

Innovations in SAP Finance



Finance Management Innovations
with SAP S/4HANA Finance

Nigel Rayner, Gartner Analyst, summarized the business impact of in-memory computing (IMC) solutions in the Gartner study “IT Market Clock for Financial Management Applications”, August 26, 2014 (G00259892), as follows:

IMC enabled financial applications will leverage IMC technologies to provide significantly higher scalability than traditional relational architectures. For example, IMC will enable GL systems to process higher volumes of transactions so that data from operational systems could be posted directly to the GL. Relational ERP architectures are not scalable enough to support this “fat” GL concept, which has created reconciliation issues between financial, management and regulatory reporting. IMC will also enable more sophisticated predictive and prescriptive analytics, for example, CPM applications will be able to perform planning and profitability at much greater levels of granularity and will support more powerful optimization. IMC technology enables analytics to be performed on transaction databases in real-time. This will reduce the need to extract transaction data to a separate data mart or data warehouse to perform more complex analytics. This will significantly change the way financial management applications are used in the future, in particular eliminating the technical boundaries between core financial applications and CPM applications (particularly office-of-finance CPM). This will have a significant impact on financial processes, enabling finance to deliver business insight in real-time rather than at period end.

Innovations in SAP Finance with SAP® S/4HANA Finance

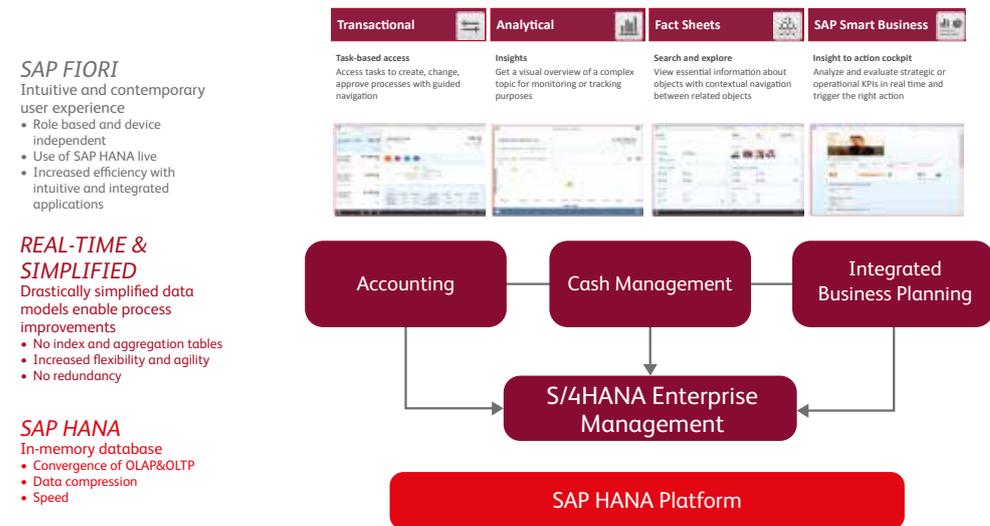
Introduction

As a result of a more globalized and connected world, ERP systems have been burdened with exponentially growing data, process integration and regulatory requirements which has led to a significant increase in complexity. The initial proposition of SAP ERP systems to provide real-time data processing has become more and more unachievable. The latest generation of ERP SAP S/4HANA Finance revisits this goal. SAP S/4HANA Finance combines in-memory technology with improvements in the areas of accounting, cash management and integrated business planning. A completely redesigned and contemporary user interface integrates all areas and simplifies user interaction (“user experience”).

The new, unified real-time data source (“Universal Journal”) which stores all finance related information is the primary reason for potential benefits. This approach can be leveraged for comprehensive business process optimizations and increased flexibility in the areas fast close & year end reporting, analytical reporting, intercompany reconciliations and integrated planning. Reconciliation between controlling and financial accounting is no longer required.

SAP S/4HANA Finance allows remarkable process related and technical changes in organizations. Being a future-proof solution, we can already recommend it for upcoming ERP implementations, process standardizations or to reduce complexity in your organization.

FIGURE 1: SOLUTION OVERVIEW



SAP HANA® Platform

The SAP HANA platform allows the same data source to be used for both operational and analytical purposes. SAP S/4HANA Finance lays a firm foundation which will cope with future entrepreneurial challenges. SAP HANA is an in-memory column based database which provides significant performance improvements and a high data compression rate when compared to traditional database technology. In some use cases SAP have reported a 1000 times performance improvement using SAP HANA when compared to legacy applications. SAP HANA features better scalability options allowing the database size and performance to grow with your organization.

For the first time, the SAP HANA platform combines OLTP (online transactional processing) and OLAP (online analytical processing). Both operative transactions and ad hoc analytical reports can be executed with high performance on a single ERP system. This reduces data volume and eliminates complex data extraction processes to Business Warehouse (BW) environments as well as simplifying IT infrastructure. SAP HANA is not only a database but a development platform where the data processing can be moved closer to the data.

A number of additional features offered by the SAP HANA technology are utilized by SAP S/4HANA Finance:

1. By removing a significant number of redundant database tables, indexes and aggregations, the new technology achieves a performance level which facilitates a simplification of the data flow within ERP. Financial information is now stored in a few new central but more comprehensive tables (“single point of truth”) which are scalable to handle large data volumes and makes the whole end to end process real-time.
2. Data processing now works directly within the SAP HANA database (“code push down”) which provides a further performance boost. Previously large amounts of data needed to be transferred to an application server which then processed the data to produce the result.
3. The new SAP HANA database technology facilitates compressing financial data to a fifth of the initial size (“data footprint”).

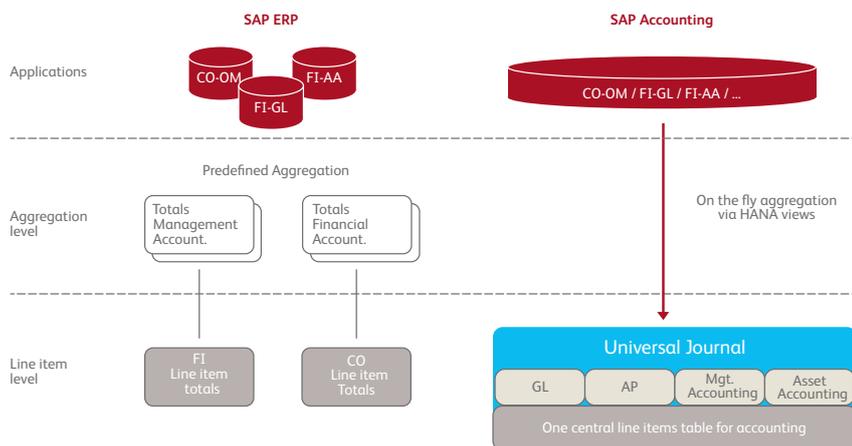
SAP S/4HANA is short for SAP Business Suite for HANA. SAP S/4HANA Finance is part of the wider business suite.

SAP S/4HANA Finance: New state of the art “Accounting”, “Cash Management” and “Integrated Business Planning”

Accounting

The most significant innovation in SAP Accounting is the removal of the varied and unequal storage locations which forced the replication of financial data on different levels of granularity. For the first time, the finance data can be brought together in one central storage with all relevant dimensions on the lowest level of granularity: the “Universal Journal”. With the unification of finance and controlling functionality within SAP S/4HANA Finance, previous redundancies and inconsistencies have been eliminated which enables new flexibility and agility for organizational and procedural expansion.

FIGURE 2: ARCHITECTURAL CHANGES WITH SAP S/4HANA FINANCE



Fast and multi-dimensional reporting is available in the transactional ERP system which could avoid complex, time consuming and error prone extractions into a Business Warehouse. Additionally, new and user friendly user interfaces and tools provide faster, more comprehensive and more flexible “out of the box” analyses.

The persistent **real-time availability** of detailed finance data improves current period visibility. A number of analyses which were previously only available during month end closing are now available during the whole of the month. The resulting independence of many closing activities from the typically tight month end closing schedule and the removal of many obsolete reconciliation activities result in a simplification and speed up of the financial closing.

The benefits of SAP Accounting powered by SAP HANA

- Improved real-time reporting due to harmonized data and new analytic tools (e.g. HANA Live)
- Eliminating the reconciliation effort and giving the possibility to shift today's time critical closing activities to a “day today business” makes the month end closing much faster
- Avoidance of inconsistent data in decentralized FI/CO systems by SAP HANA as a single point of truth
- Evaluations in asset accounting at any time in all possible depreciation areas

The benefits of SAP Cash Management powered by SAP HANA

- Multidimensional reports in real-time for the transparent presentation of liquidity, credit lines, overdrawn limits, risk and cash flow analyses, foreign currency risks and DSO analyses
- Liquidity forecasts across heterogeneous systems, taking the payment behavior of customers into account
- Group wide liquidity plan, long term and medium term liquidity plan with deviation analysis (plan actual comparison) and the possibility to implement actual data from the liquidity forecast as well as from the treasury transactions (as suggested values and default values) directly in the continuous planning
- Central bank management with approval workflow for setting up new bank accounts, and thus increased group wide transparency and governance
- Execution and approval of payments directly from the bank account management in compliance with the principle of multi assessor verification

The benefits of SAP Integrated Business Planning

- Very high planning flexibility and detailing of the data
- The planning time can be reduced by the integration of the plans. Changes in the plans are easier to handle
- Creation of a basis for simulations and for driver based planning
- Integration of the strategic, operational and financial planning
- Real-time planning in the whole organization
- Centralized overall plan and process control for the corporate controller
- Full flexibility and autonomy for the planning in the different business departments

Cash Management

The use of cash management powered by SAP HANA is particularly suitable for medium sized and large companies that want to have or develop a highly centralized cash management. This application is of particular interest for global companies that want to restructure their cash management activities and establish a central liquidity and bank management governance. The ability to perform a real-time analysis of the liquidity situation, independent of the accounting processing in SAP FI, increases the decision making ability and efficiency of treasury and cash management significantly. The harmonization of processes and the support of the central governance as well as data transparency lead to a reduction in complexity and to better financial resource allocation within the group organization.

Cash management powered by SAP HANA enables a central hub of group wide, contractual bank balances together with information from other areas e.g. treasury management, loans, remittance advices and cash in transit. A maturity matched projection of open items (including the payment behavior of customers) with a wealth of drill down opportunities, differentiated according to foreign currencies is available as a part of the liquidity forecast. A new component represents the bank account management which supports the administration of all bank accounts in the group, including fees, limits and approval workflows.

Integrated Business Planning

Integrated Business Planning for Finance offers for FP&A departments (Financial Planning & Analysis) the possibility to manage the global, regulatory and dynamic challenges with a flexible, user friendly and integrated planning tool for the whole organization.

The basis for the Integrated Business Planning part is the combination of Business Planning and Consolidation (BPC) modelling techniques on SAP HANA with the SAP S/4HANA Finance data model. The resulting solution establishes a seamless integration of the corresponding planning functions into existing SAP ERP user interface and workflows:

- Planning on different detail levels through the whole organization
- State of the art planning functions for top down and bottom up planning approaches
- Real-time access to master and transactional data for modelling and variance analysis as well as necessary aggregation of current figures in real-time
- Integration of strategic, operational and financial planning and the possibility of a continuous planning solution
- Faster plan data reporting and plan/actual variance analysis

These possibilities are mainly based on master data access and real-time data availability without any replication. The plan data is stored in the highest possible granularity in a common SAP HANA optimized Business Warehouse (BW) database. Integrated Business Planning combines the SAP S/4HANA Finance data model with the capabilities of Business Planning and Consolidation (SAP BPC) and delivers predefined planning layouts, planning functions and planning sequences e.g. for cost center, cost element, profit center, and P&L planning.

Beyond financial planning, the integrated business planning solution has the capability to also integrate operational sub plans.

SAP S/4HANA Finance Analytics & New User Experience

SAP Fiori® as central user interface

SAP Fiori and the Fiori Launchpad offer an up to date and efficient user interface, which integrates the current initial screens (similar to SAP GUI) and will replace them in the long term. Notable characteristics of SAP Fiori are:

Role-based approach

Relevant transactions are personalized for each employee e.g. recurring variables are defaulted automatically. Important information is displayed real-time.

Flexible design

SAP Fiori Apps are generally standardized across different platforms e.g. Windows, Unix, Mac OS X, Android and iOS. The screen size automatically adjusts to each device be it desktop computer, smart-phone or tablet while the content remains the same. SAP Fiori Apps have a high level of user acceptance as users seamlessly move between devices using the same app.

Simplicity

SAP Fiori Apps are easy, intuitive and consistent to use. Effort for familiarization is low. Very little or no training is necessary.

Acceptance

SAP Fiori applications are highly accepted by all kind of users, due to easy operation and the user friendly design of the modern interface.

Generally SAP Fiori Apps are based on the “1-1-3 principle”: 1 use case, 1 user, 3 screens. This concept reduces the training and familiarization effort substantially and increases an employee’s efficiency.

For the finance area, there are currently over 140 apps available, which include the advantages of this innovative solution and allow an optimal usability.

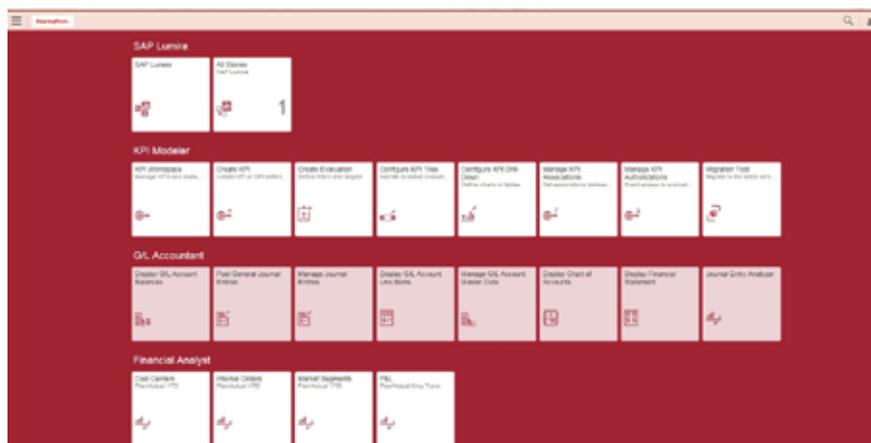
SAP Fiori Apps are categorized as:

- Transactional apps (for example: balance sheet and P&L statements)
- Fact sheets (summarized display of accounting documents)
- Analytical apps (display of real-time calculated KPI’s).

Apps delivered by SAP can typically be enhanced and adjusted to specific customer requirements. New HTML5 Fiori Apps can be created for bespoke SAP processes and reports. By applying SAP’s design principles any self-developed SAP Fiori Apps will have a standard look and feel and be easy to learn and to use.

SAP Fiori can, if requested, be integrated into existing SAP portal solutions and call classical transactions in WEBGUI or NetWeaver Business Client (NWBC).

FIGURE 3: BEARINGPOINTS’ SAP S/HANA FINANCE FIORI LAUNCHPAD



Interaction of SAP S/4HANA Finance with SAP Business Warehouse (BW)

A common question that companies have, when evaluating a SAP S/4HANA Finance implementation, is regards the potential impact upon existing Business Warehouse applications and solutions in their organization.

In fact, this impact should be considered as a part of any SAP S/4HANA Finance project due to huge potential benefits, especially in the area of operational reporting.

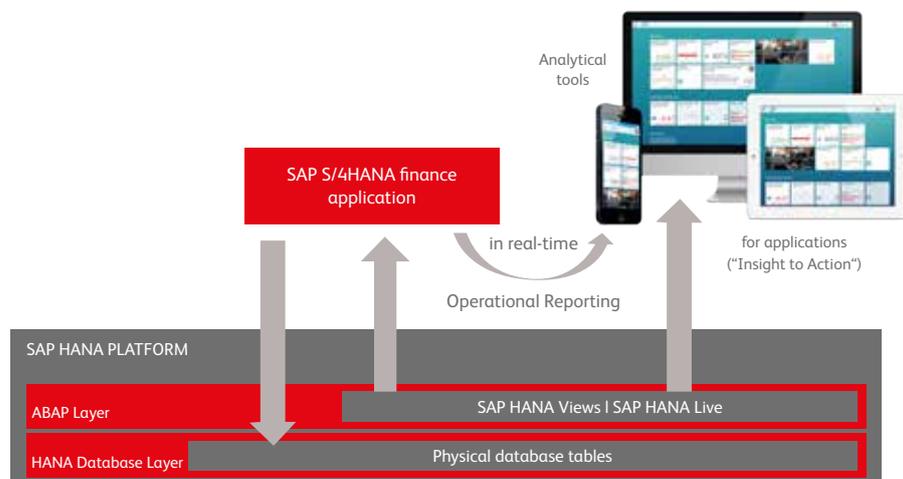
OLAP & OLTP in one system

SAP S/4HANA Finance offers new, extensive real-time analysis possibilities for operational data. The flexible reporting applies predefined, but individually customizable SAP HANA Views. Optionally, an “embedded” SAP Business Warehouse (BW), integrated in a SAP S/4HANA Finance system, can be utilized for plan data entry and integrated business planning.

Large reduction of ETL (extract, transform and load) processes

The fast and easy modeling and reports / analytics application of operational data can be achieved using virtual data models, so-called **HANA Live Views**, in real-time and “on the fly”. Data transformation and loading processes to business warehouses can be dropped completely.

FIGURE 4: SIMPLIFIED REAL-TIME ANALYSES WITH SAP S/4HANA FINANCE



As a result, a synthesis of flexible modeling possibilities and performance advantages of SAP HANA together with the well established SAP Business Warehouse (BW) functionalities is available as an integral part of an operating SAP ERP landscape.

SAP BW is still the preferred solution for an overarching reporting solution with large data transformation and archiving of data

The usage of SAP BW can still happen in a classical way with a separate application. The cross system integration and harmonization of a consistent SAP HANA platform ensures an efficient data governance. This is particularly useful for companies, which want to harmonize many different data sources in a centralized solution with complex transformation processes along with storage of historical data for a longer period.

Your migration to SAP S/4HANA Finance

For companies with an existing, productive SAP ERP Finance system, the essential component “SAP Accounting powered by SAP HANA” requires preliminary migration steps to be conducted using the implementation guide. This migration is only one part of the complete SAP S/4HANA Finance project, due to the framework conditions described below, some additional issues may need to be considered.

In general, from any initial situation, whether new general ledger (GL) or classic SAP FI, new or classic asset management, SAP HANA DB or anyDB, a migration to SAP S/4HANA Finance is possible.

As an example the new asset management and the new GL is always activated after a successful migration. An activated new general ledger only forces the usage of its new data model, it is not obligatory to use new GL functionalities like document split or multiple ledgers to allow handling of several accounting principles. In fact, it is not recommended to implement these new GL functionalities simultaneously with a SAP S/4HANA Finance upgrade project.

The most suitable conversion scenario, depends not only upon the initial situation, but also upon the target system requirements. Potential analysis and first customer projects show, that special initial situations (e.g. complex posting logic in the classic SAP FI using “additional account” solution for parallel valuation) may also lead to special data consistency requirements before and during the migration.

How BearingPoint can help your business

BearingPoint has intensively dealt with functional and technological migration scenarios as well as strategic and operational possibilities of SAP S/4HANA Finance. We have an SAP S/4HANA Finance demo system which we can use together with you to evaluate the functionalities and performance in an environment which fits your needs.

Based on our experience of many finance transformation projects in a SAP context, we have developed a holistic “SAP S/4HANA Finance Toolbox”, which provides predetermined solutions for the majority of your questions and specific scenarios through all project phases, from the preparation of the strategic decision, up to the successful implementation.

From BearingPoint’s point of view the current position of SAP S/4HANA Finance is as follows:

- SAP S/4HANA Finance is the first delivery of SAP that fully implements the SAP HANA in-memory technology to improve and simplify processes and to increase efficiency
- Functionally speaking, this technology is a quantum leap allowing new and previously difficult or impossible analysis of large amounts of data together with rapid response times and modern, intuitive user interfaces
- A stronger integration of operational and financial business processes and the underlying planning can be implemented using an integrated operational business planning, which enables simulation capabilities based on real-time information
- New, real data based analyses, such as working capital management and liquidity planning, offer new opportunities to optimize the financial resource allocation and the financial disposition within the group in a sustainable way

We recommend that our customers address the challenges and opportunities presented by SAP S/4HANA Finance now. Upgrading to SAP S/4HANA Finance should be prioritised in every companies road map for their SAP ERP landscapes. SAP S/4HANA Finance facilitates a digital transformation of finance systems into

a “post-modern” IT architecture, which covers the requirements of business models moving towards digitalization. Companies adopting SAP S/4HANA Finance will be able to be more reactive to business challenges in a world with ever increasing uncertainty. We assume that, in the medium term, all existing SAP ERP components, but also further existing solutions for Customer and Supplier relationship Management will be integrated into this new generation of ERP software, either in an “on premise” or in a cloud environment.

This opens new and extended opportunities for an approach to corporate management that is revolutionary in significant parts. This is especially true for companies that dealt already with changing their ERP system landscape. SAP S/4HANA Finance is a forward looking solution that needs to be kept in mind.

Especially companies with a growing, heterogeneous and complex system landscape, who deal with a comprehensive system harmonization based on ERP templates, should certainly consider the option of SAP S/4HANA Finance. Even for companies that have already aggregated information from their legacy systems into a general ledger (e.g. banks and insurance companies), the new SAP solutions provide the performance to manage a general ledger with detailed information from the legacy systems for the first time. This also has the advantage that mistakes by the aggregation in the interface are minimized, which makes the information in a finance system more transparent and reliable.

Additionally, BearingPoint has developed specific and practical use cases for different areas, which we would be happy to discuss or enhance together with you:



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About BearingPoint

BearingPoint consultants understand that the world of business changes constantly and that the resulting complexities demand intelligent and adaptive solutions. Our clients, whether in commercial or financial industries or in government, experience real results when they work with us. We combine industry, operational and technology skills with relevant proprietary and other assets in order to tailor solutions for each client's individual challenges. This adaptive approach is at the heart of our culture and has led to long-standing relationships with many of the world's leading companies and organizations. Our global consulting network of more than 10,000 people serves clients in over 75 countries and engages with them for measurable results and long-lasting success.

For more information, please visit: www.bearingpoint.com

