FRAMEWORK TO HELP ACCELERATE KENYAN BUSINESS TRANSITION TO GREEN AND CIRCULAR BUSINESS PRACTICES

Policy Brief

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Key Points

- *A circular economy cannot be achieved without a basic level of environmental protection. A structural challenge for most countries remains the strict enforcement of environmental laws and regulations, whether related to waste treatment (illegal dumping or substandard treatment of waste) or chemical pollution of soils and water bodies. Monitoring and control of environmental regulations but also sanctions in case of non-compliance are necessary to create a level playing field for green and circular businesses that do invest in sustainable practices;*
- *A circular economy can only be realized if structural market failures that characterize the linear economy are addressed. The fact that virgin resources are relatively cheap and pollution pays off is because external environmental and social costs are not reflected in market prices. This creates a lock-in situation in the linear economy which makes it difficult for green and circular businesses to compete with. Instead, intelligent fiscal benefits should create positive incentives to invest in a circular economy while tax levies should disincentivise non-sustainable production and consumption. Implementing environmental taxes, e.g. a carbon tax, waste disposal tax or a tax on virgin plastics, can help to make market prices reflect externalities and create more incentives for companies to invest in sustainability and circular business models. The revenues from environmental taxes can also be used for public funding programs to accelerate the transition to a CE;*
- *Circular economy promotion in Kenya requires a massive implementation and upscaling of circular business models on a wide scale across sectors;*
- *Meeting the country's circular economy goals (e.g. reuse, repair, recycling) requires innovation in the type of business model used (e.g. moving from sales to leasing), technological innovation (new technologies) and social innovation (new ways of interacting or connecting business and people); and*
- *Implementing and upscaling circular business models requires policy enablers that puts in place a supportive policy framework and of behaviour that leads to a change in consumption behaviour and education.*

1.0 Introduction

The concept of a circular economy is emerging as a promising new growth paradigm around the world. Circular economies are premised on the principle that existing economic systems can be restructured in such a way that they unleash additional economic growth from within. The EU sponsored framework for modelling economics and sustainability (FRAMES) macro-economic modelling of five Kenyan priority sectors (waste, electronics, manufacturing, plastics, agri-food, and construction) revealed that by 2030, Kenya's GDP is projected to be around 0.5% higher in the circular economy scenario compared to the baseline scenario; a net increase in employment relative to the baseline scenario of around 0.15% is projected, or approximately 46,000 additional jobs compared to the business as usual. It therefore makes economic, environmental and social sense to go green and circular.

Existing linear systems are resource-intensive and contains inherent systemic inefficiencies which drive up operational costs while underutilizing the invested resources. The circular economy creates additional growth compared to the "business as usual" scenario by designing systems and products that require fewer resources in the first place, by making sure that products and services are used much more efficiently, and by ensuring that extracted raw materials are used as many times as it is practicably possible. This way, the circular economy looks beyond the current, *"**take, make, consume and dispose**"* extractive industrial model towards the, ***"make, consume, and return"*** model with a focus on creating society-wide benefits through cross-industry partnerships, innovation in new product development as well as adoption of new circular business models. The circular economy concept is embraced for its potential to create jobs and future-proof economic growth, increases green private sector investments and profits, improves the standard of living, and decreases the negative impacts on the environment, nature, and climate.

2.0 What is a Green Economy?

The UN Environment defines a green economy as one that results in improved human well-being and social equity while significantly reducing environmental risks and ecological scarcities. Simply put, a green economy can be thought of as one which is low carbon, resource efficient and socially inclusive. It aims to achieve triple wins of social, economic, and environmental development. In such an economy, UN Environment says growth is driven by investments that, (i) reduce carbon emissions and pollution in general, (ii) enhances energy and resource use efficiency, (iii) prevents the loss of biodiversity and ecosystem services, (iv) increases the number of decent jobs, and (v) ensures equitable distribution of income and wealth.

3.0 What is a Circular Economy?

The Ellen MacArthur Foundation defines the Circular economy as "an industrial system that is restorative or regenerative by intention and design. It replaces the 'end-of-life' concept with restoration, shifts towards the use of renewable energy, eliminates the use of toxic chemicals, which impairs reuse, and aims for the elimination of waste through the superior design of materials, products, systems, and, within this, business models''. By designing out waste and pollution, keeping products and materials in use, and regenerating natural systems, a circular economy enables countries to generate prosperity while staying within planetary boundaries.

The overall objective is to "enable effective flows of materials, energy, labour and information so that natural and social capital can be rebuilt''. It is an economy "where the value of products, materials and resources are maintained in the economy for as long as is practically possible, and the generation of waste is minimized''. The transition to a more circular economy would make "an essential contribution to the country's efforts of transforming its economy into one that is

sustainable, low-carbon, resource-efficient and socially inclusive". The circular economy focuses mostly on waste management, waste prevention, and resource use efficiency while the green economy is broader and goes beyond the circular economy focus to include human well-being and ecosystem resilience. In other words, the circular economy is a subset of the broader green economy. As shown in Figure 1 below, the circular economy vision is to eliminate waste completely by using it as an input resource (IG, 2017).

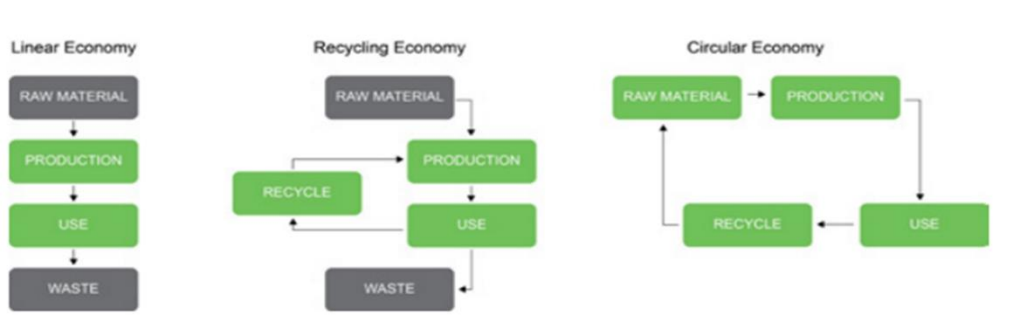

Figure 1. Transitioning from Linear to Circular by eliminating waste completely

Source: Italian Government (IG), 2017. Towards a Model of Circular Economy for Italy: Overview and Strategic Framework

The Conceptual Framework for Circularity in Business Strategy is guided by circular economy (CE) principles, business objectives, and areas of intervention stated in Figure 2.

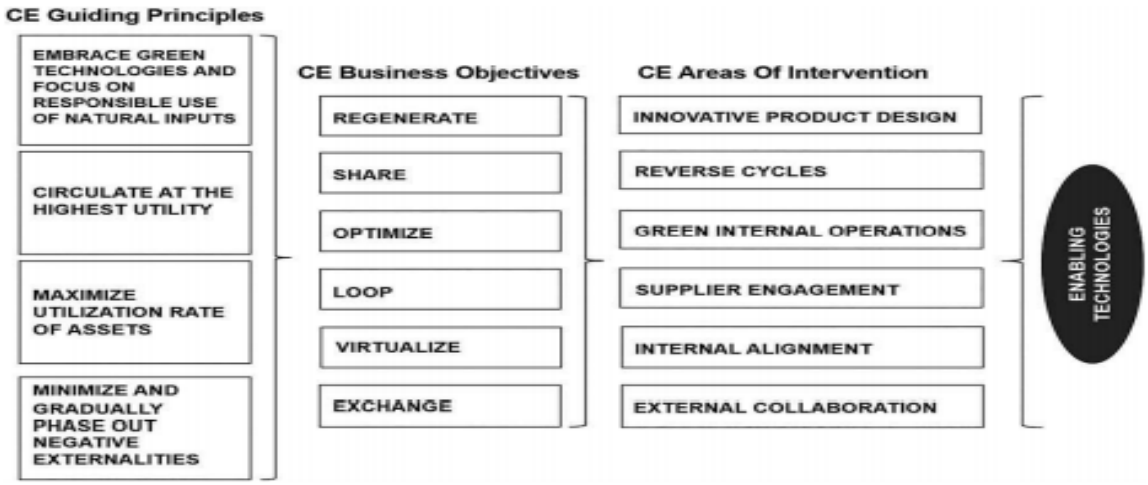

Figure 2: Framework for Circularity in Business Strategy

Source: Tonelli & Cristoni, 2019. Strategic Management and the Circular Economy

The overall goal of the green transformation should be to remove (legal) barriers for green and circular start-ups to scale up; create more opportunities for green partnerships, knowledge transfer and skills; facilitate access to green finance; and increase their visibility and market access.

To operationalize the concept of circular economy, and redefine supply chains in practice, policymakers need to formulate dedicated action plans for specific sectors, because every sector has its own dynamics, challenges and stakeholders. The selected priority sectors for Kenya

includes Energy, Manufacturing, Waste, Agriculture, Water, Forestry and Biodiversity, Tourism and Fisheries. This means that a silo approach to the green transition is not an option and therefore respective Ministries, Departments, and State Corporations must find a way of working together.

4.0 Ways to reach Circular Goals through Circular Business Models for each Phase of the product life cycle

The phases of the product's life cycle include materials, product design, production and distribution, use and end-of-life[1].

Materials phase. Reducing production waste, using recycled materials, or even reducing the use of certain materials, can be integrated into a working business model by companies in the raw materials sector. Alongside business innovation, technical and social innovation are also needed, e.g. techniques to reuse materials and new ways of companies collaborating across the value chain. Policy measures such as banning substances of concern, or economic measures that affect material demand in the value chain (e.g. extended producer responsibility schemes, product standards), can provide an important trigger for change.

Product design phase. Circular design is a key factor for implementing circular goals, as the design of products determines their potential for reducing, reusing, remanufacturing or recycling materials. Implementing circular design depends on technological solutions, business model innovation to align business incentives with the costs and benefits of circular design practices, and social innovation to align the intentions behind the product design with the way the product is used. Both policy and behaviour enablers have important roles to play in creating appropriate regulatory, economic and behavioural incentives.

Production and distribution phase. Incremental innovation in process efficiency and optimization has contributed to lower resource use in production and distribution processes. More radical innovation is required, however, to achieve decoupling of resource use from economic growth. Such innovation is partly technological (e.g. the introduction of digital, distributed production technology), partly business model-related (service models or take-back models), and partly social (consumers adopting new practices such as sharing or pay-per-use models or acknowledging the residual value of goods after use). Proper education on the value of goods (including environmental and social values) would improve the success rate of such innovations, as would policy measures.

Use phase. The realization of circular goals in this phase can differ widely from product to product, and from business-to-business, through business-to-consumer to consumer-to-consumer models. The behaviour of users plays a key role in determining how products are used and managed at the end of the use phase. Consequently, business model innovation and social innovation in the use phase needs to focus on increasing reuse, longer use, repair and a shift from owning products to social practices that focus on product function or performance.

End-of-life phase. In the linear economy, products become waste, and after proper collection enter the waste management system to be destroyed for recycling, energy recovery or disposal. However, other practices are also becoming more important in achieving circular goals, such as collecting products for reuse and repurposing products and materials to create new value all together.

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[1] European Environmental Agency (EEA), 2020. A framework for enabling circular business models in Europe

5.0 Obstacles to the Green Transition

The obstacles to the green transition[2] that need be overcome include:

Challenges of establishing a viable business case and accessing credit/ funding: impact-driven circular projects in the start-up phase often experience difficulties in developing robust economic business cases under the current dominating linear conditions, while access to financing is limited. Public (non-reimbursable) subsidies are therefore crucial for projects that cannot obtain loans due to their maturity stage and risk profile and do not have sufficient capital themselves.

Impeding regulations: current regulations could be outdated (not taking into account eco-innovative developments), or insufficient in stimulating the adoption of circular strategies by companies, like cross-sectoral collaboration in order to utilize residual streams. Additionally, the legislative framework may not always accommodate innovative business models that deviate from traditional forms of ownership through new types of product-service systems. This impedes the development of green and circular economy business models;

Insufficient knowledge (support services): improved knowledge and green skills are necessary for redesigning production processes and implementing circular economy strategies. Unfortunately, both new entrepreneurs and existing companies often lack the (strategic or technical) knowledge, practical tools, methodologies for LCAs, data and structural support to apply eco-innovative solutions such as eco-design (for sustainable product-service systems development) and valorization of by-products. It is necessary to support and promote collaboration and green networking among Business Support Organizations so as to boost support to sustainable and circular business development.

Conservative financial sector: investments in circular products and services have a different risk profile, different depreciation periods and a different cost-benefit balance than linear products. There is a lack of knowledge and experience in the financial sector and among business-people on the needs and benefits of a circular economy. Traditional private investors therefore see investments in circular economy projects as high risk, even when this is not necessarily the case;

Insufficient collaboration in supply chains and between sectors: market actors in supply chains and different sectors do not collaborate to prevent waste (e.g. through industrial symbiosis), there is a lack of information transfer about products and waste streams (e.g. between designers and recyclers), and lack of coordination to help achieve circular objectives;

Lack of demand for green and circular products and services: green and circular businesses have difficulties to compete with linear businesses whose prices don't reflect social and environmental externalities. Most consumers, companies and organizations are very much price-oriented focusing on lowering costs as much as possible, without paying much attention to the (hidden) environmental and social costs. As a result, the market opportunities for green and circular products and services are limited when they are not price-competitive. Unfortunately, green public procurement in Kenya is just beginning to take shape.

[2] Switch Med, 2021. Regional Summary of Policy Recommendations to Support the Development of Green and Circular Businesses in the Mediterranean

Inadequate enforcement of environmental regulations: due to lack of clear legal frameworks, lack of proper monitoring, insufficient (financial) capacity and number of inspectors, as well as cultural factors. This means less attention is put on environmental issues;

Institutional weaknesses: preventing coordination of transversal initiatives such as Circular Economy implementation that requires proper coordination across different ministries, policies and sectors;

Current prices and taxation favour linear practices: virgin raw materials (e.g. plastics due to the low oil prices) are cheaper than secondary raw materials, undermining economic incentives to help invest in the circular economy;

6.0 Policy Recommendations[3]

6.1 Cross Cutting Policy Recommendations

Develop a national Circular Economy Strategy and Action Plan: outlining the general vision for the circular economy (CE) at national level that encompasses quantitative targets and monitoring to help create system conditions for maintaining resource value at their highest level and designing out waste while explicitly acknowledging the role of green and circular businesses. Governments should formulate a CE Action Plan detailing the practical measures to help achieve the objectives of the national strategy, formulating concrete measures to actively support green and circular businesses through various types of policy instruments and strategies. Both the Strategy and Action Plan should be an interdepartmental effort, so that circular principles are integrated across ministries as a shared agenda highlighting environmental, social and economic benefits.

Develop sustainable product policies and stimulate the application of circular design: stimulate the application of circular designs in national manufacturing industries and imported goods, extending product lifespan, design for reuse, repair, remanufacturing and recycling for instance through a ban on planned obsolescence and mandatory percentage of recycled material in products. This will require the development of new legislation.

Create a supportive regulatory framework for sustainable businesses: by firstly adopting a clear definition of "sustainable businesses" in legislation. This definition encompasses green and circular businesses, making them eligible for potential tax benefits and other incentives.

Tax benefits for green and circular businesses: investments in ecological business assets that help transform conventional businesses into green and circular businesses, should be eligible for tax benefits. The criteria for technologies and assets to be considered ecological should be evaluated and approved by a government agency, published and updated on a regular basis. In addition, small SMEs may also deduct environmental consultancy that is needed to make a real transition to a green and circular business model.

Promote and enable national partnerships aimed at supporting green and circular business development. National Partnerships should be set up bringing together Public and Private Business Development Service Providers (BDSP) providing various support services to Green and Circular Entrepreneurs (training, mentoring, incubation, technical assistance, information dissemination, etc.). Those national partnerships could be voluntary associations of public and private actors that

[3] Modified from Switch Med, 2021. Regional Summary of Policy Recommendations to Support the Development of Green and Circular Businesses in the Mediterranean

cooperate on green business development services to help achieve a mutually agreed-upon objective which can potentially benefit all the involved parties making resources, skills and knowledge available.

Public-private partnership for better waste recovery and recycling: PPPs have emerged as an alternative to improve municipal waste management and waste recovery with privately owned companies. These PPPs can attract private capital and technical expertise from private entities to support public authorities to achieve their waste management objectives and boost the recycling market. But these PPPs should be well structured to lead to significant improvements in the efficiency and quality of solid waste management and should also consider improvements at the product design stage to increase recyclability.

Create a regulatory helpdesk (online and offline) to support green and circular entrepreneurs: by appointing a department (with management commitment and sufficient resources), within an appropriate governmental institution, to support green and circular businesses and remove regulatory obstacles for innovative circular entrepreneurs. A helpdesk could take the shape of an online portal where entrepreneurs report regulatory obstacles that hinder them from investing in green and circular innovations. The helpdesk also requires sufficient human resources to analyze the case studies and provide concrete assistance to entrepreneurs, aiming to resolve the obstacles and improve the existing regulatory framework in collaboration with the responsible ministries. The online platform should also provide clear and gender inclusive information about the fiscal regime and benefits available to green and circular entrepreneurs, and how to access them.

Establish clear end-of-waste and by-product criteria: in Kenya, waste legislation needs to be revised so as to enable the use of residual flows as secondary raw materials. Classifications with clear definitions and technical guidelines are therefore needed for: i) waste, ii) by-product, iii) end-of-waste. Small green and circular businesses particularly benefit if they do not have to face complicated rules but are able to receive and process residual streams without a lot of bureaucracy and costly licenses. Social organizations should easily be able to receive second-hand products and materials (e.g. WEEE, furniture) to prepare them for reuse and repair. In addition, it is necessary to develop standards for recycled products and secondary raw materials in order to guarantee optimal quality and safety.

Establish and improve Extended Producer Responsibility schemes (with eco-modulation of fees): establish schemes that hold producers responsible for the collection and waste treatment costs of their products, while incentivizing them to invest in waste prevention and reuse. As a minimum, EPR schemes should cover the costs of separate collection, sorting and waste treatment as well as the disposal of waste, litter cleaning and waste transport. However, EPR systems should not only stimulate recycling but also circular strategies higher up in the waste hierarchy, particularly preparation for reuse and repair. This requires collaboration with green and circular businesses that are specialized in preparation for reuse and repair. EPR fees of producers could be differentiated with eco-modulation fees to reward and favour circular designed products.

Waste disposal taxes: landfilling and burning of waste causes significant pollution of surface water, groundwater, soil and air while emitting GHG. To reduce the amount of waste (and thus resources), tax disposal charges are a fiscal instrument that make it less economically attractive to landfill or incinerate, creating an incentive to invest in reuse and recycling emissions.

Green Free Zones providing incentives to green/circular SMEs and eco start-ups. These green zones will serve to demonstrate the economic, social and environmental benefits of going green.

6.2 Capacity-building & knowledge dissemination

Improved levels of knowledge and skills are needed on a broad variety of topics to enable the transition to a circular economy, e.g. concerning material flows (sustainable resources management), eco-design, circular business models, reuse systems, repair skills and recycling technologies. The exchange and dissemination of knowledge in networks are essential for concerted action, but also the development of new skills and competences that are necessary for circular action on the ground.

***Create or support incubation and acceleration programs for new entrepreneurs or existing businesses to develop green and circular business models with a focus on youth and women*:** These should incorporate modules specifically focusing on circular design, as well as guidance to develop successful business plans. Such a program could include access to business mentors, investors and partners from established companies looking for synergies.

Encourage educational institutions to integrate circular economy modules in curricula, both dedicated courses as well as incorporated in existing courses, to give rise to a new generation of circular professionals. Educational institutions should also ensure that both men and women have access to academic and vocational education or training on circular business models, environmental technologies, renewable energy, etc.

Promote upcycling businesses: upcycling is the reuse of discarded objects and materials (e.g. textiles, leather or wood) through creative transformation into higher value products. This is often done by micro-enterprises and innovative entrepreneurs at a small scale in the urban environment where high-quality waste is discarded. Upcycling is often considered a niche practice but has a lot of potential to reduce municipal waste and inspire consumers through creative designs. Many Kenyan women are already involved in small upcycling businesses and support should be provided to help these businesses grow into medium and large enterprises. Local authorities can support upcycling initiatives by facilitating access to secondary raw materials (e.g. at municipal waste collection sites), providing physical space (e.g. a large warehouse) or facilitating transport of materials (e.g. a collective van for upcyclers).

Promote regenerative agriculture and agroforestry: the agrofood sector has an immense ecological footprint, responsible for soil degradation and a very high level of water consumption, and is marked by many socio-economic challenges. There is ample opportunity to apply circular principles to this sector, reducing its resource-intensity (particularly water) and strengthening ecosystem services. This does not only include technological innovations such as precision irrigation and water reuse (treated wastewater), but also agro-ecological measures such as intercropping and mulching. Agroforestry also has an important role to play as trees have the capacity to retain water and humidity. Organic fertilizers from residual streams (through composting or anaerobic digestion) can be used to close the organic loop, but has to meet high standards.

Support circular businesses cases in the bio-based economy: many organic residual streams (of municipal, agricultural or industrial origin) are currently not separately collected, but disposed of in landfills (emitting GHG and causing pollution) or burned in incinerators, which is a waste of valuable resources. Instead, these streams can be valorized in different ways: from simple

composting or anaerobic digestion (producing biogas and digestate) to innovative techniques (biorefineries) and high-value products. Kenya needs to promote selective collection at source in bi-streams (organic waste and other waste). Green and circular businesses valorizing residual organic streams can be supported through funding, training, regulatory or R&D support (exploring the potential for sustainable biobased materials to replace fossil-based raw materials). This might involve the promotion of the development of municipal reuse centres. Such reuse centres could function as a sales platform for circular start-ups to sell upcycled goods and as a marketplace for secondary raw materials (e.g. wood, construction materials). This would create local employment and re-integration opportunities for disadvantaged people. Setting up a reuse centre requires collaboration between municipalities, waste operators/recycling companies and social enterprises.

Provide targeted information, skills, networking and training on circular entrepreneurship to youth and women (to stimulate women-led start-ups and SMEs): as men and women's needs and opportunities are different, support structures and capacity development programmes should include a gender perspective , providing men and women equal access to advice on business development , training and mentoring, market opportunities and networking.

Create national or regional knowledge centres or networks specialized in CE: disseminating knowledge on Circular Economy strategies and practices, to encourage and facilitate their implementation among existing and new businesses. This can be achieved through an online platform that aggregates all relevant information on green and circular economy, from relevant policies to best practices to funding opportunities. Green partnerships could also be useful.

Develop cluster infrastructures for SMEs: those clusters can create opportunities for SMEs to use infrastructure that otherwise they would not have access to and also have the potential to offer circular solutions, thus giving them opportunities to collaborate, share knowledge and for peer learning. This would help them to be more innovative, accessing shared infrastructure, create more jobs, and facilitate internationalization and could be achieved through the establishment of networking mechanisms and partnerships.

Promote industrial symbiosis: to increase the valorization of by-products and residual streams, thereby turning the waste of one company/industry into a resource for another. This requires a collaborative (often site-specific) approach and good coordination, sometimes by an experienced third-party (for instance a public agency) to facilitate the implementation. International cooperation can be sought with a focus on best practice sharing, peer-to-peer learning. Pilot projects in given counties, led by public agencies can be implemented as a means to understand the advantages and constraints, to determine the possibilities of optimizing the local use of materials and waste flows and also the possibilities of pooling existing resources to demonstrate the advantages of the sharing economy.

Stimulate circular cities programmes: as cities have a large environmental footprint and produces a lot of waste it is necessary to implement programs that support green and circular businesses contributing to waste prevention in urban areas (e.g. through incubation, acceleration, training programmes, networking and financial support).

Incentivize programmes in the area of sharing/collaborative economy: in which products or assets are shared among consumers or companies, in order to make more efficient use of them and avoid (unnecessary) purchase of new items. Sharing/collaborative economy are often facilitated by digital tools and platforms to connect supply and demand.

6.3 Access to financing and funding

Foster the development of funding to green and circular businesses: green and circular start-ups often experience difficulties in accessing funding. An innovative way should be found to enable these green businesses access affordable green funds. Such funds could be derived from environmental taxes levied on polluting businesses, public interest free loans, design of guarantee schemes, and supporting the finance industry in the provision of sustainable finance.

Information on the analysis of trends regarding the progress of green and circular businesses should be made available to do a proper monitoring of the efforts deployed to support them and better inform decisions regarding their financial support.

Legally define green and circular economy activities eligible for green financing: national governments should devise a clear classification system that enables various financial actors, particularly private investors, to assess business models playing a key role in the transition to green and circular economy for green funding.

Commitment and capacity-building in the financial sector: The knowledge of financial actors about the environmental/social cost-benefit balance of circular business models should be improved through training and workshops. Financial products and risk management have to be adapted to the circular economy. Furthermore, stricter requirements should be formulated for linear businesses.

6.4 Stimulate Consumer Demand

Support green and circular businesses with reaching international markets: whilst local markets should be prioritized to minimize the carbon footprint, for markets where domestic demand is insufficient, green and circular businesses may need to export their products or services abroad to become viable. This can be facilitated through supported certification/ verification programmes (e.g. ISO 14001) or labels (e.g. Ecolabel); or even trade agreements.

Support awareness-raising campaigns on sustainable/circular practices among consumers: it is important to raise awareness about environmental issues and the importance of a circular economy in order to stimulate responsible behaviours and boost sustainable consumption patterns/ lifestyles, increasing the demand for green and sustainable products and services, focusing on waste prevention, reuse and repair.

VAT Reduction or Exemption for Second-hand Goods and Repair Services: VAT has already been paid over second-hand goods in their first use phase and repair services are usually micro-enterprises at local level. These goods and services play a vital role in the CE, retaining value and preventing waste, but they experience difficulties to compete with linear models. To strengthen their business case, these goods and services should be eligible for a significant VAT reduction or exemption, making them more attractive for consumers.

6.5 Sustainable/ Green Public Procurement

Make Green Public Procurement (and its monitoring) a mandatory practice across all government bodies: at the moment GPP is a voluntary measure but to scale up its impact, it should be made mandatory at all governance levels, with concrete targets and annual monitoring.

Provide circular procurement training and support at both National and County Government Levels, to help drive structural change in standard procurement processes and increase demand for green and circular products and services.

6.6 R&D and innovation

Just as with other forms of innovation, most circular economy solutions go through development stages with varying degrees of risk. Governments should implement policies to and promote technology transfer from R&D centres and support businesses to survive the early stage development phases. This will entail funding research and innovation for the CE, defining a national research and innovation agenda for a CE, enhancing data collection and knowledge production on gender aspects of circular businesses and the demand for sustainable products, protecting intellectual property of innovative green and circular businesses, and launching Circular Challenges.