



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

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Legal Status

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).





The Main Actors

<u>Deep knowledge</u> 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!

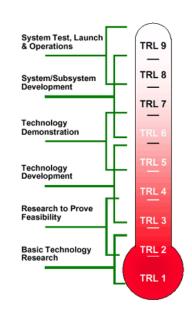


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Forthcoming information and preparation strategy

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.

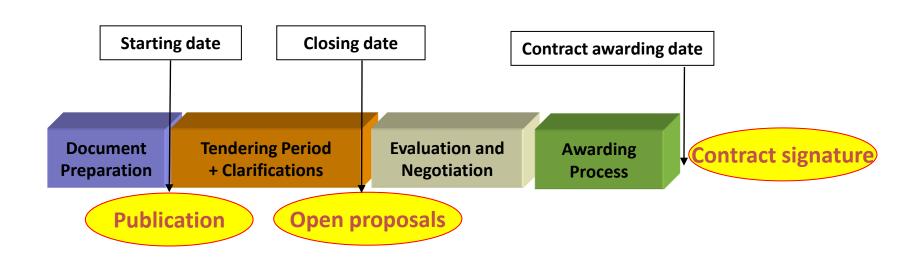






The Procurement Process

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





Procurement Details: Documentation and Rules

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, a request for quotation or a request for information.
- All BSOs have <u>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.</u>





Procurement Details: Documentation and Rules

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-priceothers) is depending on the procurement type.
- <u>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.</u>
- Debriefing with unsuccessful companies are possible depending on the procurement procedure and value.





e-Procurement/Tendering and Industrial Portal

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
- National ILOs are one of the main information channel among BSO and Industries
- List of Intended Call for Tenders, Open Call for Tenders and Closed Call for Tenders may be available.
- 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.

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

<u>Industry encourage BSOs</u> to implement their e-procurement/tendering and industrial portals!





The Call for Tender Package

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

- The Call for Tender Package (varies from different BSOs):
 - Introduction letter
 - o 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.













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; other haven't.
- 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...).





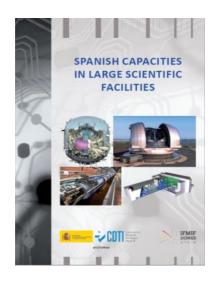




National ILO Coordination and Priorities

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

- The association of all ILOs of BSOs is PERIIA Network Pan European Research Infrastructure ILOs Association
- For some BSOs companies need to work closely with their ILOs for:
 - Coordination and Industrial Policy if any.
 - Provide geo restrictions and procurement constrains information.
 - National support in certain programmes/experiments/facilities to develop the required technology readiness level.









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 pass 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.







Big Science Conclusions: Intelligence & Knowledge are Key Forum 2022 Factors

<u>Knowledge</u> 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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