

Transition Through Innovation

Accelerating the development of affordable green innovations

With the COP21 Paris summit approaching two major climate change issues will resurface:

- *Can countries fulfill their existing or future pledges to reduce greenhouse gas (GHG) emissions?*
- *Can this be done at an affordable cost or without leading to drastic drops in our living standards?*

Launched in 2014 at the R20¹ Paris summit in cooperation with the Observatoire du Long Terme (Long Term Observatory) think-tank and the strategy consulting firm Corporate Value Associates (CVA), the “Transition Through Innovation” initiative offers a new contribution to answer these challenging questions. In this report we demonstrate that:

- 1. GHG emissions can be reduced at a lower cost than anticipated by most existing reports***
- 2. This can be achieved if we implement policies favorable to Affordable Green Innovations (AGIs), which are solutions – today underdeveloped - that reduce GHG emissions at a very low cost***
- 3. The analysis contained in this report, including the study of the main roadblocks faced by AGIs from a diverse panel of companies, confirms that this is both theoretically and practically possible***

This report contains a large set of new and pragmatic ideas to lower climate transition costs and stimulate innovation (see next page).

Report link: <http://report.ttialliance.org> - available at 12pm GMT, Feb 5th

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¹ Regions of Climate Action - R20 is an environmental nonprofit created by former California governor Arnold Schwarzenegger in 2010 with the support of the United Nations and presided by Michele Sabban. The R20 gathers sub-national governments, private companies, international organizations, NGOs and academic and financial institutions. Its mission is to help sub-national governments implement low-carbon and climate change-resilient projects in order to build a “green economy”.

New Ideas in this Report (non-exhaustive)

- How the current cost of the climate change transition, estimated at 1-5% of world GDP by existing reports, is based on present technologies and can thus be **further lowered by innovation**
- The key concept of **“Affordable Green Innovations” (AGIs)**, which should be at the core of strategies to reduce the cost of climate action
- How the **current situation is not favorable to this**; our analysis confirms a “green innovation slowdown” that needs to be addressed
- New propositions to use a **“carbon signal” in the long-term to steer small and large innovators** towards useful green inventions
- Strategies to improve short-term “carbon signals” to **adapt them to both carbon-emitting and carbon-reducing industries, as well as developed and developing economies**
- An emphasis on the increasingly important **part played by emerging economies** which have outgrown their role of mere passive users and develop their own technologies
- An appendix presenting **numerous innovative solutions developed by companies** that reduce emissions at a profit or at a low cost
- A microeconomic approach, based on an **analysis of the individual roadblocks which limit companies** when trying to develop or market new AGIs
- A **classification of green innovations** in categories which helps better identify, and thus address, the different types of roadblocks
- The **“power of the multitude”** of small solutions reducing GHG emissions, often neglected in favor of big technology bets, which represents a massive cumulative contribution
- A **systemic and holistic analysis of policies** that both summarizes the current literature on innovation for policymakers and in doing so highlights the interdependence of these recommendations
- How the “Transition Through Innovation” approach can be made **coherent with the current ongoing global negotiations**