World Circular Economy Forum 2021 Summary Report









Environment and Climate Change Canada

Environnement et Changement climatique Canada

Game-changers accelerate the circular transition

The circular economy is not a new idea.

Indigenous communities across North America and beyond have been practicing principles of circularity, including regeneration and reciprocity, since time immemorial. The first World Circular Economy Forum (WCEF) took place in Finland five years ago in 2017, but 2021 marks the first time the WCEF crossed the Atlantic to convene Indigenous leaders, businesses, policymakers, civil society, youth, and other new audiences to discuss the system-level changes – or "game changers" – needed to accelerate the circular economy transition in the next five years.

WCEF2021 took place following the release of yet another "code red" Intergovernmental Panel on Climate Change (IPCC) report and in the lead up to the United Nations' biodiversity (COP15) and climate change (COP26) conferences. The urgency

of the message is clear: addressing the global climate and biodiversity crises is a necessity for human well-being. Looking ahead to these upcoming conferences, WCEF2021 presented circular economy solutions to address the urgent global crises and called upon leaders from all sectors and regions to act. The fifth WCEF was also a reminder of the need to include Indigenous and youth voices in driving system-change for an inclusive and equitable circular future.

Hosted in Toronto, Canada from September 13 to 15, WCEF2021 was co-organized by Environment and Climate Change Canada and the Finnish Innovation Fund Sitra. After being postponed by a year due to COVID-19, WCEF2021 went virtual to ensure it remained a truly global event, attracting almost 9,000 registrants from 160 countries and all 7 continents. With 3 days featuring 6 system-level Game Changer Sessions, 4 action-oriented Demonstration Sessions, and

25 partner-led Accelerator Sessions, the global dialogue at WCEF2021 uncovered creative transformational steps we can all take to scale up circular solutions for a prosperous, inclusive, and equitable future. Over the first two days, 95 speakers from around the world shared their takes on how to advance the circular economy as a solution to planetary crises through collaboration, next generation leadership, innovation, and entrepreneurship.



The World Circular Economy Forum brings together business leaders, policymakers, experts, civil society, and others to explore the world's best circular economy solutions. It examines how to accelerate the circular transition while pursuing the United Nations Sustainable Development Goals. The WCEF is a global initiative of the Finnish Innovation Fund Sitra.

WCEF2021 might be over, but the circular economy discussion is not!

Through WCEF2021 and features such as the Virtual Expo, Networking Hub, and Discussion Board, and the WCEF Studios in Canada, Norway, and Finland, 4,157 participants increased their circular economy knowledge and networks. By building new partnerships and bringing new audiences into the circularity dialogue, WCEF will continue to benefit people and the planet for generations to come. The recordings of Day 1 and 2 were viewed over 4,300 times in the two weeks after the Forum, and all Day 1 and 2 sessions – as well as most Accelerator Sessions on Day 3 – are available to watch any time at WCEF2021.com. Further, with WCEF Side Events continuing throughout the year, COP15 and COP26 on the horizon, and next year's WCEF to be announced soon, there are more opportunities than ever for the global community to come together to build on the momentum of WCEF2021 and contribute to a thriving circular future for all! Read on to join us in the global circular economy discussion.



"We need to make the circular economy everybody's business. That is the only way to safeguard the global commons and to ensure a sustainable, transparent, fair, and prosperous society for all."

DR. NAOKO ISHII

Executive Vice President and Director, University of Tokyo, Center for Global Commons



WCEF2021 in review: a circular economy for all

Circularity offers a pathway to address the waste, climate, and biodiversity crises to ensure the well-being of people and the planet for generations to come. But what do we need to get there? WCEF2021 has some game-changing answers to this ultimate question!

Circular solutions to climate change, biodiversity loss, and community well-being.

According to OECD, population and economic growth are on track to double global material consumption by 2060. Worldwide, resource extraction and processing cause 90% of biodiversity loss and approximately half of our climate change impacts according to the International Resource Panel. The transition to a circular economy presents not only an opportunity to address the triple planetary crises of pollution, climate change, and biodiversity loss, it is also a necessity to ensure future well-

being. As revealed at the Game Changer Session on Climate and Biodiversity, many countries are beginning to integrate circular economy solutions into their approaches to climate action, including Nationally-Determined Contributions. For example, the Netherlands, also the host of WCEF+Climate earlier in 2021, shared that they are pursuing circular climate solutions such as implementing circular procurement and taxation policies to reflect the environmental impacts of production in the price; mandatory recycled content in products; and requirements to reduce the carbon- and material-intensity of the cement, steel, and information and communications technology indus-



"Solutions for climate change, biodiversity loss, air, land, and sea management, and poverty eradication are all part of a holistic approach for which the green, circular economy will be a solution."

ELIZABETH MARUMA MREMA

Executive Secretary,
Secretariat of the
Convention on
Biological Diversity



tries. Further, new regional alliances such as the African Circular Economy Alliance and Circular Economy Coalition for Latin America and the Caribbean – both also WCEF2021 partners – are forming to accelerate the circular transition in the Global South by leapfrogging the stages of development in the Global North that drove biodiversity loss and climate change.

Historically, the natural resources sector has been embedded in the linear, "take-make-waste" economy. However, the Game Changer Session on Natural Resources highlighted that companies that act now stand to benefit from early participation in the circular economy transition given the strong business case for circularity. Circular efficiencies that reduce deforestation and energy and water use create value for shareholders, stakeholders, and customers. Also, new symbiotic partnerships such as eco-industrial parks, which are areas where materials, energy, and information circulate between companies, can allow one business's trash to become another's treasure, producing win-win-wins for businesses and the environment. For example, Metal Tech Alley is a strategy that joins several rural communities, innovators and supporting agencies into a circularity network of digital solutions, materials sciences, and industrial recycling in British Columbia, Canada. And in Finland, the Circular Economy Centre leads a nation-wide network of eco-industrial parks. By eliminating waste, recirculating materials throughout the global value chain, and regenerating ecological health, the natural resources sector can reduce regulatory risks, attract new talent and customers, and provide the material solutions needed to mitigate climate change, reverse biodiversity loss, and build resilience in resource-based economies.

As hubs of innovation and consumption, cities are often the focus of circularity discussions. However, speakers at WCEF2021 called for more attention to circular opportunities in rural and remote communities, where 30% of the world population lives. Notably, rural and remote communities across the globe are often hardest hit by environmental crises like waste and climate change. For example, Arctic communities are facing climate change at double the global rate of warming. While Inuit in the Arctic have traditionally practiced the principles of a circular economy for generations, this is challenged in the current linear economy. For example, ships transporting goods to remote Arctic communities currently leave empty — leaving waste to accumulate due to infrastructure and transportation challenges. Circular solutions can support



"Commodity production is responsible for most of the deforestation that's happening. You can't tackle climate change without tackling deforestation. I think that we are in a good place to secure really meaningful commitments at COP26 and COP15 on this issue."

THE RT. HON. LORD ZAC GOLDSMITH

Minister for Pacific and the Environment, United Kingdom Foreign, Commonwealth & Development Office and Department for Environment, Food and Rural Affairs



Indigenous communities' self-determination while advancing the circular economy and reducing carbon emissions from marine shipping.

The Demonstration Session on Rural and Remote Communities showed that the creativity, innovation, and resilience of these communities is an asset in the circular transition. Many locals in remote areas are expert fixers and repairers, given the challenges with importing new products. Further, community members often have deep connections with the land and each other, which can help accelerate circular approaches based on sharing, reuse, and regeneration. Audience participation during this session converged on collaboration as a key strength and opportunity for smaller communities to advance circularity, including through partnerships both within communities and with larger cities, regional and national governments, and the private sector.

Collaboration and partnership for circularity

Partnerships between businesses, governments, and international organizations are the foundation for the success of the WCEF. Similarly, partnership and collaboration are necessary for changing

the game to drive the circular transformation of our socio-economic systems. This theme emerged strongly across the 25 Accelerator Sessions on Day 3 of WCEF2021 – partnership across sectors, borders, and among stakeholders is critical to replacing the short-termism embedded in the linear economy with long-term, circular thinking. In particular, collaboration across borders requires regulatory harmonization and adoption of international standards to promote trade and the circular flow of materials globally. Further, international organizations have a critical role to play in coordinating global efforts to prevent pollution of the global commons, such as the atmosphere, the oceans, and the ecosystem services they provide, which are often undervalued in a linear economy.

Waste is a collective action problem that requires teamwork. As underscored during the Plastics Demonstration Session, consumers, industry, and governments all have a part to play in keeping plastics in the economy and out of the environment. For example, the provincial government of British Columbia implemented a deposit refund system to incentivize recycling in 1951, expanding into its current Extended Producer Responsibility system to include products such as electric vehicle batteries and mattresses. They are also exploring



"Urban and rural areas are not isolated ecosystems, so they need to work together to close the loops."



"Change can happen so much faster than we think, if we have collaborative, concerted action that involves all stakeholders."

DR. NDIDI NNOLI
EDOZIEN
Chair, Circular Economy

Innovation Partnership, Africa



coastline plastics collection and remanufacturing in partnership with Indigenous communities. But these actions would not be successful without the contributions of citizens to recycling, companies to managing their products at end-of-use, and Indigenous communities to stewarding ecologically-sensitive coastlines. Behaviour change, innovation, voluntary mechanisms, and regulation all support the circular transition. Notably, the debaters in this session concluded that the system-level changes needed to scale up circular business models like remanufacturing and design-for-environment that were once deemed far-fetched are becoming increasingly inevitable.

As demonstrated by the amazing circularity work of the 95 speakers at WCEF2021, people of all ages and backgrounds can be part of the solution. Indeed, speakers at the Circularity at Home and Communicating Circularity Demonstration Sessions emphasized that, whether through recycling, repairing, and thrifting or through gifting memories instead of materials, many people are already engaged in the circular economy. The next step is to situate these actions as part of the larger circularity picture through storytelling that can move entire communities to care and get involved. As stated by Alice Irene Whittaker of Smart

Prosperity Institute and The Natural Step Canada, "We don't need to be perfect. Our power is in doing it collectively," because even small actions add up to have a big, cumulative impact.

One end goal of the circular economy is for longterm human happiness within planetary boundaries. Nobody can achieve a circular economy alone, and taking action together can foster hope and joy needed to build resilience to overcome the social and environmental crises we face today. With so many already taking action at the grass-roots level, policymakers, business leaders, and decisionmakers need to listen to communities to learn from their progress, pursue culturally-appropriate solutions, and scale up local efforts for a wider impact. The Leadership Game Changer Session emphasized that now is the time for circularity leaders to engage new allies to unify efforts from the local to the global scale and ensure that everyone can share in the health, social, environmental, and economic benefits that this transition will deliver.



"Ecosystems are capital assets that supply goods and services to us and allow us to survive. We need a new international organisation that manages global commons like oceans. It would charge us for our use of them."

SIR PARTHA DASGUPTA

Frank Ramsey Professor Emeritus of Economics, University of Cambridge



Beyond waste: pursuing an inclusive and equitable circular transition

At WCEF2021, we heard again and again that the circular economy is not just about waste – it is about people. Communities that are lowincome, racialized, and underserved disproportionately bear the health and cultural consequences of unsustainable resource extraction and materials management. The linear economy reinforces systems of exclusion, colonization, and consumerism, for example through the siting of landfills near racialized communities. Given this unsustainable and inequitable economic context, the Circular 360 Game Changer Session highlighted that to solve the waste, climate, and biodiversity crises, the circularity transition must be co-created and place-based. This way, circular solutions will help reconnect people with themselves, their communities, and the land, thus enabling people and the planet to thrive together in harmony.

As an example, the City of Guelph and County of Wellington in Ontario, Canada developed the "Our Food Future" initiative to address the systemic inequities in the food system. While 40 percent of food goes to waste, 17 percent of people in the city are

food insecure. The food system is also one of the biggest contributors to biodiversity loss and climate change. Our Food Future aims to create a sustainable, regenerative, and circular food future based on valuing food and people properly at every point along the food value chain, from farmers to supermarket cashiers. Circular policies informed by the lived experiences of underrepresented communities will be more effective at transforming society towards a circular future. Inclusive circularity will help avoid potential unintended consequences of the transition, such as increasing precarious work in the gig economy. Given the majority of people already working in recycling and refurbishment worldwide experience unsafe working conditions, protections for workers' rights will be foundational to a healthy circular future.

Several Accelerator Sessions also explored the just transition imperative, including the need to address the unique challenges and opportunities that countries in the Global South face in transforming their economies. Challenges and opportunities include high informal sector employment levels, high youth populations, low emission levels, and existing engagement in traditional circularity practices such as valuing all parts of harvested plants and animals with nothing going to waste.



MEGAN

ARNAUD

"It's time to shift away from shaming consumer behaviour, towards supporting that joyful participation in circular consumption."



Two intersectional perspectives were especially prominent at WCEF2021: Indigenous and youth voices. Moving toward an inclusive circular future requires expanding the circle to uplift Indigenous knowledge, worldviews, and cultures, which have practiced reciprocity and mutuality since time immemorial and continue to do so today. And as emerging leaders, youth bring new energy, ideas, creativity, and passion that can help accelerate system-level change. For example, university students started Genesis Bioindustries Inc. after seeing an opportunity to upcycle food waste into biodegradable plastics and other high-value materials. The students used rice cookers, garage space, and ramen (for sustenance!) to resource the start-up until they secured enough funding from the clean tech innovation ecosystem and revenue from a rapidly growing circularity market.

Innovation and entrepreneurship: the role for businesses of all sizes and sectors

A successful circularity transition requires forging new partnerships between allies from all parts of society – including investors, workers, and employers. In particular, the Game Changer Session on Small- and Medium-Sized Enterprises

(SMEs) emphasized that given the big chunk of the economy occupied by SMEs, which employ 50% of people worldwide, the agility of SMEs is an asset in the circular transition. Such agility enables SMEs to respond quickly to new circular opportunities through innovation and entrepreneurship, which is critical to addressing the build-up of single-use plastics and other linear products in the environment. Indeed, many SMEs are already on the front-lines of plastic waste management, especially in emerging economies where economic growth has outpaced the institution of recycling infrastructure.

But SMEs also face challenges in accessing capital to iterate forward and scale circular technologies. Therefore, governments and large businesses must help make circularity mainstream for SMEs by providing financial incentives, investment, regulations, and other enabling opportunities. Trade can also open new markets for circular solutions, building bridges between businesses in different countries to support economic resilience and scale up local circular innovations.

WCEF2021 introduced a Virtual Expo for the first time, with Showcases featuring 82 different circular innovations, investment opportunities, partnerships, policies, and non-profits from across



"Young people have the enthusiasm, flexibility, and — dare I say — the audacity to reimagine systems and the potential of our society."

BIBOYE
AGANABA
Executive Director,
Leading Change Canada



"Recycling alone is simply not enough. We need a transformative vision for our waste management systems — one that is inclusive, more equitable, and reflects the urgency of the climate crisis."

MICHAEL REGAN

Administrator,
United States Environmental
Protection Agency



five continents. The SMEs session also highlighted leading circular entrepreneurs such as TerraCycle, an SME that helps companies recycle hard-to-recycle items like diapers and cigarette butts and facilitates the repurposing of such items into new products. With game changers like this leading the way, more and more jobs are being created to help implement the circular economy transition.

The Global System Change Game Changer Session wrapped up Day 2 by highlighting the importance of re-skilling workers and transforming jobs and educational programs to align with a circular future. With data from The Lego Group revealing that 90% of children want a job focused on improving the environment, it is clear that youth want to be part of the solution. Our institutions must support emerging circularity champions by training and engaging youth in shaping the transition.

A call to action from young leaders for next generation leadership

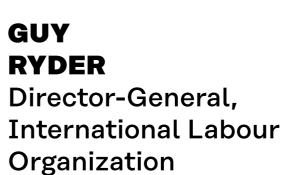
As Sitra's Director Mari Pantsar said, "We must all take the responsibility for leadership within the resources and scope of influence that we have. In a democracy, we all have to contribute." Youth are already contributing beyond their years to the global circularity dialogue. Young leaders are moving the dial in their homes, schools, communities, and on the world stage. With nearly 600 registrants under the age of 25, 10 youth speakers, and many more working behind the scenes, WCEF2021 highlighted how youth leadership can be truly transformational for the circular economy.

Leading Change Canada, a movement started by young professionals to support a just, sustainable, and prosperous transition through building relationships and networks to increase youth representation in leadership positions, hosted a WCEF2021 Viewing Party, bringing together 63 young professionals, activists, and community organizers. As a direct outcome of participating at WCEF2021, Leading Change is launching a new podcast, with the first season focused on the circular economy and youth connections made through the Forum. The podcast will help bring even more young people into the circular economy conversation, mobilizing them to get involved in circularity in their own communities.

To accelerate circular solutions, businesses and governments must unlock the passion and creativity of young people by centering their voices



"With so many millions of jobs at stake, the transition towards the circular economy needs to be a just transition — based on social justice and decent work for all. To ensure that social and environmental progress go hand in hand, we must start valuing properly the people that make the circular economy work."





in circularity decision-making in boardrooms, waste plants, and communities. Such intergenerational partnerships are key to scaling up ambition from recycling towards strategies higher on the waste hierarchy such as redesigning, repairing, and remanufacturing. Oftentimes, youth are engaged in the circular transition as volunteers but lack the resources to have a positive impact on a bigger scale. By funding youth-led circular economy research and entrepreneurial projects, creating circular economy jobs and training programs, and providing learning and networking opportunities, the old economy can make way for the new economy with young people at the helm.

Seizing the circular opportunity

The transition towards a circular economy is underway around the globe, with Indigenous peoples, local communities, and SMEs among those leading the way. However, despite progress since the first WCEF five years ago, the current pace of the circularity transition is not fast enough. The IPCC and others on the frontlines of climate change and biodiversity loss are calling for world leaders to translate ambition into action. At WCEF2021, global experts and emerging young leaders highlighted the potential of the circular

economy to address the waste, climate, and biodiversity crises while fostering a prosperous, diverse, and inclusive society.

Five priority circular economy actions highlighted during WCEF

- 1. Uplift Indigenous leadership to promote Indigenous participation in the circular economy on their own terms, including through traditional, land-based circularity practices;
- 2. Provide capital, safe jobs, training, and leadership opportunities for youth, rural and remote communities, and others already contributing to the circular transition;
- 3. Implement circular procurement, taxation, investment, and trade policies to support circular innovation at all levels, from SMEs to international partnerships;
- **4. Integrate circular, low-carbon, and nature-based solutions** through policy-making, business operations, and across society to help tackle the triple planetary crises of pollution and waste, climate, and biodiversity; and

5. Build symbiotic partnerships and networks to share circularity stories, lessons learned, and resources across borders, sectors, and generations.

With more and more businesses, policymakers, decision-makers, and civil society leaders recognizing the social, economic, and environmental benefits of a circular future, now is the time for bold leadership and global solidarity to achieve it. Through a diversity of sessions, speakers, partnerships, and networks, WCEF2021 provided a game-changing foundation for accelerating the transition to a circular future in the next five years.



"This is really the opportunity to see the circular economy, its structures and central tenets, essentially as a chance to return to humanity itself."

CAROL ANNE
HILTON
CEO and Founder,
The Indigenomics Institute
and the Global Center
of Indigenomics



- GAME CHANGER SESSIONS
- DEMONSTRATION SESSIONS

September 11

September 12

09:00	Opening Session	Day 2 Look Ahead
09:30	Expanding the Circle – Collaborative Leadership to Drive Bold Action	The Circle of Life – The Circular Economy for Climate and Biodiversity
11:00	Plastic Talks – Debating Game Changers for a Circular Plastics Economy	Communicating Circularity – Getting the Message Right
12:30	Circular 360 – Game Changers for a Prosperous, Inclusive and Equitable Circular Future	Building Value – Circular Opportunities for the Natural Resources Sectors
14:00	Circularity at Home – How You Can be the Game Changer	Rural and Remote Communities – Exploring Roads Less Travelled to Circular
15:30	Unleashing Entrepreneurship – Scaling and Financing Circular SMEs	Global System Change – Catalyzing Forces for Circularity
16:30	Day 1 Wrap-Up	Closing Session

ACCELERATOR SESSIONS

September 15

04:30	Powering the Circular Industry Transition	on	
06:00	Opportunities and Challenges of a Data	-Based Circular Economy: A Systemic View	v on Traceability
07:00	Accelerating Sustainability in the Textil	e Value Chain: Inspiring Action and Behavio	our Change
08:00	Towards a Mutually Supportive Trade and Circular Economy Agenda	Tools to Go Circular: the Nordic Circular Economy Playbook	Benefits of Measuring Eco-Industrial Parks
08:30	Corporate Plastics Stewardship: The Ne	eed for Measurement and Disclosure	
09:00	Advancing a Just Transition to a Circular Economy: Scaling up Individual Action to Collectively Drive Systemic Change	Circular B2B Market Matchmaking: A Digital Opportunity Showcase Event	Circular Electronics: Pursuing a New Normal
09:00	Circular Québec: Real-World Guidance from a North American Province Transitioning to a Circular Economy	Regional Deep Dive: Africa, Latin America, and the Caribbean Joining Forces for Circularity	
09:45	Plastics Without Borders: A Workshop	Exploring Global Supply Chain Issues and L	eading Circular Solutions

ACCELERATOR SESSIONS

September 15 (cont.)

0:00	Making the Business Case for Advancing a Low-carbon, Circular Built Environment		
D:30	Measuring What Matters: Opportunities at the Nexus of the Public and Private Sectors	Biodiversity as a Circular Business Opportunity	
:00	LCBA Canada Challenge Pitch Session 1: From Fat, Oil and Grease to Fuel	Power of Public Procurement: Government-Buying Co-operation to Accelerate the Circular Economy	
:30	Circularity in Cities and Regions: Addressing Global Challenges through Innovative Place-Based Solutions		
2:00	Financing the Circular Economy Transition	LCBA Canada Challenge Pitch Session 2: Renewable Shipping Fuels	LCBA Canada Challenge Pitch Session 3: Sustainable In-Flight Servic
3:00	Driving Economic and Social Innovation with the Circular Food Economy		
4:00	Circularity Across the Mining and Metals Value Chain		
5:00	Circular North America		

KEY FIGURES BY OCTOBER 1, 2021

Plus the 3.8 K participants in WCEF Side Events!

DAYS

Day 3 = Accelerator Sessions by partners

SESSIONS

10 Game Changer and Demonstration 25 Accelerator

SPEAKERS

SIDE EVENTS

From 6 to 26 September incl. GACERE* meeting

WCEF side events total (in Jan-September 2021)

*GACERE = Global Alliance on Circular Economy and Resource Efficiency

PARTICIPANTS

YouTube views

Chime Live

ACCELERATOR VIEWS

REGISTRATIONS

7% youth (18-24 y.)
77% new to WCEF

People registered from all 7 continents!

COUNTRIES

3 studios (in Canada, Finland, and Norway)

BUSINESS REPS

GENDER BALANCE

39% male 3.5% prefer not to say

VIA ONLINE PLATFORM

DAYS 1+2 VIA YOUTUBE

DAY 3 VIA PARTNERS' **ONLINE PLATFORMS**

4,043 4,324 26,797

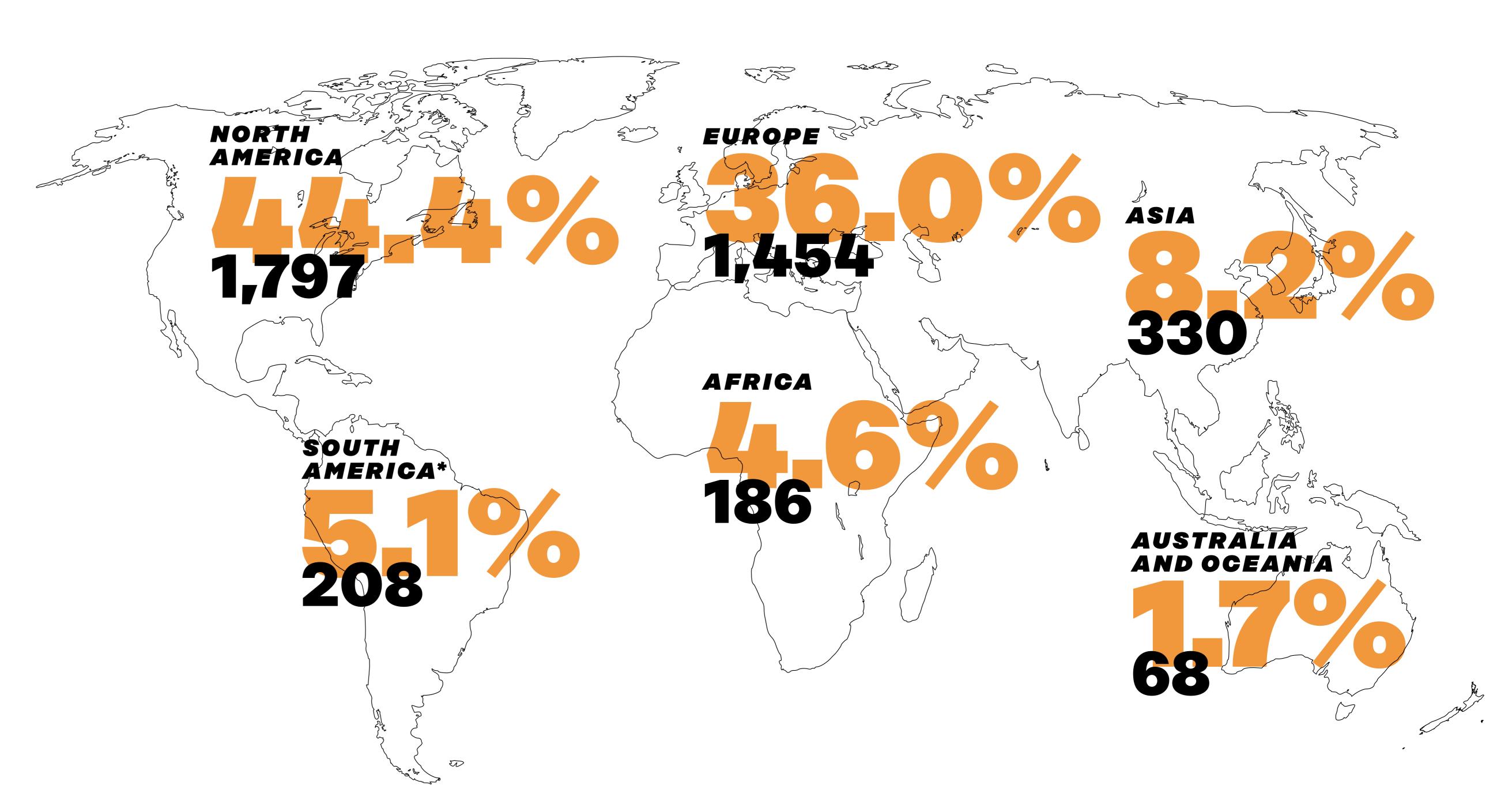


COUNTRIES

TOP TEN COUNTRIES BY PARTICIPATION VIA THE EVENT PLATFORM

- 1. Canada **1,499**
- 2. Finland **469**
- 3. United States 227
- 4. United Kingdom 140
- 5. Netherlands **132**
- 6. Germany **124**
- 7. Mexico **71**
- 8. France **70**
- 9. Sweden **63**
- 10. Australia **61**

PARTICIPATION BY CONTINENT VIA THE EVENT PLATFORM



KEY FIGURES PARTICIPANTS BY SECTOR VIA THE EVENT PLATFORM TOTAL 4,043 GENERAL INTEREST & OTHER **BUSINESS** 1,159 153 THINK TANK **PUBLIC SECTOR** 1,106 96 INVESTOR AND FINANCE RESEARCH / ACADEMIA 718 NGO OR ASSOCIATION MEDIA

KEY FIGURES SOCIAL #WCEF2021

1-22 September 2021

TWITTER REACH ORGANIC

OVERALL REACH
ORGANIC

March - September

TWEETS

Retweets + original tweets

LINKEDIN REACH ORGANIC

INSTAGRAM REACH ORGANIC

FACEBOOK REACH ORGANIC

Plus **396 conversations** between delegates and **3,904** e-business cards exchanged on the event platform from September 13-15!



CO-ORGANIZERS 2





Environment and Climate Change Canada

Environnement et Changement climatique Canada

PARTNERS 15





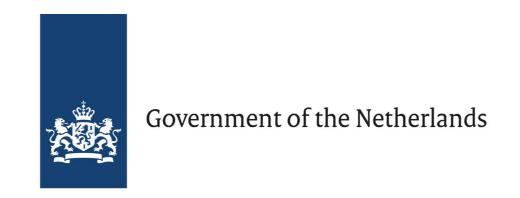


























PAST AND FUTURE EVENTS

