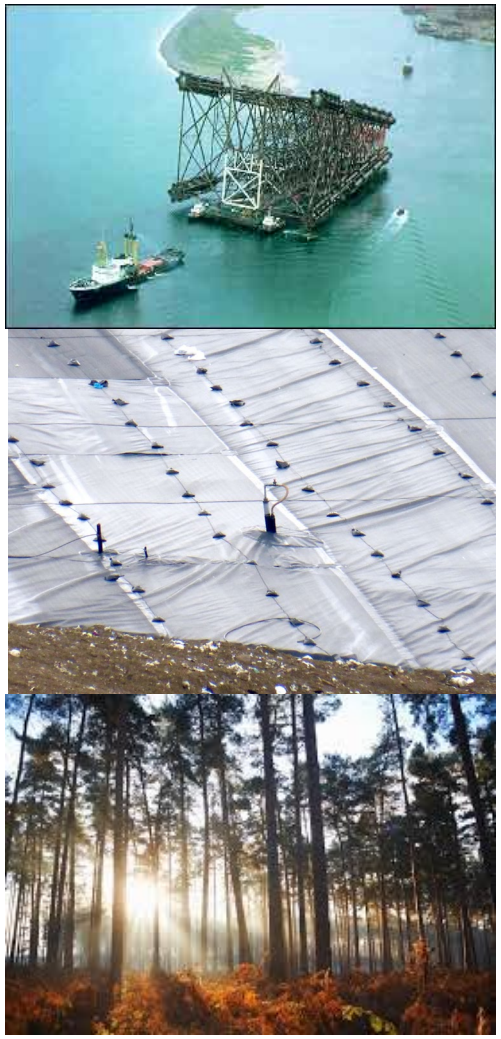


THE SUSTAINABILITY ASSESMENT MODEL (SAM)

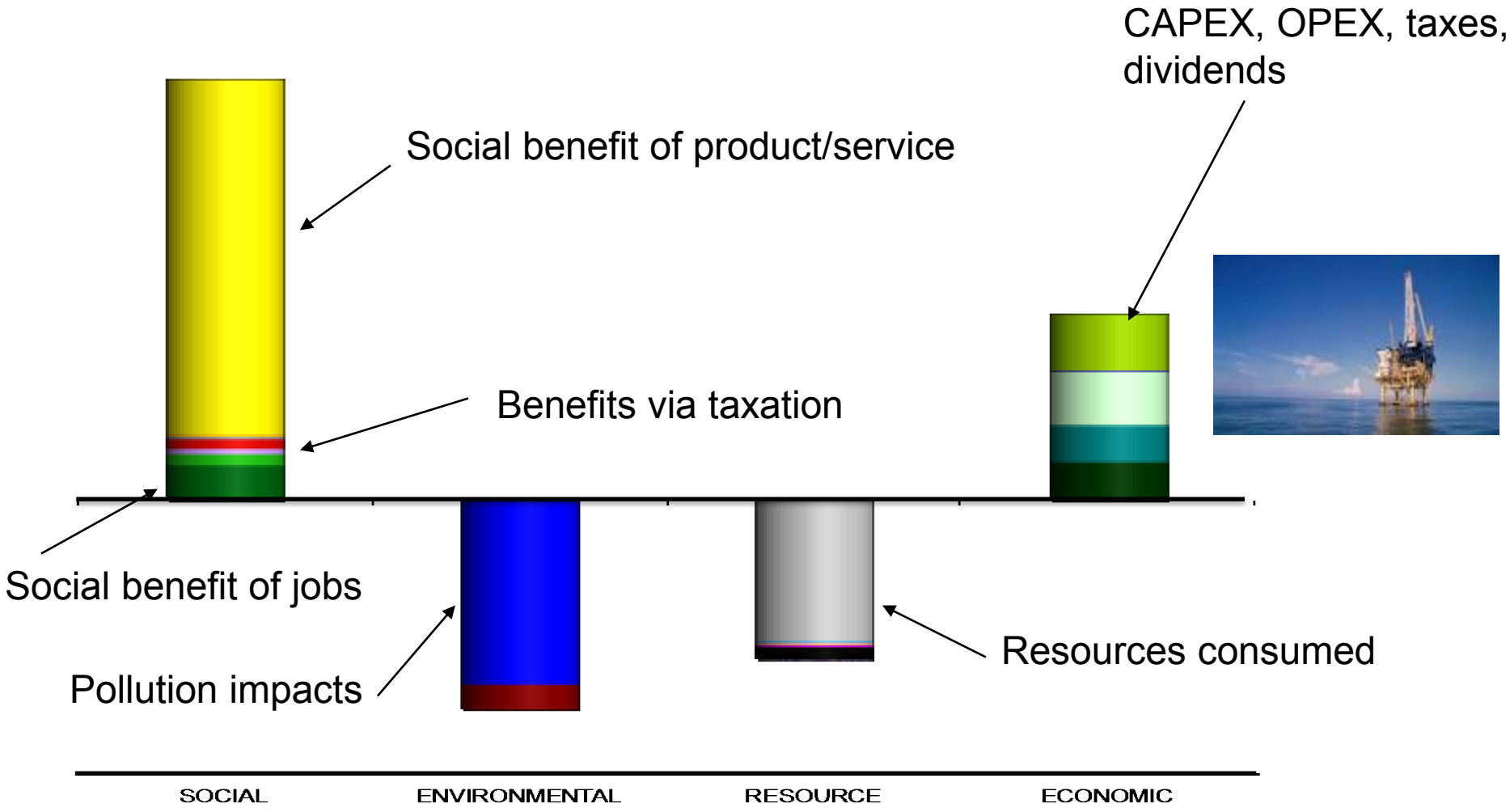
Oil and gas project

Landfill gas capture

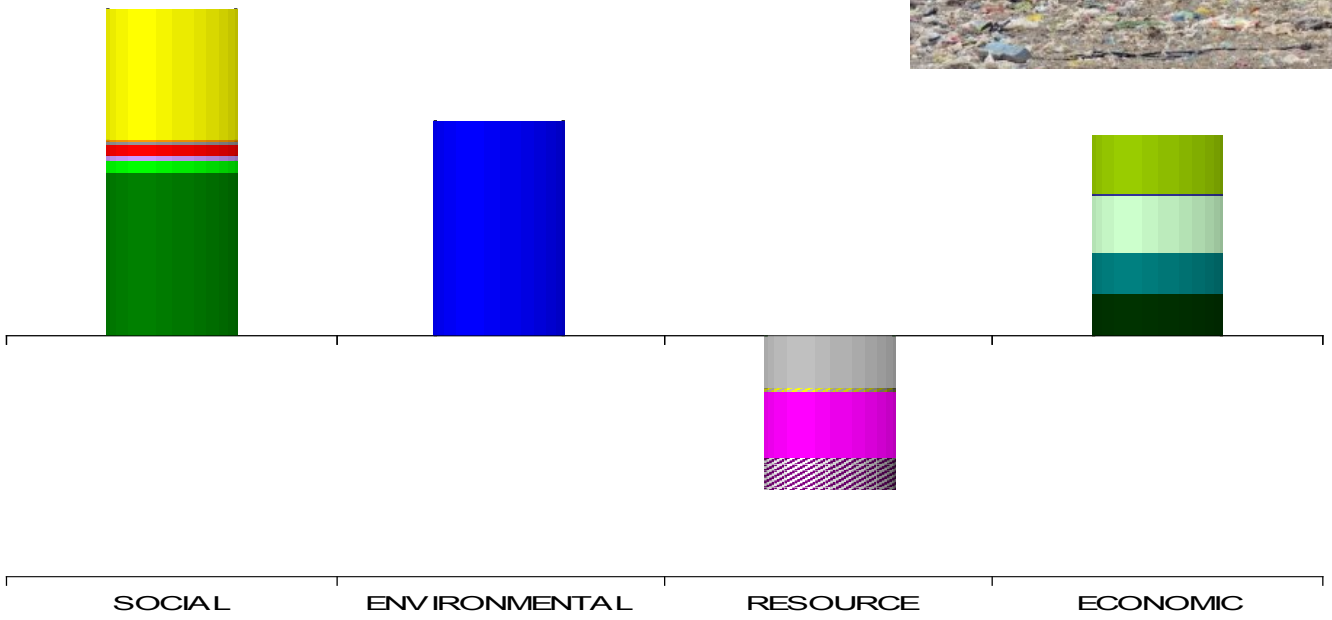
Tree planting scheme



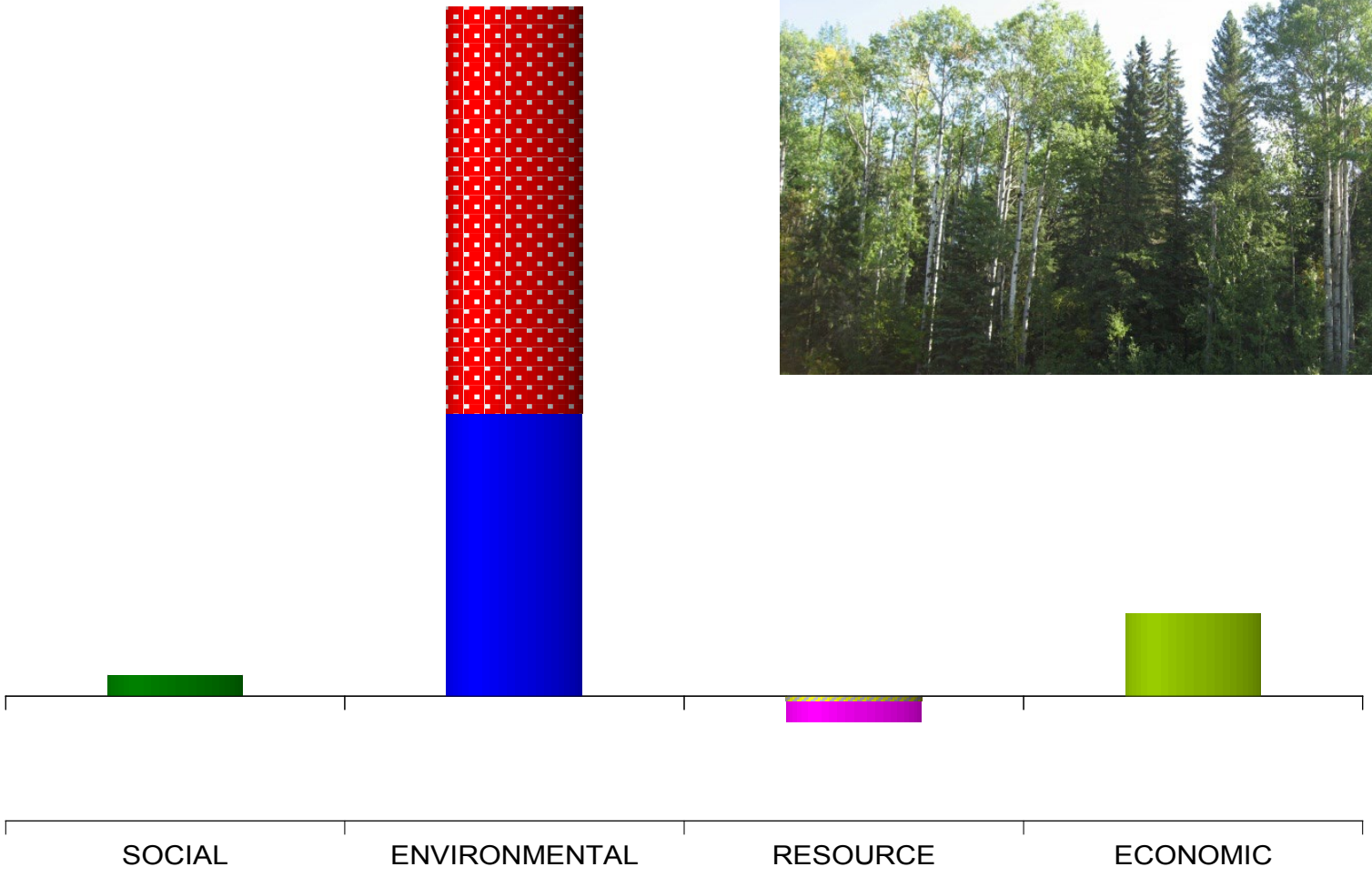
SAM EXAMPLE APPLICATIONS



OIL AND GAS SIGNATURE



LANDFILL GAS CAPTURE



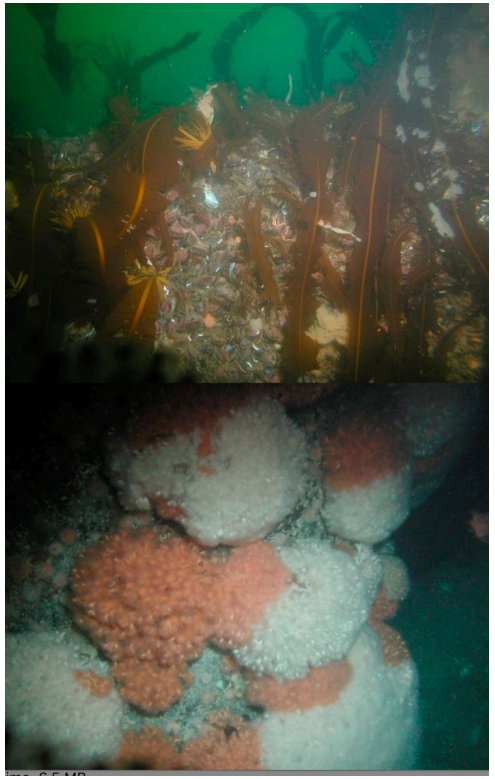
TREE PLANTING

Department for Business, Energy & Industrial Strategy,
HM Revenue & Customs, HM Treasury

2.17 HMRC forecasts that the cost of tax relief to the taxpayer because of decommissioning expenditure will be approximately £24 billion from 2018-19 to 2062-63.

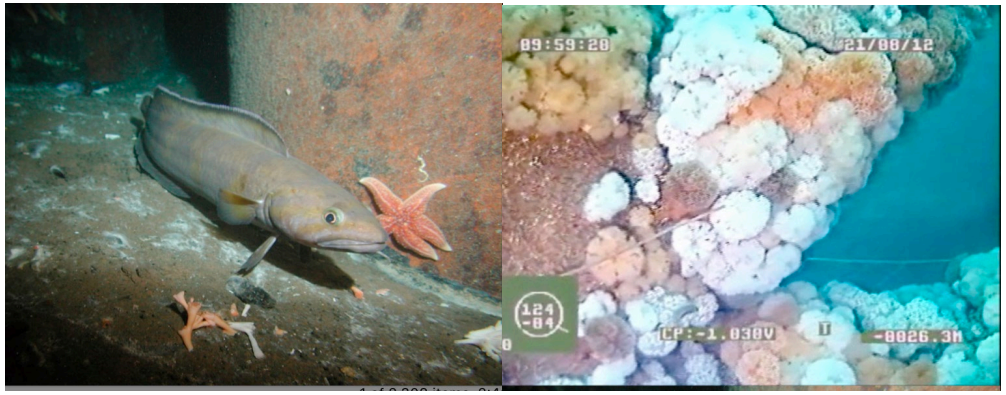
DECOMMISSIONING – WHO PAYS?

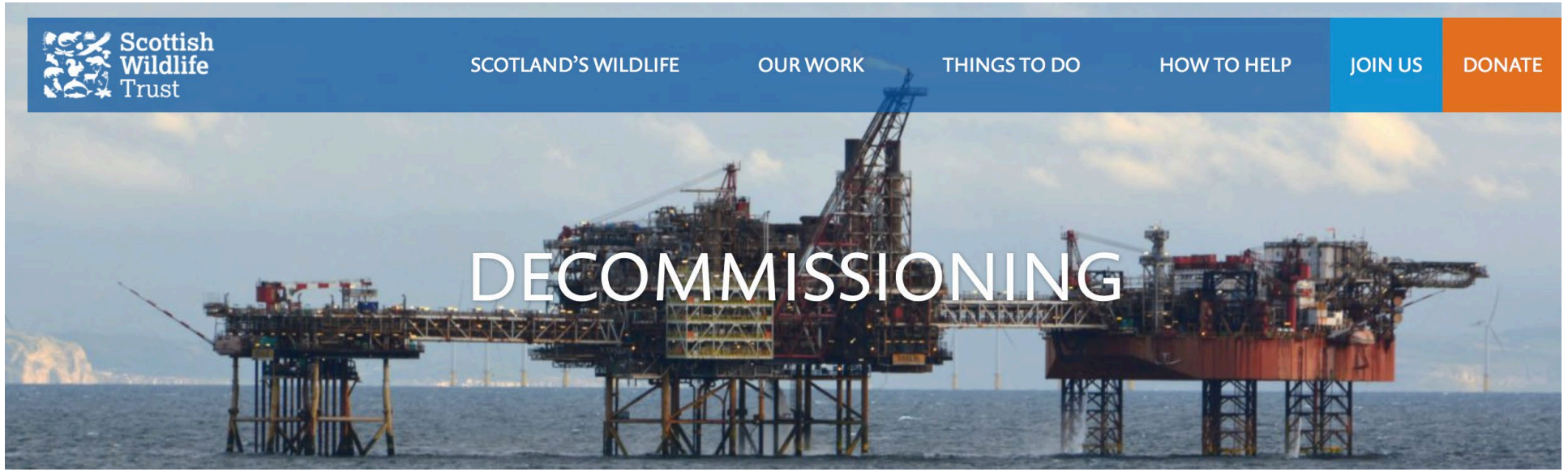
Where in OSPAR is the underpinning evidence that removal has positive environmental benefits?



OSPAR COMMISSION

Protecting and conserving the North-East Atlantic and its resources





The potential for artificial reefs

The alternative to removal is leaving the structure as it is. Although this may seem like abandonment and dumping at sea, there can be ecological benefits to leaving oil rigs in place. For example, fish and other marine organisms are often attracted to large structures such as the 'legs' of oil rigs, using them as artificial reefs, and species such as the rare cold-water coral *Lophelia pertusa* have been found growing on oil platforms in the North Sea.

There can be ecological benefits to leaving oil rigs in place.

Additionally, fishing activity is restricted up to 500m from oil platforms. These restricted zones make up approximately 1% of the North Sea area and could provide important refuge areas for fish. Once the oil rig is removed, these marine communities disappear and fishing returns to the area.

SCOTTISH WILDLIFE TRUST

Australian Government
Department of Industry, Innovation and Science

Resources

Discussion Paper – Decommissioning Offshore Petroleum Infrastructure in Commonwealth Waters

5. Complete removal is the "base case"

There are three main options for decommissioning property: complete removal, partial removal, and repurposing or reuse.

AUSTRALIA

1. The base line – the current decommissioning plans

Social Progress

Environmental Quality

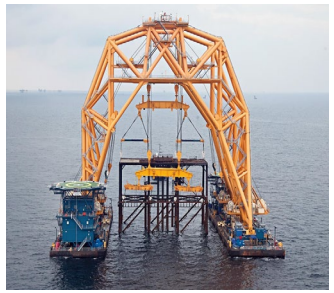
Availability of Resources

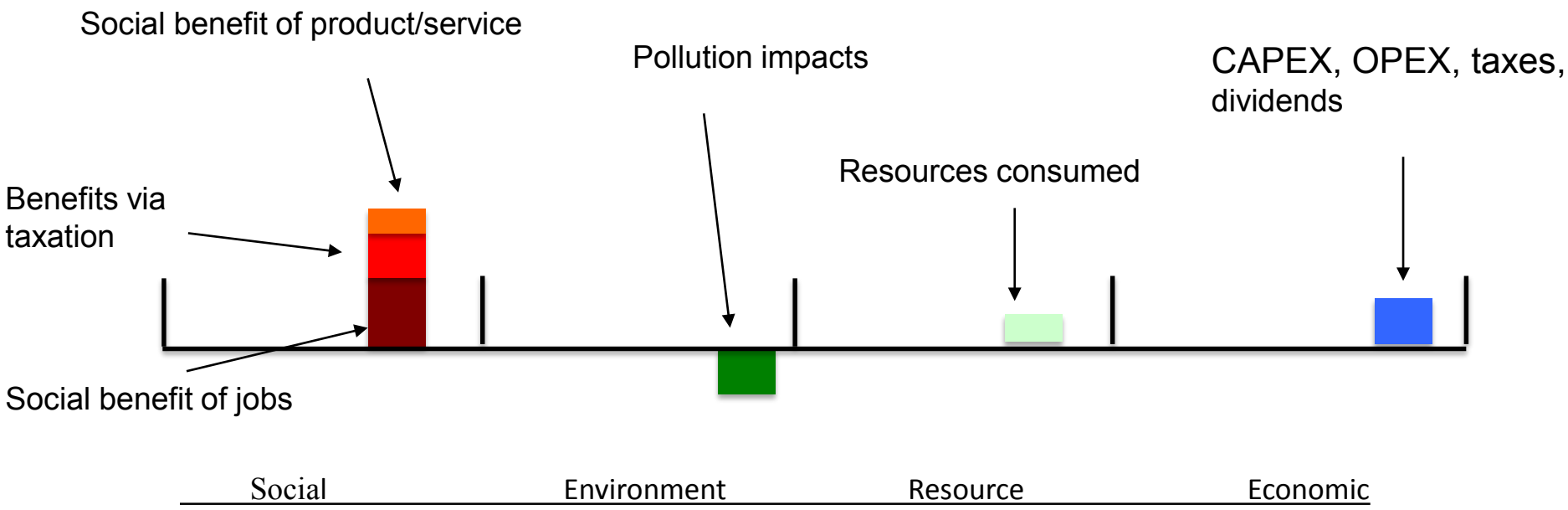
Economic Prosperity

2. The alternative – plug and abandon the wells, make clean and safe and leave in place. Redirect the capital saved (tax payers' money) through no removal into green energy.

THE COMPARATIVE STUDY – QUALITATIVE LOOK

Drain on the treasury
Few long term jobs – when the task is complete there is no follow on
Energy intensive – carbon footprint and additional emissions
Dis-benefit for marine life
End product of limited value to society



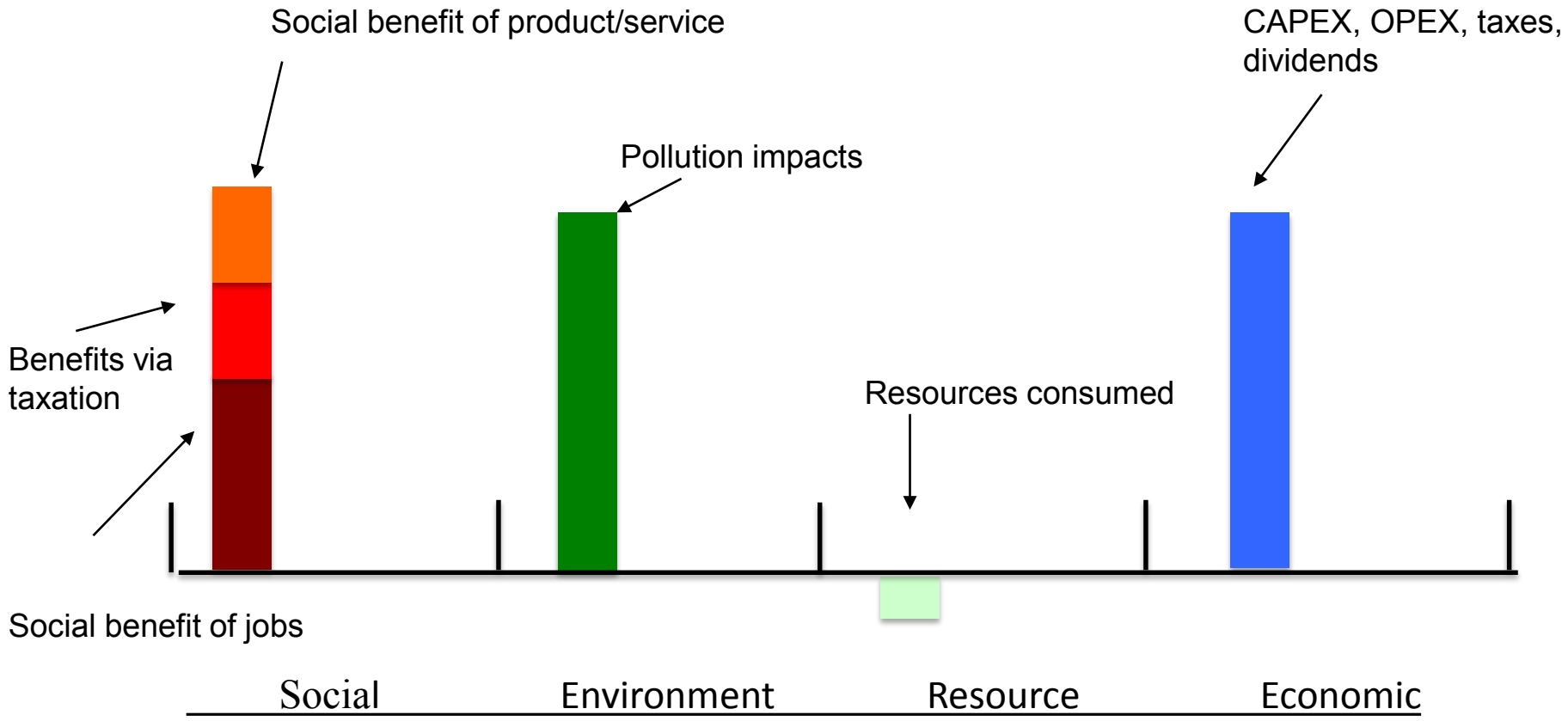


1. THE CURRENT PLANS – P&A AND REMOVAL

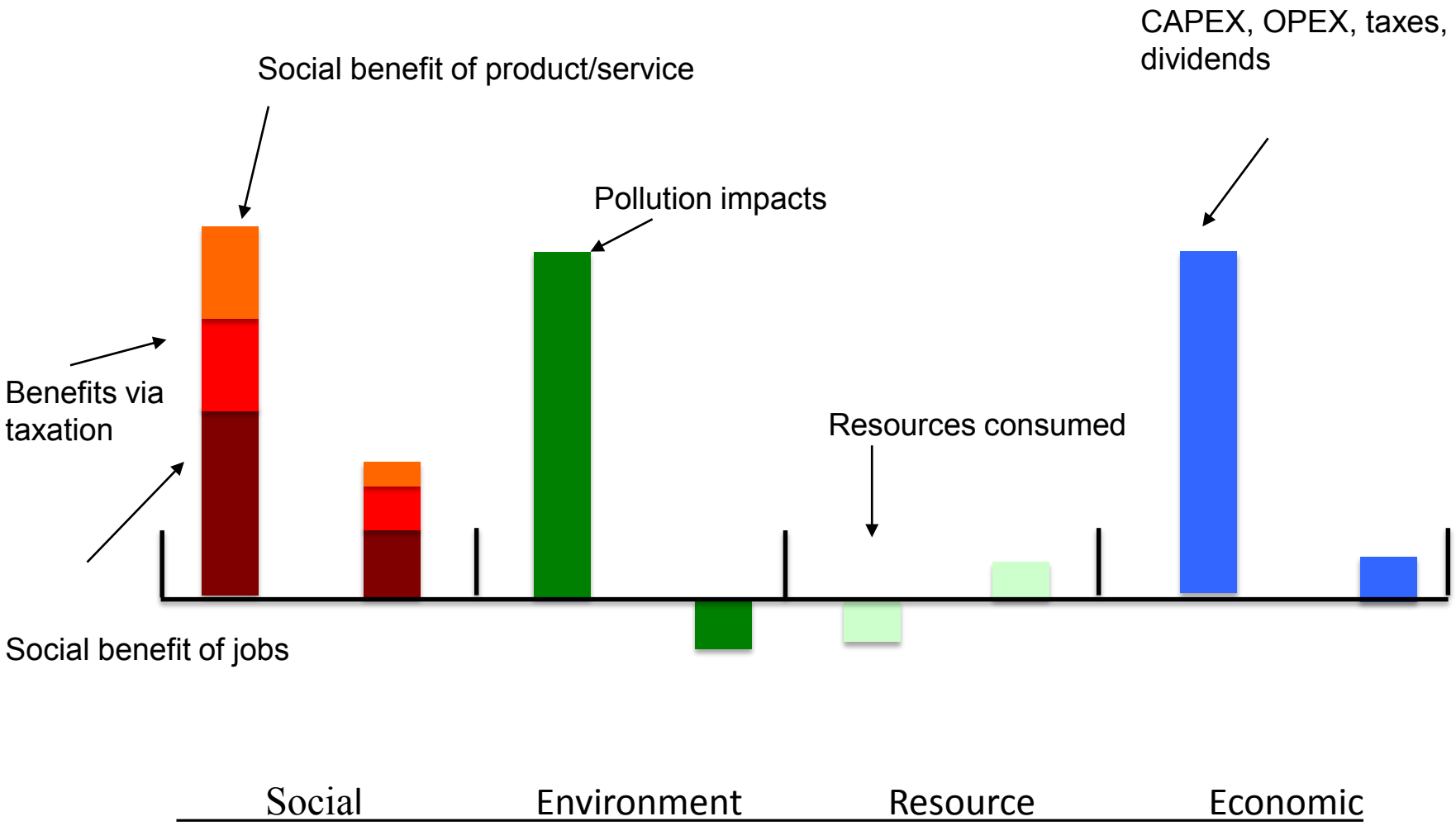
Green stations making profits and contributing to the treasury

Long term jobs

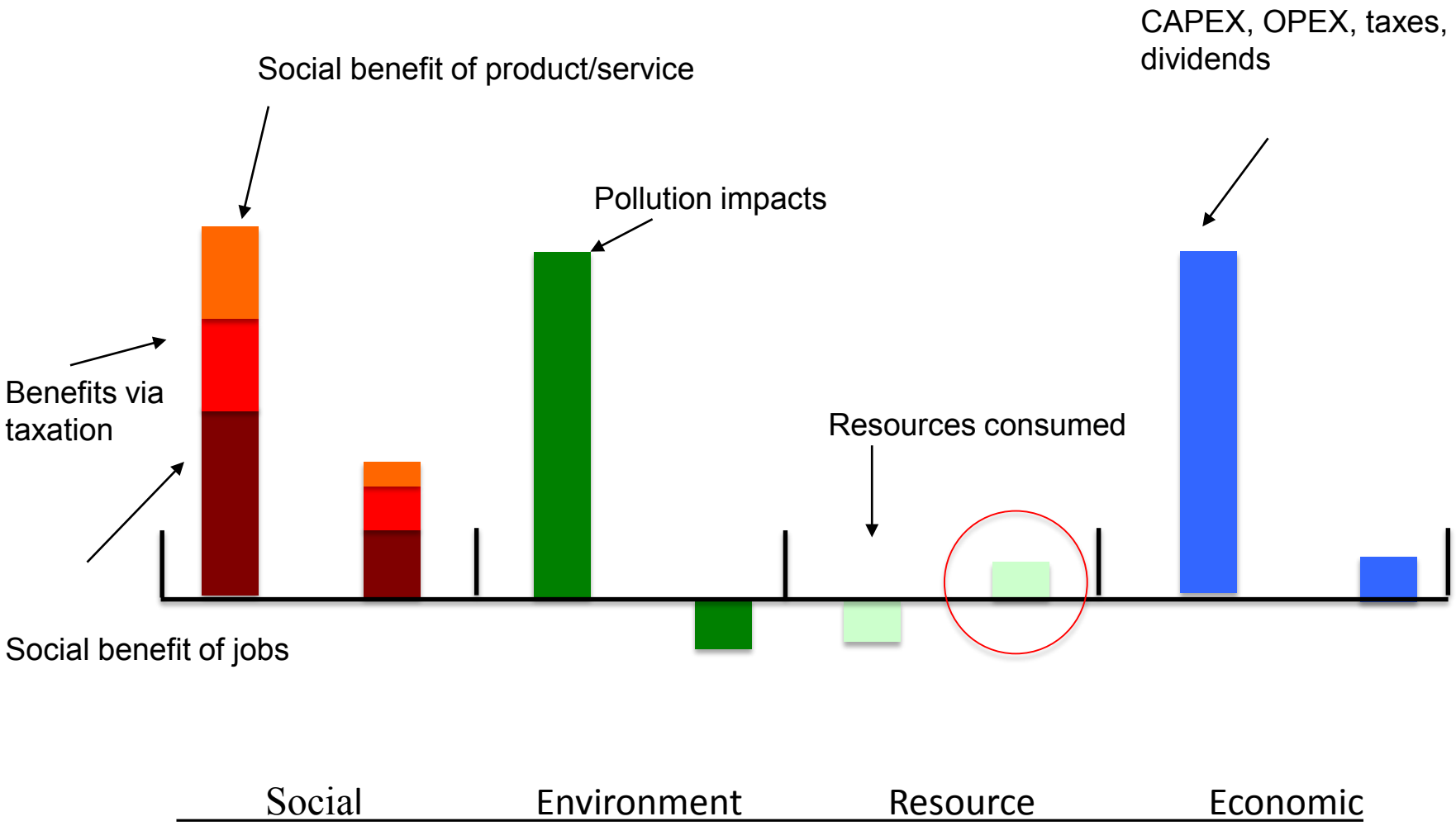
End product of huge value to society and environment



2. P&A, LEAVE IN SITU, SAVINGS TO GREEN ENERGY



OPTION COMPARISON



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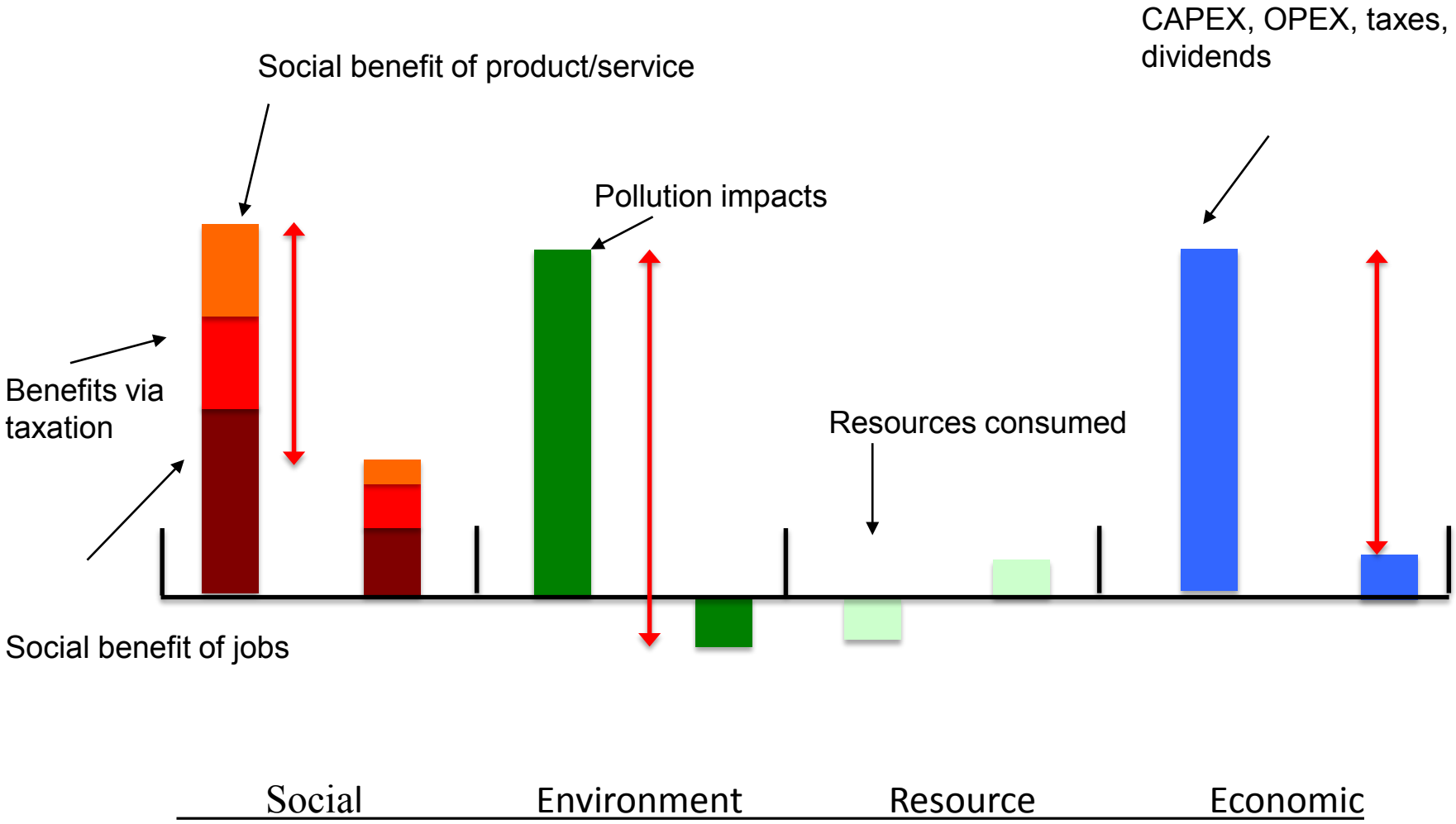


OPTION COMPARISON

Removing redundant industry architecture must be the starting point.

Only a special set of circumstances would lead to a different conclusion.

Those circumstances present themselves with decommissioning.

1. Marine Regulations, though well intentioned, are taking the country to a poor outcome for the environment, the economy and for society.
2. We have sufficient information now to conduct a holistic comparative assessment to include taxpayer options.
3. The comparative assessment will form the basis for a regulation challenge.
4. You can’t pocket the savings – offer the NGOs a much more positive environmental outcome – otherwise more Brent Spars.

CONCLUSIONS

If not green energy, then;

Health

Education

Manufacturing base recovery – renewables

Marine conservation

Land conservation

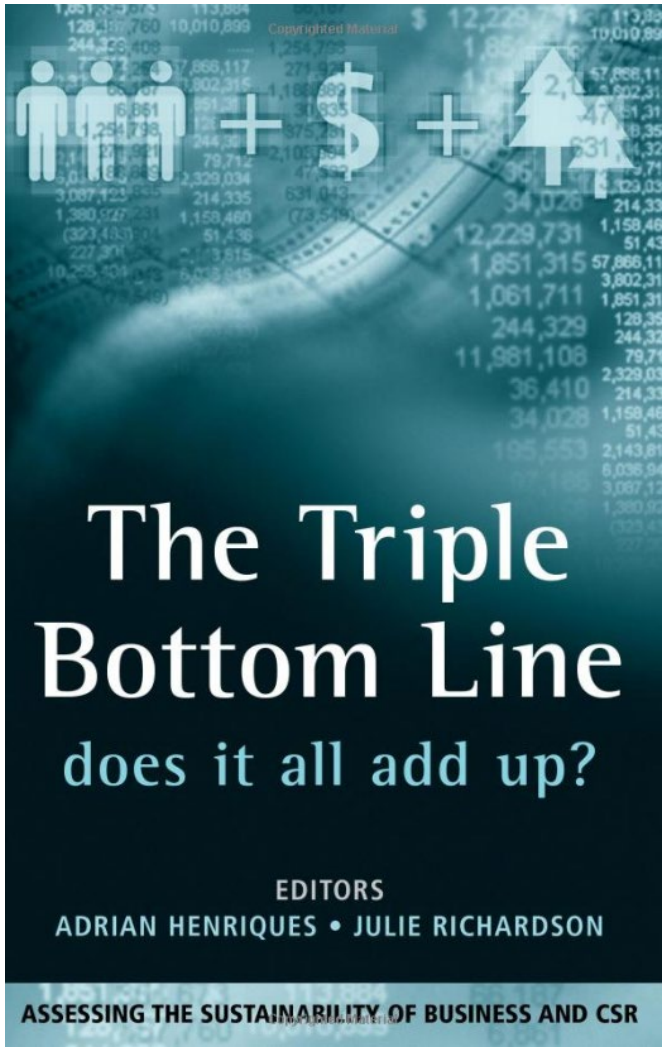
Smart grids

Flood defences

Tackling poverty…….

CONCLUSIONS

IN PLACE SINCE 1943!



SPE International
Society of Petroleum Engineers

SPE 73968

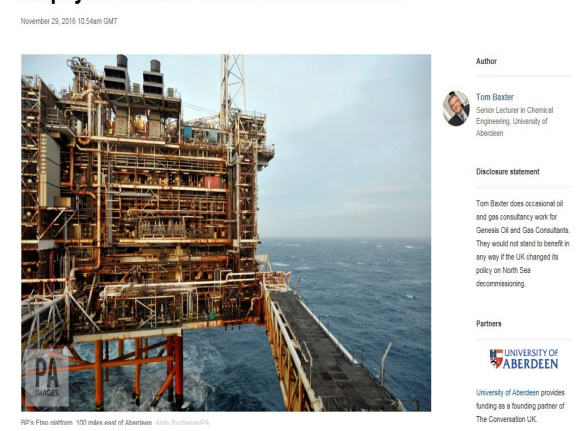
The Sustainability Assessment Model (SAM)

Tom Baxter, Genesis Oil And Gas Consultants; Jan Bebbington, The University Of Aberdeen; and David Cutteridge, BP

OTHER STUFF

http://www.bbc.co.uk/programmes/b08dnrqb

https://theconversation.com/five-myths-about-dismantling-north-sea-oil-rigs-76063



https://theconversation.com/north-sea-decommissioning-will-cost-taxpayers-billions-heres-a-better-idea-69509