

## Who we are

Science Policy Research Unit,  
University of Sussex



Basque Centre for Climate Change,  
Spain



Cambridge Econometrics, UK



Energy Research Centre of the  
Netherlands



Swiss Federal Institute of  
Technology



Institute for Structural Research



Joint Implementation Network,  
Netherlands



National Technical University of  
Athens, Greece



Stockholm Environment Institute,  
Stockholm, Nairobi and Oxford



University of Graz, Austria



University of Piraeus Research  
Centre, Greece



Pontifical Catholic University of  
Chile



## Our project

Climate change is with us and huge cuts in carbon emissions have been agreed as a response. The next 30 years will see most nations making radical transitions to low carbon economies

TRANSrisk is studying the risks and uncertainties within low carbon transition pathways, and how transitions can be implemented in ways that are technically, economically and socially feasible. The project will produce a new assessment framework, and tools, for policy makers.

We are studying low carbon transitions in 15 different countries across Europe, North America, Asia, Africa and Latin America.

12 leading universities and research institutes from Europe and beyond have come together for TRANSrisk, with funding provided by the European Commission.

Visit us:

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# TRANSrisk

TRANSITION PATHWAYS AND RISK ANALYSIS  
FOR CLIMATE CHANGE POLICIES

**A global study  
of technically,  
economically and  
socially feasible low  
carbon transitions,  
with a focus on  
understanding risk  
and uncertainty**

Visit us at:

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# Background

**Climate change is happening now and will have a huge impact on our lives.**

2015 saw a global agreement in Paris to limit the impact of climate change to a maximum 2°C rise. For EU countries this implies an average 80-95% cut in carbon emissions levels by 2050 (compared to 1990)\*.

To achieve these targets low carbon technologies need to be deployed on a massive scale, alongside energy efficiency and behavioural change measures. But carbon cuts cannot be delivered at the expense of everything else - the economies of tomorrow need to be dynamic, productive AND low carbon.

Transition pathways set out how we can get from the economies of today to the low carbon economies of tomorrow. Risks and opportunities exist in every low carbon transition. These need to be identified and planned for: successful transitions will avoid the risks whilst making the most of opportunities.

The start and possible end points for transitions vary hugely between countries, and even between different areas of a country. National economies are currently very different in terms of how they work and what they produce. The ability of a country to deploy any particular low carbon technology also varies significantly, due to factors such as:

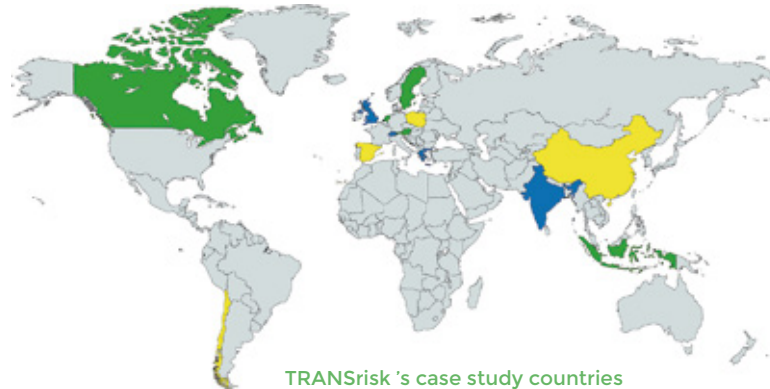
- Environmental conditions (e.g. the strength of the sun and wind).
- How quickly the technology can be deployed (infrastructure capacity).
- Financial incentives and regulations.
- Support available from Governments and other institutions.
- Public acceptability.

As the start and end points for transitions are so different there is no "one size fits all" solution—pathways will look very different for each country of the world.

\*Source - European Commission

# Where We Work

15 country case studies lie at the core of TRANSrisk's work. Each case study is focusing on the fundamental changes to economies and societies that will arise from decarbonisation. To fully understand the range of transition pathways our case studies encompass the globe: from Europe and North America to the fast growing economies of Asia, Africa and Latin America. Each case study is led by expert researchers based in the study country.



The team behind TRANSrisk is a tight knit partnership of 12 leading universities and research institutions, based in the EU, Switzerland and Chile. The project is coordinated by SPRU (Science Policy Research Unit) at the University of Sussex in the UK. Funding has been provided by the EU's Horizon 2020 programme.

Technical capacity and economics are not the only factors affecting a country's ability to deploy low carbon technologies: public acceptability also has an enormous impact. A good example is nuclear energy. In the UK plans are advanced for a new generation of nuclear reactors, whilst in Switzerland public hostility means nuclear is being phased out entirely. The technical ability of both countries to install nuclear reactors is roughly comparable but public acceptability puts the two countries on very different transition pathways.

## Why is Public Acceptability Important?

# Our approach

TRANSrisk's unique approach combines technology and economic modelling tools with input from people working in the study area ('stakeholders'). Models provide a useful means of predicting the future impacts of decisions we take now, but factors such as political and public opinion are very difficult to predict via numbers on a spreadsheet. TRANSrisk is using stakeholder input to feed our models, and is presenting the results back to stakeholders to see how this affects their views.



TRANSrisk's stakeholder engagement approach

# Expected Impact

TRANSrisk's key output will be a new framework, with accompanying tools, to help policy and other decision makers evaluate low carbon technology options. The framework will cover the environmental, economic and social impacts of these technologies.

On our way to achieving this output we will improve scientific understanding of how low carbon transition pathways can be implemented across the diverse economies of the world.

Ultimately TRANSrisk's outputs will help policy and decision makers implement more effective climate change policy, and improve their understanding of the costs, benefits, risks and uncertainties of rolling out low carbon technologies.