



## Larkfleet donates model home to University Technical College

### The Larkfleet Group of Companies has handed over a model house to the Greater Peterborough University Technical College (GPUTC).

The scale model of a typical timber-framed house built by Larkfleet Homes can be taken apart and re-assembled using a set of drawings which Larkfleet has also supplied.

The model will help the school's students who are studying the built environment to understand how a modern house is put together as well as getting to grips with topics such as architectural design and planning.

The model is also being used to make practical points about communications. In one test using the house the plans are held by one group of students in one room and the model is with another group in a separate room. One student from the planning group has to carry instructions to the construction group in a time trial to see which team of students

can correctly build the house most quickly.

GPUTC is a brand-new £12 million state-of-the-art technical school located on the Park Crescent Campus in Peterborough. Opened in September 2016, the school specialises in teaching engineering and the built environment alongside traditional A Levels and GCSEs to students aged between 14 and 19.

UTCs are unique in that they have sponsors and partners which play a large part in the way that students learn, from offering work experience, industry exposure and mentoring through to providing a guaranteed job interview upon completion of study.

Larkfleet has been involved with GPUTC since before the first plans were drawn up. A local 'employer sponsor' for the project, Larkfleet is supporting the school's plans in a variety of ways. Larkfleet CEO Karl Hick sits on the school's board of governors.

Larkfleet's backing for GPUTC is part of a programme of support from the company for the local community and economy.

Karl Hick said: "Investing in the future of the construction industry by supporting local young people in their training and development has always been part of Larkfleet's ethos. The model house is just one more way in which we are supporting the next generation of construction professionals."

**Steve Warburton, principal and CEO of GPUTC, said: "Larkfleet's support is invaluable to our students in so many ways. The model house is just one more example of how the company is assisting us to provide real hands-on experience of industry that helps to prepare students for the world of work."**

The model has proved to be such a success at GPUTC that a similar one is now being produced for New College Stamford.



### Peterborough Mayor and MP open Larkfleet show home in Thorney

The mayor of Peterborough, councillor David Sanders, and city MP Stewart Jackson MP have officially opened a 'stunning' Larkfleet show home in the village of Thorney near Peterborough.

Larkfleet Homes has already sold almost three-quarters of the 80 homes on the new Thorney Meadows estate on Woburn Avenue.

The show home gives prospective new buyers a great opportunity to visualise a 'real life' version of their new home and includes features such as a family room, an open plan living area, luxury dining room, bathrooms and spacious bedrooms.

Karl Hick, Larkfleet CEO, said at the opening: "The house building industry has been through some difficult years recently. However, I am pleased to say that Larkfleet weathered the storms of the recession and we are now rapidly expanding our activities.

"We remain committed to working with local authorities and local communities in our 'core areas' of Peterborough, Cambridgeshire, Lincolnshire, Northamptonshire and Rutland.

"We continue to deliver high quality homes that meet the urgent need for new housing that will enable people to 'get a foot on the property ladder'.

"Larkfleet is not confining its activities to the local area. We now have active operations in Scotland, in the South West of England, in Norfolk and across the Midlands.

"In some of these places we have already built and sold homes, in others we are building now, and in the rest we have started planning consultations with councils and potential neighbours.

"But our expansion further afield does not in any way diminish our pride and pleasure in building for local communities closer to home."

Larkfleet Homes joint managing director Helen Hick added: "Viewing the new showhome will enable prospective buyers to see and feel the quality built into each and every Larkfleet home.

"It really 'brings to life' how beautiful a Larkfleet home can look with the right furniture and added extras." Thorney is located just two miles east of Peterborough on the edge of the unique and unspoilt Fen landscape.

Residents can enjoy the rural lifestyle and the superb arts, entertainment and shopping facilities of Peterborough.

Stewart Jackson MP said: "I am 'pro house building' and believe younger people should be able to buy homes which Larkfleet Homes is encouraging with its developments."

Members of the Larkfleet team were joined by Peterborough city councillors and Thorney parish councillors alongside local business leaders.





## Larkfleet wins funding for Mexican Solar Steam demo project

### The Larkfleet Group of Companies has secured funding to test its revolutionary renewable solar thermal system in Mexico.

Larkfleet's 'solar steam' technology concentrates the power of the sun's rays to heat water to create steam which can be used in industrial processes.

To highlight the global commercial viability of the technology following the granting of patents Larkfleet applied for funding to deliver a pre-commercial demonstration of solar steam at a site in Morelos in Mexico.

A funding application to develop the demonstration was made through the Mexico-UK Collaborative Industrial Research and Development Programme, which is sponsored by the National Science and Technology Council in Mexico (CONACYT), Innovate UK and the Newton Fund.

Larkfleet will develop the pre-commercial demonstrator in collaboration with academic and industrial partners in Mexico and with the support of Queen Mary University of London. Larkfleet will contribute £160,000 to the total project budget of £800,000. It is thought that the project will take two years to complete.

**Simone Perini, project manager for the solar steam project, said: "All the contracts have been completed and signed and work is now beginning".**

The potential for renewable power generation using a solar steam array is greatest in sunny regions like Mexico, which is one of the fastest growing solar markets worldwide.

The solar market in Mexico grew by more than 500 per cent in 2016 and has an estimated potential of between four and six gigawatts of capacity per year by 2030\*.

This potential provides an opportunity for investment in solar steam to increase renewable heat input and reduce energy costs. For example, industrial facilities that use fossil fuels to provide the thermal energy required for their processes can instead install the Larkfleet solar steam collector to generate low carbon heat.

The Larkfleet solar steam system works by focussing the sun's rays through a Fresnel lens array onto a tube which contains water. The water is heated to create steam which can be used in industrial process heating and cooling applications.

The angle of the lens array can be adjusted through a vertical axis to track the sun and is seated on a circular track which allows the array also to follow the sun's progress horizontally across the sky. By tracking in both planes, the system maintains maximum levels of solar radiation concentrated on the tubes.

Simone Perini said: "Solar steam builds on existing ideas about using solar radiation to generate heat and takes them a step further.

"Following extensive testing in the UK – where the weather is often not ideal for solar power! – we are taking this technology to a wider market where we believe it will have a positive impact on the generation of sustainable and renewable heat.

"This collaboration with academic, commercial and international funding partners to deliver a demonstration installation in Mexico is the next step in commercial and technical development of the concept."

Dr Rafael Castrejon-Pita, lecturer in applied science in Queen Mary University of

London, added: "The Innovate UK funding has delivered an excellent opportunity for an academic institution and a company to not only solve current technology problems but also to innovate and explore new opportunities of mutual interest."

The solar steam array can also be used to generate industrial steam for industrial applications. The Carbon Trust assessed that there are currently no more than 10 solar industrial heat systems across Africa and Latin America. The industry here is set to grow by a factor of 4,600 by 2050.

Mexico is a growing economy, with good solar potential and a need for sustainable industrial development. The potential for the success of an innovative cost-effective solar technology such as the solar steam system is clear. In several sectors such as the oil, food, drink, textiles, paper, construction and chemical industries, the proportion of low and medium (less than 250°C) process heat demand is around 60 per cent.

**Simone Perini added: "The first target market for our product is the Mexican industrial sector, which accounts for 32 per cent of the country's total energy consumption. From this, 40 per cent to 60 per cent is destined to produce process heat. One of the industries with major energy consumption is the chemical industry, where most of the energy is used to generate steam for heat process applications."**

**For more information on solar steam visit [www.solarsteam.co.uk](http://www.solarsteam.co.uk).**

\*According to figures from GMT Research published by cleantecnica.com



## Industrial Strategy – 7 Steps for Real Economic Success

### The government has published a green paper – Building our Industrial Strategy – which sets out a plan for future economic growth and development in post-Brexit UK.

The green paper is a 'consultation document' on which individuals, companies and other organisations have been invited to submit comments.

Karl Hick, CEO of The Larkfleet Group of Companies has read the green paper and thinks there are many aspects which are either not given enough attention or are missing altogether.

I welcome the fact that the government is seeking to create a strategy for industry. As we head for Brexit it is important that we have a clear sense of direction and a plan for future economic growth.

I also welcome the fact that the government has asked for views from a wide range of people. I hope it will give due weight to the opinions of those actually working in industry – the entrepreneurs, managers and workers who are creating wealth for the UK.

There are several topics on which the green paper is either silent or less than compelling. I have listed seven of them below with my views on what needs to be done to address these issues.

#### 1. Productivity and education

Productivity levels in this country are lower than in many of our major international competitors. Much of the problem, I believe, stems from poor education at the primary and secondary school level.

We should be ensuring throughout the UK that boys and girls concentrate on science and maths courses. While the arts should not be completely neglected they ought to take far less precedence in our education system.

That change needs to start now so that we can provide our future industry with engineers and practical people who can help to increase productivity. This cannot be done overnight. It needs a 10 to 15 year plan but we must begin now.

We should look overseas and see what works well elsewhere – the 'German model' for education, perhaps, where people taking 'practical' degrees are helped at university. Degree courses studying topics such as Harry Potter (seriously, there is one!) should be scrapped or people should be made to pay more if they want to do university courses that have no benefit for the UK economy.

We must start at primary and concentrate not just on the practical aspects but also how we turn out boys and girls who are streetwise, polite, hardworking and have good morals, etc. Our youngsters must be better than their counterparts in Germany, China, Japan, and the USA – but in my opinion we have a long way to go. However, if there is a focus from government, then it could be achieved. We could compete around the world and not be happy with just being part of the pack, which is where we are now.

We have done this with sport by enhancing children's competitiveness, expectations and belief that winning is good, so why not education?

#### 2. Skills development

It is imperative that our 'star performers' are looked after, not left to their own devices. Many of our top-performing young people now want to go to Europe, America or Australia as they do not necessarily agree with Brexit and see these overseas locations as being better from an economic perspective.

It beggars belief that I have a son studying at Harvard who has received no calls and no help from the UK government. Representatives of the governments of his contemporaries from Norway, Scandinavia, China, etc, keep in touch with their students overseas and will do their best to bring the brightest and best back to their own country.

The UK needs a special department so its brightest and best are supported financially. More importantly, they need to believe that they are valued by their country, especially at the moment when many of them seem to feel that the UK government has got its policies all wrong. Whatever they may think, without the youngest and brightest staying in the UK we can't compete with those countries that look after their brightest.

I will reiterate what I said earlier – UK economic and industrial policy should concentrate on education and skills. There should be a focus on areas that can make the UK money.

I am a governor of a university technical college which I am very proud of because it concentrates on practical education and skills.

However, while the college and I are trying to push young people into careers in engineering, construction and sustainability – all areas where lots of jobs could be created – we can't get the teachers. This is because too few people study chemistry, physics, biology and maths these days. This trend must be reversed.

People who study science, technology and maths subjects at GCSE, A level and university must be given material rewards to avoid them doing other courses which are probably a little easier but which don't help the UK to compete in the real world.

The UK is one big 'company' and its students are its future workforce. They need to be studying subjects that add to GDP.

#### 3. Immigration and the labour force

Of the 300,000 jobs created in the UK economy last year approximately 80 per cent were taken by people born outside the UK<sup>1</sup>. The majority of foreign workers in the UK are people from other EU countries.

If immigration is affected by Brexit, how will current and future jobs be filled as we are effectively at zero unemployment? The economy will be in trouble because numerous industries are desperate for immigrant labour. Sectors that would be massively affected include farming, care homes, the NHS, public transport, manufacturing – and, of course, my own industry, construction.

Without these people in the economy productivity would be far worse than it is now. An industrial strategy that ignores the topic of immigration is not going to work.

It is worth noting that where immigration is the greatest, ie. in London, productivity is at its highest<sup>2</sup>.

## 4. Research and development

There needs to be more support for innovations that can provide economic prosperity. Larkfleet has developed ideas for (among other things) providing energy to third world villages that can't be connected to the grid and a house that could be built in areas at risk of flooding. None of these are being helped from the public sector and yet they could be big economic winners for the UK.

There needs to be a central 'R & D office' that vets economic best practice and supports ideas that can generate jobs – but it needs to have commercially-minded individuals in charge.

## 5. Business support and taxation

We need to really help small businesses to get started.

The Enterprise Investment Scheme (EIS) is designed to help smaller higher-risk trading companies to raise finance by offering a range of tax reliefs to investors who purchase new shares in those companies. There needs to be more EIS type schemes to allow the banks and investors to get a tax write-off if the investment fails. We should try to avoid burdening investors and entrepreneurs with guarantees and the like.

Entrepreneurs should be helped to expand their businesses more quickly. Tax benefits for entrepreneurs should be reinforced so that people can see the sense of risking things because the rewards can be good.

We need to look at finance which is more medium to long term because all the funders seem to look at short term results. That doesn't lead to good strategy decisions. Entrepreneurs need time to make their ideas work and the present system doesn't allow this.

With regard to public procurement, it seems ridiculous that so many government and government-related organisations apparently place contracts with large companies irrespective of whether they are best for the role. Somehow that needs to be changed to give SMEs a chance to bid for this work.

There needs to be more help for businesses selling overseas. The government should help in establishing mechanisms to check out overseas customers to ensure they are willing and able to pay, prior to the goods being supplied.

## 6. Energy

The government really has no energy policy. The renewable energy industry has been reduced by approximately 75 per cent because of the government's failure to set and maintain clear policies. It has now reduced to a level which is not sustainable if or when the government wants to change tack.

The drive toward nuclear and away from renewables is disappointing. Any industrial strategy that has no renewable energy policy is not sustainable. The government needs to change the emphasis and support renewables.

The level of solar radiation in the UK – we are not the sunniest country in the world! – means that solar power still needs some subsidy support. That shouldn't mean we cannot deliver sustainable energy. The cost of this should be taken out of the government's purse and (as in the USA) companies should get tax relief on the amount they invest in renewables. This takes the 'politics' out of renewable subsidies being added to household energy bills.

Something similar should be done for waste-to-energy. We need policies that allow these very complicated projects to go ahead.

## 7. Regional equality

There are areas of deprivation in London and the South East and there are areas of prosperity in other parts of the country. Generally, however, the UK outside London and the South East is poorer than those two places. Why should this be the case?

There needs to be an acceptance that while the political leaders are all based in London, the rest of the country has to find niches so its companies can drive increases in GDP.

I would like the government to give more publicity to the statistics it collects which show how much GDP different areas are creating<sup>3</sup> so that everyone knows who makes the money and who loses it. There should be a policy of 'name and shame' so those who don't deliver growth and the education and skills needed to get that growth are held accountable.

Each area should have a local champion who is accountable for those results. If or when that part of the country does not perform, that person should be put on notice that there is a period of time to 'get it sorted' or he/she is replaced. Every person who lives/works in the country should be aware of what, in their area, these people have done.

Hopefully, people will eventually strive to be more productive, so we don't have just one area producing growth because people there work harder. We need to avoid people in some areas apparently just feeling hard done by and sorry for themselves. They must be made to realise that if they became more productive they would be more proud of it.

Investment should be linked to productivity and those who continue to feel sorry for themselves shouldn't get very much at all until they start performing better!

References:

1, 2 & 3 - Office for National Statistics



## Lark Energy installs Solar PV Electric vehicle charging

**Lark Energy has installed two car ports complete with solar PV at the group's headquarters in Bourne.**

The new car ports complement existing electric vehicle charging points which will help Lark Energy to 'go green' with the use of electric vehicles in its own fleet. Energy generated by the car ports will be fed into the grid to be used as part of Larkfleet's on-site energy consumption including delivering power to the EV charging points.

Lark Energy is developing new technologies in sustainable building and renewable energy. The car ports powered by solar PV panels are just one example. As the use of electric cars increases, solar powered car ports with EV charging points could be cropping up in office car parks and public spaces up and down the UK.

Matthew Hicks, Renewables Investment director of The Larkfleet Group of Companies, said: "As a leader in sustainable ideas and energy use Lark Energy is fully committed to using sustainable energy sources throughout its business at every level.

"Solar powered car ports offer an opportunity for renewable energy generation. We are keen to deliver installations for developers and commercial property owners including golf courses, country clubs and hotel car parks throughout East Anglia and the East Midlands.

"And by installing charging points powered by sustainable energy in the network we will be helping to promote the use of electric vehicles and renewables in the region."