

## Upcoming events

18 Jun 2016

17:00-21:00

Highfield, Bld 46

*Climate Conversations & UoS: Film Showing - This Changes Everything* (Naomi Klein)

Filmed over 211 shoot days in nine countries and five continents over four years, *This Changes Everything* is an epic attempt to re-imagine the vast challenge of climate change.

More info and tickets:  
<http://tinyurl.com/jchxrs>

19 Oct 2016

14:00-17:00

Venue TBC

### CLEAN CARBON Showcase

Dr Robert Raja &  
Dr Doug Connelly

Utilisation and Sequestration:  
2 talks showcasing Clean Carbon research

More info:  
<http://tinyurl.com/zrl83wm>

18 Nov 2016

15:00-17:30

Venue TBC

### CLEAN CARBON Meets..

Professor Jon Gibbins  
Title: TBC

## External presentations and attendances

[Sally Brown](#) presented her 'Adaptation Futures' in Rotterdam, from the [RISES-AM](#) project

[Robert Nicholls](#) presented his research into coastal subsidence from the [RISES-AM](#) project at the 2nd International Workshop on Coastal Subsidence, Venice

[Pier Sazio](#) and [Lindsay-Marie Armstrong](#) attended the recent Policy Exchange: "Rethinking CO<sub>2</sub>: how can we put it to use?" which emphasised the need for CO<sub>2</sub> conversion into useful products



Upcoming multidisciplinary event and seminars that you would like to advertise to the wider carbon community? Email [fmc@soton.ac.uk](mailto:fmc@soton.ac.uk)

## CLEAN CARBON HEADLINE

### Southampton scientists are reducing climate change: turning CO<sub>2</sub> into rock

University of Southampton researcher [Dr Juerg Matter](#), who is Associate Professor in Geo-engineering at Southampton's National Oceanography Centre, is the lead author on a study, published today in the distinguished peer reviewed journal *Scientist*, which describes a method of taking CO<sub>2</sub> captured from the atmosphere, and turning it into solid rock.

The study shows how the CO<sub>2</sub> can be safely sequestered by mixing it with water and injecting it into basaltic rocks.

The method permanently locks CO<sub>2</sub> away from the atmosphere, via a mineralisation reaction that takes place, in suitable volcanic bedrock, when CO<sub>2</sub> comes into contact with it. It was thought that this process of mineralisation would take hundreds or even thousands of years to complete, but [the research](#), with partners: Columbia University, University of Iceland, University of Toulouse and Reykjavik Energy, shows that it can take as little as two years.

"The overall scale of our study was relatively small," says Dr Juerg Matter, who leads the 'Sequestration' research theme for the University's Clean Carbon strategic research group. "So, the obvious next step for CarbFix is to upscale CO<sub>2</sub> storage in basalt. This is currently happening at Reykjavik Energy's Hellisheidi geothermal power plant, where up to 5,000 tonnes of CO<sub>2</sub> per year are captured and stored in a basaltic reservoir."

More info: <http://tinyurl.com/zwga8xf>



## CLEAN CARBON News Release

### First Clean Carbon Showcase

Our first Clean Carbon showcase event kicked off with great success. 34 academics and researchers welcomed Professors [Robert Nicholls](#) (left) and [Patrick James](#) (right) who presented their research on mitigating and adapting to climate change in coastal areas; and technologies to allow behavioural change to save energy, respectively. A lively panel discussion also welcomed Dr Milena Buchs and Dr Sally Brown, who offered their expert insight into issues relating to the consequences and behaviours associated with carbon. Don't miss the next one, details [left!](#)



### Prestigious speaker lined up for our Clean Carbon launch event

On Friday 25<sup>th</sup> November we will host our first large scale Clean Carbon event for internal and external members, along with guest speaker Professor [Jon Gibbins](#). There are very few in the field of carbon who have not heard his name before as he is the Director of the UK CCS Research Centre and Professor of Power Plant Engineering and Carbon Capture at the University of Sheffield. Although the fine details will be finalise in the forthcoming weeks we do know that the event will host a PGR/ECR "Quickfire" poster event; Professor Mark Spearing, PVC Research, will open and chair the guest speaking event and Q&A session, followed by a wine reception.

For more details and to book onto the event: <http://tinyurl.com/hmm3scr>



### "What on Earth is that???"

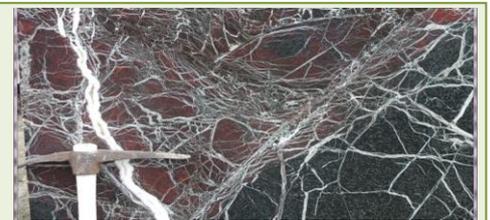
Here is a snap shot of an image taken from one of our researchers.

#### Can you guess what it is?

Find out if you are right here: <http://tinyurl.com/j944tbn>

**Bad news:** there are no prizes!!

**Good news:** send us something and we'll post it too!



## CLEAN CARBON Publication Spotlight

- \* Adam, E.; et al. (2016) [A systematic assessment of maritime disruptions affecting UK ports, coastal areas and surrounding seas from 1950 to 2014](#). *Natural Hazards*, 1-23
- \* Matter, J.; et al. (2016) [Rapid carbon mineralization for permanent disposal of anthropogenic carbon dioxide emissions](#). *Science*, 1312-1314
- \* Sanchez-Arcilla, Agustin, et al. (2016) [A review of potential physical impacts on harbours in the Mediterranean Sea under climate change](#). *Regional Environmental Change*, 1-14.

### How can we provide more support for our PGR community?

- Multidisciplinary networking events?
- Poster presentation sessions?

**Please forward this newsletter to your PGR students and ask them to email [fmc@soton.ac.uk](mailto:fmc@soton.ac.uk).**

We want to arrange a networking event to find out what they need and what we can do to support them and further their careers.

New to Clean Carbon and would like to join? Please complete the following application form: <http://tinyurl.com/CC-appl-form> - all are welcome, including students or those outside the University.