

PEGASE

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GUIDELINES FOR THE COORDINATION WITH / EXPLOITATION OF REGIONAL INITIATIVES

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1 INTRODUCTION

1.1 BACKGROUND

Due to the high potential of the GNSS market, more and more national, regional or local actors in the whole European Union have decided to launch proactive economic development policy in the field of GNSS.

Currently, 56 Regions in 21 European countries are referenced as being actively involved in supporting GNSS activities:

- The Regions with strong space background find in SATNAV applications development the opportunity to cultivate the excellence of their space industrial poles while boosting the development of new business activities as an attempt to catch part of the 22 billion euro GNSS applications market.
- But non space regions also see the opportunity to capitalize on GNSS technologies in order to boost the innovativeness of other industrial fields. Indeed, the GNSS expertise can feed a large number of other industrial sectors such as agriculture, aeronautics, insurance, telecommunication, health, logistics, railway, maritime, tourism to quote just a few.

The Regions which decided to invest in the development of GNSS applications wanted to boost economic development onto their territory with four major underlying ambitions :

- The Regions with strong space background want to stimulate the development of their leading edge companies in the field of radio-navigation while helping them at addressing the worldwide downstream market.
- The availability of GNSS satellite capabilities gives the opportunity to invent and to launch new business activities with huge economic development perspectives.
- The GNSS segment being embedded into different industrial sectors, Regions used the GNSS functionalities as a mean to stimulate the innovativeness of non space industries: SATCOM, agriculture, health, avionics, insurance, ICT, telecoms, logistics, railway, ICT, maritime, tourism.
- Last but not least, many Regions invested in the development of GNSS applications development to reinforce their legitimacy at hosting key organizational structures of the GALILEO programme.

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Considering the significant number of incentives that are already supported by European competent bodies, the permanent exchange of information and the implementation of adequate coordination mechanisms are seen as very necessary in order to maximize the benefits of regional investments while accelerating even further SATNAV Business development opportunities at the European level.

The GNSS Regional Advisory Board was set up in this perspective, with the objective to advise the GSA on the best ways to implement such coordination and exploitation mechanisms.

1.2 PRACTICAL IMPLEMENTATION

The GNSS Regional Advisory Board established by the PEGASE project consisted of 6 representatives from the networks identified by PEGASE as major actors in national, regional and local initiatives:

- 3 representatives appointed by the NEREUS network;
- 2 representatives appointed by the ENCADRE network;
- 1 representative appointed by the ESINET network.

(A detailed list of contributors is provided in the annex).

The Regional Advisory Board was chaired by NEREUS.

The meetings of the Regional Advisory Board were also attended by a GSA representative and by the PEGASE consortium, which took care of the organisation and technical secretariat of the Regional Advisory Board meetings.

1.3 STRUCTURE OF THE REPORT

This report constitutes the "Guidelines for coordination and exploitation of regional initiatives". It was produced after three meetings with the Advisory Board and corresponds to PEGASE deliverable D26.

The guidelines address in particular the two following issues:

- How Regions could stimulate GNSS Applications development (Chapter 2);
- How Europe could help increasing the impact of Regional investments (Chapter 3).

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2 HOW REGIONS COULD STIMULATE GNSS APPLICATION DEVELOPMENT

Regions are instrumental for the development of the SATNAV Applications markets at three major levels which are described in the following paragraphs:

- Regions can efficiently communicate and raise awareness about the opportunities to be expected from GNSS capabilities;
- Regions can foster the creation of new SATNAV applications and businesses;
- Regions can stimulate the development of GNSS markets.

2.1 REGIONS CAN EFFICIENTLY COMMUNICATE AND RAISE AWARENESS

In order to foster the development of GNSS applications, promotion, education and awareness raising are needed, not only as regards citizens, but also as regards industrial and innovation networks.

Because the Regions are closed to their citizens, they represent the ideal geographical scale to implement such a promotion efficiently.

- Regions can collect information to show how the GNSS services can help;
- They can increase awareness of the GNSS potentials on the day to day life of regional citizens;
- They can raise interest in the various industrial communities active in their regional area.

In this perspective, some of them have invested in the implementation of 'SATNAV applications promotion centres' which behave as one-stop shop entities in order to explain and demonstrate to users why they might use space applications for.

2.2 REGIONS CAN FOSTER THE CREATION OF NEW SATNAV APPLICATIONS AND BUSINESSES

Convinced of the opportunities to be expected from the GNSS applications markets, many Regions have decided to boost proactively the development of new business activities over their territory.

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In this perspective, the following instruments were adopted as being the most significant enablers:

- The implementation of GNSS specialised clusters in order to foster creativity and cross fertilisation of expertise among the various regional stakeholders;
- The creation of specific incubators to stimulate new companies creation;
- The launch of Business models contests and Masters competitions to identify new ideas of SATNAV businesses;
- The allocation of specific Regional R&D financing lines to support SMEs and Start-ups in the building up of first proofs of service concepts.

In this latter context, Regions are particularly convinced of the importance of fostering technology transfers among the various actors of the knowledge triangle (education, research and industry). Indeed, research outcomes in a wide variety of technology fields can be used in order to boost SMEs development in the field of GNSS applications. But usually, such research outcomes are not known from SMEs.

In order to better bridge the gap between SMEs and research laboratories, dedicated technical centres and testing labs have been set up, with the ultimate goal to support and accelerate SMEs technological development processes.

2.3 REGIONS CAN STIMULATE THE DEVELOPMENT OF GNSS MARKETS

Last but not least, Regions can behave as real springboards to launch new applications business from. As such, they are instrumental to support the market development of GNSS applications.

There are mainly three reasons for this:

Regions are at the core of the process for bridging the gap between GNSS applications providers and potential end-users in other industrial communities.

The GNSS segment per se does not exist but is embedded within a large number of industrial activities: Telecommunications, GMES, agriculture, avionics, insurance, ICT, telecoms, logistics, railway, ICT, maritime, tourism.

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Because the regions host all these industrial communities, they appear to have the good geographical scale to stimulate such networks efficiently and thus to open new market opportunities for GNSS service providers in the other industrial sectors.

Some Regions implement applications demonstrations areas.

Once the concept of a new GNSS application is demonstrated, SMEs have still a hard work to do in order to convince potential customers about the added-value and return-on-investment to be retrieved from their GNSS based offers.

This is why a few Regions are now investigating the opportunity to set-up and fund “demonstration areas” or “living labs” on which the SMEs will have the opportunity to demonstrate more easily the benefits of their GNSS application on the field towards potential customers.

Since time to market is a key issue, such demonstration areas are seen as key stepping stones for SMEs willing to accelerate their business development while better understanding their Key Customers' Values.

Regions per se can also be seen as potential GNSS service customers

There exist a good number of GNSS applications which are targeted to institutional end-users: regional tourism promotion, regional transport organisation (car sharing, bus and regional railway traffic), the optimisation of emergency services, the monitoring of elderly persons in rural areas, trash collection organisation to quote just a few...

In this context, some Regions have implemented special procurement mechanisms in order to purchase the customised GNSS applications they need.

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3 HOW EUROPE COULD HELP INCREASING THE IMPACT OF REGIONAL INVESTMENTS

All Regions are convinced that a European support is needed to increase even further the impact of their regional GNSS investment policy.

Without prejudging if this European support should be brought about by the GSA, other competent European bodies or specific European networks, the following items were considered as being key areas where a European stimulus would be definitively needed to support and better exploit Regional initiatives for the benefit of the whole European GNSS programme.

Four major areas of European added value have been identified which are further detailed in the following chapters:

- Awareness raising about the business opportunities to be expected from GNSS capabilities;
- Market development;
- Financing;
- Pan European harmonisation and cross fertilisation.

3.1 AWARENESS RAISING ABOUT THE BUSINESS OPPORTUNITIES TO BE EXPECTED FROM GNSS CAPABILITIES

As seen before, many Regions are working hard for raising awareness about the benefits to be expected from GNSS applications.

They all work alone on this, developing their own materials and building their own communication strategy.

It would be much more effective and productive if Europe could prepare already some communication materials and strategic analysis tools from which Regions could build their own customised materials.

In this perspective, the following European support was asked for:

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Strong communication message at the European level about the Galileo Programme Progress

The European GNSS programme is on good tracks.

Europe must absolutely communicate about the GALILEO programme and also about key success stories at a large scale which would reach both the common citizen and the local politicians.

This would considerably help the Regions on the field.

Organization of regional Road Shows and satellite applications promotion offices

Knowledge about GNSS applications potentials is still very limited. The various Regions pinpoint the importance of promoting GNSS-applications on the field, to show what can be done with satellite technologies and which applications are already operational.

In this perspective, the organisation of road shows at regional levels is seen as a very effective mean to reach as many people as possible in clusters, chambers of commerce, SMEs etc. Such road shows would help local actors (either citizens, politicians, SMEs or institutional end-users) at better understanding what can be improved in their daily life by using GALILEO and EGNOS.

The implementation of local SATELLITE APPLICATIONS PROMOTION OFFICES is seen as another very important task to be implemented. Such contact point offices would help educate potential end-users at regional level about the added value they can expect from GNSS services. With such promotion offices, GNSS applications and GALILEO added value are made visible not only to the local politicians but also to SMEs without necessarily asking them to come to Brussels.

Europe could particularly propose 'harmonized communication materials and back-up servicing' for the organization of such road shows and local promotion offices.

Stimulation of Non Space Clusters

Another very important recommendation would be to stimulate areas which are not SATNAV orientated yet.

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Europe could bring a strong added value to Regions if Europe could help at approaching the non space clusters and promote the capabilities to be expected from GNSS infrastructure.

Indeed, if every non space Cluster of Europe could be approached with the 'SATNAV inside' pull approach, it would not be unrealistic to imagine that a very high number of additional applications could be identified in Europe, thus enlarging considerably the multiplying effect of SATNAV activities in all sectors of industry.

The field of Communication and Information Technologies should be systematically contacted in each region. The organisation of demonstrations in the Regions particularly interested in one industrial area or another should also be considered.

Education of the financing community

Once clear business models are built, securing seed and expansion funding is the next key concern to guarantee the commercial development of SATNAV applications. Therefore, the availability and accessibility of equity-based financial instruments are seen as a key condition for the successful development of the European Satellite Applications market.

However, although potential investors usually agree about the significant growth potential of the navigation application markets, they often regard activities related to space as a high cost, high risk, and long term investment.

Efficient and coherent practices at financing innovative businesses in the specific area of the SATNAV applications market need to be developed and largely disseminated in a coordinated way through the education of the investors' community.

3.2 MARKET DEVELOPMENT

The Regions have a key role to play for stimulating GNSS applications market development. Indeed, this is very often within the context of the Regional activities that the local GNSS applications providers meet their first customers and develop their first SATNAV application proofs of concept. Therefore, regional markets often appear as the first market stepping stones which local SMEs find their ideas of SATNAV applications and start their business development from.

But, Regions know however that their local markets are not large enough to sustain the development of new companies. Therefore, they need to find the means to help their regional SMEs at existing on the European if not global competition scene.

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Several routes have been proposed in order to accelerate and empower these Regional market development processes even further:

Demand creation or the stimulation of new ideas of SATNAV applications in a market pull approach:

Regions insist on the importance of bridging the gap between GNSS applications providers and potential end-users in other industrial communities.

Because the regions host all these industrial communities, they appear to have the good geographical dimension to stimulate such networks in relation with GNSS applications and to open new market opportunities for GNSS service providers in the other industrial sectors.

But fostering the identification of innovative GNSS applications in a market pull approach is a demanding task. Europe could help by providing background materials and servicing. The launch of Business models contests and Masters competition should be further promoted in this context while ensuring the confidentiality of the results obtained in each region.

Support to incubation processes through innovation vouchers

Once a SME has identified a key market need, it usually starts developing an innovative SATNAV application project. But the implementation of innovative R&D projects is not just enough. It is also very important for the SME to be in the position to turn innovative ideas and technological progress into marketable products and services.

Regions insist on the importance to create the best environment for the commercial exploitation of the new product or service, with the ultimate goal to build a marketable, viable, trustworthy, stable and robust business.

In this context, adequate tools and instruments should be developed at the European level based on the specific innovation and market features of GNSS applications. They should be made available to SMEs through specific innovation vouchers with the aim to help them access quicker to the market and to adequate financing whenever needed.

In the same order of ideas, technical support, help desk, users forum, and various tool kits on EGNOS & GALILEO should be proposed to the applications developers to help them accelerate their development. First initiatives were proposed by the GSA in this context; such efforts should be pursued in the future.

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Last but not least, the regional incubators should also be educated at using such European tools and instruments so they can be better positioned to coach high growth potential innovative companies in the SATNAV area.

The more systematic implementation at regional level of LIVING LABS or DEMONSTRATION AREAS

Once the concept of a new GNSS application is demonstrated, SMEs have still a hard work to do in order to convince potential customers about the added value and return on investment to be retrieved from their GNSS based offers.

This is why some Regions have set-up “demonstration areas” or “living labs” on which SMEs have the opportunity to demonstrate more easily the benefits of their GNSS application on the field towards potential customers.

By making those demonstration areas more visible at the European level, Europe could have a key role to play to instigate commercial domino effect from one Region to another and help promote the innovative offer developed in one Region towards the customers with similar profiles of the other regions. In turn, the promotion of already developed GNSS applications will enable a larger market diffusion, thus giving to the service providers more means to penetrate the European market.

The assessment of Common market needs and intelligence analysis

The creation of common markets will start with the implementation of common market intelligence. When facing regional demands that GNSS related capabilities could meet, Regions must be aware of already existing applications developed in other Regions. This would be the first step of the market harmonisation process.

Another very important route will consist at assessing the needs of the various regional sectoral clusters, the needs of various living labs', the institutional needs of the various Regions with the objective to assess those common needs which could justify the development of critical mass offers at the European level.

The implementation of common regional procurement schemes

As seen before, there exist a good number of GNSS applications which are targeted to institutional end-users: regional tourism promotion, regional transport organisation (car

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sharing, bus and regional railway traffic), the optimisation of emergency services, the monitoring of elderly persons in rural areas, trash collection organisation to quote just a few...

In this context, some Regions have implemented special procurement mechanisms in order to purchase the customised GNSS applications they need.

The organisation of European based forum among the various regions would help develop the GNSS regional markets even further while stimulating the development of critical mass offers at the European level.

In this perspective, the minimum European support which could be envisaged would be to instigate better information flow mechanisms between the Regions on one side and Europe on the other side. For instance, Europe could be informed before a procurement scheme is launched by one region and could open a forum about this to other Regions if asked for by the initial regional protagonist.

Specific technical support could be provided at the European level in order to help coordinate the various regional needs assessments and to build the major procurement guidelines.

This type of harmonization process would allow entering into virtuous development circles:

- The process of 'procurement specifications' would become somehow easier for each region which would then become more reactive and less reluctant to emit special calls for tenders;
- SMEs would benefit from larger and more harmonised markets. In turn, they would be in a better position to develop 'industrialised' offers (as the opposite of tailor made solutions) with lower price for the direct benefits of their regional customers.
- With SATNAV solutions at lower prices, more regions could decide to invest.
- Regions which would not have expressed their needs yet of acquiring such a SATNAV application could be educated about the interest of investing into such an application; this would enlarge the GNSS market potential even further.

The building of a European Force de Frappe for SMEs international deployment

Europe could also bring a strong added value by giving to European SMEs a key 'hitting force' to go on international markets.

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3.3 FINANCING

Money is the start of everything. Today, 10M€ seems to be the most frequent entry ticket for any Region willing to invest in the development of GNSS applications.

Indeed, public money is needed to launch demonstration areas, to develop and operate technological platforms, and most of all to support SMEs and their new project developments through dedicated calls for tenders.

Private money is also needed in parallel to support SMEs' commercial development to help them access to market, to build demonstrators and prototypes...

In this respect, one additional difficulty relies in the stimulation of the PRIVATE INVESTMENT community when the GALILEO programme appears risky and uncertain for many people. There are market uncertainties; there are satellite infrastructure uncertainties; there are schedule planning uncertainties ...

European Based Equity Funding Instrument

In the overall context described before, a very important issue for which EU based support would be needed would be the setting up of special funding instruments aimed at "under-capitalized" SMEs.

The experience of WSL in Wallonia has proved that funds are particularly needed for incubation processes, at the very early stages of GNSS ventures. Some regions are convinced that the availability of such incubating funds would drastically accelerate SMEs development as well as the GNSS applications they develop.

But private funds are also very important for SMEs which have already demonstrated the feasibility of their service concept but which need more money to industrialize and commercialize them on the market. In this latter case, financial instruments would be very welcome in the form of equity based support ("very 'early bird' seed funds").

The early-stage 'Open Sky Technologies Fund' (OSTF) just set-up by ESA, is the first European venture capital fund dedicated to the space community which represents a very important first-step into the capital venture world.

Additional initiatives should be considered at the European level, through the involvement of the European Investment Bank particularly.

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Lobbying as regards DG REGIO

Although, at the end, it will be up to the regions to decide whether they wish to get involved or not in SATNAV activities, many regional stakeholders think that it would help if regional GNSS based activities could be considered as fundable by the DG REGIO.

In this perspective, DG REGIO should be informed of the innovation driving effect GNSS has over other sectors. Lobbying to DG REGIO should also be properly managed in order to cope with the principle of “technology neutrality”: Rather than pushing the concept of “enabling technology”, a better argumentation would consist at searching for the optimal exploitation by the Regions of the EU investment related to the GNSS satellite infrastructure. Space capabilities could also be presented as a mean for social and territorial cohesion.

Such lobbying activities are seen as very primordial in order to influence future DG Regio programming. In turn, the DG REGIO could support the GNSS related regional initiatives and channel this message to the Regional managing authorities who decide on how funds are to be spent.

Europe could also envisage abounding Regions investments as it was the case in the PRAI (Programme Régional d'Actions Innovatrices).

Funding for cross regional participation of actors

Regions pointed out that cross regional R&D projects would also be seen as good mechanisms to help SMEs expand their business in neighbouring regions.

However, the allocation of regional funds on such cross regional project activities is merely impossible. Europe could help in providing a multi-regional umbrella. Europe could launch for instance calls co-funded with the Regions, similarly to FP7 calls related to international activities where third countries funding is required.

More generally, Regions think that dedicated funds would be needed to help regions working much more together.

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3.4 PAN-EUROPEAN HARMONISATION AND CROSS-FERTILISATION

There are many regional initiatives in many regions, but they are not known from one region to another.

Europe would definitively help existing GNSS regional initiatives if it could make them more visible and accessible to SMEs and to other Regions.

The major ideas which were proposed in this context are proposed hereafter:

The set-up of a regional GNSS web portal

The set-up of a dedicated Regional web portal is seen as the first priority to be implemented. This web portal will present all regional initiatives and should be relayed on the own GSA web portal. (PEGASE is starting such development and TEST CASE (another FP7 project) is developing a specific tool to support the federation of GNSS Simulation and Testing infrastructures from all Regions)

It could also allow communicating more broadly about any Regional success story or case study.

GSA Stamped Quality Labels For Regional Initiatives

Many experts think that the GSA should promote labels of quality for the most relevant regional initiatives.

Indeed, once one Region has decided to invest in a major GNSS related development programme, a European stamped label would be very appreciated since it would be seen as a quality label certifying that the Regional programme is at the best of the European standards.

This would increase the visibility and the legitimacy of such a regional programme not only at the European level but also in the Region itself. For instance, Regional GNSS platform would immediately have another dimension if it could benefit from the GSA 'European GNSS inside' stamp.

These GSA stamped labels could concern GNSS excellence centres, GNSS orientated incubators, GNSS living labs, GNSS certification companies, and more generally, all innovation intermediaries able to support the development of innovative GNSS applications.

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The case study of the 'BIC' label as managed by EBN for the EC should be analyzed in this respect. EBN pointed out from its own return on experience that criteria should be decided by the regions. Such criteria should then be used for the implementation of self-assessment protocols to be undertaken by the Regions themselves. Indeed, such self-assessment protocols will offer a benchmarking advantage and a powerful mean for each Region to measure its success and continuous improvements.

Compilation and information about regional good practices

If Europe should not interfere in the final decision making process of one Region when it decides to invest in specific GNSS application development policy, Europe could certainly contribute by informing the Regions about the good practices already implemented by others. For instance, Regions would be interested to know:

- What are the good practices to be implemented for giving special impetus in favour of education?
Indeed, there is a strong need to stimulate new vocation and training can do that.
- How to foster transfers of technologies from research laboratories towards SMEs?
Many research labs could be involved in the development of GNSS applications or of leading edge technologies like MEMS, hybridisation, special control command algorithms, How to involve all the possible technical disciplines needed? How to stimulate transfers of technologies among such research labs and the regional SMEs?
- How to help SMEs at penetrating targeted markets? Regions would welcome any good practice aimed at supporting SMEs at accessing the market with key competitive advantages. Support to the valorisation of R&D projects would be more than welcome.
- How to govern the various regional initiatives set forth in order to boost the development of GNSS based applications? The problem of governance on mutualised regional based innovation platforms were raised several times: GNSS applications impact many possible stakeholders (SMEs, entrepreneurs, researchers, large industry, regions, Europe, GSA) – but who should pay in final for joint development policy programmes: the private sector, the public sector? the public / private sector ? And who is supposed to pilot? Who should take the lead of specific action lines derived from the networking activities? How to find a good balance between public and private interests?

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The setting up of regional GNSS observatories

Today, Regions have strong difficulties at identifying all their local actors which are already involved in GNSS related activities. Such a mapping is an essential but demanding task because of the very high number of actors involved in R&D, in industry, in education in each Region.

Regions would appreciate if Europe could help them at building local observatories which could allow them:

- To integrate the various regional systems within a harmonized European definition of the supply chain and targeted associated markets
- To undertake the mapping of their local actors on the various components of the GNSS applications value adding chains
 - Core regional GNSS expertise
 - Identification of all companies and research laboratories involved in GNSS activities
- To better catch the local industrial specialties which could offer a market for the GNSS service providers
 - Regional industrial specialties of interest for the development of GNSS applications
 - Existence of local user needs and market opportunities for the GNSS applications developers

In turn, those regional observatories would represent very valuable analytical tools for Regions to assess their main strategic development priorities.

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4 CONCLUSIONS: PRIORITIES AND NECESSARY CONDITIONS FOR SUCCESS

Due to the high potential of the GNSS market, more and more national, regional or local actors in the whole European Union have decided to launch proactive economic development policy in the field of GNSS.

All Regions are convinced that a European support would be needed in order to increase even further the impact of their regional GNSS investment policy.

Without prejudging if this European support should be brought about by the GSA, other competent European bodies or specific European networks, the following recommendations were highlighted as being the 8 priority areas where a European stimulus would be definitively needed to support and better exploit Regional initiatives for the benefit of the whole European GNSS programme.

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THE MAJOR CHALLENGES AT STAKE AT REGIONAL LEVEL FOR THE MARKET DEVELOPMENT OF GNSS APPLICATIONS		RECOMMENDATIONS MAJOR ACTION NINES EXPECTED FROM EUROPE	
<p>STIMULATING THE MARKET DEMAND BY RAISING AWARENESS ABOUT THE GNSS CAPABILITIES</p> <p>In order to foster the development of GNSS applications, promotion, education and awareness raising are needed, not only as regards citizens, but also as regards industrial and innovation networks.</p> <p>The Regions represent the ideal geographical scale to implement such a promotion efficiently and indeed, this is very often within the context of the Regional activities that the local GNSS applications providers meet their first customers and develop their first SATNAV application proofs of concept.</p>	<p>In this general context, Regions insist on the importance to raise market demand and to bridge the gap between GNSS applications providers and potential end-users in other industrial communities.</p> <ul style="list-style-type: none"> ✓ The organisation of road shows at regional levels is seen as a very effective mean to reach as many people as possible in clusters, chambers of commerce, SMEs etc. ✓ The implementation of local Satellite Applications Promotion Offices help educate potential regional end-users about the added value they can expect from GNSS services. 	<p>R1</p> <p>R2</p>	<p>Europe should communicate much more dynamically about the EGNOS and GALILEO programme on a mass market mode, with the ultimate objective to reach both the common citizens and the local politicians.</p> <p>In turn, this would help Regional stakeholders at convincing their politicians at investing into territorial GNSS applications development policies</p> <p>Europe should offer ‘harmonized communication materials and back-up office servicing’</p> <ul style="list-style-type: none"> ✓ for promoting the GNSS capabilities in the non space clusters ✓ for supporting the organization of road shows and the daily operations of local promotion offices.
<p>FOSTERING SMEs DEVELOPMENT</p> <p>Once SMEs have developed a first proof of concept for an innovative GNSS application, their key next challenge is to access quickly to the market and to expand their services on a European if not global scale</p> <p>Regions insist on the importance to create the best environment for the SME development and commercial exploitation of the new product or service, with the ultimate goal for them to build a</p>	<p>But many Regions mention that they still might lack good innovation intermediaries which could be aware of the GNSS specific innovation and market features.</p>	<p>R3</p>	<p>Europe should develop GNSS specific innovation methodologies and supporting mechanisms for SMEs to access quicker to the market.</p> <p>In line with the EGNOS GSA strategy, tool boxes should also be proposed to application developers.</p> <p>Regional innovation intermediaries should be educated and accredited to use these various tools with the maximum added value through the implementation of a dedicated European funded ‘innovation vouchers’ mechanisms.</p>

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THE MAJOR CHALLENGES AT STAKE AT REGIONAL LEVEL FOR THE MARKET DEVELOPMENT OF GNSS APPLICATIONS		RECOMMENDATIONS MAJOR ACTION NINES EXPECTED FROM EUROPE	
<p><i>marketable, viable, trustworthy, stable and robust business.</i></p> <p>This is why Regions have invested in the development of one or several of the following instruments :</p> <ul style="list-style-type: none"> ✓ GNSS specialised clusters ✓ Dedicated SATNAV incubators ✓ Business models contests ✓ Demonstration areas or living labs ✓ Expertise centre ✓ Regional R&D financing lines 	<p>Regions complain that there are many regional initiatives in many regions but which are not known from one region to another.</p>		<p>R4 Europe would multiply the efficiency of GNSS regional initiatives if it could make them more visible and accessible to SMEs and to other Regions. The following action lines were proposed:</p> <ul style="list-style-type: none"> ✓ <i>The set-up of a regional GNSS web portal</i> ✓ <i>GSA Stamped Quality Labels For Regional Initiatives</i> ✓ <i>Compilation of regional good practices</i>
	<p>Although the Regional R&D funds might be used by SMEs to develop first application prototypes, additional financing is needed to help them industrialise their offer and to sustain their commercial development. But Regions stress the difficulty for GNSS service providers to raise money from the private financing community.</p>		<p>R5 Regions would welcome EU based funding instruments aimed at “under-capitalized” GNSS service providers.</p> <p>The involvement of the European Investment Bank should also be considered as a very valuable way to convince the regional financial communities to invest in such GNSS areas while reducing their investment risk through adequate guarantee schemes.</p>
<p>ENABLING COMMERCIAL DOMINO EFFECT FROM ONE REGION TO ANOTHER FOR THE EMERGENCE OF EUROPEAN LEAD MARKETS</p> <p>Although regional markets often appear as the first market stepping stones which local SMEs start their business development from, such local markets are not large enough to sustain the development of new companies. It is therefore of paramount importance to find the means to help their regional SMEs at existing on the European if not global competition scene.</p>	<p>Regions have set-up “demonstration areas” or “living labs” to give SMEs the opportunity to demonstrate more easily the benefits of their GNSS application on the field towards potential customers.</p>		<p>R6 By making those demonstration areas more visible at the European level, Europe would instigate commercial domino effect from one Region to another, thus enabling a larger market penetration of already developed GNSS applications in one Region towards other European Regions.</p>
	<p>Because there exists a good number of GNSS applications which are targeted to institutional end-users, some Regions have implemented special procurement mechanisms to purchase the customised GNSS applications they need.</p>		<p>R7 The harmonisation of the various regional procurement schemes (like the analysis of their common needs or/ and the organisation of specific forum to debate about procurement specifications) would boost the development of Lead Markets in Europe while stimulating the development of critical mass offers at the European level.</p>

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<p>REGIONAL FINANCING</p> <p>10M€ is estimated as being the minimum entry ticket for any Region willing to stimulate the development of GNSS applications over its territory.</p>	<p>Public money is needed to launch demonstration areas, to support SMEs and to finance regional R&D projects.</p> <p>Many regional stakeholders would appreciate if such GNSS based activities could be fundable by the DG Regio.</p>		<p>R8 Lobbying as regards DG Regio is seen as a key priority and should be conducted at the European level.</p>

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coordination with and exploitation of GNSS regional
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