Demand Driven Supply Chain Professional

Raffaele Sabia
Federico Marchesi

Haier Europe | CANDY | Hoover | Haier

Agenda

Introduction – Raffaele Sabia Federico Marchesi

- Haier Europe
- Reason for change: Small Domestic Appliance Supply Chain redesign
- Transformation Journey
- Demand Driven Operating Model
- Results & Continuous improvement
- Road Map to DDAE

Introduction – Raffaele Sabia

What I have done

Haier Europe

Head of Supply Chain Excellence

July 2023 – Today

brembo

Head of Supply Chain – BU Racing

January 2020 – July 2023

FCA
FIAT CHRYSLER AUTOMOBILES

Multiple roles in Supply Chain

2003 - 2020

Why I do Supply Chain

"My mom always said life was like a box of chocolates. You never know what you're gonna get."

F. Gump

My DDMRP Journey – Raffaele Sabia

My Journey

- DDPP – Jun 2024
- DDDP – Jan 2025
- DDLP – Apr 2025
- DDSCP – Sep 2025 (self confidence!)
- DDDP Endorsed instructor – Planned for H1 2026

DDMRP Enthusiast, I participate to many university and company events talking about DDMRP and HE journey!

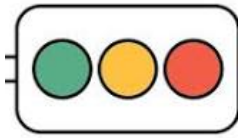
Oversight 2 Master Thesis on DDMRP (2025)

What convinced me?

Simple

Clear

Visual



Continuous improvement

Anti-fragile

Introduction – Federico Marchesi

What I have done

Haier Europe

Chief Supply Chain Officer

October 2022 – Today

brembo

Supply Chain Global Director

October 2020 – October 2022

amplifon

Supply Chain Global Director

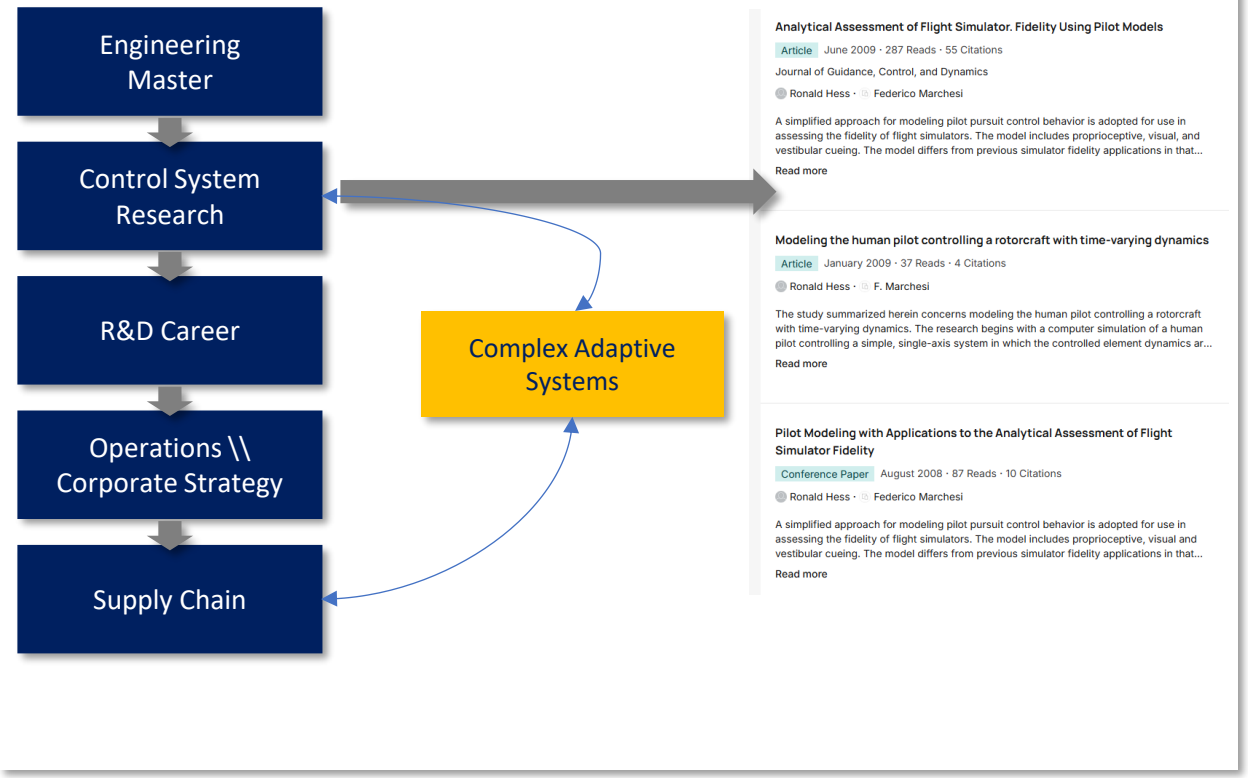
October 2020 – October 2022

Whirlpool CORPORATION

Multiple roles in Supply Chain
Corporate Strategy Manager

2010 - 2019

Why I do Supply Chain



My DDMRP Journey – Federico Marchesi

My Journey

- DDPP – 2020
- DDLP – 2020
- Adaptive Enterprise Foundations Professional – April 2024
- DDDP – November 2024

Advocate for DDMRP

I teach at 2 different Universities as an guest speaker

Oversight a Master Thesis on DDMRP (2025)

What convinced me?

"Inventory is an asset and not a liability as some new emerging theories are telling us. If well managed is the best hedging against risk, we can have"

(Federico Marchesi – 2018)

"Our dogmatic approach to World Class Manufacturing that has now expanded outside our Production Plants is making our Supply Chains brittle"

(Federico Marchesi – 2019)

… and then Covid-19 arrived

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Haier Europe | 2024 IN FIGURES

Haier smart home

€ 34.28B

SALES REVENUE

4.29%
GROWTH
YEAR-ON-YEAR

5.43%
GROWTH OF THE
OVERSEAS BUSINESS

Haier Europe

€ 3.84B

SALES REVENUE

12.42%
GROWTH YEAR-ON-YEAR

Global Recognitions

#1 COMPANY GLOBALLY
in Major Appliances

EUROMONITOR INTERNATIONAL

Once again listed
among **the Fortune**
GLOBAL 500

FORTUNE GLOBAL 500

Named one of the
Fortune's **MOST**
ADMIRED COMPANIES

FORTUNE WORLD'S MOST ADMIRED COMPANIES

The world's **ONLY IOT**
ECOSYSTEM BRAND

KANTAR BRANDZ 2024 MOST VALUABLE GLOBAL BRANDS

Haier Europe | CANDY Hoover Haier

Home Appliance Industry

Large Home Appliances

- Refrigerators
- Washing Machines
- Dishwashers
- Ovens
- Hobs
- Hoods

Home Comfort Appliances

- Air Conditioning
- Water heaters

Home Appliances

Small Home Appliances

- Blenders
- Mixers
- Irons
- Rice cookers
- Kitchen robots
- Toasters
- Coffee Machines

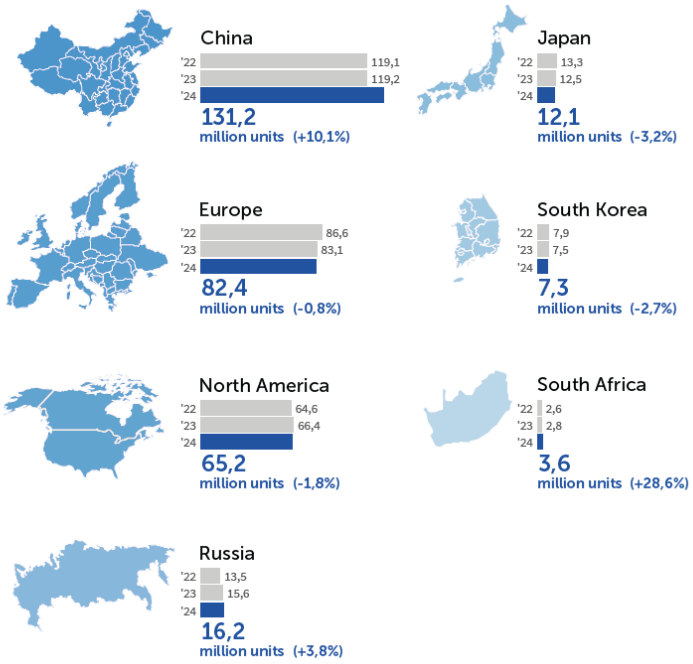
Home Appliance Industry

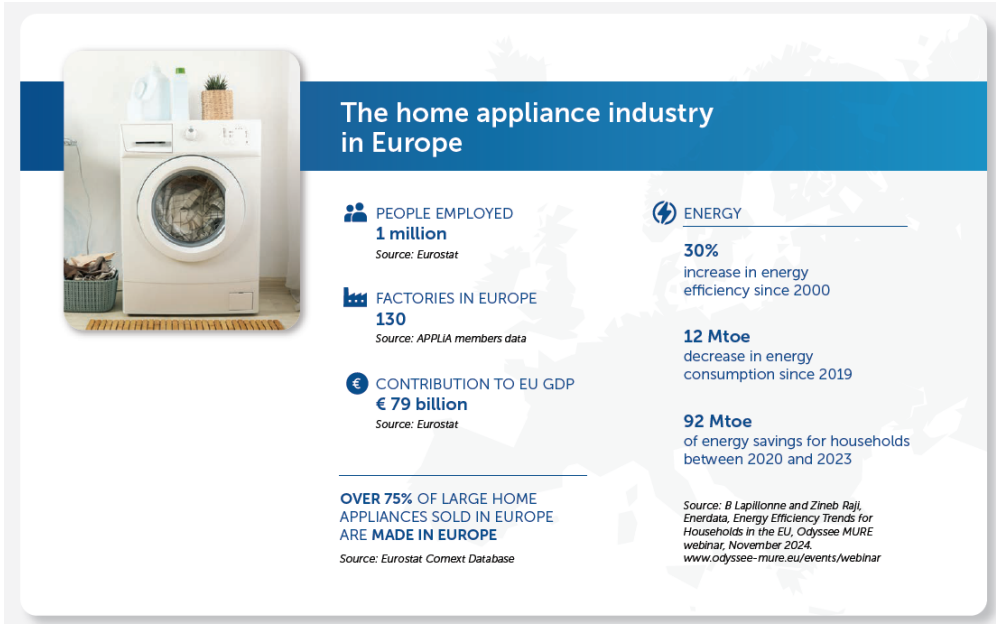
MARKET TRENDS

Large appliances sold globally

Between 2022 and 2024, global trade in home appliances followed mixed trends across regions. While Europe experienced a modest decline in unit sales over the period, other areas such as Russia, South Korea, and China recorded noticeable growth. On a global scale, the number of units sold continued to rise year over year, reflecting steady growth in many regions despite some fluctuations.

Source: International Roundtable of Household Appliance Manufacturer Associations (IRHMA)





Why DDMRP?

DDMRP is not a black box

- ✓ *The logic of DDMRP is intuitive for humans and allow continuous improvement*
- ✓ *Planner have multiple levers to activate for optimization: they can tinker with logical parameters to achieve objectives*

DDMRP is future ready

- ✓ *Fully allow to navigate the VUCA world*
- ✓ *Reflect our own perspective of resilience and risk management*
- ✓ *Reduce lead time and increase visibility*

Haier Europe Journey in DDMRP

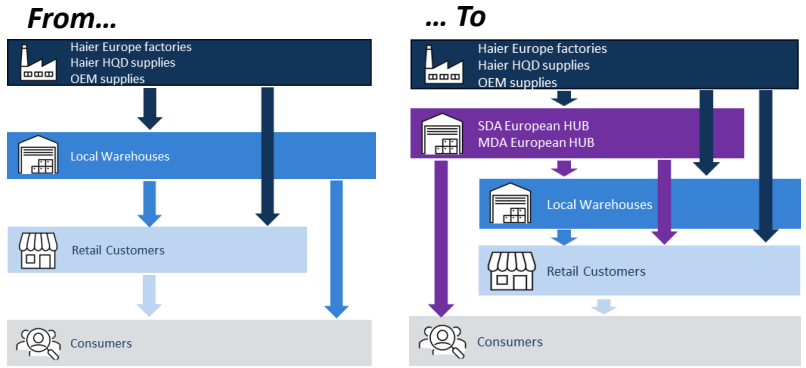
Haier Europe & DDMRP

- Haier Europe has 50 certification in pipeline for 2025-2026
- 12 DDBrix workshop done, covering >200 individuals
- One major implementation live since July 2024:
  - 15% of Haier Europe revenue
  - -25% inventory YoY
  - -20% Logistic cost (DDMRP + Hub strategy)
  - +12% measured service level YoY

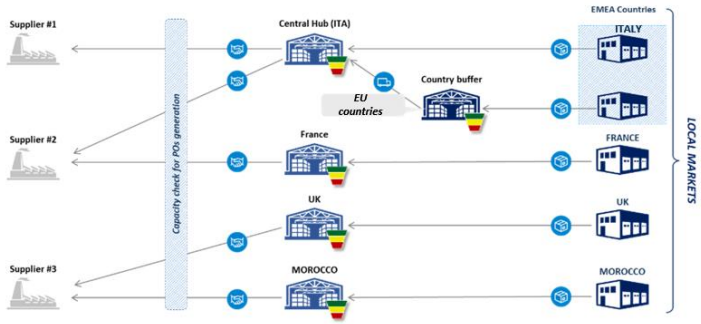
Today Focus

- 12 months from project approval and decision to closure of HyperCare

Real Live implementation



New Network enabled by New planning Operating Model



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SDA European hub - Executive Summary (Summer 2023)

Project Objective: To deliver a best in class warehousing & distribution network custom-designed to support the profitable growth of SDA in Europe.

Current State:
SDA utilises a network leveraging warehouses in locations that are not best suited to the future needs of the business.

Current Challenges:
- Cost not optimised based on SDA needs.
- Higher Slow Mover\Obsolete and Cost of Capital due to demand fragmentation.
- Non-value add logistic (I\C shipments).
- Logistic Supplier Performance not optimized for SDA.
- **Lack of Supply Chain tool and capabilities for Distribution Requirement planning**

Future Efficiencies:
- Consolidation of demand across all European markets.
- More agile planning = lower lead time & higher stock optimization.
- Eliminates the cost of trans-shipments/ double handling.
- Reduced warehouse and logistic providers = Improved Service levels.
- Direct distribution to customer (B2B and D2C) from hub.

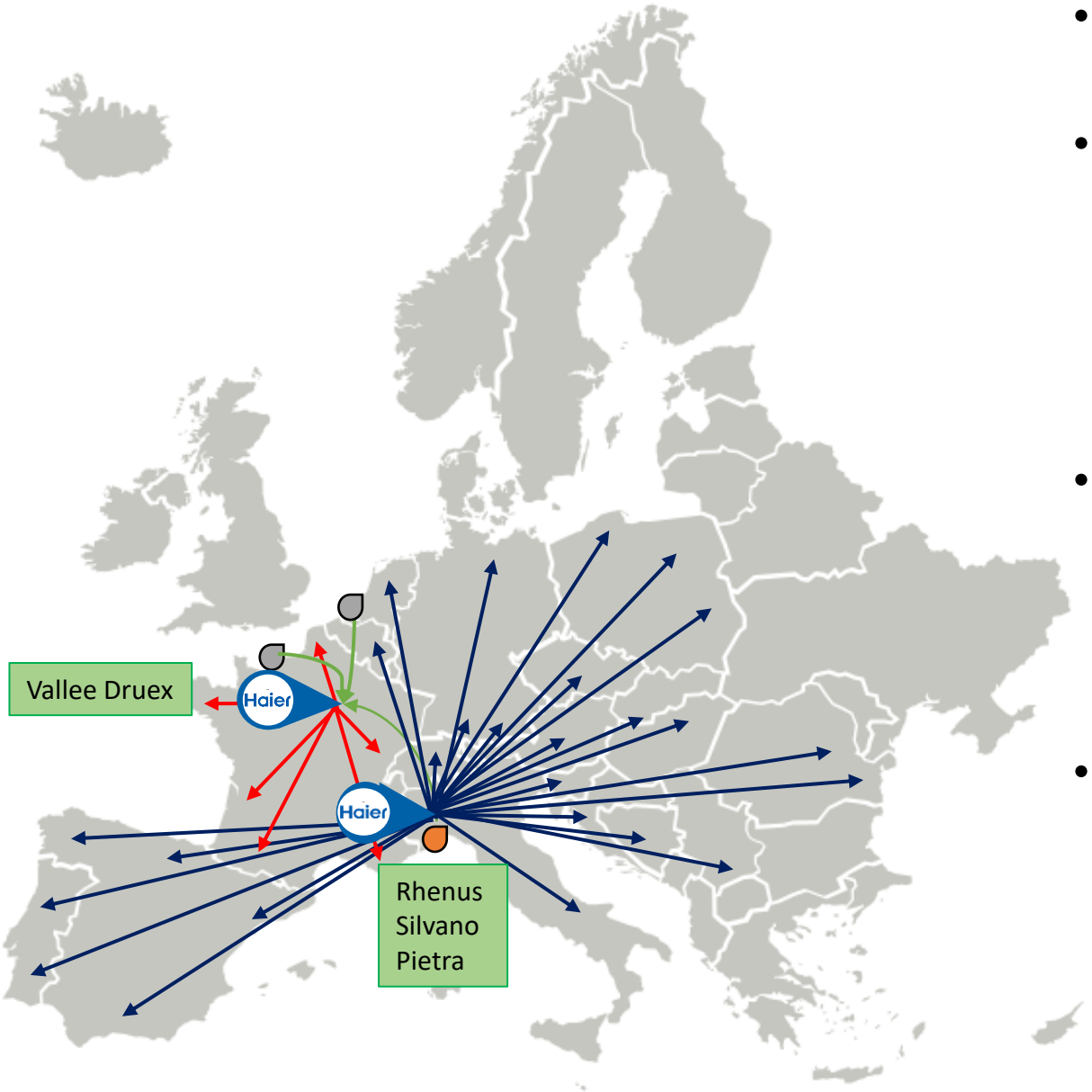
Solution: 2 Hubs

Tangible Benefits:
- 24% stock optimization
- 20% Freight Out & Warehouse cost saving
- 15% Cost of Capital
- No need to set up additional fiscal entities.

Investments:
- Total Set- up <1 M EUR
- Payback < 1 year.

Next Steps:
- Approve Business Case.
- Close supplier negotiations.
- Onboard Markets D2D on implementation.
- Launch project teams to work streams.
- Fine tune and deep dive project plan targeting Q1 FY24 launch.

SDA European Hub - The Solution



- Consolidation of continental Europe network to 2 warehouses (versus today 15).
- A Primary Central Distribution Center (CDC) in Silvano Pietra, Italy (Rhenus) will allow the consolidation of storage and distribution to all European countries (with the exception of France).
  - The improved Supply Chain setup will deliver >20% EUR inventory optimization and ~10% cost saving.
- Business volume and high local distribution costs driving France to have its own in-Country warehouse.
  - The SDA Business will transition from Lunery to Druex
  - The improved distribution model for French distribution plus a more optimised location delivers ~10% cost saving.
- **Distribution Planning capabilities through adoption of DDMRP operating model**

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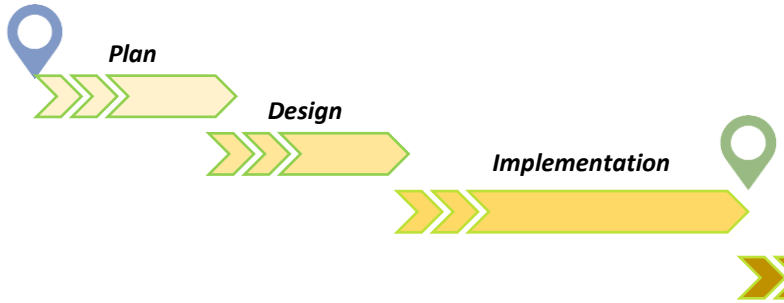
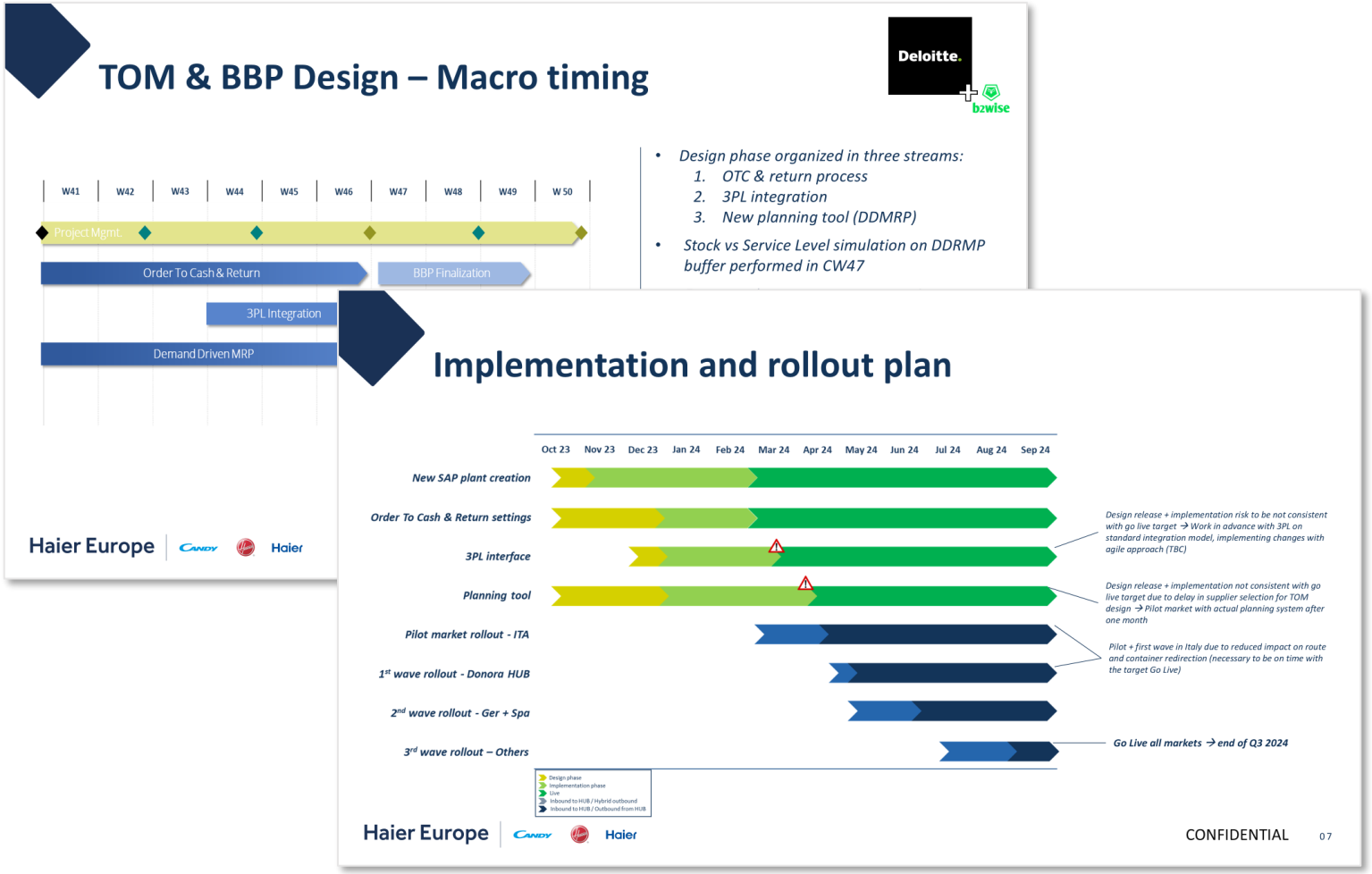
SDA HUB project: The journey



	2023	2024	2025
People	• Jul: Initiative approval • Sep: DDPP for relevant stakeholder (planners + coordinator)	• Jun: new organization in place • DDLP course for S&OP coordinator	• DDBRIX to spread the methodology to all the relevant stakeholder in Europe (Sales and Marketing)
Process	• Oct-Dec: process design & simulations	• Jun: new flow (HUB) in place • Sep: DDMRP in place • Nov: step 1 review on France market	• Continuous improvement process implemented
Digital tools	• Oct-De: new system design	• Jul: new system ready • Sep: new system Go Live • Oct-Dec: BI design for past review	• Past review BI implemented • System enhancement with IBP implementation (Q4)

SDA HUB project: Timeplan



Highlights

12 months from Design to Go Live

- 2 months TOM and BBP design
- 3 months detailed design and technical analysis
- 7 months implementation, training and Go Live

SDA HUB project: Project Organization

TOM and BBP design

Strong DDMRP expertise (b2wise partnership)

Knowledge of Haier global template

SAP custom awareness

Knowledge on other projects on going

Deloitte. + b2wise

Planning tool design

DDMRP Compliancy (certified by DDI)

Minimize impact on actual interface with Haier systems

Integrate the model in actual MDA planning process

ATOMS HYLA | sedapta group smart manufacturing made easy

Execution

Capabilities to support settings and changes on actual systems

Deloitte.

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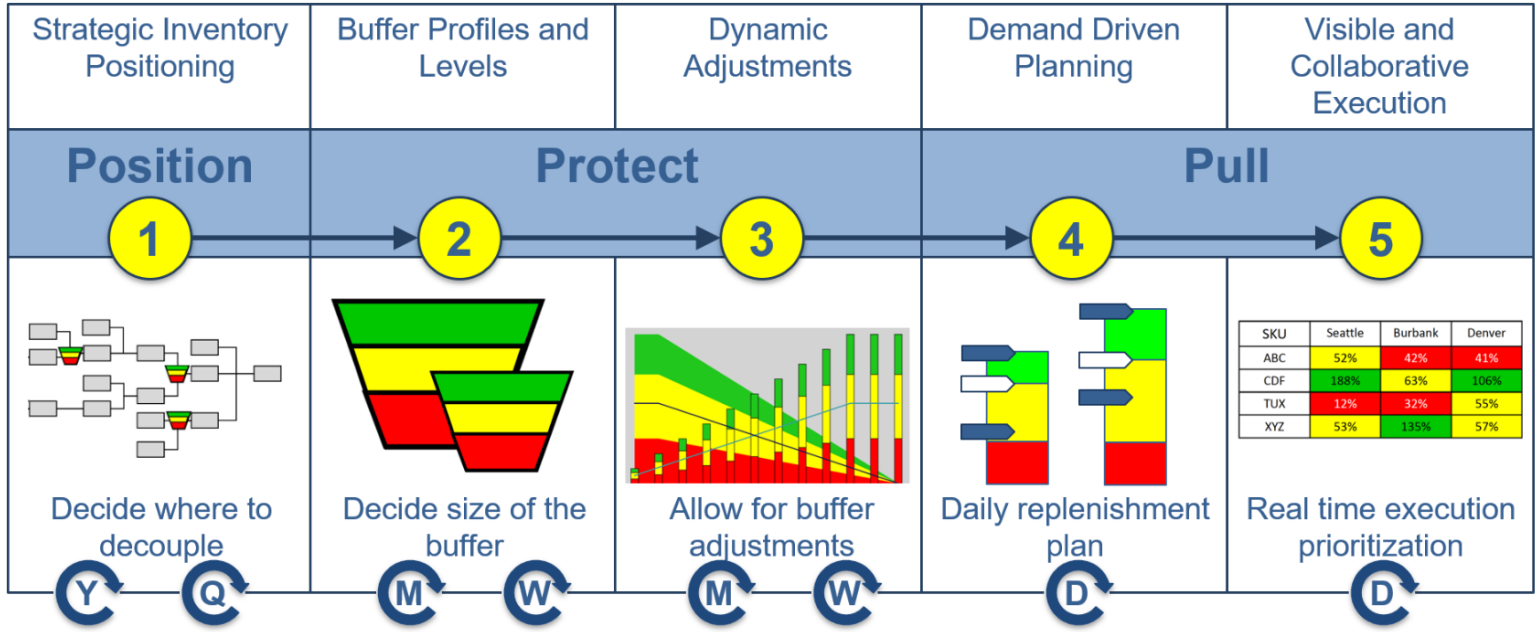
DDMRP: Highlights

DDMRP - Model



Steps - Highlights

1. **Step 1**: Define for each product-country combination a buffer strategy:
   - Hub + Local WH
   - Only ECDC + Local WH
   - Only Local WH (not in used as per August 2024)
2. **Step 2**: define inventory buffer sizing and corrections
3. **Step 3**: dynamical recalculate buffer sizing
4. **Step 4**: generate Orders
   - Purchase from Suppliers to Hubs
   - Replenishment from Hubs to Local WH
5. **Step 5**: Execute plan and manage expediting through alerts

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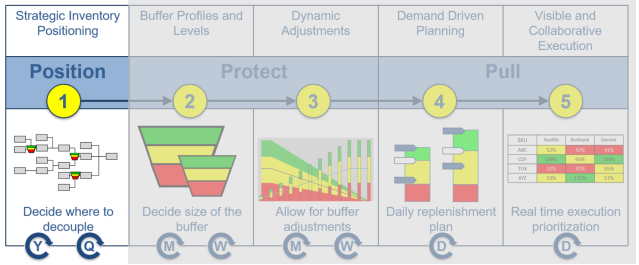
- SDA Hub – Overall description
- DDMRP Description
- Purchase to Hub
  - Quarterly
  - Monthly Process
  - Weekly Cycle
- Distribution to Local Warehouse
  - Monthly Process
  - Daily Cycle
- DDMRP Analytics

Purchase to Hub – Buffer positioning

Task Card

DDMRP Step: Step 1



Objective: Define "Plan for Every part (P4EP)". A P4EP is a replenishment strategy for every SKU-Market combination

Frequency: Quarterly (or with major product range changes)

RACI:

RACI	
R	SDA Supply & Inventory Planning Co-Ordinator
A	Supply & Inventory Planning Manager
C	Hub Logistic Manager, Market D2D
I	Supply & Inventory Planners, Head of Supply Chain, PL Leader

Tool: .xls file for calculation DDMRP-SCP for execution

Detailed Description

Haier Europe SDA HUB-DDMRP model can work with three different replenishment strategy:

- SKU purchased to Hub + Replenishment Hub to Local Warehouse(*)
- SKU purchased to only ECDC + Replenishment Hub to Local Warehouse + Replenishment to France\Morocco\UK Hub
- SKU purchased directly to Local Hub (not in use as per August 2024)

(*): France, Morocco, UK warehouse act as both Hub and local warehouse for those markets. ECDC hub act as local warehouse for Italy, Nordics, DOS and DEU

Decision Process:

- Product with ratio MOQ to ADU above 120 days are candidate for Buffering only in ECDC -> Low Runners
- Product that are sold in France, Morocco or UK, that are Low Runners and are also buffered in ECDC should be buffered only in ECDC
- (Not in Use as per August 2024) Products that have ratio MOQ to ADU below 30 days should be buffered in Local Warehouse

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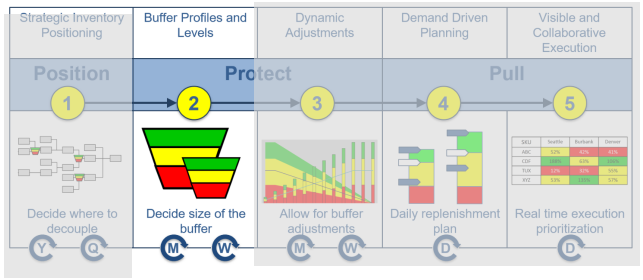
Purchase to Hub – Range Classification

Task Card

DDMRP Step: Step 2



Objective: Define adjustment to match specific SKUs expected demand (NPI, Phase-out, Promo)

Frequency: Monthly (after Monthly forecast submission)

RACI:

RACI	
R	SDA Supply & Inventory Planning Co-Ordinator
A	Supply & Inventory Planning Manager
C	Supply & Inventory Planners, D2D Managers
I	SDA Hub manager, PL leaders

Tool: .xls file for calculation DDMRP-SCP for execution

Detailed Description

Haier Europe SDA HUB-DDMRP model can work buffer calculation adjustments, that will help to optimize planning in specific configuration:

- New Product Introduction (NPI) should have a manual purchase process, defined in alignment with PL team
- Phase-out SKU(1) should have either ADU adjustment or buffer adjustment to minimize obsolescence risk (settings under pilot as per August 2024)
- SKU with promotional peak should have an ADU adjustment to avoid over-purchases(2)

(1): SKU ongoing phase-out, not yet managed in MDM should be escalated for correction

(2): A specific case of Promotional SKUs with demand peak in a single market above One Full Container, should be managed with a direct order to supplier and direct replenishment to local Hub

Decision Process (all based upon total European Demand):

- Product F0, F1 and F2 are classified as Phase-in -> Manual Ordering
- Product F4 and F5 are classified as Phase-out -> ADU adjustment or Zone adjustment (Red and Yellow set at 0)
- Product with 6 months Demand COV (coefficient of variation) above 50% are classified as PROMO -> ADU Adjustment calculated as median of 6 months demand

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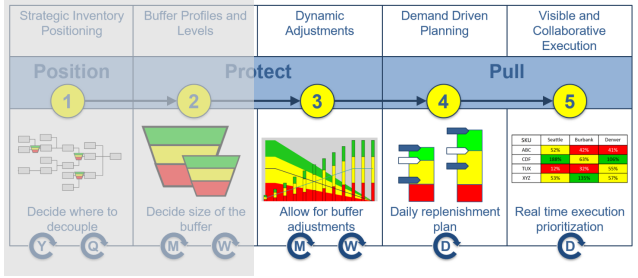
Purchase to Hub – Purchase Order issue

Task Card

DDMRP Step: Step 3,4 and 5



Objective: Issue Purchase Order for Supplier to Hub Replenishment

Frequency: Weekly on Monday (move to Daily, under revision)

RACI:

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R	Supply & Inventory Planners
A	SDA Supply & Inventory Planning Co-Ordinator
C	Supply & Inventory Planning Manager
I	SDA Hub manager, D2D Managers, Demand Planners, PL Leader

Tool: DDMRP-SCP for execution. Data sharing through Qlik reporting

Detailed Description

Haier Europe SDA HUB-DDMRP model through DDMRP-SCP (made by Sedapta) is running automatically the following activity:

- Buffer dynamic calculation based on DDMRP standard (parameters detailed next slide), automatic run
- New Purchase order recommendation calculation as per DDMRP standard algorithm, automatic run
- Prioritized Share run automatically to match Full Container loading optimization, automatic run
- Alert relevant for purchase (ON hand Alert \\ Projected On hand alert), automatic run

Decision Process (all based upon Each Buffer Demand \ Supply Balance):

- Planner issue Manual Orders for NPI
- Planner Revise automatic calculation for all products not NPI and:
  - Check for abnormal Order Proposal
  - Validates Recommended order to avoid surplus (if possible)
- Planner Issue Orders
- In case of Execution Alert, planner propose to Co-Ordinator expediting actions (urgent shipments, Intercompany Transfers, Expedite from Port to Hub)

DDMRP Purchase Orders setting parameters

- **ADU Horizon:** 4 months forward looking
- **Decouple LT:** Transit time as per monthly standard calculation + Supplier Frozen Period
- **Order Spike Horizon:**
  - Decouple Lead Time for Hub
  - Long Lead Time spike as per DDMRP standard: Decouple Lead Time
- **Order Spike threshold:** Red Zone Base
- **MOQ:** production MOQ
- **Variability Factor:** Based on Demand Statistics
- **Lead Time Factor:** based on supplier assessment performed by Supply & Inventory Planning co-ordinators

DDMRP Purchase Order Proposal – Step 4

Purchase Order Proposal

Supplier	Supplier Descr	Product	Description	Buffer	Planning Priority	On Hand	On Order	Qualif. Demand	Net Flow	Order Reccomandation	Request Date	TOR	TOY	TOG
90_B000074657	(NOT FOR PTP) NINGB...	39002287	BR31PET 011	ECDC	-51%	12	632	1689	-1045	3092	02-12-2024	272	1407	2047
90_B000074747	TINECO INTELLIGENT ...	39400973	HF122BPT 011	ECDC	-31%	0	0	890	-890	3775	20-11-2024	459	1989	2885
90_B000074583	KINGCLEAN	39002267	HE510HM 011	ECDC	-13%	14	0	98	-84	725	20-11-2024	37	160	642
90_B000074583	KINGCLEAN	39002341	TXLZ72HM 011	ECDC	-2%	0	0	14	-14	703	20-11-2024	74	173	689
90_B000074747	TINECO INTELLIGENT ...	39401013	HF110H 011	ECDC	-2%	379	300	750	-71	3531	20-11-2024	589	2553	3460
90_B000074691	GOLONG	38383002	HGO330HC 011	ECDC	0%	0	0	1	-1	998	06-01-2025	0	2	998
90_B000074576	BTC GROUP (HK) CO LTD	39002273	BV50HM 021	ECDC	0%	0	0	0	0	1030	20-11-2024	88	380	1030
90_B000074657	(NOT FOR PTP) NINGB...	39002275	HP330ALG 021	ECDC	0%	0	0	0	0	590	02-12-2024	25	128	590
90_B000074657	(NOT FOR PTP) NINGB...	39002276	BR71_BR20021	ECDC	0%	0	0	0	0	1324	02-12-2024	132	684	1324
90_B000074583	KINGCLEAN	39002278	HE320PET 021	ECDC	0%	0	0	0	0	571	20-11-2024	9	39	571

DDMRP Purchase Order Proposal – Step 5

Purchase Order – Execution Alert: Stock on Hand

Product	Product Descr	Buffer	Planning Zone	Net flow alert	Net flow	Execution Zone ↓2	SOH alert ↑1	SOH	AVG stock
39300767	HJ72WDLB 011	ECDC	YELLOW	43%	1002	RED	1%	2	2
39002315	HE721PAF 011	ECDC	YELLOW	33%	352	RED	2%	2	2
39401017	HFX10H 011	ECDC	RED	1%	6	RED	6%	6	4
39002265	HE520PET 011	ECDC	RED	2%	14	RED	16%	14	3
39002253	TXL20PET 011	ECDC	RED	2%	15	RED	19%	15	3
39300209	MBC500UV 011	ECDC	YELLOW	20%	4253	RED	23%	977	0
39002311	HP322PET 011	ECDC	YELLOW	68%	981	RED	30%	57	1
39002323	HP120PET 011	ECDC	GREEN	99%	3585	YELLOW	62%	357	1
39400988	HF522STP 011	ECDC	YELLOW	51%	2019	YELLOW	65%	419	1
39002279	HE310HM 021	ECDC	YELLOW	36%	435	YELLOW	66%	103	2
39401072	HF210P1 011	ECDC	YELLOW	51%	4607	YELLOW	66%	2002	0
39002270	HE310HM 011	ECDC	GREEN	70%	1102	YELLOW	71%	170	1

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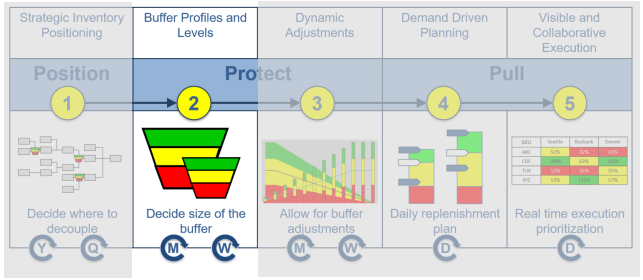
Replenishment to Local Warehouse – Parameters

Task Card

DDMRP Step: Step 3,4 and 5



Objective: Define adjustment to reflect current Logistic Execution setup

Frequency: Monthly

RACI:

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R	Supply & Inventory Planners
A	SDA Supply & Inventory Planning Co-Ordinator
C	Supply & Inventory Planning Manager
I	SDA Hub manager, D2D Managers, Demand Planners, PL Leader

Tool: .xls for calculation; DDMRP-SCP for execution

Detailed Description

Haier Europe SDA HUB-DDMRP model is standardize to work with current logistic parameters:

- Decouple Lead Time reflecting Warehouse (Pick & Pack) and Transportation Lead times
- Green zone calculated as maximum between MOQ and Fixed Frequency

Decision Process (all based upon total European Demand):

- Revise and Adjust De-couple Lead times based on real observed values
- Revise Order Frequency based on 6 months forward looking expected demand

Replenishment to Local Warehouse – Frequency

Frequency Calculation – August 2024

Sum of QTY	Demand Period									
Local Buffer	[redacted]						Grand Total	FTL in 6 Months	Frequency (days between shipments)	Cluster
ECDC	49289	45282	59194	51213	72573	22901	300452	300	1	
GERMANY	22287	20861	37144	18591	18941	26800	144624	145	1	Daily
PORTUGAL	3112	4700	10673	6002	4665	2593	31745	32	6	Weekly
POLAND	2591	3994	5047	5147	2505	3075	22359	22	8	Weekly
GREECE	1811	3727	6928	6331	3481		22278	22	8	Weekly
SPAIN	3952	1553	4077	5699	3573		18854	19	10	Weekly
Czech Rep.	1710	3213	4161	4129	1494	1585	16292	16	11	Weekly
SWITZERLAND	2640	2260	2993	3415	2258		13566	14	13	Second Week
TURKEY	1408	1151	1287	715	355	129	5045	5	36	Monthly
HUNGARY	305	795	1675	870	424		4069	4	44	On Alert
BELGIUM	4	430	431	431	431	6	1733	2	104	On Alert
SLOVENIA	257	243	315	315	260		1390	1	129	On Alert
ROMANIA	550		400	350	50	35	1385	1	130	On Alert
CROATIA	24	40					64	0	2813	On Alert
Grand Total	**89940**	**88249**	**134325**	**103208**	**111010**	**57124**	**583856**	**584**	**0,3**	**583,9**

Example August 2024 – Shipment size fixed at FTL, Green zone sizing as below:

- Germany Shipment request up to once per day (adjustment due to promo delivered directly to Local Warehouse from Supplier)
- Portugal, Poland, Greece, Spain and Czech Republic: up to a weekly shipments
- Switzerland shipments every second week
- Turkey Monthly shipments
- All others, shipment organized when On hand or projected On hand alert

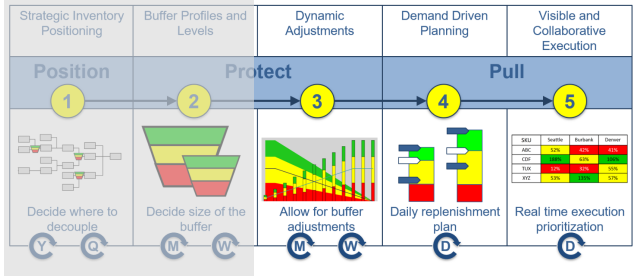
Agenda

- SDA Hub – Overall description
- DDMRP Description
- Purchase to Hub
  - Quarterly
  - Monthly Process
  - Weekly Cycle
- Distribution to Local Warehouse
  - Monthly Process
  - Daily Cycle
- DDMRP Analytics

Replenishment to Local Warehouse – STO issue

Task Card

DDMRP Step: Step 3,4 and 5



Objective: Issue Stock transfer Orders to keep local warehouse at target inventory

Frequency: Daily

RACI:

RACI	
R	Supply & Inventory Planners
A	SDA Supply & Inventory Planning Co-Ordinator
C	Supply & Inventory Planning Manager
I	SDA Hub manager, D2D Managers, Demand Planners, PL Leader

Tool: DDMRP-SCP for execution. Data sharing through Qlik reporting

Detailed Description

Haier Europe SDA HUB-DDMRP model through DDMRP-SCP (made by Sedapta) is running automatically the following activity:

- Buffer dynamic calculation based on DDMRP standard (parameters detailed next slide), automatic run
- New Stock Transfer Orders recommendation calculation as per DDMRP standard algorithm, automatic run
- Prioritized Share run automatically to manage stock shortage
- Alert relevant for purchase (ON hand Alert \\ Projected On hand alert), automatic run

Decision Process (all based upon Each Buffer Demand \ Supply Balance):

- Planner Revise automatic calculation for all products:
  - Check for abnormal Order Proposal
  - Perform Logistic Area stock Transfer to align Requested Orders to stock status
- Planner Issue Orders
- In case of Execution Alert, planner propose to Co-Ordinator and SDA Hub Manager expediting actions (urgent shipments without reaching Full Truck Load)

DDMRP Stock Transfer orders setting parameters

- **ADU Horizon:** 4 months forward looking
- **Decouple LT:** Pick & Pack Time (3 days) + Transit Time by lane
- **Order Spike Horizon:**
  - 30 days for Local Warehouse
- **Order Spike threshold:** Red Zone Base
- **MOQ:** not currently set
- Order Frequency: defined per each lane)
- **Variability Factor:** Based on Demand Statistics
- **Lead Time Factor:** based on supplier assessment performed by Supply & Inventory Planning co-ordinators

DDMRP STO Proposal – Step 4

Stock Transfer Order Proposal

Supplier	Supplier Descr	Product	Description	Buffer	Planning Priority	On Hand	On Order	Qualif. Demand	Net Flow	Order Reccomandation	Request Date	TOR	TOY	TOG
90_B000074747	TINECO INTELLIGENT ...	39400923	HF122GPT 011	GERMANY	62%	2283	0	7	2276	1412	14-08-2024	1794	2791	3688
90_B000074747	TINECO INTELLIGENT ...	39400928	HF122RH 011	GERMANY	47%	1092	0	6	1086	1204	14-08-2024	1114	1733	2290
90_B000074754	SUZHOU SKYBLUE CLE...	39401072	HF210P1 011	GERMANY	0%	0	0	0	0	603	14-08-2024	187	437	603
90_B000074754	SUZHOU SKYBLUE CLE...	39401057	HF1P10P 011	GERMANY	0%	0	0	0	0	409	14-08-2024	127	296	409
90_B000074754	SUZHOU SKYBLUE CLE...	39401054	HF1P10H 011	GERMANY	0%	0	0	0	0	370	14-08-2024	115	268	370
90_B000074754	SUZHOU SKYBLUE CLE...	39401074	HF1P10P2 011	GERMANY	0%	0	0	0	0	120	14-08-2024	37	87	120
90_B000074754	SUZHOU SKYBLUE CLE...	39401070	HF2Z10H 011	GERMANY	0%	0	0	0	0	84	14-08-2024	26	61	84
90_B000074754	SUZHOU SKYBLUE CLE...	39401056	HF1P10HX 011	GERMANY	0%	0	0	0	0	51	14-08-2024	16	37	51
90_B000074657	(NOT FOR PTP) NINGB...	39002287	BR31PET 011	GERMANY	37%	28	0	0	28	49	14-08-2024	24	56	77

DDMRP STO Proposal – Step 5

Stock Transfer Order – Execution Alert: Stock on Hand

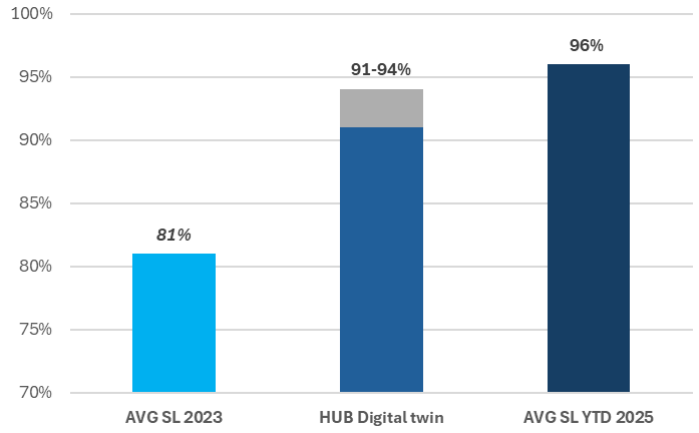
Product	Product Descr	Buffer	Planning Zone	Net flow alert	Net flow	Execution Zone	SOH alert	SOH	AVG stock
39001482	BR71_BR30011	POLAND	RED	23%	15	YELLOW	82%	15	1
39002311	HP322PET 011	POLAND	RED	32%	61	YELLOW	99%	61	1
39002316	HE521PAF 011	POLAND	STOCK OUT	-186%	-425	STOCK OUT	-580%	-425	1
39002306	HE322PET 011	POLAND	STOCK OUT	-181%	-33	STOCK OUT	-578%	-33	1
39002217	HP710PAR 011	POLAND	STOCK OUT	-120%	-20	STOCK OUT	-480%	-20	1
39002302	HE321PAF 011	POLAND	STOCK OUT	-2%	-8	STOCK OUT	-254%	-368	1
39400923	HF122GPT 011	POLAND	GREEN	53%	464	RED	46%	131	1
39001481	BR71_BR20011	POLAND	OTOG	140%	77	OTOG	437%	77	1

Agenda

- Introduction – Raffaele Sabia Federico Marchesi
- Haier Europe
- Reason for change: Small Domestic Appliance Supply Chain redesign
- Transformation Journey
- Demand Driven Operating Model
- Results & Continuous improvement
- Road Map to DDAE

Main Results

Service Level Improvement

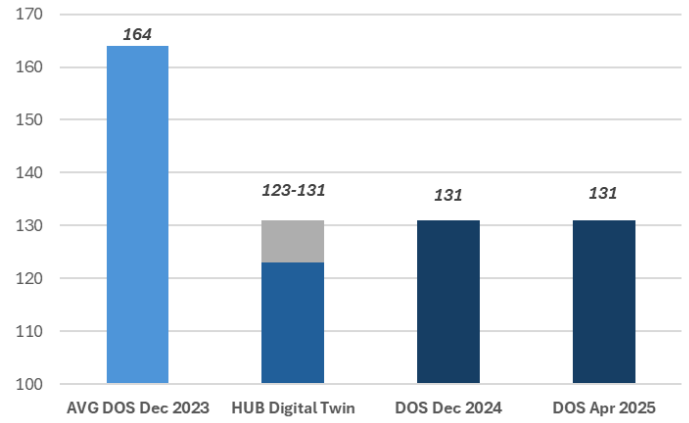


- New Planning model based on DDMRP technology (from Push to Pull)
- **Digital Twin Simulation output: between 10% and 13% service level improvement**

Simulation based on real 2023 demand data

2025 YTD Service Level observed improvement: +15%
(over the Business Case simulation)

Stock Optimization

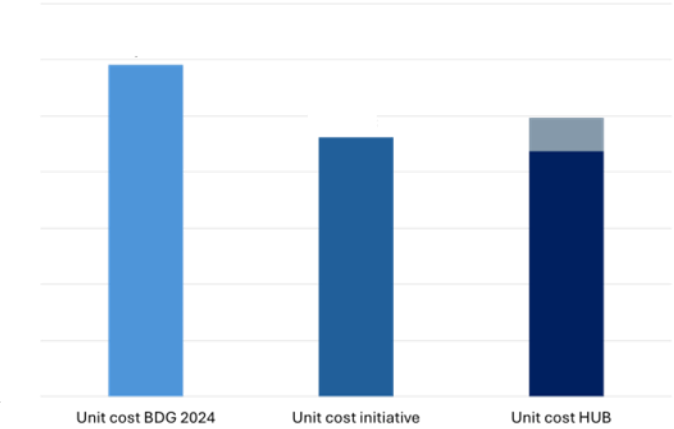


- New Planning model based on DDMRP technology (from Push to Pull)
- **Digital Twin Simulation output: optimal inventory between 123 and 131 days (-20% vs. baseline)**

Simulation based on real 2023 demand data

Actual vs AVG Q4 2023 stock: -20%
(in line with Business Case simulation)

Logistic Cost

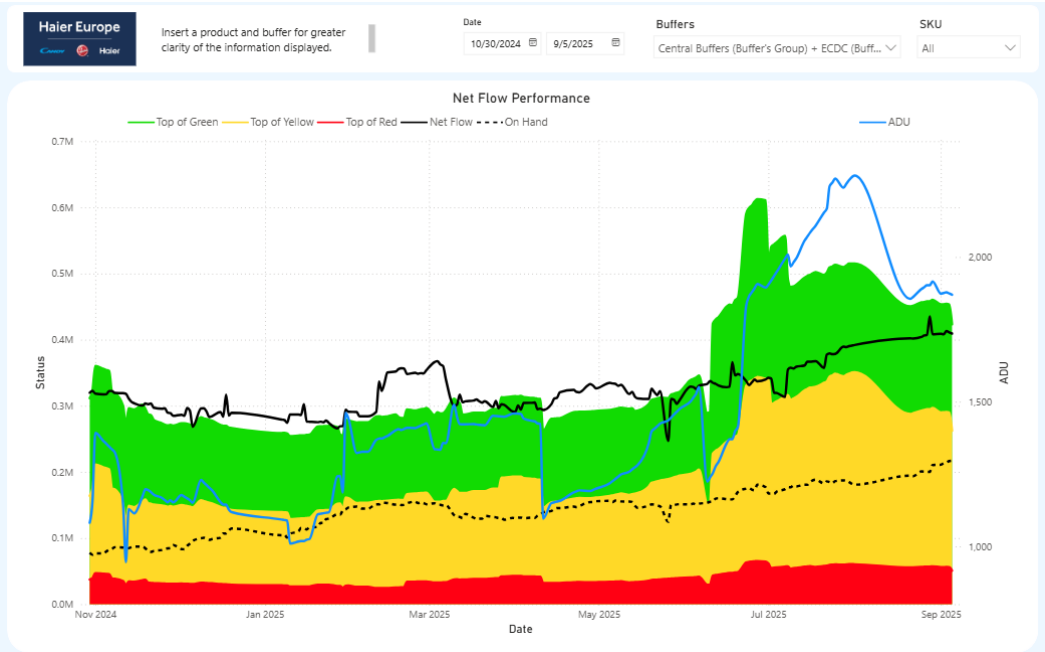


- Original Network design driving 22% of unit logistic cost reduction
- Further pipeline of actions driving additional 10% of unit logistic cost reduction

Actual logistic cost reduced by 17%
Optimization on going for a further reduction of 7% in Q3 2025

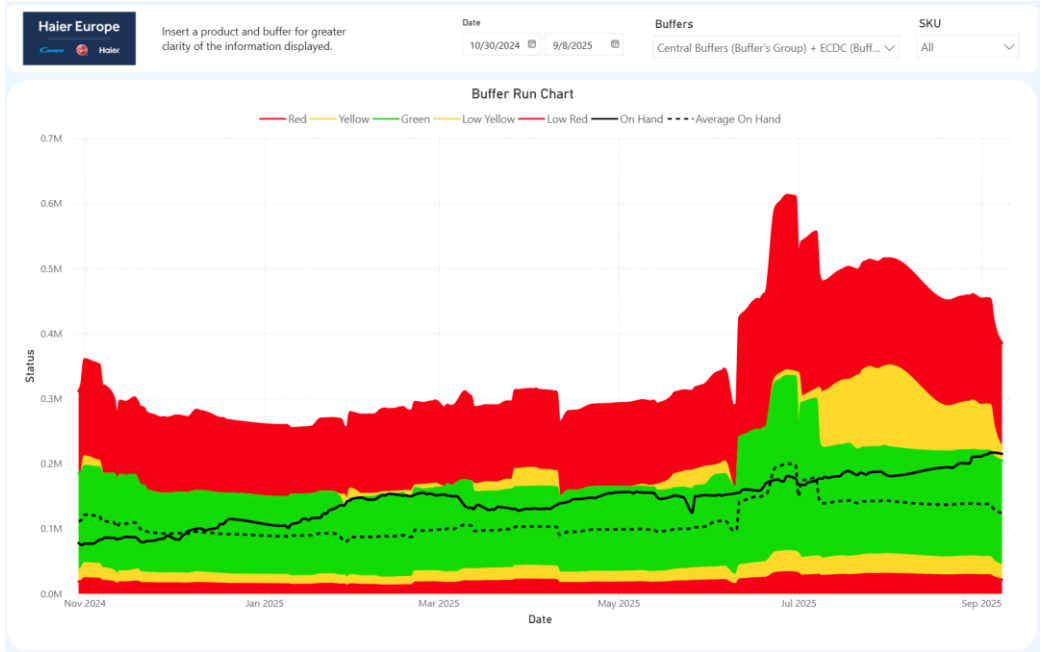
European SDA Hub – Past performance analysis

Historical Net Flow Position



- ADU high variability, due to 4 months forward looking. Currently under review
- Net Flow position (aggregated all SKUs) in green zone
- High green zone, driven by MOQ oversized versus sales
- Physical stock as expected in Yellow Zone

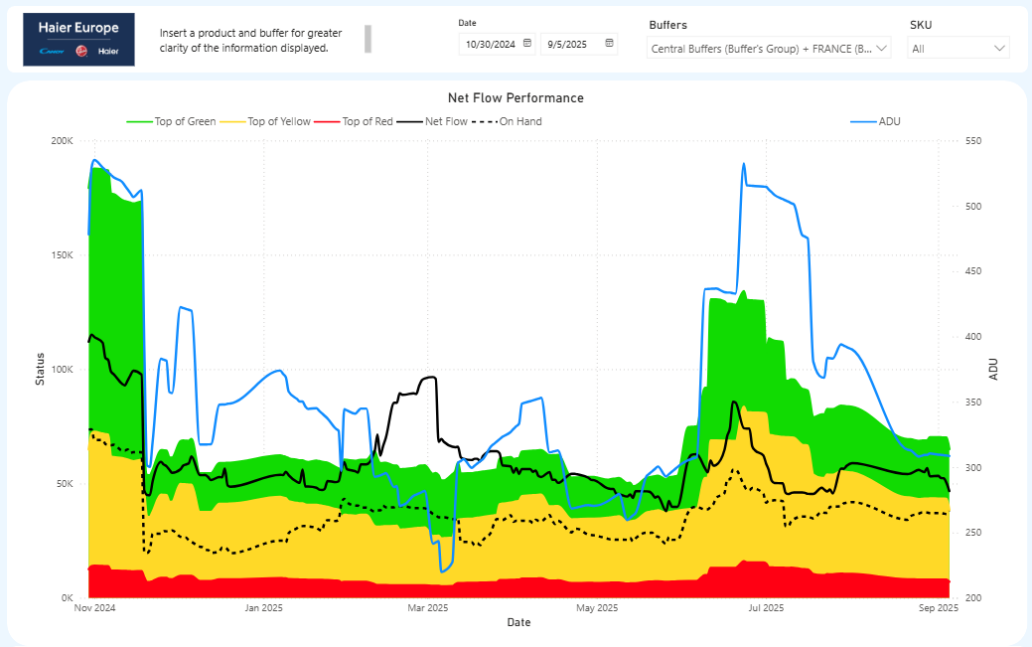
Buffer Run Chart



- Physical stock within control range
- June to September deviations of physical stock, due to market volatility and unexpected sales drop

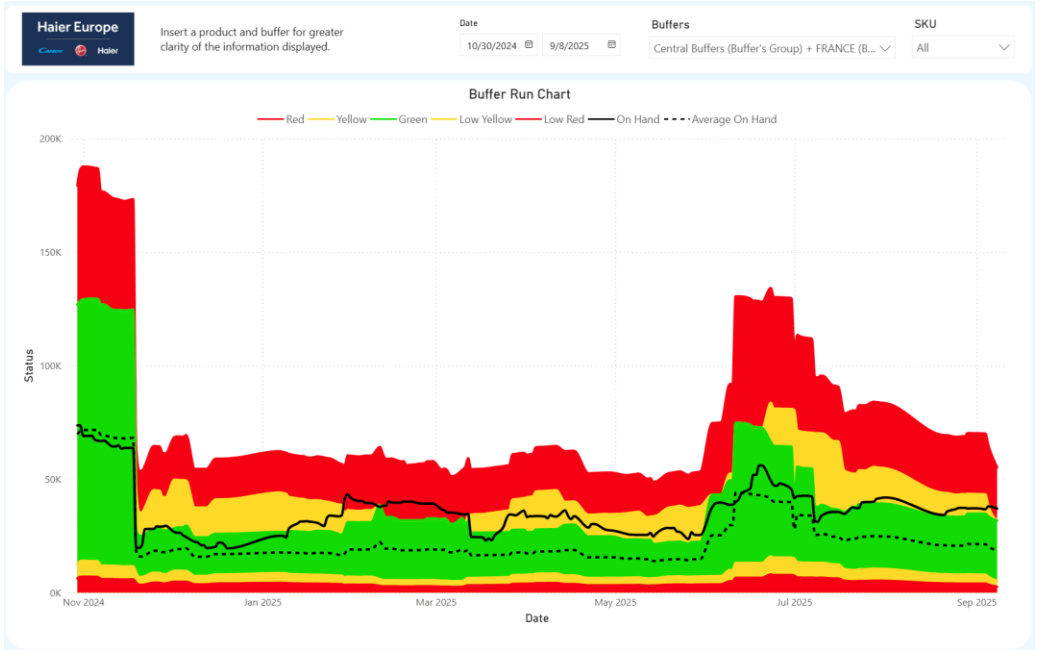
France SDA Local Buffer – Past performance analysis

Historical Net Flow Position



- November 2024 we did a Step 1 major change: Mid and Low runner SKUs buffered in European Hub AND France Hub, leading to buffer optimization
- ADU highly variable due to 4 months forward looking and seasonal\promo peaks
- Net Flow position (aggregated all SKUs) in green zone
- Physical stock as expected in Yellow Zone

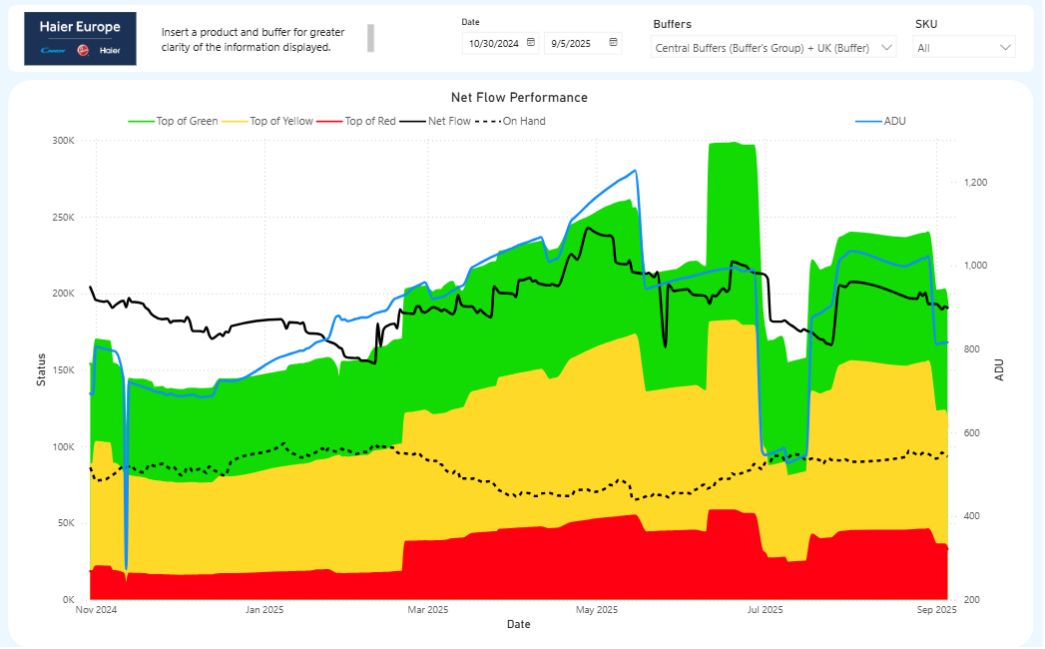
Buffer Run Chart



- Physical stock drop as per new network (Green zone was oversized)
- Physical stock within control range
- Ongoing continuous assessment of Buffer strategy by SKUs

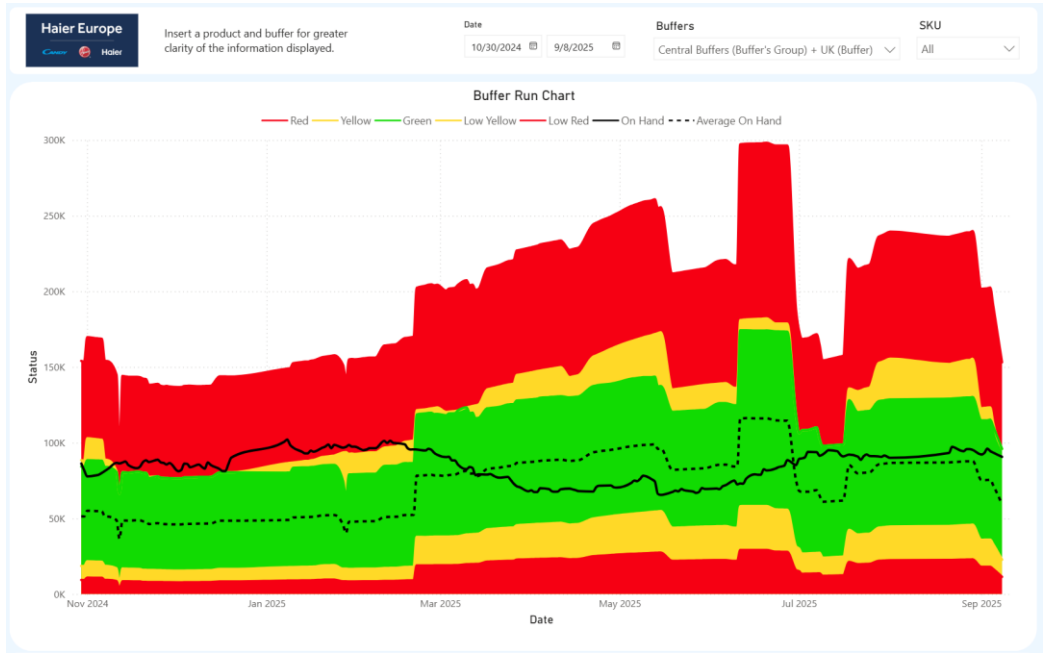
UK SDA Local Buffer – Past performance analysis

Historical Net Flow Position



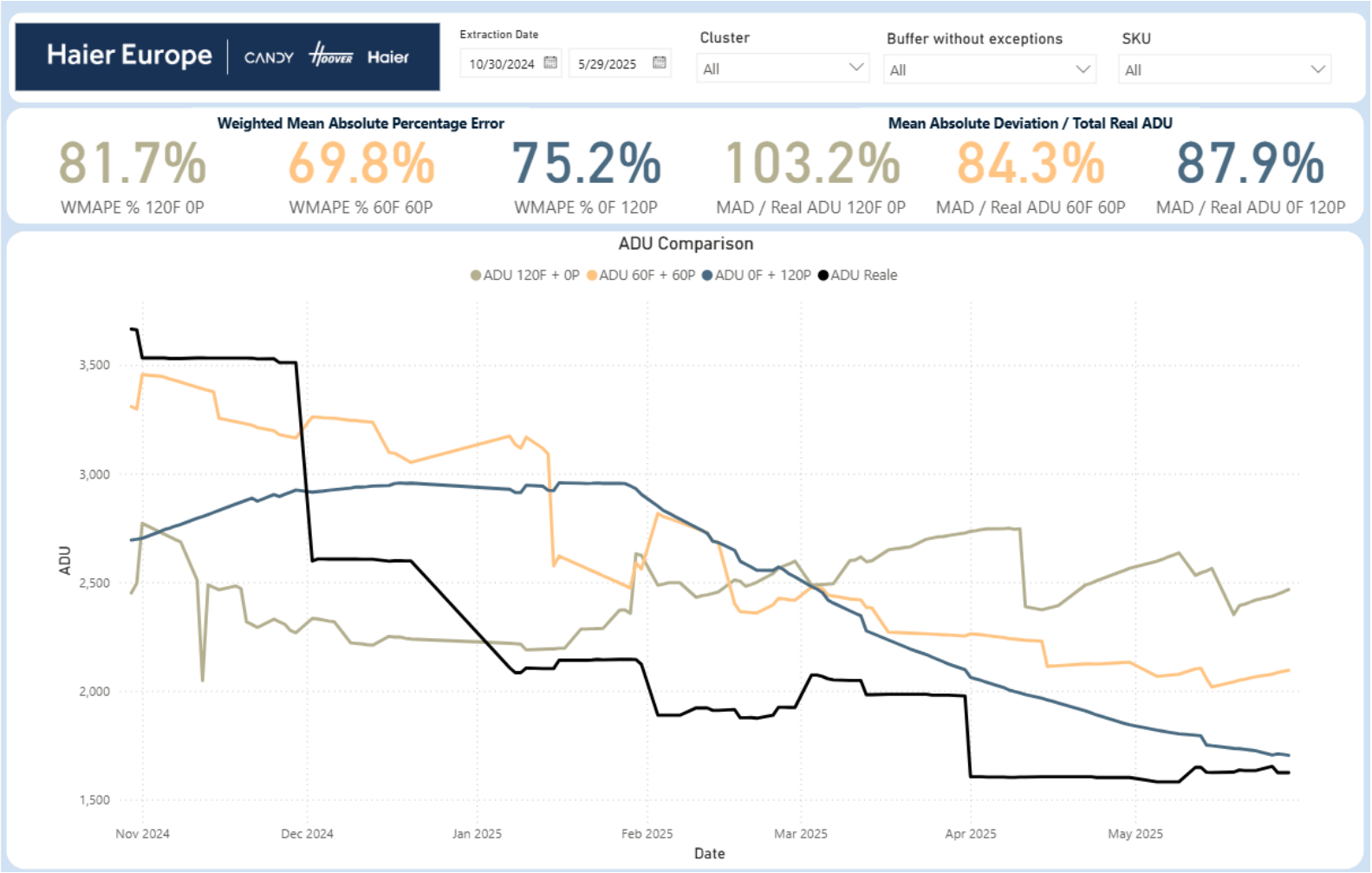
- ADU stable until summer 2025, when we were hit by Promo variability
- Net Flow position (aggregated all SKUs) improved since go live thanks to DDMRP operating model
- Physical stock continuous improvement as per expectations through DDMRP operating model

Buffer Run Chart



- Physical stock drop as per DDMRP expectations
- Physical stock within control range since March 2025, in line with target and expectations
- Ongoing continuous assessment of DDMRP parameters to optimize flow

Continuous improvement – ADU calculation analysis



Challenges & Learnings

Challenges

- ***Change management***:
  - ✓ Different and ***new capabilities are needed*** for supply planners
  - ✓ Stakeholders' ***mindset change***: from forecast fulfillment to buffer replenishment
  - ✓ ***Continuous improvement*** orientation
  - ✓ ***Daily planning*** vs weekly planning
- Work effectively in an environment with ***unstable ADU***
- ***Strong promotional business*** cause ADU overestimation and a lot of manual adjustment

Learnings

- ***Change management***
  - ✓ ***Technical courses (DDDP, DDLP), workshops*** and constant contact with very active members of DDMRP community
  - ✓ ***Extensive training program*** for all the stakeholder based on gamification approach (DDBRIX + Training Videogame, ***whole company involved***)
  - ✓ ***Effective and "easy to use" tool*** to check history and act consequently on the parameters
  - ✓ Build a ***DDMRP key users community*** to spread the experience built in the job
- ***ADU*** calculation logic constant review, using ***blended logic*** calculation to have smooth changes
- Use a ***dedicated forecast for ADU calculation***, cleansing peaks and simplifying the manual human intervention

Challenges become a precious source of information to build a stronger process and system, ready for a successful expansion to the whole business!

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Haier Europe – DDAE self-assessment and Road Map

How to Get Started?

DDAE III	Sensing, Adapting and Innovating across the supply chain (customers and suppliers) for continual ROI improvement. Mature DDAE Model.
DDAE II	Leverage the Demand Driven Operating Model capability across the enterprise and into the market. DDS&OP and Adaptive S&OP in place.
DDAE I	Synchronizing and leveraging operational capability for better flow performance. Expand the implementation of a Demand Driven Operating Model.
Stage 2	Begin to emphasize flow-based operational efficiency with the preliminary implementation of DDMRP.
Stage 1	Focused on cost-based operational efficiency (Cost reduction AND Responsiveness in conflict).

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Demand Driven Planner

2027

- Implementation of Adaptive S&OP
- VMI managed through DDMRP

Q1 2026

- Enhanced System capabilities through SAP IBP 4 DDMRP
- Scale DDMRP to whole Haier Europe
- Adjust current S&OP + S&OE to DDS&OP

Actual

- DDMRP in place for 15% of business
- DDMRP VMI with one customer (WIP)

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