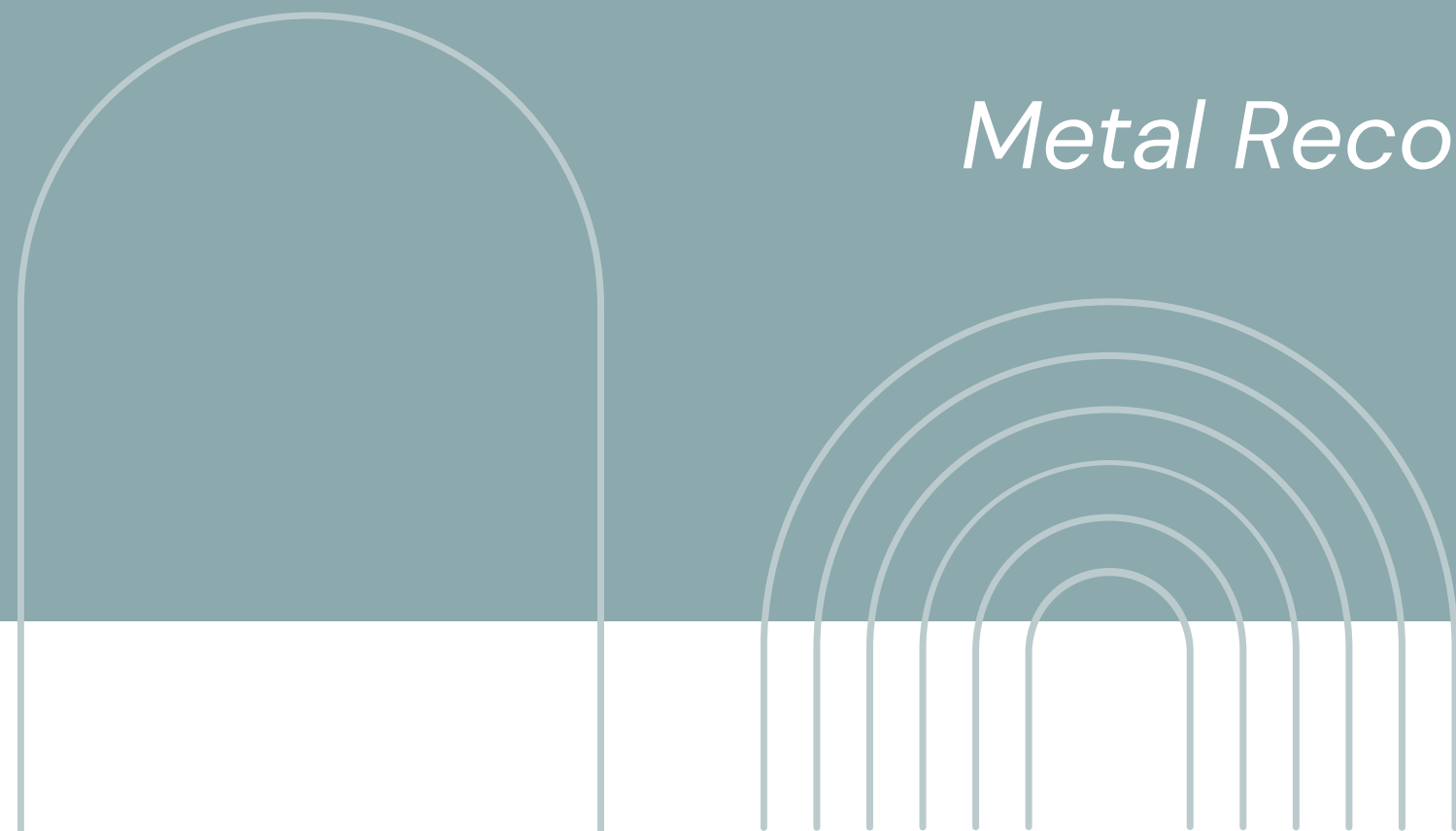


MATERIAL SUPPORT

Metal Recommendations for Probe Needle.





01. INTRODUCTION
Probe card company meet

02. MARKET & TREND
Service for wafer probe card

03. PROBLEM & SOLUTION
Materiel&Method

04. BUSINESS MODEL
Add a short description

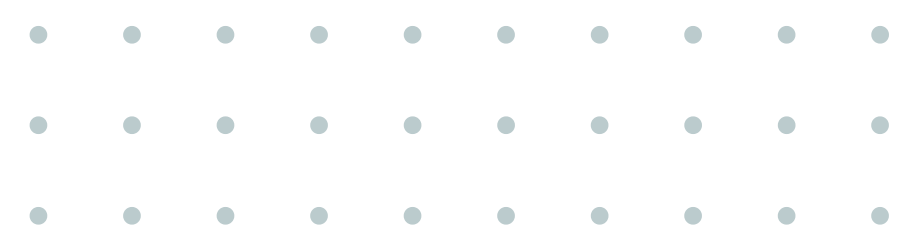
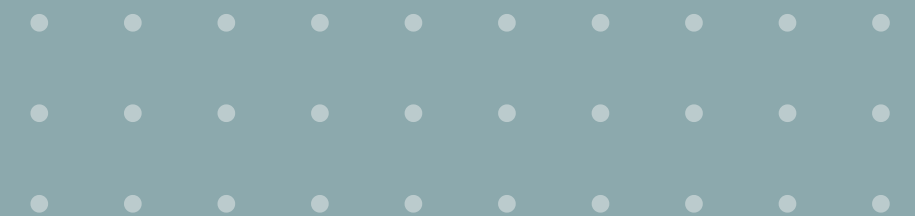


TABLE OF CONTENT



WAFER!

The mother of chips, the grand parents of AI.
So, how can we check it is usable?



PROBE CARD

Current testing to determine the usability of wafers.

PROBE NEEDLES

Assessing the stress and current characteristics



LONG DESCRIPTION FOR PURPOSE

The onset of the **5G era signifies a profound shift in telecommunications**, heightening the necessity for components capable of handling high-speed signals with minimal attenuation. One significant challenge lies in the inadequacy of the length and material of measurement probes within **AP chips, HPC, and automotive technology to meet the surging demand**.

Our **innovative strategy** directly confronts this challenge. **By shortening probe lengths and enhancing electrical specifications**, we not only address current limitations but also future-proof our solutions. This is especially crucial in automotive technology, where the transition to autonomous vehicles and advanced driver-assistance systems (ADAS) necessitates robust components.

At the **core** of our approach lies the integration of an automated system **identifying alloy characteristics highly valued by customers**. This ensures consistency and reliability in probe performance, aligning perfectly with the rigorous demands of the 5G landscape. Furthermore, our solution exceeds mere compliance with 5G standards; it sets a new benchmark for probe durability and longevity. By extending probe lifespan through innovative design and materials, we reduce the frequency of replacements and maintenance, ultimately lowering costs.

The benefits of our approach ripple throughout the manufacturing ecosystem, including **heightened measurement accuracy, minimized signal degradation, prolonged probe lifespan**, enhanced operational efficiency and cost-effectiveness. Leveraging insights from market trends and customer feedback, we have identified strategic opportunities for **collaboration with material suppliers**.

These **partnerships hold the potential to unlock new frontiers** in material science, paving the way for the development of advanced materials tailored to the needs of next-generation telecommunications infrastructure. Consequently, our probes not only excel in the realm of 5G but also offer promise for applications in emerging technologies such as the Internet of Things (IoT) and smart cities.

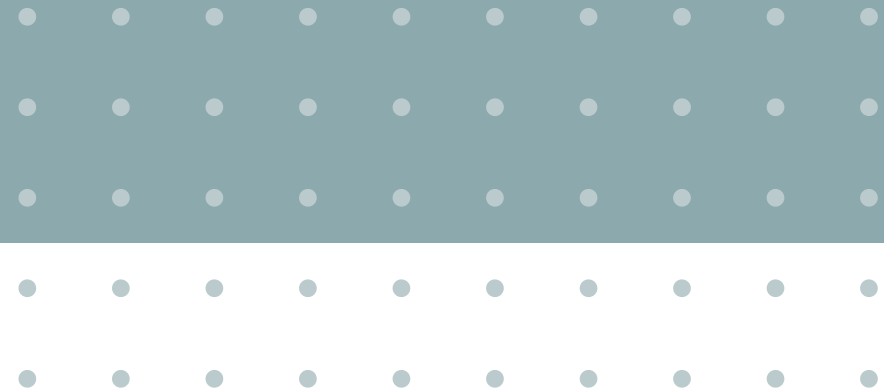
In essence, our dedication to innovation and collaboration positions us as a driving force in the probe card industry, poised to shape the future of telecommunications and unlock unprecedented possibilities in the 5G era and beyond.



02.

MARKET & TREND

Service for wafer probe card



PROBE CARD TREND

COMPANY

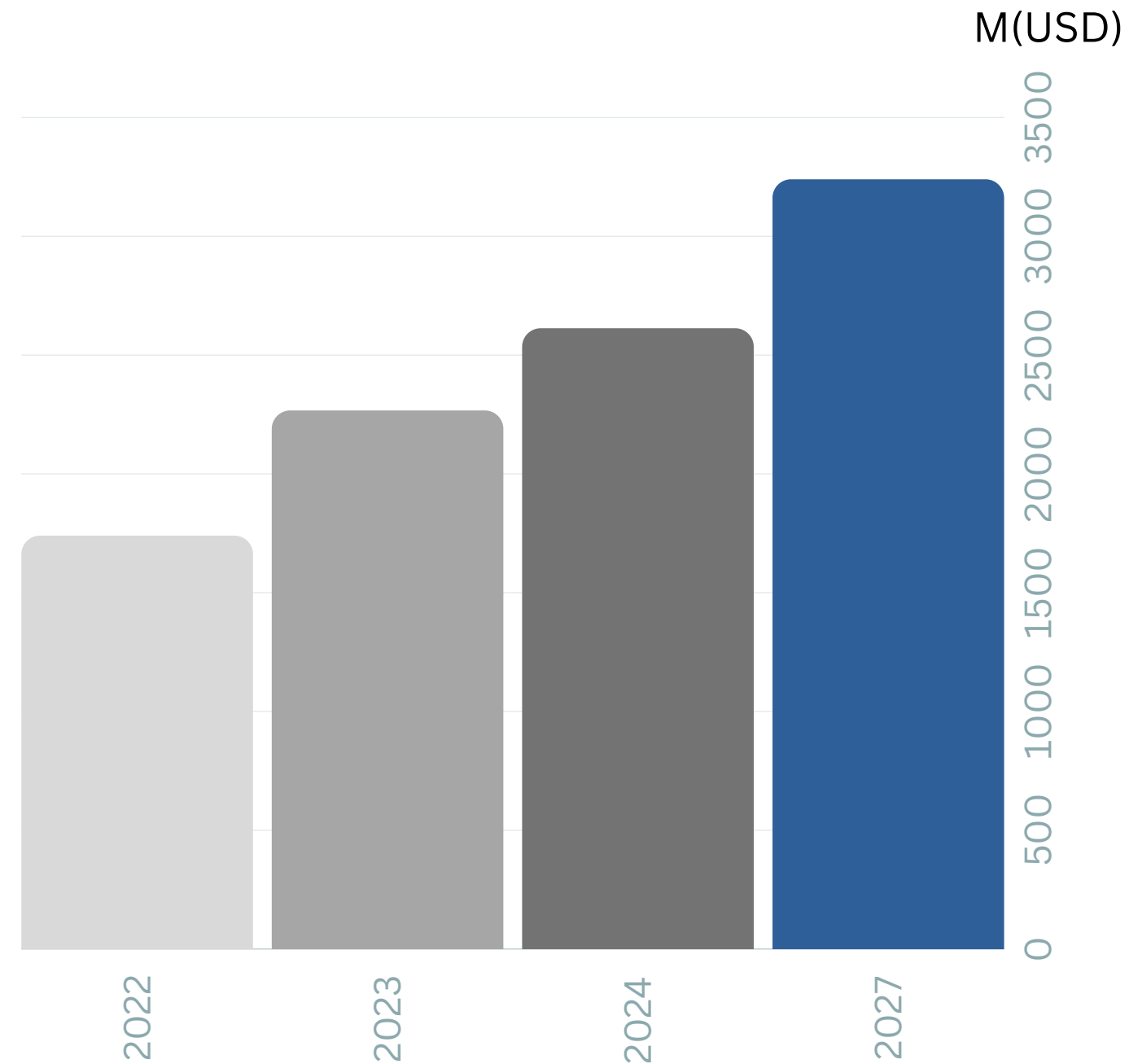
Nvidia. TSMC
Tesla

SALES

Increasing in demand

MARKET

Growth with AI

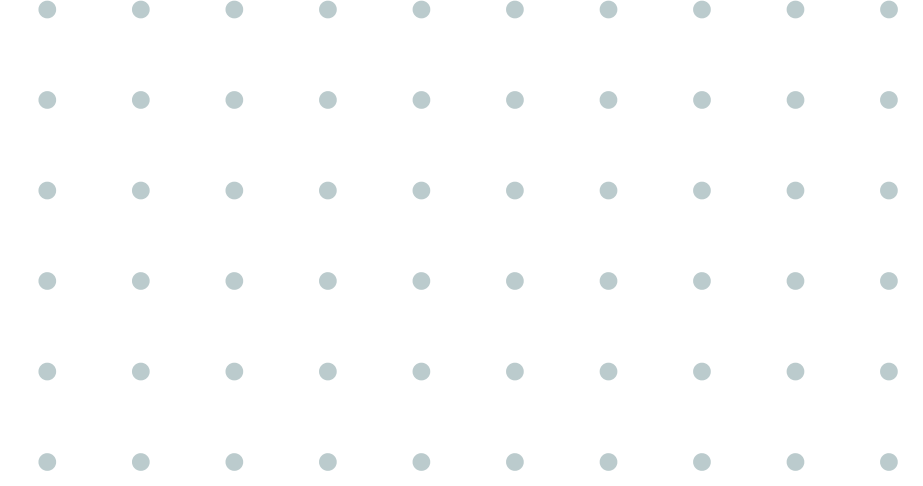


56.4%
Semiconductor
2023 YoY

>\$2267M
Total revenue in
2023

9.4%
2023-2027
CAGR

GLOBAL MARKET



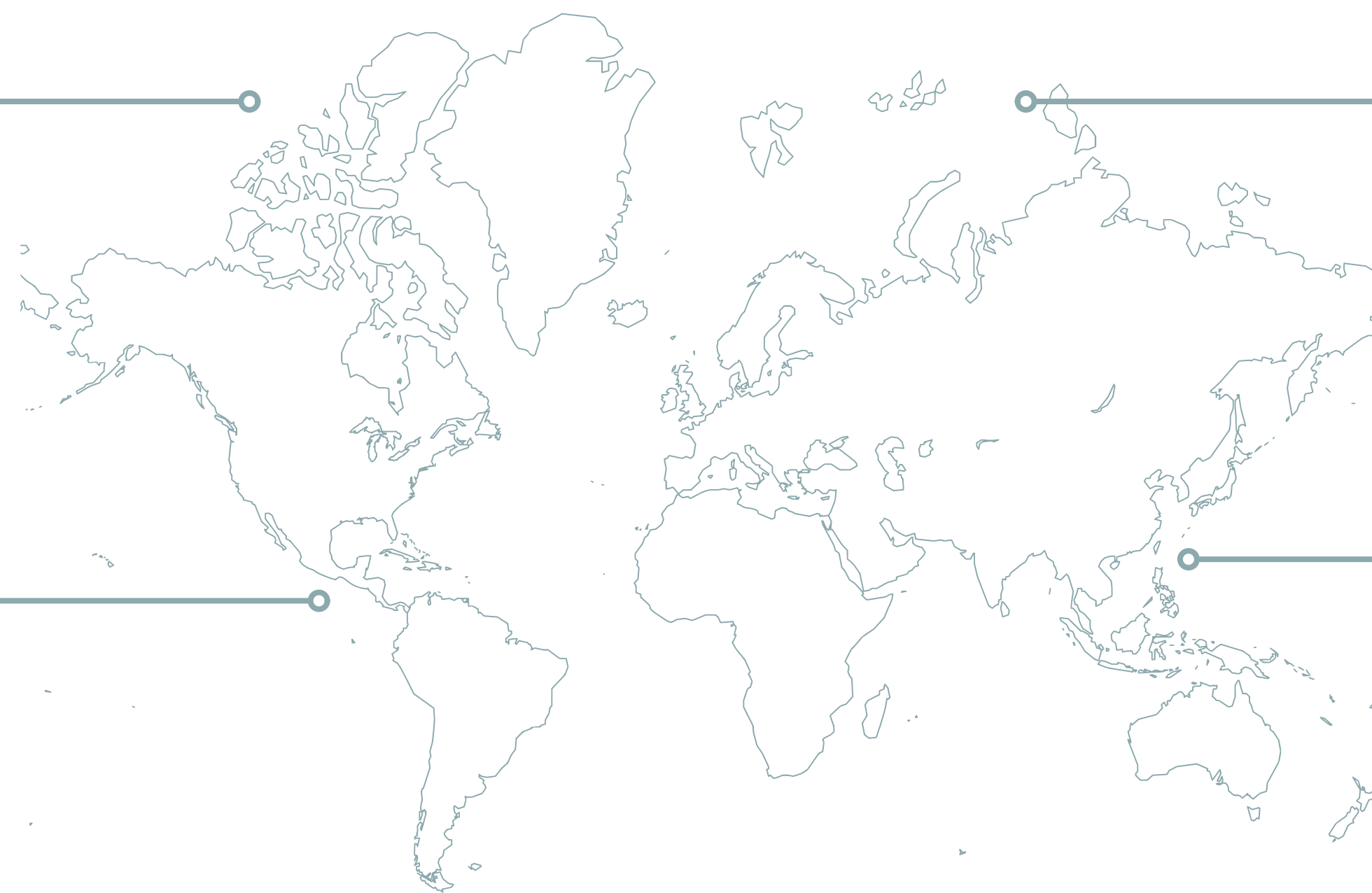
40.2%
NORTH
AMERICA

18.4%
EUROPE

3.8%
SOUTH
AMERICA

35.4%
ASIA

Taiwan contribute 24%.



03.

PROBLEM & SOLUTION

Material & Method.



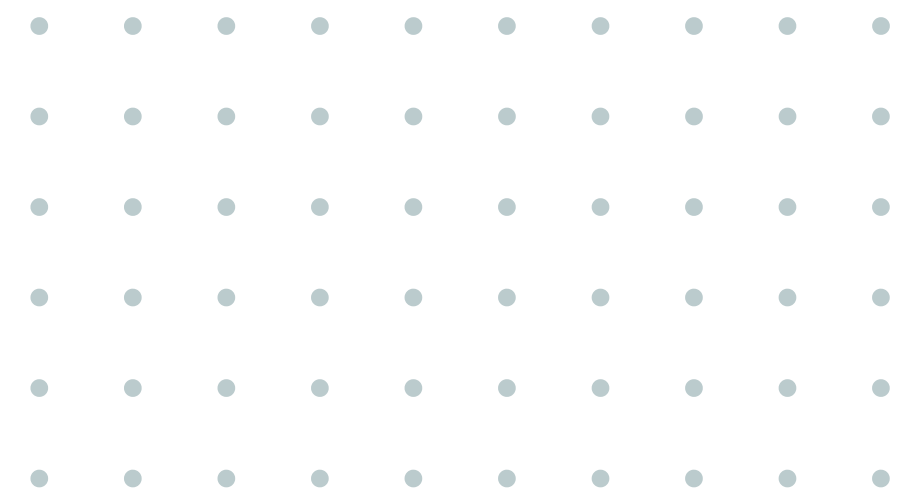


PROBLEM

- Rapid product iteration
- Timeliness in production
- Metal properties are interdependent

SOLUTION

- Targeting search for scholarly articles on probe design.
- Compiling metal material data to assess the performance of key features in a new alloy.
- Investigating the numerical performance of alloy materials, with a focus on stress response and signal behavior.



FLOW TABLE

RESEARCH

CRAWLER

VECTARA

KEY WORD

WEBSITE
MANAGEMENT

API

probe |

Review on recent progress in Al-Mg-Si 6xxx conductor alloys
Proc.

[Search | arXiv e-print repository](#)
Afterward, by integrating the expertise of multiple specialized components, we propose an MoE-proximal policy optimization (PPO) approach to solve the formulated problem.

[Search | arXiv e-print repository](#)
Journal ref: Proc.

[Search | arXiv e-print repository](#)
Journal ref: Proc.

[Search | arXiv e-print repository](#)
Journal ref: Proc.

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Journal ref: Proc.

[Search | arXiv e-print repository](#)
Journal ref: Proc.

[Search | arXiv e-print repository](#)
Journal ref: Proc.

GUIDING USERS



1. Material recommendation
2. Decrease the information barrier between Card company & Material Suppliers



Material manufacturers build similar recommendation system



Integrate
IC designer
PCB
Semiconductor products

NO
Material production capacity



PARTNERING WITH VECTARA FOR THE FUTURE

DOMAIN KNOWHOW

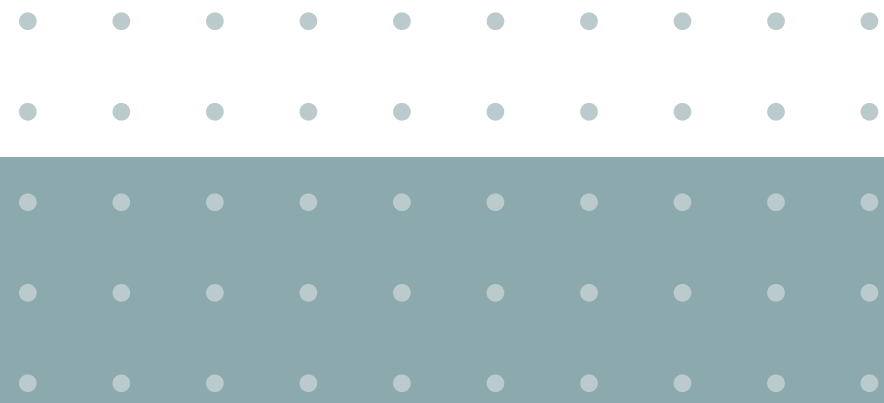
Provide insights and research capacity on Probe card and Materials to enter the market.

RAG ADVOCATE

Optimizing based on Vectara's modules and the RAG framework.

TECHNICAL PARTNERS

Continuously enhancing the accuracy of GPT, and expanding the achievable application scenarios.



THANK YOU

Have any question?

