



MEMORANDUM OF UNDERSTANDING

between

the **European Commission** and
Breakthrough Energy

17 October 2018

Memorandum of Understanding on a Partnership between the European Commission and Breakthrough Energy

1. INTRODUCTION

The European Commission (“EC”), the institution of the European Union (“EU”) that executes the Union policies and promotes its general interests, and Breakthrough Energy (“BE”), a group of organizations committed to building new tools to address climate change that includes Breakthrough Energy Coalition and Breakthrough Energy Ventures, hereinafter referred to as “Sides” agree on the following:

Climate change is a defining challenge of the 21st century and necessitates a global commitment to decreasing greenhouse gas emissions.

We need new tools and technology to address all sources and drivers of greenhouse gas emissions that cause climate change.

While we need to accelerate deployment of the tools and technologies we have today, we also need to prioritize moving the next generation of technologies that can address climate change from lab to market.

Speeding the energy innovation pipeline is one of the most significant contributions we can make to overcome the devastating effects of a rapidly changing climate.

Yet, rapidly creating and scaling new clean energy technologies requires novel approaches to public and private sector engagement in order to: 1) support world-class scientists and entrepreneurs with risk-tolerant and patient capital; and 2) address the market and policy challenges facing new enterprises in this field.

The EU, as a world leader in addressing climate change, and BE, as a catalyst for clean energy-focused investment, have a unique opportunity to jointly develop new innovation and commercialization tools to accelerate the next generation of climate and energy technologies.

To this end, the Sides seek to pilot a new approach to public-private partnership to support the creation and success of innovative European companies to fight the global climate crisis.

2. BACKGROUND

Recognizing that a number of significant developments in the area of international efforts to combat climate change have taken place in the last few years, which are relevant to the present Memorandum of Understanding (“MoU”), namely:

- At the twenty-first session of the Conference of the Parties to the Kyoto Protocol (“COP 21”) in Paris, on 12 December 2015, a landmark agreement to combat climate change and to accelerate and intensify the actions and investments needed for a sustainable low carbon future was reached that charts a new course in the global climate effort.
- In the margins of COP21, the Mission Innovation initiative was launched to accelerate clean energy innovation, where twenty governments representing more than 80 percent of global clean energy investment pledged to double their clean energy research and development funding over five years to approximately US\$30 billion per year by 2021.
- On the same occasion, a group of investors from ten countries representing leadership from many key economic sectors announced their intention to drive innovation from the laboratory to the market through the investment of patient capital at unprecedented levels into early-stage technology development in Mission Innovation participating countries, thereby creating the Breakthrough Energy Coalition.
- The EC joined Mission Innovation on the occasion of the first Mission Innovation Ministerial in San Francisco in June 2016.
- In November 2016, the EC adopted a legislative package ‘Clean Energy for All Europeans’ presenting a comprehensive set of measures to keep the European Union at the forefront of competition as the clean energy transition is changing the global energy markets. In particular, innovative financial instruments using European funds to decrease the risk profile of research and development, thereby boosting private investment in promising projects, are among the key priorities of the Communication ‘Accelerating Clean Energy Innovation’, which was part of this package.
- In December 2016, certain members of the Breakthrough Energy Coalition formed Breakthrough Energy Ventures, an investor-led fund to build new, cutting-edge energy companies.
- In December 2017 at the One Planet Summit in Paris, BE announced the expansion of the Breakthrough Energy Coalition from the 26 private investors announced at COP21 to include prominent companies, funds, institutional investors and banks that share a commitment to accelerate the commercialization of new energy technologies. The additional Breakthrough Energy Coalition members include: African Rainbow Capital, African Rainbow Minerals, BNP

Paribas, Breakthrough Energy Ventures, Energy Impact Partners, ENGIE, General Electric, Microsoft, National Grid, OGCI Climate Investments, Prelude Ventures, Reliance Industries Limited, SAP SE, Total, University of California, Virgin Group, Wells Fargo, and the Wearsheaf Group. The Breakthrough Energy Coalition also announced the piloting of public-private partnerships with five Mission Innovation members, including the EC.

- The European Union Framework Programme for Research and Innovation for the period 2014-2020 (“Horizon 2020”), as well as the proposal for its successor for the period 2021-2027 (“Horizon Europe”), support amongst its top priorities the fight against climate change, including through international cooperation and increased access to risk finance.

3. SHARED PRINCIPLES

Understanding the EC’s commitment to establish new support mechanisms for market-creating, ground-breaking energy innovations and to provide comprehensive support for businesses, including small- and medium-sized enterprises, with potential to enter global markets;

Understanding BE’s objectives to link cutting-edge, government-funded research to patient, risk-tolerant capital so that more clean energy innovations get to market faster, more efficiently, and in more places to address climate change;

Understanding, the shared commitment of the Parties to accelerate the commercialization of breakthrough, low-carbon energy technologies in the EU and the global marketplace;

In view of the above, the Sides seek to initiate a new model of public-private cooperation to catalyse more direct private investment into breakthrough European low-carbon technology companies and innovators that provide solutions to climate change.

4. PARTNERSHIP TO BOOST PRIVATE INVESTMENT IN EUROPE TO INNOVATIONS PROVIDING SOLUTIONS TO CLIMATE CHANGE

The Sides will seek to establish a novel framework of cooperation to identify, invest in, and promote the growth of European companies developing new technologies, business models, and/or approaches to overcoming the climate crisis.

Such cooperation will be articulated around the following initiatives:

4.1. JOINT INVESTMENT VEHICLE

The Sides will endeavour to work towards the establishment of a joint, European-incorporated investment vehicle, Breakthrough Energy Europe (“BEE”), whose goal is intended to be investing

in and developing economically-viable breakthrough clean energy technologies and companies established in the EU and, subject to conditions established by the Framework Programme and related Association Agreements, in countries associated to Horizon 2020 and Horizon Europe.

BEE is intended to focus its investments on the five key areas that reflect the major energy-related challenges where efforts are essential to combat climate change: (1) electricity, (2) transportation, (3) agriculture, (4) manufacturing, and (5) buildings. Investments will aim to make material reductions in greenhouse gas emissions—targeting innovations that have the potential to reduce at least half a gigaton of greenhouse gases every year.

Provided that a joint, European-incorporated investment vehicle has been established, the Sides intend to capitalize BEE by way of equity commitment of €100 million initially, of which:

- €50 million would come from BE (or its affiliates); and
- €50 million would come from the EC through InnovFin, the financial instrument of Horizon 2020 managed by the European Investment Bank Group (EIB), in line with the EU's objective on clean energy innovation in Europe.

The Sides envisage to jointly establish a governing body for BEE. The governing body will manage BEE, hire EU-based private sector investment professionals and set the investment strategy.

The Sides are willing to welcome additional public and/or private sources of capital provided that they adhere to the objectives of the Sides as laid down in the MoU, and agree to the BEE's terms.

Following the completion of this MoU, the Sides shall endeavour to negotiate in good faith a detailed term sheet for the establishment and operation of BEE. The term sheet is expected to address the proposed legal framework, corporate governance, management, investment guidelines and other key terms for such investment vehicle with the intention to commence operations in 2019..

4.2. ADDITIONAL SYNERGIES IN PROJECTS AND PROGRAMMES FUNDED BY THE EUROPEAN UNION
Through various policies, programmes and instruments, in particular through Horizon 2020 and its proposed successor, Horizon Europe, the EU provides funding to clean energy innovators. Subject to the conditions established therein, BEE's portfolio companies will have an opportunity to access potential support and funding options from relevant EU Programmes—including, but not limited to the European Innovation Council (EIC) in its future pilot and fully-fledge phases, InnovFin EDP and its successor(s) under InvestEU, the future EU financial instrument for the period 2021-2027.

As investments that emerge from these programmes may require additional private capital, the EC may also present to BEE any such operation for possible investment, co-investment or partnership opportunities. Such opportunities could come from, but shall not be limited to, the EIC, InnovFin EDP and its successors under InvestEU, or other EU programmes, such as the Mission Innovation Champions. BEE will endeavor to screen investment opportunities presented by the EC.

5. TERMS OF UNDERSTANDING

This MoU constitutes a non-binding statement of the Sides’ intentions and does not create a legally enforceable agreement. Additional activities for EC-BE cooperation could be identified jointly based on mutual benefits in pursuit of common interests.

The term of this MoU is indefinite. Either party may request changes to this Memorandum. Any changes, modifications, revisions or amendments to this MoU that are mutually agreed upon by and between the Parties to this MoU shall be incorporated by written instrument, and effective when executed and signed by all both Parties to this MoU.

Done in Brussels on 17 October 2018 in two original copies in the English language.

For the European Commission

For Breakthrough Energy

Carlos Moedas

Bill Gates

Member of the Commission

Chairman, Breakthrough Energy Ventures

