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**COMMUNICATION FROM THE COMMISSION TO THE COUNCIL, THE
EUROPEAN PARLIAMENT, THE EUROPEAN ECONOMIC AND SOCIAL
COMMITTEE AND THE COMMITTEE OF THE REGIONS**

A lead market initiative for Europe

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1. INTRODUCTION

Developing an innovation-driven economy is crucial for competitiveness. The Commission's broad based innovation strategy¹ highlighted the necessity to use consistently and strategically tools and instruments in support of innovation, with a demand-driven approach. The report "Creating an Innovative Europe"², the EU 2006 Competitiveness report and stakeholder consultations also concurred that Europe must seek to develop innovation-friendly markets in a more targeted way, decisively facilitating the marketing of innovations.

The Competitiveness Council³ invited the Commission *"to present during 2007 an initiative on lead markets, based on a broad stakeholder consultation for defining a valid approach for fostering emergence of markets with high economic and societal value. This would include identifying areas where concerted action through key policy instruments and framework conditions, coherent and coordinated policy making by relevant public authorities, as well as enhanced cooperation between key stakeholders can speed up market development, without interfering with competitive forces."*

In response, the present communication launches a lead market initiative (LMI). This identifies a first set of markets with potential to become LM. It calls for urgent and coordinated action through ambitious action plans⁴ for these markets, to rapidly bring visible advantage for Europe's economy and consumers.

The annex II "Explanatory Paper on the European LM Approach: Methodology and Rationale"⁵ describes the consultation process of interested parties, the economic nature of LM and the overall potential for economic, social and environmental benefits that justify the policy efforts needed to launch and implement the LMI.

2. THE LMI: KEY TO A SUCCESSFUL INNOVATION STRATEGY FOR EUROPE

2.1. Objectives and key principles of the LMI

In its methodology, the LMI is different from previous EU initiatives. It goes beyond the typical use of one-off measures with only punctual effects. The initiative on GSM, for instance, was mainly limited to 1 instrument, the setting of norms. The LMI also aims at entering first fast growing world wide markets with a competitive advantage. By contrast, e.g.

¹ COM(2006)502 final of 13.09.2006.

² http://ec.europa.eu/invest-in-research/action/2006_ahogroup_en.htm.

³ Conclusions of 4 December 2006 on innovation policy and competitiveness.

⁴ See Annex I, SEC XXX. Thematic preparatory papers will also be available on Commission's Europa website.

⁵ SEC XXX.

the 1997 European initiative on electronic commerce⁶, although similar in scope, addressed a market that had already taken off in the USA.

The focus on markets requires a thematic approach. Different categories of innovative products and services face their own specific problems and require different kinds of concerted policy action.

The LMI therefore firstly identifies promising emerging markets to be supported by such a concerted policy action based on in-depth analysis⁵, intense consultations as well as feed-back mechanisms.

Secondly, it designs a process to better streamline legal and regulatory environments and accelerate the growth of demand.

To be successful, the process needs to

- incorporate global market needs and customer preferences to maximise market potential;
- facilitate the acceptance of EU standards and approaches by non-EU markets, notably in domains affected by global trends (e.g. environmental issues);
- aim at reducing the cost of bringing new products or services into the market, by easing market access and measures to facilitate the aggregation of demand. Competition among different innovation designs must be ensured, thus encouraging constant adaptation to evolving market requirements.

Finally, the active participation of Member States (MS) and the private sector⁷, in line with the principle of subsidiarity, as well as the existing EU legal framework, notably for competition, State aid⁸, and public procurement is essential.

As the initiative does not intend to artificially create markets by standards or regulations or by targeted funding to individual technologies, it requires no additional Community budget. The initiative may however have an impact on priority-setting for the use of existing funds.

2.2. Methodology for the identification of the markets

Based on these principles, the Commission undertook intensive stakeholder consultations, thus identifying the following set of criteria for the LM

- **Demand driven instead of technology push:** The range of potential customers and the needs addressed by the market indicate that there is a strong market potential both in Europe and on a global level within a rather short time span.
- **Broad market segment:** The market segment is rather broad as opposed to building on 1 single product. A significant impact on markets can only be achieved if a range of interconnected products and services are offered simultaneously. This leads to more added value in the product/service chain and procures a more sustainable competitive advantage along the years to a broader industrial base in Europe.

⁶ COM(97)157 of 16.04.1997.

⁷ e.g. via the ETPs.

⁸ If Member States envisage new State aid measures, those should target a well-defined market failure, have an incentive effect, be proportionate and have a limited negative effect on competition and trade. Aid must not cover the costs of meeting the mandatory requirements in EU legislation.

- **Strategic societal and economic interest:** The market segment provides wider strategic economic or societal gains, such as public health, environment and climate protection, security or employment. The cost of public coordination efforts undertaken in a specific LMI is justified if it compensated by such gains.
- **Added value of prospective, concerted and targeted, but flexible policy instruments:** In the identified markets, there is no single policy measure which could remove the barriers that block the emergence of strong demand⁹. The barriers identified are such that only a combination of different public measures and incentives can make a difference. While the target of the policy measures is clearly defined, the mode of implementation must leave scope for reacting with flexibility to technological or commercial developments.
- **No "picking of the winners":** Industrial potential and sufficiently mature new technologies or ideas for new use of existing technologies are available in Europe, on which the product or service range for the emerging market can build. The characteristics of the market avoid the risk of de facto favouring specific companies, to ensure fair and open competition and to avoid dictating the technological choices which might pre-empt the development of competing and possibly economically better options.

These principles were complemented by an assessment of the feasibility of launching the LMI in these markets in terms of availability of information and ongoing work in the Commission.

2.3. Which markets for the LMI

The identification of the criteria described above drew, in particular, on the very large industrial and thematic coverage of more than 30 industry-led European Technology Platforms (ETP)¹⁰¹¹ and on the 8 INNOVA Panels¹².

The stakeholder consultations in a first pre-identification round were indeed very broad covering both the methodology and the choice of areas. Based on those, the Council conclusions of 4-12-2006⁴, ETPs and Europe INNOVA Panels were specifically invited in a second round to assess various markets¹³, by workshops, expert groups and questionnaires against the agreed criteria.

Further consultations were conducted with various industrial sectors in order to deepen the analysis of the most promising areas.

On this basis, six markets have been identified for the initial stage of the initiative - **eHealth, protective textiles, sustainable construction, recycling, bio-based products and renewable energies**. They are highly innovative, respond to customers' needs, have a strong technological and industrial base in Europe and depend more than other markets on the creation of favourable framework conditions through public policy actions.

⁹ In which case there would be no need for applying the LMI to that market.

¹⁰ See list on http://cordis.europa.eu/technology-platforms/individual_en.html.

¹¹ ETPs - Seminar of Industrial Leaders: on 6 XII (http://cordis.europa.eu/technology-platforms/seminar7_en.html)

¹² Aerospace, automotive, biotechnology, ICT, textile, energy, eco-innovation, and gazelles (High Growth SMEs); <http://www.europe-innova.org/index.jsp>.

¹³ Such as suggested by the Commission in COM(2006)502 and by the Council in the conclusions of 4/12/2006.

- **eHealth** can help to deliver better care for less money within citizen-centred health delivery systems. Without significant reforms, including the better use of eHealth, health expenditure is expected to increase from 9% of GDP at present to around 16% by 2020 in response to an 'ageing' Europe. Substantial R&D investments in eHealth have been made. Nevertheless, the ICT investments in this area have stayed behind that of other service sectors. The take-up of technical and organisational solutions is often hindered by a strong fragmentation of the market, e.g. due to different social security systems and a lack of interoperability. This prevents economies of scale. This is aggravated by a lack of legal certainty as regards reimbursement, liability and a lack of awareness on the correct application of the legal provisions on the protection of personal data. This hampers both the product take-up and business investments.
- The **construction** market accounts for 10% of GDP and 7% of the workforce. Buildings account for the largest share of the total EU final energy consumption (42%) and produce about 35% of all greenhouse emissions. The very encompassing market area of sustainable construction involves environmental concerns (e.g. efficient electrical appliances and heating installations), users' health aspects (e.g. in-door air quality) and issues of convenience (e.g. related to elderly persons' independence). It encompasses developing sustainable solutions for residential and non-residential buildings as well as in infrastructure assets. Insufficiently coordinated regulations, not only at EU but more specifically at national level in the area of construction, coupled with the predominantly local business structure, lead to considerable administrative burden and to a high fragmentation of the sustainable construction market. There is a lack of knowledge on possibilities within the existing legal framework for public procurement (PP) that could facilitate demand for innovation-oriented solutions. An anticipative approach is also needed for regulation as well as for PP decisions.
- **Protective textiles**¹⁴ comprise clothing and other textile-based systems whose main function is to protect the users from hazards and dangers in the conditions in which they operate. The current size of the PPE¹⁴ market in the EU is estimated at € 9.5-10 billion, with around 200,000 jobs directly or indirectly related to PPE products and services. The fast growth forecasted in certain parts of the world suggests that EU exports of PPE could grow by about 50% over the next years. A swifter development and use of European standards in the global market, combined with appropriate measures for the protection of intellectual property, e.g. through support services for SMEs, would create additional demand for PPE. PP purchases have an important role to play with regard to protective textiles, but there is fragmentation of demand at the level of local authorities.
- **Bio-based products** are made from renewable, biological raw materials such as plants and trees. The market segment chosen for the specific LMI includes non-food new bio-based products and materials such as bio-plastics, bio-lubricants, surfactants, enzymes and pharmaceuticals. It excludes traditional paper and wood products, but also bio-mass as an energy source. The long term growth potential for bio-based products will depend on their capacity to substitute fossil-based products and to satisfy various end-used requirements at a competitive cost, to create product cycles that are neutral in terms of greenhouse gas (GHG) and to leave a smaller ecological footprint, i.e. generating less waste, using less energy and water. Europe is well placed in the markets for innovative bio-based products,

¹⁴ Technical textile for intelligent personal protective clothing and equipment (PPE).

building on a leading technological and industrial position. Perceived uncertainty about product properties and weak market transparency however hinder the fast take-up of products. Environmental regulations, standardisation, labelling, and encouraging Member States to set up demonstration plants have a role to play, as does the Common Agriculture Policy.

- **Recycling** reduces waste going to disposal, consumption of natural resources and improves energy efficiency. It therefore plays an essential role in the move towards sustainable consumption and production – not only in terms of energy but in terms of *all* resources we produce. The recycling sector has a turnover of € 24 billion and employs about 500,000 persons. It is made up of over 60,000 companies. The EU has around 30% of world share of eco-industries and 50% of the waste and recycling industries. Despite significant market potential, barriers to market development remain. Potential is also significant to improve efficiency and capacity, by encouraging innovation and introducing more effective processes and technologies. This would save costs, energy, and natural resources and help Europe to be less dependent on raw materials prices.
- **Renewable energy (RE)** refers to energy that can be derived from regenerative energy sources like wind, solar, biomass, biodegradable waste or feedstock, geothermal, wave, tidal and hydropower. Currently, the European RE sector has an annual € 20 billion turnover and provides jobs to app. 300.000¹⁵ people while meeting approximately 8.5% of Europe's energy needs¹⁵. The European Council in March 2007 set a binding target of a 20% share of EU energy consumption for RE by 2020. This target offers to producers a huge opportunity to develop while cutting production costs. The development of renewable resources is held back by three factors. First, the external costs of energy use¹⁶ are not fully reflected in energy prices. Therefore, demand for RE, which on the whole has low external costs, is sub-optimal. Second, important learning curve effects which would lower prices in several technologies are exploited more slowly on account of present low levels of demand. Finally, the fragmentation of RE support systems and the existence of administrative and market barriers mean that the potential of the internal market is not fully exploited.

Annex II provides more detailed analysis of these 6 markets and of the impact of the LMI. Based on very prudent assumptions, tentative estimates show that supported by the focussed approach of the LMI, the combined market volume of the 6 markets could more than double by 2020 and some 1 million new jobs could be created.

The identification of markets for the first round does not disqualify other market areas as potential future candidates, nor does it represent any political statement regarding their comparative societal or economic importance.

Already, some convincing indications point to domains that could be considered for a similar approach in the future. Stakeholders' consultations¹⁷ and market-intelligence tools will support this continuous identification process by establishing monitoring and foresight mechanisms, building on existing diagnostic and analytical tools, such as ERA-Watch and the Sectoral Innovation Watch¹⁸. This LM approach could be encompassed into wider initiatives

¹⁵ European Renewable Energy Council.

¹⁶ E.g. greenhouse gas (GHG) emissions, air pollution, security of supply.

¹⁷ Such as the ETPs and Europa INNOVA panels.

¹⁸ <https://www.europe-innova.org>.

currently being launched¹⁹ that would enhance the benefits to Europeans from the development of innovation-intensive markets.

3. THE MAIN POLICY INSTRUMENTS

The specific thematic action plans to facilitate the emergence of LM in these areas are summarized in annex I. The LMI will deploy a diversified set of policy instruments:

- **Legislation**

Legislation, developed to serve policy objectives, needs also to be designed to foster innovation and avoid imposing burdens on innovative business and other organisations. There is an opportunity to improve the coordination of regulations across different policy areas that affect markets for innovative products and services. Reliable, lean and well designed legislative and jurisdictional environments are essential for business to invest and for consumers to take up new products and services.

The regulatory measures in the LMI action plans comprise proposals for new legislation as well as modifications, revisions or abolitions. For instance, the use of bio-based products and the diffusion of new technologies in the production of bio-based products can be supported by streamlining existing legislative actions in IPPC²⁰ (Integrated Pollution Prevention Control). Similar activities are proposed for the Recycling LMI action plan, that focuses on providing support measures in synergy with specific EU regulations, in particular the WEEE²¹ (Electrical and Electronic Waste) and ELV²² (End-of-life of vehicles) directives.

- **Public procurement (PP)**

PP spending represents 16% of EU GDP, but reaches 40% of spending on construction and almost 100% on defence, civil security and emergency operations. Mobilising public authorities to act as 'launching customers' by promoting the use of PP practices supportive for innovation is therefore a frequent point in the action plans.

The application of the existing EU legal framework²³ for PP supports the LMI by addressing market fragmentation and encouraging the development of competitive solutions. A guide recently published by the Commission²⁴ describes how innovation can be fostered through the use of PP. These solutions would require changes in the typically used administrative processes of the national, regional and local PP offices for preparing calls for tenders (e.g. as regards practices to obtaining information on existing and possibly new technical solutions and on new services and products, or to learn more about the option to identify and award the "economically most advantageous tender" (EMAT) bids on the basis of a life-cycle cost assessment). The same applies to ways to facilitate the achievement of a critical mass that helps the development of a LM. Requirements of interoperability and replacement of individual small scale purchases by grouped orders could be useful. Increased training and awareness-raising efforts targeted at PP officers, as well as networking among PP offices, are cross-cutting measures that could produce benefits for all LM.

¹⁹ E.g. the Action Plan for "Ageing Well in the Information Society" (COM(2007)332 final).

²⁰ Council Directive 96/61/EC concerning IPPC, OJ L 257, p. 26-40.

²¹ Directive 2002/96/EC on WEEE, OJ L 37, p. 24.

²² Directive 2000/53/EC on ELV, OJ L 269, p. 34.

²³ Directives 2004/17/EC and 2004/18/EC.

²⁴ http://www.proinno-europe.eu/doc/procurement_manuscript.pdf.

- **Standardisation, labelling and certification**

Standards may facilitate the development of LM, provided they do not exclude competing technologies, unduly limit competition or hamper emerging demand. More consistent technical, performance and product standards along the whole production chain, from raw materials to end products, could make standardisation more innovation-friendly. Standards should preferably be performance-based, yet technology-neutral.

In the 6 markets, the current standardisation process is fragmented. This results in competing standards that prevent interoperable solutions. The lack of interoperability makes the incorporation of knowledge and various components into complex new products and services complicated. Competing non interoperable standards impede innovative solutions along the value chain. In the context of the LMI, the choices between such standards should therefore be made in an inclusive manner and preferably at EU level, while avoiding to exclude competing technologies²⁵. Pan-European standardisation platforms, such as the Europe INNOVA standardisation networks, may help identifying the most suitable standards for a given problem based on broad industrial consensus. Communication about standards should be improved in order to drive the demand of informed buyers and users and to ensure that standards are taken into account in research projects.

New approaches to self-certification may be developed, building on experiences within the industry. Based on the revised EU Eco-label scheme, new extensions could include features that highlight, for example, 'EU-bio-based products' and or 'remade in Europe' (recycling). These are likely to attract new consumers. Information on performance beyond minimum legal requirements could drive purchase decisions of potential customers. E.g., the Directive on the Eco-design of Energy-using Products (2005/32/EC) provides the instruments for the development of effective and dynamic market transformation. It can push the market through minimum requirements by banning the worst performing products, while benchmarks – to be identified in the implementing measures of the Directive addressing particular products (Annex I.3.2) - can provide predictability and dynamism for industry. Mandatory performance labels to be displayed at the point of sales are crucial to allow consumers make informed choices. Energy star and (Eco-) labels will reward only the best performing products from the environmental perspective

Dynamic standards and top-runner schemes⁵ could be developed.²⁶ The upcoming communication on Standardisation and Innovation pays specific attention to the impact of standardisation on LM, as well as the working plan under the Eco-design Directive²⁷.

- **Complementary instruments**

Other actions could accelerate and improve the interactive flow of information between suppliers and users, thus contributing to improve market transparency. This will also lead to a competitive advantage for enterprises by creating better conditions to respond to the

²⁵ The procedure for choosing standards will depend on the nature of the standard, formal or informal, and should be flexible enough to adapt over time to changing market conditions.

²⁶ The forthcoming Sustainable Consumption and Production Action Plan, the review of the Energy using Products framework in 2010, and eco-label revisions in 2008 will offer a chance to put these dynamic approaches in to practice. Cf. http://ec.europa.eu/enterprise/environment/sip_en.htm.

²⁷ Article 16 of Directive 2005/32/EC

multidisciplinary challenges in the identified markets. This may require platforms²⁸ as well as adequate financial support, notably in the 2 cases below:

– *Business and innovation support services, training and communication*

In some market segments, young innovative enterprises would benefit from support such as activities to facilitate knowledge-transfer, incubation and access to finance through consultancy services or training. Beside the supply of such thematically targeted services via support of the Structural Funds or the new CIP integrated enterprise and innovation support network, a more coordinated use of networking projects and platforms²⁹ for mutual learning and knowledge-sharing could support the implementation of the action plans. Cooperation within and between knowledge-based regional clusters across Europe could speed up the flow of ideas and knowledge. The potential of Cohesion Policy contributing to direct investments as well as networking should be exploited by MS and regions in several LM areas³⁰. This could contribute to maintaining political momentum and stakeholder commitment and to broaden the range of stakeholders involved in the LMs³¹.

– *Financial support and incentives*

The emergence of very significant new business opportunities in the areas covered by the LMI is likely to foster private investment. Here, public action can be instrumental to facilitate access to finance.

The action plans could drive proposals within the national and EU programmes³². At EU³³ or MS level, public R&D and Innovation funds could be used to help prove the feasibility of certain product cycles.

The EIB and EIF manage substantial amounts of EU financial support such as the risk-sharing facility and the CIP High Growth & Innovative SME Facility. EIB funds, in combination with private funds and possibly structural funds could support the 'demonstration' and up scaling of the production of innovative goods and services. In addition, JEREMIE, a joint initiative established by the Commission with the EIF and the EIB can provide improved access to finance for SMEs, such as micro credit, venture capital, loans or guarantees. New models of public-private-partnerships can be considered, in which investors and other stakeholders could participate. This could encourage private investors to support new ventures related to the LMI.

The reorientation of National or Regional State aid schemes could be used by MS to exploit the new possibilities for supporting research, development and innovation under the new State aid Community framework³⁴ in this field. The reorientation of structural fund support for regions is of particular importance. All MS "earmarked" a certain proportion of their cohesion policy resources to the renewed growth and jobs agenda. The major shift in cohesion policy investments concerns R&D and Innovation. Around € 83 billion or 25% of the overall

²⁸ Notably electronic platforms of exchanges of information associating public and private partners, at cross-sectoral level and with a European dimension.

²⁹ E.g. following the PRO INNO-Actions format or building on the Europe INNOVA sectoral networks.

³⁰ The Commission initiative "Regions for Economic Change" is also of relevance for these LM.

³¹ E.g. the insurance sector could be involved in climate protection or security related actions.

³² For FP7, this should not alter or substitute the normal procedure for the revision of the work programme.

³³ Notably FP7 and CIP.

³⁴ OJ C 323 p. 1 sqq, notably new possibilities to support innovation, http://ec.europa.eu/invest-in-research/policy/state_aid_en.htm.

cohesion budget will be allocated to this type of investment. It is clear that the identification of LMs constitutes a useful orientation tool for private and public investment linked to the use of these funds.

4. GOVERNANCE AND NEXT STEPS

The need for a tight co-ordination among the considerable number of diverse actions in a short timeframe makes the action plans³⁵ particularly ambitious. Success will depend on the commitment of the European Institutions and of the MS to closely cooperate in implementing these action plans under demanding time constraints and thus encouraging the continued interest of private stakeholders to invest in these promising markets.

The Commission will put the necessary coordination structures in place to ensure the efficiency of the initiative.

The Council³, that called for the LMI, will have a key role to play in pushing forward the process started with this Communication. It offers a forum to establish the roadmap for the LMI's contribution to the Growth and Jobs Strategy and to monitor progress. Indeed, as this initiative constitutes a key contribution to achieve the objectives of several of the integrated guidelines of the Partnership for Growth and Jobs³⁶, the MS actions' to implement the LMI can usefully be reported in that context³⁷.

Regular briefings for and consultations with key stakeholders will be organised. Targeted information and communication towards relevant national and sub-national decision-makers shall be provided, taking account of MS initiatives.

To further promote the LMI and to actively involve stakeholders into this process, an electronic LMI stakeholder platform will be established by the Commission, with thematic pages for each action plan.

The Commission will consider completing the present LMI with action plans for other markets, if the MS and stakeholders' degree of involvement in the LMI demonstrate the feasibility of an extension of the approach and if, on the basis of the permanent monitoring mechanism to be established, new market areas responding to the identified criteria appears to be ripe for a similar initiative.

A **mid-term progress report** will be presented in 2009 on the progress in implementing the action plans and on the commitment of public and private stakeholders.

A **final report** drafted by independent experts on the first round of the LMI will be presented in 2011, comprising an ex-post evaluation, assessing the impact of the policy actions and – to the extent possible – the actual impact on the market segments.

³⁵ The individual measures contained in the action plans will be assessed according to the relevant impact assessment rules subject to the relevant decision-making procedures.

³⁶ IG nr 10 already implies “the development of new technologies and markets” (http://ec.europa.eu/growthandjobs/pdf/integrated_guidelines_en.pdf)

³⁷ The European Council of December 2006 indicated “progress made in delivering results will be monitored at future Spring European Council meetings within the framework of the Lisbon Strategy.”

5. CONCLUSION

If implemented in time with adequate political support, the LMI can provide European enterprises with fair and better chances of entering new fast growing world-wide markets with a competitive advantage as lead producers, thus contributing to a sustainable growth in jobs and wealth. It can provide European citizens with the opportunity of benefiting faster from innovations in emerging market areas of particularly high economic and societal benefit.

To implement the initiative,

- The Commission will formulate the necessary legislative proposals as indicated in the action plans and launch calls for proposals to implement supporting actions.
- Member States are invited to implement the actions that they are best placed to lead as indicated in annex I and to encourage relevant national and regional actors to participate in the coordination mechanisms that will enhance the impact of the initiative and favour consistency between different measures.
- Business and other private stakeholders are encouraged to participate in the actions, notably following up the actions for which the action plans indicate them as important actors, and through continued interaction with relevant authorities for issues falling under their respective competence.