

BASELINE ANALYSIS OF CIRCULAR JOBS

IN CORNWALL &
THE ISLES OF SCILLY



ABOUT TEVI

Tevi is an EU-funded programme which aims to create both economic and environmental growth in Cornwall and the Isles of Scilly.

The initiative, which runs until 2021, provides small and medium-sized enterprises across the county with expert consultation, opportunities for recognition and certification, and grant funding.

Tevi is led by the University of Exeter, and delivered in partnership with Cornwall Council, Cornwall Wildlife Trust, and Cornwall Development Company.



ABOUT THE CIRCULAR JOBS INITIATIVE

Circle Economy is an impact organisation that connects and empowers a global community to create the conditions for a transformation towards the circular economy.

Its mission is to accelerate the transition to the circular economy through practical and scalable insights and solutions that address humanity's greatest challenges.

The Circular Jobs Initiative is a knowledge centre within Circle Economy that aims to ensure the transition to the circular economy is positive for work and workers.

INTRODUCTION

The circular economy offers the next progressive step in our economic model, taking over from the current linear 'take-make-waste' economy by seeking to extract the maximum value from resources in use and keep materials in circulation for as long as possible through processes like reuse, repair, remanufacture and recycling. The end goal of the circular economy is to establish an ecologically safe and socially just operating space for humankind.¹

Circularity presents opportunities for the economy, environment and society; developing new markets, increasing business resilience within planetary boundaries and promoting societal wellbeing, including through decent work. Embracing new business models also calls for new and more diverse skill sets and job roles.² As well as requiring a general upskilling as a result of task diversification and advances in technology, the circular economy calls for a fundamental shift in mindsets at all levels of the workforce. The rate of the circular economy transition in different geographies will therefore depend partly on the skills available, as well as contributing to the shape of the local skills market.³

Monitoring employment provides an indication of circular activity in a territory. It can be used to map the level at which different circular economy strategies have been developed and the existing expertise in the territory. In order to further tap into the potential of the circular economy for the labour market, it is vital to understand how many and which jobs are already contributing to the circular economy locally.

To obtain a baseline analysis of employment in the local circular economy, Tevi collaborated with Circle Economy on the Circular Jobs Monitor. The Circular Jobs Monitor is an online tool that gathers and displays the amount and type of jobs that are part of the circular economy, using the framework on page 4 and 5 as a basis. You can find out more about the methodology used for the monitor, including its advantages and limitations [here](#).

This short report summarises the results for Cornwall and the Isles of Scilly (CloS) that are displayed on the monitor and outlines next steps that can be taken to build on these results and further tap into the opportunities the circular economy presents the local labour market. This project forms part of a wider collaboration between Tevi and Circle Economy supporting the business community in CloS with the tools and expertise to implement a circular economy.

The report complements an online monitor, which can be accessed via: <http://jobsmonitor.circle-economy.com/province/24>

JOBS IN THE CIRCULAR ECONOMY

The circular labour market is comprised of all kinds of jobs in different sectors, ranging from manufacturing and creative industries to waste and resource management. Jobs in the circular economy, shortly 'circular jobs', are all jobs that contribute to one of the strategies of the DISRUPT framework.

- **Core circular jobs.** These jobs ensure that raw material cycles are closed and thus form the core of the circular economy. They include jobs in renewable energy, repair and waste and resource management sectors. Examples of core circular jobs are displayed in light blue in the framework on the right.
- **Enabling circular jobs.** These jobs enable the acceleration and upscaling of core circular activities and thus form the supporting shell of the circular economy. They include jobs in leasing, engineering and digital technology - albeit only those that actually contribute to circularity. Examples of enabling circular jobs are displayed in dark blue in the framework on the right.
- **Indirect circular jobs.** These jobs provide services to the primary circular activities above and thus form the activities that indirectly uphold the circular economy. They include, for example, jobs in education, logistics and the public sector. Examples of indirect circular jobs are displayed in grey in the framework on the right.



DESIGN FOR THE FUTURE

Adopt a systemic perspective during the design process, to employ the right materials for appropriate lifetime and extended future use.

Circular equipment engineers design products to enable parts and resource recovery after the product's use phase. They excel in complex problem solving on a technical level designs for the future.



INCORPORATE DIGITAL TECHNOLOGY

Track and optimise resource use and strengthen connections between supply-chain actors through digital, online platforms and technologies.

Building information managers maintain data on construction components so as to keep track of these physical assets. They understand how to integrate and interpret virtual information management systems.



SUSTAIN & PRESERVE WHAT'S ALREADY THERE

While resources are in-use, maintain, repair and upgrade them to maximise their lifetime and give them a second life through take back strategies when applicable.

Repair technicians repair appliances, machines or vehicles. They possess strong technical and manual skills which can be acquired through a formal and informal education and training.



RETHINK THE BUSINESS MODEL

Consider opportunities to create greater value and align incentives through business models that build on the interaction between products and services.

Demand planners oversee supply and demand to make refurbishment a profitable business model. This role requires logical thinking and reasoning.



USE WASTE AS A RESOURCE

Utilise waste streams as a source of secondary resources and recover waste for reuse and recycling.

Process operators sort waste for sellable products, for example to produce livestock feed made from waste flows. Although classed as practical-skill work, knowledge of the quality of incoming raw materials is crucial.



PRIORITISE REGENERATIVE RESOURCES

Ensure renewable, reusable, non-toxic resources are utilised as materials and energy in an efficient way.

Agronomic advisors support healthy soil nourishment with organic fertiliser from composted manure and crop remnants. They combine strong interpersonal skills with ecological knowledge.



TEAM UP TO CREATE JOINT VALUE

Work together throughout the supply chain, internally within the organisation and with the public sector to increase transparency and create shared value.

Procurement professionals stimulate the demand for secondary materials and discern and connect new suppliers in order to do so. This profile points to the need for entrepreneurial, interpersonal skills.

INDIRECT CIRCULAR JOBS

These jobs provide services to the primary circular activities above and thus form the activities that indirectly uphold the circular economy.

The **courier** brings packages to and from consumers as part of a reverse logistics scheme that enable new business models.

The **teacher** transfers knowledge and skills to the (future) workforce so as to equip workers with the skills for all circular economy strategies.

CIRCULAR JOBS IN CORNWALL & ISLES OF SCILLY

Positioned on the Southernmost point of the United Kingdom, CloS's rural economy is predominantly made up of small and medium-sized enterprises and self-employed business owners. The majority of these enterprises are in the accommodation and food services, representing the county's tourism industry, and in the agriculture, forestry and fishing sectors. The dominance of these sectors contribute, in part, to a significant degree of seasonality in the labour market. The education, and health and social care, and wholesale and retail sectors also provide significant employment locally.⁴

To enable local people and businesses to thrive, increasing wages and productivity within the tourism and agriculture sectors, alongside embracing opportunities in data and space, clean energy and geo-resources, are key priorities for local policy-makers over the next ten years.⁵ In line with this, the circular economy presents opportunities for creating greater resilience within the local economy. The circular economy can reduce risks associated with resource scarcity and resulting price volatility.^{6,7} Shovrter value chains, enabled through strategies such as cycling resources locally and online sharing platforms, strengthen local business networks and reduce reliance on national or global value chains.⁸

In CloS, the circular economy generates 17,886 jobs (8.5% of all jobs in CloS). These jobs are distributed across core (1.9%), enabling (2.5%) and indirectly (4.1%) circular sectors.

Generating 3,761 core circular jobs, the resource management and repair and maintenance sectors contribute a large share of all circular employment in CloS (together comprising 23% of all circular jobs).

The 1,779 jobs generated in resource management are largely core circular jobs, with an additional number of enabling and indirectly circular jobs generated through the sector's use of information services. Core and indirectly circular jobs related

to the production of renewable energy together make up 400 jobs locally, 45% of the total number of jobs in energy supply in CloS.⁹ 5.6% of the total jobs in wholesale and retail in CloS are related to the circular economy, amounting to 2,101 jobs. Core circular jobs are generated within retail by demand for repair services in antiques sales, and within wholesale, by the demand for resource management services within the wholesale scrap waste sector.

As is common due to their role in servicing other sectors, the digital technology and design sectors are the key enabling sectors generating jobs in the circular economy in CloS, generating 4,598 jobs locally (30% of all circular jobs).

The largest amount of circular jobs are those generated indirectly by demand for circular products or services by other sectors, amounting to 8,481 jobs (47% of all circular jobs).

5.6% of the total jobs in accommodation and food services in CloS, akin to the tourism sector, are related to the circular economy, amounting to 1,900 jobs. Circular jobs within accommodation and food services are mainly generated indirectly by hotels, restaurants and public houses' demand for services from the core circular sectors, energy supply, repair and resource management.

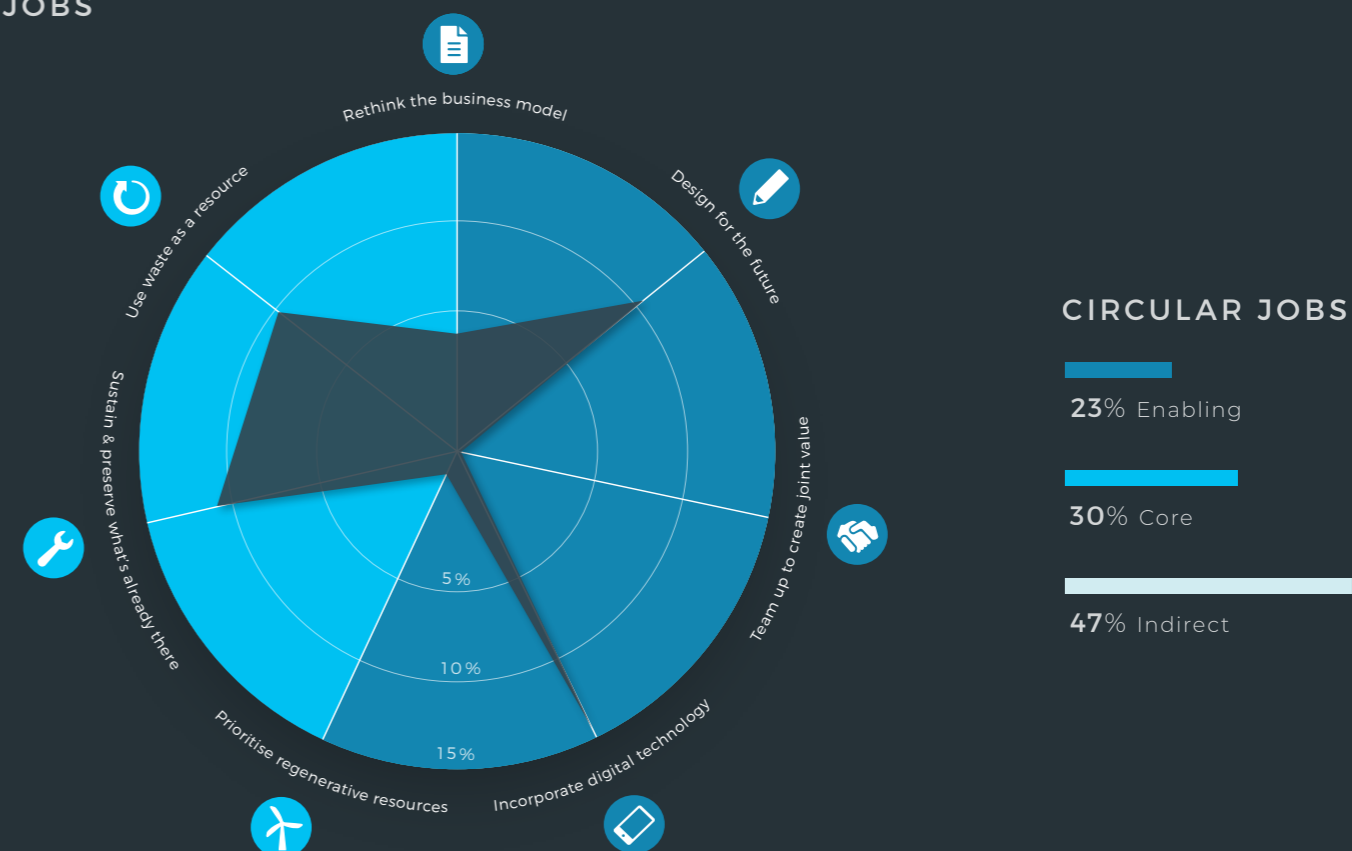
3.6% of the total jobs in agriculture, forestry and fishing in CloS are related to the circular economy, amounting to 17 jobs. Circular jobs within this sector are mainly generated indirectly by the fishing sector's need for repair and waste management services.

13% of the total jobs in manufacturing in CloS are related to the circular economy, amounting to 1,899 jobs. These jobs are mainly generated indirectly by the sector's need for repair and waste management services.

8.5%

OF ALL JOBS IN CORNWALL & ISLES OF SCILLY ARE CIRCULAR

DIRECT CIRCULAR JOBS



AREA	3579.37 km ² (1.5% of the UK)
POPULATION	568,200 ¹⁰
GDP	€ 12,769 million (0.5% of the UK)
GDP PER CAPITA	€ 22,600 ¹²

NEXT STEPS IN PROMOTING CIRCULAR JOBS

These results provide a baseline assessment and a picture of the number of jobs already contributing to the circular economy in CloS. It provides an indication of the local know-how related to the circular economy already present, for example through the prevalence of jobs in recycling, repair, maintenance and renewable energy. Taken together with the CloS's Employment and Skills Strategy 2016-2030 and the new draft local Industrial Strategy, these results provide an initial indication of the viable pathways for developing the circular economy locally. For example, increasing demand for circular products and services within key sectors like tourism and agri-food, could in turn promote the development of core circular economy sectors. Increasing interactions between core and enabling circular and dominant local sectors could spur innovation and create more diverse job roles and skill sets.¹³ For example, by utilising the service skills already present in CloS's significant tertiary sector to implement sharing business models, or increasing the rate that consumer goods used heavily in the tourism sector such as furniture and washing machines, are repaired, refurbished or remanufactured.¹⁴ Changes such as these, delivered through the UK Shared Prosperity Fund for example, could also help foster an economy more resilient to shocks.¹⁵

Further research is required to determine how embracing circular economy strategies would impact skills requirements, as well as the inclusiveness and quality of newly created job opportunities. This includes creating more regular and meaningful employment in line with the strategic objectives of the Employment and Skills Strategy 2016-2030. For example, investing in energy infrastructure such as smart metres or the retrofitting of houses for greater energy efficiency could create more regular employment for workers with a range of skills, whilst also having a positive impact on the local and global environment.^{16,17} Likewise, shortening supply chains and producing more products locally by making use of shared logistics, by-products discarded by other businesses or products that can be reused,

refurbished and remanufactured, all present opportunities for creating a more circular and resilient local economy.¹⁸ However, opportunities like this need to be explored in the context of local demand for these interventions, viability of the business models and corresponding skills supply.

To ensure that the local supply of skills matches demand for growing the circular economy in CloS, it will be important to establish where the key opportunities for boosting circular activity lie and what skills needs these opportunities correspond to. Analysis of this kind would help to inform local careers education, apprenticeship routes and on the job training for professionals already in work or experiencing underemployment.

The circular economy is labour intensive and places value on a range of skill sets. In this way, the circular economy presents opportunities to both develop a highly skilled workforce for working in newer markets, as well as opening up opportunities for more practical and medium-skilled work. Further analysis into the growth of the circular economy locally could be combined with an analysis of local social economy and multi-agency partnerships involved in promoting inclusion in the labour market, in order to determine how opportunities for working on circular products and services could be created for people of all ages currently facing barriers in the local labour market.

In summary, concrete next steps that could be taken in CloS to realise the opportunities of the circular economy include:

- Bringing the Skills and Employment Strategy 2016-2030 and the new Industrial Strategy together with an in-depth analysis of the local circular economy development pathways in order to define common opportunities for strengthening key sectors.
- Determining the demand and viability of circular business models locally, alongside an assessment of how these business models would impact skills requirements, inclusiveness and quality of new jobs created locally.
- Exploring how to match the skills demand of the circular economy with the local social economy in order to create pathways back or into work for people of all ages currently distant from the labour market or experiencing underemployment.



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