



South West Partnership for Environment and Economic Prosperity

Prof Ian Bateman
SWEEP Director



THE SWEEP VISION

*Placing natural capital at the heart
of South West business and policy
decision-making*

THE NERC 'RISE' OBJECTIVE

Regional Impact from the Science of the Environment

"Designing a national framework for the heart of South West business & a policy environment to achieve it"

NERC

SCIENCE OF THE
ENVIRONMENT



SW: The ideal RISE location

A map of the Southwest region of England, with the landmass colored in a dark teal color. The surrounding sea is light blue, and other parts of the UK are shown in a light green color. A white rectangular box with a black border is centered over the landmass, containing text.

More than half the region's jobs are directly dependent upon natural capital

SW: The ideal RISE location



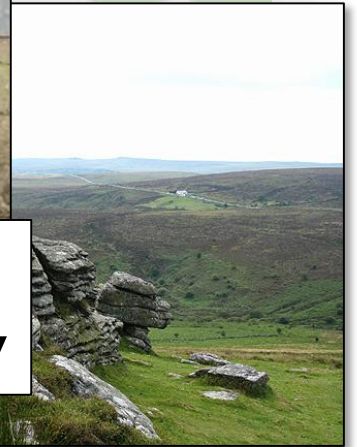
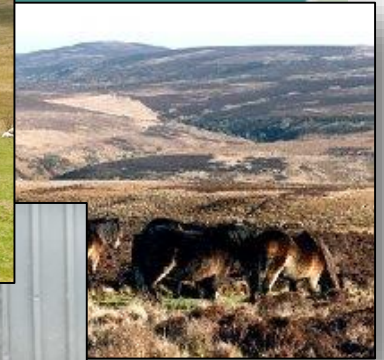
More than half the region's jobs are directly dependent upon natural capital



Highest dependency on farming for employment of any region in the country

SW: The ideal RISE location

the UK



Highest dependency on farming for employment of any region in the country

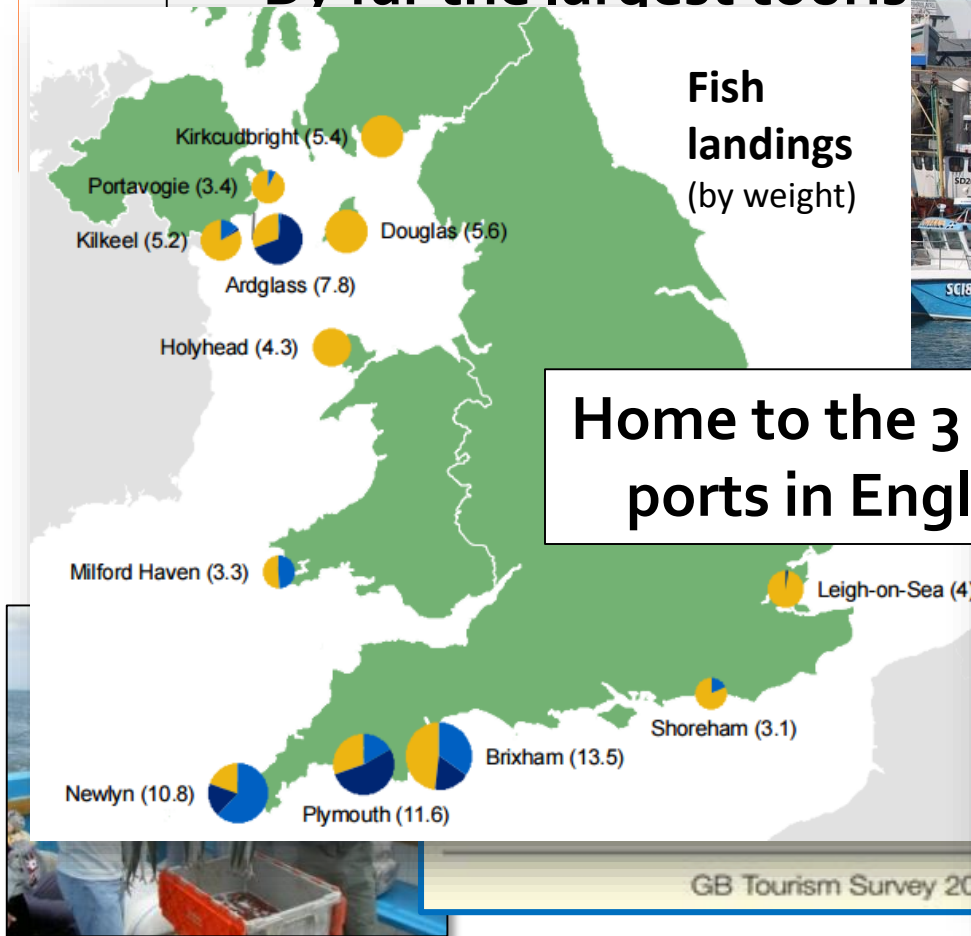
SW: The ideal RISE location

By far the largest tourist

Fish
landings
(by weight)



Home to the 3 largest fishing
ports in England & Wales



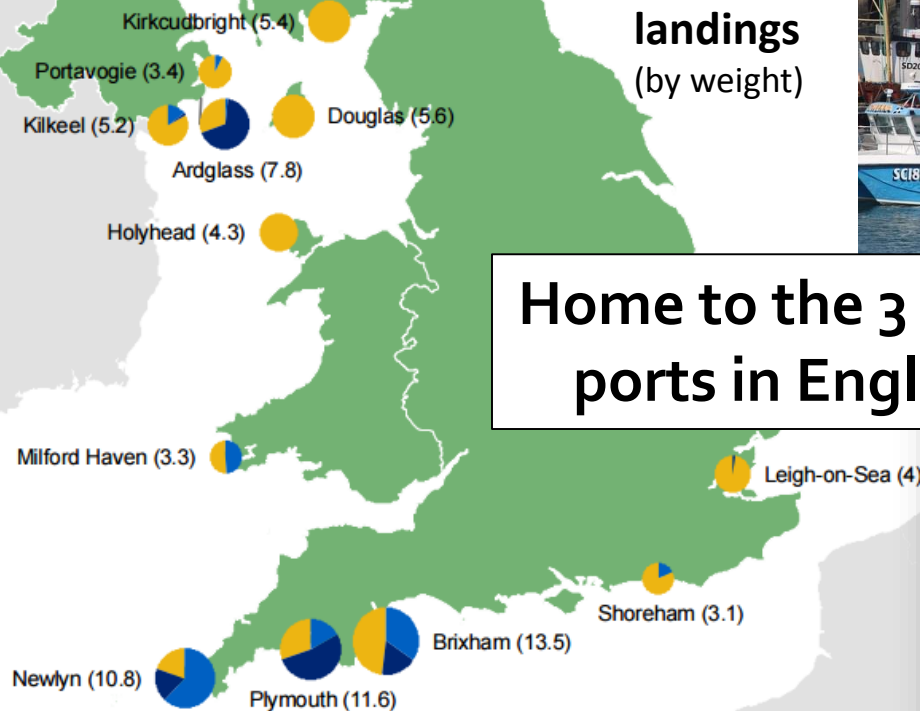
SW: The ideal RISE location

Renewable Energy – The on

Fish
landings
(by weight)



Home to the 3 largest fishing
ports in England & Wales



Wave

Wind

Tidal

Solar

SW: The ideal RISE location

Pressures & Vulnerabilities

High vulnerability to natural hazards



£1.2billion loss

wave

wind

Economic dependence on high quality environment



tidal



le

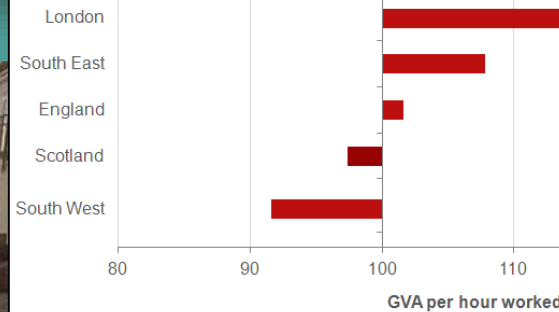
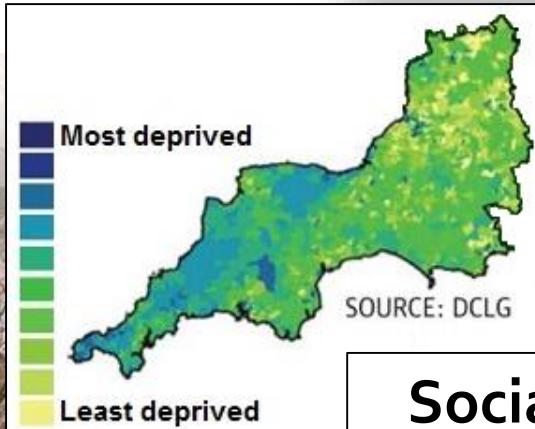
SW: The ideal RISE location

Pressures & Vulnerabilities



**Population growth:
double national
average**

**Low tech: productivity
(GVA) 20% below
national average**



Express & Echo

Heart of South West LEP confronts productivity challenge

By Exeter Express and Echo | Posted: September 25, 2015



Chris Garcia, chief executive of the Heart of the South West LEP
Business leaders from across Devon and Somerset gathered at Exeter Racecourse to discuss the challenge of increasing the region's productivity.

**Social deprivation: Only
English region receiving
EU Higher Tier funding**

**DO NOT ENTER
THE SEA**

SW: The ideal RISE location

Pressures & Vulnerabilities

The South West region:

- High natural capital dependency
- High vulnerability to natural hazards
- High rates of economic deprivation
- Needs to raise productivity

Most deprived

England
Scotland

Heart of South West LEP confronts productivity challenge

By Exeter Express and Echo | Posted: September 25, 2015

The Key:

Innovative partnerships between research, business and policy to transform use of the region's natural capital

English region receiving
EU Higher Tier funding

Chris Garcia, chief executive of the Heart of the South West LEP
Business leaders from across Devon and Somerset gathered at Exeter Racecourse to discuss the challenge of increasing the region's productivity.

SW: The ideal RISE location & the ideal time

Natural capital led growth strategies



Brexit uncertainties / Government 25 Year Environment Plan

- Manchester (urban)
- Cumbria (catchment scale)
- North Devon (Landscape scale)
- North Devon Marine (Marine 1)
- North Norfolk Marine (Marine 2)

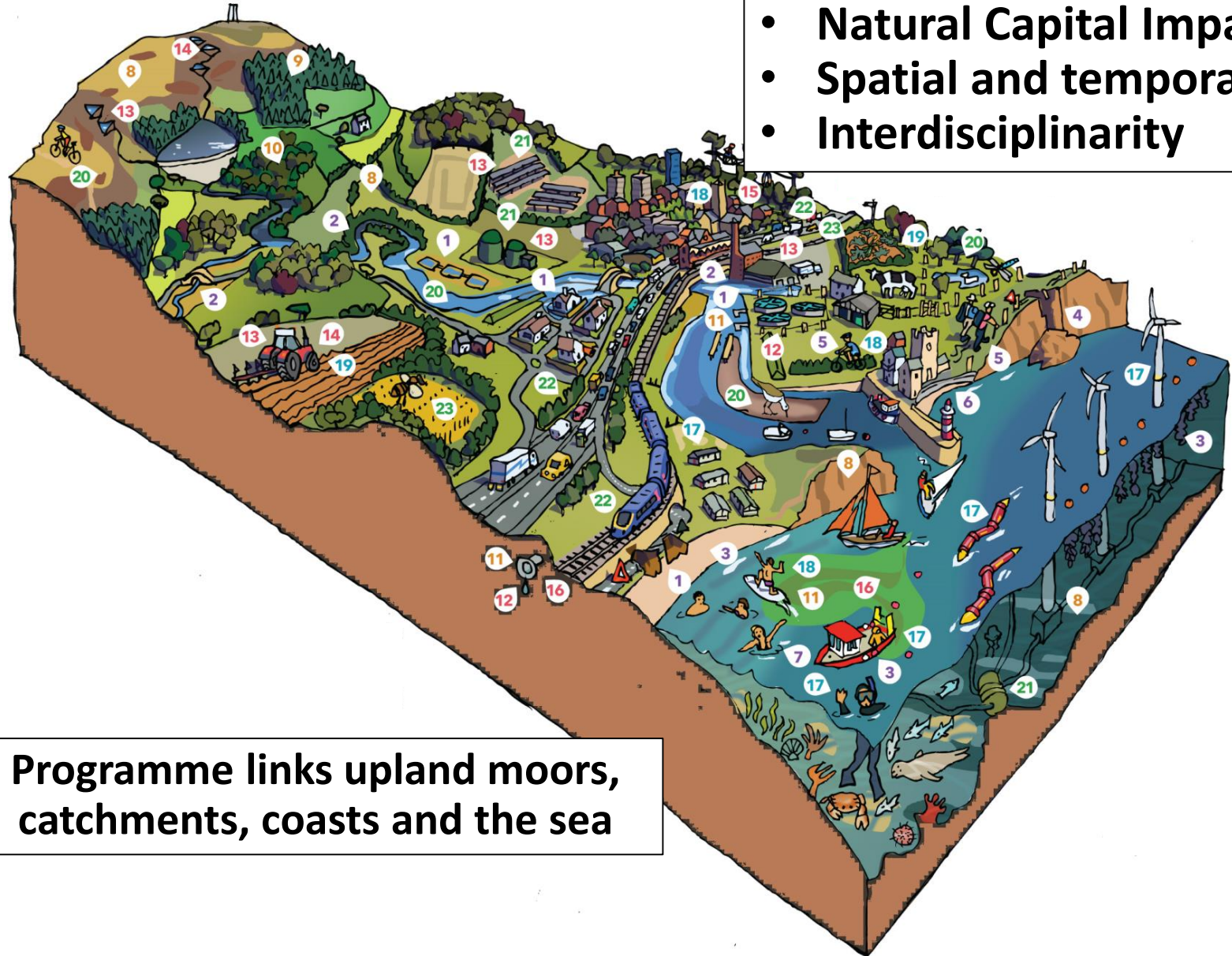


The only integrated
terrestrial-marine system Pioneer

SWEEP PROGRAMME

Integration:

- Natural Capital Impacts
- Spatial and temporal
- Interdisciplinarity



Programme links upland moors, catchments, coasts and the sea

SWEEP PROGRAMME



Restoring
natural capital
for economic
and social
benefit



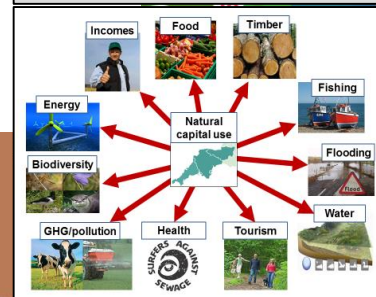
Safeguarding
natural capital
to increase
resilience



Mainstreaming
natural capital in
the private and
public sector



Integrated
policymaking for
natural capital-
led growth



Boosting the
business sector:
new markets for
natural capital



THE SWEEP TEAM



Martin Attrill
Flooding Lead



Juliet Osborne
Food Sector Lead



Mel Austen
Marine Lead



Will Gaze
Health Lead



Gerd Masselink
Coastal Protection
Lead



Richard Brazier
Water & Business
Lead



Brett Day
Natural Capital
Markets Lead



Ian Bateman
SWEEP Director



Caroline Hattam
Impact Fellow Lead



Michael Winter
Agriculture &
Pioneer Lead



Charles Tyler
Water Co-Lead



Samantha Starkey
Comms Manager



Dawn Scott
Programme Manager



Kevin Gaston
Biodiversity &
SME Lead



Zoran Kapelan
Engineering Lead

SWEEP SKILLS

Natural Science: Atmospheric,
Hydrological, Marine, Soil,
Ecological, Biogeochemical,
Engineering



Social Science: Economics,
Sociology, Politics,
Human Geography



SWEEP PARTNERS



SOUTH WEST WATER



working to accelerate offshore consenting



heart of the south west

local enterprise partnership



CORNWALL & ISLES OF SCILLY
LOCAL ENTERPRISE PARTNERSHIP



Department for Environment Food & Rural Affairs

Pell Frischmann
Flood Risk Engineers



KIER

AstraZeneca



Forestry Commission



DEVON & CORNWALL BUSINESS COUNCIL
The Business Voice For a Better Future

More than 40 partners bringing over
£11M in additional support



Marine Management Organisation

Riviera Produce
Cornwall's grower of choice



SURFERS AGAINST SEWAGE

Public Health Devon

CORNWALL COUNCIL



coast

Cornwall Sustainable Tourism Project



National Trust



CORNWALL & ISLES OF SCILLY
LOCAL NATURE PARTNERSHIP

NATURAL ENGLAND



Devon



offshore shellfish ltd



Cefas

Cornwall Health and Wellbeing Board



CLINTON DEVON ESTATES



Westcountry Rivers Trust



Environment Agency



Public Health England



Joint Nature Conservation Committee



NORTH WYKE
ROTHAMSTED RESEARCH

Cornwall Area of Outstanding Natural Beauty

SWEEP PARTNERS & DELIVER



Department for Environment Food & Rural Affairs



Forestry Commission



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Marine Management Organisation



SURFERS AGAINST SEWAGE



Cornwall Sustainable Tourism Project



Devon



National Trust



Environment Agency



Cornwall Health and Wellbeing Board



Public Health Dorset



Public Health England

CO-DESIGN & DELIVERY

- Impact Fellows
- Impact Associates
- Impact Cases
- Impact Residencies
- Engagement events
- SWEEP Cinema
- Virtual Impact Exchange



INITIAL FUNDING PROGRAMME

12 SWEEP Impact Cases funded since February 2017
Working with over 45 partners



Drones & leak detection



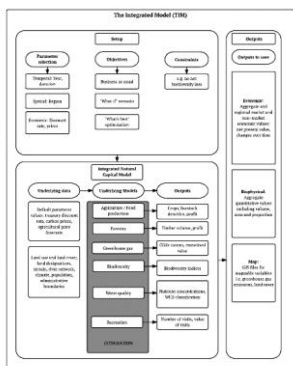
Marine planning

Farming & natural capital



Payments for ecosystem services

Managing green space



Integrated modelling

Natural capital accounting



National Parks



Flood modelling

Planning & marine renewables



Wave modelling



Water quality modelling

sweep IMPACT CASES TO DATE

Abbreviated title	Project Lead	Main partners
Wave forecasting	Masselink (PU)	EA, Met Office, RNLI, National Trust, Network Rail, Natural England, Magic Seaweed
25YEP N Devon Marine Pioneer	Attrill & Austen (PU & PML)	Defra, N Devon Biosphere, Marine Management Organisation, World Wildlife Fund, NE, Devon & Severn IFCA, Devon LNP
Leak detection	Brazier (UoE)	South West Water
Dartmoor & Exmoor natural capital	Day & Tyler (UoE)	Exmoor National Park, Dartmoor National Park
25YEP Pioneer & N Devon Biosphere	Binner (UoE)	Natural England, N Devon Biosphere, Forestry Commission, Defra, EA, JNCC, Ordnance Survey, RSPB, Carbon Fund, ESI Consulting, Moor Trees
Sustainable drainage	Kapelan (UoE)	Pell Frischmann
Managing Green Space	Osborne (UoE)	Cornwall Council, Riveria Produce, Kier, Natural England, NFU, Cornwall AONB, Agriculture and Horticulture Development Board
Whole catchment water management	Brazier (UoE)	SWW, WRT, Devon Wildlife Trust, Cornwall Wildlife Trust, Cefas, Offshore Fisheries, EA, AstraZeneca, Surfers Against Sewage, Aquatic Water Services, Defra, NT, NFU, Met Office, CoaST, Public Health England
SW Coastal Corridor	Tyler & Gaston (UoE)	National Trust, RSPB
Cornwall Env Growth Strategy	Gaston (UoE)	Cornwall & Isles of Scilly LNP, Cornwall Council, Cornwall AONB, NJW Ltd
Marine Renewables	Hooper (PML)	Seatricity, Offshore Renewables Joint Industry Partnership (ORJIP), RegenSW, WaveHub, Cornwall Council, Devon County Council
SW Marine Planning	Austen (PML)	Marine Management Organisation

sweep STUDENTSHIPS

13 SWEEP studentships available
Each 50% funded with remainder from partners

Allocation (follows College funding inputs):

- Plymouth University: 2
- U. Exeter - Life & Env Science: 3 (1 @ Clinton Devon Estates; 2 available)
- U. Exeter – Business School: 3 (1 @ SWW; 1 @ JNCC; 1 available)
- U. Exeter - Engineering, Maths & Physical Sciences: 3 (currently unallocated)
- U. Exeter - Medical School ECEHH: 2 (1 with Will Gaze & Ben Wheeler, in discussion with Environment Agency, plus 1 available)

sweep LONG TERM GOALS

In the SW:

- Transformation of the region
- Economic gains for business
- Improved public sector decision-making
- Enhanced environmental sustainability

Scaling up to national level:

- Shaping best practice for post Brexit decision making
- 25 Year Environment Plan

sweep CONTACT DETAILS

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