



Industry Summit on Data Product Oriented Architectures

September 5 and 6, 2024.

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Summit and speaker abstracts

On September 5th and 6th, 2024, JADS will host the first-ever Industry Summit on Data Product Oriented Architectures (POA). The summit aims to bring together scientists researching the state-of-the-art in POA with industry practitioners.

We introduce you to the speakers and the abstract of their contribution to this summit.

Industry Summit on Data Product Oriented Architectures

DAY 1



Piethein Strengholt – Keynote Day 1



In his keynote, Piethein will shed light on the history and current ongoings of data product-oriented architectures, from the first efforts that preceded the term “Data Mesh” to the current trends driving data management at Microsoft and its customers.

Data Contracts are slowly taking a crucial role in ASML's data landscape for ensuring trusted data access, service management, cost management, high quality data and data lifecycle management. In this keynote, Abel and Maurice present on their practical take on Data Contracts - from how they tailored the concept to ASML's needs to implementation - sharing important learnings discovered along the way.



Abel Goedegebuure & Maurice Veltman

- Data Contracts in Practice

Jeroen Jedema

- Journeys into Data Product-Oriented Architectures

In ABNAMRO data is at the heart of everything. During the last 10 years ABNAMRO went through a journey that resulted in a new data strategy and a transition from a Data Warehouse architecture towards a Data Product Oriented Architecture. This presentation will explain the importance of data for ABNAMRO, the journey ABNAMRO went through and still to come, the data strategy and its three strategic pillars, the organizational aspects of data governance, and the underpinning architecture to support it.



Zimma Kluit

- Unlock Data: KPN's Transformation Journey to Tomorrow

Prepare to dive into the thrilling start of KPN's revolutionary data transformation program. After a rigorous RfP process, we started collaborating with a partner to lead both our business and technical transformation. This journey promises to redefine how we work and harness the power of data. In this presentation, I'll take you through our strategy, the challenges we've encountered and foresee, and the first lessons we've learned along the way. Join us as we explore the future of data and discover the endless possibilities it holds for innovation and growth!



Sven van Egmond

- How we (try to) organize data at DPG Media

Over the past year DPG Media has seen a further strategy focus shift from digital transition to creating more digital value. Digital value creation starts with the consumer. A consumer who comes more often and stays with us longer and is more willing to become a subscriber and is attractive to advertisers. So we need to offer even more value to consumers.

In that journey data is fundamental and crucial in all operations. Whether it comes to providing insights, fueling our digital subscriptions, building use-cases with GenAI or serving advertisers. It all comes down to having data available at the right moment, right format and comply with regulations.

At DPG Media we think data should be easy and safe to use. Ownership, quality and value are the main goals we pursue while organizing data. Data mesh is the vision we embrace when it comes to organizing data at our large scale. Interested in how we progress implementing data mesh?



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DAY 2



Prof. Dr. Bernhard Mitschang – Keynote Day 2



Almost all businesses as well as the social areas depend on data availability in some digital form.

In order to exploit these information sources many different approaches have been installed, e.g., data bases, data lakes, data platforms, data meshes, data spaces, data catalogs, data fabrics, etc.

Recently, the concept of Data Product (DP) pops up as a kind of solution to provide the right data in the right form as requested by the interested consumer. In an abstract setting, this may work, but in reality, many questions have to be answered, and challenges have to be solved, still.

In this talk we want to give some overview and highlight some of these issues.



Stefan Driessen

- How to build a Data Product?

The definition of a data product is contentious to say the least: ask five experts what they think a data product is and you will get six definitions. In this workshop Stefan will walk you through the last four years of his work on data product design: starting from the requirements we (should) put on data products through a formal, component-based definition to the steps he currently uses to conceptualise and design data products at the TelCo company KPN.



Arthur Jansen

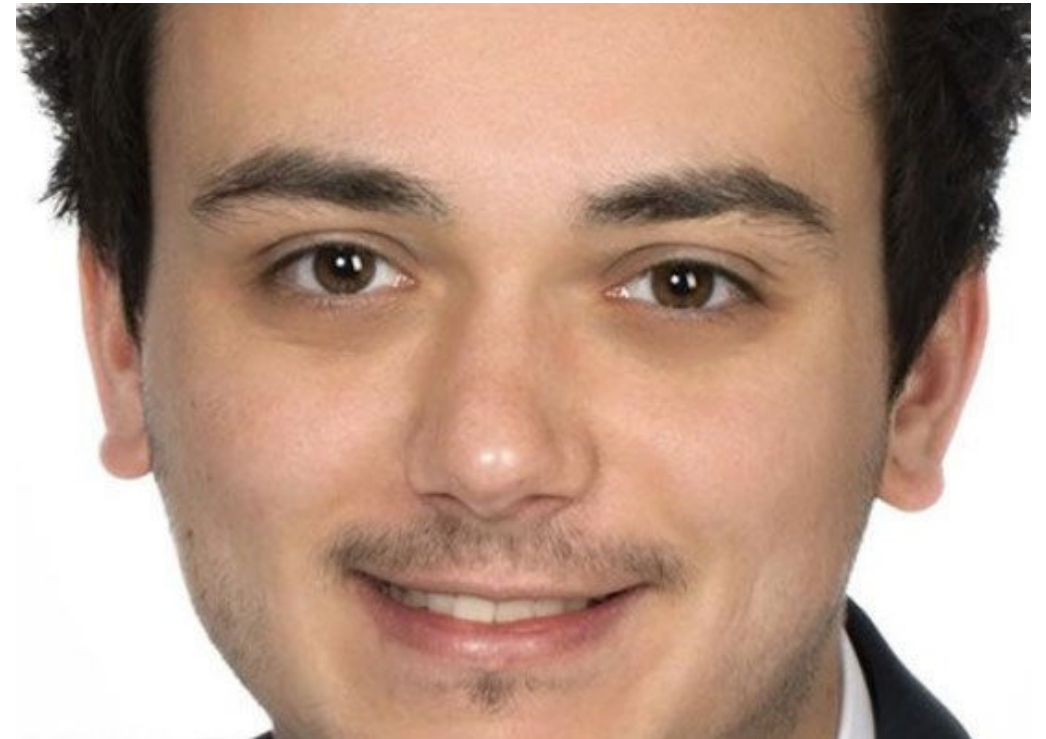
- Conceptual Models as a guiding tool for transitioning to a Data Product Oriented Architecture.

In this workshop Arthur will cover the challenge of using conceptual models at an Enterprise Level to support your data architecture. Armed with experience from his work at KPN he walks through how a conceptual model can guide the transition from a centralized to a decentralized data architecture. At the end, participants are invited to put these ideas into practice in an interactive exercise and participate in a discussion on decentral data architectures.



Manuel Fritz - Data Management.

We present the current and future characteristics of data management at ZEISS SMT, a global semiconductor equipment manufacturing company. We discuss architectural and organizational aspects of data management and unveil how we plan to use data contracts from manufacturing in recent data architectures, like data mesh or data fabric, to create data products and leverage data accessibility.





Ulrich Teufel

- Semantic Modelling: From Theory to Praxis.

Data Mesh, Data Products and Semantic Modelling are buzz words spread all over.

But what are the challenges to implement those paradigms in real life in huge companies and which phases in the transformation are necessary to make it happen?

From theory to praxis: there are a lot of questions which must be answered.

The talk/workshop wants give insights about the challenges and ways how to influence stakeholders in order to prepare a transition and for discussion with others about their experience.



Jos van der Wijst

- Data Governance: The Foundation.

From Europe, there are regulations in the field of digitization (GDPR, AI Act, Data Act, NIS2). And there is much more to come. Where do these rules originate? What is the legal and ethical basis for these regulations? Who should delve into what, and when? Is there a common thread in this legislation, or are they separate from each other? How does familiarity with these legal and ethical foundations help in building and working with data products?

This session will focus on these foundations and then explore the frameworks for concrete applications.



The topic of data products is on almost everyone's lips in the data management area. However, when observing practical adaptations, we realize that there is no common understanding on what constitutes a good or mature data product. Oftentimes, anything is labelled a data product as soon as a second party is able to access the data-and most of the times, understandability and trustworthiness are lacking. In this workshop we want to dig deeper into the topic of data product maturity: what makes a data product mature? What is needed to get from a simple data set to a data product? And which data products are deserving of a gold star?



Rebecca Eichler & Dr. Corinna
Giebler – Data Product Maturity –
Can I eat that?

Join us for a hands-on workshop where we merge the principles of GDPR compliance with data product-oriented architectures. This session will cover the design of compliance components such as data anonymization, consent management, and data subject access request (DSAR) handling. We will also discuss the automation of compliance tasks to ensure scalability and efficiency. Throughout the workshop, participants will collaboratively develop a comprehensive compliance architecture that seamlessly integrates into decentralized data environments. The intent is to create a blueprint for implementing GDPR compliance as a service, tailored to the unique needs of modern data product-oriented systems.

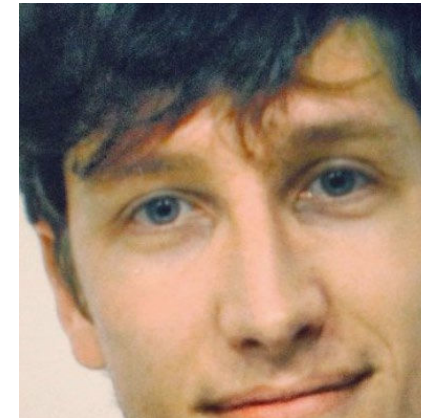


Patrick Oor & Marco Tonnarelli – GDPR Compliant Data Products

Although data products have the intention of making data available to third parties other than those who produced them, the sharing of data between organizations must pay attention to aspects of trustworthiness and data sovereignty. Within the TEADAL project and the BOTQUAS project, mechanisms are being studied that aim to facilitate data sharing while ensuring compliance with certain policies regarding accessibility, and storage, and demonstrate compliance with regulations such as the GDPR.

This has led to the definition of Federated Data Products as a tool for the exposure of data sets in a controlled way. These Federated Data Products also enable the definition and enforcement of policies at an inter-organizational level. For this, we explore, the adoption of blockchain as a platform capable of both enabling privacy preservation techniques (e.g., Zero-Knowledge Proofs) and making data observable even when it leaves the premises of the organization that offers the data product.

Pierluigi Plebani, Giovanni
Quattrocchi & Sebastian Werner
– Federated Data Products for
Sharing Data Between Organizations



Jean-Georges Perrin

- Data contracts: building & designing the future of data engineering

In this session, I will start by quickly summarizing where we come from, the history of data contracts, from before the dark ages to the creation of the Bitol project in the Linux Foundation. I will strongly focus on ODCS v3 as well as ODPS v1 which are cornerstone to this foundation. I will then detail the famous open standard roadmap.

In the second part of the talk, I will detail on how data contracts are an essential part of any federated governance. I will demo some of the experiments we are working on.

I will conclude by sharing how the Bitol project works and how can anyone contribute to building the future using open standards.



Data Domain Panel Discussion

The design of data product-oriented architectures is greatly dependent on the definition and creation of so-called data domains. But how organisations supposed to scope, define and create these domains is an open question. During this session, several experts will share experiences with setting up data domains in their respective organisations. Questions covered will include which approaches exist, what their advantages and disadvantages are and what lessons we can take from practice and theory.



Jeroen Jedema



Olaf J. Slomp



Michiel Meeus



Wrapup + Manifesto

Venue location

Jheronimus Academy of Data Science

St. Janssingel 92

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The Netherlands

[Navigate here.](#)





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See you on September 5 and 6, 2024!

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