wbcsd

Low Carbon Technology Partnerships initiative

LCTPi'18

Going further, faster

ABOUT WBCSD

The World Business Council for Sustainable Development (WBCSD) is a global, CEO-led organization of over 200 leading businesses working together to accelerate the transition to a sustainable world. WBCSD helps its member companies become more successful and sustainable by focusing on the maximum positive impact for shareholders, the environment and societies.

WBCSD member companies come from all business sectors and all major economies, representing combined revenues of more than USD $8.5 trillion and 19 million employees. The WBCSD global network of almost 70 national business councils gives members unparalleled reach across the globe. WBCSD is uniquely positioned to work with member companies along and across value chains to deliver impactful business solutions to the most challenging sustainability issues.

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ACKNOWLEDGEMENTS

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WE MEAN BUSINESS

We Mean Business (WMB) has generously supported LCTPi and the REscale, REmobility, Transforming Heavy Transport and Climate Smart Agriculture projects in particular.

DISCLAIMER

This report is released in the name of WBCSD. Like other reports, it is the result of collaborative efforts by WBCSD staff, experts and executives from member companies. Drafts were reviewed by a wide range of members, ensuring that the document broadly represents the majority view of WBCSD members. It does not mean, however, that every member company, PwC or WBCSD agrees with every word.

Please note that data published in this report reflects the status of LCTPi at the end of October 2018.

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①

Foreword

The urgent need for climate action is clear: business, government and civil society must go further, faster to avoid detrimental impacts to people and planet.

According to the IPCC special report on 1.5°C, we are on track to blow past 1.5°C of warming as soon as 2040. Moreover, the report states that the 2°C objective may not offer the safe operating space we once thought. It's crucial that we act now.

The Low Carbon Technology Partnerships initiative (LCTPi) offers proof that more and more businesses are moving beyond talk to implement real solutions by bringing different companies together to sharply reduce emissions.

This report highlights their work and underscores business' increasing commitment to doing more.

Since its launch at COP21 in Paris, LCTPi has brought together 235 companies to bring climate solutions to scale.

The initiative prioritizes six key projects: REscale, New Energy Solutions, Climate Smart Agriculture, Natural Climate Solutions, Transforming Heavy Transport and Emobility - all focused on addressing the climate challenge through innovation and collaboration.

The main takeaways for 2018:

- 16 companies have come together under **Natural Climate Solutions**, for the first time ever, provide the business case for mobilizing investment in natural carbon sinks. If implemented today, these solutions could capture over 30% of the emissions reductions needed for achieving the Paris Agreement.
- Supported by the We Mean Business coalition, **Transforming Heavy Transport** brings together over 20 companies to reduce emissions from freight and logistics operations by identifying gaps and bringing forward new solutions. The potential for impact is massive: heavy transport accounts for 30% of transport-related CO_2 emissions.
- Our **Emobility** work has developed REmobility as the leading platform to promote corporate uptake of electric vehicles (EVs) in India. More than 100 people from across the EV value chain are involved and are implementing EV infrastructure for corporate customers.
- **New Energy Solutions** is increasing uptake of low-carbon energy solutions through cross-sectoral collaboration. To scale markets and increase speed, the project specifically helps energy users to create and implement integrated energy strategies to decarbonize the energy-intense activities in power, heating, cooling and transport.
- **REscale** has succeeded in establishing regional forums to promote Corporate Renewable Power Purchase Agreements (PPAs) for renewables. This has catalyzed the PPA market in those countries, helping to accelerate the deployment of renewables.
- Companies involved in **Climate Smart Agriculture** have secured major investments to scale up sustainable rice initiatives in the ASEAN region and are set to deliver what would be one of the biggest agricultural emissions reduction projects in the world. In addition, the group announced a new one-billion-dollar facility to finance sustainable agriculture.

Alongside LCTPi, WBCSD has undertaken work with the Task Force on Climate-related Financial Disclosures (TCFD) to help companies address climate-related financial risks and opportunities across priority sectors and industries. This work will undoubtedly help all LCTPi solutions reach scale much faster by providing a framework for demonstrating the business case and measuring success.

It is the tangible action throughout LCTPi projects that will catalyze the necessary transformations in energy, transport, industry and land-use to limit global warming at a pace that science is clarifying with every IPCC report that comes out.

We look forward to building on this important work in 2019 and beyond.

Peter Bakker
President and CEO of WBCSD

María Mendiluce
Managing Director, Senior Management Team at WBCSD

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Executive summary

The Low Carbon Technology Partnerships initiative (LCTPi) is a unique, action-oriented program that brings together companies and partners to accelerate the development and deployment of low-carbon solutions.

LCTPi's ultimate goal is to catalyze emissions reductions in line with the Paris Agreement and inspire broader action. With the world on course to surpass a 1.5°C temperature rise as early as 2030,[1] there is an urgent need to implement all possible solutions at scale to address the climate challenge.

To date, 235 companies are working in our cross-sectoral LCTPi partnerships to develop and implement climate solutions at a global scale. This represents an increased engagement of over 25% since 2017 and is testimony to the steady growth in ambition and commitment of business.

LCTPi has evolved over its three years and now focuses on six projects: REscale, New Energy Solutions, Emobility, Transforming Heavy Transport, Natural Climate Solutions and Climate Smart Agriculture. At the same time, member companies are targeting a wider expanse of regions and sectors.

Key themes of LCTPi success this year:

BUSINESSES ARE ACCELERATING DEPLOYMENT OF EXISTING LOW-CARBON TECHNOLOGIES

All of our projects aim to implement low-carbon solutions at scale. Many of these solutions are already well known, but a range of barriers stand in the way of rapid uptake. Projects looking to speed up the adoption of natural climate solutions, electric vehicles (EVs) and low-carbon energy technologies have been particularly important this year.

Natural Climate Solutions is supporting established ways of capturing and storing carbon emissions through natural carbon sinks, which can help deliver over 30% of the emission reductions needed to keep global temperature rise below 2°C.

Emobility is targeting demonstration projects and engagement with policymakers to remove barriers to the transport sector's rapid deployment of EVs.

New Energy Solutions is developing business cases to help companies understand the benefits of innovative decarbonized energy solutions.

PROJECTS ARE COLLABORATING WITHIN AND ACROSS INDUSTRIES TO SHARE INSIGHTS AND MOVE FORWARD TOGETHER

REscale is establishing regional forums to promote corporate renewable power purchase agreements (PPAs), starting with Argentina, India, Brazil and the European Union. We have identified new regions for future work.

Transforming Heavy Transport brings more than 20 companies together to work on emissions reductions from freight and logistics operations.

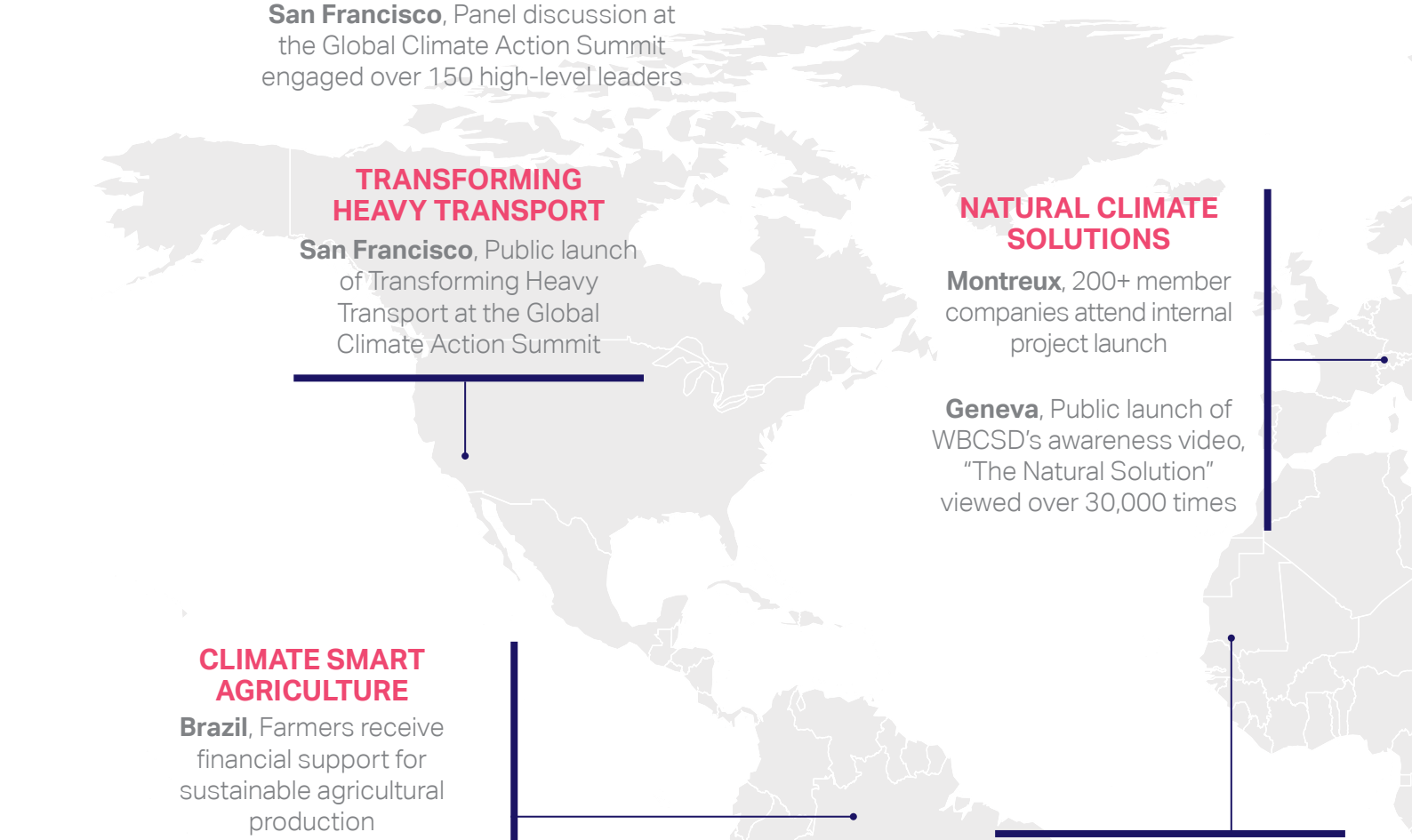
Together they're developing a global strategy to lower heavy transport emissions – which account for approximately 30% of transport-related CO_2 emissions. As part of this, we are exploring the local implementation of global solutions in Chile with close collaboration between the private and public sector. We have built a broad coalition to develop a common vision for the transport elements of Chile's Nationally Determined Contribution (NDC) to the Paris Climate Agreement. The aim is to replicate this success across other countries and regions in Latin America, Australia.

WE ARE MOBILIZING INVESTMENTS FOR CLIMATE SOLUTIONS

The **Climate Smart Agriculture** project launched a new USD $1 billion facility to finance sustainable agriculture. A new USD $100,000 grant is helping tackle food loss and waste in Indonesia. Member companies are part of a consortium developing a multi-million-dollar funding proposal to create what will be the largest agricultural greenhouse gas (GHG) emissions reduction project in the world.

Looking toward 2020, we hope that tangible business contributions like these will give national governments the confidence to ramp up long-term climate strategies to align ambition more closely with the objectives of the Paris Agreement. This action by governments will, in turn, support business going further, faster.

LCTPi in 2018
from ambition to global implementation



NATURAL CLIMATE SOLUTIONS

San Francisco, Panel discussion at the Global Climate Action Summit engaged over 150 high-level leaders

TRANSFORMING HEAVY TRANSPORT

San Francisco, Public launch of Transforming Heavy Transport at the Global Climate Action Summit

NATURAL CLIMATE SOLUTIONS

Montreux, 200+ member companies attend internal project launch

Geneva, Public launch of WBCSD's awareness video, "The Natural Solution" viewed over 30,000 times

CLIMATE SMART AGRICULTURE

Brazil, Farmers receive financial support for sustainable agricultural production

RESCALE

Brazil, PPA Forum kick-off: 23 people from 14 companies attended

CLIMATE SMART AGRICULTURE

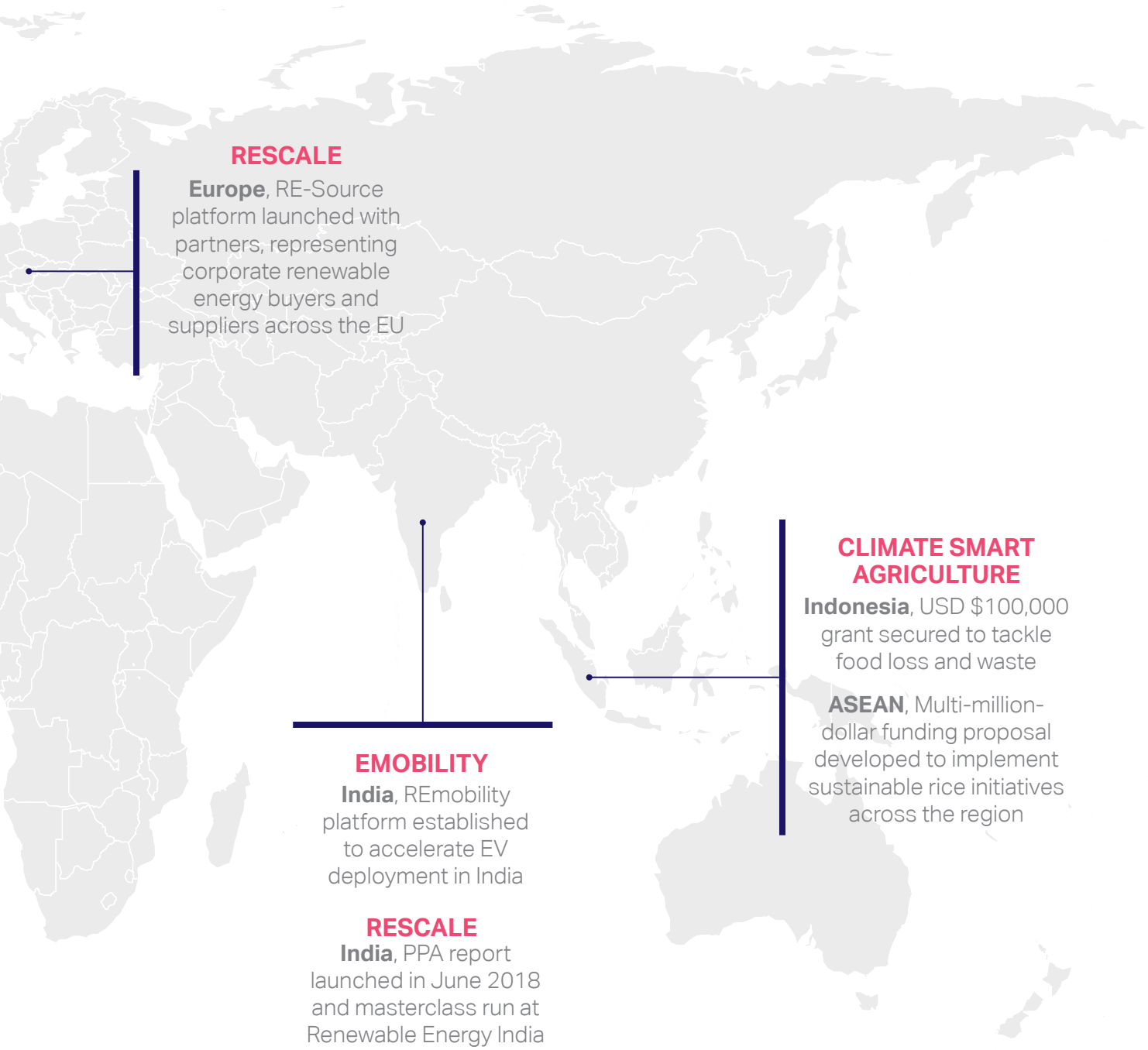
Ghana and Côte d'Ivoire, Data-Enabled Climate Solutions pilot project to be scaled up across the cocoa belt in Ghana and Côte d'Ivoire

TRANSFORMING HEAVY TRANSPORT

Chile, Co-development of a vision for the transport elements of Chile's NDC

RESCALE

Argentina, PPA Forum convened three workshops with over 50 companies



RESCALE

Europe, RE-Source platform launched with partners, representing corporate renewable energy buyers and suppliers across the EU

EMOBILITY

India, REmobility platform established to accelerate EV deployment in India

RESCALE

India, PPA report launched in June 2018 and masterclass run at Renewable Energy India Expo

CLIMATE SMART AGRICULTURE

India, Ongoing work on co-optimizing water solutions for water-smart agriculture

CLIMATE SMART AGRICULTURE

Indonesia, USD $100,000 grant secured to tackle food loss and waste

ASEAN, Multi-million-dollar funding proposal developed to implement sustainable rice initiatives across the region

54%

annual increase in PPAs signed by **REscale** members, exceeding the global annual average growth in PPAs of 29%

Four

business cases under development by the **New Energy Solutions** project, covering heat pumps, concentrated solar heat, power-to-fuels and shore-to-ship power

200+

people have attended **Emobility** and **REmobility** events throughout the year; REmobility is now the center of gravity for companies in the EV value chain in India

49

organizations engaged with **Transforming Heavy Transport** to accelerate progress on decarbonizing freight

Up to 37%

Natural Climate Solutions offer up to 37% of the mitigation needed between now and 2030 to keep global temperature rise below 2°C

USD $1 billion

facility created with Rabobank and UN Environment to support **Climate Smart Agriculture**

Companies engaged in LCTPi in 2018

3

Introduction

The IPCC's special report on the impacts associated with a 1.5°C rise in global temperature is a stark reminder of the urgency needed to address the climate challenge.

Unless we act now, the world is on course to surpass a 1.5°C temperature rise as soon as 2030. The IPCC report asserts that even if implemented, the sum of all nationally stated mitigation ambitions to reduce carbon would still lead to 3°C in warming by 2100.[2]

Each fraction of a degree counts. A temperature rise of 2°C versus 1.5°C implies significant increases in the probability of extreme weather events, the magnitude and rate of sea level rise, as well as biodiversity loss and extinction, both on land and in water. The human cost is also apparent.

The world must go further, faster to limit warming.

There is an urgent need to implement all possible solutions at unprecedented speed and scale to address the climate challenge.

LCTPi has been bringing businesses together since 2015, with the shared ambition of reducing emissions in line with the Paris Agreement. Currently about 70% of WBCSD members disclose annually to the Carbon Disclosure Project (CDP). The cumulative emissions of these members are 2.08 GT CO_2 (2016 data),[3] equivalent to half of the emissions of the United States of America.

In other words, our impact potential is massive.

LCTPi members' collective influence and commitment to action on climate change shows that business is a clear implementation partner for governments working to implement their national commitments.

In 2018, 108 companies have been working in cross-sectoral partnerships across six solutions to overcome barriers and implement emission reductions that are replicable at a global scale.

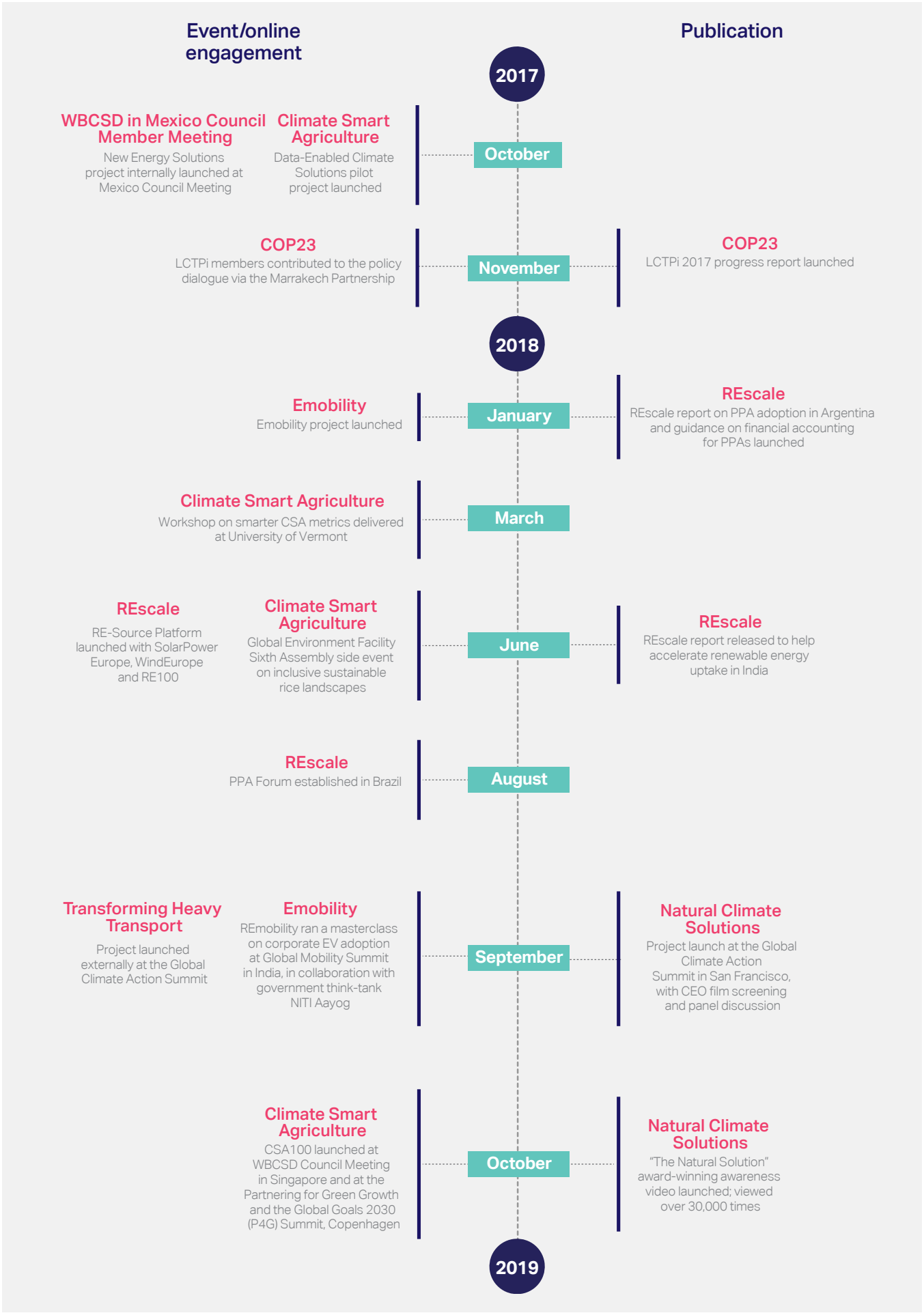
This report details the activity and impact of LCTPi solutions and shows the power of collaboration between businesses, governments, the scientific community and wider civil society.

LCTPi is enabling business solutions, highlighting the policies required to scale up and accelerate deployment while raising awareness and mobilizing finance for critical investments.

LCTPi project spread

ENERGY	TRANSPORT	LAND
REscale	Emobility	Natural Climate Solutions
New Energy Solutions	Transforming Heavy Transport	Climate Smart Agriculture

LCTPi in 2018



STEPPING UP CLIMATE AMBITION: a business perspective

COMBATTING CLIMATE CHANGE IS CRITICAL

We must limit warming to well below 2°C

WE'RE RUNNING OUT OF TIME

2015-2017 were the **hottest years on record**[1]

In **2016**, the U.S. experienced **16 climate disasters**[2]

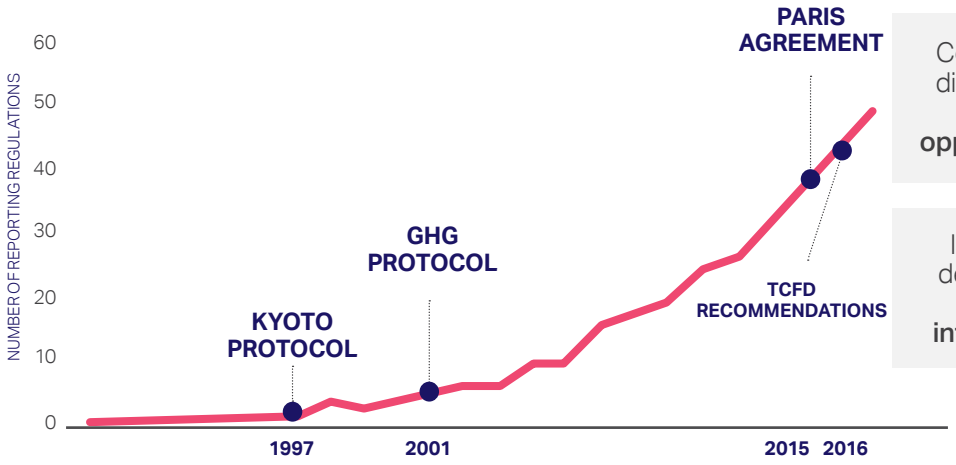
Since 2008 climate change has displaced **22.5 million people**[3]

RECENTLY, WE'VE SEEN MAJOR EFFORTS TO SOLVE THESE ISSUES

Growth in corporate reporting related to Greenhouse Gas Emissions 1992-2017[4]

Companies asked **to disclose emissions**

Companies **disclosing climate risk**



Companies discovering **climate opportunities**

Investors demanding **more information**

THERE'S **STILL MORE TO DO...**

POLICY

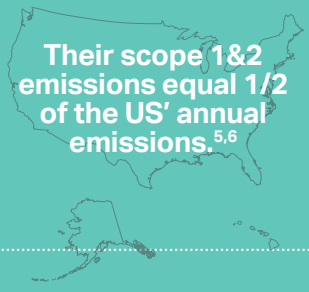
BUSINESS

CIVIL SOCIETY

HOW IS BUSINESS STEPPING UP?

At the World Business Council for Sustainable Development

200
companies
are taking action.



Their scope 1&2 emissions equal 1/2 of the US' annual emissions.[5,6]

80%
believe that climate change is a material risk that could affect their business.[7]

These companies have the power to drive change.

Many are stepping up to manage risks and seize opportunities

40%
are talking about climate risks in public disclosure documents[7]

Nearly
20%
have publicly endorsed the Task-Force on Climate-related Financial Disclosure[7]

THIS IS A GLOBAL BUSINESS EFFORT

Science Based Targets[8]

Over **470** companies

Set climate targets in line with science

Their scope 1&2 emissions are more than the annual emissions of Canada

We Mean Business[8]

Over **800** companies

Over **1300** commitments

Their scope 1&2 emissions equal the annual emissions of India

WE HAVE THE MOMENTUM. LET'S GO FURTHER

Without renewed and strengthened ambition, **we will not limit warming to 2°C**

Businesses and policymakers must continue to work together

...NOW IS THE TIME TO DECARBONIZE FOR A CLIMATE RESILIENT FUTURE

Emissions reductions in line with the Paris Agreement are possible, it's time to strengthen climate action.

Peter Bakker, President and CEO, WBCSD

How will you step up?

④ REscale

REscale accelerates the deployment of renewables beyond average growth to facilitate the transition to a low-carbon electricity system.

According to the IPCC, to limit global temperature rise to 1.5°C with little or no overshoot, renewables will need to provide 70–85% of electricity supply in 2050.[4] However, in 2017, renewables (including hydropower) contributed only 24% to global electricity generation.[5]

Our members are taking the lead in bridging this gap. In 2017, the annual increase in renewable PPAs signed by WBCSD member companies was 54%, exceeding global growth of 29%.

2018 ACTIVITY AND IMPACT

Our activities in 2018 have focused on closing the knowledge gaps and ambition in key markets, including Argentina, India, Brazil and the European Union (EU). At the national level, we followed an established and successful strategy: convening a forum for collaboration between renewable project developers and corporate buyers (and policymakers and regulators), identifying specific regional barriers to PPA uptake and supporting the private sector in overcoming those barriers. We then hand the forums over to those local partners best placed to maximize regional impact. Through these REscale forums, we have been able to reach some 500 people from more than 150 companies globally.

Work on the Argentinian PPA Forum began in April 2017 and was ramped up throughout 2018. The forum held three workshops in 2017/18, engaging around 50 companies and increasing understanding of the business case for PPAs in Argentina. The publication of a report in collaboration with Consejo Empresario Argentino para el Desarrollo Sostenible (CEADS) supported these efforts, along with presentations by Acciona, Enel, LafargeHolcim, Ledesma Renovables and Unilever. The report provides companies with guidelines on the regulatory and contractual framework for PPAs, in accordance with new regulations that set mandatory objectives for the consumption of electricity from renewable sources. This work has helped to grow the market in Argentina and the first PPA deals have started to come through (e.g. by Loma Negra). CEADS is now heading up the forum and will continue to engage companies and the government to accelerate the deployment of renewables in Argentina.

Our PPA Forum in India reached a similar level of maturity in 2018. In June, we published a report specific to the challenges of PPA adoption in India. The report presents options for renewable power procurement and recommendations for corporate buyers in light of the regulatory landscape and market barriers.

We also ran a PPA masterclass on the first day of the Renewable Energy India Expo, Asia's largest renewable energy event. Some 70 people attended the masterclass covering the legal, regulatory, development and finance aspects of PPAs. Going forward, we will provide market and policy updates on a half-yearly basis to support companies in understanding ongoing changes in the renewable landscape in India.

In Brazil, we have established a PPA Forum in collaboration with the Conselho Empresarial Brasileiro para o Desenvolvimento Sustentável (CEBDS). Fourteen companies attended the first workshop in August 2018. The workshop has led to the establishment of three taskforces to look into key barriers to corporate PPA adoption in Brazil: finance, regulation and the internal business cases (from a corporate buyer perspective). Each taskforce is expected to share its findings in spring 2019.

The relationships built between member companies have led to new renewable energy deals.

In 2018, Unilever and Acciona signed a supply contract for 23 GWh/year of mixed renewable energy in Spain; in Chile, Unilever and Enel signed a deal for solar and wind energy; while Solvay and EDP signed a contract of aggregation for 11 MW of new installed wind energy capacity in the south of France.

Based on the knowledge developed through the Argentinian and Indian forums, we have come together with SolarPower Europe, WindEurope and RE100 to form the RE-Source platform.

RE-Source is collaborating with corporate buyers and sellers of renewable energy to raise awareness and influence policy across the EU, accelerating corporate adoption of renewables.

The first RE-Source event involved more than 500 participants and 220 pre-scheduled meetings between buyers and sellers. The revised EU Renewable Energy Directive (REDII), which we expect to be formally adopted later this year, will further increase momentum behind corporate renewable adoption.

At a global level, our REscale publications on financial accounting of PPAs and innovative structures for PPAs are helping market leaders navigate complexity and drive growth.

The reports provide practical advice to business, touching on innovative pricing structures and risk allocation, and laying out a decision tree to illustrate possible PPA contract accounting treatments. In total, these reports have been downloaded over 20,000 times across 90 countries. These publications are part of wider communication and dissemination efforts, including a guide for companies on low-carbon microgrids, and participation in power sector conferences in South Africa and Jakarta and the Global Microgrid Innovation Forum in London.

LOOKING FORWARD

Looking toward 2019, we will continue to work in the EU and Brazil to hand over the Brazilian Forum to CEBDS in the middle of 2019. This will create space to develop new local forums, with member interest in Chile and/or South Africa.

Knowledge sharing on the global level will also continue, with planned publications on multi-technology PPAs and European cross-border PPAs and the creation of an online library of low-carbon microgrid projects for commercial and industrial customers. We will also focus more strongly on the dissemination of existing work and awareness raising within sectors and geographies that have had less involvement in REscale to date.

Contracts like PPAs will form part of the future energy landscape in Europe, where they are still in the early stages of development. We expect to see increasingly more agreements of this kind which benefit both energy producers and consumers.

António Mexia
CEO, EDP

COMPANY ENGAGEMENT:
48 versus 27 in 2017

ABB
Acciona S.A.
Aditya Birla Group
Andreani
Braskem
BT
CLP Group
CPFL Energia
Danone Group
DNV GL
DSM N.V.
Eaton
EDF
EDP
Enel Green Power
Godrej Group
Hychico
IKEA
Innogy
Jain Irrigation Systems
LafargeHolcim
Ledesma Renovables
Loma Negra
Nestlé S.A.
Pampa Energía
Quilmes
Royal Philips N.V.
Santander Group
Schneider Electric
Royal Dutch Shell
Solvay
Tata Cleantech Capital
Telefonica
The Dow Chemical Company
Unilever
Vedanta
Vestas
Walmart Argentina

SUPPORTED BY:
6 versus 3 in 2017

Baker McKenzie
Bridge to India
EY
Norton Rose Fulbright
Tavarone, Rovelli, Salim & Miani Abogados (TRSyM)
Trilegal

PARTNERS:
9 versus 7 in 2017

CEADS (Argentina)
CEBDS (Brazil)
Clean Energy Ministerial (CEM)
International Energy Agency (IEA)
International Renewable Energy Agency (IRENA)
RE100
RE-Source (established by SolarPower Europe, Wind Europe, RE100 and WBCSD)
We Mean Business (WMB)
World Resources Institute (WRI)

⑤ New Energy Solutions

Building on the success of the REscale project, we launched New Energy Solutions to accelerate deployment of the next wave of low-carbon technology solutions.

New Energy Solutions create and implement integrated energy strategies to decarbonize electricity consumption, heat and transport in line with the Paris Agreement.

New Energy Solutions brings the energy value chain together to work from the top down and from the bottom up.

For the top-down approach, we recently released a white paper presenting energy system decarbonization pathways and technologies.

The bottom-up analyses illustrate the business case for expanding existing low-carbon energy solutions that are ready to be scaled for deployment and will include "How-to Guides" for those interested in implementing cutting-edge new energy solutions.

2018 ACTIVITY AND IMPACT

Our key achievement for New Energy Solutions in 2018 has been a cross-sector partnership that includes energy users from all business sectors, energy providers (including utilities and oil and gas), engineering and knowledge providers.

This partnership resulted in the white paper, New energy solutions for business – a review of pathways and technologies to achieve the Paris Agreement" which presents collective viewpoints on decarbonizing the energy system. This business-led narrative identifies and assesses the changes required for the energy system to be compliant with the Paris Agreement.

In providing a platform for businesses to share their insights into the energy transition, we give voice to those tasked with its implementation. This has helped us identify the key enablers needed from a technical, financial and policy point of view to overcome barriers to scaling up untapped energy solutions.

To complement and inform the white paper, we have compared different scenarios forecasting future developments in the energy sector. By looking at how the assumptions behind a range of scenarios and their outputs can vary, including electrification rates, electric vehicle adoption, carbon pricing and carbon capture and storage (CCS) adoption, companies have confirmed their understanding of where there are uncertainties and the most significant gaps that need to be bridged.

We have also been developing business cases to help companies understand the rationale for innovative low-carbon energy solutions. The business cases will help energy users conduct rapid assessments of technology options and the corresponding potential for emissions mitigation against business requirements, such as cost and operational circumstances. The technologies considered include direct electrification solutions (e.g. heat pumps and shore-to-ship power), indirect electrification solutions (e.g. power-to-fuels) and renewable heat supply (e.g. concentrated solar heat). Members and external organizations, including the European Heat Pump Association, collaborated on the development of the business cases.

In time, we will compile a library of business cases authored by players throughout the value chain, which will facilitate access to information and subsequently deployment.

LOOKING FORWARD

In 2019, we will publish guidelines for energy users to develop an integrated energy strategy. This will build on the white paper for energy system decarbonization and the business cases for low-carbon energy solutions, providing a framework to identify the solutions, across all energy uses, that are suitable based on company needs. The guidelines will also address the implementation of these solutions, including innovative models based on cross-sectoral collaboration.

COMPANY ENGAGEMENT

17 companies engaged in 2018

ABB
CLP Group
DNV GL
Eaton
EDF
EDP
Eni S.p.A.
Enel
ERM
ExxonMobil
EY
Iberdrola
IKEA
Navigant Consulting Inc.
Port of Rotterdam
Royal Dutch Shell
Yara International ASA

PARTNERS:

1 partner engaged in 2018

European Heat Pump Association (EHPA)

⑥ Emobility

The transport sector needs rapid deployment of electric vehicles (EVs) to meet decarbonization targets consistent with the Paris Agreement, improve urban air quality and enable efficient and connected urban mobility solutions.

Our Emobility project aims to enable the structures needed to accelerate the deployment of EVs by demonstrating economically viable and scalable business cases.

We established a national REmobility platform in India in January 2018. It has quickly become a leading platform for companies in the EV value chain, allowing members to engage with a broad spectrum of companies and government representatives to help define and implement EV growth in India.

WBCSD's Emobility project is part of a wider collaboration platform for Transforming Urban Mobility. This platform brings together the full value chain across WBCSD members to provide safe, efficient and clean mobility for all.

2018 ACTIVITY AND IMPACT

We have followed the LCTPi approach of identifying barriers to adoption, encouraging collaboration among members to facilitate knowledge sharing, and enabling solutions through business model innovation. More than 100 people from businesses across India's EV value chain, including power distribution, energy storage, energy management and finance products, attended a series of workshops and webinars run by the REmobility platform in India. REmobility members decided to focus their efforts on demonstration projects and a review of the policy landscape in the country.

In April, REmobility and EV100 (a global initiative by The Climate Group encouraging commitments to EV adoption) hosted a joint event where representatives from businesses and senior government officials highlighted the need for the REmobility and EV100 projects. There are strong synergies between EV100, which profiles companies' commitments to EV deployment and REmobility, which provides companies with the network and knowledge they need to be confident in making and implementing commitments.

In the second half of 2018, we worked to leverage REmobility's status as the leading platform for corporate EV adoption in India.

We ran a workshop with support from REmobility member companies to develop a roadmap for the adoption of EVs in line with IKEA India's EV100 commitment to 100% electrification of its vehicle fleet by 2025.

We used the example of home delivery from IKEA's Hyderabad store and explored products and services available for EV deployment, as well as suitable business models and the local policy environment. Another workshop, hosted by the State Bank of India (SBI), brought together the EV value chain to help SBI explore options for providing financial credit to the EV market. Participants in the workshop identified the need for products to be specific to the different segments of the value chain, going beyond vehicle finance to consider support for charging infrastructure.

The Indian government is increasingly recognizing REmobility's contributions. REmobility collaborated with NITI Aayog, the government of India's policy think tank, to organize a featured event on corporate adoption of EVs ahead of the 2018 MOVE Global Mobility Summit. The workshop attracted over 50 participants from 35 companies and helped to inform businesses about EV use cases and the need for corporate EV adoption to address India's air quality and the decarbonization of its energy system.

LOOKING FORWARD

Beyond 2018, we will look to harness the momentum we have built throughout this year. We will use the REmobility platform in India to support a number of scalable demonstration projects with broad and diverse appeal. We will also use REmobility to develop a set of policy recommendations.

At the global level, our Emobility project will continue to build on the experience of REmobility and will define EV use cases for enabling the adoption of EVs across various commercial and industrial applications. These use cases will help inform a "How-to" guide for companies wanting to adopt EVs.

COMPANY ENGAGEMENT:
12 companies engaged in 2018

ABB
Accenture
CLP Group
EY
IKEA
LeasePlan
Mahindra & Mahindra
Mahindra Electric
Nissan
Royal Dutch Shell
Tata Motors
Tata Power

WITH SUPPORT FROM 14 NON-WBCSD MEMBER COMPANIES:

BSES Yamuna Power Ltd.
Delta Electronics
Exicom
Fortum Charge & Drive
Gati
General Electric Company (GE)
GMR
Infineon Technologies
JBM Group
Magenta Power
Ola Cabs
Panasonic Corporation
State Bank of India
WeCharge

PARTNERS:
6 partners engaged in 2018

CDP
Gujarat Energy Research & Management Institute
India Energy Storage Alliance (IESA)
Rocky Mountain Institute
The Climate Group
Shakti Foundation

The session held by WBCSD was extremely exciting with interesting insights coming to light. The ambitious target for EVs is a game-changer and its success could bring down costs and build production at scale faster. For us at IKEA, it is important to be watchful of the needs of the drivers and to build infrastructures while keeping them in mind. This was a great networking event with like-minded people from the EV fraternity.

IKEA India

⑦ Transforming Heavy Transport

Freight emissions account for approximately 30% of transport-related CO_2 emissions from fuel combustion. This number is set to quadruple over the next 30 years due to intensifying international trade.[6]

We officially launched the Transforming Heavy Transport (THT) project at the Global Climate Action Summit (GCAS) in San Francisco in September 2018.

THT is a joint project with the Smart Freight Centre (SFC) and seeks to tackle growing freight emissions by uniting business around low-emissions heavy transport in order to accelerate reductions to target net-zero global logistics emissions by 2050.

We are developing a global strategy to reduce heavy transport emissions by building on existing initiatives, including two LCTPi projects: below50, the campaign for low-carbon fuels that emit 50% less carbon than conventional fossil fuels; and Low-Carbon Freight, which continues to be involved in the FreightShare Lab demonstration project for data and asset sharing.

2018 ACTIVITY AND IMPACT

In 2018, our THT project established a global business community comprised of 23 multinational companies and other organizations to work on greenhouse gas (GHG) emissions and air pollution from freight and logistics. The companies in the project are identifying gaps in decarbonization efforts and are helping to standardize solutions across industry. Participants in a workshop held in June 2018 identified a first key gap, namely inclusion of environmental criteria into procurement for freight services. As a result, the SFC is currently developing common guidelines for logistics procurement. The guidelines include GHG emissions and air pollutants as criteria for companies to consider when designing or subcontracting freight services.

Companies are often aware of environmental measures that their logistics service providers could adopt. These might include eco-driving training or vehicle fuel efficiency measures. However, logistics service providers are often small- or medium-sized enterprises with limited fleet sizes. Companies working with these suppliers find it hard to promote environmental performance in the conditions of their procurement since suppliers have limited resources. Working alone, companies are not able to send a strong enough demand signal to their logistics service providers.

However, shared guidance on procurement makes action possible by increasing shippers' strength and influence on the pace of decarbonization. In coming together, companies can find ways to support suppliers in reducing freight and logistics emissions across the supply chain. In turn, logistics service providers that respond to this demand can gain a competitive advantage.

Through THT, we have also begun to engage at a local level in Chile by establishing a working community with 26 national and multinational corporations, government entities, NGOs and academia. The group is currently taking an active role in finding solutions to lower emissions from heavy transport. This cross-value chain collaboration is helping to assess the total GHG emissions reduction potential from freight and logistics to support the implementation of Chile's Nationally Determined Contribution (NDC).

LOOKING FORWARD

Our principal goal for THT in 2019 will be the local implementation of a global strategy to decarbonize heavy transport. We anticipate that the biggest impact will come at the local level where approaches can be adapted and implemented through targeted public-private collaboration.

Our aim is to replicate the success of THT Chile across Latin America, Australia, India and China, expanding the project's reach. We will target areas with strong regional representation where WBCSD Global Network partners can help carry on the work in the long term.

COMPANY ENGAGEMENT:
10 companies confirmed interest in 2018

Damco/Maersk Line
Deutsche Post DHL Group
Heineken
PepsiCo Inc.
Port of Rotterdam
Signify
Smurfit Kappa
United Airlines
UPS
Walmart

PARTNERS:
3 partners engaged in 2018

Smart Freight Centre
Rocky Mountain Institute
BSR

This project is unique because it develops a strategy based on the perspective of corporations at the end of the logistics supply chain. Other strategies being developed may be too government centric or too high level for companies to make moves to decarbonize freight. Addressing this is a key element of the Transforming Heavy Transport project.

Sophie Punte
Executive Director, Smart Freight Centre

⑧ Natural Climate Solutions

According to the IPCC special report, all pathways that limit the global average temperature increase to 1.5°C, must include the use of carbon dioxide removal (CDR) solutions.[7]

Natural Climate Solutions (NCS) are an established way of capturing and storing carbon emissions through natural carbon sinks. They are not new solutions. They are what nature has been doing for millions and millions of years. There are simple and cost-effective ways of implementing natural climate solutions that are ready for implementation now.

Our NCS project includes the protection and restoration of key ecosystems at scale, along with transformation of the way working lands are used. According to a recent study, these natural solutions can provide up to 37% of the emissions reductions needed between now and 2030 to keep the global temperature rise below 2°C.[8] They also offer many co-benefits that will help in meeting the Sustainable Development Goals and improving climate resilience.

What's more, businesses can use NCS to help reach targets, especially in sectors of the economy that are difficult to decarbonize at the speed needed, for activities where there is no current zero carbon alternative available, or where there are long-life assets with an inherent lag time in the development of low-carbon infrastructure.

Despite their huge potential, NCS have been nicknamed "the forgotten solution." They suffer from low investment compared to renewable energy, energy efficiency and clean transport, and they are absent from most national and corporate strategies. Only 17% of countries have set any kind of target for reducing land use, land-use change and forestry emissions in their NDCs; and almost no carbon taxes or emissions trading schemes cover the agriculture or forestry sectors. Our NCS project addresses these barriers and accelerates the uptake of natural solutions.

2018 ACTIVITY AND IMPACT

We announced the Natural Climate Solutions project to an audience of over 400 private sector delegates in April 2018 and officially launched the project in September at the Global Climate Action Summit (GCAS) in San Francisco.

As a new initiative, our immediate focus has been on raising awareness and acceptance of the potential of NCS among business, governments, and civil society. More broadly, our objectives are to promote NCS as a credible mitigation option – in addition to companies' broader decarbonization strategies – and to scale investment by addressing key barriers and incentives to drive investment.

To date, 16 member companies from sectors including agri-business, pharmaceuticals, mining, energy, technology and investments are actively engaged in the initiative.

Natural climate solutions are something we can implement now – they're about better land management, healthier trees, forests and soils. To deliver natural climate solutions at scale will require significant funding at an unprecedented scale. The private sector has an important role to play in accelerating and financing NCS at large scale.

Alema Bibi
Manager, Climate & Energy, WBCSD

One of our major achievements so far has been to create a long-term strategic partnership with Nature4Climate – a new initiative which is supported by a multi-stakeholder coalition with the aim to drive global action on natural climate solutions. For the first time, large-scale private sector companies, government and conservation NGOs are coming together in a shared narrative, setting the level of ambition and providing the business case for investment.

Our project was featured at the Global Climate Action Summit (GCAS) in San Francisco, where over 150 leaders from business and civil society attended a film screening (since viewed more than 30,000 times). Additionally, around 250 representatives from business, government, academia and NGOs joined an official GCAS side event on the land-energy nexus in climate change mitigation co-delivered with the Sustainable Development Solutions Network (SDSN) and ICLEI-Local Government for Sustainability (ICLEI).

We are also a partner of the #TheForgottenSolution campaign, which recorded over 7,000 tweets at its launch, with a cumulative reach of 69 million Twitter users, and over 1 million readers reached through coverage in international print media.

LOOKING FORWARD

We aim to build on the significant momentum created during the Natural Climate Solutions project's first year as natural solutions climb the international climate agenda. We will continue to work with strategic partners to demonstrate and advocate for NCS opportunities and will soon co-publish, with Nature4Climate, The Natural Climate Solutions Narrative.

Going forward, we have identified three key levers of change that will form the focus of our work: the inclusion of NCS offsets in compliance regimes; education to help drive collective action and scale up NCS investments; and the inclusion of NCS offsets in GHG accounting frameworks. These levers form the basis for our three-stage plan looking to 2019:

1. **Building a shared vision and common narrative**: Unlocking NCS opportunities will require a clear and compelling narrative that is broadly accepted by all stakeholders. We have been working with Nature4Climate for this goal, and will continue to convene and engage towards agreeing on a shared vision and role for NCS.
2. **Demonstrating corporate leadership:** Businesses can unlock the potential of NCS by actively investing in high-quality programs.

   We will be gathering leading businesses that want to publicly demonstrate their commitment. This is critical to giving governments confidence that the private sector is ready and willing to act and sends a clear incentive signal that the market can respond to.
3. **Maximizing value from NCS investments:** Recognition by external stakeholders – whether governments, customers or investors – of the commercial and social value derived from investing in natural climate solutions is critical to ensuring this translates to financial benefits for business.

We are also supporting the launch of a pilot project that aims to demonstrate the business case for NCS, using climate smart agriculture approaches in Brazil, and to start deepening activities in selected countries.

COMPANY ENGAGEMENT:

16 companies engaged in 2018

ArcelorMittal S.A.
Bayer A.G.
The Boston Consulting Group (BCG)
BP
Cuestamoras
New Forests Pty Ltd.
Novartis
PwC
Royal Dutch Shell
Yara International ASA
Microsoft Corporation
Nutrien
Olam International Ltd.
Port of Rotterdam

PARTNERS:

6 partners engaged in 2018 through Nature4Climate:

The Nature Conservancy (TNC)
Conservation International
Wildlife Conservation Society
Woods Hole Research Centre in Massachusetts
World Resources Institute (WRI)
United Nations Development Programme (UNDP)

⑨ Climate Smart Agriculture

Agriculture and food are responsible for around a quarter of all GHG emissions. If the world is to have any chance of achieving the goals of the Paris Agreement, the sector will need to decarbonize rapidly.

There is pressure to increase productivity to meet the needs of a growing global population. What's more, some of the world's most vulnerable people depend on agriculture and it's the sector most at risk from a changing climate.

Established in 2015, Climate Smart Agriculture (CSA) is one of the longest running LCTPi projects; but our ambition remains the same: to make 50% more food available globally and to strengthen the resilience of farming communities while reducing agricultural and land-use change emissions from agriculture by at least 50% (3.7 Gt CO_2e per year) by 2030 and 65% by 2050.

2018 ACTIVITY AND IMPACT

One of the major successes of our CSA project over the last year has been the mobilization of finance. At the end of 2017, Rabobank and the United Nations Environment Programme (UNEP) announced the creation of a new USD $1 billion facility using a combination of public and private funding. The facility responds directly to the barrier created by the low risk appetite banks have for financing sustainable agriculture initiatives, as previously identified through the CSA project.

The facility will soon start to provide grants, de-risking instruments and credit to clients involved in sustainable agricultural production, processing or the trade of soft commodities, on the condition that they adhere to strict provisions for forest protection, restoration and the involvement of smallholder farmers. The initial focus will be on the 17 million hectares of existing arable land managed by Brazilian farmers financed by Rabobank and on replanting schemes in Indonesia, including forest and biodiversity protection, restoration and palm oil certification.

Also, in Indonesia, we were successful in securing a USD $100,000 grant from the Partnership for Green Growth and Global Goals to tackle food loss and waste.

The intention is to apply the knowledge gained from public-private partnership models in the UK and the Netherlands to an emerging economy context and to develop an approach that can be replicated elsewhere.

Rice is critical to attaining global food security: it is a staple for over 3.5 billion people and production needs to increase by 25% to meet global food demand. This increase needs to be carefully managed: emissions from rice cultivation exceed those from aviation. It accounts for a significant proportion of producer countries' GHG emissions and up to 10% of global methane emissions, and uses over a third of irrigation water globally. By applying different management techniques, it is possible to increase productivity, reduce emissions and improve the resilience of rural communities.

Thus we have accelerated CSA work in specific regions, including the ASEAN region and West Africa. In ASEAN, we continue to provide member companies with an engagement platform for sustainable rice initiatives. Our ambition is to scale these activities to create a major transformative project with international funding. UNEP, the Food and Agriculture Organization (FAO) of the United Nations, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), the International Rice Research Institute (IRRI) and the Sustainable Rice Platform formed

a consortium to develop a multi-million-dollar funding proposal for the Global Environment Facility. The plan is to create what will be the largest agricultural GHG reduction project in the world. This unique collaboration brings leading companies together with the scientific community and implementing agencies to address a major agricultural and climate challenge.

If successful, sustainable rice initiatives in Thailand alone – the largest emitter of rice-related GHGs – have the potential to reduce emissions from irrigated rice by over 26%, benefitting 100,000 rice-farming households as they shift from conventional to low-emission farming.

We are also testing Data-Enabled Climate Solutions (DECS) in Ghana with the aim of enhancing the resilience of cocoa farmers and reducing climate impacts by providing weather data and capacity building support. There is very little weather forecasting in most of Africa and a lack of understanding about how this information can support farming practices to increase harvests and reduce post-harvest losses and associated GHG emissions.

One year into a two-year pilot with Opus Insights, we have installed five weather stations and worked closely with local villages. The next step is to train 20 extension workers and lead farmers on weather alerts and application at the farm level. We aim to reach 500 farmers through the pilot project, ultimately benefiting up to 7,500 people in families and wider communities. Once evaluated, the intention is to scale up this project across the cocoa belt in Ghana and Côte d'Ivoire. The data from these stations is also helping to improve global weather forecasting models.

Other practical solutions deployed at the regional level include work in India on co-optimizing water solutions. In September 2018, 22 organizations, including WBCSD members, the Confederation of Indian Industry and the World Bank Group, attended a workshop in Delhi to identify collaboration opportunities for scaling up water-smart agriculture solutions and technologies.

Continuing our focus on the importance of metrics and measurement, we launched CSA100 at the GCAS Summit. CSA100 aims to bring together 100 leading companies in the food, beverage, fiber and agribusiness sector to make science-based and measurable CSA commitments to the Sustainable Development Goals and the NDCs under the Paris Agreement.

These commitments will focus on three pillars: sustainably increasing productivity and incomes; adapting and building resilience to climate change; and reducing and/or removing GHG emissions. Six member companies have already committed to CSA100 and there is a growing list of companies that want to join.

Through the CSA project, we have also succeeded in raising awareness of smarter CSA metrics. A workshop held in March 2018 at the University of Vermont, USA, brought together 24 companies and experts. The metrics work has reached beyond our members to other private sector companies and organizations.

Food systems, which shape the journey of foods from farms, forests and oceans, will not respond to silver bullets. They need to be viewed and shaped from multiple perspectives. They require people and organizations throughout society to come together in food systems alliances to identify ways to move forward on multiple fronts at several levels. I applaud the leadership shown by the business community through CSA100 to drive such an alliance and ensure that food and nutrition security is supported through climate change initiatives.

Dr David Nabarro
Winner of the 2018 World Food Prize

LOOKING FORWARD

We will continue to focus on specific regional priorities in 2019, in particular on securing finance to scale up sustainable rice initiatives and rolling out the DECS project across the cocoa belt in Ghana and Côte d'Ivoire. Food loss and waste will also continue to be a priority and we plan to develop a standard related to its measurement based on learning and best practices from across the value chain.

Given the launch of CSA100 in 2018, one priority will be to engage our member companies and work with them to develop science-based commitments for CSA.

We also intend to carry out a visioning exercise, mapping out what a farm might look like in 2030 if new techniques and technologies are deployed in five different regions of the world, particularly from the perspective of how business can support this transition. Soil health will also be a focus, with a publication expected at the end of 2018.

COMPANY ENGAGEMENT:
18 versus 17 in 2017

Ambuja Cement
Barry Callebaut
Bayer A.G.
Diageo plc.
ITC
Jain Irrigation
Kellogg Company
Microsoft Corporation
Nutrien
Olam International Ltd
PepsiCo Inc.
PwC
Rabobank
Royal FrieslandCampina
Syngenta AG
Unilever
UPL Limited
Yara International ASA

PARTNERS:
19 versus eight in 2017

BSR
CDP
CGIAR
Global Alliance for CSA
North American Climate Smart Agriculture Alliance
Sustainable Food Lab
The World Bank Group
We Mean Business (WMB)
Opus Insights
The Food and Agriculture Organization of the United Nations (FAO)
UN Environment
GIZ
SAI Platform
Food and Land Use Coalition
World Resources Institute (WRI)
Global Research Alliance for Agricultural GHG
Ghana Cocoa Board
Rainforest Alliance
CEBDS (Brazil)

Working with local partners, we have created a network of weather stations in West Africa that will help farmers better manage their activities.

Matthew Reddy
Director of CSA, WBCSD

For people who depend on farming... it can be the difference between life and death... Give them the weather forecast and they can use that information to make their lives better.

Peter Gibbs
former BBC weather forecaster and advisor to Opus Insights

10

Climate action across WBCSD

In addition to the LCTPi, we have a number of other projects that show business leadership and contribute to action on climate change.

Circular Economy (Factor10)

We launched Factor10 at the 2018 World Economic Forum Annual Meeting in Davos. The project aims to inform and engage the private sector on the circular economy by providing a knowledge platform and developing collaborative solutions that result in greater resource efficiency and lower GHG emissions. The launch event attracted more than 30 companies. One of these – SCG Chemicals – was inspired to organize a circular economy conference in Asia attended by over 1,000 people and a high-level event engaging 50 CEOs.

The Circular Metrics workstream is one of the most popular in Factor10, providing an opportunity for companies to align on how to measure their circular progress.

Brendan Edgerton
Director of Circular Economy, WBCSD

Since January 2018, we have generated significant interest and momentum continues to grow: 37 member companies across 16 different industries are engaged, representing USD $1.4 trillion in annual turnover. We have published a number of reports and company demand has led to the translation of our CEO Guide to the Circular Economy into Spanish and Japanese.

Through Factor10, we have also delved deeply into circular economy barriers, enablers, challenges and opportunities in the automotive sector and the built environment. We are planning further sector analyses for 2019.

Science-based targets

More than 500 companies have signed up to the Science based Targets initiative, committing to set science-based targets (SBTs) for absolute greenhouse gas emissions reductions in line with the level of decarbonization required to keep the global temperature increase well below 2°C. Nearly one-third of WBCSD member companies have committed to this initiative.

SBTs have gained in importance over the past year. Not only do they show commitment and leadership, they provide a robust way of setting and communicating a company's approach to managing and reducing its climate impact. They also provide a baseline for measuring progress.

In 2018, we launched two SBT-related projects: one in the building and construction sector in collaboration with the Global Alliance for Building and Construction (SBT4buildings); and one in the electric utilities sector (SBT4utilities).

Both projects take a collaborative approach by convening members across the value chain to share challenges and solutions. In doing so, they are working together to co-develop sector guidance for setting SBTs that are relevant across the value chain. Guidance is based on a common vision, framework and language. Eight electric utilities companies are currently actively engaged in our SBT4utilities project, while 11 companies and partners are engaged in SBT4buildings.

TCFD Oil & Gas Preparer Forum

In 2015, the G20 formulated the Task Force on Climate-related Financial Disclosures (TCFD) to help business compile and organize the information needed to understand and address climate-related financial risk. The Task Force produced its recommendations in June 2017, and later that year WBCSD was asked to facilitate and support "Preparer Forums" to help companies implement them in priority sectors and industries. In July 2018, the Oil & Gas Preparer Forum - a collaboration between Eni, Equinor, Shell, Total and the WBCSD - produced its report. This report, fed into the TCFD Status Report 2018, providing practical insights from leading businesses, contributing to ongoing discussions about implementing the TCFD's recommendations - supporting and enhancing the disclosure of climate risk and investor confidence in the business response to climate change. TCFD Preparer Forum efforts will now continue with Electric Utilities and Chemicals starting in Q4 2018.

It was a privilege to be part of the Forum. Its work... will encourage wider discussions on how to make even further progress.

Stefano Goberti
Executive VP of Planning and Control, Eni

We welcomed the opportunity to share disclosure examples, which are aligned with the TCFD's recommendations, and to explore challenges associated with presenting forward-looking information and measures of resilience in an uncertain world

Martin ten Brink
Group Controller, Royal Dutch Shell

Transforming Urban Mobility

Transportation systems in cities around the world are at their limits. New technologies offer a chance to steer urban mobility towards a safer, cleaner, more accessible and more efficient future. Transforming Urban Mobility will bring together cities and businesses around the world to make urban mobility systems more sustainable with five initial work streams:

- Companies across the mobility landscape are developing a **Strategic Framework**. This allows for a critical assessment of trends and technologies to develop an integrated and system level view of how urban mobility must transform.
- In **Mobility Management**, companies will help cities to operate mobility systems and achieve sustainability. Using systems thinking, they will identify the levers for cities to succeed in the mobility transition.
- Data is at the heart of the mobility transformation. Companies are working on **Data Sharing Principles** that will enable sustainable urban mobility management across public and private urban transportation. Through a shared understanding of data sharing, we will create opportunities for potential pilots.
- **Emobility** aims to enable an ecosystem in cities to accelerate deployment of electric vehicles, by demonstrating economically viable and scalable business cases. Our REmobility platform in India provides an excellent example where the EV ecosystem is coming together.
- The **Circular Economy - Auto Sector deep dive** aims to capture circular value through at least one pilot applied to materials, 2nd life or looking at the impact of shared ownership on current linear automotive business model.

11

Outlook to 2020

LCTPi offers proof that business is moving beyond talk to implement real solutions by bringing different sectors together to reduce emissions.

From now until 2020...

LCTPi member companies will continue to pursue ambitious implementation throughout value chains and across sectors.

By focusing on tangible business opportunities, we will help accelerate the uptake of low-carbon solutions.

LCTPi will enable further collaboration at a local and regional level to enhance progress and create impact globally.

We will concentrate on key markets to support members in implementing business solutions and drive supportive legislation.

LCTPi will help give policymakers the confidence to ramp up climate policy ambitions and accelerate their implementation.

We will continue to contribute our experience to the global dialogue on climate solutions through forums such as the Talanoa Dialogue and the Marrakech Partnership.

The urgency is clear: business, government and civil society must go further, faster to avoid devastating impacts to people and planet. It is the tangible action throughout our projects that will help catalyze the necessary transformations in energy, transport, industry and land use.

We look forward to building on this important work in 2019 and beyond.

12

How to engage

Join LCTPi to capitalize on the economic opportunities that innovative solutions and new partnerships will bring.

REscale	Mariana Heinrich	heinrich@wbcsd.org
New Energy Solutions	Mariana Heinrich	heinrich@wbcsd.org
Emobility	Jasmeet Khurana	khurana@wbcsd.org
Transforming Heavy Transport	Damiana Serafini	serafini@wbcsd.org
Natural Climate Solutions	Alema Bibi	alema.bibi@wbcsd.org
Climate Smart Agriculture	Matthew Reddy	reddy@wbcsd.org
Circular Economy (Factor10)	Brendan Edgerton	edgerton@wbcsd.org
Science-based Targets	Luca De Giovanetti	degiovanetti@wbcsd.org
TCFD	Lois Guthrie	guthrie@wbcsd.org

If you are interested in establishing a new LCTPi project or want to learn more please contact **Karl Vella, Climate Policy Manager**: vella@wbcsd.org and visit our website www.wbcsd.org.

ENDNOTES

[1] Intergovernmental Panel on Climate Change (IPCC). (2018). Global Warming of 1.5°C.

[2] Intergovernmental Panel on Climate Change (IPCC). (2018). Global Warming of 1.5°C.

[3] Carbon Disclosure Project (CDP) website: https://www.cdp.net/en.

[4] Intergovernmental Panel on Climate Change (IPCC). (2018). Global Warming of 1.5°C.

[5] BP. (2018). Statistical Review of World Energy. 67th ed. June 2018. Retrieved from https://www.bp.com/content/dam/bp/en/corporate/pdf/energy-economics/statistical-review/bp-stats-review-2018-full-report.pdf.

[6] International Transport Forum (ITF). (2015). The Carbon Footprint of Global Trade: Tackling Emissions from International Freight Transport. Retrieved from https://www.itf-oecd.org/sites/default/files/docs/cop-pdf-06.pdf.

[7] Intergovernmental Panel on Climate Change (IPCC). (2018). Global Warming of 1.5°C.

[8] Griscom, B.W. et al. (2017, Oct.). Natural climate solutions. Proceedings of the National Academy of Sciences (PNAS), 114(44) 11645-11650. Retrieved from http://www.pnas.org/content/114/44/11645.

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