

Sustainability

Be effective, not nice

Keith Clarke

The Guardian | Friday 19 August 2011

National



A scene from the film Mars Attacks!, where aliens try to take over Earth - a Nasa report has looked into possible effects of contact from other planets Photograph: Allstar

Cut carbon to avoid alien attack, says Nasa

Damage caused to Earth by ... tion growing out of control - and take dras- ... Beneficial encounters may come from the ...

This is about.....

YOU as a professional,

i.e.

designer of built environment

NOT ABOUT YOUR LIFESTYLE

You may choose

1. Cycle
2. Eat meat once a week
3. Wash clothes at 30°C
4. Recycle
5. Invest in green funds
6. Limit flying...

....and...and....

THIS IS ABOUT
WHAT YOU WILL DESIGN

Sustainability

- Basic – WWF ‘One World’
- Triple bottom line
- CSR – Corporate Social Responsibility

Sustainability

- Leftish
- Fairness
- Simpler lives ?
- Vaguely anti-International Corporation
- Widely used to improve 'image'

Sustainability

- Fundamentally correct
- Has not succeeded as a movement

Two game-changers

1. Population
2. Climate change

Climate change is real

- Stern Report
- Inconvenient Truth
- IPCC Reports
- Royal Society

Copenhagen Accord

below 2 degrees Celsius

a comprehensive adaptation programme including international support.

Copenhagen Accord

The Heads of State, Heads of Government, Ministers, and other heads of the following delegations present at the United Nations Climate Change Conference 2009 in Copenhagen: [List of Parties]

In pursuit of the ultimate objective of the Convention as stated in its Article 2,

Being guided by the principles and provisions of the Convention,

Noting the results of work done by the two Ad hoc Working Groups,

Endorsing decision x/CP.15 on the Ad hoc Working Group on Long-term Cooperative Action and decision x/CMP.5 that requests the Ad hoc Working Group on Further Commitments of Annex I Parties under the Kyoto Protocol to continue its work,

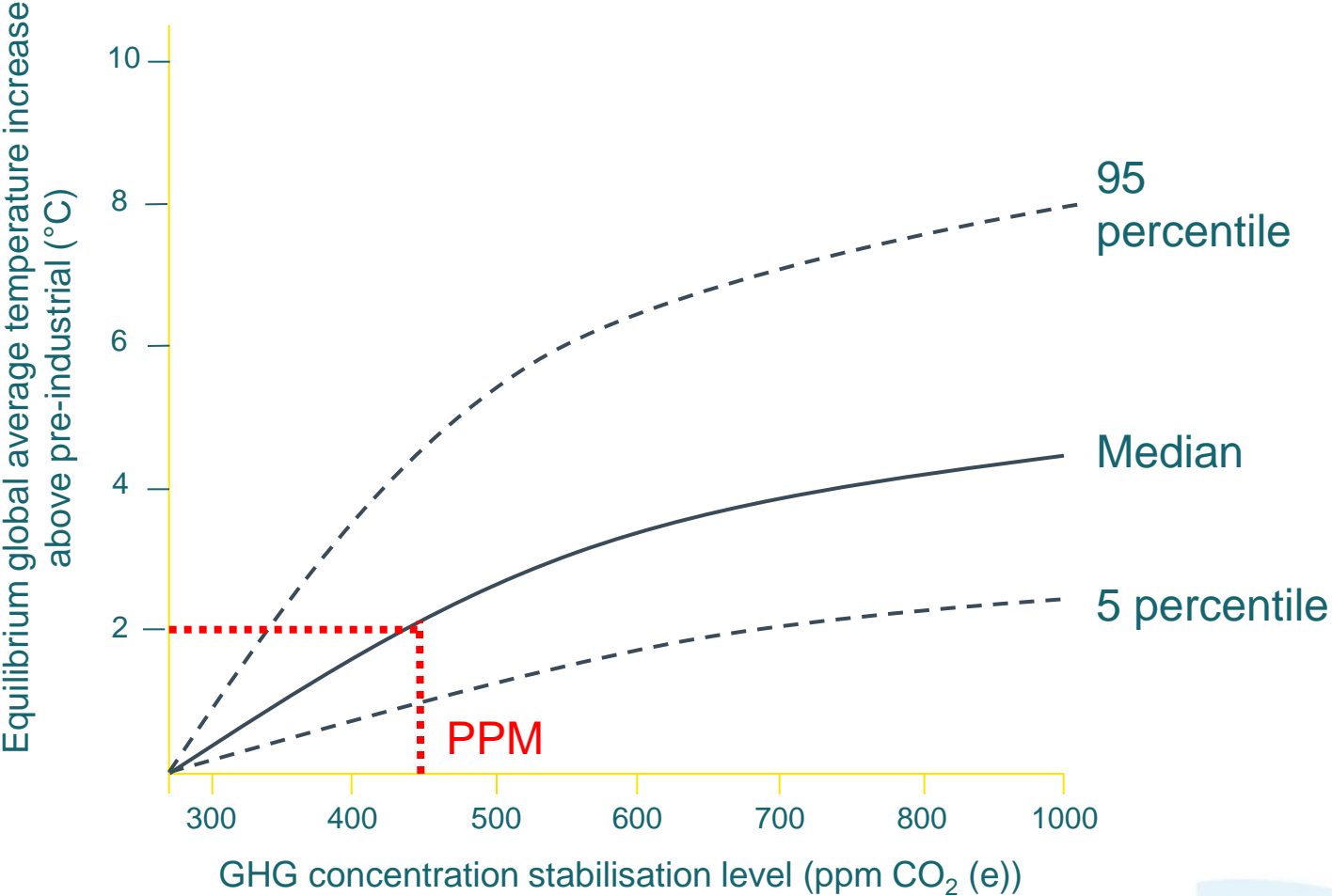
Have agreed on this Copenhagen Accord which is operational immediately.

1. We underline that climate change is one of the greatest challenges of our time. We emphasise our strong political will to urgently combat climate change in accordance with the principle of common but differentiated responsibilities and respective capabilities. To achieve the ultimate objective of the Convention to stabilize greenhouse gas concentration in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system, we shall, recognizing the scientific view that the increase in global temperature should be below 2 degrees Celsius, on the basis of equity and in the context of sustainable development, enhance our long-term cooperative action to combat climate change. We recognize the critical impacts of climate change and the potential impacts of response measures on countries particularly vulnerable to its adverse effects and stress the need to establish a comprehensive adaptation programme including international support.

2. We agree that deep cuts in global emissions are required according to science, and as documented by the IPCC Fourth Assessment Report with a view to reduce global emissions so as to hold the increase in global temperature below 2 degrees Celsius, and take action to meet this objective consistent with science and on the basis of equity. We should cooperate in achieving the peaking of global and national emissions as soon as possible, recognizing that the time frame for peaking will be longer in developing countries and bearing in mind that social and economic development and poverty eradication are the first and overriding priorities of developing countries and that a low-emission development strategy is indispensable to sustainable development.

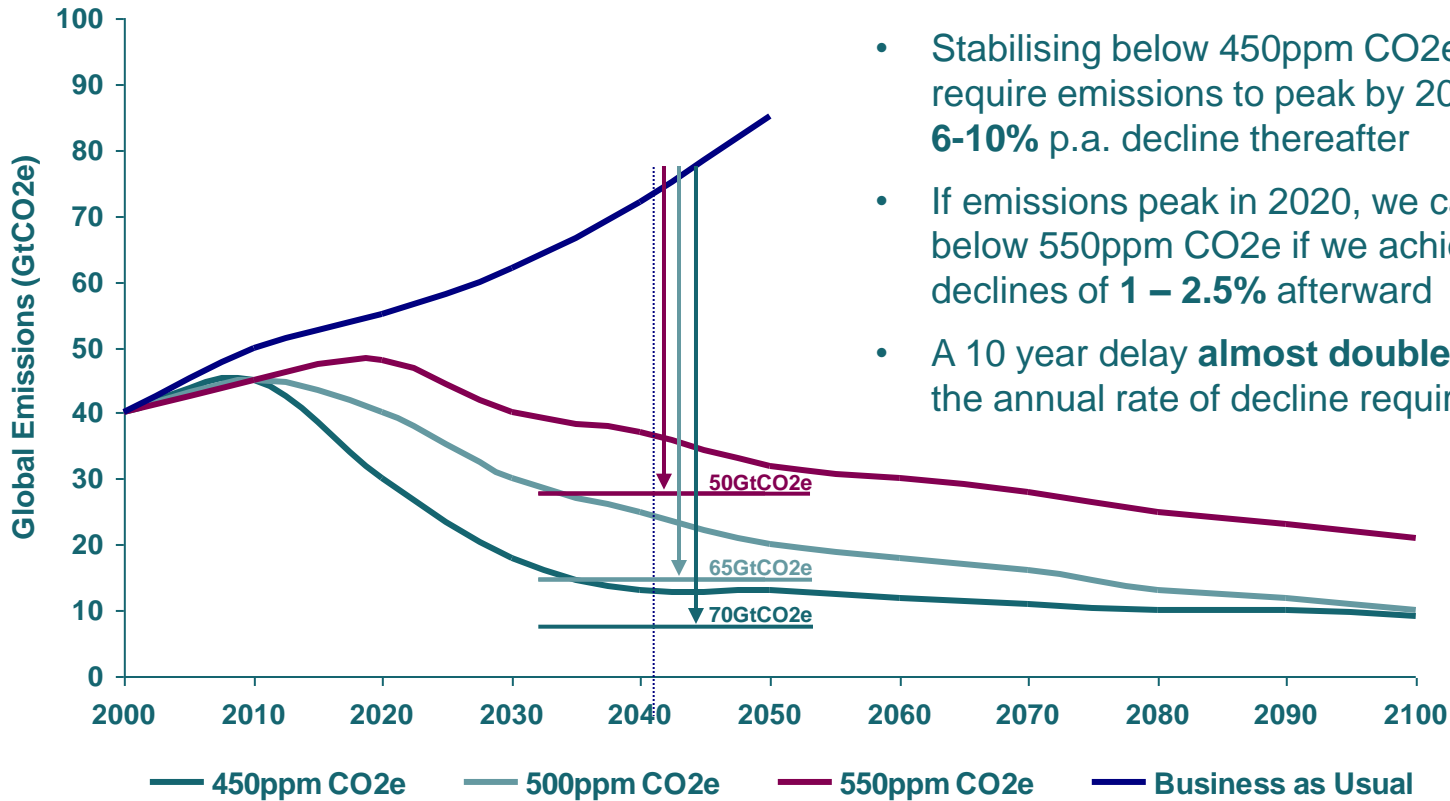
3. Adaptation to the adverse effects of climate change and the potential impacts

IPCC Temperature Rise



Decarbonising the World

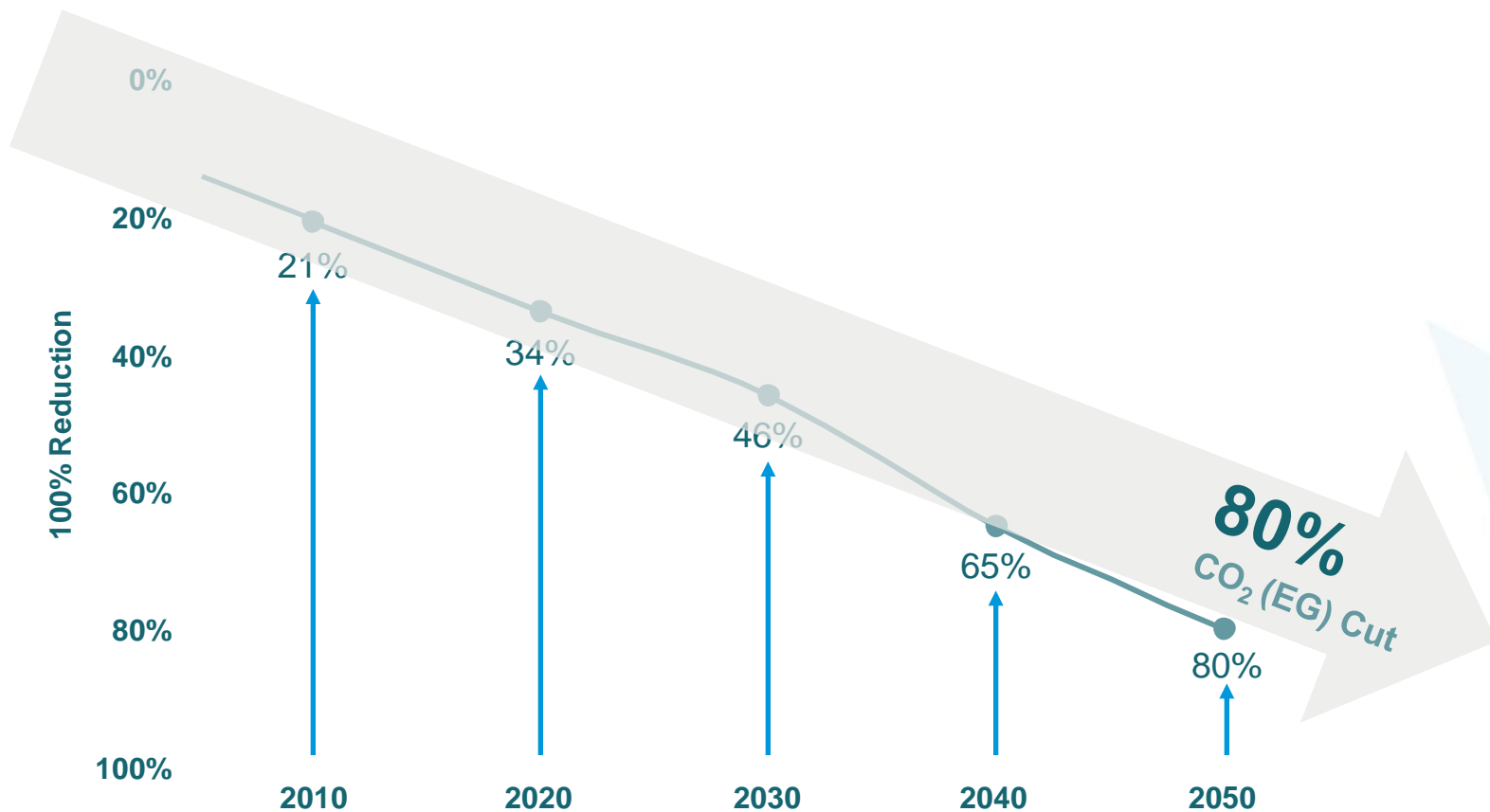
Delaying Mitigation is Dangerous and Costly



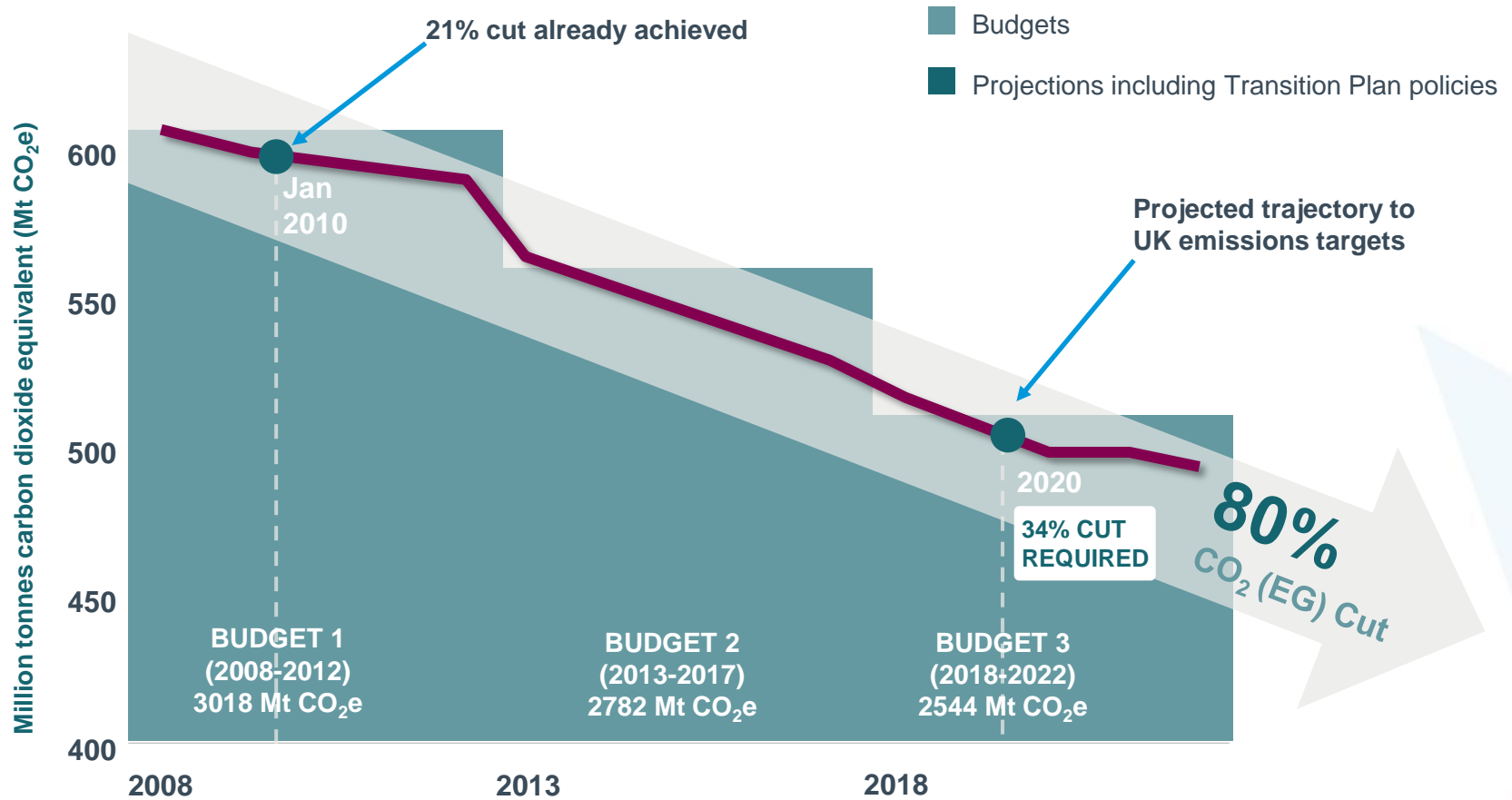
- Stabilising below 450ppm CO₂e would require emissions to peak by 2010 with **6-10%** p.a. decline thereafter
- If emissions peak in 2020, we can stabilise below 550ppm CO₂e if we achieve annual declines of **1 – 2.5%** afterward
- A 10 year delay **almost doubles** the annual rate of decline required

(falling to 450ppm CO₂e in 2150)

80% UK Carbon Reduction Commitment



5 yr UK Carbon Budgets



Source: Department for Energy & Climate Change



India expects freight corridors to cut emissions by 50%

PTI
NEW DELHI

INDIAN Railways expects over 50 percent reduction in green house gas emissions (GHG) from movement of freight traffic once its proposed dedicated freight corridors come into operation.

A 'carbon footprint analysis' conducted by Dedicated Freight Corridor Corporation for the Eastern corridor shows this section would be much more environment friendly despite the higher load, which it has to

HIGHLAND 16 Oct - 6 Nov
sale
 FIFTY CENTER THE MALL

QU, GORD SIGN MOU TO REDUCE CARBON EMISSION
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VETTEL WINS INAUGURAL INDIAN GP
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FOR COLBIE CAILLAT, LOVE INSPIRES MUSIC
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Qatar Tribune

First with the news and what's behind it

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Newsline | Natonline | Businessline | Lifeline | Sportsline

MONDAY OCTOBER 31, 2011 DHU AL-HUJA 4, 1432

DOW JONES 12,220 +31 PTS SENSEX 17,804 +516 PTS WEATHER	QE 8,617 +64 PTS CURRENCY Indian Rupee 13.39 Philippine Peso 11.70 HOT AND HAZY HIGH 32°C LOW 25°C
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Newsline



Danica Camacho, the seven-billionth baby to arrive in the world, lies on the chest of her mother, Camille, at a family hospital, in

EMIR WITH MAHMOUD ABBAS



The Emir His Highness Sheikh Hamad bin Khalifa al Thani with Palestinian President Mahmoud Abbas, in Doha, on Sunday.

Bloodshed must stop, Doha meet tells Assad

TRIBUNE NEWS NETWORK & AGENCIES DOHA

THE Arab League on Sunday proposed a plan to end the bloodshed in Syria and expects President Bashar al



QU, GORD sign MoU to reduce carbon emission

IHSAN YOUSSEF
DOHA

QATAR University signed a memorandum of understanding (MoU) with Gulf Organisation for Research and Development (GORD), Qatar's leading research, consultancy and training institute and the developer of the Global Sustainability Assessment System (GSAS), on Sunday.

The deal will help launch joint initiatives and projects aimed at conserving energy, reducing carbon emissions and creating an integrated community based on economic and environmental equilibrium while preserving the architectural identity of the Arabian Gulf.

The agreement was signed by Dr Yousef Mohammad al Horr, founder and chairman of GORD, and Dr Hassan Rashid al Derham, vice-president of Qatar University for Scientific Research.

The signing of the MoU is in line with a shared vision of



Dr Yousef Mohammad al Horr, founder and chairman of GORD, with Dr Hassan Rashid al Derham, vice-president of Qatar University for Scientific Research, at the MoU signing event, in Doha, on Sunday.

promoting the adoption of the concept of sustainability in Qatar and the Gulf region. The parties agreed to develop a general framework for coordination to teach and integrate GSAS into the university's education curricula to raise awareness about sustainable building practises and encourage optimum consumption of energy, water and environmental resources. The parties will also cooperate more effectively in the field of development and research in environmental issues of common inter-

est as well as the application of GSAS criteria in the facilities of Qatar University and activation of joint research through grants provided by competent authorities or through post-graduate programmes offered at the university. Under the agreement, the GORD will grant the university the right to use all the tools available in the GSAS through free and unrestricted 'education licence', that is open in terms of duration and number of users. This licence can be used to serve all scien-

tific teaching, research and academic purposes focused on green-building, excluding each consulting activity or research with financial returns.

On its part, the University will provide GORD with scientific observation and result of studies that may be used to further develop GSAS, which is one of the most comprehensive systems at the global level.

The cooperation involves the participation of PhD researchers in teaching at the university when needed and supervising masters and doctoral dissertations in various fields of sustainable environment.

Commenting on this agreement, Derham said, "We are honoured to enter into a strategic partnership with a high-profile research organisation like GORD. We will work on activating joint research practises either through research grants provided by competent authorities or through post-graduate programmes offered by the University."



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SUN GOES DOWN ON THE SOLAR INDUSTRY P15

DRIVING FORCE

STOBART BOSS TAKES ALTERNATIVE ROUTE

INTERVIEW P6



30.10.11

THE SUNDAY TIMES
thesundaytimes.co.uk/business

Section 3

BUSINESS

Plot for £1.3 trillion British fund

Tory donor pitches radical scheme for sovereign wealth fund to bankroll infrastructure

Iain Dey

A RADICAL PLAN to create a multi-billion-pound sovereign wealth fund and wipe out the nation's pensions black hole is being examined in Whitehall.

The scheme would see the creation of a state-backed

investment agency that would rival those set up by Norway and many Middle East and Asian states to put government cash to work.

Large-scale infrastructure projects — road and rail links, power stations and affordable housing — would be bankrolled

by the fund, creating jobs and economic growth.

The projects would be owned by Britain's pensioners and the assets would offset part of the black hole in Britain's public sector pension schemes, which stands at about £3.3 trillion.

The plan has been put forward by Eddie Truell, the private equity guru, pensions expert — and Conservative party donor. Truell's pension buyout firm, Pentonix Corporation, sponsors a think-tank at the London School of Economics that has been working

on plans to fill Britain's public sector pension black hole.

Truell also wants to merge thousands of public sector pension schemes into bigger schemes, generating savings on administration costs and advisory fees. The LSE academics have estimated that this could save £34.5 billion over five years.

It is understood that a number of government departments have discussed the proposal. The Cabinet Office, which co-ordinates discussions between different branches of

Whitehall, said the government regularly receives ideas for reform from the private sector but declined to comment further.

The sovereign wealth fund would be funded with a huge increase in the issuance of government debt, capitalising on the record low interest rates currently available to Britain in the financial markets.

Issuing the debt should not — in theory — damage Britain's credit rating. Rating agencies already count the £1.3 trillion pension black hole when they

assess Britain's credit-worthiness. The debt raised would acknowledge the liability.

It is highly unlikely that the government would choose to issue enough gilts to monetise the full £1.3 trillion deficit. However, senior bankers believe it would be possible to issue enough extra debt to make a meaningful dent in the pensions problem.

Issuing an extra £60 billion of gilts a year for five years would raise enough cash to create a giant fund to clear the deficit in the National Health

Service pension scheme, for example.

"The government is desperately trying to find a good reason to issue mountains of debt to fund growth projects while rates are low," said one senior banker. "This could be a way to do it without hurting the public accounts too much."

Britain's desperate struggle for growth will be underlined this week when figures show continuing weak performance in the third quarter. The consensus is for a 0.3% increase in GDP in the three months to the

end of September, a small improvement on the 0.1% recorded in the previous quarter, when the royal wedding was blamed for dampening the economy.

However, several top institutions, including Goldman Sachs and Citigroup, think this week's figure will be higher, at 0.5%. America grew by 2.5% over the same period.

Most economists expect a fall back in the last quarter thanks to the eurozone crisis. Over the year, the economy is expected to grow by about 1.5%.

Try a wee dram of the green stuff

Whisky makers are using their waste to produce electricity. **Matthew Goodman reports**

IN the drinks trade, whisky is popularly referred to as one of the brown spirits, but that may soon have to change to green.

Scotch producers have been building or expanding distilleries to make them more efficient and environmentally friendly.

In particular, they have worked out how to use the waste from the production process to power biomass plants that produce enough heat and energy to run the distilleries. They are avoiding thousands of tonnes of carbon dioxide emissions and cutting their energy bills.

This month, William Grant & Sons, whose brands include Glenfiddich, announced an expansion of its tie-up with GE, in which the American conglomerate supplies engines that run on gas produced by an "anaerobic digester", a piece of equipment that converts the waste grain from whisky production into methane.

In the new year, a fourth GE engine will come into service at Grant's Girvan distillery in South Ayrshire. This follows two that were commissioned in 2009 and a third that was added this summer.

A year ago, Diageo, the world's biggest scotch producer and owner of brands such as Johnnie Walker, Bell's and Dalwhinnie, opened a distillery at Roseisle on Speyside, the first new-build scotch-producing facility in Scotland for 30 years. It features a £15m bio-energy plant.

The company is due to follow this up in the spring with a 95m bio-energy plant at Cameron Bridge, Fife, the largest whisky distillery in Scotland. Diageo claims this is the biggest investment yet made in

renewable energy in Britain by a non-utility company.

The new facility will be a significant improvement on Roseisle in at least one crucial respect. While the bio-energy plant at Roseisle meets about 90% of the energy requirements of the distillery, it is hoped its counterpart will provide about 95% of the power for Cameron Bridge, where the energy bill is about £5m a year.

Much of the difference, said Michael Alexander, head of environment at Diageo, is a matter of scale. Cameron Bridge, which is a grain whisky distillery (meaning the scotch is produced from other cereals besides the barley that is an essential ingredient in whisky making), produces 300m litres of whisky a year, about 10 times the amount manufactured at Roseisle.

The use of this green technology has been building in the scotch industry for some time. This newspaper reported in Jan-

uary 2010 that the Bruichladdich distillery on Islay planned to build an anaerobic digester that would provide enough energy to meet its power needs, enabling the plant to become self-sufficient.

A number of other distillers on Islay were said to be looking at trying something similar, raising the possibility that all of the island's electricity could be supplied in this way.

However, it is highly unlikely that the 100 or so distillers in Scotland will all be able to run on bio-energy. Alexander said: "Remoteness and scale are significant challenges to the industry when it comes to employing renewable energy solutions."

Dan Walker, general manager of GE food and beverage solutions, said Grant was the only Scottish distiller with which the company is working and that economies of scale made it harder to supply its eco-friendly engines to the smaller producers. "The volumes are not quite as conducive from an economic standpoint," he said.

This could change as the technology evolves. In the meantime, whisky producers are likely to try other means of becoming greener.

Alexander said that Diageo is looking at some of its other distilleries to see whether bio-energy plants could be installed. Last month, it submitted a planning application to build a 56m bio-energy plant at its Glenlochie distillery.

However, it said that such equipment is not the only weapon in the armoury to reduce its carbon footprint. For example, the drinks giant, which also makes Guinness and Smirnoff vodka, is considering bio-diesel instead of more traditional fuel oil and is also examining a number of "minor" solar energy projects.

For an industry that clings to its traditions so wholeheartedly, it is a fairly radical — if welcome — departure.



Whisky production is now being powered by biofuels



David Gordon with the clothes that will not smell

Dressed up in bamboo

GREEN PIONEERS

David Gordon has created a range of high-performance clothes from plant fibres, writes Kiki Loizou

HE was living his dream, touring the world as a professional pole-vaulter. By the age of 36, however, David Gordon realised it was time to draw up a new career plan. He was not good enough to earn a living wage from professional athletics.

In need of inspiration, he went on holiday to Greenland. In the Arctic wilderness, Gordon befriended an ecowarrior who opened his eyes to the untapped qualities of bamboo.

Bamboo is the fastest-growing plant in the world, Gordon was told by his campfire companion. It grows to its maximum height in three months and thrives without pesticides or fertilisers.

"I realised it made sense to make clothing from this plant," said Gordon, now 43. "It's a fabric of the future."

Bam, Gordon's clothing line, now produces underwear, socks, T-shirts

and specialist sports clothes from bamboo. He will sell 600,000 of stock this year and is on track to double that next year.

"Bamboo grows so rapidly because of the way it absorbs moisture," said Gordon. He claims that bamboo fabric is highly breathable in hot weather and keeps you warm in the cold. "It's the perfect performance fabric," he said. "It can absorb sweat and evaporate it within seconds. If you are on an expedition and you don't get to wash your kit for two or three weeks, it doesn't start to smell."

Bam is Gordon's third clothing venture. As a student at Loughborough University he sold T-shirts before setting up a clothing retail business in 1993. It ticked along for 10 years while Gordon chased his pole-vaulting dream.

After his holiday brainstorm, Gordon

got in touch with old contacts in the rag trade and began testing combinations of bamboo and other materials to find a marriage he felt would work best for clothing.

"The bamboo came from China and I was testing at a factory in Syria, which is where everything is done today," he said. "It became clear that the bamboo needed an injection of cotton to hold it together as a piece of clothing."

Bamboo generates a crop yield 10 times higher than cotton. "So in a world where land is becoming scarce, it's a huge winner," said Gordon.

It needs no human intervention to grow. Best of all, it consumes carbon dioxide at a much higher rate than other trees or plants.

"The need to farm more bamboo would do the environment a great deal of good," said Gordon. "The plant itself has so many positive properties, the clothes are bound to have lots, too."

However, the manufacturing process has caused controversy among environmentalists. The bamboo fibre is taken from China to a warehouse in Syria where it is combined with cotton in a chemical process. "The clothing is 70% bamboo and 30% cotton and we are working on making the production of the clothing 100% green," he said. "It's

like inventing a fuel that is 95% emission-free and somebody saying 'look at that 5%'. We're working on that 5%."

The path to success has not been smooth. The idea for Bam almost came a cropper in 2004 after Gordon hit a losing streak. "I lost about £50,000 through spread betting and was living on peanuts," he said.

"I knew that I was going to have to put everything I had left into my new business venture to make it work. So I did. I didn't know where my next meal was coming from but I had so much faith in the idea."

Gordon discovered there was bamboo-based clothing being made in America but nobody had attempted it in Europe. Sales have steadily picked up since the company was started in 2006, not so much because of its green credentials but because Gordon had found a successful fabric design.

"I knew that to become big the product would have to work for the consumer who doesn't particularly bother with the green side of things," he said.

"There's a percentage of the population who will seek out the clothing because of what it means for the environment. Then there are those who will buy it because it's generally great to wear."

UNCERTAINTY CONSEQUENCES

2°C ± appears inevitable

Can we create economic growth not fuelled by fossil fuel ?

40 years
changed the world

10 years
introduce CO²E
significant design constraint

10 years
introduce CO²E
significant design constraint

Ignore bankers

COACTIVE Forestry Energy

Carbon Credits

What are renewable energy credits?

Renewable energy credits can be traded and sold on the open market, this provides an incentive to companies which produce 'green' power. Investors can also take advantage within this sector. With the Market growing significantly in the last 2 years with space for growth in the next 5 - 10 years. Sources of 'green' power include Solar, Wind, Geo-Thermal, Biomass, Biodiesel, some fuel cells and low impact Hydro Power.

Each credit produced is given a distinct number, so that it can be tracked, the power is fed into the grid, and the company offers the credit for sale.

Enter Our Carbon Credit Draw

Want to win 1,000 Carbon Credits worth £10,000?, then why not enter in to our draw by simply clicking on the button below and completing the quick entry form.

ENTER DRAW

"Carbon will become the currency of the new world"
Bloomberg

"Carbon could become the worlds biggest market overall"
Barclays Capital

"Carbon Trading may dwarf that of crude oil within 5 years"
Worth 2 Trillion

"In this market the earliest investors will enjoy the best returns"

"Climate change means the carbon market will continue to grow and grow"

www.coactivetrading.com

it's engineering that matters

How do you become effective ?
(you can still be nice)

Don't boil the ocean

Do comparators

Be prepared to be wrong

Thank you