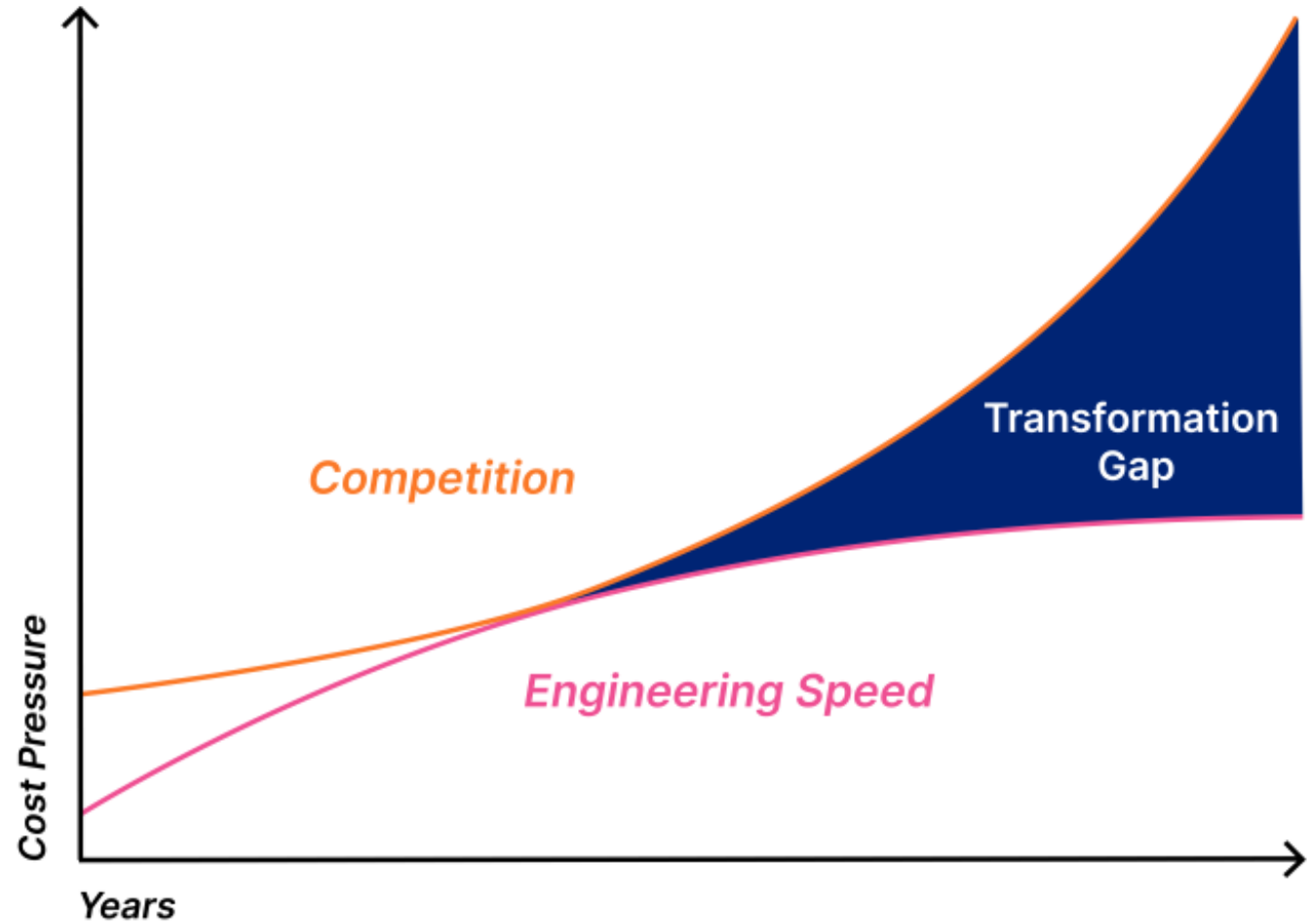




AI Agent Platform for Engineering

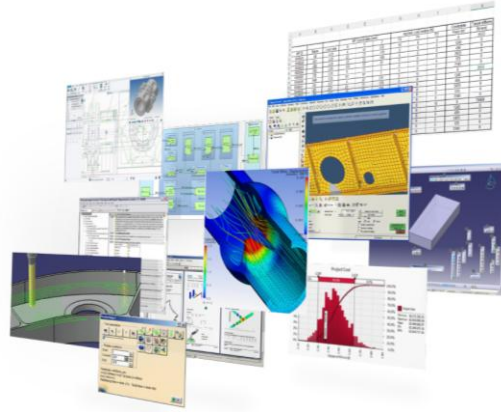
Weeks turn into minutes when Synera joins the team

The business dilemma.

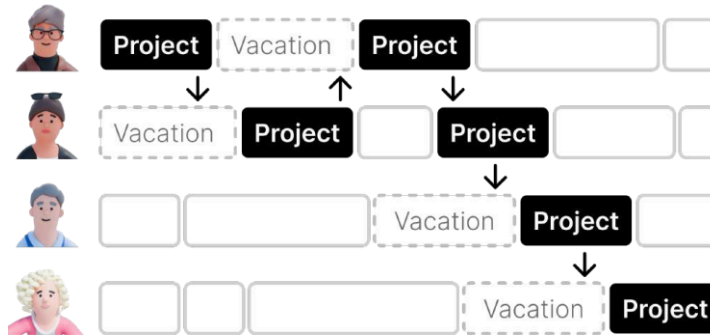


50%+ of engineering time vanishes.

Siloed tools, hand-offs, and searching for data



Legacy, fragmented tools slow down progress

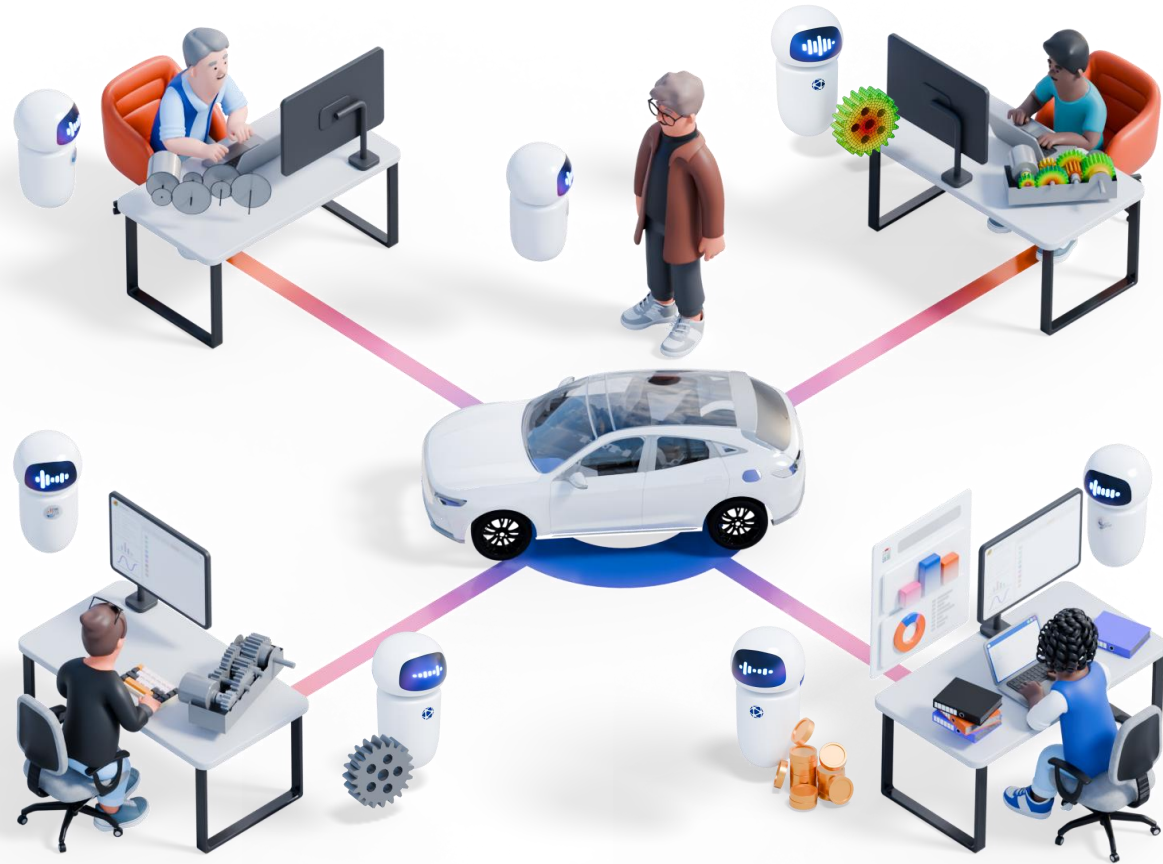


Manual orchestration and long time-to-market



Engineering isn't one use case, it's thousands

What if engineering teams are empowered with digital coworkers?



Engineers focus on strategic decisions and innovation

Timelines shrink from months to minutes

Autonomous, 24/7 engineering cycles

What if engineering teams are empowered with digital coworkers?

Imagine a world where your R&D organization operates like Tony Stark's lab – with J.A.R.V.I.S. handling the heavy lifting.



Introducing Synera AI Agents:



Hey Sam, how can I help?

Prepare a cost estimate for this part using Inconel 718.
Quantity: 120. Check the Excel file for tolerances.



Rotor.step
47.3 MB



Requirements.xlsx
0.18 MB



Brain

- Model (LLM)
- Instructions

Context

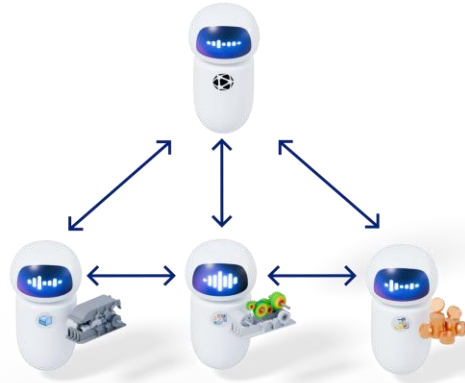
- Company Knowledge
- Memory

Tools

- Workflows
- CAx or PLM Tools



Meet Synera, the AI Agent Platform for Engineering.



Specialized agents work together, negotiate trade-offs, and run processes like RFQ or cost analysis



Agents run product development processes faster and precisely using automated workflows

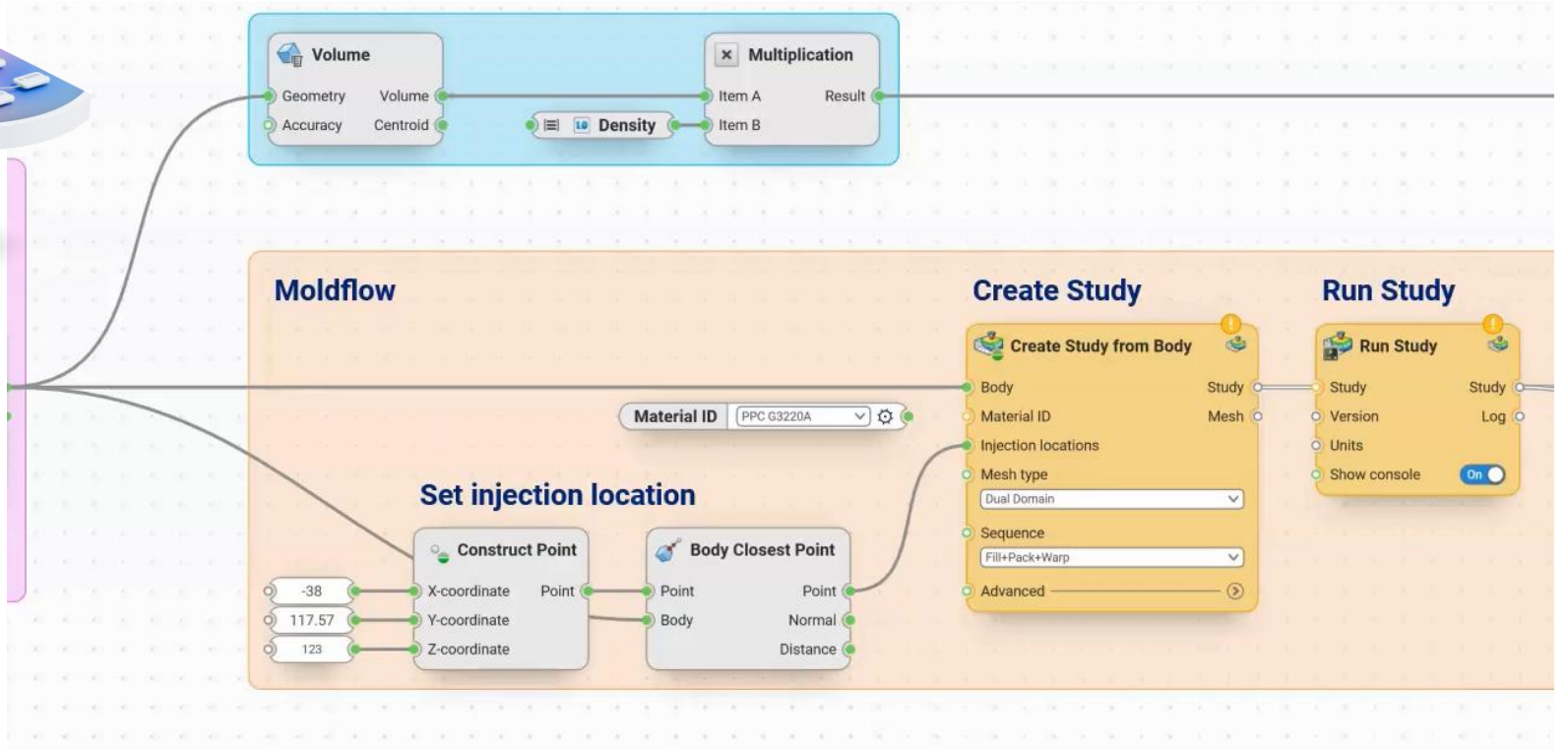


That can be connected to 80+ CAx and PLM tools



Injection molding workflows

check out 2025 Moldflow Summit for a deep-dive!





Injection molding workflows

Thousands of workflows have already been built, e.g. for

- creating & modifying CAD
- cost calculations
- Moldflow analysis
- gate location optimizations
- integrative simulations (fiber mapping)
- design optimizations
- parameter studies
- ...

5. Cost calculation

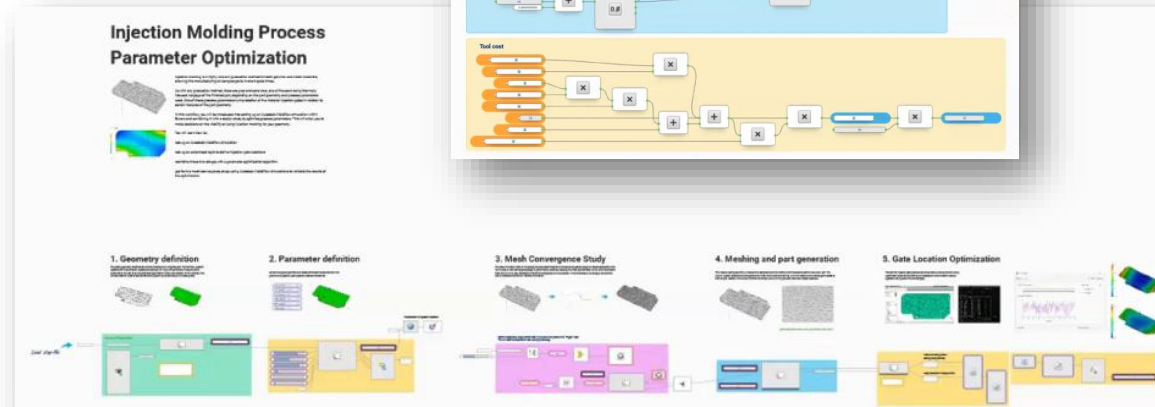
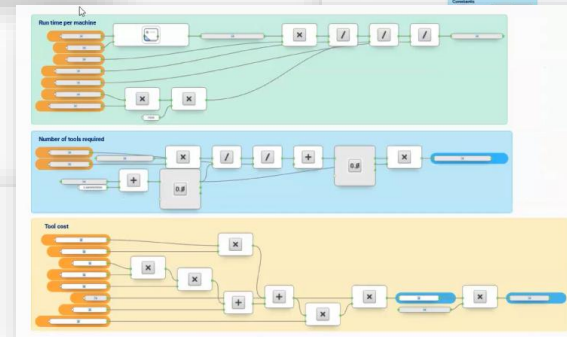
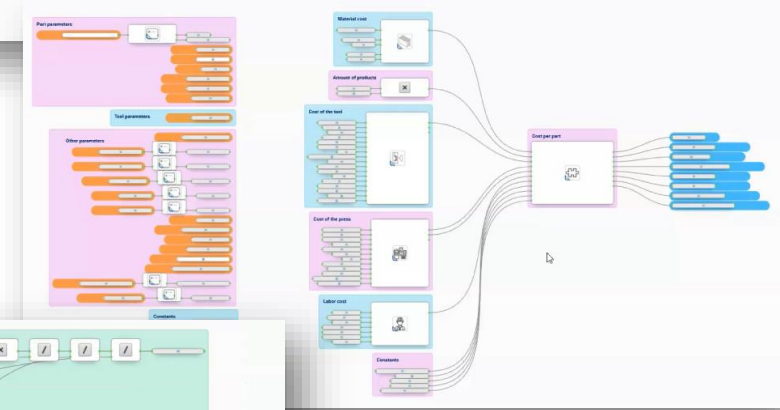
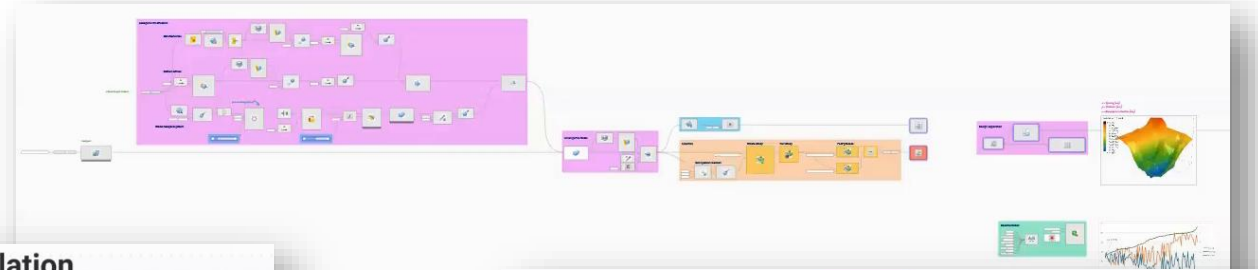
The optimization responses and parameters as well as their corresponding weights and further optimization settings are defined.

from MoldFlow

Annual volume	100000	Market Wt [g]	0.7
Projected area [cm ²]	1000	Projected area [cm ²]	1000
Clamping force [kN]	100	Clamping force [kN]	100
Cycle time [s]	22.7	Cycle time [s]	22.7
Material	120,000,000,000	Material	120,000,000,000
Number of cavities	2	Number of cavities	2

Price per piece

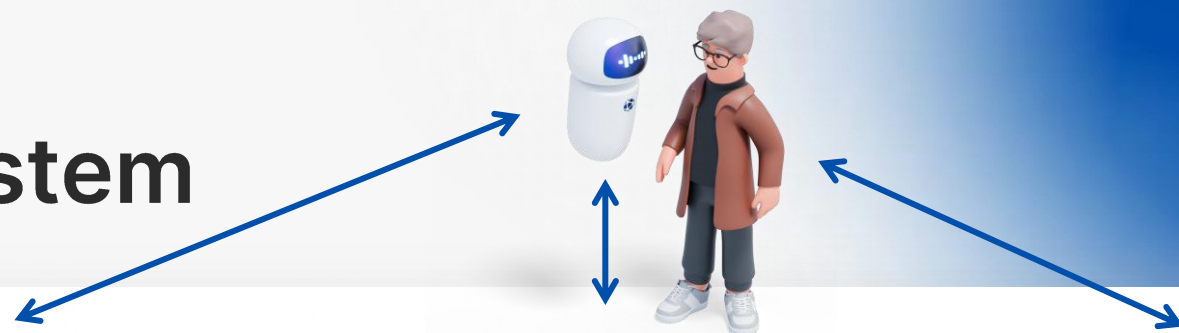
Cost per piece [€]	1.11814
Material cost per piece [€]	
Tool cost per piece [€]	
General overhead cost per piece [€]	
Labor cost per piece [€]	
Energy cost per piece [€]	
Maintenance cost per piece [€]	
Quality assurance cost per piece [€]	



Workflows can be shared.
With colleagues and with agents.



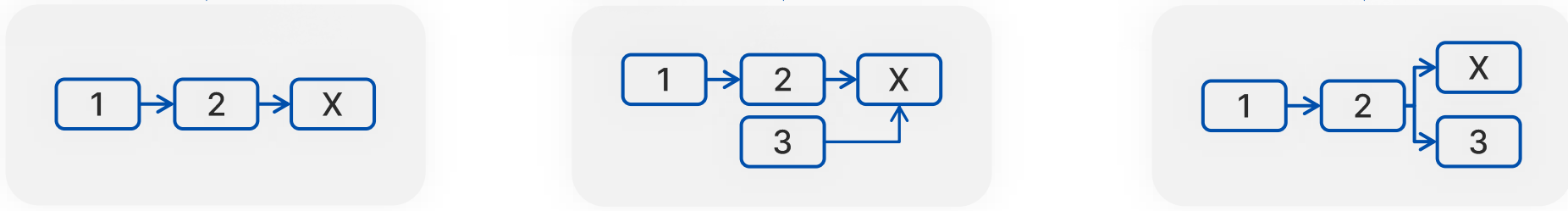
Multi-Agent System



Agents



Workflows



Tools





MAS (Multi-Agent System) for Injection Molding part assessment

This MAS workflow automates the assessment process for injection molding parts.

A Supervisor Agent coordinates specialized operations by assigning tasks to the Defeature Geometry Agent or the Manufacturability Agent.

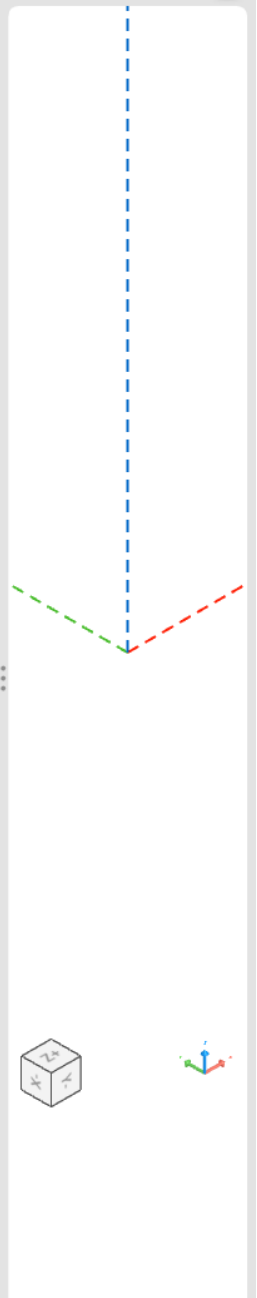
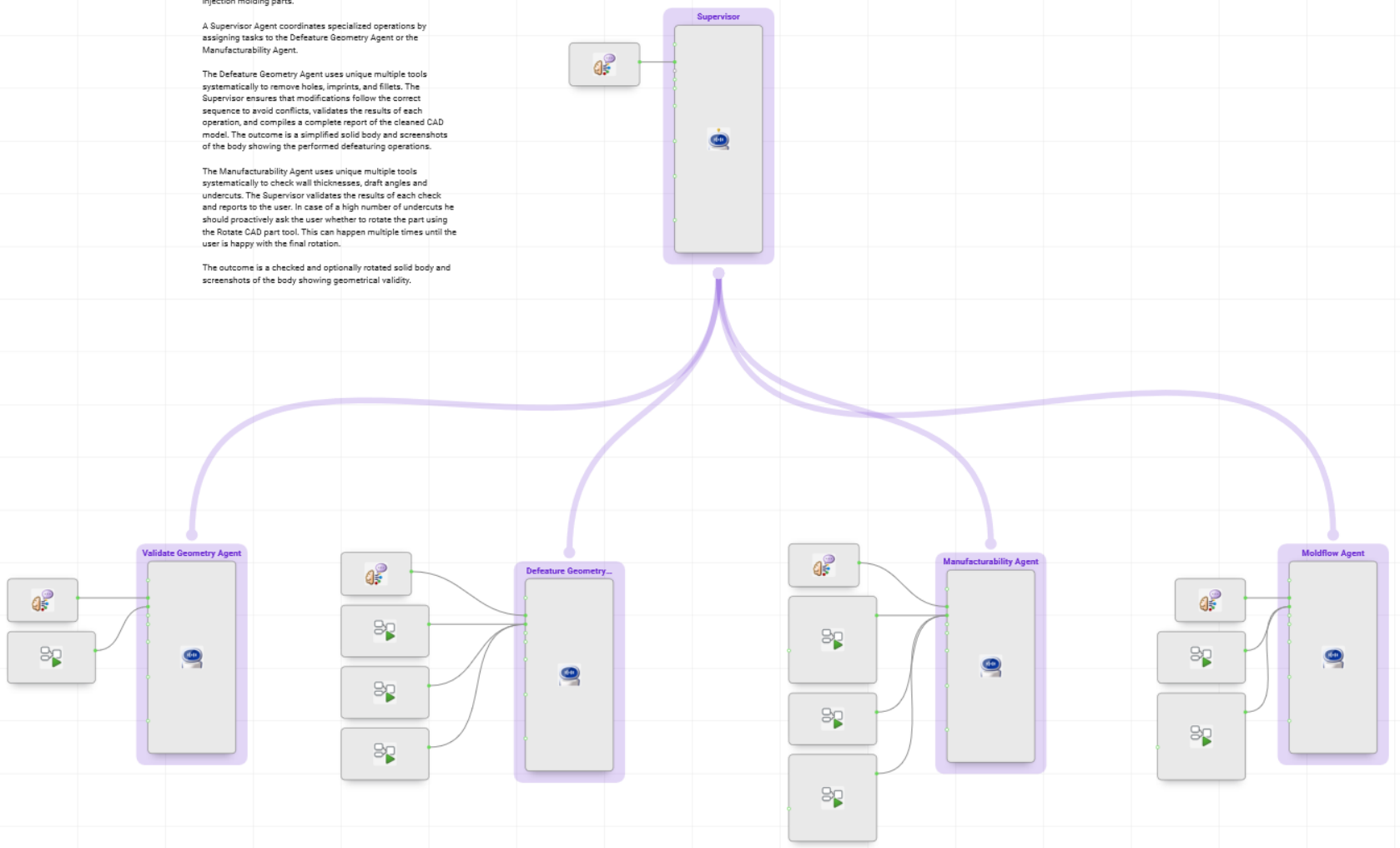
The Defeature Geometry Agent uses unique multiple tools systematically to remove holes, imprints, and fillets. The Supervisor ensures that modifications follow the correct sequence to avoid conflicts, validates the results of each operation, and compiles a complete report of the cleaned CAD model. The outcome is a simplified solid body and screenshots of the body showing the performed defeaturing operations.

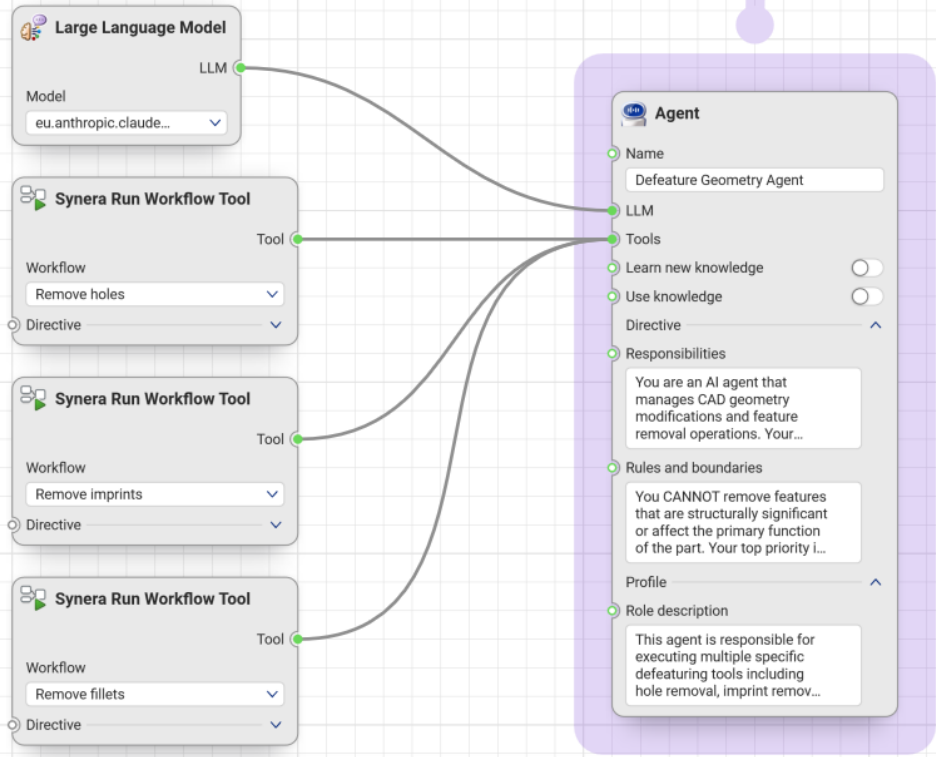
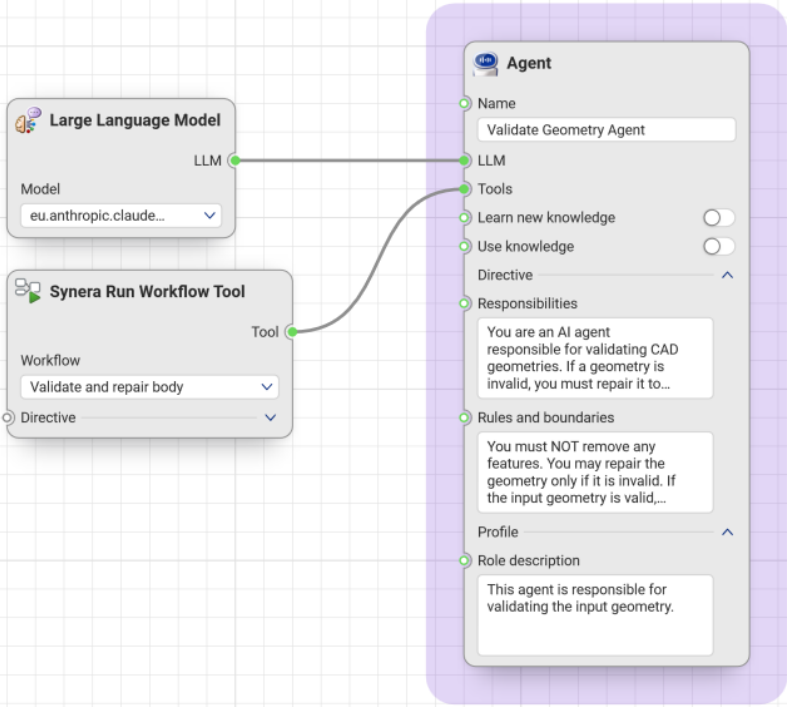
The Manufacturability Agent uses unique multiple tools systematically to check wall thicknesses, draft angles and undercuts. The Supervisor validates the results of each check and reports to the user. In case of a high number of undercuts he should proactively ask the user whether to rotate the part using the Rotate CAD part tool. This can happen multiple times until the user is happy with the final rotation.

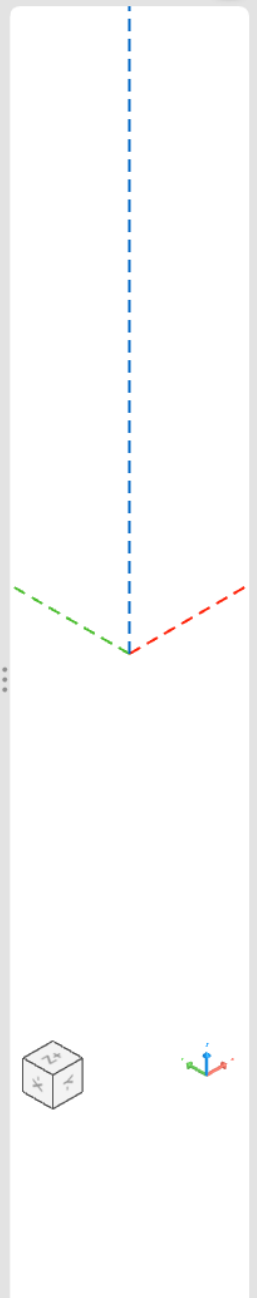
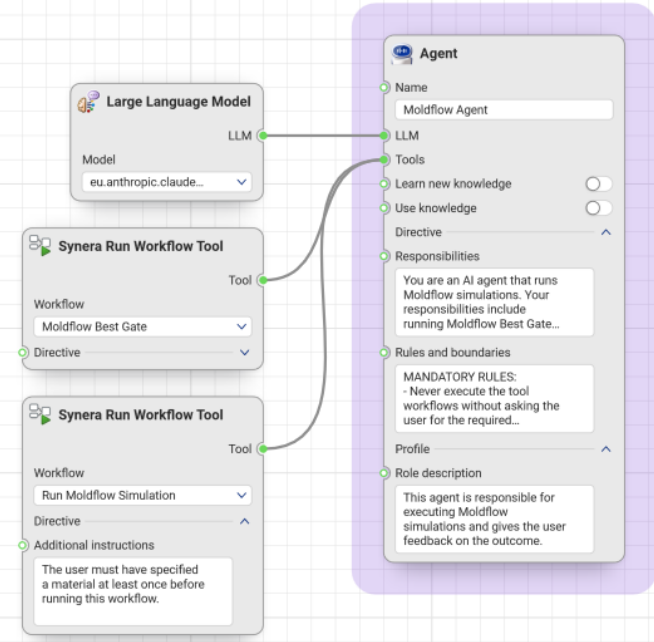
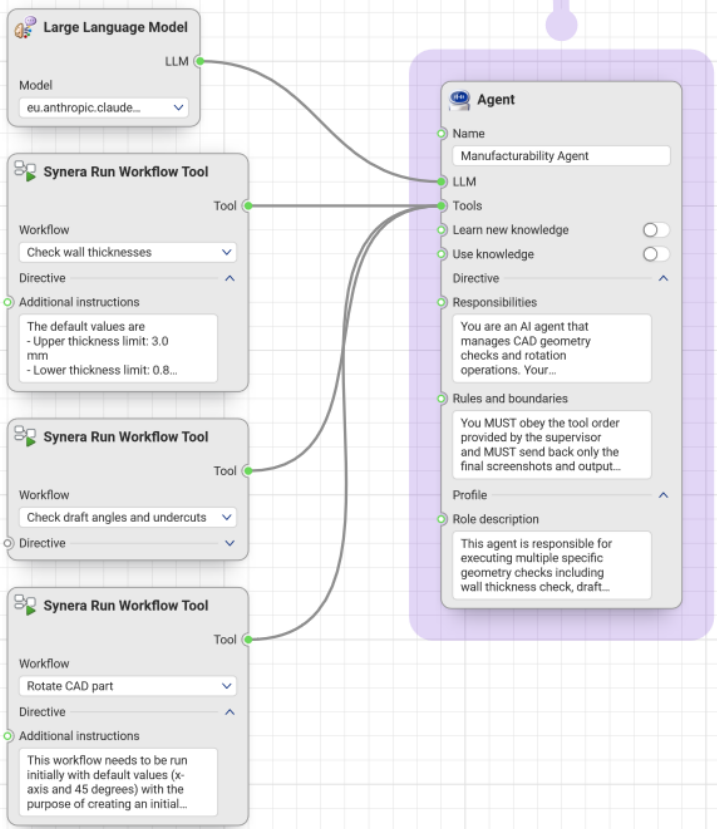
The outcome is a checked and optionally rotated solid body and screenshots of the body showing geometrical validity.

Supervisor (Coordinator)

- Collects user inputs and coordinates the agents.
- Ensures the correct order of tool workflow usage
- Collects final results and returns them to the user.







+ New session

Chat

- Mar 30, 2026 15:05 h ...
- 2026-03-27 Updated bracket, material comparison ...
- 2026-03-27 Updated bracket ...
- 2026-03-26 Plastic bracket ...

operations by assigning tasks to the Defeature Geometry Agent, which uses unique multiple tools systematically to remove holes, imprints, and fillets. The Supervisor ensures that modifications follow the correct sequence to avoid conflicts, validates the results of each operation, and compiles a complete report of the cleaned CAD model. The outcome is a simplified solid body and screenshots of the body showing the performed defeaturing operations.

Supervisor

Hello! I'm here to assist you with automating engineering processes, specifically focusing on preparing CAD models for simulation and running Moldflow simulations. Here's how I can help:

- **Geometry Validation:** We start by validating your CAD model to ensure it's ready for further processing.
- **Defeating:** We can remove unnecessary features like holes, imprints, and fillets from your CAD model to simplify it for simulation.
- **Manufacturability Checks:** We check the model for manufacturability issues such as wall thickness, draft angles, and undercuts.
- **Moldflow Simulations:** We can run simulations to analyze the best gate locations and perform standard Moldflow simulations to assess the part's producibility.

To get started, please upload a solid body file that you would like to process. Once uploaded, we'll validate the geometry and proceed with the necessary steps based on your requirements.

15:05

Type your request here...

Enter to send, Shift + Enter for line break

Synera Multi-Agent System for IM part assessment

Share Help



+ New session

Chat

- Mar 30, 2026 15:05 h ...
- 2026-03-27 Updated bracket, material comparison ...
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- **Moldflow Simulations:** We can run simulations to analyze the best gate locations and perform standard Moldflow simulations to assess the part's producibility.

To get started, please upload a solid body file that you would like to process. Once uploaded, we'll validate the geometry and proceed with the necessary steps based on your requirements.

15:05

You HS

Please check wall thicknesses first.

Penholder.stp
11 MB

15:06

Supervisor

Working on it..

15:06

Hide details

Type your request here...

Enter to send, Shift + Enter for line break

+ New session

Chat

- Mar 30, 2026 15:05 h ...
- 2026-03-27 Updated bracket, material comparison ...
- 2026-03-27 Updated bracket ...
- 2026-03-26 Plastic bracket ...

Notify user of concerning wall thickness analysis results. 13.3% of elements below 0.8mm lower limit indicates potential manufacturability issues requiring attention. Provide analysis images file_output_geometry_image_isometric_view_0_0_1b907a73-96ac-46b3-a407-19e5a1699612.jpeg, file_output_geometry_image_left_view_0_0_667f9e91-24a6-4535-b1c2-9dba6c005a21.jpeg, file_output_geometry_image_right_view_0_0_8af47c3c-30a7-44b6-be4e-f7c8895c92f2.jpeg for review.

🗨 15:08

🗨 Hide details



Supervisor

The wall thickness analysis has been completed. Here are the results:

- 0% of the elements are above the upper thickness limit of 3.0 mm.
- 13.3% of the elements are below the lower thickness limit of 0.8 mm, which may indicate potential manufacturability issues.

Please review the images below for a visual representation of the analysis:

- Isometric View
- Left View
- Right View

Let me know if you need further assistance or adjustments!



Type your request here...



Enter to send, Shift + Enter for line break



+ New session

Chat

- Mar 30, 2026 15:05 h ...
- 2026-03-27 Updated bracket, material comparison ...
- 2026-03-27 Updated bracket ...
- 2026-03-26 Plastic bracket ...

Hide details



Supervisor

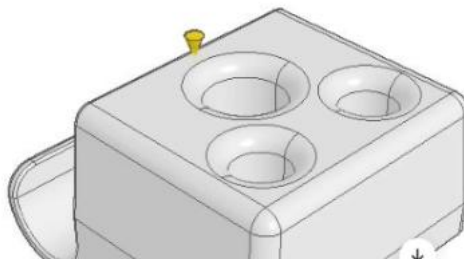
The Best Gate analysis has been completed, and a suitable injection location has been determined for your part using PPC G3220A material. Here are the details:

- **Gate Position:**
 - X: 12.059
 - Y: 0.102
 - Z: -5.452

Please review the images below for a visual representation of the recommended gate position:

- Front Isometric View
- Bottom View

Let me know if you need further assistance or adjustments!



Type your request here...



Enter to send, Shift + Enter for line break

+ New session

Chat

- Mar 30, 2026 15:05 h
- 2026-03-27 Updated bracket, material comparison
- 2026-03-27 Updated bracket
- 2026-03-26 Plastic bracket

t785887cd88e.jpeg and log file file_moldflow_log_0_0_3691f921-6e55-47c9-9fd3-d92d5eea7486.txt. 15:21

Hide details

Supervisor

The Moldflow simulation has been completed with the adjusted gate position. Here are the key results:


- **Volume to be Filled:** 19.47 cm³
- **Fill Time:** 0.42 seconds
- **Max. Pressure:** 12.17 MPa
- **Max. Warpage:** 35.12 mm

You can review the detailed simulation results and images below:

- Fill Time Result (Top Iso View)
- Pressure at V/P Switchover Result (Top Iso View)
- Warpage Result (Top Iso View)
- Weld Lines Result (Top Iso View)
- Air Traps Result (Top Iso View)
- Moldflow Log

Let me know if you need further analysis or adjustments!

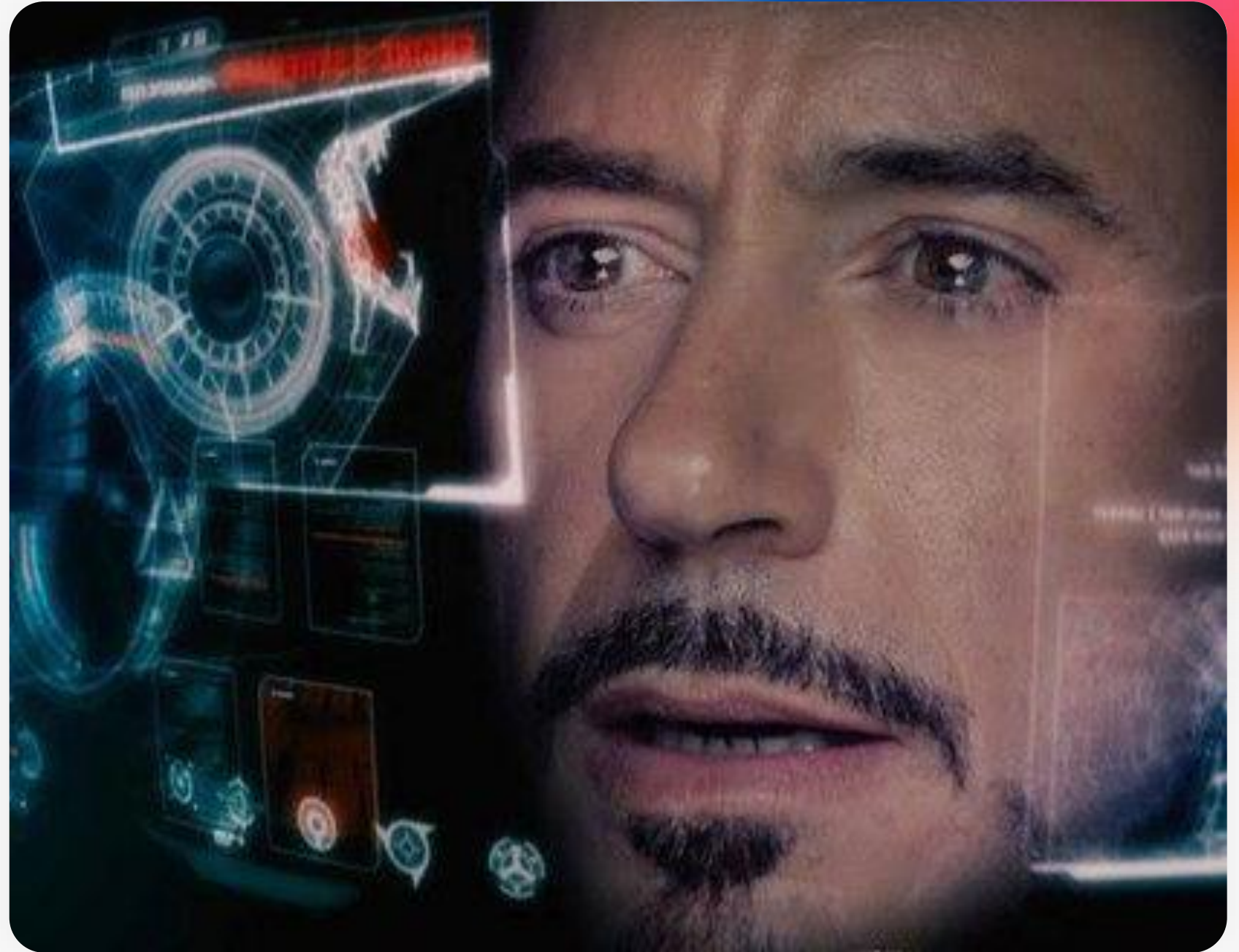
Time based load step. Increment: 1, total time: 0: FILL-



Type your request here...

Enter to send, Shift + Enter for line break

**Now, what's
possible today?**



Autonomous. Commercially live today.

Weeks of engineering work
become minutes with the same
quality, significantly faster.



“3 weeks to 2 min

Enterprise roll-out

AIRBUS

“50 hours to 7 min

Real-time cost & value engineering

brose
Excellence in Mechatronics

Rosenberger

Hettich

L'ORÉAL



B/S/H/



HYUNDAI
MOTOR GROUP
EUROPEAN TECHNICAL CENTER



KNORR-BREMSE

SIEMENS

Partners

AMC BRIDGE

ALTAIR



AUTODESK

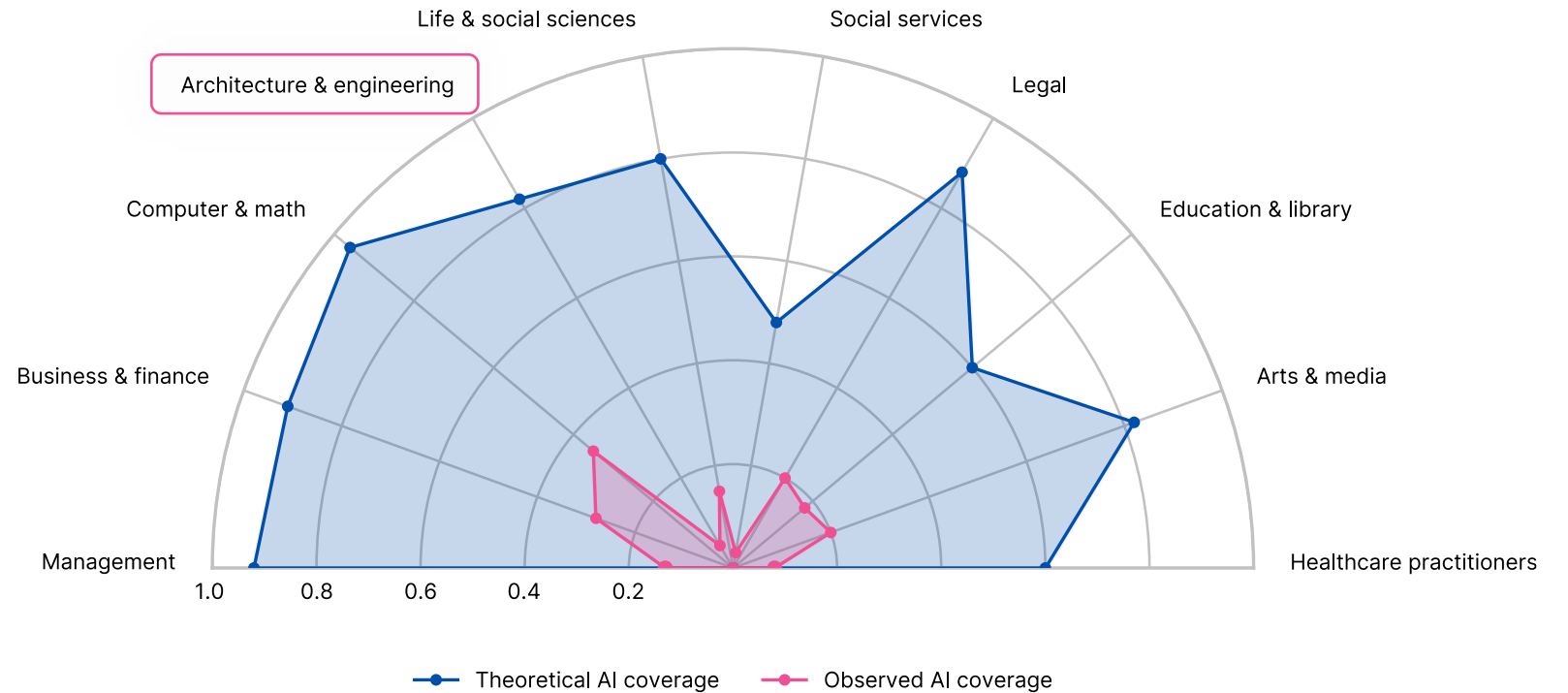
EDAG

HEXAGON

The innovator gap your competitors haven't closed

AI first-movers gain a sustainable competitive advantage

Theoretical capability and observed usage by occupational category



Source: Labor market impacts of AI: A new measure and early evidence (Anthropic, 2026)



Hendrik Schütte

Forward Deployed Engineer
hendrik.schuette@synera.io



Let's
connect!



The future
of engineering
is agentic