



Maximo höstmöte den 23 november 2021

**GÅR DET ATT LEVA UTAN STANDARDER
FÖR DIGITALISERAD INDUSTRI?**

SWEDISH INDUSTRIAL INTEROPERABILITY ASSOCIATION

SEIIA.SE Swedish Industrial
Interoperability Association



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Established 15th May 2019, Official August 2019

SVERIGE

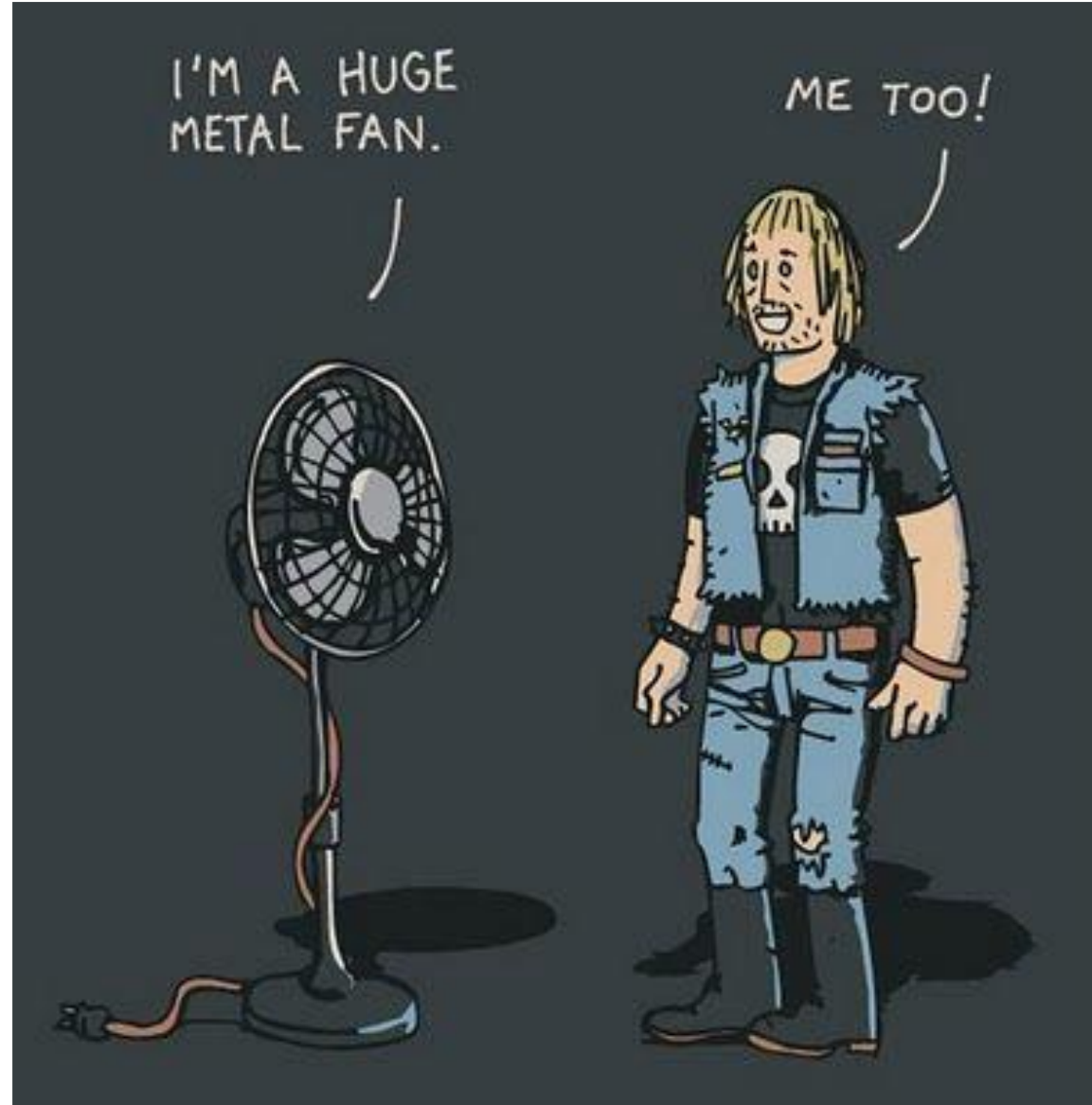
- Vi i Sverige slår oss ofta för bröstet och tycker vi är långt framme på många områden, vi är världsledande på Start-UP.
- Vi har Spotify, iZettle och Skype och en massa framgångssagor kopplat till digitalisering att berätta.
- Det vi också är väldigt bra på är att uppfinna egna smarta lösningar, smarta lösningar som vi vill att våra leverantörer ska följa, vi har krävt vissa ritningsformat, vi har ställt krav på teknisk utformning av utrustning men vi är ganska dåliga på att ställa krav på digitaliserad information.
 - Våra leverantörer är inte bra på att leverera det heller. Dels för vi lever kvar i en föråldrad teknologi och synsätt, vi ställer fortfarande krav på dokumentleveranser när vi borde kräva digitala leveranser av data.
- Vi pratar mycket om digitala tvillingar men när ska vi realisera dem och börja jobba med dem?



CFIHOS



Common Digital Langue



Picture from READI presentation

WE NEED TO TRANSLATE LANGUAGE BETWEEN SOFTWARE!



SAP “language” need to be translated to Oracle “language”



MS “language” need to be translated to Aveva “language”



Siemens “language” need to be translated to ABB “language”



Because there’s no common digital language

INTEROPERABILITY

” the ability of different systems, often in computer contexts, to work together and be able to communicate with each other”

(Source Wikipedia)

PROBLEM STATEMENT:

The lack of a common digital language in the Norwegian oil and gas industry cost several > 10 BNOK, each year*



*Konkraft report (2018), Konkurranskraft – norsk sokkel i endring, page 58 - 60

LACK OF COMMON LANGUAGE IS **NOT** SOLVED BY:



Cloud



New software



Big data



Data analytics



IOT



Machine learning



API

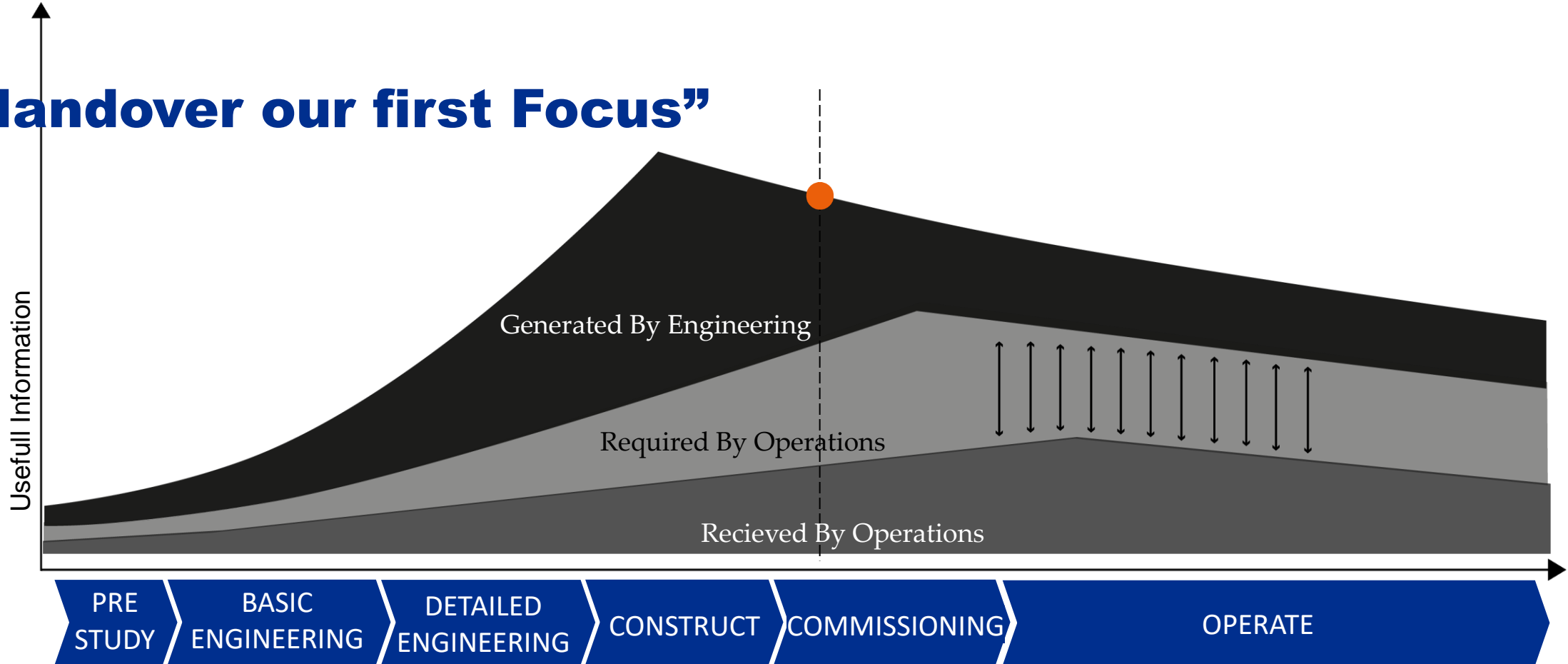


Dashboards

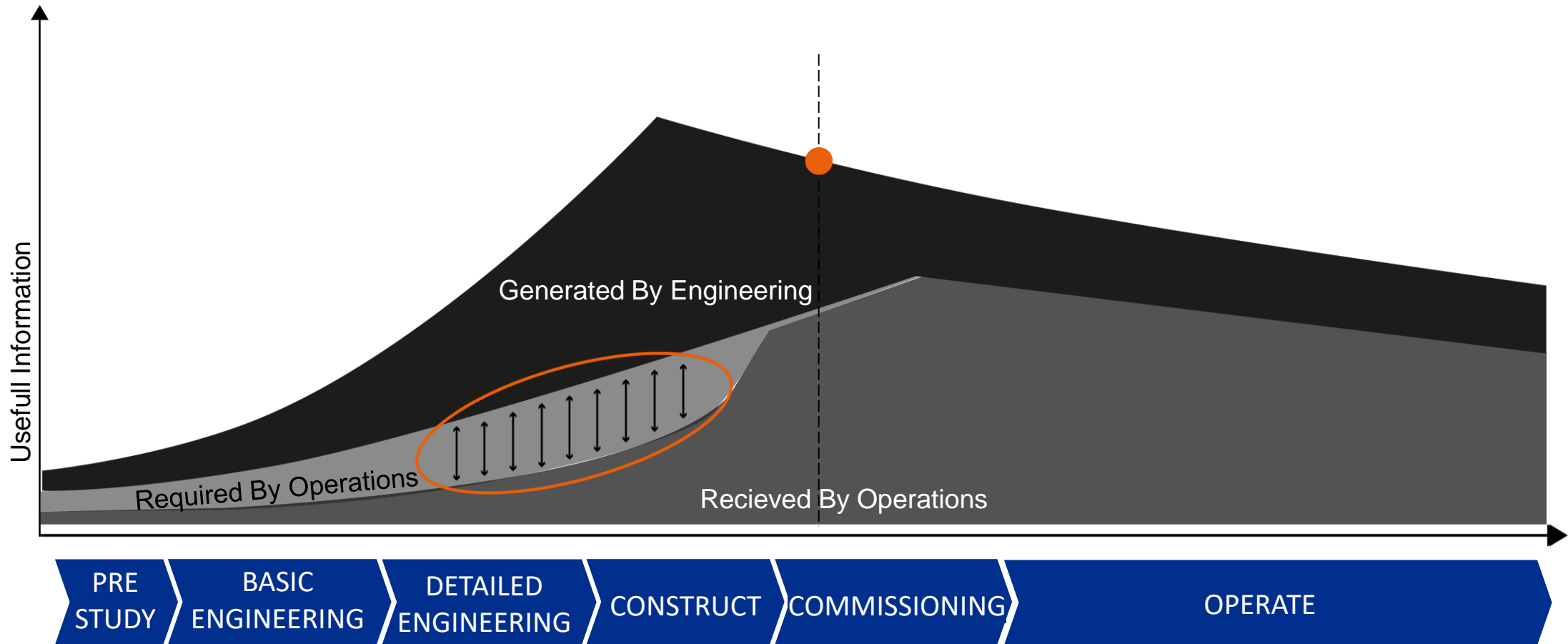


TRADITIONAL HANDOVER

“Handover our first Focus”



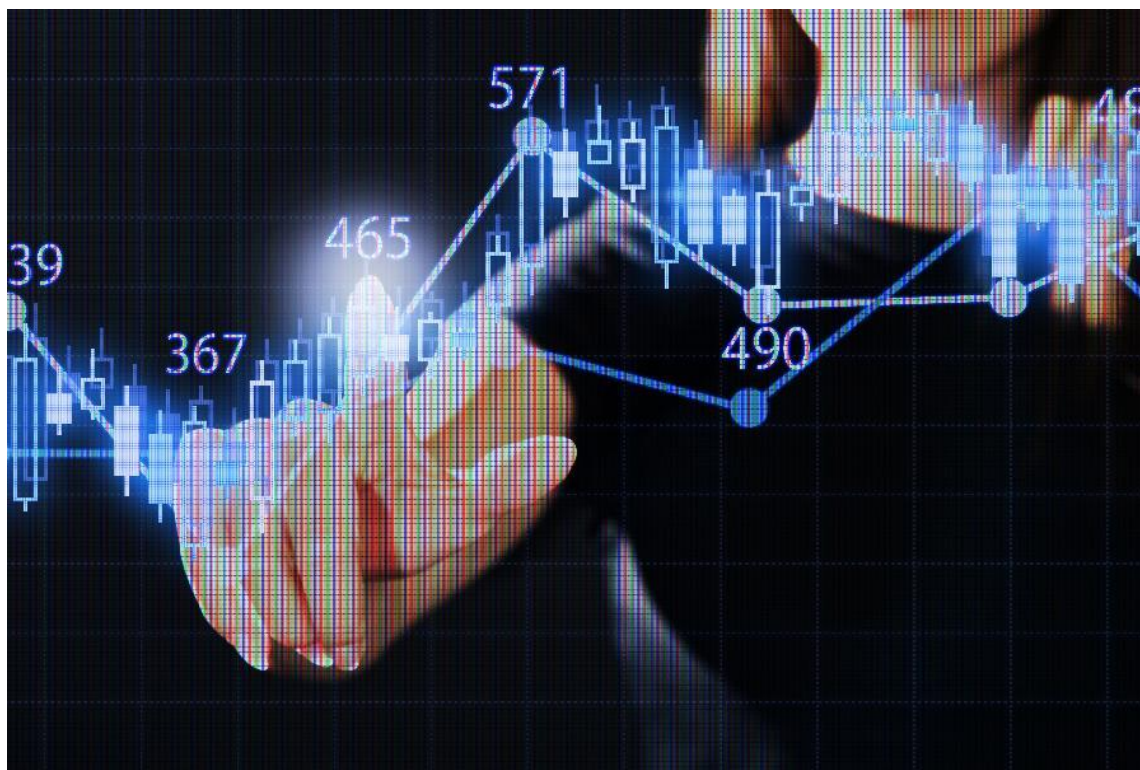
PROGRESSIVE HANDOVER



ISO 15926



WHAT IS SEIIA?



A non profit association for

- increase understanding of interoperability in industry information handover
- adopting international standards and best practice
- participate in international standardization and return Swedish know-how to global development

SEIIA.SE Swedish Industrial
Interoperability Association



MEMBERS 2020-11-16

HOLMEN



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Stora Enso /
Chairman SEIIA



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Stefan Malmsten /
Nouryon

SEIIA STYRELSE

STEFAN MALMSTEN / NOURYON AB / DIRECTOR DIGITAL



Från hemsidan SEIIA.se

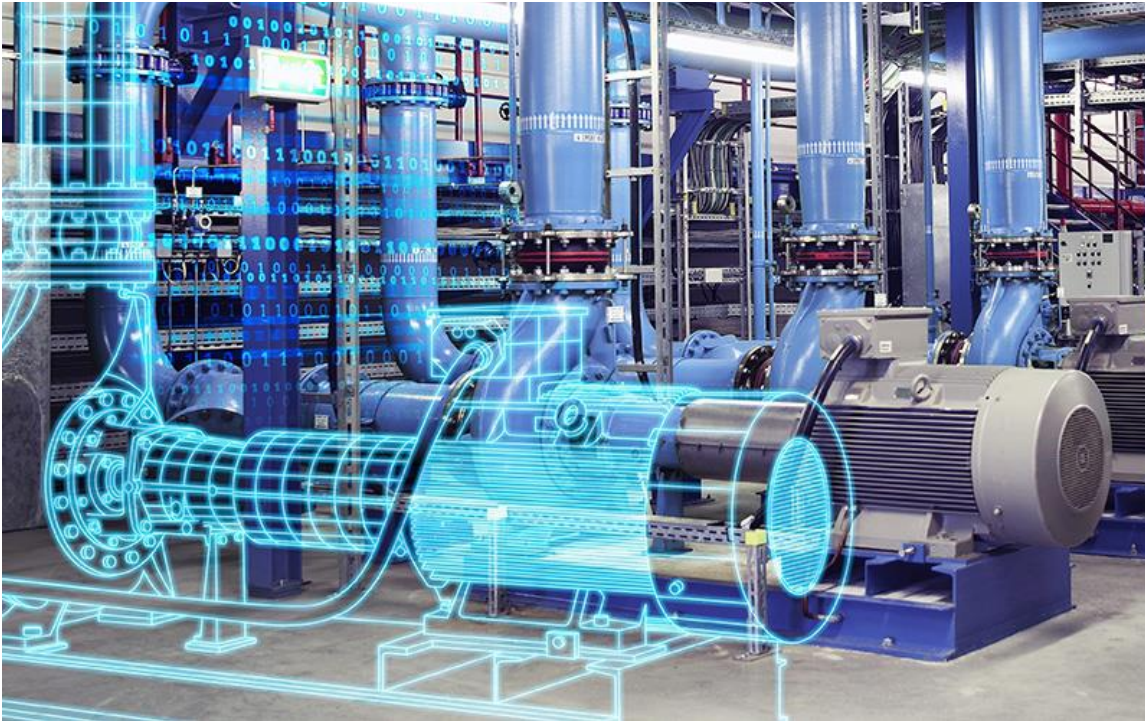
Varför har du engagerat dig i SEIIA och styrelsen?

- Ska man påverka så måste man engagera sig, och jag har både nationell och internationell erfarenhet kring värdet av standardisering och interoperabilitet och vill bidra till fortsatt nytta inte minst på nationell nivå.

Vilka utmaningar ser du i ditt arbete kring interoperabilitet och digitalisering?

- Att tro att man effektivt skall kunna digitalisera ett företags processer utan en tydlig strategi kring interoperabilitet och standards är naivt, många utmaningar gäller tyvärr fortfarande hur, -att få organisationen att inse detta fullt ut och snabbt nog.

FUNDAMENTAL IN SEIIA



Not invent any new wheels

There is lot of industrial standards and ISO/IEC standards that we could adopt and participate in further development instead of develop new.

Act Global

The Interoperability issue is not a local, national questions it's a global issue.

Open not closed!

Non proprietary systems and strategies

MASTERDATA OCH REFERENSDATA

Masterdata representerar "data om affärsenheter som tillhandahåller sammanhang för affärstransaktioner". De vanligaste kategorierna av masterdata är parter (individer och organisationer, och deras roller, såsom kunder, leverantörer, anställda), produkter, finansiella strukturer (såsom reskontra och kostnadsställen) och lokaliseringskoncept.

Masterdata bör särskiljas från referensdata. Medan båda ger sammanhang för affärstransaktioner, **handlar referensdata om klassificering och kategorisering**, medan masterdata handlar om affärsenheter.

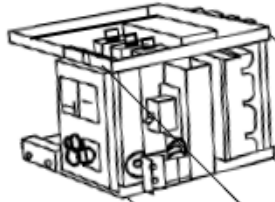
STANDARDISERING

**Går det att leva utan standarder
för digitaliserad industri?**

**Ja möjligen leva nu,
men knappast överleva!**

ASPECTS OF AN OBJECT / ISO/IEC 81346

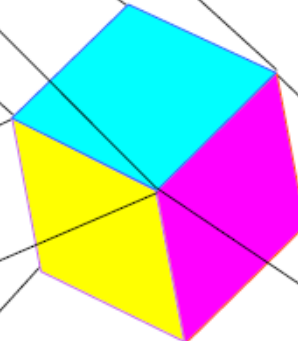
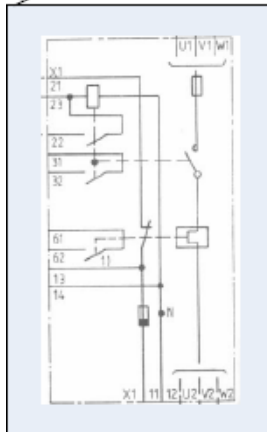
Product
”_”



The product aspect is used to highlight the constructional relations (assembly) of the components of the object.

The function aspect is used to highlight the functional relations among the components of the object.

Function
”=”



Location
”+”

The location aspect is used to highlight the spatial relations among the components of the object.

THE PUMP EXAMPLE

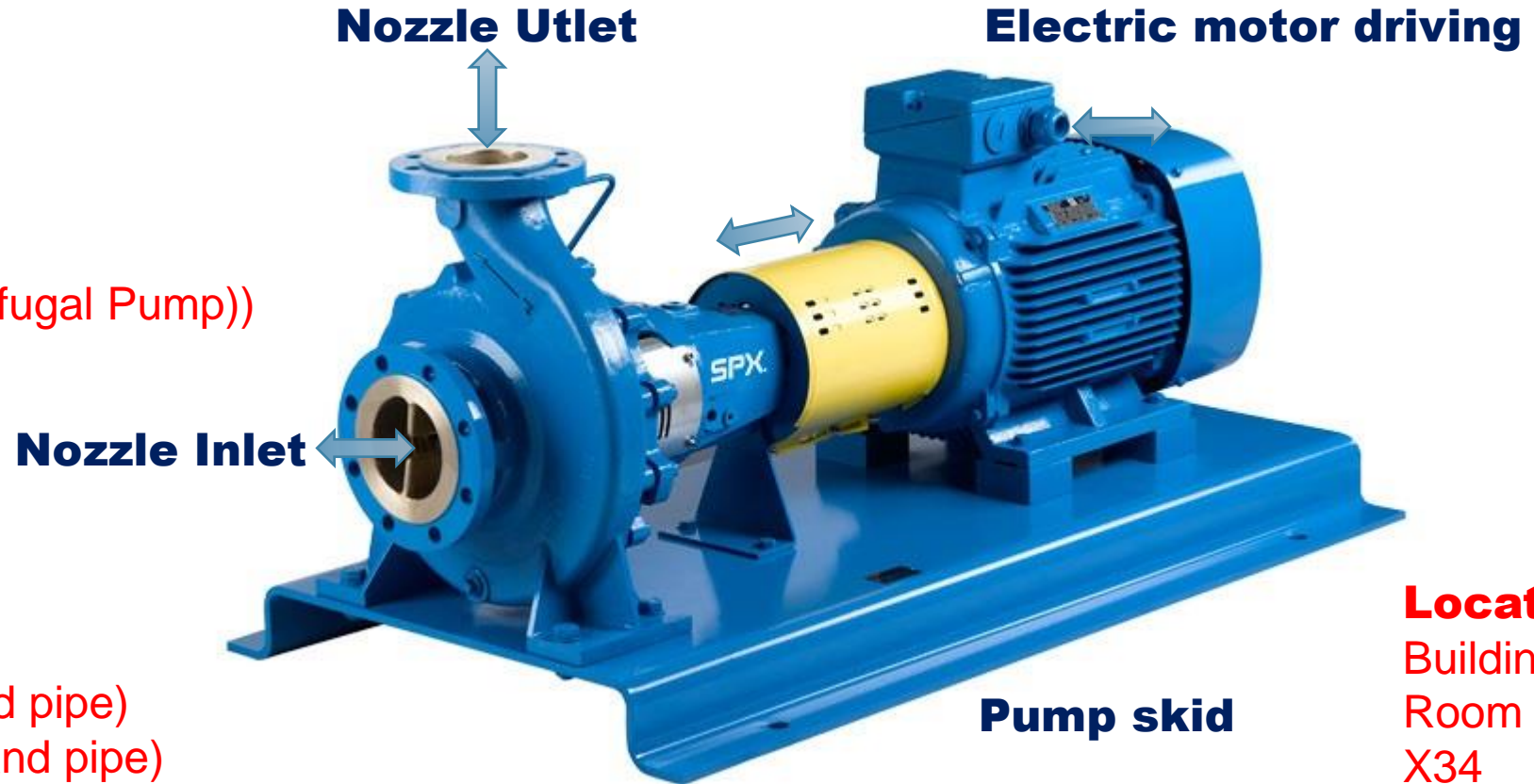
Relation
↔

Product

Minimal flow
Minimal pressure
DN Inlet
DN Outlet
Manufacturer
Type (Pump Class, Centrifugal Pump)

Function

Nominal flow
Nominal pressure
DN Inlet (rel. to nozzle and pipe)
DN Outlet (rel. to nozzle and pipe)
Pump class (Centrifugal Pump)



Location
Building 23A
Room 23A-25
X34
Y56
Z12

THE PUMP EXAMPLE

Relation



Product

ISO/IEC 81346

Minimal flow
Minimal pressure

Nozzle Outlet



Electric motor driving



ISO/IEC 81346 naming and give a structure

ISO 15926 / CFIHOS give data common references

Nominal pressure

DN Inlet (rel. to nozzle and pipe) **ISO 15926/CFIHOS**

DN Outlet (rel. to nozzle and pipe)

Pump class (Centrifugal Pump)

Pump skid



BIM Alliance
SWEDEN

Building 23A
Room 23A-25

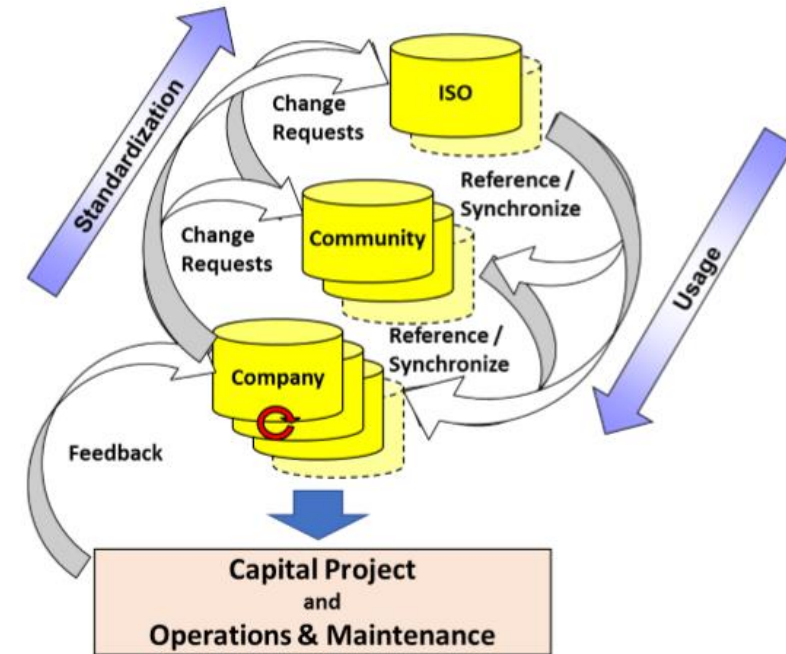
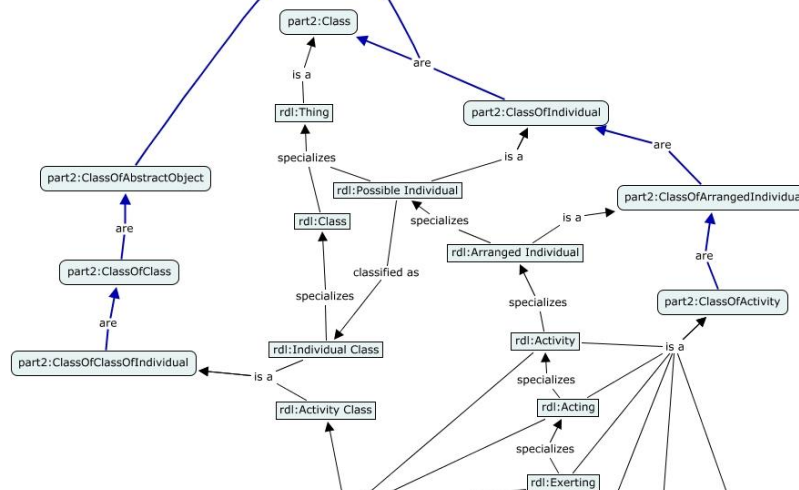
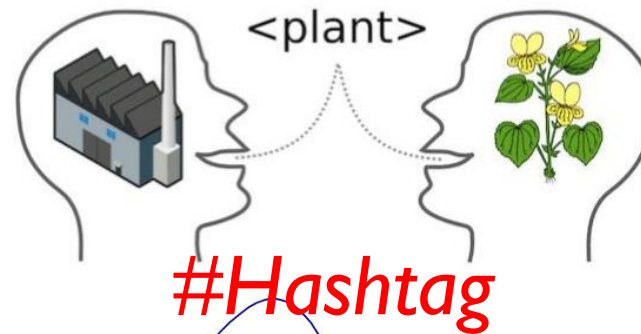
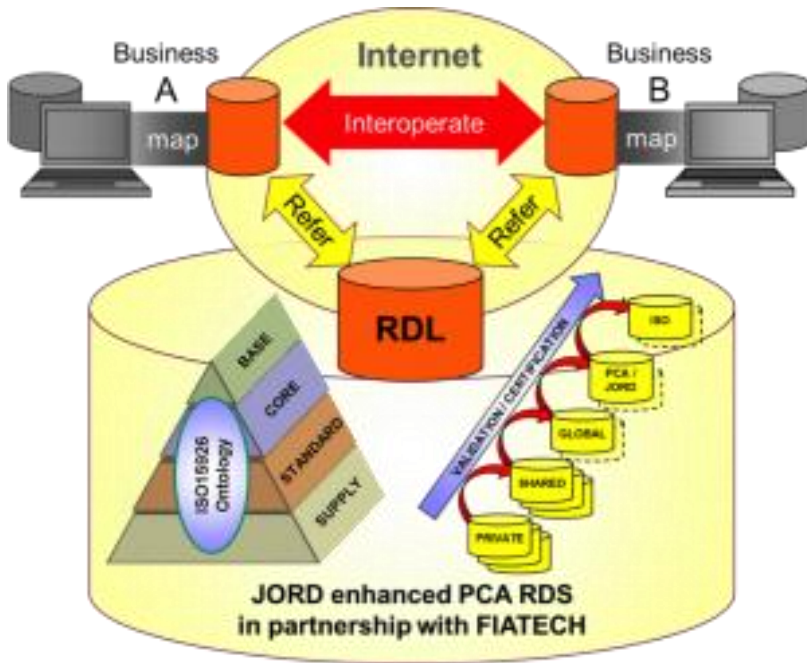
4
Y56
Z12

BIM

ISO 15926

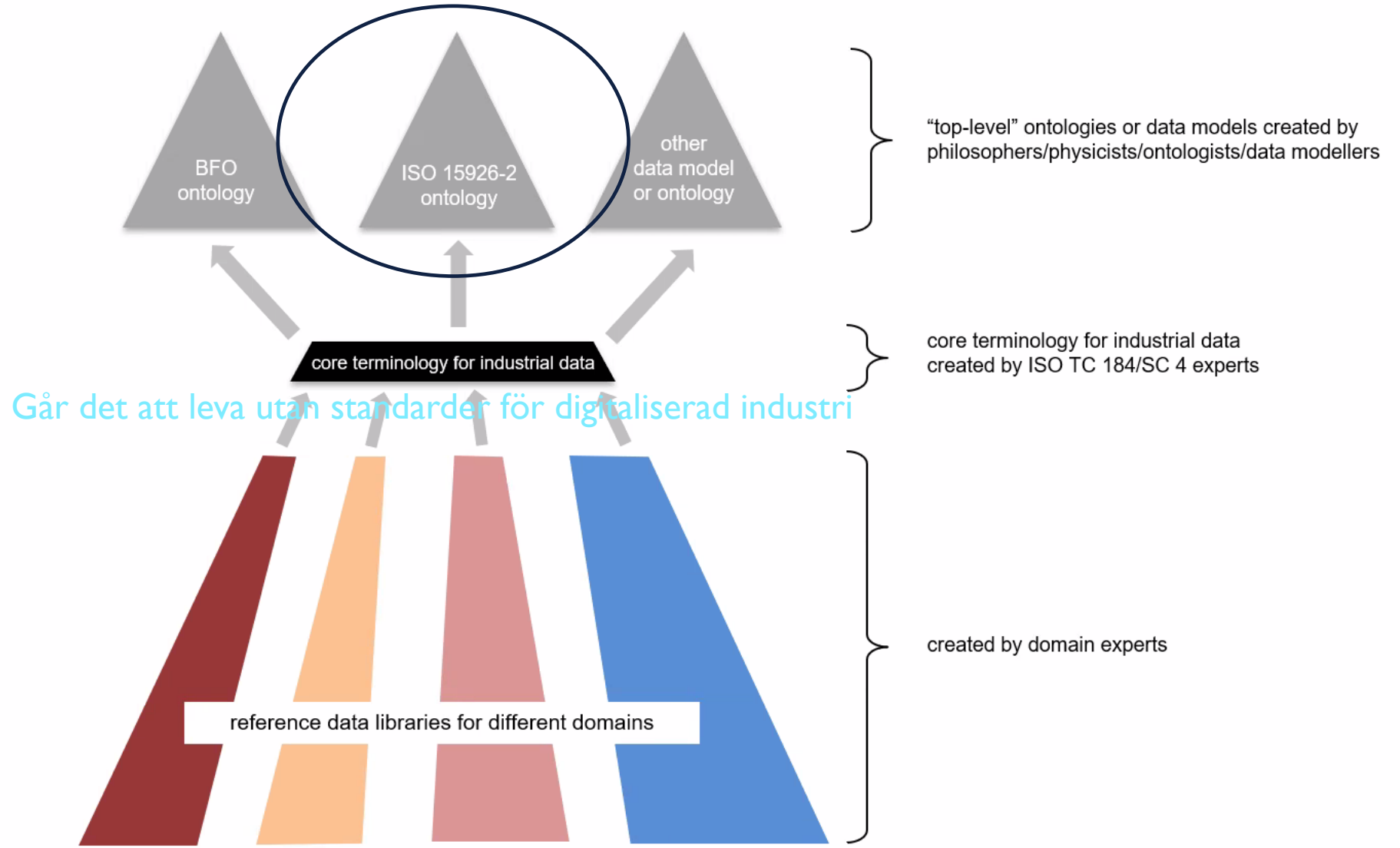
ISO 15926 A standard for interoperability based on "a general, complex data model that uses a reference database (RDL) with concepts to make it understandable"

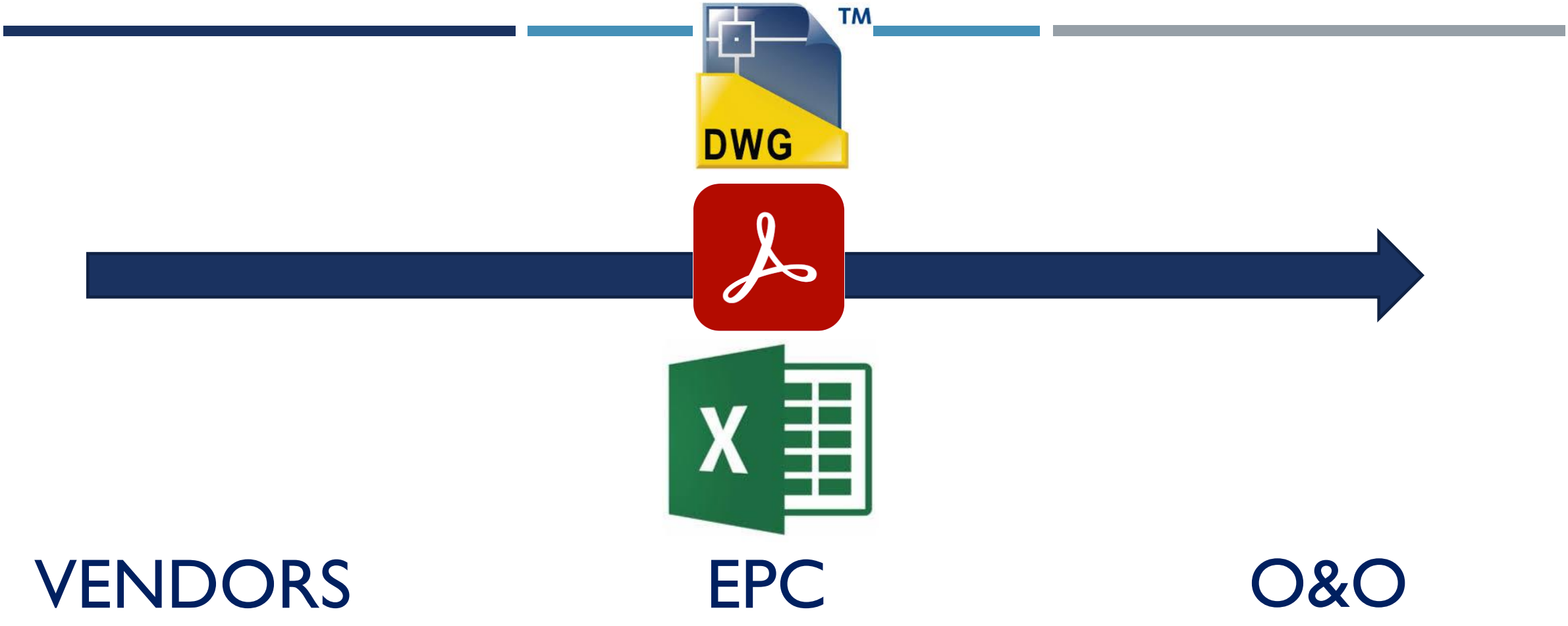
Federation of databases – Semantic Web technology; "Top ontology"





Philosophy above – engineering detail below



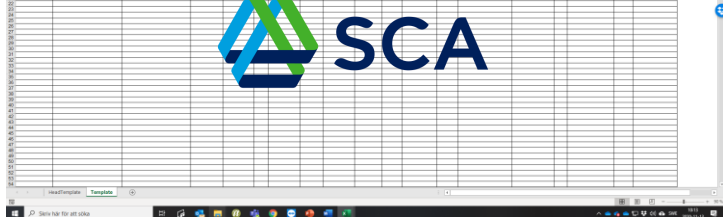


HANDOVER

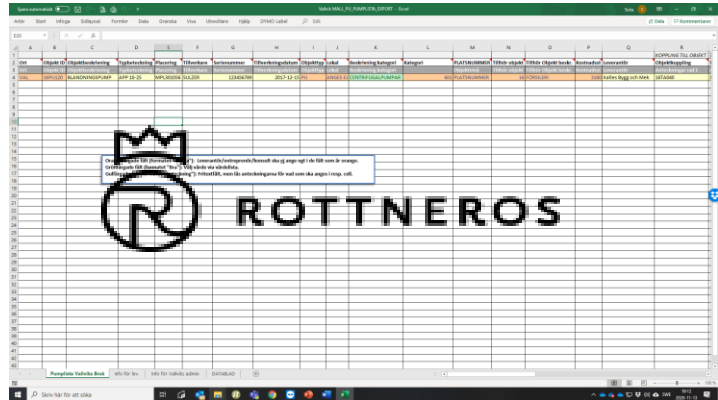
Excel spreadsheet showing a table with columns for 'Tank specifikation' and 'Tekniska Data'. The table contains technical specifications and data for various tanks.

Excel spreadsheet showing a table with columns for 'Pump specifikation' and 'Tekniska Data'. The table contains technical specifications and data for various pumps.

Excel spreadsheet showing a table with columns for 'Rör specifikation' and 'Tekniska Data'. The table contains technical specifications and data for various pipes.



Excel spreadsheet showing a list of materials with columns for 'Material', 'Beskrivning', 'Mått', and 'BOMKOD'. The list includes various types of pipes and fittings.

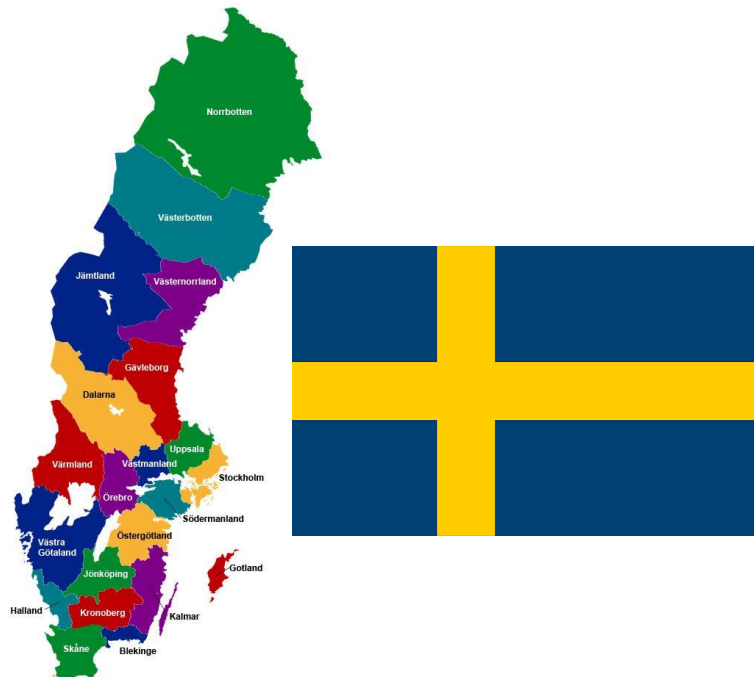


Excel spreadsheet showing a table with columns for 'PUMPLISTA' and 'FLOKESKEMA PROJEKTER'. The table lists various pump projects and their specifications.

Excel spreadsheet showing a table with columns for 'VENTIL OCH ARMATURLISTA' and 'ARBESHANLING'. The table lists various valves and fittings and their handling details.



Excel spreadsheet showing a table with columns for 'Grunddata' and 'Pump'. The table contains basic data and pump specifications.

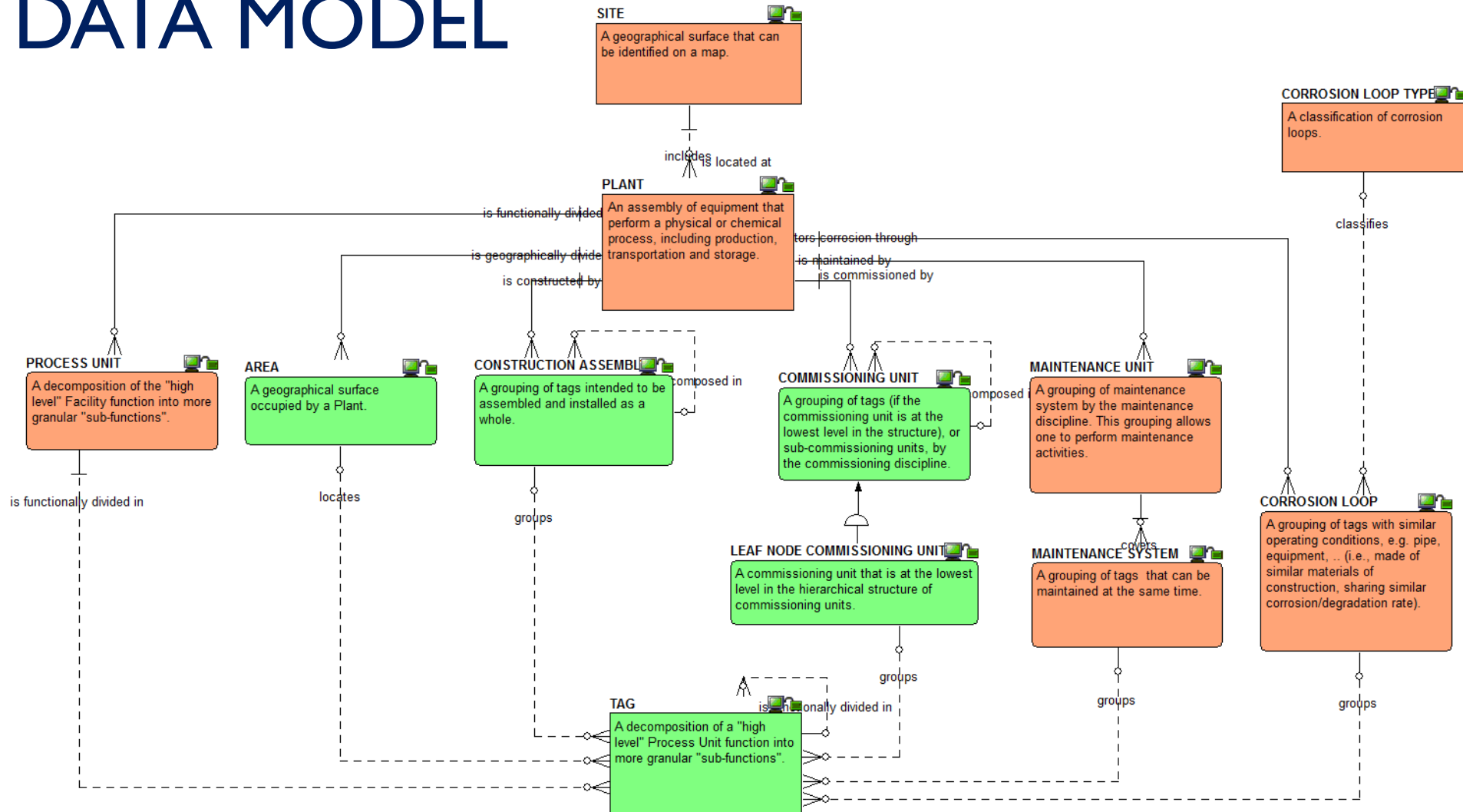




HANDOVER

Capital Facilities Information Handover Specification

PLANT BREAKDOWN STRUCTURE / DATA MODEL

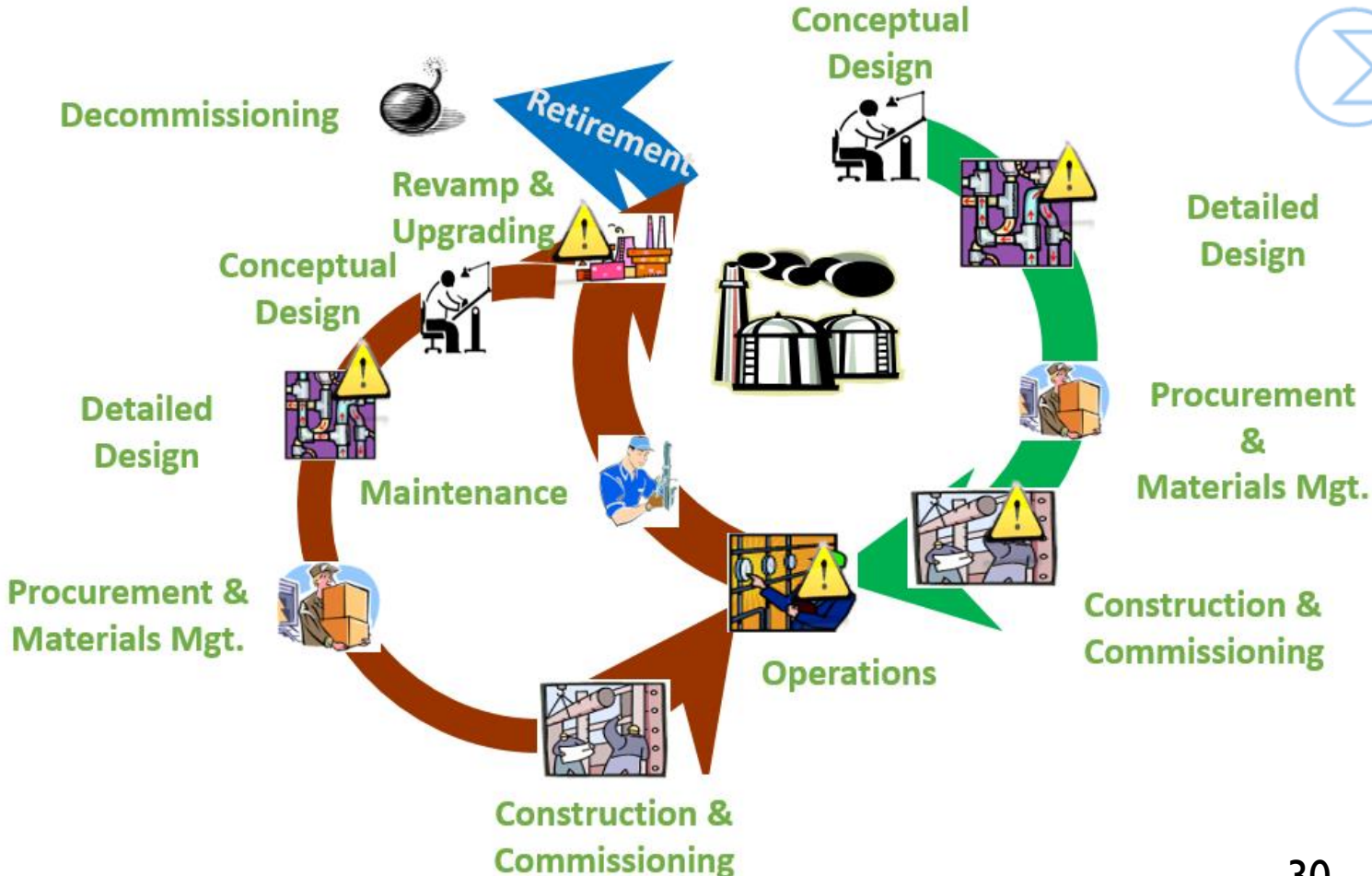


A3 electronic frequency converter

Funktionella strukturer och objekt			Komponent		
Tag Class	Tag class CFIHOS unique id / equipment class CFIHOS	tag property name	tag property CFIHOS unique id	equipment property name	equipment property CFIHOS unique id
electronic frequency	CFIHOS-30000345	explosion protection temperature class	CFIHOS-40000112	ATEX explosive atmosphere	CFIHOS-40000010
		explosion protection zone	CFIHOS-40000113	ATEX group	CFIHOS-40000011
		operating voltage	CFIHOS-40000603	explosion protection concept	CFIHOS-40000108
		rated frequency	CFIHOS-40000522	explosion protection examination certificate	CFIHOS-40000109
		rated output power	CFIHOS-40000523	explosion protection gas group	CFIHOS-40000110
		rated voltage	CFIHOS-40000528	explosion protection material group	CFIHOS-40000612
				explosion protection notified body	CFIHOS-40000111
				explosion protection temperature class	CFIHOS-40000112
				explosion protection zone	CFIHOS-40000113
				ingress protection	CFIHOS-40000173
				rated frequency	CFIHOS-40000522
				rated output apparent power	CFIHOS-40000325
				rated output power	CFIHOS-40000523
				rated power factor (lagging)	CFIHOS-40000329
				rated voltage	CFIHOS-40000528

RDL

DEXPI - DATA EXCHANGE IN PLANT LIFE CYCLE



Software

See how CAE and IIoT softwares and platforms already use DEXPI:



```
</GenericAttributes>  
</ConnectionPoints>  
</Nozzle>  
<Equipment ComponentName="2301" ComponentClassURI="http://posccaesar.org/rdl/RDS416834" ComponentClass="CentrifugalPump"  
ID="XMC_17" Status="Current">  
  <Presentation B="0" G="0" R="0" LineWeight="0.1" LineType="0" Color="0" Layer="0"/>  
</Equipment>
```

```
</Position>  
- <GenericAttributes Number="11" Set="ComosProperties">  
  <GenericAttribute Name="SystemUID" Format="string" Value="A47JICUMD7"/>  
  <GenericAttribute Name="Description" Format="string" Value="CentrifugalPump"/>  
  <GenericAttribute Name="Name" Format="string" Value="Equipment_f0d2890e-fb5e-4932-af72-ff868da6d698"/>  
  <GenericAttribute Name="FullName" Format="string" Value="@20|D20|Y30|XMpLant|Equipment_f0d2890e-fb5e-4932-af72-ff868da6d698"/>  
  <GenericAttribute Name="Label" Format="string" Value=""/>  
  <GenericAttribute Name="FullLabel" Format="string" Value="@20|D20|Y30|XMpLant|Equipment_f0d2890e-fb5e-4932-af72-ff868da6d698"/>  
  <GenericAttribute Name="AliasFullLabel" Format="string" Value="@20|D20|Y30|XMpLant|Equipment_f0d2890e-fb5e-4932-af72-ff868da6d698"/>  
  <GenericAttribute Name="PathFullName" Format="string" Value="13I@20§>13ID20§>13IY30§>13IXMpLant§>13DEquipment_f0d2890e-fb5e-4932-af72-ff868da6d698"/>  
  <GenericAttribute Name="ComosClass" Format="string" Value="D"/>  
  <GenericAttribute Name="ComosDetailClass" Format="string" Value="A"/>  
  <GenericAttribute Name="ComosRIClass" Format="string" Value="S"/>  
</GenericAttributes>  
- <GenericAttributes Number="2" Set="DexpiAttributes">  
  <GenericAttribute Name="FunctionalObjectDescriptionAssignmentClass" Format="string" Value="http://posccaesar.org/rdl/RDS416834"/>  
  <GenericAttribute Name="SymbolRegistrationNumberAssignmentClass" Format="string" Value="ISO10628-X8135A-A01"/>  
</GenericAttributes>  
- <GenericAttributes Number="8" Set="Systemdata">  
  <GenericAttribute Name="Standard system" Format="string" Value="EN/DIN metric"/>  
  <GenericAttribute Name="Allow multiple placement" Format="string" Value="0"/>  
  <GenericAttribute Name="Unit system" Format="string" Value="DIN - metric"/>  
  <GenericAttribute Name="Graphical connector mapping" Format="string" Value="0"/>  
  <GenericAttribute Name="Pipe cut mode" Format="string" Value="Pipe separative"/>  
  <GenericAttribute Name="Direction of symbol extention" Format="string" Value="Vertical"/>  
  <GenericAttribute Name="VSUI attributes" Format="string" Value="@N;@L;@D;Y00T00041.Y00A01182;Y00T00003.Y00A00744;Y00T00003.Y00A00744AA02;Y00T00003.Y00A00746;Y00T00003.Y00A00746AA02;Y00T00003.Y00A02621;Y00T00037.Y00A01281;Y00T00039.Y00A00176;Y00T00039.Y00A00186"/>  
  <GenericAttribute Name="Disable dynamic connector generation" Format="string" Value="0"/>  
</GenericAttributes>  
- <GenericAttributes Number="1" Set="Accessories">  
  <GenericAttribute Name="Driver type" Format="string" Value="No actuator"/>  
</GenericAttributes>  
- <GenericAttributes Number="1" Set="Graphicaloptions">  
  <GenericAttribute Name="Labeling" Format="string" Value="Position designation only"/>  
</GenericAttributes>  
- <GenericAttributes Number="4" Set="Processdata">  
  <GenericAttribute Name="Medium" Format="string" Value="None"/>  
  <GenericAttribute Name="Aggregate state" Format="string" Value="None"/>  
  <GenericAttribute Name="Abrasive" Format="string" Value="No"/>  
  <GenericAttribute Name="Corrosive" Format="string" Value="No"/>  
</GenericAttributes>  
- <GenericAttributes Number="45" Set="Equipmentlist">  
  <GenericAttribute Name="Display in equipment bar" Format="string" Value="1"/>  
  <GenericAttribute Name="Field 4" Format="string" Value="/ m³/h"/>  
  <GenericAttribute Name="Field 5" Format="string" Value="No actuator"/>  
  <GenericAttribute Name="Field 6" Format="string" Value="m"/>  
  <GenericAttribute Name="Field 8" Format="string" Value="/ bar"/>  
  <GenericAttribute Name="Field 9" Format="string" Value="/ °C"/>  
  <GenericAttribute Name="Field 14" Format="string" Value="bar"/>  
  <GenericAttribute Name="Field 15" Format="string" Value="bar"/>  
  <GenericAttribute Name="Field 16" Format="string" Value="kg"/>  
  <GenericAttribute Name="Field 17" Format="string" Value="kg"/>
```


LCDM PHASE 2 – CFIHOS PILOTER

Spara automatiskt Pump per projekt demo 1 - Sparad

Arktiv Start Infoga Sidlayout Formler Data Granska Visa Utvecklare Hjälp

B30

1 Pump specifikation

2 Tekniska Data

3 Bruk:

4 Projektnr:

5 Projektname:

6 Projektlejare:

7 Rapportdatum: 2020.05.12

Information	Funktionsobjekt	Mediakod	Temp	Konc.	Dens.	Hjuldiameter (mm)	Flöde (m ³ /h)	Varvtal (rpm)	Tryckhöjd	Effekt (kW)	Fro	Dimension (mm)	Axelåpp	Hjultyp	Tätningstyp	NPSH	Tryckkl.	Wikt							
Objektnummer	Beskrivning	Schema ref.	Tillverkare	Typbeteckning	Serienummer	SSGI	(C)	(%)	(kg/m ³)	Instalrad	Max	Min	Normal	Max	Min	Normal	Max	Instal	Den	DN in	DN ut	(mm)	(mm)	(Bar)	(kg)
11																									
14	211PU0001	Råvattenspump 1	SBT-200411	A60-500	100169690	W03	25		525	525	5200		770	51	200	127	500	600	90 m7	Specialöppet		4,0	10		
15	211PU0005	Brandvattenspump 1 El-Drivet	SBT-210534	A32-80		W23	25		270	330	225		2650	90	90	75	125	80	42 k7	Öppet		4,8	16		
16	211PU0010	Tätningpump 3 f Remvtank	SBT-201365	A22-80	100169846	W20	25		238	265	250		2733	75	75	64	125	80	32 k7	Öppet		4,5	16		
17	211PU0030	Pump 1 Skyffeln.	SBT-200420	A63-500	100169794	W03	25		635	635	4800		1105	50	600	627	500	500	90 m7	Specialöppet		7,2	10		

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27 Funktion

28 Komponent

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HeadTemplate Template Equipment TAG

Skriv här för att söka



Spara automatiskt QQQQQQ_Objektmall_AAMDD Idus - Demo (version 1) - Excel

Arktiv Start Infoga Sidlayout Formler Data Granska Visa Utvecklare Hjälp

A20

1 Fält enligt "Objektlista"

2 Objektstyp

3

4

5 OBJECTTYPE

6 Objekttyp = Bladnamn

7 CFHOS-10000294

8 http://data.15326.org/utthos/10000294

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
OBJECTTYPE	DUSID	TREEPOSITION	POSID	A1	I1	I2	GROUPS	NOTES	RUNTIME	A2	A3	A4	A5	A6	B1
Objekttyp = Bladnamn	Dusidentitel	Nivå	Pos.Id	Benämning	Information	Grupp	Anteckningar			Typbeteckning	Till.nr / Serie nr.	Version / Asmodell	Fabrikat	Leverantör (befintlig)	Monter
										CFHOS-10000294	CFHOS-10000177		CFHOS-10000294	CFHOS-10000177	
										http://data.15326.org/utthos/10000294	http://data.15326.org/utthos/10000177		http://data.15326.org/utthos/10000294	http://data.15326.org/utthos/10000177	





Tag Class	
Document Version	V1.4
Date Issued	17-Oct-19
Date updated	N/A

Parent tag class name	Tag class name	Tag class definition	Abstract	ISO1	CFIHOS unique id	Unique	Unique id POSC CAESAR	Referer	Tag number	Equipment	Reason	Synonym	Created	Modified	Termin	Change	Status
other mechanical equipment	beam clamp	An equipment fit	no		CFIHOS-30000001		RDS1324408031			yes			2017-02-1	2019-10-01	T00:47:4	CR0005;C	STANDARD
vehicle	bicycle	A two or three whe	no		CFIHOS-30000002	670171	RDS16236439			yes			2017-02-1	2019-10-01	T00:47:4	CR0005;C	STANDARD
other mechanical equipment	blow out preventer	An artefact which	no		CFIHOS-30000003		RDS6712331			yes			2017-02-1	2019-10-01	T00:47:4	CR0005;C	STANDARD
health, safety and environment	break glass unit	A device for acti	no		CFIHOS-30000004					yes			2017-02-1	2019-10-01	T00:47:4	CR0005;C	STANDARD
health, safety and environment	breathing apparatus	A respirator in v	no		CFIHOS-30000005		RDS621044			yes			2017-02-1	2019-10-01	T00:47:4	CR0005;C	STANDARD
infrastructure	bridge	Is a support stru	no		CFIHOS-30000006	40017	RDS289304			no			2017-02-1	2019-10-01	T00:47:4	CR0005;C	STANDARD
enclosure	cabinet	Is an enclosure i	no		CFIHOS-30000007	70037	RDS485369			yes			2017-02-1	2019-10-01	T00:47:4	CR0005;C	STANDARD
enclosure	caisson	A protective dev	no		CFIHOS-30000008		RDS286244			no			2017-02-1	2019-10-01	T00:47:4	CR0005;C	STANDARD
level transmitter	capacitance level transmitter	A level transmit	no		CFIHOS-30000010	71262	RDS1011374			yes			2017-07-1	2019-10-01	T00:47:4	CR0002;C	STANDARD
vehicle	car	A vehicle of less	no		CFIHOS-30000011	670024	RDS11526424			yes			2017-02-1	2019-10-01	T00:47:4	CR0005;C	STANDARD
IT and telecom equipment	cctv camera	Closed-Circuit T	no		CFIHOS-30000012		RDS1300003161			yes			2017-02-1	2019-10-01	T00:47:4	CR0005;C	STANDARD
lifting device	chain hoist	A hoist utilizing	no		CFIHOS-30000013		RDS5799410			yes			2017-02-1	2019-10-01	T00:47:4	CR0005;C	STANDARD
infrastructure	chimney	Is a shaft (civil)	no		CFIHOS-30000014	40029				no			2017-02-1	2019-10-01	T00:47:4	CR0005;C	STANDARD
other mechanical equipment	clamp	A mechanical de	no		CFIHOS-30000016	10421	RDS1324266341			yes			2017-02-1	2019-10-01	T00:47:4	CR0005;C	STANDARD
other mechanical equipment	cleaning machine	Any mechanical	no		CFIHOS-30000017					yes			2017-02-1	2019-10-01	T00:47:4	CR0005;C	STANDARD
health, safety and environment	climbing net	A net in an oper	no		CFIHOS-30000018					yes			2017-02-1	2019-10-01	T00:47:4	CR0005;C	STANDARD
analysing instrument	cold filter plugging point analyser	The temperatur	no		CFIHOS-30000019	70044				yes			2017-07-1	2019-10-01	T00:47:4	CR0002;C	STANDARD
analysing instrument	colour analyser	An analyser inte	no		CFIHOS-30000020	71091				yes			2017-07-1	2019-10-01	T00:47:4	CR0002;C	STANDARD
transmitter	concentration transmitter	A transmitter m	no		CFIHOS-30000021		RDS1455523211			yes			2017-07-1	2019-10-01	T00:47:4	CR0002;C	STANDARD
electrical equipment control	control module	A module for co	no		CFIHOS-30000022		RDS5773641			yes			2017-02-1	2019-10-01	T00:47:4	CR0005;C	STANDARD
flow element	coriolis mass flow element	An element loc	no		CFIHOS-30000023		RDS613394			yes			2017-07-1	2019-10-01	T00:47:4	CR0002;C	STANDARD
lifting device	crane hook block	A block with a h	no		CFIHOS-30000024					yes			2017-02-1	2019-10-01	T00:47:4	CR0005;C	STANDARD
other mechanical equipment	degasser	A device that re	no		CFIHOS-30000026		RDS297764			yes			2017-02-1	2019-10-01	T00:47:4	CR0005;C	STANDARD
electrical equipment control	dehumidifier	A piece of equip	no		CFIHOS-30000027					no			2017-02-1	2019-10-01	T00:47:4	CR0005;C	STANDARD
health, safety and environment	deionizer	A filtration devi	no		CFIHOS-30000028					yes			2017-02-1	2019-10-01	T00:47:4	CR0005;C	STANDARD

Pump specifikation

Tekniska Data

Bråk:	CFIHOS-10000006	Plant name	http://data.15926.arq/cfi/haar/10000006
Projektnr:	CFIHOS-10000161	Project code	http://data.15926.arq/cfi/haar/10000161
Projektamn:	CFIHOS-10000094	Project name	http://data.15926.arq/cfi/haar/10000094
Projektledare:	CFIHOS-20000001	Project Management and En	http://data.15926.arq/cfi/haar/20000001
Rapportdatum:	2021-10-03		

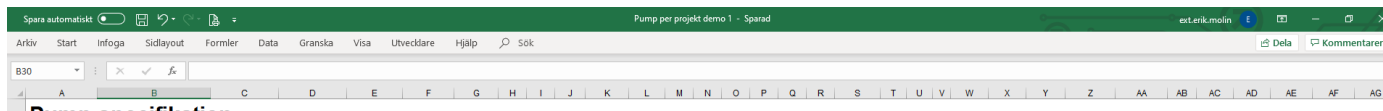
Information Funktionsobjekt

Objektnummer	Beskrivning	Schema ref.	Tillverkare	Typbeteckning	Serienummer	Mediakod [SSG]	Temp [C]	Konc. [%]	Dens. [kg/m3]	Hjuldiameter [mm]	Flöde [m3/h]		Varvtal [rpm]			Tryckhöjd [m]	Effekt [kW]	Fro	Dimension [mm]		Axeltapp [mm]	Hjultyp	Tätningstyp	NPSHr [m]	Tryckkl. [Bar]	Vikt [kg]
										Installerad	Max	Min	Normal	Max	Min	Normal	Max	Install.	Dim	DN in	DN ut					
X	X													X			X									
CFIHOS-10000166	CFIHOS-10000177	CFIHOS-10000154	CFIHOS-10000159	CFIHOS-10000159	CFIHOS-10000163	CFIHOS-40000134	CFIHOS-40000514	CFIHOS-40000514	CFIHOS-40000547									CFIHOS-40000524		CFIHOS-40000	CFIHOS-40000	CFIHOS-40000		CFIHOS-40000547	CFIHOS-40000547	CFIHOS-40000494
http://data.15926.arq/cfi/haar/10000166	http://data.15926.arq/cfi/haar/10000177	http://data.15926.arq/cfi/haar/10000154	http://data.15926.arq/cfi/haar/10000159	http://data.15926.arq/cfi/haar/10000159	http://data.15926.arq/cfi/haar/10000163	http://data.15926.arq/cfi/haar/40000134	http://data.15926.arq/cfi/haar/40000514	http://data.15926.arq/cfi/haar/40000514	http://data.15926.arq/cfi/haar/40000547									http://data.15926.arq/cfi/haar/40000524		http://data.15926.arq/cfi/haar/40000	http://data.15926.arq/cfi/haar/40000	http://data.15926.arq/cfi/haar/40000		http://data.15926.arq/cfi/haar/40000547	http://data.15926.arq/cfi/haar/40000547	http://data.15926.arq/cfi/haar/40000494
211PU0001	Rävattenpump 1	SBT-200411		A60-600	100169690	W03	25			525	525		3200				779	31	200	127	500	600	90 m7	Specialöppet	4,0	10
211PU0005	Brandvattenpump 1 EI-Drive	SBT-210534		A32-80		W23	25			270	330		225				2950	90	90	75	125	80	42 k7	Öppet	4,8	16
211PU0010	Tätvpump 3 f Renv.tank	SBT-201365		A22-80														4	4	125	80	32 k7	Öppet	4,5	16	
211PU0030	Pump 1 Kyltorn	SBT-208420		A63-500	1100169794	W03	25			635	635		4800			1036		800	97	500	500	90 m7	Specialöppet	7,2	10	

Funktion	
Komponent	
Säknas i listad	

Flöde [m3/h]			Varvtal [rpm]		
Min	Normal	Max	Min	Normal	Max
		X			X
CFIHOS-40	CFIHOS-40	CFIHOS-40	CFIHOS-40	CFIHOS-40	CFIHOS-40
http://data.15926.arq/cfi/haar/40000134	http://data.15926.arq/cfi/haar/40000514	http://data.15926.arq/cfi/haar/40000514	http://data.15926.arq/cfi/haar/40000547	http://data.15926.arq/cfi/haar/40000547	http://data.15926.arq/cfi/haar/40000494
	3200			779	
	225			2950	
	250			2733	
	4800			1036	

LCDM PHASE 2 – CFIHOS PILOTER



In principle, we could transfer data from our tools more or less automatically to the desired standard specification!

From a big EPC in Swedish P&P industry.

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NIC INITIATIVE

NORDIC INTEROPERABILITY COOPERATION



TRUST


COOPERATION

UNPRETENTIOUS

A	B	C	D
Pumpspecifikation based on CFIHOS 1.4			
Plant name	CFIHOS-10000006		
Project code	CFIHOS-10000161		
Project name	CFIHOS-10000084		
Project Management and Engineering	CFIHOS-20000001		
Svenska		Objekt nr/nr	
		Tag name	
Tag class name	Tag class name ID		
CFIHOS-10000040		CFIHOS-100	
centrifugal pump	CFIHOS-30000521	X	X
reciprocating pump	CFIHOS-30000862	X	X
rotary pump	CFIHOS-30000864	X	X
eductor	CFIHOS-30000038	X	

Partners in NIC-Sweden ett PiiA projekt

- Endress+Hauser
- Eurocon
- Eurostep
- Frontway
- LKAB
- PlanB
- Plantvison
- SCA
- Siemens
- SSG
- StoraEnso
- Boliden
- BillerudKorsnäs
- SEIIA
- PiiA / RISE
- ProcessIT / LTU



R	S
limit	lower limit
ing outlet	operating
re	temperature
40000554	CFIHOS-40000504
X	X
X	X
X	X

MOT SAMMA MÅL, ISO 15926 RDL2 ED 3



CDD / IEC61987



→ ○ → **CFIHOS**



International
Association
of Oil & Gas
Producers

JIP33



ISO 15926 RDL

ISO 15926-4 ed 3

SUPPORT SEIIA AND BECOME A MEMBER

SEIIA.SE Swedish Industrial
Interoperability Association





THANKS

INFO@SEIIA.SE

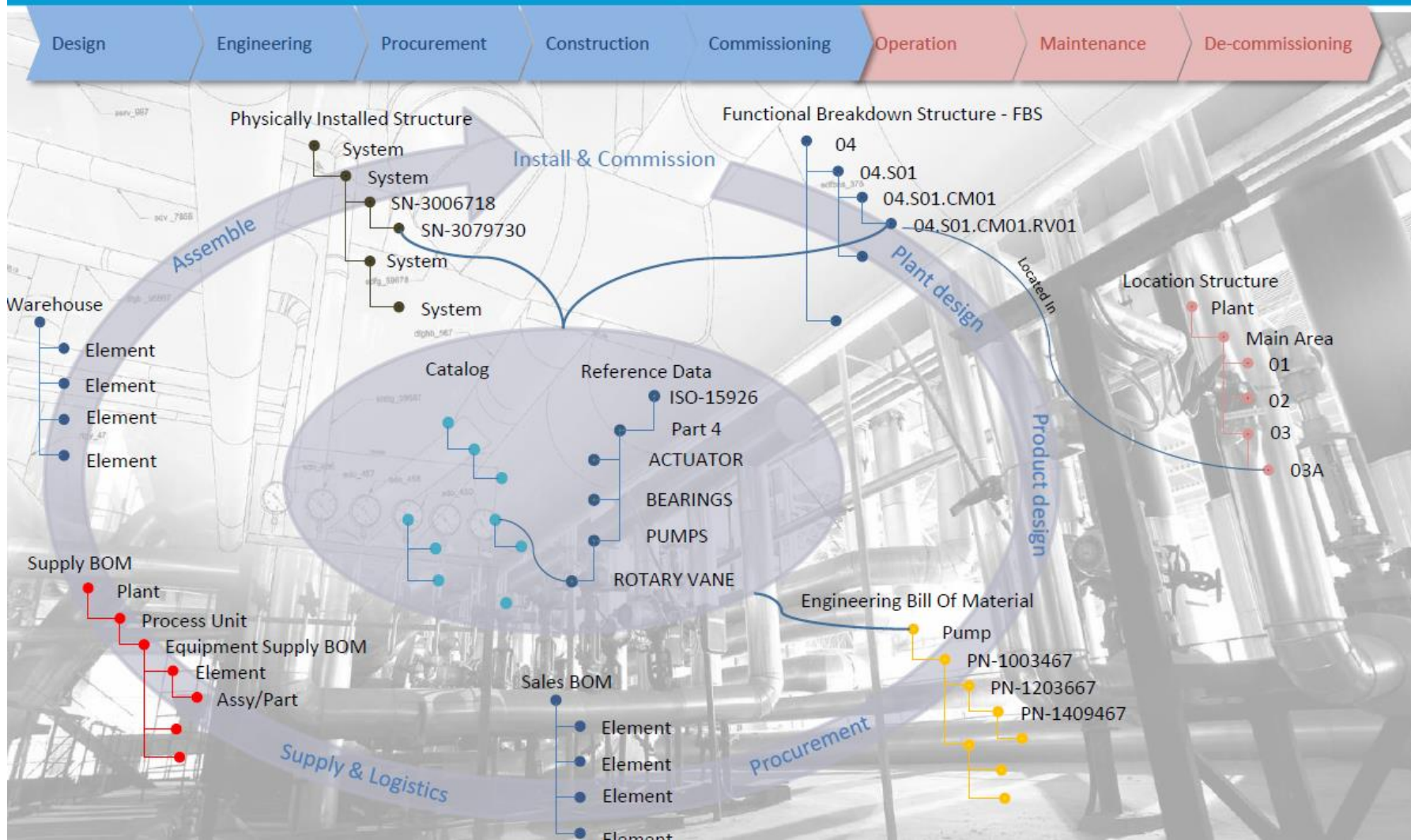
ALT.

ERIK.MOLIN@SEIIA.SE

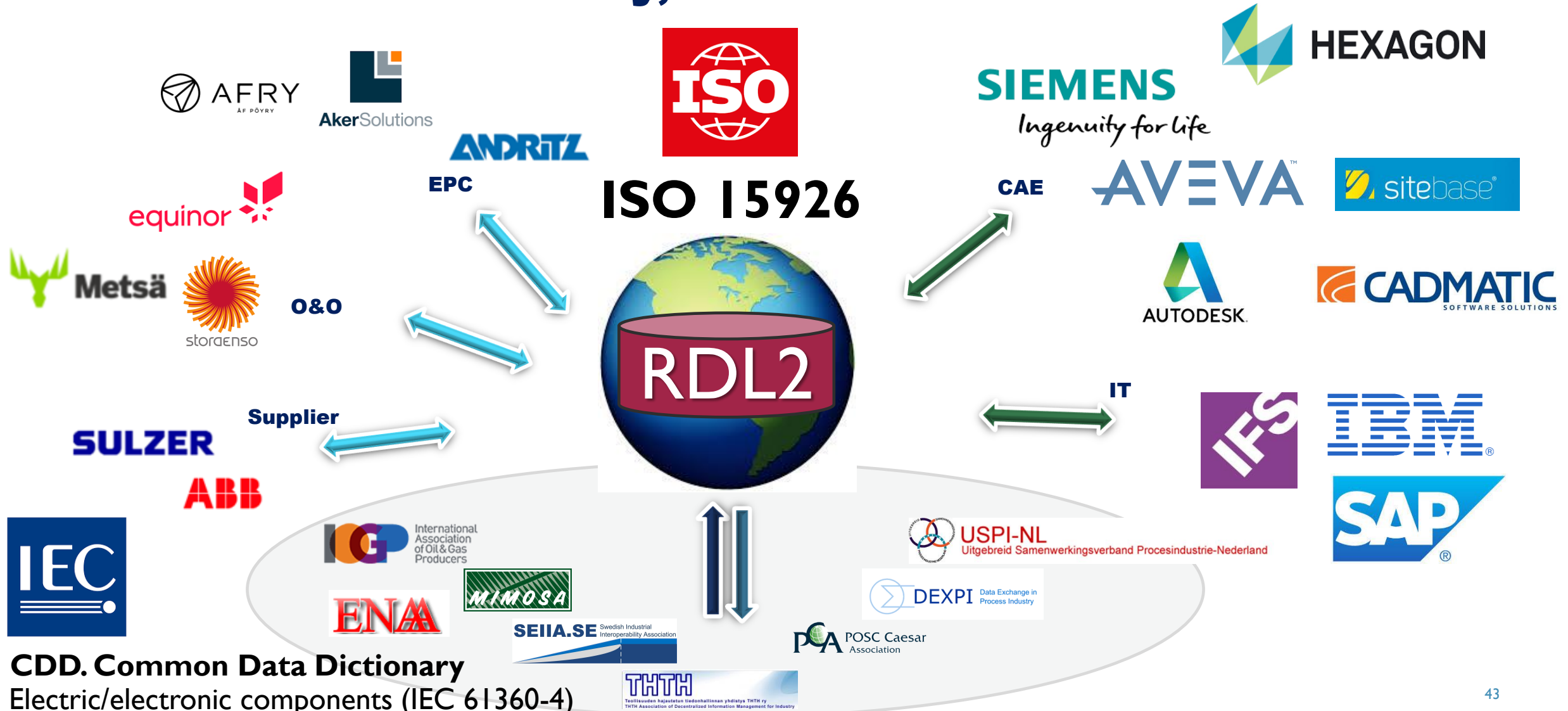
IN SWEDEN



Common Reference Data and Catalogs are key



Asset Intensive Industry, Global Standards



CDD. Common Data Dictionary
 Electric/electronic components (IEC 61360-4)
 Process automation (IEC 61987 series)
 Low voltage switchgear (IEC 62683 series)

Classification of objects and codes for classes, ISO/IEC 81346