

SPRINGBOARD

Sustainability, Artificial Intelligence and Machine Learning

15th -16th January 2020

Hudson Yards, NYC



Agenda

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Introduction

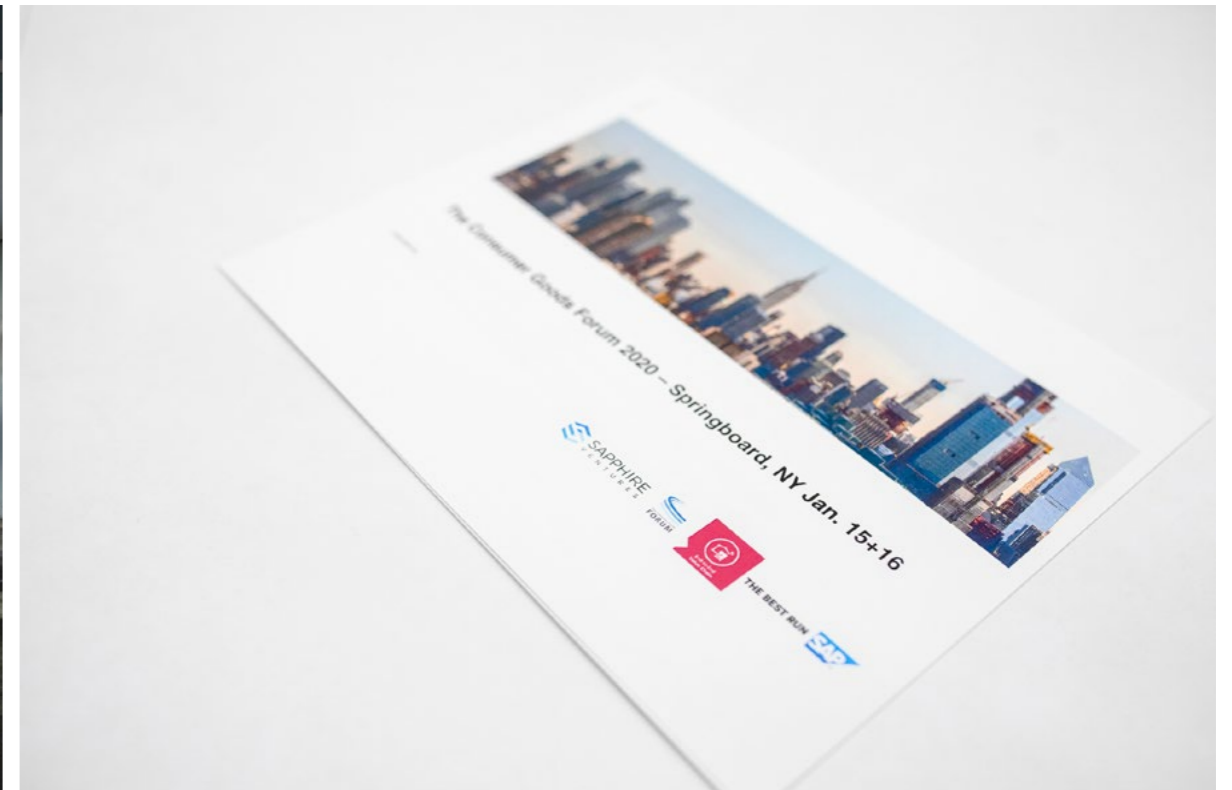
The Consumer Goods Forum's (CGF) End-to-End (E2E) Value Chain initiative hosted the first SpringBoard event of 2020 on 15th-16th January in New York City. Kindly sponsored by SAP and Sapphire Ventures, the event gathered industry experts from across the globe around the theme of Sustainability, Artificial Intelligence (AI) and Machine Learning (ML).

The two-day collaborative workshop saw thought leaders sharing their insights on topics such as data driving collaboration in the consumer goods industry, how AI and ML can change the future of consumer industries, linear optimisation for managing spot area capacities, satisfying market demand in global supply chains, and more.

In addition, participants got to hear from the innovative change-makers making up Sapphire Ventures' companies of consequence who showcased their cutting-edge ideas that benefit the industry and shape its future.

Furthermore, the ample opportunities to network with fellow industry peers allowed for the SpringBoard participants to make new connections and strengthen existing ones. The event proved to be a success in capturing the essence of E2E SpringBoards – that is, providing hands-on experience of new technologies and making them interesting and tangible.

This Executive Summary gives an overview of the event, capturing the key takeaways from the innovative presenters who shared their insights.



Data Drives Experience, Collaboration in the Consumer Industry

Speaker

Pano Papadopoulos
Global Solution Director
Retail. SAP

Pano Papadopoulos of SAP began by sharing his insights on the collaboration requirements that are mainly defined by the procurement activities from retailers. The main reasons for data sharing that he highlighted were: on shelf availability, inventory management, forecasting, category management / shopper insights, new product introduction, and personalised products.

He also shared insights on the data such as master date (store, product, program, order QTY, lead time, store safety, pricing, etc.), as well as transactional data (sales, promotional sales, store stock, store orders, DC stock, availability, etc.).

Pano went on to explain that real time collaboration is added to the traditional data exchange as the digital channels require more descriptive, real time inventory, and pricing information. Most retailers see value in sharing data, but the depth of the data shared and the value that the collaboration generates varies.

The market is very competitive, and participants are often reluctant to share too much data, making trust an ongoing challenge. While most of the consumer

industry still relies on SOAP, EDI, FTP and Excel, new API technologies are offering new opportunities for data sharing. More autonomous and increasingly automatic sharing is now possible. This can be realised without losing control of what data is been shared as well as with the simplicity of a single API to connect to. New APIs like GraphQL offer new opportunities for a new set up of data sharing.

Pano concluded by stating that SAP is open to work with one retailer and one manufacturer on a POC to test and learn based on the ideas of The CGF's Data Leapfrog initiative.

The POC should:

- Build minimal architecture of fully inter-operable data interfaces based on https
- Select a handful of data items to be exchanged for this pilot
- Define ways of how a small catalogue of data / services offered is displayed via each data interface to be chosen from
- Define a way to exchange the data

The session closed with a discussion on how to register data interfaces and how to make data interfaces visible to generic search engines.

Pano Papadopoulos
Global Solution
Director Retail
SAP



Satisfying Market Demand in Global Supply Chains

Speaker

Karl Christian Roediger

Chief Solution Expert, SAP Track and Trace Solutions, Logistics and Order Fulfilment, Digital Supply Chain. SAP SE

In his presentation, Karl Christian Roediger, took a deep dive into ways of satisfying market demand in global supply chains. Perfect order fulfilment in a supply chain is a key element to deliver on the customer experience. Customers expect a B2C style experience on perfect order fulfilment, every time. This requires shared knowledge of order and material movements across customers and the fulfilling party across the supply chain.

Many internationally operating companies with a multiple ERP backend systems landscape require shared, increasingly real-time supply chain visibility across users in different ERP systems, beyond advance shipping notifications. There is a particular need for international transportation to detect delays early and understand the impact on production schedules and customer commitments for mitigation action.

Consumer product companies and retailers have to adhere to listed product categories compliance needs when importing into the Russian Federation. This requires unique labelling of products with embedded crypto codes to be ordered, and compliant reporting.

Another trend is that logistical track and trace is augmented by the need to trace the provenance of products from raw material origin, to point of consumption, to circular economy. Material to product provenance and traceability may further serve as a basis for a sustainability footprint recording across the n-tiered material to the product value chain, serving not only consumer transparency purposes, but also informing procurement decisions.

He shared that SAP offers integrated processes and solutions for perfect order fulfilment from order commitment in “advanced available to promise”, order processing, order commissioning in warehouse management, arranging for transportation across all modes of transport, to track and trace with exception monitoring across the fulfillment network, to proof of delivery.

Furthermore, SAP complements advanced available to promise, warehouse and transportation management in SAP S/4HANA with a public cloud-based network offering. He also shared insights on the SAP Logistics Business Network with which you can perform freight collaboration and track and trace for order fulfilment across the connected and integrated network of customers, suppliers, logistics service providers, and carriers.

SAP Logistics Business Network also offers a blockchain based material traceability option that provides the ability to trace material batches across the n-tiered value chain network, from raw material

origin to point of consumption, with initial focus on farm to consumer scenarios. The solution can further propagate the notification of material batch issues immediately across the network.

Lastly, he shared that SAP Advanced track and trace for Pharmaceuticals supports industries beyond life sciences to address the compliance requirements with crypto code integration and compliant reporting to the Russian Federation’s “Honest Mark / Sign” regulation.

Karl Christian Roediger
Chief Solution Expert, SAP Track and Trace Solutions, Logistics and Order Fulfilment, Digital Supply Chain
SAP SE



Sustainability in Vogue! Who Cares?

Speakers

Carina Legl
Solution Manager – Sustainability for Retail & Fashion. Retail Industry Business Unit. SAP

Susanne-Kirsten Mueller
Director Supply Chain Innovations. Retail Industry Business Unit. SAP

Carina Legl and Susanne-Kirsten Mueller gave an insightful presentation followed by a dynamic interactive workshop on sustainability. The United Nation's Sustainable Development Goals (SDGs) also known as the Global Goals are increasingly at the heart of businesses' sustainability strategies, such as SAP's. Today, businesses cannot focus solely on the bottom line but must create value at all levels, emphasising on the inclusion of environmental protection and social progress, with more companies engaging with the global goals.

Environmental pressures, such as climate change, pollution and water scarcity, are sparking new levels of global concern, shifting consumers' values, preferences and their purchasing behaviour. Consumers care about sustainable, ethical products, relating the term "sustainability" to products that are locally sourced or eco-friendly, for example, including sustainable packaging. In response, businesses are starting to consider the idea

of purpose beyond economic profit, as recognised in the Business Roundtable that redefined the purpose of a corporation to promote 'an economy that serves all'. As more companies design products with sustainability in mind, it will become increasingly vital to understand where the greatest needs and most significant investment opportunities lie.

Recent studies suggest that as much as USD12 trillion and 380 million jobs could be generated by 2030 if the SDGs are placed at the heart of global economic and business strategies. In connecting the dots of the SDGs and the global challenges, social and environmental pressures that threaten businesses' operations would be alleviated. Understanding the connection between these pressures and the global goals can help companies set a clear path to overcome these key challenges, while discovering new business opportunities.

For example, when facing the competition for resources, circular economy is the new economic model for sustainable development, playing a key role in achieving the SDGs. In this model, nothing is wasted, everything lasts longer and is shared, reused, repaired or recycled, reducing pressure on natural resources and bringing economic and social benefits.

Thus, engaging with the SDGs is a huge business opportunity. Brands that are able to influence consumer behaviour and generate demand for sustainable products will be able to reduce costs and create new business opportunities that respect the limits of the planet.



Carina Legl
Solution Manager – Sustainability for Retail & Fashion. Retail Industry Business Unit. SAP



Susanne-Kirsten Mueller
Director Supply Chain Innovations. Retail Industry Business Unit. SAP

**Executive Dinner Hosted By
Sapphire Ventures' Companies
of Consequence**



How Will AI and ML Change the Future of Consumer Industries

Speakers

Hendrik Hilger
Chief Consultant Global Retail Services. SAP

Michael Osthof
Chief Consultant Global Retail Services. SAP

Oliver Grob
Chief Director Digital Transformation Retail. SAP

Oliver Grob, Hendrik Hilger and Michael Osthof took a deep dive into the role of Artificial Intelligence (AI) and Machine Learning (ML) in shaping consumer industries in the future. Oliver shared that AI is without doubt one of the technologies that will heavily influence software systems. There is a need to try to understand more how it really works and define how it should be used. The intelligence within is hard to define, but intelligence as we understand it from humans is still not integrated into those systems. He noted that they are mostly regulatory systems that react and control many parameters. That is where their strength lies, in controlling uncountable parameters in a way that no human could.

The intelligence would start, however, if those systems would break out of the set boundaries and rules and develop their own strategies. In our business environ-

ments, this is probably not what we want. He stated that humans should keep the overall control and guarantee a human centric / responsible AI. Other aspects are touch both the social and ethical sphere. He concluded by asking thought-provoking questions for participants to consider. What would happen if more and more jobs were replaced by machines, and companies created revenue without human workers? The social systems will lose paid taxes, so would we need to tax robots and machines? Probably yes. And what would happen if we could almost entirely replace human work by machines, where would we get our self-fulfillment?

Delving into AI in retail Hendrik and Michael explained that there are several areas where AI / ML finds its application in the retail industry. ML is often used in the context of image recognition, for example. Trained algorithms help us to detect products, shelf labels or people. This enables a variety of use cases like shelf surveillance and detecting people queuing at the checkout or a service counter. SAP together with University of Paris, DFKI and Vividworks used ML in a research project to support store staff in their daily work. On their mobile devices, the employees got information from the retail system and tasks for the detected products on the shelves. Another area where ML comes into play is to observe running processes and generate recommendations or actions for better outcomes. ML is also used in this context to optimise prices, stock outs and promotions.



Hendrik Hilger
Chief Consultant Global Retail Services. SAP



Michael Osthof
Chief Consultant Global Retail Services SAP



Oliver Grob
Chief Director Digital Transformation Retail SAP

Effective Collaboration with S/4HANA Agreement Profitability and Negotiation by gicom

Speakers

Hans Jakob Reuter

Founder and CEO,
Head of Innovation &
Product. gicom GmbH

Dr. Steffen Mock

Head of Product Management
Consumer Products. SAP

Hans Jakob Reuter and Dr. Steffen Mock showcased the purpose of the S/4HANA solution. They showed the generic process of defining a company / group strategy by simulating a set up a plan and simulating a negotiation. This involves defining a negotiation strategy, producing documentation, approving the result, settling agreements, distributing a control target achievement, adjusting or defining a new strategy, and restarting the cycle.

The participants agreed that both parties (producer and retailer / wholesaler) do this simultaneously. They set up their own strategies, but the moment they interact, each party does the same administrative work (dealing, documenting, maintaining operational system, controlling approvals, settling and controlling the invoiced amounts). They also agreed that a better integration of the processes from each party (through system interfaces or cloud services) will result in significant simplification and work reduction / automation.

The critical points were raised in the discussion:

- Initiatives already existed in the past, but the parties were not able to agree either on data to be exchanged or standards within the communication.
- Coming to generic templates for deal sheets was also a challenge. A service that could provide different templates taking into account the intentions of the contract would be highly appreciated.
- A cloud service may provide a very good simplification and standardisation of data / documents to be exchanged.
- If working on the cloud platform, how can results be carried over in the system of a participating party (by subscribing).
- Transaction data to be shared is also expected, but the participants agreed that the involved parties would not share all information, only the relevant information.

Steffen and Hans concluded by sharing a preview of current developments regarding integration AI. They described that AI can perform investigations of the current situation of a producer or a retailer to help find a company and / or negotiation strategy. Currently there is no intention to move forward to let negotiations be done and decided by AI-devices. The decision on the strategy to use is still a company decision.



Hans Jakob Reuter
CEO
gicom GmbH



Dr. Steffen Mock
Head of Product
Management
Consumer Products
SAP

Innovations in Consumer Industries, With Deep Dive on Data Intelligence for Managing Store Capacities

Speakers

Ravindra Prabhala

Global Head - Consumer Industries Product & Development, PE IC Consumer Industries. SAP SE

He went on to explain their future strategy with native cloud solutions and using the SAP Cloud Platform (SCP) as an extension to the stable Core S4 for business value and innovations. The Excise Tax solution is one such example which was built as a native cloud solution on top of SCP.

Barbara Wessela

Chief Product Owner Planning and Intelligent Retail, PE IC Consumer Industries. SAP SE

They also highlighted some of critical areas where SAP wants to work with customers to bring a modern and innovative solution to market. A use case for artificial intelligence in retail has been recently released as part of SAP Allocation Management, an add-on to the SAP Customer Activity Repository. The solution pulls data intelligence from HANA to optimise the use of free capacities in store areas when allocating promotional items. The goal is to balance between demand fulfilment of promotional items in stores, product range of coverage across stores, and fill levels of stores. As a result, smaller fast-selling stores will not be over-filled with goods, while larger slow-selling stores could carry more, depending on which goal is more important.

The session led by Ravindra Prabhala and Barbara Wessela started by exploring the SAP Consumer Industries Product Strategy with a focus on some of the important areas of investment and co innovation with customers. They shared that consumer industries are concentrating on getting the right balance of functionality vs technology into their products and are working with key customers to develop the new Replenishment Planning or Last Mile distribution solutions. They emphasised the focus on embedded intelligence, consumer experience, and importance of the omnichannel end-to-end process. Another key area of relevance was the new Store Platform Strategy which resonates well with many customers and is a key component in the overall transformational journey.

Ravindra Prabhala

Global Head - Consumer Industries Product & Development, PE IC Consumer Industries
SAP SE



Barbara Wessela
Chief Product
Owner Planning and
Intelligent Retail,
PE IC Consumer
Industries
SAP SE





The Path to Top Performing IT Operations

Speaker

Wael Altaqi

Solution Architect, OpsRamp

Shoppers today demand a vastly different experience than even five years ago. They want quick search and buying processes online, whether they are using an app or a website. They want easy returns and they do not want irrelevant or obtrusive emails and ads. They want in-store technologies to help them find items or place an order. Wael Altaqi discussed the criticality of a high-performing IT infrastructure in delivering excellent customer experiences.

Poor shopping experiences from slow websites or point-of-sale outages will quickly scare customers away, leading to high churn and revenue losses. IT has always had to keep user-facing applications and services running optimally, but despite or even because of disruptive forces like the cloud, it is harder now.

Enterprise IT operations are frequently split between internal data centres and public and / or private cloud platforms. There are dozens of storage, database, server and networking technologies which must play together across these environments. And, application density continues to grow with the convenience of subscribing to cloud applications on the fly. Unfortunately, signing up with AWS or Azure enables scale and affordability to launch campaigns and new apps, the cloud doesn't mean less work for IT.

A hidden reality is that all of these new IT systems must be monitored and managed by someone. In the past few years, there's been a dramatic increase in event data generated from apps and machines-data which IT operations teams must track and act upon when necessary to fix issues that can lead to unacceptable performance degradations such as slow response times on the customer ordering page. Meanwhile, customers expect more. In the past few years, there has been a 68% increase in customer expectations for digital apps and services. Companies that cannot manage all this data well to keep critical customer-facing systems reliably up and running are losing millions a year in revenues. For example, every minute of PoS downtime costs retailers an average of \$4,700 in lost sales and diminished productivity.

Wael talked about how modern IT organisations need a central platform to integrate performance data from all IT components and applications, and from the dozens of monitoring tools that many organisations have amassed. OpsRamp, a platform designed to manage complex, hybrid cloud infrastructures, delivers an integrated view of all resources and systems no matter where they are hosted. OpsRamp also applies machine learning technology to surface the most important alerts to the top. This helps IT organisations spend time and money where it matters most: on preventing and solving business-critical problems before customers know the difference.

Wael mentioned that in top-performing companies, the ability to proactively detect a majority of IT performance issues is a best practice. And when incidents cannot be prevented, top performers resolve them 2.6 times faster than other companies. Retailers that can effectively tackle infrastructure complexity behind-the-scenes to support winning customer experiences will have a real market advantage in 2020 and beyond.

Wael Altaqi
Solution Architect
OpsRamp



Gaining Visibility of the Networks, Apps and Services You Don't Control

Speaker

Mehdi Daoudi
CEO and Co-founder,
CatchPoint

Enterprises are investing heavily in digital technology to grow their customer base and improve employee productivity and satisfaction, thereby dramatically elevating the importance and value of user experience. Mehdi Daoudi explained that the vast majority of apps and services are Cloud and SaaS based and are delivered to customers and employees via the internet, relying on third-party services and providers. This move has created many blind spots for IT as they have lost control over apps and infrastructure.

The tools of legacy tech have not evolved with the times. Present-day tech is typically incompatible with the modern digital world – the worst part is that they are not focused on the user. Given today's enterprise reality, customers need a monitoring solution that:

- Is user-centric and has the necessary breadth and depth to accurately represent today's customer and employee diversity.
- Can provide proactive insights (cloud, SaaS).
- Does not rely on complex, agent-based and hardware-based probe telemetry for collecting data.
- Can monitor the complex modern digital delivery chain (Internet, ISPs, Wireless, Last Mile, DNS, CDN).
- Offers world-class support services, staffed by people that know what they are doing when it comes to global web-based services.

Catchpoint empowers business and IT leaders to protect and advance the experience of their customers and employees. In a digital economy, enabled by cloud, SaaS and IoT, applications and users are everywhere. Catchpoint offers the largest and most geographically distributed monitoring network in the industry – it is a DEM platform that can scale and support today's customer and employee location diversity and application distribution. It helps enterprises proactively detect, identify and validate user and application reachability, availability, performance and reliability, across an increasingly complex digital delivery chain. To-date, many industry leaders use Catchpoint's out-of-the box monitoring platform, to proactively detect, repair, and optimise customer and employee experiences.

Mehdi Daoudi
CEO and Co-founder
CatchPoint



Data-Driven Companies Grow Faster

Speaker

Andreas Glänzer
Chief Commercial Officer
and Co-Founder, Adverity

Gaining competitive advantage in the year 2020 is all about using available data to make better decisions and support business growth. Andreas Glänzer highlighted in his presentation that many organisations worldwide are struggling to collect all of their data in one place, let alone use it to their benefit. With threats to businesses coming from many sides, creating prettier pie charts in spreadsheets simply does not cut it anymore. In order to stay ahead of the competition and maintain business growth, companies need to embrace data in a different way and start making decisions based on quality information.

Moving along the value creation path, from manual data collection and processing to intelligent workflows supported by augmented analytics, requires dedication and effort, but brings a lot of benefits. Once you reach to the upper end of this value curve, you will be in a position to see ahead much clearer, and make better decisions based on real-time insights, instead of outdated,

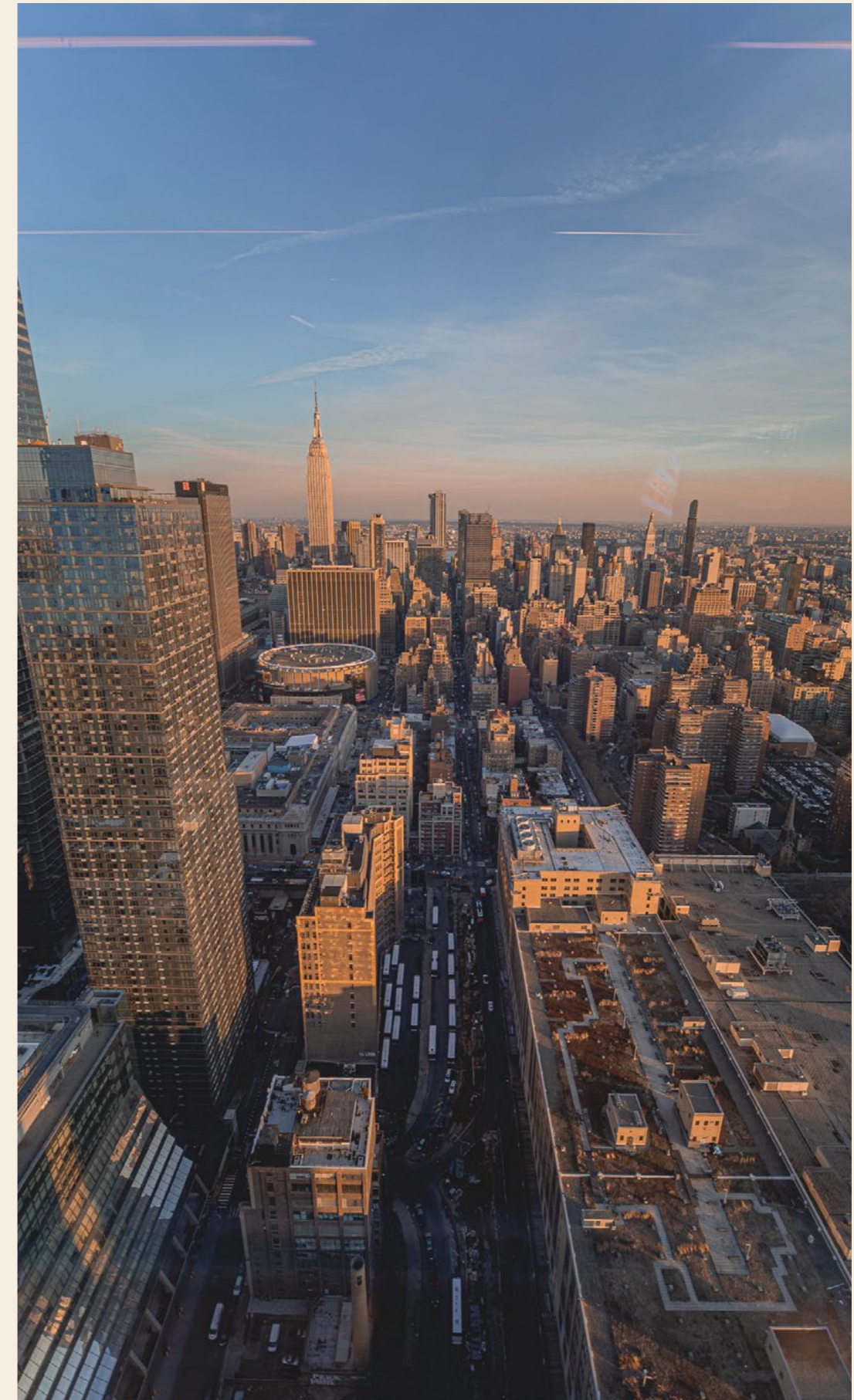
and often ugly reports. Knowing at any moment how your marketing campaigns are performing, and seeing a clear link to their contribution to business success, is one of the key benefits of using advanced analytics platforms such as Adverity. This is exactly why 32% of CMOs surveyed by Gartner see marketing analytics tools as the most important support in delivering marketing strategies in 2020.

Going a step forward is to use augmented analytics supported by artificial intelligence to identify trends and uncover opportunities. In an “always-on” era, having a tool that constantly analyses your data and serves optimisation suggestions might be just the thing you need to sleep soundly, knowing that your budgets are spent wisely, delivering a maximal return-on-investment. In a dynamic business environment, it is always good to reduce complexity and utilise tools that assist in a wide range of decisions, from daily operations to strategic directions. Having a technology partner that reports intelligently and timely on the relevant KPIs allows decision makers to stay on top of things, giving them the power to steer the company in the right direction.

Andreas Glänzer
Chief Commercial Officer
and Co-Founder,
Adverity



Thanks for everything and see you at the next SpringBoard!





About The Consumer Goods Forum

The Consumer Goods Forum (“CGF”) is a global, parity-based industry network that is driven by its members to encourage the global adoption of practices and standards that serves the consumer goods industry worldwide. It brings together the CEOs and senior management of some 400 retailers, manufacturers, service providers, and other stakeholders across 70 countries, and it reflects the diversity of the industry in geography, size, product category and format. Its member companies have combined sales of EUR 3.5 trillion and directly employ nearly 10 million people, with a further 90 million related jobs estimated along the value chain. It is governed by its Board of Directors, which comprises more than 50 manufacturer and retailer CEOs.

For more information, please visit:

www.theconsumergoodsforum.com



About SAP

As the Experience Management powered by the Intelligent Enterprise, SAP is the market leader in enterprise application software, helping companies of all sizes and in all industries run at their best. Our machine learning, Internet of Things (IoT), and advanced analytics technologies turn customers’ businesses into intelligent enterprises. SAP helps give organizations deep business insight and fosters collaboration that helps them stay ahead of their competition. Our applications and services enable more than 437,000 customers to operate profitably and adapt continuously. With a global network of customers, partners, employees, and thought leaders, SAP helps the world run better and improve people’s lives.

For more information, please visit:

www.sap.com



About Sapphire Ventures

Sapphire Ventures is a \$4+ billion enterprise focused VC firm that has invested across a wide breadth of enterprise technology trends including cybersecurity, open source, sales and marketing, machine learning, infrastructure and big data. At Sapphire, we believe in the value of strong partnerships with enterprise CIOs who hold the key to mainstream adoption of next-gen technologies, and we collaborate extensively with Fortune CXOs to help them identify emerging technology trends and winning players.

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