



**PLANNING & SOURCING REPORT:**

# SAP makes sustainability a question of planning





## EXECUTIVE INTERVIEW

# SAP makes sustainability a question of planning

SAP's Integrated Business Planning software solution is helping businesses make sustainability part of the fabric of their enterprise-wide operations

The age-old adage, 'Fail to plan, plan to fail' has never been more true for those in charge of today's disruption-hit and unpredictable supply chains. In truth, an agile approach to supply chain planning has always been a prerequisite for any efficient and cost-effective supply chain. It's just that in today's pandemic-shaped world the density of disruptions to both demand and supply - and the structural integrity of global supply chains - rapidly evolved and accelerated the adoption of digital technologies.

One man who knows better than most just how far the planning needs of businesses have evolved is David Vallejo, SAP's Global Head of Digital Business Planning Vice President.

Vallejo runs solution management for digital business planning at SAP, whose Integrated Business Planning software solution is a market leader in this area.



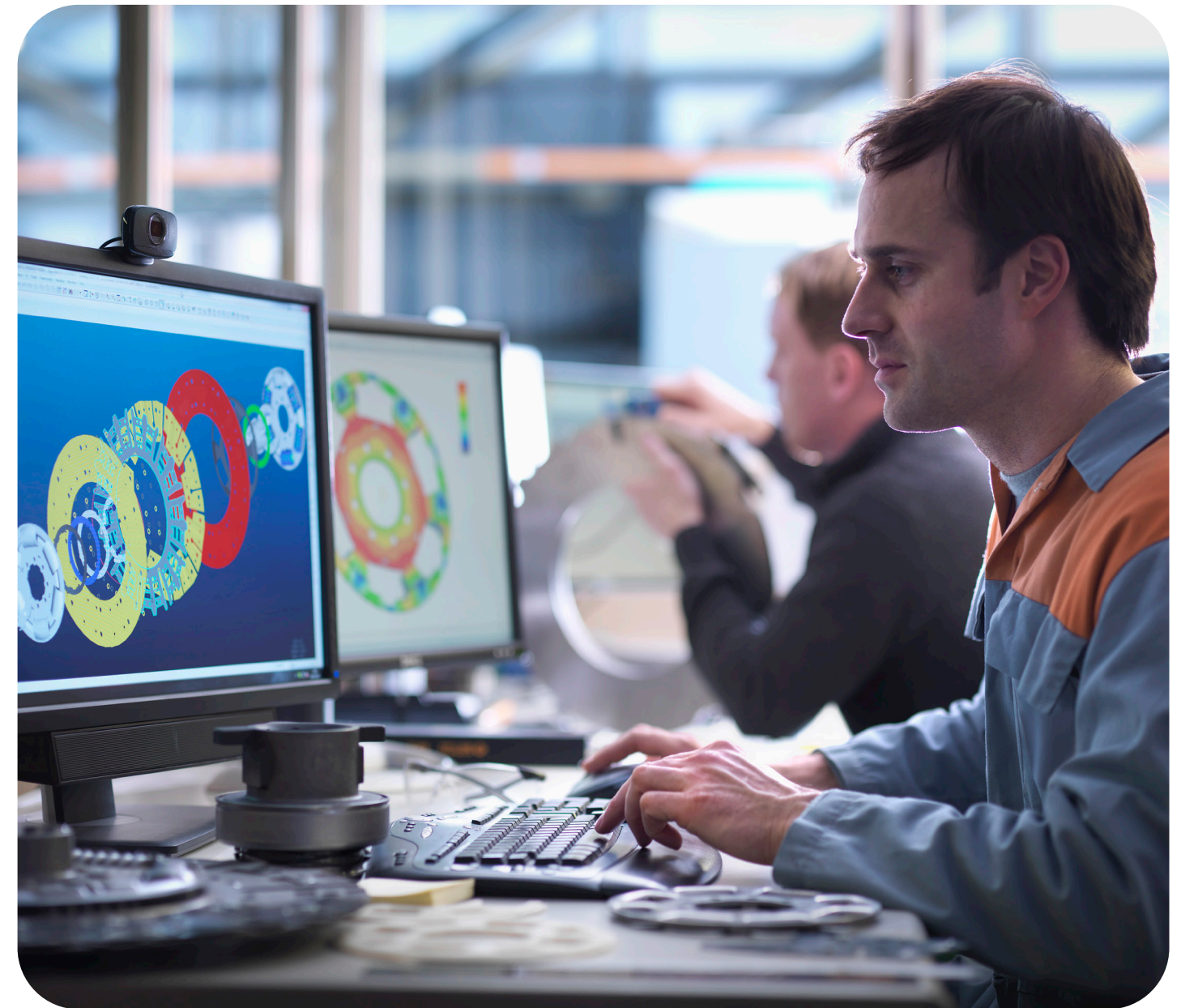
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DAVID  
VALLEJO

"I've been in supply chain planning all of my career," says Vallejo. "The reason I moved to SAP was I saw the exciting work it was doing in moving supply chain planning into the cloud."

Sustainability is a key area that Vallejo and his team are helping businesses plan around - particularly in terms of how to balance sources of supply. With 80% of a company's carbon footprint being Scope 3 emissions from its supply chain, this is a vital area.

"Sustainability starts with product design, and this then feeds into the manufacturing and logistics processes. Planning is the intelligent brain that holds these areas together to attain the desired business outcomes," says Vallejo.

"Have you designed a product that contains elements or components that are bad for the environment, or have you set it up to be recyclable,



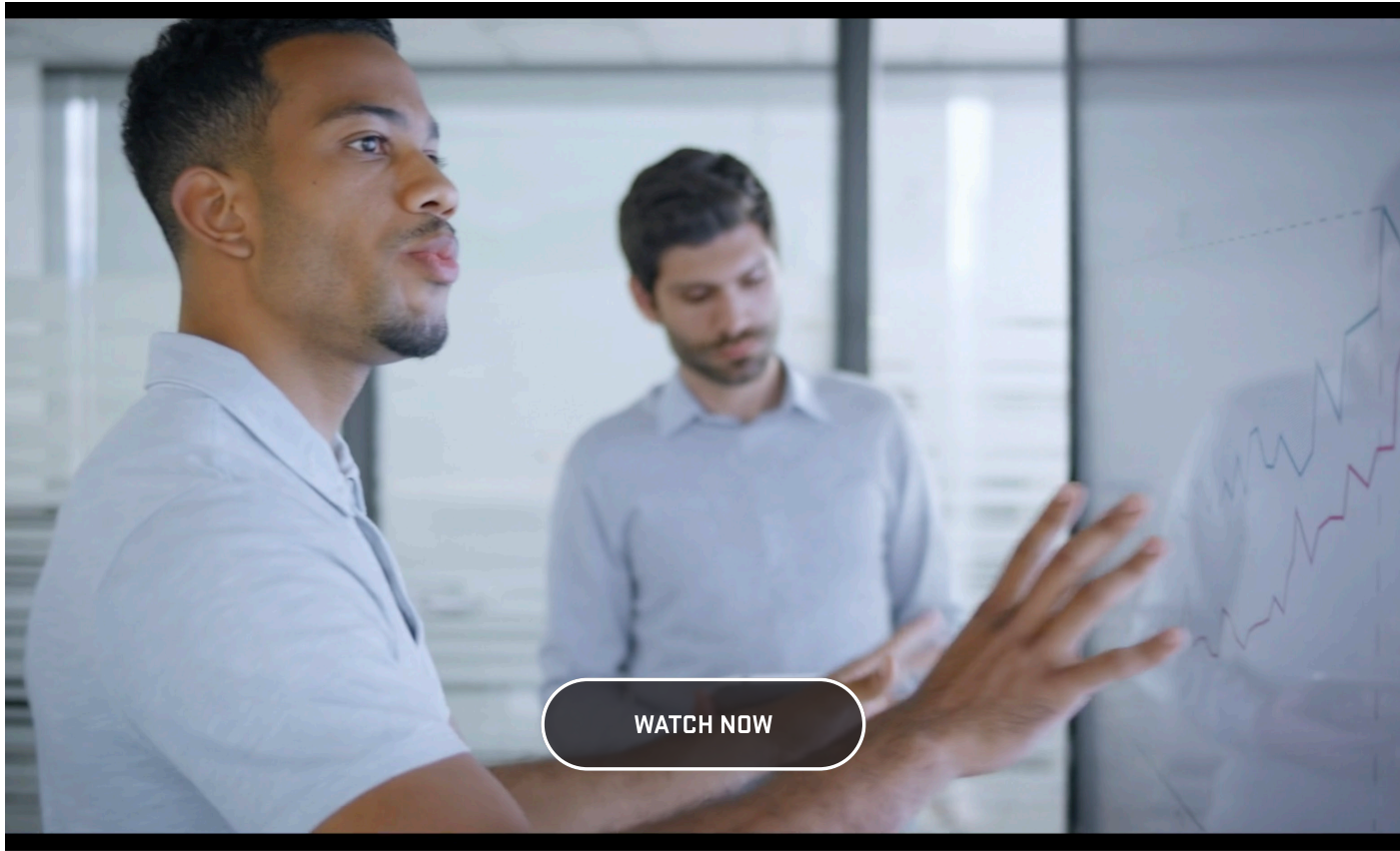
*"Sustainability starts with product design, and this then feeds into the manufacturing and logistics processes"*

to support the circular economy? This is a key question when planning new product launches for example."

## PLANNING COMES INTO ITS OWN WHEN FACED WITH TOUGH CHOICES

"It's a question that feeds into others," says Vallejo - such as whether a company is transporting lots of raw materials from around the globe. "The strength of sustainability planning comes into its own when there are marked alternatives."





“Do you use suppliers in China for raw materials, or local suppliers, for example?” he asks. “There will be a price difference for sure, but also a huge sustainability difference, because one will probably involve air transport. Planning can help with making sustainability decisions like this.”

Sustainability measures are sometimes cast as being bad for the



bottom line, but Vallejo says that being green and making money “often times actually go hand in hand”.

He adds: “For example, I’ve worked with a customer whose supply chain was set up with what’s called international direct ship. They were manufacturing electronic devices in China and packaging them ready for air shipment to the US market.

“The business benefit of this is a two-day lead time from production to arriving in the US. The disadvantage is the huge environmental footprint of air versus sea transport.”

Vallejo says that in situations like this, business planning helps balance transportation volumes with customer service and availability.

“We helped this company balance profitability, sustainability, and customer

service simultaneously. We helped them find a sweet spot whereby a certain volume goes by sea and a certain volume by air. It was a happy medium that allowed it to meet all of its goals.”

The end result was that a lot more volumes could be shipped by sea which saves thousands of tons in CO2 emissions.

**HOW DOES SAP HELP BUSINESSES WITH EMISSIONS?**

Vallejo says that SAP business planning solutions help with emissions by encouraging companies to begin tracking data.

“You can’t control anything you don’t track,” he says. “Everything in the supply chain is measurable and can be added into the planning environment. We encourage companies to think of tracking as being like a currency. You take all aspects of supply - transport, manufacturing, supplier footprint - and you track it all. When you onboard a supplier it shouldn’t be just about product quality and price. There should also be sustainability questions included in supplier questionnaires.”

He reminds us that this is not just for tier 1 suppliers, either - but also tier 2 and 3: “Who supplies your suppliers? This is where the technology is evolving, so that it can propagate information downstream in the supply chain, and create standard ways and best practices to onboard suppliers with a view to delivering more-sustainable output.”

Having a sustainability dimension to data is something SAP takes very seriously. “This is exactly why we believe such data should be treated just like a

**DAVID VALLEJO**



TITLE: **SAP’S GLOBAL HEAD OF DIGITAL BUSINESS PLANNING VICE PRESIDENT**

David Vallejo is globally responsible for solution management and go-to-market for SAP’s Digital Business Planning portfolio which includes SAP’s cloud flagship SAP Integrated Business Planning (SAP IBP). David helped many global companies define and implement their strategy around Supply Chain Planning and Execution and has been honored with the “Pros-to-Know” award in 2014 by the Supply & Demand Chain Executive Board.

David held various leadership roles within SAP, before assuming his current role also driving the successful launch of Ariba’s supply chain business network focusing on Direct Materials collaboration across the extended supply chain and driving the customer co-innovation program as product owner for SAP IBP.

Prior to joining SAP 8 years ago, David had several global leadership roles managing Customer Delivery, Solution Management and Product Management at E2open and icon-scm.



*We encourage customers to think of sustainability data as being like a currency*





### OPTIMISING INVENTORY IS KEY TO BEING SUSTAINABLE

Optimising inventory is another area in which SAP can help companies operate more sustainably. In today's world, when it comes to inventory, the past can no longer be used to predict the future.

"Inventory should be a function of how well you can predict both demand and supply," points out Vallejo. "If it's 100% predictable, in theory you can have no inventory at all. Everything can be just-in-time."

What SAP's Integrated Business Planning solution does is help customers measure volatility, and it's this that helps control spoilage and waste.

Vallejo says: "We use a scientific method to right-size inventory across the supply chain, which we call multi-echelon inventory optimisation. Companies have seen fantastic results using this technique. They've been able to reduce inventory, which not only lessens the drain on working capital but also reduces waste. This is especially important for products that can have a high carrying cost or deteriorate in value.

*"If it hits the news your supply chain is not sustainable it can have a big impact on your brand and on the consumption of your products"*

financial currency," explains Vallejo.

He adds that businesses are also coming to realise that sustainability is now mission critical, and that it can help them achieve their economic goals.

"If it hits the news that your supply chain is not operating in a sustainable way this can have a tremendous impact on your brand, and a disastrous impact on the consumption of your products," says Vallejo. "Businesses are beginning to realise there is a relationship between success and operating sustainably."

He adds: "Increasingly customers are looking for sustainable products and services. Over time it will be the norm for products to be labelled for sustainability in the same way they're labelled for ingredients. Companies that take the view that being profitable is all that matters will eventually cease to exist."

*"We use multi-echelon inventory optimisation to help businesses reduce inventory and cut waste"*

"And let's say a customer wants to change the formulation of a product. Here, they would want to know exactly how much inventory of the old product they have left before introducing the new product. Inventory optimisation can help tremendously in this way with reducing spoilage and waste in the supply chain."

Even in complex consumer-goods markets - where sales of one product might impact demand for the same company's other products - SAP can help keep inventory on track in terms of carbon footprint - to manage those phase-in/phase-out processes. And thanks to better support of artificial intelligence (AI) these processes now happen in more real-time and low-touch.

"Managing inventory for interrelated products can be a massive problem," admits Vallejo. "This is where demand planning built on AI and ML comes in. We can use this tech to look at patterns and interrelationships between not only the products themselves but between the products and other factors, such as the economy, the environment and the market. One simple example

is how the price of steel and oil impacts the portfolio mix and prices in automotive prices."

### AWARENESS THE BIGGEST BARRIER TO PROGRESS ON SUSTAINABILITY

But of course, integrating sustainability into enterprise-wide systems and processes can be hugely challenging for companies. Often the biggest problem is one of awareness.

"There is a lack of awareness of how important sustainability is as a planning discipline," reveals Vallejo. "We often see companies create offline after-the-fact sustainability reports - maybe on how they did on this front in the previous quarter.

"The biggest challenge is making them realise that their sustainability





## SAP's Integrated Business Planning software solution provides end-to-end supply chain visibility

» Today's supply chains have become difficult to manage, due to unprecedented levels of demand and supply volatility, the rise of omnichannel, an increase in geo-political uncertainty and the inability of siloed data to offer a holistic view of the supply network.

SAP Integrated Business Planning (IBP) is a cloud-based planning solution that helps businesses analyse, manage and optimise their supply chain.

It provides a single platform to analyse, predict and simulate the entire value chain to anticipate changes and respond with a resilient and sustainable action plan.

With SAP IBP, the customer is able to manage multiple end-to-end processes in real time, by combining planning functions such as sales and operations planning, demand planning, inventory management, and supply planning fully integrated into financial planning, manufacturing, logistics and the SAP Business Network for trading partners.

This cloud-based solution also allows companies to simulate the effects of customer demand on processes, in terms of capacity, cost and profitability.

It can execute planning processes through real-time supply chain management, while allowing businesses to analyse data and generate real-time predictive and prescriptive analytics.



goals must inform their decisions around supply chain planning. In logistics, an example this would mean deciding how much volume you send by boat, air, truck, rail.”

“Sustainability is an awareness hurdle, but it's not actually that difficult to incorporate into your planning. We've just released a carbon-footprint dimension across SAP Integrated Business Planning. Really now it's all about awareness and training.”

Of course, planning isn't solely about sustainability; avoiding disruption is also vital.

“To overcome disruption you need to be able to anticipate what could happen, what the impact would be and how you can be prepared to mitigate better,” says Vallejo. So for example, if you have a single-source supplier that's performing well today, what if that supplier has a problem in the future? It's the same if you use a single transportation route that's critical for you.”

To this end, he says what-if scenarios are key, because it means that before any disruption happens, there will be a response plan in place. “This is where planning can help tremendously, in terms of being prepared and, therefore, resilient,” says Vallejo.

He adds that another important resilience-boosting aspect of planning is how it helps with supply chain response management, which is about responding better when disruption actually hits.

“Remember, disruption isn't always upstream, with suppliers,” Vallejo stresses. “It can also be downstream, with changes in demand or problems with transportation. Using real-time planning, you can see what the impact of such disruption will be, and figure out alternatives. You might reroute volumes, for example, or rebalance



“I think we will see dramatic changes in the way products are designed”

inventory. All of these decisions need to happen instantly, and this is where a digital planning environment can help to synchronise decisions across finance, manufacturing, logistics and the business network in near real time.

These are today's problems, but in a forward-looking business such as SAP, experts like Vallejo always have one eye on the future. He sees big changes afoot in what it will mean for supply chains to be sustainable

“I think we will see dramatic changes in the way products are designed,” he says. “Today, when you order things online sometimes the product is way smaller than the packaging it comes in. We'll see reusable packaging that you can return for the next product to be shipped to you, for example.”

And he believes some products themselves will change drastically.

“Take detergent, such as shampoo. Up to 99% of shampoo is water, which is heavy and bulky to transport. Yet when you're in the shower, you're standing in water anyway. I believe shampoo will come in capsule form eventually. Previous generations might not have been open to such a change, but I think today's younger generations will be.”



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