## FINLAND - LEADING THE WAY TO SUSTAINABLE CIRCULAR ECONOMY

Oodi is Helsinki' new Central Library and a living meeting place in the city centre. Oodi is a striking building with its glass and steel structures and wooden facade, its design a combination of traditional and contemporary flavours. The energy-efficient library is an impressive calling card for Finnish architecture. Photo: Tuomas Uusheimo. ©Helsinki Marketing

## FORERUNNER IN SUSTAINABLE SOLUTIONS

Finland aims to be a forerunner in the circular economy, offering sustainable solutions to global challenges. Besides producing new products in resource and energy efficient ways the foundation for earnings will be services, recycling of products and intelligence-based digital solutions. Together with high competence in the bio-based economy this will boost the competitiveness of Finnish companies in the circular economy. Finland can create new value in the use and resource-efficient cycle of products and materials and shift the focus of competitiveness to a carbon-neutral circular economy and low-emission solutions as part of implementation strategy under the Paris Agreement on Climate Change and the Agenda 2030 Sustainable Development Goals (SDGs).



## **DEVELOPING AN ENABLING ENVIRONMENT**

An enabling legislative and business environment is a key driver towards circular economy. In Finland, we are driving the shift to circular economy through legislative reforms, providing public financing to innovative trials and experiments, developing roadmaps, and supporting research. We are also providing incentives for sustainable public procurement, new product and service innovations, and circular economy investments. In this work, we cooperate closely with relevant stakeholders, including key ministries, cities, municipalities, businesses, civil society, and researchers.

### WORLD'S FIRST ROADMAP FOR THE CIRCULAR ECONOMY

One important tool in our national transformation is the <u>National Road Map to a</u> <u>Circular Economy</u>. It includes more than 60 concrete projects and administrative measures that support circular economy. New solutions for sustainable food systems, timber construction, nutrient recycling, recycling of municipal waste, and rehabilitation of contaminated land have been tested.

### **FOCUS IN PLASTICS**

In 2018 Plastics Roadmap for Finland was published. It includes measures to improve the efficiency of plastics recovery, recycling and product design, to create conditions for investments and innovations in the circular economy, and reduce the dependency on fossil raw ingredients by increasing bio-based and biodegradable solutions. As part of the Roadmap the use of plastics in residential buildings and day-care centers was studied. The study reveals that plastics are found in all parts of buildings in small amounts. The study also shows how reducing the use of plastic affects the costs, schedule and carbon footprint of construction.

### **CIRCULAR ECONOMY HELPS US PROTECT BIODIVERSITY**

A balance between human activities, planetary boundaries, and nurturing our natural capital are essential for the transformative change to a more sustainable future. To Finland, circular economy is a key element in getting there. We have studied the use of economic instruments to support biodiversity conservation, sustainable use of natural capital and the link to sustainable development, alongside the work done in the EU and OECD. We have identified new opportunities for enhancing circular economy, protecting biodiversity in the harmonization, and use of eco-labelling schemes and promoting business and biodiversity practices.



# FINNISH INNOVATIONS SOLVE GLOBAL CHALLENGES

The global need for clean water and its significance for the world keep growing. The growing needs and potential conflicts associated with water and water bodies are being further exacerbated by climate change. The key project on <u>the blue bioeconomy</u> has recognised the important role of water for the wellbeing of societies. In the future, Finnish expertise in water reuse and recycling and energy conservation

## may solve global sustainability challenges.

In Finland, we have taken a great greentech leap forward when it comes to environmental impact management and water conservation. Finnish research, innovations, and technological competence make it possible to purify wastewater for reuse. <u>Come and see how</u> <u>it works</u>!

### TOWARDS CLOSED CYCLES IN FOOD PRODUCTION

Fish farming is the fastest-growing food production industry in the world. <u>Recirculation aquaculture</u> saves water, while the technology used to purify the water significantly reduces the nutrient load caused by fish farming. In Finland, the perspective of sustainability extends throughout the food system, from production to the plate. We also have this thing called nutrient recycling. <u>Come and look!</u>

In the future, farms will also need to reduce their carbon footprints and use resources more efficiently. In Finland, eight agricultural school farms have taken on this development challenge and are working together to increase the nutrient and energy efficiency of their operations. A local, sustainable food system is being developed on Åland based on circular economy, appreciation for local food and the development of food culture.

Did you know that eating Baltic herring can also be an action against climate change. Will <u>pulled herring</u> be the next big thing on the market?





### **BUSINESS SOLUTIONS FOR SUSTAINABLE** ECONOMY

Reaching low-carbon economy requires not only significant carbon dioxide emission reductions but also other actions, like resource efficiency and circular economy that work towards the same target.

Circular economy brings solutions to climate challenge by

- boosting the energy efficiency in the manufacturing and in the use of products and materials - increasing the circular use of critical materials and metals and thus increasing their availability to new climate friendly solutions

- increasing the product re-use and the possibilities to circulate resources by introducing new business models (e.g. product-as-a-service or sharing economy)

- boosting the long-term use and the reuse of products and materials that can store carbon

#### FINNISH SUPERPOWER: KNOWHOW ON BIO-BASED MATERIALS AND DIGITAL SOLUTIONS

When moving towards low-carbon economy, natural resources need to be used in an innovative and sustainable way to reach sustainable growth. Finland brings to global circular economy solutions e.g. high-value bioproducts, raw material processing and value chains, and skills to combine material circulation with digital tools. Cities have a significant role in circular economy actions. For example in Helsinki the circular use of infrastructure related soil materials and the logistics in construction have be optimized to limit climate effects. Cities are also looking forward to build road maps towards circular economy.

Business Finland is the most important public funding agency for research funding in Finland, and it is directed by the Finnish Ministry of Employment and the Economy. The goal of Business Finland is to make Finland a forerunner in the circular economy, offering sustainable solutions to global challenges. Competence in the biobased economy and digitalization will boost the competitiveness of Finnish companies in the circular economy. By tapping into these and other strengths, Finland can create new value in the use and resource-efficient cycle of products and materials.



## **GLOBAL PROMOTION AND SUPPORT FOR THE CIRCULAR ECONOMY TRANSITION**

As part of its implementation strategy under the Paris Agreement on Climate Change and the Agenda 2030 Sustainable Development Goals (SDGs), Finland promotes the transition towards a carbon neutral, resource efficient circular economy in various international policy areas and forums.

Under the Team Finland framework, Finland provides trade promotion services for companies related to the circular economy transition both in capital and within an extensive network of embassies and consulates. These Team Finland trade promotion services span from providing general information on the bio and circular economy, to establishing links to Finnish companies and exporters, to engaging in knowledge seeking with local actors. Help for companies to tackle possible trade barriers are also available. As such, our embassies and consulates are always ready to engage, open doors and provide useful contacts between Finnish and global circular economy actors.

In the trade policy sphere, we seek to progress discussions on how trade can help facilitate the circular economy transition. During the Finnish EU presidency in the fall of 2019, Finland will host events on trade and the circular both in Brussels and Geneva.

During the WCEF2019, Finland is partnering with the African Development Bank (AfDB) to bring a particular focus to the circular economy transition in developing countries, including social issues, equity and job creation. The session organized by the Finnish Ministry for Foreign Affairs and AfDB will serve as a launching pad for cooperation with African actors on sustainability.



Ympäristöministeriö Miljöministeriet Ministry of the Environment



Ministry of Agriculture and Forestry of Finland



Ministry of Economic Affairs and Employment of Finland





Ministry for Foreign Affairs of Finland