FUSION FOR ENERGY

The European Joint Undertaking for ITER and the Development of Fusion Energy

THE GOVERNING BOARD

DECISION OF THE OF THE GOVERNING BOARD OF FUSION FOR ENERGY ENDORSING THE IMPLEMENTATION OF FUSION FOR ENERGY'S INDUSTRIAL POLICY

THE GOVERNING BOARD,

HAVING REGARD to the Statutes annexed to the Council Decision (Euratom) No 198/2007 of 27th March 2007 establishing the European Joint Undertaking for ITER and the Development of Fusion Energy (hereinafter "Fusion for Energy") and conferring advantages upon it[1];

HAVING REGARD to the adoption of the Industrial Policy of Fusion for Energy by the Governing Board on 11 December 2012 which was approved by the European Commission on 17 May 2013;

HAVING REGARD to the Policy on Intellectual Property Rights and Dissemination of Information adopted by the Governing Board on 11 June 2013 which was approved by the European Commission on 17 May 2013;

WHEREAS the Governing Board asked Fusion for Energy Director to bring forward a proposal on how it intends to implement Fusion for Energy's Industrial Policy,

HAS ADOPTED THIS DECISION:

Article 1

The Implementation of Fusion for Energy's Industrial Policy annexed hereto is duly endorsed.

Article 2

This Decision shall have immediate effect.

Done at Barcelona, 27 June 2013

For the Governing Board

Stuart Ward

Chair of the Governing Board

For the Secretariat

Digitally signed by (SIGN) RAYMOND MONK
DN: c=ES, o=FUSION FOR ENERGY. EUROPEAN AGENCY FOR ITER PROJECT, cn=(SIGN) RAYMOND MONK
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Raymond Monk

Secretary of the Governing Board

[1] O.J. L 90, 30.03.2007, p. 58.

Implementation of Fusion for Energy's (F4E) Industrial Policy

Executive Summary

This document sets out the principles and measures F4E will apply to implement the Industrial Policy of F4E.

An overarching principle is to make it easier and more attractive to industry to participate in the construction of ITER through F4E contracts. In its interactions and contractual relations with industry F4E will seek to place benefits and burdens with the party that best understands them and is in the best position to derive value or shoulder them. This with the aim to deliver on the Industrial Policy Objectives of cost containment, building sustainable industrial capacity in fusion technologies in Europe and strengthening innovation and competitiveness of European industry in current and near term markets. Special attention is given to SME participation and reduction of barriers to broad European participation.

The measures and principles have been developed in close interaction with industrial representatives and have taken heed of industrial norms and best practices from big science projects. They include:

1. Reduced financial risks to contractors, limiting liabilities and guarantees;
2. Affording contractors exclusive rights to generated IP in fields outside fusion;
3. Reduced administrative burdens in bidding for contracts.

In return F4E expects broader participation, effective use of generated IP in current markets and lower prices.

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I. Introduction

The Industrial Policy of F4E was approved by the Governing Board in 2012. Its main objectives are:

> ***Objective 1:*** *Deliver the European contributions to ITER and the Broader Approach within the agreed budget and schedule making best use of the industrial and research potential and capabilities of all F4E members, in line with competition rules.*
>
> ***Objective 2:*** *Broaden the European industrial base for fusion technology for the long-term development of fusion as future energy source and to ensure a strong and competitive European industrial participation in the future fusion market.*
>
> ***Objective 3:*** *Foster European innovation and competitiveness in key emerging technologies to further the development of the Innovation Union and its impact at the international level.*
>
> *(F4E Governing Board, 11 December 2012)*

This document sets out the principles and measures which provide the foundation for the implementation of the Industrial Policy. A tabular summary of the principles and measures are provided in Annex 1.

Initial inspiration was found in the Communication of the Commission “EUROPE 2020 - A strategy for smart, sustainable and inclusive growth” (COM(2010) 2020 final) as well as announcements specific to EU Research & Development and fusion research in general. However numerous elements were drawn from best practices applied by other international organizations managing significant technological projects and by industrial entities. Finally a joint working group was established including key staff from F4E and representatives of the Industrial Liaison Officers (ILO) network of F4E in order to encompass the Industrial views and the experiences of industry with the procurement processes and principles applied by F4E thus far.

The implementation of the F4E industrial policy aims at improving the business environment and supporting the development of a strong and sustainable industrial base able to serve the needs of the construction of ITER as well as subsequent fusion devices. It also aims to improve cost-containment by a wide range of measures including the reduction of risks and transactional costs for suppliers which are factored into the price. The implementation of the Industrial Policy takes into account a differentiation between key technologies in the field of nuclear fusion with

a strategic bearing on future fusion development and auxiliary technology or supplies which are of equally high standard but not considered as strategic to fusion development (e.g. buildings or off-the-shelf products).

II. A procurement strategy to minimize cost while preserving performance and respecting schedule

Key points:

- ***Cost containment of F4E projects is one of the overarching objectives***
- ***Design Procurement Arrangements in line with market conditions***
- ***Use of joint procurements***
- ***Extensive use of market analysis***
- ***Balanced risk allocation between suppliers and F4E***

Whilst all objectives of the Industrial Policy are interlinked, it is considered paramount for F4E that the European contribution is of the required quality, delivered on time and within budget. The reporting system of F4E monitors costs in relation to budget and estimates. Cost estimates of future actions and operations will be kept up to date. Cost containment is one of the driving factors in choosing the appropriate procurement strategy. The technical scope of the procurement is defined in a Procurement Arrangement (PA) between ITER Organisation and F4E, with the level of detail depending on the specific PA[2]. In the negotiation between IO and F4E on the formulation of PAs, F4E is, among others, guided by the Industrial Policy Objectives.

For the supply of the EU contributions to the ITER project, as defined in the Procurement Arrangements or ITER Task Agreements (ITA), F4E uses a wide range of contractual arrangements:

[2] Procurement Arrangements belong to two different families: Build To Print PA, in which the scope is specified in a precise and firm manner (including detailed drawings, etc) and which do not leave F4E any significant room for manoeuvre, and Functional Specification PA, in which the scope is defined in broad terms by referring to performance requirements and which allow the F4E to optimize the details in order to achieve additional objectives.

Contractual arrangements	Feature	Purpose
Grant	Direct financial contribution, limited to 40% of eligible costs.	Contractual tools designed to implement R&D or conceptual design phase of high-tech fusion technologies, components or systems.
Framework partnership agreement	Direct financial contribution, limited to 40% of eligible costs. Predominantly used for collaboration with European Fusion Laboratories, universities and research institutions.	
Direct supply/service/works contract.	Defines all the terms and conditions, direct implementation.	Contractual tools designed for the supply of products, services or works.
Framework supply/service contract	Defines the overall terms and conditions and needs implementation by specific contracts	

Choice of procedure for supply, service and works contracts

For framework contracts as well as direct contracts the choice of the procurement procedure is of strategic importance. F4E may apply an open, restricted or negotiated procedure as well as a contest or a competitive dialogue. The choice of each of these procedures is based on essentially three variables (cf. chart in Annex 2), against which a suitable trade-off needs to be performed:

(i) The assessment of the scope of the Procurement Arrangement with the ITER organization and in particular the design maturity of the technical specification which is underlying the Procurement Arrangement. Generally, a Functional Specification PA leaves some margin for scope optimization and possible cost reductions during the tendering process: this clearly warrants bi-directional interaction with bidders and hence dialogue and negotiated procedures can be fruitfully applied.

(ii) The market fragmentation which is defined by a poly-poly, oligo-poly or even a monopoly situation. The state of the market will be assessed prior to the choice of procurement strategy by F4E's Market Intelligence and will

be an important factor in determining that strategy. A wider competition typically favours less interactive procurement procedures, i.e. open or restricted.

(iii) The need to deliver results on a timescale compatible with the project schedule and in a way which is affordable with the available human resources (both for F4E and for bidders): procurement procedures have different durations and involve a different level of resource utilization, with open and restricted at the low end of the resource scale and dialogue and negotiated at the high end.

Where possible, F4E will seek to incorporate information obtained from the Industrial Liaison Officer's (ILO) to ensure industry concerns are taken into account when developing a procurement strategy[3].

Finally, technical and financial weights applied for the ranking of tenders will reflect the objectives of F4E's Industrial Policy: while technical quality will retain a significant impact of up to 50 % on the final award score and be key to a bid being accepted as technically compliant, the financial aspects (i.e. in most cases the price) will generally have a weight of not less than 50 % apart from exceptional and duly justified cases.

Procurement strategy and industrial policy

F4E will implement procurement strategies suitable to facilitate the Industrial Policy objectives while maintaining legal and regulatory compliance. In particular the following measures will be widely adopted:

- Controlling and optimizing the scope of the EU obligations towards ITER:
    - Actively pursuing rationalisation of procurement sharing in collaboration with the IO and other Domestic Agencies to make best use of the EU industrial and Research capabilities, to rationalise interfaces thus leading to a reduction of costs;

[3] Information exchange between F4E and specific ILOs during the procurement strategy definition will be only in the receiving direction. F4E will adopt specific care in ensuring that inputs received and incorporated do not have a biasing effect on the competition. In order to mitigate risks to F4E and ILO alike, once the procurement strategy is under development no privileged information will be made available to ILOs and all communications will be simultaneously made through the Industry Portal.

- Monitoring changes in scope and delays derived from other ITER parties and their implications in budget and schedule for EU suppliers; taking proactive actions in order to mitigate the adverse impact on F4E and its suppliers alike;
- Exploring systematically joint procurement opportunities with IO, other Domestic Agencies and contracting authorities not directly involved in the ITER project (if applicable and relevant), which may allow F4E to achieve economies of scale and to have a better approach to the market;
- Performing careful reviews of F4E product/service specifications, on the basis of traceable and quantifiable requirements, to ensure that no over-specification occurs and that procurement constrains itself to the limit of what is strictly required to fulfil EU obligations. For the largest contracts and for those with specific operation/disposal concerns this exercise must consider not only procurement costs but also aspects related to operability, maintainability and disposability (to the extent and with the approximation made possible by the information available at the time);
- Reviewing PA requirements vis-a-vis ITER IO, in parallel and with comparable methodology as the above mentioned review of F4E's product specifications.

- Involving EU Industrial and Research actors as far upstream in the procurement strategy as possible, in a way which respects F4E's obligation to conduct a transparent and fair downstream competition:
  - Carrying out preliminary market surveys (including ILO interaction and information days) in parallel with the definition of the PAs and interacting with associations and networks representing the relevant EU Industrial and Research segments[4]. The PA specifications may be, if appropriate, altered according to the outcome of these surveys;

[4] In order to effectively implement a critical review of PA requirements, F4E should be able to appropriately interact with the supply chain before the obligation is taken. In this way the information needed to support a proper PA negotiation would be obtained. This aspect would unavoidably raise concerns about fairness and transparency of the consultation process, also in view of the tight time constraints which are enforced, however it could lead to significant cost containments and therefore should be pursued to the maximum legally possible extent. In order to mitigate regularity concerns,

- Increasing the number of worldwide market surveys[5] in order to more accurately determine which procurement actions could be performed on a worldwide basis with significant cost savings;
- Encouraging transparent participation of industry and research organizations in pre-procurement R&D and design activities (either by means of grants or of specific R&D procurement contracts), by establishing clear and fair policies for intellectual property, information dissemination and exploitation which would not unreasonably reduce the possibility of competition[6];
- Facilitating long term collaboration between European Fusion Laboratories (EFL) and industry[7] by means of targeted communication, joint Industry and EFLs events and reducing hindrances[8] to EFL participation in procurement together with industries. This will facilitate technology and know-how transfer from the research to the industrial community, will reduce the risk for the project by ensuring that the appropriate skills and expertise are available through the design, manufacturing and operation lifecycle of the product, and will contribute to the overall competitiveness of European R&D and industrial players.

- Assessing and managing in a corporate-wide manner the risks related to scope, schedule, cost and resources, allowing for an overall view which will support management decisions in achieving the greatest overall benefit to F4E;
  - Accepting a balanced risk allocation between F4E and contractors, with the objective of creating value for both parties by allocating each risk to

F4E will have to adopt a strict and formalised methodology for these consultations, possibly by means of a clear division of tasks and responsibilities among the services in charge.

[5] Including if appropriate attendance to business events.

[6] This will include proactive monitoring by F4E of the technologies and design choices incorporated, to mitigate the risk of including unnecessary or overly restrictive elements which would then effectively reduce the competition potential of following actions.

[7] Such collaboration could realize, for instance, as consortium agreements in which a progressive shift of responsibility occurs from the R&D to the industrial partner(s) as the development progresses, secondment of staff, creation of joint-ventures or temporary associations, transfer of patent rights, etc.

[8] EFLs are generally involved in the evolution of concepts and conceptual designs of items to be delivered by Europe to ITER. In the past there has been concern about the participation of EFLs in the production of such items with reference the need to ensure fair competition. F4E will take action to minimize such concerns to allow and encourage EFLs to participate and partner with industries in contracts to deliver such items.

the party which is best suited to manage it. The terms and conditions of the contract[9] will be individually adapted following a risk assessment. Contractual liability shall as a general rule not exceed the total value of the contract.

- Ensuring that during the bidding process information is exchanged symmetrically between the procuring authority and bidders, in order to reduce transaction costs and risk premiums due to asymmetry. This will occur, for instance, by providing prompt and timely updates about the status of the procedure and by accepting when appropriate dialogues with tenderers about the reasons why certain formal requirements are established and evaluating possible alternative solutions proposed by them. This need is also fulfilled by establishing early contacts with appropriate representatives of the supply base.

[9] E.g. the contractual liability of the contractor, liquidated damages, insurances, guarantees, payment terms and warranties.

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III. A procurement process transparent and fit for purpose

Key points:

- ***Increase the flexibility of the F4E procurement process***
- ***Reduce tendering risks to industry***
- ***Source globally***
- ***Contain costs in the bidding Process***
- ***Apply the Best Value for Money principle to all steps in the procurement process***

Ensuring fair competition and transparency is mandatory for F4E as a Joint Undertaking. Within this constraint F4E has decided to focus on a strong partnership taking into account that industrial suppliers have to pursue their commercial interests. F4E also acknowledges that it occasionally operates in a very restricted market, and it cannot assume that specialized industry will bear the full cost of setting up an EU-compliant bidding and pricing system when in fact no recurring procurements can be foreseen in a reasonable timeframe.

Because of these concerns, F4E shall develop a procurement process which is light on obligations and requirements for industry, while preserving the essential features which are needed to mitigate risks of regulatory non-compliance. Within the boundary conditions of the F4E Financial Regulations and its Implementing Rules, there is a range of different processes to invite economic operators for tendering.

Increase the effectiveness of the F4E procurement process

Bidding mechanisms which reduce tender risk premiums and transactional costs in public procurement shall be applied: this includes for instance the application of staged procurement strategies or processes, during which a progressive down selection is performed among tenderers in a way which does not require tenderers to undergo large tendering risks with associated high costs. In a similar way, for specific high-end supplies F4E finds it most effective to have an active participation by industry in the definition of the scope of the procurement, in order to yield best

results: in these cases F4E will focus on procurement processes which enable dialogue and mutual exchange of ideas very early in the process, such as Competitive dialogue and Negotiated Procedure, within which significant exchange of information can occur even before tenderers have invested time and resources to prepare a full bid.

In order to ensure broadest participation and interest F4E will improve the accuracy and reliability of the yearly Work Programme and will distribute early information about the future work programmes and project plan. In addition timely shorter term updates will be provided during the year to allow proper planning by the supply chain. This information will also be published through the Industry Portal as the main source of information for suppliers and through ILOs. In follow-up to the work programme F4E will also resort at the earliest possible stage to prior notification of forthcoming tenders[10] as well as to the standard toolset of Market Intelligence (market analysis, surveys, database, supplier feedback etc.) to prepare the markets, identify potential bidders and analyse alternatives.

The early interaction of F4E with industry will foster (under appropriate conditions, safeguarding transparency, and fairness and preventing potential conflict of interests) a more strategic approach to supply chain management and will allow F4E to support in an effective and informed way the negotiations with IO about in-kind contributions' scope and details.

In the case of highly captive markets (e.g. oligopoly) F4E may resort to pre-bid qualification by contracting competing business-cases[11] or the realization of competing prototypes[12], in order to gauge the bidder's capabilities to submit a comprehensive technical solution. Simple business-cases may be incentivized by the award of prize money to compensate for part of the incurred costs, more complex and resource-consuming business-cases and prototypes will be paid in full by F4E[13].

[10] Covering present and (as far as practicable) future Work Programmes.
[11] This may be for instance realized partially within a competitive dialogue procedure or in a more developed way establishing an appropriate competitive multiple framework contract with subsequent stages of selection.
[12] In this scenario the access to a following bidding procedure/stage would only be allowed to entities having successfully passed certain prototype qualification tests.
[13] In order not to undermine cost saving objectives, any decision to financially support (in part or in full) a pre-bid business-case of prototype will be subject to a specific cost-benefit analysis,

In these cases specific attention will be devoted to the management of IPR (background and foreground) implied by the pre-qualification scope: in relation to background suitable protection will be granted to pre-qualification contractors which are not awarded the eventual production contract. In relation to foreground, strict confidentiality policies will be adopted by F4E in order to mitigate the risk of leaks of relevant information which could distort the competition.

Reduce overheads due to financial risks

F4E should apply contractual conditions which minimize overheads linked to financial risks for contractors, while preserving the key risk-mitigation elements for the benefit of the project. In particular:

- Reducing performance and advance payment guarantees, especially in the case of relatively low value contracts for which the marginal cost of setting up and managing guarantees would offset any net benefit. From F4E's point of view this is going to have modest negative effect on risk mitigation and positive effect on cost reduction[14]. F4E has already taken the necessary steps in this direction, further action will involve the shift of risk mitigation focus from a reactive (ex-post) application of guarantees to a proactive (ex-ante) contract monitoring and management of strategic suppliers;
- Adjusting and setting precise boundaries to contractors' obligations and liabilities. As reducing short term obligations (i.e. obligations which benefit F4E during the implementation of the contract) on contractors may in many cases simply imply a shift of the costs to F4E rather than their reduction, this should be performed with a careful approach, continuously monitoring the cost-benefit ratio to F4E.

substantiating the expected reduction in overall cost (or cost risk) during the full tendering, design, manufacturing, operation lifecycle of the component or system.

[14] In general terms, financial guarantees submitted by contractors serve a dual purpose: on one hand they incentivize contractors to good performance, on the other hand they can provide indemnification to F4E in case of non-performance. However the incentive can be realized even more effectively when needed by means of positive action (e.g. incentive clauses), while the risk mitigation afforded to F4E by guarantees is in most cases only fictitious. The damage inflicted to F4E by a defaulting contractor due to project delay would in most cases by far exceed the value of the guarantee itself and thus not be covered. Reducing such guaranties would, however, reduce the costs borne by the contractor which generally are reflected in the price quoted to F4E.

Source globally

During the pre-procurement analysis F4E will look into the capability, maturity and capacity of potential suppliers. F4E's Governing Board has allowed for global sourcing for "non-strategic" supplies. This applies to products which are not of core strategic relevance to a European industry sector and technologies which are not foreseen to be "enabling" for the future commercial exploitation of fusion energy. This means that F4E will henceforth make more use of international call for tenders if pre-procurement analysis reveals the possibility of cost savings with a sufficient level of confidence[15].

Contain costs in the bidding process

F4E is fully aware of the costs accruing for suppliers in the tendering phase. These costs are either typically fully or partially redeemed in the contract price or considered as *pro-bono* by the supplier. Large and complex tenders require a very intensive effort and under competitive bidding only one tender will be successful. Furthermore tenderers may be unwilling to disclose full details (possibly including proprietary information) of a manufacturing process in advance of being awarded a contract. This may either deter possible bidders or lead to higher prices for F4E and needs to be avoided.

A balanced approach will be made by reducing to the maximum possible extent the administrative and technical requirements in the bidding process and by favouring multi-stage procedures (restricted procedure and competitive dialogue, which considerably reduce the initial resource investment and information disclosure by tenderers). Among other means, this will be pursued by following closely the evolution of the legal basis and jurisprudence for procurement activities in the European institutions, and (when appropriate) by developing and proposing changes in F4E's own regulatory framework.

[15] In case of worldwide tenders (especially when competition from both within and outside Member States is foreseen) F4E will use whenever possible the negotiated procedure, in order to ensure that an efficient tendering arrangement can be established with respect to entities operating within very different market constraints and cultures. Furthermore the negotiation process will ensure that tenderers from Member States are not suffering from unfair competition from outside and that ultimately the maximum effectiveness is achieved towards F4E's objectives.

Best value for money

The principle of “best value for money” for the adjudication of contracts is already enshrined in the financial regulation. However this should not be exclusively limited to acquisition costs, but appropriate consideration should be given to the “lifecycle cost” (i.e. “total cost of ownership”: acquisition cost, maintenance cost, running and operation costs, disposal costs) of a purchase and its fitness for purpose (i.e. quality and ability to meet F4E’s requirements). Although clearly not all costs would have the same weight in the acquisition trade-off[16], F4E needs to maintain a reasonable level of control on the long term sustainability of the project and to ensure that the various aspects are suitably quantified.

In defining the metric for measuring the “value for money” offered by different tenders, F4E will apply weights to financial and technical aspects which will support the implementation of Industrial Policy objectives, as already addressed above. F4E will guarantee equal treatment and as far as practicable standardization of criteria, establishing harmonized technical score thresholds and technical/financial weights for similar procedures.

Other factors that may also need to be taken into account when assessing value for money include:

- Availability of suppliers – Market fragmentation (poly-poly/monopoly) at present and in the future, in case additional supplies or maintenance (including spare parts) have to be procured.
- Additional costs (i.e. transportation, postage and packing, storage) – These will vary according to the location of the supplier and F4E’s and IO’s requirements.
- Possible discounts for bulk purchases (although these may be partly offset by storage costs). Economies of scale can reduce costs particularly if there is an aggregation of the demand across different contracting authorities in a joint procurement as foreseen in the Financial Regulation.

[16] Not only due to management strategic decision but also in virtue of the discounted current value of future expenses.

IV. Involving the European Industrial and Research Potential - Collaboration with SMEs

Key points:

- ***Wide dissemination of business opportunities***
- ***Include the network of Industrial Liaison Officers***
- ***Dialogue with industrial suppliers***
- ***Information about geographical return***
- ***Incentivize participation of SME's***

F4E strives for a wide dissemination of F4E's business opportunities across Europe via publication of business opportunities in F4E's website and the Official Journal of the European Communities; this does also imply making best use of F4E's Industrial Liaison Officers (ILO) as multipliers for business opportunities in their respective territories and as facilitators for the formation of transnational consortia.

Spreading the word

F4E will continue and (where appropriate) reinforce the application of existing measures, including:

- Organisation of information days and production of industrial mappings in advance of tender action in order to stimulate interest and to facilitate consortium formation. F4E will undertake specific communication efforts in those Member States which appear to have a lower than expected participation to ITER-related calls for tenders and calls for proposals;
- Active gathering of Market Intelligence by visiting European industry and Fusion Research Laboratories, explaining F4E technical requirements and discussing technical solutions and fabrication strategies[17].;
- Providing automatic alerts to Suppliers registered in F4E's Industry Portal according to their business interests;

[17] This within the constraint of ensuring a transparent, fair and unbiased tendering process as detailed in the previous chapter.

- Providing up to date and timely information on forthcoming F4E tenders as defined in the approved Work Programme and Project Plan and (as practicable) as foreseen for future Work Programmes.

Making it easy to do business with F4E

F4E will continue and (where appropriate) reinforce the application of existing measures, including:

- Aligning F4E's contractual provisions to common practice in the sector concerned and a reasonable sharing of risk between F4E and the Supplier, so as to avoid extensive negotiations on detailed provisions;
- Prompt and pertinent response to questions raised in advance and during the tender action to all tenderers involved on an equal basis using electronic communication;
- Continuous improvement of F4E's Industry Portal so as to allow easy and timely access to tender-related information and to allow electronic submission of Industrial offers;
- Continuous reduction of administrative complexity for tenderers and contractors, for example by allowing re-use of exclusion and selection documentation already submitted within a previous procurement procedure[18] and use of simplified tendering documents and contracts, in particular for lower value procurements;
- Setting qualification levels and financial requirements (in the form of suitable selection criteria) in order not to unnecessarily restrict participation to tenders;
- Aiming at the effective exploitation of industrial and R&D capabilities of all Member States, achieved through their broad involvement and appropriate communication through their existing industrial promotion infrastructure;

Additionally F4E will proactively implement new measures such as:

[18] This would be subject to specific constraints, within a given time boundary. It may need a modification of non-substantial aspects of F4E's regulatory framework.

- Developing indicators and objectives for the broad involvement of F4E Members in contracts and grants, including new Member States[19].
- Providing appropriate information and support to F4E Member States experiencing low levels of participation and/or low success rates[20];

Assisting Small and Medium Enterprises (SME)

Within the given regulatory framework F4E will be placing special emphasis on assisting Small and Medium-sized Enterprises (SME). Information days organised by F4E (possibly in different locations around Member States) will particularly be used as a means of connecting SMEs with larger industrial suppliers with the objective of building new transnational supply chains (e.g. allowing time for company presentation and B2B discussions).

Information days targeting specific scope shall take place with attendance of the relevant technical and quality responsible staff, so that important Q&A could already be covered during the event. Improving the quality and understanding of the information provided will enhance the interest of SMEs and large industry alike in F4E tenders.

For selection of procurement procedures (which are identified as suitable for a significant SME participation) F4E will set SME-friendly qualification levels and financial requirements. In certain cases, specific contractual clauses encouraging non-SME bidders to involve SMEs may be introduced and SMEs may be allowed to participate in more than one competing consortium[21], if applicable this would be announced in the call for tenders.

F4E will ensure that an appropriate number of tender opportunities are offered for packages with a size and risk suitable to SME direct participation. These will be selected by means of a suitable trade-off between project objectives, interfacing requirements and the availability of F4E's internal resources.

[19] Although F4E shall not undertake any direct action with respect to the nationality of contractors, in case the participation from some Member States is detected to fall below pre-determined thresholds F4E shall trigger a specific analysis to identify the causes.
[20] ref. F4E's *Market Seminar Policy,* IDM 25XU5Q v2.0
[21] Taking due regard of IPR and discretionary information regulated by consortium agreement, MoU or Letters of Intent

V. Intellectual property rights as a tool for EU fusion innovation policy

Key points:

- ***Guarantee the availability of the technologies resulting from our activities to fulfil F4E's obligations towards the ITER agreement and towards the EU fusion program.***
- ***Grant F4E's contractors exclusive rights to use the result of their work beyond the scope of fusion research.***
- ***Turn the management of Intellectual Property at F4E into a tool for cost containment and competitiveness.***

The Industrial Policy of F4E as approved by the Governing Board in 2012 and endorsed by the European Commission on 17th May 2013 incorporates the main principles and objectives of the policy on Intellectual Property and dissemination of information. This policy has been developed around the principle of affording businesses participating in F4E actions the best opportunities to exploit results they generate while affording F4E the required rights in the field of fusion[22]. Accordingly F4E intends to offer the contractors exclusive rights to the exploitation of the Intellectual Property (IP) they produce in fields outside fusion and non-exclusive rights in the field of fusion. In its endeavour to make the best possible use of knowledge and its potential benefits, Fusion for Energy is willing to assign its ownership to the contractors. A decision on the Intellectual Property principles to be applied to a specific contract shall be taken at the earliest possible stage of the procedure (pre-procurement) to ensure that contractors are informed about the Intellectual Property conditions well in advance.

[22] F4E is in most cases obliged by the provisions of the ITER Agreement to retain the right to access the full IPR (background and foreground) involved in the European in-kind contributions and to be able to transfer this access right to the ITER Organization if needed. However this can be achieved by means of different approaches, depending on the details of the concerned IPR and on the strategic interests of the EU industrial or research partner, which F4E is fully committed to protect and support within the given constraints. F4E will continue exploring the possible arrangements with its supply base and will as a rule adopt the least intrusive solution which is affording a sufficient level of access.

This approach maximises the effect of generated IP in current and near term markets increasing competitiveness and makes Intellectual Property a tool for cost containment. By giving exclusive rights on generated Intellectual Property to the contractor, F4E expects to see a reduction in the cost reflecting the value of the competitive advantage obtained by the contractor.

The revised Intellectual Property policy includes the means to be implemented in practice, namely:

1. Integration of Intellectual Property into F4E's overall strategy. This is achieved via the amendment of F4E internal working procedures to incorporate Intellectual Property considerations at the source of the decision making process. These new working procedures have been incorporated into F4E's manual of procedures.

2. Development of a common understanding of Intellectual Property rules and policies. This is achieved by clarifying the applicable principles on Intellectual Property at the time of publishing our calls thus ensuring that both F4E and potential candidates are clear about the scope of rights and obligations. Furthermore, F4E shall strive to keep our stakeholders and suppliers aware of Intellectual property aspects within our procurement activities.

3. F4E Intellectual Property terms and conditions. This is implemented through the approval of the contractual provisions on Intellectual Property

4, Facilitating the practical implementation of Intellectual Property policy through a number of other minor instruments i.e. clearing reports on IP, model license agreements, e-filing for IP information and database for managing IP assets.

VI. Conclusions

All the measures above are deemed to be suitable for the implementation of the high-level Industrial Policy as adopted by the Governing Board of F4E. They have been widely discussed with representatives of the network of Industrial Liaison Officers and representatives of industrial suppliers. They shall be conducive to

achieve a balanced approach to solicit widest possible interest of the supply base for the project and the need for F4E to deliver its contributions to the project on schedule and within the budget allocations.

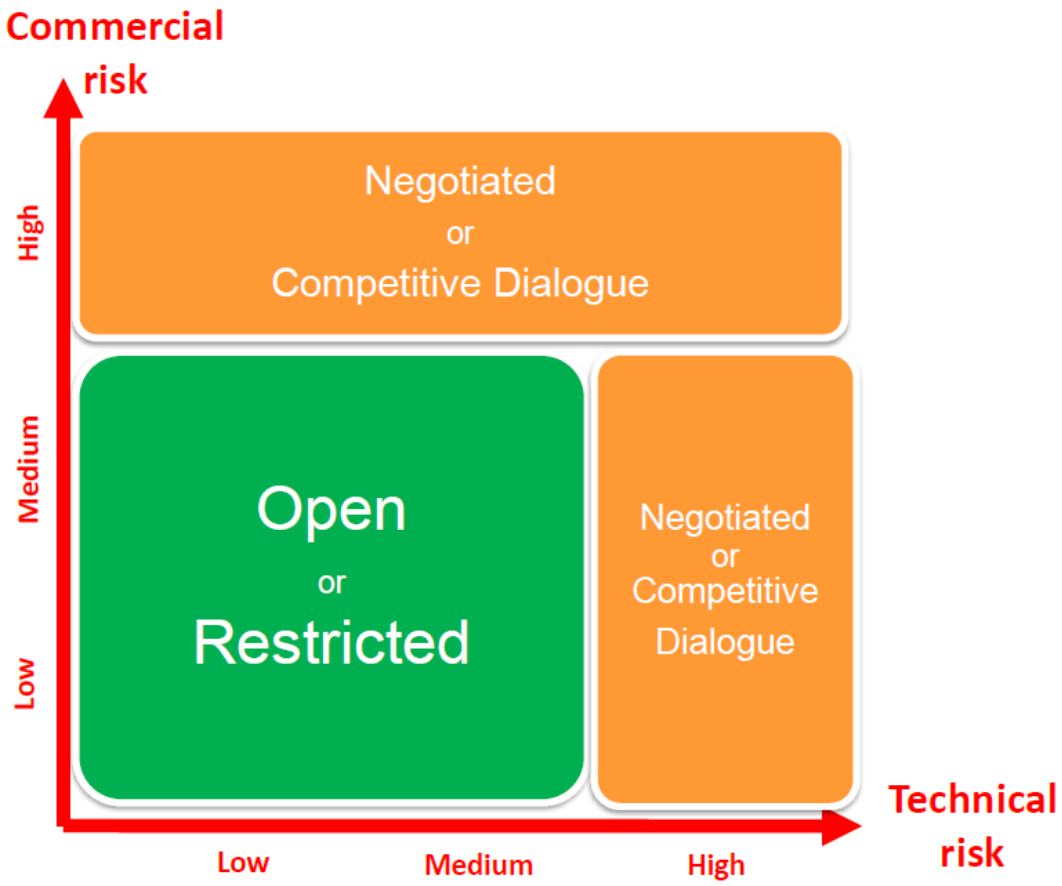
F4E will monitor the successful implementation of the Industrial Policy and where required, produce appropriate guidelines to ensure clear understanding in the organisation. The Governing Board and auxiliary bodies will be kept informed on a regular basis.

Annex 1 - Matrix of Implementing Measures supporting Industrial Policy objectives

***K:** Key to achieve objective **C:** Contribute to objective **n/a:** not applicable*

Industrial Policy objectives **Measure**	**Objective 1** Deliver within budget and schedule, and with EU industrial & research	**Objective 2** Broaden EU base, and strengthen EU industry for future fusion	**Objective 3** Foster EU innovation and competitiveness in key emerging technologies
Possibility to select procurement procedure according to technical and commercial complexity and/or risks.	**K**	**C**	**n/a**
Early information of industry/ILOs about the F4E work programme and the project plan.	**K**	**C**	**n/a**
Early interaction with Industry and ILOs, in particular through Market Surveys, Info Days, mappings (at earliest PA stage)	**K**	**K**	**C**
e-Tendering (acceptance of electronic offers)	**C**	**K**	**n/a**
Use of competing and prized Business Cases	**C**	**C**	**n/a**
Use of Model Contract and Model Tender documentation,	**C**	**K**	**n/a**
Possibility to re-use pre-qualification data that have already been submitted, subject to conditions.	**C**	**C**	**C**
Global international sourcing	**K**	**n/a**	**n/a**
Proportionate qualification levels, technical and financial requirements to the foreseen contract profile.	**K**	**C**	**n/a**
Assess “whole life cost” or Total Cost of Ownership”.	**C**	**n/a**	**n/a**
Adapt Contract liability following risk assessment	**K**	**C**	**n/a**
Ease requirements for guarantees for pre-financing and performance bonds.	**C**	**C**	**n/a**
SMEs: Organize SME-friendly information days in different locations across Europe to facilitate attendance	**C**	**K**	**C**
SMEs: Special clause for SME subcontracting	**C**	**K**	**C**

Annex 2 - Selection of procurement procedure



Technical risks encompass:

- Lack of capability/technology on European market
- Low level of maturity in design
- Maturity of the technical specifications
- High complexity of the required product or service
- Performance risks in the needed manufacturing processes and/or tools.

Commercial risks encompass:

- Lack of competition on European market,
- Potential cost overruns
- Unusual or difficult to define contractual obligations
- Grey areas in the contractual boundary conditions, such as insurance etc

Other factors are also taken into account when selecting procurement procedures, such as:

- Outcome of the Market Analysis exercise
- Human resources and specifications availability
- Time constraints