

EU Crisis Management and the Security Dimension of GMES

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The purpose of this perspective is to analyse the security dimension of the European Programme for Global Monitoring for Environment and Security (GMES) in the wider context of EU crisis management. GMES is one of the two European space flagship programmes - along with Galileo - which has not only security aspects but also clear geopolitical implications. Although widely disputed at the outset of the programme, the security dimension (the “S” in GMES) has made significant steps forward during the last years. What the security dimension of GMES still lacks, however, is a sound conceptual basis and a strategic pan-European vision. The appropriate place of the GMES Security component is within the frameworks of EU crisis management, and more specifically under the Common Security and Defense Policy (CSDP) of the Union.

1. Introduction

A good starting point is the historical fact that the term “security” is derived from the name of “Securitas”, the Roman goddess of the security and stability of the Roman Empire. Romans believed that “Securitas Imperium” would guarantee the safe continued existence of the Empire. The imperial origin of this fundamental term bears symbolical meaning in the context of the concept for Europe as an empire. Recently, Oxford professor Jan Zielonka has argued that following the fall of the Berlin Wall and the last wave of Eastern enlargement the European Union (EU) has evolved into a kind of neo-medieval empire which shows similarities with the Holy Roman Empire of the Middle Ages¹. In this empire the EU acts as

a “meta-governor”, mediating between a complex web of interlocking levels of governance, territorial units and democratic polities.

In this train of thought the main hypothesis of this article is that the development of the security dimension of GMES is a major test for the ability of the European Union to be a “modern empire”, to be a global crisis management actor. It is questionable whether GMES can be viable only as a tool for enhancing competitiveness of EU space sector and industry - as it is often highlighted in official European Commission documents². GMES has to achieve a mission of higher importance – to be a state-of-the-art tool of CSDP and to improve the international standing of the EU vis-à-vis the U.S., the People’s Republic of

¹ ZIELONKA, Jan. 2006. Europe as Empire: The Nature of the Enlarged European Union, Oxford: Oxford University Press.

² FP 7 SPACE Work Programme - 2012, Brussels: European Commission, July 2011 – available from <<http://ec.europa.eu/research/participants/portal/page/coperation?callIdentifier=FP7-SEC-2012-1>>

China, Russia and actors on the global stage, in addition to being a key source of environmental data. GMES is the European contribution to the international community for the Global Earth Observation Systems of Systems (GEOSS). Once the GMES system will be completed, Europe will have the most comprehensive space-based data collection system in the world. And logically, the higher “imperial” mission of GMES could be achieved mainly by strengthening its security dimension.

2. Conceptualising the “S” in GMES

In technical terms security is one of the five GMES core services along with Atmosphere, Marine, Land and Emergency Response. There are three priority areas in the GMES Security domain whose undeclared rationale is the concept of EU-wide territorial integrity, these are Border Surveillance, Maritime Surveillance and Support to EU External Action. The major GMES-Security project so far – G-MOSAIC (co-funded by EU Seventh Framework Programme, Space theme) addressed five security domains³:

- Natural Resources and Conflicts
- Migration and Border Monitoring
- Nuclear and Treaties Monitoring
- Critical Assets
- Crisis Management and Assessment

This brief overview demonstrates capacities that require comparatively high level of technical maturity of GMES security services which were successfully tested in a number of crisis situations, including the Libyan crisis in 2011. More specifically, during the Libyan crisis GMES security services provided some products for contingency plan preparation, rapid geospatial reporting, and damage assessment. However, to date, among GMES services as a whole, those related to security are the least developed. The main reason is the lack of strategic pan-European vision on GMES-Security and subsequently, an underdeveloped conceptual basis.

³ As listed on the official web-site of G-MOSAIC project (GMES services for Management of Operations, Situation Awareness and Intelligence for regional Crises) – available at: <http://www.gmes-gmosaic.eu/>

From a conceptual point of view the rationale behind the security dimension of GMES lies both in geopolitics and in intelligence. Geopolitics and intelligence are the two building blocks of the GMES-Security construct (as shown on Figure 1).

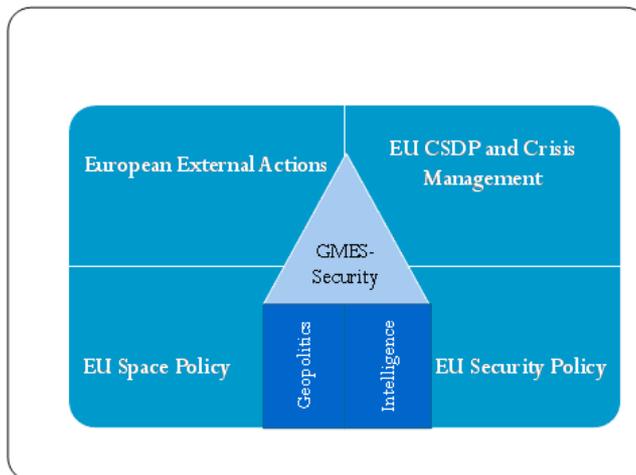


Fig.1: Conceptual Framework of GMES Security component.

Traditional military geopolitical theory - as developed by Sir Halford Mackinder in Great Britain and by admiral Alfred Mahan in the U.S. – is based on the strict distinction between land power and sea power. In the second half of the twentieth century the revolutionary impact of air power, respectively of space power on geopolitics was recognised. A dedicated term for space geopolitics was coined, namely “astropolitics”⁴. As noted in a recent study for the European Parliament, the development of space technologies has been often linked to a vision of worldwide strategic posture.⁵ That was the case, starting in the 1950s, in the U.S., Russia, and France, where launchers and space assets were historically conceived as key elements of nuclear dissuasion. Presently space has a strong strategic value for the EU, as it increasingly allows the Union to gain non-dependence, scientific and technological

⁴ AL – RODHAN, Nayef. 2012. Meta-Geopolitics of Outer Space: An Analysis of Space Power, Security and Governance, Basingstoke/Great Britain: Palgrave MacMillan.

⁵ DARNIS, Jean-Pierre and VECLANI, Anna. 2011. Space and Security: The Use of Space in the Context of the CSDP, Brussels: European Parliament.

prestige, and the capacity to act as a global actor.

The strategic importance of space for the EU was declared in a number of legal and political documents. The Treaty on the Functioning of the European Union (Art.189) explicitly refers to a European space policy. In April 2011 the European Commission released the Communication “Towards a Space Strategy for the European Union that benefits its citizens”.⁶ In this document the Commission puts special focus on the role of GMES for achieving EU’s security and defense interests and calls for enhancing the security component of GMES. As a clear expression of European geopolitical consciousness, space is already considered as a strategic asset for Europe (e.g. in DG Enterprise and Industry documents).⁷ More specifically, GMES is considered as an appropriate strategic tool to support Europe on geopolitical issues through unified Earth observation.⁸ Acknowledging the geopolitical nature of GMES is a positive step forward in the strategic thinking of the wider EU space community comprising experts, administrators, researchers and practitioners. Moreover, it is vital for the full implementation of the GMES programme.

The second “building block” of the GMES security component is intelligence, and more specifically geospatial intelligence (GEOINT). As an Earth observation system GMES has the potential to provide valuable geospatial information. The European Commission ad hoc Working Group “Support to EU External Actions” has identified the following potential application areas of the GMES Security component for EU External Actions: support to peace-keeping operations, intelligence for humanitarian-aid and civil protection operations, border monitoring outside the EU, treaty monitoring and nuclear non-proliferation,

assessment of security risks related to urban resilience, food security, water management, illegal exploitation of natural resources or monitoring of illicit crops and land use planning, in particular from a preventive point of view⁹. Some of those GEOINT services are already in pre-operational mode under the G-MOSAIC project, while others have to be developed almost from scratch. In the near future it will be very important for the EC to acquire standardised and validated geospatial intelligence products and services in support of EU security policies and External Actions. One of the greatest challenges will be the extraction of intelligence information from Earth observation data and the integration of GEOINT with in-situ data and with traditional human intelligence (HUMINT). In this respect, it should be noted that GMES has a much more ethical and democratic disposition in comparison with other space-based systems such as the Echelon global surveillance system, which is operated by the United States and the United Kingdom.

To some extent the geopolitical and intelligence aspects of the GMES security component have already found their respective place in the complex EU institutional and legal system. After the entry into force of the Lisbon Treaty in 2009, European space policy (including the GMES programme) should support the implementation of EU policies (including the Common Security and Defence Policy – CSDP). The potential role of GMES security services to CSDP civilian missions and military operations was subject to recent study for the European Parliament by Darnis and Veclani¹⁰. The study shows that GMES and other space-based applications can provide an added value in the context of CSDP missions such as humanitarian and rescue tasks, conflict prevention, peace-keeping and peace-building tasks etc. Eventually, CSDP should allow for the progressive framing of a common Union defense policy which would impact future GMES security developments.

⁶ Communication from the Commission (COM (2011) 152) “Towards a Space Strategy for the European Union that Benefits its Citizens”

⁷ See the official website of DG ENTR at: <http://ec.europa.eu/enterprise/policies/space/research/>

⁸ The EU Programme for GMES: governance and financing (Study by the European Techno-Economic Policy Support Network), Brussels: European Parliament, 2009

⁹ FP 7 SPACE Work Programme - 2012, Brussels: European Commission, July 2011 – available from <http://ec.europa.eu/research/participants/portal/page/coperation?callIdentifier=FP7-SEC-2012-1>

¹⁰ DARNIS, Jean-Pierre and VECLANI, Anna. 2011. Space and Security: The Use of Space in the Context of the CSDP, Brussels: European Parliament.

Even more complex is the link between GMES security dimension and the European Security Strategy (ESS) which was drafted in the aftermath of the 11 September 2001 terrorist attacks and adopted in 2003. On the one hand, with this policy document the EU has increasingly focused on the widening concept of security and on global challenges in an evolving strategic environment shaped by globalisation. Indeed, the added value of GMES in the security domain is strictly related to the evolution of the concept of security itself and to the increasing blurring of the border between security and defense. GMES fits well the so-called comprehensive approach to security which gave birth to the Department of Homeland Security in the U.S. and to the civil security concept in some EU Member States. On the other hand, the ESS is not harmonised with new developments in European space policy which should be taken into account in future amendments of the Strategy. More importantly strategic European space assets - especially GMES - should find their place in the European security model as declared in the EU Internal Security Strategy (adopted in 2010).

3. The Need for a New Governance Model

Since its inception in 1998, GMES has undergone many transformations and changes of governance structure. Presently GMES has a very complex governance structure and there is no clear "GMES Authority". The governance structure is quite fragmented and as a result there is still much room for improvement in efficiency and effectiveness. With regard to the security dimension, the main European institutional actors are the European Commission, the European Space Agency (ESA), the European Defence Agency (EDA), the European Union Satellite Centre (EUSC) and the European External Action Service (EEAS). Positive steps towards a more structured governance model are the Administrative Arrangement for cooperation between EDA and ESA (signed in June 2011) and the European Framework Cooperation for Security and Defense Research which has set out the cooperation activities of the European Commission with both EDA and ESA in the

security and space domains. At a higher inter-institutional level a Structured Dialogue on Space and Security was inaugurated, gathering the European Commission, the Secretariat-General of the EU Council, the EEAS, EUSC, EDA and ESA. Eventually, simplification of GMES governance structure will be needed with one legal body taking the lead and responsibility for the implementation of the GMES security component.

A very important aspect of the prospective governance model is the problem with democratic civil control over GMES security dimension. GMES is a civil Earth observation system but it has dual use nature for both civil and defense users. Enhancing GMES security services would inevitably pose the issue about enhancing democratic control, transparency and accountability of the GMES security dimension. A legitimate democratic tool in this respect would be active involvement of civil society organizations in the decision-making processes - both on the political leadership level and on the operational level.

An important test for the new GMES governance model will be the FP7 funded project BRIDGES (Building Relationships and Interactions to Develop GMES for European Security) which started in 2012 and is coordinated by the European Union Satellite Centre. The project will explore the potential contribution of GMES to CSDP and will propose governance models and a roadmap for the implementation of alternative governance scenarios. The project will be a test for the possible role of EUSC - which is closely tied to the European External Action Service - to act as an authority for GMES security dimension. Therefore, it could be suggested that if a sustainable GMES governance model is proposed under the BRIDGES project and eventually adopted, the chances for more efficient EU crisis management capabilities in the near future will increase.

4. Conclusion

The development of the GMES security component will be a major test for the ability of the EU to act as a modern empire and as a credible crisis management actor. What could be achieved is a strong security dimension of GMES to serve Europe's geopolitical and intelligence needs. The security dimension of

GMES is an appropriate test-bed for the development of European crisis management capabilities based on EU space infrastructure. Additionally, given their dual use nature GMES security services could be a powerful tool to achieve more balanced and mature civil-military relations at EU level.



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Available for download from the ESPI website

www.espi.or.at

Short title: ESPI Perspectives 63
Published in November 2012

Editor and publisher:
European Space Policy Institute, ESPI
Schwarzenbergplatz 6 • A-1030 Vienna • Austria
<http://www.espi.or.at>
Tel: +43 1 7181118-0 / Fax: -99
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