

PACE

PLATFORM FOR ACCELERATING
THE CIRCULAR ECONOMY

WORLD
ECONOMIC
FORUM

COMMITTED TO
IMPROVING THE STATE
OF THE WORLD

Platform for Accelerating the Circular Economy

A global public-private collaboration
platform and project accelerator

Prepared in Collaboration
with Accenture Strategy

FOREWORD FROM THE CO-CHAIRS

Global material resource use during the 20th century rose at about twice the rate of population growth. Furthermore, we have seen a global “recoupling” of economic growth with resource consumption in the past decade, meaning that more resources are being consumed for every additional unit of GDP¹. Should this trend continue, raw material demand is projected to double by 2050 just to maintain current levels of economic growth. This dramatic increase in the use of raw materials will intensify climate change, increase many forms of pollution, reduce biodiversity and lead to the depletion of natural resources, causing worrying shortages of critical materials, reducing economic resilience and heightening the risk of local conflicts. These trends concern us deeply.

At the same time, new business models, well designed policies, technology innovation and investment opportunities are emerging that can drastically address this challenge while also providing major economic benefits.

Indeed, the transition towards a circular economy is estimated to represent a \$4.5 trillion global growth opportunity by 2030 while helping to restore some of our natural systems². We have all within our respective institutions made some progress in advancing this transition, yet we remain frustrated and challenged by the slow pace and scale of change to date. It is for this reason that we have launched this platform to foster leadership and more solutions-based collaborative projects.

PACE is about accelerating leadership, collaboration, investment, policy reform and action. We are convinced that through this type of programme that combines public-private leadership with specific large-scale collaborative action, we can help drive essential change that will be welcomed by responsive and responsible leaders globally. We therefore encourage all those who wish to join us on this important journey and to do so with commitment to drive change.



FRANS VAN HOUTEN
CEO
PHILIPS



ERIK SOLHEIM
Executive Director



NAOKO ISHII
CEO & Chairperson



EXECUTIVE SUMMARY

Context

The circular economy concept is gaining traction, but significant work is required to move from idea to action

- There is an increasing recognition that the circular economy offers an important strategy to address some of the most pressing environmental, economic and social challenges of the 21st century, while also providing positive economic benefits
- Progress has been made in 2017 towards a circular economy – with governments adopting new policies and national roadmaps, innovators developing new technologies, and businesses making commitments to transform their business models
- At the same time, large scale action and impact is still lacking – further effort to shape policy, shift business practices and address financing gaps is still required

PACE

The Platform for Accelerating the Circular Economy (PACE) is a public-private collaboration platform and project accelerator

- PACE aims to shape global public-private leadership and accelerate action towards the circular economy
- The Global Leadership Group currently includes over 40 committed partners who are leading a portfolio of projects
- Project focus areas include – plastics, electronics, food & bioeconomy and business model and market transformation across China, ASEAN, Europe and Africa

All PACE activities focus on:

- Developing blended financing models for circular economy projects, in particular in developing and emerging economies
- Helping to create and adjust enabling policy frameworks to address specific barriers to advancing the circular economy
- Bringing the private and public sector into public-private collaborations to scale impact around circular economy initiatives

Outlook

2018 aims to see a move from programme start-up to full-scale implementation

- 2017 has focused on developing the programme strategy, recruiting partners and initiating a series of collaborative projects

2018 aims to:

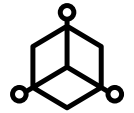
- Advance the full-scale Platform implementation, backed by necessary resources and committed partners
- Deliver measurable results on each of the four current areas of focus – plastics, electronics, food & bioeconomy as well as business model and market transformation

CIRCULAR ECONOMY AS A STRATEGY

Need For Urgent Action



During the 20th century the use of natural resources rose at about **twice the rate of population growth**³



In the last decade we have seen a recoupling of economic growth with material use, with **more materials being used per unit of GDP**⁴



We extract over 84 billion tonnes of materials per year to meet the functional needs of society. Yet, **only 9% of these materials are cycled back into our economies**⁵



Estimates suggest that by 2050, if current trends continue, there will be **more plastic than fish in the ocean**⁶



Diseases caused by pollution were responsible for more than 9 million premature deaths in 2015 – **16% of deaths worldwide or three times more deaths than from AIDS, tuberculosis, and malaria combined**⁷

Promising Solution



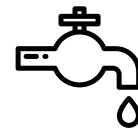
Circular economy provides a **\$4.5 trillion opportunity** by 2030 through avoiding waste, making businesses more efficient and creating new employment opportunities⁸



The Circular Economy is an important strategy to achieve SDG 12 on responsible consumption and production and is also critical to delivering **on 6 further related SDGs**



Reducing or reusing just one fourth of the current amount of food waste can feed **870 million hungry people in the world**⁹



Circular Economy has been shown to almost halve the number of years of anticipated **water shortages in water stressed regions of California**¹⁰



Circular Economy in India could lead to **82% less consumption of virgin materials** in transportation & vehicle manufacturing by 2050¹¹

2017 DEVELOPMENTS

Policy Developments

- During the 2017 UN Environment Assembly, 195 countries passed a resolution to tackle marine litter.
- Countries including Finland and Italy launched national circular economy policy roadmaps and France unveiled a new climate action plan with circular economy as a central pillar. The Netherlands moved ahead towards concrete action plans on its 'NL Circular 2050' program.
- A Circular Economy Task Force was created at the G20 Summit in Germany in July 2017.
- The Parliament and Council of the European Commission reached an agreement on waste-processing legislation under the Circular Economy Package. Agreements were reached on four legislative proposals addressing waste, packaging waste, landfill and electronic waste. Further, the plastic strategy was launched in January 2018.
- In 2017 China introduced regulations on car sharing and a broader guideline for the development of the sharing economy across all sectors. 2017 also saw a new plan for Extended Producer Responsibility, which sets targets of recycling 50% of select waste categories by 2025 including batteries and electronics.

The government also released the Circular Development Leading Action Plan which lays out an overarching framework for circular development. Effective January 2018 the government enacted a ban on imports of 24 grades of solid waste including waste plastics, unsorted paper and textiles.

Business Commitments

- 64 companies became signatories, to the "2020 Circular Fashion System Commitment", promising to accelerate the transition to a circular fashion system.
- Apple committed to eliminate all virgin materials from its products.
- MARS, M&S, PepsiCo, The Coca-Cola Company, Unilever and Werner & Mertz pledged to use 100 percent reusable, recyclable or compostable packaging by 2025 in collaboration with the New Plastics Economy Initiative.

Technology Innovations

- Researchers in China and USA discovered a process to convert fallen autumn leaves into organic supercapacitors that can be used as energy storage devices.
- Evoware, an Indonesian start-up, developed seaweed-based edible packaging in response to the plastic packaging crisis.
- Black Bear Carbon has teamed up with AkzoNobel to make powder coatings by recycling waste tyres.
- The first truck that collects and runs on food waste, the BioBee, was launched in Bristol, UK in October.
- Global telecommunications company Motorola was granted a patent for a self-healing phone display.
- Mohawk, the second-largest flooring maker in the US, teamed up with Niaga to use their fully recyclable carpeting technology.

ACCELERATING THE CIRCULAR ECONOMY

The Platform for Accelerating the Circular Economy (PACE) was built to convene, align and scale up efforts to transition to a circular economy through collaboration and action

The Platform for Accelerating the Circular Economy (PACE) is a public-private collaboration mechanism and project accelerator for the circular economy. The Platform aims to:

- Develop blended financing models for circular economy projects, in particular in developing and emerging economies
- Help to create and adjust enabling policy frameworks to address specific barriers to advancing the circular economy
- Bring the private and public sector into public-private collaborations to scale impact around circular economy initiatives

PACE is co-chaired by the CEO of Philips, the CEO & Chairperson of the Global Environment Facility and the Executive Director of UN Environment, in collaboration with Accenture Strategy, the Ellen MacArthur Foundation and the International Resource Panel as knowledge partners. The World Economic Forum currently hosts and facilitates the initiative.



Erik Solhelm
Executive Director
UN Environment



Naoko Ishii
CEO & Chairperson
The Global Environment Facility



Frans Van Houten
CEO
Royal Philips

PACE WORKS IN 3 WAYS



Leadership

The circular economy transition requires leadership through the entire economy, including governments, business, and civil society. PACE convenes a Global Leadership Group to demonstrate this leadership by engaging leaders who will commit to advancing this transition and work together to overcome specific barriers to progress.

To ensure continuous engagement, the leaders are represented by their appointed delegates, who convene bi-annually in person to review progress and actively advance work.



Action

Action is required to ensure that the circular economy transformation happens in practice – from designing products that are more durable and easier to dismantle, creating policies that enable the flow and use of recycled materials, to developing innovative financing models for waste management infrastructure in developing markets – PACE shapes and helps scale projects that are required to advance the circular economy transformation globally.



Collaboration & Convening

There are many activities on circular economy under way by private, public and institutional actors. However, there is a lack of deliberative public-private engagement of either the private, or the public sector in different efforts. This is an important barrier to achieving scale or to addressing specific barriers that impede progress. PACE will support collaboration and convening of key stakeholders to foster exchange, dialogue and support enhanced partnerships for change.

A POWERFUL GROUP

40 members from public and private sector have joined PACE

Co Chairs



PHILIPS



Knowledge Partners



Hosted By



Companies

- Peter Lacy, Global Managing Director, Growth, Strategy and Sustainability, Accenture
- Eric Schmidt, Executive Chairman, Alphabet
- Lisa Jackson, VP Environment, Policy, Social Initiatives, Apple
- Greg Hodgkinson, Chairman, Arup
- Malek Sukkar, CEO, Averda
- Feike Sijbesma, CEO & Chairman, DSM
- Leontino Balbo Junior, CEO, Grupo Balbo
- Dion Weisler, President & CEO, HP Inc.
- Ralph Hamers, CEO, ING
- Carlo Messina, CEO, Intesa Sanpaolo
- Stefan Doboczky, CEO, Lenzing AG
- Arthur Huang, Founder & CEO, MiniWiz
- Frans van Houten, CEO & Chairman, Philips
- Jean-Louis Chaussade, CEO, Suez
- Christiaan Wessles, CEO, Sunray Ventures
- Tom Szaky, Founder & CEO, Terracycle
- James Quincey, President & CEO, The Coca Cola Company
- Gonzalo Munos, Co-Founder & CEO, Triciclos
- Paul Polman, CEO, Unilever
- Antoine Frerot, Chairman & CEO, Veolia
- Svein Tore Holsether, President & CEO, Yara International

Governments

- Dr Miro Cerar, Prime Minister of Slovenia
- Fang Li, China Council for International Cooperation on Environment & Development
- Jyrki Katainen, VP, Jobs, Growth, Investment and Competitiveness, European Commission
- Luhut Pandjaitan, Coordinating Minister of Maritime Affairs, Indonesia
- Ibrahim Jibril, Minister of Environment, Nigeria
- Vincent Biruta, Minister of Environment Rwanda
- Edna Molewa, Minister of Environment and Water, South Africa

Regional Investment / Development Banks

- Werner Hoyer, President, European Investment Bank
- Luis Moreno, President, Inter-American Development Bank
- Kristalina Georgieva, CEO, World Bank

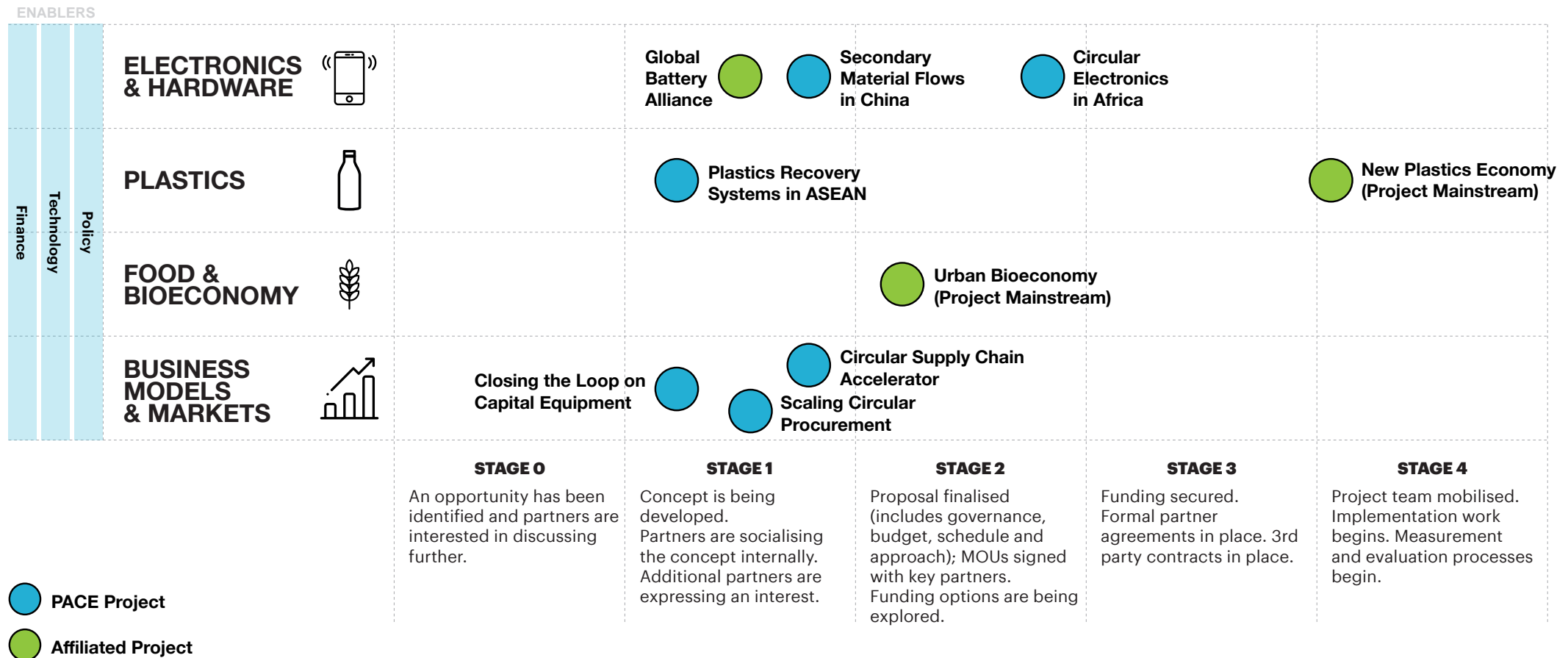
Organizations

- Harald Friedl, CEO, Circle Economy
- Ellen McArthur, Founder, Ellen MacArthur Foundation
- Naoko Ishii, CEO, Global Environment Facility
- Scott Vaughn, President, International Institute for Sustainable Development
- Janez Potočnik, Co-Chair, International Resource Panel
- Izabella Teixeira, Co-Chair, International Resource Panel
- Erik Solheim, Executive Director, UN Environment
- Peter Bakker, President, World Business Council for Sustainable Development
- Andrew Steer, President, World Resources Institute
- Marco Lambertini, CEO, World Wildlife Fund
- Zhao Kai, Secretary General, China Association on Circular Economy





Circular Economy Leadership Group

PROJECT PIPELINE

A pipeline of projects is advancing across four key areas



OVERVIEW OF PROJECT OBJECTIVES

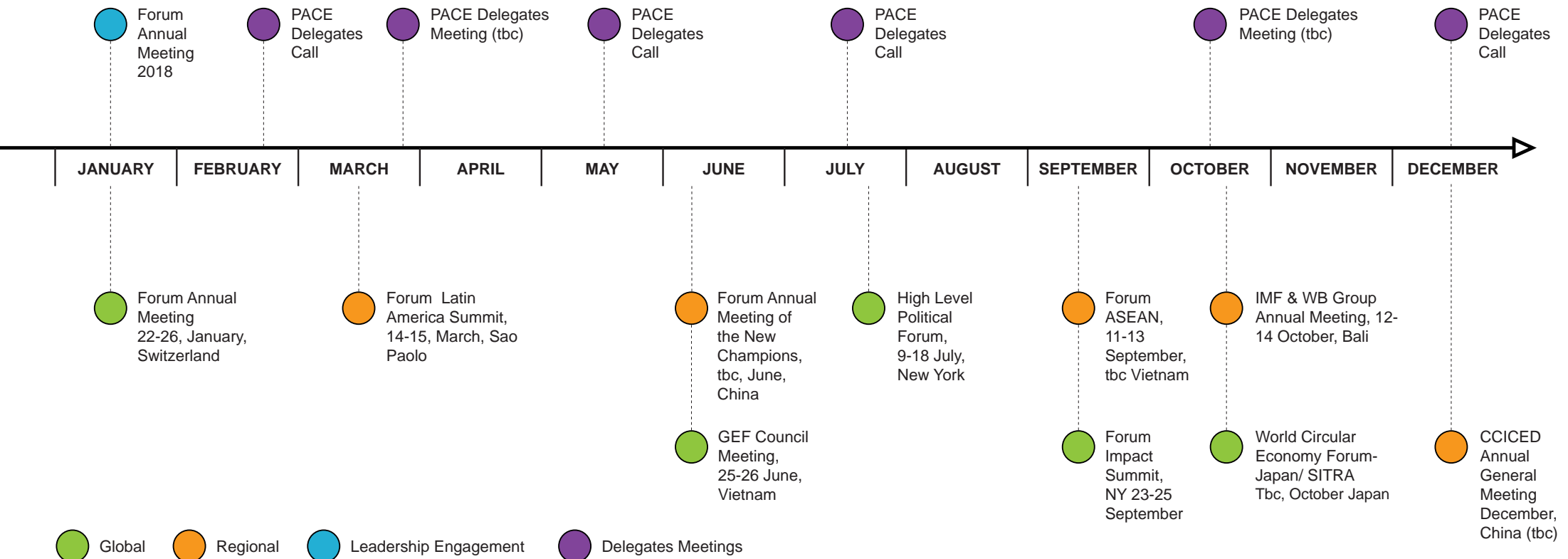
ELECTRONICS & HARDWARE		SCALING CIRCULAR ELECTRONICS IN AFRICA	Create an electronic waste recovery system in Nigeria with the ambition to scale across the continent together with the Nigerian Ministry of Environment, UN Environment, Philips, Dell, HP, Microsoft, Computer Warehouse Group and the Global Environment Facility.
		SECONDARY MATERIAL FLOWS IN CHINA	Scale the development of a secondary material supply system for recycled electronics together with HP, Dell, Philips, and Tsinghua University in China.
		GLOBAL BATTERY ALLIANCE	Catalyse action towards a socially responsible, environmentally sustainable and innovative battery value chain to power the Fourth Industrial Revolution. This is an affiliate project led by the Forum's System Initiative on Economic Progress.
PLASTICS		NEW PLASTICS ECONOMY	Rethinking and redesign the future of plastics, starting with packaging. This global initiative is working on three pillars – material innovation, a global plastic protocol and a dialogue mechanism for change. This is an affiliate project led by the Ellen MacArthur Foundation.
		PLASTICS LEAKAGE IN ASEAN	Support innovative approaches to financing and designing infrastructure and strategies to capture the value of materials to stem plastic pollution in the ASEAN region. Starting with Indonesia, collaboration is advancing between the Indonesian Ministry of Maritime Affairs, the World Bank, UN Environment, and the Global Environment Facility.
FOOD & BIOECONOMY		URBAN BIOECONOMY	Examine the economic opportunities and broader benefits that would be derived from adopting circular economic principles for food systems, with an emphasis on cities. This is an affiliate project under Project MainStream and led by the Ellen MacArthur Foundation.
BUSINESS MODELS & MARKETS		CIRCULAR SUPPLY CHAIN ACCELERATOR	An innovation and finance programme to support medium-sized companies in the supply chain of OEMs to transform their business models to a more circular approach. The Accelerator proposes to initially focus on transformation within the built environment and automotive sectors. ING in collaboration with Circle Economy and Accenture Strategy are leading this effort.
		SCALING CIRCULAR PROCUREMENT	Promote the transition towards a circular economy by using procurement policy as a key lever to create demand for more circular products and services. UN Environment is leading this effort.
		CLOSING THE LOOP ON CAPITAL EQUIPMENT	Grow a group of companies committed to taking a commitment to preserve and recover the value of capital equipment. With the group, create a community to exchange best practice, experience and collaboration with the public sector to shape enabling policies to support higher-rates of material recovery from the capital goods sector.

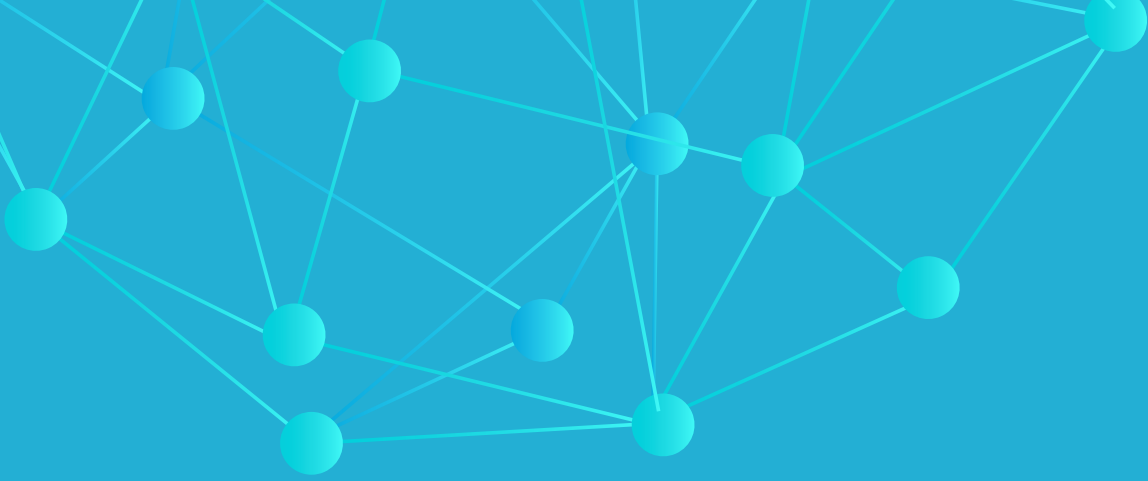
PACE ROADMAP

	2017: Operationalization	2018: Implementation	Beyond 2018
LEADERSHIP	<ul style="list-style-type: none"> Developed leadership group 18 companies 6 governments 12 organizations & development banks 	<ul style="list-style-type: none"> Continue to expand the leadership group across geographies and sectors Actively engage the leadership group around priority challenges and commitments Work together to shape strong input to the High Level Political Forum in July 2018 	<ul style="list-style-type: none"> Evaluate progress and success of PACE to assess long-term approach and hosting organization
ACTION	<ul style="list-style-type: none"> Engagements in regions advanced at a project level Developed and advance 6 PACE projects and supporting 3 affiliate collaborations <ul style="list-style-type: none"> Circular Electronics in Africa Secondary Material Markets in China Plastic Recovery Systems in ASEAN Circular Supply Chain Accelerator in Europe Scaling Public Procurement Closing the Loop on Capital Equipement 	<ul style="list-style-type: none"> Deliver measurable results on each of the four areas: electronics & hardware, plastics, food & bioeconomy and business models & markets Support a growing number of partnerships to help scale existing circular economy efforts Deepen and formalize engagement in key regions- Africa, China, ASEAN, Europe and Latin America to move towards the establishment of regional collaboration hubs 	<ul style="list-style-type: none"> Demonstrate measurable investment and impact as the result of work in programme areas Adapt and replicate successful projects globally Build and advance collaboration within regional hubs
CONVENING	<ul style="list-style-type: none"> Convening of PACE partners at the Sustainable Development Impact Summit 10 regional and project related convenings across China, Africa, Europe, North America and Latin America to advance action 	Structured convening of members: <ul style="list-style-type: none"> 2 delegates meetings/year Annual leadership meeting Meetings in 4 key regions Project specific meetings 	<ul style="list-style-type: none"> Expanded geographic reach of convenings hosted by regional hubs

KEY CROSS CUTTING ENGAGEMENTS IN 2018

All individual PACE projects advance with specific timelines and workplans, but the community will collectively convene during the following meetings in 2018





PROJECT DETAILS

SCALING CIRCULAR ELECTRONICS IN AFRICA



Theme

Electronics Recovery System

Long Term Ambition

Create one model for a circular electronics system to be applied in Nigeria and further replicated across countries in Africa



Why This Project

- In 2016, 44.7 million metric tonnes of e-waste was generated and e-waste is one of the fastest-growing waste streams globally. Asia generated the largest amount of e-waste (18.2 Mt), followed by Europe (12.3 Mt), the Americas (11.3 Mt), Africa (2.2 Mt), and Oceania (0.7 Mt). Only 20% of this waste was recycled through appropriate channels.¹²
- E-waste also contains rich deposits of gold, silver, copper, platinum, palladium and other high value recoverable materials, whose total value is estimated at \$55 billion.¹²
- Currently, processing and disposing of e-waste incorrectly is leading to significant human health and environmental hazards.

Lead partner in **bold**

Roadblocks This Project Aims To Address

- Investing in waste management infrastructure for electronics recovery is not economically viable for many recyclers as recovery is perceived to be difficult.
- Informal sectors are perceived as challenging to engage, yet material collection provides critical livelihood for millions of the poorest populations.
- Partnership investment models and innovative technology approaches are available to support systems for material recovery, yet complex to implement in practice. Collaboration in this context is critical.

Project Overview

- This project aims to advance a systemic change in the way the value of electronics is captured in Africa. By convening public and private partners, it supports: (1) the recovery of valuable materials contained in electronics at the end of their use for their reuse in local production processes; (2) the safe handling of the hazardous components included in electronics waste; and (3) strengthen the enabling conditions for a self-sustaining system of extended producer responsibility legislation for the electronics sector in Nigeria.

2018 Roadmap

- The project will move towards implementation in 2018.
- In parallel, the Producer Responsibility Organization will initiate its activities in 2018 with funding mobilized by the private sector in early 2018.
- A number of recycling companies are already setting up facilities in the country spurring investment in the sector.

Role of PACE

- Since 2011, the E-Waste Solutions Alliance for Africa (the Alliance), a collaboration between Dell, HP, Microsoft Mobile and Philips have been working to implement sustainable e-waste solutions in Africa. In early 2017, PACE engaged in the work to help it accelerate to implementation. Over 6 months, PACE has expanded the project consortium to include the GEF, UN Environment, the World Economic Forum and the Nigerian Ministry of Environment, in addition to local companies and implementing partners. This has helped to secure high level government buy-in, draw in relevant project expertise, engage key players in Nigeria and mobilize financial support.

Core Partners

Philips, Dell, HP, Microsoft, Computer Warehouse Group, GEF, **UN Environment**, Nigerian Ministry of Environment, the World Economic Forum

CIRCULAR ELECTRONICS IN CHINA



Theme

Circular Electronics Manufacturing

Long Term Ambition

Drive the creation of a secondary material supply system in China



Why This Project

- Major electronic companies have set targets to integrate secondary materials into their new products, including high-grade aluminum, tin, cobalt and plastics.
- China is the leading market for electronics manufacturing, yet the integration of secondary materials into production remains low.
- Among 4 metal groups Aluminium, Tin, Cobalt and Rare Earths only \$160m of value is recovered by the formal recycling industry of a potential \$1.3 billion worth of materials.¹⁴
- There is currently a lack of understanding of secondary material market scale, potential and operations in China.

Roadblocks This Project Aims To Address

- Secondary material recovery system that meets the standards and scale of supply necessary to meet company commitments for using recycled content is not yet sufficient.
- The physical movement of secondary materials in China is challenged by policies within special economic zones.
- The predominantly informal nature of the secondary material markets in China presents challenges from a health and safety perspective and results in lower quality material output.

Project Overview

- The project aims to support effective systems for the integration of recycled materials into electronic products and equipment. Through collaboration between multinational businesses, government and the domestic material recovery sector, work will seek to co-design pilot projects which test new regulatory approaches, technologies and partnerships.

2018 Roadmap

- Preliminary findings of the Forum / Tsinghua University study – Secondary Material Flows in China – was published in January 2018 and will be completed in full by June 2018. This work provides a baseline understanding of the opportunity, challenges, policies and systems governing secondary material markets in China.
Based on this work, the project group has set the ambition for 2018 of:
- Initiating 1-2 pilot projects to test new approaches to material recovery, operationalized by engaged companies with support and endorsement from relevant government ministries, local recyclers and other stakeholders as relevant.
- Developing a private sector road map for meeting the Chinese governments circular economy goals to be delivered to the state council in the form of policy recommendations.

Role of PACE

PACE initiated this collaboration based on the identified need by engaged partners, built out the coalition, developed the strategy in consultation with partners and is supporting project advancement.

Core Partners

HP, Dell, Philips, Apple, **Tsinghua University**, Chinese Academy of Social Sciences, CAEP, IISD, China Recycling Economy Association, China Materials Regeneration Association, the World Economic Forum

SUPPORTING MARKETS FOR PLASTIC RECOVERY IN ASEAN

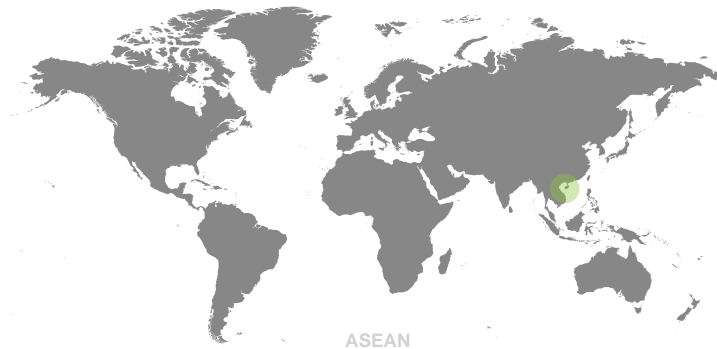


Theme

Plastic Recovery Systems

Long Term Ambition

Designing a replicable model for material recovery



Why This Project

- The New Plastic Economy report developed collaboratively between the Forum and EMF highlighted that based on current trends, by 2050 we are on a path to having more plastics than fish in the ocean.
- Five countries are responsible for the flow of 60% of plastics into marine ecosystems, including Indonesia, China, Philippines, Thailand and Vietnam.¹⁵
- In low and middle-income countries, waste is often disposed in unregulated dumps or openly burned, creating health, safety, and environmental risks.
- The recent resolution of the UN Environment Assembly on marine litter and its CleanSeas Campaign call for better waste management and improved production and consumption patterns of plastic.

Lead partner in bold

Roadblocks This Project Aims To Address

- The base infrastructure for collection and management of plastics is not at scale to prevent leakage and to effectively capture low value materials.
- Comprehensive policies to enable effective material recovery systems are still required, as is the fostering of local markets for the use of recycled materials.
- The private sector is willing to lead in developing solutions but a clear action plan regarding how the private and public sector can be aligned is necessary.
- While waste collection and management systems are improving, upstream measures to rethink materials and product design to foster reuse and recycling lag behind.

Project Overview

- Starting with Indonesia, the project aims to convene key public, private, community and expert stakeholders to support the design and phased implementation of innovative financing, technology and policy approaches to support the development of effective material recovery systems, which can then inform approaches in other key countries in the region.

2018 Roadmap

PACE will support a series of implementation dialogues in 2018-2019 to:

- Facilitate the engagement of key private sector leaders to establish a plan of action regarding their roles in advancing concrete actions to address ocean plastic pollution in Indonesia
- Align the private sector, international development financing institutions, government and non-government organizations on public and private financing, policy design and infrastructure investment to implement measurable near term solutions to plastics leakage and recovery
- Bring innovation & emerging 4IR solutions to tackle the challenge
- Facilitate an ASEAN-wide platform for sharing best practices, in coordination with other national, regional and global institutions

Role of PACE

- PACE will play a facilitative role in bringing PACE partners and experts into the dialogue series.
- PACE will collaborate with key partners to shape the outcomes of the discussions to help inform approaches taken.

Core Partners

Indonesian Ministry of Maritime Affairs, **World Bank**, the World Economic Forum, GEF, UN Environment in collaboration with Ocean Conservancy

CLOSING THE LOOP ON CAPITAL EQUIPMENT



Theme

Capital Equipment

Impact

All manufacturers of capital equipment take their systems back from users at end of use for managing value recovery and reuse.



Why This Project

- Capital equipment (assets with capital value exceeding five thousand euros) covers a range of products from office photocopiers to MRI scanners. It provides valuable services to society but its manufacturing also consumes an estimated 2 to 5 billion tons of ores per year - close to 260 to 650 kg per capita - and drives long-term demand for energy.
- Circular economy strategies provide a unique opportunity for capital equipment providers to optimize capital equipment stocks and retain the value of materials.

Roadblocks This Project Aims To Address

- Companies have limited or no visibility and control over repurposing of their professional equipment, as it is mostly sold in a transactional business model.
- Users of equipment do not have the capability, nor the time to optimize value recovery for their limited amount of assets.
- Intermediary companies engaging in value recovery cherry-pick the easiest opportunities while letting the more challenging ones go to waste.
- Legislation on take back, product safety and limitations on the free movement across borders complicate re-use strategies.

Project Overview

- The project aims to grow a group of companies committed to taking a commitment to preserve and recover the value of capital equipment. With the group, it will create a community to exchange best practice, experience and collaboration with the public sector to shape enabling policies to support higher-rates of material recovery from the capital goods sector.

2018 Roadmap

- Grow the network of companies that commit to and act upon the capital equipment pledge. With that group of industry leaders, collaboratively:
- Identify opportunities and challenges common to the capital equipment sector in preserving infrastructure value
- Shape approaches to scaling-up opportunities for material recovery and use by removing financial, technical and political barriers

Role of PACE

PACE will support in growing the group of companies committed to this pledge through 2018 and helping to build broad awareness of the economic and natural resource saving potential of shifting towards new business models owing to increased product longevity, repair and capture of materials resources.

Core Partners

Philips, Circle Economy, the World Economic Forum

SCALING CIRCULAR PROCUREMENT



Theme

Public Procurement

Impact

Scale the use of procurement policy as a tool to foster markets for circular products and services



Why This Project

- Public procurement wields enormous purchasing power, accounting for an average of 12% of GDP in OECD countries, and up to 30% of GDP in many developing countries.¹⁷
- Leveraging this purchasing power by buying more sustainable goods and services can help drive markets in the direction of sustainability.
- The Sustainable Development Goals have reiterated the strong link between environmental protection, sustainable development and public procurement, with the inclusion of target 12.7.
- Currently, incorporation of circularity requirements in procurement practices has not been broadly applied, yet it holds important potential.

Lead partner in **bold**

Roadblocks This Project Aims To Address

- Procurement policies do not always favour circular economy model implementation – e.g. product service systems for the public sector, full life-cycle costing, are not always accommodated within procurement rules.
- The project aims to identify the highest value opportunities to leverage procurement policy to scale the circular economy transition and collaborate with the public sector to support policy adaptation.

Project Overview

- An initial report to outline best practices in circular procurement was published in January 2018 to highlight and draw attention to the potential of procurement policy as a tool to enable the scaling of circular products and services. Based on the work of UN Environment and in collaboration with the 10 Year Framework Programme on Sustainable Consumption and Production patterns, the project team delineated pathways to include circularity requirements in sustainable procurement practices for governments and the private sector.
- On this basis, PACE will explore interested public and private sector actors willing to apply circular procurement approaches.

2018 Roadmap

- Based on studies developed in 15 countries within the context of UN Environment work on Sustainable Public Procurement (SPP), PACE will identify countries with advanced experience in adopting SPP and explore their interest to join this project.
- In parallel, the PACE team will re-engage IDB to explore interest in supporting a circular economy SME procurement based effort.
- PACE will jointly explore the opportunity for a regional circular economy procurement workshop in an interested region, potentially Latin America.

Role of PACE

- PACE will support the outreach and engagement of interested government and private sector participants to collaborate in advancing this effort, with leadership from UN Environment.

Core Partners

Under identification with support of **UN Environment** and the World Economic Forum

CIRCULAR SUPPLY CHAIN ACCELERATOR



Theme

Circular Economy Business Models

Long Term Ambition

Scale-up the circular economy transformation of SMEs in Europe through closing supply chain loops



Why This Project

- Shifting towards a circular economy model in Europe is estimated to generate €320 billion by 2025.¹⁷
- Significant funding is available to support the circular economy transition in Europe, yet funders suggest that deploying capital to projects is challenging.
- SMEs in particular are identified as being in need of advisory and financial support to transform their business models. Further, SMEs require buy-in from their buyers.
- Transforming SMEs within the supply chains of global companies committed to scaling the circular economy is identified as a high-potential target focus.

Lead partner in **bold**

Roadblocks This Project Aims To Address

- Address the challenge of linking and unlocking available finance with SMEs of global supply chains to enable a circular economy transition.
- Through a targeted focus on SMEs within supply chains of global companies, this issue of buyer buy-in aims to be addressed.

Project Overview

- The Accelerator is a collaboration of public and private partners to support medium-sized companies in the supply chains of, and together with, large multinationals to transform their business models.
- Three pillars guide multinationals and their suppliers through an end-to-end approach:
 - Create: Identify and create visionary circular economy projects with multinationals and large OEMs to transform their supply chains
 - Accelerate: Provide targeted support to medium-sized companies in the supply chains to develop solutions for realizing these projects
 - Finance: Explore innovative, blended financing models to help suppliers finance the implementation of the developed solutions

2018 Roadmap

- Mobilize project team and secure funding/resourcing
- Run first pilot with a set of initial partners with a focus on the built environment & automotive sectors
- Based on results refine and adapt concept
- Secure new industry partners to broaden scope
- Officially launch the Accelerator

Role of PACE

PACE has supported the development of this Accelerator based on the identified need of partners, built out the partnership, developed the strategy in consultation with partners and is supporting project advancement.

Core Partners

ING, Accenture Strategy, Circle Economy, the World Economic Forum

SOURCES

1. UNEP International Resource Panel, 2016, Global Material Flows and Resource Productivity
 2. Accenture Strategy, 2015, Waste to Wealth
 3. UNEP IRP, 2017
 4. Ibid
 5. Circle Economy, 2018, The Circularity Gap Report, An assessment of the circular state of the global economy
 6. World Economic Forum, Ellen MacArthur Foundation, 2016, The New Plastic Economy: Rethinking the value of Plastics
 7. The Lancet, 2017, The Lancet Commission on pollution and health,
 8. Accenture Strategy, 2015, Waste to Wealth
 9. FAO, 2017, SAVE FOOD: Global Initiative on Food Loss and Waste Reduction
 10. ING, 2017, Less is more: Circular Economy solutions to water shortages
 11. Ellen MacArthur Foundation, 2016, Circular Economy in India: Rethinking Growth for Long-Term Prosperity
 12. United Nations University (UNU), International Telecommunication Union (ITU) & International Solid Waste Association (ISWA), 2017, Global E-waste Monitor
 13. World Economic Forum, Tsinghua University, 2018, Recovery of Key Metals in the Electronics Industry in the People's Republic of China: An Opportunity in Circularity (draft white paper)
 14. World Economic Forum, Ellen MacArthur Foundation, 2016, The New Plastic Economy: Rethinking the Value of Plastics
 15. Ocean Conservancy, 2015, Stemming the Tide: Land-based strategies for a plastic free ocean
 16. UN Environment, 2018, Building Circularity into Economies through Sustainable Procurement (draft white paper)
 17. Ellen MacArthur Foundation, 2016, Growth Within: A Circular Economy Vision for A Competitive Europe
- 