



# EqHub - Implementation Guide

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## Table of contents

<b>ABOUT THIS GUIDE</b>		<b>3</b>
<b>0</b>	<b>INTRODUCTION.....</b>	<b>3</b>
0.1	About EqHub .....	3
0.2	Purpose .....	3
0.3	Scope and content .....	3
0.4	Definitions and abbreviations.....	3
<b>IMPLEMENTATION PLANNING</b>		<b>6</b>
<b>1</b>	<b>MANAGING THE CHANGE .....</b>	<b>6</b>
1.1	Key success factors .....	6
1.2	External stakeholder engagement .....	6
<b>2</b>	<b>MAPPING INTERNAL INFORMATION FLOW AND WORK PROCESSES .....</b>	<b>6</b>
<b>3</b>	<b>INTEGRATING EQHUB INTO OWN IT SYSTEMS FOR LCI SOLUTION .....</b>	<b>7</b>
3.1	Implement redesigned information flow .....	7
<b>4</b>	<b>GOVERNING DOCUMENTS AND CONTRACTS .....</b>	<b>8</b>
4.1	EqHub as a requirement in governing documents (DFO/LCI) .....	8
4.2	EqHub as a requirement in commercial agreements .....	9
<b>5</b>	<b>PREPARATION FOR OPERATION .....</b>	<b>9</b>
5.1	Prerequisites .....	9
5.2	Projects for initial use of EqHub .....	9
5.3	Preparation towards Contractors.....	9
5.4	Preparation towards Suppliers (by Operator, Contractor and Package Supplier) .....	9
<b>6</b>	<b>EQHUB TEAM - IMPLEMENTATION SUPPORT .....</b>	<b>11</b>
6.1	Planning and execution.....	11
6.2	Implementation dashboard / check list .....	12
<b>SUPPLEMENTARY INFORMATION</b>		<b>13</b>
<b>7</b>	<b>SAMPLE DFO WORDING AND CONTRACT CLAUSES.....</b>	<b>13</b>
7.1	DFO wording .....	13
7.2	Contract clauses .....	15
<b>8</b>	<b>FAMILISATION WITH EQHUB .....</b>	<b>15</b>
8.1	EqHub web interface .....	15
8.2	EqHub API .....	15
<b>9</b>	<b>VERSION CONTROL.....</b>	<b>16</b>

## About this Guide

### 0 INTRODUCTION

#### 0.1 ABOUT EQHUB

EqHub is a technical information library for equipment according to standards chosen by the industry.

*Joint industry initiative*

- All the major oil and gas Operators on the Norwegian continental shelf have joined forces to use EqHub for technical equipment documentation.
- The service is governed by Offshore Norge

*Benefits*

- EqHub provides access to up to date and quality assured data in a common library.
- Facilitates time-saving digital work processes facilitating exchange of information between the companies in the supply chain.

EqHub - common solution to common requirements

For further information about EqHub including FAQ, see the [EqHub web page](#).

#### 0.2 PURPOSE

The purpose of this document is to serve as a guide for the company in the planning and implementation of EqHub.

The business environment and context in which EqHub is implemented will vary between companies. The guide is therefore not intended to be prescriptive in details, but rather provide a systematic approach pointing at key areas and processes that need to be addressed.

A sample dashboard/check list that can be used for the planning and implementation of EqHub is provided in *section 6.2*

#### 0.3 SCOPE AND CONTENT

This version of the EqHub Implementation Guide addresses the EqHub application and related processes as they are today. Later versions of the guide will be updated based on companies' experiences in applying it and future developments of EqHub.

#### 0.4 DEFINITIONS AND ABBREVIATIONS

The terms used in this document have the following meaning:

Term	Meaning
API	Application Programming Interface which is a software intermediary that allows two applications to talk to each other.
Bespoke equipment	An Operator or Contractor specific equipment which is special made, non-standard, and often defined by Operator or Contractor specifications. (See also SPC).
BOM	Bill of material.
Certified Verifier	A company / individual certified by Offshore Norge for verifying and quality assure EqHub information.
Company	Equivalent to Operator but 'company' is used where it is not specifically referred to Operator in its capacity as operator of a production license on the NCS.
Contractor	Provider of engineering, procurement, construction, installation and/or commissioning services directly to an Operator.

Term	Meaning
DFO	Documentation for Operation.
EqHub	A technical information repository for Operators, Contractors, Suppliers and Manufacturers.
EqHub Support	EqHub's support team consisting of TietoEVRY (1 <sup>st</sup> line) and Sharecat Solution AS (2 <sup>nd</sup> line).
EqHub Team	The team consisting of the EqHub Service Responsible's team and EqHub Support.
LCI	Life Cycle Information.
NCS	Norwegian Continental Shelf.
OFFSHORE NORGE	Offshore Norge
Onboarding	Registration for use of Offshore Norge's services.
Operator	An operator of a production license on the NCS.
Package Supplier	Supplier of an assembled unit (e.g., skid, crane, compressor etc.).
PO	Purchase order.
PRB	Package Responsible Buyer.
PRE	Package Responsible Engineer.
RDL	Reference Data Library.
Sharecat	(Sharecat Solution AS) 2 <sup>nd</sup> line support and development of EqHub.
Standard Product	Standard Product is equipment or component produced repetitively according to a manufacturer's own specifications. A common description is 'off the shelf'.
Custom Product	Custom product is equipment or component that is not defined as Standard Product.
TietoEVRY	1 <sup>st</sup> line support of EqHub.

Table 1 – Definitions and abbreviations

The definition of EqHub IDs and associated information are as follow:

EqHub ID	Definition	Properties	Documents	Access restrictions
TEK	<p>A TEK ID is a unique number assigned to a unique combination of a Manufacturer and Manufacturer's part number.</p> <p>A TEK typically represents a <b>standard product</b></p>	Based on relevant product class in RDL	<p>Only Product typical documentation ref. <a href="#">RDL</a> is allowed to be added to a EqHub ID.</p> <p>Some product typical documentation (for example for valves and subsea equipment) is reviewed in a project before it is uploaded to EqHub.</p>	Access restrictions can be set by manufacturer for EqHub ID, documents and properties with IP rights.
TEK-C	A TEK-C ID is a unique number for a combination of two or more approved TEK numbers.	Based on relevant product class in RDL		
SPC	<p>An SPC ID is a unique number assigned to a product that cannot be uniquely identified by Manufacturer and Manufacturer's part number.</p> <p>An SPC typically represents a <b>custom product</b></p>	Based on relevant product class in RDL	Product individual documentation shall not be added in EqHub. Such documentation shall be handled in company specific solutions.	
SPC-C	An SPC-C ID is a unique number for a combination of an SPC and one or more approved SPC, SPC-C, TEK, or TEK-C numbers.	Based on relevant product class in RDL		

Table 2 – Definitions and associated information

## Implementation planning

### 1 MANAGING THE CHANGE

Although the concept and benefits of EqHub is fairly straightforward (*ref. section 0.1 above*), experience shows that careful planning and execution of the implementation is vital to make it a success.

#### 1.1 KEY SUCCESS FACTORS

The scope and work required for the implementation will obviously depend on the company's size and level of operation. But still, implementing EqHub will represent a change that will need to be managed. Typically, in the context of EqHub implementation this will require the company internally to:

- Form an active steering group
- Establish a shared goal
- Engage a dedicated task force
- Generate "quick wins"
- Facilitate action – remove obstacles
- Maintain focus
- Provide familiarisation and training

#### 1.2 EXTERNAL STAKEHOLDER ENGAGEMENT

Implementing EqHub requires that the Operator's requirement to use EqHub is followed up throughout the company's entire supply chain, i.e., involving Contractors, Package Suppliers, Suppliers and Manufacturers.

Particular attention should be given to clarify the change in the parties' roles and responsibilities in the context of EqHub.

This is further described in sections 5.3 and 5.4.

### 2 MAPPING INTERNAL INFORMATION FLOW AND WORK PROCESSES

Another important part of implementing EqHub is to prepare for the integration of the solution within existing IT system portfolio/LCI portfolio and work processes.

Suggested tasks:

- Perform a Value Stream mapping/Data flow analysis to map and understand how the data will flow through the system portfolio, from the receiving system and throughout to the destination system(s)
- Map involved users and customers of the data and their needs
- Design to-be data flow
- Create scope of work for IT for programming of information flow and adjustments to interfacing solutions to handle EqHub information
- Revise Supply chain and LCI processes (internally and towards Contractor – Supplier)
- Revise governing documentation
- Revise contract and frame agreement templates

It is strongly advised to appoint an overall company responsible for EqHub and to establish a dedicated team to perform the above tasks and prepare for the implementation and start-up. The team could be established with members from e.g.:

- Operations (normally the owner of asset LCI requirements)

- Supply Chain Management Contracts & Procurement
- Project Management & Services
- Information & Communication Technology IT
- Logistics & Material administration/Management

*Mapping Internal information flow and work processes*

**Key points**

- Appoint overall company responsible for EqHub implementation.
- Appoint key staff (champions) from all involved disciplines (procurement/contract, IT, material administration, ...).
- Establish a dedicated Task Force (of champions) that will overlook the EqHub implementation and prepare for provide assistance throughout the Supply Chain.

### 3 INTEGRATING EQHUB INTO OWN IT SYSTEMS FOR LCI SOLUTION

#### 3.1 IMPLEMENT REDESIGNED INFORMATION FLOW

Set-up IT system: implement TEK/TEK-C/SPC/SPC-C in the different systems (technical and administrative/material master system(s)).

Decide how the information structure will be in the technical system and in the material master system(s): Every company has their own requirements, so it is not necessarily *one definite answer or approach* on how to connect equipment/spare information from EqHub to own system(s). It is highly recommended that most of the information is stored in EqHub and reached by own system(s) by hyperlink or API call.

**Typical connections:**

**Equipment no** (SAP) - TEK/SPC

**Tag/Functional Location** - TEK/TEK-C/SPC/SPC-C

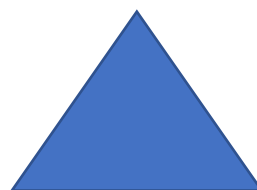
**Tag/Functional Location** - **Material no** - TEK/SPC

**Material no** - TEK/SPC

**Material BOM** - TEK/SPC

**Equipment BOM** - TEK/SPC

*Equipment no* = Who it is



**Tag/Functional Location** = Where it is

**Material** = What it is

**Equipment no:** The company can use **Equipment no** for all equipment that they have. This gives the company the opportunity to follow the equipment's lifecycle. If you remove an **Equipment no** from a Tag for repair etc., then you remove the specific Sa information (series number, repair history etc.) and all the documentation that belongs to the specific equipment. When you connect a new **Equipment no** to the Tag, all the information will follow for the new equipment (specific, documentation etc.). TEK/SPC will be connected to the **Equipment no** and will be reached by a hyperlink to EqHub.

**Tag/Functional Location – TEK/TEK-C/SPC/SPC-C:** The company can use this connection for equipment that is meant to be replaced or maintained *on site* (without changing the physical equipment). When equipment is replaced with a new one, you simply disconnect the old TEK/SPC/TEK-C number from the Tag/Functional Location and connect the new one. All old technical information and documentation is disconnected and replaced with the new.

**Tag/Functional Location – Material no - TEK/SPC:** Normally Companies use Material number on equipment/spares that they have on stock. If the material has a TEK/SPC, the company will have the connection to technical information and documentation in EqHub. The Company does not need to have this in own system(s).

## 4 GOVERNING DOCUMENTS AND CONTRACTS

### 4.1 EQHUB AS A REQUIREMENT IN GOVERNING DOCUMENTS (DFO/LCI)

It is key to incorporate in the governing documents the requirement for Contractors, Package Suppliers, Manufacturers etc. to use EqHub. This will typically be done in the company's Documentation for Operation (DFO) and Life Cycle Information requirements (LCI).

This will involve review of existing documents with a view to, e.g.:

- replace any relevant specifications with reference to EqHub,
- establish reference to EqHub RDL (reflects NORSOK standards),
- specify information delivery requirements, e.g., digital file transfer, and alignment with internal systems such as SAP.

Note that some naming and terms used in EqHub can be different from what is used in existing documentation for your company's LCI – requirement.

As the DFO/LCI documentation will be subject to internal change control procedures, sufficient time need to be allocated to allow for due creation and follow-up of required change requests.

Depending on whether EqHub is implemented company-wide or initial implementation is for specific project(s), there may be a need to have different and parallel versions of the DFO/LCI documentation.

The ambition for this Implementation Guide is not to provide an extensive "tick list" of all sections and issues that need to be addressed and revised in the company's DFO/LCI documentation. Instead, sample DFO wording is provided in *section 7.1 below* showing how the requirement to use EqHub in the supply chain can be addressed in the DFO.

*For further references, examples of Operator DFO/LCI requirement documents can be found (links): [ConocoPhillips' DFO](#), [Aker BP's LCI requirements](#). Any formal use of these must be clarified with the respective owner company to ensure use of latest revisions with current/updated requirements.*



## 4.2 EQHUB AS A REQUIREMENT IN COMMERCIAL AGREEMENTS

### *EqHub as a requirement in commercial agreements*

### **Key points**

#### *Key issues to address for commercial agreements / look for clauses that deal with:*

- References to company's requirements in DFO / LCI requirements
- Reference to standard(s)
- Delivery (scope, content and timing) of equipment information
- Requirements for compliance by subcontractors
- Changes and variation orders
- Price structures related to equipment documentation

## 5 PREPARATION FOR OPERATION

### 5.1 PREREQUISITES

- New DFO / LCI specification decided
- New Supply Chain process decided
- Relevant clauses in commercial agreements revised
- IT system prepared

### 5.2 PROJECTS FOR INITIAL USE OF EQHUB

A conscious decision needs to be made with respect to what project(s) and type of project(s) the company would use EqHub. I.e., for:

- greenfield and brownfield projects,
- smaller projects (maintenance/smaller mods),
- to update information on legacy installations,
- topside and subsea or,
- for both TEK and SPC.

In connection with the above, there will be a need to review ongoing frame agreements which are intended for the new project(s) with a view to amend/supplement such frame agreements to reflect the requirement to use EqHub. Ref. *section 4.2 EqHub as a requirement in commercial agreements*.

### 5.3 PREPARATION TOWARDS CONTRACTORS

- Introduce new DFO and LCI routines to reflect use of EqHub
- Get Contractor's confirmation that all relevant positions in the Contractor's project organisation have bought in to using EqHub (Project managers - PRE - PRB - documents controllers - IT etc)
- Get Contractor's confirmation that Contractor implement the same requirements further down in the supply chain (Package Supplier - Supplier - Manufacturer)

### 5.4 PREPARATION TOWARDS SUPPLIERS (BY OPERATOR, CONTRACTOR AND PACKAGE SUPPLIER)

- Clarify that EqHub is a requirement from Operator, Contractor and Package Supplier
- Request the Supplier to pre-document possible products in EqHub
- Integrate new requirements/DFO in frame agreements (new and existing (if possible)) and in the company's standard contracts / POs.

- 
- Connect the EqHub Team to help onboarding Suppliers (optional)

## 6 EQHUB TEAM - IMPLEMENTATION SUPPORT

### 6.1 PLANNING AND EXECUTION

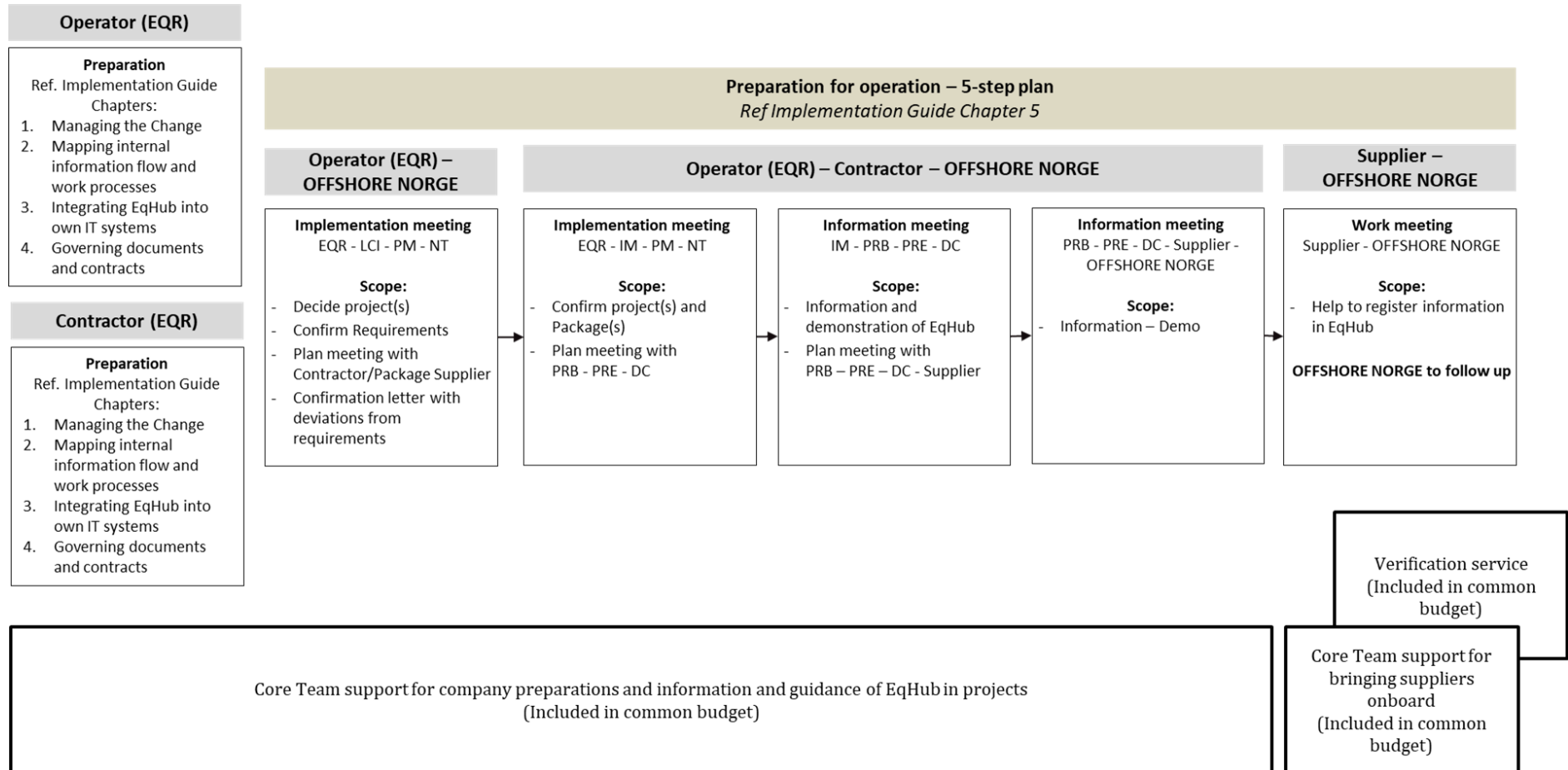


Figure 1 - Implementation - from operator/contractor preparation to projects and supplier adoption

## 6.2 IMPLEMENTATION DASHBOARD / CHECK LIST

A sample dashboard/check list that can be used for the planning and implementation of EqHub is provided below. This can also be downloaded from Projectplace (in excel) using this link [Implementation Dashboard.xlsx](#).

Area	Tasks	Status	Discipline	Organisation	Comments
Kick Off and Presentation	<b>Internal Communication</b>			Management	
	Initial communication		Introduction		
	Define/Identify ownership to EqHub in organisation (Management Team)		Introduction		
	Define stakeholders (ref disciplines/projects etc)		Introduction		
	Inform stakeholders (ref disciplines/projects etc)		Introduction		
Discipline Implementation	<b>Supply Chain</b>			Basis and Project org	
	Define/Identify Supply Chain ownership		Supply Chain		
	Create information plan for Supply Chain		Supply Chain		
	Information given to Supply Chain		Supply Chain		
	Update contracts / frame agreements etc.		Supply Chain		
	Create implementation plan for Supply Chain		Supply Chain		
	<b>Document Management and Control</b>			Basis and Project org	
	Define/Identify Document Management and Control ownership		Document Control		
	Create information plan for Document Management and Control		Document Control		
	Information given to Document Management and Control		Document Control		
	DFO requirements updated		Document Control		
	DFO requirements informed to vendors		Document Control		
	SDRL and SDL index updated against EqHub		Document Control		
	<b>Technical Disciplines</b>			Basis and Project org	Instrumentation / Electro / Telecom / Mechanical / Safety / Piping
	Define/Identify relevant disciplines		Technical Disciplines		
Agree scale of use for discipline		Technical Disciplines			
Create information plan for relevant technical disciplines		Technical Disciplines			
Identify relevant governing documentation		Technical Disciplines			
Create information plan and implementation for relevant disciplines		Technical Disciplines			
Information given to relevant disciplines		Technical Disciplines			
Update relevant governing documentation		Technical Disciplines			
Index files defined (data requirements)		Technical Disciplines			
<b>IT and System Integration</b>			Basis and Project org		
Define/Identify IT and System Integration ownership		IT and Systems Integration			
Create information plan for IT/System owners		IT and Systems Integration			
Identify relevant systems to be integrated		IT and Systems Integration			
Define integration strategy		IT and Systems Integration			
Define level of information to be included in interface		IT and Systems Integration			
Project	<b>Project Implementation</b>			Project	
	Define/Identify relevant projects		Project		
	Define/Identify relevant project owners and participants		Project		
	Create information and integration plan for relevant projects		Project		
	Information given to relevant project personnel		Project		
KPI set up and implemented		Project			
Training	<b>Training</b>			All	
	Define/Identify relevant personnel		Training		
	Create training plan		Training		
	Integration training (internal tools - consequences)		Training		

Figure 2 - Implementation dashboard / check list

## Supplementary information

### 7 SAMPLE DFO WORDING AND CONTRACT CLAUSES

#### 7.1 DFO WORDING

The following is example wording showing how the requirement to use EqHub in the supply chain can be addressed in the DFO / LCI requirements.

##### **DFO Deliverables**

##### **Supplier Documentation**

*Supplier documentations consist of equipment model/type- variant and individual documentation.*

*Individual documentation, typically documentation for traceability and certification, shall be delivered to Company system.*

*Model/Type-variant documentation shall be registered in EqHub (ref. next chapter).*

##### **EQHUB**

*In order to reduce costly and unnecessary duplication of information, Company's strategy is to ensure that pre-validated Standard Equipment information is made available to all relevant parties through a common repository, accessible from the internet. This enables re-use when the same equipment is ordered or delivered.*

*The selected solution is EqHub, an established industry standard technical information repository for Operators, Contractors and Suppliers. Link: [www.eqhub.no](http://www.eqhub.no).*

##### **Requirements for use**

*Supplier documentation consists of the equipment standard documentation (Product Typical - PT) and individual documentation (Product Individual - PI). All PT documentation shall be documented in EqHub. PI documentation should be delivered according to [Company's own requirements].*

*When the PT documentation is approved in EqHub, it is assigned a number (e.g., approved TEK-nnnnnnnn or approved SPCnnnnnnnn). When this number is linked to the Tag number, the PT documentation requirement is considered fulfilled by Company.*

*Contractors shall ensure that any Equipment Supplier shall deliver PT documentation in EqHub, with or without a frame agreement with Company.*

*Contractors shall verify that all EqHub numbers are correct for the relevant Equipment and shall ensure that EqHub numbers are delivered as Tag-Doc links, ref. [Company's own relations/link requirements].*

*The Equipment Supplier has the responsibility for delivery of the PT documentation for Equipment to EqHub. This work shall be performed in accordance with the schedule agreed with the actual Buyer:*

- *The Contractor shall verify that the Package Supplier delivers PT documentation to EqHub.*
- *The Package Supplier shall verify that the Equipment Supplier delivers PT documentation to EqHub.*
- *If Company purchases Equipment directly from an Equipment Supplier, Company shall ensure that the Equipment Supplier delivers the documentation in EqHub.*

**Typical process for use of EqHub in Company projects**

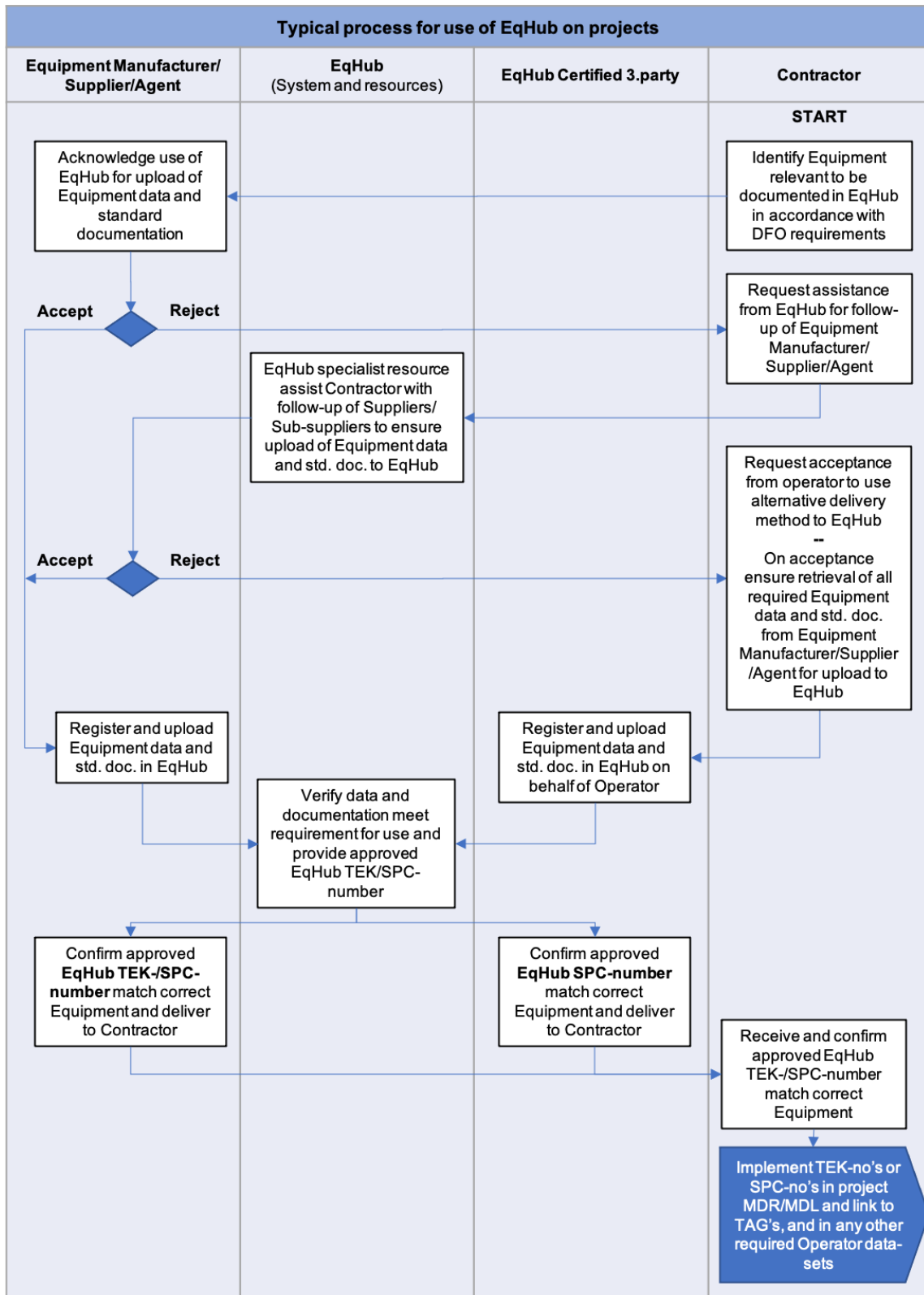


Figure 3 - Typical process for use of EqHub in projects.

**EqHub Certified 3. party:** Role appointed to a Specialist, Company or applicable resource with appropriate certified training from EqHub (E.g., ShareCat, Engineering Contractor specialists etc.).

## 7.2 CONTRACT CLAUSES

[Sample clauses, perhaps with *before* and *after* wording, will be included here in later updates of this guide.]

## 8 FAMILISATION WITH EQHUB

In connection with a company's implementation planning, it is recommended that key users from relevant disciplines (LCI, IT, procurement, ...) familiarise themselves with EqHub.

### 8.1 EQHUB WEB INTERFACE

The EqHub web interface provides access to the functionality and data in EqHub. The functionality and data available depend on whether the user is given operator/contractor or manufacturer access. The focus for this section is the operator/contractor interface.

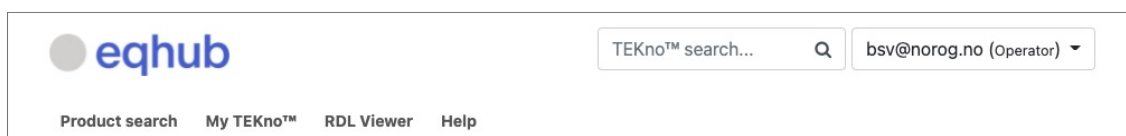


Figure 4 - EqHub web interface (operator/contractor)

- *Product search*: provides a powerful search functionality with the ability to search for manufacturer, specific TEK/SPC number, document (titles), property value and more. The result from a Product search (list of TEK/SPC) can also be exported to a .xlsx or .csv file.
- *My TEKno*: Used to maintain lists of 'own' TEK/SPC for later easy access.
- *RDL Viewer*: Facility to browse and drill down in the class hierarchy to see an equipment's properties and document requirements.
- *TEKno search*: Search for a specific TEK/SPC number.
- *Compare TEKno*: Facility to do a comparison of the information for two TEK/SPC or between different revisions of a TEK/SPC.

### 8.2 EQHUB API

EqHub has an API interface (REST API) containing methods that can be used for interacting with selected functions and data in EqHub.

A typical use of the API is to (bulk) download information from EqHub to the company's own system(s). The API can also be used to create and update EqHub information.

For further information and how to get access to the API interface, see the [FAQ](#), [EqHub API documentation web page](#), or contact support ([support@eqhub.no](mailto:support@eqhub.no)) for further instructions.

## 9 VERSION CONTROL

Version	Date	Author	Rationale
2.3	07.09.2022	Lars Petter Grønvigh	Updated <b>Definitions and Abbreviations</b>
2.2	05.09.2022	Andre Oaland	Minor corrections, updated references, updated template, added section for version control
2.1	24.06.2022	Bernt Svihus	Updated <b>Definitions and Abbreviations</b>