

PACE

PLATFORM FOR ACCELERATING
THE CIRCULAR ECONOMY

Platform for Accelerating the Circular Economy (PACE)

Public overview

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 2018 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 and scale policy, business practices and financing mechanisms is required

PACE

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

PACE aims to accelerate action towards the circular economy by driving projects, capturing & disseminating learnings and leveraging leadership for scale. The PACE Leadership Group currently includes over 50 committed partners who are leading a portfolio of projects in four focus areas: plastics, electronics, food & bioeconomy and business model and market transformation across China, South-East Asia, Europe and Africa.

The PACE value proposition includes:

- 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

In 2019 and beyond PACE aims to scale-up its efforts significantly across projects, themes and regions

2018 has focused on building the foundation for a strong programme strategy, engaging the leadership group and advancing a series of collaborative projects.

In 2019 and beyond PACE aims to:

- Scale up its programme and further professionalize the three activity pillars, backed by the necessary resources and partners
- Scale impact of its existing core and affiliate project portfolio
- Grow the number of core and affiliate projects in the portfolio
- Drive measurable results on each of the four thematic areas of focus – plastics, electronics, food & bioeconomy and business model and market transformation
- Expand into markets like Latin America, South East Asia, Middle East and North America

CONTEXT

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 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 \$4.3 trillion global growth opportunity by 2030 while helping to restore some of our natural systems¹. We have all within our respective institutions made progress in advancing this transition, yet we remain frustrated and challenged by the slow pace and scale of change to date. For this reason we have launched this platform to foster leadership and more action-based collaborative projects.

PACE is about accelerating action through leadership, collaboration, investment and policy reform. We are convinced that combining public-private leadership with specific large-scale collaborative actions, 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 to do so with commitment to drive change.

Co-chairs



FRANS VAN HOUTEN
CEO
Royal Philips



NAOKO ISHII
CEO & Chairperson
Global Environment Facility

1. Accenture, Waste to Wealth, 2015

Circular economy is a powerful strategy to address some of the most pressing environmental, economic and social challenges of the 21st century

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



Disease caused by **pollution was 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 combined⁷

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 a further related 6 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



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



PACE OVERVIEW

The formation of PACE was mandated at Davos in 2015 to drive public-private action on the circular economy



VISION

Stimulate market transformation for a circular economy at scale and speed, regionally and globally

MISSION

Drive collaborative projects to implementation, and scale learnings through global leadership

The specific scope and value proposition that PACE brings to the table is threefold:



Bring the **public and private sector into collaborations** to scale impact around circular economy initiatives, in mature, emerging and developing economies



Help to create and adjust **enabling frameworks** (e.g. policy, technology, business models) to address specific barriers to advancing the circular economy



Apply **blended financing models** on projects that incorporate a balanced contribution from public and private partners

PACE advances impact on the circular economy by driving projects, leveraging leadership, and sharing learnings



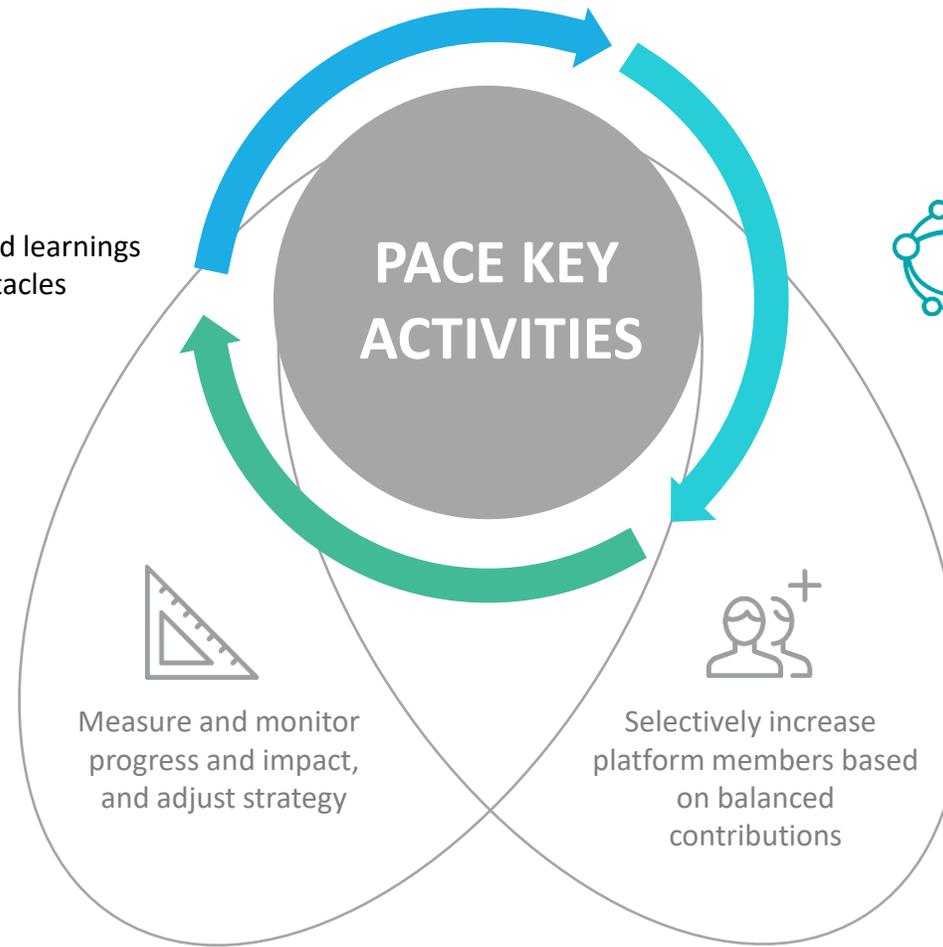
Drive **PROJECTS**

- Initiate, lead and hand-over 3-4 core projects
- Lightly support projects led by affiliates:
 - Create visibility of project status, success and learnings
 - Respond to project requests to address obstacles



Leverage global **LEADERSHIP** to drive action

- Identify scale-up and replication opportunities requiring leadership action
- Help individual leaders identify their potential contribution
- Agree on individual leadership commitments
- Reach out to peers to scale through adoption of learnings
- Drive impact at scale by smartly utilizing global, regional leadership venues, e.g., G7, G20, APEC, Davos, Club of Rome, Chambers of Commerce



Capture and Disseminate **LEARNINGS** for Scaling

- Capture learnings from PACE projects and translate into replicable frameworks and approaches
- Leverage knowledge of PACE members and networks
- Disseminate learnings to relevant stakeholders to drive scale

PACE currently focuses on four key thematic areas with the aim to stimulate market transformation for a circular economy at speed and scale



ELECTRONICS

- **\$55 billion of total value** in recoverable materials from e-waste is not captured
- **44.7 million metric tonnes of e-waste** is generated globally each year



PLASTICS

- **95% of global packaging material value** is lost after first use
- By 2050 there will be **more plastics than fish** in the ocean



FOOD & BIO

- The bio-economy represent **17% of our world's total GDP**
- **1/3rd of food produced is lost** or wasted while food demand surges

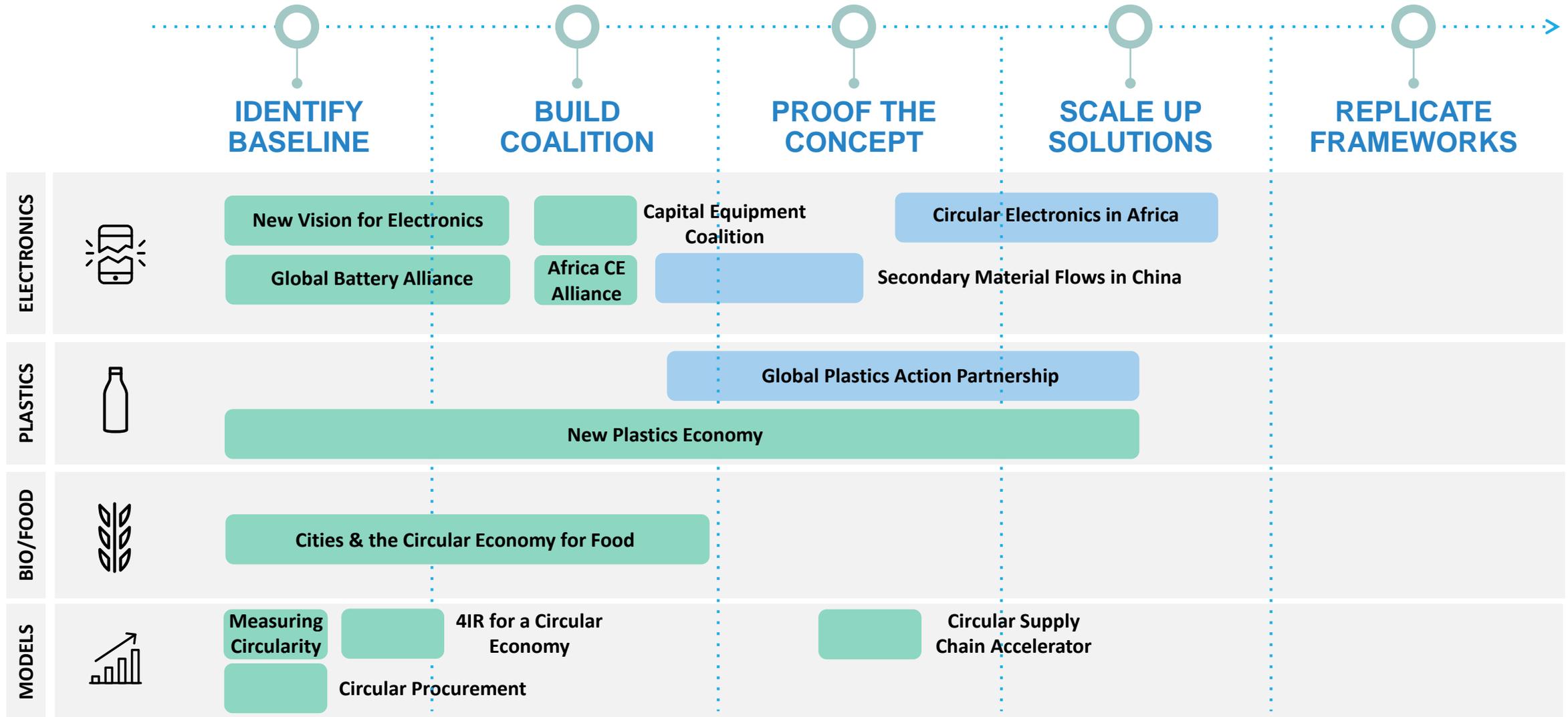


MARKETS & MODELS

- There is a **\$4.5 trillion business opportunity** for moving towards a circular economy
- **Business model** transformation, **financing**, **technology innovation**, **procurement**, **measurement frameworks** and **supply chain** optimization can help obtain this



PROJECTS - The platform drives impact within the thematic areas by driving core and affiliate projects across five different phases



Core project

Affiliate project



LEADERSHIP - 52 public and private organisations have joined PACE over the last 3 years with active leadership



Co-Chairs



Naoki Ishii
CEO & Chair
GEF



Frans van Houten
CEO & Chair
Philips

Knowledge
Partners



WORLD
RESOURCES
INSTITUTE



Leadership Group

COMPANIES

- **Frans van Houten, CEO & Chairman, Philips**
- Kees van Dijkhuizen, CEO, ABN AMRO
- Peter Lacy, Global Managing Director, Growth, Strategy and Sustainability, Accenture
- Eric Schmidt, Executive Chairman, Alphabet
- Lisa Jackson, VP Environment, Policy, Social Initiatives, Apple
- Greg Hodkinson, Chairman, Arup
- Malek Sukkar, CEO, Averda
- Chuck Robbins, CEO, Cisco
- Feike Sijbesma, CEO & Chairman, DSM
- Xu Kaihua, Chairman & President, GEM
- Leontino Balbo Junior, CEO, Grupo Balbo
- Dion Weisler, President & CEO, HP Inc.
- Jesper Brodin, CEO, IKEA
- Ralph Hamers, CEO, ING
- Carlo Messina, CEO, Intesa Sanpaolo
- Stefan Doboczky, CEO, Lenzing AG
- Arthur Huang, Founder & CEO, MiniWiz
- Jean-Louis Chaussade, CEO, Suez
- Christian 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

- 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
- Stientje van Veldhoven, Minister for the Environment, Netherlands
- Thani Ahmed Al Zeyoudi, Minister of Climate Change and Environment for the United Arab Emirates
- Yoshiaki HARADA, Minister of the Environment, Japan
- Jakob Ellemann-Jensen, Minister for Environment and Food Denmark
- Ibrahim Jibril, Minister of Environment, Nigeria
- Vincent Biruta, Minister of Natural Resources, Rwanda
- Derek Andre Hanekom, South African Minister of Tourism
- Miro Cerar, Ministry of Foreign Affairs Slovenia

REGIONAL / DEVELOPMENT INVESTMENT BANKS

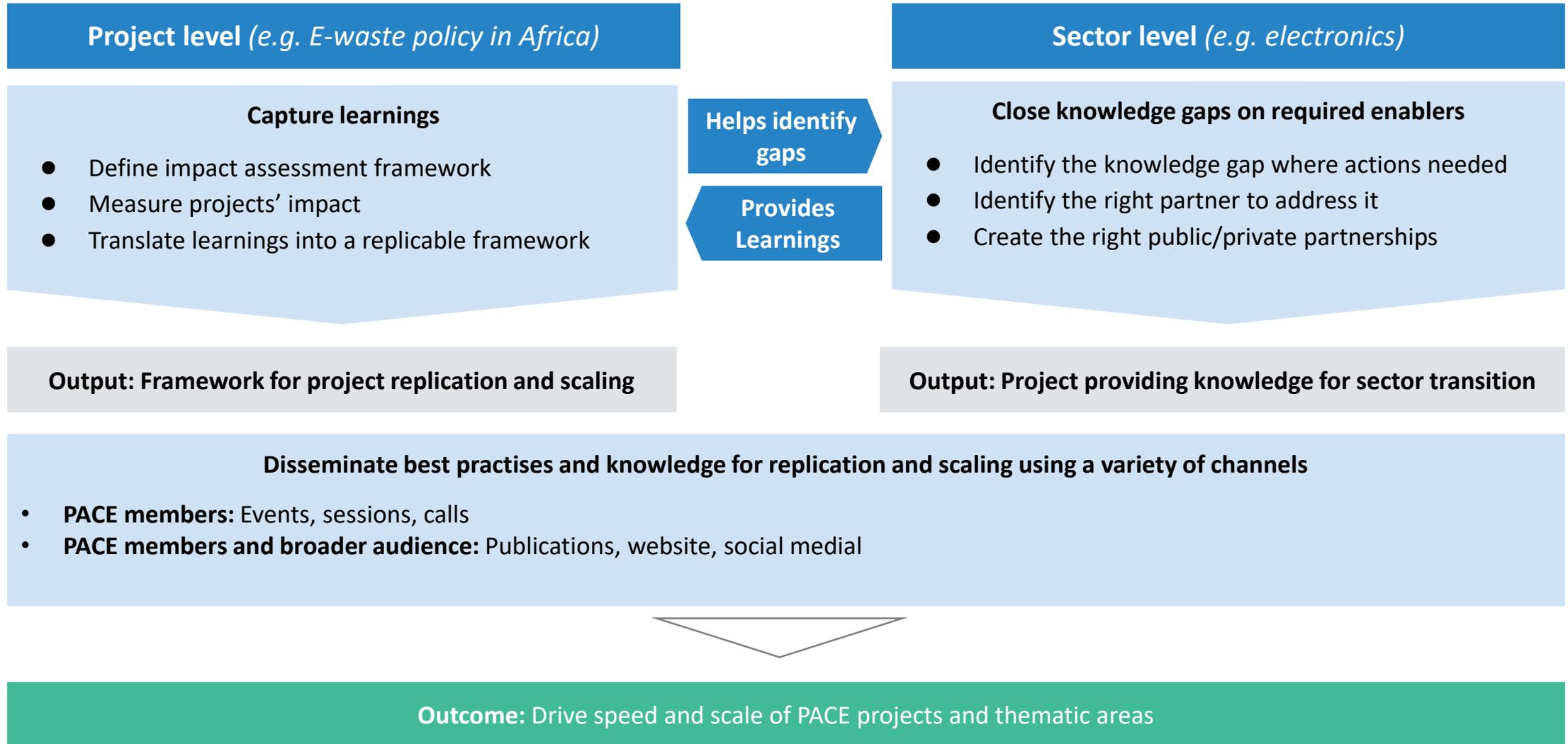
- Werner Hoyer, President, European Investment Bank
- Luis Moreno, President, Inter-American Development Bank
- Kristalina Georgieva, CEO, World Bank

ORGANIZATIONS

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



LEARNING - The PACE learning strategy intends to drive speed and scale of PACE projects and broader advancement in the PACE thematic areas



To date, PACE has achieved concrete results across its pillars and themes



PROJECTS

- 3 core public-private partnerships launched
- 10 affiliate projects supported

>\$25m project investment catalyzed



LEADERSHIP

- Built balanced membership base of:

>50 global leaders

11 new platform funding partners



LEARNINGS

- Learning strategy developed

11 thought leadership products **150** network experts



ELECTRONICS

- Built PRO in Nigeria with **\$15M** in public and private co-financing
- Published New Circular Vision report establishing an **eWaste baseline**
- Published Circular Capital Equipment Coalition learnings on **business case modelling** and **employee engagement**



PLASTICS

- Launched the Global Plastic Action Partnership (GPAP) with **9 partners**, **\$10m funding** and **2 pilot countries** committed for 2019



FOOD & BIO-ECONOMY

- Built a Cities and Circular Economy for Food consortium with **>60 partners** and a **\$2,7tr opportunity** identified



MODELS & MARKETS

- Published whitepaper with **37 experts** establishing a **baseline on 4IR potential for circular** consumer electronics and plastics packaging

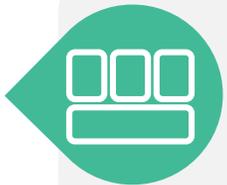
PACE OUTLOOK

In 2019 PACE aims to both scale-up and formalize its activities across its key pillars, themes and geographies



- **Projects:** Spin off 1 core project, shape 1 new core project and add 4 new affiliate projects
- **Leadership:** Double the number of PACE members ensuring balanced distribution
- **Learning:** Build learning and dissemination infrastructure

Balanced portfolio of projects, ran by actively engaged members, consistently disseminated for scale-up



- **Electronics:** Build global electronics coalition; replicate eWaste project in 2 African countries
- **Plastics:** Test GPAP in 2 pilot countries and replicate model to 2 additional countries
- **Food & bio:** Shape portfolio of 3 affiliate projects on circular food & bio-economy
- **Models & markets:** Start core project on Measurement and affiliate project on 4IR for CE

Measurable impact on global priority areas, addressing key barriers, based on consistent measurement



- Continue to deepen engagement in **China** through concrete pilots
- Scale up in **South-East Asia, Africa, Europe** through replication frameworks
- Build partnership and project base in **North America, South America, Middle East**

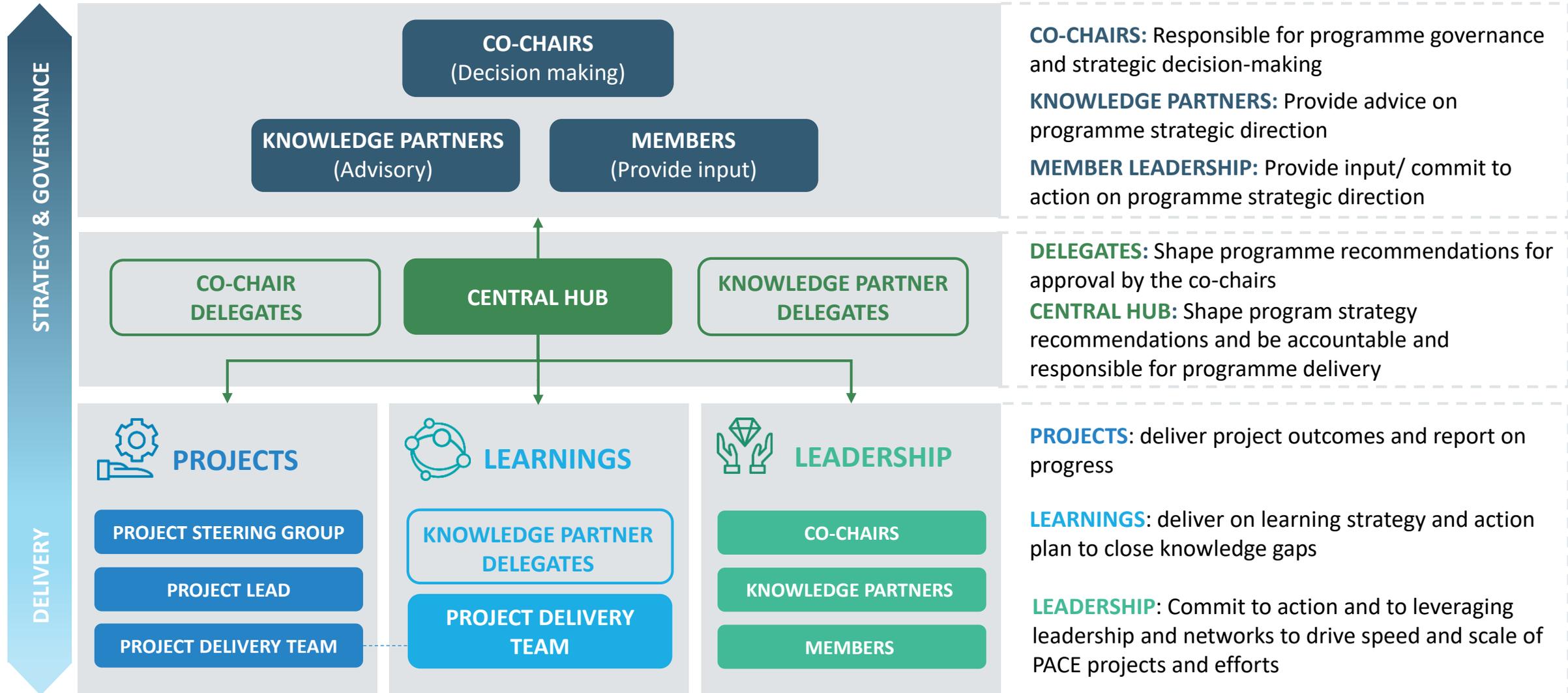
Scale up within and across regions, to ensure balanced geographical presence

PLATFORM SCALE-UP

- Ensured scale-up **commitment and funding** from key public and private stakeholders
- Doubling PACE team to move **from start-up to scale-up**
- Moving to **new host location in the Hague**, the Netherlands

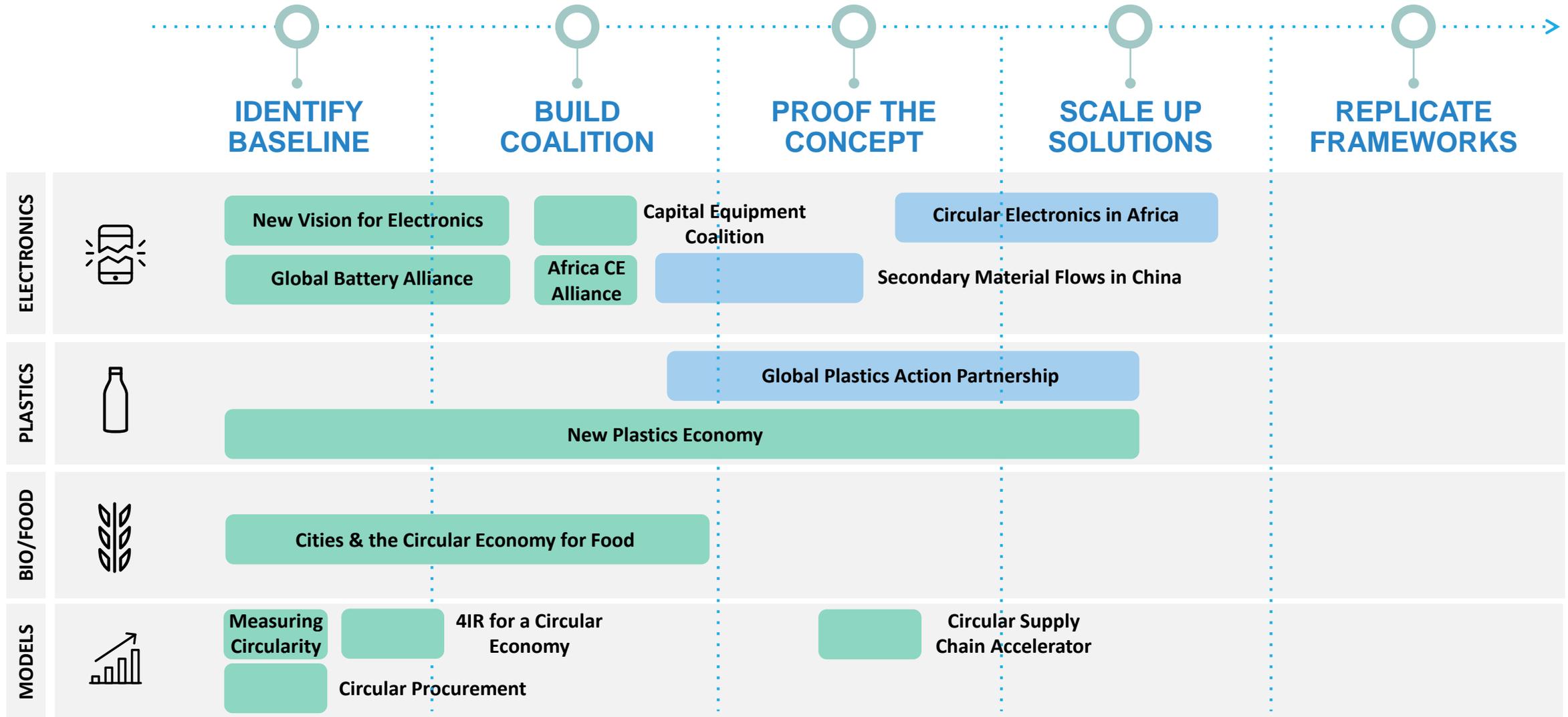
APPENDIX

PACE is governed through a co-chair structure and is run by a central hub and a working group of co-chair and knowledge partner delegates





PROJECTS - The platform drives impact within the thematic areas by driving core and affiliate projects across five different phases



Core project

Affiliate project

CIRCULAR ELECTRONICS IN NIGERIA



Lead: James Pennington (World Economic Forum)

LONG TERM AMBITION

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



CONTEXT

- In 2018, 50 million metric tonnes of e-waste was generated and
- E-waste is one of the fastest-growing waste streams globally
- Only 20% of e-waste is recycled through appropriate channels
- E-waste contains high value materials, with an estimated value of \$55 billion
- Informal e-waste processing poses significant health and environmental hazards

OBJECTIVES

- Stimulate the development of a sustainable and circular management system of electronics products in Nigeria
- Develop model for scaling to other African countries

PROJECT DESCRIPTION

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 producers responsibility legislation for the electronics sector in Nigeria.

ROADMAP

2018

Secure private sector funding

Initiate PRO activities

2019

Explore scaling opportunities

PHILIPS



Microsoft



Computer Warehouse Group



CIRCULAR ELECTRONICS IN CHINA



Lead: James Pennington and Lauren Joseph (World Economic Forum)

LONG TERM AMBITION

Help the Chinese government reach its target of recycling 50% of e-waste by 2025 and sourcing 20% of materials for products from recycled sources



PROJECT DESCRIPTION

The project aims to support effective systems for the integration of recycled materials into electronic products and equipment along with other circular economy strategies. 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.

CONTEXT

- Major electronic companies have set targets to use secondary materials in new products and other strategies to accelerate the circular economy
- China is leading electronics manufacturing & has high targets for circular economy in electronics
- Only \$160m of value is recovered of a potential \$1.3 billion worth of materials
- Limited understanding of secondary material market scale, potential and operations in China
- Informal secondary material processing in China is dominant

OBJECTIVES

- Create a platform for public private collaboration between electronics companies and the Chinese government
- Move towards piloting new strategies for circular economy in electronics
- Undergo research to increase the base of knowledge on circular electronics in China

ROADMAP

2018	2019
Undertake baseline research	Finalize public-private cooperation
Build stakeholder group	Start pilot implementation

PHILIPS



CHINA ASSOCIATION OF CIRCULAR ECONOMY

GLOBAL PLASTICS ACTION PARTNERSHIP



Lead: Antonia Gawel (World Economic Forum)

LONG TERM AMBITION

Avert plastic pollution from source to sea by 2025, by fast-tracking circular economy solutions and catalysing concerted solutions



CONTEXT

- We are on a path to having more plastics than fish in the ocean by 2050
- In low and middle-income countries, waste is often disposed in unregulated dumps or openly burned, creating health, safety, and environmental risks
- The past year has seen a wave of growing interest and commitment to tackling plastic pollution from global to national, business and small-scale initiatives
- To maximize impact and advance systemic change, scaled action and collaboration between the diverse stakeholders and efforts are needed

OBJECTIVES

- Build and grow a public-private partnership to help translate political and corporate commitment to address plastic pollution into tangible strategies and investible actions plans
- Translate into national platforms that develop fact-based national action plans
- Conduct pilots in three countries and scale up to other countries
- Capture and exchange insights for rapid replication and scale

PROJECT DESCRIPTION

The Global Plastics Action Partnership (GPAP) was forged as a structured global public-private partnership for action on plastic that enables public, private and civil society sectors and their initiatives to come together. As such, GPAP provides a platform for discussion and collaboration amongst the range of emerging efforts to jointly support governments facing plastic pollution challenges – particularly in developing or emerging economies. To enable this, GPAP will also advance structured action through focused proof-of-concept partnerships in ASEAN, Africa and SIDS. Representing three different “archetypes”, these focused partnerships will demonstrate the varying approaches to tackling plastics pollution in profoundly different geographies and economic contexts.

ROADMAP

2018	2019
Establish global platform	Conduct pilot in Indonesia
	Confirm other pilot countries



AFRICAN CIRCULAR ECONOMY ALLIANCE



Lead: James Pennington (World Economic Forum)

LONG TERM AMBITION

Create an alliance of African countries represented at the Ministerial level who share best practices, undertake collaborative projects and advocate for the circular economy



CONTEXT

A number of countries in Africa are experiencing favorable demographics and fast growth, there is an opportunity for new growth and job opportunities through continued industrialization and urbanization. The circular economy can provide an economic opportunity and jobs while avoiding a number of negative externalities experienced in other regions as a result of widescale industrialization, while reducing dependence on unstable commodity markets

OBJECTIVES

- Share best practices for the creation of legal and regulatory frameworks, the building of partnerships and the financing and creation of circular economy projects
- Advocate for and raise awareness of the circular economy at a national, regional and global level
- Bring about new projects and partnerships within individual or multiple countries



PROJECT DESCRIPTION

Conceived at the World Economic Forum in Kigali in 2016 and launched in Bonn at COP 23. The Alliance was founded by three countries Rwanda, Nigeria and South Africa along with UN Environment and the World Economic Forum. The Alliance held its first Annual meeting and board meeting at the Africa Green Growth Summit in November 2018 in which Niger, Senegal, Malawi and the DRC joined the Alliance.

ROADMAP

2018	2019
First annual meeting	Explore opportunities for a funded hub based in a member country
Signing of Alliance Charter	Continue to expand the alliance

GLOBAL BATTERY ALLIANCE



Lead: Jonathan Eckart (World Economic Forum)

LONG TERM AMBITION

To ensure that the battery value chain is socially responsible, environmentally and economically sustainable and innovative



CONTEXT

- By 2025, the battery market will reach \$100 billion, primarily driven by the growing global stock of electric vehicles. However, this growth comes at a social and environmental toll
- Raw materials needed for batteries are linked to social and environmental issues
- No scaled systems are in place to enable re-use and recycling of over 11 million tons of the spent lithium-ion batteries forecast to be discarded by 2030
- Innovation potential remains unexploited along the value chain, holding back greater supply chain transparency, business model and technological innovation

OBJECTIVES

- Support responsible and sustainable supply chains of key raw materials
- Accelerate the transition towards a circular economy for batteries
- Support collaboration to unlock innovation along the value chain

PROJECT DESCRIPTION

With respect to circular economy pillar in the Alliance:

- The circular economy market and its potential evolution over time will be assessed in a scoping study (by early 2019)
- Opportunities to lower *repurposing and re-use* costs for batteries will be assessed (e.g. standard-setting, establishing a framework to help address regulatory and liability challenges)
- Barriers to *recycling of electric vehicle battery* will be quantified and a public-private pilot launched to test scalable solutions
- A portable electronics collection pilot is being scoped to test how materials can be recovered more efficiently

ROADMAP

2018	2019
Develop baseline analysis and roadmaps	Publish a strategy to develop a circular economy market for batteries
	Launch pilots, for example to test low-cost EV battery recycling

NEW VISION FOR ELECTRONICS



Lead: James Pennington (World Economic Forum)

LONG TERM AMBITION

Create a public-private, global platform for action based around a new vision for electronics, which uses circular economy principals to redefine the electronics value chain.



CONTEXT

- In 2018, 50 million metric tonnes of e-waste was generated, worth around \$55 billion
- Only 20% of this is recycled
- Circular economy levers from new business models, design, re-manufacturing and recycling and new policies could help to capture this opportunity
- To remake the system there is need for systematic collaboration across companies, international organizations, academia and governments at a global level.

OBJECTIVES

- Convene key actors from the public and private sector to align on a New Vision for Electronics supporting the work of the UN E-waste coalition
- Create a platform for high level collaboration on building a circular economy for electronics globally
- Increase coordination between UN Agencies, Companies and governments on country and regional level projects on electronics and e-waste

PROJECT DESCRIPTION

For the first time all the relevant United Nations entities are coming together with support from the World Economic Forum and the World Business Council for Sustainable Development to produce a new vision for circular economy in electronics. This vision will align the relevant UN entities, key governments and some of the largest electronics multinationals around a common plan for the future of the electronics sector; one based on the principles of the circular economy. The initial vision report will serve as a baseline for systematic co-operation to remake the electronics system at a global level.

ROADMAP

2018	2019
Assemble coalition	Release explainer on electronics for Davos
Start collecting ideas on the new vision	Commence longer process of bringing in platform members, aligning on new vision and creating platform for action.



NEW PLASTICS ECONOMY

Lead: Sander Defruyt (Ellen MacArthur Foundation)

LONG TERM AMBITION

Create unstoppable momentum towards a plastics system that works



CONTEXT

- Plastics are fundamental to our everyday life
- They are one of the most wasteful examples of our existing linear, take-make-dispose economy
- With 8 million tonnes of plastic entering the ocean each year, we urgently need to rethink the way we make, use and reuse plastics
- We need to eliminate plastics we don't need, and innovate so all plastics we do need can be circulated and never become waste

OBJECTIVES

- Through collaboration and alignment behind a common vision, achieve tangible steps towards a circular economy for plastics



PROJECT DESCRIPTION

Over the past four years, the Ellen MacArthur Foundation's New Plastics Economy initiative has rallied businesses and governments behind a positive vision of a circular economy for plastics. Its 2016 and 2017 New Plastics Economy reports captured worldwide headlines, revealing the financial and environmental costs of waste plastic and pollution. In the last year it has brought together 15 leading companies committed to work towards 100% reusable, recyclable, or compostable plastic packaging by 2025. The Global Commitment takes this work to the next level – creating a global coalition of leaders with the power to prevent plastic pollution at the source.

ROADMAP

2018

2019

Innovation Prize Winners announced

UK Plastics Pact launched by EMF and WRAP

Global Commitment launched in Bali

Start next phase intending to show that real life transition towards a circular economy for plastics is possible in practice and at scale

CAPITAL EQUIPMENT COALITION



Lead: Harald Tepper, Markus Laubscher (Philips)

LONG TERM AMBITION

Dramatically increase resource efficiency in the capital equipment sector by making circular business models the new normal



CONTEXT

- Global use of capital equipment - ranging from photocopiers to MRI scanners to agricultural equipment (and much in between) - represents a significant proportion of all material use and current waste generation
- We see huge opportunities for businesses to provide greater value to customers through innovative service models, smart upgrade paths, or product take-back and remanufacturing programs

OBJECTIVES

- Accelerate the implementation of circular practices in the business operations of capital equipment manufacturers by learning from each other and generate best practices

PROJECT DESCRIPTION

During Davos 2018, a group of forward-thinking business leaders committed to bold pledges that aim to preserve and recover the value from the capital equipment they produce. While pursuing their individual commitments, the group collectively develops an understanding of the most critical common challenges and good practices to overcome them. By openly sharing progress on their pledges and insights on replicable practices, the group aims to inspire other companies to define their own commitments and help drive the transformation of the capital equipment sector.

ROADMAP

2018	2019
Learn from each other within the initial group of 10 companies	Share insights and trigger more companies to follow the example
Define focus areas	Deepen understanding within i) financial and operational challenges and ii) organizational transformation

ASML

CISCO

DIAMEN

DELL

hp

kpn

LELY

MITSUBISHI ELECTRIC

PHILIPS

VANDERLANDE

CITIES & CIRCULAR ECONOMY FOR FOOD



Lead: Clementine Schouteden (Ellen MacArthur Foundation)

LONG TERM AMBITION

Create unstoppable momentum towards a regenerative food system based on the principles of a circular economy



CONTEXT

- The linear food system is ripe for disruption. While the industrial food system has generated many benefits, it is also highly extractive and wasteful, proving to be unfit to feed the world in a way that is healthy both for people and natural systems in the long term
- The circular economy offers a vision for a food system fit for the future
- Cities can trigger a shift to a better food system. Businesses, public bodies, organisations, and people within cities can accelerate the global transition to a healthy, regenerative food system underpinned by circular economy principles

OBJECTIVES

- Mobilise a cross-sector public-private stakeholder consortium to realise the circular model for food in cities around the world
- Illustrate the vision with a number of city demonstrator projects

PROJECT DESCRIPTION

The Ellen MacArthur Foundation's *Cities and Circular Economy for Food* report aims to highlight the often under appreciated role urban food actors can play to drive food system transformation. The report aims to demonstrate that using the catalytic potential of cities to spark change can be a powerful addition to the landscape of efforts needed to transform our relationship with food, highlighting that *now* is the time to make it happen.

ROADMAP

2018	2019
Conduct analysis and build the evidence base for shifting to a circular model for food. Conduct on-the-ground analysis with four Focus Cities	Launch the report in Davos and share the vision for a circular economy for food
Engage a consortium of 100+ organisations and businesses during the Analysis phase	Publish case studies and profiles of <i>Focus Cities</i> the Foundation collaborated with

INTESA  SANPAOLO

 INTESA SANPAOLO INNOVATION CENTER



SITRA



VEOLIA



 PORTICUS

4IR FOR A CIRCULAR ECONOMY



Lead: Suzanne Hazelzet (Accenture)

LONG TERM AMBITION

Leverage the potential of Fourth Industrial Revolution technologies to advance the circular economy at speed and scale through PACE projects and across its thematic areas



CONTEXT

- The Fourth Industrial Revolution has the potential to reshape our current systems by combining digital, physical and biological technologies at scale
- We have the opportunity to leverage this potential for the circular economy
- Many solutions exist, but independently of each other and often not at scale
- Plastics packaging and Electronics in particular provide significant opportunity spaces to accelerate the circular economy across different steps in the value chain

OBJECTIVES

- Publish a thought piece on 4IR applications for circular economy in electronics and plastics to be presented at Davos in January, 2019
- Actively engage PACE partners and members in the process
- Deliver 1 -5 concrete action insights to advance PACE project efforts

PROJECT DESCRIPTION

In the same way that the Fourth Industrial Revolution is reshaping healthcare, mobility and education systems worldwide, it can also be leveraged to help design innovative approaches to managing the way materials and products flow within, rather than through our economy in move away from the current “take-make- dispose” model towards a circular one. This project aims at identifying the circular economy opportunity spaces across the value chain of plastics packaging and electronics, the 4IR technology-enabled solutions to leverage them and the enabling frameworks required to implement these at scale. Outcomes of this project feed into the ongoing work in plastics and electronics and help to accelerate and scale impact.

ROADMAP

2018	2019
Shape a working group	Launch whitepaper in Davos
Finalize initial research	Build SCALE 360 project



CIRCULAR SUPPLY CHAIN ACCELERATOR



Lead: Floske Kusse (ING)

LONG TERM AMBITION

Provide a scalable solution that helps OEMs and the parties in their supply chains to define the business case for viable and bankable circular propositions



CONTEXT

- The circular transition will be driven by end-demand and large manufacturers (OEMs) who are investing in new circular propositions
- SMEs and mid-corps are major enablers in the supply chain of OEMs, but are due to their size hindered from investing in the transition and adopting circular business models, as long as the financial viability is unclear

OBJECTIVES

- Develop a scalable solution that helps OEMs and the parties in their supply chains to formulate a viable and bankable business case for circular propositions
- Ensure cooperation and a just risk-reward distribution in the supply chain, thereby also enabling SMEs and mid-corps to make the transition
- Conduct a pilot with a construction company and their supply chain partners, with an initial focus on the construction sector
- Share insights with WEF PACE and broader CE community

PROJECT DESCRIPTION

The Circular Economy is happening, and it's not... With the aim to ensure that supply chain participants effectively cooperate and are able to create viable and bankable business cases of their circular propositions; ING, Accenture and Circle Economy are developing CiSCA: the Circular Supply Chain Accelerator. Actively engaging with companies and industry experts, the initial focus of the project is on the construction sector as this is a materials intensive sector, with significant CO2 emissions and great interest to jointly build that positive business case, we know it's there!

ROADMAP

2018	2019
Identify core challenge of transitioning to CE	Fine-tune solution, also in pilot
Kick-off partnership with construction company for a pilot	Scale solution (within construction and across sectors)
Develop initial idea of solution	



SCALING CIRCULAR PROCUREMENT



Lead: Elisa Tonda (UN Environment)

LONG TERM AMBITION

Build circularity in our economies through sustainable procurement



CONTEXT

- Leveraging the 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

OBJECTIVES

- Identify highest value opportunities to leverage procurement to scale the transition to circularity in economies
- Collaborate with the public and private sector to support the intergration of circularity in the procurement cycle

PROJECT DESCRIPTION

The report «Building circularity in our economies through sustainable procurement» was launched at the World Circular Economy Forum 2018. The report highlights and draws attention to the potential of procurement as a tool to scale circularity in products and services. Building on the findings of the report, the UN Environment Programme, in collaboration with the One Planet Network, aims to include circularity requirements in sustainable procurement practices for governments and private sector in upcoming procurement and sectoral projects and initiatives.

ROADMAP

2018	2019
Disseminate the report	Design project intervention
Identify interested partners and pilot countries	Secure resources