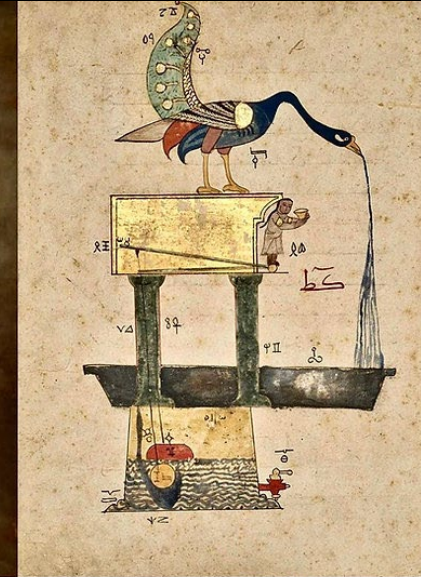




Mario Russi
Head Physical AI & Robotics

PHYSICAL AI **CHANCEN FÜR DIE SCHWEIZER INDUSTRIE**



Ismail Al-Jazari

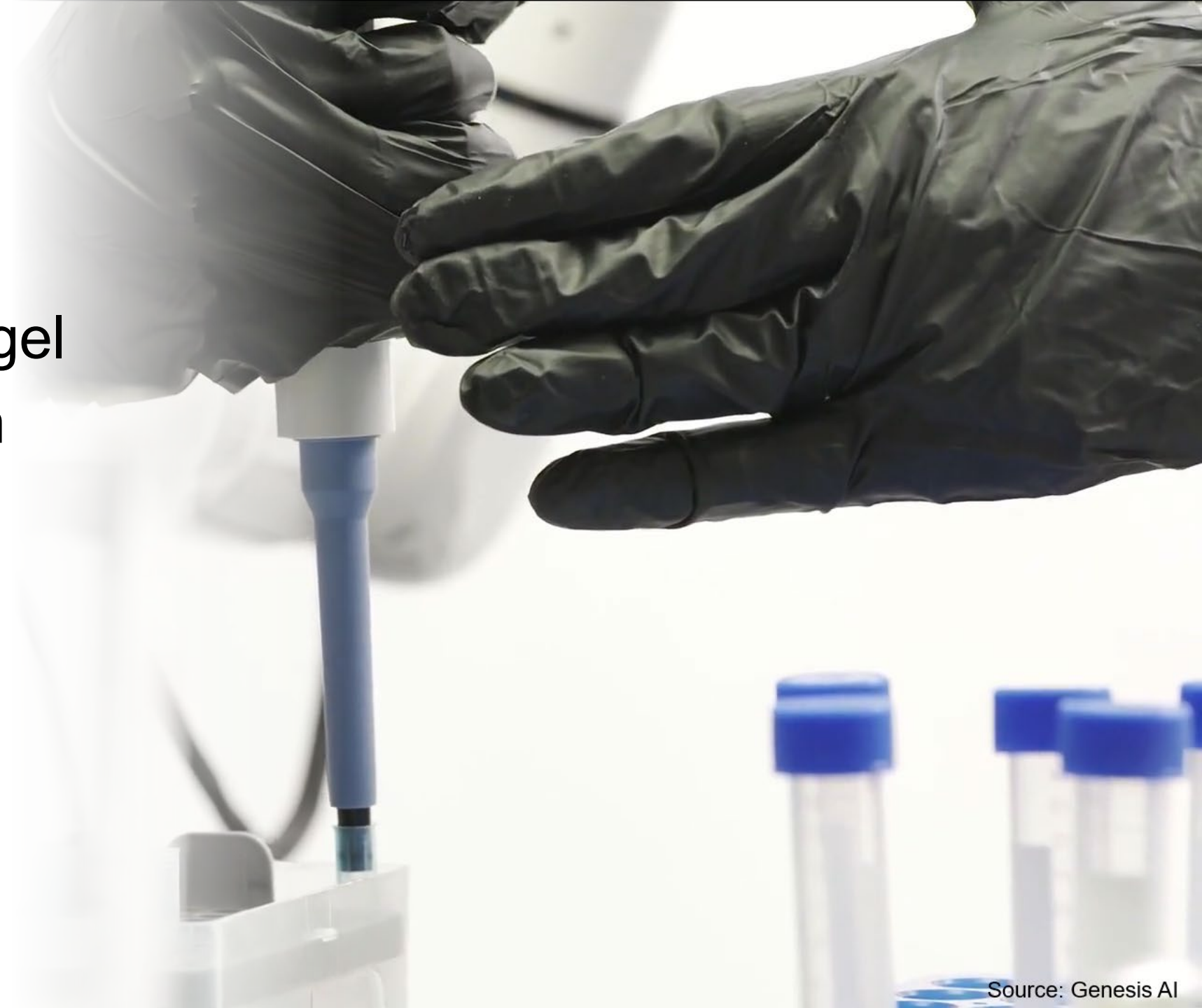


Autonomous

1x speed

Challenges

- Arbeitskräftemangel
- Steigende Kosten
- Qualitätsdruck
- Lieferketten
- Produktzyklen







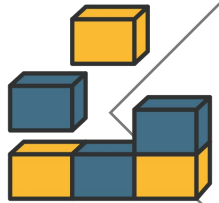


ROBOTICS IS CHALLENGING

HARDWARE



Robustness



Modularity



Costs

SOFTWARE



Safety



Integration



Speed



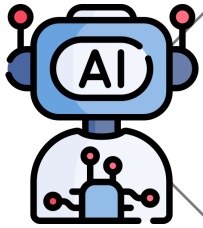
Data driven



Adaptability

TECHNOLOGY AND DEMAND DRIVES PHYSICAL AI

TECHNOLOGY DRIVERS

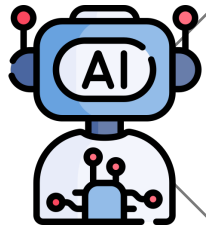


Robotic platforms

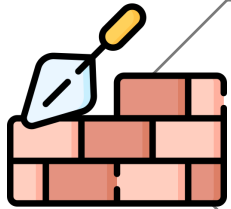


TECHNOLOGY AND DEMAND DRIVES PHYSICAL AI

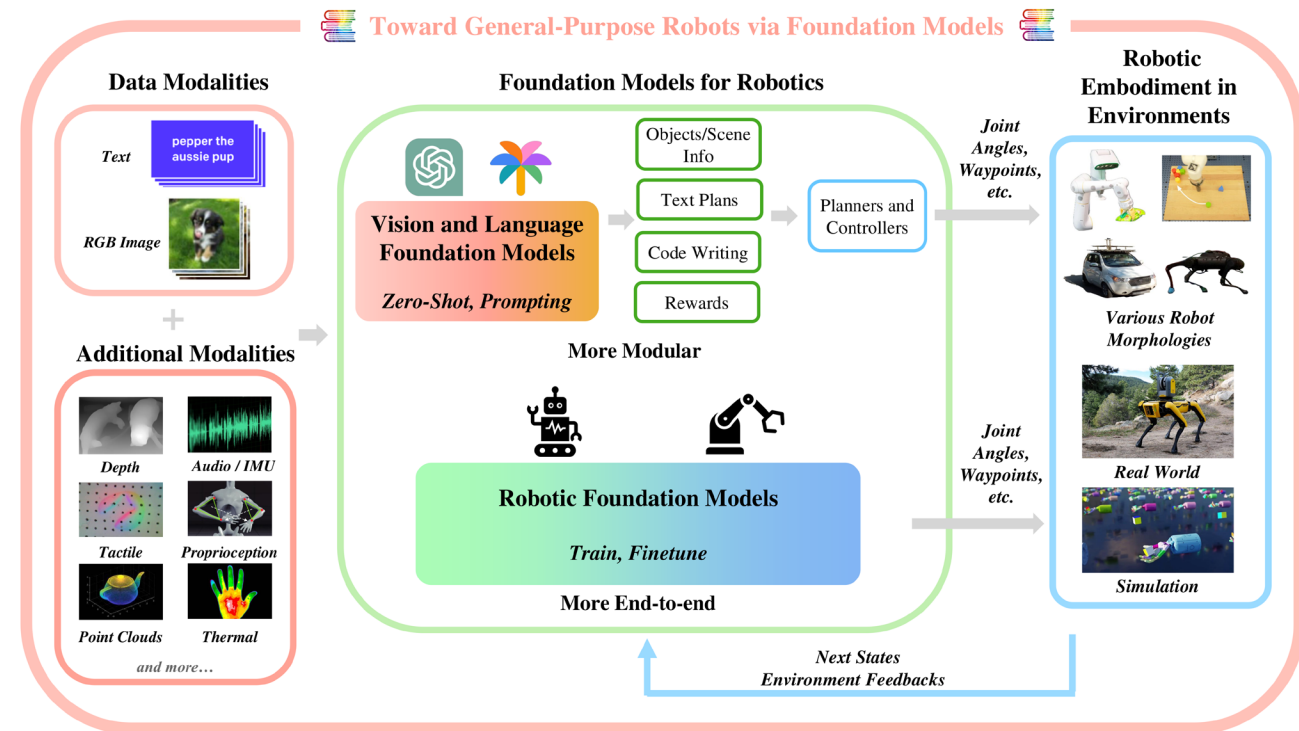
TECHNOLOGY DRIVERS



Robotic platforms

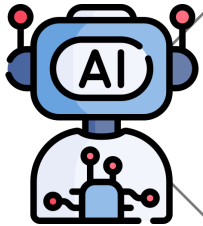


Foundation Models

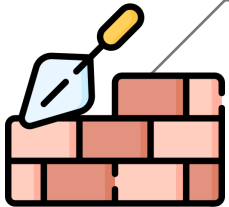


TECHNOLOGY AND DEMAND DRIVES PHYSICAL AI

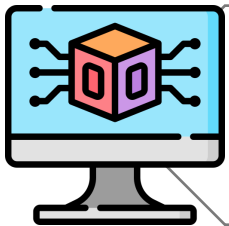
TECHNOLOGY DRIVERS



Robotic platforms

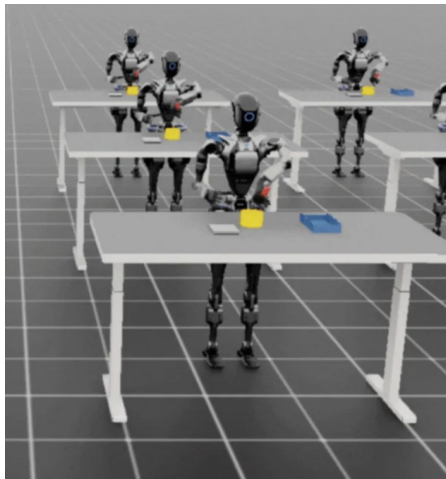


Foundation Models



Data collection

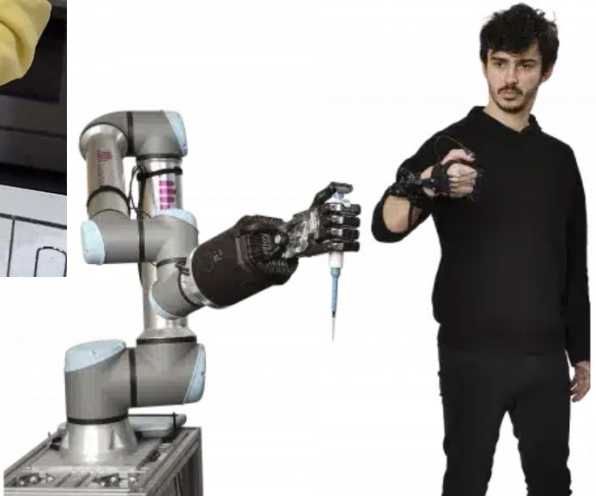
TECHNOLOGY AND DEMAND DRIVES PHYSICAL AI



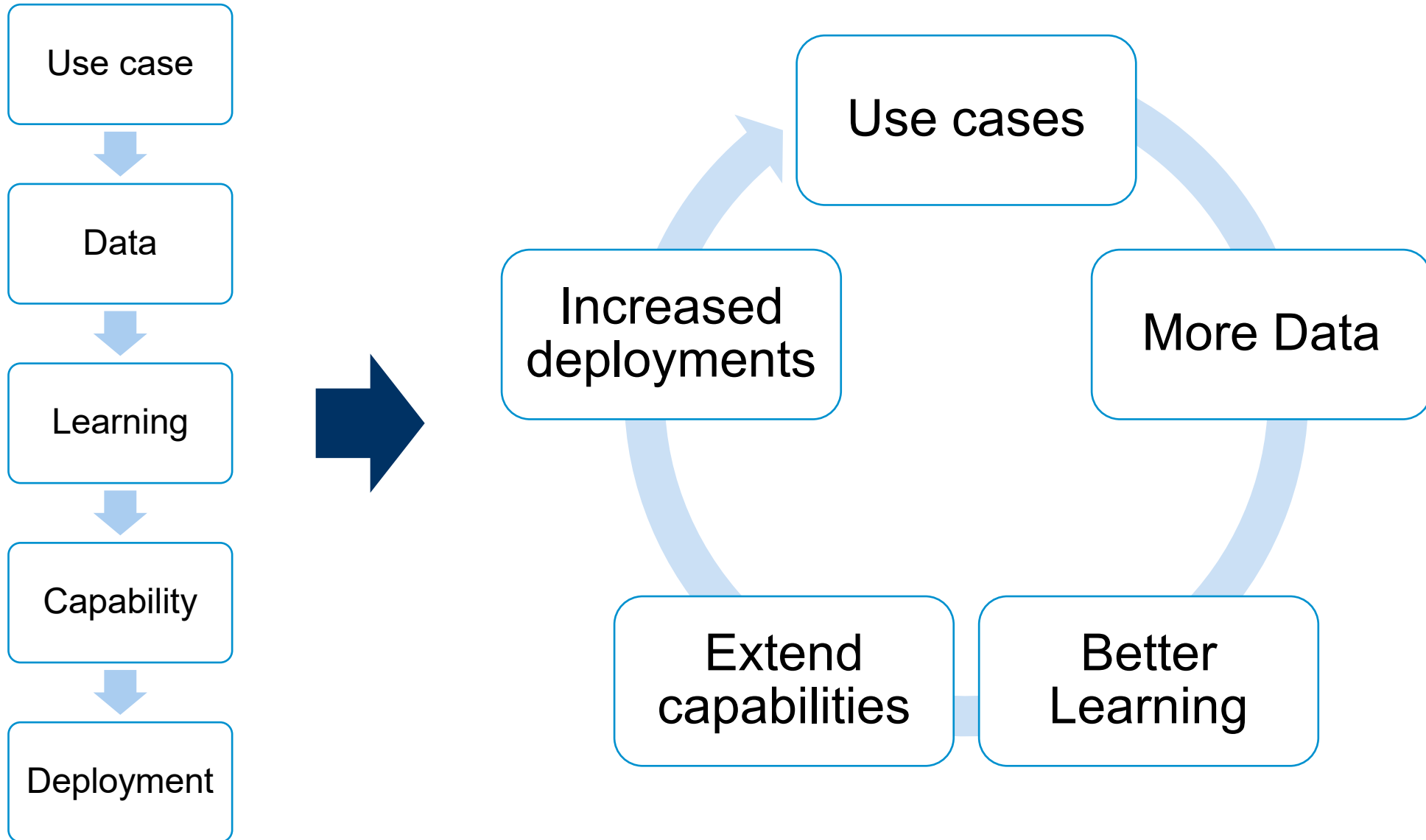
Data
volume



Reality



FLYWHEEL DRIVES DEPLOYMENT



INCREASE COMPETITIVENESS WITH PHYSICAL AI



METTLER TOLEDO



aurovis[®]
automation robotics vision systems



FACING THE CHALLENGES OF OUR TIME



WORKSHOP

INCREASE COMPETITIVENESS WITH PHYSICAL AI



METTLER TOLEDO



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automation robotics vision systems

CHEMICAL ANALYSIS REQUIRES EXPERT KNOW-HOW



STAR^e SW 16.30



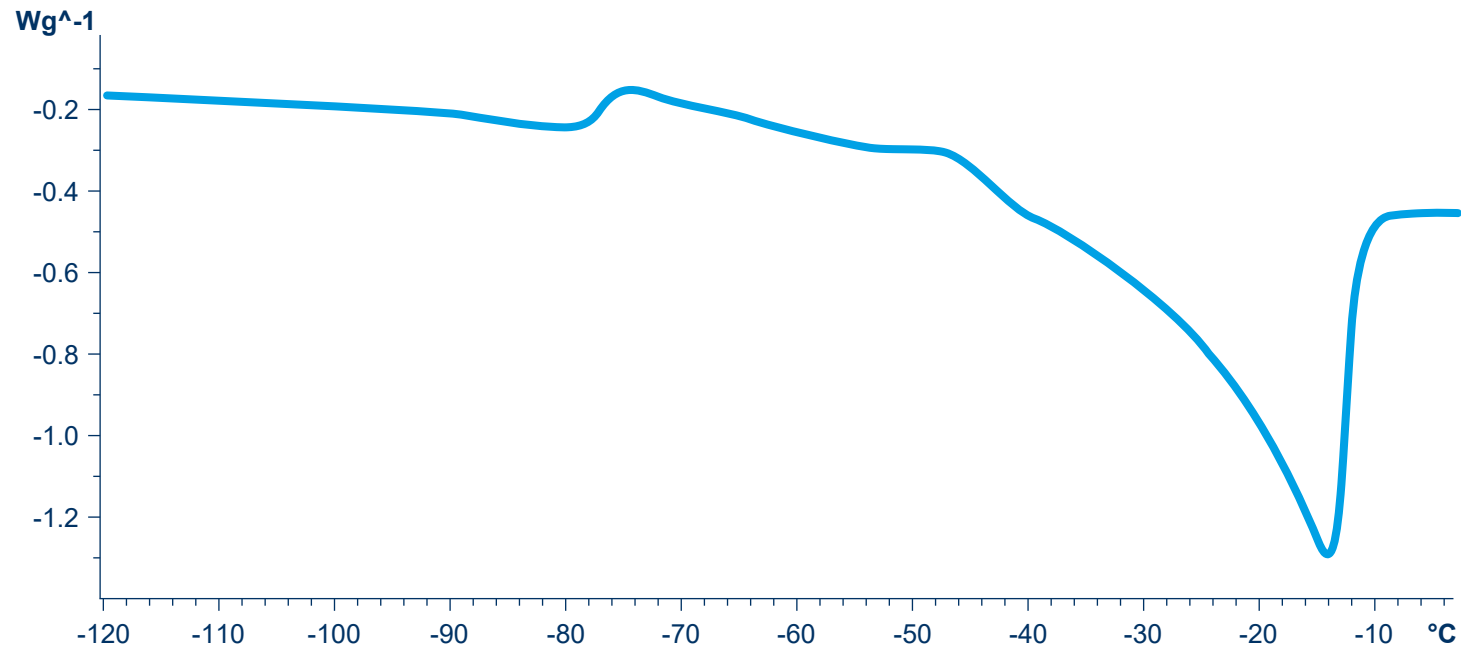
Analysis in Lab



Expert know-how



Time intensive



Sample: Honey with water (44%) (Food), 27.1200 mg

AI-ASSISTED ANALYSIS



STAR^e SW 16.30

Glass Transition (GTGEH)

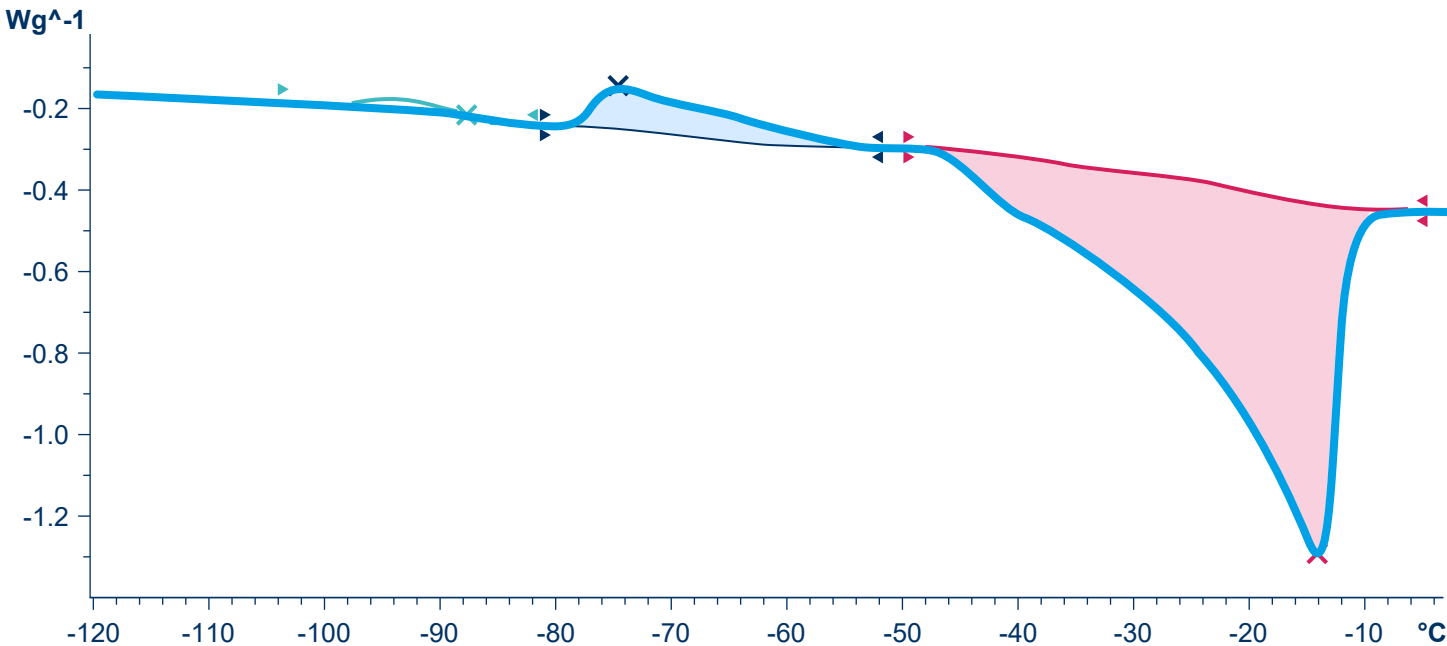
Onset -91.69 °C
Midpoint ISO -87.52 °C
Left Limit -104.16 °C
Right Limit -81.61 °C
Type sigmoidal

Crystallization (CLCDH)

Integral 218.45 mJ
Normalized 8.05 Jg⁻¹
Peak -74.88 °C
Left Limit -81.54 °C
Right Limit -52.08 °C

Melting (MPGEH)

Integral -1964.20 mJ
Normalized -72.43 Jg⁻¹
Peak -15.00 °C
Left Limit -49.95 °C
Right Limit -4.94 °C



All Thermal Effects

✓ Identified

✓ Qualified



Expert Know-How Encoded

SAME MARKET – MORE VALUE



AI-Wizard makes the device
smart and **differentiated**.



Increases efficiency of
People in the **laboratory**



AI-Wizard an additional
service that can be marketed.



New **business model**
Globally scalable



INCREASE COMPETITIVENESS WITH PHYSICAL AI



METTLER TOLEDO



aurovis®
automation robotics vision systems

AI DRIVEN ROBOTICS



AI DRIVEN ROBOTICS



Acoustic Interface



VS: Blockly Editor

https://localhost:52079/blockly

Summarize 🔍 ⭐️ ⚙️ Verify it's you 🔒 Chat

ViaSort Web UI

Visual Programming Editor

SAVE ▶ PLAY ⏸

IDLE SHOW ERROR

Industry Cluster for Lab & Science Instrumentation

Members include:

- meas
- ...

Ask the AI anything...

Configure

External Restart Feature Manager Configuration

amp	Statistic	Aut.	Buffer S.	Log
\$6.117	c 720x @ 0.3 Hz			1
\$0.000	0x @ 0.0 Hz			1
\$2.015	c 1,539,172x @ 89.			1,000
\$1.201	c 164x @ 0.1 Hz	1	☒	1
\$1.682	c 164x @ 0.1 Hz		☒	1
\$1.127	c 329x @ 0.1 Hz	1	☒	4
\$1.004	c 165x @ 0.1 Hz	1	☒	1
\$1.684	c 164x @ 0.1 Hz	1	☒	1
\$1.682	c 164x @ 0.1 Hz			4

CPU usage: 2% Memory usage: 1227 MB

ENG 15:29 28/05/2026

SAME MARKET – MORE VALUE



AI-enabled **User-Interface**



People interact differently
Less **scared** to interact



Enables **adoption** of **robotics**

GROUP WORK



Opportunity:

Think big, start small!

- Can (Physical) AI help transform your product or operations?
- How can value be unlocked?
- What are the next steps?

