Opinion of the European Economic and Social Committee on the Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions — Pre-commercial Procurement: Driving innovation to ensure sustainable high quality public services in Europe

COM(2007) 799 final

(2009/C 100/02)

On 14 December 2007 the Commission decided to consult the European Economic and Social Committee, under Article 262 of the Treaty establishing the European Community, on the

Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions — Pre-commercial Procurement: Driving innovation to ensure sustainable high quality public services in Europe

The Section for Single Market, Production and Consumption, which was responsible for preparing the Committee's work on the subject, adopted its opinion on 1 October 2008. The rapporteur was Mr VAN IERSEL.

At its 448th plenary session, held on 21, 22 and 23 October 2008 (meeting of 22 October 2008), the European Economic and Social Committee adopted the following opinion by 70 votes with 1 abstention.

1. Conclusions and recommendations

1.1. The EESC fully endorses the Commission's objective to promote incentives for innovation in public procurement across Europe. If Europe wants to stay in the lead of providing top quality cost effective public services to its citizens, benefiting the economy, the social and the ecological environments, it must seek to make the best use of innovations and technological progress in its public services.

1.2. It agrees with the Commission's recommendations concerning the 'Intelligent Customer' as an essential precursor to a more pro-active attitude towards modern purchasing in public Authorities. As a rule the quality of contracts with private suppliers will benefit from a higher degree of 'intelligent' engagement of the public purchaser.

1.3. The EESC agrees with the Commission that fostering opportunities for innovation and applied technology in public procurement will bear fruit for Europe in two ways. Firstly by enhancing the quality of public services and value for money, thereby benefiting tax payers; and secondly by opening up new opportunities for innovation for business, thus contributing to Europe's overall innovation performance and competitiveness.

1.4. The EESC emphasises that, whatever the potential benefits of new or different approaches in public procurement,

the correct transposition and implementation of the 2004 Directives (¹) (the 'Directives') remains a priority. Traditional and cultural attitudes are often deeply rooted. Practical evidence shows that correct implementation in Member States requires continual close monitoring along with exchanges of experience and best practice.

1.4.1. Public procurement these days covers very broad fields and new paradigms. The EESC stresses that a clear distinction must be made between procurement by public Authorities and that by public Utilities, especially in promoting innovation. Utilities, most of which have been involved in innovative projects for more than a hundred years, have more professional skills and experience with high-tech projects, enabling them to handle fresh innovation. The same goes for Defence, although Europe, as compared to the US, suffers from lacking the big budgets and corresponding continent-wide supply base. This is why this Opinion concentrates on Authorities, as Utilities already have the ability to manage R&D.

1.5. It looks as though the Commission is very confident as to transposing useful experience from the US, when it comes to linking technology, innovation and public procurement in Europe. The EESC fears that creating comparable opportunities will not be that easy. At present the Utilities and Defence markets, their procurement and associated innovation in Europe have been mainly developing on the basis of national conditions and expertise.

⁽¹⁾ The 2004 Directives: Utilities 2004/17/EC; Authorities 2004/18/EC.

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1.6. In general, the differences from the US in public procurement are that Europe lacks:

- one big market and similar conditions for high tech SMEs across the continent,
- a common language,
- the special relationship between the Pentagon and technologically driven companies, and
- the spill-over between the military to civil products and applications.

1.7. The EESC wishes to make it clear that it shares the Commission's view that we must exploit every opportunity to stimulate innovation in order to develop better quality and better value public services. To that end, the Commission should also encourage public Authorities to seek to benefit from each others' best practices.

1.8. Public purchasers should be stimulated to be open to innovative and alternative ('variant') solutions, and not necessarily continue to buy the same as previously. They should seek value for money, not just the lowest price. Exchanges between knowledge centres in this field in some Member States can be helpful in setting examples across Europe. In this way purchasers can be encouraged to develop the skills necessary to be Intelligent Customers and then progressively to gain experience. These skills and experience are a *sine qua non*.

1.9. As to innovation, public purchasers need to start a transparent technical dialogue long before issuing calls for tender in order to understand the state of the art in the market and to give the market the opportunity to understand better the problem to be addressed and thereby to offer optimum solutions.

1.10. The EESC recommends caution regarding the involvement of the majority of public Authorities in innovative processes or as early adopters. Public Authorities have all too often lacked the opportunity to develop the skill and experience to participate in a truly innovative project; the risks are substantial and require management of the highest quality, bearing in mind that the chances of failure are very real.

1.11. A network of experienced and professional people and organisations in Member States should be established which can be called upon to reinforce a purchaser's own resources for the more advanced innovative projects.

1.12. Although the Annex outlines procedures for Precommercial Procurement contracts which, whilst being outwith the scope of the Directives by virtue of the Exclusion (²), are nonetheless compliant with the existing legal framework, the possibility of a breach, even inadvertent, thereof still exists. The EESC recommends that purchasers study the Annex and follow its recommendations carefully. If there should be the slightest doubt, either in the mind of the procuring Authority or in that of any of the potential suppliers, the EESC recommends strongly that the Authority should seek advance clearance from the Commission on possible infringements of State aid or of the Exclusion from the Directives and should provide evidence thereof to all potential suppliers.

1.13. The Commission rightly emphasises the significance of rights to intellectual property. The EESC adds that great care needs to be exercised in their establishment, allocation and management. It is not a simple field of activity.

2. Background and context

2.1. In 2004 the Council adopted the present Directives on public procurement by public Utilities (³) and public Authorities (⁴) which together amount to about 16 % of European GDP.

⁽²⁾ The Exclusion clauses:

[—] Utilities, Article 24(e): Contracts relating to certain services excluded from the scope of this Directive. This Directive shall not apply to service contracts for: (e) research and development services other than those where the benefits accrue exclusively to the contracting entity for its use in the conduct of its own affairs, on condition that the service provided is wholly remunerated by the contracting entity.

Authorities, Article 16(f) — Specific exclusions. This Directive shall not apply to public service contracts for: (f) research and development services other than those where the benefits accrue exclusively to the contracting authority for its use in the conduct of its own affairs, on condition that the service provided is wholly remunerated by the contracting authority.

^{(&}lt;sup>3</sup>) 2004/17/EC.

^{(&}lt;sup>4</sup>) 2004/18/EC.

The objective of the Directives was to define a coherent 2.2. non-discriminatory and transparent set of rules that would guarantee the opening of hitherto completely or partially closed markets, fostering competition among suppliers as well as more profitable price/benefit ratios for governments and for citizens.

Long-lasting and wide discussions were held during the 2.3. drafting of the final proposals in order to ensure that the Directives were practical and suited to achievement of the objective.

2.4. Meanwhile the Directives are being transposed into national legislation. Implementation in practice, however, on national and regional levels is proving far from easy. The procedures require skills, professionalism and experience which are as yet often underdeveloped among purchasing Authorities. In many cases the learning-curve is long.

2.5. As innovation is a central theme in the Lisbon Strategy, various initiatives are being taken by Member States and the Commission to examine and to work out how innovation can be fostered in public procurement practices on the basis of the Directives.

Amongst others, recent initiatives by the Commission 2.6. are:

- ten recommendations of good practice, needed to deal successfully with public procurement (5) (the '10-Point Guide'),
- discussions between Commission officials and the National ICT (6) Research Directors in the Member States have led to concrete proposals on Pre-commercial Procurement (7) which are discussed further in Section 4 of this Opinion,

- in the framework of the Environmental Technology Action Plan ('ETAP') (8), the initiative of DG Environment regarding technology verification and corresponding certificates,

an expert group on risk management in public procurement by DG Research has just started its work.

2.7. The Commission's initiatives are based on and inspired by pioneering reports such as the Aho-report 'Creating an Innovative Europe' (9), and the Communication 'A lead market initiative for Europe' (10). Both documents indicate explicitly that public procurement can and should be a valuable source of innovative works, goods and services (11). In five of the six (12) sectors identified by the lead market initiative as particularly appropriate for innovative projects, there is much room for innovation in the public sphere.

Stakeholder consultations identified a set of criteria for 2.8. the lead market, among which are the criteria 'demand driven instead of technology push' and 'strategic and economic interest', both of which are of special interest to public purchasers. All consultations highlight the broadly felt need that public procurement should, more than in the past, support innovative works, products and services in Europe.

The 10-Point Guide, published in March 2007, flows 2.9. from the Aho-report and sets our good practice on dealing with innovative solutions in public procurement, enumerating ten important points on how to become a successful Intelligent Customer (13). The Intelligent Customer is discussed further in paragraph 3.14.

- (8) ETAP's priority actions are: promoting research and development; mobilising funds; helping to drive demand and improving market conditions.
- 'Creating an Innovative Europe', Report of the Independent Expert (9) Group on R&D and Innovation appointed following the Hampton Court Summit, January 2006.
- (10) 'A lead market initiative for Europe': COM(2007) 860 final.
- ⁽¹¹⁾ Other Commission documents are worthy of note, e.g. the Communication 'More Research and Innovation Investing for Growth and Employment: A Common Approach'. Published 2005 ISBN 92-894-9417-4.
- (12) eHealth, protective textiles, sustainable construction, recycling, biobased products, renewable energy. Guide on dealing with innovative solutions in public procurement,
- 10 elements of good practice, SEC(2007) 280.

 $^{({}^{\}scriptscriptstyle 5}\!)$ The 10-Point Guide: 'Guide on dealing with innovative solutions in public procurement, 10 elements of good practice', SEC(2007) 280. ICT: Information and Communication Technology.

^{&#}x27;Pre-commercial Procurement: Driving innovation to ensure (7) high quality public sustainable services in Europe', COM(2007) 799 final and its Annex, SEC(2007) 1668.

2.10. In the Communication on Pre-commercial Procurement (¹⁴) the Commission introduces a new instrument to activate innovation in public purchasing. Whilst respecting the rules of the 2004 Directives the Commission wants to promote R&D service contracts between public purchasers and potential suppliers that cover the R&D stages preceding the commercialisation phase; that is to say the design, prototyping, testing and pre-production phases, stopping short of commercial production and sale.

2.11. The EESC welcomes very much any endeavour to promote innovation in public procurement. In that sense the EESC welcomes all documents and subsequent consultations and discussions among policymakers and purchasers which help to prepare the ground for enhancing the innovative potential of industry in the EU to the benefit of society.

2.12. The subject of this Opinion, however, is to examine:

- the Pre-commercial Procurement concept as introduced in the Communication and its Annex,
- how Pre-commercial Procurement amongst other initiatives can contribute to improving the climate for desirable innovative works, products and services,
- to what extent and in what way public procurement has the right tools at its disposal to foster innovation in public services, and
- carefully where the limitations and risks lie.

3. Comments

3.1. The 10-Point Guide (¹⁵) sets out in clear terms ten good practices which can help public Authorities to deal effectively with innovative solutions in public procurement; it represents a firm building block on which to develop. But putting the Guide into practice requires much more to be done. In some areas more positive action is needed; in others, caution needs to be exercised.

⁽¹⁴⁾ 'Pre-commercial Procurement: Driving innovation to ensure sustainable high quality public services in Europe', COM(2007) 799 final and its Annex, SEC(2007) 1668. 3.2. Successful public purchasing depends upon good practice consistent with the Directives. The Directives promote the Single Market, thereby helping Europe to compete with other trading areas with large home markets. Good practice and the Directives are inseparable.

3.3. Some Member States are still in the process of transposing the 2004 Directives (see paragraph 2.4) and in others there are inconsistencies with national law. Such deficiencies make it more difficult to use the full benefits of the Directives.

3.4. At a practical level, with the generally increasing complexity of public purchasing contracts, there is an obvious need to improve the skills and experience of all who are engaged in it. In particular, a culture suited to the successful implementation of complex projects needs to be fostered throughout the purchaser's organisation.

3.5. For innovation to flourish, a large accessible market is essential. Only then can the costs — money, time, effort — of innovation be recouped. Innovation is essential if the economy is to grow and strengthen.

3.6. Following the 2000 Lisbon Agenda, a decision was taken that public purchasing should play a part in encouraging and supporting innovation.

3.7. Whilst the main Commission documents on innovation referenced in Section 2 relate generally without distinction to the two public sectors, Authorities and Utilities, the EESC draws emphatic attention to the present differences in character between the organisations making up the two sectors.

3.8. Public Utilities have long been sponsors, users, buyers and developers of innovatory projects, as have the military and parts of the health services, giving them the necessary skills and experience. Their management experience in dealing with the risks and complexity of innovation should not be lightly dismissed.

^{(&}lt;sup>15</sup>) Guide on dealing with innovative solutions in public procurement, 10 elements of good practice, SEC(2007) 280.

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3.9. Public Authorities can learn from the Utilities, the military and other experienced sectors how to run a successful innovatory project. Not least, they can get a better understanding of the resources from throughout the organisation that needs to be devoted to it. It may be that, in the short term, recruiting from the relevant departments in those organisations people who have recently retired but still want a few years of active employment, could provide a valuable source of experience.

3.10. Innovation is the application of novel ways of doing things. It can be implemented in a Work, a Supply or a Service. Research and development are essential precursors to an innovative project. The distinction between pure and applied research should be borne clearly in mind: pure research is mainly carried out by universities and research establishments; it provides a theoretical and practical underpinning upon which applied research and development can be based. Applied research consists of theoretical and practical work aimed at establishing a basis for development of one or more projects. This Opinion is not concerned with pure research except to the extent that Pre-commercial Procurement as discussed in Section 4 may be so described.

3.11. There is in the principle no major difference between the public sector and the commercial sector in way in which an innovatory project should be handled. There are, of course, minor differences: the public sector is subject to a level of scrutiny from which the commercial sector is largely shielded. In any ground-breaking development there will be failures; that is the price of progress. Whilst proper discipline should seek to minimise failures and to learn from them, excessive agonising over them inhibits further development.

3.12. The 2004 version of the Directives already contemplates contracts involving innovation. No further legislation is needed, just an understanding of how to run an innovatory project within them.

3.13. In all projects involving innovation — as well, for that matter, as many others — the purchaser needs to have the attributes of an Intelligent Customer. The attributes have been extensively discussed in the 10-Point Guide and this Opinion emphasises their essential importance.

3.14. Briefly, the Intelligent Customer needs a mindset open to new ideas yet with the discipline to manage them. It needs people with experience and acquired skill in carrying out the management of innovative projects. But most of all, the organisation, right to the top, needs to be in harmony with the needs of innovatory projects. Without that culture, the people 'at the coal face' cannot succeed. 3.15. Innovative projects can be usefully divided into three categories, each with its own special characteristics, as well as some aspects common to all. In this Opinion, unless otherwise indicated, 'Product' includes works, supplies and services.

3.16. The three categories:

- (a) Acceptance of an innovatory product to fulfil an established need, but having little or no effect on the purchaser's method of operating. It offers benefits with little risk or disruption.
- (b) Adoption of an innovatory product which requires the purchaser to adapt its method of operating. It offers substantial potential benefit but with some risk and the need to develop new procedures and train personnel.
- (c) Involvement in an innovative project. The purchaser's involvement may be to a greater or a lesser extent, ranging from a truly joint project starting with the definition of the project, to becoming an early adopter participating in beta (¹⁶) stage trials, buying early pre-production units.

3.17. The most immediately important — and the most effective in promoting innovation — for the involvement of public purchasers in innovation, and the easiest to implement, is (a). It requires the purchaser to be open to variants $(^{17})$ — alternative solutions — and to have people capable of assessing differing offers on a 'most economically advantageous' basis.

- 1. Where the criterion for award is that of the most economically advantageous tender, contracting authorities may authorise tenderers to submit variants.
- 2. Contracting authorities shall indicate in the contract notice whether or not they authorise variants: variants shall not be authorised without this indication.
- Contracting authorities authorising variants shall state in the contract documents the minimum requirements to be met by the variants and any specific requirements for their presentation.
- 4. Only variants meeting the minimum requirements laid down by these contracting authorities shall be taken into consideration. In procedures for awarding public supply or service contracts, contracting authorities which have authorised variants may not reject a variant on the sole ground that it would, if successful, lead to either a service contract rather than a public supply contract or a supply contract rather than a public service contract.

⁽¹⁶⁾ Alpha and Beta testing originate from the software industry.

Alpha testing is simulated or actual operational testing by a potential user or an independent test team, usually at the developer's site.

Beta testing comes after Alpha testing. Versions of the software, known as Beta versions, are released to a limited audience of users outside the programming team so that further independent testing can ensure that the product has few residual faults.

⁽¹⁷⁾ Authorities Directive 2004/18/EC, Article 24, Variants:

3.18. Category (b) is valuable for a purchaser which seeks improvements to its operations through the use of a novel product, which may often require some development work to integrate the novel product into its operations. It requires skill in setting out the requirement in clear terms which are not unduly restrictive and it involves the participation of people from the user and technical departments of the purchaser. The resources which the purchaser has to deploy are not trivial but, if the project is well managed, the integration risks are manageable and benefits will outweigh the effort involved.

3.19. Category (c) is the most difficult. Defining and developing totally new solutions from scratch inherently presents a higher technological risk than incremental changes to adapt or integrate new-to-the-market products into existing processes (b). Few organisations — apart from those mentioned in Section 3.8 (the military etc.) — have the skill and experience to participate fully in a truly innovative category (c) type project. The risks are substantial and require management of the highest quality. Whilst the rewards can be substantial — it would be pointless to undertake the project if they were not — the chances of failure are very real. The type of project contemplated by the Communication falls into category (c).

3.20. The Communication implies that a purchaser could carry out an innovative project as a procurement of R&D up to the point of original development of the first products. For any follow-up procurement of commercial volumes of end-products the requirement for competitive tendering has to be evaluated on a case by case basis in accordance with the Public Procurement Directives. Firms normally make the things they design, at least until the point where licensed manufacture becomes a practical possibility. The EESC takes the view that the allocation of any intellectual property rights ('IPR') arising out of the project, and arrangements for their management should be considered carefully on a practical and commercial basis before the project is started.

3.21. There is evidence that a procedure such as that contemplated in the Communication is used in the United States. Whilst there are examples in the general military field (the Air Tanker contract which may possibly be split between Boeing and Airbus), the main area where such examples may be found is in the electronics field. In that field, with exceptions such as the hardening of integrated circuits against electromagnetic pulse, the commercial and military fields are closer to one another than they are in most other fields.

3.22. In drawing comparisons with the United States the structural differences between it and Europe must be borne in

mind. The US has long been an homogenous country which grew on the basis of almost limitless physical resources — agriculture, gold, oil, people — and, with the exception of the post-1929 era, capital. That has led — except, until recently, in banking — to the development of a long-standing single market and the infrastructure to serve it. There is still some way to go before Europe enjoys the same advantages. That being said, and despite the evident strengths of the US, there are some areas in which it falls short of the current status in Europe, most notably in the almost universal availability of health care.

3.23. In addition to the risks of technical failure — inherent in any truly innovative project — the financial risks resulting from not complying with the rules on State aid, transparency, non-discrimination and the application of the Directives need care and are discussed further in Section 4.3: State aid.

4. Annex — SEC(2007) 1668 — to Communication: 'Pre-commercial Procurement — Staff Working Document'

4.1. Proposed scheme (the 'Scheme')

4.1.1. Underlying principle: When the purchaser applies riskbenefit sharing at market price R&D services can be procured under an Exclusion (¹⁸) within the Directives (¹⁹) and can be used to explore innovative solutions to requirements (as a precursor to a call for tenders for commercial volumes of end-products), thus also stimulating the creation of innovative ideas generally.

4.1.2. Essential precursor: The purchaser needs to become familiar with the activities and capabilities of potential suppliers, and to define its needs in output terms clearly but without being unnecessarily restrictive.

4.1.3. Conduct: Once the requirement is established and potential suppliers are identified, it is suggested that the purchaser should run a three-stage R&D project starting with a reasonable number of them (five is suggested) and reducing progressively to two which complete the pre-production and beta testing phase. Thereafter the production requirement should be put out to tender according to the provisions of the Directives.

 ⁽¹⁸⁾ The 10-Point Guide: 'Guide on dealing with innovative solutions in public procurement, 10 elements of good practice', SEC(2007) 280.
(19) See footnote 2.

4.2. Comments

4.2.1. The Scheme is broadly based on practices used in Defence procurement in various countries; they are broadly similar throughout the world and are well understood.

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4.2.2. The Defence industry is peculiar in that it has to look a long way into the future based on political and tactical assumptions which cannot by their nature be accurately stated. A lot of research and limited development — as contemplated in the Scheme — is done, out of which only a few production programmes arise. The R&D projects, and also the production contracts, are all too often subject to a continual flow of amendments as new tactical or political information becomes available over the long timescales involved; cost overruns are thus endemic. Developments undertaken by civil public Authorities should not, if properly managed, be subject to the same flow of amendments.

4.2.3. Whether such a Scheme is appropriate to parts of the public sector which have less experience with highly technical R&D projects must be open to question.

4.2.4. There are obvious concerns that the exemption provided in the Directives for R&D service contracts which are not for the exclusive use of the purchaser might be used in an anti-competitive manner to develop national champions, thereby defeating the objective of the Directives to aid the development of a pan-European single market.

4.2.5. Assuming that projects under the Scheme are undertaken, some detailed aspects merit further consideration.

4.3. State aid

4.3.1. At the start of any procurement under the Scheme the question of State aid must, as is remarked in the Annex, arise. Whether or not there is an element of State aid in any particular project and whether, if there is, it is justified is outwith the scope of this Opinion. But the effects of any uncertainty on a project under the Scheme most certainly are within its scope.

4.3.2. Pre-commercial Procurement is defined in the Communication as an approach to procuring R&D services in a way that applies risk-benefit sharing between procurers and suppliers and does not constitute State aid. The EESC recommends that purchasers should analyse carefully the Annex which outlines an example of the implementation of Pre-commercial Procurement in line with the existing legal framework. In cases of doubt when embarking on the first Pre-commercial Procurement pilot projects it would be advisable to obtain advance clearance from the Commission on possible State aid or other infringement and to provide evidence thereof to potential suppliers. Determination of whether there has been State aid is, by all accounts, a complex matter.

4.3.3. If it turns out that there has been State aid and that it is illegal, the supplier may be required to repay it but has no recourse for compensation from the purchaser which entered into the R&D contract. The supplier is thus put at a material but probably uninsurable risk. The fact that a beneficiary of any illegal State aid (a supplier) has to repay the money received, but without recourse to the purchaser, is not, of course, peculiar to R&D contracts; the same rules applies to any procurement contract. The fact that a validated procurement procedure is used (e.g. a procedure of the Directives) does not provide an absolute guarantee that there is no State aid, as favouring suppliers can happen in many direct and indirect ways. The use of the Exclusion does not necessarily provide a greater or smaller risk of failing to buy in a transparent, non-discriminatory manner at market price.

4.3.4. It is most desirable to increase the level of experience in all public purchasing departments so that they may apply correctly the criteria for verifying the absence of State aid. These criteria involve buying in a transparent, non-discriminatory way at market price. This experience is universally important as these criteria are not unique to R&D contracts; they are the same criteria that apply to any type of procurement contract, even though the risks in a Pre-commercial Procurement contract may be greater.

4.3.5. The Annex outlines the criteria for reassuring those concerned that a Pre-commercial Procurement project does not constitute State aid. Therefore the EESC recommends that the Commission and Member States consider promoting training and knowledge sharing on setting up Pre-commercial Procurement projects in line with the legal framework to avoid the risk that public Authorities — and their suppliers — might run into State aid problems later.

4.3.6. Although not a question of State aid, if the Exclusion from the Directives provided for certain types of R&D services should turn out to be invalid, it would cause the contract to fall back within the Directives. Under the Remedies Directive the contract, which would presumably not have been properly advertised or subject to 'standstill', would be rendered 'ineffective' (²⁰). In those circumstances the supplier would be at a risk of not being paid for the work done. This risk, which is also probably uninsurable, is not peculiar to R&D contracts but is increased by the use of the R&D services Exclusion in the Directives. Caution should be exercised and advice sought.

4.4. Risk

4.4.1. In any R&D programme there are risks; not all innovative projects will achieve the hoped-for result. The Scheme sets out quite properly that the risks and benefits should be shared between the purchaser and the supplier. There is, however, an emphasis on considerations of State aid and Treaty principles which, whilst probably unavoidable, introduce a further layer of complexity in an already complex matter.

4.4.2. As with any risk management, the parties should agree to take responsibility for the risks which each is in the best position to manage, and to maintain a continual liaison to ensure that no risk arises or escalates without being identified and mitigated.

4.4.3. There is discussion in the Annex of fixed price contracts whereby the public Authority sets a maximum and invites tenderers to submit offers at or below that maximum with the intention that the supplier(s) should subsidise the project to a greater or lesser extent in exchange for exploitation rights. Such an arrangement may well be attractive to those suppliers which have ready access to a wider market for the fruits of the development, but it introduces an element of complexity in cases where the opportunity for wider exploitation is not obvious, but where the benefits to the purchaser are substantial. In such cases the purchaser should probably consider a different course of action.

4.5. Intellectual property

4.5.1. Rights to the intellectual property which arise form an important part of the Scheme. Who has rights and to what extent this affects the legal basis for the project as well as the practical outcome in gaining benefit from the R&D.

4.5.2. There are, essentially, three ways of protecting intellectual property:

- Patents a statutory monopoly,
- Copyright which subsists in all original work,
- Secrecy where neither patent nor copyright affords effective protection.

4.5.3. Patents are the strongest and most commercially exploitable protection for truly fundamental inventions which are capable of being licensed to third parties. They are also the most expensive. Unless the invention meets these criteria or the project is in an industrial sector where patents are used as a competitive weapon, patenting is probably a waste of money. Patents are also extremely expensive to defend.

4.5.4. Copyright costs nothing; it simply exists. However, in contrast to a patent, a copyright owner has to prove that an infringer actually knew about the copyright material and copied it. Independent replication of copyright material where the replicator has had no sight thereof is not copying and cannot be successfully challenged.

4.5.5. Secrecy is widely used in the commercial sector to protect a competitive advantage. It is vital to keep secret an invention where there is an intention to patent it; disclosing it early can disqualify it from being patented. Where neither patents nor copyright offer effective protection for a commercially valuable invention, keeping it secret is the only resort. Coca-Cola guards jealously the formula for its eponymous drink.

4.5.6. Whilst secrecy is an effective way of protecting intellectual property and, in some circumstances, may be the only means available, it sits uneasily in the context of transparency.

4.5.7. Formulating tender specifications for follow-up procurements of commercial end-products in terms of functional instead of prescriptive product specifications can help to fulfil both the requirements of transparency to competing bidders without revealing technical implementation details of individual solutions developed in the pre-commercial phase.

^{(&}lt;sup>20</sup>) Directive 2007/66/EC ('Remedies'), Article 2d, Ineffectiveness (Member States shall ensure that a contract is considered ineffective by a review body independent of the contracting authority or that its ineffectiveness is the result of a decision of such a review body in any of the following cases: (a) if the contracting authority has awarded a contract without prior publication of a contract notice in the Official Journal of the European Union without this being permissible in accordance with (the) Directive).

4.5.8. Rights to intellectual property are obviously very important in R&D projects as contemplated in the Scheme. But great care and sense needs to be exercised in their establishment, allocation and management. It is not a simple field of activity.

4.5.9. In Pre-Commercial Procurement IPR are shared between purchasers and suppliers: suppliers retain IPR ownership, purchasers retain license free right of use as well as the right to require participating companies to license IPRs to third party suppliers under fair and reasonable market conditions. License free right of use enables the public purchaser to use the results of the R&D for internal use without having to pay costs for licenses to the participating companies. The right to require participating companies to license IPRs to third party suppliers at market price enables the public purchaser to ensure access to a sufficiently large and competitive supply chain while allowing the participating companies to gain revenues on IPRs they have obtained during the pre-commercial procurement project. In Europe public purchasers may lack experience in assessing the market value of IPR and therefore training and experience on risk - benefit sharing in relation to IPRs is recommended.

Brussels, 22 October 2008.

4.5.10. Public Authorities need to learn from the best practices in the buying and selling of IPR rights that exist in the private sector, as well as from typical standard government contract clauses for IPR sharing with suppliers in public procurement that are used around the world.

4.6. Qualifications of the suppliers and the purchaser

4.6.1. Potential suppliers obviously need to have the skills to manage innovative projects; their experience can relatively easily be established by an Intelligent Customer.

4.6.2. Potential purchasers also need the skills to manage such projects. Gaining knowledge of the state of the art in the relevant market, preparation of the requirement specification in output terms, negotiation with and selection of chosen suppliers, management of the project and of its attendant risks, all require skills and experience in depth within the purchaser's organisation. If the organisation does not have a culture — all the way from the top to the bottom — suited to the management of such projects, it risks expensive failure. These characteristics are, of course, those of the Intelligent Customer.

The President of the European Economic and Social Committee Mario SEPI