

DYNUG.NO

HØSTKONFERANSE 26. OG 27. NOVEMBER
AV BRUKERE - FOR BRUKERE





ERFARING: Administrere endrings-, utgivelses- og testadministrasjonen din effektivt

2024-11-21

Mattias Widegård – VP Solution Architecture
Orkla Food Ingredients

About the presenter



Widegård, Mattias

VP Solution Architecture at Orkla

Mattias Widegård is the Vice President of Solution Architecture at Orkla Food Ingredients. With 5 years at Orkla and 20 years in ERP consultancy, he has extensive experience from AX 3.0 to D365FO, showcasing his 20-year expertise with the product. Mattias possesses a strong technical understanding of development, conversion, and migration. His driving force is overcoming the complexity and obstacles of ERP projects, working with the project team to design and implement optimal solutions that align closely with standard system processes.



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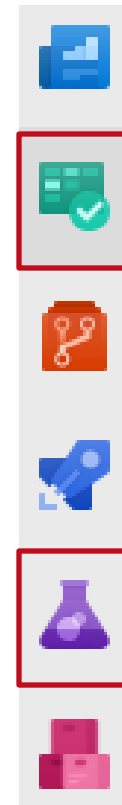
Phone: +46 733 325 345



Today's topic as an agenda

- About Orkla Food Ingredients
- OFI Core Solution
- Environment strategy
- Release management
- Implementation methodology
- Test management
- Q & (maybe) A – Ask us about “anything”

DevOps focus



Boards

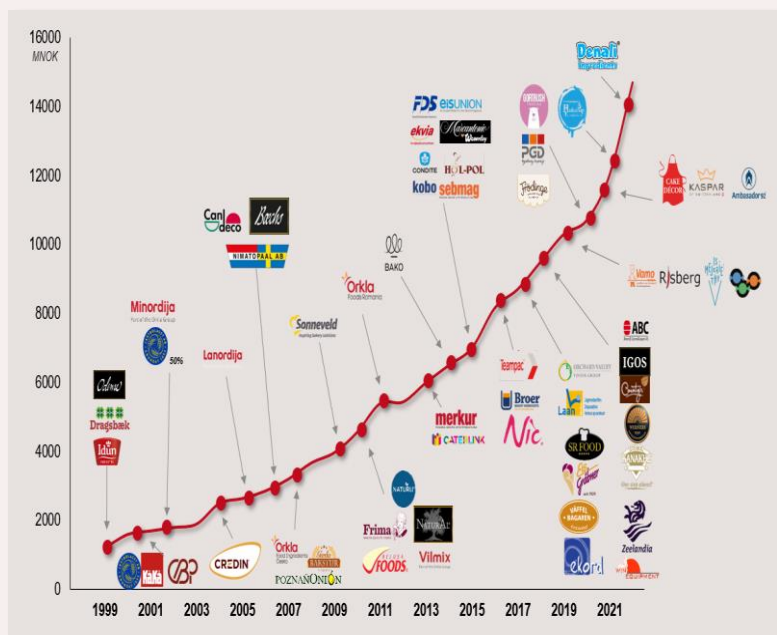
Test (if time allows)

Use as inspiration
Not a book of rules 😊

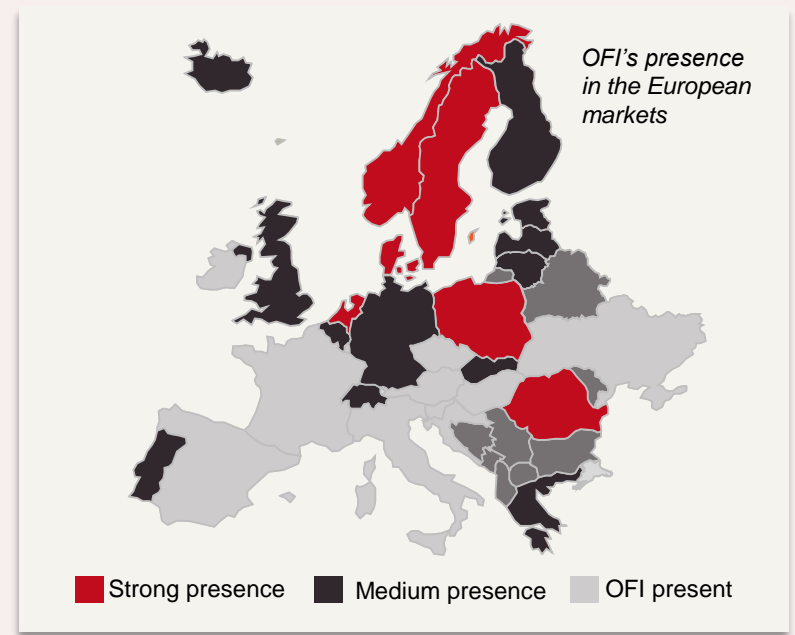


Dreadful slides
&
Swedish

OFI was founded in 1999 by 4 Nordic companies, with a proud heritage that goes back more than 100 years



...24 years later, the group includes
~4 000 employees
in
~60 operational companies¹
across
22 European countries & US,
with a total operating revenue of
18,6 BNOK



Note: Full-year figures 2023
1. 100 legal entities



Dragsbæk (Denmark), 1924

OFI business is structured into 3 main Clusters, corresponding to our strategic directions

OFI

1

Bakery Ingredients

European leading supplier of bakery and pastry ingredients



2

Sweet Ingredients

Leading Ice Cream Ingredients & Accessories and leading specialists in Confectionery Ingredients & Decorations



3

Plant-Based

Producer of future sustainable, nutritional, tasteful, plant-based food solutions



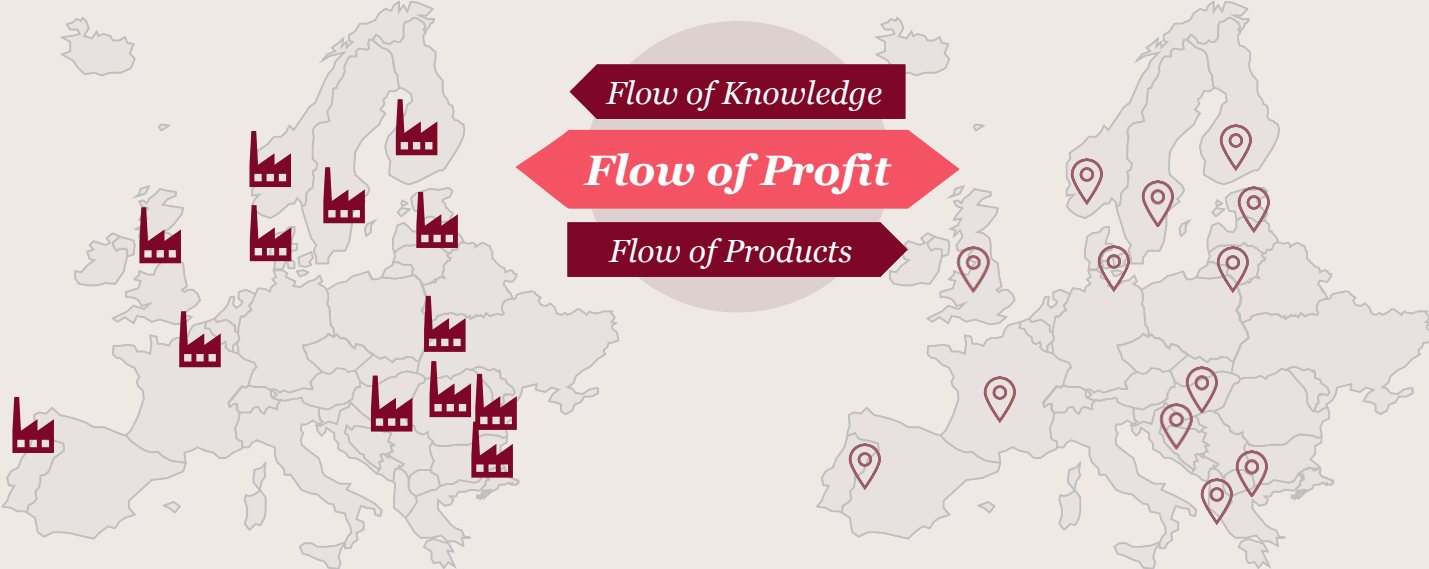
Our growth philosophy: OFI Value Creation Model



“Winning locally by playing as a team”

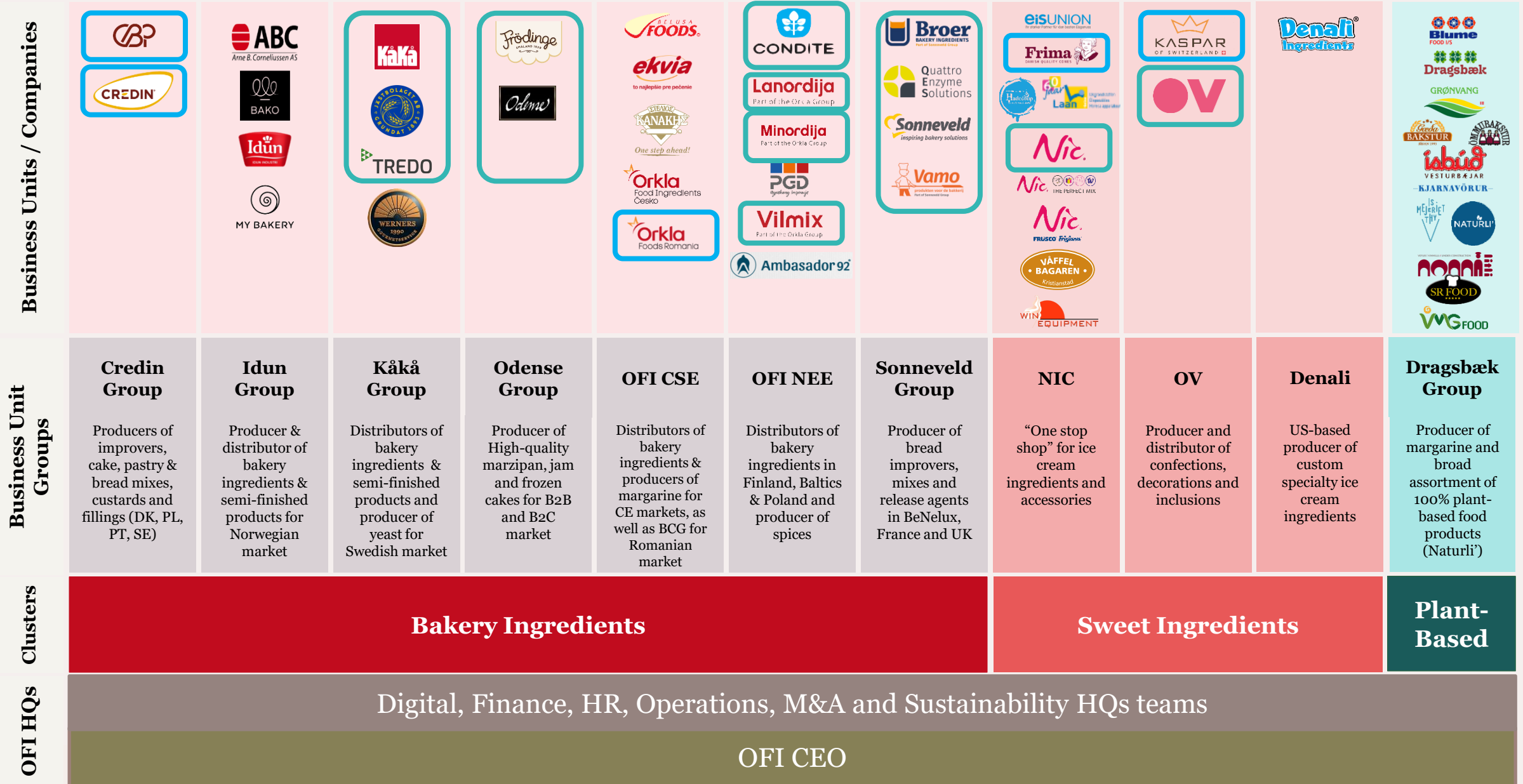
Produce at scale
European categories

Sell locally
Close to customers



Creating strong local cooperative leadership teams and winning culture

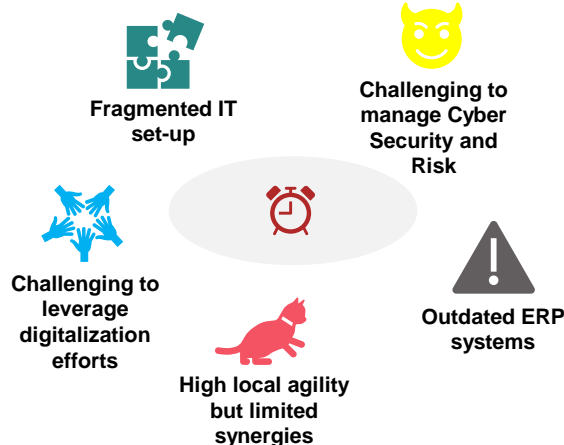
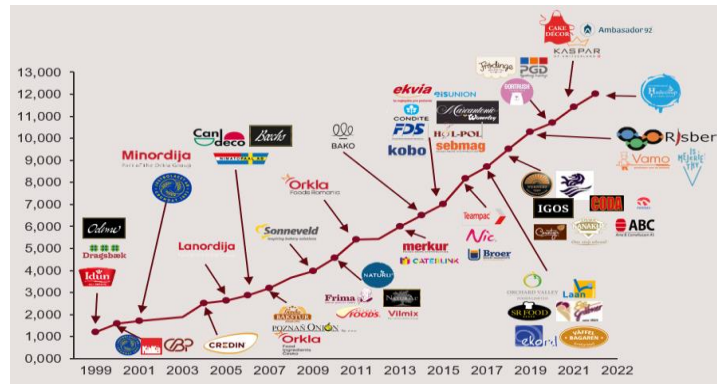
OFI organizational structure



OFI has since 2019 increased focus on consolidating IT with Unite as the centerpiece of the common landscape

PRIOR TO 2019

OFI's IT strategy prior to 2019 was to keep IT mainly local and not consolidate as part of the structural growth



2019 ->

OFI UNITE ERP program established (2019) and consolidation & streamlining IT was started



- ✓ **OFI is still in an early phase of consolidating IT** with the majority of IT still being locally managed and operated.
- ✓ **On-going implementation of common user End-point (PC) platform** to facilitate collaboration, leverage scale in IT and to reduce cyber security risk
- ✓ **Increased focus and capabilities related to Cyber Security management** to reduce risk: policies, standards and competency
- ✓ **Common digitalization initiatives** also outside of and around Unite: PIM, CRM, Digital Sales, Digital Customer Platform/Premium Pro
- ✓ **Gradual build-up of OFI IT capabilities / organization** to support Unite and consolidation journey

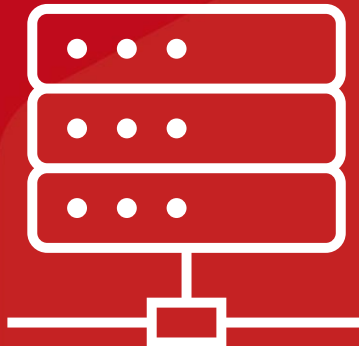
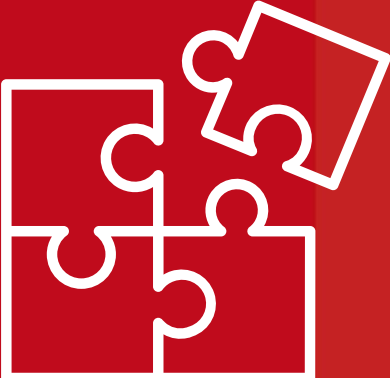
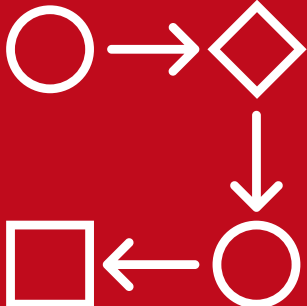
Status 2024 H2

OFI Unite with well established footprint and high demand from business

- ✓ Kåå
 - ✓ Jästbolaget
 - ✓ Condite
 - ✓ Sonneveld
 - ✓ OV UK
 - ✓ OV SE
 - ✓ OV DE
 - ✓ OFI AB
 - ✓ Odense
 - ✓ NIC Se
 - ✓ Quatro
 - ✓ OFI Baltics - Live
 - ❑ NIC DK - Inprogress
 - ❑ Credin DK – In Progress
 - ❑ CBP – Start in Q4 24
 - ❑ OV CHF & OV Sco – Pre-assessment
 - ❑ Sonneveld Hungary – Start in October 24
 - ❑ OFR – Pre-assessment, start in 2026
 - ❑ NIC UK – Assessment/Alignment
- **Increasing demand** from Business Units to move onto OFI Unite ERP solution
 - **Increasing urgency to advance digital capabilities** in many Business Units.
 - **OFI Unite delivery capabilities maturing** however challenged to fulfill increasing demand
 - **Revision of OFI Unite strategy, ambitions and plans** necessary to secure that execution is aligned with business priorities and plans

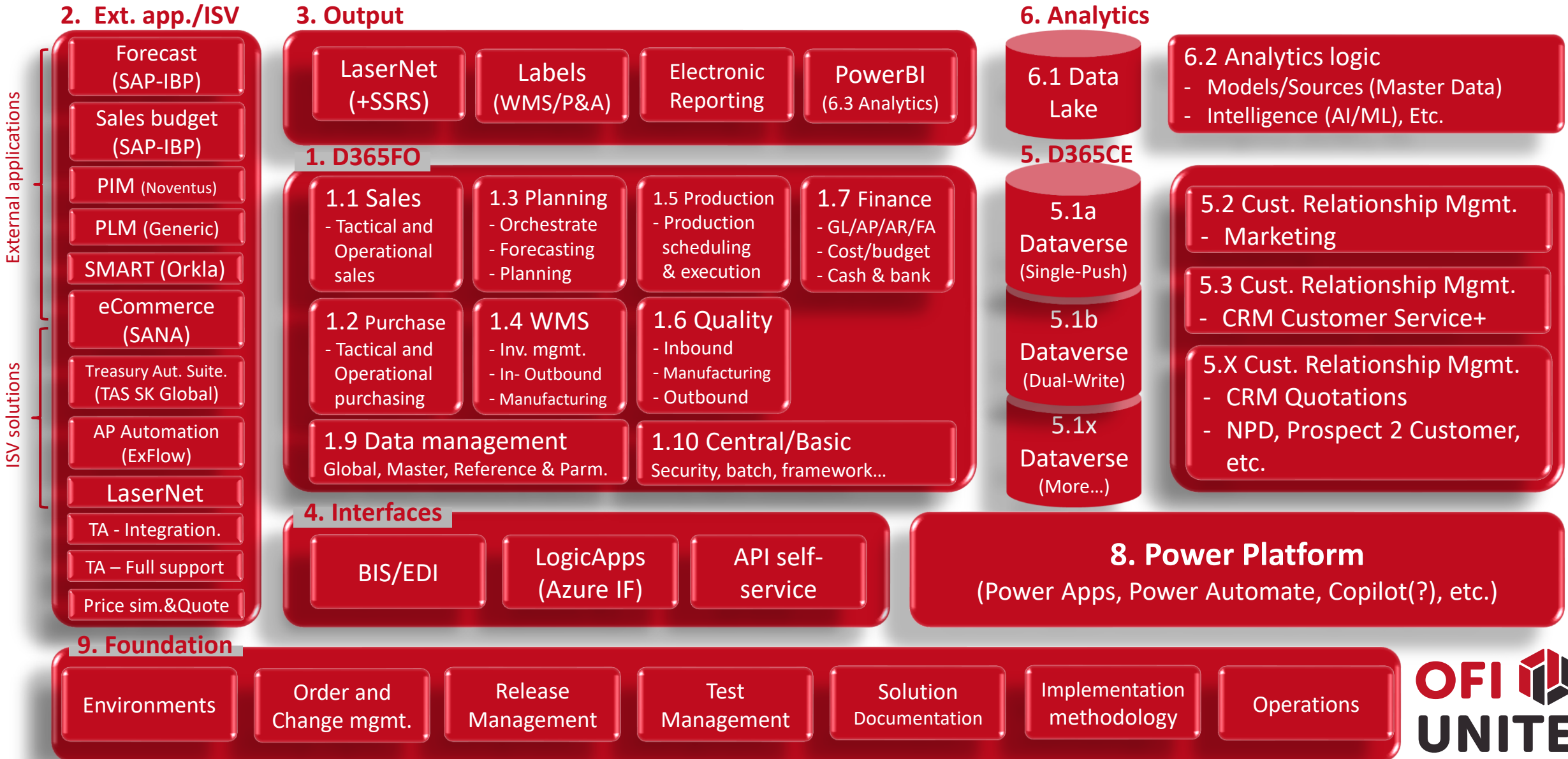
OFI Core Solution

Applications - Processes - Functionality - Data - Technology

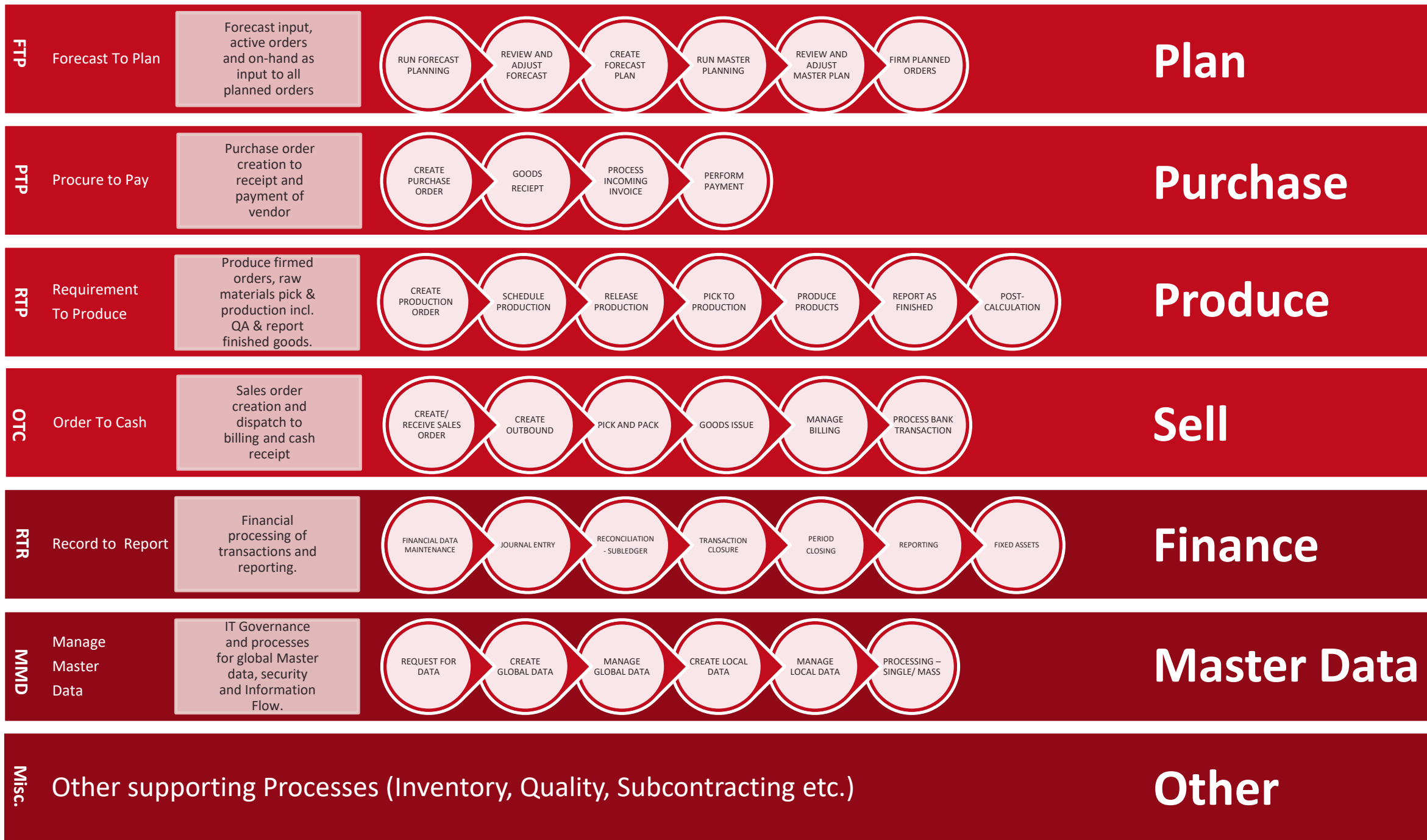


VALUE CREATION
EFFICIENT OPERATIONS
SYNERGIES
SCALABILITY
FLEXIBILITY

OFI Core Solution – Application overview



Business Processes (For OFICS)

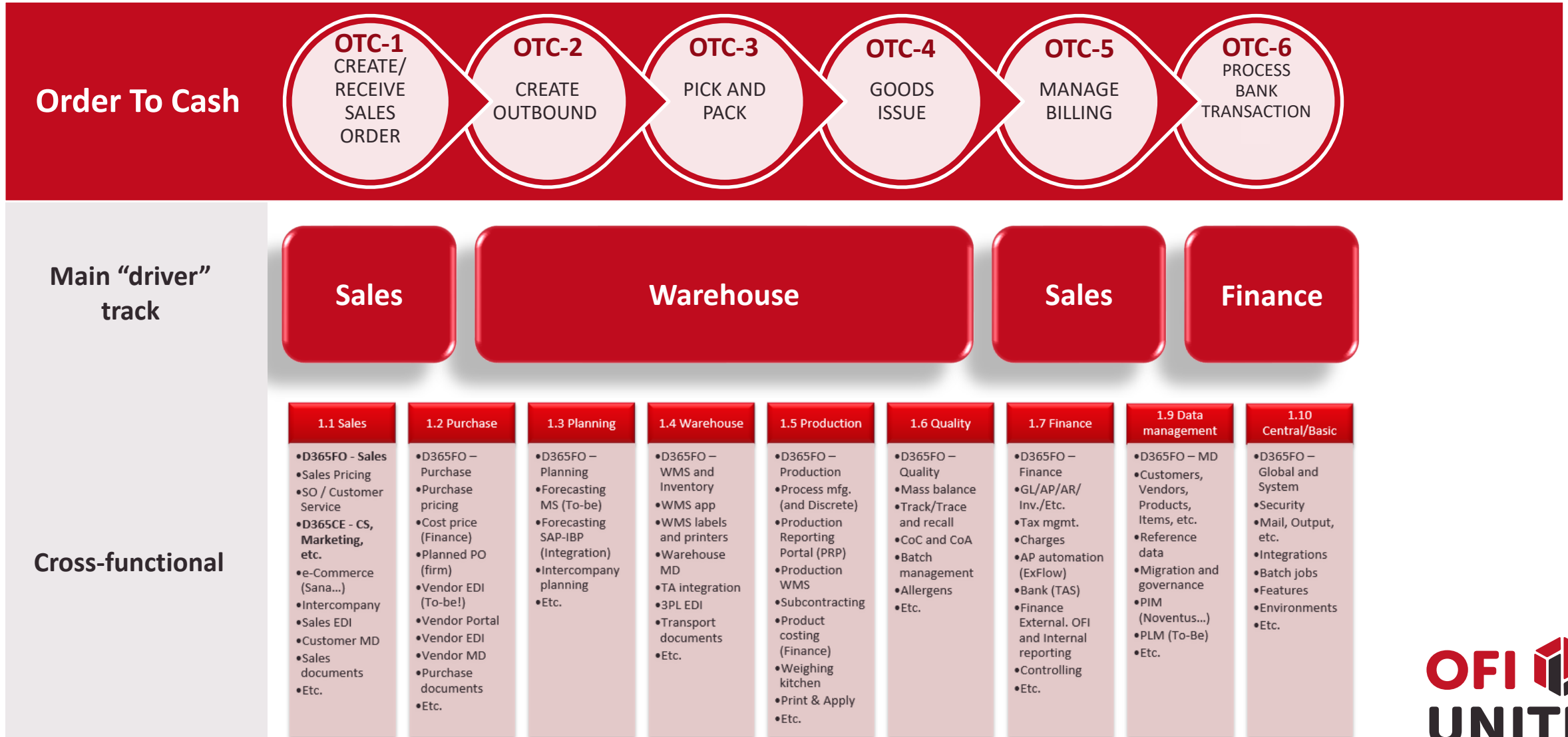


OFI Core Solution – Functional competence areas

1.1 Sales	1.2 Purchase	1.3 Planning	1.4 Warehouse	1.5 Production	1.6 Quality	1.7 Finance	1.9 Data management	1.10 Central/Basic
<ul style="list-style-type: none"> •D365FO - Sales •Sales Pricing •SO / Customer Service •D365CE - CS, Marketing, etc. •e-Commerce (Sana...) •Intercompany •Sales EDI •Customer MD •Sales documents •Etc. 	<ul style="list-style-type: none"> •D365FO – Purchase •Purchase pricing •Cost price (Finance) •Planned PO (firm) •Vendor EDI (To-be!) •Vendor Portal •Vendor EDI •Vendor MD •Purchase documents •Etc. 	<ul style="list-style-type: none"> •D365FO – Planning •Forecasting MS (To-be) •Forecasting SAP-IBP (Integration) •Intercompany planning •Etc. 	<ul style="list-style-type: none"> •D365FO – WMS and Inventory •WMS app •WMS labels and printers •Warehouse MD •TA integration •3PL EDI •Transport documents •Etc. 	<ul style="list-style-type: none"> •D365FO – Production •Process mfg. (and Discrete) •Production Reporting Portal (PRP) •Production WMS •Subcontracting •Product costing (Finance) •Weighing kitchen •Print & Apply •Etc. 	<ul style="list-style-type: none"> •D365FO – Quality •Mass balance •Track/Trace and recall •CoC and CoA •Batch management •Allergens •Etc. 	<ul style="list-style-type: none"> •D365FO – Finance •GL/AP/AR/FA/Inv./Etc. •Tax mgmt. •Charges •AP automation (ExFlow) •Bank (TAS) •Finance External. OFI and Internal reporting •Controlling •Etc. 	<ul style="list-style-type: none"> •D365FO – MD •Customers, Vendors, Products, Items, etc. •Reference data •Migration and governance •PIM (Noventus...) •PLM (To-Be) •Etc. 	<ul style="list-style-type: none"> •D365FO – Global and System •Security •Mail, Output, etc. •Integrations •Batch jobs •Features •Environments •Etc.

This is how we are organized functionally!

Functional tracks vs. Process orientation



OFI Core Solution Data – Definitions

Transaction data

- Result of all business processes
- Inventory, Invoice, Confirmations...

Transaction Masters

- Combination of master data → Generates transactions
- Sales order, Production order...

Master data

- Central ERP data objects
- Product/Item, Customer, Vendor...

Reference data

- Defines master data behavior
- Item groups, Charge codes...

Parameters

- Controls the system behavior
- Per module

Data ownership/governance

- **Global data**
 - Update by central operations
 - Changes/new in a release
- **Local data – Globally govern**
 - Normally Reference data
 - Controlled via security
- **Local data – Global template**
 - Follow default/best practice values
 - Allowed to add new
- **Local data**
 - Defined per Legal Entity (Project)
 - There are normally best practice recommendations
- **Migration (and mass updates)**
 - OFICS migration templates
 - Standard import/export framework

Technology principles



One, global instance

- One global instance enables OFI to **standardize** and enforce common enterprise-wide business processes and functionality across all business units.
- A global instance will enable **data transparency** across business units and enables **intercompany trade** among business units.
- One global instance enables OFI to develop and **grow the IT solution** for all BUs over time ('playing as a team').



Microsoft cloud ecosystem

- Building all our solutions on Microsoft cloud technology give us a solution landscape where **all parts works together**.
- Using cloud computing instead of on-prem makes **up-/downscaling and changes** easier and faster.
- Located in MS Western region data center cluster give us **stable operations and fail-over** security.



Shared data and functionality

- Sharing data and information across business units contributes to **holistic insights, easy communication and integration**.
- Sharing the same functionality/codebase make solution improvements **reusable and cost-efficient**.
- Shared data and functionality is a foundation to **efficient business processes**, shared services and reduced administration (support and testing)



Evergreen and latest technology

- Being on an evergreen platform means that we will **gain advantage of new standard functionality** continuously.
- **Eliminated risks** for building up IT depth and unsupported software.
- There will be **no more upgrade projects**, only improvement projects.

Standardization

- Economy of scale
- Maintainability

Modularization

- Independent building blocks
- Incremental implementation

App autonomy

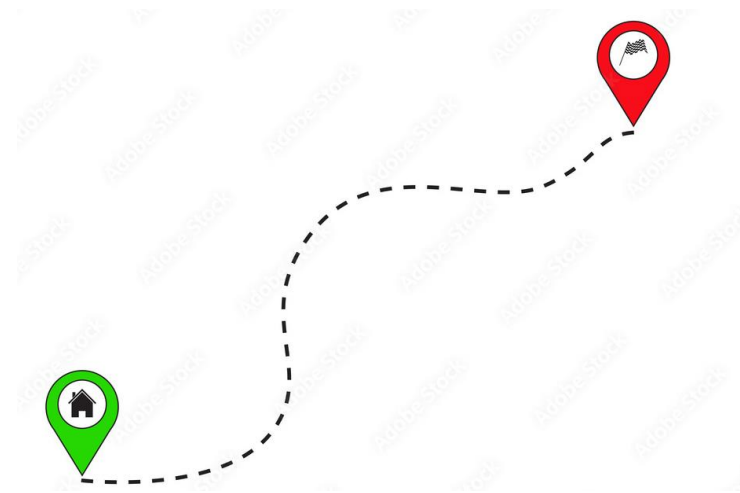
- Asynchronous integrations
- Base for modularization

Local BU innovations

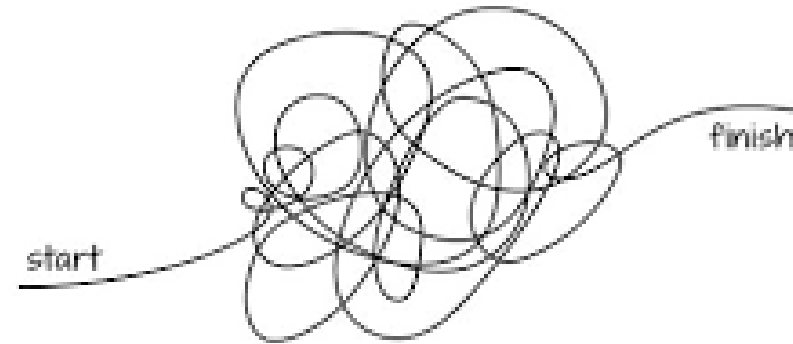
- Encourage BU innovations
- Important for OFI growth

From start to where we are now

How it's presented



The "real" journey



Some experiences we have made so far

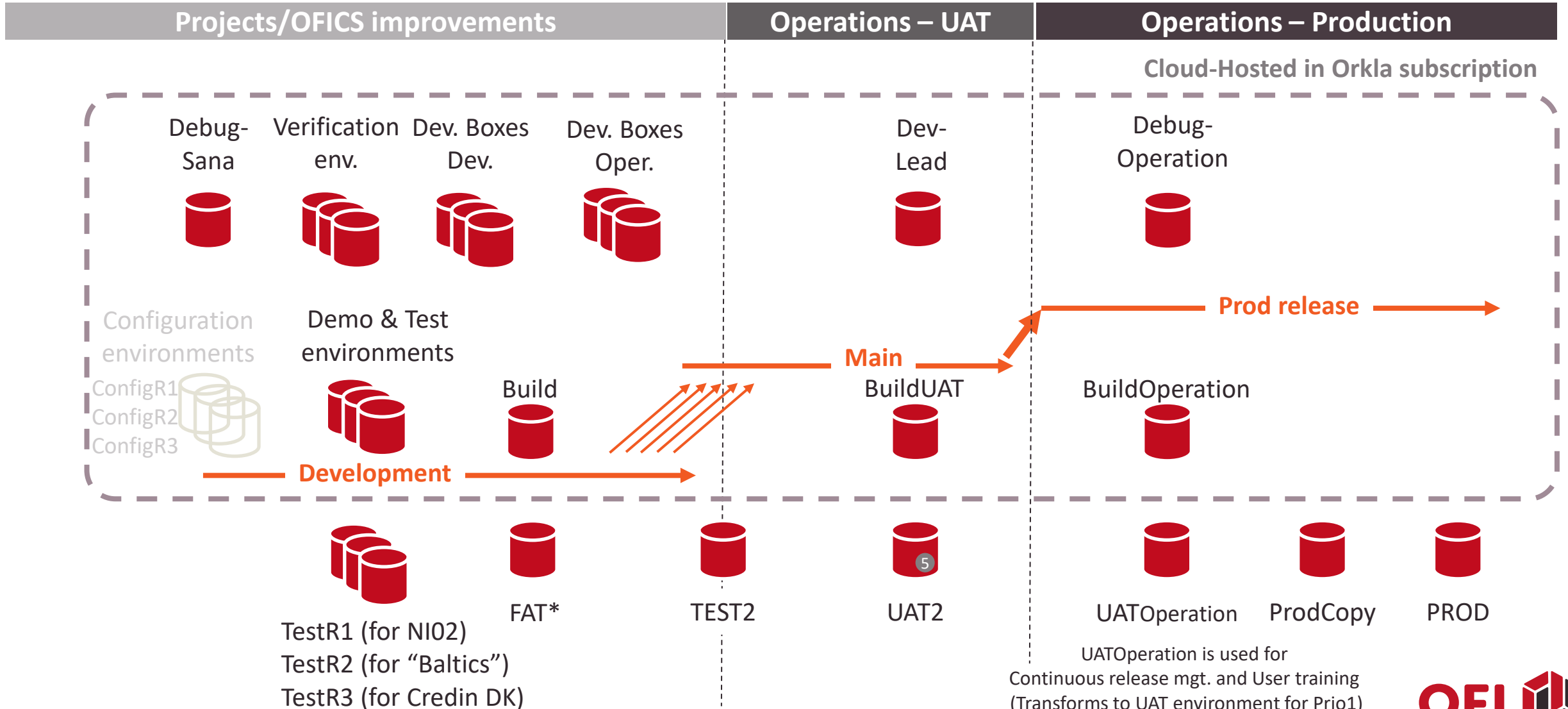
- **Build as we go** – You can't think of everything in advance
- **Fail early** – Better to test ideas, you are normally "almost right"
- Have a **strategy/vision** is important – Keep pieces together

Establish the environment strategy – 2019/20

Background

- Second roll-out project
 - Where to test?
 - How to remain stable operations with the live legal entity?
 - Massive code development
 - Evergreen solution
- Argue with operations partner 😊
 - Not used to operate in a roll-out situation (with 60+ LE:s to be implemented)
 - Unfamiliar with larger enterprise requirements

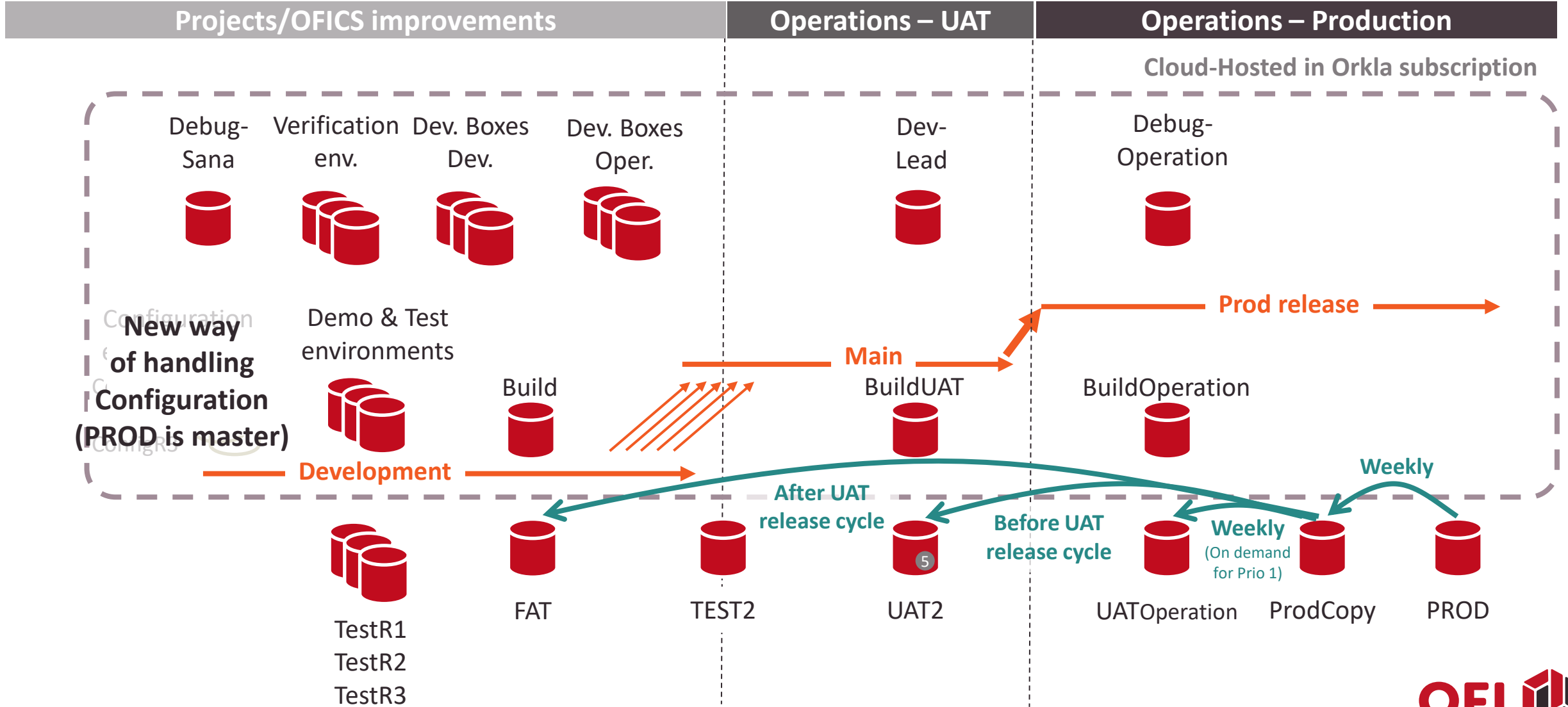
Environments – 2024-06-24



* Functionality Acceptance Test

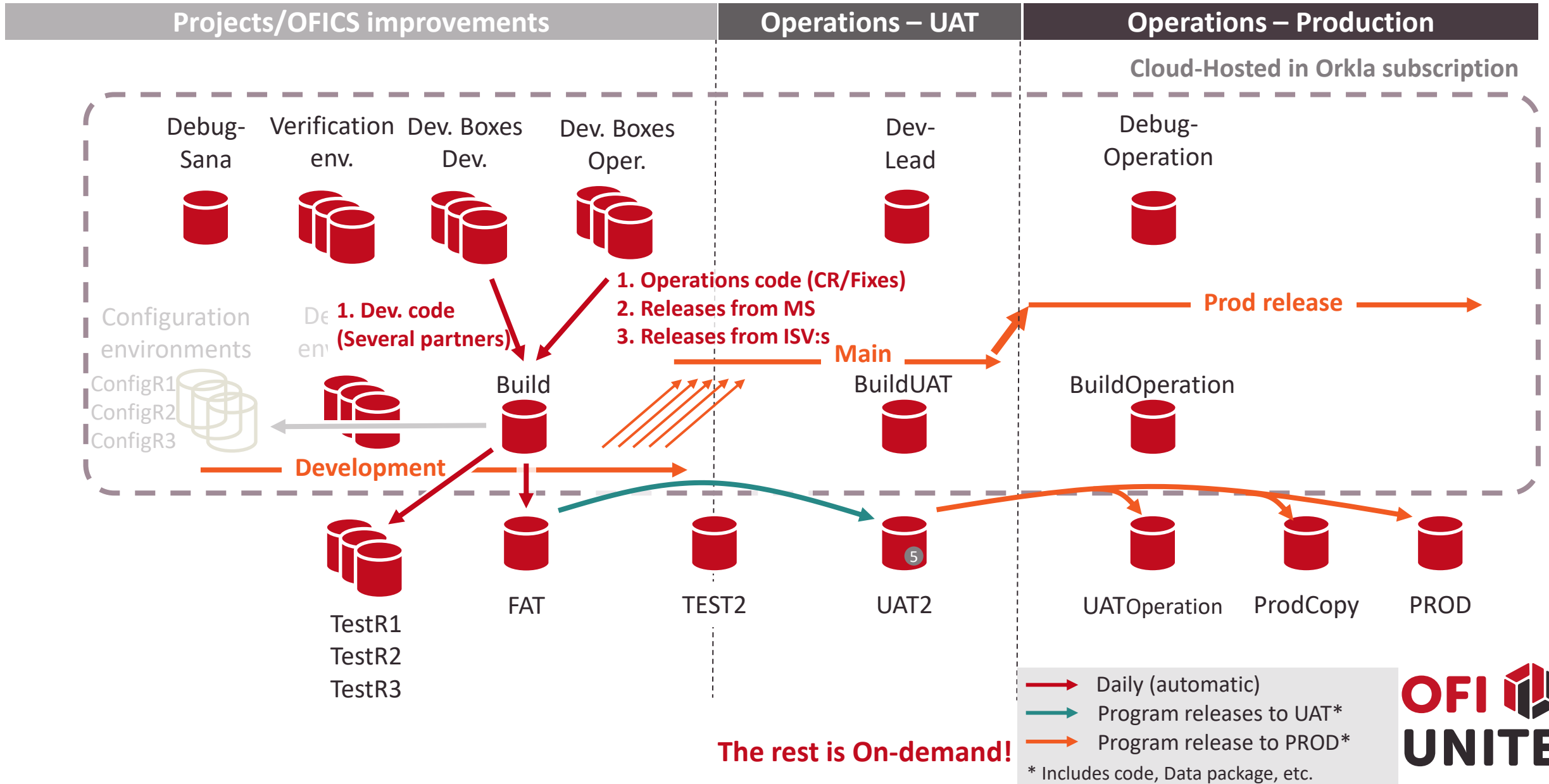
5 = Tier5

Environments – Data refresh



The rest is On-demand!

Environments – Normal Code Flow



Establish a release strategy – 2020 → 2021

Background

- Had a Change Request board in DevOps
 - We started in Jira but moved to DevOps 😊
- Take control over our releases
 - Environments was in place, now we needed to live the “evergreen life”
 - Mainly for development (FDD → Deploy)
 - Also, for evergreen MS releases, project UATs, global config, etc.
 - One process for Release dependent changes and one for non-Release independent

Establish a release strategy – 2020 → 2021

“Simple” Microsoft release rules is key!

- Enough releases to avoid automatic (untested) quality updates
 - At least 6 release per year. We are aiming for 8-10 releases per year
- Consume all features activated by default from MS
 - Not valid for Copilot 😊
- Always be one MS release behind
 - Let others test MS errors. Has saved us a lot of pain and work.
- Only consume features that are GA
 - Preview requires massive testing
 - Pricing management was a disaster!!!

Normal release management (Board)

Normal release management ★ 🔍

Board Analytics | [View as Backlog](#) 📖 Stories ⚙️ 🔗

> Design (Func.) 8 Development (Func.) 6 Test and finalize (Func.) 5 Release candidate (Operations) 21 In UAT (Operations) 5 PROD approved (Operations) 0 >

Operations drive

Prepare

38265 Enable feature "Pricing Management"

Sandra Sjolen

State ● Design

📌 2/3 🔍 1/1

42139 UAT2 Issues/performance issues to open released products after last drop

Jannie Krushave

State ● Design

OFI Performance

📌 1/2

49935 Exflow - EDC new template - global configuration

Mari Eide

State ● Design

Business U... OFI Core solution

📌 1/3

46599 PurchTable_Instrastat

47714 SMART interface re-design

Lise Kristin Andreassen

State ● Development

32435 SMART interface - SmartGeneralJournalAccountEntries entity times out.

Christian Kemp

State ● Development

📌 6/6 🔍 1/1

38942 FAT R126 No prices on SO line in FAT

Jaroslav Piekarz

State ● Development

KÅKÅ/JBO SANA

📌 2/3

41837 Amendment to FDD-MOD01178 - Entity for route descriptions - file upload must be supported

Doing

44259 OFI User directed sales picking result in error message "Older batch already exists in location. Please scan batch number again to continue"

Björn Malm

State ● Test and finalize

InterRadish Warehouse

37804 ATP calculation on sales form

Søren Printz Christensen

State ● Test and finalize

KÅKÅ/JBO

🔧 1/2 🔍 1/1

51412 ExFlow Embedded PBI

Sandra Sjolen

State ● Test and finalize

📌 0/4

Done

42352 Sana D365FO global config for units

Sandra Sjolen

State ● Test and finalize

Business U... Nic

🔍 0/1

51226 Correction to Warehouse specific inventory transactions step 2 - Purchase - KAK

Sandra Sjolen

State ● Release candidate

InterRadish

📌 1/3 🔧 1/1 🔍 1/2

49900 Warehouse specific inventory transactions step X - Production, Kanban picking, Kanban putaway, Container -Other BU's

Sandra Sjolen

State ● Release candidate

Business U... OFI Core solution

📌 1/3 🔍 0/1

46105 Warehouse specific inventory transactions step 3 - Outbound - KAK

Sandra Sjolen

State ● Release candidate

Business U... OFI Core solution

44863 UAT - Rounding issue TA integration towards PipeChain

Carl Ahrens

State ● UAT

NIC

📌 1/1

43760 FDD-MOD01210 - Enable OFICS for Synapse-Link activation (tables + Feature)

Sandra Sjolen

State ● UAT

Business U... OFI Core solution

📌 4/5 🔧 2/2 🔍 3/3

47035 Warehouse specific inventory transactions step X - data model and PBI

Knud Erik Mølgaard

State ● UAT

Business U... OFI Core solution

📌 0/1

Closed

Normal release management (Board)

Hand-over to operations



Custom states (Don't!)

- Design
- Development
- Test & finalize
- Release candidate
- In UAT
- PROD approved

Custom work item (Do!)

Solution Development

- User Story level
- Custom fields
- No time reporting
- Release = Iteration

Custom work items

Code (Task)

- For “cherry picking”

Review (Task)

- FDD + Hand-over

Test Case (standard!)

- Functional tests

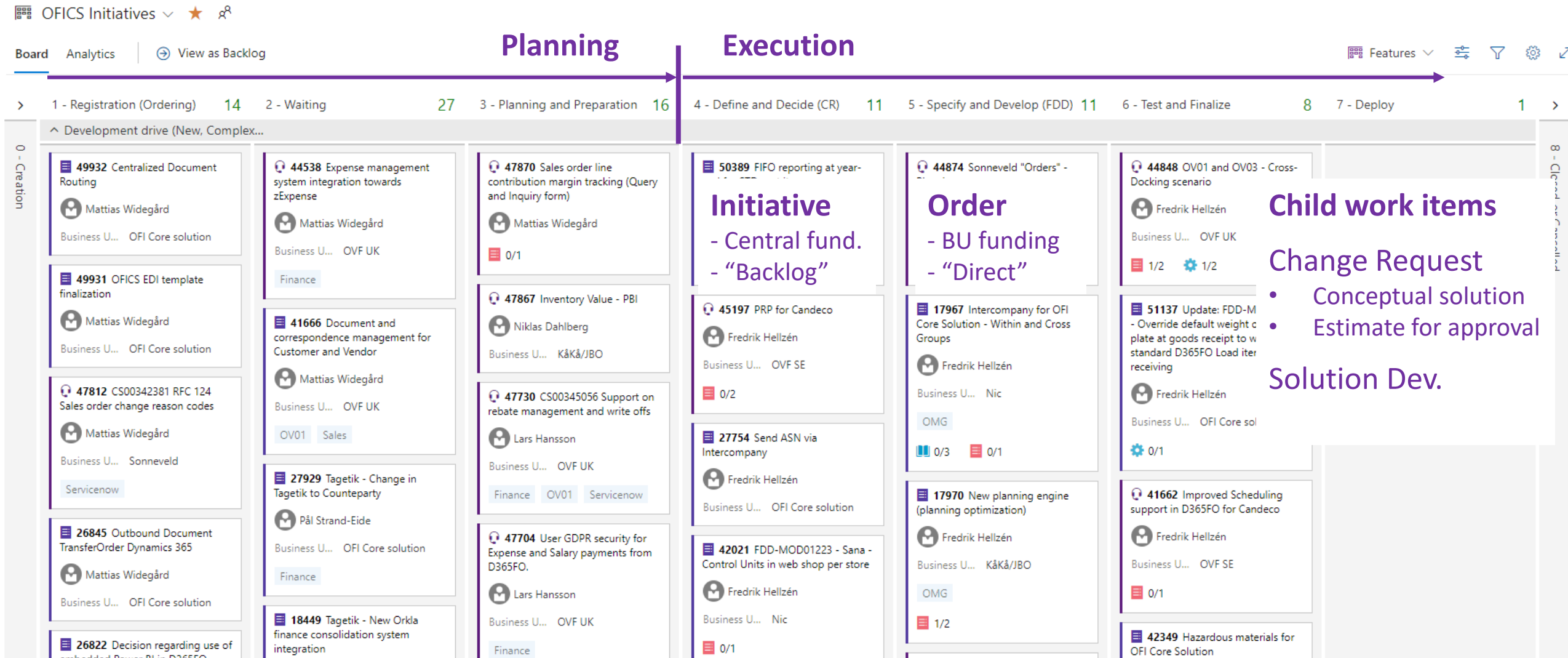
Initiatives and ordering – 2024 →

Background

- Ordering for live BU:s was a mess ... until 2024
 - Ordering process Service Now (SR/INC) solution improvements (Initiatives vs. Orders)
 - Initiatives board: Request → Deploy (re-use the CR and Development parts)

Initiatives (Board)

Board columns, not states!



Implementation methodology for project roll-outs

Background

- Took over responsibility 2022/23
 - Own roll-out resources (loyal to OFI Core Solution)
- Defined our Implementation methodology
 - Project Management and Solution Architecture in harmony
- Focusing on making roll-out projects “enjoyable”
 - Clear activities for all phases → no pauses or idle time
 - Propose a solution, no analysis phase or FRD writing
 - Deliver in iterations → measure progress and get continuous training, hand-over and acceptance
 - Train go-live several times

"Cheat Sheet" – Project Phases

Discovery:

- High level Scope(Backlog)
- High level Budget
- Setup the Project organization
- High level phased timeline & Activities
- Uncover complexities & Risks

Initiate/Build:

"Initiate Design & Build"

- Define backlog
- Iteratively conclude, prioritize backlog:
 - Configuration, Master Data etc.
 - Build Solution Presentation(s)
 - Design & build of solution
- Refine Timeline & Budget

UAT Readiness

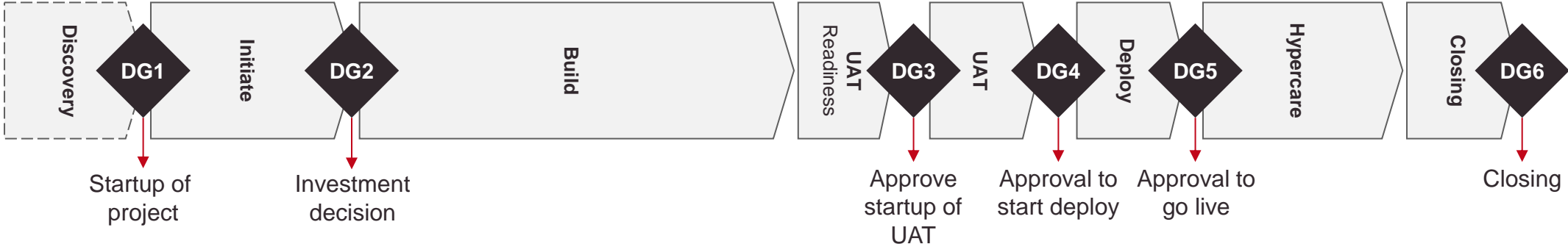
- Assessment of:
- Solution Readiness
 - Master data Readiness
 - Test Evidence Readiness
 - Organizational Readiness

Deploy

- Execution of Cutover activities
- End user training

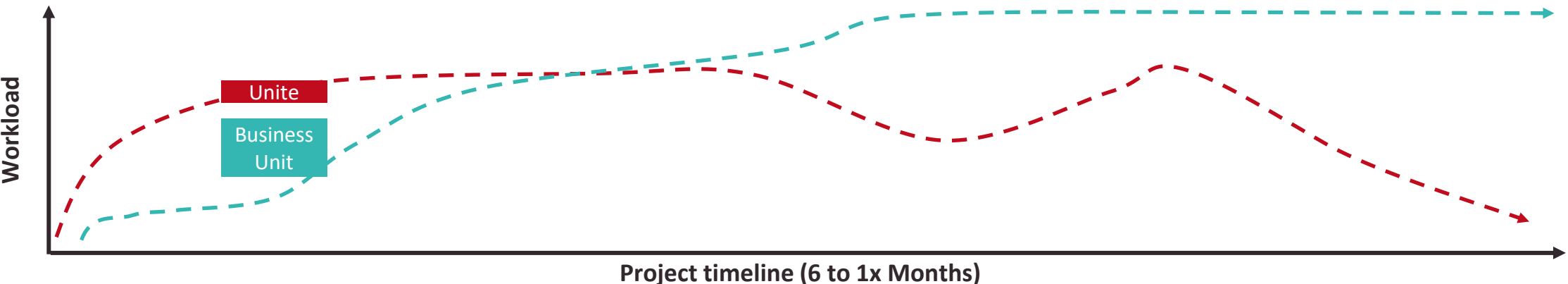
Hypercare

- Full support to Business operations
- Transitions to Operations(Unite)
- Lessons learned

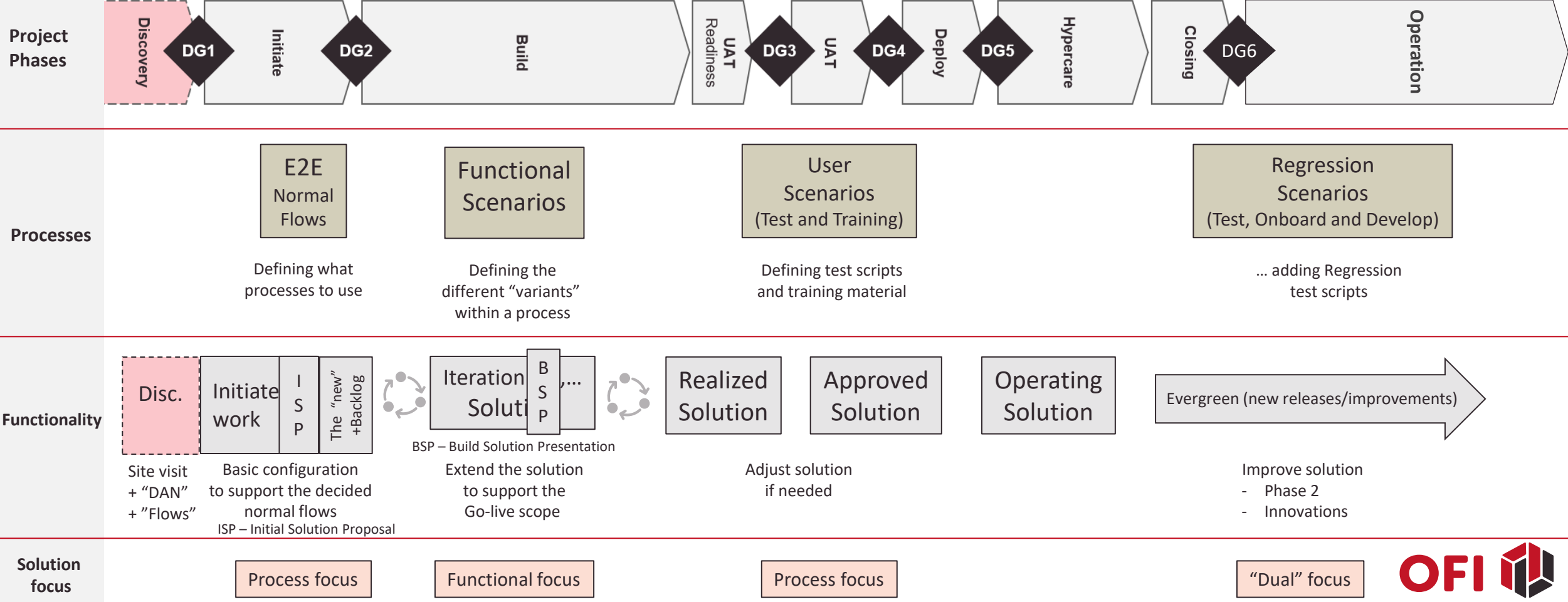


UAT

- Full migration reference data + transactional data
- Rehearsal of go live/cutover activities
- Business track leads & Super User Acceptance testing with support from OIT resources



OFI Core Solution – Focus on Processes vs. Functionality



Project DevOps (Own session or in Q&A 😊)

Queries > Shared Queries > Tree of all work items

Results Editor Charts | Run query New Save query Rename Save items Column options Email query Copy query URL Export to CSV ...

ID	Work Item...	Title	Assigned To	Iteration Path
48083	Epic	Processes - End to End and Site Scenarios	...	Credin DK Implementation Project
48088	Epic	FTP - Forecast To Plan		Credin DK Implementation Project
48095	Epic	PTP - Procure To Pay		Credin DK Implementation Project
48096	Feature	PTP-1 - Create purchase order		Credin DK Implementation Project
50308	Process S...	PTP-E01-1 - Create - Replenishment of PALLET ITEM to warehouse	Stefan Berg	Credin DK Implementation Project\Iteration 1 (Initiate)
50317	Process S...	PTP-E02-1 - Create - Replenishment of SILO ITEM to warehouse	Stefan Berg	Credin DK Implementation Project\Iteration 1 (Initiate)
50318	Task	Setup - PTP-E02-1 - Create - Replenishment of SILO ITEM to warehouse	Stefan Berg	Credin DK Implementation Project\Iteration 1 (Initiate)
50319	Task	Handover - PTP-E02-1 - Create - Replenishment of SILO ITEM to warehouse	Stefan Berg	Credin DK Implementation Project\Iteration 1 (Initiate)
48097	Feature	PTP-2 - Goods Receipt		Credin DK Implementation Project
48098	Feature	PTP-3 - Process incoming Invoice		Credin DK Implementation Project
48099	Feature	PTP-4 - Perform payment		Credin DK Implementation Project
48100	Epic	RTP - Requirement To Produce		Credin DK Implementation Project
48108	Epic	OTC - Order To Cash		Credin DK Implementation Project
48115	Epic	RTR - Record To Report (Managed under Functional Process scenarios)		Credin DK Implementation Project
48116	Epic	Misc - TTD - Transfer To Destination		Credin DK Implementation Project
48084	Epic	Functional Process scenarios		Credin DK Implementation Project
49064	Epic	Data		Credin DK Implementation Project
49065	Epic	Central setup		Credin DK Implementation Project
49066	Epic	Output		Credin DK Implementation Project
50954	Epic	Integrations		Credin DK Implementation Project
51024	Epic	Functionality - New or improved		Credin DK Implementation Project

Approach for automated regression testing

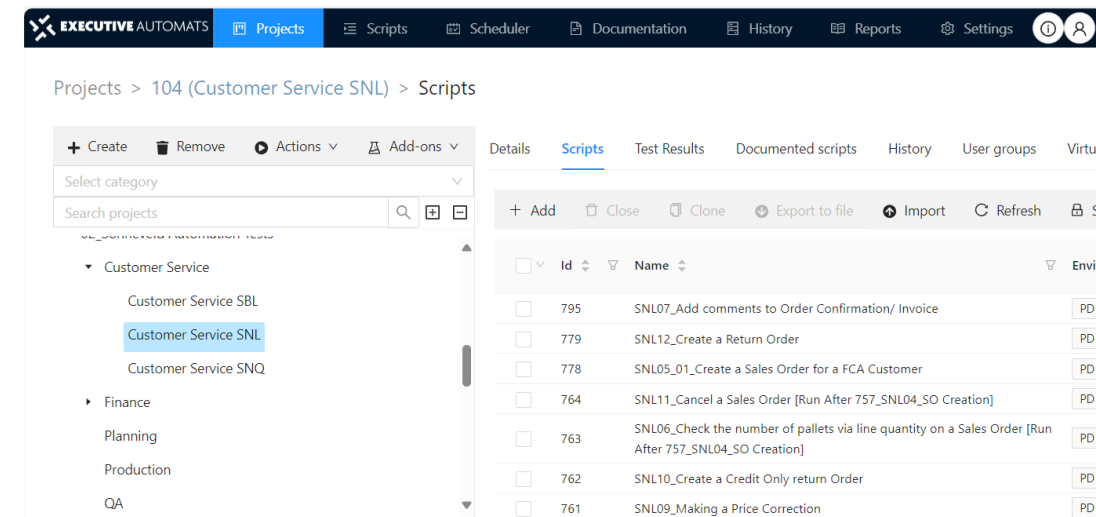
Background

- Got a set of RSAT tests from operations 2020
 - In a stand-alone environment...
- There was a lot of test “ideas” in the organization
 - “Operations” wanted RSAT
 - Orkla IT was looking at a global test initiative
- We decided to
 - Evaluate RSAT from Microsoft
 - Evaluate Executive automats from XPlus
 - Not to evaluate larger generic test tools like Selenium
 - Comment: Today we would probably have looked at other tools as well

We selected Executive Automats

Main reasons for the decision

- Not sure Microsoft was the best test tool provider
 - Soft evaluation criteria 😊
- We wanted to share test scripts among environments
 - Since we copy databases, we didn't want to overwrite UAT test scripts
 - We could probably have fixed this by exporting tables before DB copy
- We wanted to test other applications than D365FO
 - This disqualified RSAT



The screenshot shows the Executive Automats web interface. The top navigation bar includes 'EXECUTIVE AUTOMATS', 'Projects', 'Scripts', 'Scheduler', 'Documentation', 'History', 'Reports', and 'Settings'. The main content area is titled 'Projects > 104 (Customer Service SNL) > Scripts'. On the left, a tree view shows the project structure: 'Customer Service' (expanded) contains 'Customer Service SBL', 'Customer Service SNL' (selected), and 'Customer Service SNQ'. Below this are 'Finance', 'Planning', 'Production', and 'QA'. On the right, a table lists scripts with columns for 'Id', 'Name', and 'Envir'. The table contains 8 rows of script data.

Id	Name	Envir
795	SNL07_Add comments to Order Confirmation/ Invoice	PD
779	SNL12_Create a Return Order	PD
778	SNL05_01_Create a Sales Order for a FCA Customer	PD
764	SNL11_Cancel a Sales Order [Run After 757_SNL04_SO Creation]	PD
763	SNL06_Check the number of pallets via line quantity on a Sales Order [Run After 757_SNL04_SO Creation]	PD
762	SNL10_Create a Credit Only return Order	PD
761	SNL09_Making a Price Correction	PD

Experiences so far with automated regression testing

- Takes time to build up a regression test script library
 - Today this is done per BU level. Some are more mature than others.
- Have not achieved generic end-to-end test scripts (yet!)
 - Must invest in a central team to “do the complex things” and govern test scripts
 - Must identify the generic processes to be able to rely on generic testing
- Warehouse app can't be tested since it's not a web app
 - Use emulator for E2E and prepare for manual tests (i.e. prepare test data)
- We use it but have not come as far as we wanted...
 - Dedicated central team and drive is key to deliver this!



(maybe)



trustworthy SYNERGIES
VALUE CREATION BREAD margarine yeast
FLEXIBILITY INGREDIENTS pastry
industry cross selling artisan sale & distribution
vegan **BAKERY** **UNITE** marzipan
category scalability
production PROCESS **BRAVE**
flow of products ICE CREAM flow of knowledge
EFFICIENT OPERATIONS RETAIL **INSPIRING**
confectionary business

VALU
EFFICIENT
SYNERGIES
SCALABILITY
FLEXIBILITY

OFI 
UNITE