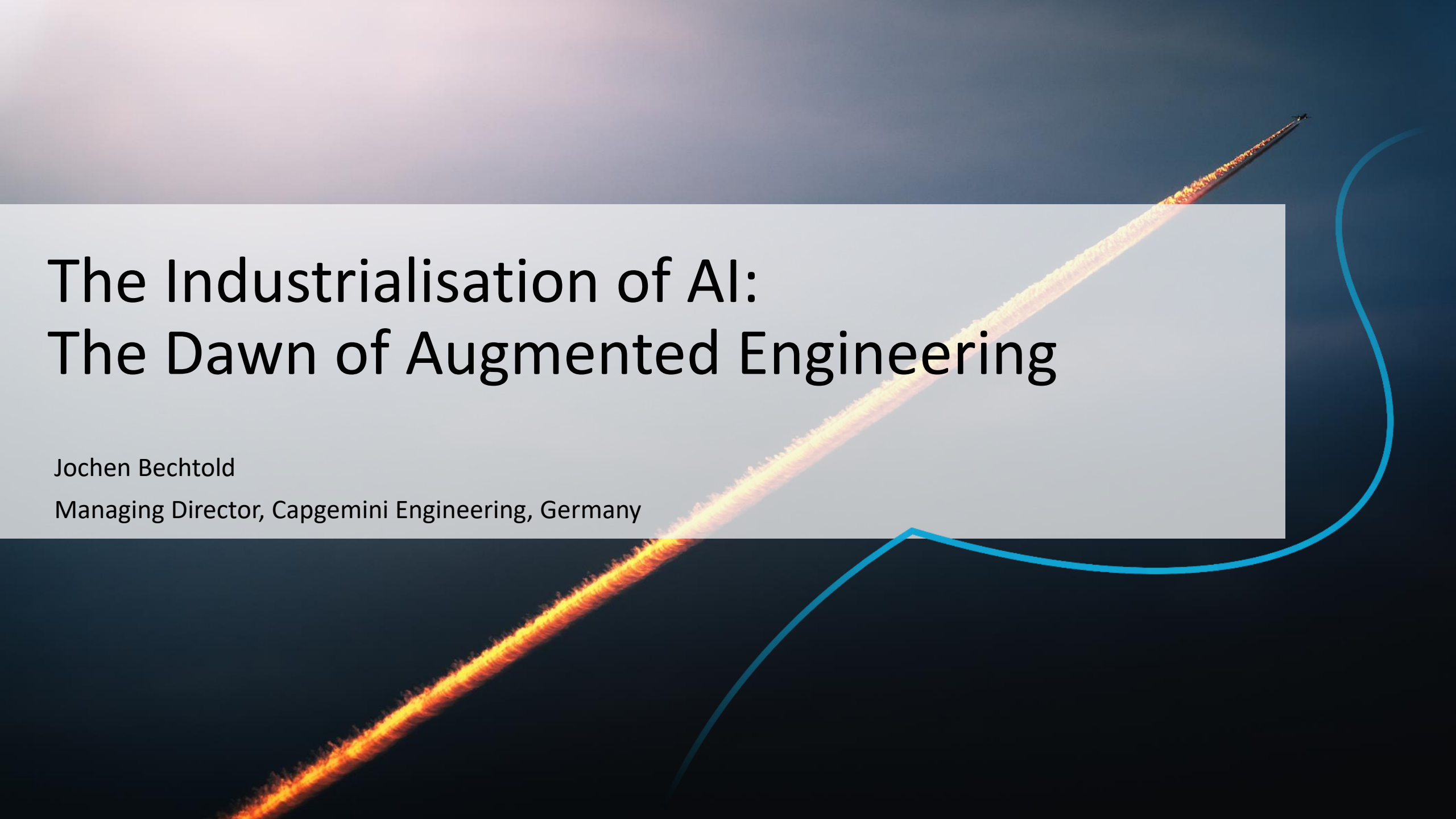




Jochen
SURNAME
Executive Vice
President | Managing
Director Capgemini
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CAPGEMINI
GERMANY

THE INDUSTRIALISATION OF AI: THE DAWN OF AUGMENTED ENGINEERING





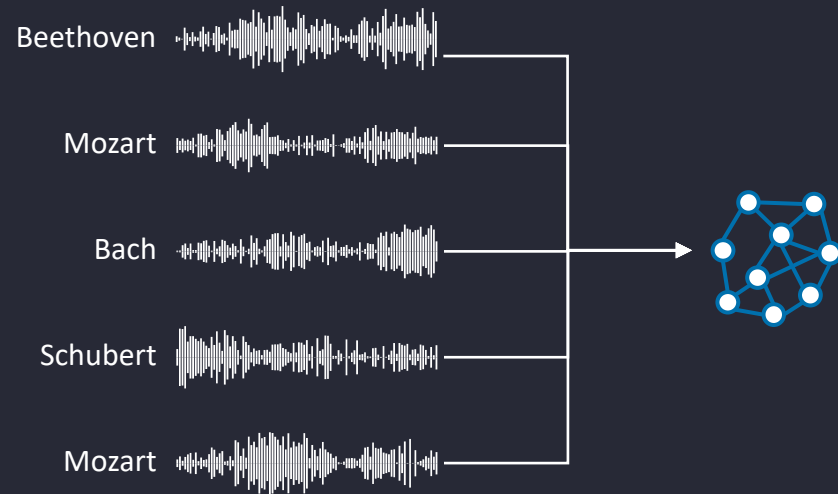
The Industrialisation of AI: The Dawn of Augmented Engineering

Jochen Bechtold

Managing Director, Capgemini Engineering, Germany



TRAINING



CLASSICAL AI USAGE

Is this Mozart?



Yes

No

GENERATIVE AI USAGE

Make me a piece of music that sounds like Mozart



Generate a version of Beethoven's 5th symphony in the style of Mozart





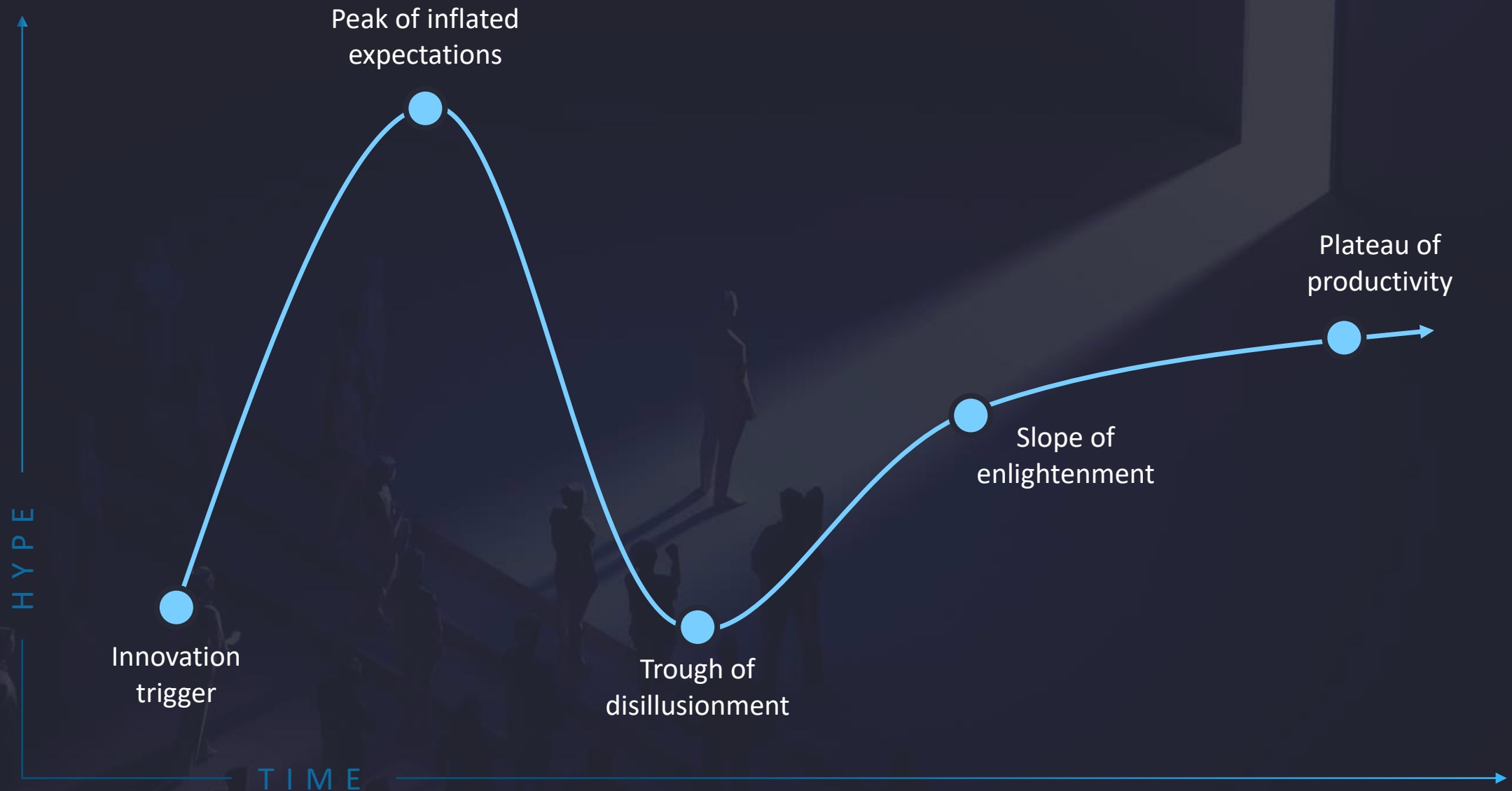
**AI will not replace
Engineers.**



**Engineers who use AI,
will replace Engineers
who do not.**



**ER&D companies who use
AI, will replace
those that don't.**





The hype exists because Gen AI is **creative & articulate.**

Disillusionment will arise because AI
is **stupid** – it cannot recognize whether
something is right or wrong.



Use case 1: Imagine the Future of Car Design...

Designing a car based on current customer feedback involves integrating popular features and preferences while ensuring it can be manufactured using existing processes and technologies. Here's a proposal for a modern, customer-centric car design:

Exterior Design

- Sleek and Aerodynamic Shape:** Customers prefer cars with a sporty yet elegant look. A streamlined body with smooth curves can enhance both aesthetics and fuel efficiency.
- LED Lighting:** Incorporate LED headlights and taillights for better visibility and a modern look. Daytime running lights add to safety and style.
- Panoramic Sunroof:** A large sunroof that extends to the rear seats can make the car feel more spacious and luxurious.

Interior Design

- Spacious and Comfortable Seating:** Use high-quality materials for seats with ample legroom and headroom. Adjustable and



Design a new car, which reflects latest customer feedback and can be manufactured on my existing production lines.

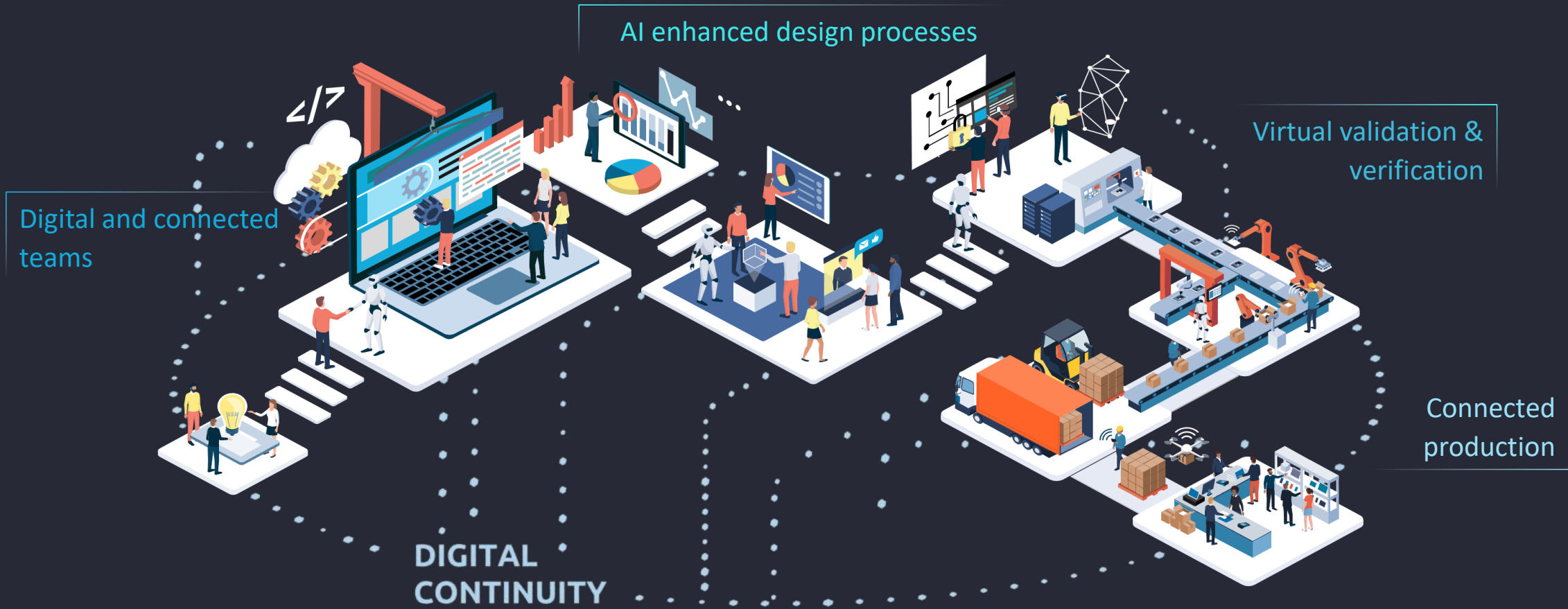


Type your message here...





The Next Evolution of The Product Design Process is Digital, Connected and entirely Based on Data and Hybrid AI



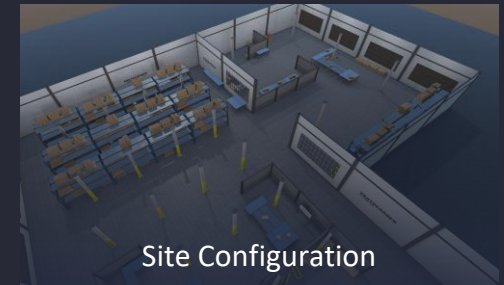


Mesh of real time 3D and GenAI supported (augmented) design

EXPERIENCE DESIGN

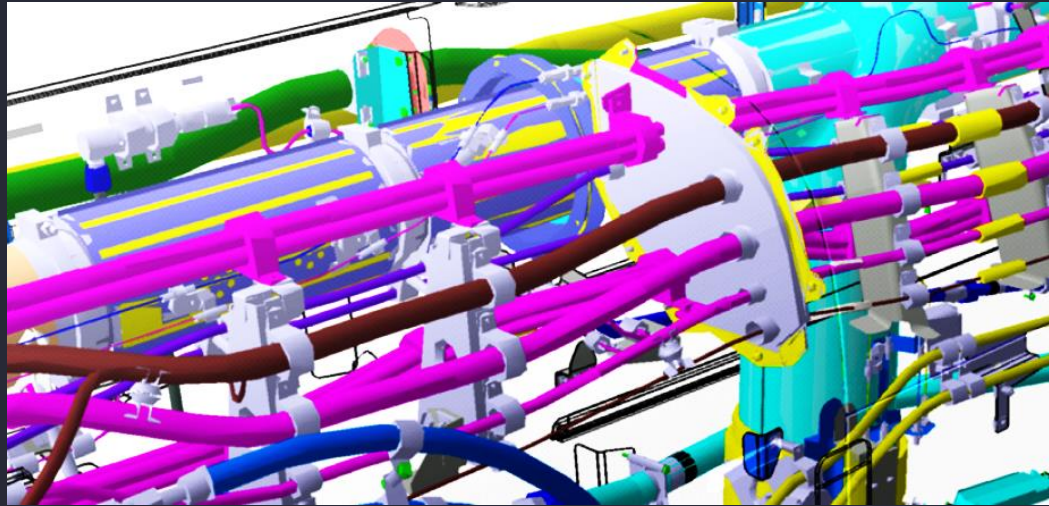


VALIDATION



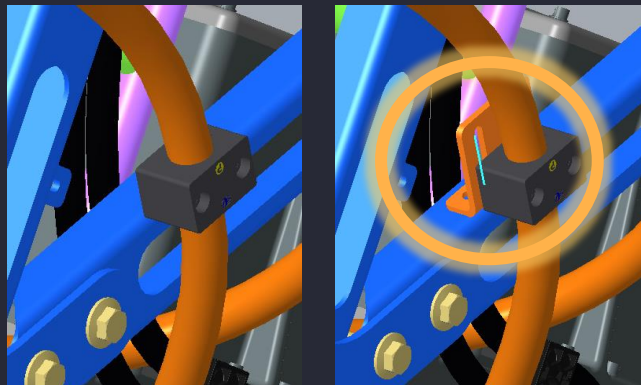
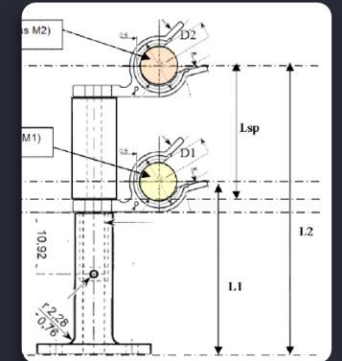


Use case 2: Brackets design for an aero engine



Designing and installing pipes and electrical harnesses is a very labour-intensive engineering task, where little automation is applied.

The development of electrical and hybrid systems also leads to an ever-increasing number of wires and connectors.

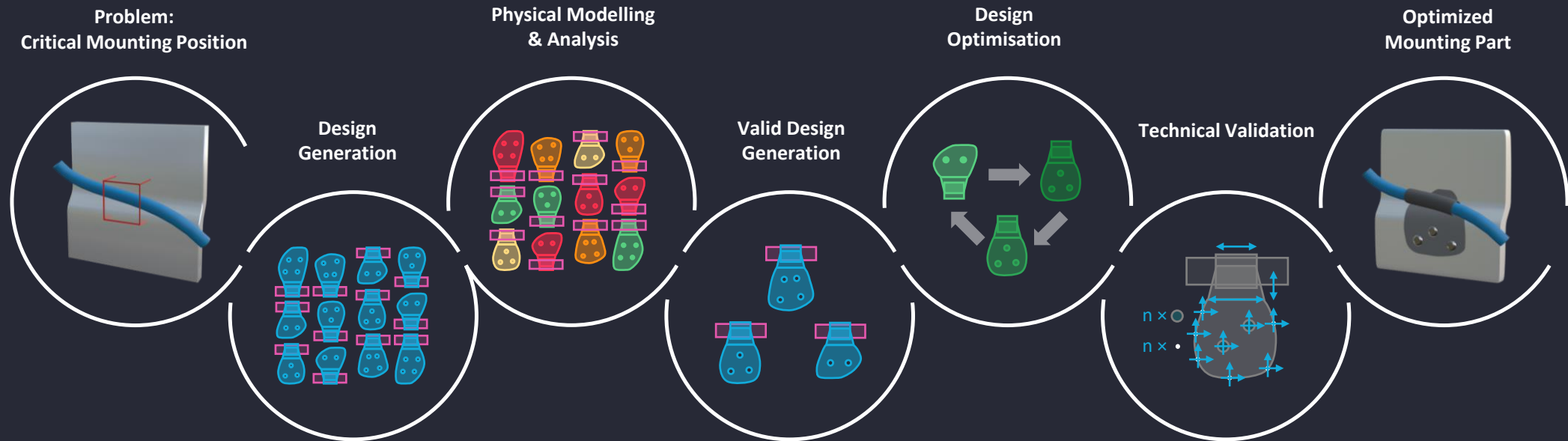


**One bracket at a time
10 to 40 man-hours each
100s of similar brackets
for one system**



Delivering the first step: A True GenAI Design

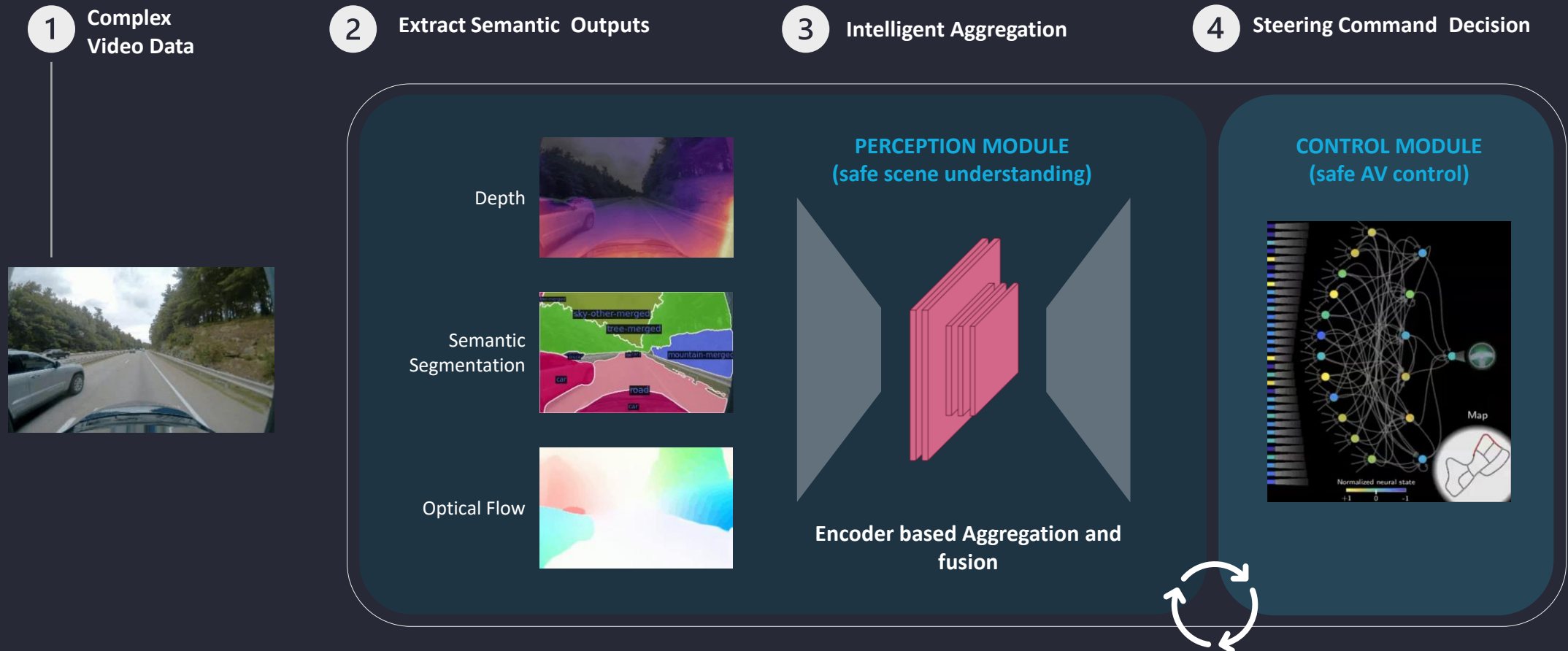
Design – Analysis – Optimisation – Automation – Correctness of bracket design





Use case 3: Multi-agent approach to autonomous driving

Powered by  Liquid



We turn visionary ideas to reality...
...and transfer knowledge to other industries





Public Security enhanced by Augmented Engineering

Enhance crime scene analysis through digitalisation



Real-life scenario scanned by specialist ready for VR-usage



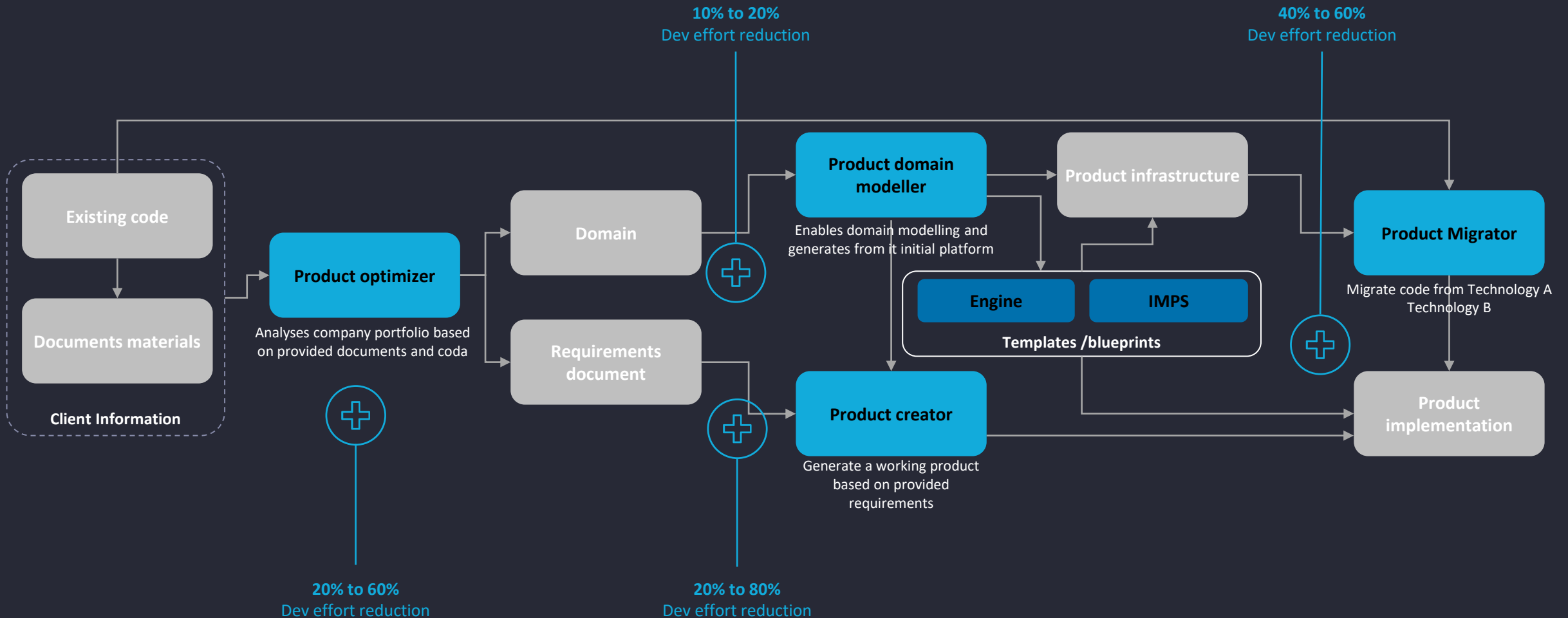
Initial assessment of the crime scene with the help of AI



AI supported generation of a standardized police report



Use case 4: Augmented software product engineering accelerator





Elevate your possible with Augmented Engineering

