

# BUILDING A FUTURE GEO SKILLS BASE



BY 2040, THE GLOBAL GEOSPATIAL INDUSTRY WILL BE IN CRISIS, FACING AN UNPRECEDENTED SKILLS SHORTAGE.<sup>1</sup>

**ELAINE BALL** LOOKS AT THE CONSEQUENCES OF INACTION AND AT SOME PROMISING MOVES TO TACKLE THE SITUATION

Surveys and studies conducted in countries such as Australia<sup>2</sup>, New Zealand<sup>3</sup>, the UK, the USA and Zimbabwe<sup>4</sup> have all revealed a geospatial skills shortage, although its extent is unclear. What is not in doubt is that the demand for skilled professionals in the geospatial field is high, even if information is lacking about which sectors are most affected. One thing is clear, though: change needs to happen now.

The potential impact of inaction across the industry, from construction services to data management and geospatial analysis could result in roles left unfilled, and vital global infrastructure adversely affected.

So why are there so few geospatially-skilled employees, despite record-high levels of demand in this US\$440billion global industry?<sup>5</sup>

Studies<sup>6</sup> have shown that “some of the key drivers behind the current geospatial skills shortage are lack of suitably qualified and experienced graduates, higher education training, awareness regarding geospatial technologies and the related career opportunities. Recent research<sup>7</sup> suggests that the reduced rate of recruitment in the UK is due to a lack of awareness of the geospatial sector at primary and secondary school level. But there are people, including myself, working to change that and reverse the decline in talent coming into the sector.

## What is being done?

Australia, for example, has taken steps to address the industry skills shortage by moving a selection of spatial scientists, including cartographers and surveyors to its Priority Migration Skills Occupation List (PMSOL).<sup>8</sup> Tony Wheeler, CEO of the Surveying & Spatial Sciences Institute (Australia) observes, “We as an industry seem to be making little progress in attracting more young people,” and adds, “A lot more needs to be done by the industry” to encourage students to enrol in geospatial courses.

A combination of education and outreach, focusing on geospatial careers, particularly in surveying, has been established through three organisations; Class Of Your Own, Get Kids into Survey, and Geospatial UK.

**Class of Your Own:** Social enterprise and education consultancy Class Of Your Own has spent over a decade empowering and educating young people, most recently through its award-winning ‘Design Engineer Construct!’ programme. This global education programme offers an effective entry point for the next generation of digital architecture, engineering, surveying, and construction professionals.

**Geospatial UK:** Newcastle University-based Geospatial UK<sup>9</sup> is working to address the “skills shortage across the geospatial sector, focusing on how geospatial can be more widely and easily introduced within education to create a broader awareness of the sector as a potential career pathway”. Its website is focused on informing KS4 and KS5 students about the various career options available in the geospatial sector, including potential pay. It also includes a range of classroom activities linked to the national curriculum. Geospatial UK works closely with 19 other universities and Higher Education institutions across the UK to highlight routes into the geospatial sector to prospective students.

**Get Kids into Survey:** First launched in 2017, the Get Kids into Survey campaign was established as a solution to the geospatial recruitment issue. Its resources are designed specifically to introduce the younger generation to the geospatial domain and to change the perception of surveying. Its various posters, comic strips, quizzes and lesson plans are crafted to help children get a better insight and understanding of the lesser-known but outwardly 'exciting' and 'attractive' areas of surveying, such as drone operations, measuring landslides and volcanoes, or even crime scene investigation. We believe these are all things that will inspire and excite kids and help change the perception of the industry for the next generation and hopefully attracting more young people in!

We want to educate children in exactly what surveying is and the many exciting career options on offer. It's our aim to help parents and teachers understand what surveying is, and to encourage them to talk about it with their children.

It's a scary thought, but if we don't educate children about surveying now, the industry will die out, resulting in devastating consequences. After all, without survey, we wouldn't be able to detect bombs, study planets, find diamonds, monitor wildlife, build bridges, measure earthquakes and volcanoes, carry out CSI forensics, design golf courses, create video games - the list goes on! Education really is our passport to the future.

**What next?**

While educating future generations is vital, there are steps we can take now with our existing geospatial professionals. There is currently a lack of awareness about the industry, partly due to the fact that it is so far behind in embracing digital marketing techniques, and we are seeing that this has a significant impact on the recruitment of the younger generation.

There is an immediate need for those within the sector to use modern marketing tactics, not only to drive an awareness of the industry in a way with which young people are familiar, but also by



Helping to open up a world of opportunity

converting conversations into sales. If we can bring the industry into the 21st century, not only will it benefit us right now, but in a digital-first age, it will be far easier to connect with, communicate with and attract younger people to pursue a career in our dynamic, but currently traditional, industry.

A big step in this direction is the setting up of the Geospatial Marketing Academy (GMA). Through this, we help our geospatial peers and talented professionals learn, adapt and get fantastic results using modern-day digital marketing techniques, without it feeling complex, overwhelming or stressful. We know that learning new ways of working and integrating them into company culture can be challenging, which is why we make this modernisation and education process easy and results-focused.

**Moving forward**

To help get started, I wanted to share three very easy, simple techniques that all geospatial businesses can implement right now to improve their overall marketing effectiveness.

**Focus on a particular market segment.**

For example, don't just say 'we offer laser scanning' or 'boundary surveys'; rather, focus on the specific areas such as 'engineering firms who outsource surveying'. The more focused you are, the more targeted your marketing can be, therefore the more likely you are to attract the right kind of customers.

**Prospect daily.**

Ensure that you are communicating with 10 new potential clients each day. It doesn't have to take a long time, but consistency is key. Think about how you can do this which perhaps might be a little outside of the norm; for example, LinkedIn is a fantastic tool but is perhaps underutilised by our industry. It is teeming with opportunities to connect with prospective clients and

build relationships that can convert to sales.

**Build relationships** with those prospects and your target customers through sharing valuable, engaging content on strategic social media. Again, LinkedIn is the primary platform I recommend as a starting point. Even if some contacts will never become customers, they have networks of their own and word of mouth, both in person and digitally (if they share one of your pieces of content, for example) is still very powerful, even in this modern-age.

A final thought: marketing is all about relationships and it's vital to nurture them. However, we now have a far broader landscape in which to do this, and harnessing the power of digital marketing will enhance the industry, benefit individual businesses and, ultimately, attract young talent by showing we can keep up with the times.

**References:**

1. <https://www.geobusinessshow.com/events/inspiring-the-next-generation-of-geospatial-experts/>
2. <https://www.spatialsource.com.au/tackling-the-surveying-and-spatial-skills-shortage/>
3. <https://www.wgtn.ac.nz/sgees/about/staff/pdf/GeospatialSkillsShortageReport.pdf>
4. [https://www.academia.edu/42953077/Exploring\\_the\\_Status\\_of\\_Geospatial\\_Skills\\_within\\_Local\\_Authorities\\_in\\_Zimbabwe](https://www.academia.edu/42953077/Exploring_the_Status_of_Geospatial_Skills_within_Local_Authorities_in_Zimbabwe)
5. <https://www.geospatialworld.net/blogs/geospatial-industrys-value-world-economy/>
6. [https://www.academia.edu/42953077/Exploring\\_the\\_Status\\_of\\_Geospatial\\_Skills\\_within\\_Local\\_Authorities\\_in\\_Zimbabwe](https://www.academia.edu/42953077/Exploring_the_Status_of_Geospatial_Skills_within_Local_Authorities_in_Zimbabwe)
7. *The State of Geospatial Survey Education (CICES, 2019)*
8. <https://www.spatialsource.com.au/tackling-the-surveying-and-spatial-skills-shortage/>
9. <https://www.geospatialuk.org>



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