



A ONE-STOP EO SHOP

EARSC HAS SET ITSELF A FORMIDABLE CHALLENGE – TO GET THE FIRST VERSION OF ITS MARKETPLACE FOR EARTH OBSERVATION SERVICES UP AND RUNNING BY THE END OF THIS YEAR. GEOFF SAWYER EXPLAINS WHAT IT WILL INVOLVE

The market for EO services is changing dramatically. Almost daily, news is released with the potential to significantly alter the competitive environment. New entrants, start-ups creating new business models and existing companies changing hands means companies must stay alert, active and ready to adapt.

In Europe, the Copernicus programme is shaping the landscape and at EARSC, we try to provide a good source of business intelligence as well as support our members as they secure and develop their business. Recently, we have been watching the shift towards more online services driven by the overall digital economy which brings both opportunities and threats. In response, we are proposing to set up a new 'marketplace' to help companies find more business.

Driven by new Big Data technology and the rapid increase in the availability of data coming from new commercial satellites, many new market possibilities are opening up and many more companies are striving to succeed in them. This is further encouraged by government policies for open data and new data coming from diverse sensors such as mobile devices sometimes referred to as 'the Internet of Things'.

In Europe, the commitment to Copernicus has been made clear through the recent space strategy, published in October. Copernicus is a public programme devoted to meeting European government needs for global geospatial information. Copernicus was previously known as GMES (global monitoring for environment and security) – a name that says everything about the objectives of its creators.

In 2014, with the adoption of the Copernicus regulation, a new objective was introduced into the programme: to help develop the downstream industry. This economic objective, alongside that of serving public needs, immediately highlighted the complexity of the relationship between the public sector and the private one. EARSC identified two areas that needed to be addressed: access to the data and information coming from Copernicus; and the role of the industry in providing the public services.

To access Sentinel data, industry needed to pass through the science hub operated by ESA. The science hub was designed to serve the research rather than the industrial community. Furthermore, the same portal serves other users worldwide, making it difficult to build a commercial service. Some countries were planning to develop their own access points, which would ease the problem but would favour companies in those countries – a situation uncondusive to a European programme and not assuring equal access across Europe.

Improving access to Sentinel data and making it easy to combine (and mash) with other types of data (such as open, environmental, in-situ and socio-economic data) is of paramount and fundamental importance if the European industry is to grow on the back of the Copernicus investment. The EC has also recognised the importance of easy data access and is investing to improve this through the Data and Information Access Service (DIAS). DIAS has the potential to go a long way to overcoming the fragmentation that we see in the industry. A

common service for accessing Sentinel data will encourage new initiatives generating new products and services. We consider the DIAS as part of the bottom tier – the resources tier – of the schematic which we call 'The Common Picture' (see Figure 1).

The Common Picture

The Common Picture can be considered to be a sort of production supply chain. The resources tier comprises the infrastructure necessary to gather access to multiple and various types of data. It includes cloud storage, processing capability and networking. The resources tier is considered to be a commodity and non-EO specific, although a key enabler for the development and operation of EO services. The exploitation tier comprises the core of the product generation: the platforms and the software necessary to turn the data into information. The knowledge tier sits on the exploitation tier and ensures that the information is available to the users, whether these are businesses, public policy makers, scientists or the public. Note that there are also intermediate users at each level of the supply chain.

Figure 2 shows the mapping of the DIAS and the EARSC Marketplace onto this common picture. Whilst EARSC is really concerned about the market end of the chain, we need also to ensure that the full chain is working. Hence our insistence, on behalf of the EO service companies, that data access be addressed. This is now the case with the DIAS.

In all tiers, we envisage that there will be brokers offering services that act as a mediator between providers (data, software, EO services and information) and users. It also acts as a source registry, tracking where resources have been used in generating a product or service and enabling both control over quality as well as tracking for payments.

The marketplace we shall create will sit at the top of the picture and at the end of the supply chain. It will enable all users to find the products and services they seek. It will not replace any company's sales channels but will complement them, providing a single site where a user can look at and compare what is on offer.

The marketplace will be run by EARSC members and, as a result, we shall be able to realise the vision contained in our position paper of February last year. This was decided after a wide stakeholder consultation, which also helped shape the marketplace and what should be included. A new group is being formed in the EARSC structure to oversee the development and operation – the Marketplace Alliance for EO Services (MAEOS). Our goal is to have a first version up and running by the end of this year, which is quite a challenge that we have given ourselves. The timing is in partly dictated by the entry into service of the DIAS. The deadline for tenders has just passed and the objective is to have a first service working early next year. We should like that the marketplace be

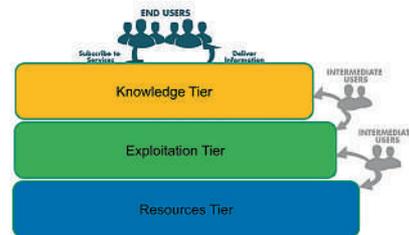


Figure 1. The common picture or EO services supply chain

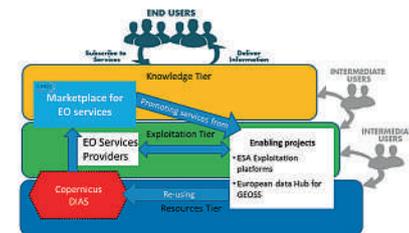


Figure 2. DIAS and the EARSC Marketplace mapped onto the common picture

available for early DIAS services to be offered to end and intermediate customers.

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A FIRST VERSION UP
AND RUNNING BY THE
END OF THIS YEAR**

Geoff Sawyer is EARSC secretary general (www.earsc.org)

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