

VORTRAG 03 · 10:30 – 11:10 UHR · HAUPTBÜHNE „PANORAMIC“ · DESIGN & MANUFACTURING

Autodesk AI in Design & Manufacturing

Intelligente Zukunft gestalten

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● Agenda

- 01 History and Background
- 02 What is Autodesk AI?
- 03 Autodesk AI Capabilities
- 04 Customer References
- 05 Trust and Transparency

Industry Insights

69%

of business leaders in D&M say
that AI will enhance their industry

76%

of leaders at digitally mature
organizations say they will increase
investment in AI

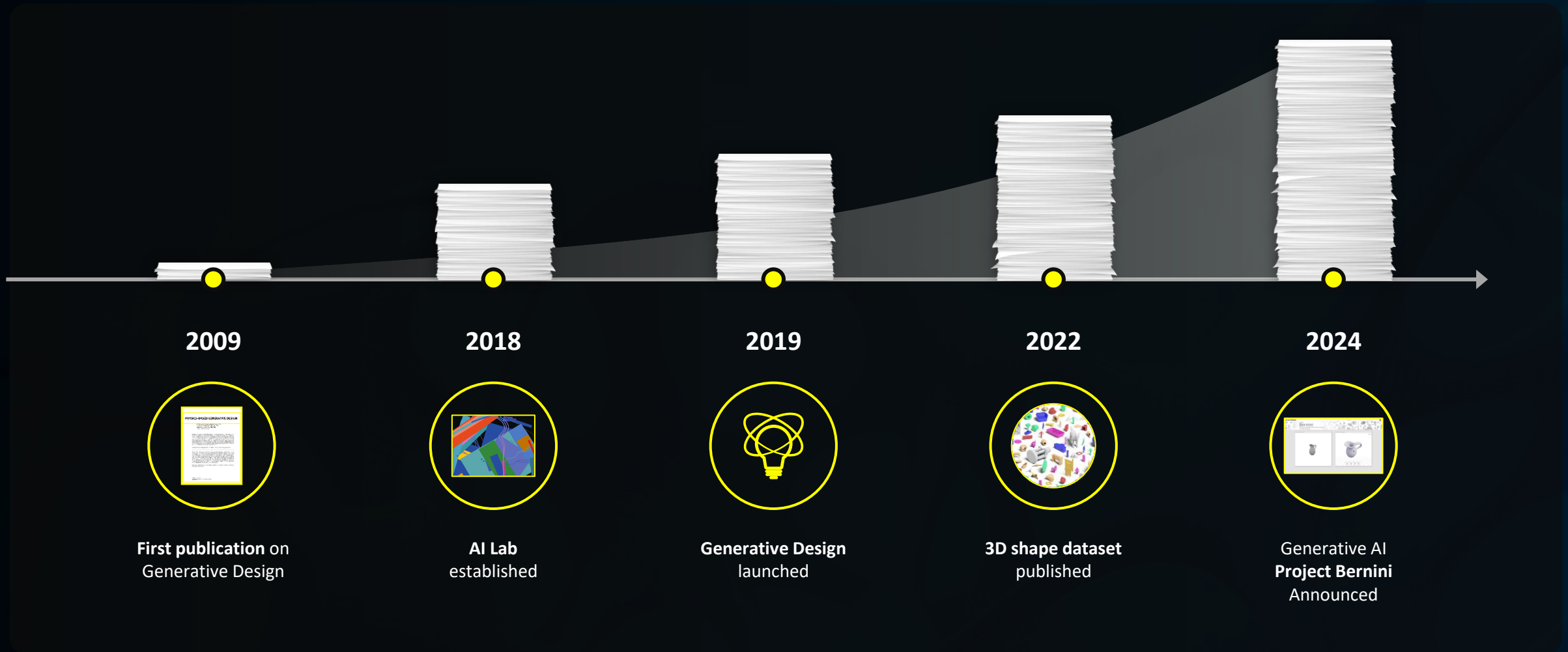
History & Background



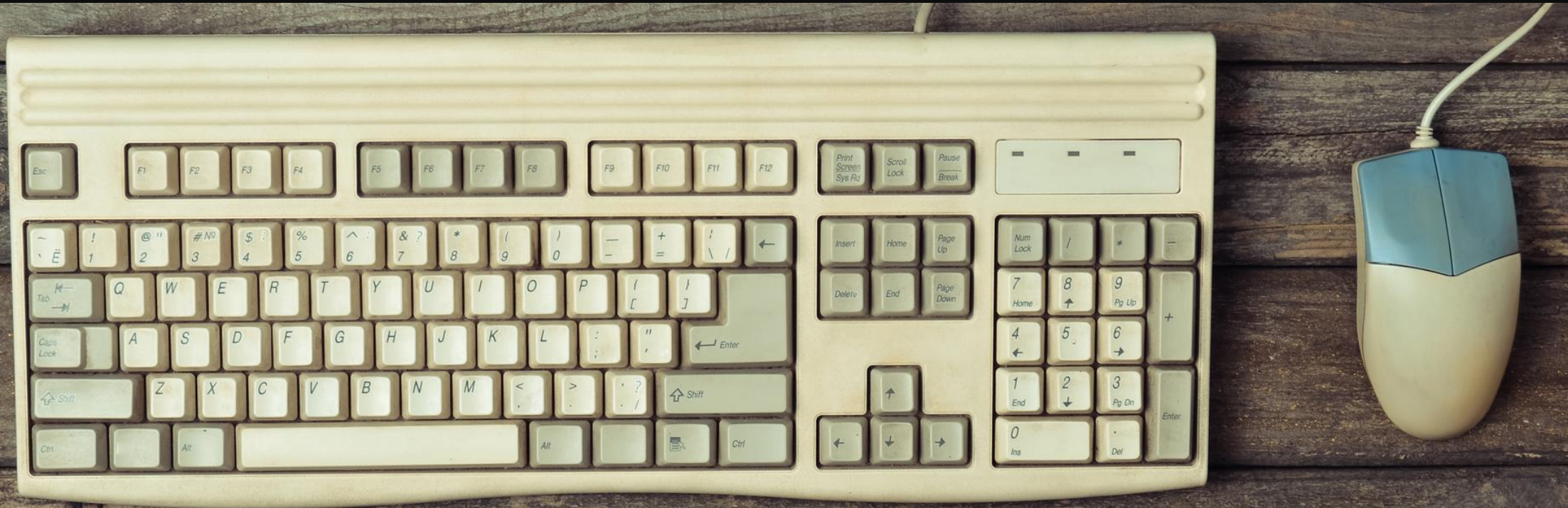
 **AUTODESK**



Autodesk's history with AI



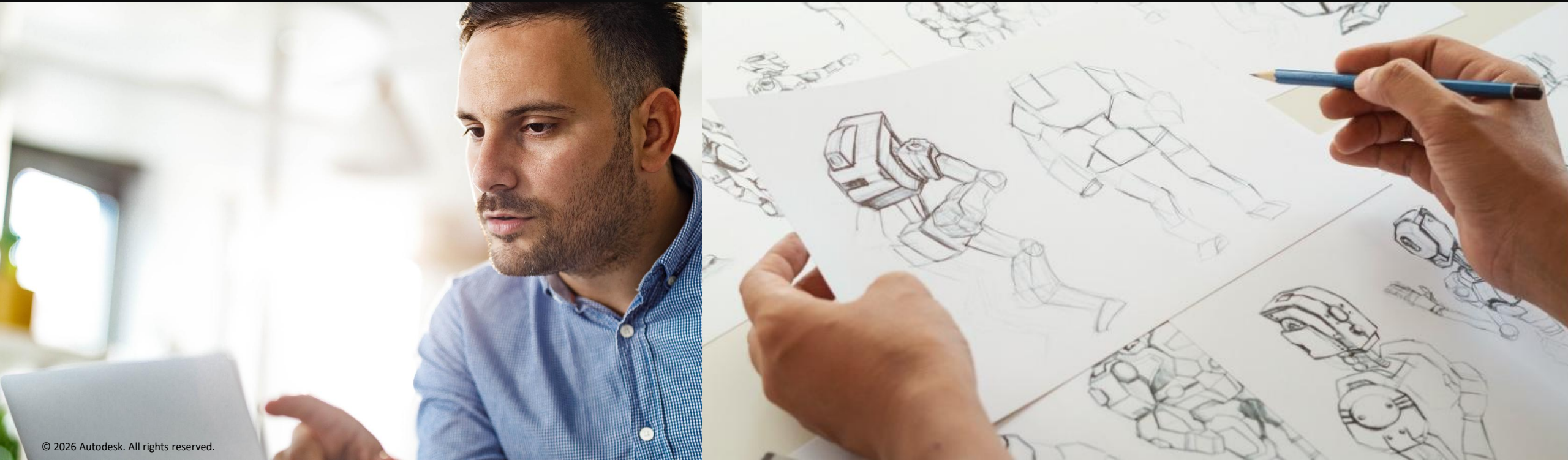
Traditional relationship with machines



New relationship with machines

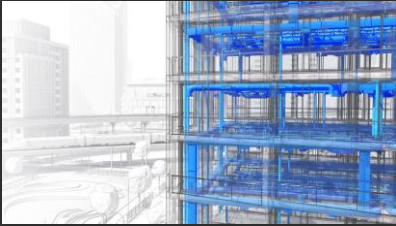
“Conversation is the new interface”

Mustafa Suleyman, CEO, Inflection AI



Finally, Computers Adjust to Designers!

Parametric 3D Design

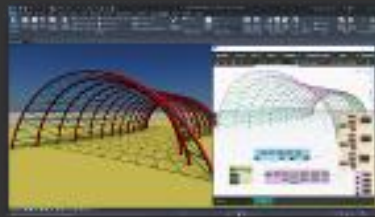


Rich variational models



Complex parametric rules

Computational 3D Design



Sophisticated large models



Designer is programming

Generative 3D Design

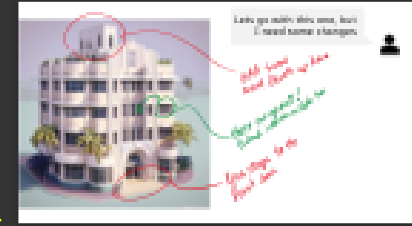


Optimized solutions



Complex setup, not interactive

AI Powered 3D Design

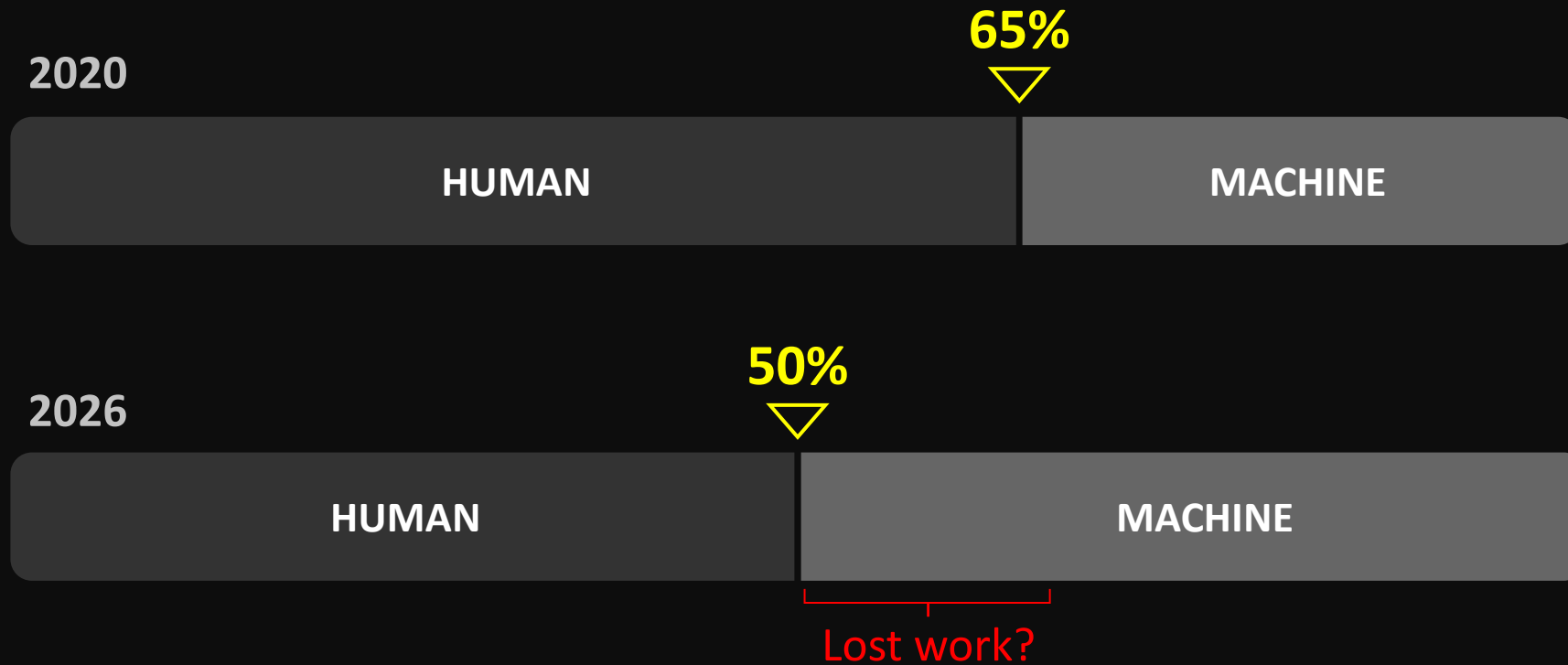


Analyze, Automate & Augment

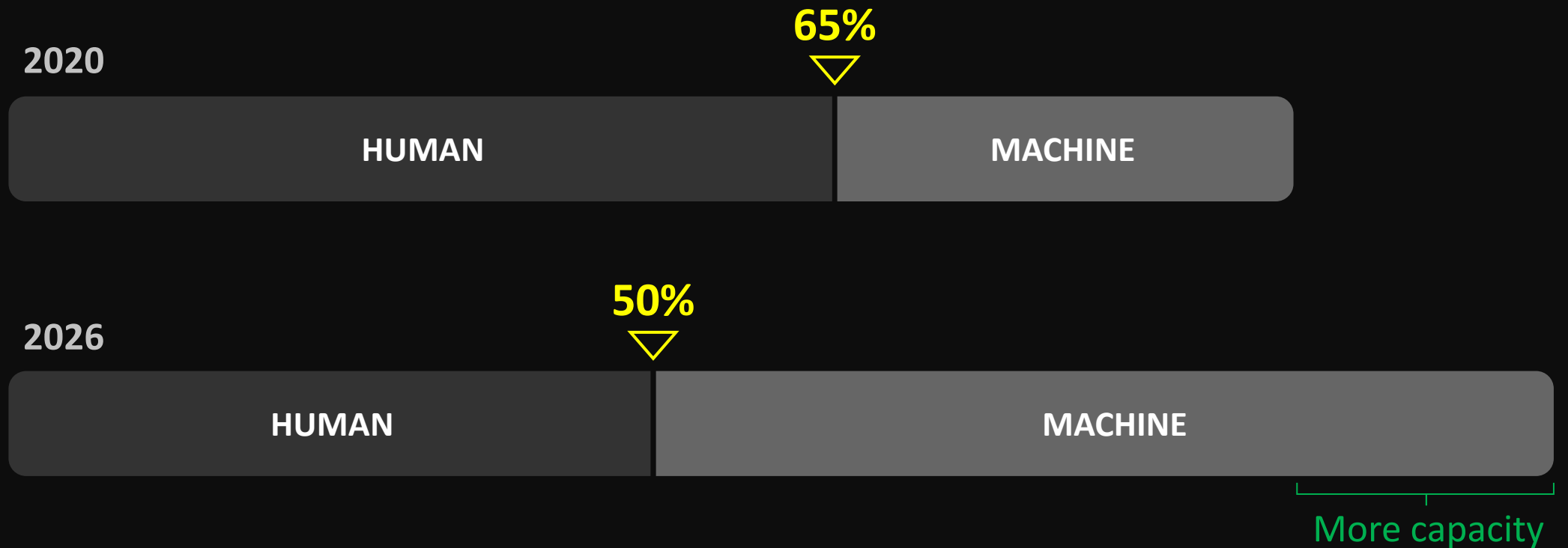


Interactive and natural

A new relationship with machines



A new relationship with machines



What is Autodesk AI ?



Autodesk AI

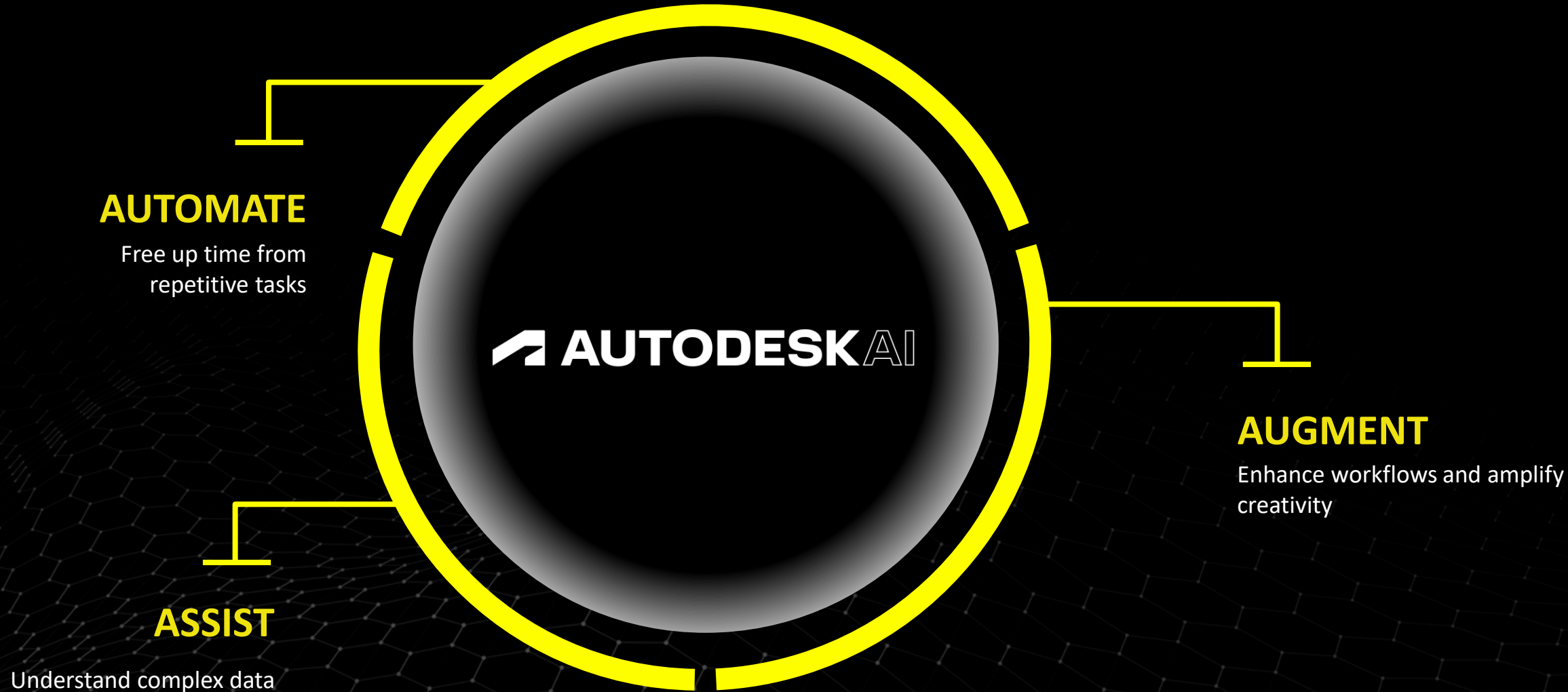
What is it?

40+

AI-powered features across the portfolio



Top 3 Benefits of AI



Autodesk AI Capabilities

Design and Manufacturing



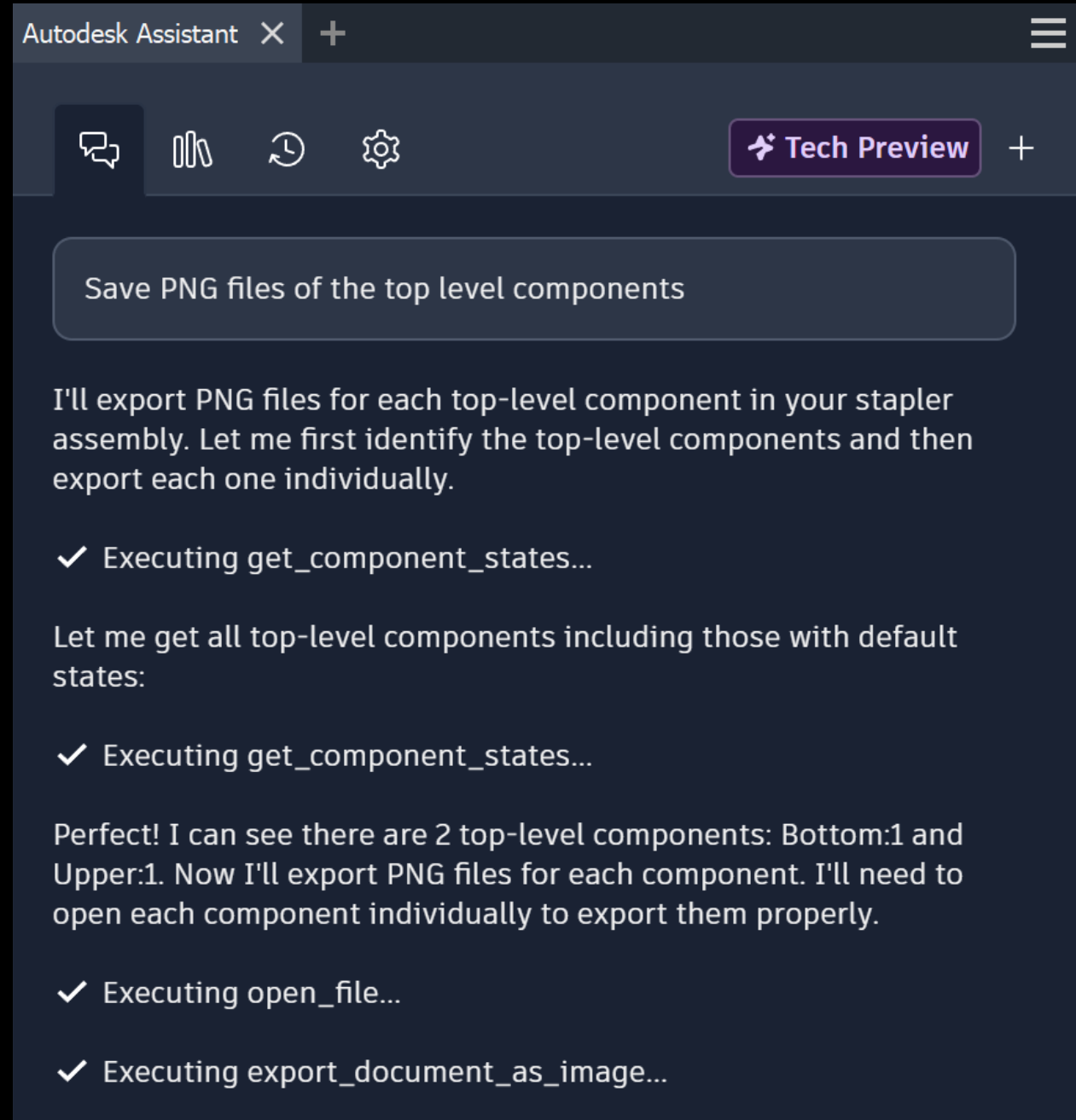
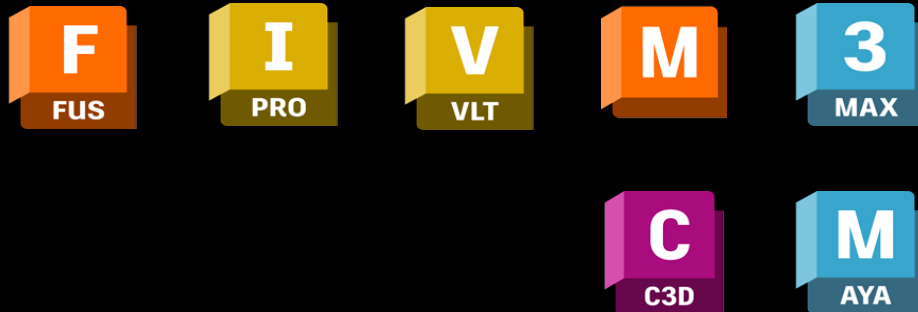
Autodesk Assistant

What is it?

Provides the AI interface that connects users to tools, data and workflows across Autodesk products.

11

Products with Autodesk Assistant
(as of April 2026)



Autodesk Assistant

One Assistant, all the answers: Unify your workflows, assets and systems through Autodesk Assistant

Give me a list of additive technologies supported by Fusion

Show me all apps "Alice" has access to.

How many unnumbered doors does my model have?

Show me midcentury modern furniture from my library that I can use in this scene

List all active Projects in the Toronto Office

Add constraints to my sketch



Reduce Repetitive Tasks

Autodesk Assistant - Inventor

Challenge

Repetitive design tasks and knowledge gaps slow workflows, increasing manual effort, introducing errors, and limiting productivity across engineering teams.

Solution

AI-guided assistance automates repetitive tasks, surfaces expert knowledge, and streamlines workflows—reducing errors and improving engineering productivity.



Improve Productivity

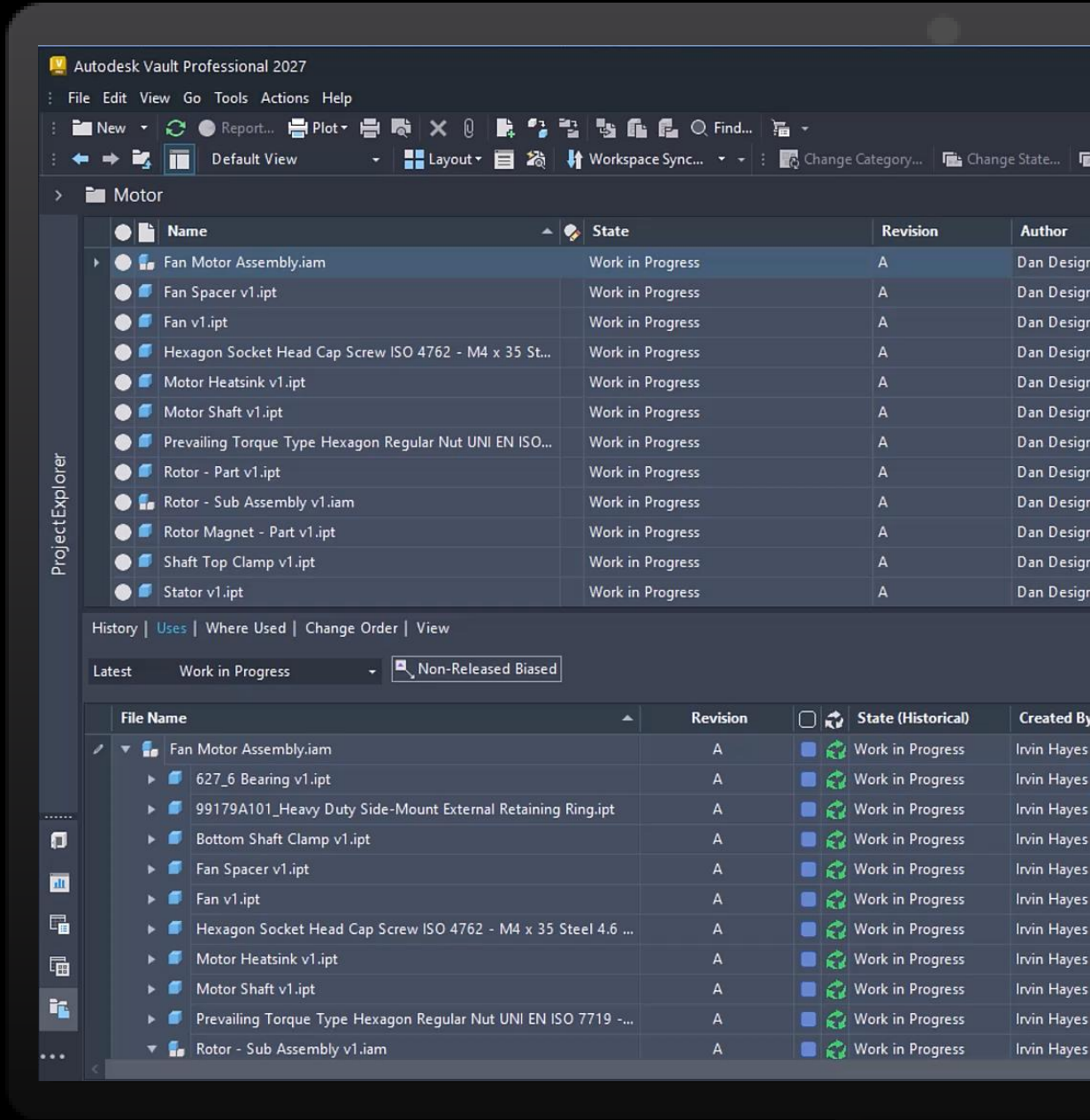
Autodesk Assistant - Vault

Challenge

Managing and understanding complex file relationships is time-consuming, with limited visibility slowing collaboration, and increasing risk of errors across workflows.

Solution

AI-powered assistance interprets complex file relationships, enabling faster search, clearer dependencies, and improved decision making—helping reduce errors and accelerate engineering workflows.



Improve Communication

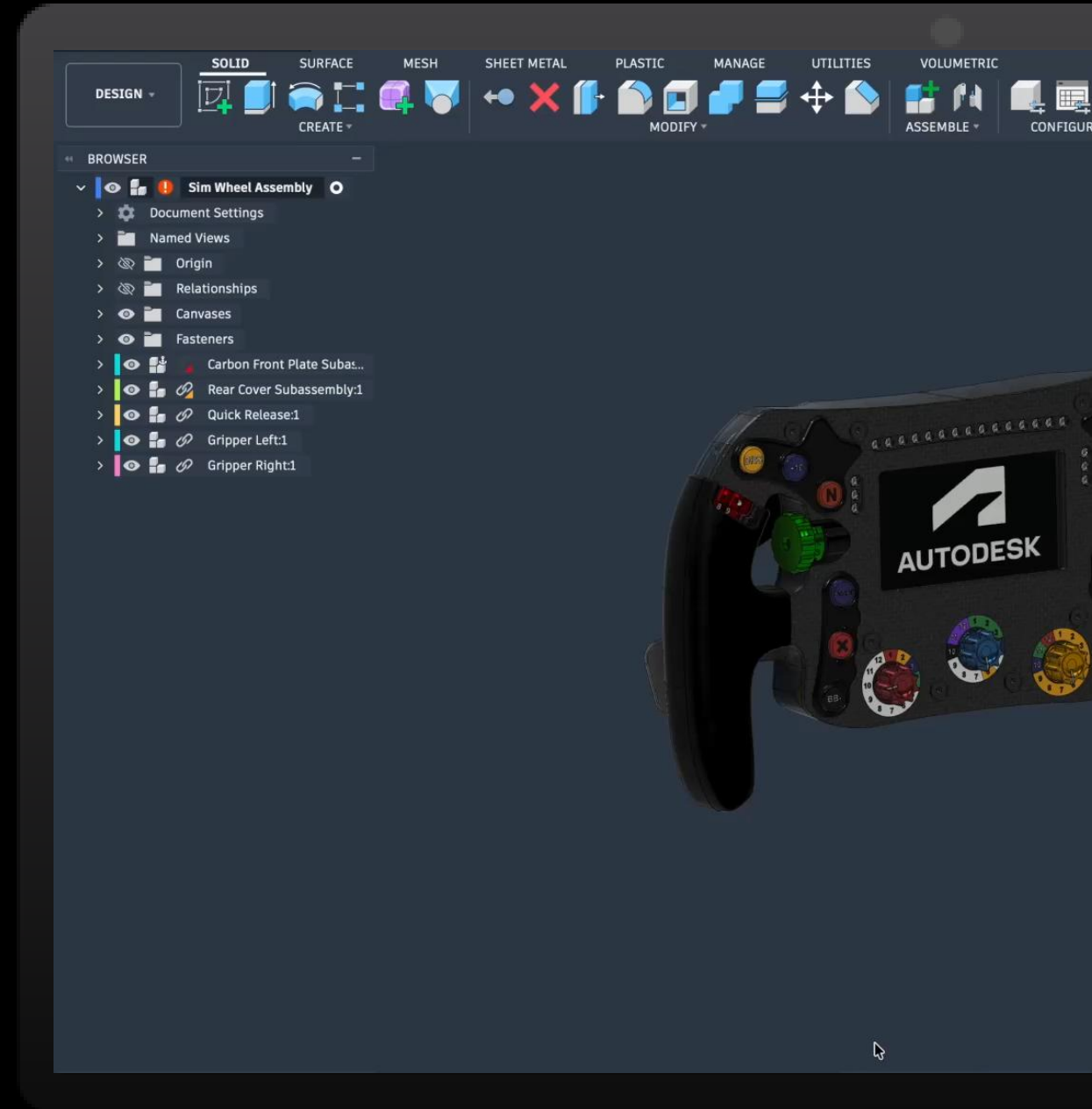
Autodesk Assistant - Fusion

Challenge

Creating realistic product visualizations often requires specialized skills, tools and time, limiting the ability to quickly iterate and explore designs in real-world contexts.

Solution

AI-driven image generation creates realistic, context-aware visualizations from prompts, enabling rapid iteration, enhanced storytelling, and faster decision-making across design workflows.



Increase MFG Throughput

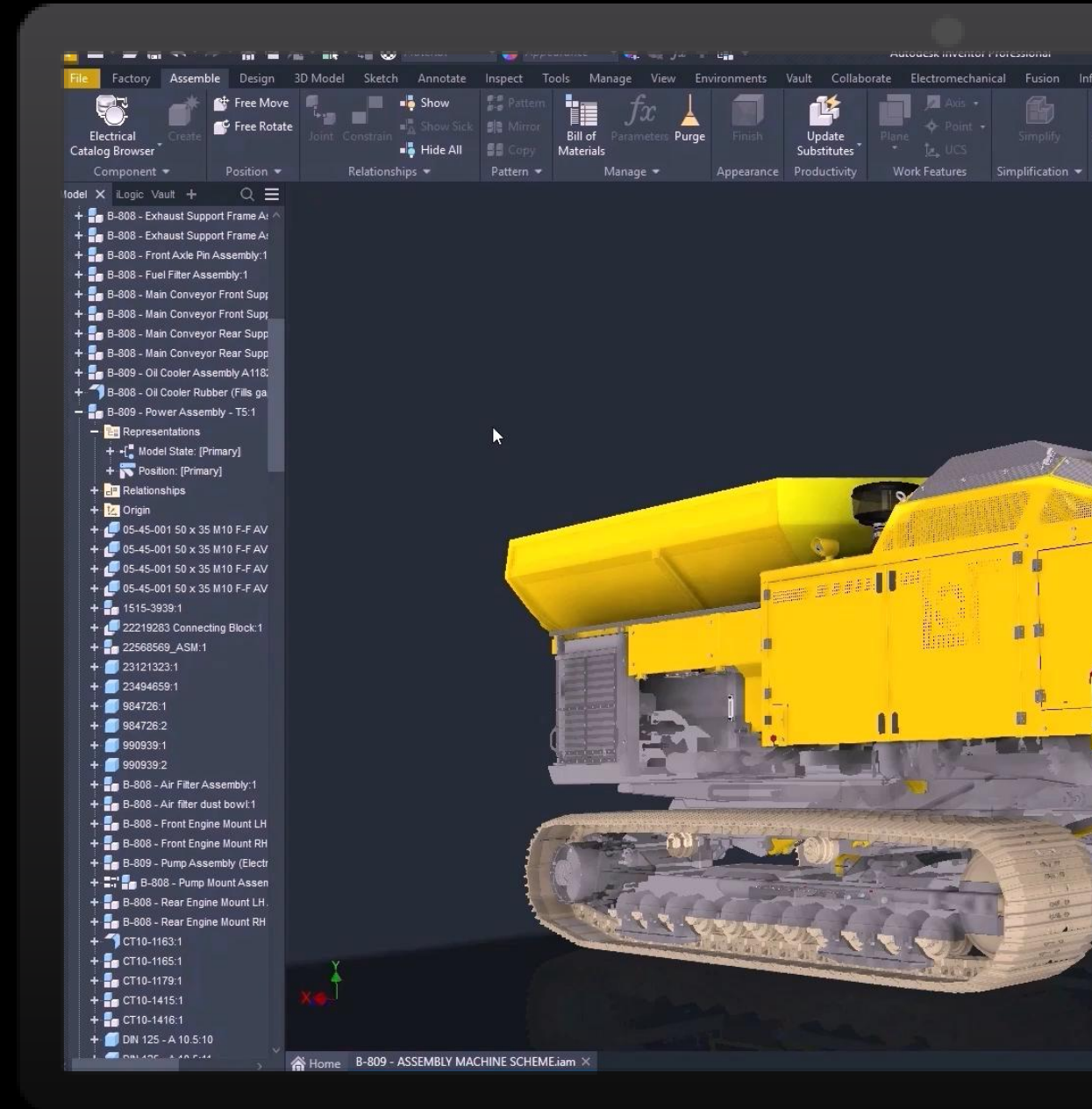
Autodesk Assistant – Fusion Manufacturing

Challenge

Defining manufacturing strategies requires specialized expertise and manual setup, leading to inefficiencies, inconsistent outputs, and slower toolpath creation for less experienced users.

Solution

An in-product assistant that helps automate toolpath creation through natural language commands, accelerating time to production.



Reduce Manual Input

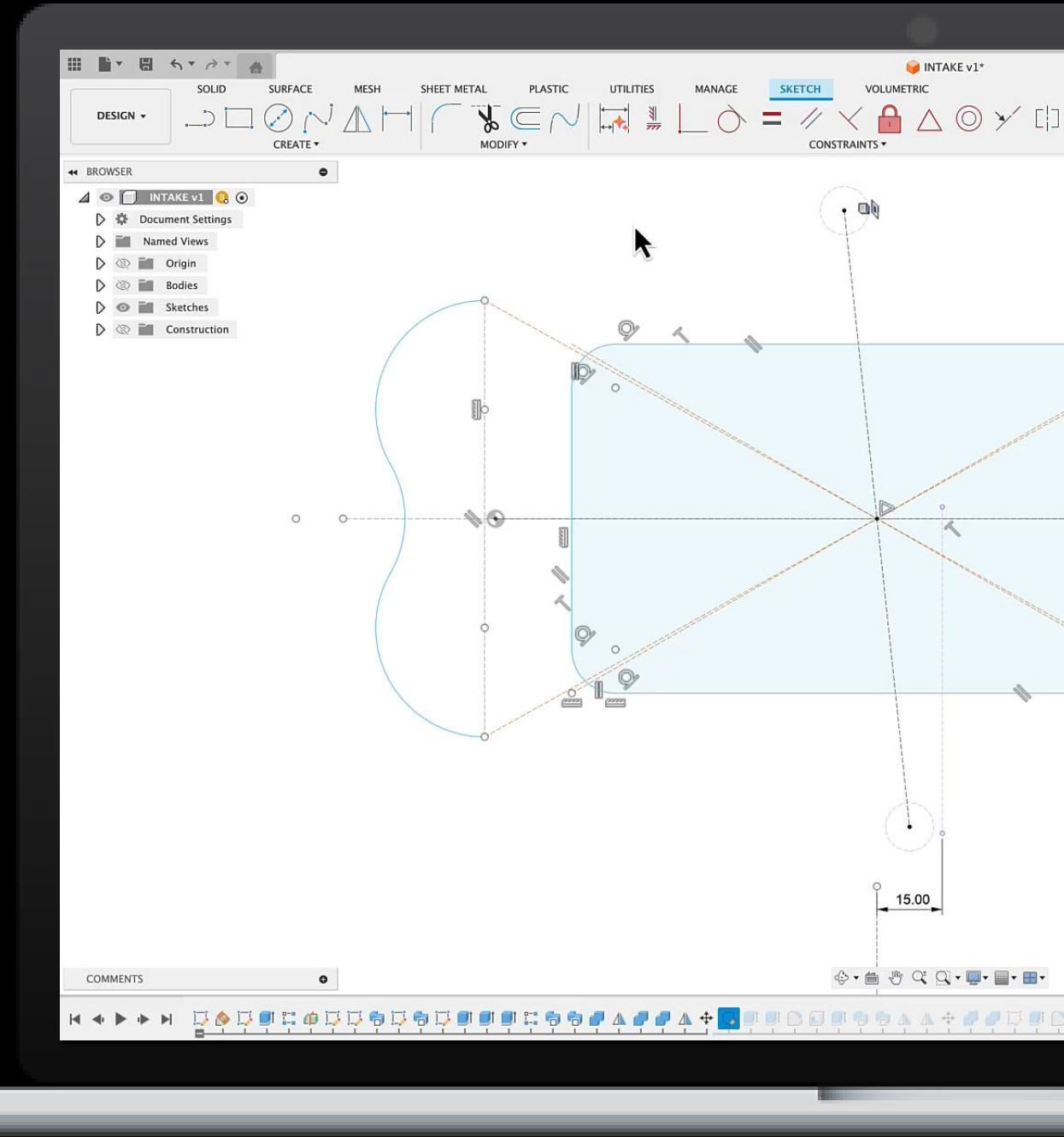
Automated Sketch Constraint - Fusion

Challenge

Designers waste time manually applying geometric constraints, leading to errors, inconsistent sketches, and slower iteration—hindering productivity and delaying downstream workflows.

Solution

Streamlines the design process by automatically applying constraints during 2D and 3D sketching, accelerating workflows and reducing repetitive effort.



Increase Efficiency

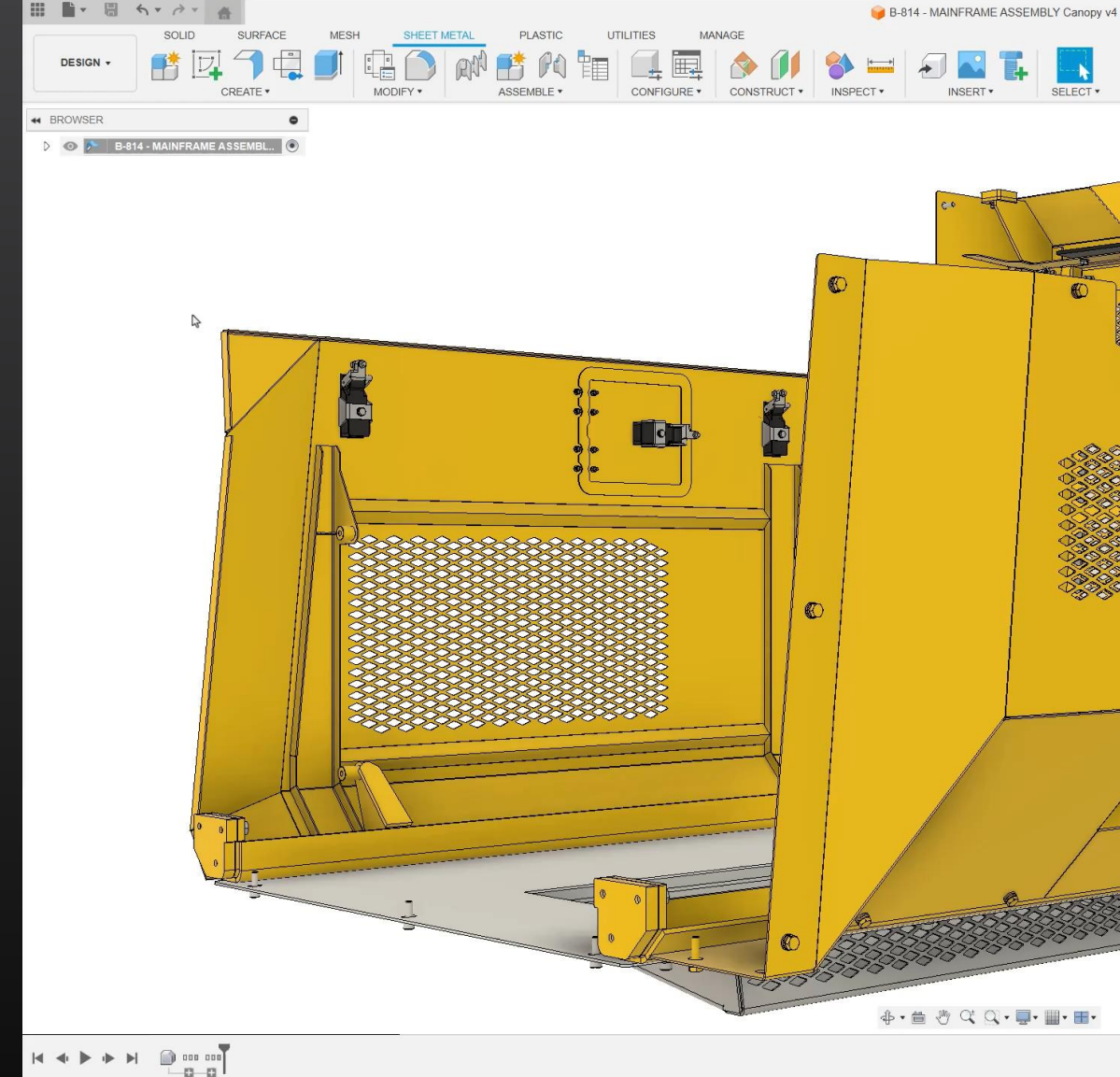
Drawing Automation - Fusion

Challenge

Manual creation of engineering drawings is time-consuming and error-prone, causing delays, inconsistencies, and bottlenecks between design, documentation, and manufacturing teams.

Solution

Delivers interactive experiences for 2D manufacturing documentation, minimizing time spent on non-value-added tasks and increasing efficiency.



Increase Design Agility

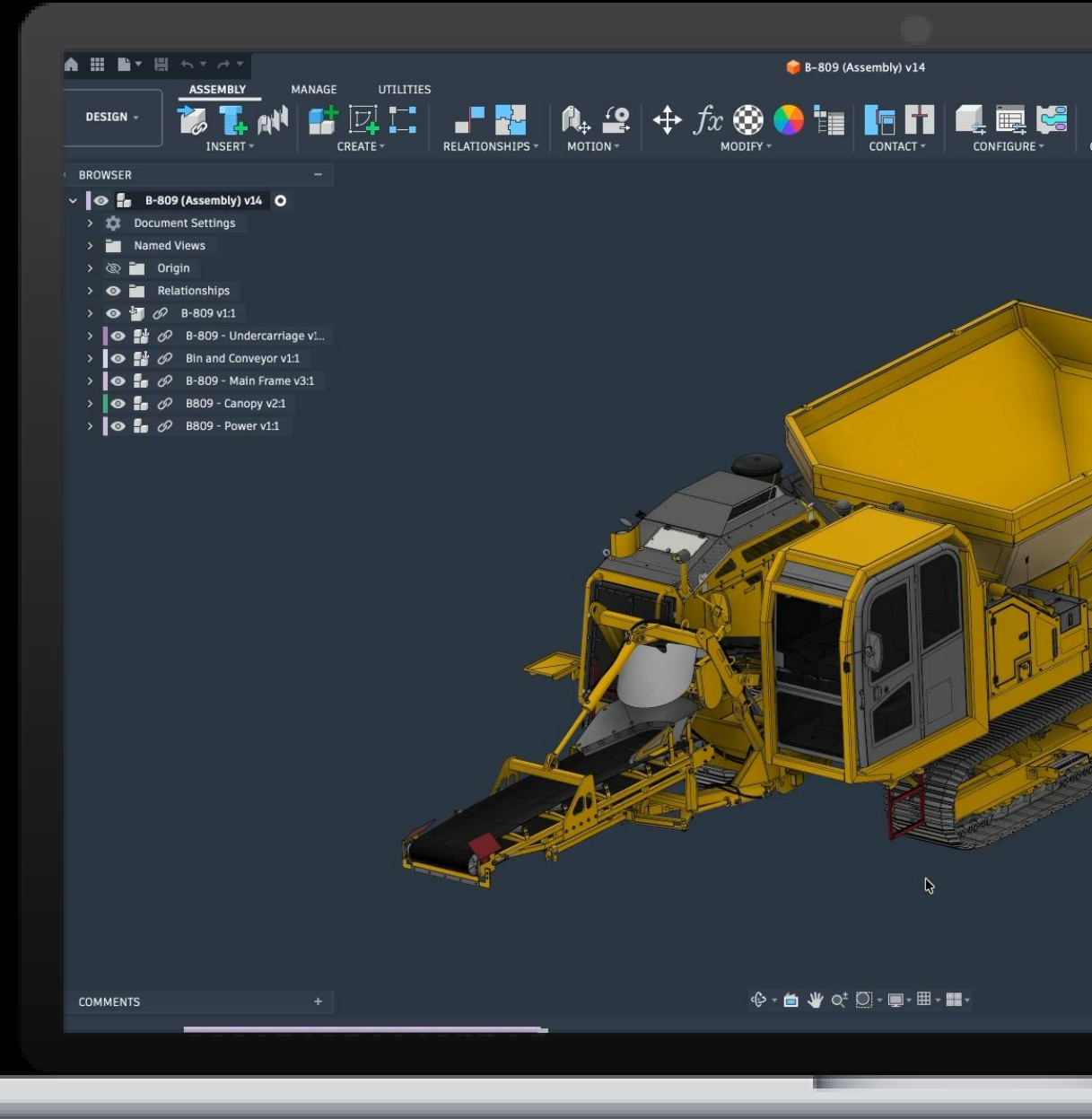
Generative Design - Fusion

Challenge

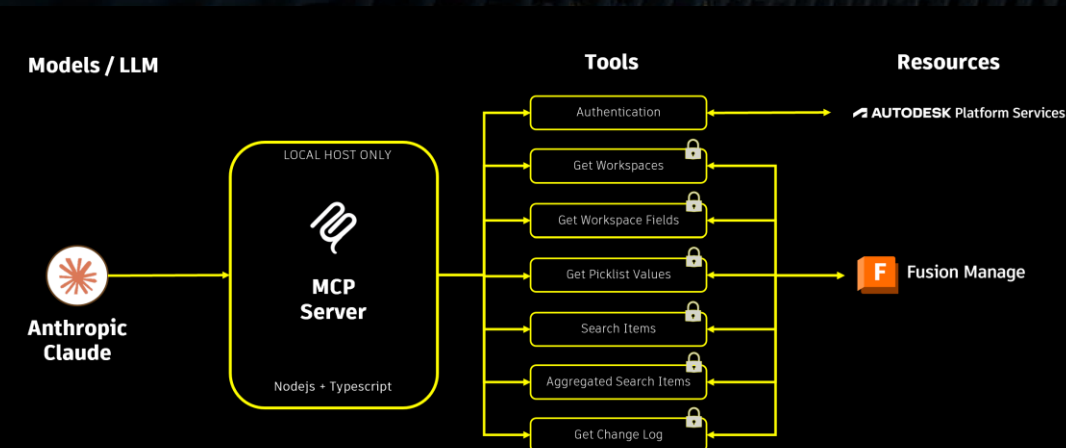
Traditional design approaches limit exploration to a few concepts, restricting innovation and resulting in heavier, less efficient parts with longer development cycles.

Solution

Enables the exploration and creation of complex, performance-optimized components by leveraging advanced algorithms to generate innovative design solutions.



Customer hosted MCP Servers



Open Source

An **Open-Source Standard** for connecting AI applications to Autodesk Solutions



Large Language Models

AI applications like **Claude** and **ChatGPT** can be connected to databases, file systems and **APIs**



Connectivity

The **USB for AI** - a universal protocol that lets AI models "plug into" Autodesk solutions as well as third party solutions



Integration

Model Context Protocol (MCP) is a universal standard that lets a single AI connect to multiple systems simultaneously — PLM, ERP, CRM, databases, and more — orchestrating across all of them in one conversation, without bespoke point-to-point integrations.



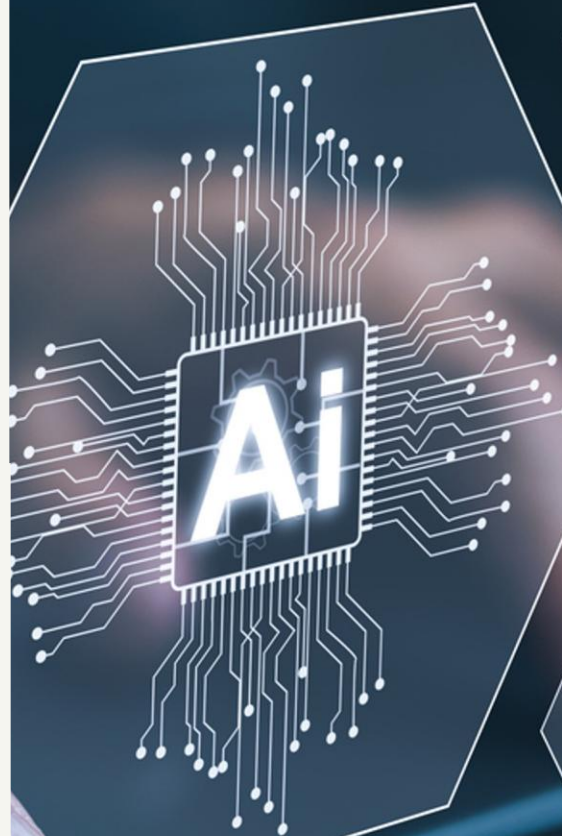
End to End Automation

complex multi-step tasks can be completed autonomously across connected systems

Trust & Transparency



 **AUTODESK**



Autodesk **trust** **principles** for AI

Building integrity & trust
into Autodesk AI



Responsible

We hold ourselves to high standards in acquiring and managing data as well as training and delivering fair and safe AI models.



Transparent

We are forthcoming about the design, development, and intended use of AI systems and data.



Accountable

We are committed to respecting the choices of our customers and aligning to laws and regulations.



Reliable

We are rigorous in building AI systems that strive to provide accuracy, validity, and consistency.



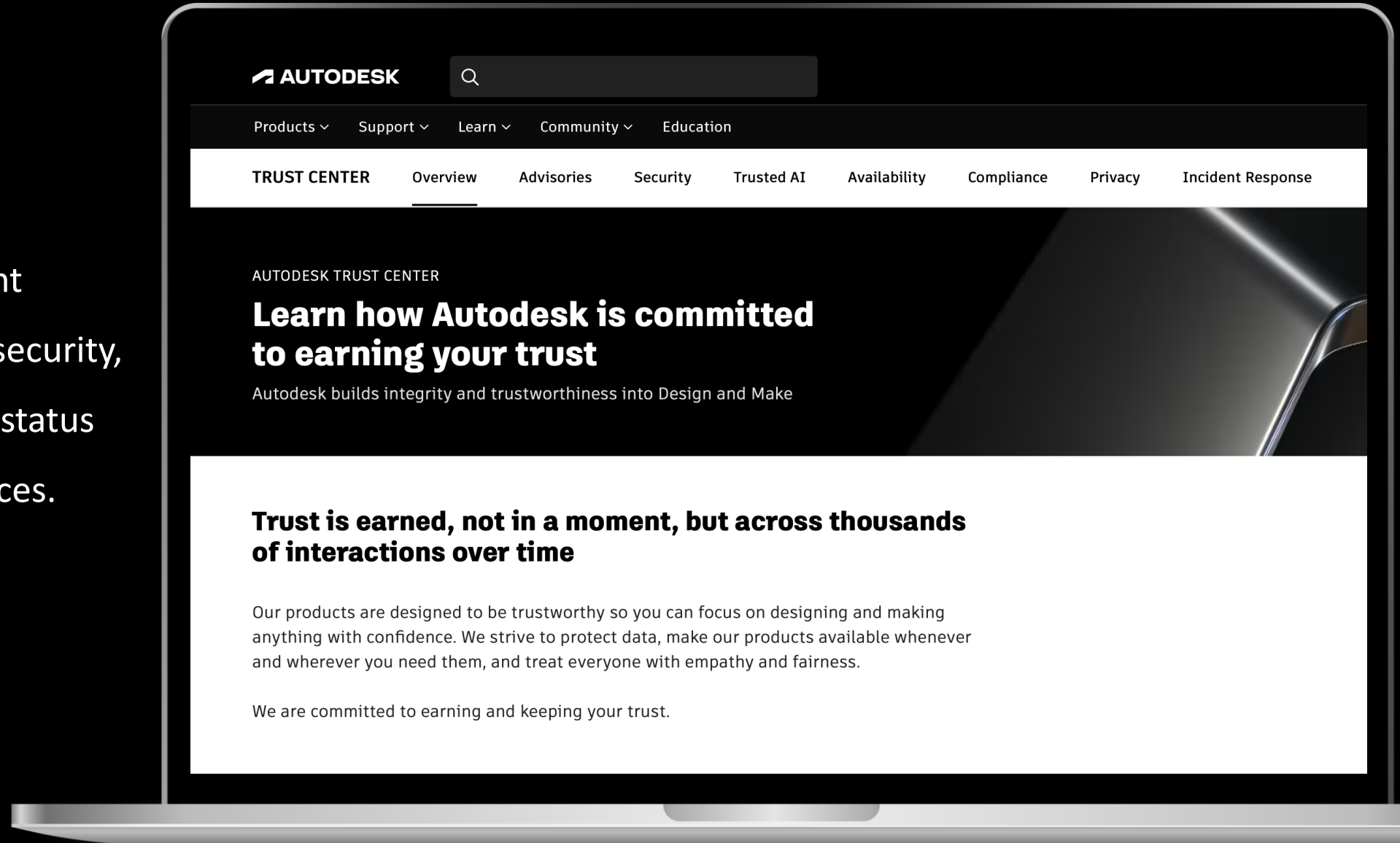
Safe & Secure

We employ robust practices throughout the AI lifecycle to protect customer data, intellectual property, and privacy, and to produce safe outcomes.

Online Trust Center

trust.autodesk.com

Providing transparent
access to Autodesk security,
compliance, service status
and reliability practices.



Autodesk

AI transparency



AI Transparency Card

Autodesk Fusion
AutoConstrain

Description

A feature that analyzes sketches and suggests the constraints and dimensions to fully constrain sketches.

Feature information

Feature functionality	Automate
Model source	Proprietary
Primary technique	Transformer

Trust ingredients

User directed feature	Yes
Personal data	No
Data source(s)	Customer content (e.g. sketches)
Choice format	No
Encryption at-rest	Yes
Encryption in-transit	Yes
Other safeguards	Tokenization De-identification

For more information on our Trusted AI practices, consult our Trust Center.



COMMITMENT TO OPENNESS

We publish AI transparency cards on **Autodesk's Trust Center** and will continue to evolve them to provide transparent information.

- **Underlying AI methods**

What the feature does, how it works, and 3rd party vendor considerations.

- **Privacy considerations**

If personal data is used, what additional safeguards are in place to protect privacy.

- **Data protection measures**

If data is needed for training what kind, which elements of customer content, and measures in place to protect IP.

Danke, dass Sie dabei waren.

Fragen zum Vortrag oder zu Ihrem Projekt? Sprechen Sie uns an.

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