

EARSC Position Paper

on

Developing the EO Services Industry

EARSC represents the Earth Observation geo-information services companies in Europe. Today EARSC has 65 members coming from more than 20 countries in Europe and including nearly 50% of the total number of European EO service companies. Over 60% of these are small or medium sized enterprises. Our members include both commercial operators of EO satellites and downstream, value-adding companies. The sector plays a key role in providing value-added geo-spatial information to its customers in Europe and the world. In 2012, the revenue of the European EO services sector is estimated to be around €750m and giving work to over 5000 highly skilled employees. The industry is growing at over 10% per annum.

Introduction / Summary

The EO services industry is a supplier of key geo-information products and services based on the use of satellite data. With the launch of the Copernicus programme and the first Sentinel approaching, Europe has an excellent opportunity to lever its investments such that industry can grow in the global market. R&D investments in EO services have been made in the past by both ESA and the EC through the framework programme as well as national programmes. A significant problem with the FP is the gap between research activities, which through its rules often favours public and academic organisations and the exploitation of the research results in the commercial sector. The ESA EOMD has helped in this respect and this approach needs to be taken further if the Copernicus potential is to be realised.

The close relationship between EO services and national interests means that industry cannot succeed alone. Over the last few years, ESA and EARSC have worked together with some promising signs of potential for success. This can be extended through a new initiative linking the institutional relationships that ESA can develop to the strength and capabilities of the industry. Coupled with the support of the EC and of Member States (MS), the EO services industry in Europe can establish a strong, leading position in the world market.

Industry

Europe has a first class EO services industry sector which today comprises over 300 companies of which 95% are small or micro enterprises with less than 50 employees. It covers the full range of EO services from satellite operators and data sellers through value-adding and Geographic Information services. A full picture is available in the report published by EARSC in September 2013.

The industry today has a turnover of €750m and employs over 5000 highly-qualified persons of which 90% have a first degree and over 50% have post-graduate degrees. Companies exist in almost every EU member state; a situation which should develop further through the Copernicus programme and other EU initiatives.

It is a very capable industry which is able to offer both optical and radar imagery down to very high resolutions of <1m and geo-information products and services covering every thematic and market sector. With the advent of Copernicus and the imminent launch of the first Sentinel satellites, the industry will shortly have access to unprecedented data sources and can offer products meeting most users' needs.

The recent survey showed that revenues today are concentrated in Europe and companies own domestic market whilst exports outside of Europe and North America make up only about 14% of the market. This is down from a reported 32% in 2006 when the previous survey was undertaken. This surprising result is perhaps a consequence of companies, especially the small and micro companies, finding it easier to address local markets than for exports coupled with the growth in the number of small companies. At the same time, 50% of the companies today perceive the export market as an opportunity.

The public sector plays a key role in the market for EO services; as a supplier eg Sentinel data, and as a customer. In Europe, the survey shows that 51% of the market is made up of sales to the public sector at various levels (European, national, local) whilst 43% is with commercial organisations. Since many of the commercial revenues are with large, international companies headquartered in Europe or North America, this ratio is likely to be even higher in export markets and public customers will be more dominant.

Existing Programmes

Several programmes provide elements upon which a successful export initiative can be built.

The EOEP is the central ESA framework upon which European EO capacity is developed. It helps develop new products and applications based upon ESA and 3rd party data sources. It is necessary in order to ensure that there is a good understanding of the data and how it shall be processed into meaningful products.

This is complemented by the EC Framework programme which from 2014 will become the Horizon 2020 programme. Under EC funding innovative science and product development takes place with a focus on information required to support the policies of the EU. This includes the services for Copernicus in general as well as for other societal benefits notably for environment and climate change. The former is under the direction of DG Enterprise whilst the latter is under the responsibility of DG RTD.

DG RTD has also the primary responsibility for the European links to GEO which is the body established to help establish GEOSS. The next GEO ministerial in January is expected to reaffirm commitment to the initiative by the EC and several EU member states. Copernicus is the major European contribution to GEOSS and will also be its' major component for the next few years. As such, Europe has the opportunity to shape GEO as a channel to help promote its capabilities onto the world stage.

Key Elements

The strong domination of the public sector as a customer for EO services shows how important a partnership approach will be in tackling the export market. If 51% of the sales in Europe are to government customers, this is likely to be even higher outside of Europe where the commercial sector will be less developed and less international than in Europe. Hence tackling the public sector in export markets will be the key to success.

Addressing public sector export markets is difficult for industry to do alone and support from national governments and European bodies is necessary to be successful. The fact that a European public customer is using a service and hence provides a reference for the supplier(s) is already an extremely important first step. EARSC and ESA have already been working together to go beyond this first step towards both commercial and public markets and this model should continue; the combination of the industry representative body and the institutional partner has proven to be effective. The presence of the

latter provides reassurance to international stakeholders and opens opportunities which industry can then fulfil. In addition, ESA has an independent technical competence, lacking in many potential customers, which complements the commercial offers from industry. At the same time, EARSC can provide a neutral industry contact point that favours the European industry but avoids the potential customers engaging prematurely with individual companies. Once the commercial opportunity is clear, then companies take over to meet the information needs.

The first step is to show the potential customers how geo-information products can be integrated into their activities. This can be achieved by a competitive programme for industry to provide products and services to the organisation as a demonstration of capabilities which can then lead into further activities, tendered by the organisation, for which the European industry will be well-placed to compete.

This approach has been shown to work with the World Bank where after the initial contacts by ESA and EARSC, industry has been able to gain subsequent contracts. A similar exercise is being held with the Asian Development bank.

The programme towards the International Financial Institutions would only be a first step. The IFI's are running programmes in developing countries with local partners. The links established first through an IFI demonstration will also leave European industry in a good position to provide similar products to national bodies. Hence a programme to develop the European EO services industry through demonstrations to the IFI's will also be a lever to develop further export opportunities for both public and private customers.

Conclusion

EU investment in EO technology and services has led to the development of a very competent and dynamic industry which is comprised of many SME's. This represents a good platform on which to build further business and the export market provides a good opportunity to do so – especially recognising the benefits that Copernicus will bring. Nevertheless, SME's especially find it hard to bridge the gap between research carried out under the framework programme and the market. Export markets are particularly difficult for them to tackle.

The nature of EO services is such that both public and private sectors are present; for example in the supply of satellite data. Hence the government (public sector) role is widely recognised and a partnership between the public sector and industry is likely to lead to the most success.

EARSC as the trade association representing the sector has already developed excellent links with ESA and we consider that this relationship could be the platform from which to build Europe's position in developing countries. By tackling the IFI's as a first step we can establish the local links from which to build sound future business.