



REMIX

Interreg Europe



European Union
European Regional
Development Fund

University of Exeter,
Camborne School of Mines

Cornwall Peer Review visit
Background materials

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Cornwall – a county in England



Regional authority:
Cornwall Council

Economic strategy
driven by:
Cornwall and Isles of Scilly
Local Enterprise Partnership

REMIX partner:
Camborne School of Mines,
University of Exeter

Image of Cornwall?

active and outdoors - Google Chrome
ps://www.visitcornwall.com/things-to-do/activities

visit Cornwall

STAY SEE & DO EAT WHAT'S ON MAP BEACHES OFFERS TRAVEL SEARCH MENU

me » Activities

ACTIVE AND OUTDOORS

Search from hundreds of listings

Search our listings of the very best Cornwall has to offer, from walking, cycling and watersports to surf schools, sailing centres and multi-activity centres. Use the left-hand filters to refine your search and help you find exactly what you're looking for.

You'll want to make the most of Cornwall's amazing beaches, rivers, lakes and estuaries with all the fantastic watersports on offer. Walkers will love the diversity of the landscape, windswept moors, coastal cliff top walks, areas of natural beauty and trails through mining heritage landscapes. Whatever your interest, be it fishing, adventure sports, horseriding, or golf, [» History and heritage](#)



HOT OFFERS

127 Results

^ Cornwall

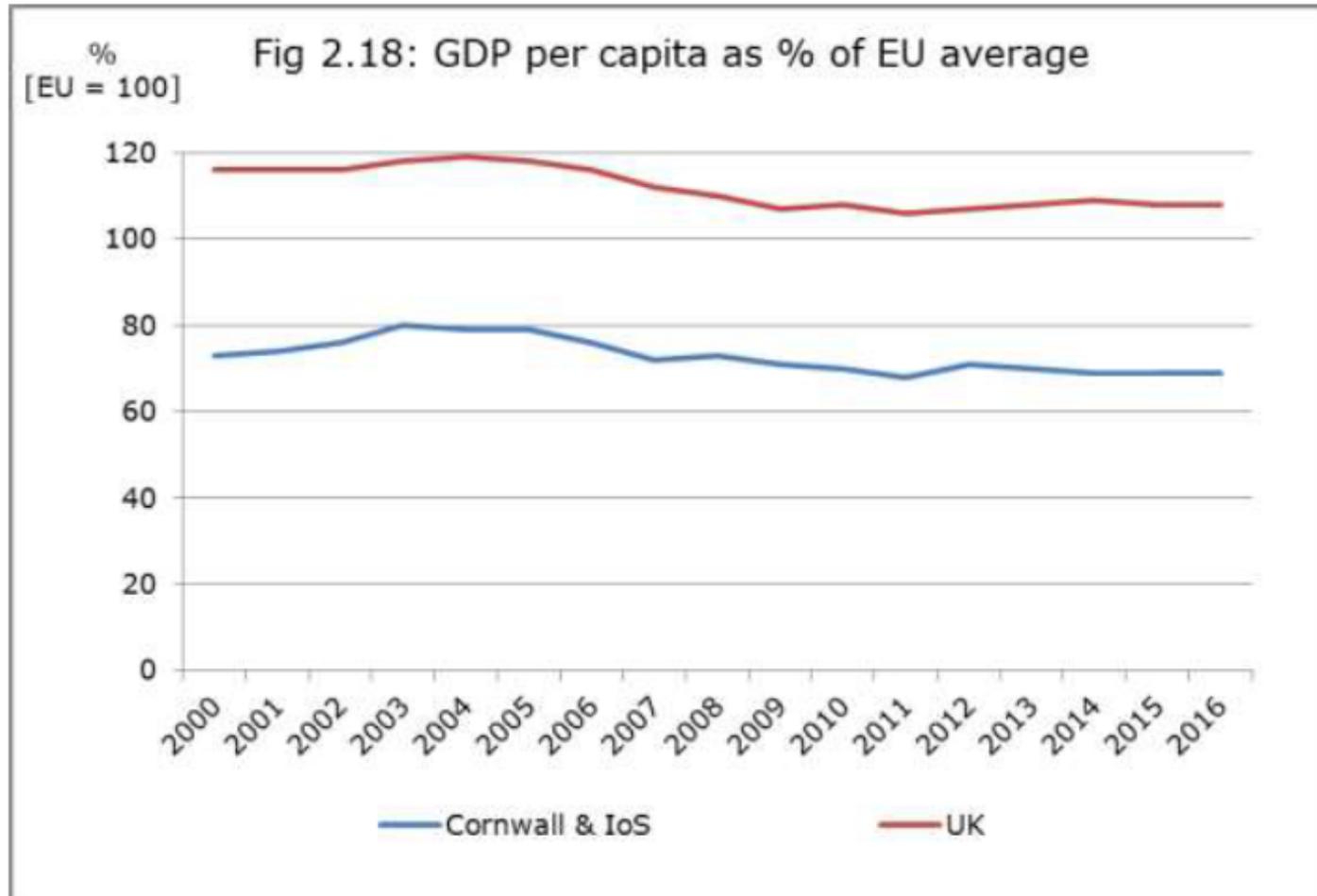
HISTORY AND HERITAGE ATTRACTIONS

Explore Cornwall's vibrant past

Cornwall has achieved international recognition from UNESCO that has credited [World Heritage Site](#) status to ten industrial landscape areas which best represent our mining past. Cornwall's vibrant identity has evolved from history going back 3000 years and a rich traditional culture much of which still lives and breathes through the sites and scenery found throughout the region today. Discover this rich history by exploring museums, ancestral houses, castles and the Cornish Mining World Heritage Site.



But Cornwall is a 'poor' region in Europe



In 2000, Cornwall and the Isles of Scilly was ranked joint 194 out of 265 NUTS regions; in 2016 it was ranked joint 204 out of 265 NUTS 2 regions.

More stats at: <https://www.cornwall.gov.uk/council-and-democracy/data-and-research/national-sources-of-data/>

Cornwall - Post-Mining



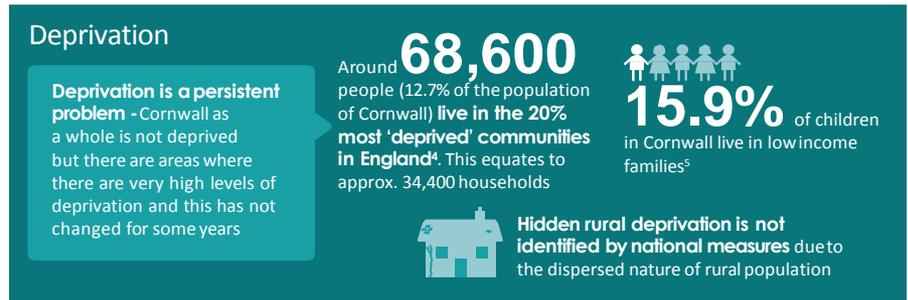
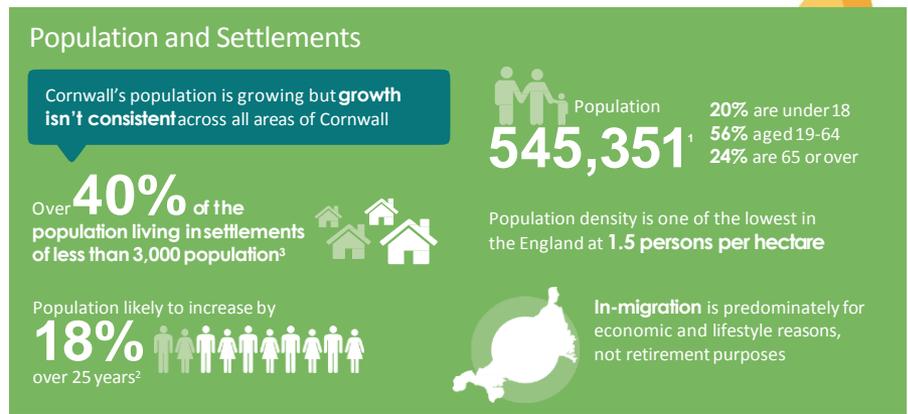
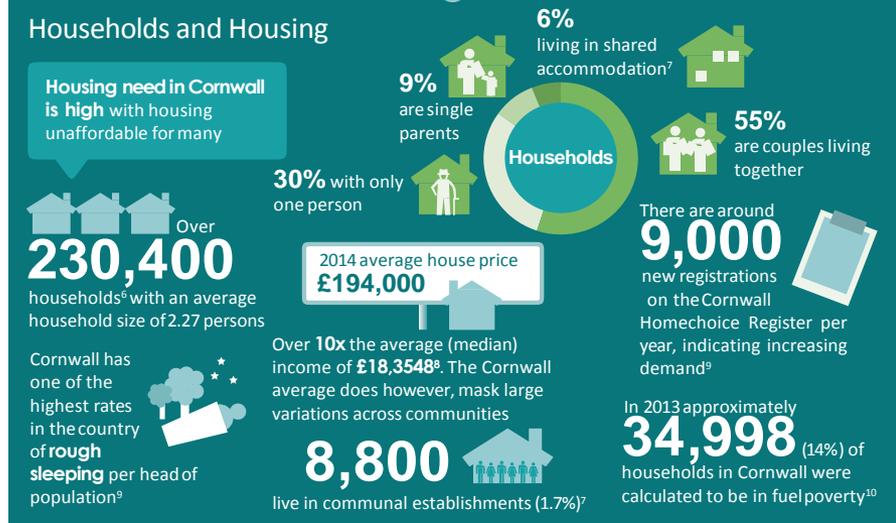
Camborne-Redruth mining district c. 1900

Hundreds of tin (and previously copper) mines have reduced to *none* today.
There was little/no investment in alternative industries at the time of the main reduction
in mining

Cornwall today

- Economically, Cornwall is still heavily dependent on agriculture and tourism as the two main sectors.
- Tourism reportedly contributes about 24 % of Cornwall's Gross Domestic Product (GDP), supporting around one in five jobs.
- Connectivity and the installation of superfast broadband has helped Cornwall develop over the past five years. Cornwall has a growing number of digital technology businesses, with growth in this area being one of the highest rates in the country.
- <https://www.cornwall.gov.uk/business/economic-development/economic-intelligence/>

Cornwall: a brief description (2015)...



Cornwall: a brief description (2015)...

Environment

Cornwall's environmental assets are extremely valuable - and are a key contributor to the economy and quality of life

30% of Cornwall is within an Area of Outstanding Natural Beauty

28,000 households have been assessed as at risk from flooding

Cornwall has the **largest** World Heritage Site in UK

60% of CO₂ emissions



Emissions from housing and transport account for over **60% of CO₂ emissions**¹² - 33% is from domestic fuel consumption (electricity, gas and other fuels) and over a quarter (29%) by transport

Cornwall has a diverse maritime environment and has a number of nature and landscape conservation area designations

Crime and Disorder

Crime in Cornwall is generally low and is a safe place in which to live and work - despite rises in some areas, crime in Cornwall continues to be low, although fear of crime remains an issue

Cornwall experiences seasonal fluctuations in crime with more offences in the summer months and fewer in winter¹⁷

Violence (including Domestic Abuse crimes) and Sexual Offences are higher than other similar areas and increasing. Consequences of these crimes are far-reaching and long-lasting¹⁷

Overall **16%** of crime is recorded as alcohol related¹⁷

Each year the fire and rescue service respond to more than **5,600** emergency calls¹⁸

In 2014 there were **1,309** road traffic injury collisions in Cornwall¹⁹

Transport

Cornwall's geographical shape and position make infrastructure delivery challenging - Dispersed and sparsely populated settlement pattern combined with Cornwall's coastline present issues of accessibility and challenges for equal provision of services



Car ownership in Cornwall is not a sign of wealth - **high proportions of car ownership reflects Cornwall's rural nature** where conventional public transport is often not viable.

17.3% of households do not have access to a car⁷

Over **68%** of cars in Cornwall are over 6 years old²⁰ reflecting the fact that for many the car is an expensive necessity rather than a luxury.

64% of people in employment travel to work by car

3% use public transport⁷

Labour Market and Economy

Strengthening Cornwall's economy is an ongoing challenge - low economic output (per capita), low wages, low productivity, a lack of big companies have been persistent challenges

33% with NVQ4 and above

Cornwall has low numbers of people without qualifications¹³ (6%), and low numbers (but growing) with high level qualifications¹³. There are also high levels of part-time employment¹⁴ (31%)

Businesses in Cornwall are, on average, **smaller in terms of employee numbers** than the national average.



97% of our businesses were small or micro level, employing less than ten people in 2015¹⁶

13.3%

13.3% of residents aged 16 to 64 (43,110 people) were claiming key out of work benefits compared to **12.1%** in England and **10.9%** in the South West¹⁵

23%

23% in employment are self-employed; above the national average (14%)¹³

References

1. 2014 Mid Year Population Estimates, ONS, 2. 2014 based population projections, ONS, 3. Mid-2014 Population Estimates for Census Output Areas, ONS, 4. Indices of Multiple Deprivation 2015, DCLG, 5. Personal tax credits: Children in low-income families' local measure: 2013 snapshot as at 31 August 2013, HMRC, 6. Council Tax Database, Cornwall Council, Sept 2015 7. 2011 Census, ONS, 8. Housing Statistics Portal, Housing Summary Measures, 5 Aug 2015, ONS 9. Cornwall Strategic Housing Framework, Evidence base, 06 March 2014, 10. 2013 sub-regional fuel poverty data: low income high costs indicator, DECC 11. Local Alcohol Profiles for England, PHE, June 2015 12. UK local authority and regional carbon dioxide emissions national statistics: 2005-2013, DECC 13. ONS Annual Population Survey, Jan 2014 - Dec 2014 14. ONS Annual Population Survey, Jan 2014 - Dec 2014 15. Benefit claimants - working age client group, February 2015, ONS Crown Copyright Reserved [from Nomis on 21 October 2015] 16. Inter Departmental Business Register (ONS), UK Business Counts 2015, workplaces, 17. Safer Cornwall Strategic Assessment 18. Cornwall Fire and Rescue Service, Risk Based Evidence Profile, 2014 19. Road Safety - Accidents 2014, DfT 20. Vehicles licensed by body type in Cornwall Unitary Authority as at 30 June 2015, DfT

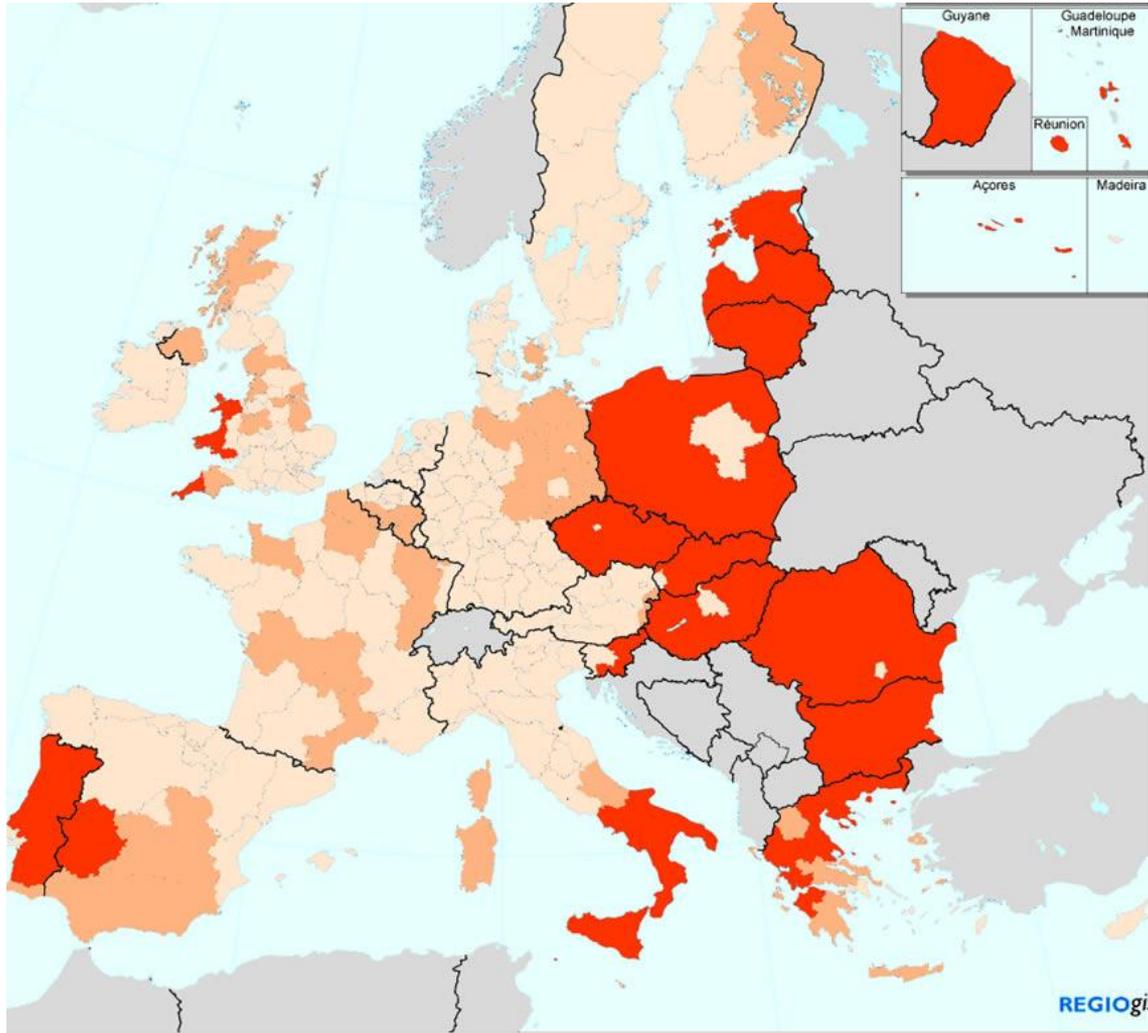
Further details

Further statistical profiles of areas across Cornwall are available via our website. To access these please go to: <http://www.cornwall.gov.uk/jsna>

REMIX

Integrating Europe

2014-2020 Less Developed region



- 64% EU average (2011)
- C.€590m ERDF & ESF
- Peripheral location
- Sparsely populated
- Declining heavy industry
- Ageing population

How much investment has Cornwall & the Isles of Scilly received?

Objective One 2000-2006

Objective One value without match = **£350m**

Objective One value with UK public sector match = **£700m**

Objective One + public sector match + private sector match = **£900m**

Convergence 2007-2014

ERDF Convergence value without match = **€458m**

ERDF Convergence + match = **£950m** approx. (from ERDF legacy calculations)

ESF Convergence value = **£164m**

ESF Convergence + match = **£222.4m** (from ESF evaluation)

Growth Programme 2014 - 2020

Cornwall & Isles of Scilly Growth Programme value ERDF = **£340m**

Cornwall & Isles of Scilly Growth Programme value ESF = **£130m**

Total = **£2.5 BILLION**

Our REMIX Policy Instrument: Cornwall and Isles of Scilly Local Enterprise Partnership European Structural and Investment Fund Strategy

The SIF strategy contains three main areas of activity :

‘Future Economy’ which concerns investment to capitalise on regional strengths and characteristics to exploit new and emerging markets, including **smart specialisations**;

‘Growth for Business’ to accelerate business productivity and competitiveness and

‘Conditions for Growth’ to overcome blocks to growth, improve infrastructure and increase human potential. Future economy includes

(1) smart specialisations of Agritech, Digital Economy, EHealth, Marine technology, and Space and aerospace assets and

(2) Activities with growth potential that develop Cornwall and the Isles of Scilly as a ‘green and marine’ region.

The policy recognises that almost all businesses in the region (99.8%) are micro, small and medium sized enterprises and therefore this sector is the key driver of growth and employment. The proportion of micro enterprises is high (87.7%). Also recognised is the challenge of how much lower research and innovation investment in Cornwall and Isles of Scilly than the average elsewhere in the UK.

In REMIX, University of Exeter aims to:

- Enhance implementation of the Digital Economy smart specialisation by recommending how to enable new projects in the mining related sector. New expertise, links to academic research, case studies, and access to high performance computing are required so that the SME sector can take part in using 'Bigdata'.
- Engage with innovation and best practice in environmental protection and resource efficiency (thematic objective 6) - a topic directly relevant not only to mining companies but to a significant international consultancy sector in Cornwall. Relevant topics include state of the art environmental and social impact assessment, environmental remediation and protection, mining with no surface footprint, improvements and innovation in minerals processing and how best to integrate renewable energy sources into mining operations.
- Enhance the SME sector, e.g. via the Cornwall Mining Alliance, through a better understanding of how the sector can collaborate to boost individual businesses, using examples of good practice
- Make policy proposals for consideration in post 2020 regional policy instruments.

Proposed self-defined performance indicator:

- Engagement of 30 local companies with activities
- Policy and best practice recommendations Cornwall Council for current policy instrument to prepare post 2020 regional policy

Provisional questions for the Cornwall peer review

- Enhance implementation of the Digital Economy smart specialisation

Question - How can mining-related businesses benefit from the digital economy?

- Engage with innovation and best practice in environmental protection and resource efficiency (thematic objective 6)

Question - What are the next innovations for environmental and social mining-related businesses?

- Enhance the SME sector, e.g. via the Cornwall Mining Alliance, through a better understanding of how the sector can collaborate to boost individual businesses, using examples of good practice

Question - How can SMEs collaborate to tackle large contracts?

- Make policy proposals for consideration in post 2020 regional policy instruments.

Question - What are the big initiatives that Cornwall should take to expand mining related businesses?

Other (newer) policy documents:- Local enterprise partnership vision 2030

<https://www.cioslep.com/vision/vision-2030> (2017)

By 2030 Cornwall and Isles of Scilly will be the place where business thrives and people enjoy an outstanding quality of life."

To achieve this, the plan outlines three objectives:

Business: achieve thriving businesses which excel at what they do

People: achieve inclusive growth and improve the skills of our workforce

Place: improve infrastructure and economic distinctiveness

Strategic drivers:

Innovation and creativity

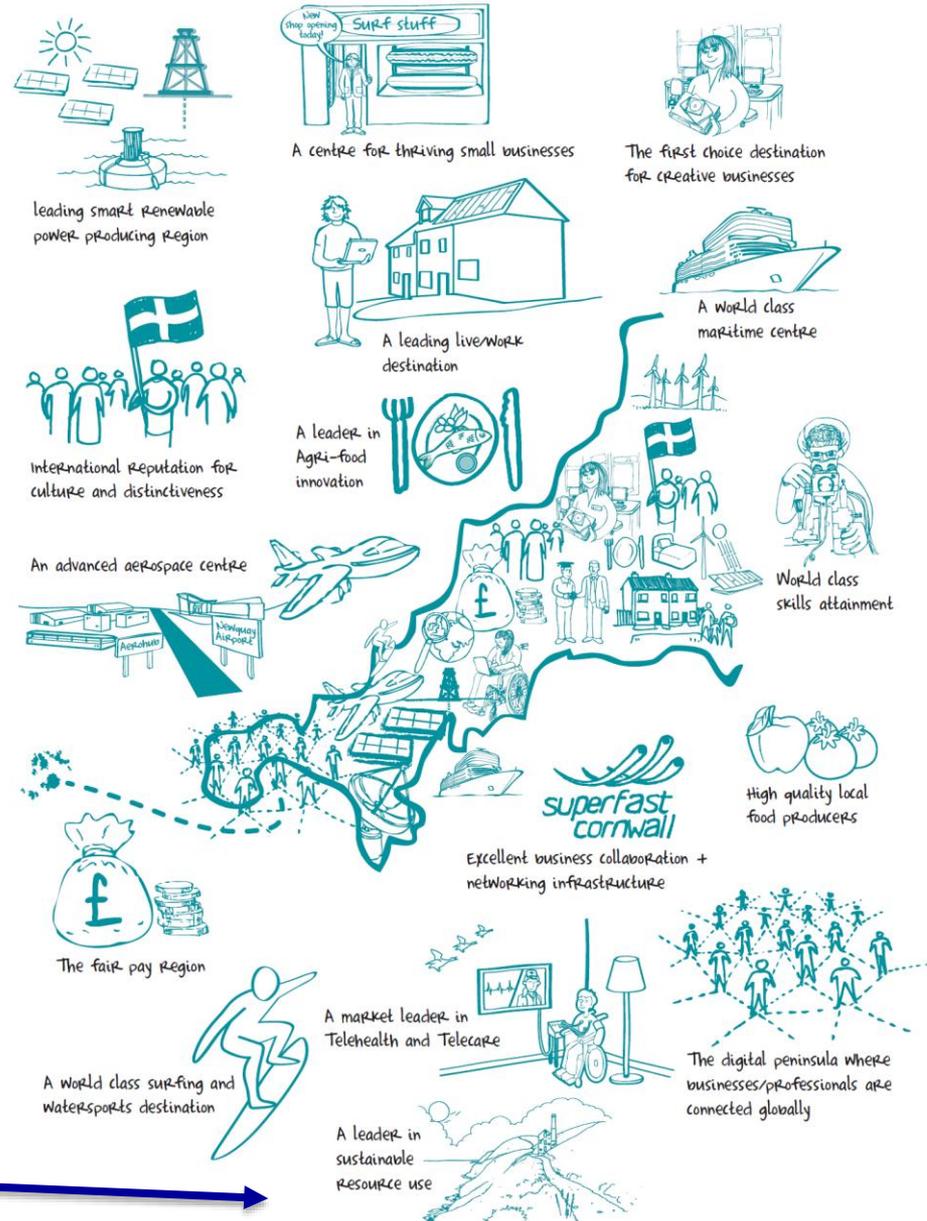
Productivity led growth

(No mention of mining)

A 2050 vision for Cornwall

This strategy refresh follows the 2010 Cornwall Council Economic White Paper, it endorses the current direction of travel for our economic interventions which set out to improve the lives and fortunes of the people of Cornwall. But what of Cornwall's long term future? Where will our interventions take us?

Cornwall Council Economy and Culture strategy 2012 - 2020



Slightly older overview document – and here we are:

**



New Local Enterprise Partnership document, 2018 – 10 opportunities

<https://www.cioslep.com/vision/10-opportunities>

- 1 Creative
- 2 Space
- 3 Energy
- 4 Food
- 5 Agri-tech
- 6 Tourism
- 7 Marine
- 8 **MINING**
- 9 Aerospace
- 10 eHealth

*** *Mining is on the agenda* ***

Future funding for Cornwall post Brexit

- **UK Shared Prosperity Fund** (scheme to replace EU support)
- **UK industrial strategy challenge fund**
- ***Potential/probable* participation in future EU R&I and C&S actions, and others?**

UK - national mining

- There is no national 'mining ministry' in the UK. Mining is related to the Department for Business, Energy and Industrial Strategy, Department for Environment, Food and Rural Affairs, including for permitting. Ministry of Housing, Communities and local Government. Local planning authorities, such as Cornwall Council are important.
- A UK minerals strategy will be launched on 10 July 2018 – by the Mineral Products Association and CBI (Confederation of British Industry) Minerals Group. This is an industry-led initiative, mainly by the aggregates industry.
- There are other new mines in development, including Sirius Minerals Woodsmith potash Mine that has planning permission to operate in a national park.
- Drakelands tungsten mine (World's 4th largest deposit) operated by Wolf Minerals was the first new metals mine in the UK for over 40 years when it opened in September 2015 just over the border from Cornwall in west Devon.

Current mining in Cornwall

- World class china clay mines operated by Imerys in the St Austell area, 900 employees, 100 in R&I
- Various quarries for granite, slate, other stone



Exploration/development projects

- Re-opening South Crofty tin mine (Strongbow)
- Redmoor tin-tungsten exploration (New Age Resources)
- Lithium in brines in granite (Cornish Lithium)
- Reprocessing of waste on mica dams associated with China clay mines to recover lithium (Imerys)
- Tellus South West geophysical and geochemical survey.

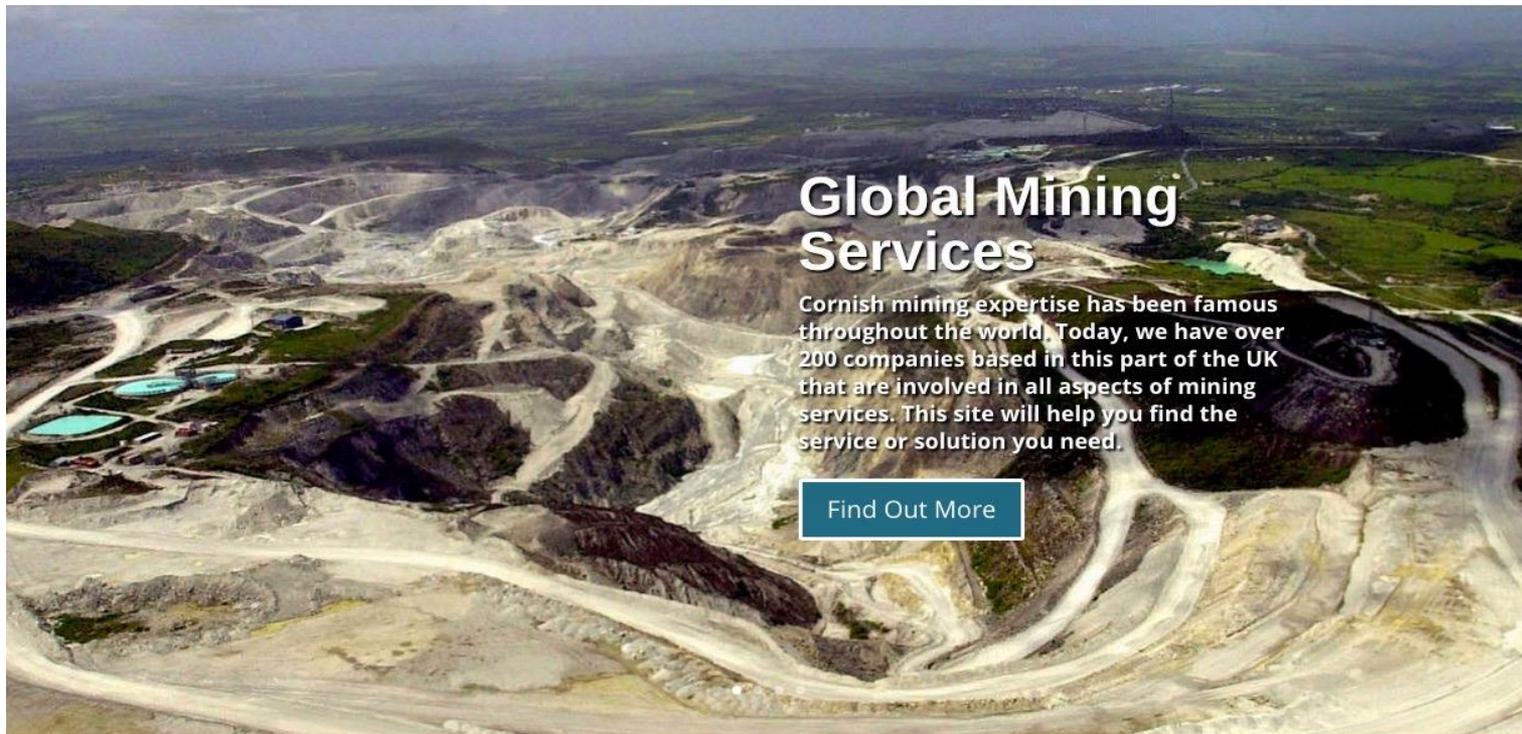


SMEs



- Cornwall has a unique concentration of innovative businesses, organisations & experienced professionals providing services to mining & related industries in the UK & around the world.
- Aim: to enable specialist mining related SMEs to collaborate on and access large domestic projects & global export opportunities
- Created by the Cornish Chamber of Mines & Minerals in response to UK Government initiative
- DIT identified High Value Opportunities in global mining sector
- Initial funding from the Chamber & CSM, University of Exeter
- Directory of professionals in Mining & Minerals Sector in South West
- Organisations categorised by service sector (12)
- Preferred communication channel for DIT
- Run & managed by volunteer steering committee
- 89 members.....and growing!

Cornwall Mining Alliance



Global Mining Services

Cornish mining expertise has been famous throughout the world. Today, we have over 200 companies based in this part of the UK that are involved in all aspects of mining services. This site will help you find the service or solution you need.

[Find Out More](#)

Discover innovative services & expertise for global mining industries

Cornwall Mining Alliance

Companies operate in the following areas within the CMA:

- Geological
- Mineral processing
- Mining engineering and surveying
- Environmental and social
- Energy
- Software and digital
- Analysis and testing
- Research and training
- Contractors and supply chain
- Professional support services
- Mines and quarries
- Mining heritage

Higher Education

- Universities Exeter (full service uni.) & Falmouth (arts and media) on Penryn Campus contributed £491 million to economy of Cornwall and IoS between 2002 & 2012. (Penryn Campus is an EU investment)
- University of Plymouth also in Cornwall. Cornwall College, Truro College offer further and higher education
- Camborne School of Mines is one of the University of Exeter departments on the Penryn Campus. 33 academic staff, 15 research staff, ca. 400 UG, PGT, PGR students, Started 1888 alongside the mines, now UK's multidisciplinary mining school – mining, processing, geology, environmental, social.
- Also Business, Biosciences, Renewable Energy, Maths, Geography, English, History, Politics on Penryn Campus

Cornwall Mining World Heritage site

<https://www.cornish-mining.org.uk/>

Well worth watching videos https://youtu.be/uYREWz_qccs

https://www.youtube.com/watch?v=_qydn7Zq5EU

Examples of places in the Mining World Heritage sites:

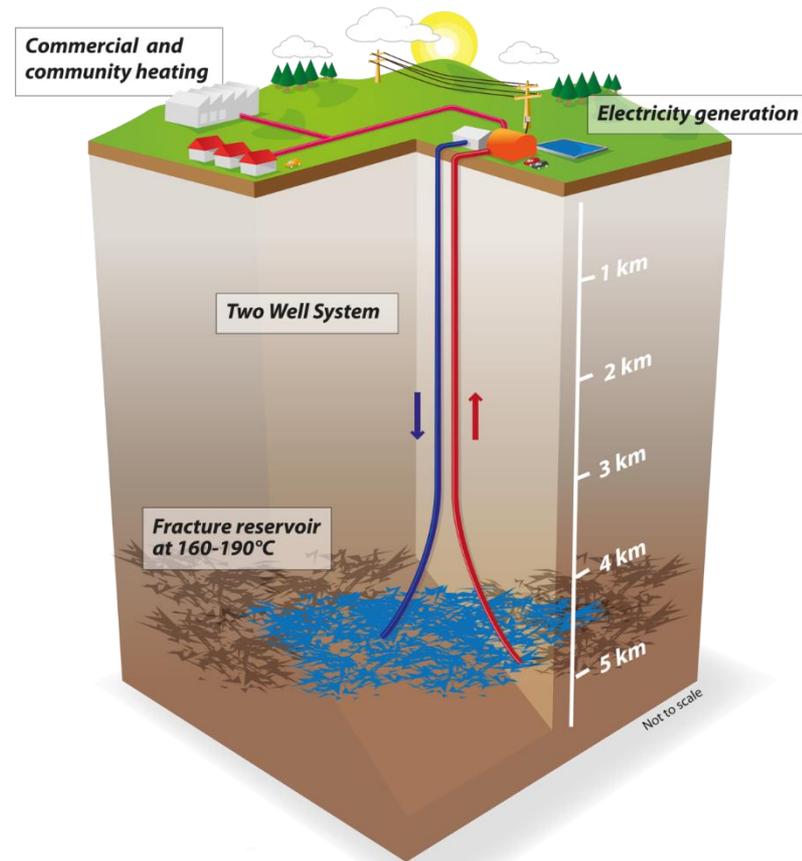
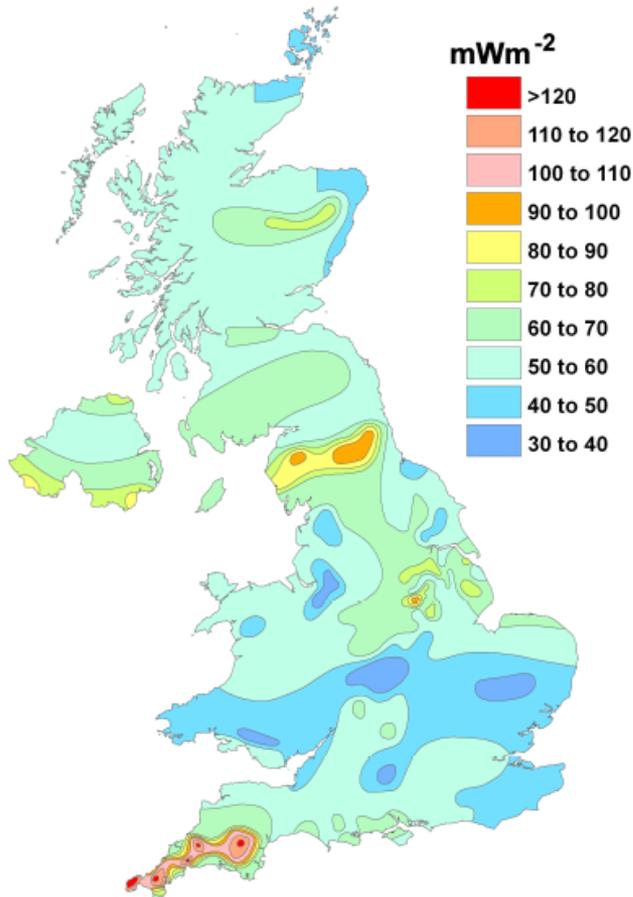
- [Geevor Mine Museum](#)
- [Heartlands](#)
- [Eden Project](#)

The screenshot shows the homepage of the Cornwall Mining World Heritage website. At the top left is the logo for 'CORNISH MINING WORLD HERITAGE'. To its right is the tagline 'Discover the Extraordinary Our mining culture shaped your world...'. A search bar is in the top right corner. Below the tagline is a navigation menu with links for 'Home', 'Delving Deeper', 'Areas, Places & Activities', 'News', 'World Heritage', and 'Planning in the Site'. A prominent banner for 'THE MAN ENGINE Powered by VOLVO RESURRECTION TOUR 2018' features an illustration of a mechanical man. Below the banner, there are icons for 'Start exploring.....' and a row of icons representing different aspects of mining. At the bottom, there are sections for 'Activities' and 'Area Locations' with corresponding call-to-action buttons.

Deep Geothermal Energy

- The deep geothermal resource in Cornwall is an opportunity for renewable heat & power generation and collaboration with mining-related activities
- The 'Hot Dry Rocks' study led by CSM in the 1970-80s confirmed high temperatures in granite
- Potential for significant economic & community benefits
- Expense & uncertainty has prevented further exploration...until now
- ERDF funding (Cornwall and Isles of Scilly growth programme), Cornwall Council & private funds have enabled a project at United Downs near Redruth, led by Geothermal Engineering Ltd
- **Two wells will be drilled in Q2 2018 to depths of 2.5km & 4.5km**
- Local residents have been proactively engaged and PhDs funded on public perception, as well as technical aspects
- Another scheme at Eden Project, led by EGS Energy Ltd, is awaiting the outcome of funding
- Meanwhile, there is excitement about Jubilee Pool, Penzance – a geothermal well is being drilled to heat a seaside swimming pool to 35C!

Deep Geothermal Energy



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Thank you!



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