Leveraging IP Rights in the Interest of a Greener Future

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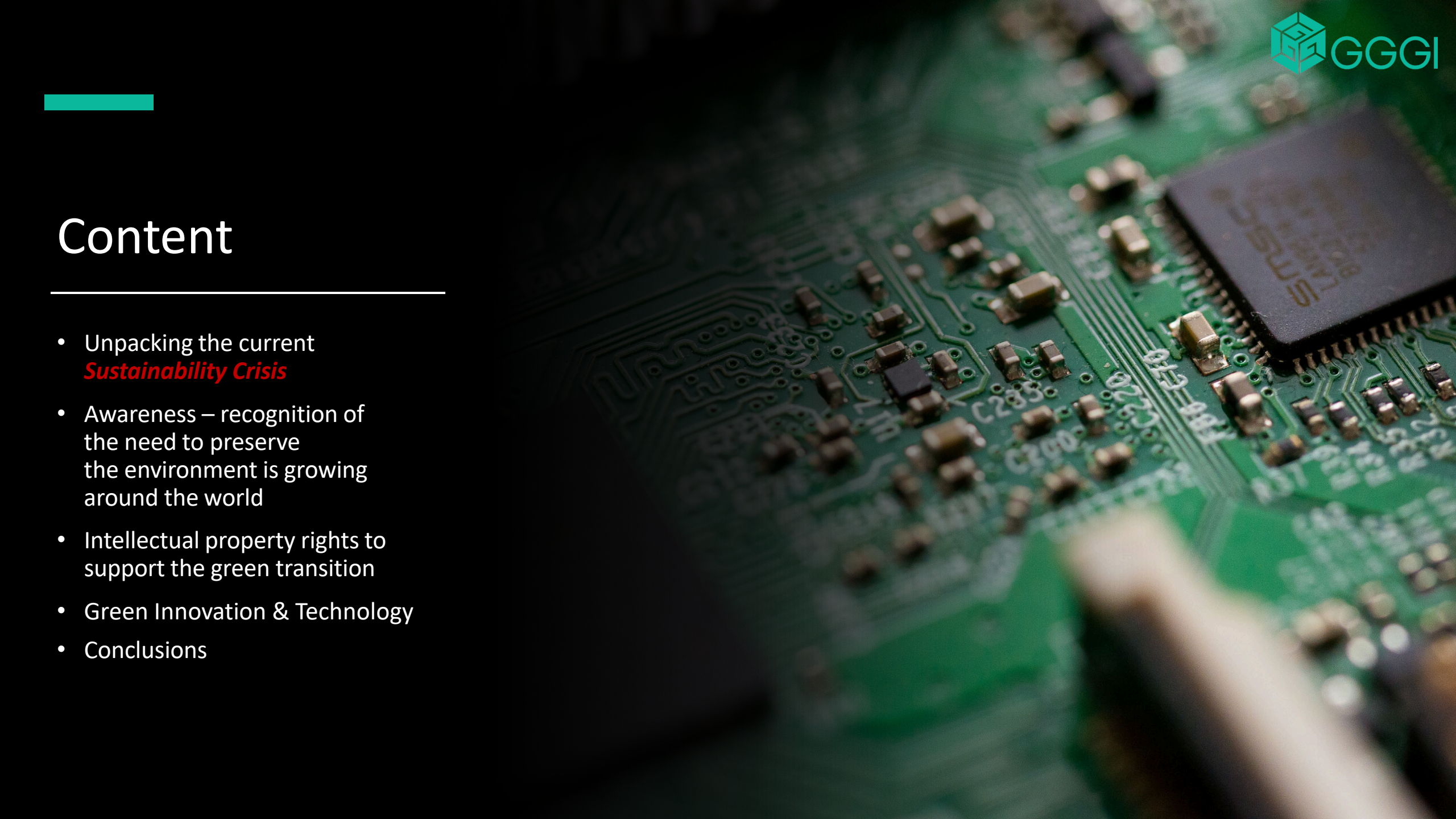
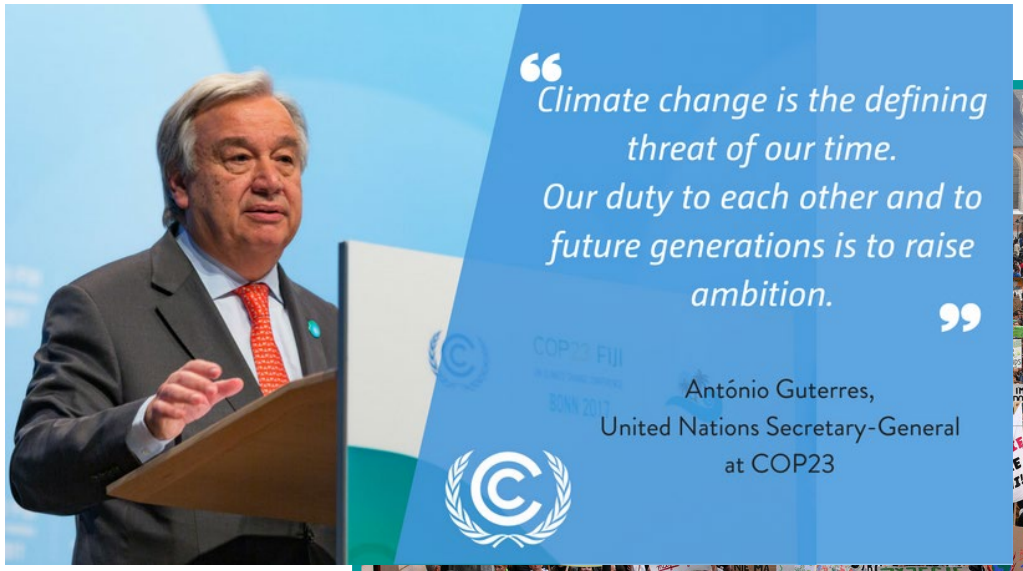
Content

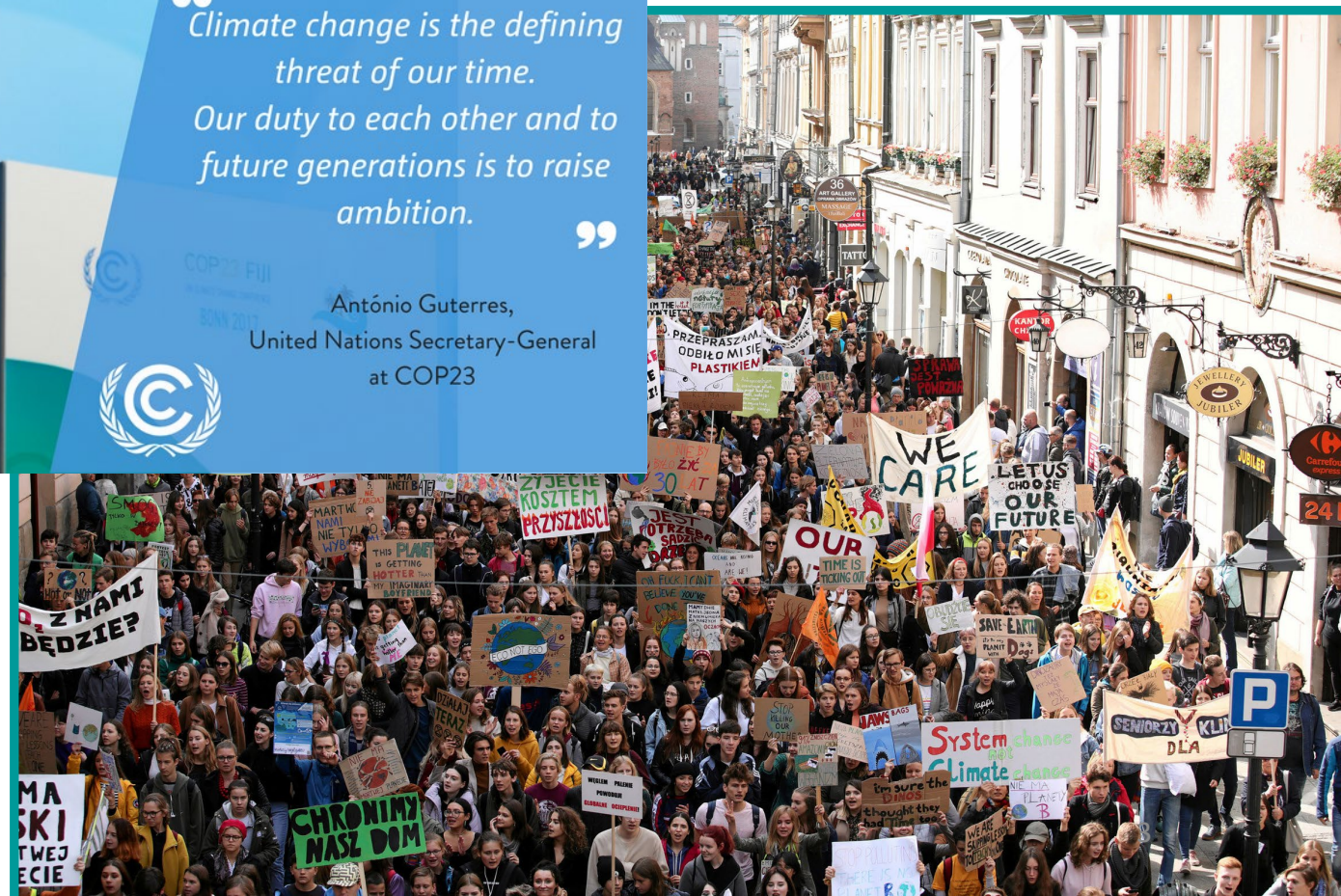
- Unpacking the current ***Sustainability Crisis***
- Awareness – recognition of the need to preserve the environment is growing around the world
- Intellectual property rights to support the green transition
- Green Innovation & Technology
- Conclusions



In 2019 Climate Change became widely accepted as the defining threat of our time

Glasgow COP26 planned for 2020: the moment of truth for the Paris Agreement as countries submit their new Nationally Determined Contributions – they need to be more solid and more ambitious





Air Pollution in the Asia Pacific

- In the Republic of Korea, Air Pollution was declared a social disaster to be tackled through emergency laws.
- 92% of Asia and the Pacific's population – about 4 billion people – are exposed to levels of air pollution that pose a significant risk to their health.
- Blue skies are the top priority throughout Asia, from Mongolia to China to Bangkok – but blue skies will also help address the climate crisis.

The many faces of the Sustainability Crisis

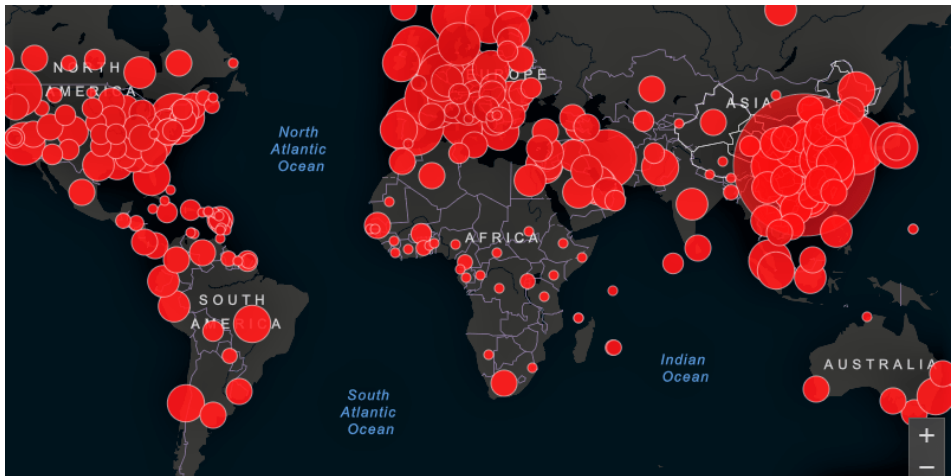
Statistics source: UN Environmen

Then COVID19- happened- what has changed?

- COVID-19 has changed our lives more rapidly than anyone could imagine.
- For many it is a sign that our old life was not sustainable.
- Can we green the COVID recovery?
- How will the economic crisis affect sustainable development?
- Can we go back to our old lives?
- Can there be a Green New Deal?
- Can there be a Greener Future

What have IPR got to do with it?

- Technology is key to a Greener Future
- IPR advances technology development by protecting the rights of the owners, enabling them to reap the benefits of their investments
- R&D subsidies are, and have been, a critical part of Sustainable Development, of the fight against Climate Change, and of Green Deals
- BUT IPR is also a barrier to widespread adoption of new technology in emerging and developing economies



IPR models to support the green transition


Source: Global Environment Facility

- TRIPS – “standard IPR regime”
- Global public goods – either for knowledge critical to mankind, or pre-competitive stage
- Global Access policies – a compromise
- Technical Assistance for developing and emerging economies: eg GTCK, CTCN
- Subsidies: eg GEF
- Humanitarian License

Global Public Goods: critical for adapting food and agriculture to climate change

- 11 CGIAR Genebanks
- > 700K crop and tree accessions
- 10% of all genetic material in collections but 94% of distribution of germplasm worldwide
- International Treaty on Plant Genetic Resources for Food and Agriculture
- Crop Trust
- Svalbard Global See Vault

Bill and Melinda Gates Foundation Global Access Policy

- 2 principles:
  - Knowledge and information promptly and broadly disseminated
  - Made available and accessible at an affordable price
- Why not just use public good / open access then?
- To engage with the private sector – use the capacity for innovation of the private sector – without locking up new technology
- Practically: negotiate a license that enables the private sector partner to charge market prices in developed world markets, and charge affordable prices in the developing world

COVAX

- 172 countries and multiple candidate vaccines engaged in COVID-19 vaccine Global Access Facility
- Global Vaccine Alliance (GAVI) coordinated

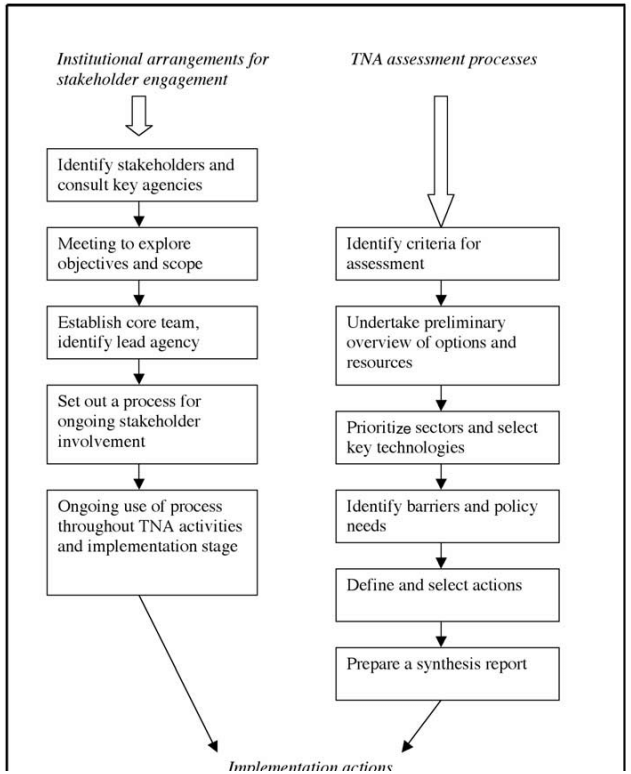
Technical Assistance to support Tech Transfer

- Green Technology Center Korea
- Climate Technology Center and Network (CTCN)
- UN Tech Bank, Turkey
- WIPO

UN TECHNOLOGY
UNITED NATIONS TECHNOLOGY BANK FOR LEAST DEVELOPED COUNTRIES

ODA, Grants & subsidies: green and climate finance

Tech Needs Assessments (TNA)



- GCF: readiness program
- GEF: technology needs assessments
- KOICA

Humanitarian Licence

- **Humanitarian use licenses** are provisions in a license whereby inventors and technology suppliers protect in advance the possibility of sharing their technology with people in need.
- **Google.org: Haiti earthquake 2010**
  - Google licensed satellite images
  - Ushahidi crowdsourced crisis maps

Green Technology Solutions: Opportunities

- Lower Costs of Renewable energy
- Energy Storage– batteries, hydrogen
- E-Mobility
- Energy efficiency: buildings
- Bio-economy
- Waste to resource– circular economy

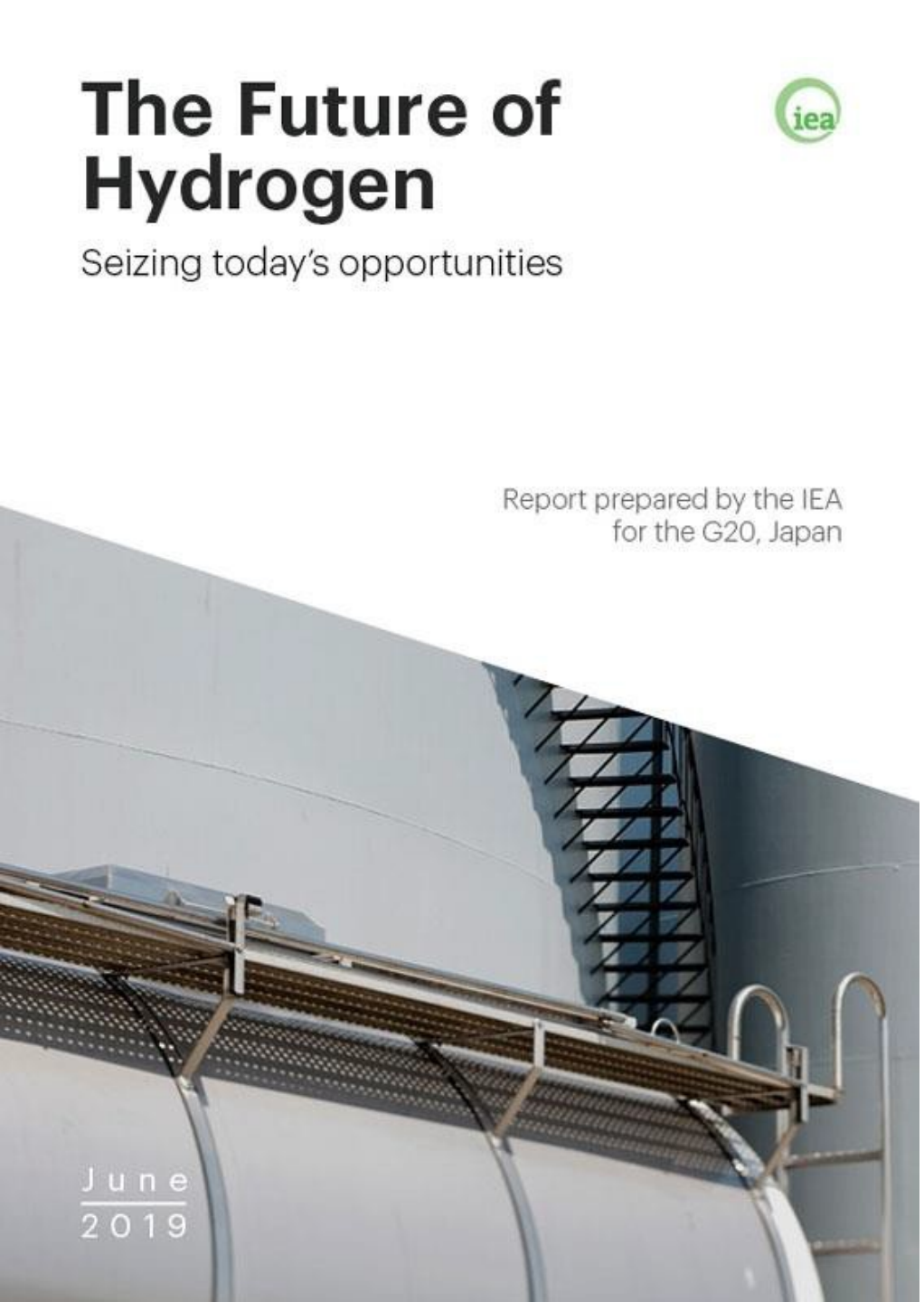
Technology Solutions: Renewable Energy

- Investment opportunity in renewable energy.
- Renewable energy is disrupting the energy market.
- Wind and solar energy, in many regions, are now cheaper than fossil fuels.
- Costs of renewable energy technologies, generally, continuing to fall.

Falling costs of energy storage

- Storage prices are falling quicker than originally anticipated , partially due to the increasing demand for electric vehicles (EVs).
- With lower prices, storage will be able to play an increasingly larger role in energy markets, such as replacing conventional power generators for reliability, providing power-quality services, and supporting renewables integration.

Source: McKinsey & Company



"Hydrogen is today enjoying unprecedented momentum. The world should not miss this unique chance to make hydrogen an **important part of our clean and secure energy future**."
Fatih Birol, Executive Director, IEA

- Dedicated electricity generation from renewables or nuclear power offers an alternative to the use of grid electricity for hydrogen production.
- With declining costs for renewable electricity, in particular from solar PV and wind, interest is growing in electrolytic hydrogen


Source: Global Environment Facility

Energy Efficiency: Green Buildings

- Buildings are responsible for an estimated 32% of global energy use and almost 30% of total GHG emissions.
- Heating and cooling energy requirements can be lowered by 50-90% through retrofitted buildings.
- New, energy-efficient buildings, in many cases, use almost zero energy for heating and cooling.

Green Infrastructure: Rwanda's Green New Airport

Rwanda: Green Certification of the New Bugesera International Airport

The Government of Rwanda (GoR) through the Ministry of Infrastructure (MININFRA) and GGGI have a standing Memorandum of Understanding (MoU) to advocate sustainability and provide support to the enable a sustainable built environment in Rwanda. GGGI has been supporting GoR in green cities development focusing in Kigali and the six secondary cities.

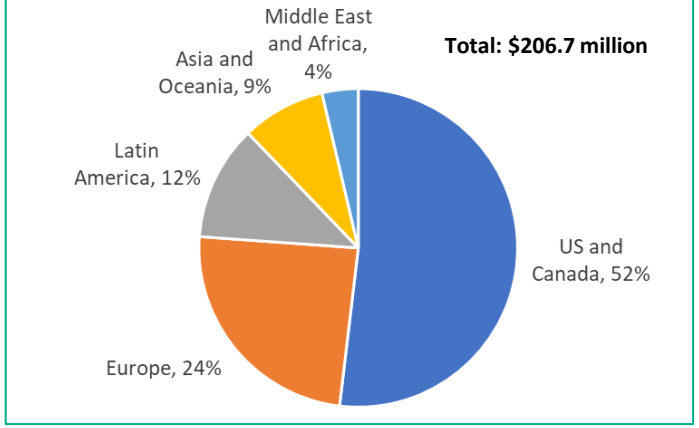
Along these lines, GGGI in collaboration with MINIFRA embarked on Green Certification of the New Bugesera International Airport. This project is looking into several measures to demonstrate resource efficiency and the overall sustainability of the airport infrastructure when completed.

Private Sector Entrepreneurship is critical for green job creation through sustainable development

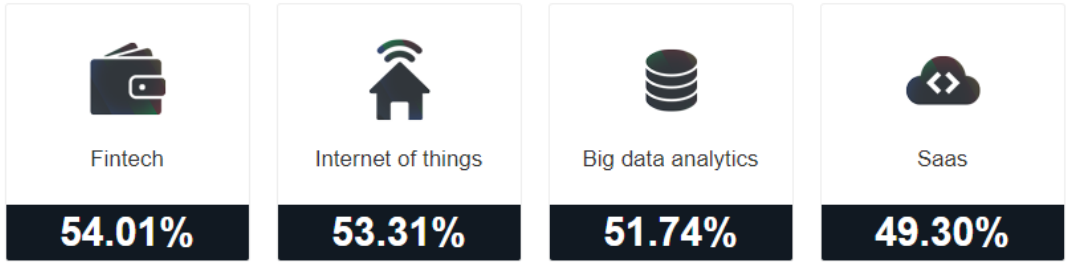
- Need for green innovation in developing countries is getting more urgent—most future growth in emissions is projected to be from developing countries
- Investment in green sectors in developing countries is expected to reach $6.4 trillion over the coming decade
- Small- and medium-sized enterprises are often the dominant form of economic activity in developing countries and are the main provider of jobs
- Startup ventures are most often the channel through which new and disruptive technologies reach the market

Current entrepreneurship programs like accelerators tend to focus on developed countries and technology markets

Accelerator investments in 2016 by geography



% of accelerators with an interest in the following markets:

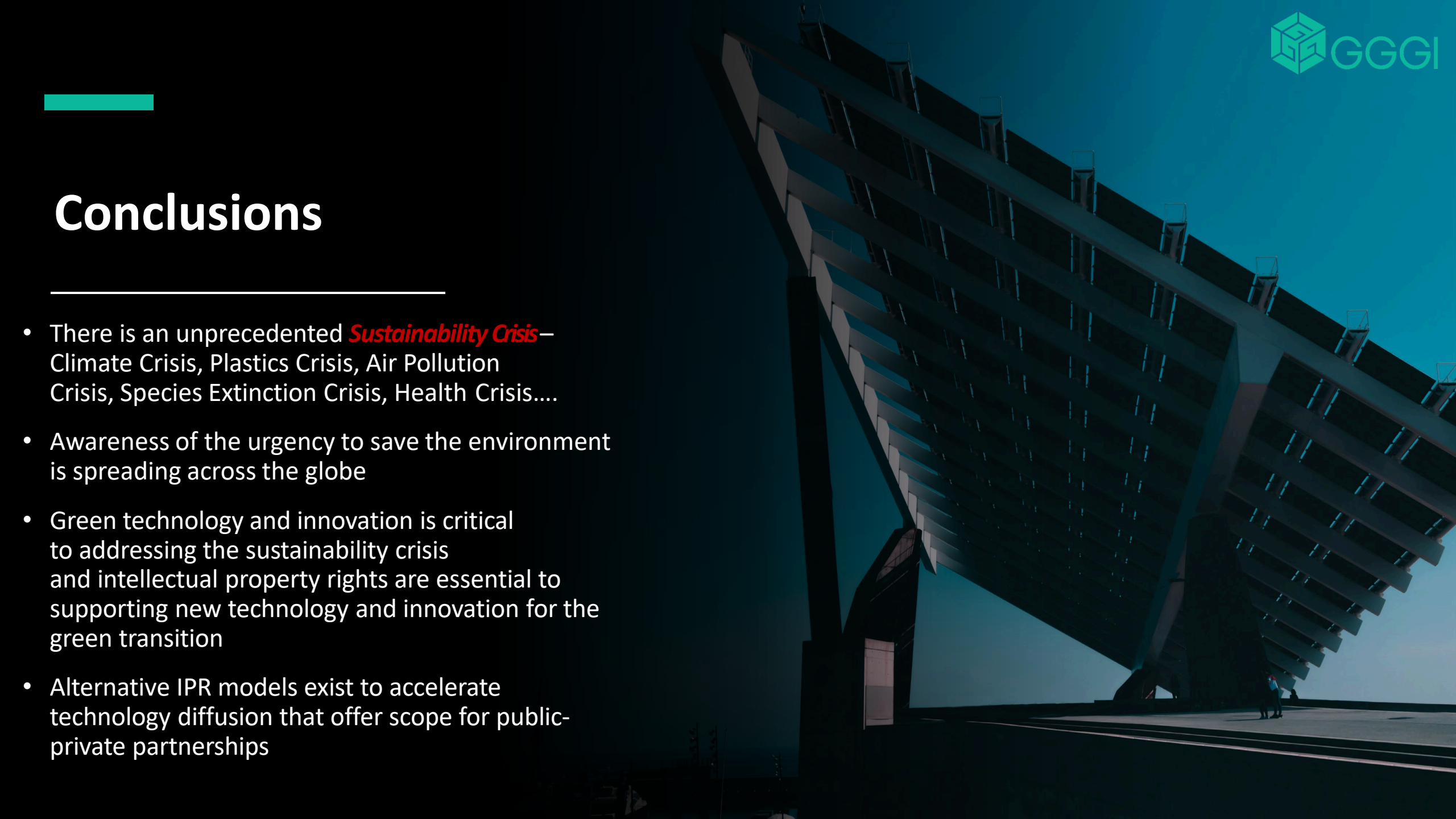


Source: Gust Global Accelerator Report 2016

Challenge: *Entrepreneurs in developing countries with innovative green growth business ideas often lack access to technical training, networks, mentorship, and seed capital to effectively grow and scale up their businesses*

Conclusions

- There is an unprecedented ***Sustainability Crisis*** – Climate Crisis, Plastics Crisis, Air Pollution Crisis, Species Extinction Crisis, Health Crisis….
- Awareness of the urgency to save the environment is spreading across the globe
- Green technology and innovation is critical to addressing the sustainability crisis and intellectual property rights are essential to supporting new technology and innovation for the green transition
- Alternative IPR models exist to accelerate technology diffusion that offer scope for public-private partnerships



Thank You

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