



Global Supplier Info Pack FEDE Integration







Request Teamcenter Program

Access











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First Steps:

This guide is to assist you in exchanging data with Ford, however, please do not purchase any software licences until you have spoken to your local GSI team. (See appendices for contact details). We will assist in project managing and advising you of the best licence option for your Ford business needs.

What is FEDE (Ford Engineering Design Environment)?

FEDE is the environment that delivers the next generation of digital product capabilities for all brand partners in Ford Motor Company to effectively conduct enterprise-wide vehicle and technology product creation. This will be achieved using the Teamcenter Engineering PLM (Product Lifecycle Management) system and CATIA V5 as a CAD tool.

GSI Overview

Global Supplier Implementation (GSI)

Ford Motor Company has teams of experienced professionals to assist in the understanding of the tools:

- Ford GSI Teams
- Partners Siemens & Dassault Systemes

For contact information please see the appendix relevant for your geographical area.

The GSI teams are focused on specific Ford vehicle and Powertrain programs and work with Ford authorized suppliers on a global basis to implement FEDE

We can assist with all aspects of implementation, Connectivity, Capability, Competency, and continuing collaboration.



CDS-ID: thoelter



Revised: Mar 2024

Teamcenter connection process steps

Please review the following information which will allow you to step through many of the process steps independently.

If you are not sure if you have a Global Supplier Data Base	Contact the GSI team
(GSDB code) or are not sure what it is	(details in the appendices)
If you have a GSDB code but do not know if you have access to the Ford Supplier Portal (FSP) (page 9)	Go to Step 1
If you have access to the Covisint hosted FSP (page 6)	Skip to Step 2
If you have already identified your FSN ID and set a reminder to change the password (page 9)	Skip to Step 3
If you have access to the FSP and to the FEDE SharePoint (page 10)	Skip to Step 4
If you have access to the above systems and your company is available but not set up in UARS (page 10)	Skip to Step 5
If you have access to the FSP, FEDE site and the User Access Request System (UARS) (page 9)	Skip to Step 6
If you have access to all the above systems and to the methods SharePoint (page 10)	Skip to Step_7
If you have access to all the above systems and are using the appropriate Catia level, start parts etc. (page 11)	Skip to Step 8





FEDE process flow chart

Required for all suppliers regardless of the connection type.

Step 1 Use your Ford 5-digit GSDB code to get access to the Ford Supplier Portal, accessed through Covisint. Information here Further details on page 9 FSP

Step 2 Login to the FSP

https://fsp.portal.covisint.com/web/portal/home to retrieve your FSN ID and change the password. You will need this ID for logging into
Teamcenter and other Ford systems.
Make sure you reset both your FSN and Covisint/FSP passwords every 90 days. Put a reminder in your calendar!!

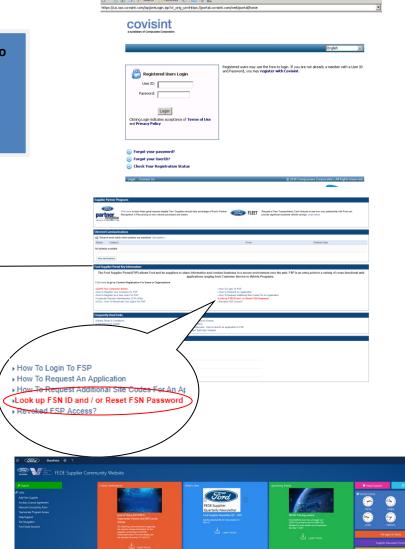
Step 3 Gain access to the <u>Ford</u> Sharepoint Guest Account.

Once this is completed, you can

access the FEDE Supplier Community

Website

Further details on page 9

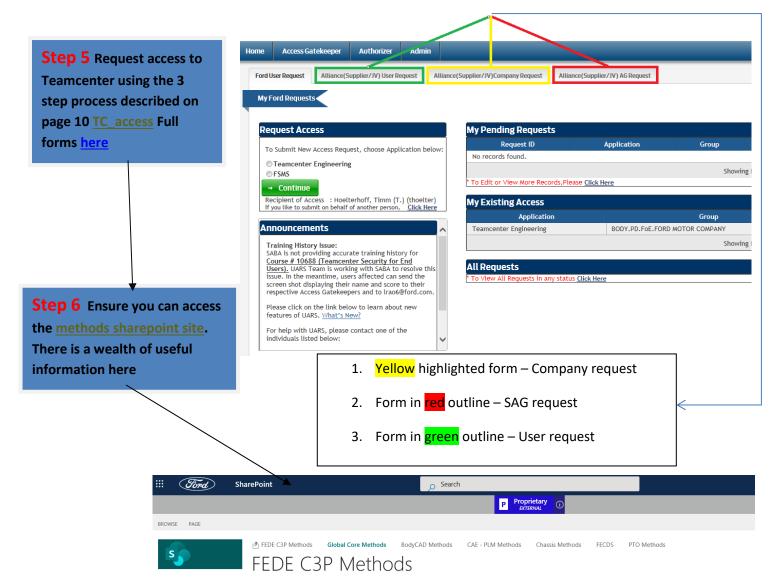


Step 4 Ask the GSI team to check your company status. This ensures your company will be available in our UARS system and it will give a supplier code entry for data naming and numbering purposes.

Also, to access the UARS web page, you need to have a VPN (Virtual Private Network) in place. Please get in contact with your local GSI Team to receive access.







Global Core FEDE C3P Methods

Table of Contents | SE R5.0 What's New | CATIA R30 Videos | AppStation | FECDS Automation Tools | FEDE - C3P Drop-In WebEx | Vector Chatbot



Originator: GSI NA Page 7 of 25 Pages Established: April 2002





Step 7 Download appropriate Catia information, start parts, drawing frames etc HERE



Software Release & Maintenance

SER5.0 Release Production Release Ancillaries CAD Efficiency Ancillaries Catia R32 Release SER7.0 Release

Step 8 In consultation with Ford GSI and adhering to the requirements of your **E-SOW** (Engineering statement of Work) choose the method of connectivity best suited for working with Ford. Further details begin on page 11

Connection type	FEDE
Direct Connect (2Mbit PI-VPN or ENX link)	Teamcenter Engineering Rich Client (can also be called Portal Client)
Indirect Connect	CDSP (Certified Data Service Provider)
Indirect Connect	One-Drive

For complete information on FEDE connectivity please contact your GSI team.

Please note

that other types of CAD data exchange, i.e. DVD, USB media, portable hard drives, FTP, Odette, supplier owned exchange system etc are not permitted by Ford for FEDE data exchange. That concludes the high-level flow chart of process steps to access data inside Ford. Full details follow on these process

steps. You now need to choose your connection type, more details on page 11.





Ford Supplier Portal (FSP) Web Site Access

Is your company registered with Covisint for the FSP?

Yes – Go to https://portal.covisint.com/portal/public/_l:en/tp/ Click on the 'Ford Blue Oval' then follow the process for 'Registering a New User for FSP'. Should you have difficulties, there are guidance documents to be found on the link above under 'New to FSP'.

No - Go to https://portal.covisint.com/portal/public/_l:en/tp/fsp Click on the link next to 'Register for FSP' and then follow the process for 'New Top Level Organisation'. You must accept the Company Security Administrator (CSA) role if you are registering a new organisation. You will need the Ford Global Supplier Database (GSDB) Site code when registering a new organisation. A guidance document on FSP registration can be found here If you have problems, or want to find out your site code, please contact the GSI team.

If you are a **Tier 2 Supplier** and have no direct contract to Ford but are subcontracted to another supplier, you need to apply as a 'Top level organisation' with Covisint in the normal way but you should put your Tier 1 supplier's code in as your site code (unless you already have a Ford site code of your own).

FEDE Website Access

FEDE Supplier Community website has migrated to Microsoft Office 365. External suppliers will need a 'Ford Guest Account' to access contents in this SharePoint Online website. Please follow these Instructions to receive access to the FEDE Supplier Community Website

Note: Supplier users will not be able to log in to **SharePoint Online Websites** using their Covisint ID/FSN-ID

Methods Pages Access

Once you have set up 'Ford Guest Account' you can access the <u>Ford FEDE methods pages</u>. It is highly recommended that you bookmark this link.

This site contains Ford CAD methods and processes specific to the Corporate Business Groups such as Body, Chassis, PTO, Electrical, etc. and includes Ford Engineering CAD Drafting Standards (FECDS) as well as useful information regarding Catia and Ford Teamcenter applications.





TC Access Request (requires a supplier VPN connection)

The <u>User Access Registration System</u> process for suppliers is divided into three segments:

- 1. Request Access for the Supplier Company (select company tab)
- 2. Identify / Request a Supplier Access Gatekeeper (select SAG tab from the link above)
- 3. Individual Supplier Users Request Access (select user tab from the link above)
- **1. Supplier Company Access:** When a supplier (also known as a 'TC Group') needs to work with a program, and has staff trained in TC, the supplier can submit a Company Access request. It is only necessary to submit one company request per carline regardless of how many users need access.



After the company's request is approved by a Ford Authorizer the supplier designated user can submit Supplier Access Gatekeeper request if required. Please be aware the Ford Authorizer <u>must</u> be Ford Management level, LL6 or better. One example of a Ford Authorizer

would be a PMT Leader, or a CAD supervisor. **Please note** the LL6 cannot be a Joint Venture employee, they must be Ford staff.

- 2. Supplier Access Gatekeeper (SAG): The Supplier Access Gatekeeper is responsible for processing all end-user requests for a company. There can be one or more access gatekeepers for a company. Once approved by CDX Admin, the Supplier Access Gatekeeper can process requests for all Program requests for a company. If there is more than one Supplier Access Gatekeeper the Supplier Access Gatekeeper's description can be used to guide users to select the proper SAG. SAG's are not required to have TC access, they can process TC user requests without a TC account, however they must take the TC Security for End users online training. SAG's are responsible for checking that users they approve for access have undertaken the required TC training. If the system states that that 'no Teamcenter Training records can be found' but you know that they have completed training, do not proceed with approving the UARS request until proof is provided to the PLM Security team with the request that they add the information to the global trained user list. (Leena Rao Irao6@ford.com). Step 2 only needs to be repeated when an additional SAG needs to be identified for your Company. Please note: SAG's cannot approve their own user requests.
- **3. Supplier User Access:** Once Supplier Company Access is approved and a Supplier Access Gatekeeper is established, then Supplier users (a.k.a. "Requestors") can submit access requests for TC, providing they have completed TC training. View the documentation within the "UARS for Requestors" button to view the specific steps associated with this portion of the process. The full TC access process documentation is available under 'TC access and security' in the methods pages url





Direct Connection options - functionality comparison

	Teamcenter Rich Client			mcenter Ri th CAD inte		
Teamcenter Functionality	FMS4060		FMS4060 + FMS4063			
Manage Product structures		✓			✓	
Receive Envelopes		✓			✓	
Send Envelopes		✓			✓	
View Manufacturing structures		✓			✓	
Manage Classification		✓			✓	
Revision compare in SM		✓			✓	
Subscription		✓			✓	
CAD data export						
Zip file download		✓			✓	
Export parts /small assemblies		✓			✓	
Export of large assemblies	Limited	l (very time	consuming)	✓		
Data export from SM		×		✓		
Cache for CAD data		×		✓		
CAD data check in						
Zip file upload	☐(though no official method yet)		☐ (though no official method yet)			
Check in without onsite resident	×			✓		
JT data						
View JT	✓	(using loca	al Vis)	✓		
Export single JT locally		√		✓		
Additional Tc Vis licenses	No Tc Vis	Tc Vis Pro Plus TC20615	Tc Vis Mockup VS20530	No Tc Vis	Tc Vis Pro Plus VS21100	Tc Vis Mockup VS20530
Save assembly JT locally	×	✓	✓	×	✓	✓
Ability to create session packages	×	√	√	×	✓	¥
3D dynamic cross sectioning	×	✓	✓	×	✓	✓
Clearance analysis	×	×	✓	×	×	√
Part motion capture and playback	×	×	✓	×	×	*





Direct Connection option 1: - Rich client pros & cons

	Pros	Cons
	Ability to access high data of volume efficiently (local caching)	Requires specific TC training. Please see Page 14 for more information
	Supplier would be responsible for CAD work and data management	Higher cost of ownership regarding software,
	Supplier can work collaboratively with program CAD data	Requires a capable IT team to set up a VPN tunnel. Furthermore, installations and regular updates must be performed.
Teamcenter	TC is accessible globally by suppliers upon demand	Requires specific TC training. Please see Page 14 for more information
Rich Client	Supplier has access to the latest CAD data – WIP or released versions	
	Supplier can be automatically notified when data is updated/changes	
	All working methods are available on the methods SharePoint to provide support	
	Supplier has access to lightweight context (JT) data	
	Supplier has immediate access to complete program lightweight data via Quick Launch files	
	Most interactive method of exchanging Data with Ford	
	PPM releasing available	
	No need for expensive onsite resource	





Direct Connection option 1: - Rich client (without CAD integration) pros & cons

	Pros	Cons
	Ability to access high data of volume efficiently (local caching)	Requires specific TC training. Please see Page 14 for more information
	Supplier would be responsible for CAD work and data management	Higher cost of ownership regarding software,
	Supplier can work collaboratively with program CAD data	Requires a capable IT team to set up a VPN tunnel. Furthermore, installations and regular updates must be performed.
	TC is accessible globally by suppliers upon demand	
Teamcenter Rich Client	Supplier has access to the latest CAD data – WIP or released versions	
	Supplier can be automatically notified when data is updated/changes	
	All working methods are available on the methods SharePoint to provide support	
	Supplier has access to lightweight context (JT) data	
	Supplier has immediate access to complete program lightweight data via Quick Launch files	
	Most interactive method of exchanging Data with Ford	
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	No need for expensive onsite resource	





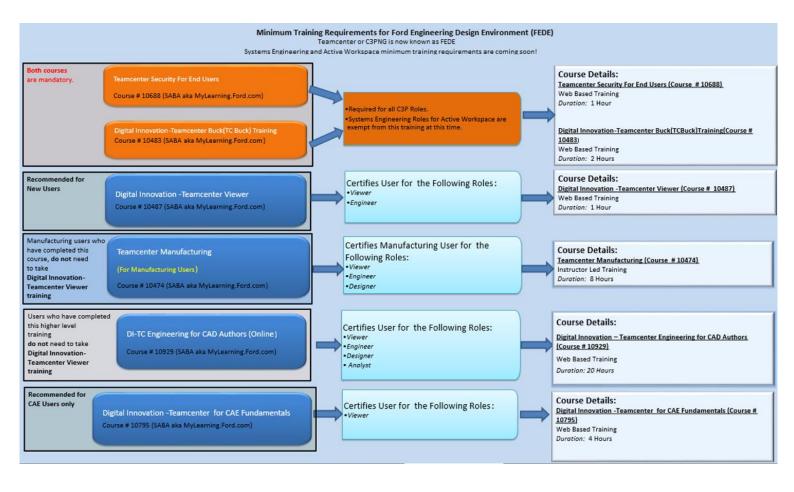
FEDE Training

The training of supplier users is available online and cost free.

Please follow this link to access the Ford Supplier Learning Institute (FSLI).

After the first login, it may take up to 48 hours before you can see and book FEDE trainings.

Here is an overview about the different TC roles and related trainings:







Indirect Connection option 1: Certified Data Service Provider (CDSP)

	Pros	Cons
	CDSP provides support to ensure a smooth transition of data	Cost of ownership, supplier may need to purchase specific software
	Supplier has the potential of working in any software package where the CDSP will convert accordingly	Supplier is reliant on CDSP providing context data when required
CDSP	CDSP responsible for data management on behalf of the supplier	Potential escalating costs if data volume or frequency increases
	All working methods are available on the methods SharePoint to provide support	Supplier can become disconnected from Ford engineers and the business
	Globally available (though CDSPs are not present in all time zones)	
	CDSP tailors costs according to amount and frequency of data	
	CDSP can assist with CAD design and /or design verification (though this activity is not certified by Ford, only the connection requirements are certified by Ford)	





Indirect Connection option 2: OneDrive

	Pros	Cons
	No cost	Onsite supplier or Ford resource required for supplier data management
	All working methods are available on the methods SharePoint to provide support https://azureford.sharepoint.com/sites/C3PNGMethods/SitePages/Home.aspx	Data delivered by supplier needs checking in onsite
OneDrive	Easy to use	Inefficient method of working and can cause delays to the business
	Globally available	Reliant on onsite resource to provide contextual data
		Local 'staging' or temp area required to store data pre-transfer to Ford and within Ford prior to TC save
		Supplier needs to manage data locally to ensure consistency when transferring data between sites





FEDE Connectivity – how to apply

All connection types

Please contact your local GSI team (FOA, FOE, FNA, FSA) via the contacts in the appendices and we will kick off an implementation once we have discussed with you which is the best fit for you to provide the appropriate carline support.

Onsite Supplier

If you have been asked to work on a Ford site and/or you need to provide your own hardware and software licenses, please contact your local GSI team for further details.

Catia FEDE downloads

You can get a variety of CATIA downloads here regarding production release https://azureford.sharepoint.com/sites/FEDEFordSupplierPortal/SitePages/Software_Release_Maintenance/CAD_Efficiency_Ancillaries.aspx

FEDE Software Packages

Dassault Systemes

FEDE CATIA V5 Solution Seats

Full information about the current CATIA configurations suitable for use with Ford can be found here

https://azureford.sharepoint.com/sites/FEDEFordSupplierPortal/FEDE_Documents/CATIAV5 Software Modules.pdf

CATIA R32 Download/Install Instructions

You can access the latest Ford CATIA R30 Instructions at

https://azureford.sharepoint.com/sites/FEDEFordSupplierPortal/FEDE_Documents/Download_Install_Instructions_CATIA_V5R32_SP3-HotFix%2036.pdf

You will need to register with Dassault to obtain these downloads.





FEDE Software Packages Siemens PLM Software – Rich client

FEDE Direct Connectivity Solutions for Ford Suppliers

Siemens PLM Software have developed, in conjunction with Ford, the Teamcenter Remote Client to support **direct** Ford supplier connectivity and collaboration in the context of FEDE.

Siemens PLM Software recommends that each Teamcenter Remote Client has access to a minimum of 2Mbit **dedicated** bandwidth.

Teamcenter Remote Client Product Bundles

Teamcenter Rich Client (best interaction with Teamcenter)

FMS4060 - Teamcenter Remote Client Base

- Teamcenter Author
- Teamcenter Visualization Mockup (embedded)
- Change Management Author
- Classification Author
- Context Management Author
- Product Configuration Author
- Requirements / Systems Architect Access
- Teamcenter Manufacturing Access
- Multi-site Collaboration
- Ford FEDE Toolkit

FMS4063 - Teamcenter Remote Client for CATIA

- Requires: FMS4060 Teamcenter Remote Client Base
- Teamcenter Integration for CATIA

FEDE Capability

For a list of recommended Supplier FEDE Hardware & System Software please use this link:

https://azureford.sharepoint.com/sites/FEDEFordSupplierPortal/FEDE Documents/Master%20Documents/Hardware Software Spec.pdf





FEDE Supplier Integration Data Flow

Supplier FORD Indirect method OneDrive /Ford user client machine **CATIA CATIA** Designer **CATIA** Direct method Teamcenter Portal **Teamcenter Portal** Supplier Firewall **CATIA Manager** FORD **CATIA Manager Sponsor** Designer Firewall **CATIA** Teamcenter Vault Server **CATIA Oracle Server** Designer





Acronyms

ANX Automotive Network eXchange

AW Active Workspace
CAD Computer Aided Design
CAE Computer Aided Engineering
CAM Computer Aided Manufacturing
CDSP Certified Data Service Provider
CDV Configured Digital Vehicle
CDX CAD Data Exchange

CSA Corporate Security Administrator

EIC End Item Configuration

EMEA Eastern Europe, Middle East and Asia

ENX European Network Exchange FEA Finite Element Analysis

FEDE Ford Engineering Design Environment

FPO Ford Program Office
FPS Ford Production Systems
FSN Ford Supplier Network
FSP Ford Supplier Portal

GPDS Global Product Development System
GSEC Global Supplier Electronic Communications

GSI Global Supplier Implementation
KBE Knowledge Based Engineering
MDA Mechanical Design Automation
PDM Product Data Management
PIM Product Information Management

PI-VPN Public Internet – Virtual Private Network

PKM Product Knowledge Management
PLM Product Lifecycle Management
SAG Supplier Access Gatekeeper
SERx System Engineering Release x
TC Teamcenter Architecture

UARS User Access Request System

VAR Value Added Reseller
VPN Virtual Private Network
WIP Work in Progress





Appendix A – GSI Contacts all regions

Key contact information for personnel engaged in Supplier FEDE deployment.

GSI Team Ford	E-Mail Address	Role/Responsibility	Location
AP GSI Team	apagsi@ford.com	Generic AP GSI email	N/A
FNA CDX IT Team	cdxhelp@ford.com	Generic FNA CDX IT email	N/A

The training of suppliers will take place at Ford Training sites in Australia, China and India and will be dependent on availability. For classroom-based training in the Asia Pacific region contact:

FEDE Sales Contacts FAP - Siemens PLM Software

Please use the link below to search for a Siemens VAR/Reseller in your country for specific information about Teamcenter Engineering. Read pages 21 & 22 (Siemens PLM Software - Rich Client) for license information or contact apagsi@ford.com for assistance. Please note this is not an out of the box solution but a Ford specific version:





Appendix B – GSI Contacts and region-specific information in the Ford of Europe (FoE) region

Key contact information for personnel engaged in Supplier FEDE deployment.

GSI Team Ford	Telephone	E-Mail Address	Role/Responsibility
FOE Team		gsieu@ford.com	Generic GSI email
GSEC (Global Supplier Electronic	Telephone Number	Fax Number	E-Mail Address
GSEC-GB (Rest of Europe)	send e-mail	+44 1268 703696	c3pcdxeu@ford.com is for Teamcenter issues, scommsuk@ford.com is for generic supplier connection issues.

FEDE Sales Contacts FoE - Siemens PLM Software

Please use this link

https://www.plm.automation.siemens.com/en/about_us/contact/sales.shtml to find sales teams for your location for Teamcenter Engineering. Competency = Channel Sales (VAR/Reseller) Product Line = Teamcenter. Please note this is not an out of the box solution but a Ford specific version:





Appendix C– GSI Contacts and region-specific information in the Ford North and South America region

Key contact information for personnel engaged in Supplier FEDE deployment.

Help Desks		
CDX Help Desk	cdxhelp@ford.com	Administrative/Document





Official CDSP FSA

The team must offer products and services to providers of data management at Ford. Experienced engineers with the best knowledge in the processes FORD in digital engineering, methods, processes, and tools to help suppliers in:

- Provide the right data to the supplier of engineering in the correct formats.
- Work with the methods and processes of engineering at Ford.
- Checking the results of supplier engineering and database engineering FORD.

What kind of services can be delivered for supplier?

Manage engineering data movement from and to Ford on behalf of the supplier

The team can provide short-term contracts based on the type of service and schedules for the movement of data for /from Ford. This service is called CDSP (Certified Data Service Provider). These are companies that have been examined and approved by Ford Motor Company, due to the great ability to manage and move data FEDE for/from Ford securely.

Ford engineering methods onsite assistance

The team offers assistance to all Ford's engineering processes related to methods, processes and CAD tools. Engineers with extensive experience in supporting engineering processes from Ford, with professionals able to execute these services in supplier and/or in Ford, if necessary.

Extended service offers for CAD data conversion

Depending on the data suppliers of the team execute conversions CAD to CAD and exports from CAD to STEP or STEP for CAD, offering connections via Syncplicity. Data quality checks and corrections (if necessary) that can be ordered as an engineering service demand.

Extended PLM services for FORD supplier

The partner can require implementation of PLM concepts with kind of flexible for internal infrastructure integration. The official CDSP for Ford Brazil (FSA) is The Pac Group – Pac Brasil Consultores Ltda.

CDS-ID: thoelter





Revision

Date	Revision	Detail:	ID of Reviser
Sept 2013	1.0	 A- Initial Global Release – Combined regional info packs into one global version with local differences in appendicies and added SER1 information 	llarcom1
March 2014	1.1	A- Minor changes to non working links to external documentsB- Update to FNA contact list	thoelter
April 2014	1.2	A- Contact updates for FOE Dassault. Also Driving licence info marked FOE only. Added info regarding not buying licences too early	llarcom1
August 2014	1.3	A- Update to FNA contact list	llarcom1
October 2015	1.4	A – Updates to UARS	llarcom1
Jan 2016	1.4.1	A – Updates to contacts, graphics refresh	llarcom1
May 2016	1.4.2	A -updates to nomenclature (FEDE additions)	thoelter
Sept. 2016	1.4.3	A –Link to SER3.0 changed B –Link to SER3.0 Whats new added	thoelter
Oct 2016	1.4.4	A – Updates to FOE contacts	llarcom1
Jan 2017	1.4.5	A – Changed TC Licence comparison B - Changed OEMA to Syncplicity	thoelter
March 2017	1.4.5	C – Removed FOE PTO contact	llarcom1
May 2017	1.4.6	A – Updated links relating to SER3.5 release B - Updated FNA and FAP contacts	llarcom1
Feb 2018	2.0	A – Updated links relating to SER4.0 and new FEDE website	llarcom1
March 2018	2.0	B – Updated personnel informationC – Updated methods links	llarcom1
March 2019	2.0	D - Updated personnel information	abhate
April 2021	3.0	A – Updated SharePoint links B – Updated contact information C – Updated training information	thoelter
Oct 2021	4.0	A – Updated contact information	Thoelter
Apr 2023	4.1	A – Minor changes and updated links	Thoelter
Apr 2023	4.2	A – FSLI link updated	Thoelter
Mar 2024	4.3	A – Minor changes and updated links	thoelter