



EARSC

European Association
of Remote Sensing
Companies

Industry's view: How to match the services paradigm

by Markus Probeck, EARSC Director



What is EARSC?

EARSC is a trade association (NPO), founded in 1989, which represents European companies: offering and undertaking consulting and other services or supplying equipment / data in the field of remote sensing.

Our mission is:

- to foster the development of the European Geo-Information Service Industry
- to represent European geo-information providers, creating a sustainable network between industry, decision makers and users

Our focus is on remote sensing from space-based platforms (satellites) but we also have members which are aircraft operators.

Today we have 75 members from 22 countries in the EU and beyond.



What does EARSC do?

- Provide information to our members on programmes, policy and the sector; (business intelligence)
- Maintain a knowledge of the industry, i.e. statistics, market information, etc.
- Promote professional standards within the industry
- Promote the industry and its capabilities by:
 - Creating links between EO services sector and other business sectors, e.g. oil & gas, insurance, public institutions e.g. the World Bank
 - Organising events offering networking opportunities as well as focused information
 - Advocacy towards policy makers on issues of concern

EARSC focus is on enabling the development of new business



Copernicus – a key market enabler

- Copernicus is a key European public programme (managed by EC-DG ENTR) for providing information on environment and security to European policy makers and citizens.
- Direct funding for EO services is important and will enable the development of new products to be exploited.
- But more important:
 - Copernicus provides a strong opportunity as market driver for EO-based services
 - Industry can exploit opportunities using Copernicus products & services in other markets e.g. commercial downstream, export to non-EU – with a proven-track EU customer base as a reference.
- In 2014, the first of the dedicated Copernicus Sentinel satellites (Sentinel-1) was launched, generating Terra-Bytes of data every day.

Copernicus is creating new jobs and tax revenues

1. A Free & Open Data Policy

Most effective way to develop the downstream market (and generate pull on the upstream)

- Sentinel data is Public Sector Information (PSI), which means data collected by governments for its own purposes.
- PSI-reuse argues that since it is paid for once it should not be sold by public agencies to develop revenues (and not cost-effective)
- It should be made available for free to support innovation and private sector development.

ABOUT GMES AND DATA : GEESE AND GOLDEN EGGS

A Study on the Economic Benefits of a Free and Open Data Policy for Sentinel Satellite Data

Final Report



by Geoff Sawyer and Marc de Vries
Under an assignment from the European Space Agency

EUROPEAN ASSOCIATION OF REMOTE SENSING COMPANIES
Brussels, 6th December 2012



EARSC has supported and promoted the adoption of a free and open data policy for the Sentinel data

www.earsc.org



What are the limits to Free and Open?

The Free and Open data policy seems to be an incontrovertible approach to the distribution of government-collected and -owned data.

- Licensing: the data must be owned by the public-sector body; generally purchasing of data comes with limited licensing rights
 - For Copernicus Contributing missions, data is bought from private suppliers with associated limitations.
 - Ideally, funds would be available to buy with unrestricted rights; but this is not realistic!
- Avoid market distortion; public sector should not be active where private sector is already performing, i.e. data supply (Contributing Missions)
- Favour private investment through prizes, data buy and PPP schemes; save government purse!



2. Copernicus services open for business

EARSC is targeting industry participation with EEE's and thus short- and long-term actions for developing industrial capacity, through:

- Information meetings – to brief companies on planned tenders
- Road-maps for service evaluation, incl. need for capacity, R&D actions, etc.
- Advisory role to scientific and technical committee, overseeing the services
- Participating to user uptake actions in Europe and outside:
 - demonstration actions
 - external validation of products and outcomes
 - downstream service development
 - education and training

EARSC focus on Services Procurement (EEE's: EEA, EMSA, Frontex, etc. ...)



3. Primary request: Industry participation

- The level of industrial participation in the services' provision should be measured with the goals to:
 - maximise the industrial share, especially amongst SMEs
 - have an industrial prime at the head of each service provision team.
- That EEE's engage in dialogue with the industry to understand what can effectively be done by industry
- That EEE's conduct industrial impact assessments in the review for new services – avoiding duplication of capacities and market distortion
- That EEE's publish their full list of services and brief industry on their procurement plans and timescales well in advance of tender actions
- Procurement to appropriately consider cost-benefit and service sustainability requirements through dedicated emphasis on service quality rather than primarily cost. The technical quality of the offer including the composition of the team should be given primary consideration.



4. Easy access to the data

Even if free, Sentinel data cannot be used if it is not accessible.

EARSC has voiced concerns that industry may not have good and easy access:

- Copernicus ground system is based on limited number of Member State nodes which may not favour industry at large; depends on national policy
- If capacity becomes limited, first priority correctly is for government (public use), then scientific and international use
- Strong risk that access favours companies / consortia which are successful in tenders for Copernicus (core) services (full access guaranteed)
- Where programming of the satellite or instrument is required, industry needs are low priority and cannot be relied on to develop business

EARSC dialogue with ESA on industrial access issues



5. Hi-Res Directive *

- EARSC Letter to EC (EARSC do not agree with the reasons underpinning the proposal whilst remaining essentially neutral on the proposal itself)
- Letter used by EU Council Space Working Party (Coreper) to essentially block the proposal in its current form; have asked for a clearer cost-benefit assessment of its impact.
- EC conducted new survey with EARSC support to assess the case.
- EARSC views on what EC could do to help industry develop & create new jobs:
 - Conditions which will help companies in Europe bring new ideas to market
 - A policy regarding the public procurement of satellite data
 - Policies to help European companies develop business in export markets
 - Procurement of Copernicus Services to involve industry better.



6. Combining different sources of data

Sentinel data will already be large datasets (“Big Data”)

Effective use will require combination with other datasets, both satellite-derived and ground-based (ancillary & in-situ data)

- access to such complementary data is not guaranteed in the same way as is the case for Sentinel data
- combining with other satellite datasets requires new tools / infrastructure
- Presence of the large US players can be beneficial but presents a strong risk to the open market for European companies
- Need for an effective and open European solution to maintain a healthy and competitive environment.

EARSC liaisons with EUROGI and UVS International



7. Delivering Information Products

- Generating the information products involves applications (applications layer). Currently, these are highly crafted and are the core competence of many of the service companies.
- Big data sets will change the game and require more automation and new business models:
 - Cloud or distributed approaches seem promising (and likely to succeed)
 - TEP's are a new and interesting approach, but so far all are thematically oriented, and a big opportunity has so far been missed to step into the business layer, i.e. a customer- or market-oriented platform.

EARSC with companies seek to create business platforms whereby companies can exploit effective data access with applications development for both public and private customers



8. Quality !

- Services may be delivered, even effectively and efficiently, but are of no use unless they are of assured, good and appropriate quality!
- Encourage industry and its customers to move to standard product specifications to ensure competitive supply and efficient procurement.
 - Projects (ESA-funded) with Oil and Gas industry, which is most advanced
- Consider a further need for greater transparency in both the procurement process and the delivery (e.g. annual report on services)
- Ensure industry is challenged to deliver best and appropriate service at a competitive price.
- Copernicus could (and should!) become a world-leading brand

EARSC is promoting the adoption of professional standards within the EO services industry (trend to operational services)



9. Creating the Enterprise Culture

Copernicus is a great opportunity and must be grabbed.

Copernicus procurement policy will have an enormous influence on the emerging geo-information market, and therefore in our view should:

- Ensure that industry is the de-facto service provider where it has the means or the ambition to be so.
- Maintain competition in the supply chain to allow new entrants, and keep EU industry in a global lead to supply quality, geo-information services.
- Foster further R&D activities within academic and public sectors.
- Ensure that key skills and knowledge in the public sector are made available on a non-protected basis to any industrial teams

Develop the ambition for all Copernicus services to become industry-led by 2020



For more Information

For Information on EARSC:

www.earsc.eu / www.eomag.eu / secretariat@earsc.org

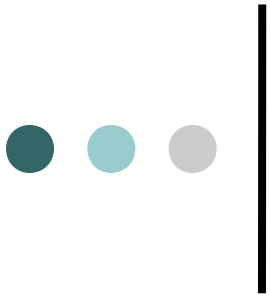
For more information on the remote sensing industry:

www.eopages.eu

[Report on the State and Health of the EO Services Industry](#)

For links to other Communities:

www.ogeo-portal.eu



Annex

Linking Communities - OGEO



Login

OGEO Portal

- Provides a link with the Oil & Gas Industry
- Offers a forum for exchanging information
- Guidance on EO applications
- Success Stories, e.g. real benefits from EO
- Industry status, e.g. certification & standards
- Knowledge management, e.g. documents, meetings, etc.



OGEO IS A FORUM FOR INFORMATION EXCHANGE BETWEEN THE OIL AND GAS AND EARTH OBSERVATION / GEO-INFORMATION PROFESSIONAL COMMUNITIES.

[MORE INFORMATION](#)

FAST INFORMATION

The portal offers the advantage of rapid and direct information exchange across the range of activities relating to Earth Observation undertaken in both market sectors. It will allow users to post questions related to information that is being sought and provides links to existing information in both communities.

BUILDING NETWORKS

Suppliers of Earth Observation derived geo-information can co-ordinate and exchange expertise as well as building networks and partnerships with members of the oil & gas industry. It will allow members to respond to demand requests and make commercial offers easier. Prior exchange will allow the oil and gas industry to select more targeted products.

PROBLEM SOLVING

Using the OGEO portal allows O&G members to seek help and address business problems using Earth Observation. Users can find new suppliers, win new customers, share experiences and seek practical advice for all application where remote sensing and earth observation can offer a solution or offer a business improvement.

Linking Communities – Research Corner

Provides virtual networking and meeting facilities to form R&D (H2020) teams:

- Chat & exchange with other users
- Library of relevant documents
- Advertise partners search
- Book a private meeting room for a project team
- Learn about programmes with guidance and analysis

The screenshot shows the EARSC Research Corner website. At the top, there is a navigation bar with links for Dashboard, Forums, Work Groups, Resources, Projects, News, and Help. The main content area is divided into several sections:

- Contents:** A list of links including Research Corner Bulletin Board, Research Corner Classroom, Research Corner Library, Research Corner Lounge, and Research Corner Meeting Rooms.
- Research Corner Home:** A central section with a welcome message and a list of icons for Chat in the Lounge, Read in the Library, Place & read ads on the bulletin wall, Meet in Private, and Learn in the Classroom.
- Recently Updated:** A list of recent updates, including EARSC Research Advert, Research Corner Library, and H2020 SC Societies.
- Blog Posts:** A section for blog posts, including "EARSC Guide to H2020" and "Welcome!".
- Recent space activity:** A section for recent space activity, featuring a profile for Monica Miguel-Lago.
- Space contributors:** A list of contributors, including Monica Miguel-Lago and Geoff Sawyer.