

Interviews from the speakers at the 2011 Geospatial Conference in Budapest, Hungary with Geospatial experts who will be attending the conference. Fleming Europe's Second annual Geospatial conference which takes place on the 1-3 June 2011 in Budapest, Hungary will again provide an insight into the latest strategies and technological advances for using geospatial information in society.

We have asked some of our speakers for their views about the industry. Geospatial Experts

Commodore Patrick Tyrrell OBE Royal Navy, Director, Vale Atlantic Associates

Mr Pascal Legai, Deputy Director, Operation Support, European Union Satellite Centre

John Tate MSc MRICS, Geospatial Intelligence Consultant, Lockheed Martin UK IS&S Ltd, Information Systems and Global Solutions

reveal their know how in 3 questions.

1.What areas should be developed in order to improve interoperability?

Commodore Pat Tyrrell: Interoperability is required on a number of different levels: it is vital within a single service, it is required for joint service co-operation and, increasingly, important for coalition operations. I would suggest, however, that there is little appetite for interoperability with those nations with whom you may find yourself in conflict!

Traditionally, interoperability has been achieved by setting robust and well defined standards. The problem is that, as the data requirements get more complex, standardisation becomes more of a behemoth. Complexity and standards are not happy bedfellows: if you standardise a thread on a bolt that is one thing but to standardise a complex environment such as GIS you need to be able to "flex" the building blocks to accommodate new technologies and opportunities. The key here is to understand those building blocks and the key one is the data with which we work. Expressing the data in a common format can be extremely difficult but, if we use language such as that offered by XML, we can provide equivalences of meaning in a highly flexible and dynamic fashion.

The key to effective interoperability is to take a holistic view of intelligence rather than one which looks at different collection methodologies in isolation. To this end we require an approach that links GIS with signals intelligence, human intelligence with open source intelligence etc. Here we will need some dictionary of key terms to ensure that we are talking about the same thing.

Col John Fitzgerald: Metadata standards need to be further developed to improve geospatial intelligence interoperability across communities and nations. As more information and functionality are delivered through services across diverse interconnected networks, then standardised and relevant metadata which describes the quality of information and aids in its management is essential for effective discovery, fusion and exploitation.

Mr Pascal Legai: In the recent past, the EU Satellite Centre (EUSC) has experienced a remarkable increase in the demand for products. This evolution is especially due to the growing number of European Common Security and Defence Policy missions and operations.

Those missions and operations represent the field where interoperability plays a most significant role: The Centre's products and services need be fully integrated both in the political planning process of EU and Member

States, as well as be readily available to the commanders of missions and operations in the field.

We expect that the creation of the EEAS will be a major step forward in the direction of interoperability, and we are looking forward to further integrating our processes with the workflow of this important new EU organ. This calls for several concrete steps: to fully integrate the EUSC's capabilities into CFSP/CSDP operations, and direct support of operations, especially with regard to the integration of civil and military planning capabilities at the Council General Secretariat / EEAS; to play a key role in the security dimension of the EU Global Monitoring for Environmental and Security (GMES) programme in support to the European Security Strategy; and to continue to explore cooperative opportunities where benefits for further improvement in EU crisis response capabilities could arise.

Mr John Tate: I believe that the wider adoption of open standards, in particular data and web services, will lead to an improved interoperability. Improvements in the ability to share data in service and non-service manner will be achieved, reducing the numbers of data silos / towers of excellence (depending on your point of view). Coupled with the adoption of an 'enable and enhance' (current capability / equipment) approach rather than replace will offer costs benefits

2. In terms of balancing costs, what areas would you say require the most investment in Geospatial Intelligence?

Commodore Pat Tyrrell: The unmanned vehicles are going to produce an ever increasing deluge of data over the next few years and the secret will be how we manage that data and, in particular, fuse different data sets to give reliable, and actionable intelligence.

The human graphical interface, that allows the decision maker to see the data within the context of a picture rather than reams of textual data, offer considerable potential and need to be further developed.

Mr Pascal Legai: The EU Satellite Centre is recognized as leading provider of high quality and relevant GEOINT products and services in support of CFSP/CSDP. At the same time, the EU and its Member States invest substantial resources in the Global Monitoring for Environmental and Security (GMES) programme. Already today, GMES is an important source of capability development from which the Centre, other stakeholders and citizens are benefitting. And they will benefit even more in the future, once GMES moves into its operational phase. In the EUSC 's view, there should be substantial investments in this field. However, the EU Member States have noted that services complementary to the ones already provided by the Centre will have to be thoroughly assessed and carefully coordinated in order to avoid unnecessary duplication.

The added value of the EUSC is that it is the only European Union agency in this field of work, which means that we are a direct source of GEOINT and IMINT for the EU and a complimentary source for Member States. Furthermore, all Member States benefit from this European capacity by automatically receiving a copy of all the products requested by another Member State, the Council of the EU, the Commission or an international organisation, thus saving money and resources.

Mr John Tate: I believe that the Geospatial Intelligence Community are pretty well served albeit greater investment in the supporting infrastructures to enable the increased use of geospatial web services as a means of harnessing geo-processing and sharing GeoINT is required. However, the area that is often neglected, but that I believe needs further investigation the education and training of the users beyond the 'typical' GeoINT community, those who often don't realise that they have a GeoINT requirement. Educating them to the benefits of the GeoINT discipline (taken for granted by the GeoINT community) and what it can do for them will reap reward.

3. Finally, how do you feel the Geospatial Intelligence industry is progressing in terms of technology?

Commodore Pat Tyrrell: The GIS industry is making good use of new technologies – the area of concern is that

of the user where innovation can be considered to be a negative issue. Intelligence is applicable at the three key level: strategic, operational and tactical – it is essential that the data that supports these three levels is based upon common data. This will require a new approach to the data issue as discussed above.

Mr Pascal Legai: From our own experience and based on the EUSC's good relationships with its industrial partners, outstanding and reliably high service levels provided by geo-information companies to the Centre become increasingly essential. The Centre is very much interested in working even closer together with providers that can guarantee the highest quality, fast delivery, as well as perfect reliability and have incorporated a strong service orientation. These elements are essential so that the industry can support the EUSC even better in its CFSP/CSDP mission of providing high-quality geospatial intelligence to the EU and its Member States.

Mr John Tate: The GeoINT industry is well served in typical geospatial intelligence technology terms i.e. dealing with the 'natural' environment. However an area that needs development and is perhaps more difficult because it doesn't always conform to the traditional non-fuzzy GI world, is cultural geography or human terrain mapping. There is perhaps much that can be learnt from other sectors that would bring benefit to the Geospatial Intelligence community.

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