**SAP Transformation Questions for Moving to S/4 and IBP**

*Considerations for IBP Roadmap Development Based on Migration Strategy for S/4.*

**Matt Campbell, Founding Principal SCMO2**

Over the past several years, I have participated in many strategic roadmap engagements to help our customers determine how to make improvements to their supply chain business processes, organizational structure, and system landscapes including plans to get up to date with SAP’s latest products before the looming 2025 deadline when SAP support expires for Business Suite products (including ERP/ECC, SCM/APO, CRM, PLM and SRM). Each customer has different priorities and business challenges, but there are some re-occurring questions that come up in these assessments that I would like to address:

* Do we need S/4 to implement IBP?
* If we implement IBP before S/4, how much of the IBP solution will need to be re-done when S/4 replaces ECC?
* Which modules of IBP make sense to do before an S/4 conversion

Let’s start by getting the easy question out of the way. IBP can integrate to any system including any of the SAP on-premise ERP solutions (ECC and S/4 on HANA) or cloud-based SAP ERP solutions (including S/4 private and public cloud), or any non-SAP ERP system. IBP is only offered as a hosted cloud solution, and data is integrated into IBP via SAP Cloud Platform Data Services (SCP-DS) which has the ability to pull data from flat file templates into IBP, so as long as you can access the required data from your ERP system and get it in the required format, you have the ability to build integration and automate the data loads in and out of IBP. There is automation and “pre-configured” integration from ECC and S/4 to IBP, so this will speed up your project when compared to the time it will take to build an automated data integration solution where IBP is interfaced with a non-SAP ERP landscape. When comparing the integration effort for an IBP project having ECC versus S/4, the answer of which effort is greater depends on the IBP modules you are implementing. For the timeseries models in IBP (S&OP, Demand, Inventory and Supply), an argument can be made that the standard interfaces are further along for ECC integration when compared with S/4 (as of January 2019). The S/4 integration to IBP is still a work in progress, and this will get better over time, but customers are often required to develop a large portion of their own integration in SCP-DS. For order-based IBP modules (IBP-response), there is more to consider since near real-time integration is required and SAP has developed Smart Data Integration (SDI) to standardly integrate data between S/4 and ECC with IBP.

To summarize, you do not require S/4 to implement IBP, and in many scenarios, IBP may be quicker to implement when interfaced with ECC compared to S/4.

The next question I will address is about the throw-away work required if you start with an implementation of IBP integrated to ECC, and then eventually migrate to S/4. This scenario is common because many customers are not ready to move to S/4 immediately, yet they have supply chain planning improvements that are high priority and can drive significant value if solved in the near term. Also, very few customers have the organization in place or risk-tolerance required to embark on a big bang implementation that includes both a migration to S/4 and IBP at the same time, which means we almost always end up with an implementation roadmap strategy that breaks the journey into multiple phases which provides value along the timeline, but also results in some level of re-work and throw-away effort. We try to quantify the throw-away to customers weighing implementation roadmap options and agree the best path that meets their business objectives.

If you do decide to move forward with an IBP implementation integrated with ECC, and then you move to S/4 later, the biggest rework item will be remapping the master and transactional data sources, but very little should change with the functional design in IBP. The exception to this is if you perform a greenfield S/4 implementation, with drastic business process and data model changes, which may require more re-design to your IBP solution. For instance, if you change your product hierarchies that are also used for planning, or switch to the S/4 business partner design for vendors and customers that are modeled in IBP, some additional rework to IBP may be required. A benefit of moving to S/4 later is that the standard S/4 to IBP integration will be further developed with each release, so it will become even more plug and play, decreasing the re-work effort when your S/4 migration project embarks.

The final questions that almost always comes up in an IBP roadmap assessment, is which modules make the most sense to implement prior to moving to S/4?

This does depend on business priorities, but more often than not, any of the timeseries modules can be easily implemented and provide value. IBP Demand has relatively few integration points and can easily be integrated with any ERP system since the output of the process is usually only a consensus forecast that can be sent to any ERP system as the input to supply planning and MRP. IBP demand can help drive forecast accuracy improvements which will be beneficial for follow on processes including inventory optimization and S&OP.

IBP S&OP can also be implemented stand-alone in IBP or alongside IBP-Demand and/or IBP-Inventory to provide significant value. Building the data model required for IBP- SOP also is valuable as it can be leveraged by any of the other time series modules of IBP that can be added in parallel or at a later date with little incremental data integration workload. IBP-SOP requires many of the same inputs as IBP Demand, but additionally requires BOMs, routing/recipes, critical work centers, sourcing rules and other supply master data required to develop a rough-cut capacity plan. In most cases, the S&OP process in IBP is used to perform what-if analysis, and validate mid- to long-term supply planning based on various demand planning scenarios. Much of the evaluation and analysis occurs in the IBP-SOP module, but the output of the S&OP planning process is often only a constrained demand plan that is released to an ERP system, and manual updates to master data that are updated in the source ERP solution. As a result, the outbound integration requirements are minimal and the value to the business can be very significant depending on the current state S&OP capabilities.

IBP Inventory can also be implemented stand alone or alongside IBP-Demand and/or S&OP. The business value from inventory optimization is often drastic in the form of working capital savings and increased customer service levels. The benefit of implementing IBP Inventory in parallel or after IBP-Demand and SOP is the shared data design as stated above. The output of IBP-Inventory is a safety stock value per product-location released into ECC or an external ERP system which can be recalculated as frequently as desired, but this architecture does diminish some of the value that the IBP inventory module can provide when compared with IBP-Inventory paired with a supply planning tool that uses time phased safety stock. When integrated with IBP SOP, IBP-R&S, APO SNP (excluding CTM) or PP/DS, IBP inventory can provide a time series safety stock which takes into account variability in future demand, including seasonality, which provides additional insight about future projected inventory requirements and capital requirements including warehouse and transportation capacity. Regardless, IBP-Inventory requires more tuning and change management to get users to understand and accept planning results, so getting the data model working even when integrating with ECC provides a great stepping stone and can drive significant value compared to using static safety stock and days of coverage models that most businesses utilize today. One other consideration about the sequence of implementation for IBP, forecast accuracy improvements drive inventory savings in a 2 to 1 proportion, so focusing on improving forecast accuracy may be a best first step to drive inventory savings.

IBP Control Tower can be added alongside any of the modules mentioned above to drive value by providing pre-configured KPIs, alerts and the ability to build custom alerts. There is also case management functionality that can be used across modules and this is only available if the Control Tower license is purchased.

There are some use cases with order-based functionality available in IBP-R&S that may be able to drive value immediately when integrated with ECC, including the response order re-confirmation functionality. Also, if your timeline for moving to S/4 is far in the future, you may find enough value to outweigh the additional re-work that will be required with rebuilding the order integration to S/4, and more importantly, the process redesign required when the supply planning process is changed when S/4 is added.

Hopefully this helps you think through some of the decision points in developing an IBP migration path for your business. Our strategic roadmap assessment services can help you develop a plan tailored for your business including business case justification. Don’t hesitate to reach out to me if you have questions!