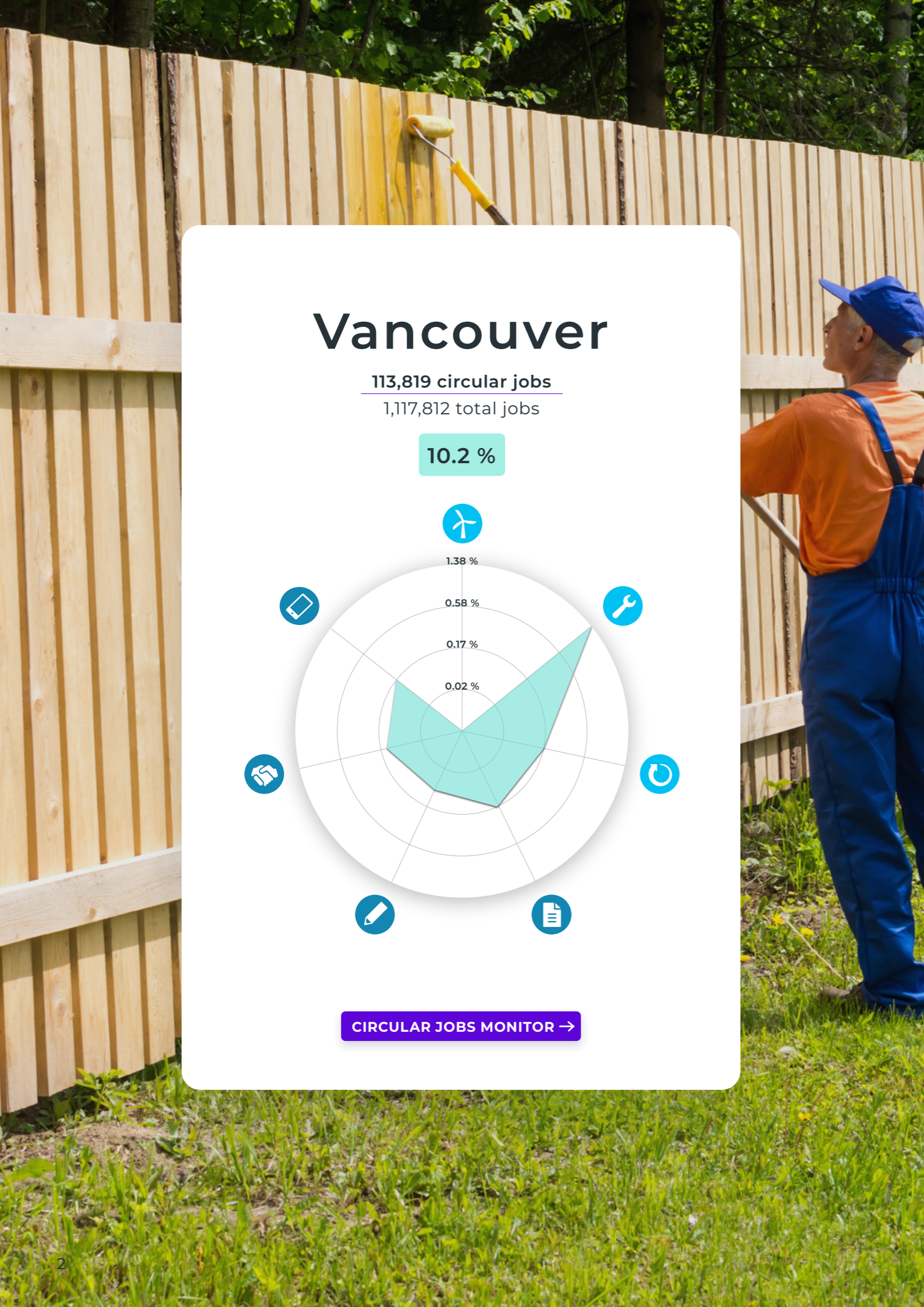


A man with grey hair, wearing a white t-shirt and a denim apron, is focused on painting a large, rounded ceramic jar. The jar is mounted on a wooden turntable. He is using a brush to apply a light-colored paint with a wavy, abstract pattern. The background shows a workshop with shelves of other ceramic pieces and a corrugated metal roof.

CIRCULAR JOBS BULLETIN

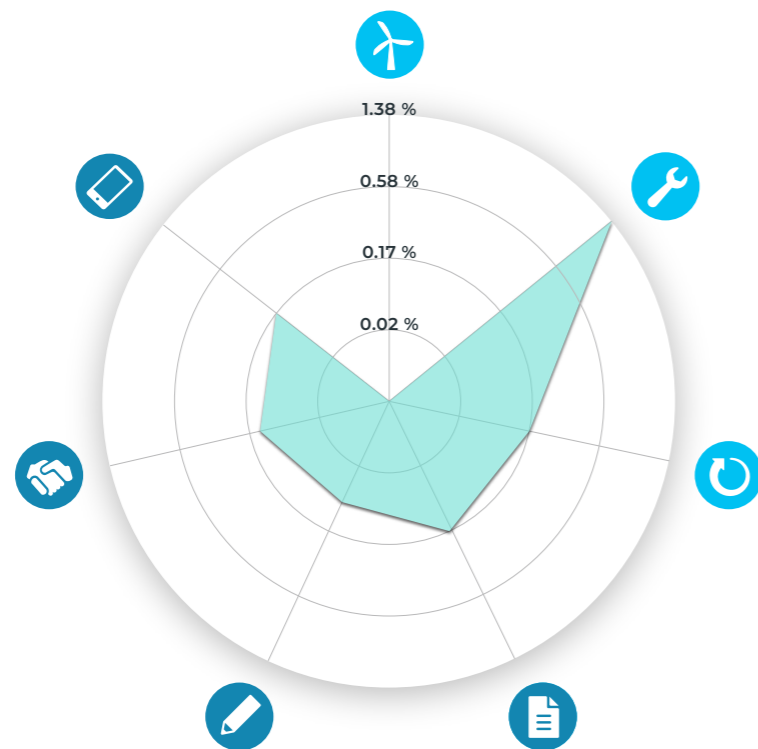
2022



Vancouver

113,819 circular jobs
1,117,812 total jobs

10.2 %



CIRCULAR JOBS MONITOR →

MEASURING JOBS IN THE CIRCULAR ECONOMY

The workforce is an essential lever for implementing circular economy strategies. But to tap into its potential, we need data and evidence. Which jobs are already contributing to the circular economy? Where are these jobs located? How are these jobs distributed across sectors, and how are they related to circular strategies?

Insights from the Circular Jobs Monitor provide answers to these questions by gathering and displaying data on the number, range and location of jobs that are part of the circular economy in cities and countries across the globe. Circular Jobs data can be found on Circle Economy's digital tools: the [Circular Jobs Monitor](#) and [Ganbatte.world](#).

Learn about the number and range of circular jobs sorted by circular strategy and sector, from the municipality to country-level.

Data-driven insights into cities' consumption, emissions and employment that can be used to kickstart their journeys and increase circular activities locally.

How to use these insights

These insights provide *policymakers, economists, labour organisations and social partners* with insights into the relationship between the circular economy and the labour market. This can facilitate the design of evidence-based strategies for promoting the circular economy in different sectors and regions, as well as the required education pathways, and help form a benchmark for current circular activity against which to monitor future progress and model future scenarios.

Our circular jobs insights are produced using the [Circular Jobs Methodology](#). This methodology was first developed by Circle Economy in collaboration with Erasmus University Rotterdam, and has since been updated with help from the UN Environment Programme (UNEP). It classifies jobs as core circular, enabling circular or indirectly circular, by classifying economic sectors according to their activities and the [Key Elements Framework](#), and studying their interactions using Input-Output Analysis.

This methodology produces insights on the overall number and percentage of circular jobs at a sector level. This allows for a comprehensive understanding of which sectors are already most active in circular activities and where future interventions could be targeted.

New updates in 2022

This year we added two more nations to the Circular Jobs Monitor: Switzerland and Northern Ireland. Using the Circular Jobs Monitor, you can explore the number and range of circular jobs within municipalities and nationwide in countries like Switzerland, Northern Ireland, the Netherlands and Scotland.

Scotland is also the first country where we have conducted circular jobs assessments for two time periods, using municipal data from 2016 and 2018. For now, only the latter is currently on display. While 8.1% of jobs in Scotland (207,427 jobs) were generated by the circular economy in 2016, this ratio went up to nearly one in ten jobs (9.7% or 253,408) in 2018. By measuring circular jobs in two time periods, we were able to understand progress made towards the circular economy and the positive impact of circular economy interventions on the labour market.

That said, users are invited to explore these insights along with the existing data on circular jobs for **over 100 cities across Europe, Africa, Asia and the Americas**, thanks to our partnership with UNEP.

JOBS IN THE CIRCULAR ECONOMY

A circular job is any occupation that directly involves or indirectly supports one of the [strategies of the circular economy](#). We differentiate between three types of circular jobs: core, enabling and indirectly circular jobs.

- **Core circular jobs** are all jobs that ensure the closure of raw material cycles, including jobs in repair, renewable energy, waste and resource management. They form the core of the circular economy.
- **Enabling circular jobs** are jobs that remove barriers for and enable the acceleration and upscaling of core circular activities, including jobs that arise in leasing, education, design and digital technology. They form the supporting shell of the circular economy.
- **Indirect circular jobs** are jobs that indirectly uphold the circular economy. These jobs occur in other sectors that do not play a direct role in furthering the transition to the circular economy but can still adopt circular strategies. They include jobs that provide services to core circular strategies, including jobs in information services, logistics and the public sector.

CORE CIRCULAR JOBS



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.



STRETCH THE LIFETIME

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.



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.

ENABLING CIRCULAR JOBS



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.



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.



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.



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.



STRENGTHEN AND ADVANCE KNOWLEDGE

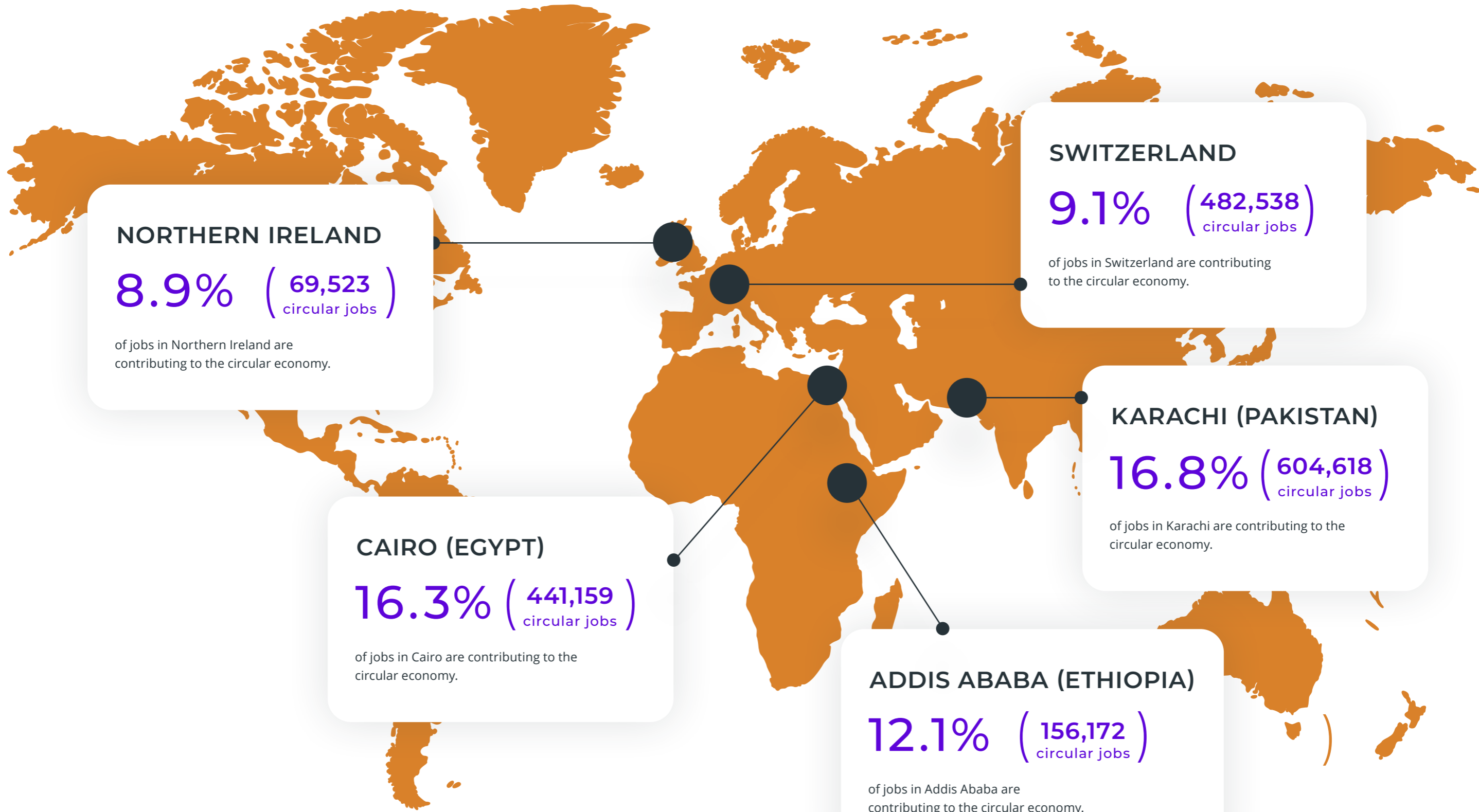
Develop research, structure knowledge, encourage innovation networks and disseminate findings with integrity.

Teachers transfer knowledge and skills to the current and future workforce so as to equip workers with skills for circular economy strategies.

INDIRECT CIRCULAR JOBS

Examples of indirectly circular jobs are:

- The **courier**, who uses and maintains a fleet of secondhand bikes to bring packages to and from consumers as part of a reverse logistics scheme;
- The **bank**, which uses repair services to maintain the electrical equipment used in its day to day operations;
- The **farmer**, who utilises renewable energy in the production of their agricultural products.



BASELINE

SHIFT



SWITZERLAND

In Switzerland, 21.8% (105,545) of the circular jobs are concentrated in core circular activities, mainly the maintenance, repair and upgrading of materials and products to maximise their lifetimes.

6% (30,287) of total circular jobs or 0.6% of total employment in Switzerland are enabling circular jobs.

To further its circular transition, Switzerland has ample room to scale up its local recycling sector jobs while also ensuring more of its economy is interacting with critical circular sectors.

The education, design and digital technology sectors could supply a larger share of their services to the country's core circular sectors.

[EXPLORE →](#)



NORTHERN IRELAND

Northern Ireland's core circular jobs are low, at 0.8% (5,893). While nearly half (46%) of these fall under recycling, materials and waste recovery, this sector is small because only a limited share of high-volume waste materials are cycled back into use.

Just over 78% of total jobs are indirectly circular: mainly generated through demand for core circular products or services by the manufacturing, health and social work, administrative services and construction sectors.

Northern Ireland is well-positioned to scale up renewable energy activities and redirect its enabling sectors such as finance, research, design and digital services to accelerate the circular economy transition.

[EXPLORE →](#)



ADDIS ABABA
ETHIOPIA

Nearly one-third (51,169) of circular jobs actively engage in core circular activities in Addis Ababa, including manufacturing, repair and waste management.

Using waste as a resource, through recycling for example, generates almost half (24,667) of the core circular jobs in the city.

As few as 0.6% (7,123) of jobs in Addis Ababa allow for the acceleration of core circular activities, including renewable energy production, repair and maintenance and waste management.

More jobs could be shifted toward the recovery or tracking of demolition waste for reuse in other construction projects or adjacent industries, such as infrastructure.

[EXPLORE →](#)



CAIRO
EGYPT

Repairing and extending the lifespan of both consumer and commercial goods is an integral part of core circular activities in Cairo, with more than half (58,326) of core circular jobs related to motor vehicle and motorcycle repair alone.

Waste management and remediation activities make up 20.8% (23,549) of core circular jobs.

Cairo could seize the opportunity to increase circular activity by prioritising regenerative resources and rethinking business models that build on the interaction between products and services, especially in the retail, manufacturing and construction sectors.

[EXPLORE →](#)



KARACHI
PAKISTAN

Karachi has relatively a high share of circular employment, most of which consists of indirect circular jobs.

The wholesale and retail as well as repair and maintenance sectors have the largest share of circular jobs in the city.

The manufacturing sector also generates 18.9% (114,873) of circular jobs overall, as the result of its use of second-hand products.

Karachi could accelerate its circular activities by tracking and optimising resource use and strengthening connections between supply chain actors, especially in the retail, manufacturing and transportation sectors, through digital platforms and technologies.

[EXPLORE →](#)

HELP US GROW OUR DIGITAL TOOLS

At Circle Economy, we believe that a broader set of indicators are needed to support stakeholders in designing, monitoring and evaluating circular strategies' socioeconomic impacts.

Our digital tools currently provide data for several territories across Europe, North America, South America, Asia and Africa. We are continually expanding these tools to include more territories across the globe, to increase data reliability and allow for deeper analyses. In the future, this will include accounting for employment in informal sectors and observing trends in labour markets over time as a result of circular economy activities. To do so, we require both local collaborations and access to employment data.

Would you like to help us grow our evidence base and increase the strength of these tools?

We welcome input, data and feedback on the usability and content of these tools to ensure they grow to be even more powerful and useful for policymakers, economists, labour organisations and social partners working to advance the circular economy in their locality, industry or sector.

Different cities and regions are already helping the monitor grow by providing deeper insights into circular jobs in their local landscape. Sign up for our newsletter to receive news on upcoming data releases, which will include Denmark and some Latin American countries.

