

















August 2021

AIRBUS

Digital Vision – Digital Finance Architecture Design

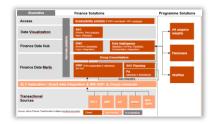
We are confident that we will help you to make the right choices for your Digital Finance Architecture

This proposal in one glance



Your project objectives

Based on our work on the future steering model of planning, and on separate discussions with you, we summarized our understanding of your goals and challenges for a new Digital Finance Architecture.



2

PwC reference model: Digital finance architecture

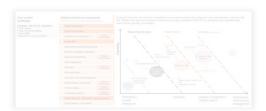
We present our PwC reference digital finance architecture with its use cases, technical components and governance processes. This reference model will help us during our discussions.



3

Your objectives, our view

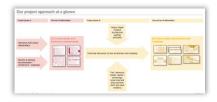
In section 3, we provide our first thoughts on your architecture objectives, based on our reference architecture.





Our project approach

In this section, we explain our project approach. Starting from your current business requirements and challenges, together we will develop the new architecture.





Your dedicated PwC team

Our team of experienced PwC experts will support you during the whole project. We cover SAP and non-SAP technologies, as well as overall governance and organizational questions.

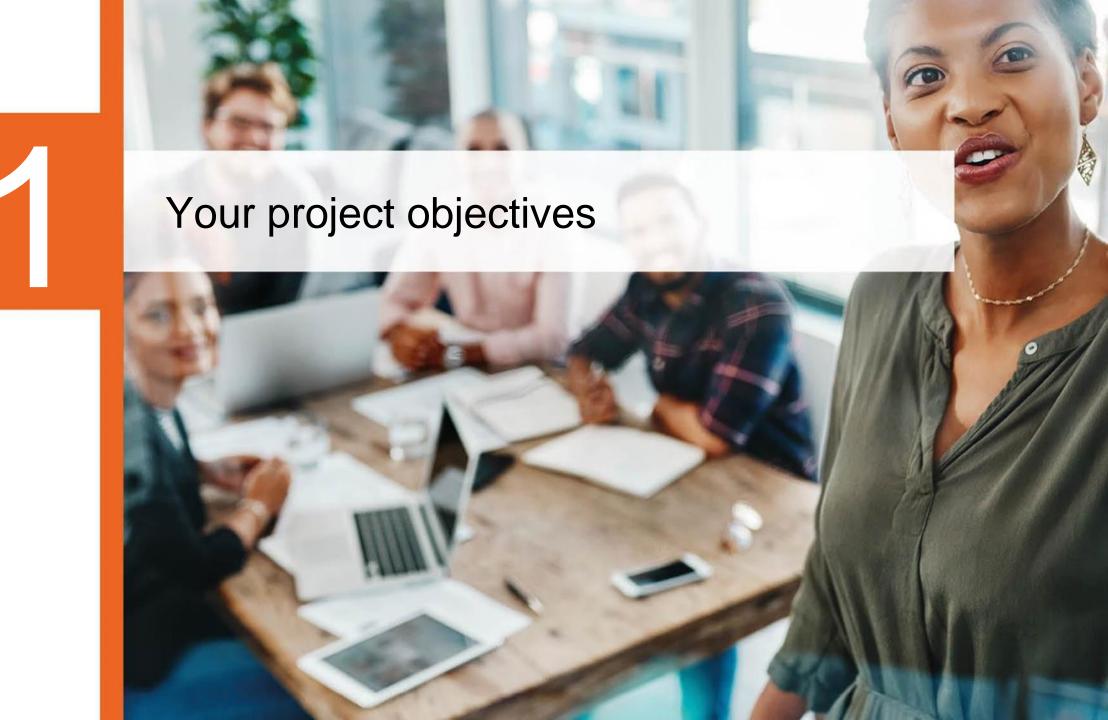




Project organization and rate overview

In section 6, you can find our rate card and estimated project efforts.





Our Finance Transformation Framework: With a holistic approach we drive the Finance function into the future

With the Finance Digital Vision Architecture, we cover Future of Steering and Data Management



CFO Strategy

Shaping the future of the finance function with the right Target Operating Mode

People & Culture

The finance function of the future needs completely new mind, skill- and tool-sets

Future of Steering

Only with truly data-based decisions companies can move safely into the future

Future Regulation & Compliance

Those who only fulfill regulatory requirements will jump the gun

Transactional Excellence

A holistic approach to process optimization and automation

ERP System(s

Elementary building block and opportunity for a Finance Transformatior

Data Management

The foundation for a secure and digital Finance Transformation

Adressed by project

Our focus for Airbus today

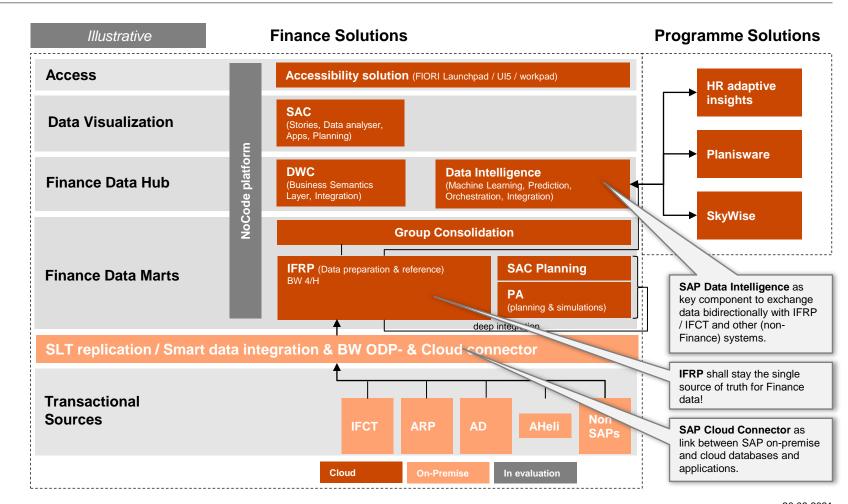
Our focus for Airbus today

Your Digital Vision for Finance aims at implementing a scalable and future-proof IT platform to leverage value of data and drive efficiency

Overview of your long term Digital Vision Finance (Source: Airbus Finance Transformation Initiative working document)

Objectives

- Leverage the value of data manage cross-departmental use of financial and non-financial data
- Capability of reactionary scenarios enable planning and simulation landscapes
- Support flexibility in addition to defined default reports, facilitate dynamic and adhoc / self-service reporting
- Improve effectiveness automate, harmonize and standardize
- Assurance of financial standards in the corporation e.g. Masterdata, Shared Services, Compliance, Processes, Data Security
- Exploit and enhance powerful Bases (IFCT/IFRP)



Your Digital Vision for Finance aims at implementing a scalable and future-proof IT platform to leverage value of data and drive efficiency

Guidelines and questions for the new architecture

Exchange of Data

- · Combining F with Non-F data
- Controlled Import / Export

Useability / self service capabilities

- Data Catalog
- Data Processing abilities
- Accessibility
- Entry point = Fiori Launchpad?

Single Source of Truth & Design Guidelines

- IFRP (BW on HANA) shall stay as the single source of truth for Finance data!
- Avoid unnecessary replication
- Assure data access (by data domain + content)

Integration

- With SAP + Non-SAP
- Keep realtime integration with S/4 + Hana
- Cloud + on premise, Bring your own Data
- All data temperatures (green / amber / red)
- Security @Airbus is painfull + slow
- Data Streaming?

Technical Roadmap

- SAC will only deliver innovations for BW 4/H
- BWonHana will be replaced by BW 4/H
- · Conflict with Analysis for Office

Other points to consider

- · Cloud everywhere vs Security needs
- Licence lock-in for Cloud solutions

Role of Airbus AI team

- Currently not well integrated -> what is the future roles / responsibilities
- How much AI/ML capabilities does Finance need in this architecture?
- Python-heavy -> can the AI team write requirements for Finance architecture?

Integration with MDM initiative

 A tight integration with ongoing master data management initiatives is necessary, as these can have tool and architecture implications

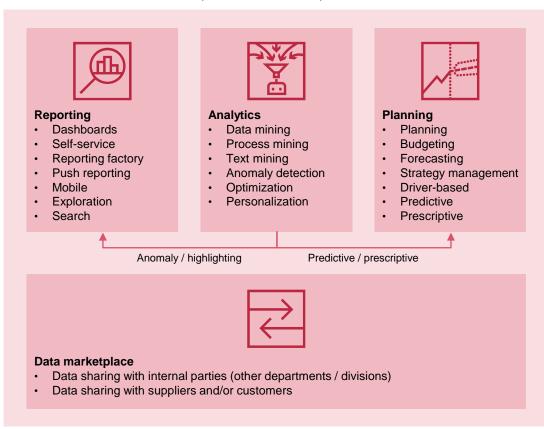


PwC reference model: A modern digital Finance architecture enables digital use cases and is influenced by global megatrends

A modern digital architecture enables the use cases Reporting, Analytics, Planning, and Sharing

Use cases

Based on Finance and business partner business requirements



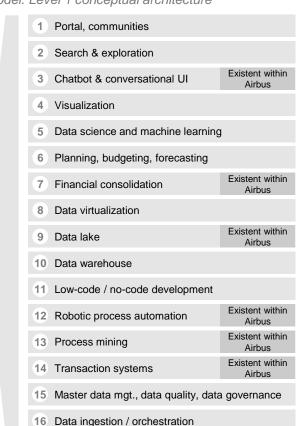
Use cases enabled by digital architecture components and governance processes

PwC reference model: Level 1 conceptual architecture





Planning





BI and data governance

Airbus Digital Vision – Digital Finance Architecture Design

30.08.2021

PwC reference model: A modern digital Finance architecture enables digital use cases and is influenced by global megatrends

Proper governance of BI and data is crucial to successfully use a modern digital architecture

Use cases enabled by digital architecture components and governance processes

PwC reference model: Level 1 conceptual architecture

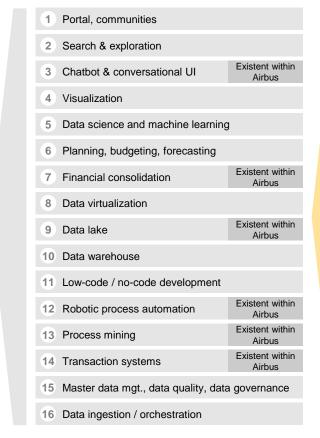




Analytics









BI and data governance

BI and data governance

Making it work



Roles and responsibilities





Data catalogue and



aster data





A proper governance structure will ensure that the BI team, self-service users and data scientists have a **single contact in each data domain**, instead of getting lost in political conflicts. Cross-department Data Owners ensure that **data is made fit for your use cases**.

Data governance is closely related to cyber security. The BI team and self-service users need the right access to data. Data scientists need access to data to build and implement AI models, but **business value needs to be balanced with legal and compliance risks**.

The use of data by organizations is subject to a growing set of regulations and legislation, for example on data privacy, sanctions and export controls, the supply chain, and environmental, social and governance aspects. It is therefore crucial to **continuously monitor compliance** to these standards.

To select the best data for a self-service report or an Al model, users and data scientists need to know what data sources exist and how data flows between systems. A data catalogue and data lineage tools will **help people avoid spending their time searching**.

Many BI and data projects fail because master data are not as good as expected. A master data management (MDM) program defines operational processes to improve master data quality on a daily basis.

Only if your data is of good quality, your reports tell the truth and your Al algorithms will perform well. Data quality (DQ) **defines what "good" looks like**, and implements **continuous DQ monitoring.**

With the growth of self-service reporting and citizen-led data science, it becomes harder to ensure that all reports and visualizations confirm with enterprise standards. A **centralized curation of self-service reports, and development and delivery standards** avoid the sprawl of user-generated content.

PwC reference model: A modern digital Finance architecture enables digital use cases and is influenced by global megatrends

Depending on your use cases, different organizational models for your teams make sense

Digital architecture

PwC reference model: Level 1 conceptual architecture







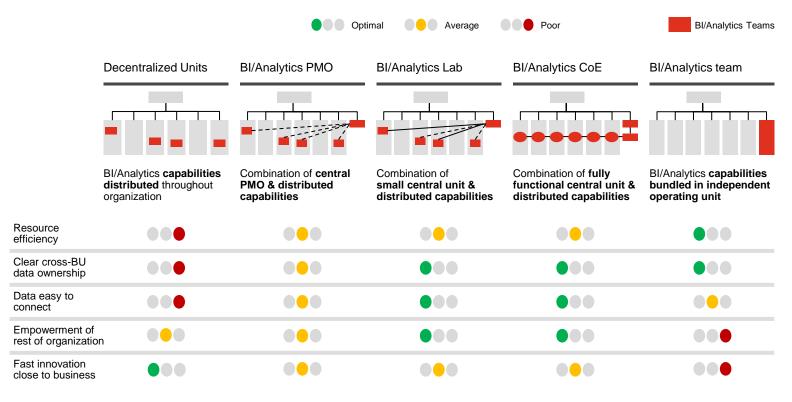


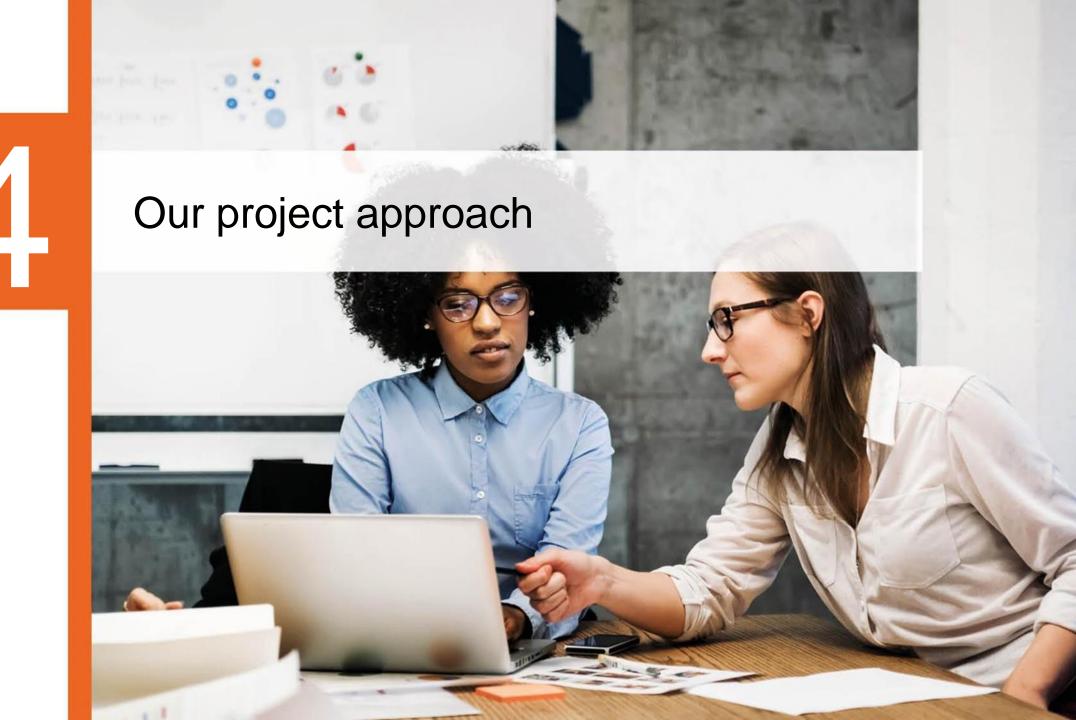


Different organisational models which enable reporting, analytics and data sharing

From decentralized unites to a separate BI/Analytics team

Depending on the desired use cases and the selected digital architecture components and governance processes, we recommend to choose different organisational setups for your BI and Analytics teams:





You can trust our proven project approach to deliver your future Airbus Digital Finance Architecture and roadmap

Our project approach at a glance

Project phase A

First set of deliverables

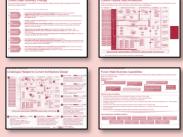
Project phase B

Second set of deliverables

Interviews with Airbus stakeholders

Review of existing documentation / architecture / roadmaps

A) Current state, business requirements, recommended organizational structure



Architecture guiding principles

Airbus Digital Finance

Technical discussion of new architecture and roadmap

PwC reference model, market / technology know-how and best practices (SAP and other vendors) B) Future state architecture and roadmap



We propose to build and approve the new architecture within 3 months starting from the week of 9 September

Proposed project plan

Based on past data, BI and analytics architecture projects, we propose 2 project phases:

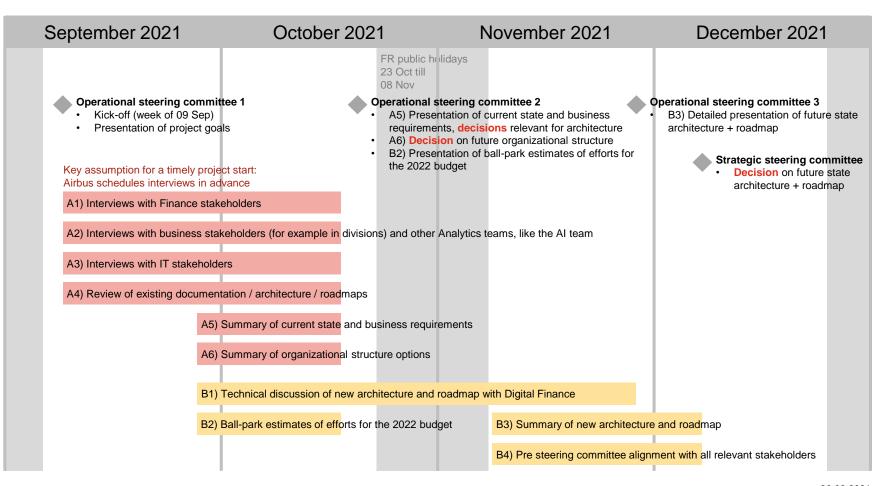
A) Current state and business requirements, recommended organizational structure

We propose to start the project with brief interviews with senior business and IT stakeholders and a review of existing documents. At the end of this phase, we present the current state and business requirements to the steering committee. The steering committee also needs to decide on the future organizational structure for reporting and analytics activities, as this has a major impact on the technical architecture (for example self-service vs. reporting factory).

B) Future state architecture and roadmap

We propose to present high-level cost estimates of the new architecture for 2022 to the steering committee by mid October. This way, the budget for 2022 can still reflect these efforts.

After our technical discussions for the new architecture and roadmap, we propose to get both approved by a strategic steering committee with CFO attendance.



30.08.2021 PwC 13

We propose to build and approve the new architecture within 3 months, based on business stakeholder requirements and IT guardrails

Proposed project plan (selected details)

You can expect the following exemplary content in our interviews and discussions:

A) Current state and business requirements, recommended organizational structure

A1) Interviews with Finance stakeholders

We estimate ~10 interviews (1h each)

A2) Interviews with business stakeholders (for example in divisions) and other Analytics teams, like the AI team

We estimate ~10 interviews (1h each)

Exemplary topics for interviews 2a and 2b:

- · Current business strategy and developments
- Business requirements / use cases regarding Finance analytics
- What is self-service analytics needed for? By which stakeholders within Finance and outside?
- How much AI/ML capacity does Finance need? What is the role of the AI team?
- · Which non-Finance data should be rooted through the new Finance infrastructure, which not?
- Issues with current infrastructure

A3) Interviews with IT stakeholders

We estimate ~5 interviews (1h each)

Exemplary topics for interviews 2c:

- IT Security red lines
- Which data can move to the cloud
- Airbus environment on authentication, SSO, ...
- If and how it is possible and welcome to onboard new analytics vendors

A4) Review of existing documentation / architecture / roadmaps

Exemplary document requests:

- Any documented data requirements draft or final
- Existing business strategies, plans, roadmaps or current state assessments
- Key data policies, standards or frameworks i.e. data governance frameworks, approved testing policies etc.
- Architecture or system diagrams / summaries
- ERP / tooling listings and capabilities. Including data dictionaries
- Current reporting examples for target area (including KPIs) - usually spreadsheets, could be structured reports
- ToRs for and decision making forums i.e. Data Governance Board, Transformation/ Change Board

B) Future state architecture and roadmap

B1) Technical discussion of new architecture, roadmap and business case with Digital Finance

We estimate ~5 sessions to discuss and finalize (3h each)

Exemplary topics for discussions 4a:

- Where / in which layer should user roles and rights reside?
- Use of a data virtualization tool? If not, how to fulfill need for single source of truth?
- Which user groups (i.e. Citizen Data Scientists, Al Team) should have access to which layers?
- How much AI/ML capabilities does Finance need in this architecture? How will the cooperation with the AI team work in the future? What are the roles?
- · What are the business needs for a separate Finance data lake?
- Is SAP BW sufficient as stand-alone DWH?

We want to equip you with the right information to make a justified decision on the new Digital Finance Architecture

Proposed project deliverables

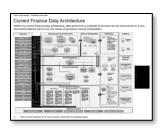
Based on past data, BI and analytics architecture projects, we propose the following project deliverables:

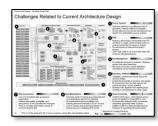
A) Current state, business requirements, recommended organizational structure

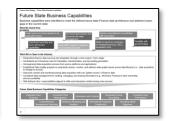
Summary presentation (by mid October)

- Current state summary findings
- Current state high-level architecture and challenges
- Future state business requirements
- Future state IT guardrails
- Recommended organizational structure (reporting factory and self-service)

Current State Summary Findings The current State Summary State State Summary State St







B) Future state architecture and roadmap

Budget outlook (by mid October)

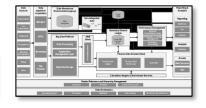
Ball-park estimates of efforts for the 2022 budget

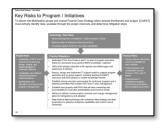
Summary presentation (by end of November)

- Future state level 1 conceptual architecture
- Future state architecture guiding principles
- Future state level 2 detailed architecture
- Roadmap key risks
- Roadmap recommended initiatives
- Roadmap sequenced roadmap
- Roadmap interim analytics architectures
- Future state Digital Finance Architecture benefits
- Next steps

















To design the new architecture, we propose a team of SMEs¹⁾ covering all relevant components, led by an overall Senior Architect

Proposed team structure

1) SME = Subject Matter Expert

Overall Senior Architect



Thomas Hampel Partner Technology selection and overall architecture

Relevant Experience

Thomas is a partner at PwC's office in Düsseldorf and responsible for the "Business Analytics" unit at PwC. As a proven digitization expert, he advises large corporations as well as medium-sized companies, particularly in the areas of digital controlling, future of finance and operational analytics. With his team, he has been implementing planning, reporting and analytics solutions for over 14 years.

Senior Expert



Michael Reh Senior Expert SAP Architecture

Relevant Experience

As Executive Vice President Business Information and Technologies at SAP, Michael was responsible for the development organization of SAP's Business Intelligence portfolio.

Technical SME pool



Andrea Bönigk Manager SME SAP DWC and SAB BW on (4) HANA

Relevant Experience

- Migration of a SAP BW 7.4 to SAP BW/4 HANA in finance sector
- New implementation of a SAP BW system for automation technology and mechanical, electrical and manufacturing industry with SAP BW on HANA

Expertise

- SAP BW on HANA / SAP BW/4 HANA
- SAP Data Warehouse Cloud
- SAP HANA



Dr. Matthias Eickhoff Manager SME SAC / Advanced Analytis

Relevant Experience

- SAP Analytics Cloud: Conceptual design and implementation of SAC reporting, planning, analytical applications and data modelling
- Several projects in integrated planning with the focus on design and implementation of investment, personnel, fleet maintenance, profit and balance sheet planning

Expertise

- SAP Analytics Cloud (SAC)
- Enterprise Planning
- Advanced Analytics



Dr. Jörg Müller Senior Manager SME SAC / Advanced Analytis

Relevant Experience

- Conceptualization and implementation of integrated financial planning solution in SAC and BW 7.5
- Conceptualization and implementation of a groupwide financial planning application based on SAP BPCe and SAP BW 7.5
- Conceptualization and data flow architecture of cost center planning applic. in SAC and BW 7.5

Expertise

- SAP Analytics Cloud (SAC)
- SAP BW



Relevant Experience

- Integrated project planning: Design and implementation support of a planning and reporting solution with simulation functionalities
- Design and implementation of a tool for integrated profitability assessment, simulation and business case optimization

Expertise

- IBM Planning Analytics/TM1
- SAP HANA Database



Christian Keitel Senior Manager SME Data Strategy & Governance, Use Cases

Relevant Experience

- Data Strategy and Data Governance, including creation of data governance structure and definition of domainspecific and cross-domain analytics use cases and roadmaps
- Several integrated planning tool projects
- Several Finance DWH and reporting solution implementations

17

Expertise

- Data Strategy & Governance
- Integrated Planning
- Planning Process Design

Our close partnership with SAP provides us with superior access to developer insights that we will utilize for Airbus

PwC & SAP for Airbus



Close partnership with SAP

- PwC named a Leader in the IDC MarketScape
- PwC is SAP Platinum Partner with global footprint and multiple Awards
- PwC engages in a constant dialogue with SAP developers in the area of BTP







What is in it for you?

- Direct SAP development support for upcoming issues in our projects.
- Latest information about products and roadmaps
- Our consultants get first hand updates about new functionalities and best practices.
- Exclusive insights into the SAP roadmap

PwC & SAP

- Close Partnership with Development, Product management, Sales and C-Level
- PwC is one of the first which gets hands on new SAP Products like SAP Analytics Cloud, SAP Data Warehouse Cloud and SAP Data Intelligence
- Regular exchange about new concepts, features, tools and business case



PwC's excellent SAP contacts were a key success driver in our projects.

We had the chance to directly address our issues to the SAP development and discuss upcoming features with the SAP product management. Thus we were able to reduce project frictions and we so always had an early idea of the SAP roadmap and were further enabled to bring our needs in the product roadmap discussions"



Mario Böhme

Head of Future Finance Landscape &
Digital Transformation
Corporate Finance
Daimler AG



Our team can onboard instantly, providing full capacity as of 06.09.21 – daily rates discounted by 25% from MSA (Category C "IT services")

Availability, estimated man-days and daily rate overview till December 2021

Resources Man-days [d]	Phase A) Current state and business requirements, recommended organizational structure • 2 steering committees + preparation • 25 interviews, preparation, wrap-ups • Review of 30 documents • Summary presentation, including organizational structure options 6 Sep – mid October	Phase B) Future state architecture and roadmap • 2 steering committees + preparation • 5 comprehensive architecture discussion sessions, preparation, wrap-ups • 2022 budget estimates • Summary presentation End of September – December	Sum
Overall Architect / Partner Thomas Hampel	10	15	25
Senior Expert / Senior Manager Michael Reh	/	5	
SME Pool Senior Manager Dr. Jörg Müller Thies Smeding-Terveer Christian Keitel	20	20	45
SME Pool Manager Andrea Bönigk Dr. Matthias Eickhoff	10	10	20
Support & Documentation (Senior Consultant)	25	25	50
Sub-total	65	75	
TOTAL	140		

Fee Category Table "C" (for reference only)	EUR
Partner	3.200
Senior Manager	2.240
Manager	1.760
Senior Associate	1.320

Blended rate original	2.014
Discount	25%
Blended rate discounted	1.511
Overall fees	EUR
Overall fees Fee with MSA rates	EUR 282.000

EUR

Rates

Added value for Airbus

- Wide and deep expertise in all relevant technology stacks
- Direct access to large network, especially SAP
- Hands on practical and proven experience rather than theoretical knowledge only

Based on the strategic relevance of the project for the Finance Transformation initiative, we offer a discount of 25% compared to the MSA Category C rates.

Please note that this discount is only applicable to the project at hand.

In case of an extension, for the architecture implementation, a further discount is subject to discussion.

Airbus Digital Vision – Digital Finance Architecture Design

30.08.2021



We're looking forward to a good cooperation with you!