

Annual Report



As we live through the COVID-19 pandemic and undergo the increasing impact of climate change, it is vital that we mobilize global stakeholders to create a healthier and more sustainable planet.

Fortunately, general understanding that the climate and our health are deeply and directly connected is growing. It is no longer about "whether we need to change," but "how we need to change."

By embracing the concept of a circular economy, we can accelerate global change. We eliminate waste, avoid exhausting our environment and create a sustainable and diverse ecosystem in which we can all live a healthy and safe life.

The World Economic Forum introduced PACE with the objective of providing a global platform for leaders from across business, government, NGOs, and civil society to develop a common agenda, inspire best practices, remove critical barriers, and drive global action.

Now PACE is gathering momentum. In 2020, we saw the PACE network growing, with new businesses, governments, and knowledge partners, as well as several new PACE Board Members, joining. In the past months, we teamed up to identify the most critical actions to be taken to scale circular practices. We are very proud of the publication of the PACE Action Agenda, which brings together the collective knowledge, experience, and expertise of more than 200 experts from 100 organizations. It's a trusted guide that can help us all to lead the way and drive the transition to a circular economy.

Personally, I am proud that Philips is at the origin of the Capital Equipment Coalition, now resulting in one of the PACE Action Agendas, to apply circularity in capital equipment industries. To date, some fifteen global companies have joined our coalition across Europe and North America.

We see that circularity is being recognized as the way forward. It presents opportunities for future business growth and it can help create more inclusive systems and societies. It's great to see that our efforts are driving and further scaling the circular economy ambitions.

I call on all leaders to join PACE and commit to adopting climate actions and prioritizing circularity. Join us. The time for a circular economy is now. Spread the word and adopt circular practices!

Frans van Houten

CEO, Philips



Leadership was needed at every level during 2020. Early on, our mantra was that we must unite to tackle big systemic challenges as part of the "decade to deliver" on the commitments made in prior decades, including the Sustainable Development Goals and Paris Agreement. Then COVID-19 hit, bringing existing and new priorities into sharp relief.

Leaders and their teams across the PACE community have risen to the times in many ways from meaningfully engaging in their communities, to redesigning global supply chains, to increasing their commitments for climate action.

In 2020, the PACE community laid the groundwork for more ambitious circular economy action and scale. We came together as over 100 organizations with over 200 individual contributors to develop the first global Circular Economy Action Agenda. The five publications set out a clear vision for circularity in plastics, electronics, food, textiles, and capital equipment; the social, environmental, and economic impacts and trade-offs to be addressed; and 10 calls-toaction for governments, businesses, and civil society.

Moving into 2021, the Action Agenda will help us activate more partners and measure our impact. We look forward to scaling up in four ways:

 Impacts: ensuring our actions prioritize specific social, economic, and environmental impacts.

- Regions: engaging leaders in key regions using the Action Agenda, and supporting the success of regional circular economy alliances.
- Materials and industries: converting the callsto-action in the Action Agenda into tangible projects and scale.
- Enablers: diving deep into specific enablers of circularity, such as metrics, finance, and innovation and technology, to unlock potential scale.

Along the way, we must measure what matters, including circularity. We are excited to host a coalition of public, private, and civil society partners on metrics aligned to Environmental, Social, and Governance (ESG) reporting efforts, the SDGs, and the Paris Agreement. As WRI's motto states, we must "count it, change it, scale it."

During 2020, we saw the world's ability to rapidly change. We, ourselves, changed. There is hope in 2021 with positive impacts on the horizon. We look forward to working with you to harness it. Along the way, stay close and let me know how we can help.

David B. McGinty Global Director, PACE

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WHO WE ARE

PACE is a global community of leaders working together to accelerate the transition to a circular economy. We bring leaders together from across business, government, and civil society to develop a collective agenda and drive ambitious action.

Everyone needs to play their part in creating a circular economy. Companies pioneering and scaling circular business models; governments setting ambitious policy and driving citizen engagement; civil society organizations carrying out research and mobilizing communities and institutions.

But none of these groups can do it alone. That's why our focus is on the areas that require deep collaboration through partnership. We bring leaders together from across sectors and industries, creating a space to work in partnership and overcome challenges together.

WHAT WE DO

LEADERSHIP

To create systemic change, we need leadership from the top. PACE was created to connect leaders who are committed to creating a circular economy. We catalyze leadership from CEOs, government ministers, and the heads of civil society organizations who have a clear vision and the power to make things happen.

KNOWLEDGE

The transition to circular economy must be guided by evidence and science. That's why PACE works with leading thinkers, researchers, and practitioners. We transform our community's knowledge into an evidence-based collective action agenda, and identify areas where action needs to be initiated or scaled up.

PROJECTS

We need innovative new ideas. We need to test out what works. And, crucially, we need to see circular models scaling up rapidly. PACE works on projects that are pioneering or scaling the circular economy by connecting the public and private sectors. We affiliate projects led by the PACE community, and we bring leaders together to create new initiatives.

AMPLIFICATION

There is growing awareness of the value of the circular economy model, but we still have a long way to go. We focus on events and communications to spread the word and make connections, working closely with our partners to amplify success stories and lessons learned. PACE's Board of Directors is comprised of a diverse and distinguished group of corporate, government, and civil society leaders. The Board actively shapes PACE's priorities to progress the circular economy and provide oversight and guidance on the development and delivery of PACE's strategic plan.



Frans van Houten (Chair) CEO, Royal Philips



Naoko Ishii Director, Center for Global Commons, University of Tokyo



Lisa Jackson Vice President, Environment, Policy and Social Initiatives, Apple



Dame Ellen MacArthur Founder, Ellen MacArthur Foundation



Carolina Schmidt Minister of the Environment, Chile



Stientje van Veldhoven Minister of the Environment, the Netherlands



Peter Lacy (ex-officio, Strategic Advisor to the Board) Chief Responsibility Officer and Global Sustainability Services Lead, Accenture Strategy



Dominic Waughray Managing Director, Centre for Global Public Goods, World Economic Forum



David B. McGinty (ex-officio) Global Director, Platform for Accelerating the Circular Economy (PACE)



Andrew Steer President and CEO, World Resources Institute (WRI)



Inger Andersen (ex-officio) Executive Director, UN Environment Programme (UNEP)

PACE Leaders commit to championing the circular economy at the highest level of global leadership, using their own position and network to drive change.

COMPANY		
Kees van Dijkhuizen*	Chairman and CEO	ABN AMRO Bank
Peter Lacy	Senior Managing Director	Accenture Strategy
Larry Page	Co-founder and Board Member	Alphabet
Lisa P. Jackson	VP, Environment, Policy and Social Initiatives	Apple
Alan Knight	General Manager, Corporate Responsibility	ArcelorMittal
Matthew Toy	Water International Client Director	Atkins
Malek Sukkar	CEO	Averda
Flemming Besenbacher**	Chairman	Carlsberg Foundation
Chuck Robbins	Chairman and CEO	Cisco Systems
Michael S Dell	Chairman and CEO	Dell Technologies
Bill Stephenson	Chairman and CEO	DLL Group
Monica Spada	Senior VP, Bio Development, Sustainable Mobility and Circular Economy	Eni
Xu Kaihua	Chairman	GEM
Mikela Druckman	Founder and CEO	Grey Parrot
Holy Ranaivozanany	Head, Corporate Social Responsibility	Huawei Technologies
Ralph Hamers*	CEO	ING Group
Jesper Brodin	President and CEO	Ingka Group
Carlo Messina	CEO	Intesa Sanpaolo
Stefan Doboczky	CEO	Lenzing Group
Arthur Huang	Co-Founder and CEO	Miniwiz
Takehiko Kakiuchi	CEO	Mitsubishi Motors
Lars Fruergaard Jorgensen	President and CEO	Novo Nordisk
David S. Taylor	Chairman, President and CEO	Procter & Gamble

Steve Schmida	Co-Founder and Chief Innovation Officer	Resonance
Jean-Sébastien Jacques*	CEO	Rio Tinto
Nitesh Magdan*	Group Director, Sustainability	Royal BAM Group
Dimitri De Vreeze**	Co-CEO	Royal DSM
Frans van Houten	CEO	Royal Philips
Pascal Juéry*	Member of the Executive Committee	Solvay
Bertrand Camus	CEO	SUEZ
Christian Wessels	Co-Founder	Sunray Ventures
Tom Szaky	Founder and CEO	TerraCycle
James Quincey	Chairman and CEO	The Coca-Cola Company
Gonzalo Muñoz	Co-Founder and CEO	TriCiclos
Alan Jope	CEO	Unilever
Antoine Frérot	Chairman and CEO	Veolia
Svein Tore Holsether	President and CEO	Yara International
GOVERNMENT		
Li Yonghong	Assistant Secretary-General	China Council for International Cooperation on Environment and
		Development
Luhut B. Pandjaitan	Coordinating Minister for Maritime Affairs	Development Coordinating Ministry for Maritime Affairs Indonesia
Luhut B. Pandjaitan Daniel Calleja Crespo*		Coordinating Ministry for Maritime
-	Affairs	Coordinating Ministry for Maritime Affairs Indonesia
Daniel Calleja Crespo*	Affairs Director General Environment	Coordinating Ministry for Maritime Affairs Indonesia European Commission
Daniel Calleja Crespo* Frans Timmermans**	AffairsDirector General EnvironmentExecutive Vice-PresidentCommissioner, European Commission for Environment,	Coordinating Ministry for Maritime Affairs Indonesia European Commission European Commission
Daniel Calleja Crespo* Frans Timmermans** Virginijus Sinkevičius**	Affairs Director General Environment Executive Vice-President Commissioner, European Commission for Environment, Oceans and Fisheries	Coordinating Ministry for Maritime Affairs Indonesia European Commission European Commission European Commission
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Daniel Calleja Crespo* Frans Timmermans** Virginijus Sinkevičius** Werner Hoyer Mohammed Mahmood Abubakar	Affairs Director General Environment Executive Vice-President Commissioner, European Commission for Environment, Oceans and Fisheries President Minister of State for the Environment Minister of Forestry and Fisheries	Coordinating Ministry for Maritime Affairs Indonesia European Commission European Commission European Commission European Investment Bank Federal Ministry of Environment, Nigeria
Daniel Calleja Crespo* Frans Timmermans** Virginijus Sinkevičius** Werner Hoyer Mohammed Mahmood Abubakar Barbara Creecy	AffairsDirector General EnvironmentExecutive Vice-PresidentCommissioner, European Commission for Environment, Oceans and FisheriesPresidentMinister of State for the Environment Anister of Forestry and Fisheries and Environmental Affairs	Coordinating Ministry for Maritime Affairs Indonesia European Commission European Commission European Commission European Investment Bank European Investment Bank Federal Ministry of Environment, Nigeria Ministry of Environment, Forestry and Fisheries, South Africa

Brune Poirson** *	Secretary of State to the Minister for the Ecological and Inclusive Transition	Ministry of Ecology and Inclusive Transition, France
Miro Cerar*	Minister of Foreign Affairs	Ministry of Foreign Affairs, Slovenia
Stientje van Veldhoven	Minister for the Environment	Ministry of the Environment, the Netherlands
Shinjirō Koizumi	Minister of the Environment	Ministry of the Environment, Japan
Jonathan Wilkinson**	Minister of Environment and Climate Change	Ministry of Environment and Climate Change, Canada
H.E. Kwabena Frimpong- Boateng**	Minister of Environment, Science, Technology, and Innovation	Ministry of Environment, Science, Technology and Innovation, Ghana
Jeanne d'Arc Mujawamariya**	Minister of Environment	Ministry of Environment, Rwanda
Carolina Schmidt**	Minister of the Environment	Ministry of the Environment, Chile
Joseph Seka Seka**	Minister for the Environment and Housing	Ministry for the Environment and Sustainable Development, Côte d'Ivoire
Carlos Correa**	Minister of the Environment	Ministry of the Environment, Colombia
Gabriel Quijandría Acosta**	Deputy Minister of Strategic Development of Natural Resources	Ministry of Environment, Peru
Andrea Meza**	Minister of the Environment and Energy	Ministry of Environment and Energy Costa Rica
Orlando Jorge Mera**	Minister of the Environment and Natural Resources	Ministry for the Environment and Natural Resources, Dominican Republic
ORGANIZATION		
Anthony Nyong**	Director of Climate Change and Green Growth	African Development Bank
Naoki Ishii	Director	Center for Global Commons, University of Tokyo
Zhao Kai	VP and Secretary-General	China Association of Circular Economy
Keli Yu	Secretary General, Electronic Products Recycling Division	China National Resources Recycling Association

Martijn Lopes Cardozo**	CEO	Circle Economy
Dame Ellen MacArthur	Founder and Chair of the Trustees	Ellen MacArthur Foundation
Michiel Elich**	CEO	Enviu
Katrin Ley**	Managing Director	Fashion for Good
Alfredo Giró Quincke	Institutional Engagement, IDB Lab	Inter-American Development Bank
Jane McDonald	Executive Vice-President	International Institute for Sustainable Development
Guy Ryder	Director-General	International Labour Organization
Izabella Teixeira	Co-Chair	International Resource Panel
Janez Potocnik	Co-Chair	International Resource Panel
Houlin Zhao**	Secretary General	International Telecommunication Union
Janis Jones	CEO	Ocean Conservancy
Jyrki Katainen	President	Sitra
William McDonough	Adjunct Professor, Department of Civil and Environmental Engineering	Stanford University
Martin Stuchtey**	Co-Founder, Managing Partner	SystemIQ
Wen Zongguo	Professor, School of Environment	Tsinghua University
Inger Andersen	Executive Director	United Nations Environment Programme
Marcus Gover**	Chief Executive Officer	Waste and Resources Action Programme
Laura Tuck*	VP for Sustainable Development	World Bank Group
Peter Bakker	President and CEO	World Business Council for Sustainable Development
Dominic Waughray	Managing Director	World Economic Forum
Andrew Steer	President and CEO	World Resources Institute
Marco Lambertini	Director-General	World Wide Fund for Nature

Leadership Group

* Moved position during 2020

**Joined Leadership Group during 2020

PACE Knowledge Partners are organizations leading on research and policy analysis on the circular economy.









Development and publication of the Circular Economy Action Agenda

Our focus in 2020 was the development of the Circular Economy Action Agenda. Designed as a rallying call for business, government, and civil society, the Action Agenda sets out the way forward for circularity in plastics, textiles, electronics, food, and capital equipment. As we move into 2021, we will work with the PACE community to develop tangible projects that take up the calls-to-action, tracking progress along with way and making further calls-to-action where gaps remain.

Growing the PACE community

We were pleased to welcome new Board member Carolina Schmidt (Minister of the Environment, Chile) in 2020. Twenty-two leaders joined the PACE Leadership Group, including seven as a result of the launch of two regional alliances, the African Circular Economy Alliance and the Circular Economy Coalition for Latin America and the Caribbean. Through active engagement in developing the Action Agenda, we welcomed six new Knowledge Partners who are thought leaders on the circular economy across impacts, regions, materials, and industries. In 2021 we look forward to welcoming new leaders and partners as active contributors and drivers of change.

New affiliated projects

PACE works on projects that are pioneering or scaling the circular economy by connecting the public and private sectors. We affiliate projects led by the PACE community, and we bring leaders together to create new initiatives. In 2020, we affiliated six new projects focused on textiles, food, and electronics. In 2021, we will work together to launch projects in line with the Action Agenda.

Engaging through events

2020 began with the Annual Meeting of the World Economic Forum in Davos, where PACE and partners hosted several sessions. Further key events included the World Economic Forum's Sustainable Development Impact Summit and the World Circular Economy Forum Online in September, where PACE hosted sessions featuring representatives of the Secretariat, Board, and Leadership Group. We will continue to meet at these events and others during 2021 to celebrate actions, share learning, and set new levels of commitments.

Amplifying our actions

In 2020 we launched a bold new logo for PACE, retaining the symbolism of interconnection. Our media focus was on thought leadership, with opinion pieces published by the World Economic Forum, World Resources Institute, and Euractiv, and PACE spokespeople cited in media outlets including Fast Company, Greenbiz, and the Independent. Throughout the year we also continued to build PACE's community through social media engagement, newsletters, and community calls.





The Circular Economy Action Agenda

PACE was created to catalyze leadership and drive action on a global scale. In 2020 we made a substantial step forward in this work with the development of the Circular Economy Action Agenda, a set of five publications: electronics, plastics, food, textiles, and capital equipment. The aim is to transform existing knowledge into a collective agenda that will inform and mobilize action within the PACE community and beyond. Each publication sets out 10 calls-toaction that can help us accelerate the transition and make it as impactful as possible.



How we developed the Action Agenda

The Action Agenda is the result of collective efforts by working groups drawn from organizations from business, research, government, civil society, and finance, collaborating throughout 2020. In total, more than 200 experts from over 100 organizations contributed via over 80 phone interviews, more than 20 group discussions, and substantial written inputs.

Plastics

The flexibility, durability, and strength of plastics has made them indispensable components of billions of modern products. Global consumption has increased twentyfold in the last 50 years,¹ with plastic packaging volumes expected to more than quadruple by 2050 to 318 million tons per year.²

Plastic production relies on ever-increasing use of fossil resources, and a lack of coherent recycling and reuse strategies results in waste and pollution at end-of-use. A circular economy for plastics can help ensure the world significantly reduces plastic use, as well as ensuring those plastics we do use are responsibly managed throughout their lifecycle.

The Circular Economy Action Agenda for plastics sets out 10 calls-to-action:

1. Agree which plastics can be eliminated and prepare the market to phase them out

Identify which plastics are problematic or unnecessary, and the impact of their elimination. Once it is agreed which plastics should be eliminated (or substituted), the market, including both industry and consumers, must be properly prepared for a smooth transition.

2. Incentivize and support product design for reuse and recycling of plastics

Design is a critical starting point for the circular economy, so incentives and technical support to encourage the design of plastic packaging for reuse and recycling are crucial. For example, reusable packaging must be designed to avoid the release of microplastics and the associated health and environmental hazards.

3. Address hygiene and safety concerns to promote plastics reuse

Worries about hygiene and safety have always been a challenge for plastics reuse, particularly for food and drink packaging. These concerns, reflected in both regulations and public perception, must be addressed in order to increase reuse of plastics.

4. Stimulate consumer adoption of plastic reuse

Consumers need to understand why plastic reuse is important, as well as how they can make practical changes to reuse plastics more.

5. Guide and support new business models for environmental, financial, and social triple-win

There is big potential for new business models based on reuse of plastic products. These business models must be designed with environmental, social, and financial impacts in mind.

6. Set up functioning collection systems

Plastic collection systems are often seen as costly, and struggle to attract funding. Where they exist, they are often fragmented, with confusing instructions. Without them, we will struggle to reduce plastic waste in the environment or increase high-quality recycling.

7. Strategically plan sorting and recycling facilities, in compliance with trade regulations

Sorting and recycling facilities are large-scale projects, and need to be carefully planned and undertaken for the best environmental and economic outcomes. Developing countries may need support to plan and invest in high-quality sorting and recycling facilities.

8. Make the recycled plastics market competitive

Only when recycled plastics are competitive can businesses adopt them on a significant scale, and in turn further stimulate the development of the recycled materials supply chain.

9. Integrate and advance decent work in the transition to a circular economy for plastics

A transition to a circular economy for plastics is expected to bring opportunities for more decent work, creating new formal jobs and improving the work conditions, income, and recognition of informal workers. However, a focus on decent work must be integrated from the beginning, in order for the transition to be effective and socially inclusive.

10. Investigate environmental and socio-economic impacts of renewable material inputs for plastics

Although plastics made from renewable materials can reduce dependence on fossil resources, their lifecycle impacts on the planet and society still require further research and better understanding.



Consumers Beyond Disposability

Empower consumers to access innovative consumption models at scale that offer aspirational, affordable and more sustainable alternatives to single-use.

PARTNERS: World Economic Forum (leading partner); TerraCycle, WWF, NYC Mayor's Office of Sustainability, City of Paris, Ellen MacArthur Foundation, Greenpeace, UNEP, PepsiCo, P&G, Unilever, Nestle, Algramo, Closed Loop Partners, Kearney.

LOCATION: Global.

Plastics Policy Playbook and Implementation

Improve collection and put an end to marine plastics by innovating public/private policy measures for government and business and engaging with governments (including cities through Urban Ocean), business, and NGOs to keep trash out of the ocean.

PARTNERS: Ocean Conservancy (leading partner); the Trash Free Seas Alliance©, Accenture, the Resilient Cities Network, the Circulate Initiative, the Centre for Marinelife Conservation (Vietnam).

LOCATION: Global.

Global Plastic Action Partnership

A public-private platform to translate political commitments to address plastic waste and pollution into tangible action by accelerating and scaling circular economy solutions across sectors.

PARTNERS: World Economic Forum (leading partner); Government of Canada, UK Defra, PepsiCo, The Coca-Cola Company, Nestlé, Dow.

LOCATION: Global, with National Plastic Action Partnerships currently in Indonesia, Vietnam, and Ghana.

New Plastics Economy

Bring together key stakeholders to rethink and redesign the future of plastics by applying the principles of the circular economy, starting with packaging. In a new plastics economy, plastic never becomes waste or pollution. Each Global Commitment signatory and Plastics Pact member formally endorses the vision for a circular economy for plastic and the need to work towards achieving it.

PARTNERS: Wendy Schmidt, the Oak Foundation (philanthropic partners); Amcor, Borealis, The Coca-Cola Company, Danone, L'Oréal, MARS, Nestlé, PepsiCo, Unilever, Veolia and Walmart (initiative's partners).

LOCATION: Global.

ReSource

Newly affiliated in 2020

Activate large-scale circular solutions on plastics in consumer-oriented sectors that maximize, measure, and multiply both environmental and social benefits.

PARTNERS: WWF (leading partner); Keurig Dr Pepper, McDonald's, Procter & Gamble, Starbucks, The Coca-Cola Company, Ellen MacArthur Foundation, Ocean Conservancy, Colgate-Palmolive, Kimberly-Clark.

LOCATION: Global.

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Electronics

Technological advancement, as well as improved accessibility and affordability, has led to a significant increase in the use of electronics worldwide, transforming the way we live and work. In addition, COVID-19 has emphasized, perhaps even boosted, the relevance of electronic products and digital services in our societies.

Globally, sales of electrical and electronic equipment are projected to continue growing, and so too will the draw on natural resources, e-waste, and greenhouse gas emissions. A circular economy for electronics is critical to achieving at least nine of the Sustainable Development Goals. The coming decade will be critical for the electronics value chain to capitalize on its innovation, speed, and agility to contribute to this global agenda.

The Circular Economy Action Agenda for electronics sets out 10 calls-to-action:

1. Incentivize and support product design for circularity

About 80% of the total environmental impact of a product is determined in the design phase. Providing incentives and technical support to designing electronics for longevity (making them durable, easy-to-upgrade or easy-to-repair), recyclability (easyto-disassemble, with safe inputs), and with recycled content is key to achieving a circular economy.

2. Enable producers to increase sourcing of recycled content

Increasing the amount of recycled content in electronics manufacturing is essential for slowing down demand for new materials.

3. Transform consumption modes to increase market demand for circular products and services

The industry will only scale-up the design and development of products integrating circular principles when there is clear demand from both individual consumers and large-scale buyers.

4. Guide and support new business models for environmental, financial, and social triple-win

New business models such as subscription, rental, and re-commerce need to be designed with environmental, social, and financial impacts in mind, so they can grow and contribute in a meaningful way to the wellbeing of people and planet.

5. Encourage bring-back by consumers

Consumers often lack awareness about the environmental, health, and safety impacts of e-waste. Even if awareness is there, it does not always lead to action due to, for example, limited knowledge about local options for bring-back, or a lack of incentives.

6. Set up effective collection systems

E-waste can contain hazardous substances such as lead and mercury. Informally collected e-waste often ends up with substandard treatment, which causes severe social, health, and environmental damage. We must set up better collection systems that are connected to high-standard recycling.

7. Enable efficiency and transparency in compliant and responsible transboundary movement

Transboundary movements of scrap materials, used electronics, and e-waste are vital for large-scale reuse, remanufacturing, refurbishment, and electronic recycling. We need to develop more efficient trade solutions for environmentally sound management, in compliance with the Basel Convention.

8. Strategically plan and install sorting, preprocessing, and recycling operations

Sorting, pre-processing, and electronic recycling facilities are large, multifaceted projects requiring long-term investment. They must be planned carefully with holistic considerations including location, capacity, and specialty.

9. Increase incentives for investment in recycling technologies and facilities

A variety of factors is limiting the economic viability of e-waste recycling, and subsequently incentives for investment are few and far between. Economic incentives must be strengthened to scale-up electronic recycling operations and increase investment in technology.

10. Integrate and advance decent work in the transition to a circular economy for electronics

The transition to a circular economy offers an opportunity to create new jobs in areas such as repair and refurbish, as well as creating more formal employment for those who currently work in collection and recycling.



Circular Electronics Partnership

Newly affiliated in 2020

Building on the work of the concluded affiliated project A New Circular Vision for Electronics (2019), the Circular Electronics Partnership takes on the call for a new and shared vision for electronics based on the circular economy and the need for collaboration. By bringing key companies and organizations in the electronics sector and the circular economy to the table, Circular Electronics Partnership establishes networks for sharing knowledge, best practices and relevant information and creating visibility of industry action to achieve a circular economy for electronics by 2030.

PARTNERS: WBCSD (leading partner); PACE, World Economic Forum, International Telecommunication Union, Global e-Sustainability Initiative (GeSI), Green Electronics Council, Responsible Business Alliance.

LOCATION: Global.

China Circular Electronics and Material Value Chains

Support effective systems for the integration of recycled materials into electronic products and equipment along with other circular economy strategies in China. The work in this project is developed with a focus on three main electronics categories to bring specific insights to mobile phones, data center servers, and medical imaging equipment.

PARTNERS: World Economic Forum (leading partner); China Association of Circular Economy, Apple, Huawei, Xiaomi, Oppo, Aihuishou, Huishoubao, TES-AMM, GEM (mobile phones); China National Resources Recycling Association, JD, Huawei, Dell, HPE, Huirong, TES-AMM (data center servers); China Association of Circular Economy, Philips Health, GE Healthcare, Siemens Healthineers, United Imaging (medical imaging equipment).

LOCATION: China.

Circular Economy Approaches for Electronics in Nigeria

Kickstart and demonstrate a financially self-sustaining circular economy approach for the electronics sector in Nigeria, including implementation of Extended Producer Responsibility policy, establishment of a Producer Responsibility Organization, collection and recycling pilots, and presenting a regional roadmap for circular economy of the electronics sector for Africa.

PARTNERS: UNEP (leading partner), National Environmental Standards and Regulations Enforcement Agency of Nigeria (NESREA), E-Waste Producer Responsibility Organisation Nigeria (EPRON), Hinckley, UNU, GEF, with support from Philips, Dell, Hewlett Packard, Microsoft, World Economic Forum.

LOCATION: Nigeria (pan-African engagement and dissemination).

Global Battery Alliance

Catalyze and accelerate action through a global collaboration platform towards a sustainable battery value chain by 2030.

PARTNERS: World Economic Forum (leading partner), African Development Bank Group, Amara Raja Group, Audi, BASF, BMW, BP, China Chamber of Commerce of Metals, Minerals and Chemicals Importers and Exporters, Clarios, ClimateWorks Foundation, Deme Group, GIZ, Enel, Envision Group, ERG, Everledger, Fairphone, Glencore, Good Shepherd International Foundation, Google, Groupe Renault, Honda, Huayou Cobalt, International Energy Agency, Johnson Matthey, LeasePlan, LG Chem, London Metal Exchange, Mahindra, NPL, OECD, Pact, Pure Earth, RCS Global, RESOLVE, Responsible Battery Coalition, Responsible Business Alliance, Saft, SAP, SK Innovation, Signify, Stanley Black & Decker, Center for Business and Human Rights at the Stern School of Business (New York University), Sociedad Quimica y Minera de Chile (SQM), Trafigura Group, Transport & Environment, Umicore, UNICEF, UNEP, Vale, Volkswagen Group, Volvo Group, Wesfarmers, World Bank Group. Over 70 multi-sector members; for the full list please refer to www.weforum.org/global-battery-alliance.

LOCATION: Global.

Textiles

Textiles have long been an integral part of our daily lives and society, with diverse products ranging from clothing, interiors, and healthcare to industrial fabrics such as car upholstery. Today's clothing industry is valued at US\$1.3 trillion dollars, employing more than 300 million people globally.³

The current model takes a heavy toll on people and planet. The global apparel and footwear industries accounted for an estimated eight percent of the world's greenhouse gas emissions in 2016, and climate impacts are projected to increase significantly if current trends continue.⁴ A circular economy for textiles will help reduce and reuse waste, reduce climate impacts, and protect the people who produce and dispose of our textiles.

The Circular Economy Action Agenda for textiles sets out 10 calls-to-action:

1. Incentivize and support design for longevity and recyclability

Textile products can be designed to last longer by using high-quality fibers, making them easy to repair, and designing 'timeless' styles. Recyclability can be built in by using safe materials that are easy to disassemble, as well as focusing on homogenous fibers rather than complicated blends. Incentives and support are needed to encourage this approach in the design stage.

2. Produce virgin natural fibers sustainably, including land use

Even with large-scale recycling, it will be unrealistic for the textiles industry to use only recycled materials in the foreseeable future. Action should therefore focus on working to produce virgin plant-based fibers such as cotton in a more sustainable way.

3. Encourage the market to use less clothing, and for longer

Rethinking consumption means buying less, buying second-hand, supporting sustainable fashion, and keeping clothes in use for longer.

4. Guide and support new business models for environmental, financial, and social triple-win

New business models such as subscription, rental, and re-commerce need to be designed with environmental, social and financial impacts in mind, so that they can grow and contribute in a meaningful way to the wellbeing of people and planet.

5. Where used textiles trade occurs, ensure environmental and socio-economic benefits

Around 70% of textiles collected for reuse is sent overseas, but much of it is likely to end up as waste rather than being repurposed or recycled. The used textiles trade should be managed to ensure environmental benefits and help preserve local industries.

6. Strategically plan collection, sorting, and recycling operations

Collection and sorting of used textiles is very laborintensive, and recycling facilities are large-scale projects requiring long-term investment. All need to be planned carefully to ensure they are in the right place and offering the right services.

7. Increase efficiency and quality in textiles sorting

Textiles sorting is currently labor intensive, costly, and inaccurate. Improving the efficiency and quality of sorting is crucial for textiles recycling, since the quality and safety of recycled textiles strongly depends on what goes into them.

8. Make the recycled fibers market competitive

Only when recycled fibers are market competitive can businesses adopt them on a significant scale, and in turn further stimulate the development of recycled material supply chains.

9. Integrate and advance decent work in the transition to a circular economy for textiles

A circular economy for textiles will have a complex effect on decent work, shifting employment from farming and manufacturing to later stages of the value chain such as repair, resale, sorting and recycling. It provides the potential for higher quality jobs, especially for informal workers, improved working conditions and safety, as well as wages and social security. It will not happen automatically though targeted efforts are needed from governments, companies, and civil society.

10. Investigate the socio-economic impacts of a circular economy for textiles

There is a lack of quantitative research to understand the potential socio-economic effects of increased circularity in textiles, so we need more research to bridge this critical knowledge gap.



Make Fashion Circular

Newly affiliated in 2020

Make Fashion Circular brings together leaders from across the fashion industry to stop waste and pollution in fashion by creating a circular economy for the industry, where products are used more, are made to be made again and are made from safe and recycled or renewable inputs. For example, the Jeans Redesign initiative brought together over 80 denim experts from across the denim industry, to co-develop a list of guidelines that ensure jeans meet minimum requirements for durability, material health, recyclability, and traceability.

PARTNERS: Ellen MacArthur Foundation (leading partner); Burberry, Gap Inc., H&M Group, HSBC, Inditex, PVH, Stella McCartney (core partners); Cradle to Cradle Products Innovation Institute, Fashion for Good, Fashion Positive, Global Fashion Agenda, RSA, Textile Exchange, The Hong Kong Research Institute of Textiles and Apparel (HKRITA), The Mills Fabrica, The Sustainable Angle, ZDHC (affiliate partners); Laudes Foundation, People's Postcode Lottery, MAVA Foundation (philanthropic partners).

LOCATION: Global.

Circular Clothing Action Plan

Newly affiliated in 2020

WRAP aims to develop global goals for a circular clothing economy and facilitate their translation into national frameworks with measurable targets. They focus on three long-term ambitions:

1) Circular design—clothes are made to be made again.

2) Circular manufacture—clothes are made from safe and renewable or recycled inputs.

3) Circular retail-clothes are used more.

PARTNERS: WRAP (leading partner); World Resources Institute, in-country partners in Denmark.

LOCATION: Denmark and UK.

Food

Food is fundamental to our health, environment, society, and economy, but the food system today is wasteful, resource intensive, and polluting. A third of food is lost or wasted, and food waste and byproducts are landfilled, incinerated, and left to rot. Meanwhile, 800 million people don't have enough to eat.⁵

Changing how we make and produce food through transition to a circular economy can help us to tackle climate change and feed the global population of tomorrow, expected to be 9.7 billion by 2050.

The Circular Economy Action Agenda for food sets out 10 calls-to-action:

- Enable transitions to planetary health diets
 We must change what we grow, towards a diet richer
 in fruits, vegetables and more diverse proteins.
- 2. Scale productive and regenerative agriculture practices

We must change how we grow our food, towards productive and regenerative agriculture practices such as agroforestry and permaculture.

3. Increase value of nature-regenerative food production to farmers

There must be incentives and rewards in place for farmers, so they are able to produce healthy and nutritious food while also being stewards of the land and environment.

4. Better understand hotspots of food loss and waste

It is crucial to better understand where food is being lost and wasted, and how much it is costing us, so that we can create a better system to recycle and reuse.

5. Integrate food loss and waste more broadly in the SDG agenda

Reducing food loss and waste has far-reaching effects on climate change and biodiversity, as well as driving down hunger rates, emissions, and economic losses for individual households.

6. Increase investment in food loss and waste reduction

More must be invested in food loss and waste reduction. The costs are often hidden, but when businesses and individuals reduce their food waste, they save money and help save the planet.

7. Reframe wasted food and byproducts as valuable resources

There are many productive uses for food waste, that also bring benefits to people and planet—for example, as fertilizer, plastic or textile feedstock, and animal feed.

8. Facilitate secondary market development and access

Increasing ease of access to other markets for excess, lower-quality food and byproducts will increase value chain resilience, keep materials in use longer, and even help direct food toward those who need it most.

9. Enable sanitary cycles for human waste

Human waste can be processed into a safe and clean fertilizer that can be applied to the soil. This reduces the need for synthetic fertilizers, while reducing soil, air, and water pollution and related diseases from human waste.

10. Increase information accessibility and data utilization

Data and information can be used more effectively to ensure traceable and transparent supply chains, and to help shift consumer behavior.



Ellen MacArthur Foundation Food Initiative

The Food Initiative brings together stakeholders from across the value chain to transform the food system in order to enable people, the environment, and business to thrive. The program fosters cross-cutting collaborations to rethink how food decisions are made at the policy, strategy, and design stages.

PARTNERS: Ellen MacArthur Foundation (leading partner); Mava Foundation, Calouste Gulbenkian Foundation, DOEN Foundation, and Porticus (philanthropic partners); the cities of Sao Paulo, New York, and London (strategic partners and demonstration cities); Danone, Nestlé, Unilever, Veolia, Mizkan, Novamont, and Yara (core partners); and Google (knowledge partner).

LOCATION: Global, with program activities currently being carried out in the UK, US, Brazil, and China.

FoodFlow

Newly affiliated in 2020

FoodFlow aims to showcase a professional 0% loss fruit and vegetable chain for the domestic market in Kenya, and in the long term enable third party businesses to scale proven concepts throughout East Africa to create an inclusive commercial value chain and increase farmers' resilience.

PARTNERS: Enviu (leading partner); Ikea Foundation, Rabobank Foundation, UKAID, Doen Foundation, Argidius Foundation, Self Help Africa, Netherlands Enterprise Agency (RVO).

LOCATION: Kenya.

Denmark Against Food Waste

Newly affiliated in 2020

This project unites Danish food producers and retailers behind the voluntary commitment to measure, report and halve their food waste by 2030 and showcase a model for successful cross-sector collaboration to solve social-environmental challenges in Denmark and around the world. This voluntary agreement with Danish food businesses is acknowledged by the Danish Government and Facilitated by the Think Tank ONETHIRD.

PARTNERS: ONETHIRD (leading partner); Kohberg Bakery Group A/S, Naturmælk, Nestlé, McDonald's, Meyers Madhus, Danish Crown, Alfred Pedersen & Søn ApS, Hørkram Foodservice A/S, Jespers Torvekøkken, nemlig. com, Arla Foods, Orkla Foods Danmark, Peter Larsen Kaffe, Carlsberg Group, Regionshospitalet Randers, Salling Group, Appetize, Carletti A/S, Coop, Dagrofa ApS, Aarstiderne A/S, Stop Wasting Food movement (Stop Spild Af Mad), Axel Månsson A/S, Stryhns AS, APPLiA, Bispebjerg Hospital, Chr. Hansen, Daka Denmark A/S, DI - Dansk Industri, Dansk Erhverv, Eachthing ApS, eSmiley A/S, Wefood, FødevareBanken, HORESTA, Landbrug & Fødevarer, REMA 1000 Danmark, Stop Spild Lokalt, ALDI Danmark, DSK - De Samvirkende Købmænd , Region Hovedstaden, Danmarks Restauranter & Cafeer, DRC

LOCATION: Denmark.

"10x20x30" Food Loss and Waste Initiative

This initiative brings together ten of the world's biggest food retailers and providers to each engage with twenty of their priority suppliers to halve rates of food loss and waste by 2030.

PARTNERS: World Resources Institute (leading partner); AEON, Ahold Delhaize, Carrefour, IKEA Food, Kroger, METRO AG, Pick n Pay, The Savola Group, Sodexo, Tesco, Walmart (food retailers and providers). Over 180 suppliers; for the full list please refer to https:// champions123.org/10-20-30.

LOCATION: Global.

21

Capital Equipment

Capital equipment incorporates a vast range of physical hardware, from data servers to medical scanners, power plants to ships. These products are essential for serving society's needs around the world, while enabling opportunities for industries such as ICT, energy, healthcare, and logistics.

Production of capital equipment consumes 7.2 billion tons of raw materials globally each year.⁶ It is therefore critical that we optimize the inventory of capital equipment and its uses through circular strategies to reduce and minimize environmental impact, address resource scarcity, increase market resilience, and develop value chain sustainability.

The Circular Economy Action Agenda for capital equipment sets out 10 calls-toaction:

1. Provide incentives and guidance for product design for circularity

More than 80% of a product's ecological impact is decided in the design phase. Designing to reduce material inputs, as well as for longevity and reuse or refurbishment at end-of-life, significantly reduces the resources needed.

2. Transform customer perception and procurement models to increase demand for circular products and services

Clauses in large tenders often state that only new systems can be bought, or that equipment must be destroyed at end-of-use. It is vital we change the system to embrace products made from reused or refurbished components.

3. Leveraging servitization, guide and support product use rates and use life extension

Shifting from offering a product (such as a car) towards offering a service (such as car sharing, with payment per distance travelled) offers huge potential for extending the life of individual products and components. There are many similar new 'as-a-service' innovations that offer great promise for circularity.

4. Increase end-of-use product return

Current barriers to returning end-of-use products and components to the manufacturer, such as data privacy and intellectual property concerns, must be addressed to increase return rates.

5. Enable efficiency and transparency in compliant and responsible reverse logistics

Governments, businesses, and authorities of the Basel Convention need to work together to create more efficient reverse supply chains, while ensuring environmental and socially sound management in compliance with the regulations.

6. Collaborate across value chains and sectors to strategically plan reuse operations

Refurbishing and remanufacturing facilities are long-term investments requiring specialist skills and knowledge. They need to be planned carefully, with attention paid to location, capacity, and specialization.

7. Increase incentives for investment in reuse technologies and facilities

Governments have a vital role to play in increasing the competitiveness of reused, refurbished, and remanufactured products/components, therefore stimulate private sector investment in these strategies.

8. Support manufacturers to increase sourcing of secondary components

Putting secondary components in use can reduce demand for virgin materials. Innovations in both legislation and technology can help expand the secondary component market.

9. Leverage digital technologies for the circular transition

Digital technology can transform the way components and products are designed, made and managed, allowing for monitoring and optimization throughout the product's lifetime, and sharing of information across the value chain.

10. Evaluate the contribution of circular capital equipment to the Sustainable Development Goals

Stakeholders from public, private, and civil society are invited to participate in the design and realization of a circular economy for capital equipment, for a better, just, and faster transition that helps us to achieve the Sustainable Development Goals together.



Capital Equipment Coalition

A global group of businesses that operate in the capital equipment sector has committed to preserving and recovering value from the products they make or manage across a range of industries. Together, they challenge and help each other to reach their circular commitments and identify barriers and opportunities to alleviate headwinds. By openly sharing progress, insights, and learnings, the Coalition inspires others to join or contribute to the global circular economy transition. In February 2021, a new group of businesses in the North American market joined as an additional cohort within the Coalition alongside Europe.

PARTNERS EUROPEAN COHORT: Circle Economy (regional host); Philips, ASML, Cisco, Damen, Dell, KPN, Lely, Vanderlande, Enel.

PARTNERS NORTH AMERICAN COHORT: U.S. Chamber of Commerce Foundation (regional host); Philips, DLL, GE Digital, Microsoft, SAP.

LOCATION: Europe and North America.

2

Regional Alliances

The consequences of the linear economic system affect the entire planet, but each region is impacted in different ways: while some countries have to deal with plastic pollution on their beaches, other regions are concerned about their food industry or struggle to cope with imported e-waste.

That is why the transition to a global circular economy must be driven by regional players, defining local priorities and developing concrete circular measures depending on regional characteristics.

To support the creation of networks of local partners, PACE has worked with partners on regional alliances on two continents: the African Circular Economy Alliance, and the Circular Economy Coalition for Latin-American and the Caribbean. Within the framework of these alliances, we work with key players in these regions to identify local solutions, share best practices and facilitate partnerships between regional governments, businesses, and civil society organizations.

Circular Economy Coalition for Latin-America and the Caribbean

The Coalition creates a common regional vision and platform for advancing and building circularity across Latin America and the Caribbean. It serves as a platform to exchange best practices and promote South-South and North-South cooperation and will provide sciencebased knowledge on the opportunities and co-benefits of a circular economy approach.

MEMBER COUNTRIES: Colombia, Costa Rica, Peru, and the Dominican Republic.

PARTNERS: UNEP (coordinator); PACE, World Economic Forum, UNIDO, CTCN, Konrad Adenauer Foundation (KAS-EKLA), Ellen MacArthur Foundation, Inter-American Development Bank.

African Circular Economy Alliance

The Alliance shares best practices for the creation of legal and regulatory frameworks, the building of partnerships and the financing and creation of circular economy projects; advocates for and raises awareness of the circular economy at a national, regional, and global level; and brings about new projects and partnerships within individual or multiple countries.

MEMBER COUNTRIES: Cote d'Ivoire, Ghana, Nigeria, Rwanda, and South Africa.

PARTNERS: African Development Bank (host), PACE, KAS Foundation, European Commission, African Circular Economy Network (ACEN), World Economic Forum, SITRA, UNEP Africa, Finland Ministry of Foreign Affairs, GEF.

Cross-Cutting Initiatives

The transition to a circular economy requires systemic change across all sectors. To foster collaboration between governments, businesses, entrepreneurs, and experts, PACE has affiliated several cross-cutting initiatives addressing critical global barriers or opportunities in multiple materials and industries.

These projects aim to build a strong foundation upon which joint efforts can flourish. While some initiatives address the need for a comprehensive methodology to measure performance and progress towards the circular economy, others create spaces for public and private stakeholders to convene, exchange, and coordinate action.

The cross-cutting initiatives seek to provide high-level insights into the state of circularity on a global level, align existing efforts in focused communities of practice, and strengthen the uptake of circular metrics, thereby inspiring more businesses, governments and civil society organizations to join the transition.

The Circular Economy Indicators Alliance

This project convenes key stakeholders and advances efforts to meaningfully and effectively measure the circular economy and its benefits. It provides a space for frontrunner actors to exchange and coordinate metrics efforts within and between the public and private sectors, while addressing commonly recognized key gaps and challenges.

PARTNERS: PACE Secretariat (host); Circle Economy, Ministry of Infrastructure and Water Management of the Netherlands, Ellen MacArthur Foundation, OECD, PBL, WBCSD, European Commission, European Environment Agency.

Scale360°

Scale360° is a global partnership aimed at fast-tracking Fourth Industrial Revolution (4IR) impact in the circular economy by supporting bottom-up innovation and entrepreneurship. In collaboration with government, business, civil society, and entrepreneurs, Scale360° initiatives target specific marketplace challenges in each local economy to stimulate circular economy innovation.

PARTNERS: World Economic Forum (leading partner); United Arab Emirates Ministries of the Prime Minister, Cabinet Affairs, Climate Change and Environment, and Artificial Intelligence, Chile Ministry of Environment; IDEO, Fashion for Good, Polymateria, WWF, ENEL, SOFOFA, Majid Al Futtaim, Kearney, Google, Phillips, Circulate Capital, Accenture, ScaleUpNation, TriCiclos.

Circularity Gap Reporting Initiative

Starting from the first Circularity Gap Report of 2018, the efforts to measure the circular economy have grown into the Circularity Gap Reporting Initiative. In addition to delivering an annual global circularity metric measuring the state of the world economy and identifying key levers to transition to global circularity, the report provides insights into the circularity gap of individual countries, regions, and sectors.

PARTNERS: Circle Economy (leading partner); DSM, UNCTAD, City of Amsterdam, WWF, Philips.

We value all our donors and are very proud to recognize the diverse group of supporters who share our commitment to accelerate towards a global economic system that concurrently enables human and environmental well-being.

The list below includes donors contributing to support the PACE Secretariat, which is enabled by an incredible group of additional donors contributing to the delivery of Affiliated Projects by PACE partners.



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PACE strives for operational excellence across our global network. The PACE Board of Directors ensures all contributions to the PACE Secretariat are effectively managed to support PACE's mission, vision, values, and continued growth.



In 2020, PACE was supported by donors representing a balanced group of sectors and industries.

ENDNOTES

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