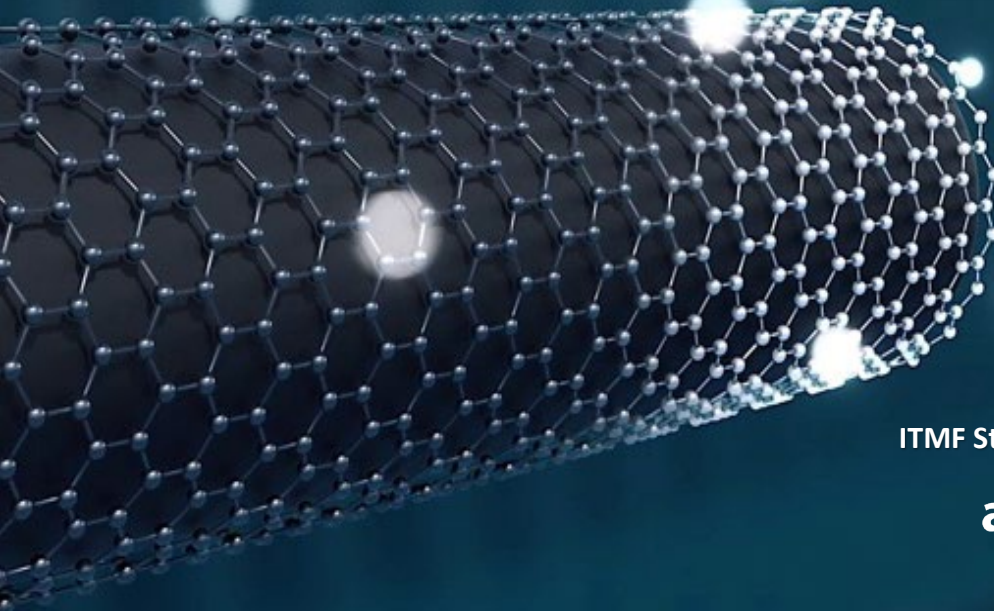


# CNT Fiber Innovation from Dream Material to Industrial Reality



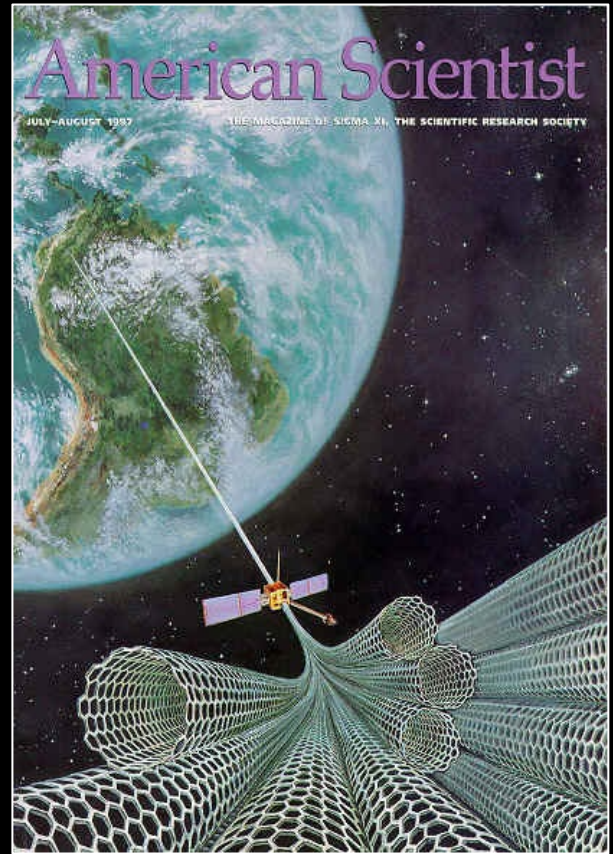
ITMF Startup Awards 2025 Winner

**awexome Ray**

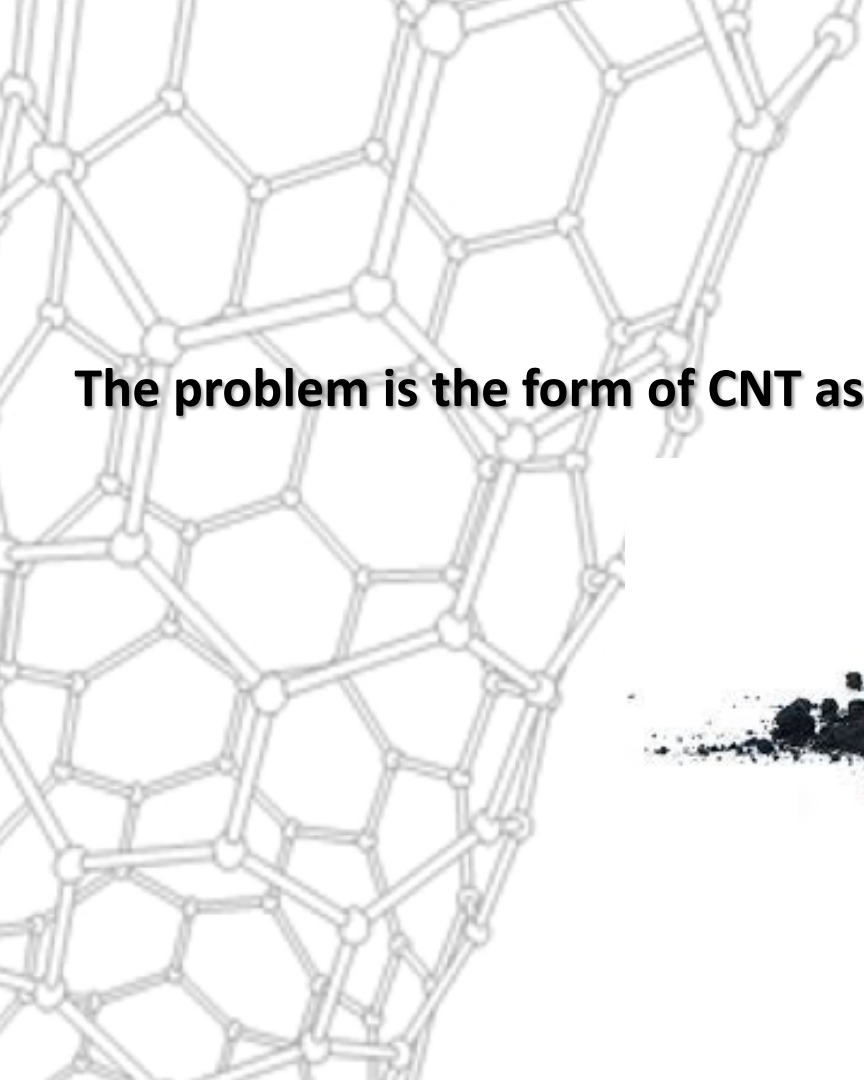
CEO Gihm Se Hoon

# Dream Material “Carbon Nanotube”

- Exceptional Strength
- Ultralight Structure
- Flexible Yet Robust
- Superior Electrical and Thermal Conductivity



American Scientist July–August 1997



The problem is the form of CNT as **POWDER**.



<https://tuball.com/ko/articles/carbon-nanotube-powder>

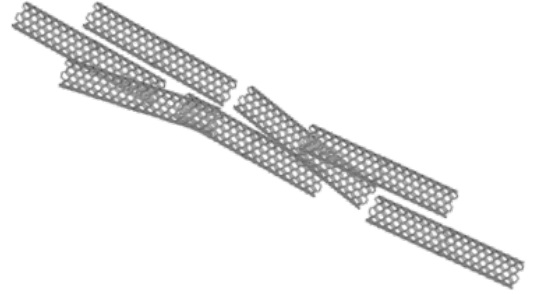
An astronaut in a white and red spacesuit stands on a rocky outcrop on Mars, looking out over a vast, reddish-orange, cloud-filled landscape. In the upper right corner, a large, detailed Earth is visible against a dark, starry space background. The overall scene conveys a sense of exploration and the vastness of space.

aweXome Ray

| We craft CNT  
into breakthrough innovations

# INFINITE POSSIBILITIES

# Carbon Nanotube Fibers: FC(floating Catalyst) CVD & Scheme of Direct Spinning



**Korean Traditional Twisting Rice Straw Ropes**

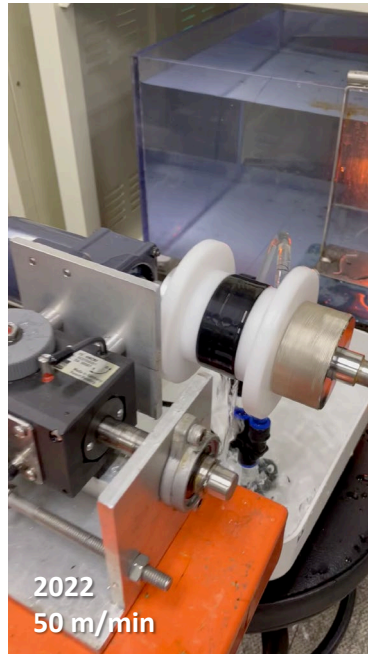


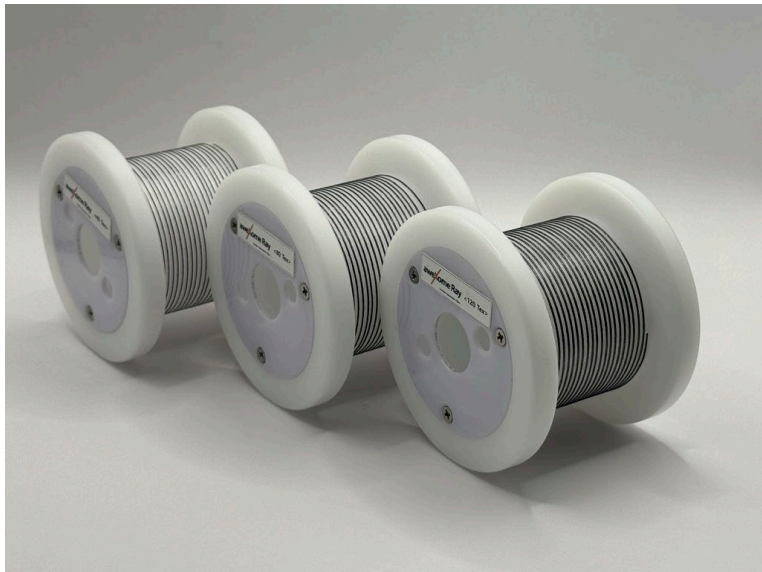
<https://youtu.be/8EFk3pjaWzw?si=z410rtNrAbSP8xwo>

<https://www.kyeonggi.com/article/200902100312472>



## Carbon Nanotube Fibers: Fast and Continuous Production

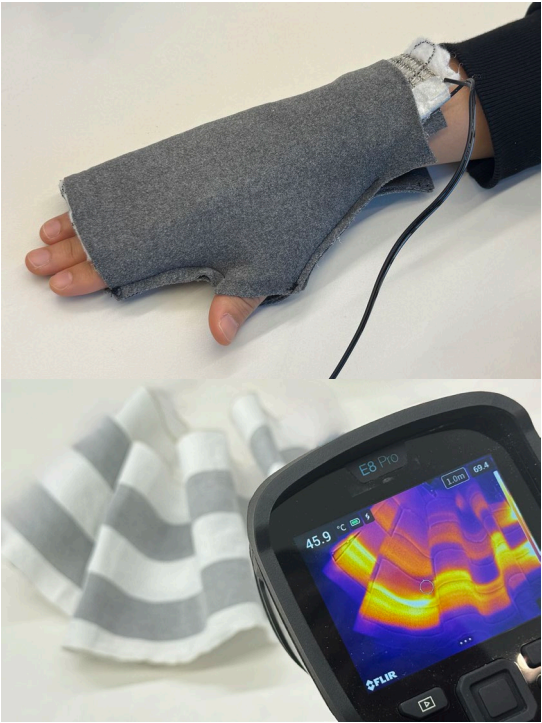








CNT Fiber Applications; Unbreakable Heating Wire and Fabrics



## CNT Fiber Applications; Unbreakable & Flexible EMI Shield

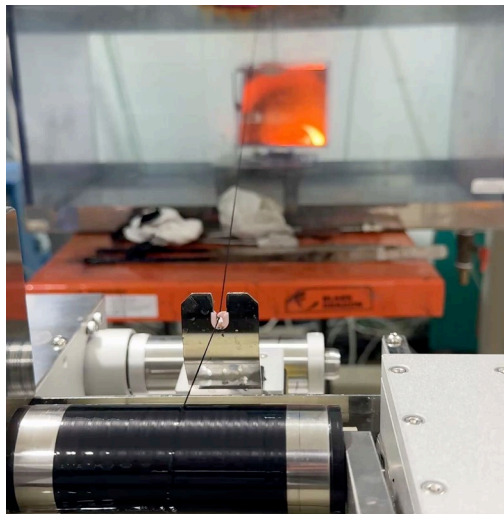


**CNT Woven Fabric**

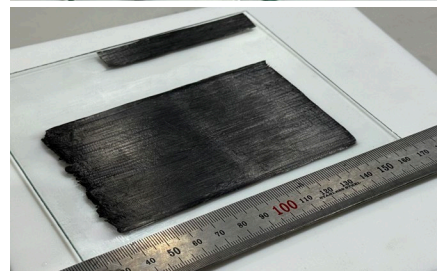
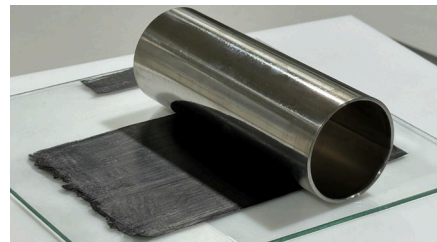


**CNT Fiber Braided Electric Wire**

## CNT Fiber Applications; Flexible & “Nono-Woven & Uni-Directional” EMI Shield

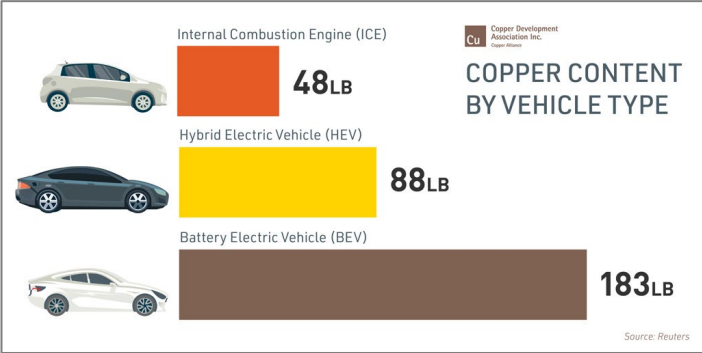
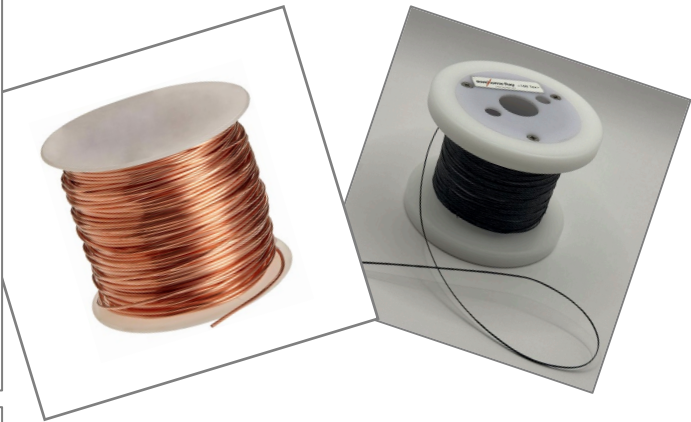
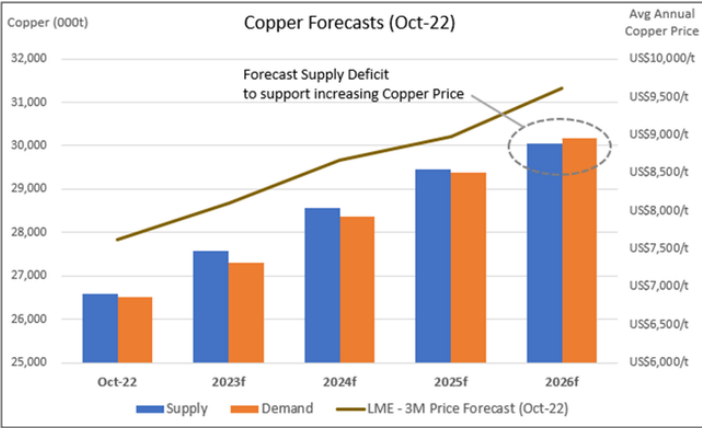


**Non-Woven & Uni-Directional Film  
Making Process**



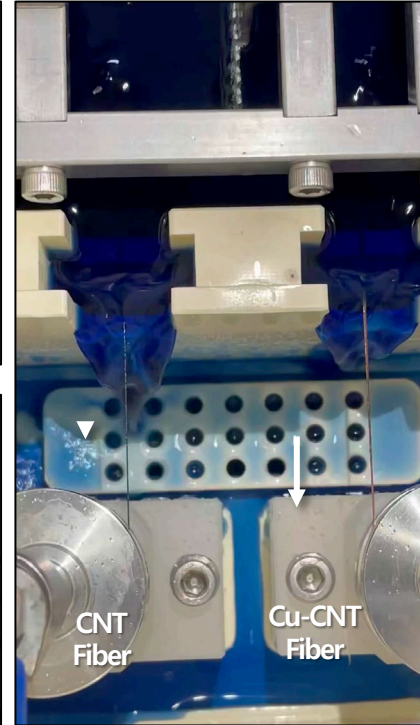
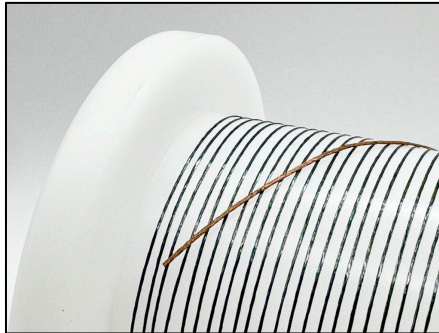
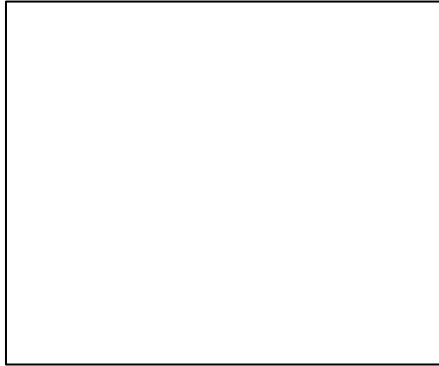
**CNT Uni-Directional Film**

# Problems of Coppers: Can CNT fiber REALLY beat Cu Wire?

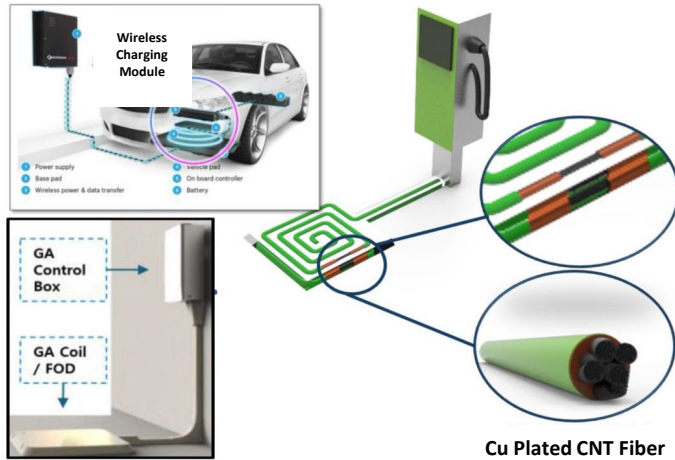


<https://seekingalpha.com/article/4550030-copper-looming-supply-shortfall-to-support-strong-prices-over-the-long-term>

## CNT Fibers; Ultra Lightweight & High Strength Electric Cable via Continuous Metal Plating Process



# CNT Fiber Applications; Electric Wire(Litz Coil) for Wireless Charging and High-Speed Charging Cable



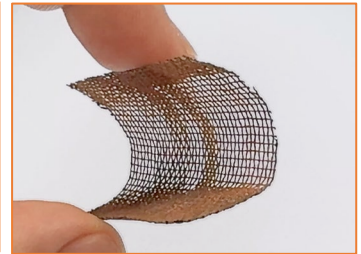
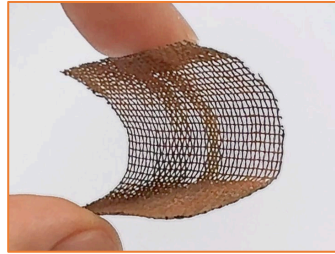
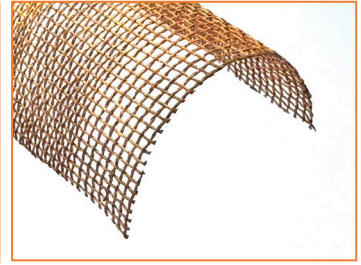
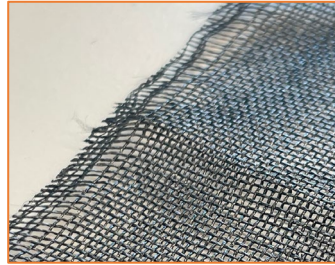
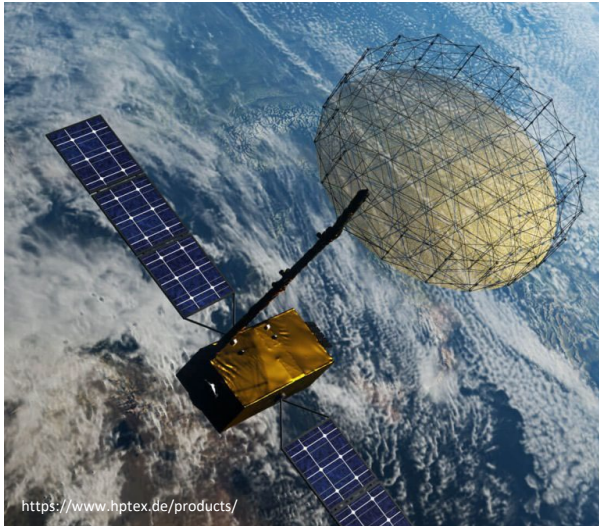
- 2024, Development of Wireless Charging Module for EV
- 4 yrs, 2M USD, Ministry of Trade, Industry and Energy, Korea
- Partner: Hanyang Univ, Silicon Valley, Hyundai Motors

- 2024, Development of Ultra Light Weight High Speed Charging Cable for EV
- 3 yrs, 1M USD, Ministry of Science and ICT, Korea
- Partner: KIST, Haesung DS, Hyundai Motors



## Applications; Electric Wire for Satellite and Spaceship

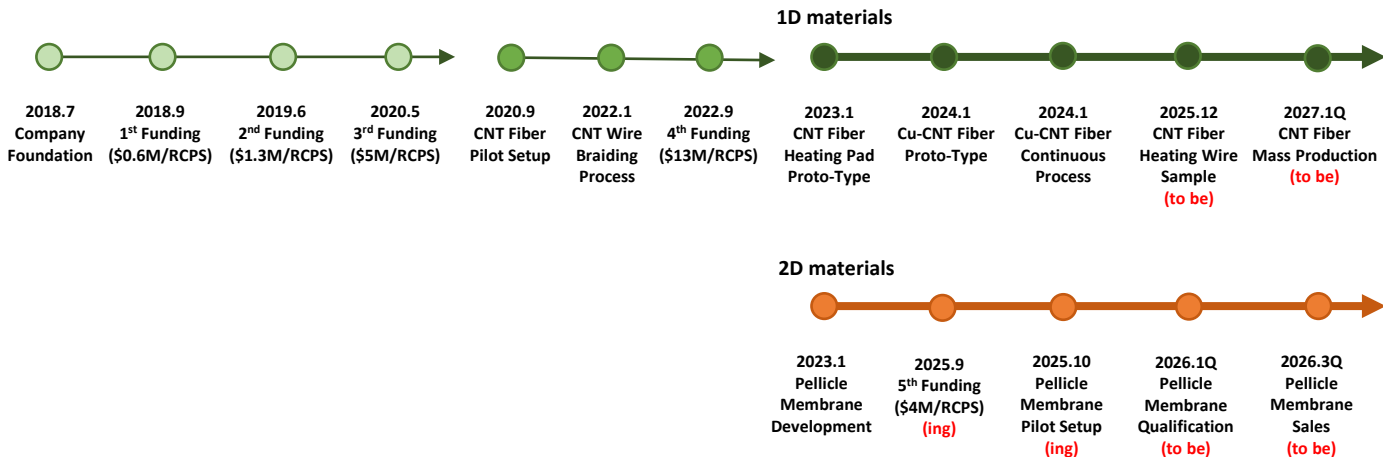
- Conventional Materials for antenna reflector is a gold mesh
- Ultra Light Weight and High Strength “FLEXIBLE” CNT Woven Fabric



CNT Material Brand of aweXome Ray; **axrial**



# aweXome Ray of World Best CNT Craft Technology



**BE OUR PARTNERS !!**



**aweXome Ray** will realize Space Elevator !!



# THANK YOU

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+82-10-6892-1253



Take a FREE Folding Fan!!

