Sustainable Consumption and Production

UN Environment 's support for Asia Pacific region

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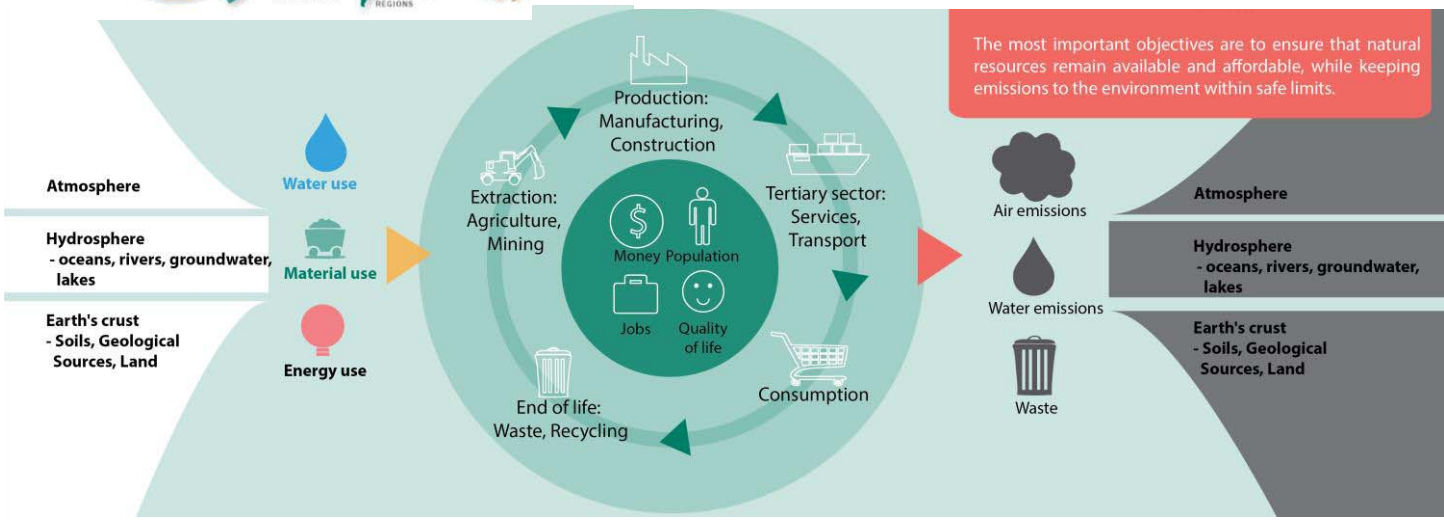
Why SCP?

Growing population from 7 billion today to 9 billion by 2050

Economic development and increasing global trade

Growing middle-class with **changing consumption patterns**

Increasing **consumption of biomass**



Circular economy – Linear to circular society

(20th century)

Mass consumption society

Mass consumption

Mass production

Mass disposal

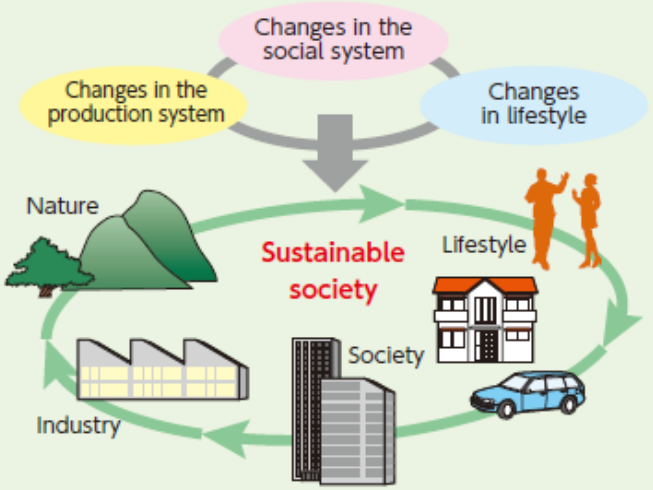
Increase in environmental impact

Expansion of resource consumption

(21st century)

Sound material-cycle society

- Promotion of 3R (Reduce, Reuse, Recycle) and proper waste disposal



Reduction in natural resource consumption

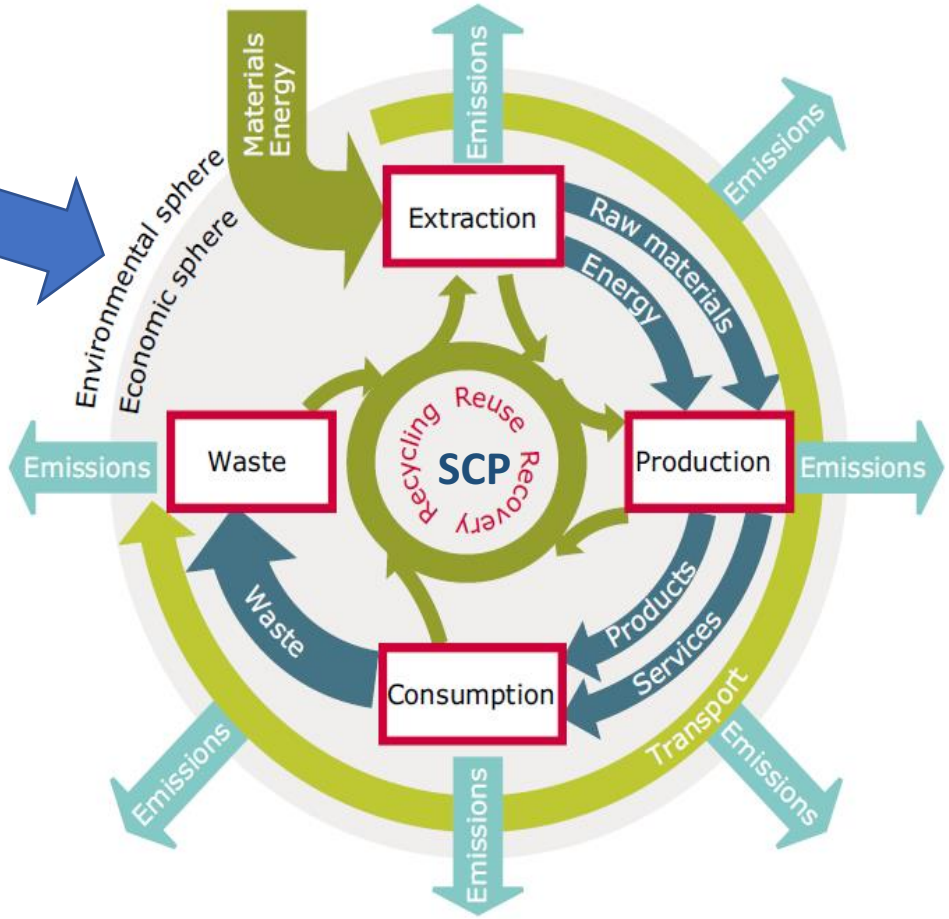
Reduction in environmental impact

History and Current State of Waste Management in Japan, MOEJ (2014)

Circular economy – Decoupling Sustainable Consumption and Production (SCP)

Enabling Environment

- Policy
- Technology
- Standards
- MEPS
- Regulations
- Incentives
- Private sector engagement
- Access to finance



CIRCULAR ECONOMY ASIA PACIFIC (CEAP)

The Challenges

Natural Resources

In 2015, Asia and the Pacfic represents 63% of global material use.

GHG emissions

330% GHG emissions from the region grew by 330%, including increase in short-lived climate pollutants

Plastic

6,300 Mt of plastic waste has been generated as of 2015. Of this waste, 9% has been recycled, 12% incinerated, and 79% has accumulated in landfills or the natural environment.

Air pollution

70% Air pollution is responsible for more than 6.5 million deaths annually, the bulk of which – 70 %– occurs in Asia Pacific.

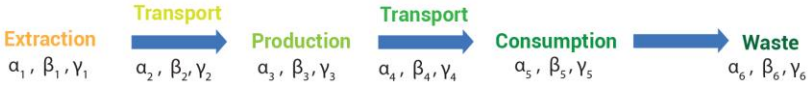
Source: APCAP, 2018

Circular Economy and the 2030 Agenda

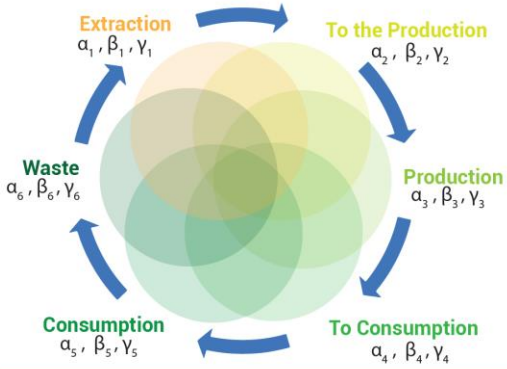
SDG 12 Responsible Consumption and Production

Current

Linear & Inefficient



Circular Economy



Benefits

1. Efficiency in Cycle
2. Extended Life including 2nd (Refurbishment) & 3rd (Remanufacturing)
3. Green Supply Chain
4. Efficiency of Product Use

Improvement α - Δ
β - Δ
γ - Δ

Legend
α = Resource Required
β = Environmental Damage
γ = Waste
Δ = Reuse , recycle

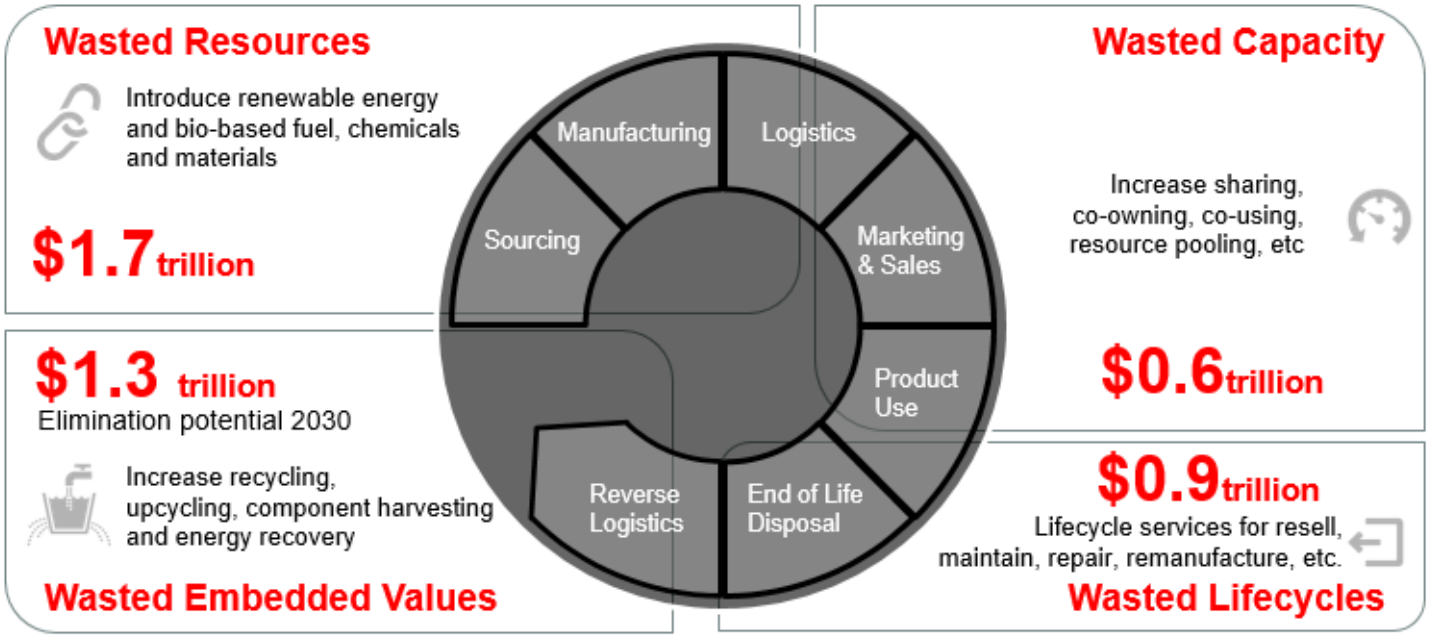
Circular economy – Business models

Business model	Description	Illustration
Circular Supply Chain 	Provide renewable energy, bio-based-or-fully recyclable input materials to replace single life-cycle inputs	BASF is replacing finite fossil resources with sustainably produced renewable resources through its innovative production Verbund Biomass Balance approach
Recovery & Recycling 	Recover useful resources / energy from disposed products or by-products	Nike reuses and recycles footwear manufacturing scrap and post-consumer shoe wastage, converting it into raw material for other sports equipment manufacturing players
Product Life Extension 	Extend working lifecycle of products and components by repairing, upgrading and reselling	Patagonia launched an online store where customers trade-in their used clothing in return for store credit, thereby extending the life of products
Sharing Platform 	Enable increased utilization rate of products by making possible shared use, access or ownership	Airbnb operates as an online marketplace for people to lease or rent short-term lodging, facilitate tourist experiences or make restaurant reservations
Product as a Service 	Offer product access and retain ownership to internalize benefits of circular resource productivity	Philips offers lighting as a service, wherein users are required to pay for the consumed intensity (rather than for the product)

Circular economy - enablers

Better awareness	Disruptive technologies	Enabling policy landscape	Innovative funding models	Collaboration and partnerships
				
▪ Better consumer awareness required to drive adoption of new interaction models (between suppliers and consumers) ▪ Educating entrepreneurs, designers, engineers, procurement officers, and product managers about the art of possible ▪ Intervention in school and university curriculums to influence mindset	▪ Emerging technologies can accelerate a shift towards CE models– for example, enabling cleaner resources (bio-materials), enabling extended lifecycles (through predictive maintenance) and enabling shared platforms (through IoT) ▪ Three types of technologies would be critical– digital technologies (such as IoT), physical technologies (such as 3D printing) and biological technologies (such as bio-based materials)	▪ Favourable policy landscape can help accelerate adoption through elimination of barriers and driving behavioural change ▪ Several policy measures already introduced in India – for instance, Zero Defect, Zero Effect, scheme, plastics waste management rules, e-waste rules, BIS standards for CE principles	▪ Funds required to drive R&D and capital investments ▪ Illustrative examples of best practices – ESG investing (such as green bonds), CE innovation fund introduced by Finnish Government	▪ Need for both cross-sector partnerships and partnerships across different players (for example, MSMEs, government, urban local bodies, NGOs and consumers) ▪ For instance, MSTC and Mahindra partnering for India's first auto shredding business

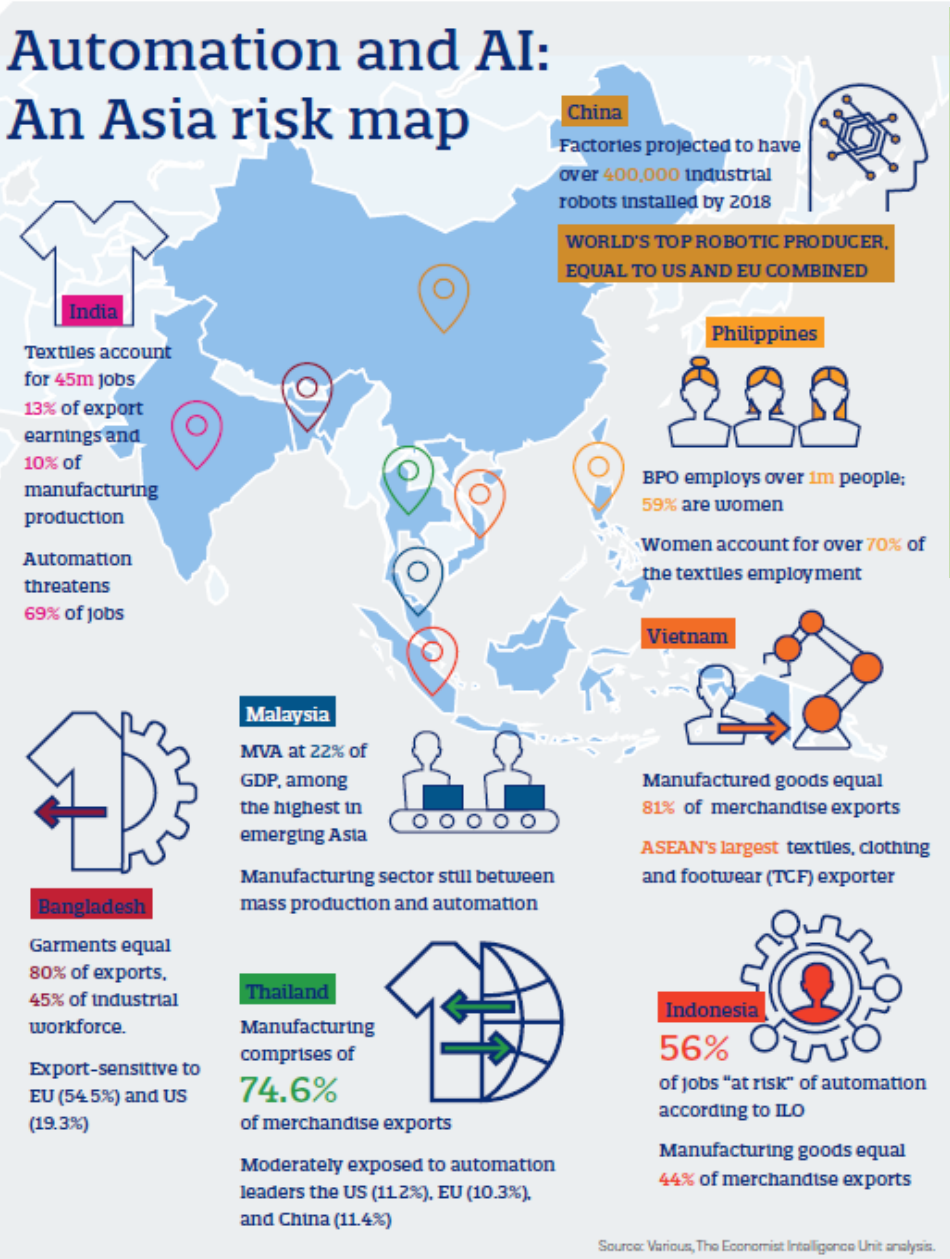
Circular economy – Economic benefits through new businesses

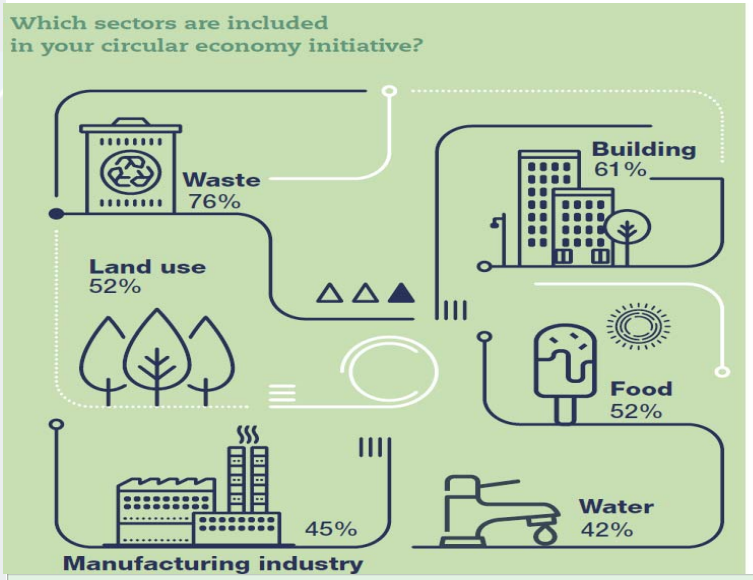


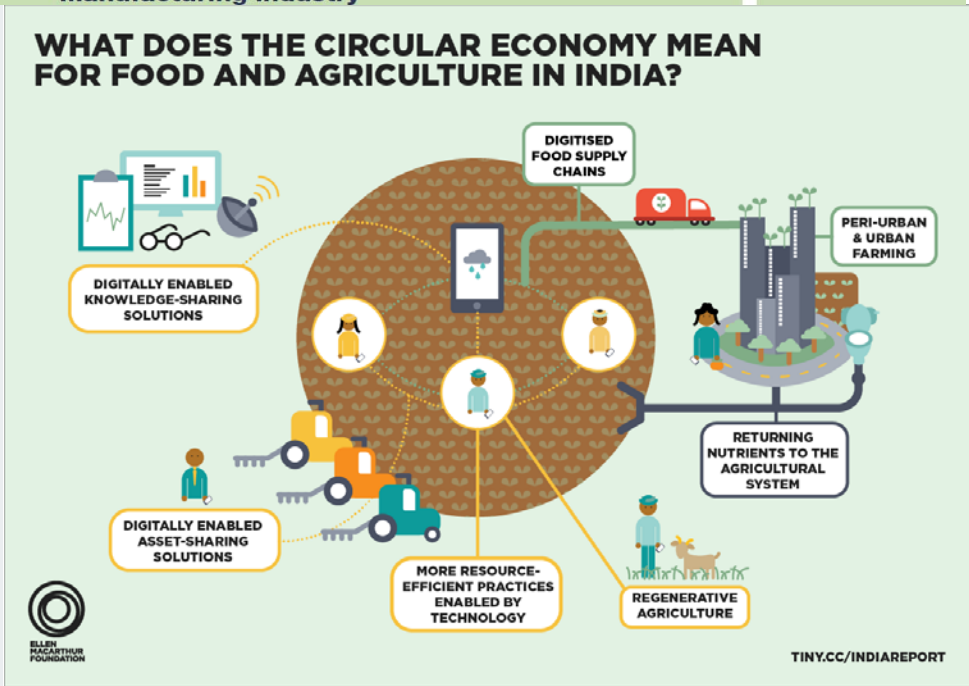
- **Wasted resources** are materials and energy that cannot be continually regenerated, but instead are consumed and forever gone when used.
- Products with **wasted lifecycles** have artificially short working lives or are disposed of even if there is still demand for them from other users.
- Product with **wasted capacity** sit idle unnecessarily; for instance, cars typically sit unused for 90% of their lives.
- **Wasted embedded values** are components, materials, and energy that are not recovered from disposed products and put back into use.

Industry 4.0 and SDGs

SDGs– New job markets

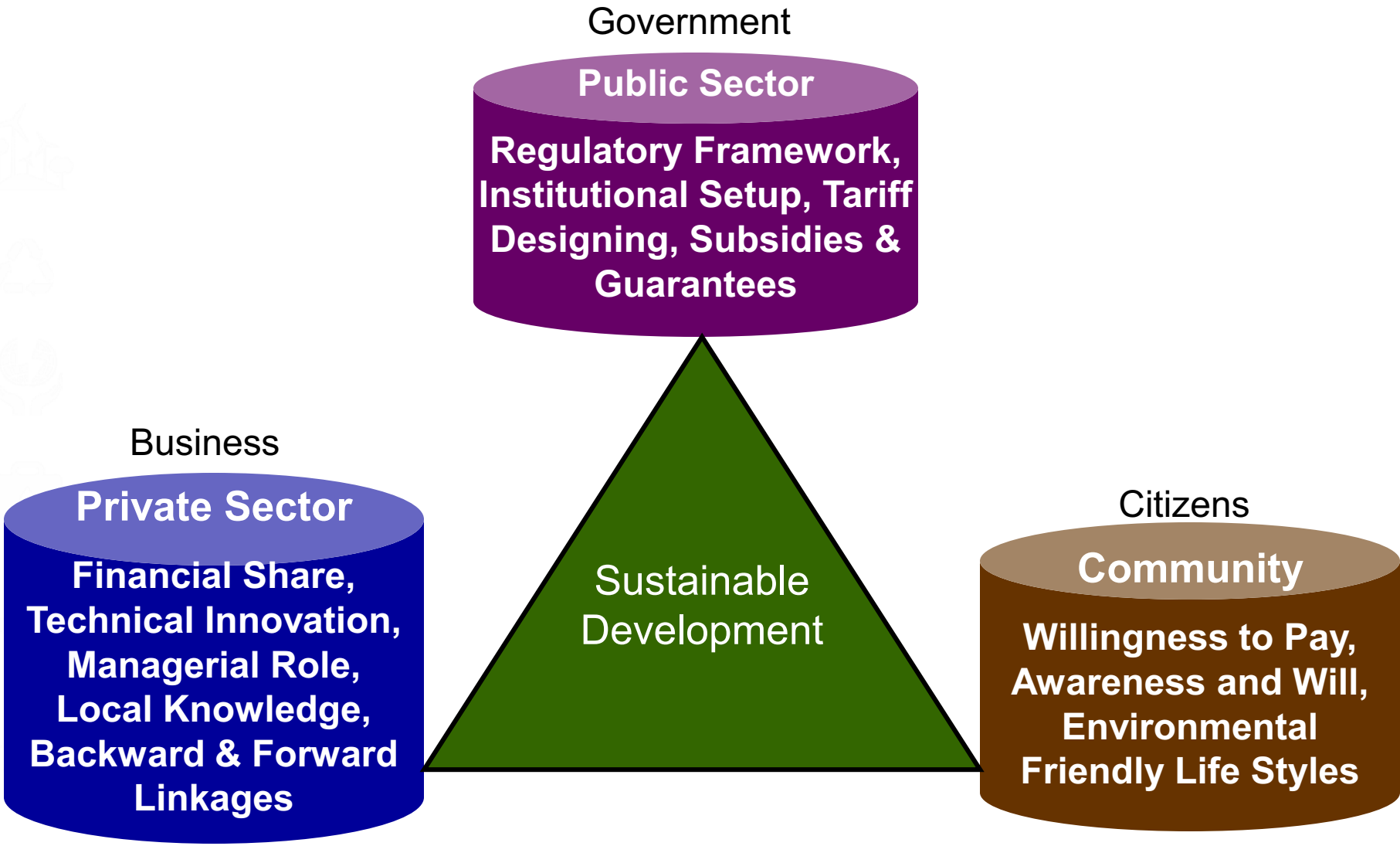




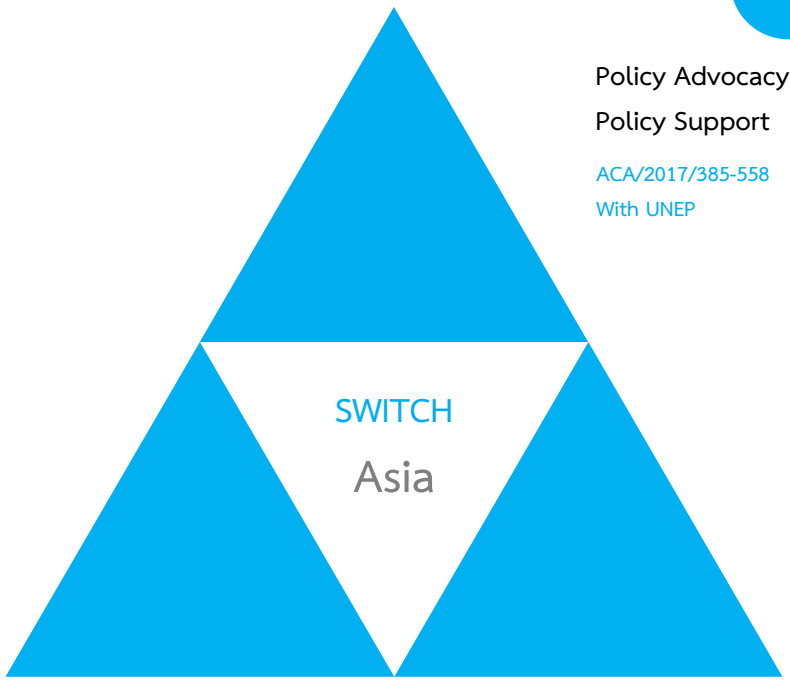


Addressing the Transversal nature of SCP

Creating a Conducive Environment



SWITCH-Asia (EU funded)



1

Policy Advocacy Component and National Policy Support

ACA/2017/385-558
With UNEP

2

SCP Facility

ACA/2017/388-441
With GIZ

3

Grant projects on the ground

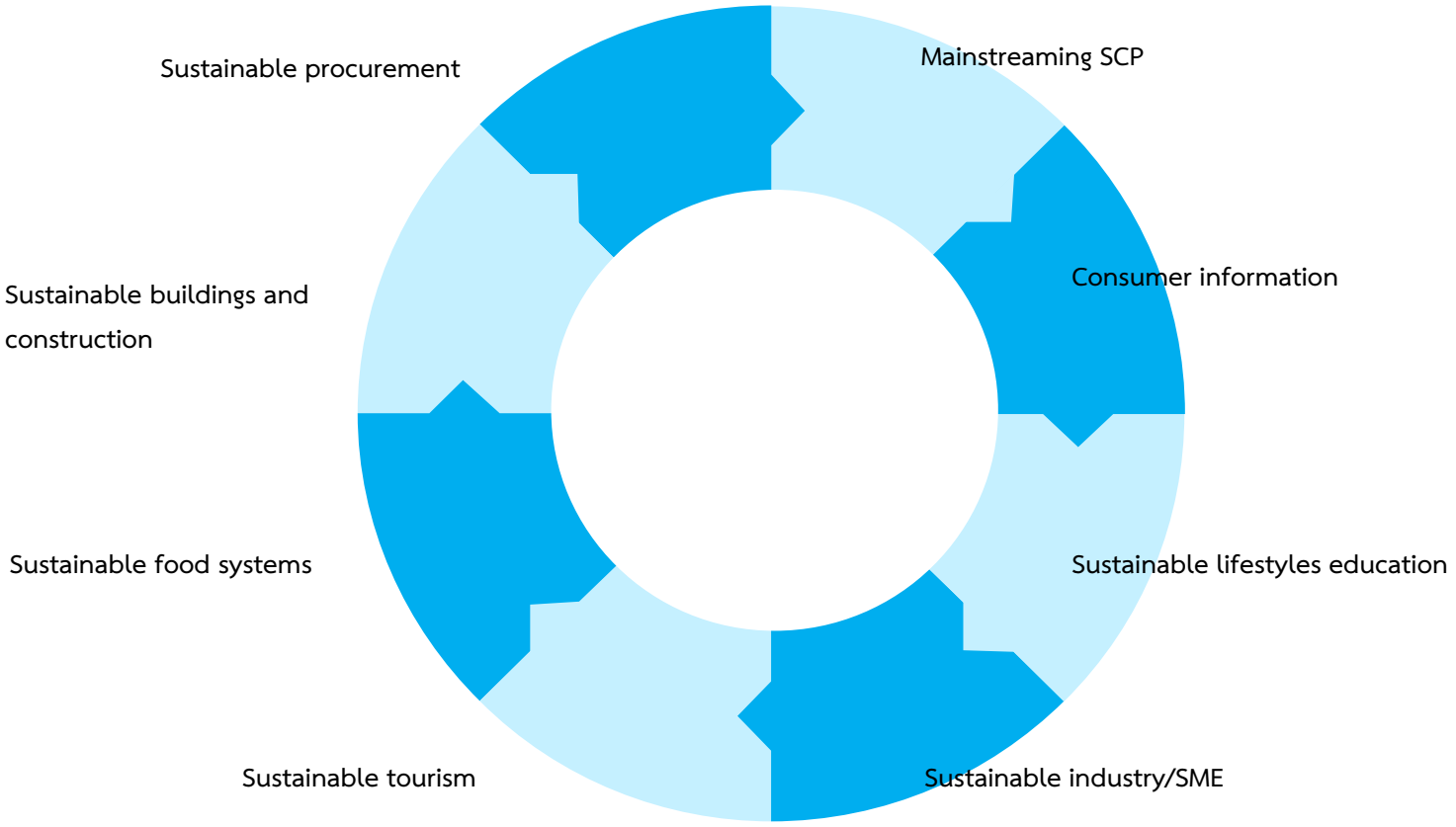
10-12 projects per call

switchasia POLICY ADVOCACY

Co-Funded by the European Union

UN environment

ASIA PACIFIC SCP ROADMAP – PRIORITY SECTORS



switchasia POLICY ADVOCACY

Co-Funded by the European Union

UN environment

GO 4 SDGs

Ready to rock!!!

UN environment programme

WORLD ECONOMIC FORUM

ITUC CSI IGB

UNDP

SEED promoting entrepreneurship for sustainable development

International Labour Organization

PAGE PARTNERSHIP FOR ACTION ON GREEN ECONOMY

GREEN GROWTH Knowledge Partnership

One planet handle with care

What is cooking on the menu?

GO 4 SDGs

BUILDING REGIONAL CAPACITY FOR INCLUSIVE GREEN ECONOMIES AND SUSTAINABLE CONSUMPTION AND PRODUCTION

Menu of Services

"Global Opportunities for SDGs" (or GO4SDGs for short) aims to serve as a regional pacemaker and enabler, sharing innovative and successful practices from countries at the regional level while building on existing networks and pools of expertise to advance sustainable consumption and production and inclusive green economies around the world. It is designed to strengthen cooperation and capacities to deliver on the 2030 Agenda and Paris Agreement by helping countries chart pathways to decarbonize and decouple impacts of economic activity on the climate and biodiversity.

COVID-19 has changed the economic and social landscape. The pandemic has exposed many fragilities in our economies, deepening existing inequalities, and making the plight of the poor and vulnerable more visible. All this highlights the imperative for innovation and sustainability to "build back better" and accelerate the transition to a just and inclusive green economy. GO4SDGs can play a role in supporting countries, in key sectors of their economies, in addressing and overcoming the shocks of COVID-19 containment measures by identifying opportunities to build back better and green.

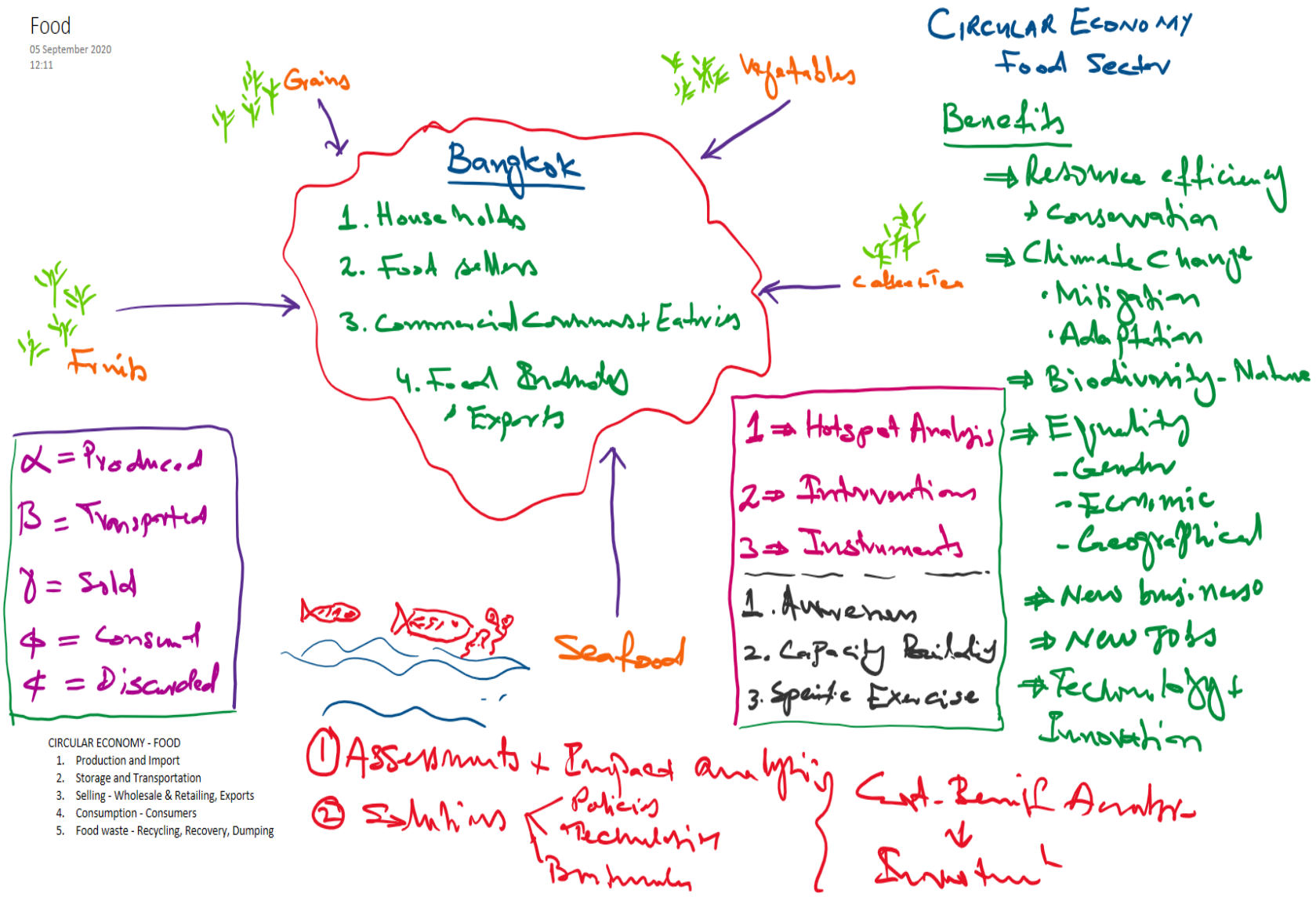
This menu of services showcases the different tools that the GO4SDGs partners can bring to bear at the regional and national level as countries seek to jumpstart their economies and job creation as part of the recovery from Covid-19 while advancing their climate and biodiversity commitments. It reflects the collective knowledge and efforts of leading global initiatives designed to support an economic transformation, including the One Planet Network, the Partnership for Action on Green Economy (PAGE), the Green Growth Knowledge Partnership (GGKP), the World Economic Forum, UNDP Climate Promise and NDC Support Programme, the NDC Partnership, SEED, the International Labor Organization (ILO) and the International Trade Union Confederation (ITUC). This menu offers a glimpse of what GO4SDGs can bring to the table as part of efforts to support countries in building back better to reach the SDGs and a 1.5 degrees world.

Available at: www.greengrowthknowledge.org/initiatives/global-opportunities-sdgs-go4sdgs

The menu of services is focused on the following key questions for potential users and clients, which includes governments, small and medium sized enterprises and youth networks, schools and universities:

1. **How can resource efficiency help to decarbonize my economy and make it more sustainable?**
2. **How to jump start the economic recovery using fiscal policies to build back better?**
3. **What enabling conditions can help spur policies and investment for sustainable and resilient infrastructure in the recovery process?**
4. **How to reduce food waste and promote healthy diets to support policies on food security and climate change?**
5. **How to scale up sustainable innovation and access to finance for the private sector, especially for small and medium sized enterprises?**
6. **How to move from a linear to a circular approach/model for resource use?**
7. **Which policies and incentives can be used to trigger investment and innovation to phase out single-use plastics?**
8. **What skills are needed for youth today for tomorrow's economy - and how to access them?**
9. **How to empower youth to embrace sustainable lifestyles and make smart choices?**

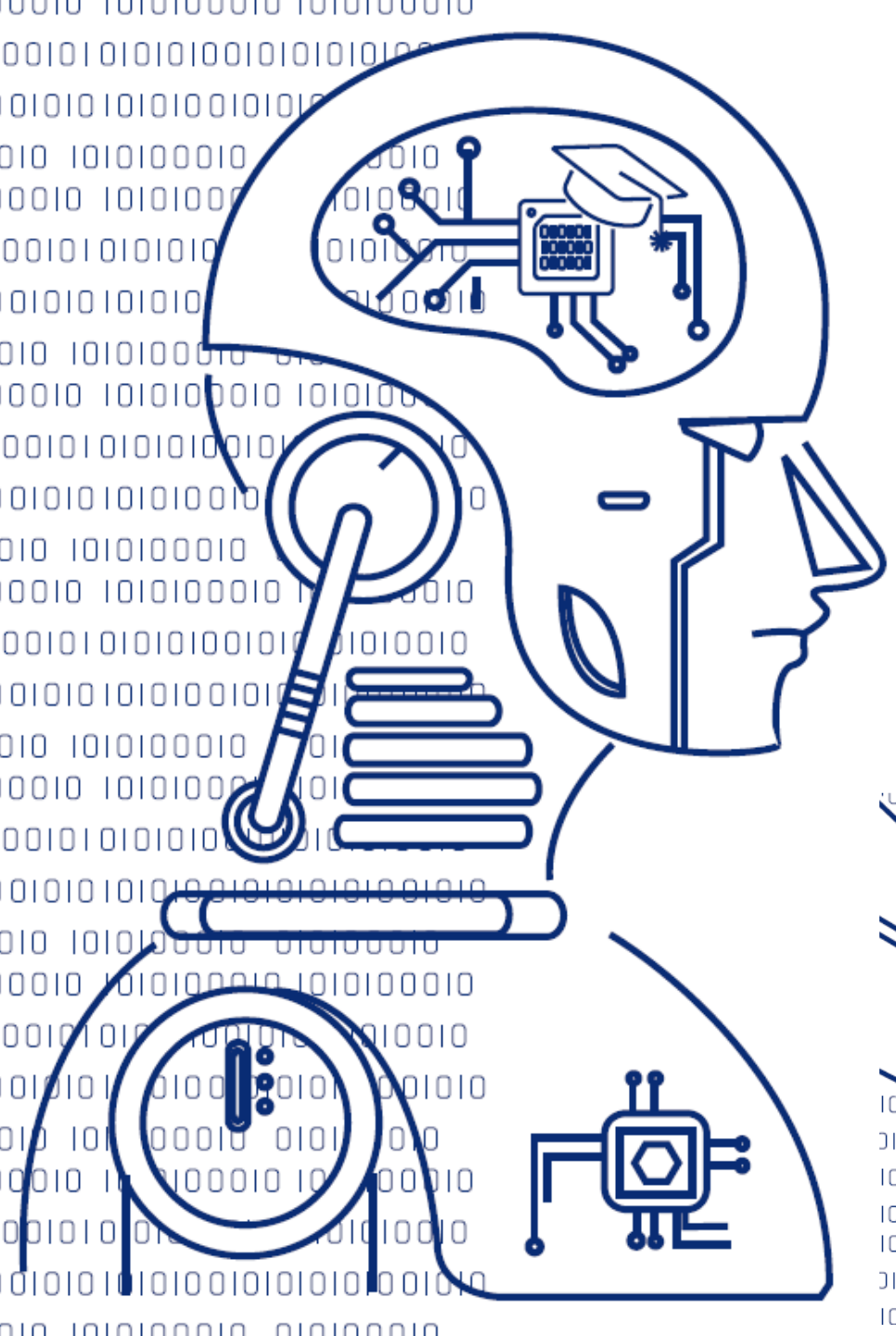
CleanTech – Food Waste Management

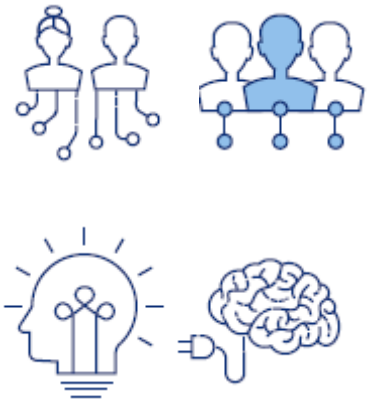


UNEP's toolkits and training

- Guidelines for Holistic Waste Management at national and city level
- Guidelines for Framework Legislation for Integrated Solid Waste Management
- Sustainability Assessment of Technologies
- Waste agricultural biomass to a resource
- Converting waste plastics into a resource
- Technologies for waste oils
- Treatment/Destruction of healthcare waste
- WEEE/e-waste management
- Waste and climate change
- Wastewater reuse
- Water use efficiency – every drop counts

- Quantification and characterisation of waste
- Assessment of current waste management system and gaps therein
- Target setting and stakeholders' concerns
- How to develop integrated solid waste management plan
- Sustainable Public Procurement (Green Public Procurement)
- Compendium of Technologies
- Assessment of waste plastics
- Assessment of E-waste
- Assessment of value chain for E-waste management and take-back system





Thank you!