

Developing for Analytics in SAP BTP ABAP Environment

Motivation, Comparison & Developer Flow

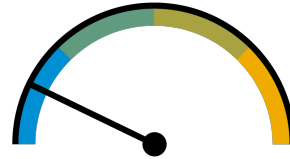
Andreas Riehl
November 2021

PUBLIC

Different Types of Applications



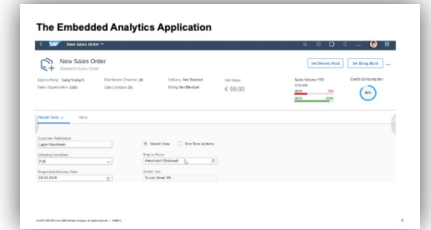
Transactional



Simple Analytics



Multi Dimensional



Embedded Analytics

	Transactional	Simple Analytics	Multi Dimensional	Embedded Analytics
Intention	Daily business tasks	Fast and easy insights	Interactive analysis	Daily business tasks Fast insights Launch interactive analysis
Interactivity	Static	Static	Highly Dynamic	On Demand
Complexity	Low Single Data Sets	Low-Medium Aggregating Single Sets	High Lots of Data Sets	Mixed
Aggregations	Very few	Yes	Dynamic: Different types on different levels	All
Requests	Simple Requests Few Data	One Request Complexity varies	Each Interaction may trigger a complex request	Both
Request Types	CRUD	Read	Read	Both
Data Sources	Live Data	Live Data May be precalculated	Replicated Data & Live Data	Live Data

The Embedded Analytics Application

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SAP

New Sales Order ▾

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New Sales Order

Standard Sales Order

Set Delivery Block

Set Billing Block

...

Sold-to Party: Sang Young-Il

Distribution Channel: 20

Delivery: Not Blocked

Net Value:

Sales Volume YTD

Credit Consumption

Sales Organization: 1000

Sales Division: ZU

Billing: Not Blocked

€ 99.00

\$ 50.000

2016 75K

2015 200K

88%

Header Data ▾

Items

Customer Reference:

Lager Mannheim

☒ Master Data

☐ One Time Address

Shipping Condition:

FoB ▾

Ship-to Party:

Amacheah Chukwudi


Requested Delivery Date:








15.02.2019


Street / No.:

Turner Street 20

Embedded Analytics – Target Qualities

 New Sales Order ▾



 **New Sales Order**
Standard Sales Order

Set Delivery Block

Set Billing Block

...

Sold-to Party: Sang Young-Il

Sales Organization: 1000

Distribution Channel: 20

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☒ Master Data


☐ One Time Address

Shipping Condition:

Ship-to Party:

 Combine analytical and transactional UIs

 No latency between transactional & analytical data -> live!

 Allow deeper analysis & navigation

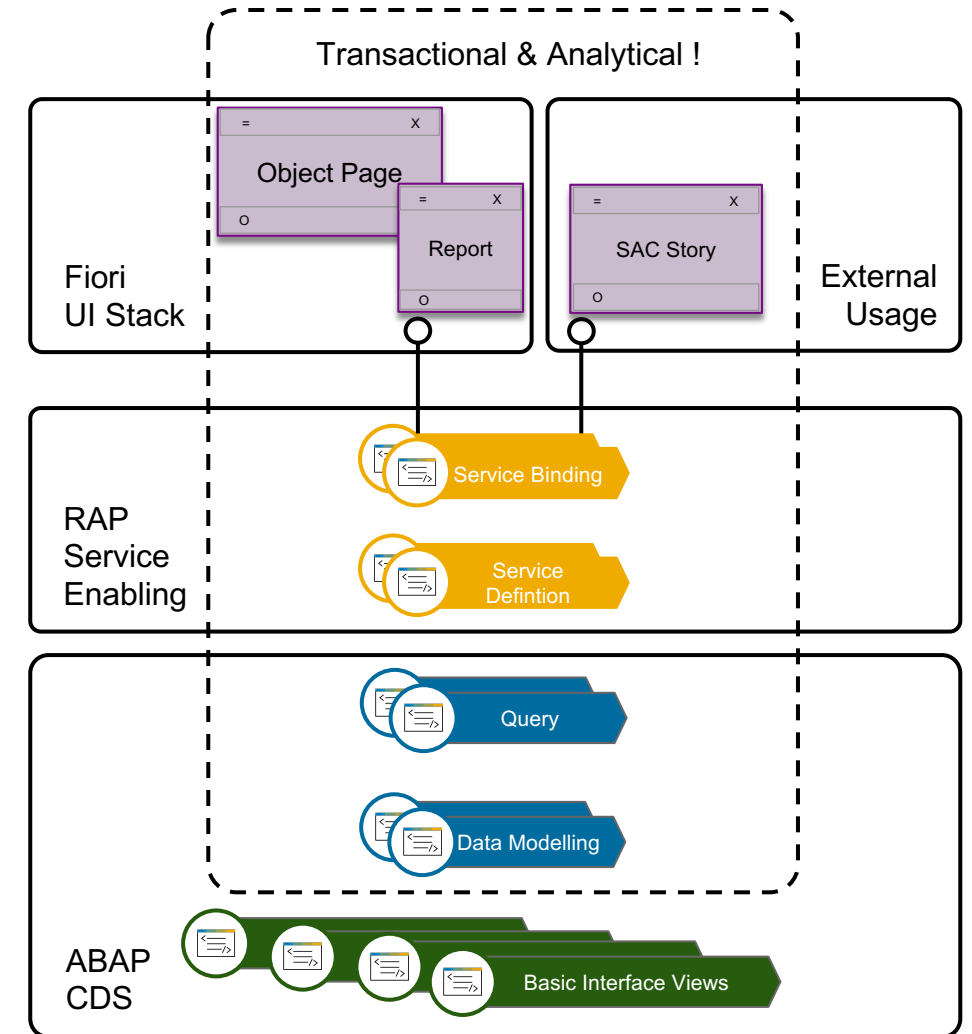
Derived Requirements to RAP Programming Model

ANALYTICAL AND TRANSACTIONAL APPS

- Share the same implementation concepts 🤝
- Share the same data and metadata 🔥
- Use the same UI technology 🤝
- Allow integration with other analytical tools 🌐

CONSISTENT AND EXTENSIBLE DATA MODELS

- All data models reside in same system 🔥
- CDS as common modelling approach 🤝 🔥
- Support for core, transactional, and analytical models 🤝



Differences to Development of Transactional Applications

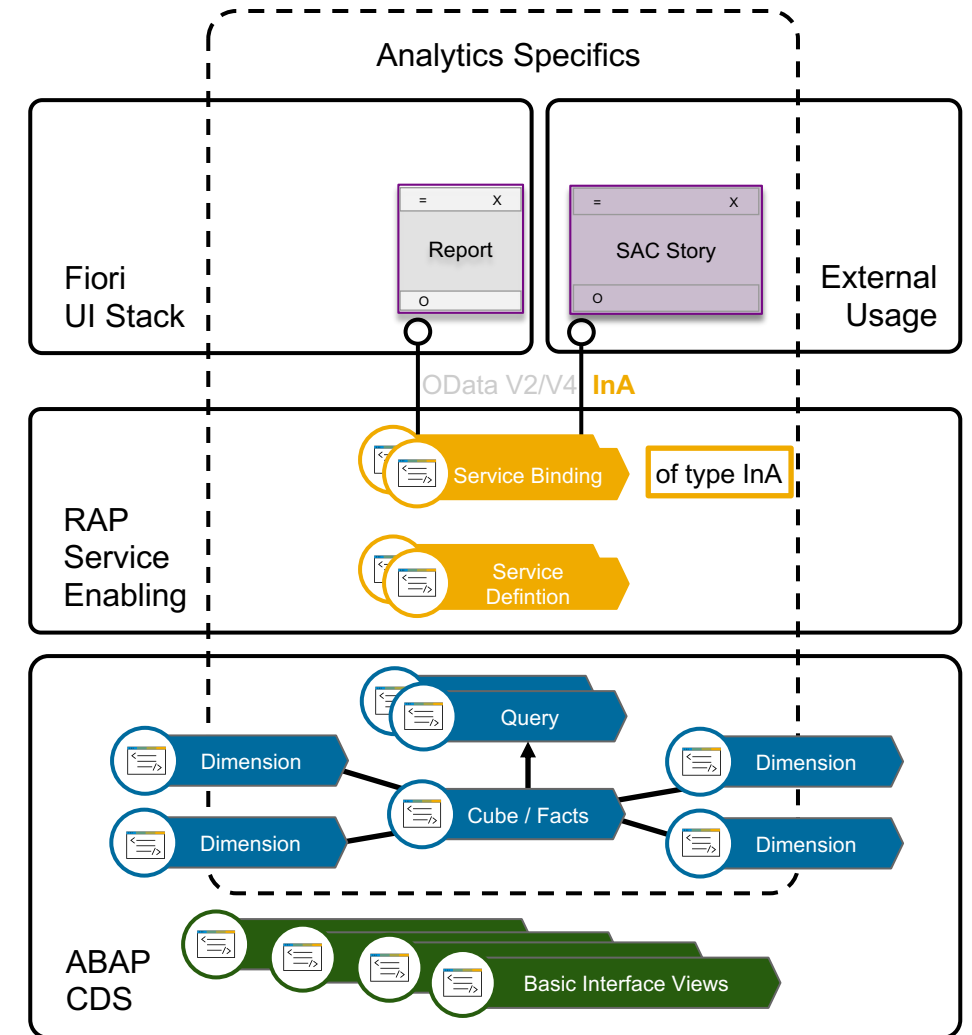
ANALYTICAL PARTS (Apps or Embedded Controls)

- Need to draw together data from scattered tables/views
- Need to be able to read and aggregate lots of data quickly
- Need to answer questions based on “facts” and calculations

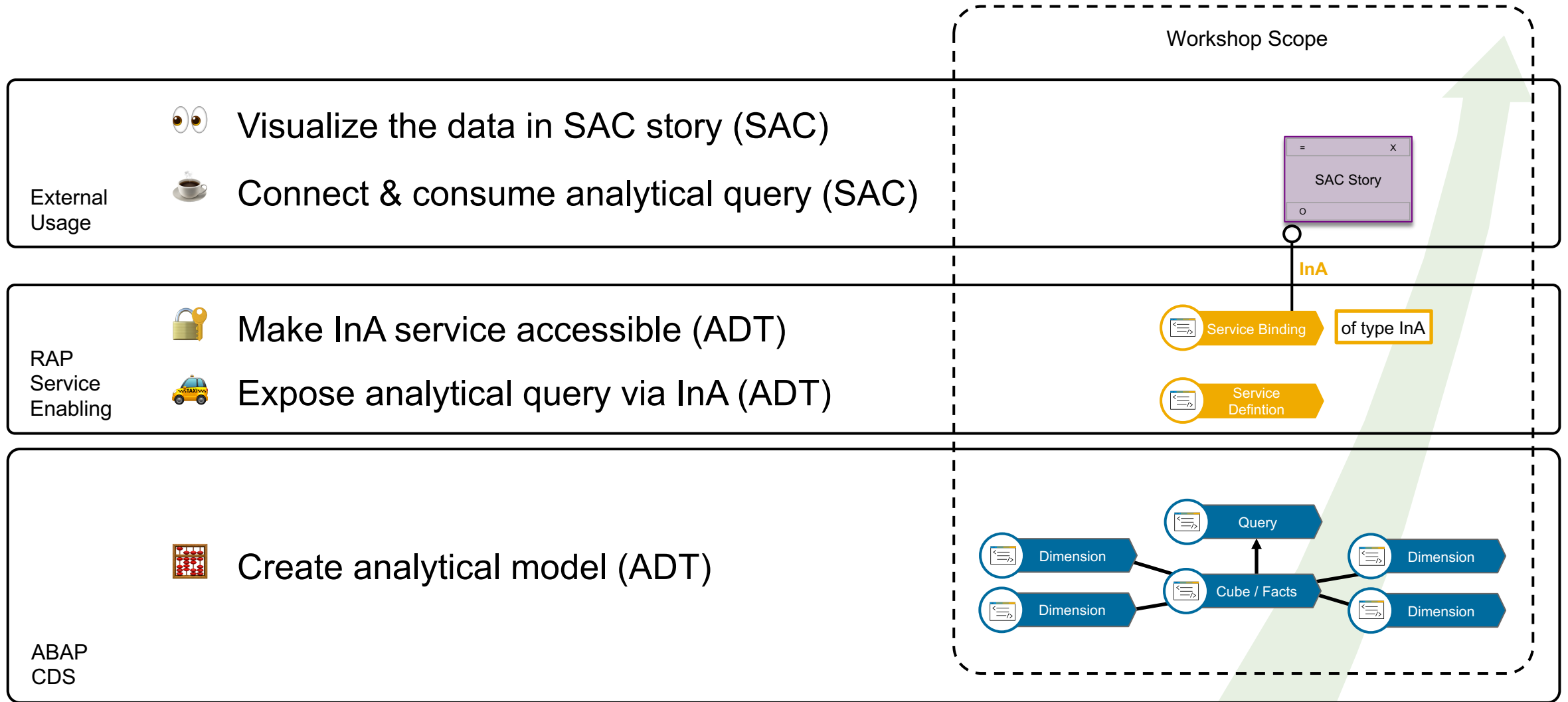
THE DIFFERENCES

Same common modelling approach, same system, but ...

- Optimized model – “Star Schema”
- Own engine & according service (InA)
- Own controls as well as dedicated applications



Development Flow for the Analytical Development



Thank you.

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Further information:

- [Availability of Analytics in BTP ABAP Environment \(Blog Post\)](#)
- [Analytical Modelling, InA Service Exposure & Consumption in SAC \(Tutorial\)](#)
- [Communiation Scenario SAP_COM_0065 \(SAP Help Documentation\)](#)

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