



Infrastructure issue

By the government’s own admission, the UK has under-invested in infrastructure for the past 40 years¹. However, in 2019 the government pledged to undertake an ‘infrastructure revolution’ to address the issue. Of interest to the aerial surveying sector (and specifically the drone surveying sector) is the strategy borne from that commitment – the National Infrastructure Strategy².



FIGURE 1

Project Speed

Within the Strategy is reference to ‘Project Speed’ - an initiative that sets out to review every part of the infrastructure project life cycle and identify where improvements can be made in order to deliver on its strategy:

- **Better**
To incorporate wider economic, social and environmental benefits.
- **Greener**
Ensuring the requirements of the net zero commitment are embedded in project lifecycles and, importantly, underpin decisions on the technical solutions chosen.
- **Faster**
Simplifying and shortening the processes needed to deliver.

¹Source: <https://commonslibrary.parliament.uk/research-briefings/sn06594/>

²Source: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/938049/NIS_final_web_single_page.pdf

AERIAL BRIEFING	DATE: 21.05.2021	AUTHOR: KATE TREEN, MARKETING MANAGER	VERSION v1.1	
PAGE NO: 1	Sky Revolutions (UK) Ltd, 23 King Street Ind Est, Langtoft, Peterborough PE6 9NF			



The initiative sets out a package of reforms aiming to transform the construction sector to enable it to become more productive, more sustainable and more internationally competitive, with better use of data.

These aims resonate with the approach taken by the drone surveying and imaging sectors and their offer to the UK construction industry:

- The ability of our sectors to catalyse mapping and surveying (faster, more cost-effective, safer).
- Our use of remote technologies to deliver richer data - quicker.
- Effective use of aerial imaging to enable clearer marketing and therefore more effective approaches to competition and project buy-in.

Project Speed was launched in the summer of 2020 complete with the requisite task force chaired by Chancellor Rishi Sunak (who is firm in his belief that project delivery times can be cut by a third).



FIGURE 2



FIGURE 3

Digging into this, we spoke to MP Gareth Davies, a proponent of infrastructure investment and the creation of a development bank to finance projects³. He told us: "I was delighted to see that the Chancellor will lead on Project Speed to minimise red-tape and undertake a review of current practices. I very much hope that this will revolutionise our approach and deliver robust, sustainable infrastructure projects for the future."

So with the commitment cast in parliamentary stone and a high profile task force in place, how should our sector respond? Davies again: "Transforming the construction sector is not only an essential part of our green industrial revolution, but will also develop an internationally competitive market for Global Britain. It is absolutely vital therefore that public infrastructure projects are streamlined and delivered efficiently."

³Source: 3. <https://www.conservativehome.com/platform/2020/10/gareth-davies-a-new-british-development-bank-could-drive-our-national-recovery.html>



Strides Made

'Streamlined processes', 'smart technology solutions', 'faster delivery'... These are statements that should be music to the ears of the drone survey sector. We have made great strides in the past five years:

- Data collection has been and continues to be boosted by aerial technologies in surveying (enhancing inspection and validation, and therefore reducing risk).
- Drones have become part of the strategies of major developers, who've already realised the benefits of speed, safety and cost.
- And unlike full automation or robotics, aerial inspection is not hampered by development cost – it is a mature offer with a clear market fit.

Sky Revolutions' Director Ben Gorham: "We have come a long way in a relatively short space of time and it hasn't always been an easy journey. But I believe those organisations who have professionally developed to define a clear market offer now have a responsibility to safeguard and promote our professional reputation.

"As a sector, we need to continue to communicate the benefits of our commercial offer, and to collectively raise the profile of those endeavors. We have much to offer the UK as it enacts its infrastructure strategy, and we can support throughout the project lifecycle with mapping, monitoring and marketing activities that help speed project delivery and promote Global Britain.

"Our challenge now lies in extracting maximum value from these gains and aligning with the aims of the Infrastructure Strategy to establish drone surveying as an indispensable weapon in the Project Speed toolbox."

Ten Steps to Take Part

A successful alignment with the infrastructure plans means we must:

1. Fixate on the plan

Sharp focus on the needs of the strategy generally, and Project Speed specifically.

2. Remember the objectives

Keeping the three key requirements in mind and aligning our offers to reflect them:

- **Better**
Accurate aerial data provides knowledge, identifies local impacts and therefore supports better decision making.
- **Greener**
A drone's ability to fly while carrying a heavy payload at very low energy cost elevates its green credentials compared with almost every alternative.
- **Faster**
In the air in seconds, capturing and delivering data in real time.

AERIAL BRIEFING	DATE: 21.05.2021	AUTHOR: KATE TREEN, MARKETING MANAGER	VERSION v1.1	
PAGE NO: 3	Sky Revolutions (UK) Ltd, 23 King Street Ind Est, Langtoft, Peterborough PE6 9NF			



3. Extract better briefings

More detailed and nuanced briefings deliver better outcomes. Requesting the time for detailed discussions before briefs are developed will create better data outcomes for construction clients.

4. Nudge our way in

Involving us – the drone survey suppliers – earlier in the process will pay dividends. Experience in mapping and imaging can inform the development of strategies that can deliver better outcomes; for example:

- Advising on progress image intervals can help deliver better marketing material for stakeholder buy-in and project promotion – before the budget is signed off.
- The visual expertise of survey pilots can often help indicate areas for further interrogation during early mapping flights – that can benefit the entire project and the communities it impacts.

5. Demote the drone, promote the power of what they deliver

The market has matured and so has the depth and breadth of our knowledge. It is no longer enough to talk about drones being the star of the show and then hiding behind reams of tech talk. It is time to change the message hierarchy and talk about the power of the data and content that we, as operators, can deliver.

We must move beyond a one man and his drone mindset, the belief that anyone can fly a drone. The power is with our skill and the data we can deliver, not the tool:

- Approach and confidence to fly very close to potentially dangerous assets.
- Refinements in process made by working with multiple Concept of Operations documents.
- Knowledge of payload choice.
- Understanding of best angle of approach.
- Relationships with NATS and emergency services.
- Strategy approach in response to weather.

And in terms of deliverables:

- Experienced response to aerial mapping can enrich project outcomes (see 4).
- Massive reduction in speed of data delivery – particularly in hazardous areas.
- Advanced software allows for detailed orthomosaic mapping, 3D modelling, multi-spectral data and thermal mapping, LiDAR point clouds and more.
- Critical data can be overlaid and compared with BIM objects to show any discrepancy between plan and reality.

AERIAL BRIEFING	DATE: 21.05.2021	AUTHOR: KATE TREEN, MARKETING MANAGER	VERSION v1.1	
PAGE NO: 4	Sky Revolutions (UK) Ltd, 23 King Street Ind Est, Langtoft, Peterborough PE6 9NF			



6. **Sell yourself**

Allied to the point above is remembering that human skill is all. Our knowledge and construction expertise enhances project outcomes. We understand our clients' challenges and objectives and can get to the heart of the project efficiently.

7. **Collaborate to match project scale**

There are very many small and micro operators in our sector. Where national projects demand national solutions, reach out to peers in our sector - a collaborative solution is better than no solution.

8. **Play to your strengths**

Review the experience you have, identify where you can deliver a solution for each of the projects proposed in the Infrastructure Strategy and highlight them in your approach:

- Cycling infrastructure projects.
- Intra-city transport.
- Flood and coastal erosion mitigation projects.
- Offshore wind and port infrastructure projects.
- Rail service restoration.
- Road network projects.

9. **Align with project aims better**

Remember what your client must achieve and how they are assessed. How can you support that? Speed of service and speed of data delivery will be key. How can you gear up to deliver? How can your experience add value?

10. **Be ready to talk safety**

The construction sector has sometimes been accused of being slow to adopt new technologies and driven by safety, is understandably cautious of processes that might impact risk management. Taking ownership of that challenge and demonstrating that aerial technologies can become 'business as usual' on site should be our mission:

- Drones do not need to interrupt work on site.
- Commercial operators will not present risk to activities or workers.

Take every opportunity to show the construction sector how we work safely, and how we can deliver to help enact Project Speed. The UK drone survey offer is not simply a tool to help inspect our infrastructure, but rather a network of professional operators that can support the aims of modernising the UK infrastructure and construction sectors, and promote Global Britain.

AERIAL BRIEFING	DATE: 21.05.2021	AUTHOR: KATE TREEN, MARKETING MANAGER	VERSION v1.1	
PAGE NO: 5	Sky Revolutions (UK) Ltd, 23 King Street Ind Est, Langtoft, Peterborough PE6 9NF			



Useful links

Sky Revolutions' Drone Survey page:

<https://skyrevolutions.co.uk/drone-surveys>

RICS Guide to drone compliance:

<https://www.rics.org/globalassets/rics-website/media/knowledge/research/insights/drones-applications-and-compliance-for-surveyors-rics.pdf>

The Flood & Coastal Erosion Action Plan 2021:

<https://www.gov.uk/government/publications/national-flood-and-coastal-erosion-risk-management-strategy-for-england-action-plan/flood-and-coastal-erosion-risk-management-strategy-action-plan-2021>

The National Infrastructure Commissionhttps:

<https://nic.org.uk/>

Of note

The National Infrastructure Commission defines economic infrastructure as energy, transport, water and wastewater (drainage and sewerage), waste, flood risk management and digital communications. The government also includes social infrastructure such as schools, hospitals and housing in some infrastructure policies and publications.

AERIAL BRIEFING	DATE: 21.05.2021	AUTHOR: KATE TREEN, MARKETING MANAGER	VERSION v1.1	
PAGE NO: 6	Sky Revolutions (UK) Ltd, 23 King Street Ind Est, Langtoft, Peterborough PE6 9NF			