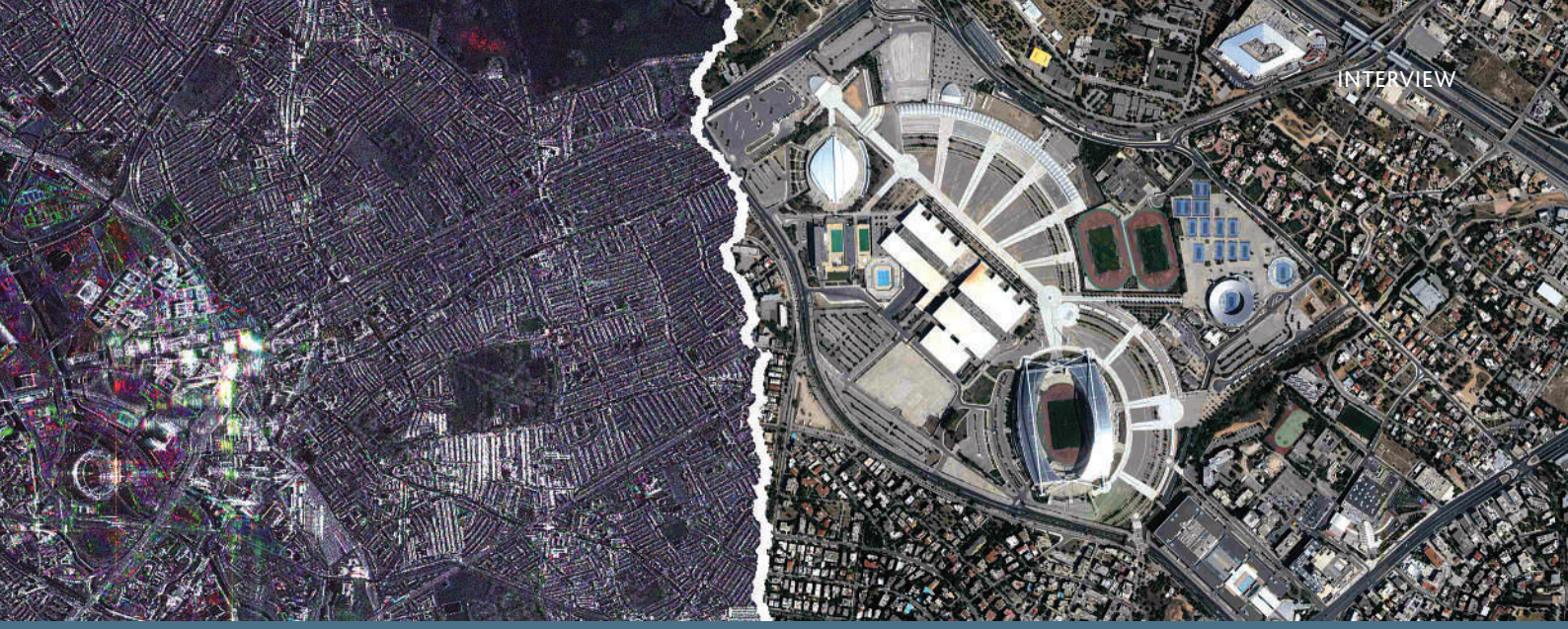

COSMO-SkyMed radar imagery of London from Telespazio (left) and DMC3/TripleSat 1-metre optical image of Athens from Earth-i (right)

Double Take!

Two UK-based businesses have joined forces to offer customers a wider choice of satellite-acquired Earth Observation products and services. GeoConnexion met with Peter Young, CEO of Telespazio-VEGA UK, and Richard Blain, CEO of Earth-i, to explore the bigger picture

GeoConnexion (GEO): You have agreed a Memorandum of Understanding under which your specialised products and services will be offered to each other's customers as and when needed. So what does this reciprocal arrangement cover in practice?

Peter Young (PY): It offers the best of both worlds in giving customers, particularly those in the UK, single-point access to Telespazio's COSMO-SkyMed SAR data, Earth-i's DMC3/TripleSat optical data, and associated services. Collectively, and through international partners, that data is acquired by seven highly advanced and complementary EO satellites, adding-up to multiple imaging and revisit opportunities each day.

I might also mention that the UK Space Agency negotiated a deal two years ago with the Italian Space Agency to site a COSMO ground station at the Satellite Applications Catapult in Harwell. While the Catapult has the operational and R&D rights to the download facility through its CORSAIR programme[1], Telespazio-VEGA UK is able to exploit its commercial potential and make SAR data available to its own and to Earth-i's British customers in near real-time.

Richard Blain (RB): From Earth-i's perspective, the partnership with Telespazio-VEGA is the first in which we aim to leverage all the skills, assets and innovations that exist in the UK in order to provide better services and information to our customers.. Our access to data from the three satellites of the DMC3/TripleSat constellation with its 1m panchromatic and 4m multispectral sensors gives us global coverage and a daily revisit capability, even at the Equator. Combining this with radar data from Telespazio-VEGA allows us to provide a more complex and comprehensive range of products to customers and, of course, vice versa.

I would add that the terms of the agreement are not tied to any one product or service, thereby give future scope for broad and complementary collaboration between the two companies

GEO: Isn't the deal somewhat one-sided in that Telespazio-VEGA UK has been around for a good number of years and is part of a big global player, while Earth-i is a relatively new and smaller start-up business that is not part of a larger corporate entity?

Richard Blain (left) and Peter Young exchange the MoU (Photo: GeoConnexion)

PY: Despite the fact that we are part of Leonardo-Finmeccanica and, ultimately, Thales, we are quite a specialist player in the UK, so the agreement with Earth-i is a good 'fit' in that respect.

RB: Admittedly, we are a relatively new business, but thanks to our broad range of customers and particular expertise in the defence and energy sectors, this new ability to acquire and process COSMO-SkyMed radar data adds a powerful new string to our bow. It also gives both companies the opportunity to collaborate in certain sectors where each company has respective strengths.

GEO: Sample imagery from the DMC3/TripleSat constellation was made available by Earth-i at the end of last year, with the intention of ramping-up commercial delivery thereafter. What has happened since then?

RB: We've been hard at work since our official launch last year *[see GeoConnexion UK Jan-Feb 2016 issue -Ed]* marketing our capabilities to buyers of EO data, talking to customers at a wide range of industry events, delivering products and services, and developing some new showcase applications of both our data and that from our partners such as Telespazio in a number of key target sectors.

GEO: Won't the plethora of smallsats, cubesats and nanosats being put into orbit make it a more difficult and fragmented market for providers of EO data and services?

PY: On the contrary, I would like to think it will open up new markets. In the UK, as elsewhere across Europe, Earth Observation is a growing market, with the most recent forecast predicting a 'stupendous' CAGR growth surge of 15% plus between now and 2020. [2] Rather, the challenge for industry is how to satisfy that demand.

GEO: And what about 'competition' from SAR imagery being acquired by ESA's Sentinel 1Aand 1B satellites and which is freely available via the Sentinel Data Hub?

PY: The revisit rate of the two Sentinel radar satellites is, of course, more limited than that provided by the four COSMO-SkyMed satellites; the latter's X-band SAR instruments offer improved ground resolution and more acquisition modes than Sentinel's C-band sensors, and users are constrained by what Sentinel imagery is available. So it's really horses for courses.

RB: I agree in that Earth-i is in a rather different market to that served by Sentinel. We do use data from the latter as backdrops or overlays for clients where this is sufficient but, in general, we are dealing with users who prefer the higher ground resolution, revisit times and flexible tasking options afforded by DMC3/TripleSat. The latter was most recently demonstrated during Tim Peake's ISS mission and where we tasked the satellites in the morning, downloaded to the UK, and delivered processed imagery to the BBC early the same afternoon.

GEO: While sales of data remain important, it would seem the trend is towards the provision of ever more specialised services and tasking arrangements. Is this something you recognise?

PY: Absolutely. The drive, certainly for us, is to build a portfolio of added-value applications or application layers for specific verticals such as agriculture, maritime, construction, etc., as well as for mapping requirements that exploit the InSAR technique.

GEO: To what extent do you feel the UK Space Gateway at Harwell contributing to Britain's already excellent track record in satellite remote sensing?

PY: The 'cluster effect', which sees established organisations such as ECSAT, the UK Space Agency and STFC, as well as new commercial ventures such as Earth-i, gravitating to Harwell is an important element in the UK Space Innovation and Growth Strategy (IGS)[3]. It's just beginning to gain momentum, not least in remote sensing, and set to deliver what Britain has traditionally lacked and what the IGS describes as an end-to-end value chain in space.

RB: Certainly, we are engaged with the Space Applications Catapult at Harwell and looking to build on this. It's a particularly exciting time for British companies, in part thanks to the IGS, and we see ourselves playing an increasing role in a continuing success story.

1. https://sa.catapult.org.uk/ideasopportunities/opportunities/corsair/

2. Satellite-based Earth Observation Market in Europe 2016-2020. Technavio (www.technavio.com). Apr 2016

3. http://www.ukspace.org/space-publications/space-igs/