

May 20, 2026

Research Salon

**COULD YOUR  
NEXT RESEARCH  
PROJECT BECOME A  
COMMERCIAL REALITY ?**

**Presented By:**

**Vaithinathan Karthikeyan**

**Assistant Professor, S&T**

**Founder of ClimaCircuit Ltd**



# Agenda



## Startup Route



## IP Decisions



## Fundraising

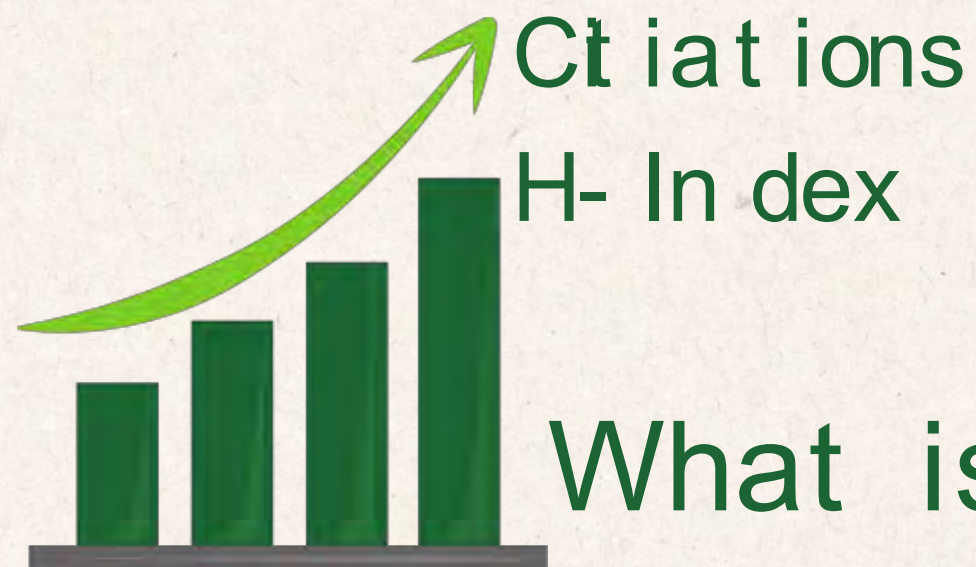


## Challenges



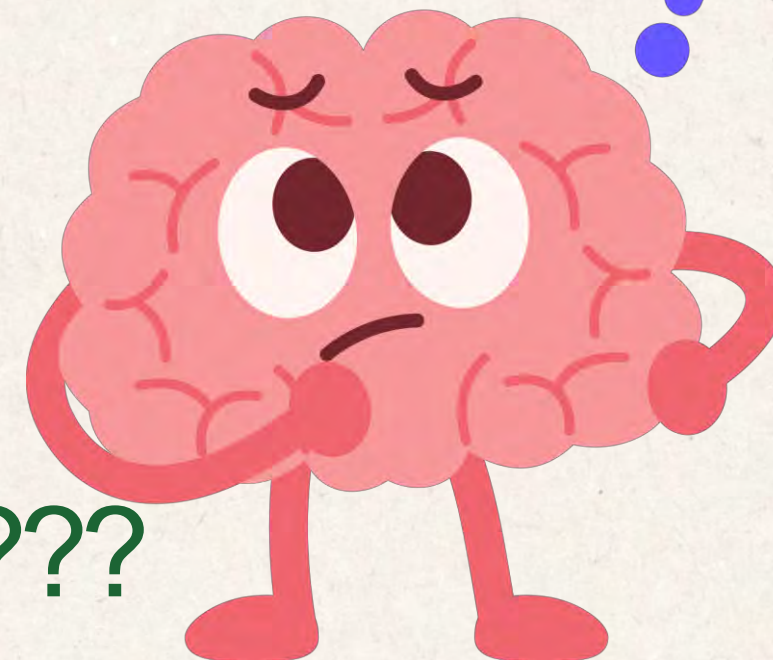


This paper presents a **novel** method for ...  
This research develops a **new framework** for ...  
We have found an **innovative approach** for ...  
Our research provides a **new perspective** on ...  
This study pioneers a **new approach** to ...  
To the best of our knowledge, **this is the first work** to ...



# Why think Beyond the Lab ?

- We often treat publication as the **grand finale**, as if peer review were the final customer validation
- Real impact begins when research leaves **controlled conditions** and meets users, cost, scale, and competition
- Industry does not ask for your **impact factor** first; it asks whether your idea works, scales, and matters



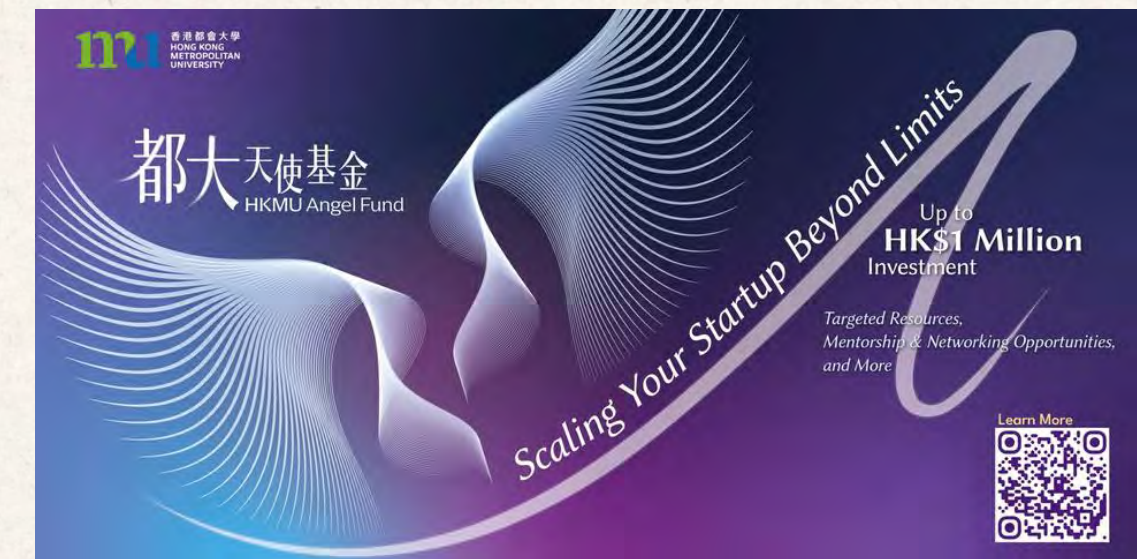
Who needs this ??  
why I do this ??

What is the Impact ????

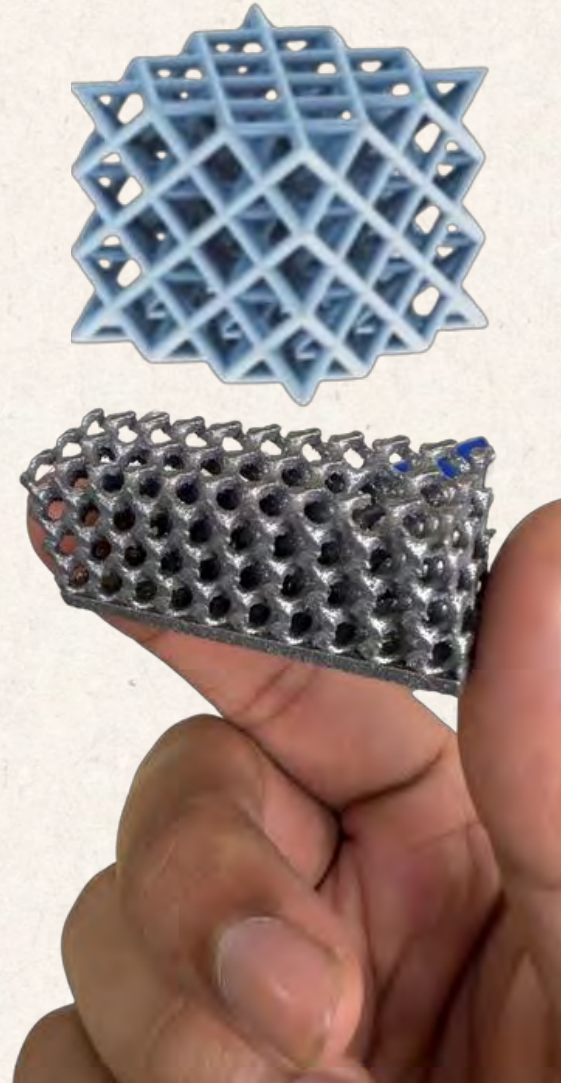
# Why a Startup Route ?



- Because a startup forces the question academics often avoid: **does anyone actually want this solution?**
- Because **real impact requires more than novelty**; it requires execution, validation, and adoption.
- Because if we believe our research can solve real problems, we should be willing to **test that belief outside the lab.**



# From Research to ClimaCircuit



US 20210135080A1

(19) United States  
(12) Patent Application Publication (10) Pub. No.: US 2021/0135080 A1  
Karthikeyan et al. (43) Pub. Date: May 6, 2021

US 20240251680A1

(19) United States  
(12) Patent Application Publication (10) Pub. No.: US 2024/0251680 A1  
Karthikeyan et al. (43) Pub. Date: Jul. 25, 2024

nature communications

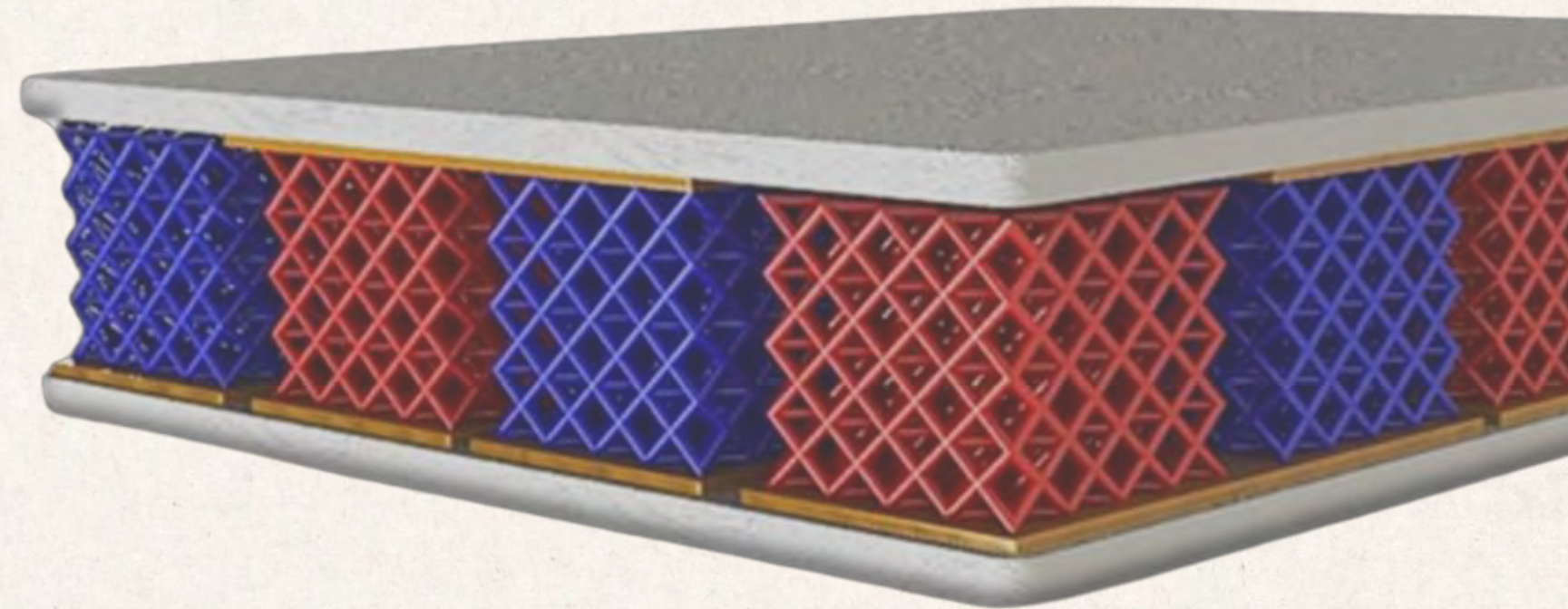
Article <https://doi.org/10.1038/s41467-023-37707-2>

**Three dimensional architected thermo-electric devices with high toughness and power conversion efficiency**

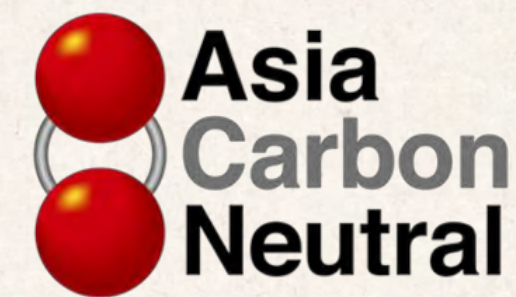
Received: 10 January 2022  
Accepted: 28 March 2023

Vaithinathan Karthikeyan<sup>1,2,7</sup>, James Utama Surjadi<sup>3,4,7</sup>, Xiaocui Li<sup>3</sup>, Rong Fan<sup>3</sup>, Vaskuri C. S. Theja<sup>1,2</sup>, Wen Jung Li<sup>3</sup>, Yang Lu<sup>3,4,5</sup> & Vellaisamy A. L. Rov<sup>5</sup>

- Waste **heat** Recovery
- Sustainable **Cooling** solutions



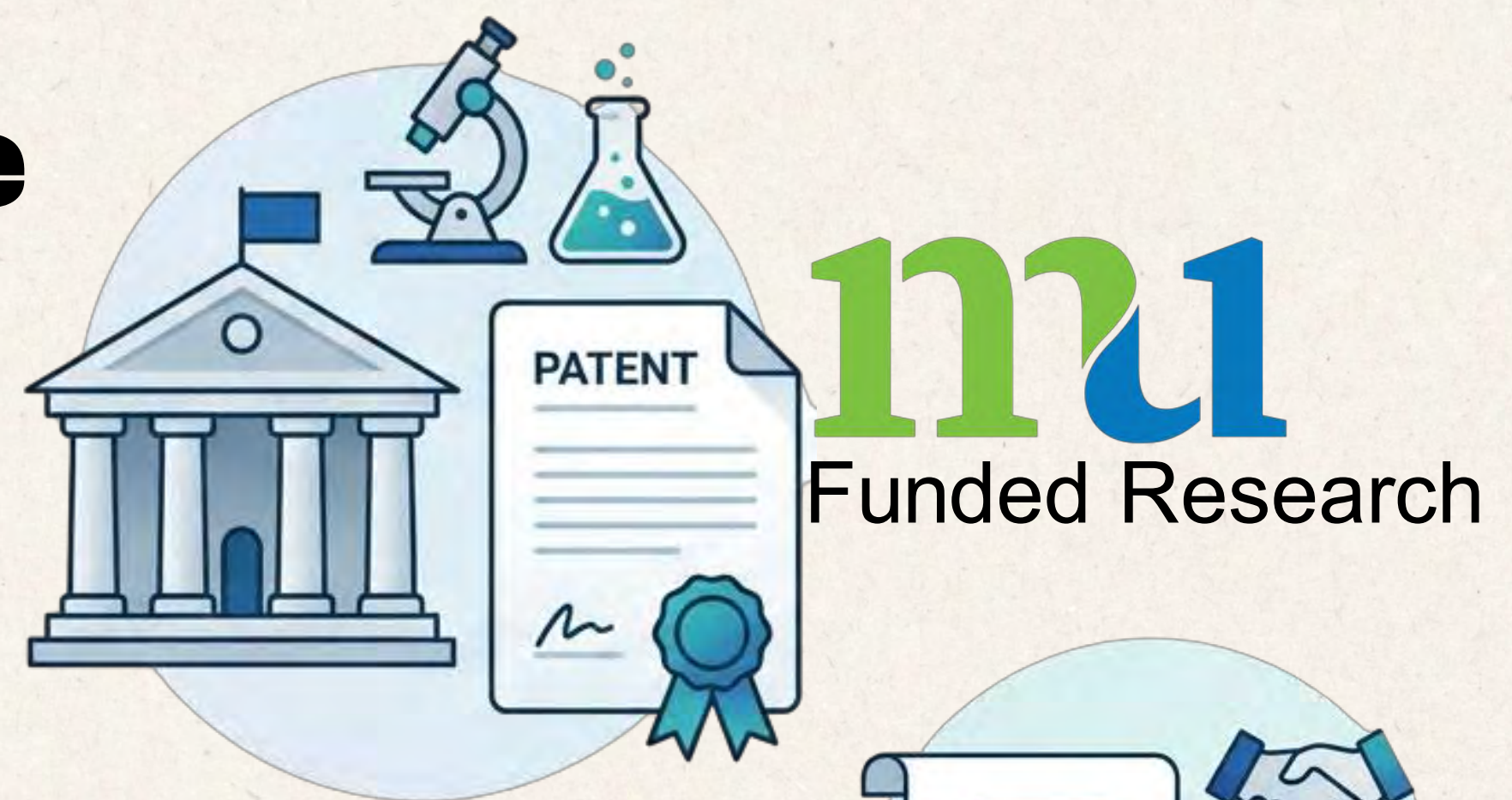
## Solution provider for :



# IP Choices in Practice

- We filed the IP through the university first.
- The company then licensed the technology from the university.
- That license allowed the startup to develop, demonstrate, and market the innovation.
- This was the bridge between academic invention and commercial activity.

**Good research creates invention; good IP strategy creates a route to impact**



**nu**  
Funded Research

ORA Patent Filing  
& Licensing



**CLIMA  
CIRCUIT**  
Singapore | Hong Kong

Startup

# Industry and Market lessons

- Industry is usually **less impressed by novelty** alone and more interested in performance, cost, reliability, and timing.
- Market engagement quickly tests whether the problem is important enough for someone **to adopt or pay for a solution**.
- Conversations with users and partners often **reshape the product direction** more than laboratory assumptions do.
- In short, the market is a **very honest reviewer** and usually a harsher one than journal referees.

Industry Connect



**Entrepreneur Day**  
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Could Your Research Be Next ???

