

# Ändringshantering på Ecolean



# Ecolean Group



# Ecolean Group

- Develops, manufactures and markets the Ecolean packaging concept
- Founded in Feb, 1996
- Headquarters in Helsingborg, Sweden
- 260 employees – 160 of these in Sweden
- Commercial activities in 30 countries



# The complete solution

- Packaging material
- Filling machines
- Downstream equipment
- Service and technical support



# Convenience in the hands of a consumer



- Easy to open



- Easy to grip and easy to pour (smart air-filled handle)



- Easy to empty

# Filling Machines

EL1EP1 and EL2EP2



Aseptic Machines  
EL3 and EL4



# Improvement List

IL before meeting 090414

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
	No	Issuer	Date	Machine	Type	List	Pos	Part no	Description	Machine number, e.g. P1, E1, P2, 349	Comment	Status	Pri	Deadline	Resp	Done	ECN	S Bull	
839	838	PSU	2008-11-13	EL1 & EL2	Filling			80003-005	Flexible coupling in filler breaking despite correct mounting.		To be included in the ongoing revision of the filling system.	Active			PSV				
840	839	JLO	2008-12-02	E11	Filling			2010243, 2012363	Clamp rubers is wrong in p-kits for the machines- EL1 1001, 1002, 1006. P-kit contains old rubers (2009489)		Check where the info is wrong, correct, RO?	Closed			JWE	Yes	2677		
841	840	OSE	2008-12-05	EL2	Unwinding	C-2006967	T00, T10, T20, Z00, 210		Pos. Numbers on the drawing does not match the list. Concerns all EL2 machines (-100, -200 and -300)		Problem found in IDS. Check in IFS, correct where/if necessary, make new SPC for distribution through IDS, RO?	Active			PSV				
842	841	JWE	2008-12-09	EL1 & EL2	Aux Eq			80021-046	Photocell 80021-046, WT4-2N331 is replaced with an equivalent Photocell 80030-034, WTB4-3N3161 Update IFS		Purchasing text to be changed! (Means that the same article will have two numbers...)	Closed			JWE				

# Gamla ECN-rutinen





- Excel-dokument för uttag av nya ECN-nummer
- Status på ECN

ECN Numbers [Kompatibilitetsläge]												
	A	B	C	D	E	F	G	H	I	J	K	L
1	ECN Denomination	ECN No.	RO/RK (kit)	Machine type (kit)	SB/IDS notificati	On going		Released		Finished		Sign
1185	ECN no to IL #1861-1863 - RK i IFS/SPC; utredning av BAO+FNI	3245		EL1/EL2		x						AMU
1186	ECN no to IL #1625+1977 - Topp-10-lista till manualerna. Troubleshooting-kap. TS-TD	3246		EL1/EL2		x						AMU
1187	P-kit box for EP1 and EP2 / IL-1856 and IL 1857	3247		EL1/EL2		x		x				DWI
1188	Linear Actuator Supplier changed length +15.5mm 80031-001 IL 2172	3248		EL1		x						MSA
1189	Software update EL3 V7.0.0	3249	RO	EL3		x						JP
1190	Linear Motion Unit EL1/EL2 IL2176,2177	3250		EL1/EL2		x						MSA
1191	Holderplate EP1 shorter	3251		EP1		x		x		x		MPE
1192	EL1 / EL2 / RK ; IL-2091, IL-1737, IL-1598, IL-1599	3252		EL1/EL2		x						DWI
1193	New recipe handling EL2-30X and EL2-401 and EL2-402	3253		EL2		x		x		x		MJA



# Gamla ECN-rutinen

- Mappstruktur
- Varje ECN egen mapp

Name	Date modified	Type	Size
 Bill of Material	2007-09-07 21:37	File folder	
 Drawings	2007-09-07 21:37	File folder	
 ECN 2302 Specification	2007-01-04 09:31	Microsoft Excel 97...	54 KB
 ECN 2302	2007-01-09 15:23	Microsoft Word 9...	194 KB

# Gamla ECN-rutinen

<i>ecolean</i>		<i>ECN – Protocol</i>		
<b>ECN publisher:</b>	<b>ECN No:</b>	<b>IL No:</b>	<b>Date:</b>	<b>Revision:</b>
<b>Introduction:</b>				

## DRM - Design review meeting



### Design approved:

<i>Date:</i>	<i>Responsible:</i>	<i>Revision:</i>

### Attendees:

<i>Development:</i>	
<i>Technical Service:</i>	
<i>Machine Production:</i>	
<i>Downstream Equipment:</i>	
<i>Others:</i>	

### ECN solution description:

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### Comments/attachments:

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### Preliminary time plan until TRM:

<i>Date/Time:</i>	<i>Activity:</i>

# Gamla ECN-rutinen

<i>ecolean</i>		<i>ECN – Protocol</i>		
<b>ECN publisher:</b>	<b>ECN No:</b>	<b>IL No:</b>	<b>Date:</b>	<b>Revision:</b>
<b>Introduction:</b>				

## TRM - Technical review meeting



### ECN-approved:

<i>Date:</i>	<i>Responsible:</i>	<i>Revision:</i>

### Attendees:

<i>Development:</i>	
<i>Technical Service:</i>	
<i>Machine Production:</i>	
<i>Downstream Equipment:</i>	
<i>Others:</i>	

### ECN solution description:

### Comments/attachments:

### Machines concerned (type, number, etc.):

### Actions of measure:

<i>RO/RK-number:</i>	
----------------------	--

<i>Other:</i>	
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### Change introduced in machine development step / machine number:

ECN publisher:	ECN No:	IL No:	Date:	Revision:
Introduction:				

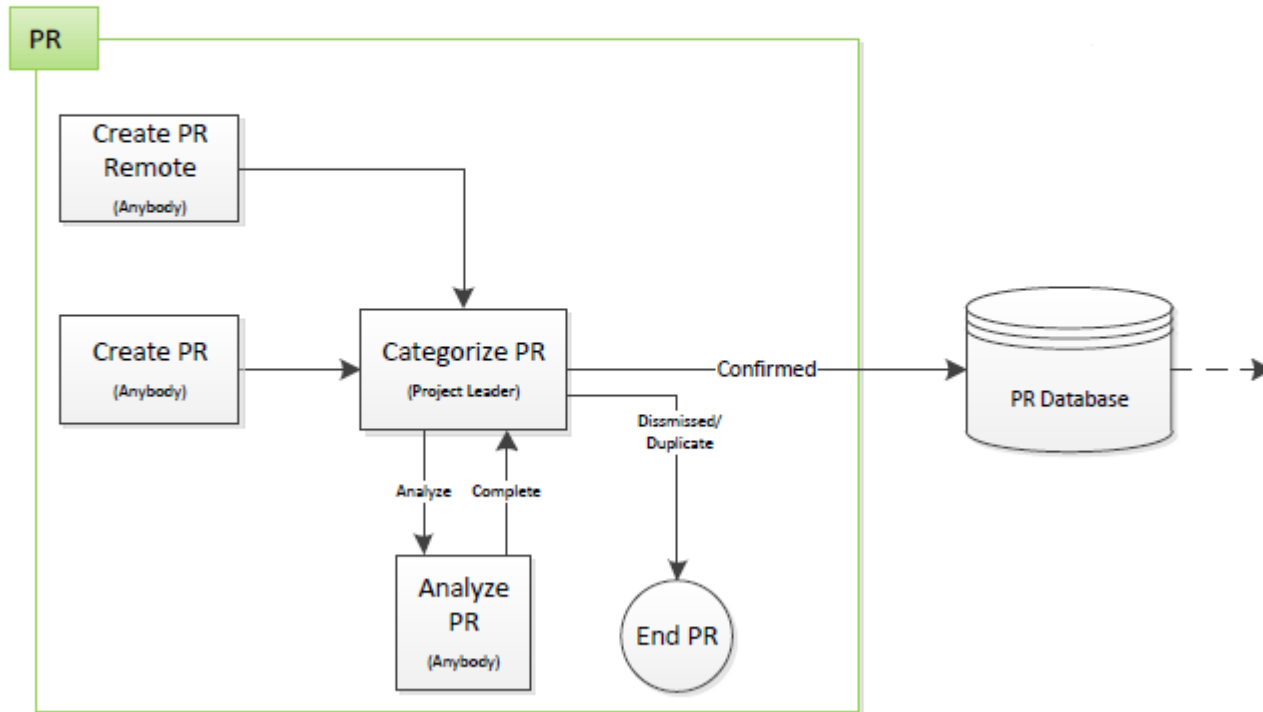
**Check List ECN:**

Status	Activity	Comments	Done (date)	Responsible
<b>Design</b>				
	Update ECN protocol			
	Update RO log			
	Update IFS at K			
	Drawings released			
	Inform TD (Manuals)			
	Inform Production (IFS & P-kit)			
<b>Automation</b>				
	Update RO log			
	Update software	Type:		
	Update electrical documentation			
	Release drawings			
	Update IFS at K			
	Inform TD / TS of software changes			
	Upload software to IDS			
<b>Technical documentation</b>				
	Update technical documentation	Type:		
	Distribute new documentation			
	Update product data sheet			
	Update CE-revision			
<b>Production</b>				
	Update IFS at HMP			
	Update content of p-kit and spare part lists			
	Inform service stations regarding SP			
	Order RO-kits and other material			
	Inform TS when RO is available for distribution			
	All RO are distributed			
<b>Technical Service</b>				
	Inform service stations regarding changes			
	Handle Update reports and update RO log			
	Inform ECN-resp. when last RO is implemented			
	ECN CLOSED			

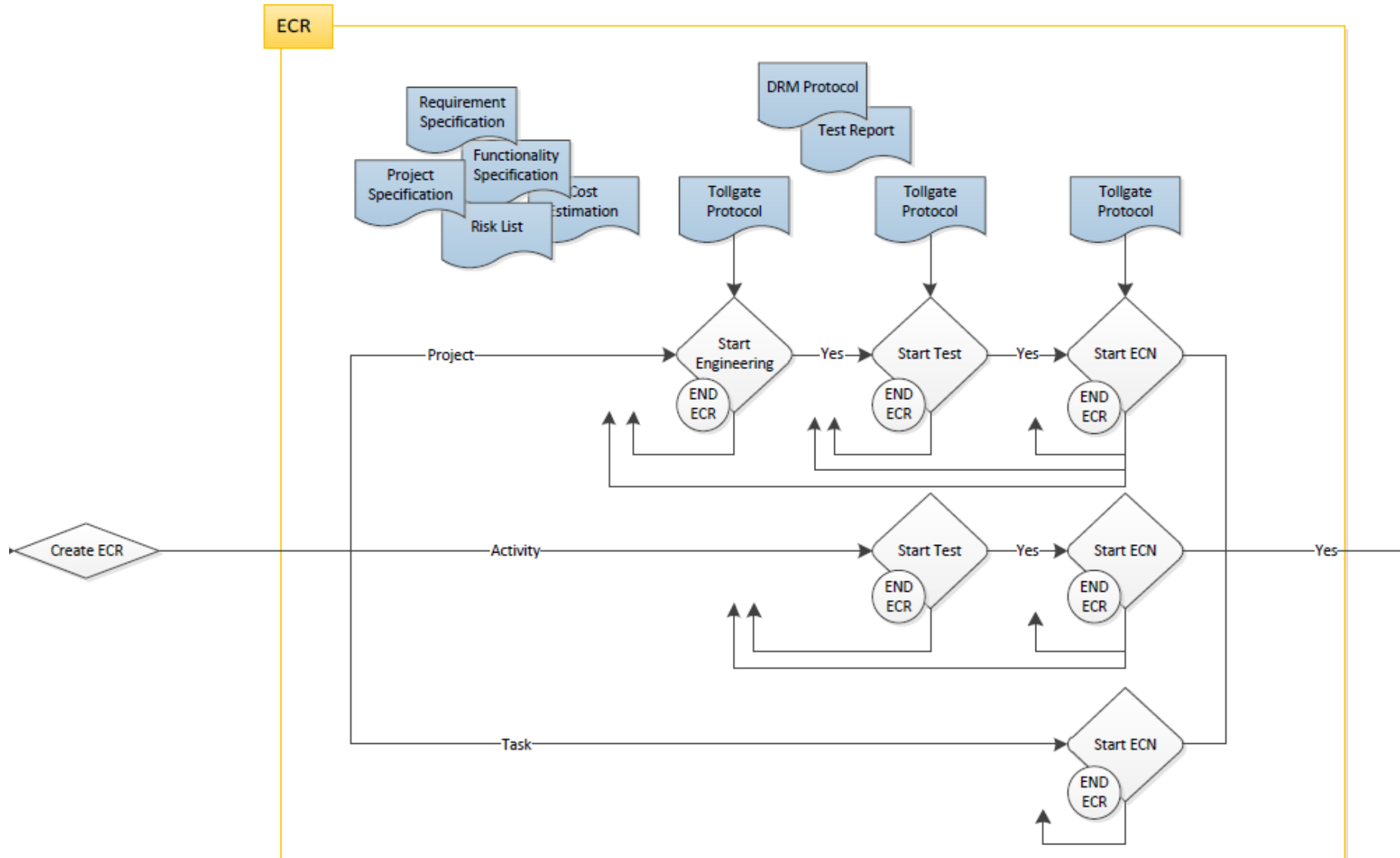
- : Not applicable
- 1 : To be done
- 2 : Done



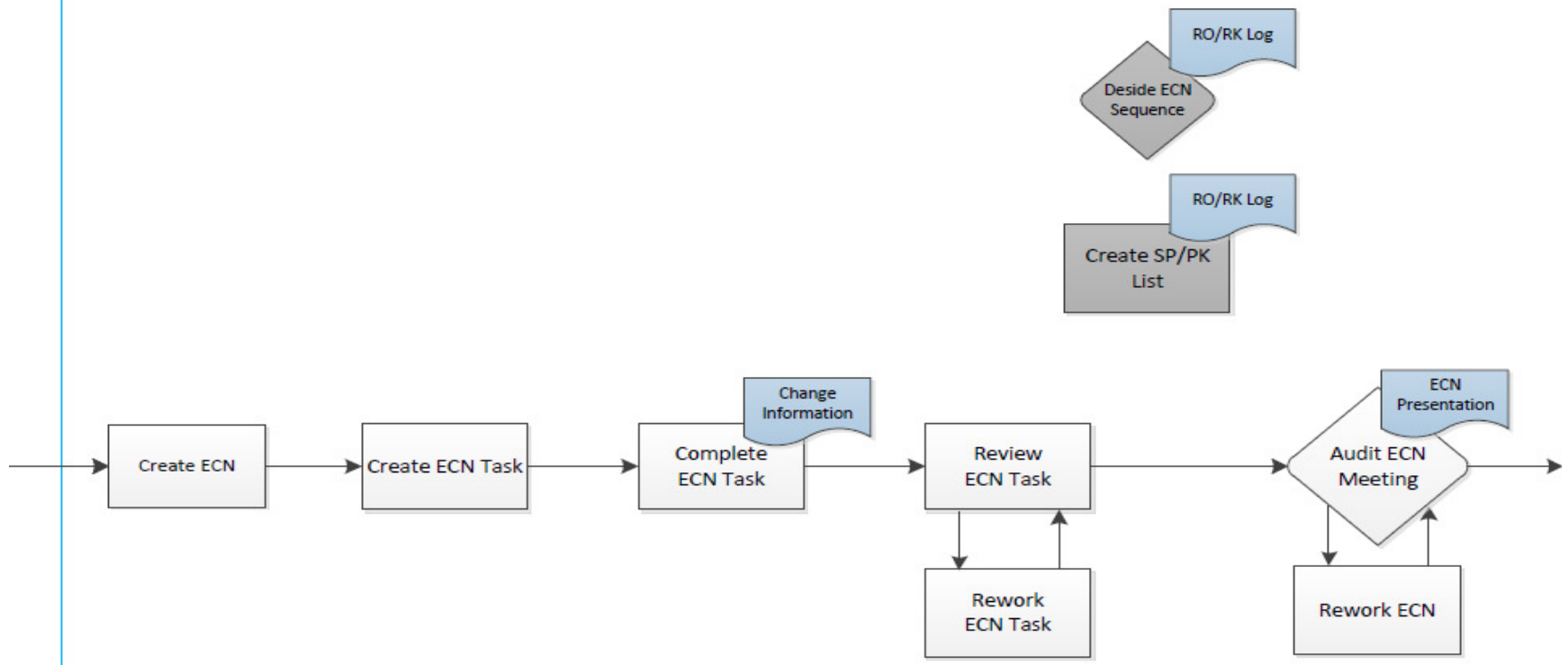
# Problemrappporter



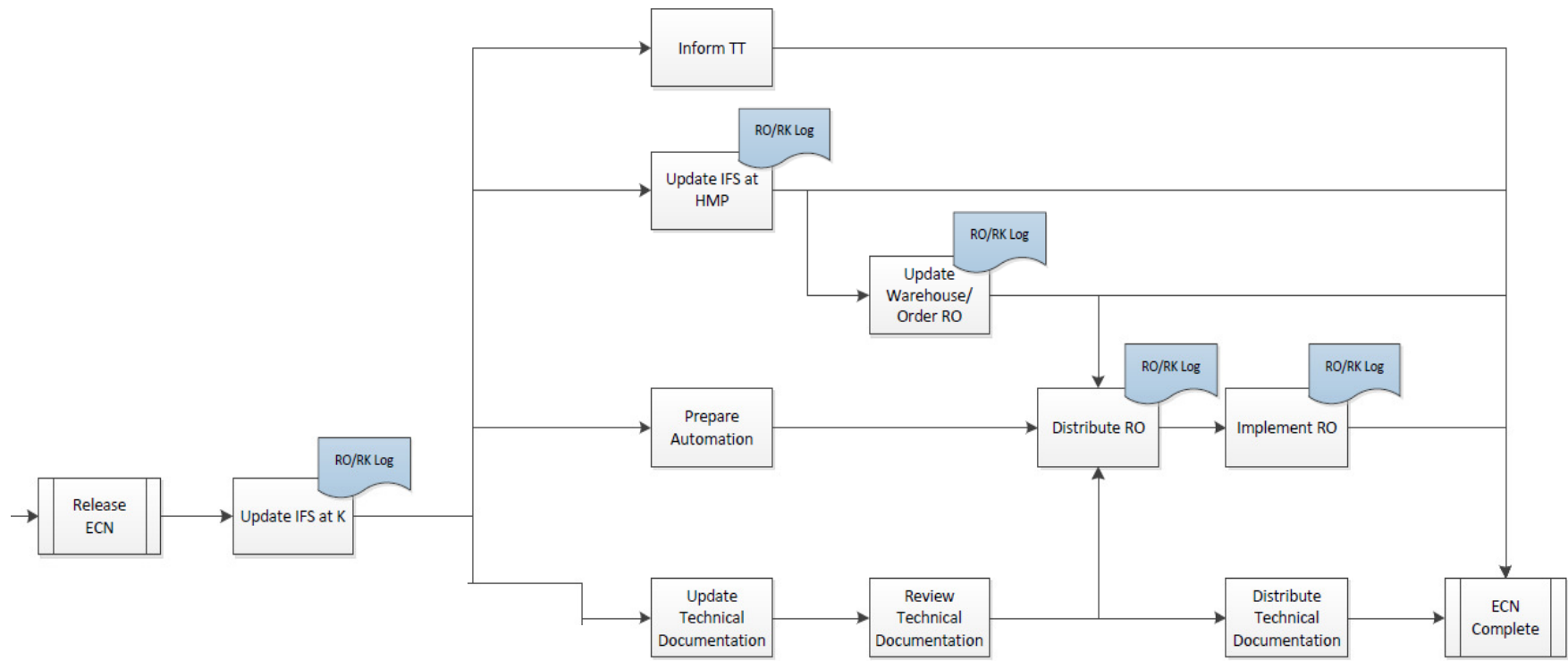
# ECR



ECN



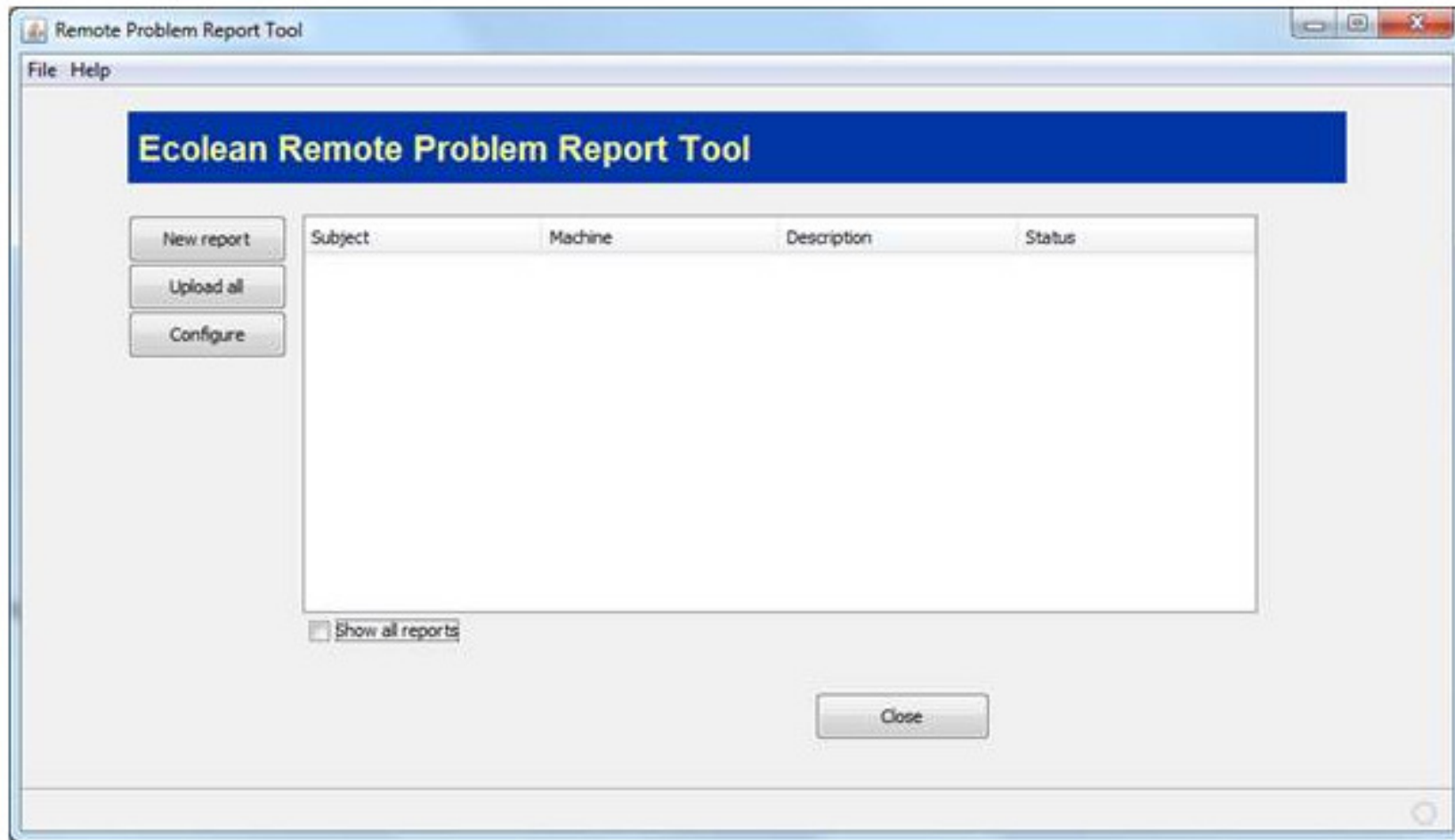




# Ecolean Remote Problem Report Tool

- Kunna rapportera problem varifrån som helst i världen
- Kunna rapportera när man står vid problemet
- Kunna bifoga bilder, filmer och dokument på problemet
- Skall inte behöva ha en PDMLink licens.
- Skall kunna fylla i de parametrar som fanns i gamla "Improvement List"

# Ecolean Remote Problem Report Tool



# Ecolean Remote Problem Report Tool

**Create problem report**

\* Requester: Karl Wennerholm ⓘ

\* Email: karl-fredrik.wennerholm@ecolean.se ⓘ

\* Subject: C-2027845 Top Cut ⓘ

\* Category: Mechanical ⓘ

\* Description: Description should summarize the problem. ⓘ

\* Machine: EL3 ⓘ

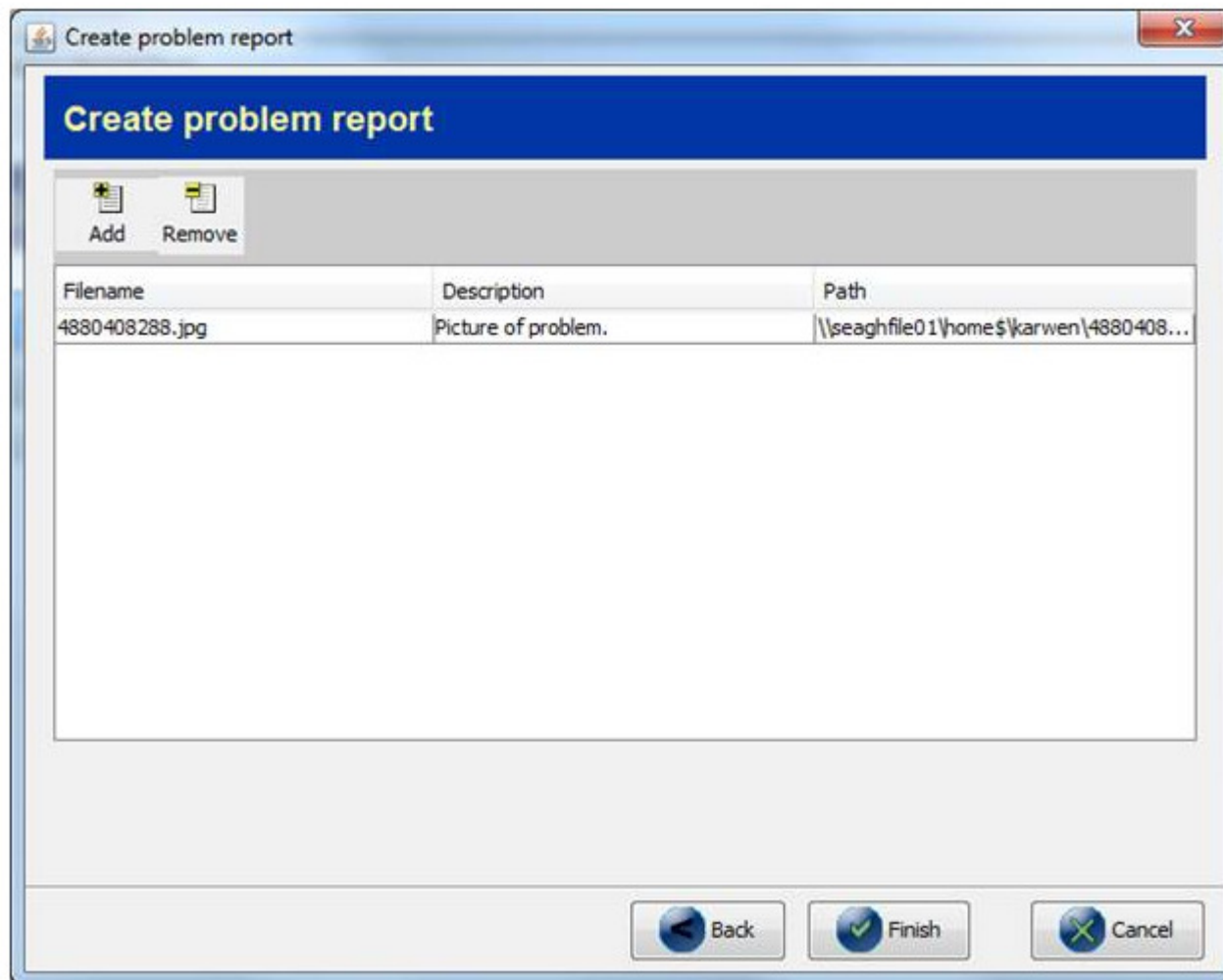
Machine Serial No: | ⓘ

\* Machine Subgroup: Fill and Seal Chamber ⓘ

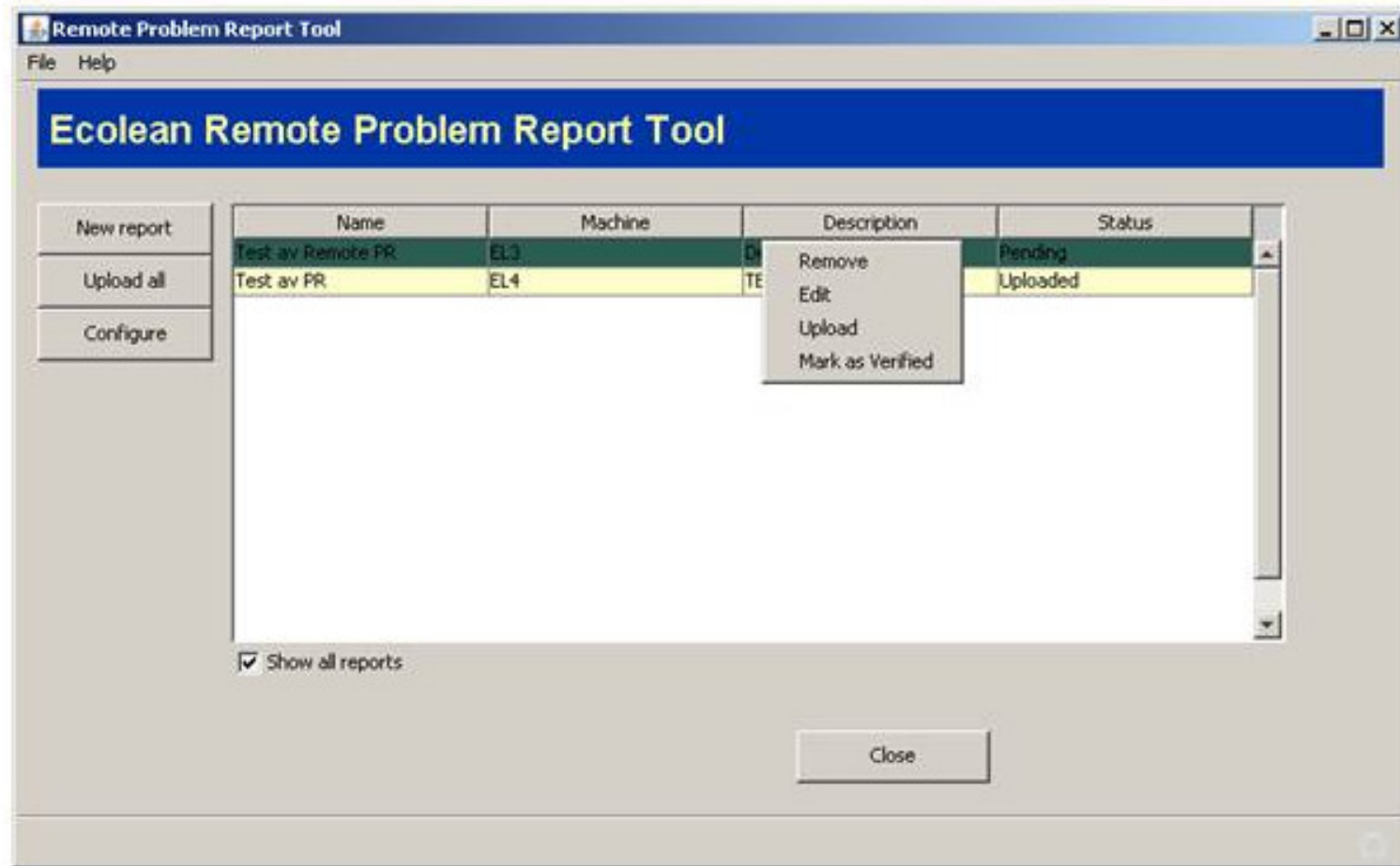
Suggested Solution: Suggestion on how to solve the given problem. ⓘ

Back Next Cancel

# Ecolean Remote Problem Report Tool



# Ecolean Remote Problem Report Tool



# Skapa PR i PDMLink

**New Problem Report** ?

**Steps:** 1. Define Object 2. **Set Attributes** 3. Select Affected End Items 4. Select Affected Objects 5. Set Attachments

**Product:** Aux Equipment  
**Type:** Problem Report

Attributes (9 total objects)	
* Name	Value
* Number	PR-00882
* Name	EC1 height Control Unit
* Requester	Marcus Persson
Category	Mechanical <input type="button" value="v"/>
* Description	Crank for height adjustment in the EC1 is not lockable. During production, the height moves because of shaking machine. <input type="button" value="v"/>
* Machine	EC1 <input type="button" value="+"/>
Machine Serial No	0368
Machine Sub Group	Machine Body <input type="button" value="v"/>
Suggested Solution	<input type="button" value="v"/>

\* Indicates required fields.

# Problemrapport

- Rätt projektledare får uppgiften att kategorisera och analysera om det är ett problem.

Assignments (4 of 4 total objects) <span style="float: right;">View: Open</span>											
Assignment Name	Actions	Subject of Assignment	State	Done	Status	Deadline	Assigned	Context	Role		
<input type="checkbox"/> <a href="#">Categorize Problem Report</a>	<a href="#">Actions</a>	<a href="#">EC1 height Control Ur ...</a>	Under Review				2011-10-14 09:12 CEST	<a href="#">Aux Equipment</a>	Problem Report Analyzer		
<input type="checkbox"/> <a href="#">Analyze Change Request</a>	<a href="#">Actions</a>	<a href="#">Reduce machine varia ...</a>	Under Review				2011-03-22 12:24 CET	<a href="#">LA 113</a>	Assignee		
<input type="checkbox"/> <a href="#">Analyze Problem Report</a>	<a href="#">Actions</a>	<a href="#">Transport carrier(O-rin ...</a>	Under Review				2011-03-18 14:44 CET	<a href="#">LA 113</a>	Problem Report Analyzer		



Actions Categorize Problem Report

Instructions: Following Problem Report has been filed and assigned to you in the role of Project Leader. Your task is to determine the status of the Problem Report.

Name: EC1 height Control Unit  
Description: Crank for height adjustment in the EC1 is not lockable. During production, the height moves because of shaking machine.  
Suggested Solution: -  
Requester: Marcus Persson  
Number: PR-00882  
Category: Mechanical  
Machine: EC1  
Machine Sub Group: Machine Body  
Machine Serial No: 0388  
Comment from previous user:  
Attachments: 102\_0593.JPG, 102\_0598.JPG  
- To View, Edit or Add attachments; select **General - Attributes and Content** from the table below.

Perform the following:

1. Review attached Problem Report information and update where needed.  
(Select **Edit Problem Report** from the **Actions** menu below)
2. Set the estimated complexity of the problem, choose between:
  - **Impact Urgency**, Problem is present in the Impact Urgency Matrix.
  - **Urgent**, Not in Impact Urgency Matrix, nevertheless high priority.
  - **Pending**, Problem is confirmed but low priority.
  - **Next Dev Step**, Problem confirmed and will be addressed in next development step.
3. Set the estimated complexity of the problem, choose between:
  - Project
  - Activity
  - Task
4. If necessary, send activity to Problem Report Analyzer, choose analyzer in the table below. Attach instructions to the analyzer in the comments field below.
5. Choose either:
  - **Send to Problem Report Analyzer**, to analyze the problem more thorough.
  - **Confirmed**, to accept the Problem Report.
  - **Dismissed**, to reject the Problem Report.
  - **Duplicate**, if the problem is already described by another Problem Report.
6. Enter comments concernig this task in the Comments text field below.
7. Click Complete Task to save and record the decision.

Subject: [Problem Report - PR-00882-EC1 height Control Unit](#)

Set Relevance:

Set Complexity:

Participants:

Set Up Participants (15 of 36 total objects) View:

Team Members	Problem Report Analyzer
Bergstrand, Sv ...	<input type="checkbox"/>
<a href="#">Bulic, Djenana</a>	<input type="checkbox"/>
<a href="#">Duong, Kevin</a>	<input type="checkbox"/>
Ekelund, Seba ...	<input type="checkbox"/>
<a href="#">Falkenäs, Ras ...</a>	<input type="checkbox"/>
<a href="#">Friberg, Lennart</a>	<input type="checkbox"/>
<a href="#">Gustafsson, A ...</a>	<input type="checkbox"/>
<a href="#">Gyllström, Anc ...</a>	<input type="checkbox"/>
<a href="#">Hansson, Jonas</a>	<input type="checkbox"/>
Hjerpe, Michael	<input type="checkbox"/>

Page 1 of 3 First 1 2 3 Last Full List

Comments:

- Send to Problem Report Analyzer  
 Confirmed  
 Dismissed  
 Duplicate

# PR Database

- Olika sorteringsmöjligheter
- Skapa rapporter

Home Product **Change** Library

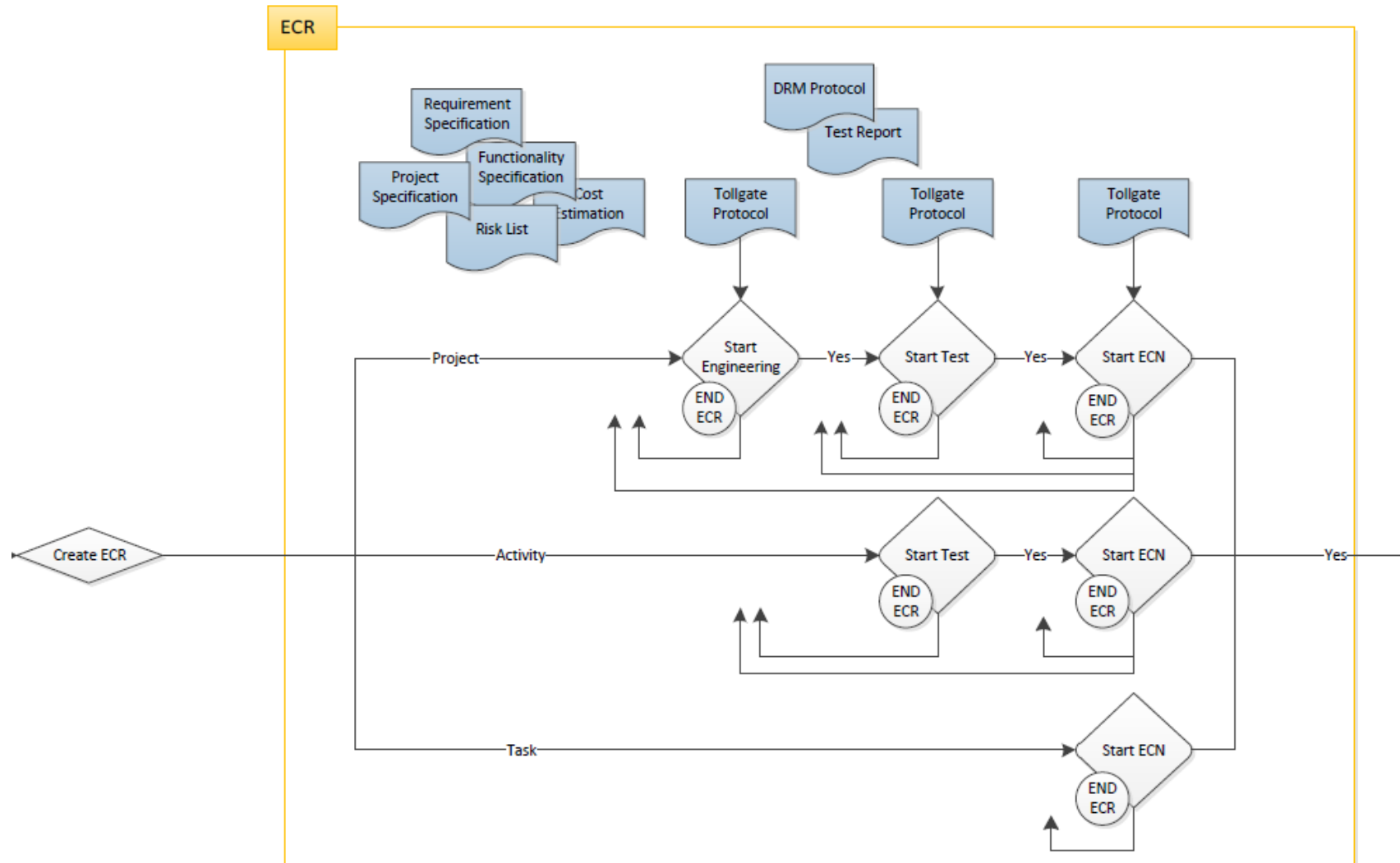
Changes ▾ **Problem Reports** Variances Change Requests Change Notices Change Monitor Reports

💡 One of the ways to create a problem report is to navigate to the information page of an object that can be changed, such as part or document, and select "New Problem Report" from the actions list. For more information, see the online help available from the "Problem Reports" table.

Problem Reports (15 of 439 total objects) View: All Problem Reports ▾ ?

Object Type	Number ↓	Actions	Name	Description	Machine	Machine Sub Group	State	Requester	Complexity	Priority	Created On
Problem Report	<a href="#">PR-00882</a>	ⓘ Actions ▾	EC1 height Control Unit	Crank for height adjus ...	EC1	... Machine Body	Accepted	Marcus Persson	Project	Urgent	2011-10-14 09:12 CEST
Problem Report	<a href="#">PR-00881</a>	ⓘ Actions ▾	Knives to short	bla bla bla	EL4	... Fill and Seal Chamber	In Work	Kalle Wennerholm	Activity	Urgent	2011-09-06 13:08 CEST

# ECR



# ECR

Actions ▾ **Tollgate Start  
Engineering**

**Instructions:** Following Change Request has reach the Start Engineering Tollgate Meeting.

**Name:** EC1 height Control Unit

**Category:** Mechanical

**Machine:** EC1

**Machine Sub Group:** Machine Body

**Description:** Crank for height adjustment in the EC1 is not lockable. During production, the height moves because of shaking machine.

**Complexity:** Project

Required preparations:

- Project Specification
- Requirement Specification
- Concept Study
- Risk List
- Functional Specification
- Cost Estimation
- Tollgate Protocol

Perform the following:

1. Review Tollgate presentation.
2. Choose either
  - **Continue**
  - **Rework Current Assignment**
  - **Reject**
3. Enter your comments in the Comments field below.
4. Click Complete Task to save decision and continue the change process.

**Subject:**  [Change Request - ECR-00384-EC1 height Control Unit](#)

**Participants:** 

**Comments:**

- Continue  
 Rework Current Assignment  
 Reject

Complete Task

Save

# ECR

Actions ▾

## Tollgate Start ECN

**Instructions:** Following Change Request has reach the Start ECN Tollgate Meeting.

**Name:** EC1 height Control Unit

**Category:** Mechanical

**Machine:** EC1

**Machine Sub Group:** Machine Body

**Description:** Crank for height adjustment in the EC1 is not lockable. During production, the height moves because of shaking machine.

**Complexity:** Project


Required preparations:

- Updated Test Report
- Tollgate Protocol

Perform the following:

1. Review Tollgate presentation.
2. Choose either
  - Continue
  - Rework Current Assignment
  - Go to Tollgate Start Test
  - Go to Tollgate Start Engineering
  - Reject
3. Enter your comments in the Comments field below.
4. Click Complete Task to save decision and continue the change process.

**Subject:**  [Change Request - ECR-00384-EC1 height Control Unit](#)

**Participants:** 

**Comments:**

- Continue
- Rework Current Assignment
- Go to Tollgate Start Test
- Go to Tollgate Start Engineering
- Reject

Complete Task

Save

# Skapa ECN

## New Change Notice

Steps: 1. Define Object 2. Set Attributes 3. **Define Implementation Plan** 4. Set Attachments 5. Associate Changes

Implementation Plan (1 object)

	Number	Name	Actions	State	Assignee	Reviewer	Need Date	Last
<input type="checkbox"/>	(Generated)	Modify affected objects	Actions		Marcus Persson	Marcus Persson		

## Edit Change Task

Steps: 1. **Set Attributes** 2. Select Affected/Resulting Objects

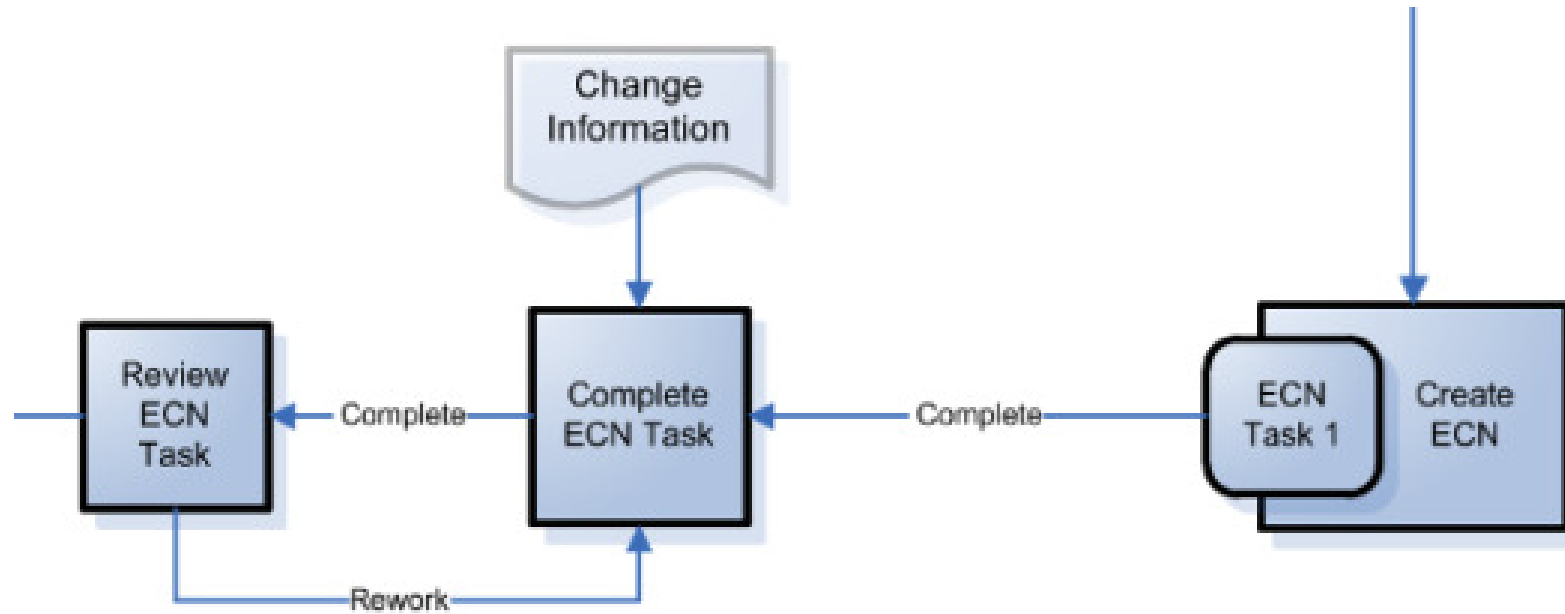
Product: Aux Equipment  
Type: Change Task

Attributes (6 total objects)

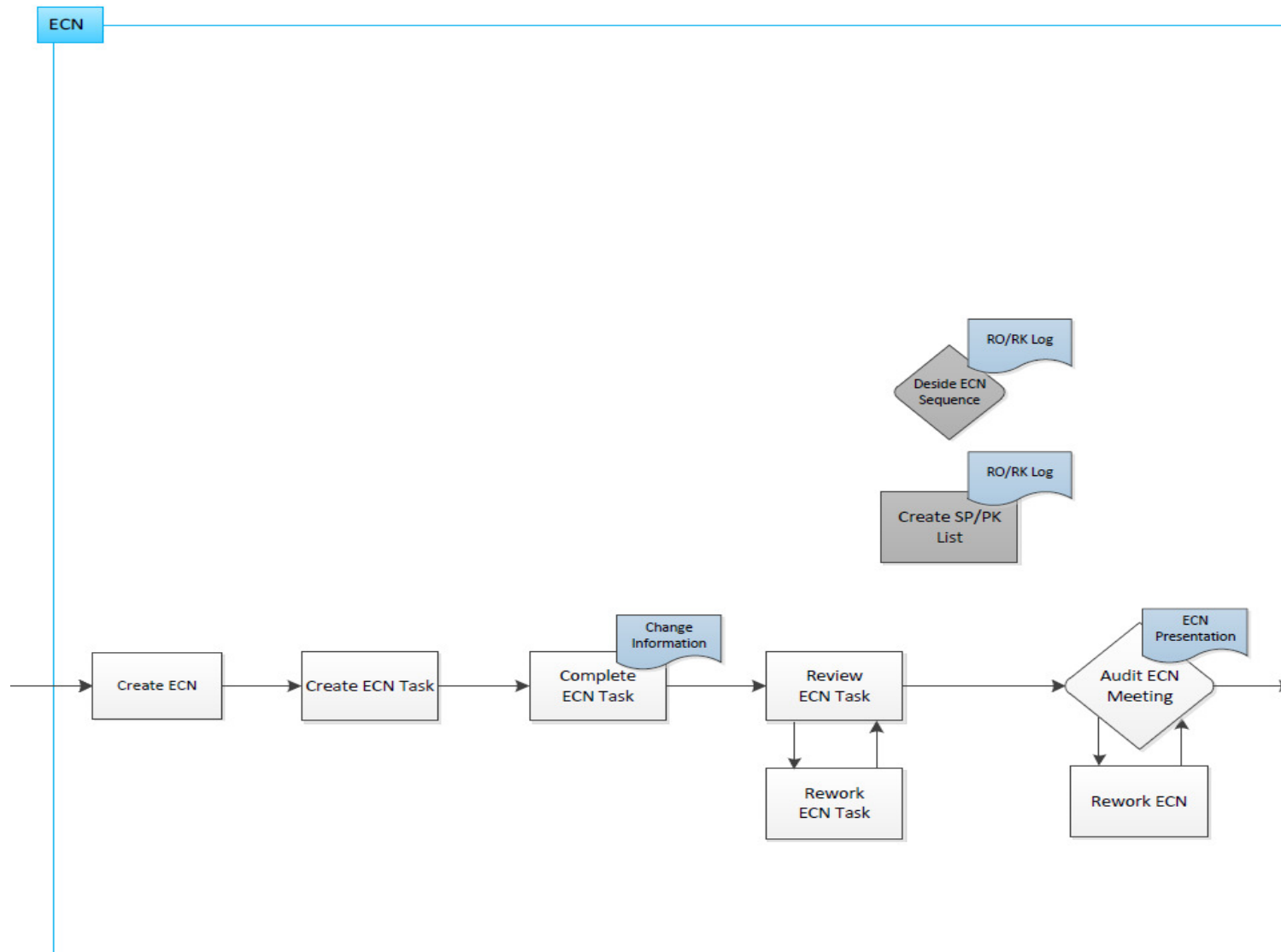
* Name	Value
Number	(Generated)
* Name	Modify affected objects
Need Date	<input type="text"/> yyyy-mm-dd
* Assignee	Marcus Persson <input type="button" value="Find..."/>
* Reviewer	Marcus Persson <input type="button" value="Find..."/>
Description	Crank for height adjustment in the EC1 is not lockable. During production, the height moves because of shaking machine.

\* Indicates required fields.


# ECN



# ECN





Actions ▾  Audit ECN Meeting

**Instructions:** The Change Task(s) of this ECN has been completed. Review the results and plan for further implementation of the change.

**ECN Number:** ECN-05225

**Name:** EC1 height Control Unit

**Description:** Crank for height adjustment in the EC1 is not lockable. During production, the height moves because of shaking machine.

**Machines:** EC1

**Machine Sub Group:** Machine Body

Perform the following:

1. Review the information associated to this ECN and associated Change Tasks.
    - ECN-information
    - ECN-attachments
    - Change Task information
      - Affected Objects and Disposition
      - Resulting Objects and BOM-changes
  2. Review the comments from the Reviewers
  3. Update any information where needed
  4. Plan for implementation of this ECN by filling out actions and responsibilities below.
- For every action:
- Check tasks to be performed
  - Choose responsible person to perform task
  - Provide information necessary to fulfill the task

**Subject:**  [Change Notice - ECN-05225-EC1 height Control Unit](#)

### ECN Responsible

Update IFS at K:

Update P-Kit and Spare Part Lists:

Update RO/RK log:

Performed by: The ECN Creator

Comments:

### Automation

Prepare Software:

Select Automation Engineer:

Comments:

### Technical Documentation

Update SPC:

Update IM:

Update OM:

Update MM:

Update MB:

Update SM:

Update SB:

Create RG:

Update PDS:

Select Technical Writer:

Comments:

### Purchasing

Update IFS at HMP:

Update RO/RK log:

Select Purchaser:

Comments:

### Warehouse and Spare Parts

Inform Service Stations reg. SP:

Order RO/RK:

Gather RO/RK:

Update RO/RK log:

Select Warehouse/Spare Parts Admin:

Comments:

### Technical Training

Inform Technical Trainers:

Select Technical Instructor:

Comments:

### Technical Service

Implement RO:

Update RO/RK log:

Select Technical Service Manager:

Comments:

### Machine Production

Implement RO (Inhouse):

Update RO/RK log:

Select Production Manager:

Comments:

### Additional information

Meeting Participants:

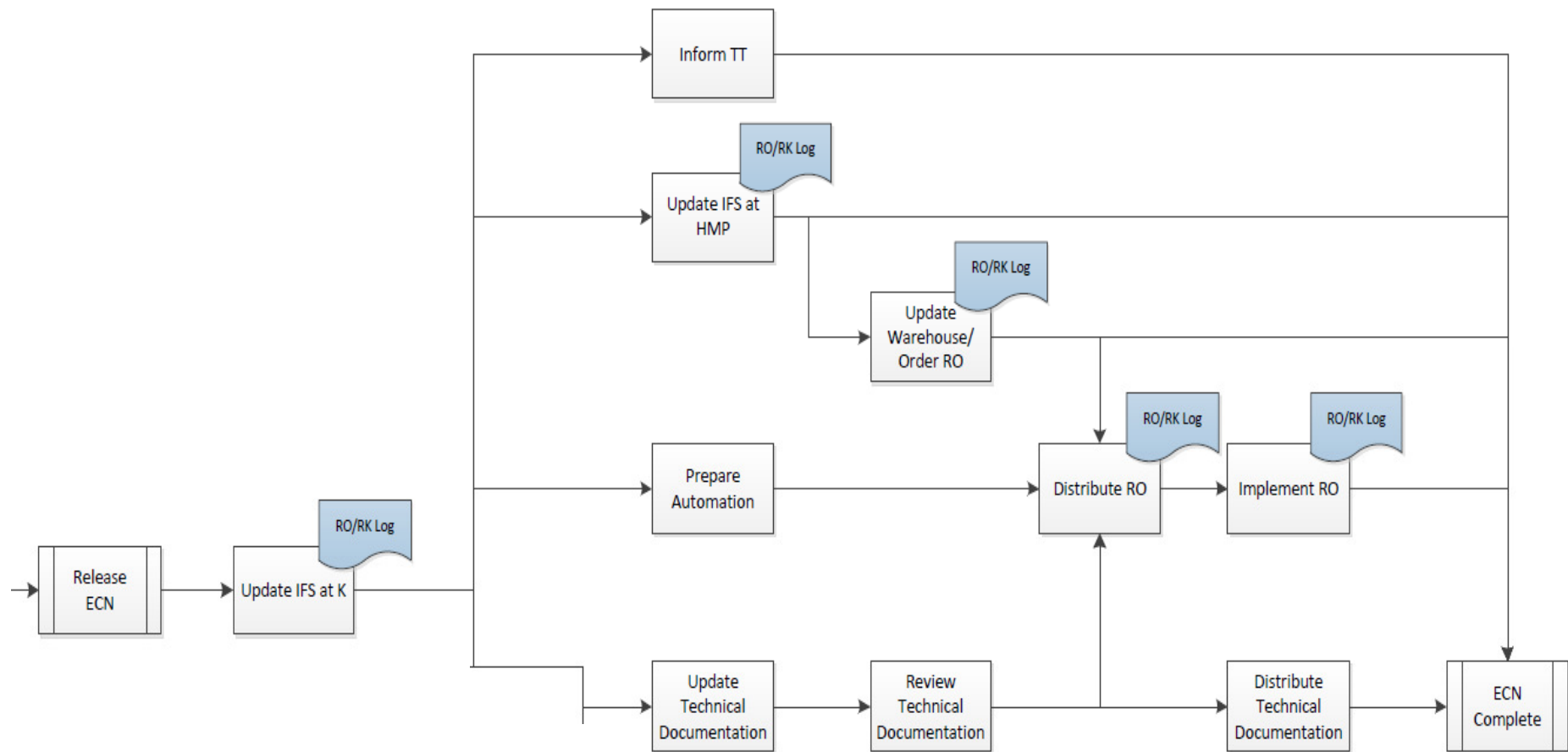
RO/RK Number:

Machines Concerned:


Comments:

Complete

Rework



# After Audit ECN Meeting

Actions ▾  Update IFS at K

**Instructions:** This ECN Activity is assigned to you to perform.

**ECN Number:** ECN-05225

**Name:** EC1 height Control Unit

**Description:** Crank for height adjustment in the EC1 is not lockable. During production, the height moves because of shaking machine.

**Machines:** EC1

**Machine Sub Group:** Machine Body

**Audit ECN Comments:** Only 000-series

**RO/RK Number:** C-2020202

**Machines Concerned:** EC1-000

**ECN Meeting Participants:** COL MPE NNE, KDE, RSP, WEG, RFG, MOL

**Other Comments:**

Perform the following:

- Update IFS to reflect structure changes
- Update content of P-kit and spare part lists.
- Update the RO/RK-log

Press "Complete Task" when assignment is done.

**Subject:**  [Change Notice - ECN-05225-EC1 height Control Unit](#)

**Participants:** 


**Comments:**

Complete Task

Save

# Efter Audit ECN Meeting

Product: Aux Equipment | Folder: [Change Objects](#)

**Actions**  **Change Notice - ECN-05225**

Name: EC1 height Control Unit


Change Notice Complexity: Full Track

Created By: [Marcus Persson](#)


Description: Crank for height adjustment in the EC1 is not lockable. During production, the height moves because of shaking machine.








[More Attributes](#)

General ▾ Related Objects ▾ **History ▾** Collaboration ▾

Routing/Process History (1 object) 



Name	Version	Actions	Status	Initiated By	Date Started	Date Completed
<a href="#">Change Notice Workfl ...</a>	A.1	<b>Actions</b> ▾	Running	<a href="#">Marcus Persson</a>	2011-10-14 09:23 CEST	





Routing/Process Status: Change Notice Workflow 20 initiated by Marcus Persson on 2011-10-14 (Running) (7 total objects) 



Status	Activity Name	Assignee	Role	Vote	Comment	Due Date	Completed By	Date Completed
✓	 Audit ECN Meeting	Marcus Persson	Assignee	Complete			marper	2011-10-14 09:32 CEST
✓	 Update IFS at K	Marcus Persson	Assignee				marper	2011-10-14 09:32 CEST
	 Prepare Software	Markus Jarnestad	Automation Engineer					
	 Inform Technical Trainers	Christian Tjärnberg	Technical Instructor					
	 Update IFS at HMP	Per Abrahamsson	Purchaser					
	 Update Technical Doc ...	Anette Gottfridsson	Technical Writer					
	 Create RG	Anette Gottfridsson	Technical Writer					

# After Audit ECN Meeting

Welcome, Anette Gottfridsson

Assignments (2 of 2 total objects) View:   


   

<input type="checkbox"/>	Assignment Name		Actions	Subject of Assignment	State	Done	Status	Deadline	Assigned	Context	Role
<input type="checkbox"/>	<a href="#">Create RG</a>		Actions ▾	<a href="#">EC1 height Control Ur ...</a>	Released				2011-10-14 09:33 CEST	<a href="#">Aux Equipment</a>	Technical Writer
<input type="checkbox"/>	<a href="#">Update Technical Documentation</a>		Actions ▾	<a href="#">EC1 height Control Ur ...</a>	Released				2011-10-14 09:33 CEST	<a href="#">Aux Equipment</a>	Technical Writer

(0 objects selected)

[View Entire List](#)

# After Audit ECN Meeting

Actions ▾  Update Technical Documentation

**Instructions:** This ECN Activity is assigned to you to perform.

**ECN Number:** ECN-05225

**Name:** EC1 height Control Unit

**Description:** Crank for height adjustment in the EC1 is not lockable. During production, the height moves because of shaking machine.

**Machines:** EC1

**Machine Sub Group:** Machine Body

**Audit ECN Comments:** New PDS is needed

**RO/RK Number:** C-2020202

**Machines Concerned:** EC1-000

**ECN Meeting Participants:** COL MPE NNE, KDE, RSP, WEG, RFG, MOL

**Other Comments:**

Perform the following:

- Update SPC

- Update PDS

Choose a reviewer in drop down menu.

Press "Complete Task" when assignment is done.

**Subject:**  [Change Notice - ECN-05225-EC1 height Control Unit](#)

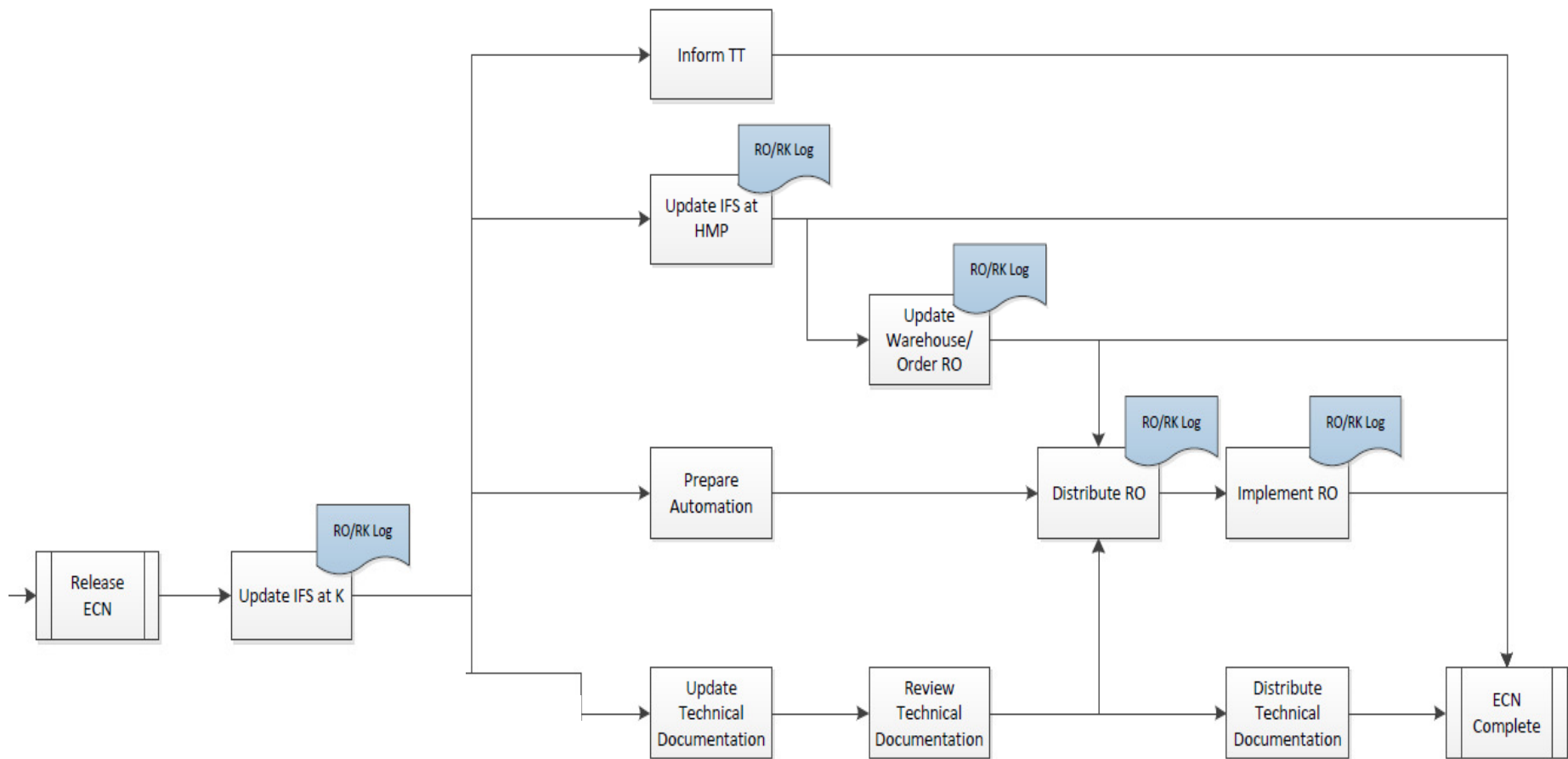
**Select Reviewer:**

**Comments:**

Complete Task

Save





ecolean

a lighter approach to packaging