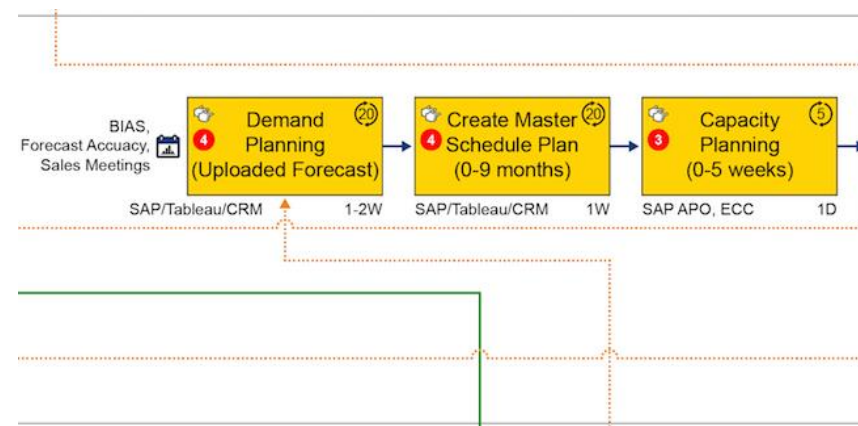


Planning EMA Overview

Planning EMA is in the GPO functional group are in the SO Business Area. The illustration below provides an overview of the End-to-End Planning EMA workflow. This document aims to describe all the tasks involved in the Planning EMA function.

Solid/Liquid's Workflow:



Demand Planning (Uploaded Forecast) - Description

The objective of this task is to make available forecast to master schedule plan. It is part of the solid/liquid workflow.

It consists of the following Measurement(s):

- BIAS
- Forecast Accuracy
- Sales meetings

It delivers the following Service(s):

- Forecast of 24 months

The task has a maturity of 4.

The task consumes service flow from:

- "Product Inventory & Robustness Check"

It provides service flow to:

- “Create Master Schedule Plan (MPS)”

The time used on the task is estimated at “1-2 weeks” with an estimated rework of “20%”.

The following are the issues or problems that the task has:

- Lumpy sales
- Sales Opportunities
- Improvement opportunity
- Short term forecast (input from CSR etc.)
- less aggregated forecast level
- There is no short-term forecasting
- Ad hoc forecasting meetings
- There’s little to no integration between the planning departments that plan for the forecast.
- 70% Forecast accuracy is correct, 30% is incorrect.

If you have any questions, comments, changes or need to interact with the accountable of the task, these are the responsible (Novozymes contact acronyms are applied):

- Sales
- Finance
- Global Capacity Planning
- Supply Coordinator
- Marketing

Create Master Schedule Plan - Description

The objective of this task is to Create MPS for local planning/scheduling. It is part of the solid/liquid workflow.

It consists of the following Measurement(s):

- “ ... ”

It delivers the following Service(s):

- Master Schedule Plan wo Cap.

The task has a maturity of 4.

The task consumes service flow from:

- “Demand Planning (Uploaded forecast)”

It provides service flow to:

- “Capacity Planning”

The time used on the task is estimated at “1 week” with an estimated rework of “20%”.

The following are the issues or problems that the task has:

- Phase in/phase out
- Safety stock review
- Housekeeping in chain
- 65% of the safety stock, where they want to reach 100%.
- 6% product is used as a buffer, because they expect 6% spillage.
- Cleaning (rensning) is the primary bottleneck in the chain.

If you have any questions, comments, changes or need to interact with the accountable of the task, these are the responsible (Novozymes contact acronyms are applied):

- Demand Planner
- Global Capacity Planning
- Production
- Supply Coordinator
- IPG
- Marketing

Capacity Planning - Description

The objective of this task is to secure load is aligned the Cap. It is part of the solid/liquid workflow.

It consists of the following Measurement(s):

- “..”

It delivers the following Service(s):

- Master Schedule Plan

The task has a maturity of 3.

The task consumes service flow from:

- “Create Master Schedule Plan (MPS)”

It provides service flow to:

- “FSP + SCO KA + Intercompany + Subcontracting (Receives Master Schedule Plan)”

The time used on the task is estimated at “1 day” with an estimated rework of “5%”.

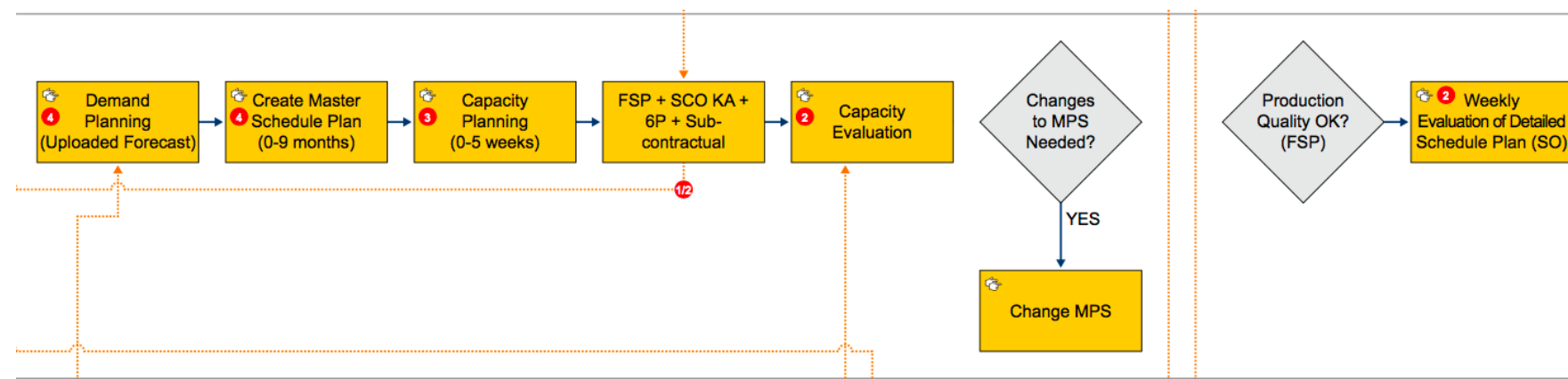
The following are the issues or problems that the task has:

- They have a 20% overload with production capacity.

If you have any questions, comments, changes or need to interact with the accountable of the task, these are the responsible (Novozymes contact acronyms are applied):

- Demand Planner
- Production
- Supply Coordinator (prioritize)

Solid’s Workflow:



FSP + SCO KA + 6P + Sub-contractual - Description

The objective of this task is to “...”. It is part of the solid workflow.

It consists of the following Measurement(s):

- “...”

It delivers the following Service(s):

- “...”

The task has a maturity of 1.5.

The task consumes service/information flow from:

- “Capacity Planning”

- “Check Possibility for Product Availability”

It provides service/information flow to:

- “Capacity Evaluation”
- “Scheduling Gran/Spray”

The time used on the task is estimated at “...” with an estimated rework of “...”.

The following are the issues or problems that the task has:

- “...”

If you have any questions, comments, changes or need to interact with the accountable of the task, these are the responsible (Novozymes contact acronyms are applied):

- “...”

Capacity Evaluation - Description

The objective of this task is to **secure doable plan**. It is part of the solid workflow.

It consists of the following Measurement(s):

- “...”

It delivers the following Service(s):

- **Agreed plan**

The task has a maturity of **2**.

The task consumes service flow from:

- “FSP + SCO KA + 6P + Sub-contractual”
- “Prioritize Capacity Planning”

It provides “...” flow to:

- “...”

The time used on the task is estimated at “**1 hour/month**” with an estimated rework of “...”.

The following are the issues or problems that the task has:

- **Realistic mater data.**
- **20% overload with production capacity.**

If you have any questions, comments, changes or need to interact with the accountable of the task, these are the responsible (Novozymes contact acronyms are applied):

- FSP

Changes to MPS Needed? - Description

The objective of this task is to make a decision if changes to MPS are needed. It is part of the solid workflow.

It consists of the following Measurement(s):

- “...”

It delivers the following Service(s):

- Create new master schedule plan (yes variant)
- MPS continues (no variant)

The task has a maturity of “...”.

The task consumes service flow from:

- “Capacity Evaluation”

The task is a gateway and has two variants, Yes and No.

The yes variant provides service flow to:

- “Change MPS”

The no variant provides service flow to:

- “...”

The time used on the task is estimated at “1 hour” with an estimated rework of “1%”.

The following are the issues or problems that the task has:

- “...”

If you have any questions, comments, changes or need to interact with the accountable of the task, these are the responsible (Novozymes contact acronyms are applied):

- Supply Planner

Change MPS - Description

The objective of this task is to "...". It is part of the solid workflow.

It consists of the following Measurement(s):

- "..."

It delivers the following Service(s):

- "..."

The task has a maturity of "...".

The task consumes service flow from:

- "Changes to MPS needed"

It provides "... flow to:

- "..."

The time used on the task is estimated at "..." with an estimated rework of "...".

The following are the issues or problems that the task has:

- "..."

If you have any questions, comments, changes or need to interact with the accountable of the task, these are the responsible (Novozymes contact acronyms are applied):

- Supply Planner

Production Quality OK? (FSP) - Description

The objective of this task is to "...". It is part of the solid workflow.

It consists of the following Measurement(s):

- "..."

It delivers the following Service(s):

- "..."

The task has a maturity of "...".

The task consumes "... " flow from:

- "... "

The task is a gateway and has two variants, Yes and No.

The yes variant provides service flow to:

- "Weekly Evaluation of Detailed Schedule"

The no variant provides service flow to:

- "... "

The time used on the task is estimated at "... " with an estimated rework of "... ".

The following are the issues or problems that the task has:

- "... "

If you have any questions, comments, changes or need to interact with the accountable of the task, these are the responsible (Novozymes contact acronyms are applied):

- "... "

Weekly Evaluation of Detailed Schedule Plan (SO) - Description

The objective of this task is to **secure relevant actions on deviations from plan**. It is part of the solid workflow.

It consists of the following Measurement(s):

- "... "

It delivers the following Service(s):

- **New detailed schedule**

The task has a maturity of **2**.

The task consumes service flow from:

- "Production Quality OK? (FSP)"

It provides "... " flow to:

- "... "

The time used on the task is estimated at **"5 hours"** with an estimated rework of **"20%"**.

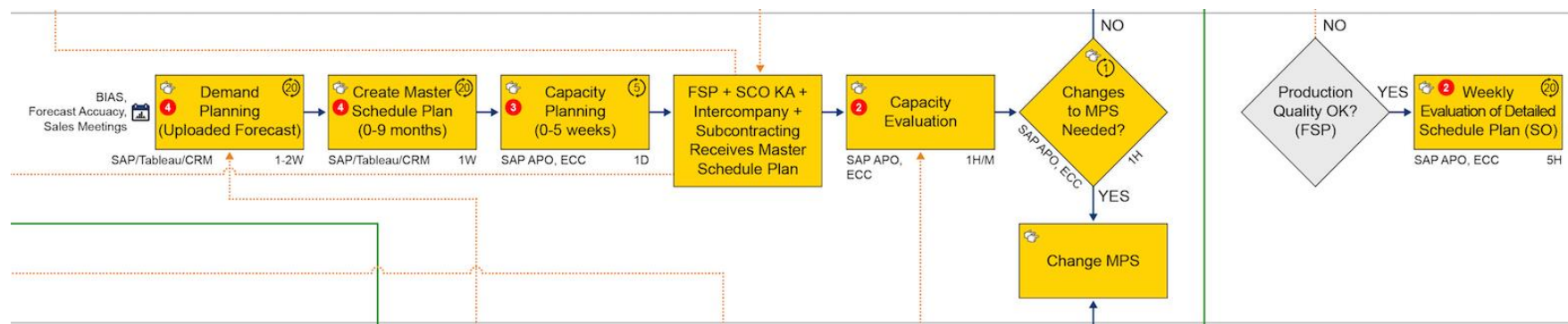
The following are the issues or problems that the task has:

- A lot of changes due to quality, resources, error etc.

If you have any questions, comments, changes or need to interact with the accountable of the task, these are the responsible (Novozymes contact acronyms are applied):

- FSP
- SCO (NILL)
- Deployer

Liquid's Workflow:



FSP + SCO KA + Intercompany + Subcontracting (Receives Master Schedule Plan) - Description

The objective of this task is to "...". It is part of the liquid workflow.

It consists of the following Measurement(s):

- "..."

It delivers the following Service(s):

- "..."

The task has a maturity of "...".

The task consumes service/information flow from:

- "Capacity Planning"
- "Evaluation to Make Inventory Available"

It provides service/information flow to:

- “Capacity Evaluation”
- “Planning, Scheduling Ferm/Rec”

The time used on the task is estimated at “...” with an estimated rework of “...”.

The following are the issues or problems that the task has:

- “...”

If you have any questions, comments, changes or need to interact with the accountable of the task, these are the responsible (Novozymes contact acronyms are applied):

- “...”

Capacity Evaluation - Description

The objective of this task is to **secure doable plan**. It is part of the liquid workflow.

It consists of the following Measurement(s):

- “...”

It delivers the following Service(s):

- **Agreed plan**

The task has a maturity of **2**.

The task consumes service flow from:

- “FSP + SCO KA + Intercompany + Subcontracting (Receives Master Schedule Plan)”
- “Check Capacity & Capability”

It provides service flow to:

- “FSP, Changes to MPS Needed?”

The time used on the task is estimated at “**1 hour/month**” with an estimated rework of “...”.

The following are the issues or problems that the task has:

- **Realistic master data**
- **20% overload with production capacity**

If you have any questions, comments, changes or need to interact with the accountable of the task, these are the responsible (Novozymes contact acronyms are applied):

- FSP

Changes to MPS Needed? - Description

The objective of this task is to make a decision if changes to MPS are needed. It is part of the liquid workflow.

It consists of the following Measurement(s):

- “...”

It delivers the following Service(s):

- Master schedule plan (yes variant)
- MPS Continues (no variant)

The task has a maturity of “...”.

The task consumes service flow from:

- “Capacity Evaluation”

The task is a gateway and has two variants, Yes and No.

The yes variant provides information flow to:

- “Change MPS”

The no variant provides service flow to:

- “Tankyard”

The time used on the task is estimated at “1 hour” with an estimated rework of “1%”.

The following are the issues or problems that the task has:

- “...”

If you have any questions, comments, changes or need to interact with the accountable of the task, these are the responsible (Novozymes contact acronyms are applied):

- FSP
- SCO (NILL)
- Deployer

Change MPS - Description

The objective of this task is to "...". It is part of the liquid workflow.

It consists of the following Measurement(s):

- "..."

It delivers the following Service(s):

- "..."

The task has a maturity of "...".

The task consumes service flow from:

- "Changes to MPS needed"

It provides "... " flow to:

- "..."

The time used on the task is estimated at "... " with an estimated rework of "...".

The following are the issues or problems that the task has:

- "..."

If you have any questions, comments, changes or need to interact with the accountable of the task, these are the responsible (Novozymes contact acronyms are applied):

- "..."

Production Quality OK? (FSP) - Description

The objective of this task is to "...". It is part of the liquid workflow.

It consists of the following Measurement(s):

- "..."

It delivers the following Service(s):

- "..."

The task has a maturity of "...".

The task consumes “...” flow from:

- “...”

The task is a gateway and has two variants, Yes and No.

The yes variant provides service flow to:

- “Weekly Evaluation of Detailed Schedule Plan (SO)”

The no variant provides information flow to:

- “Final – Plan shared from GPO”

The time used on the task is estimated at “...” with an estimated rework of “...”.

The following are the issues or problems that the task has. “...”

If you have any questions, comments, changes or need to interact with the accountable of the task, these are the responsible (Novozymes contact acronyms are applied):

- “...”

Weekly Evaluation of Detailed Schedule Plan (SO) - Description

The objective of this task is to **secure relevant actions on deviations from plan**. It is part of the liquid workflow.

It consists of the following Measurement(s):

- “...”

It delivers the following Service(s):

- **New detailed schedule**

The task has a maturity of **2**.

The task consumes service flow from:

- **“Production Quality OK? (FSP)”**

It provides “...” flow to:

- “...”

The time used on the task is estimated at **“5 hours”** with an estimated rework of **“20%”**.

The following are the issues or problems that the task has:

- A lot of changes due to quality, resources, errors etc.

If you have any questions, comments, changes or need to interact with the accountable of the task, these are the responsible (Novozymes contact acronyms are applied):

- FSP
- SCO (NILL)
- Deployer
- Supply Planner