

## Our Take On The COP22

The Bridge Tank arrived in Marrakech for the COP22 with a clear focus of the objectives ahead. In the context of the recent launch of our InnovaCOP platform, the purpose of our two-week stay was threefold: (1) to survey and document global innovative trends in the fight against climate change (2) to organize a cycle of four side-events (\*listed in the addendum) gathering actors from across sectors and regions to discuss breakthrough innovations, new business models, and Africa's environmental challenges, among other topics (3) to disseminate ideas to set the agenda of climate action and bring climate-friendly solutions adapted to emerging countries to the heart of official negotiations.

The 14 days provided a plethora of ideas and solutions, and there were overlying trends that appeared throughout. The COP22 clearly showed an increasing commitment of the private sector and civil society, demonstrating that climate negotiations are not anymore an issue for governments and international organizations only. After the time of negotiations and diplomacy in Paris at the COP21, Marrakech launched the agenda of implementation, with all the difficulties this implies in terms of timeline and financing. We also noticed an important focus on innovative and low-carbon technologies, helping to promote concrete measures to fight climate change. Finally, even if this "COP of Africa" was a call to address the issue of adaptation, the impression is that there is still a lack of sufficient focus on adaptation for developing countries. For example, financing remains skewed towards mitigation, leaving little space for the most vulnerable countries to create new models to adapt to climate change.

Given these trends, and after attending more than 15 side-events and conferences, both in the Green and Blue zones, we decided to highlight three major topics:

- Energy Access Challenges in Africa
- Industrial Ecosystems Transformation to Face Climate Change
- The Role of ICT in Enabling Climate Action

## **Energy Access Challenges in Africa**

With the COP22 focusing on Africa, a lot of side-events addressed the specific problems related to climate change and environmental issues that the continent will have to face in the upcoming years. Among those, energy access on the African continent is one of the most important. We at The Bridge Tank found three key takeaways.

*Africa's future development is deeply linked to access to energy*

Addressing the issue of access to energy in Africa will also address the issue of development in general in the continent and help to eradicate poverty. It was the main message of the panelists in the side-event « *Africa, Land of Freedom and Innovation* » organized by « *Energies pour l'Afrique* »: energy is a prerequisite for development. Today, there are still almost 700 million Africans who don't have access to energy, and the number will probably grow considering that the continent's population will double by 2050. « *Energies pour l'Afrique* » insisted that access to energy and the generalization of electrification in Africa are crucial, and have to become a human right to ensure not only development and growth, but also peace. In this perspective, this is actually something that will benefit the entire world by ensuring stability and providing business opportunities to other countries.

Furthermore, to establish stable growth, African economies need to be diversified; they can't be dependent on revenue from natural resources only. This diversification is only possible by developing electrification and new infrastructure. Arlette Soudan-Nonault, Minister of Tourism in the Republic of Congo gave the example of tourism: it can be a way to diversify the economy, but it requires energy and good infrastructure.

*Innovation and low-carbon solutions have to lead the electrification processes*

Not only does the continent have to focus on energy access, but it also has to make sure that the energy is decarbonized. The low state of development of Africa actually represents a massive opportunity to make the right choices: choosing green technologies from the beginning and ensuring sustainable development. Renewable energies are the best sustainable choice for Africa today, and the strong decrease in cost in the last years makes them competitive as well. Some countries like Morocco have already chosen to focus on renewable energies and to view them as an economic opportunity, creating new markets and jobs. At the World Climate Summit during the COP22, Bruno Bensasson, CEO of the Africa Business Unit in Engie, insisted on the fact that

African countries have a lot of potential for renewables and they need to capitalize on their resources, especially when it is getting cheaper to do so everyday.

Innovation is thus the key to promote low-carbons solutions that ensure energy access in Africa. Mini-grids and off-grid innovative solutions seem to be best suited for most African countries, especially to scale up access to energy to remote and rural areas. The LESC (Low-Emissions Solutions Conference) days at COP22 were also an occasion to focus on off-grid solutions that have proven especially efficient in isolated areas: they provide cost savings, have environmental benefits, and also come with logistical advantages because less storage is needed. Technological innovation in Africa is an opportunity to enhance the access to energy for the most vulnerable populations. This innovation concerns energy sources, but also energy efficiency and energy storage, as mentioned in the side-event organized by the OCP Policy Center : « Decarbonizing Electricity Systems : Progress Made and Challenges Ahead ».

### *Increasing the access to energy requires efficient governance and fostering local initiatives*

At the end, the COP22 gave the impression that the barriers and obstacles in the fight against climate change are mostly due to political focus. In the case of energy access, a lot of speakers agree on the fact that electrification of Africa is not a technological issue or a financial issue; it is a political one. Of course, technology transfer has to be promoted and scaled up, and financing remains a key issue that has to be addressed for this. These can be easily overcome, but a more complicated issue is political will. Bruno Bensasson, along with other panelists of the World Climate Summit, also mentioned good governance as a key, and opined that technology and finance are not really problems when it comes to energy access and decarbonizing economies. The choice of sustainable development and energy requires political will before anything else. Morocco became an African leader in the clean energy transition thanks to a political vision led by the King Mohammed VI.

Together with good national governance, concrete solutions have to come from the local level as well. African countries need to develop decentralized processes, and give more responsibilities to territories. By decentralizing authority, governance will become faster and more efficient. African countries must absolutely delegate power to local authorities. This was one of the key messages of African panelists of the side event « Africa, Land of Freedom and Innovation » in the light of their personal experiences. Decentralization is also a way to ensure inclusive development and allow people to become familiar with solutions. As 40% of the global under-20 population will be living in Africa by 2050, youth can't be ignored and must be empowered through education, capacity-building and focus on local know-how. The COP22 highlighted this message: African solutions have to be built by Africans.

## **Industrial Ecosystems Transformation to Face Climate Change**

The COP 22 was an opportunity to address one of the main issues that faces the private and public sectors today: structuring new business models that will combine economic growth and sustainable development.

The problem is no longer solely about reducing emissions from different industries; it's rather a matter of showcasing the economic incentives that the industrial sector could gain from rethinking an efficient eco-friendly business model.

Several countries have demonstrated a progressive position by pushing ahead with reforms of the industrial sector, such as Morocco. During the COP 22, the Moroccan Ministry of Industry, Trade, Investment and Digital Economy organized an “Industrial Day” with the theme: "Industrial Ecosystems at the Service of Green Growth", where Minister Mr. Moulay Hafid Elalamy announced the creation of a green ecosystem that will gather SMEs, green tech startups, and research centers of Moroccan universities, and will be connected to the 43 existing ecosystems in Morocco. Thus, all the industrial processes will be continuously connected to the green ecosystem, which will mitigate emissions and transform the way this sector is organized. This initiative is an important step to make the existing ecosystems greener.

In order to apply the Moroccan experience to other countries, it is important to adapt the economic incentives of greening the industrial sector through ecosystems to the conditions "on the ground", while capitalizing on the resources each country has.

In this regard, during the LESC (Low Emission Solution Conferences), Peter Bakker, President and CEO of WBCSD, affirmed that “*businesses should look at what we can do with today's technologies tomorrow.*” Therefore, the question is not about which green technology could be integrated to make the existing ecosystem greener, but is more about moving from an outdated business model to an innovative one that will meet the mitigation objectives while controlling the manufacturing processes. It is necessary to look at all facets of these processes: from the products to the software used to design them, along with the customers' usages and meeting the objective of improving energy efficiency. Greening the manufacturing processes will only be possible through connecting the existing ecosystems to new green ones.

## *How to Start this Transformation? Through Political Will or Business Awareness?*

Today, many companies have accepted the need to meet their social responsibility by ensuring an eco-friendly manufacturing process. Several initiatives were presented during the COP 22 demonstrating that companies are committed to reducing their emissions. For example, an initiative called Renewable 100 was presented during the LESC conference that aims to gather companies that are committed to get to 100% renewables, which will allow these corporations to reduce embedded emissions in the production process.

However, reducing emissions is not only about the environmental benefit; it is also about how to make economic growth sustainable, as well as how to help developing countries leapfrog in their economic growth paths through the use of green technologies. While we've seen a move from businesses ignoring their negative externalities to more and more taking social responsibility for their actions, the issue is that tomorrow's businesses must work to make a positive impact as well.

Nevertheless, corporate social responsibility is not enough to ensure green transformation of the industrial sector. During the LESC, Mr. Girardeau, Electric Vehicle Vice President of Schneider Electric shared his opinion about the importance of a political will and governmental incentives that lead to efficient policies and regulations.

Knowing that the industrial sector is one of the most energy consuming, it makes no sense to talk about the importance of restructuring new clean business models without addressing the issue of the energy mix. In this perspective, decarbonizing electricity systems remains above all the responsibility of the state and hence needs a strong political will to ensure that it happens.

Anil Razdan, President of the India Energy Forum, has shown the advancement of the Indian government in increasing the share of renewables in the energy mix. He also highlighted the ambitious objectives of India to reach 100 GW of Solar Energy installed capacity.

The conclusion should be that there is no doubt about the importance of both business initiatives and strong political to make the energy transformation possible, efficient, and rapid.

## **The Role of ICT in Enabling Climate Action**

One of the messages of the COP22 was the importance of innovations that can help fight climate change across sectors. There is one sector that seems to be leading the way by providing a diverse range of businesses with the tools needed to efficiently and effectively reduce emissions: information and communications technology (ICT). The statistics provide overwhelming support

that ICT must play a critical role in reducing our carbon footprint in the future. Specifically, ICT has the potential to enable a 20% reduction in CO<sub>2</sub> emissions by 2030. While the proportion of ICT emissions over global emissions will reduce over time, this is not the only impact the industry is having. It's also being used as a means for other industries to improve their sustainability practices.

The way in which ICT enables climate action was a prominent topic of discussion during the Low Emissions Solutions Conference (LESC) at the COP. It even served as the main theme for two different discussions on Day 1 of the conference (November 14<sup>th</sup>), “1.4 The Contribution of ICT to Climate Action in Other Sectors” and “1.5 ICT Innovative Approach to Raising Commitments Towards Climate”. Throughout these discussions, several important points come up that point towards the utility of ICT in combating climate change.

First, ICT opens up new business models that didn't exist before, as data makes it possible to see what happens across an entire system. Index-based insurance for farmers in developing countries is just one example, and was highlighted in a side event at the COP hosted by Insurance for Farmers and titled “Enabling Agricultural Insurance in a Global Public-Private Coalition”. As part of this process, Airbus is now using satellite imagery to help insurance companies make better decisions on what types of products to offer such farmers.

Second, ICT is the driver behind the use of autonomous agents, which can adjust basic heating and cooling systems, lighting, and other appliances to maximize energy efficiency according to user needs. For example, Phillips Lighting has installed meters in streetlights, offices, and homes to offer greater control over lighting (which produces 15% of global emissions). Schneider Electric used ICT in a similar way to reduce emissions from its headquarters by 75%.

Third, ICT is connecting users around the globe at a staggering pace, and places users at the center of the process in a way that fundamentally changes their role and power. A side event organized by Africa 4 Tech called “Africa: The Innovation Model of Tomorrow”, highlighted how ICT can enable companies to provide micro-insurance to people in developing countries for health care in treating negative effects that result from climate change.

At the center of these different events was a fact that we strongly support at The Bridge Tank: these technologies have an overwhelmingly positive role to play in developing countries as well. In fact, they can enable countries in Africa and other undeveloped regions to leapfrog in their development paths. Think of the advantages. Instead of retrofitting, developing countries can focus on integrating ICT-driven sustainable solutions from the start. They can take advantage of lower initial cost levels to build this infrastructure with a lower price tag. ICT solutions can help solve energy poverty and energy efficiency at the same time.

Perhaps the most interesting example of this was presented by Dr. Vijay Modi, who has worked on projects to enable energy access in impoverished areas. What he discovered is that if the product is adapted to the local needs of the population, ICT can support the birth of a new business model. Dr. Modi found a way to provide electricity through basic mobile phones for around \$1/day, where previous utilities companies had failed by asking for a price of around \$300/month. The results were outstanding; within one season, he observed increases in income of between \$4,000-5,000 in the areas where he worked.

That might be the most important role that ICT can play in pushing climate action forward. We're often told that sustainable solutions will be expensive, that it will cost companies. But ICT solutions prove otherwise. They create new market opportunities and business models to match these. They connect users and providers. They provide us with the data we need to make smarter devices and decisions. If we actually achieve that 20% reduction in emissions by 2030 that is enabled by ICT, we'll see other benefits as well - \$11 trillion in savings and 2.5 billion more people connected to energy sources. We need policies and continued innovations to match that ambition.

*Alessandro Bordoli, Joséphine Glorion, Sophia Semlali*

## **ADDENDUM**

### **Events organized by The Bridge Tank**

<b>Innovation 360°: The crossroads of reflection and innovation at the COP 22</b>	Africa Pavilion	November 7th
<b>Towards 360° innovation in the fight against climate change</b>	Radisson Blu Hotel	November 9th
<b>Structuring new climate change markets: South-South business models for after the COP 22</b>	Green Zone	November 16th
<b>Which Innovations to face Climate Change ?</b>	Green Zone	November 16th

\* see summaries on our website [www.thebridgetank.org](http://www.thebridgetank.org)

### Side-events attended by The Bridge Tank's team

<b>Afrique : le modèle d'innovation de demain: Comment l'innovation numérique en Afrique peut-elle contribuer à résoudre certains défis mondiaux dans le domaine de l'agriculture, l'énergie, la santé et l'éducation ?</b>	November 7th 13H-14H30	Africa4tech Partners : EDF, Fondation Pierre Fabre, Medtech, Engie, OCP, Sanofi, Michelin, Sigfox, Technopark Maroc, Ecole 42, Jokkolabs, Cluster Solaire Maroc, Ashoka, Devovx Maroc, Agence Micro-projet. En cours: Google, Orange, Société Générale, Inwi ...
<b>How to financially boost a green greenfield ?</b>	November 10th 14h30-16h00	MASEN
<b>Decarbonizing Electricity Systems: Progress Made and Challenges Ahead</b>	November 10th 17h-18H30	OCP Policy Center & Atlantic Council. Morocco Co-organizers: Institut Français des Relations Internationales (IFRI)
<b>L'Afrique, terre de croissance et d'innovation</b>	November 10th 17h-18H30	Energies pour l'Afrique Co-organizers : NewsRSE
<b>Journée de l'industrie - Les écosystèmes industriels au service d'une croissance verte</b>	November 10th 9h-13h30	Ministère de l'Industrie
<b>Table ronde: économie solidaire</b>	November 11th 14h-16h30	INPI/OMPIC
<b>X Afrique - COP22</b>	November 11th 17h-19h	Polytechnique Maroc
<b>World Climate Summit - Building on the global deal</b>	November 13th 9h-18h	World Climate Ltd.
<b>Climate Summit for local and regional leaders</b>	November 14th 11h-13h	Commune de Marrakech/FMDV
<b>Enabling agricultural insurance in a global public private coalition</b>	November 15th 09h-10h30	ENERGIES 2050 Partners : SABER-ABREC (Togo), ethiCarbon Afrique, LDC Group (Least Developed Countries Group), UNFCCC Secretariat, Enda- Niger
<b>Women Leaders Summit and the Global Transformation</b>	November 16th 14h30-18h	Minister of Environment of Morocco
<b>Low Emissions Solutions Conference</b>	14, 15, 16 November (all day long)	WBCSD

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