



# **We Swedes are lazy!**

**SEIIA.SE** Swedish Industrial  
Interoperability Association



# **Industrial Interoperability, the platform for digital transformation of industry**

**SEIIA.SE** Swedish Industrial  
Interoperability Association



# MoU ThTh - SEIIA

Memorandum of Understanding between SEIIA and THTH  
October 29, 2019

## I. Parties to this Memorandum of Understanding (MOU)

**I. Purpose of Memorandum of Understanding** -SEIIA and THTH seek to enable their members and others in the industry gain efficiencies in their business operations through the pragmatic use of Supplier-neutral, Open International and Industry Specifications and Standards. Both organizations see mutual benefits in agreeing to align efforts.

Decentralized Information Management for Industry.

**II. Purpose of Memorandum of Understanding** -SEIIA and THTH seek to enable their members and others in the industry gain efficiencies in their business operations through the pragmatic use of Supplier-neutral, Open International and Industry Specifications and Standards. Both organizations see mutual benefits in agreeing to align efforts.

**III. General Principles** - SEIIA and THTH will each continue to operate as separate organizations with no direct legal or financial obligations to the other, except as may be defined and agreed to in specific additional documents associated with possible specific project efforts.

A. SEIIA is supporting process industry plant information management during the whole life cycle of industrial assets from investments projects to operation and maintenance. Runs project and arranges seminars and training as well as collaborate with standardization organizations and companies nationally and internationally.

# **SEIIA - Swedish Industrial Interoperability Association**

**Vision:** Plant projects that deliver according to plan, on time and on budget with plant information delivered before the associated physical equipment and where it is always structured and digital and based on common applications and experiences.

**Purpose:** To join the industry and its suppliers with an industry-led association to develop, provide and share applications of relevant international standards and methods within interoperability and to carry out activities to inform, educate, inspire, test and develop collaborations within and between the industry.

**Objective:** In 2021, the association shall be established within the Swedish industry, have international development co-operation and have a first available application of the standard for interoperability of plant information. By 2024, this should be the normal approach of the industry.



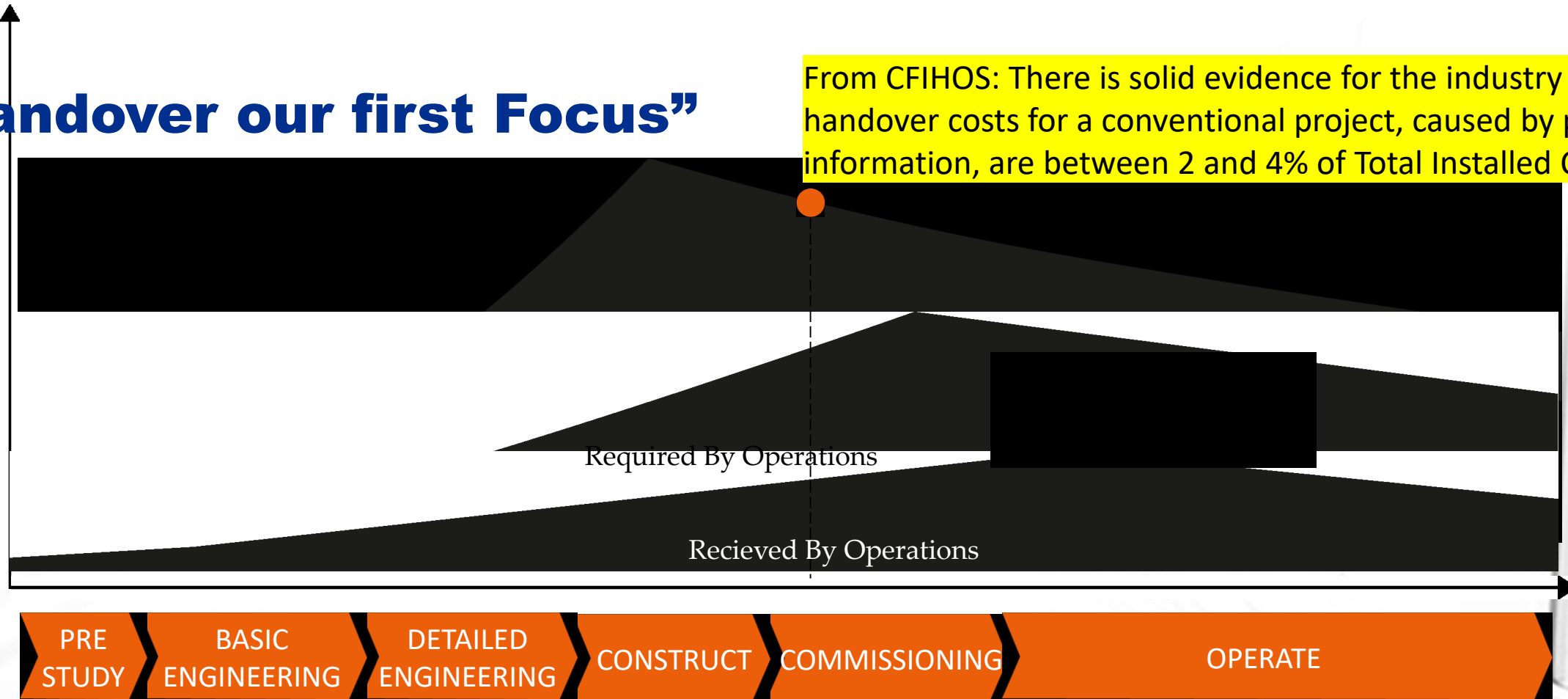
## ***The Interim Board SEIIA:***

- *Johnny Sundström / Stora Enso / Chairman*
- *Niklas Noren / Preem Göteborg*
- *Mats Larsson / Iggesund – Holmen*
- *Conny Olsson / Stockholm Vatten*
- *Andres Dingvall Rauchwerger / SIS*
- *Thomas Andersson/ Siemens*
- *Björn Jonsson / ABB*

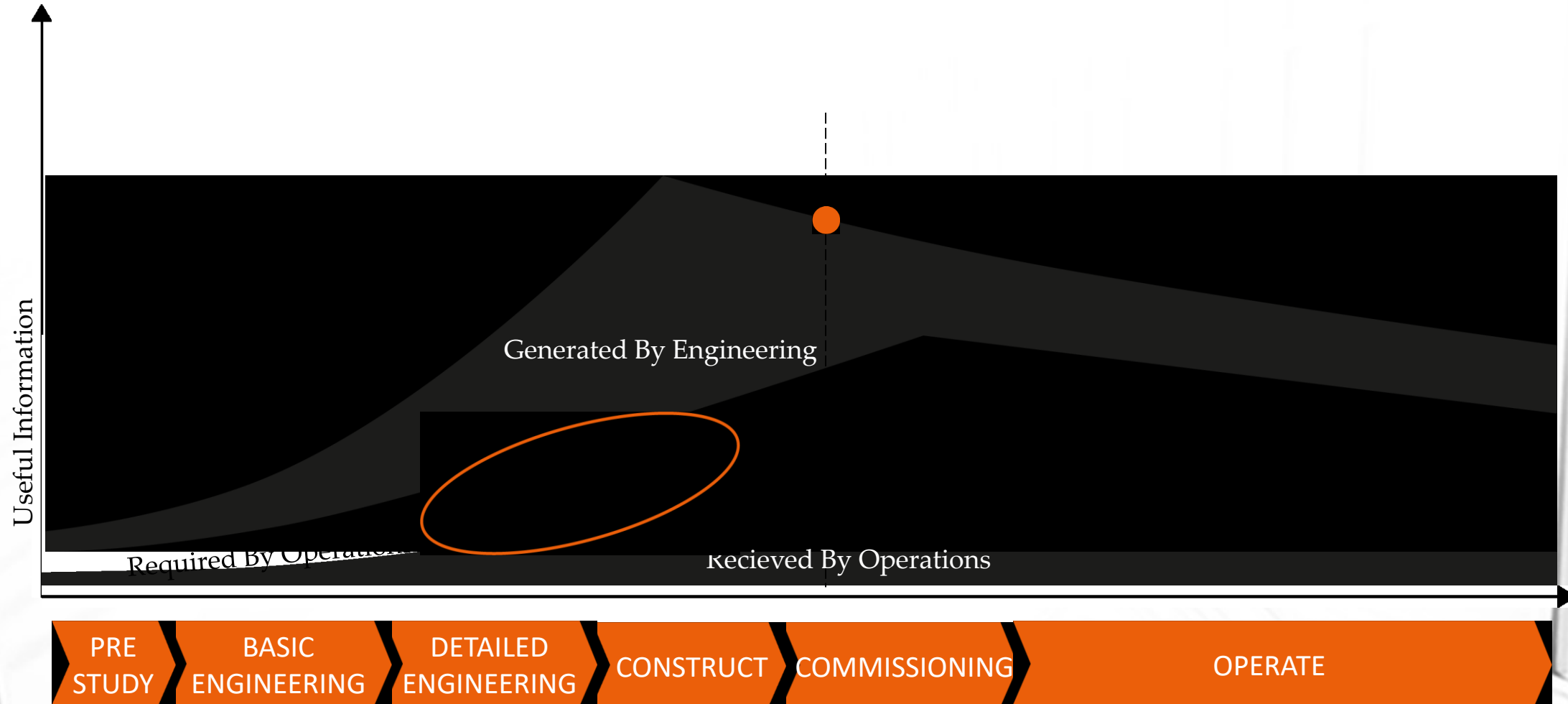
# Traditional handover

**“Handover our first Focus”**

From CFIHOS: There is solid evidence for the industry that handover costs for a conventional project, caused by poor information, are between 2 and 4% of Total Installed Cost (TIC)



# Progressive handover





# **We are lazy!**

**Don't want to  
reinvent the wheel!**

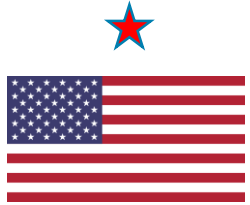
**We are new in this  
"business"**

**Steal with pride!**

**We cant impact  
the big CAE-  
companies ourself**



# Europe & World



**USPI-NL**  
Uitbreid Samenwerkingsverband Procesindustrie-Nederland



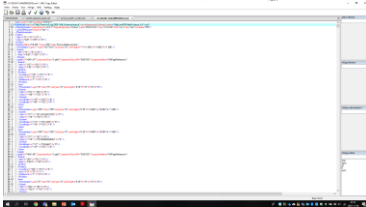
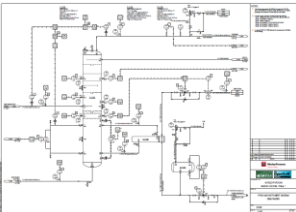


Specifications

Requirements

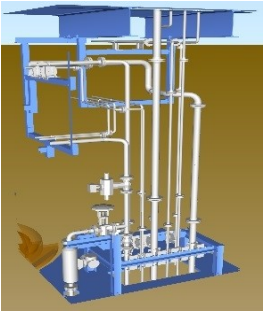
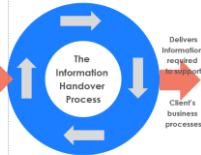
Under Construction

As-built



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2	1-001	DATA SHEET					Page 1 of 4
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THE CFIHOS 'LOLLIPOP'

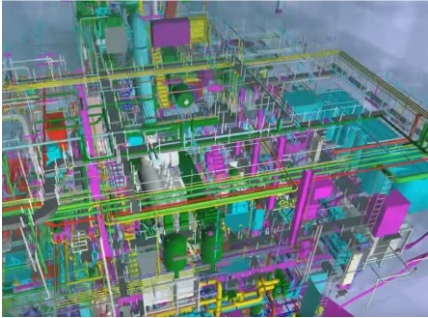


Hand Over

Physical Asset



Digital Asset



# Step by step to Industrial Interoperability

1. Founding “*Swedish Industrial Interoperability Association*” ✓
2. *Memberships* **On Going** ✓
3. *MoU international organisations, ThTh ✓, CFIHOS, PCA. DEXPI, MIMOSA etc.*
4. *Starting pilots “Test Beds” in Swedish industry*
  - a) *Knowledge*
  - b) *Experience*
  - c) *Use of adopted concepts*
5. *Work in TK280 (SIS) and international standardisation (ISO)* ✓.

# Swedish Industrial Interoperability Association

Construction projects that deliver according to plan, on time and on budget with plant information delivered before the associated physical equipment and where it is always structured and digital and based on common applications and experiences.

[SEIIA on LinkedIN](#)

[About LCDM Phase2 project](#)



## #interoperability

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**SEIIA, Swedish Industrial Interoperability Association**
Administratörsvy

[Visa som medlem](#)

Sida
Innehållsförslag
Statistik ▼
Aktivitet
NYTT
Administrationsverktyg ▼

## SEIIA, Swedish Industrial Interoperability Asso...

Informationstjänster · Sundsvall, Västernorrlands län · 17 följare

Samverkan för Effektiv Industriell Interoperabilitet av Industriell Anläggningsinformation

+ Följ
Gå till webbplats ↗

**Statistik**

Aktivitet de senaste 30 dagarna

**20** ▲ 566 %

Unika besökare

**8** ■ 0 %

Nya följare

**109** ▲ 738 %

Visningar av inlägg

**8** ■ 0 %

Antal klick på anpassad knapp

Påbörja inlägg

### Uppdateringar

Filtrera efter: Siduppdateringar ▼

Upplagt av Erik Molin · 2019-08-19 · Boosta ...

**SEIIA, Swedish Industrial Interoperability Association**

17 följare  
1 v

Vårt arbete har blivit uppmärksammat!

<https://lnkd.in/e2eGPAu>

**Nordiska Projekt 3/2019**

issuu.com

2

Gilla
 Kommentera

**Hashtags för community**

- #

#seia

1 följare
- #

#interoperability

765 följare
- #

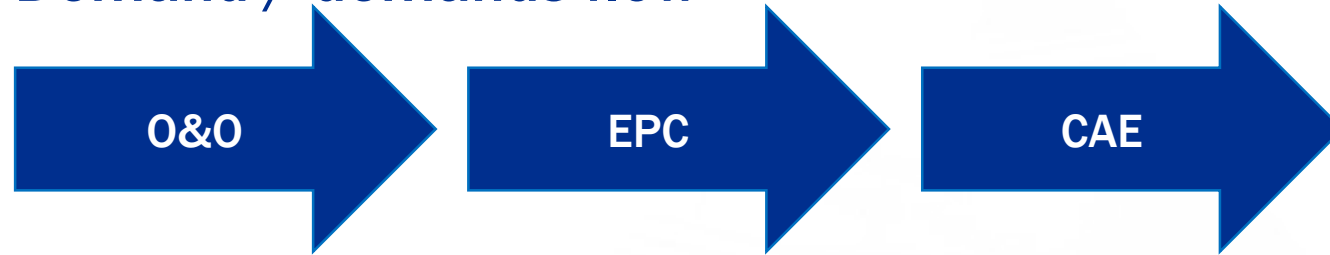
#cfihos

5 följare

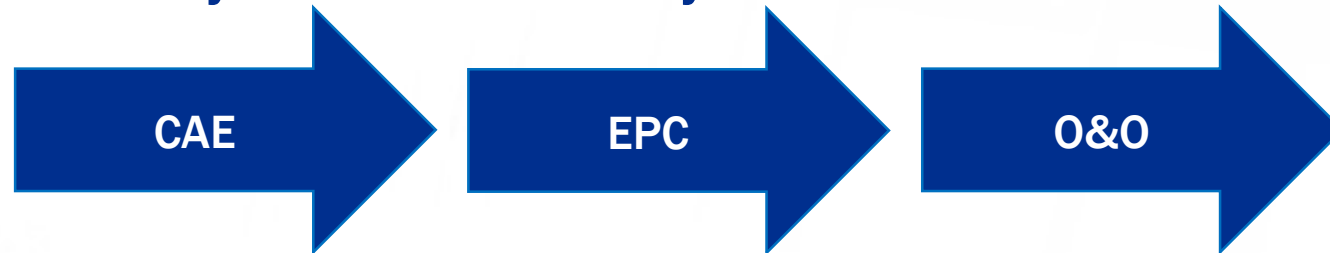


# The hard work starts here!

Demand / demands flow



Delivery and functionality



O&O - Owner & operate

EPC - Engineering, Procurement and Construction

CAE - Computer-aided engineering

Will affects:



EPCs  
Vendors  
CAE  
ERP

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Interoperability Association



# LCDM (phase 2)

Already in the application for phase 1 of the LCDM project, a need was expected for a phase 2, that would become more concrete in pilots. Phase 1 have created the necessary conditions in the form of understanding, knowledge, contacts and relationships and plans for the continuation.

- It takes time to build relationships, understanding and industry participation.
- Do not lose the pace, commitment and thus confidence in SEIIA's ability to deliver
- Financial (public) support is needed for a limited continued build-up period

It is also important in phase 2 to continue to develop industrial collaborations, both started and new, to find synergies with other relevant ongoing projects, to strengthen the international perspective and to cover the entire industrial chain, which includes both process and discrete manufacturing industries.



# **LCDM (phase 2)**

The project has five main goals where results are to be delivered

- Skills development of participating project partners in the project areas
- Start 4 pilots where real projects in the industry test the concepts
- Support companies with knowledge and activities in the adaptation and further development of their services and products
- Sign cooperation agreements. MoU with international non-profit organizations already working with Interoperability.
- Hold an "Industrial Interoperability Summit" 2020 (Autumn)

# LCDM (phase 2) pilots

- **Stora Enso** **Pilot 1**
  - Setting up AutoCAD P&ID for flowchart drawing based on established standards and the open standard DEXPI, which is a concept with data exchange specifications in the neutral format XML based on Proteus P&ID Profile Schedule 4.0.
- **SCA** **Pilot 2**
  - In a rebuilding (brownfield) project of a plant part of SCA's units in northern Sweden, use the global standard ISO 15926 and the compatible concepts such as CFIHOS alt. Readit. Follow the requirements setting process based on a common reference database. (RDL)
- **Vakin** **Pilot 3**
  - The project is a sewage treatment plant in Umeå. The machines have reached their technical life and must be replaced. The project includes the replacement of machines, adaptation of pipe installations and the replacement of associated electricity and controls. During the procurement, the global standard ISO 15926 and the compatible concept as CFIHOS alt. Readit will be used to ensure a better exchange of information on the systems used in the plant's maintenance management.
- **Holmen Paper** **Pilot 4**
  - Holmen has a project where SiteBase and Aveva Everything3D will be integrated and they are trying to base this integration on ISO 15926 instead of a traditionally Point To Point solution.

# Thanks!!

# Questions?

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**+46 (0)70 244 99 80**  
**seia.se**





## Anmälan - Medlemskap i SwEdish Industrial Interope föreni

### Bakgrund

Under perioden oktober 2017 till juni 2019 har svensk industri jobba "LCDM-projektet". Projektets syfte var att genomföra en förstudie fi standardiserat datautbyte mellan olika IT-stödsystem i en anläggning svensk industri tar nästa steg in i den digitala transformering som har interoperabilitet (\*1). Projektet har varit en del av Strategiska innov Automation (PiiA), en gemensam satsning av Vinnova, Formas och l att projektgruppen var eniga om att det krävs en fortsättning och en c Runt om i världen finns sedan tidigare olika initiativ så som ThTh i F Holland/Japan, Dexpi i Tyskland och Mimosa i USA bl.a. Gemensar de är drivna av industrin utan ett specifikt vinstintresse. För att etablk förankring i olika industrigrenar och tillsammans representerar dessa anläggningsintensiv industri.

Slutsatsen i LCDM projektet blev att en svensk organisation som kar organisationer men också adoptera de koncept och lösningar som tag våren och sommaren 2019 har därför den ekonomiska föreningen Sw SEIIA bildats för att för stötta och aktivt jobba för en högre interope (\*1) Förmågan hos olika system, ofta i datorsammanhang, att fungera tillsammans oc

### Motiv för medlemskap i SEIIA

För att på bolags- eller koncernnivå lösa dagens interoperabilitetspro standarder som finns idag och som ständigt utvecklas fungerar och k ur ett internationellt perspektiv när det gäller utnyttjandet av dessa st jobba internationellt med kompetensöverföring från de olika organis länge. SEIIAs roll är också att föra Sveriges talan inom internationel påverka framtida standarder.

Den främsta rollen som SEIIA har i Sverige är att hjälpa svenska för personal i att driva sina anläggningsprojekt på ett sätt så hög interope masterdata hantering, digital-tvilling kan hanteras i framtiden berörs

### Medlemsavgifter

Bolag delas upp på tre nivåer där vi inte skiljer på anläggningsägare eller leverantörer. (\*3)

1.	Små företag (inkluderar mikroföretag) är de som har mellan upp till 49 anställda och vars omsättning eller balansomslutning inte överstiger 10 miljoner euro (100 MSEK) per år. Medlemsavgift 500kr/år + serviceavgift 5000kr/år samt ett insatsbelopp 1000kr vid medlemstecknandet.	Totalt 5500kr/år + 1000kr
2.	Medelstora företag är de som har mellan 50 och 250 anställda och har en årsomsättning eller balansomslutning om högst 50 miljoner euro (500 MSEK). Medlemsavgift 500kr + serviceavgift 19500kr/år samt ett insatsbelopp 2 x 1000kr vid medlemstecknandet.	Totalt 20.000kr/år + 2 x 1000kr
3.	Stora företag är de som har mer än 250 anställda och har en årsomsättning eller balansomslutning över 50 miljoner euro (500 MSEK) Medlemsavgift 500kr + serviceavgift 39 500kr/år samt ett insatsbelopp 4 x 1000kr vid medlemstecknandet.	Totalt 40.000kr/år + 4 x 1000kr
4.	Ansluta en koncern med svenska enheter / bolag. Ansluta en koncern med svenska och utländska enheter / bolag	Enligt separat överenskommelse
5.	Övrigt. Utbildningsorgan, registrerade verk & myndigheter eller motsvarande, internationell intresseorganisation. Medlemsavgift 500kr + serviceavgift 19500kr/år samt ett insatsbelopp 2 x 1000kr vid medlemstecknandet.	Totalt 20.000kr/år + 2 x 1000kr

(\*3) Reservation för att förändringar kan sker i framtiden när föreningens arbete kommit igång. Perioden augusti 2019 – december 2019 inkluderas i ett medlemskap som gäller till sista december 2020.

### Ansökan - anmälan

Med undertecknande av denna anmälan önskar vi ingå medlemskap i Swedish Industrial Interoperability Association ek. För, SEIIA

För bolag / organisation:

Bolag	<input type="text"/>	Org. nr	<input type="text"/>
Kontaktperson, namn	<input type="text"/>	E-post	<input type="text"/>
		Telefon	<input type="text"/>



Den främsta rollen som SEIIA har i Sverige är att hjälpa svenska företag med att utbilda och stötta företagens egen personal i att driva sina anläggningsprojekt på ett sätt så hög interoperabilitet skapas. Även hur IT-struktur och masterdata hantering, digital-tvilling kan hanteras i framtiden berörs av det som SEIIA kommer jobba med.



# LCDM (phase 1) Project organisation

## Project partners:

SSG, STANDARD SOLUTIONS GROUP AB (project coordinator)

Ahlsell Sverige AB

EUROCON SITEBASE AB

IBM Svenska Aktiebolag

IFS WORLD OPERATIONS AB

SCA Graphic Sundsvall Aktiebolag

STORA ENSO FORS AKTIEBOLAG

ÅF-INDUSTRY AB

ForsCon AB

Aucotec Sweden AB

Siemens Industry Software AB

Plan B Services AB

Hexagon PPM Danmark A/S

Zert AB

ABB Control Technologies AB

## Project stakeholders :

Aucotec AB, ABB, Ahlsell Sverige AB, Akzo Nobel, Astra Zeneca, Billerud Korsnäs, Boliden, Borelialis, Eurocon, Eurostep, ForsCon AB, Gryaab, Hexagon PPM Danmark A/S, IBM, IDUS, IFS, Indupipe AB, LKAB, Lunds Tekniska Universitet, PiiA, Plan B, Plant Vision,

Preem, ProTak, Pöyry, ROBOET, Rottneros Vallvik, Sandviken, SCA Ortviken, Siemens, Siemens Industry Software, Sigma, SIS, SSG, Stockholm Vatten och Avfall, Stora Enso Fors

Stora Enso Hylte, Stora Enso Skutskär, Sundsvall Energi, Vakin, Valmet, Volvo Tucks, Zert AB, Xcellent EAM, ÅF, Hexagon PPM Danmark A/S, Vakin, Mittsverige Vatten, Monitor, THTH ry, Andritz Finland, Iggesund Paperboard, Mälarenergi, Boliden, Stockholm Exergi AB



With support from:



FORMAS



STRATEGIC  
INNOVATION  
PROGRAMMES

# LCDM project

## Deliveries:

- Knowledge and networking
- Pilot
- Conference
- Plan for Phase 2



ISO  
15926!



**USPI-NL**

Uitgebreid Samenwerkingsverband Procesindustrie-Nederland





# Benefits

A major manufacturing and manufacturing operator conducted internal studies and found that typical design, construction, operation and maintenance engineers spend 40 to 60 percent of their time looking for information and validating it.

## From CFIHOS

98% of plant owners / operators experience delays due to poorly archived / stored operating information.

88% of plant owners / operators are withdrawing unexpected costs due to information problems after handover.

There is solid evidence for the industry that handover costs for a conventional project, caused by poor information, are between 2 and 4% of Total Installed Cost (TIC)

## Estimated impact for Norwegian Continental Shelf:

Cost savings due to:

- Annual spending: NOK 72 billion
- Annual savings from: 5 – 10 %
- Annual savings from : NOK 3.6 – 7.2 billion
- Clearer and more precise requirements
- Digital control of documentation
- Re-use of concepts
- More effective engineering work processes

## Opportunity for Improvement

Fiatech, an international organization dedicated to improving capital project efficiency, has established Productivity Advancement Targets (PATs) addressing several areas within project lifecycles. The following PATs represent seven of the twelve PATs that Fiatech has targeted:

- 70% reduction in owner initiated change orders
- 25% improvement in project cost and schedule predictability
- 80% reduction in review cycle times
- 10% improvement in construction productivity
- 33% reduction in construction schedule and cost
- 40% improvement in cycle time for field data collection or information access
- 20% reduction in schedule delays