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# How to do business with Big Science Organizations (BSO) from an industrial perspective

Large Research Infrastructures and Dual  
Programmes Department

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## How to do business with Big Science Organizations (BSO) from an industrial perspective

- Legal Status
- The Main Actors
- Forthcoming information and preparation strategy
- The Procurement Process
- Procurement Details: Documentation and Rules
- e-Procurement Web and Industrial Portal
- The Call for Tender Package
- SME Special Measures
- National Industrial Liaison Officer (ILO) Coordination and Priorities
- Company Strategic Plan
- Conclusions



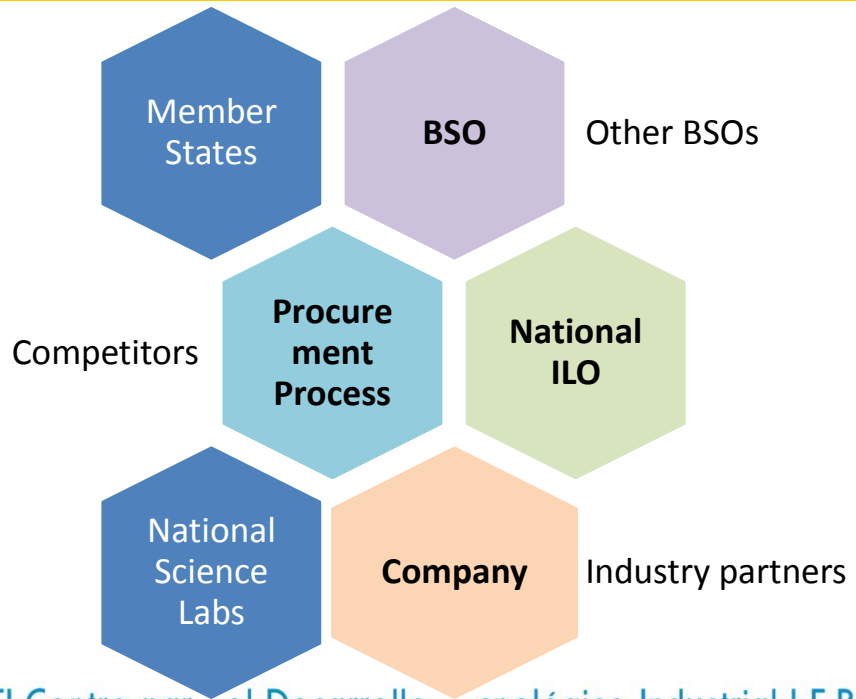
## BSOs procurements and rules are not always following 100% EU regulations

- Some BSOs are IGO (Inter Governmental Organization): CERN, ESA, EMBL, ESO, ESRF, SKAO.
- Some are ERIC (European Research Infrastructure Consortiums): ESS.
- Some BSOs follow General Financial Regulations of European Union bodies: F4E.
- Some BSOs follow national and European public tender rules, laws, and regulations: XFEL (DE).
- Some BSOs are internationally financed scientific or research facilities: CERN, ILL, ESRF.
- Each BSO has its legal status and rules, and each one follows its own Procurement Rules.
- All BSOs follow EU treaty principles of transparency, proportionality, mutual recognition, equal treatment, non-discrimination treatment, widest possible competition, sound financial management.
- Some BSO are subject to the fair return principle (ESA, SKAO) and others are not (EMBL, XFEL), while some others only aim to achieve a balanced industrial return (CERN, ESO).



# BSBF 2020 The Main Actors

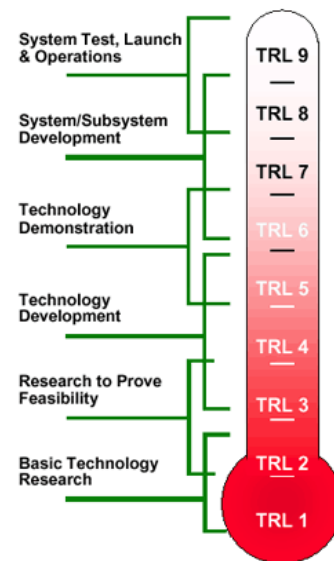
**Deep knowledge of BSO procurement rules and processes, its programmes and activities, forefront technologies and BSO needs, and the active support from National ILO, are the key factors!**



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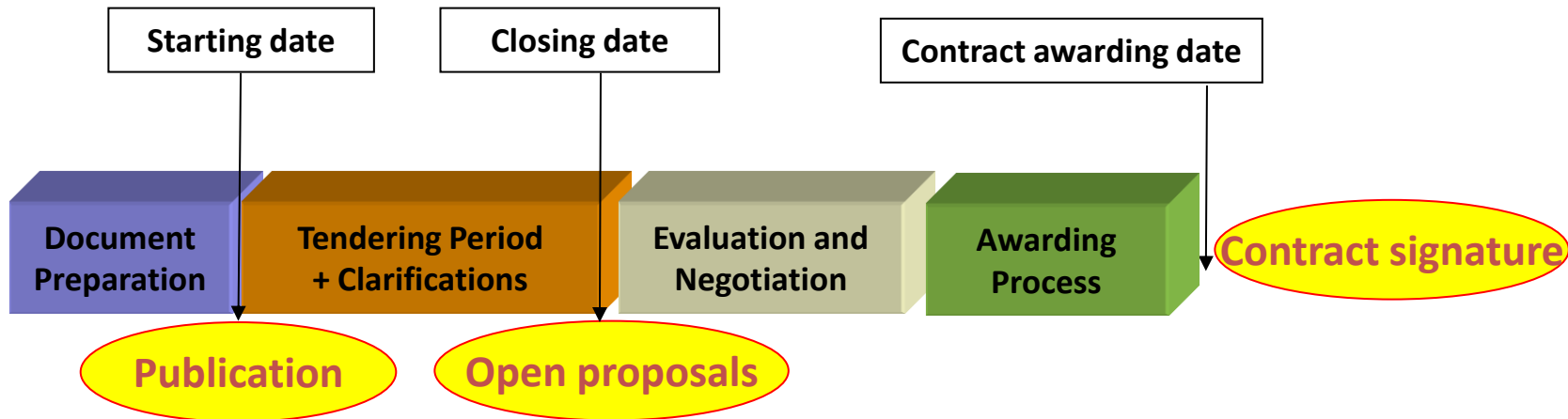
## Technology preparation for the forthcoming procurements could be a decisive strategy for a good preparation

- Early contact and communication with BSOs are the key ingredient for been best prepared for success.
- Bilateral information and dialogue with BSOs Technical Teams prior to the procurement process on future projects and requirements, and on the technology roadmaps to be developed to reach the necessary TRL.
- Big procurements/projects info days organized by some BSOs and/or Primes with full information and requirements on the subsystems, equipment and services to be procured outside the big contracts or Primes.
- Company info days, ILOs national days, or industry days in the BSO is always a key factor for technology awareness in addition to the company inclusion in the BSO industry database.
- ILOs support and national funded technology predevelopment activities preparing the development of the necessary technology readiness level (TRL) prior to the BSO procurement.



# BSBF 2020 The Procurement Process

Knowledge of the procurement process, its steps and schedule, and the role of each party



**Knowledge of all details, applicable rules for BSO procurements is mandatory and a key factor to participate in BSO programmes and its procurements**

- All BSOs use the same procurement principles (transparency, proportionality, mutual recognition, equal treatment, non-discrimination treatment, widest possible competition, sound financial management).
- Each BSO has his own clauses and conditions for contracts, procurement regulations, and selections of contractors-subcontractors.
- BSO may issue different types of procurements procedures depending on the complexity of the procurement and on the BSO rules, e.g.: open and competitive procedure, restricted procedure, competitive procedure with negotiation, or a request for quotation or a request for information.
- All BSOs have different evaluation and eligibility criteria as prerequisite for companies, e.g.: to participate in certain invitation to tenders procedure, bidders may first have to be qualified on the basis of their replies to a market survey or a pre-qualification.





**Knowledge of all details, applicable rules for BSO procurements is mandatory and a key factor to participate in BSO programmes and its procurements**

- BSOs may request technical and procurement standards, e.g.: DIN norm, CE conformity, ECSS, form templates for financial data, ECOS for WBD structure and data, IPR policy, national price and salary statistics, etc.
- Evaluation criteria and their balance (experience-excellence-impact-implementation-team-price-others) is depending on the procurement type.
- Different contracts awarded criteria on the basis of: lowest priced compliant bid principle, best value for money principle, best evaluation result, etc. depending on the procurement type.
- Debriefing with unsuccessful companies are possible depending on the procurement procedure and value.



**They are the main information channel between industry and BSOs on procurements and industry database**

- Some BSOs have e-Procurement Web and Industrial Portal in place; other haven't.
- Is a channel for obtaining access to the Calls for Tender, Request For Information and Announcement of Opportunity released by BSO. List of Intended Call for Tenders, Open Call for Tenders and Closed Call for Tenders may be available.
- National ILOs are one of the main information channel among BSO and Industries
  - Potential suppliers can express their interest in a certain procurement.
  - Main purpose of these Industrial webs is: entity registration for BSO and partnerships, with company details, products and capabilities.
  - For procurements below certain value, this database is one of main sources of identification of potential suppliers.
  - Standard administrative and technical reference documentation.

**BSOs encourage industry to register their data on industrial/supplier databases including their capabilities and core strengths!**

**Industry encourage BSOs to implement their e-procurement/tendering and industrial portals!**



# BSBF 2020 The Call for Tender Package

The Call for Tender Package and its understanding is a key factor to prepare the tender and the proposal

- The Call for Tender Package (varies from different BSOs):
  - Introduction letter
  - Technical description
  - Financial and commercial conditions
  - Legal terms and conditions
- The Key Acceptance Factors & Declaration of Compliances Forms and Background IPRs.
- Some BSOs have Conditions to Tender to include:
  - Prime, core team and main subsystems could have restrictions in competition
  - geo constrains and preference clauses.
  - country eligibility criteria: Member State/ Participating States.
  - Special conditions and dedicated procurements for new/certain Member States.
- Some BSOs have special conditions
  - Contract award principia.
  - The evaluation criteria & weighting factors.
  - Prices: Target Price/ Ceiling Price and Price conditions.



# BSBF 2020 SME Special Measures

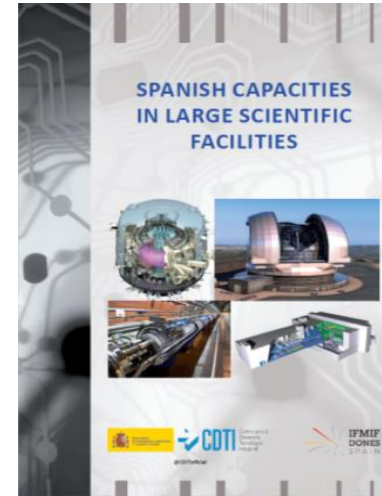
Promotion of SME participation is part of the EU directives to foster growth and innovation

- Some BSOs have measures in place to promote or facilitate SME participation.
- SME definition (EU definition).
- SME promotion participation in BSO is one of the main goal of ILOs.
- Motivation to promote SME participation (growth & innovation, technology, EU directives).
- Main complaints expressed by SME companies on their barriers and difficulties to participate: complexity, minimum size company,...
- Some BSOs have special preferential measures, or good practices for SME participation: description and cases for its application.
- Some BSOs has simplified contracts and tailored procurement procedures, description and its cases for application.
- Special SME promotion activities (web portals, events, info days, associations...).



**Coordination with National ILO and the National Big Science Policy is essential and in some cases the programmatic rules require a formal support or a shortlist identification**

- National ILO contact point for programmatic coordination (Role of ILOs and functions).
- The association of all ILOs of BSOs is PERIIA Network – Pan European Research Infrastructure ILOs Association
- For some BSOs it is needed:
  - Coordination and Industrial Policy if any.
  - The geo restrictions and procurement constrains information.
  - National support in certain programmes/experiments/facilities to develop the required technology readiness level.



# BSBF 2020 Company Strategic Plan

The company strategic plan for Big Science is a key tool for the future business development, defining: technologies, lines of activities, products, spin-off markets, etc

- Company main technologies and capabilities / to be included in the BSO and ILO technology tree and in the Industrial portal or technical dossiers & catalogs.
- Compendia of background experience and participation in past procurements and contracts.
- Company role in the Industrial chain (Prime, Subsystem integrator, Equipment Supplier, Component supplier, Operator, SME,...).
- Strategic alliances and partnerships.
- Knowledge of competitors.
- Accessible markets in Big Science and possible spin-off markets.
- Products & services, and product policy.
- Customer assessment and/or supplier assessment.
- Test and integration capabilities and facilities.
- SWOT analysis (Strengths, Weaknesses, Opportunities y Threats) (DAFO).



- Alignment and coordination with National ILO priorities and National Big Science Policy.



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# BSBF Conclusions: Intelligence & Knowledge are Key 2020 Factors

**Knowledge** of BSO key personnel, National ILO, Prime´s Teams, Early phases activities, BSO Technology needs, Technical descriptions, WBS and Product trees, Procurement schedule, Subsystem contractors and key suppliers, are essential!





**Deep preparation  
work, excellent  
proposal & good  
luck!**





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## 1.- Are there special preferential measures or/and simplified tailored procurement procedures to promote and facilitate SME participation in the activities procured of the Big Science Organizations?

Answers by BSOs:

Different cases in different BSOs:

- SME definition. EU definition.
- Motivation to promote SME participation (technology, EU directives, ...).
- Main complains expressed by SME companies on their barriers and difficulties to participate.
- Special preferential measures, description and cases for its application.
- Simplified tailored procurement procedures, description and its cases for application.
- Special promotion activities (web portals, events, infodays,... ).



## 2.- Membership and eligibility criteria of companies willing to participate in the activities procured of the Big Science Organizations?

Answers by BSOs:

Different cases in different BSOs:

- Member State concept definition.
- Member State preference.
- New Member State temporally preference.
- Special cases for acceptance of non Member States proposals or participation in core teams or suppliers list.



## 3.- What is the recommended contract awareness criteria for the different types of activities procured by the Big Science Organizations (Prime contracts/Subsystems/Equipment)?

Answers by BSOs:

Different cases in different BSOs:

- Best evaluation criteria and their balance (experience / excellence / impact / implementation / team / price / others). (Is price a criteria?).
- Lowest priced compliant bid principle.
- Best value for money principle.
- Contracts awarded on the basis depending on the size / complexity / risk / responsibility of the activity.



**4.- There are different approaches in BSOs regarding procurement publication: some BSOs public all, and on the other hand others make no publication at all. Please explain different cases and the rational behind for the different BSOs.**

Answers by BSOs:

Different cases in different BSOs:

- No publication at all.
- No publication of procurements below certain threshold level (€).
- Publication of procurements above certain threshold (€) (Intended Call for Tenders, Announcement of Opportunities, and Call for Tenders) to registered users, but not the awarded contracts (maybe only to ILOs).
- Publication of intended procurements, open procurements and results of the contracts awarded openly on the public web.
- Call for Tenders Publication only to some qualifies companies by the BSO.



**5.- There are different approaches in BSOs regarding potential tenders: some BSOs have no restrictions at all. Please explain different cases and the rational behind for the different BSOs.**

Answers by BSOs:

Different cases in different BSOs:

- Some open to all companies.
- Open to all companies registered in the Industry Database with some requirements (nationality, financial liability, etc.).
- Open only to a limited qualified companies by BSO or/and ILO.

## 6.- What is the treatment of the Industry Property Rights (IPRs) of the activities developed under the contracts and activities procured by the different BSOs? Please explain different cases and the rational behind for the different BSOs.

Answers by BSOs:

Different cases in different BSOs:

- Background IPR declared.
- Foreground IPR treatment for BSO use, and for use outside BSO activities.

**7.- How can a newcomer company know and be aware of the needs and detail procurement plans of the BSOs in terms of technologies and in terms of requirements of future procurements prior to the formal tendering period? Please explain different cases for the different BSOs.**

Answers by BSOs:

Different cases in different BSOs:

- Role of ILOs.
- Maintain your company profile updated on the BSO Industrial Database.
- Organizing company days at BSOs.
- Attendance of BSBF.
- Attendance of Prime Industry days on big procurements.
- Meeting BSO procurement teams.
- Meeting BSO technical teams.
- Follow closely BSO e-procurement and industrial web portals for Intended Call for Tenders, if exists.





## 8.- How can a newcomer company access the Big Science market if it has no references for this specific market?

Answers by BSOs:

Different cases in different BSOs:

- Participation in BSOs Technology Programmes proving their technology readiness and proficiency.
- Pre qualification or nomination processes imposed by some BSOs.

## 9.- Are there specific channels or recommendations to contact technical staff of the organizations?

Answers by BSOs:

Different cases in different BSOs:

- BSBF participation
- Bilateral contacts based upon direct request to BSO using a technical staff contact list, if available
- Big procurements/projects info days organized by BSOs and/or Primes
- Company info days in the BSOs in coordination with ILOs



**9 bis.- Which is the role of ILO connected to your organization and do you intend to increase their involvement in the definition of your industrial policy?**

Answers by BSOs:

Different cases in different BSOs:

- BSBF participation
- Some BSOs have ILOs, some haven't.
- ILOs role in each BSO may be different
- Company info days in the BSOs in coordination with ILOs



## 10.- Which are the grounds of the technology transfer policy in all these Big Science Organisations?

Answers by BSOs:

Different cases in different BSOs:



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**11.- Medium and long-term plans are important in order to guarantee the sustainability of the industrial interest in this market. Which is the Big Science Organisations policy regarding this?**

Answers by BSOs:



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**12.- Publication of awarding companies list and value of contracts in BSO procurement webs or industry portal webs. This is an information frequently demanded by industry. Which is the opinion of Big Science Organisations in this point?**

Answers by BSOs:



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