

Collaboration between AFIS and AFNeT on systems engineering interoperability

AFIS (French Association of Systems Engineering) and AFNeT (French Association of the Net) join forces in order to make the future solutions of systems engineering interoperability emerge and to qualify/validate them.

The perimeter addressed initially covers:

- Collaborative processes in an MBSE context (between customers, OEMs, suppliers)
- The sharing and sustainability of models related to systems engineering
- The formalization of data in view of data analytics
- The related needs for competences and associated skills.

In addition to the knowledge gained in systems engineering normative field (involvement in ISO/IEC JTC 1/SC 7), AFIS will bring to this collaboration its knowledge on the systems engineering collaborative practices, on systems engineering methods and processes, modelling, architecture of systems, products and services, including architecture frameworks and on the convergence between systems engineering and PLM. Thanks to this knowledge, AFIS will contribute to the definition of requirements in regards to future interoperability solutions and of associated use cases.

The AFNeT will bring its expertise in digital thread integration, and its contribution will focus on PLM integration requirements, on data models and on technologies for interoperability and data integration (XML type or Web service).

This collaboration will be based on a multi-year roadmap, and will be implemented through projects. It will feed the French contributions on the subject, on the one hand to OMG, to INCOSE and to ISO/IEC JTC 1/SC 7, through the AFIS contributions, and on the other hand to ISO, through the participation AFNeT to ISO/TC 184/SC 4 and its contribution to the new STEP architecture.

It will come in support of work committed at European level on this subject (e.g. ASD SSG, INCOSE EMEA, CEN/CENELEC, EDA).

About AFIS

The French Association of System Engineering (AFIS) is an association working on the development and promotion of systems engineering in the French industry.

The members of the association are either organisations (industrial groups, SMEs and educational and research organisations) or individuals.

The French Association of system engineering aims to:

- Promote systems engineering through the presentation and explanation of its principles and multidisciplinary approach,
- To promote and ensure the development and use of systems engineering,
- To promote training in systems engineering ,
- To promote exchanges between users and to increase the knowledge in systems engineering,
- To ensure the professional representation of systems engineering users at national, European and international level.

www.afis.fr

About AFNeT

The French association of Internet users and networked Society (AFNeT) is an association of industrial and public actors (large companies, SMEs, ministries and administrations, local authorities, universities,

large Schools, ICT suppliers,...) that actively accompanies and supports companies for the sustainable appropriation of new information technologies.

The missions of the AFNeT include:

- Reflection on the economic, technological and societal impacts of the Internet and networked society, through the "digital confidence circles of strategic industries" (CNIS),
- Assistance to project management of sectorial collaborative platforms projects (construction, rail, maritime, nuclear,...) on the BoostAeroSpace model of the aeronautical industry, service of which AirDesign is intended to support Systems Engineering processes, based on the ISO standards,
- Organisation of the "AFNeT standardisation Days ",
- Implementation of projects related to standards and technologies for interoperability (through, for example, its participation to ISO). The AFNeT PLM Committee allows in particular to federate the efforts of the stakeholders on standards development projects, implementation forums and benchmarks.

www.afnet.fr

ASD	Aeronautics, Space, Defence and Security Industries in Europe (www.asd-europe.org)
ASD SSG	Strategic Standardisation Group (www.asd-ssg.org) of ASD
CEN	Comité Européen de Normalisation / European Committee for Standardization (www.cen.eu)
CENELEC	European Committee for Electrotechnical Standardization (www.cenelec.eu)
EDA	European Defence Agency (www.eda.europa.eu)
INCOSE	International Council on Systems Engineering (www.incose.org)
INCOSE EMEA	INCOSE Europe, Middle-East, Africa Chapter
IEC	International Electrotechnical Commission (www.iec.ch)
ISO	Organisation internationale de normalisation / International Organization for Standardization (www.iso.org)
ISO/IEC JTC 1/ SC 7	Sous-comité commun ISO et IEC en charge de l'ingénierie logiciel et système / Joint ISO and IEC sub-committee for software and systems engineering
ISO/TC 184/ SC 4	Sous-comité ISO en charge des Données industrielles / ISO sub-committee for Industrial data
MBSE	Model-based Systems Engineering
NAF	NATO Architecture Framework (développé par l'OTAN)
OEM	Original Equipment Manufacturer
OMG	Object Management Group (www.omg.org)
PLM	Product Lifecycle Management
STEP	Standard for the Exchange of Product Data (développé par l'ISO)
SysML	Systems Modeling Language (développé par l'OMG)
UAF	Unified Architecture Framework (développé par l'OMG)
XML	Extensible Markup Language (développé par le World Wide Web Consortium)