# EU Green Fast lane, Phase two report out

## Project / Product: European Green Fast Lane

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|---|---|
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| **Leadership:** | **KL** |

| | |
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**AIM OF THIS DOCUMENT**

The aim of this document is to describe the progress of the "'EU Green Fast Lane" project. Hereby will every sprint package expound into different stages. We will describe the following topics:

- **Sprint 1**
- **Sprint 2**
- **Sprint 3**

# Inhoudsopgave

# 1. Intro

This is the second report for NLIP as a reference of the European Green Fast Lane(EGFL) project. The same project approach and is used whereby we continued building on our results of the first part of the project. Hereby the approach how we approached this project.

The project approach is based on a process-based analysis of the current situation (As-Is), versus the desired situation (To-Be). The identified differences will be subject to a gap analysis.

A new ''consortium'' approach has been used to maximize output and reach a 'common' result;

Business

- KLM (Commercial & Ops)
- Kuehne+Nagel
- Swissport
- Jan de Rijk

Authorities

- Customs
- Cargonaut
- Schiphol Airport
- Design the 'green' process for ACI / Delivery / Acceptance / Planning / Truck Ordering etc.
- Close Collaboration with Digitization / PLUG / Acceptance project and design of CargoBus #3
- Mainport team is to deliver a secured cloud environment channeling all (updated/processed) data to all relevant stakeholders.
- Authorities' involvement as to mobilize the Business' demands

The initial project approach was symphony/waterfall, but has changed to agile/scrum method from September. Phase-one provides a thorough analysis of the current state versus the desired To-Be situation. A breakdown of improvement elements is used in this document.

The main idea behind the EGFL project is that the new consortium will work together in a Smart Mainport Program, where the aim is to create the smartest and leanest Cargo airport of the world. The design and the implementation of a smart/lean supply chain with a 100% knowledgeable incoming freight is one of the main topics within this project.

Together with NLIP we all started this project in an agile and experimental manner to combine our strengths and knowledge to build an optimized and lean supply chain.
Whereby Schiphol is following the Management Program and is designing with all key-suppliers the ideal supply chain for the vision of 2020. There will be made a blueprint during this project, how to roll-out this project in the rest of Europe.
KLM Cargo, Swissport, Jan de Rijk and Kuehne + Nagel are facing during this project directly the profit of the change within the supply chain, by an optimized truck scheme, no any congestion, the forecast of all booked trucks are more structured. They are also providing information about the cargo upfront, to help KLM and themselves about optimizing the Supply chain. These partners are responsible for 5% of the handled freight through KLM at Schiphol.
Cargonaut is arranging/developing a platform where we can exchange logistic- and status information.
NLIP is supporting each steps within the optimization within all chains within and around Schiphol.

After the summer, the beginning of September 2016 we started by working in a new way to implement and accomplish the new ideas/results. We started working in sprints of 4 weeks. We set a goals that needed to be achieved at the end of each sprint. In this document we will discuss further what we did during the sprints. The agile core team consists of Ops and IMO business experts, RM and S&D colleagues.

We implemented some big improvements within this project/sprints, whereby it was necessary to take some steps in the following order;

1. Trucking scheme; We started with optimizing the trucking scheme, this is the fundament of a perfect Supply chain.
2. LAT; we introduced Latest Acceptance Time whereby this was only possible if the Trucking scheme was working perfectly.
3. Peak shaving; Because of the new Trucking scheme and LAT we could manage the peaks at Swissport.
4. RFC +Weighting; Because of the peak shaving there was less congestion and more time to do the Ready For Carriage check and there was time to weight 100% of the cargo that arrived at Swissport.

## 2. Signatures

Hereby I agree with all the steps that are taken during this project and that are written within this document. I'm aware of all the information, performance and changes that are made during this project.

| **Marcel de Nooijer** | |
|---|---|
| Signature: | Date: |
| | …….-…….-……. |

| **Jonas van Stekelenburg** | |
|---|---|
| Signature: | Date: |
| | …….-…….-……. |

| **Sebastiaan Scholte** | |
|---|---|
| Signature: | Date: |
| | …….-…….-……. |

| **Dirk Schmitt** | |
|---|---|
| Signature: | Date: |
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## 3. Rolling planning EGFL

If we refer to the previous report, we translate the waterfall approach to a high level planning. After this detailed planning, we continued with new sprints instead of work packages.
The new planning is shown in the figure below and contains 3 specific area's/sprints;

- Sprint 1
  - Trucking
  - Planning
- Sprint 2
  - Latest acceptance time
  - Late-Show
  - No-Show
  - Go-Show
  - Delivery
  - Storage
  - ULD stock
- Sprint 3
  - Physical acceptance
  - High show
  - Process
  - FWB'/RCS
  - Weighing

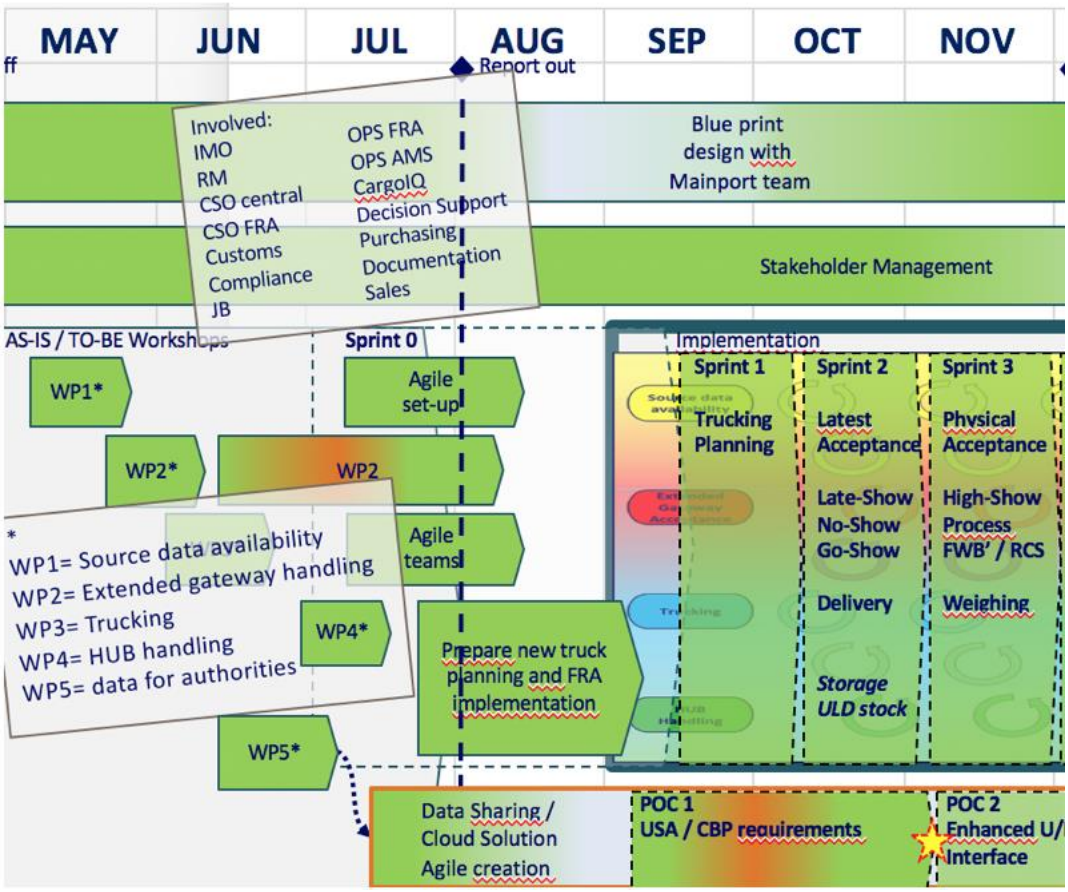


*Figure 1: Rolling planning EGFL, Sprint planning 2nd phase.*

# 4. Sprint 1

The kick-off session for agile implementation was held on the first of September 2016. The agile team was exited to start with Sprint 1 at 12 September 2016. The first Sprint will focus at the planning process at FRA and the related trucking schedule. Aim is to have a new schedule and planning implemented within the first sprint.
At the of 8 September the Commercial and Operations team in Frankfurt were visited to decide on their support and the 'rules of engagement' during the implementation of the project coming months.
Sprint #1 is due at October 7th 2016, after this sprint we will continue with the 2nd Sprint.

## 4.1. Trucking

We started the new sprint by creating a new schedule for the trucking schedule. Thereby we needed some support from S&D and RM. We created a new booking scheme whereby two booking trucks were implemented.
The Late-Show principle was agreed upon by S&D and RM senior management and was ready for further assessment on methods and roles. This finalizes the 'Acceptance' principle about the acceptance at Swissport. Same will be implemented in the FRA proof of concept and in the PLUG/Acceptance project of Bart Krol in AMS and CDG.

The SSC (local planning and support) role of Swissport at Frankfurt was discussed with local AF/KL OPS/CSO management and later with AOD Europe.
It was the aim to terminate the formal agreement within contractual boundaries, however limit the role as the project evolves to start with handing over the Planning of trucks (to CP) during sprint 1.

| Truck | # | LAT | DEP | ARR | CT | Conx interval | | Remark |
|---|---|---|---|---|---|---|---|---|
| MP BKG | 8354 | 12:00 | 16:00 | 23:30 | 12 | 11:30 | | MP Traffic only |
| BKG 1 | **8088** | **17:00** | **20:00** | **04:30** | **3-12** | **07:30** | **16:30** | Next Day |
| | 8090 | 17:00 | 20:00 | 03:30 | 4-9 | 07:30 | 13:30 | Departure **ONLY** |
| | 8092 | 17:00 | 21:00 | 04:30 | 4-9 | 08:30 | 14:30 | SLR!! |
| | 8094 | 17:00 | 22:00 | 05:30 | 4-9 | 09:30 | 15:30 | Flight |
| | 8096 | 17:00 | 23:00 | 06:30 | 4-9 | 10:30 | 16:30 | Optimization |
| BKG 2 | **8350** | **23:00** | **23:59** | **12:30** | **4 and more** | **16:30** | | SLR!! Truck optimization |
| | 8352 | 23:00 | 02:00 | 09:30 | 7 | 16:30 | | |
| | 8356 | 23:00 | 03:00 | 10:30 | 6 | 16:30 | | |
| | 8358 | 23:00 | 04:00 | 11:30 | 5 | 16:30 | | |
| | 8360 | 23:00 | 05:00 | 12:30 | 5 | 17:30 | | long connections |
| | 8362 | 23:00 | 11:00 | 18:30 | | | | |
| | ... | ... | 12:00 | 19:30 | | | | |
| | ... | ... | ... | ... | | | | |

*Figure 2: first step trucking schedule.*

The new trucking set-up is 'live' in Cargoal after making the arrangements with Swissport FRA and testing the new schedule in KLM booking systems. The schedule took effect on September 27th 2016 (first trucks are supposed to arrive AMS on September 28th).
The preferred trucking set-up (bookable RFS) created a conflict with the implementation of CargoBus wave#2 planned for October 2016, hence the 'two-booking-truck principle' has been re-instated.

| kind | # | LAT | DEP | ARR | CT | Conx interval | | Opmerk. |
|---|---|---|---|---|---|---|---|---|
| OPS-BKG | 8090 | 17:00 | 20:00 | 03:30 | 4-9 | 07:30 | 12:30 | Flight optimization SLR !! |
| | 8092 | 18:00 | 21:00 | 04:30 | 4-9 | 08:30 | 13:30 | |
| | 8094 | 19:00 | 22:00 | 05:30 | 4-9 | 09:30 | 14:30 | |
| | 8096 | 20:00 | 23:00 | 06:30 | 4-9 | 10:30 | 15:30 | |
| | 8098 | 20:30 | 23:30 | 07:00 | 4-9 | 11:00 | 16:00 | |
| BKG | **8350** | **23:00** | **23:59** | **12:00** | **4-40** | **16:00** | | SLR Apply Truck opt. |
| | 8352 | 23:00 | 02:00 | 09:30 | | 16:00 | | |
| | 8354 | 23:00 | 03:00 | 10:30 | | 16:00 | | |
| | 8356 | 23:00 | 04:00 | 11:30 | | 16:00 | | |
| | ... | ... | ... | ... | | | | Long connections |
| | 8358 | 23:00 | 10:00 | 17:30 | | | | |
| | 8360 | 23:00 | 11:00 | 18:30 | | | | |
| | ... | ... | ... | ... | | | | |

*Figure 3: second step trucking schedule.*

After implementing the truck-schedules last week some fine-tuning on the timings have been adjusted as to meet CargoBus and also CSO requirements. The set-up is live and works as expected, the new schedule can be found in figure 3.

Tuesday the 27th of September 2016 the planning will be transferred from Swissport Cargo Service Center to CP in Amsterdam. The clear partition and different 'nature' of trucks has been explained and discussed with the Swissport team and all was feasible for implementation. CP has been thoroughly instructed and the FRA CSO team as well, so this process wouldn't arise any problems.

The transfer of planning from FRA to AMS/CP was supported by Fred Timmers locally at FRA and went smooth.
Good efforts by CP are recognized to coop with the additional workload, the true impact will become clear over the coming weeks. Reports were send to KLM to investigate the performance of the new trucking schedule.

Also we had some back-up scenarios for resourcing in place and could be launched if necessary, but this wasn't necessary at all. Everything went almost smooth and there weren't any problems with the new trucking scheme.
Some modifications in the operational trucking schedule were made in close concert with CP as to smoothen their work and to work more efficient.

As we still have booking trucks, the new 'schedule' -which is more realistic than the old one- will create conflicts with the Departure-FRA milestone however it should made-up a lot of the current damage between Arrival; RCF(T) and Departure AMS. (Meaning over-all better quality and a split of cargo that needs to be handled versus longer connecting payload). The performance is shown in the last chapter, conclusion.

## 4.2. Planning

A meeting with FRA commercial colleagues was held as to discuss the changes on hand, the Direct-Pick-Up set-up has been briefed and the implementation thereof will be in the upcoming sprint and at the end of sprint 2.

Beginning of October 2016, the Acceptance policy was discussed with the RM Management team. Swissport was visited in FRA to discuss the smooth handover of planning activities to CP (formal notice of Support functionality has been given).

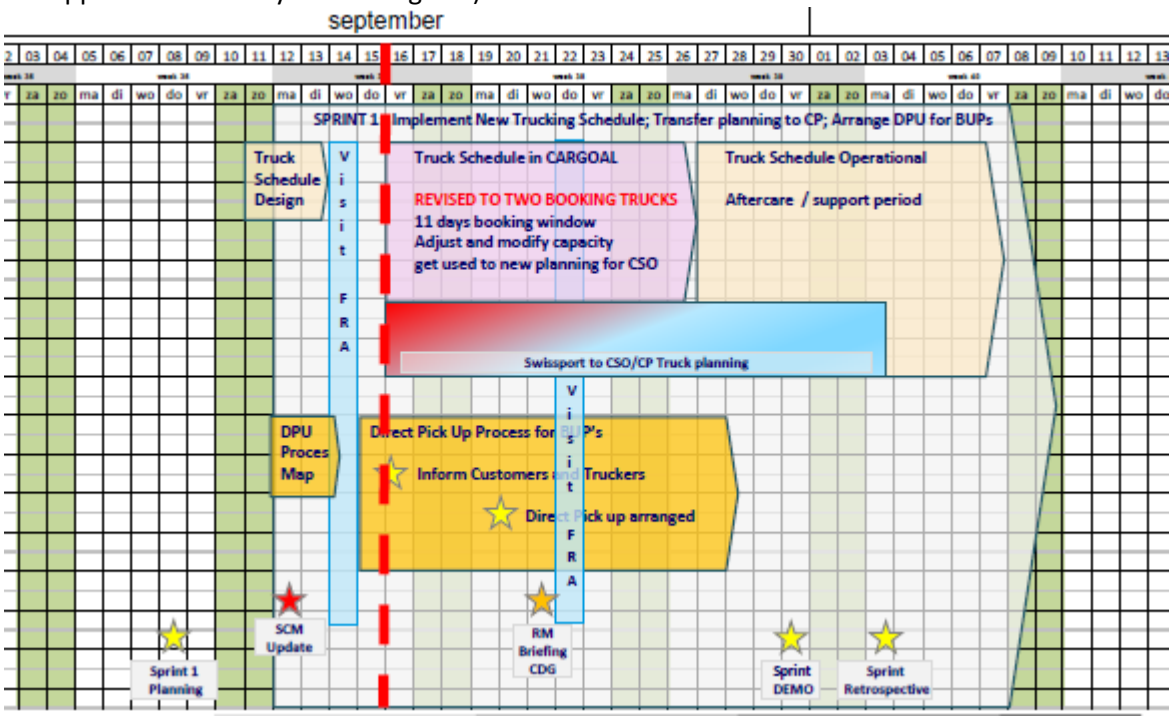


*Figure 4: Sprint 1 planning overview*

The first trucks under this new set-up arrived in Amsterdam, a ceremony was planned with Mainport Team and some consortium executives to celebrate the first significant milestone of European Green Fast Lane.


## 5. Sprint 2

Sprint #2 will cover the implementation of Latest Acceptance at Frankfurt.
Some preparations for Sprint #2 are taken place. Sprint 2 will start at 10th of October 2106,
The following points will be discussed as well in the following Sprint;

1. As the Late show process / FOH milestone will be implemented RM involvement is requested in the scrum team to decide on and develop the way of working.
2. Selective loading rules will be implemented in sprint 2 as well

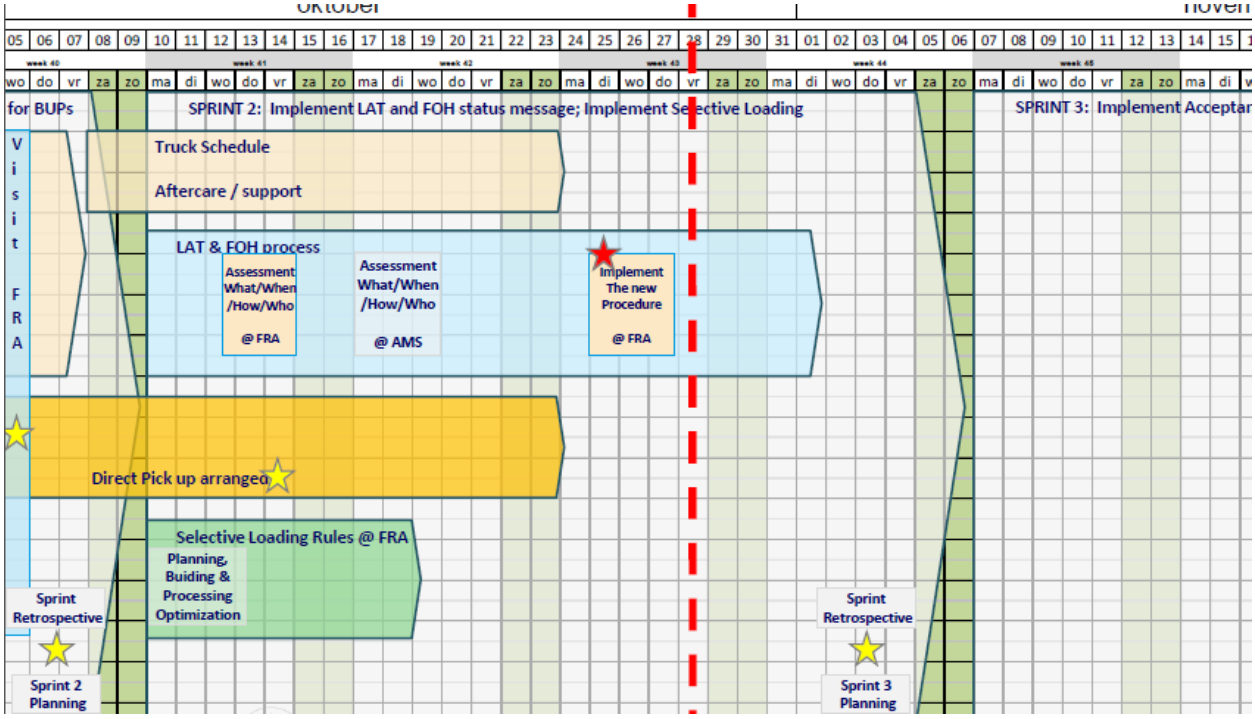

*Figure 5: Sprint 2 planning overview*

This were the highlights of the beginning of this sprint what we accomplished;

- Trucking-set-up does not conflict with AFLS implementation W2,
- The Late Show process is currently discussed at Swissport locally; we expect to switch to the new procedure in this sprint.
- Communication to the forwarding community in Frankfurt will be channeled through the FRA office and is requested.

## 5.1. Latest acceptance time

Everything was set for implementation of the Late-Show process from FRA, 25th of October 2017
With the help of RM in Singapore the rebooking of late shipments will be processed, the Operational team of Swissport will cancel and queue these shipments in Cargoal. Bear in mind this is a temporary process to be implemented until further notice, once proven an automated mechanism will be developed with assistance of AFLS.

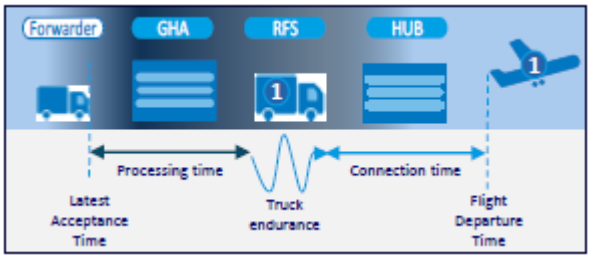


*Figure 6: Green process: whereby this is the ideal process*

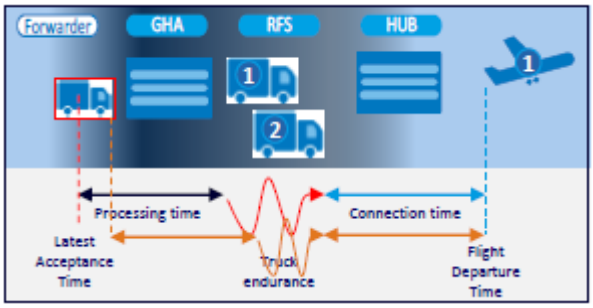


*Figure 7: Reovery at outstation or on minimum connection time is possible*

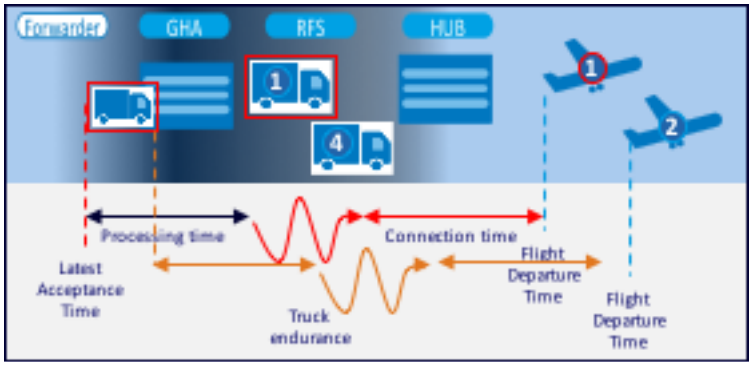


*Figure 8: Red process with flight on same day possibility.*


*Figure 9: Red Process; Shipment is late and misses same truck and same day connection at the HUB.*
*Cargo will be rebooked and layover at origin until next days-truck departure.*
*In case of commercial discussion, ample time to manage or cancel the shipment*

### 5.2. Late-Show

Shipment is delivered between LAT and DEP milestones; In case of Late-show, all segments in the booking will be cancelled. With on-site support of Fred Timmers the new queueing and cancellation of segments for late shipments was executed.
Late-Show process went live at FRA and there was a drop of quality.
An Escalation meeting with Swissport management Germany and FRA as to boost the performance after a drop in quality after;

- Issue is recognized SWP has dedicated staff to review and structurally improve the local situation.
- A weekly review call was implemented to raise 'general' issues.
- Direct escalation was also available for urgent matters.

At the reference-group meeting it was proposed to mobilize KL-Ops support to be deployed to SWP Fra for a longer period of time, this was discussed with Swissport during the performance call.

Everything was set for implementation of the Late-Show process from FRA, 25th of October 2017

How to manage the late-show process:

- Current non-sustainable process
  - RM-SIN has been changed to RM-AMS/CDG
  - Cancellation of segments by Swissport in Cargoal
  - Disremark and Queueing in Cargoal
- Principles
  - RM will not allow others to book without EC/SCB check
  - GHA's will operate in own systems (Reservations Only set-up)
  - Process need to be embedded in AFLS and not in Legacy
- Options (CCC support?)
- Requirements for 'automated' process written -> CR for Cargobus
- Discuss 'principle' with AF AOD for assessment on:
  - AF systems (pelican / AFLS?)
  - Roles & Responsibilities
- Change-Management to GHA's and organization is 'significant'…

With the help of RM in Singapore the rebooking of late shipments will be processed, the Operational team of Swissport will cancel and queue these shipments in Cargoal.

Bear in mind this is a temporary process to be implemented until further notice, once proven an automated mechanism will be developed with assistance of AFLS.

In the meantime, support of the late-show process was still required. Focus on proper follow-up and timely processing of late-show/no-show shipments. Detailed reports of 'what was late' were still under construction and gave a good overview of the progress of this project.
As a new booking was made before 'RCS', the baseline of the shipment is modified and the initial late-shipment is registered 'on-time' for the new booking.

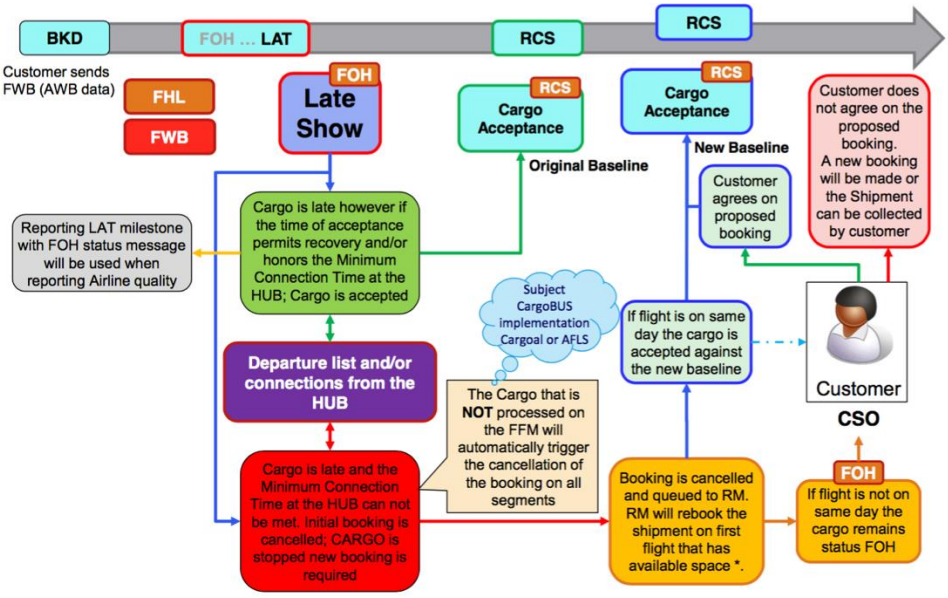


*Figure 10: Late show process.*

### 5.3. No-Show

Also no-show was implemented (cancellation of the AWB). Till now a handful of shipments were affected, the project-team was closely monitoring and adjusting the process in cooperation with the FRA team, CSO and RM.
Shipment is delivered after DEP milestone; In case of No-show, the AWB will be cancelled.

During design discussions the difference between Late-show and No-show was discussed. As no clear separation was present the following proposal was made:

- Late-show; Shipment is delivered between LAT and DEP milestones; In case of Late-show, all segments in the booking will be cancelled
- No-show; Shipment is delivered after DEP milestone; In case of No-show, the AWB will be cancelled.

### 5.4. Go-Show

During the sprint we faced several challenges that have been fixed within the scope of this project.

1. The delivery process at Swissport and 'claimed' long waiting times for agents who want to deliver at FRA
   (with use of Swissport Yard management tooling, reports told us more information about this.
2. Storage of cargo at FRA, a re-planning process is implemented at CP to adjust the processing of 'on-hand' cargo, we got this done.

Go-Show and processing of bookings of cargo that has been delivered at Swissport without any booking (done

### 5.5. Delivery

We saw congestion at Swissport FRA, Swissport was not able to manage this well. We managed together to do some peak shaving whereby the implementation of LAT made some huge changes for Swissport.

Swissport created a tool how to manage all the busy rush hours and how to manage all the congestion in front of their building. By introducing LAT the peak shaving is now spread throughout the day.

### 5.6. Storage

We as partners saw that there was such an unstructured delivery performance of cargo at Swissport, because of this there was a lot of storage at Swissport. Swissport charged KLM fees, storage costs. Through the new process (the implementation of the LAT and trucking scheme), there will be less storage cost for KLM and the supply chain will be optimized by pushing freight faster/smarter trough the chains.

### 5.7. ULD stock

Additional challenges appeared within our own AF/KL organization as well. ULD control / the timely availability of sufficient ULD's is a big problem at FRA. Due to the volumes of cargo processed about 500+ ULD's are needed each week, the new set-up with CDG/AMS ULD control did not help, resulting in too late preparation of available cargo, and storage at FRA. A new process need to be implemented/fine-tuned whereby there won't be that much buffer/cargo stock at Swissport. Hereby Swissport could send the freight directly/earlier to the HUB-AMS so this will be a leaner process.

# 6. Sprint 3

Preparation of sprint 3 / implementation of Acceptance –High Show policy and FWB' –On site with Swissport.

- Monitor performance on a daily basis
- Discussed Push Message possibility with new project manager
- Presentation to KLM board together with Cargonaut about e-Acceptance.

Aim of sprint 3 was Acceptance in general, managing deviations, weighing of cargo, processing FWB', Transmitting updated RCS, updating booking systems and how to apply the RM-Silver-Rule, in Figure 11 you can see the rolling planning of Sprint 3.

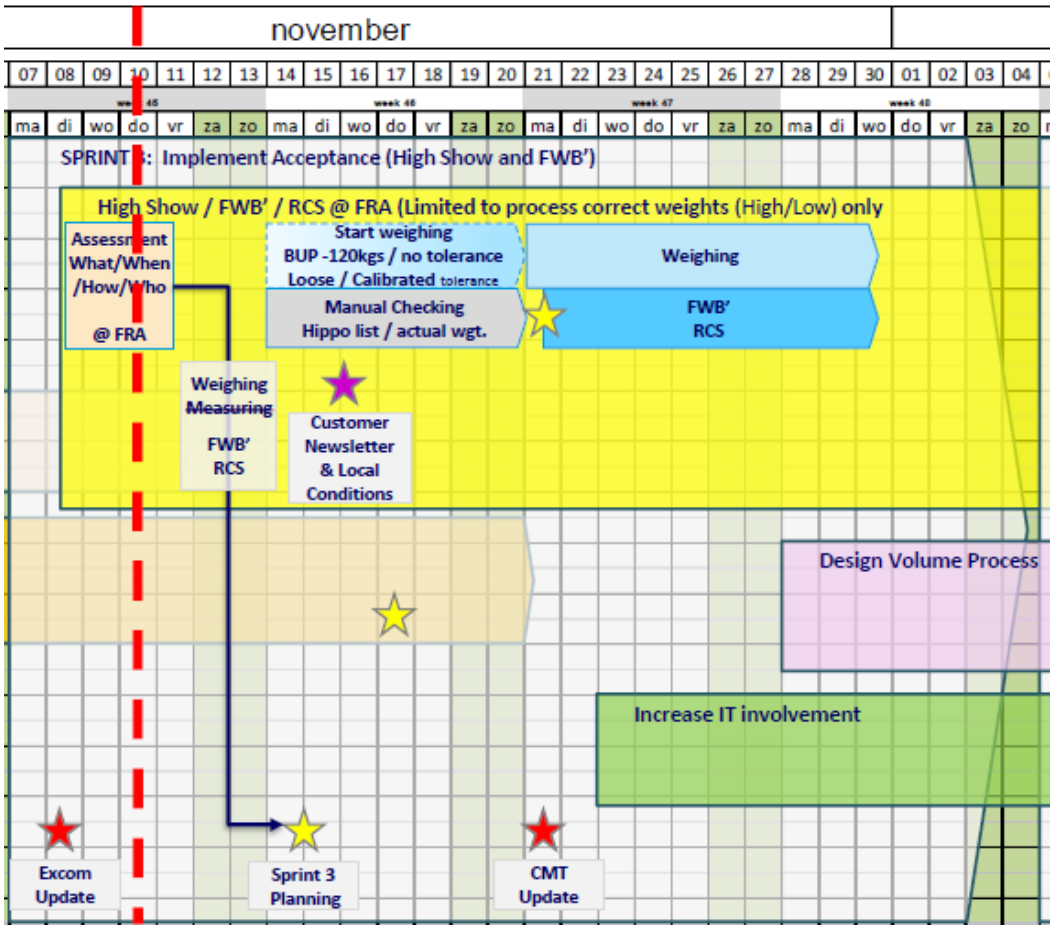


*Figure 11: Sprint 3 planning overview*

## 6.1. Physical acceptance

Latest Acceptance Time(LAT) was implemented and we are stricter as an airline related to timely delivery. (Previously LAT and RCS were triggered at the same time)
RCS is only triggered if the Freight on Hand of the shipment was on-time or Swissport managed to process on time.
*(Detailed reports on Freight on Hand performance / late delivery of cargo per customer and also 'repaired within remaining time' are under construction)*

## 6.2. High show

Swissport continues to focus and improve on the processes around Late-Show / High-Show.
The commercial rebooking-policy of High-Show (beyond silver rule) was discussed with Laurence Oules / Max Meijer and Jaap Groen, after this meeting the Acceptance policy waa presented at the CPEM+.
Cagro Management Team acknowledge that we choose to go into this direction and also with the Latest Acceptance Time procedure.

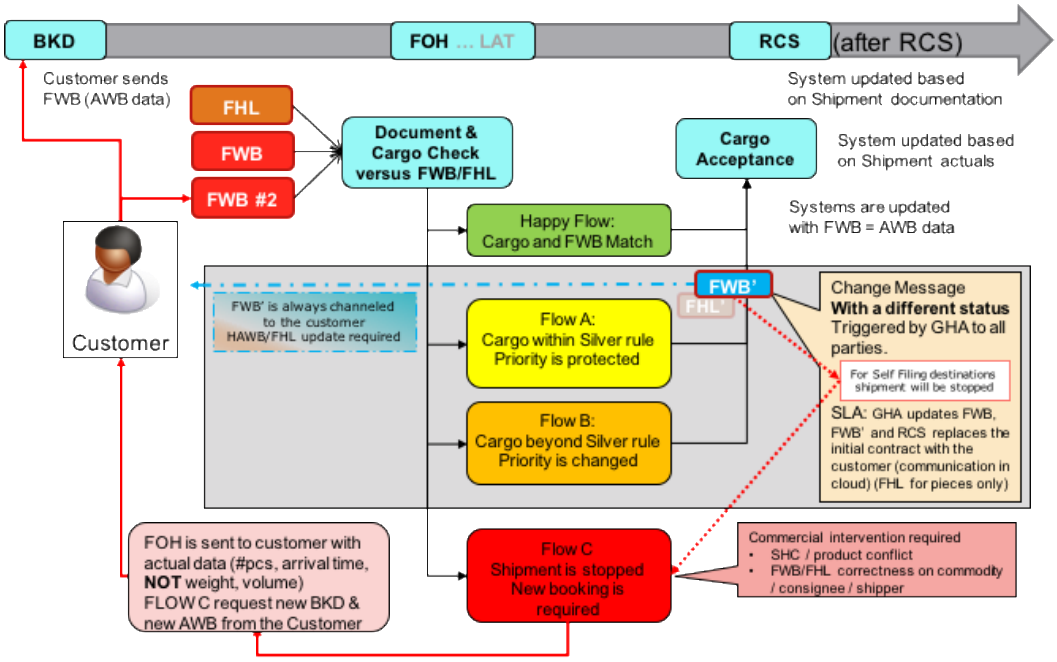


*Figure 12: Silver rule*

## 6.3. Process

Observations and recommendations (related to the local handling of cargo) of Andreas Pflug (Swissport-DUS) and Philip Roodenburg (KLM-AMS) –both present on-site for the last Sprint. The observations were translated to an implementation plan with the aim to regain control and focus on the performance of the warehouse. Swissport acknowledged the situation and will support the efforts over the coming time.

## 6.4. FWB'/RCS

The physical weighing of shipments has increased, FWB' is live and updated RCS's are transmitted by Swissport. KLM is gathering the differences and discuss this with Swissport.
Details will be followed closely as to decide to change to auto-processing of Swissports updated FWB (FWB') and trigger RCS with the actual weight. The latter will update the booking in KLM capacity systems.
Design sessions within AF/KL on how-to-'auto 'process updated data in systems and towards the customer are still in progress. A part of weighting and RFC is already done of AF, but not all steps are in use for AF as well.

### 6.5. Weighing

In Sprint 3 we started with High-Show; i.e. weighing of every shipment. Workshops with Swissport were performed to decide on the implementation steps. Preparation and simulations on updating booked volumes in commercial systems needs to be analyzed thoroughly before we proceed with that element. Details will be followed closely as to decide to change to auto-processing of Swissports updated FWB (FWB') and trigger RCS with the actual weight. The latter will update the booking in KLM capacity systems.

KLM noticed the efforts of Swissport to come to 100% weighing.
Some highlights during this sprint;

- The actual weighing at Swissport of each shipment is in progress (100%)
- Ongoing focus on cooperation CP/Swissport and CSO to clear the warehouse overnight. (not hampering peak-hours at AMS)
- FWB' and RCS are generated/updated automatically and are send to KLM.
- Swissport now has calibrated weight trucks, to weight al cargo precisely.

# 7. Conclusion

The big improvements, that we already discussed in the intro are achieved;

1. Trucking scheme; We started with optimizing the trucking scheme, this is the fundament of a perfect Supply chain.
2. LAT; we introduced Latest Acceptance Time whereby this was only possible if the Trucking scheme was working perfectly.
3. Peak shaving; Because of the new Trucking scheme and LAT we could manage the peaks at Swissport.
4. RFC +Weighting; Because of the peak shaving there was less congestion and more time to do the Ready For Carriage check and there was more time to weight 100% of the cargo that arrived at Swissport.

Progress was made in the discussions with Cargonaut on the development of the first Compliance Checker. The American CBP requirements are currently being translated in rules to be 'vetted' against FHL and FWB data. Additional Customs and Safety requirements will be added once the above works as required. The connection between Cargonaut and KLM-Legacy is expected in February.

This slide shows the impact of the process changes in FRA. Since August the 'input' quality at the HUB (RCF AMS) increased month over month.

The Performance drop ex FRA has been minimized to a few percent.

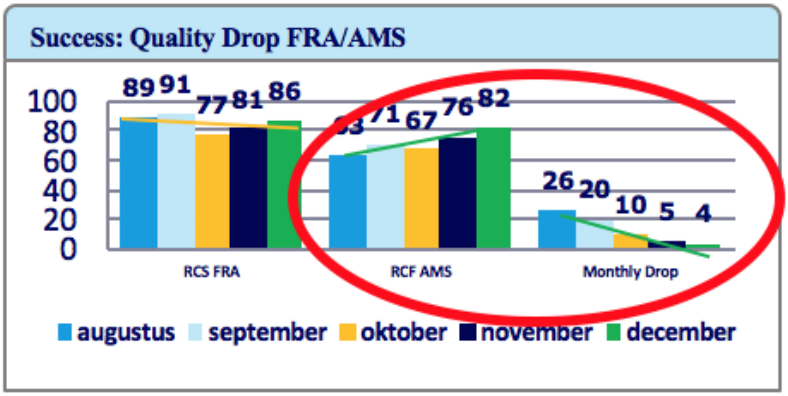


*Figure 13: Quality drop FRA/AMS*

The overall performance is significant better if we look to the numbers;

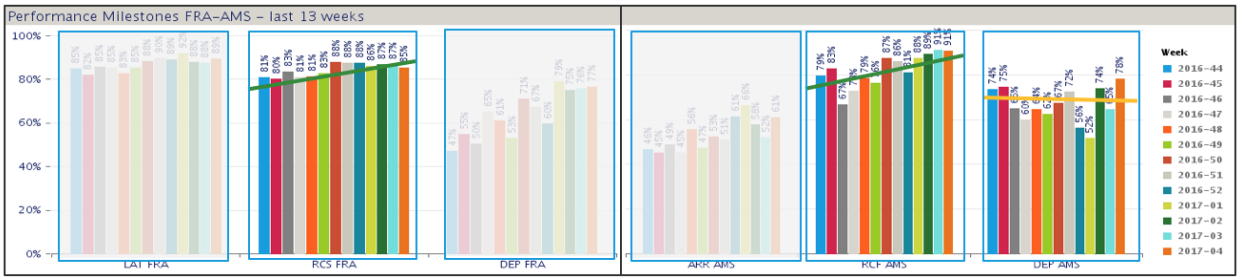


*Figure 14: Performance Milestones FRA-AMS – last 13 weeks.*