



INNOVATION: ORDER BASED PLANNING

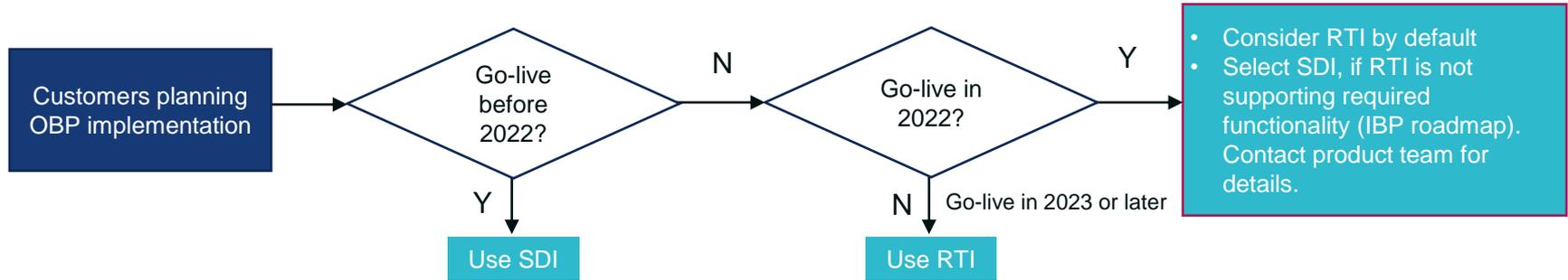
SPOT ON SUPPLY CHAIN PLANNING

Erik Suwandhi, Christoph Habla

IBP Response & Supply OBP: RTI vs. SDI interface



Completely new interface for OBP: Real Time Integration (RTI)



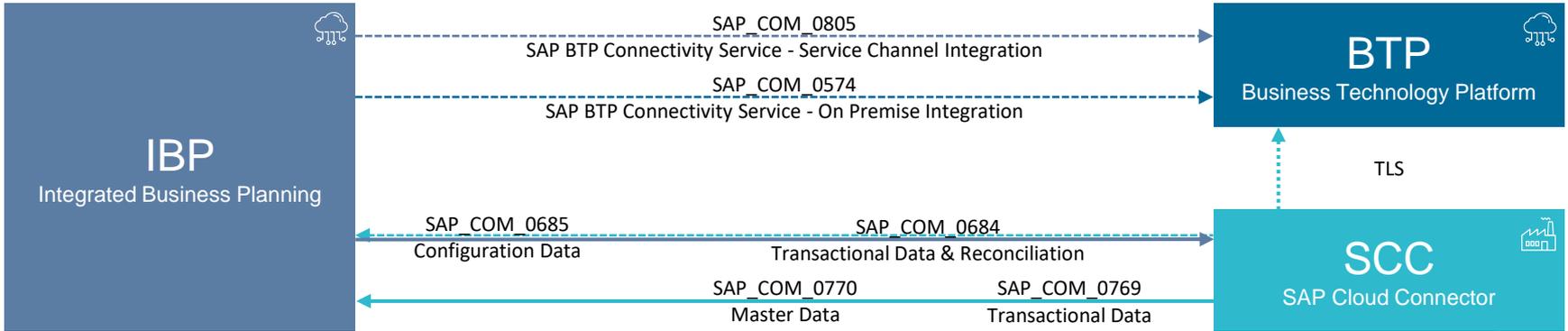
→ This has an impact on the implementation effort and project risk and needs to be discussed:

Option 1) Implement SDI now and switch to RTI later : **Less risk** / **more effort**

+ Option 2) Implement RTI now : **More risk** / **less effort & better functionality**

Note for option 1: Not only the interface needs to be migrated later but also the planning area (PA) as the use of RTI requires a new type of OBP PA.

RTI – Systems & Connections



ERP

- RFC call to Cloud Connector
- Using SCC port defined for IBP tenant
- Using IBP RFC user credentials
- RFC inbound queue processing

SCC

- Initiates tunnel connection to SAP IBP tenant using its public tenant URL
- Tunnel is used for actual data connection using the RFC protocol

BTP

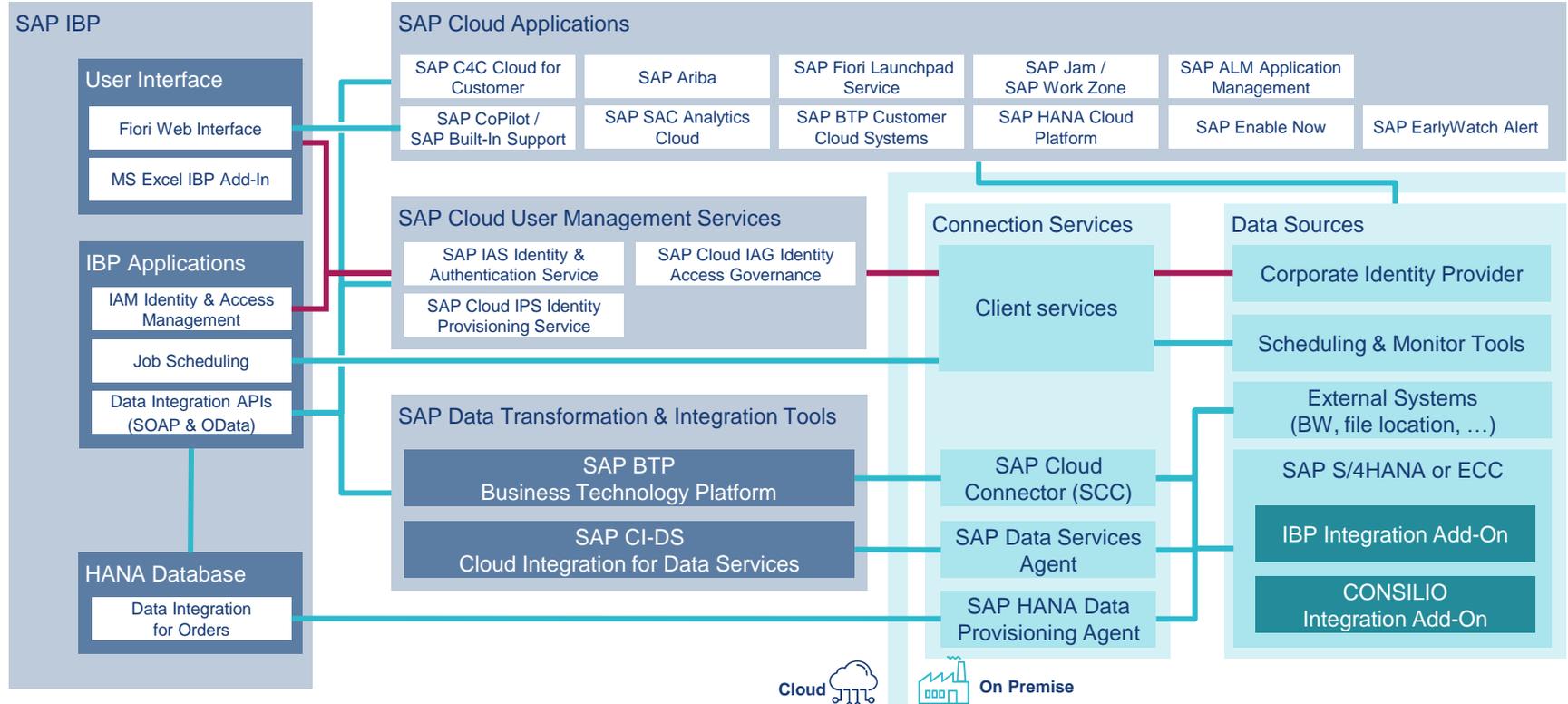
- Mapping of local systems of used SCC to target destinations usable by IBP
- Connectivity service makes ERP via BTP available for IBP via secured tunnel

IBP

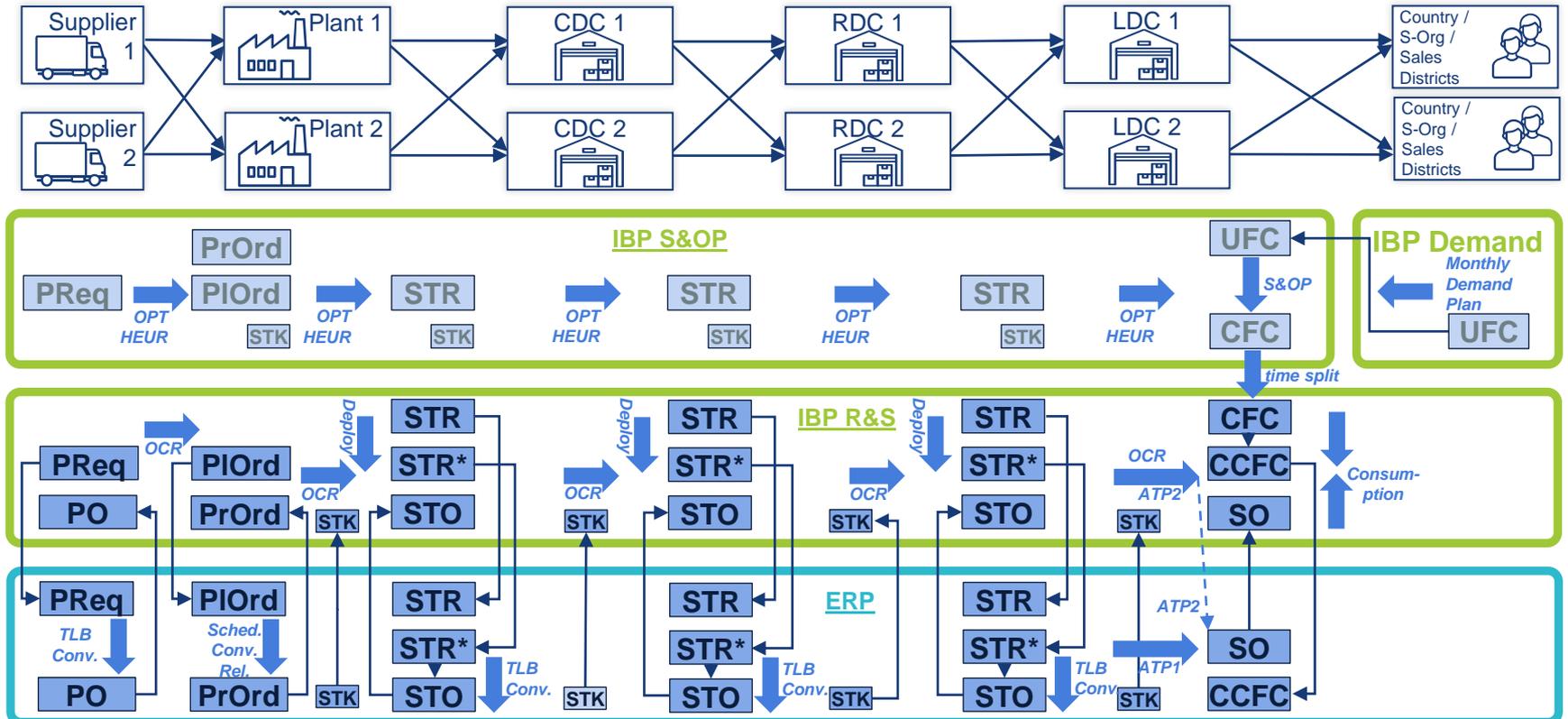
- IBP receives RFC inbound calls
- Outbound calls via BTP call (OAuth)

ERP

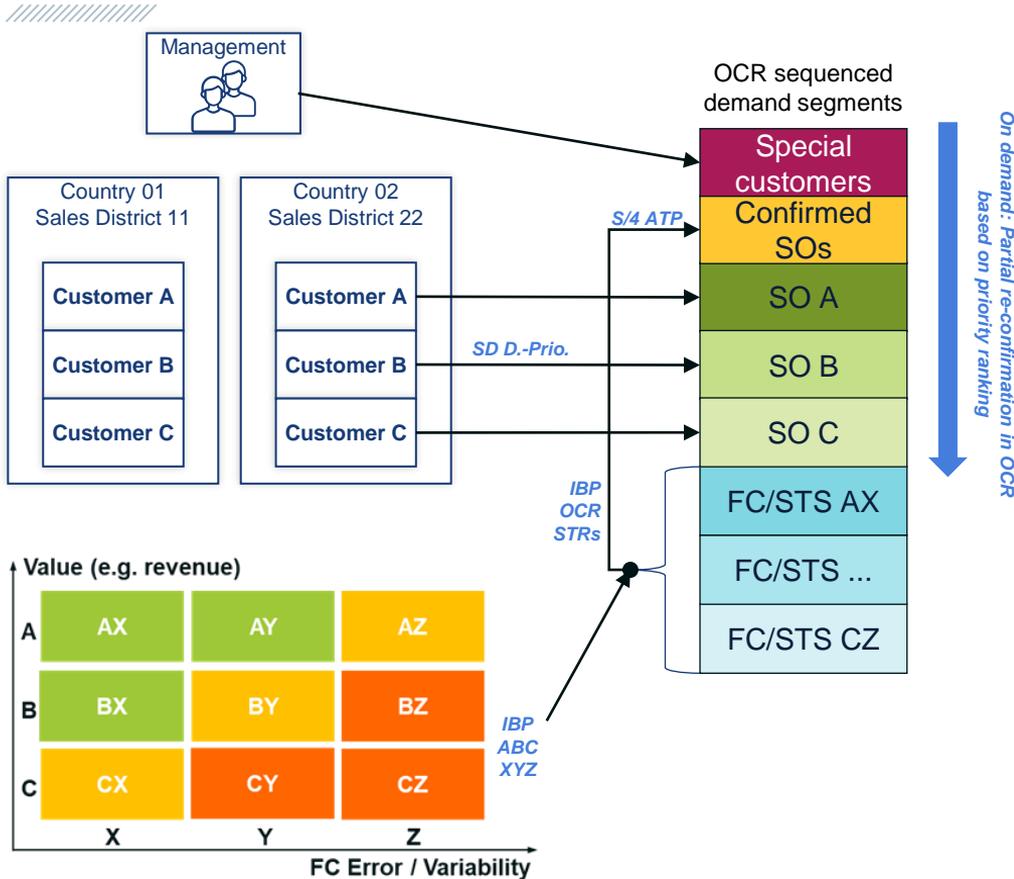
IBP Interfaces



IBP R&S order-based planning (OBP) overview

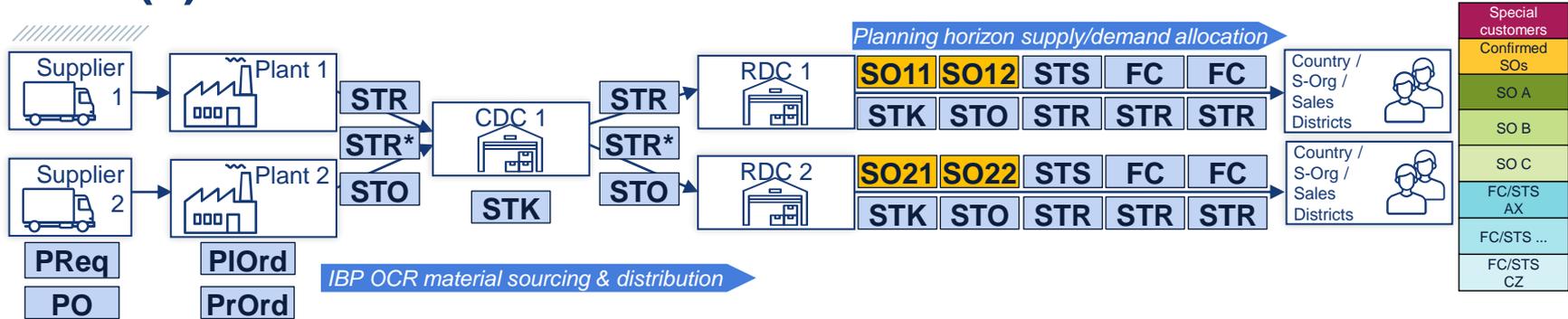


IBP OBP – Prioritization rules (example)



- + • Stability of confirmations
- + • Instant SO confirmations
- + • Flexibility to reconfirm based on rules e. g. for “special customer” orders and for subparts of the supply chain on demand
- ! • Customer/order priority less important than order entry date (general FIFO concept)

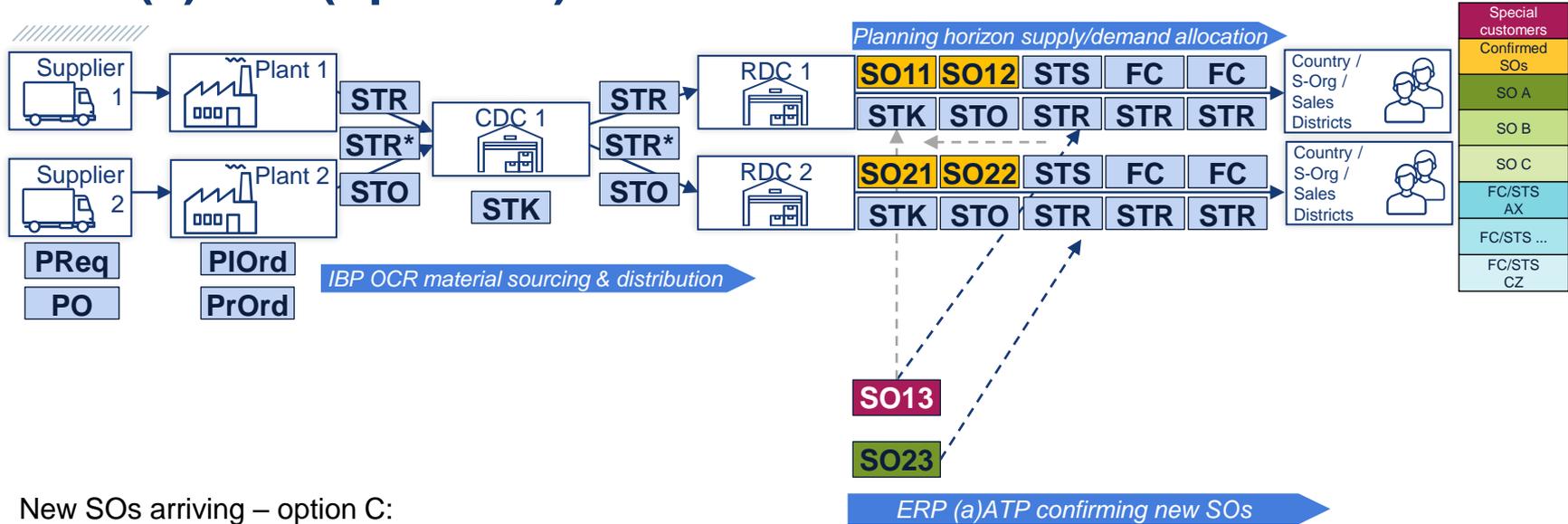
IBP OBP – Sales order confirmation process IBP & ERP (a)ATP



When IBP OBP OCR and ERP (a)ATP are used simultaneously, the process can usually be described as follows:

- The IBP OBP order confirmation run (OCR) allocates finite supply to the RDCs based on the defined rules/priorities.
- This is done in short-term horizon for sales orders (SOs) and in mid/long-term horizon for safety stock (STS) and forecast (FC).
- The resulting plan, esp. the stock transfer requisitions (STR) are basis for the ERP ad-hoc ATP for new incoming SOs.
- Because of the finite planning in IBP, the STRs are quite reliable and can be used for the ATP check in ERP although they are only planned elements – the use of two horizons in ERP ATP (inside/outside replenishment lead time) can be dispensed with
→ that is a big advantage and shows how ERP ATP can profit from the IBP OBP planning.
- As described on a previous slide, there are the following options how the IBP OCR acts after this initial confirmation in ERP ATP:
 - A) Try to keep the initially confirmed dates as stable as possible.
 - B) Try to achieve better dates for more important orders while accepting worse confirmations for other already confirmed orders.
 - C) Mix of A&B: Only certain “special customer” orders may steal quantities from already confirmed orders – the rest not.

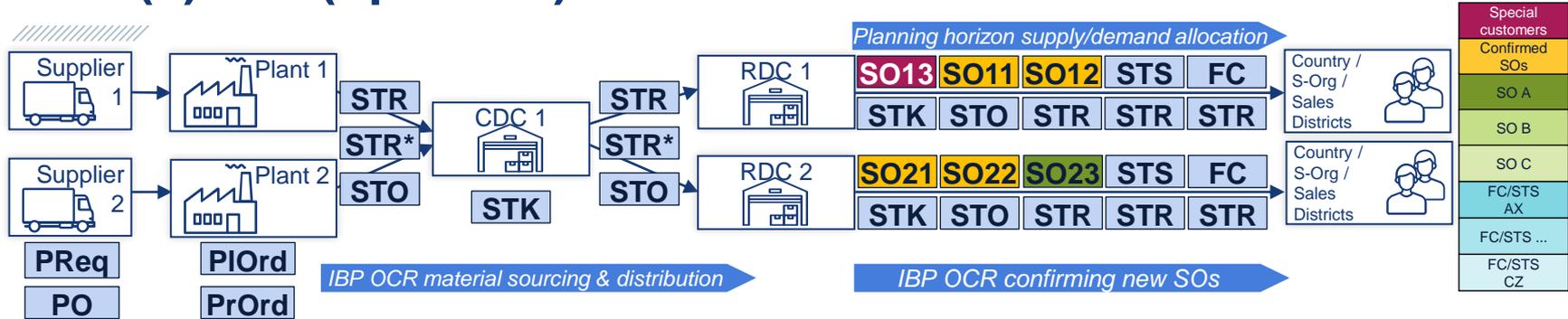
IBP OBP – Sales order confirmation process IBP & ERP (a)ATP (option C)



New SOs arriving – option C:

- One of the new SOs is a special order that will steal the supply from an already confirmed order in the IBP OCR. The ERP ATP can only confirm it later (in standard), but the IBP OCR will confirm it earlier.
- Another urgent order arrives of an A customer, but it respects the already confirmed orders and only takes quantities that were previously assigned to STS or FC.

IBP OBP – Sales order confirmation process IBP & ERP (a)ATP (option C)

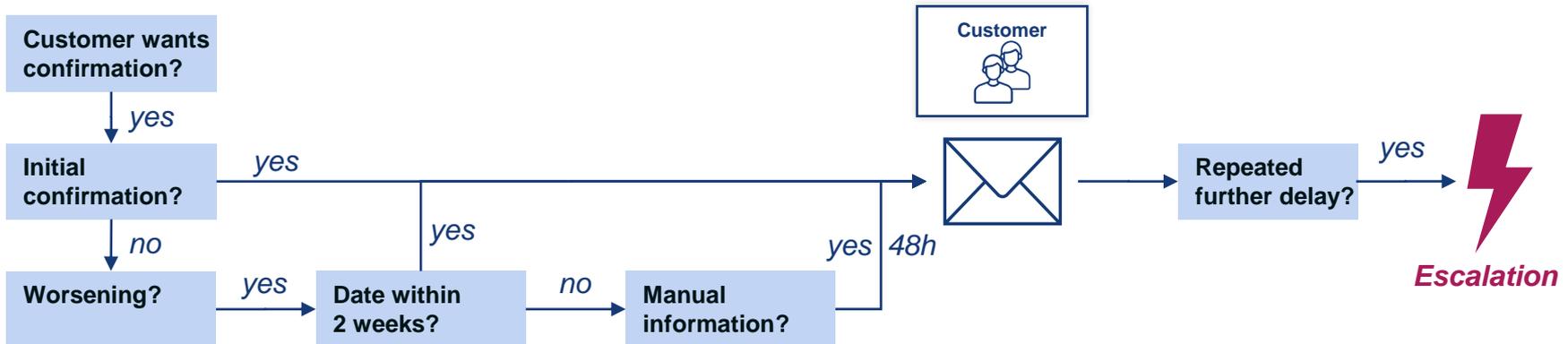


New SOs arriving – option C:

- The SOs in RDC 1 that were already confirmed (SO11/SO12) get a worse confirmation than before in the IBP OCR while the top priority SO13 takes the stock and can be confirmed earlier than initially (**more optimal / less stable**).
- In RDC 2, the already confirmed orders keep their confirmation while the urgent A customer order has to get in line and gets a later confirmation (**more stable / less optimal**).

SO Confirmation Messages to the Customer (example)

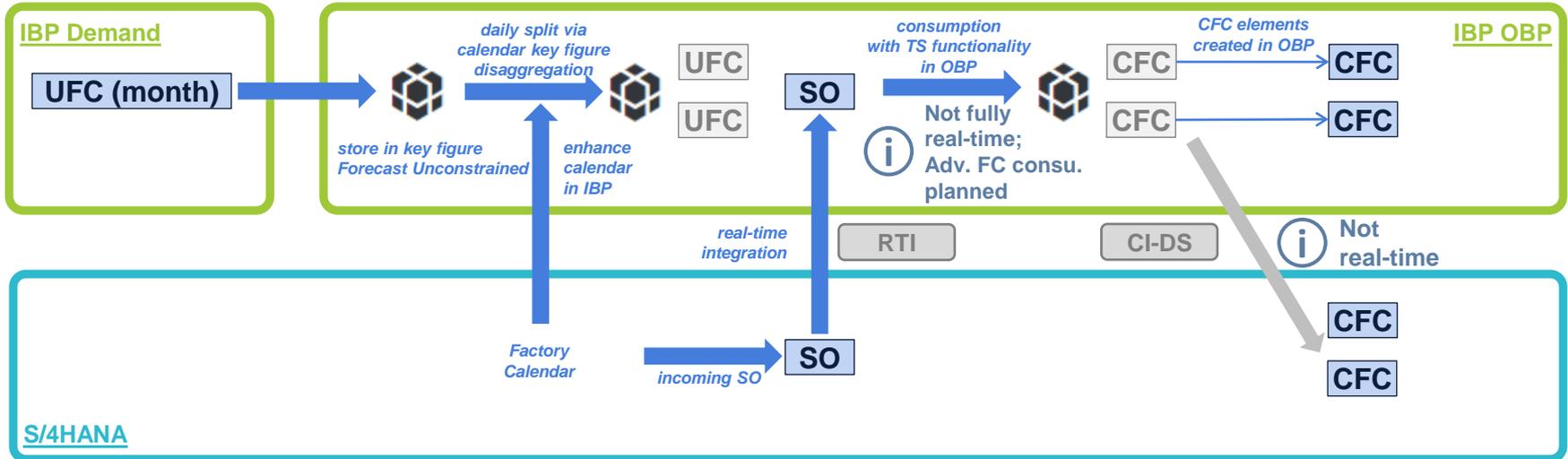
- Customers who don't want a confirmation shouldn't get one.
- For all who want one, the initial confirmation is sent automatically.
- Improvements of confirmed dates are not automatically reported to the customer.
- If there is a worsening of the confirmed date:
 - If the requested date is more than 2 weeks in the future, then no automatic messaging takes place, but the sales reps can monitor the confirmation changes and manually decide to inform the customer within 48 hours.
 - If the requested date is within 2 weeks, then the customer gets a message automatically.
- If the confirmation is repeatedly further delayed this needs to be escalated.



IBP Forecast Integration Demand → OBP → CI-DS → S/4



- In this option, the forecast is directly sent from IBP Demand to IBP OBP.
- It must be split there to daily buckets using a key figure disaggregation based on a calendar.
- Forecast consumption can be done in IBP OBP but not the full functionality can be used in real-time.
- The CFC elements can be sent to S/4 via CI-DS which is not real-time currently.
- Double consumption of forecasts in IBP and ERP need to be avoided.



Key Take-Aways



- IBP Response & Supply / Order-based planning has a **new Real-Time Integration Interface**.
- Results of previous **IBP modules are fully integrated** and re-used in OBP.
However, **IBP modules for preceding planning processes are not required** for OBP.
- Demand **prioritization is highly flexible**.
- In ERP, **(a)ATP can be used for ad-hoc confirmation together with Sales Order Confirmation in IBP while maintaining a stable plan** for customers and production.



Kontakt Daten

Christoph Habla

Partner, Leitung IBP

CONSILIO GmbH

Einsteinring 22 | 85609 Aschheim

T +49 89 960575-0

M +49 151 52634396

christoph.habla@consilio-gmbh.de

www.consilio-gmbh.de/ibp