INTRODUCTION

There are opportunities for the new government to introduce policies designed to deal with some of Britain's long-term problems. After the general election is over, there will be no shortage of advice about funding, health, and education, about social care and affordable housing, debt and deficit, taxation and borrowing. There are, however, opportunities for the government to step boldly into new directions, to do radical and original things that can capture the nation's imagination, and renew its confidence in itself.

This is particularly important today because the UK itself is launching out into uncharted waters. Having made the decision to stop moving toward ever closer union in an increasingly integrated and centralized European Union, people are uncertain about the future role that the UK might play on the world stage. Most of the British people will want to be part of a nation that is vibrant and confident, one that can take its place among the world's leaders. This means that some attention should be given to initiatives that can give that message to the world.

None of these ideas is likely to feature in any party's election manifesto, but a government that gave effect to them would reap the rewards of its boldness. Collectively they will boost British business and develop its enterprise, especially in the up and coming high tech areas that will play so large a part in our future lives. They will make Britain an attractive place in which to live and work, and send the signal to talented outsiders that this is the place to be.

Beyond that there is the simpler fact that they will make the UK a better place. They will improve the lives of its citizens and offer them opportunities to develop and exploit their talents and to enjoy being part of a nation on the move.

AN ACCELERATED SPACE PROGRAMME

The UK should commit itself to a more ambitious space programme with a series of targets and challenges. President Kennedy's call to land a man on the Moon and return him to Earth within the decade caught America's imagination and stirred it to action. While not attempting anything on that scale, the UK could commit itself to less challenging but still inspiring targets.

The UK's current space programme is very modest. The UK Space Agency provides limited funding towards Skylon, the plan for a single-stage-to-orbit vehicle designed by Reaction Engines Limited to use the Sabre engine, using atmospheric oxygen for its early flight, then rocket power.

While the government announced a competition to become the first UK spaceport, with 6 entries being submitted, none was selected as the winner. Instead the government said it would adjust regulation to make it easier for any UK commercial spaceport to be developed.

The government should now designate two commercial spaceports, one in Scotland, one in Wales. It should award contracts to private firms to develop technology to launch space vehicles slung under transport planes and taking off from conventional runways. Using the technology first developed for the Bell X1 to break the wind barrier, and later for the X15 to fly into space and land conventionally, the aim should be to achieve low orbit using unmanned vehicles to launch low-cost satellites.

To encourage youth interest in this emergent technology, the government should challenge school students to design and build satellites for scientific research, and fly them into space. This would have the effect of inspiring more young people to study science, technology and engineering. It would also help to develop an important skills set to keep the UK at the vanguard of emerging space technology.

The next phase of this programme would call for the development of vehicles that could be launched into orbit in this manner, but then return to Earth to land on conventional runways. This will greatly lower costs because the vehicles will be reusable. The next logical step would be to produce and fly manned versions of these vehicles so that British astronauts could be flown into space and back aboard vehicles designed and built in the UK and taking off from a UK spaceport and landing there. It is well within the bounds of the achievable that the UK could be taking fare-paying travellers into space just as private US space companies plan to do in the near future.

All of this has commercial implications as well as keeping the UK at the cutting edge of space research technology. The UK could undercut the cost of launching satellites from conventional rockets, and enter competitively into a huge market.

But the UK should attempt a more ambitious target to catch the imagination of the nation's young people. As well as flying astronauts into Earth orbit, it should announce the goal of flying them around the moon, perhaps by 2025. This would involve upgrading the size and fuel carrying capacity of the launch vehicle, but it should be within the realm of the practical to do so.

There is a psychological effect to be striven for. Britain should be seen to be taking its place up there with countries that are at the cutting edge of technology, becoming a player on the world stage. An ambitious space programme is a way of achieving this goal.

As the UK has made it clear that its future is no longer to be seen within an integrated European Union, it should take steps to widen its horizons and to make it clear that it is not becoming more insular, but instead is becoming more global.

The restrictions imposed by visas, limits, quotas and work permits are nowhere more keenly felt than among young people. Most of them want to travel, to gain experience of other countries, and to work among their counterparts in other countries. It is not only the rules and regulations which act to thwart this, it is also the lack of finance that makes it difficult to undertake. Without the ability to work and earn money in other countries, many young people simply cannot afford the experience.

The UK should negotiate a freedom of movement agreement with four other countries initially that will allow young people below the age of 30 to be able to travel to, and work in, any of the five countries in the agreement. The UK should negotiate this pact with Australia, Canada, New Zealand, and the United States. Young people under 30 should be free to travel between them, to live there, and to take up employment without the need for work permits. Countries that might be wary of allowing foreigners in to take jobs that their own citizens could do might be less apprehensive about admitting young people to come for a few years, especially if this opens up opportunities for their own young people to travel and work abroad.

These countries are all English speaking, and they all share a cultural heritage with the UK that includes a history of English Common Law. They also share similar values that include a commitment to liberty and democracy and the rule of law. Their young people would be very easy to assimilate into each other.

The experience of living and working in other countries would not only broaden their horizons and their experience; it would also increase their employability as they developed new skills and learned the disciplines that paid employment involves.

The policy could be implemented by starting with a series of bilateral deals agreed between the UK and each of the other countries. The first might be with New Zealand, then Australia, then Canada, and finally the United States. The US will probably wish to keep in place its Electronic System for Travel Authorization (ESTA) to allow it to vet young people taking advantage of their new travel freedoms, but the UK and US could agree bilaterally to waive work permits for the under 30s, each allowing young people from the other country to live and work there.

This would let young people from the UK live and work in each of the other countries, and vice versa, but ideally the other countries should make similar agreements with one another, creating an Anglosphere of free movement for young people. If the policy proved successful and popular, there might be a case for extending the policy to include some other countries at a later date.

The UK should take steps to ensure that we are at the forefront of technology to develop and operate autonomous airborne personal transport systems. Critics point out that ever since the 1950s we have been assured that flying cars would come soon, but nothing has ever happened except the occasional unveiling of clumsy and impractical prototypes

People always supposed that a flying car would be an automobile that sprouted wings and took off and landed on a runway—optimists thought it might be able to do this on highways. It would require space to become airborne and would be no more manoeuvrable than a small aircraft. Furthermore, a pilot's licence would be required to fly it, something that few motorists would be able to undertake.

Critics point out that even in two dimensions on the ground, there are crashes and fatalities every day. Add the upward dimension and the problems of trying to coordinate flights and avoid collisions are insuperable. They are indeed insuperable for humans, but the new factor on the scene is autonomy.

The flying cars of the fairly near future will not be automobiles with wings that are flown by humans. They will be people-carrying drones flown by artificial intelligence (AI). They will take off and land vertically, requiring no runways. And since the people in them will not be driving them, they will not require pilot's licences to operate them. They will indicate the required destination, leaving the machine itself to plot a course and deliver people to it while avoiding other machines and obstacles on the way. They will be equipped with sensors in a similar manner to today's autonomous cars, and will be capable of much greater and more rapid maneuverability than light aircraft have.

The government should take steps now to ensure that the UK takes an early lead in this technology. UK firms should be encouraged to undertake the development and testing of these vehicles by the putting in place the regulatory framework and the infrastructure. The government should set down rules that will govern their operation, and designate areas in which full-scale trials can be held. It should also designate the preferred routes that the vehicles might take between target destinations. While some of these could follow the routes of existing trunk roads and motorways, one of the most attractive features of the new technology is that it makes new routes possible, including ones across bays and rivers.

Existing car parks should, in future, be reconfigured to accommodate the new vehicles. The rooftop and ground level car park space can be adapted to take them, leaving other levels for conventional cars. Since the vehicles will be electric, charging points should be installed at a variety of locations.

The government's stance should not be one of direct financial support for development of the technology, but rather one of clearing the ground, putting in place attractive regulation, and helping local authorities to fund some of the infrastructure that will support it. An imaginative policy embracing and welcoming the new technology could make the UK a world leader in the field.

GROWTH FLASHPOINTS

The UK needs more growth, and should secure its place in the world of the future by taking steps now to attract high tech start-ups. These will ultimately create the jobs that will keep our own high-skills people in the country and will attract high skills people from overseas.

Business entrepreneurs claim that they find regulation the biggest bugbear. Instead of developing and expanding their businesses they have to spend hours filing compliance documents and meeting the minutiae of rules imposed by both national and central government. When they employ people they complain about the amount of time and effort taken up by PAYE tax returns and National Insurance. Their premises have to meet exacting standards, and it is claimed that firms such as Apple could never have started up in the UK because they would not have been allowed to operate from a garage.

In an ideal world we would not burden our start-up businesses with the costs of regulatory compliance, but in this less than ideal world we could have small pockets where start-ups could develop unhindered. The government should learn from the successes and failures of its Enterprise Zones project from the early 1980s. The idea was bold, but its execution was limited because the civil service put too many curbs upon the new zones. Its greatest success was in London's Docklands, where skyscrapers could be built only because it was designated as an Enterprise Zone.

The government should announce a nationwide competition to have places designated as Growth Flashpoints. Syndicates of business, trade unions and local government should put together bids to be one of the chosen sites, listing in their bids the facilities and terms they were prepared to offer high-tech start-ups establishing with the flashpoints, including buildings that would be available and transport links. They could be about one square mile in area, with perhaps four or five to be chosen across the nation.

The rules would be simple. For their first five years new high-tech start-ups within the flashpoints would pay no taxes, local or national. They would be exempt from regulations that covered premises, employment, health and safety, or the need to file compliance documents. All those working within the flashpoints would be classified as self-employed, with employers therefore not required to offer non-wage benefits such as holiday or sick pay.

The bids put in by local areas wishing to be one of the designated flashpoints would be adjudicated by a panel of people from high tech industries, not by ministers or civil servants. And applications by would-be start-ups to set up within a flashpoint would be approved or rejected by similar panels drawn from the technology sector. It is envisaged that the growth of high-tech start-ups within the flashpoints would be explosive (hence the name), and that a high skills set would rapidly be developed and exploited. From their subsequent growth and expansion new wealth and jobs would be created that would greatly outweigh the small costs of foregone revenue to government during their start-up phase.

CREATING LIVING SPACE

The UK's housing shortage is not caused by lack of finance to build houses, or by lack or labour or materials. It is caused by a lack of suitable land that people are allowed to build on. It is exacerbated by some of the conditions that local authorities impose by tacking on to planning permission such things as the necessity of including a proportion of "social housing."

It is the Green Belt created by the 1947 Town and Country Planning Act and revised since which prevents towns and cities expanding outwards as their population increases. Political pressures from environmentalist organizations and wealthy home-owners who have homes within it or overlooking it have conspired to prevent development. Some towns and cities make the problem worse by putting height restrictions on buildings erected within them, effectively meaning that residences cannot expand outward or upward, so people are having to buy beyond the green belt and commute through it to work in the city.

People have recently softened their opposition to any kind of green belt development, and this creates an opportunity for a novel approach to be tried. Government should decide to slice a mile off the inner circumference of the green belt, and add a mile to its outer circumference. Verdant land within that inner mile would be preserved, meaning that meadows, woods and genuinely green land would be left untouched. But damaged land such as disused buildings, gravel pits and the like, would be available for development, as would prime agricultural farmland, itself not particularly green.

The mile added to the outer circumference would not apply to buildings already there, and could be added in such a way as to create more verdant, genuinely green land. This would result in a net gain of green land, in that the inner circumference of the green belt is smaller than the outer one.

Environmentalists could draw consolation from the net gain of green, while the strip of land around the inner circumference would allow a million more new homes to be built where they are needed, in towns and cities where people want to live and work. Families presently living in the green belt could console themselves with the thought that at least their children would have somewhere to live in the future.

The building of a million new homes on the edge of the green belt would put downward pressure on the prices of existing homes, making it easier for young people to become home-owners. It would break the cycle of expectation in the UK that house prices must inevitably rise, and that a home is an investment rather than a place to live, and an investment that will yield greater returns than practically any other. When this is no

longer true, people will seek other assets in which to invest, creating opportunities for business expansion and job creation.

The actual construction of a million new homes would put some strain on the supply of materials such as bricks and timber, but output could be stepped up to meet the new demand. And the building, done over the course of several years, would itself give a massive to employment within the industry, creating well-paid jobs and opportunities for skilled craftsmen. The ultimate bottom line, however, is that many more people, especially young people, would gain the opportunity to become home-owners.