Italian National Agency for New Technologies,
Energy and Sustainable Economic Development

The Implementation Of The Project And Quality Management Systems In The EU Supply Activities

IAEA Technical Meeting
on Synergies in Technology Development
between Nuclear Fission and Fusion for Energy Production
June 6th-10th, 2022

Konstantina Voukelatou FSN-ING,
ENEA CR Brasimone,

Alexander Rydzy FSN-FUSEN,
ENEA CR Frascati

Luigi Di Pace
* presently @ IAEA

OUTLINE

- ITER Quality Assurance Requirements
- QMS Implementation in ENEA Fusion Department
- F4E Management & Technical Specification
- (PQMP) topics for a Supply Contract to ITER through F4E
- Project & Quality Management Specifications
- Document Management System (DMS)
- Time Schedule Management (PMS)
- Risk Management System (RMS)
- Nuclear Safety Management Requirements
- Subcontractor Management & Supply Chain
- Lessons Learned of P&Q Management Implementation

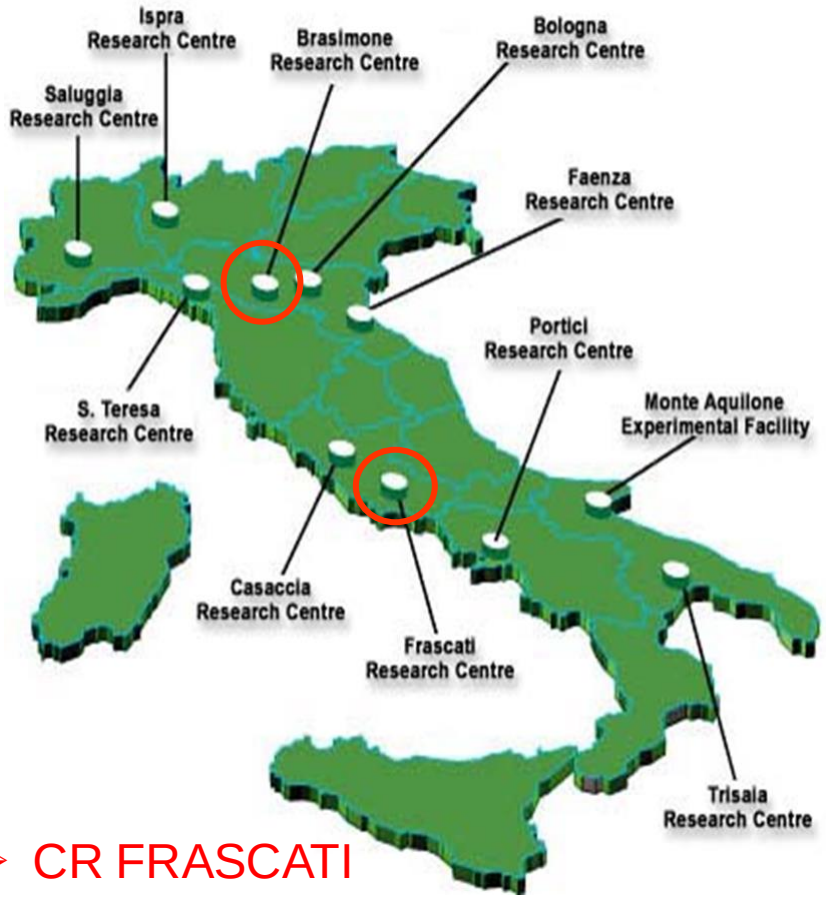
ENEA Mission and Research Centers

ENEA, the Italian National Agency for New Technologies, Energy and the Environment is a public undertaking operating in the fields of energy, the environment and new technologies to support competitiveness and sustainable development.

ENEA mission is:

- to promote and carry out basic and **applied research and innovation technology activities**, also by prototypes and product industrialization;
- to disseminate **and transfer technologies, encouraging their use in productive and social sectors**;
- to provide high-tech services, studies, tests and evaluations to both public and private bodies and enterprises.

Offices and Research Centres



- CR FRASCATI
- CR BRASIMONE

ITER Quality Assurance Requirements

- For the construction of ITER, a complex and FOAK fusion plant, the French Nuclear Safety Authority (ASN), requested ITER Organization (IO) and then to the seven Domestic Agencies (DAs) involved to adopt a QA Program.
- The EU DA Fusion for Energy (F4E) defined the Supplier Quality Requirements in the QA document F4E-QA-115 and in other accompanying QA docs.
- Quality Management is ensured in Project Management.
- As stated in IAEA TECDOC 1910 "*Quality is a key element of a Management System*".
- The different links of the IO & DAs roles are shown in the next slide.

ITER Quality Assurance Requirements

- **Arrêté du 7 février 2012 fixant les règles générales relatives aux installations nucléaires de base.**
  - *IAEA General Safety Requirements No. GSR Part 2 (2016) "Leadership and Management for Safety".*
  - *IAEA TECDOC 1910 (2020) "Quality Assurance and Quality Control in Nuclear Facilities and Activities".*
  - *IAEA Nuclear Energy Series (2020) "Management of Nuclear Power Plant Projects".*
- **ITER Quality Assurance Program**
  IDM No.: ITER_D_22K4QX v8.5 (April 2017).
- **EU DA Quality Assurance Program (QAP)**
  idm@F4E UID / VERSION 22MCBA / 2.2 (Aug. 2017).
- **F4E QA-115 «Supplier Project Management and Quality Requirements»**
  idm@F4E UID / VERSION 22F8BJ / 5.5 (October 2018).
  (see next slide 7).

Rationale for adopting PM & QM System in ENEA Fusion Department

Since the start of the ITER Project, ENEA Fusion Department has been involved in the technology transfer in the field of nuclear fusion from R&D scope to the execution of large projects together with industry.

Subsequently, it has been outlined the importance of working in Nuclear Fusion by a Quality Management System (QMS) and of applying the principles of the Project Management.

On the other side, the possibility to get large contracts directly from ITER or F4E was linked to the implementation of a compliant PM & QM System with the evolution of the ITER project over the years.

QMS Implementation in ENEA Fusion Department

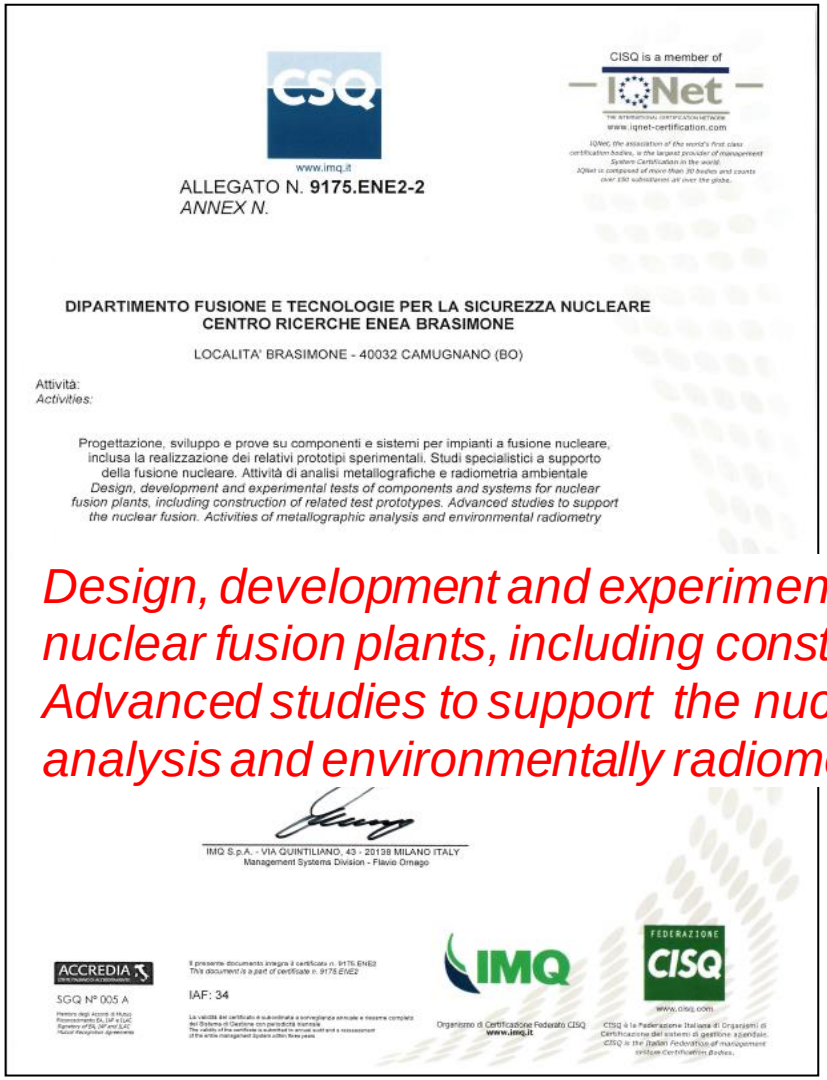
1. When?: decision taken in 2009.
2. How?: through ISO 9001 with the certification got in 2011.
3. Why?: voluntary strategic decision taken to cope with:
   - request of supplies (design and constr.) from ITER / F4E
   - existence of a competitive “market”: growing number of institutions/labs/industries involved in ITER supplies to compete and interact with (competitors or partners).
   - high complexity of the activities.
   - managing external financing / orders.

Until then, the QA and PM requirements required by F4E / ITER were managed by dedicated Quality Plans.

Supplies for ITER
Project Management or Quality Management?

1. Supplies for ITER (through F4E or not) to be carried out, at the very beginning, under the umbrella of Quality Management System requirements which included already the basic principles of Project Management.
2. A kind of misunderstanding between PM and QM clarified with the time.
3. Some EU R&D Organizations decided to comply with QMS requirements defined by ITER or F4E.
4. ENEA Fusion Department made, instead, the challenging choice to implement its own QMS according to the ISO 9001 Standard.
5. Quite challenging for a Governmental Research body, and the nature of the activities (ITER construction), novelty, mostly based on R&D to be industrialized.

Quality Management System
ISO 9001:2015 Certification



CISQ is a member of IQNet
www.iqnet-certification.com

www.imq.it

ALLEGATO N. **9175.ENE2-2**
ANNEX N.

DIPARTIMENTO FUSIONE E TECNOLOGIE PER LA SICUREZZA NUCLEARE
CENTRO RICERCHE ENEA BRASIMONE

LOCALITA' BRASIMONE - 40032 CAMUGNANO (BO)

Attività:
Activities:

Progettazione, sviluppo e prove su componenti e sistemi per impianti a fusione nucleare, inclusa la realizzazione dei relativi prototipi sperimentali. Studi specialistici a supporto della fusione nucleare. Attività di analisi metallografiche e radiometria ambientale
Design, development and experimental tests of components and systems for nuclear fusion plants, including construction of related test prototypes. Advanced studies to support the nuclear fusion. Activities of metallographic analysis and environmental radiometry

IMQ S.p.A. - VIA QUINTILIANO, 43 - 20138 MILANO ITALY
Management Systems Division - Flavio Ornago

ACCREDIA
SGQ N° 005 A

IAF: 34

IMQ
Organismo di Certificazione Federato CISQ
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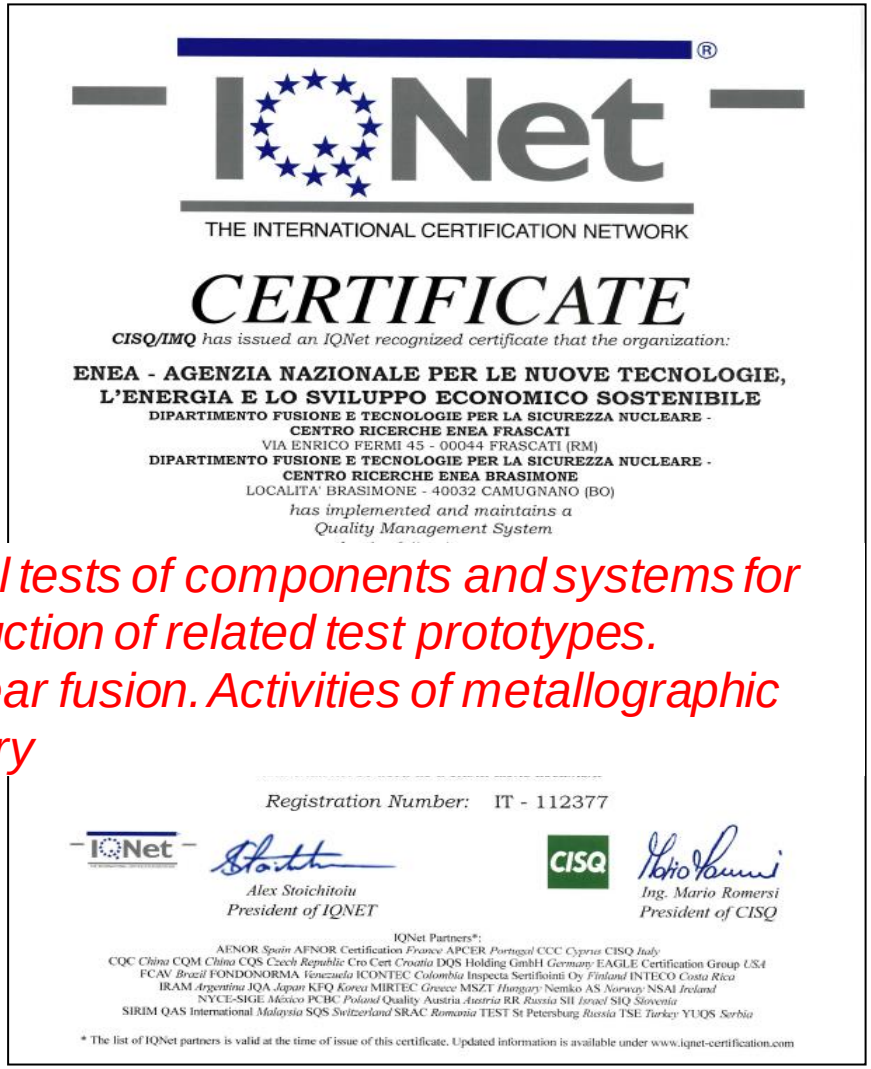
FEDERAZIONE CISQ
www.cisq.com



IQNet®
THE INTERNATIONAL CERTIFICATION NETWORK

CERTIFICATE

***CISQ/IMQ** has issued an IQNet recognized certificate that the organization:*

ENEA - AGENZIA NAZIONALE PER LE NUOVE TECNOLOGIE, L'ENERGIA E LO SVILUPPO ECONOMICO SOSTENIBILE
DIPARTIMENTO FUSIONE E TECNOLOGIE PER LA SICUREZZA NUCLEARE - CENTRO RICERCHE ENEA FRASCATI
VIA ENRICO FERMI 45 - 00044 FRASCATI (RM)
DIPARTIMENTO FUSIONE E TECNOLOGIE PER LA SICUREZZA NUCLEARE - CENTRO RICERCHE ENEA BRASIMONE
LOCALITA' BRASIMONE - 40032 CAMUGNANO (BO)
has implemented and maintains a Quality Management System

Design, development and experimental tests of components and systems for nuclear fusion plants, including construction of related test prototypes. Advanced studies to support the nuclear fusion. Activities of metallographic analysis and environmentally radiometry

Registration Number: IT - 112377

IQNet
Alex Stoichitoiu
President of IQNET

CISQ
Ing. Mario Romersi
President of CISQ

IQNet Partners*:
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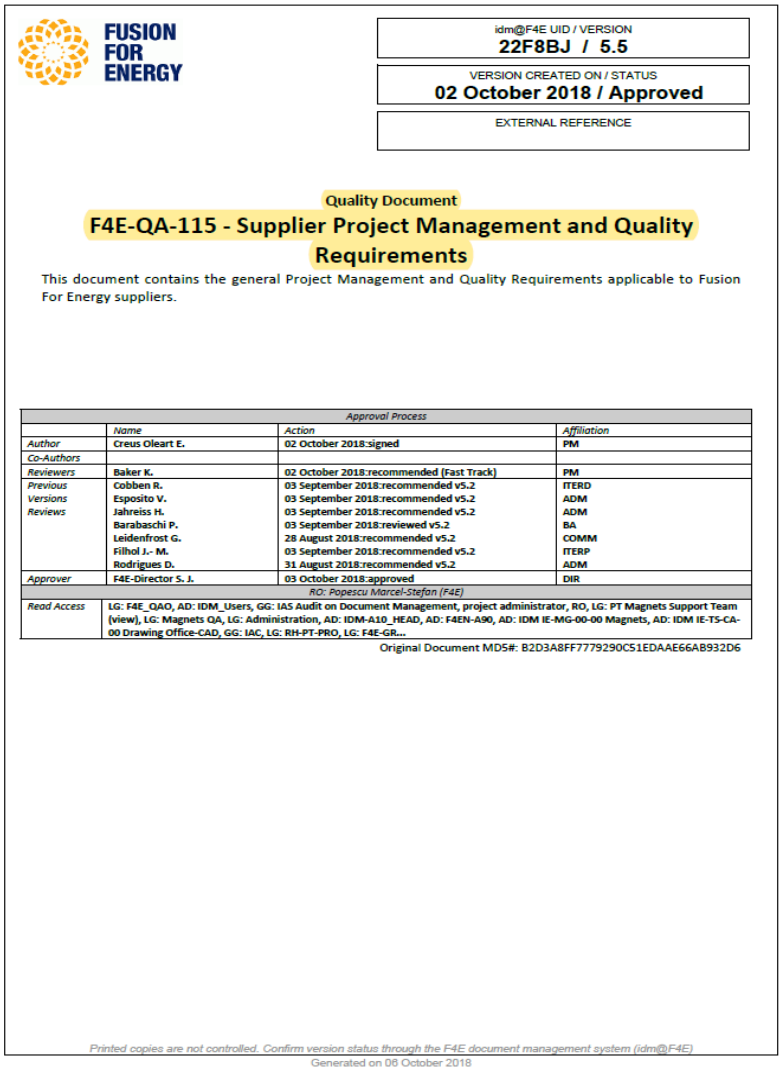
* The list of IQNet partners is valid at the time of issue of this certificate. Updated information is available under www.iqnet-certification.com

F4E Supplier Project Management and Quality Requirements (QA-115)



FUSION FOR ENERGY

idm@F4E UID / VERSION
22F8BJ / 5.5

VERSION CREATED ON / STATUS
02 October 2018 / Approved

EXTERNAL REFERENCE

Quality Document

F4E-QA-115 - Supplier Project Management and Quality Requirements

This document contains the general Project Management and Quality Requirements applicable to Fusion For Energy suppliers.

Approval Process			
	Name	*Action*	*Affiliation*
Author	Creus Oleart E.	02 October 2018:signed	PM
Co-Authors			
Reviewers	Baker K.	02 October 2018:recommended (Fast Track)	PM
Previous Versions Reviews	Cobben R.	03 September 2018:recommended v5.2	ITERD
	Esposito V.	03 September 2018:recommended v5.2	ADM
	Jahreiss H.	03 September 2018:recommended v5.2	ADM
	Barabaschi P.	03 September 2018:reviewed v5.2	BA
	Leidenfrost G.	28 August 2018:recommended v5.2	COMM
	Filhol J.- M.	03 September 2018:recommended v5.2	ITERP
	Rodrigues D.	31 August 2018:recommended v5.2	ADM
Approver	F4E-Director S. J.	03 October 2018:approved	DIR
RO: Popescu Marcel-Stefan (F4E)			
Read Access	LG: F4E_QAO, AD: IDM_Users, GG: IAS Audit on Document Management, project administrator, RO, LG: PT Magnets Support Team (view), LG: Magnets QA, LG: Administration, AD: IDM-A10_HEAD, AD: F4EN-A90, AD: IDM IE-MG-00-00 Magnets, AD: IDM IE-TS-CA-00 Drawing Office-CAD, GG: IAC, LG: RH-PT-PRO, LG: F4E-GR...		

Original Document MD5#: B2D3A8FF7779290C51EDAAE66AB932D6

Printed copies are not controlled. Confirm version status through the F4E document management system (idm@F4E)

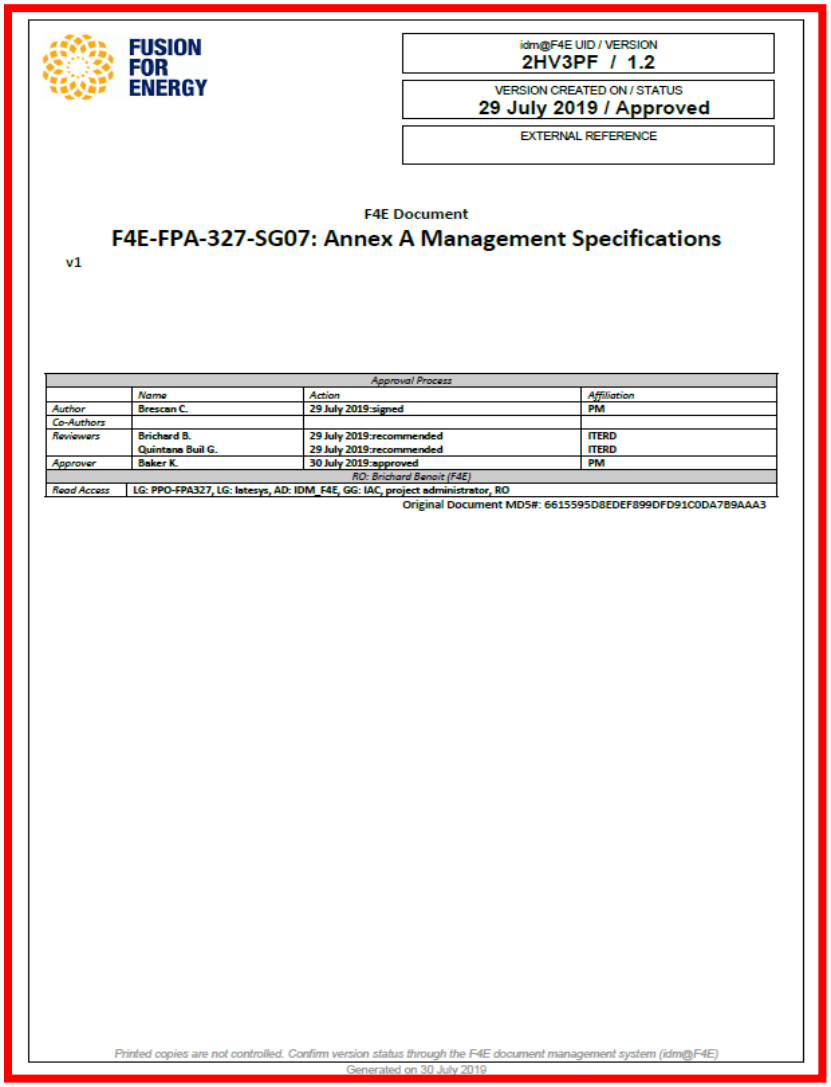
Generated on 08 October 2018

Applicable Documents

The following F4E Applicable documents and templates can be downloaded the following link: External Link

AD 01. F4E-QA-113 - Supplier Nuclear Safety Requirements
AD 02. F4E-QA-114 - Instructions for Contractors Performing Design Analysis
AD 03. F4E-QA-117 - F4E Dimensional Metrology Handbook
AD 04. F4E-QA-119 - Requirements Management and Verification (RMV)
AD 05. F4E-QA-135 - Supplier CE Marking Requirements
AD 06. F4E CAD Manual
AD 07. F4E-QA-111 - Supplier Risk and Opportunity Management Instruction
AD 08. Deviations and Contract Modifications Portal (DACC) – Rules of Use
AD 09. F4E-Supplier Documentation Exchange
AD 10. Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Regulation (EC) No 1907/2006
AD 11. Restriction of Hazardous Substances Directive 2002/95/EC, (RoHS 1)
AD 12. Configuration and Documentation List Template
AD 13. Management and Manufacturing and Inspection Plan Template
AD 14. Declared Components List – DCL Template
AD 15. Declared Materials List - DML Template
AD 16. Declared Mechanical Parts List - DMPL Template
AD 17. Declared Processes List - DPL Template
AD 18. FMEA / FMECA Template
AD 19. P-FMEA / P-FMECA Template
AD 20. Control Point Notification Template
AD 21. Release Note / Certificate of Conformance Template
AD 22. Requirements Propagation Matrix Template
AD 23. Risk Register Template
AD 24. Supply Chain Acceptance Register Template
AD 25. F4E-QAP-ITER - EUDA QA Programme for ITER Project

F4E Management & Technical Specification



FUSION FOR ENERGY

idm@F4E UID / VERSION
2HV3PF / 1.2

VERSION CREATED ON / STATUS
29 July 2019 / Approved

EXTERNAL REFERENCE

F4E Document

F4E-FPA-327-SG07: Annex A Management Specifications

v1

Approval Process			
	Name	Action	Affiliation
Author	Brescan C.	29 July 2019:signed	PM
Co-Authors			
Reviewers	Brichard B. Quintana Buil G.	29 July 2019:recommended 29 July 2019:recommended	ITERD ITERD
Approver	Baker K.	30 July 2019:approved	PM
RO: Brichard Benoit (F4E)			
Read Access	LG: PPO-FPA327, LG: latesys, AD: IDM_F4E, GG: IAC, project administrator, RO		

Original Document MD5#: 6615595D8EDEF899DFD91C0DA7B9AAA3

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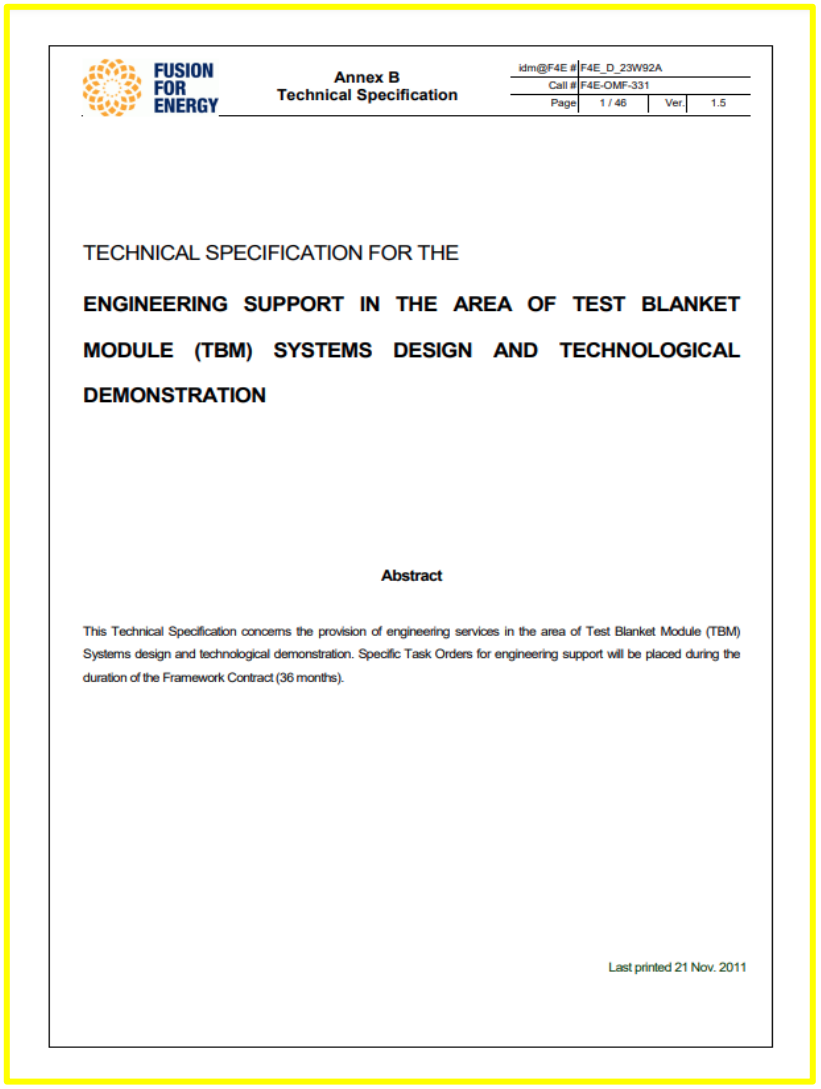


FUSION FOR ENERGY

Annex B
Technical Specification

idm@F4E # F4E_D_23W92A
Call # F4E-OMF-331
Page 1 / 46 Ver. 1.5

TECHNICAL SPECIFICATION FOR THE

ENGINEERING SUPPORT IN THE AREA OF TEST BLANKET MODULE (TBM) SYSTEMS DESIGN AND TECHNOLOGICAL DEMONSTRATION

Abstract

This Technical Specification concerns the provision of engineering services in the area of Test Blanket Module (TBM) Systems design and technological demonstration. Specific Task Orders for engineering support will be placed during the duration of the Framework Contract (36 months).

Last printed 21 Nov. 2011

F4E Management & Technical Specification

Table of Contents of Annex A Management Specs

	Document References		Version	Date	Page
	DOC ID	RNC-FPA-327-SG07-PQMP-001	v1.0	16-Mar-20	1 of 83
	ENEA DMS	QP-FPA-327-SG07-01	R03		
	TITLE	PROJECT AND QUALITY MA[illegible]T PLAN OF SPECIFIC GRANT FPA-327-SG07			

TITLE	PROJECT AND QUALI[illegible]NAGEMENT PLAN OF SPECIFIC GRANT FPA-327-SG07
CLASSIFICATION: D	

This document is the **Project and Qu[illegible]nagement Plan (PQMP) for the Specific Grant SG07 of Framework Contract FPA-327** developed by E[illegible]greement with Partners of the RNC & RGRS Consortium. It specifies the management provisions im[illegible]ted by this RNC & RGRS Consortium coordinated by ENEA, to comply with F4E's requirements ac[illegible]to the management specifications of the Specific Grant 07 relative to the Framework Contract FP[illegible]**uality Class 1 and Safety Relevant).**

This Project and Qual[illegible]agement Plan is an integral part of the ENEA-coordinated RNC & RGRS Consortium 's tender.

This document[illegible]t be neither copied nor distributed without right permission from ENEA FSN

EN[illegible]roval	Name	Signature	Date	Notes
[illegible]uthor	C. Monti (Quality Representative) (ENEA-FSN-FUSTEC-DIE)		13-03-2020	
Reviewers	D. Marocco (Supplier Technical Responsible Person) (ENEA-FSN-FUSTEC-DIE)		16-03-2020	
Approver	B. Esposito (Deputy Technical Responsible Person) (Head of Laboratory of Diagnostics and Electrical Engineering ENEA-FSN-FUSTEC-DIE)		16-03-2020	

F4E Approval	Name	Signature	Date	Notes
Technical Project Officer (F4E_TPO)	Benoit Brichard			[Approval through applicable processes on idm@F4E; evidence of F4E's approval ("Acceptance Note") to be sent to Coordinator (ENEA)
Quality Assurance Officer (F4E_QAO)	Constantin Brescan			

Project & Quality Management Plan (PQMP) topics for a Supply Contract to ITER through F4E

- Documentation and Information Management
- Configuration Management
- **Project Management**
  - Objectives and Activities → Project WBS
  - Organizational Structure (including Sucontractors) and Responsibilities
  - Submission of contractual documents
  - Time Schedule Management
  - Control Plan (with Control Points: W, HP/ATPP, NP/W, R,)
  - Risk and Opportunity Management
  - Project Meetings and Reports
- **Quality Management**
  - Quality Plan
  - Control Plan
  - Nonconformities and Deviation management
  - QA Requirements for Design, Manufacturing and Assembly
  - QA Requirements for Acceptance and Delivery

PROJECT's CONTROL POINTS:
Hold Point (HP/ATPP): Identifies an operation/activity after which works cannot proceed without a formal clearance by F4E by means of an Authorization to Proceed Point (ATPP).
Notification Point (NP/W): Identifies an operation/activity that must be notified in advance to F4E for potential witnessing (W).
Review (R): Identifies a document or report that must be reviewed and accepted.

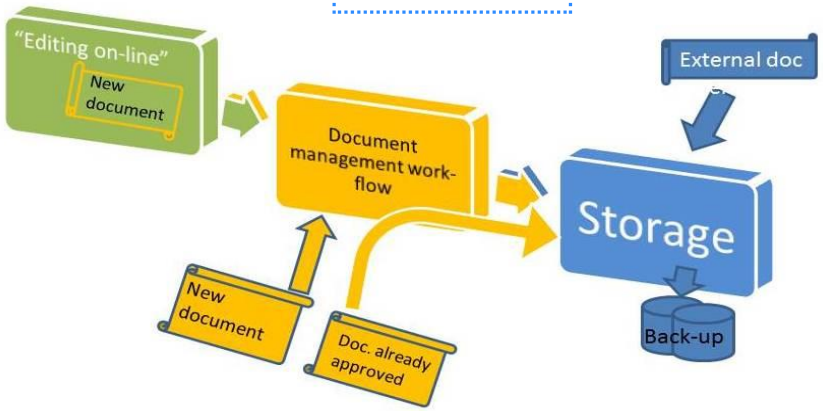
ENEA Document Management System (DMS)
Home-Made

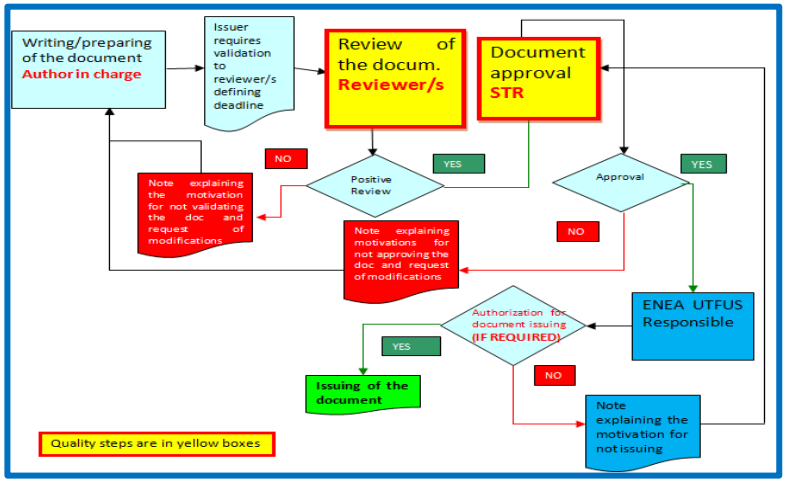
DANTE

Menu
DOCUMENTS
CONTRACTS
USERS
CALIBRATIONS
LOG OUT (luigi.dipace)

- DOCUMENTS
- CONTRACTS
- USERS
- CALIBRATIONS
- LOG OUT (luigi.dipace)

ENEA-FSN WBDMS





Developed internally(*) compliant to ISO 9001 requirements **§ 7.5 Documented information**

Pro and cons of this choice:

- Precisely suited for own needs
- Modifications quickly implemented
- It also manage the measuring equipment
- No access to other software communities (SharePoint™, Alfresco™, IDM@ITER IDM@EUROfusion)
- Strict dependence on internal IT experts

http://www.dante.enea.it/
Accessible outside the VPN

(*) written in PHP, accessible by Apache Webserver, and interfaced to MySQL DBMS

Project Management Software used @ENEA
Primavera P6 EPPM™

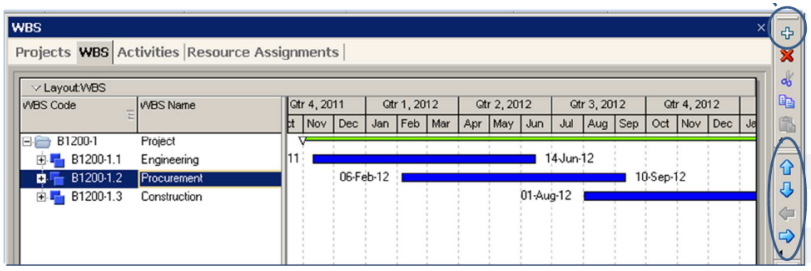
- For planning and scheduling ITER supply projects (e.g. WBS, Time Schedule, etc.), use of Oracle's Primavera P6 EPPM™, mandatorily imposed by F4E, compliance with ITER Organization Specification.
- 250 Primavera Projects managed @ ITER with 350,000 project relationships, 3 days required to integrate all projects together by scheduling.
- Each Primavera Project file for a supply contract, contains all the related info. CMS approach adopted → the files are stored in a dedicated Primavera server, (accessible by client or by web server tool).
- The updated Time Schedule for each specific supply contract is requested by F4E to be updated and issued usually every month.
- Need @ ENEA for training a group of planners acting in the supply contracts.

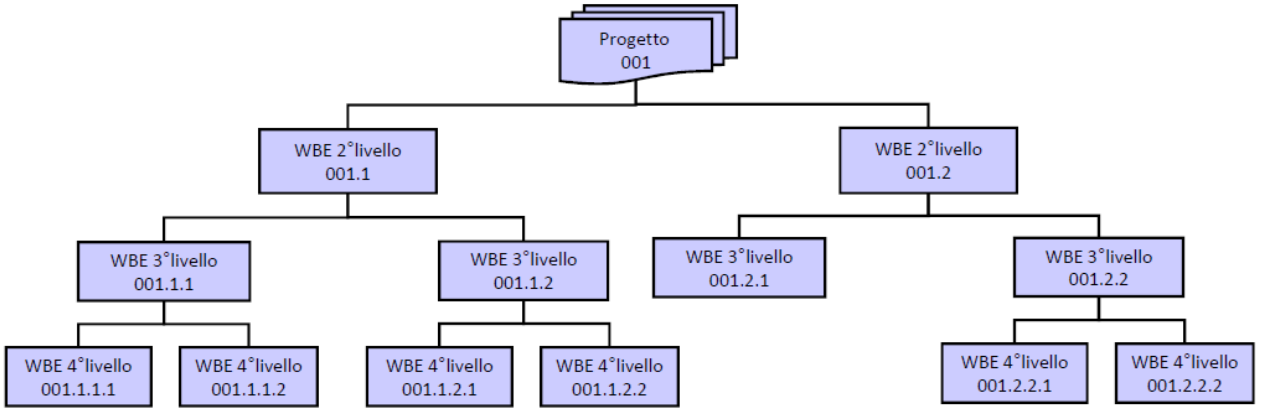
Project & Quality Management Specifications

Primavera P6™ Work Breakdown Structure

WBS-OMF331 L2 T4-01 Rev. 0	21-Dec-15 Rev. 0 *IDM #: F4E_D_24GCAP*

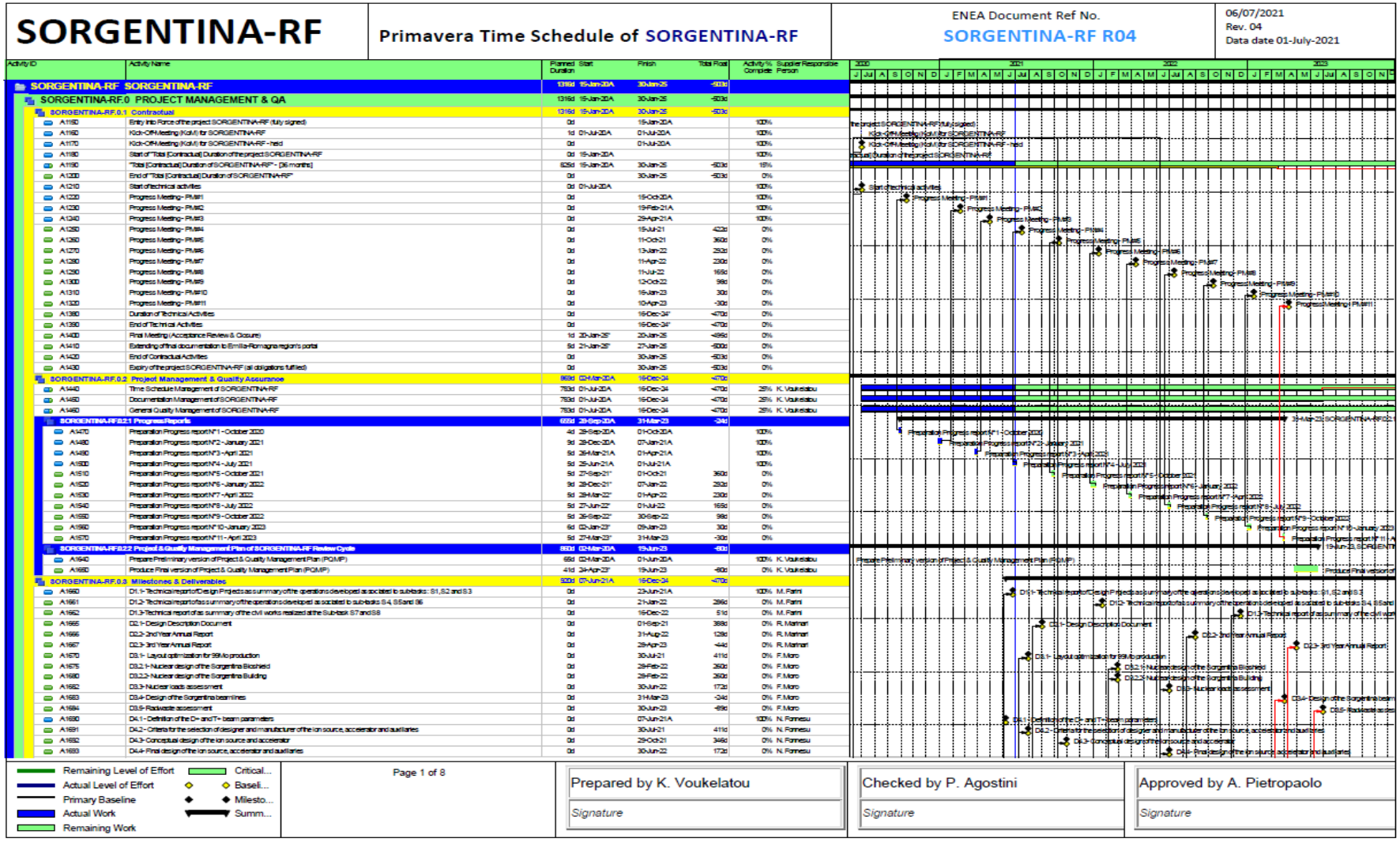
WBS Code	WBS Name	Total Activities	BL Project Duration
OMF331 L2 T4	TO#4 OMF 331 L2 04/01/2016	54	140.8d
OMF331 L2 T4.0	TASK-0 [Project Management & QA]	39	140.8d
OMF331 L2 T4.0.C	Contractual	17	136.5d
OMF331 L2 T4.0.PM	Project Management & QA	17	118.3d
OMF331 L2 T4.0.PM.R	Progress Reports	4	73.6d
OMF331 L2 T4.0.PM.QP	Provisional & Execution Quality Plan - F4E Review Cycle	8	35.2d
OMF331 L2 T4.0.D	Milestones and Deliverables	5	97.1d
OMF331 L2 T4.1	Sub task-1- TBM SYSTEMS INTERFACES DESCRIPTION	9	77.9d
OMF331 L2 T4.1.A	Collection of the most updated interfaces sheet	4	31.9d
OMF331 L2 T4.1.B	Analysis of the interfaces sheet content and description of interfaces	5	77.9d
OMF331 L2 T4.2	Sub task-2- PRELIMINARY INTERFACE DESIGN IMPACT ASSESSMENT	6	55.6d
OMF331 L2 T4.2.A	Assessment of the consistency and design impact analysis on the TBS sub-system	6	55.6d





Project & Quality Management Specifications

Primavera P6™ Time Schedule



Project & Quality Management Specification
Configuration & Documentation List

ENEA	Document Ref. No. (ENEA-DMS)	Rev.	Date	Page
	Configuration and Documentation List of SORGENTINA-RF CDL- SORGENTINA-RF-04	1.0	05/07/2021	1 of 11

Configuration and Documentation List of SORGENTINA-RF

ENEA DMS Document Code:*	CDL- SORGENTINA-RF-01	Coordinator:		CTS ref/ version :		Supplier Doc. ref/version:	
Contract Title:	CDL- SORGENTINA-RF	Project #:	SORGENTINA-RF-03	PA/ITA Reference:			

Supplier			ENEA	Notes & acronyms
Prepared	Reviewed	Approved	Acceptance	
K. Voukelatou 29/06/2021 Name, Sign & Date	P. Agostini 01/07/2021 Name, Sign & Date	A. Pietropaolo 05/07/2021 Name, Sign & Date	Name, Sign & Date	• Type: Annex 2 for types and acronyms • Deliverable#: According to Technical Specification • Cat: Category: DU▲, IP♦ (if applicable) • Supplier ID: Supplier code • Expected Milestone • Configuration: ▪ As-Design: Is an as-design document? [y/n] ▪ As-Built: Is an as-built document? [y/n] ▪ NCR/Dev: Identify NCRs or Deviations applicable to this deliverable • Proposal: Acceptance (ACC) or Information (INF) • Status: Preliminary (PRE), Submitted (SUB), Accepted (ACC)

Document						Supplier Internal Flow	Configuration			Proposal	Status	Portal @DANTE
Document Title	Code*	DDL ref.	Cat	Supplier ID & version	Expected Milestone & Phase Gate	Author Reviewer Approver	As-Design	As-Built	NCR / Dev	ACC / INF	PRE/SUB/ ACC	ref & version
Preliminary Project & Quality Management Plan (PQMP) for SORGENTINA-RF	DL		NA	PQMP- SORGENTINA-RF -01	15-Jun-2019	K. Voukelatou P. Agostini A. Pietropaolo	N	N		ACC	APP	PQMP-SORGENTINA-RF-01 v1.0 *The updated version v2.0 of the Preliminary PQMP will be completed in February 2021 after implementing the latest updates related to the technical part of Task 2.*
Provisional Project & Quality Management Plan (PQMP) for SORGENTINA-RF	DL		NA	PQMP- SORGENTINA-RF -02	15-Sep-2021	K. Voukelatou P. Agostini A. Pietropaolo	N	N		ACC		
Final Project & Quality Management Plan (PQMP) for SORGENTINA-RF	DL		NA	PQMP- SORGENTINA-RF -03	15-JUN-2022	K. Voukelatou P. Agostini A. Pietropaolo	N	N		ACC		

Project & Quality Management Specification

Supplier Risk Plan

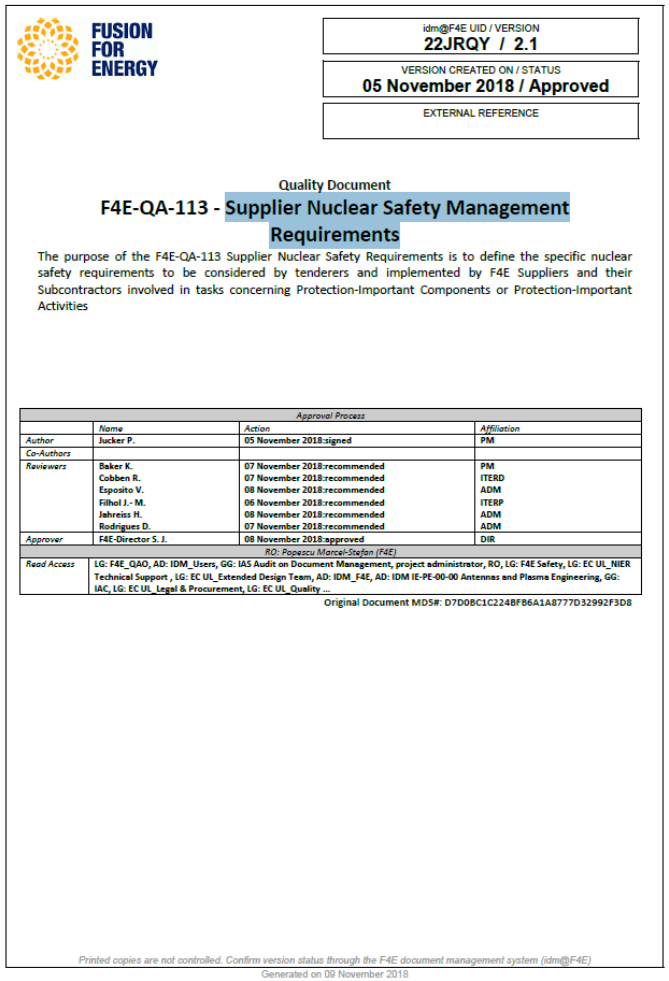
SUPPLIER RISK PLAN

idm@F4E ref: F4E_D_256B9T
Supplier DMS Doc. # RP-F4E FPA327 05-01
Rev 0

Contract/Grant ID:	FPA 327 SG05
TITLE:	Preliminary evaluation of risk related to exploitement of FPA 327-SG05
SUPPLIER PM:	Marco Riva
F4E TRO/TO:	Benoit Brichard

Identification										Rating Pre-Mitigation						Disposition					Rating Post-Mitigation					
Risk ID	Threat/ Opportunity	Date	Risk Owner	RBS	Status	Risk Label ("As a result of...")	Risk Label ("There is a risk that...")	Risk Label ("Resulting in...")	Start date	Finish date	Likelihood	Impact TECH	Impact COST	Impact SCHED	Level		Treatment	Handling Strategy / Actions	Initiation Date for each action	Completion Date for each action	Status	Likelihood	Impact TECH	Impact COST	Impact SCHED	Level	
1	Threat		Consortium	4,3 Quality	Open	Slow or inefficient process of	Activities slow	Time delay			Unlikely (2)	Negligible (1)	Negligible (1)	Low (2)	8	LOW	Reducing	QA actions, Weekly				Not Credible (1)	Negligible (1)	Negligible (1)	Low (2)	8	
2	Threat		F4E	4,3 Quality	Open	Administrative delay in F4E	Activities slow down	Time delay			Likely (4)	Negligible (1)	Negligible (1)	Medium (3)	36	MEDIUM	Reducing	Press F4E, work on				Not likely (3)	Negligible (1)	Negligible (1)	Low (2)	8	
3	Threat		Consortium/ F4E/IO	4,3 Quality	Open	Slow or inefficient process of	Difficulties in	Time delay, Technical			Likely (4)	Medium (3)	Low (2)	High (4)	64	HIGH	Reducing	Periodic progress				Not likely (3)	Medium (3)	Low (2)	Medium (3)	8	
4	Threat		Consortium	4,3 Quality	Open	Slow or inefficient process of	More time is needed to	Time delay, Technical			Likely (4)	Medium (3)	Low (2)	Medium (3)	36	MEDIUM	Reducing	Strict schedule of				Not likely (3)	Low (2)	Low (2)	Low (2)	8	
5	Threat		Consortium	4,3 Quality	Open	Delay in the reception of input data from	Activities slow down	Time delay			Not likely (3)	Negligible (1)	Negligible (1)	Low (2)	12	LOW	Reducing	QA Control (Tracking				Unlikely (2)	Negligible (1)	Negligible (1)	Low (2)	8	
6	Threat		Consortium	4,3 Quality	Open	Wrong milestone sequence	Difficulty in achieving	Time delay, minor			Unlikely (2)	Negligible (1)	Low (2)	Low (2)	8	LOW	Reducing	An alternative				Not Credible (1)	Negligible (1)	Negligible (1)	Negligible (1)	8	
7	Threat		Consortium/ F4E	4,3 Quality	Open	Inaccurate cost estimates and	Renegotiation of	Time delay			Unlikely (2)	Low (2)	Medium (3)	Low (2)	18	LOW	Reducing	Frequent verification				Unlikely (2)	Low (2)	Low (2)	Low (2)	8	
8	Threat		Consortium	5,2 Contractor	Open	Loss or unavailability of key staff	Technical difficulties,	Time delay, Minor			Likely (4)	Medium (3)	Negligible (1)	Medium (3)	36	MEDIUM	Reducing	Redundancy of				Not likely (3)	Low (2)	Negligible (1)	Low (2)	8	
9	Threat		Consortium	5,2 Contractor	Open	Team members overload or	Activity slow down	Time delay			Not likely (3)	Negligible (1)	Low (2)	Medium (3)	27	MEDIUM	Reducing	Prioritization of sub-				Unlikely (2)	Negligible (1)	Low (2)	Low (2)	8	
10	Opportunity		Consortium	6,1 Technology	Proposed	A technology innovation changes	Simpler or cheaper	Time delay			Unlikely (2)	High (4)	Low (2)	Low (2)	32	MEDIUM	Exploit									8	
11	Threat		Consortium	5.1 Supply Chain	Open	Delay of KoM	Administrative orders rework	Time Delay			Likely (4)	Low (2)	Low (2)	Medium (3)	36	MEDIUM	Reducing	Prioritize order issuing				Not likely (3)	Low (2)	Low (2)	Low (2)	12	
12	Threat		Consortium/ F4E	5.1 Supply Chain	Open	Delay of KoM	Prices are updated	Cost increase			Unlikely (2)	Negligible (1)	Medium (3)	Low (2)	18	LOW	Reducing	Prioritize order issuing				Unlikely (2)	Negligible (1)	Low (2)	Low (2)	8	
13	Threat		Consortium	10.1 Testing	Open	Functional check	Some device is not working as expected or declared	Time delay for replacement or finding equivalent			Not likely (3)	Low (2)	Low (2)	Medium (3)	27	MEDIUM	Accept	identify actions to speed up the replacement of components				Unlikely (2)	Low (2)	Low (2)	Low (2)	8	
14			Consortium	11.1 Free	Open	Environmental impact	Some	Time delay			Not likely	Low (2)	Medium (3)	Low (2)			Accept	reduce the				Unlikely (2)	Low (2)	Medium (3)	Low (2)		

Supplier Nuclear Safety Management Requirements



FUSION FOR ENERGY

idm@F4E UID / VERSION
22JRQY / 2.1

VERSION CREATED ON / STATUS
05 November 2018 / Approved

EXTERNAL REFERENCE

Quality Document

F4E-QA-113 - Supplier Nuclear Safety Management Requirements

The purpose of the F4E-QA-113 Supplier Nuclear Safety Requirements is to define the specific nuclear safety requirements to be considered by tenderers and implemented by F4E Suppliers and their Subcontractors involved in tasks concerning Protection-Important Components or Protection-Important Activities

Approval Process			
	Name	Action	Affiliation
Author	Jucker P.	05 November 2018:signed	PM
Co-Authors			
Reviewers	Baker K.	07 November 2018:recommended	PM
	Cobben R.	07 November 2018:recommended	ITERD
	Esposito V.	08 November 2018:recommended	ADM
	Filhol J.-M.	06 November 2018:recommended	ITERP
	Jahreiss H.	08 November 2018:recommended	ADM
	Rodrigues D.	07 November 2018:recommended	ADM
Approver	F4E-Director S. J.	08 November 2018:approved	DIR
RO: Popescu Marcel-Stefan (F4E)			
Read Access	LG: F4E_QAO, AD: IDM_Users, GG: IAS Audit on Document Management, project administrator, RO, LG: F4E Safety, LG: EC UL_NIER Technical Support , LG: EC UL_Extended Design Team, AD: IDM_F4E, AD: IDM IE-PE-00-00 Antennas and Plasma Engineering, GG: IAC, LG: EC UL_Legal & Procurement, LG: EC UL_Quality ...		

Original Document MD5#: D7D08C1C224BF86A1AB777D32992F3D8

Printed copies are not controlled. Confirm version status through the F4E document management system (idm@F4E)

Generated on 09 November 2018

This QA document is applied to all External Interveners (defined in [*]) in the F4E Supply Chain (Suppliers and Subcontractors), in charge of Contracts dealing with Protection Important Components (PICs) or Protection Important Activities (PIAs).

PICs defined as specific category of SSCs in art.1.3 of [*]

Activities classified as PIA in art.1.3 of [*] (they cover design, prototype and/or qualification, fabrication, installation, testing and commissioning, maintenance, handling, transportation, storage, … during the different phases of the project).

Great importance is given to the propagation of all the requirements of QA-113 to the entire Supply Chain

SSCs = Structures, Systems and Components

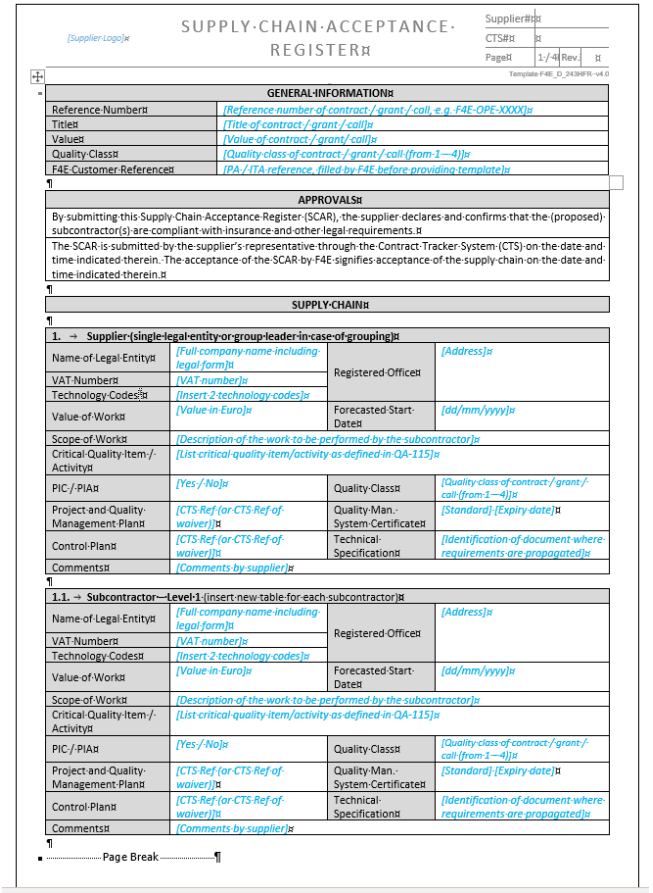
[*] Arrêté du 7 février 2012:
external interveners any natural or legal person other the operator and employees who provide service and goodsWho participate in PIC or PIA

- Who participate in an action in application of the Arrêté du 7 février 2012

Suppliers, Subcontractors, service providers, experimenters and users

Subcontractor Management & Supply Chain

Document be submitted to F4E for approval is the Supply Chain Acceptance Register, then define their involvement in the Subcontracting Schedule and eventually assess its performance in the Subcontractor Assessment.



SUPPLY·CHAIN·ACCEPTANCE·REGISTER¤

GENERAL·INFORMATION¤	
Reference·Number¤	*[Reference·number·of·contract·/·grant·/·call, e.g.·F4E-OPE-XXXX]¤*
Title¤	*[Title·of·contract·/·grant·/·call]¤*
Value¤	*[Value·of·contract·/·grant/·call]¤*
Quality·Class¤	*[Quality·class·of·contract·/·grant·/·call·(from·1·—·4)]¤*
F4E·Customer·Reference¤	*[PA·/·ITA·reference, filled·by·F4E·before·providing·template]¤*

APPROVALS¤

By·submitting·this·Supply·Chain·Acceptance·Register·(SCAR), the·supplier·declares·and·confirms·that·the·(proposed)·subcontractor(s)·are·compliant·with·insurance·and·other·legal·requirements.¤

The·SCAR·is·submitted·by·the·supplier's·representative·through·the·Contract·Tracker·System·(CTS)·on·the·date·and·time·indicated·therein. The·acceptance·of·the·SCAR·by·F4E·signifies·acceptance·of·the·supply·chain·on·the·date·and·time·indicated·therein.¤

SUPPLY·CHAIN¤

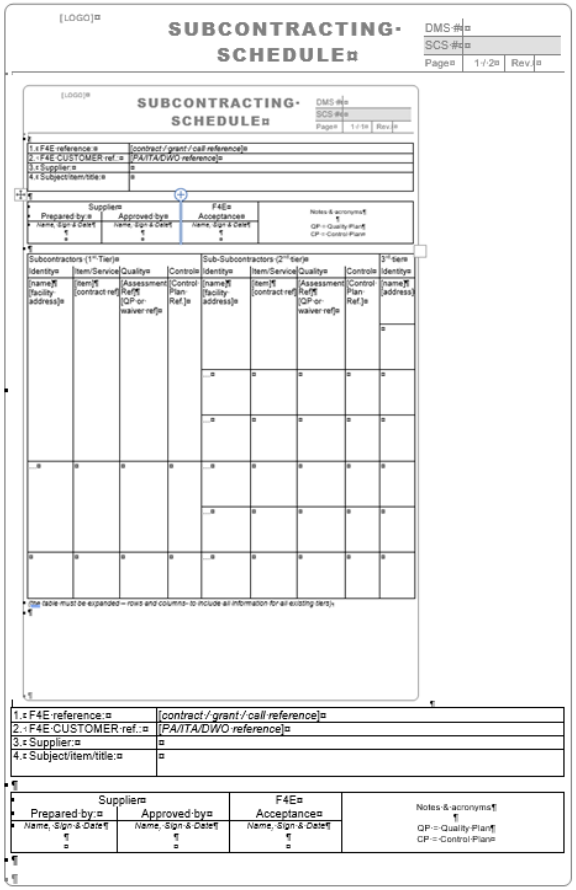
1. → Supplier·(single·legal·entity·or·group·leader·in·case·of·grouping)¤

Name·of·Legal·Entity¤	*[Full·company·name·including·legal·form]¤*	Registered·Office¤	*[Address]¤*
VAT·Number¤	*[VAT·number]¤*		
Technology·Codes¤	*[Insert·2·technology·codes]¤*		
Value·of·Work¤	*[Value·in·Euro]¤*	Forecasted·Start·Date¤	*[dd/mm/yyyy]¤*
Scope·of·Work¤	*[Description·of·the·work·to·be·performed·by·the·subcontractor]¤*		
Critical·Quality·Item·/·Activity¤	*[List·critical·quality·item/activity·as·defined·in·QA-115]¤*		
PIC·/·PIA¤	*[Yes·/·No]¤*	Quality·Class¤	*[Quality·class·of·contract·/·grant·/·call·(from·1—4)]¤*
Project·and·Quality·Management·Plan¤	*[CTS·Ref·(or·CTS·Ref·of·waiver)]¤*	Quality·Man.·System·Certificate¤	*[Standard]·[Expiry·date]¤*
Control·Plan¤	*[CTS·Ref·(or·CTS·Ref·of·waiver)]¤*	Technical·Specifications¤	*[Identification·of·document·where·requirements·are·propagated]¤*
Comments¤	*[Comments·by·supplier]¤*		

1.1. → Subcontractor—Level·1·(insert·new·table·for·each·subcontractor)¤

Name·of·Legal·Entity¤	*[Full·company·name·including·legal·form]¤*	Registered·Office¤	*[Address]¤*
VAT·Number¤	*[VAT·number]¤*		
Technology·Codes¤	*[Insert·2·technology·codes]¤*		
Value·of·Work¤	*[Value·in·Euro]¤*	Forecasted·Start·Date¤	*[dd/mm/yyyy]¤*
Scope·of·Work¤	*[Description·of·the·work·to·be·performed·by·the·subcontractor]¤*		
Critical·Quality·Item·/·Activity¤	*[List·critical·quality·item/activity·as·defined·in·QA-115]¤*		
PIC·/·PIA¤	*[Yes·/·No]¤*	Quality·Class¤	*[Quality·class·of·contract·/·grant·/·call·(from·1—4)]¤*
Project·and·Quality·Management·Plan¤	*[CTS·Ref·(or·CTS·Ref·of·waiver)]¤*	Quality·Man.·System·Certificate¤	*[Standard]·[Expiry·date]¤*
Control·Plan¤	*[CTS·Ref·(or·CTS·Ref·of·waiver)]¤*	Technical·Specifications¤	*[Identification·of·document·where·requirements·are·propagated]¤*
Comments¤	*[Comments·by·supplier]¤*		

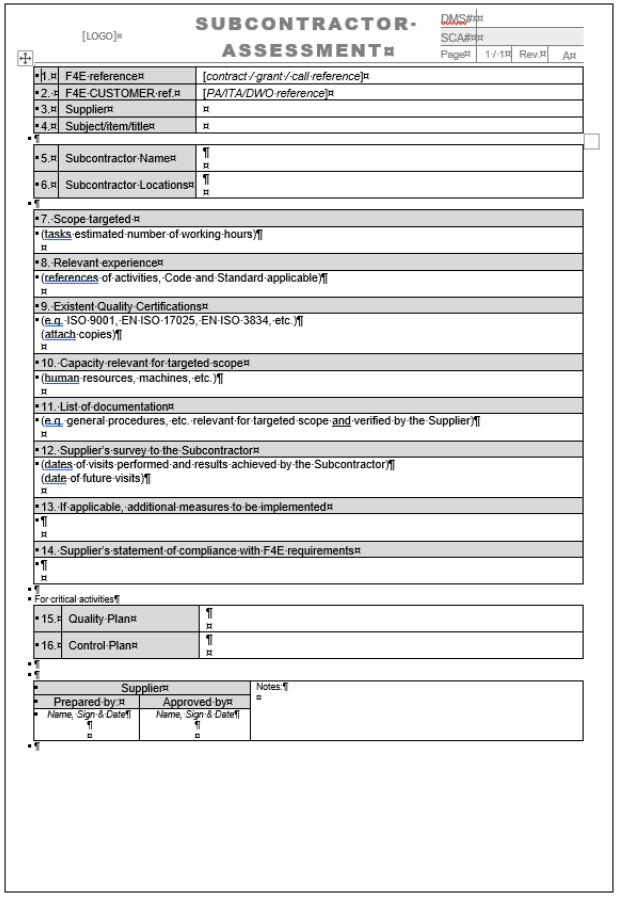
Page Break



SUBCONTRACTING·SCHEDULE¤

1.¤ F4E·reference:¤	*[contract·/·grant·/·call·reference]¤*
2.·¤ F4E·CUSTOMER·ref.:¤	*[PA/ITA/DWO·reference]¤*
3.¤ Supplier:¤	¤
4.¤ Subject/item/title:¤	¤

Supplier¤		F4E¤	
Prepared·by:¤	Approved·by¤	Acceptance¤	Notes·&·acronyms¶
Name, Sign·&·Date¶	*Name, Sign·&·Date¶*	*Name, Sign·&·Date¶*	QP·=·Quality·Plan¶ CP·=·Control·Plan¤
¤	¤	¤	



SUBCONTRACTOR·ASSESSMENT¤

1.¤ F4E·reference¤	*[contract·/·grant·/·call·reference]¤*
2.·¤ F4E·CUSTOMER·ref.¤	*[PA/ITA/DWO·reference]¤*
3.¤ Supplier¤	¤
4.¤ Subject/item/title¤	¤
5.¤ Subcontractor·Name¤	¶ ¤
6.¤ Subcontractor·Locations¤	¶ ¤

7.·Scope·targeted·¤
- (tasks·estimated·number·of·working·hours)¶ ¤

8.·Relevant·experience¤
- (references·of·activities,·Code·and·Standard·applicable)¶ ¤

9.·Existent·Quality·Certifications¤
- (e.g.·ISO·9001,·EN·ISO·17025,·EN·ISO·3834,·etc.)¶ (attach·copies)¶ ¤

10.·Capacity·relevant·for·targeted·scope¤
- (human·resources,·machines,·etc.)¶ ¤

11.·List·of·documentation¤
- (e.g.·general·procedures,·etc.·relevant·for·targeted·scope·and·verified·by·the·Supplier)¶ ¤

12.·Supplier's·survey·to·the·Subcontractor¤
- (dates·of·visits·performed·and·results·achieved·by·the·Subcontractor)¶ (date·of·future·visits)¶ ¤

13.·If·applicable,·additional·measures·to·be·implemented¤
- ¶ ¤

14.·Supplier's·statement·of·compliance·with·F4E·requirements¤
- ¶ ¤

For·critical·activities¶

15.¤ Quality·Plan¤	¶ ¤
16.¤ Control·Plan¤	¶ ¤

Supplier¤		Notes:¶ ¤
Prepared·by:¤	Approved·by¤	
Name, Sign·&·Date¶	*Name, Sign·&·Date¶*	
¤	¤	

Project & Quality Management Implementation
Lessons Learned #1

- The experience of working with F4E & ITER under QA and PM specs has been very useful in general, but sometimes at the beginning of our collaboration the request of documents have been excessive (e.g. reporting the results of the same activity in three different documents).

- The implementation of the Project & Quality Management System in the research field is not always easy considering that planning the scientific research activities is different from each other, they are not part of a production in series as those of the industrial sector.

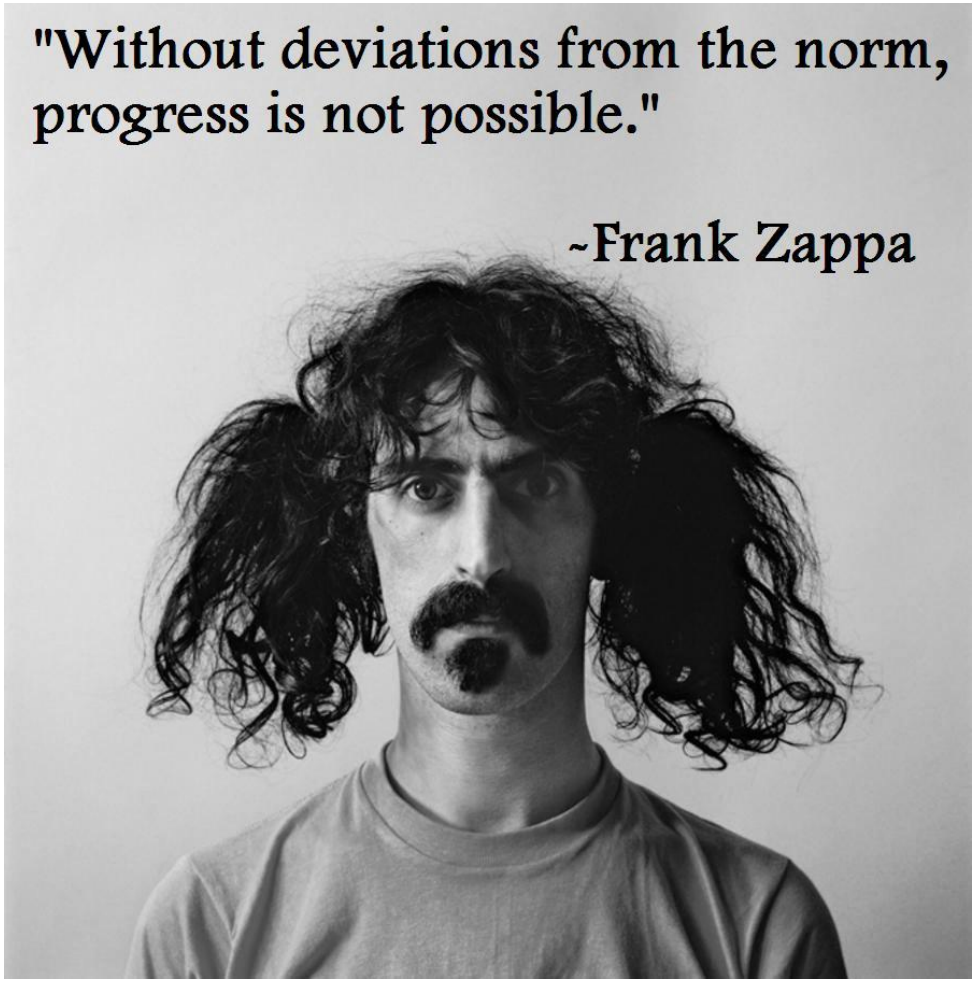
- EFDA, then EUROfusion, organized training courses (2011-2014) for researchers and engineers, involved in the ITER related contracts on Planning PM tools, Configuration Management, Design Management tools (CATIA PLM), Requirements Management & Verification, Document Management, Risk Management, Nuclear Safety to fill the existing gap.

Project & Quality Management Implementation
Lessons Learned #2

- The basic principles of PM, required in R&D, activities were easily to implement than being compliant with all requirements of ISO 9001.
- The QMS implementation within the ENEA Fusion Department has been successful, but it must be admitted that it was not an easy task for the nature of R&D activities.
- In view of the continuous improvement of the QMS, it's necessary to define KPIs. They were defined for the overall activities of the ENEA Fusion Department. It is more difficult to define, when required, for single research activities, which are different ones from each other.
- The challenging activities are performing internal audits and the top management review, mandatory for ISO 9001.
- Non-conformities have been felt, sometime, as a punishment rather than a way of improvement.
- Other demanding issue was to keep measuring equipment under control (calibration status, metrologic confirmation, etc.).

THANK YOU FOR YOUR ATTENTION

Nadia.Voukelatou@enea.it



SPARE SLIDES

Training Courses & Certificates of Competence

Additional courses with certificates of competence:

- Primavera P6 Project Management R.8.3 Client and Web - (Rome 14-15-21-22 January 2015)
- Project planning and control course on Oracle / Primavera P6 software - (Rome 3-4 October 2019)
- Oracle / Primavera P6 Advanced Course - (Rome 9 October 2019)
- Course of the Manager of European Projects - (Bologna 20 February - 1 December 2006)
- Course on Risk Management Systems: The UNI ISO 31000: 2018 standard - Basic Course - (Bologna 14-17 May 2018)
- Advanced course on Risk Management and Risk Assessment Techniques - (Bologna 14-17 May 2018)
- PQM-NET- KIT-1 Training Course - Existing Quality Management Systems for ITER - related contracts - (Karlsruhe 25 -27 June 2013)
- PQM-NET- KIT-2 Training Course - Planning tools & Documentation Management Systems in use for ITER - related contracts - (Karlsruhe 13-15 October 2015)
- PQM-NET Training Course - Quality Systems for ITER related contracts:
  A Safety and Systems Engineering Approach - (Lisbon 3-5 November 2014)
- Pearce Mayfield: Certificate of completion in Practical Project Management –
  3-day course - (U.K. 2-5 April 2014)
- Lead Auditor of Quality Management Systems" course 24 h
  Florence 14-15-16 June 2016 - successful final exam
- Course "Basic module for Auditor and Lead Auditor",
  Florence 28-29 June 2016 - final exam
- Training Course for Workers - General Part - 16 hours: from 03-03-2016 to 17-03-2016 through the E LEARNING Platform of the ENEA Agency, passing the required learning tests.
- Certificate of technical suitability for carrying out the task of firefighting officer - Certificate and examination on 22 / October / 2014
- Refresher course for "Fire Fighting Officer" - Certificate of attendance and examination on 10 / October / 2018.
- FSN-ING Training Courses for 2021 of 20 hours within ISO 9001: 2015 §7.2 - Skills through Training

Project & Quality Management Specification
Final remarks

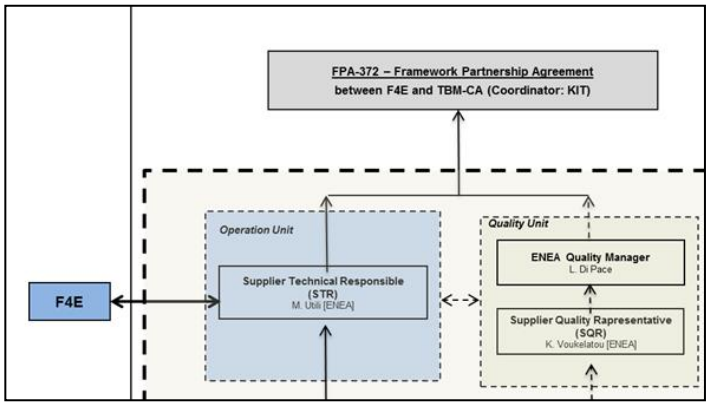
- The management of quality documents has reached a high level of reliability and punctuality.
- The use of all available IT tools (Primavera, IDM @ F4E, DANTE) has contributed to the high level cited above, enabling a proper documentation management, also including the technical one (deliverables).

Project & Quality Management Specification
Responsibilities

Project's Responsibilities

Project Management

Supplier Technical Responsible Person (STR)	
Marco Utili Tel.: +39 0534 801203 Fax: +39 0534 801250 E-mail: marco.utili@enea.it	ENEA FSN-ING Unità Fusione e Sicurezza Nucleare 40032 Camugnano (Bologna) Italy
Supplier Quality Representative (SQR)	
Konstantina Voukelatou Tel.: +39 0534 801413 Fax: +39 0534 801250 E-mail: nadia.voukelatou@enea.it	ENEA FSN-ING-PAN Unità Fusione e Sicurezza Nucleare 40032 Camugnano (Bologna) Italy
Supplier Quality Representative (SQR)	
Konstantina Voukelatou Tel.: +39 0534 801413 Fax: +39 0534 801250 E-mail: nadia.voukelatou@enea.it	ENEA FSN-ING-PAN Unità Fusione e Sicurezza Nucleare 40032 Camugnano (Bologna) Italy



The Project Management Team for the FPA 372 SG04 is made of:

The **STR** for this Specific Grant is the Supplier Contact Person (**SCP**) for the F4E-TRO in charge of this Specific Grant.
The **STR** coordinates and manages all activities related to implementation of the Specific Grant (SG) and has also the responsibility for issuing progress reports during its execution. He is responsible for issuing the Implementation Plan of the SG. The STR and SQR are duly informed on the progress of the activities and maintain their respective roles in front of F4E. The **SQR** is the Supplier Quality Responsible for the Specific Grant and is the contact person for the F4E-QRO in charge of this Specific Grant. During the execution of the SG 04 he is supported by the ENEA Quality Manager (EQM). The ENEA Quality Manager will support the Project Leadership for the management issues for the SG04: planning, administrative and financial issues and documentation.

Document Management System
Brief Description of the ENEA DANTE DMS

DANTE 48 types of documents managed by the ENEA DMS DANTE

ENEA-UTFUS WBDMS

^ HOME NEW DOCUMENT CURRENT WORKS SETTINGS SEARCH BROWSE LOG OUT (ldipace)

Type of Document	TDC coding	Type of Document	TDC coding
Meeting Agenda	AA	QMS Procedure	PGQ
Acceptance Data Package	ADP	Presentation	PPT
Administrative Act	AMM	Progress Report	PR
Acceptance Note	AN	Procedure	PRO
Background Declaration Form	BDF	Operating Support Procedures	PSO
Communication	COM	Quality control plan	QCP
Change request	CR	Quality Plan	QP
Contractual doc of the customer	DCC	Audit Report	RA
Drawing	DD	Risk Card	RC
Flow-Chart	DDF	Internal Report	RI
Deviation Notice	DNO	Release Note	RN
Deviation Order	DOR	Risk Plan	RP
Deviation Request	DR	Technical Report	RT
Other docs required by the customer	DRC	Registrazione di verifica	RV
Documentation Schedule	DS	Work Sheet	SC
Document Transmittal	DT	Technical Specification	SPT
Check Report	IR	Customer Satisfaction Form	SSC
Work Instruction	ISL	Subcontracting Schedule	SS
Quality Manual	MAQ	Task Specification	TAS
Meeting Minutes	MM	Technical Economic Offer	TEO
Technical Manual	MTC	Test Report	TR
Non conformity Report	NCR	Time Schedule	TSC
Technical Note	NT	Work Breakdown Structure	WBS

Project & Quality Management Specification
Implementation Plan & related Annexes

ENEA / KIT	Document ID	QP - OMF331 L2 T01 - 01	Page 1/ 44
	TITLE	EXECUTION IMPLEMENTATION PLAN FOR the SPECIFIC CONTRACT Task Order No. 1	Rev 4.1 22/04/2013

EXECUTION IMPLEMENTATION PLAN FOR the SPECIFIC CONTRACT

TASK ORDER No. 1 "Design of HCLL and HCPB-TBS Ancillary Systems in view of the ITER-IO Conceptual Design Review"

F4E Contract Ref.No.	F4E-OMF-331-02-01-01
idm@F4E Ref.:	F4E_D_24ZSNR
Contract Title	**Design of HCLL and HCPB-TBS Ancillary Systems in view of the ITER-IO Conceptual Design Review. Specific Contract of Engineering Framework Contract F4E-OMF-331-LOT 2: Preliminary Design of TBS Ancillary subsystems and integration in ITER**

Abstract	This document is the Execution Implementation Plan of the first specific contract for LOT 2 of FPA OMF 331. It specifies the management provisions implemented by the ENEA-KIT joint team to comply with F4E's requirements according to the management specifications F4E_D_24ZSNR of the Call for Proposals F4E-OMF-331 related to LOT 2 (Quality Class 1).

ENEA-KIT Joint Team	Authors	Reviewers	Approver
Name	B.Ghidersa, M. Utili, K. Voukelatou	L. Di Pace I. Ignatiadis	A. Aiello
Signature			
Date	18/04/2013	19/04/2013	22/04/2013

Annex ST1_Exec_WBS OMF331 L2 T01-01_Rev4_0.pdf
Annex ST2_Progress Report_PR-OMF331 L2 T01-01.docx
Annex ST3_Control Plan PR-OMF331 L2 T01-01.docx
Annex ST4 Documentation Schedule DM-OMF331 L2 T01-01.docx
Annex ST5_Subcontracting schedule SS-OMF331 L2 T01-01.docx
Annex ST6_Non Conformity Report NCR-OMF331 L2 T01-01.docx
Annex ST7_Deviation Request DR-OMF331 L2 T01-01.docx
Annex ST8_Risk Paln RP-OMF331 L2 T01-01.docx
Annex ST9_Release Note RN-OMF331 L2 T01-01.docx
Annex ST10_Exec_Time schedule TSC-OMF331 L2 T01-01_Rev4_0.pdf
Annex ST11_List of People involved LP-OMF331 L2 T01-01.docx
QP-OMF331 L2 T01-01_v4_1_Execution Impl Plan.docx

Specific Contracts & Specific Grants with F4E as ENEA–KIT Joint Team

Since 2012 the ENEA Fusion Department has been involved in the technology transfer of its knowledge in the field of nuclear fusion from the R&D scope to the execution of large projects together with industry, it has been outlined the importance of working by a quality management system (QMS) and of applying the principles of the Project Management. On the other side the possibility to get large contract directly from ITER or from F4E was linked to the establishment of a compliant PM & QM System which evolved through the years.

Project & Quality Management Responsible for Specific Contracts and Specific Grants with F4E in the following contracts ENEA–KIT Joint Team coordinating:

- Engineering support in the area of Test Blanket Module (TBM) systems design and technological demonstration.

1. **F4E-OMF 331 L2 Task Order#1** - Design of HCLL and HCPB-TBS Ancillary Systems in view of the ITER-IO Conceptual Design Review. Specific Contract of Engineering Framework Contract F4E-OMF-331-LOT 2: Preliminary Design of TBS Ancillary subsystems and integration in ITER
2. **F4E-OMF 331 L2 Task Order#2** - Specific Contract of Engineering Framework Contract F4E-OMF-0331-LOT 2: Preliminary engineering assessment of the HCLL and HCPB Neutron Activation System.
3. **F4E-OMF 331 L2 Task Order#3** - Complementary activities in view of the CDR and in preparation of the PD phase.
4. **F4E-OMF 331 L2 Task Order#4** - Consolidation of TBM systems interfaces.
5. **F4E-OMF 331 L2 Task Order#5** - Elements of Preliminary Design of the TBM Ancillary Systems.

- Framework Partnership Agreement for the R&D experimental activities in support of the conceptual and preliminary design of the European Test Blanket Systems.

6. **F4E-FPA 372 SG04** (ENEA Coordinator) - Specific Grant 04 of Framework Partnership Agreement F4E-FPA-372: Experimental tests in support of the Preliminary design of the European TBS.

Specific Contracts & Specific Grants with F4E as ENEA–KIT Joint Team

7. **WP ENS** project launched within the EUROfusion Consortium: ENS (Early Neutron Source): Neutron source for DEMO materials qualification- Neutron source for the qualification of materials for the DEMO Fusion reactor. Application of PRIMAVERA P6 to Project Management, Oversight and Support of DONES (EUROfusion) – WPENS project.

At the level of work performed on the activities of the **Project & Quality Management** of the projects mentioned above, I followed:

Project Monitoring & Reporting, & Schedule Management by issuing progress reports monthly and presenting the updated Time Schedule. In addition to this, I also followed the Risk Management for all projects with F4E, ITER & EUROfusion, presenting the risk analysis and implementing risk-based approach in the planning and execution of the activities of the related Task Orders & Specific Grants, and updating the documents related to the project's monitoring & status monthly or every three or six months with respect to the rules set for each contract. As responsible for the Planning Management using Primavera P6 software, producing since the beginning of the project the Work Breakdown Structure and the planning of the projects in progress, and subsequently the issue of Primavera Time Schedule related to the process of checking monthly the progress status.

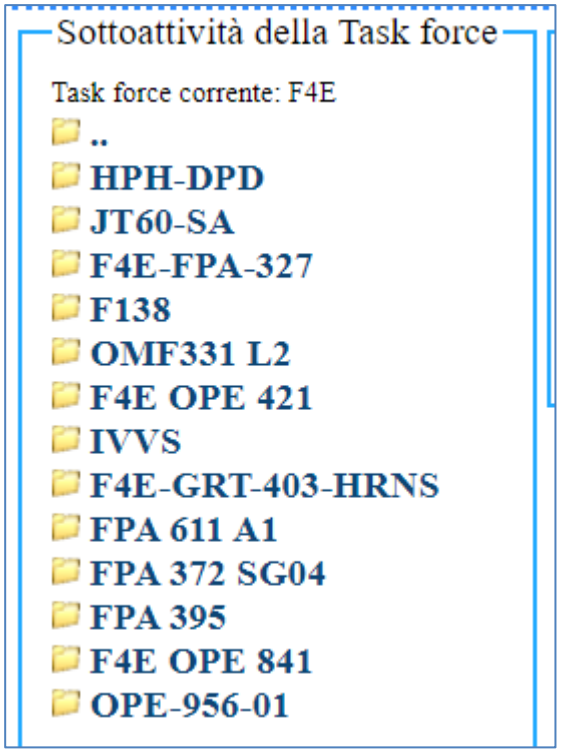
Furthermore, we followed activities related to P&Q Management also in the following EUROfusion projects:

8. **WCLL-TBS (Water Cooled Lithium Lead - Test Blanket System) Part B- PHASE I:"** areas of Ancillary Systems Design, Modelling, Instrumentation Development", concerning the design activities to be implemented in 2018 in preparation of the Conceptual Design Review of the WCLL-TBS (foreseen by mid-2020).

9. **WCLL-TBS (Water Cooled Lithium Lead - Test Blanket System) Part B-: PHASE II:** "areas of Ancillary Systems Design, Modelling, Instrumentation Development", concerning the continuation of the technical activities related to the WCLL-TBS Ancillary Systems Design (including elements of System Engineering) in view of the completion of the conceptual design & through the implementation of the one year technical activities to evaluate the possibility to address what was requested by ITER Organization (IO) for the Conceptual Design Review (CDR) of the WCLL-TBS.

Specific Contracts & Specific Grants with F4E as ENEA–KIT Joint Team

10. HPH-DPD
11. F4E-FPA-327
12. F4E-OPE 421
13. F4E-OPE 841
14. F4E-OPE 956-01
15. F4E-GRT-403-HRNS
16. FPA 395
17. IVVS
18. JT60-SA
19. F138



P Project & Quality Management Specification
Progress Meetings & Progress Reports

2. Progress Meetings and Progress Reports

- In addition to progress meetings, **technical meetings** were organized and executed between the ENEA Project Team and F4E representatives to address in more detail one or several tasks, and/or to review achieved technical results before endorsing a decision (hold-point / milestone).
- ENEA Project Team prepared and sent to F4E, every month, a signed **Progress Report** with updated documents as appropriate.
- The following updated documents will be appended to the Progress Report, if applicable in the reporting period:
  - Time Schedule (to be prepared by Primavera) [ref. WBS structure],
  - Management Control Plan [ref. WBS structure],
  - Configuration & Documentation List,
  - other Annexes.

Project & Quality Management Specification
Document Management

- The exchange of all documentation and information between F4E and ENEA Project Team was conducted between F4E's TRO and the STR.
- Documents produced inside the Task Order or Specific Grant sent, after internal management process through DANTE (ENEA Documentation Management System) as agreed to the STR for official transmission to F4E.
- The Supplier used a **Documentation Exchange Area in idm@F4E** for the documentation exchange relative to the Project's area. Other documents and data files (managed by specialized CAD software; e.g. CATIA), were subject to other requirements to be specified in the Implementation Plan of related TO or SGs.
- After approval from F4E, documents were uploaded to the specific Supplier area in the idm@F4E

Project & Quality Management Specification

Activities completed 100%

	Document ID	PR-OMF331 L2 T01-10	Page 1/10
ENEA KIT	TITLE	Progress Report for the Specific Contract F4E OMF-331 LOT2 – Task Order No.1 of January 2014	Rev. 1.0 04/02/2014

PROGRESS REPORT – January 2014

Section 1 – Report References

Report Number:	10 01/2014	Revision:	1.0
1. F4E reference:		F4E Customer ref:	
2. Supplier DMS#:	PR -OMF 331 L2 T01-10		
3. Supplier:	ENEA/KIT Joint Team		

Section 2 – Reporting

4. Project Status Check		**Contract period *(weeks)***	
Elapsed Time from KOM *(weeks)*	44	Time Remaining to task completion *(weeks)*	4

5. Main scheduled tasks and milestones for the period:

See annex 1

6. Main results, achievements and issues encountered during the period:

See annex 1

Control Plan: F4E_D_26GL69
Documentation Schedule: F4E_D_26QDS6
Time Schedule: F4E_D_26 QRRN v4.4, F4E_D_26QKV5

7. Main scheduled tasks and milestones for the next period:

See annex 1

8. Action list	**Status and References**
Minute of 7th Monitoring Meeting of task Order 1 of OMF-331 Lot 2	Approved, idm F4E_D_276GJ3/2.0

9. Pending Deviations and Open Nonconformities:

10. Other Pending Activities:

Section 3 – Supplier internal verification and validation

Author	**Review / Approval**
K. Voukelatou	A. Aiello

Project & Quality Management Specification
Progress Meetings

1. Project Meetings

- Kick-off-Meeting (KOM)
- Progress meetings (every month)
- Final meeting

Kick-Off-Meeting	
Type	Video Meeting
Size / Participants	TRO, STR, KTR, EQR, other persons as per KOM-Agenda
Location	F4E premises Barcelona
Meeting Agenda	TRO (issue)
Meeting Minutes	TRO or SCP *[tbd]*
Outline Agenda	(compare KOM-Minutes) *[tbd]*

Progress Meetings	
Type	**Presence / Video Meeting [tbd]**
Size / Participants	**TRO, STR, ETR, KTR, [other persons tbd]**
Location	**[tbd]**
Meeting Agenda	**TRO (issue) [tbd]**
Meeting Minutes	**TRO or SCP [tbd]**
Frequency	**bi-weekly**

Final Meeting (Acceptance review of deliverables & Contract closure)	
Type	Presence / Video Meeting *[tbd]*
Size / Participants	TRO, STR, ETR, EQR; KTR, KQR, SQR *[other persons tbd]*
Location	*[tbd]*
Meeting Agenda	TRO (issue) *[tbd]*
Meeting Minutes	TRO or SCP *[tbd]*