Developing for Analytics in SAP BTP ABAP Environment

Motivation, Comparison & Developer Flow
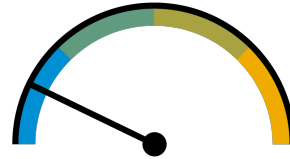
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THE BEST RUN

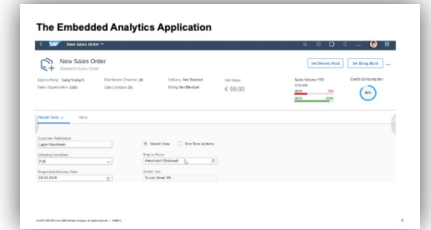# Different Types of Applications

	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

Embedded Analytics – Target Qualities

🤝 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

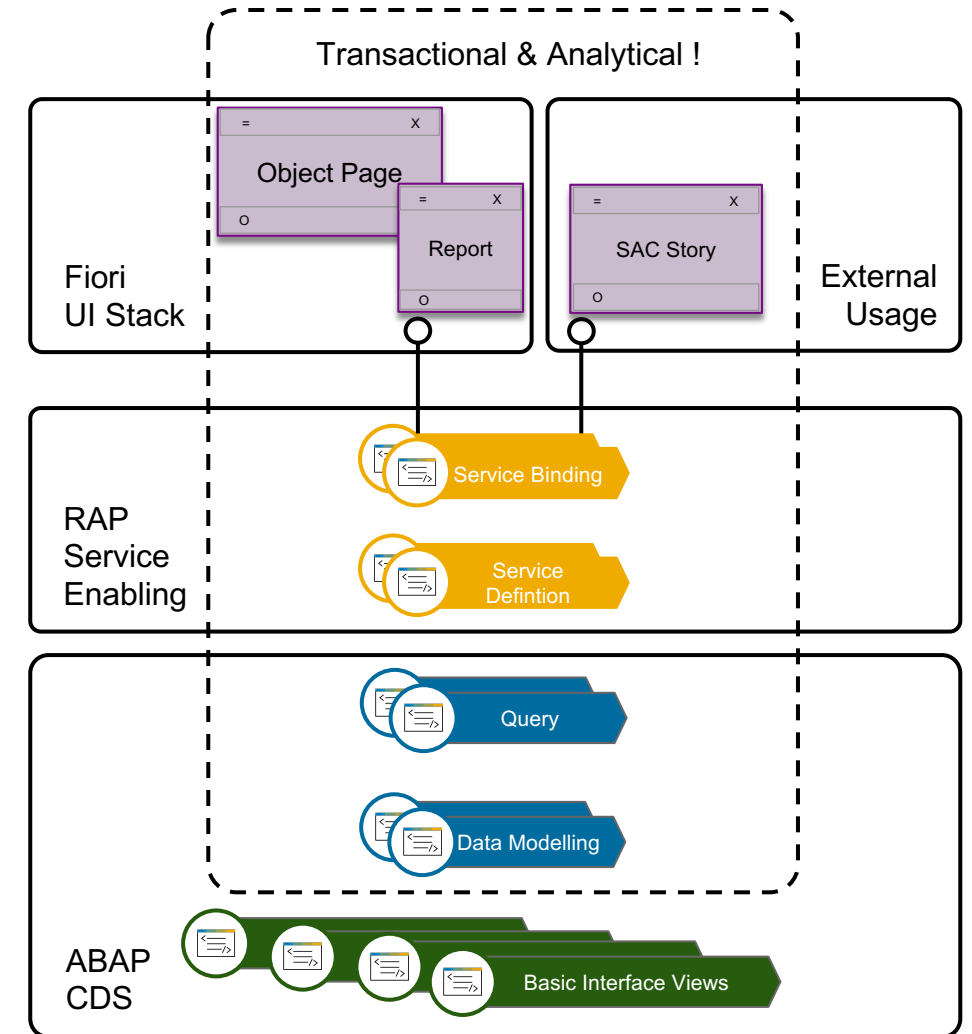▶ All data models reside in same system 🔥

▶ CDS as common modelling approach 🤝🔥

▶ Support for core, transactional, and analytical models 🤝

Transactional & Analytical !

Object Page

Report

SAC Story

Fiori UI Stack

External Usage

Service Binding

Service Defintion

RAP Service Enabling

Query

Data Modelling

Basic Interface Views

ABAP CDS

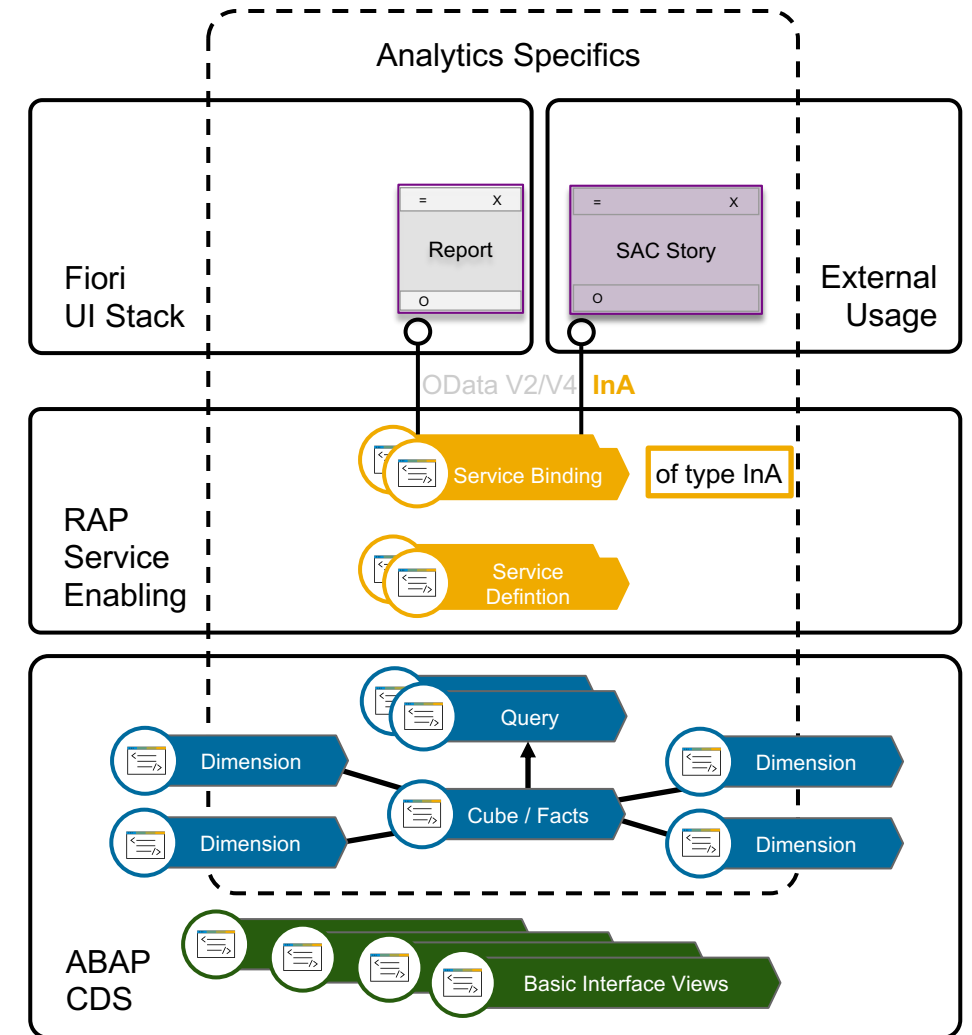# Differences to Development of Transactional Applications

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

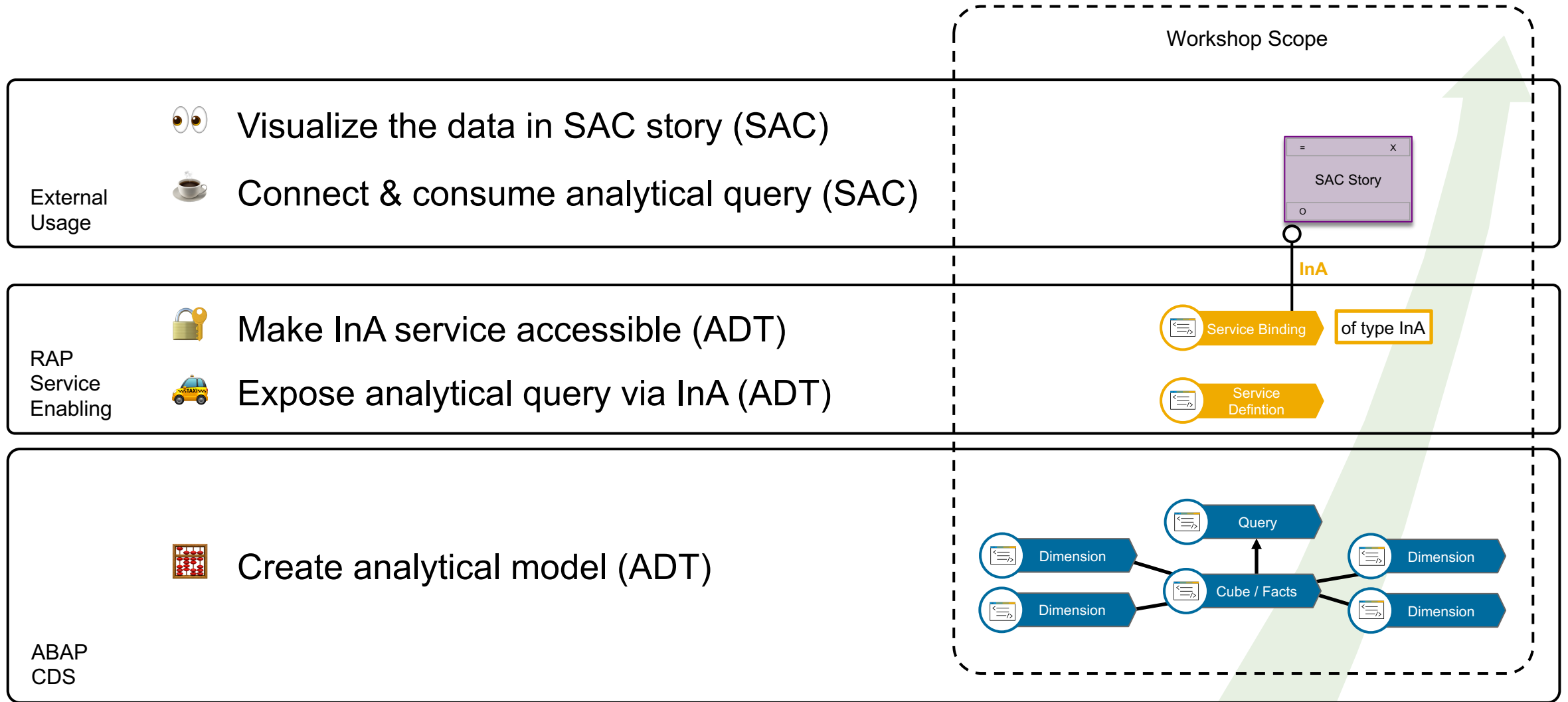▶ Need to answer questions based on "facts" and calculations

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

Analytics Specifics

Fiori UI Stack | Report | SAC Story | External Usage

OData V2/V4 **InA**

RAP Service Enabling | Service Binding | of type InA | Service Defintion

ABAP CDS | Query | Dimension | Dimension | Cube / Facts | Dimension | Dimension | Basic Interface Views

Development Flow for the Analytical Development

External Usage

👀 Visualize the data in SAC story (SAC)

☕ Connect & consume analytical query (SAC)

RAP Service Enabling

🔒 Make InA service accessible (ADT)

🚕 Expose analytical query via InA (ADT)

ABAP CDS

🧮 Create analytical model (ADT)

Workshop Scope

SAC Story

InA

Service Binding — of type InA

Service Defintion

Query

Dimension — Cube / Facts — Dimension

Dimension — Dimension

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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