



Investment Opportunity

November 2022

Unlocking the Power of Nano-inks

4

Technology
Platforms

Demonstrated
Superiority

Multiple
Catalysts

Solid
Foundation

Disruptive & highly-differentiated next generation of nano-inks

- Broad & immediately-available applications in major segments of industrial electronics
- Pipeline of earlier-stage innovations with initial proof-of-concept
- Ability to formulate across a broad range of metals

Conclusive data in head-to-head comparison with current generation

- Positive tests & feasibility studies (in-house & in collaborations with major players)
- Fully & “immediately-integrable” into major players’ manufacturing processes

Multiple & advanced R&D collaboration with major players in the field

- 100% of the IP belongs to GenesInk and is fully unencumbered
- Technologies already integrated into several electronic devices
- In advanced collaboration discussions with major players in the field to develop pipeline
- News flow will attract further potential partners

Positioned for growth

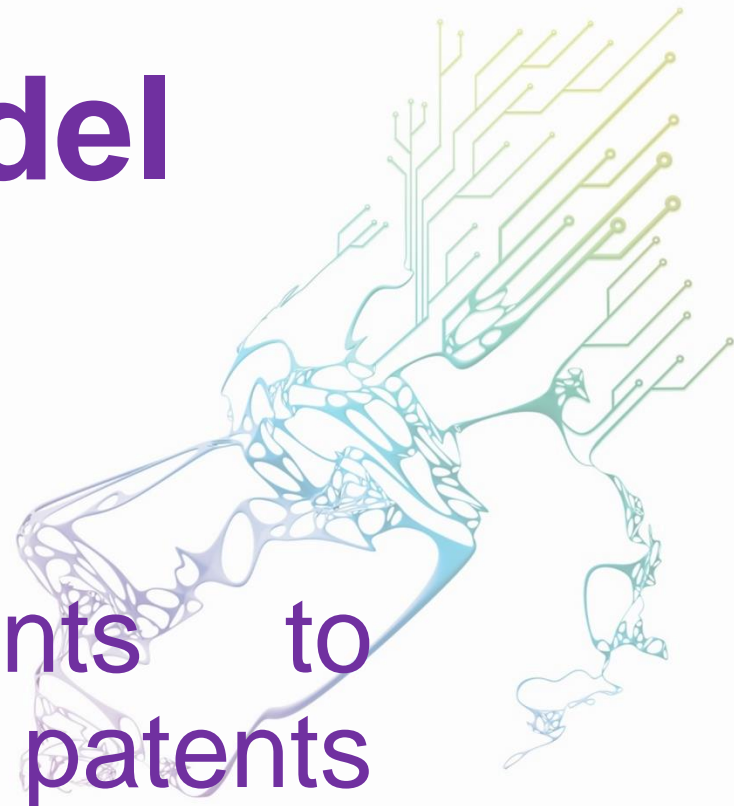
- Expert team with established R&D & production capabilities
- Solid IP position (130 patents & 80 proprietary formulations)
- Positive patentability and Freedom To Operate
- Looking to raise capital to expand R&D and partnering activities + strengthen investor’s basis

A Consumer Electronics External Innovation Engine as a Model

- Decade of proprietary fundamental & applied research in nano solutions
- Breadth and depth for continued innovation and product supply
- Already-established partnerships with major players in the field (validation of approach & results) with initial sales of raw material
- Need to accelerate product development & pool of partners



- Significant upfront payments to secure access to know-how & patents (IP) of certain technology(ies) or defined application(s) in a given field
- Significant development milestones linked to R&D collaboration agreements
- Commercial milestones & royalties linked to sales performances and intellectual property
- R&D and commercial-scale supply agreements
- Platform / asset acquisition a possibility



Our proprietary nano-inks enable transition to « anywhere connectivity »

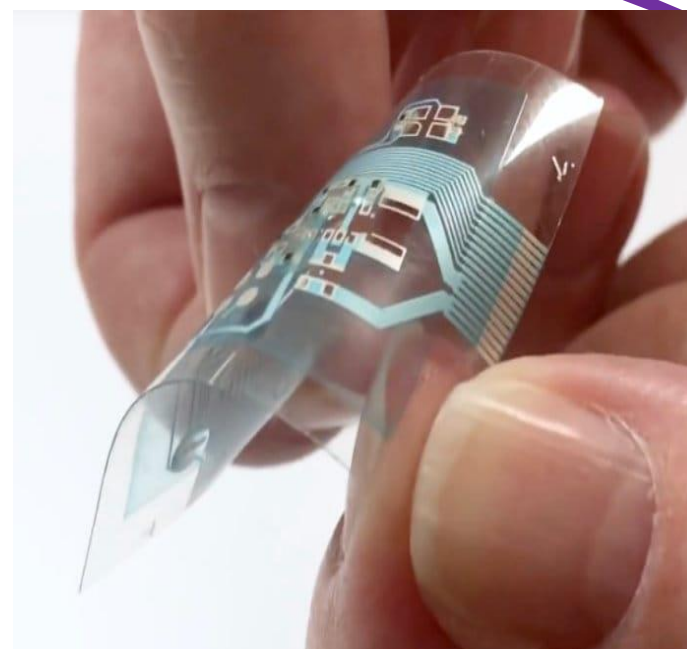


1 We develop **flexible, transparent, light and eco-friendly specialty chemicals** - conductive and semiconductive solutions to enable the design of next generation industrial and consumers products

2 We use a **unique process** for additive manufacturing yielding very high conductivity for electronic components (system in package “SIP”) with no modification to clients production process



BEFORE



NOW

3 We substitute heavy and polluting production techniques such as chemical baths, with **nontoxic products** used at room temperature and normal atmosphere.

5 We tailor our solutions to our customers' **specific needs at their manufacturing location of choice.**

4 We empower additive manufacturers with better performance using **less raw material**

An Ubiquitous Technology



Electronics needs to be small, thin, & highly conductive to adapt to any host and environment.

Today's connectivity is ubiquitous. Because we are at least **to 5x times more conductive**, we are **undetectable**.

Higher conductivity enables energy conservation.

We design **ultra power efficient**, conductive, nano inks, generating significantly less heat.

Legacy manufacturing is increasingly outlawed worldwide for environmental reasons.

Our solutions are designed to be sustainable and **respectful of humans and the environment**.

Only a handful of competitors able to ship at production scale

Mass production **ready!** Our nano inks are available at **Ton scale** and **tested for industrial use**

Pluggable by design into any consumer electronics manufacturers' production processes

4 Disruptive Technology Platforms Available for Partnerships

130 patents 80 formulations



Conductive Tracks for

FPCB

In-Molding

Sensors

Silicon PV

AGFA

Dow/Dupont

ESSILOR

Qualcomm

High loading metal inks

Conductive Grids for

Touch-screen

EMI shielding

Display

IOT

OPV

Patented technological Bricks for specific markets

Low loading metal inks

Leader in head manufacturer

Leader in electronics market

Henkel

SAMSUNG

Heraeus

Pegatron

TSMC

Base patent family with broad technological coverage

Metal oxide semi-conductive inks

Transport Layer

Display

OPV

Touch-screen

OLED

Henkel

BASF

Hitashi

Meta

C3|nano

SAMSUNG

Nissha

Leader in electronics market

Essilor

Electronics substrate supplier

Transparent Conductive layers W/O ITO

Transparent Conductive Film

OPV

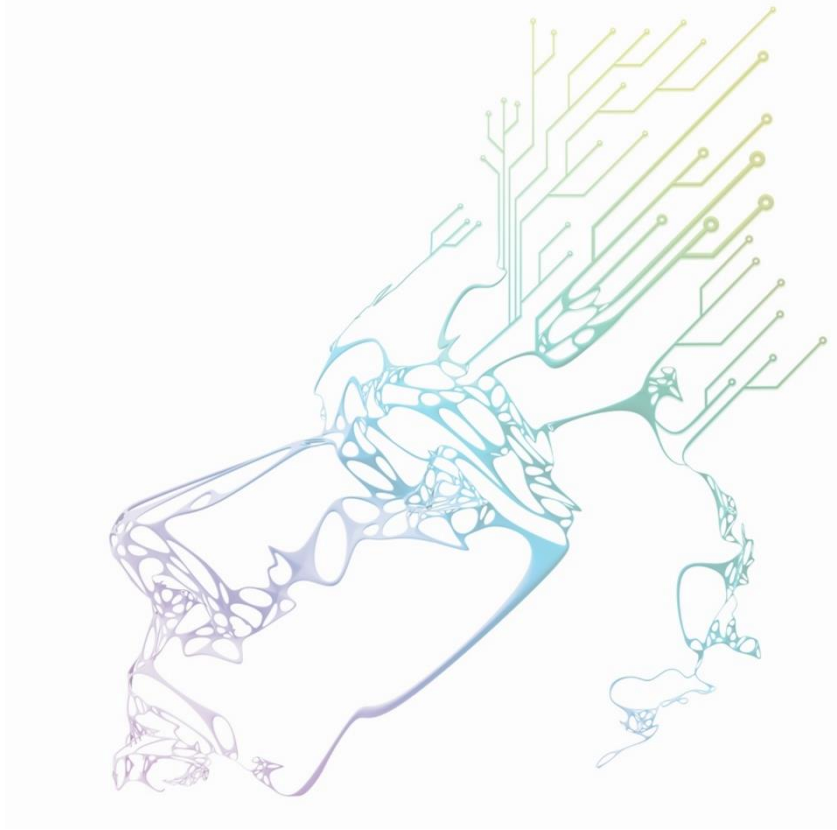
Display

Touch-screen

OLED

4 Disruptive Technology Platforms Based on the Below IP

130 patents 80 formulations



Case Number	Publication #	Priority Date	
06795	WO2015/000796	03-juil-2013	<u>Ink with ZnO NPs</u>
06852	WO2015/078818	27-nov-2013	<u>Ink with Ag NPs</u>
06853	WO2015/078819	03-juil-2013	<u>Dispersion with Ag NPs</u>
07083	WO2017140712	18-févr-2016	<u>Ink with AZO NPs</u>
07105	WO2016184979	20-mai-2015	<u>Ink with Ag NPs for screen-printing</u>
07106	WO2016184975 (A1)	20-mai-2015	<u>Ink with Ag NPs for dispersion</u>
07171	FR3054553	01-août-2016	<u>Ink compatible for food application</u>
07656	WO2020120252 (A1)	13-déc-2018	<u>Ink with Ag NPs for inkjet-printing</u>
07657	WO2020120250 (A1)	13-déc-2018	<u>Synthesis of WO₃ NPs and ink formulation</u>
106754	WO2021115750 (A1)	11-déc-2019	<u>Ink with Ag NPs for PV</u>
106757	WO2021115748 (A1)	11-déc-2019	<u>Ink with Ag NPs for stretchable application</u>

- 12 Inventions
- 83 Patents granted
- 54 patent applications pending
- 1 patent recently filed
- 3 new patents being written

High loading silver inks

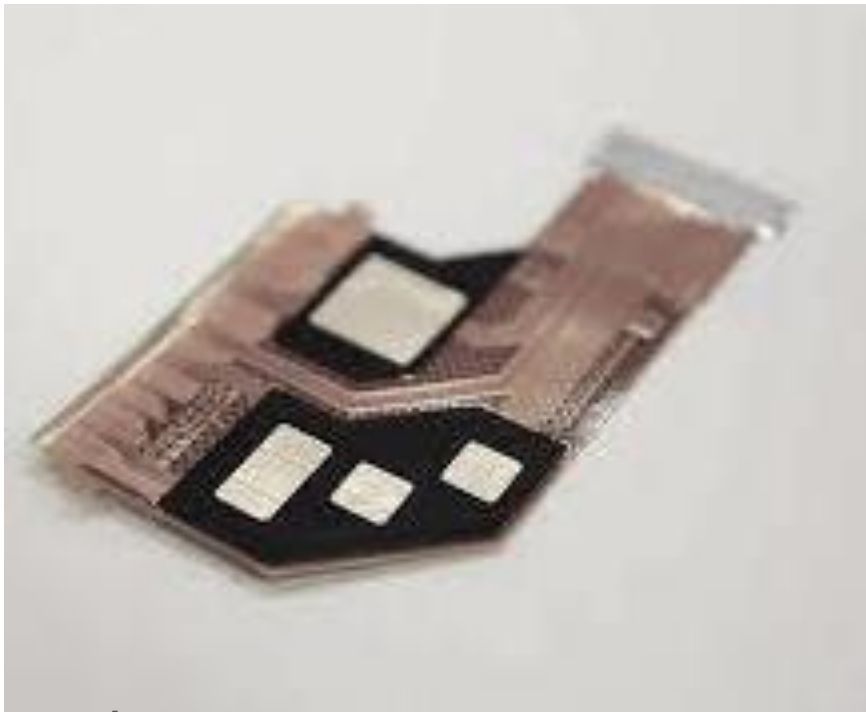
Low loading silver inks

Metal oxide semi-conductive inks

Immediate Traction Is On 6 Key Markets... 1/2

01

IC Packaging



EMI shielding

EMI shielding in IC packaging
\$8B

Low loading silver inks

02

TCF



- Transparent heater
- Connected glasses
- Virtual Reality

TCF

\$2B

Transparent Conductive layers
W/O ITO

03

SENSORS IN HMI

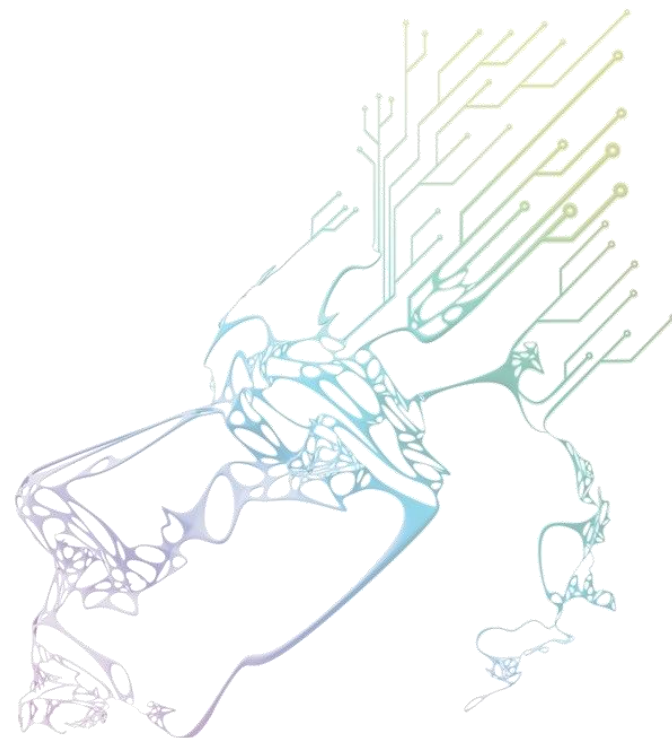


- Printed biometric sensors
- Touch panels

SENSORS

\$35B

High loading silver inks



\$45B

EMI SHIELDING: [EMI Shielding Market Size, Share, Industry Report \(2021-2026\) \(marketsandmarkets.com\)](https://www.marketsandmarkets.com/emi-shielding-market-size-share-industry-report-2021-2026)
TCF: <https://www.alliedmarketresearch.com/transparent-conductive-films-market>
Sensors: [Sensor Market Size, Share and Industry Analysis | Forecast - 2028 \(alliedmarketresearch.com\)](https://www.alliedmarketresearch.com/sensor-market-size-share-industry-analysis-forecast-2028)

* When sources on the market are global, we took an amount that is representative for raw material.

...With Varying Progress Timeline 1/2

EMI shielding

Done

2022		2023				2024				2025				2026			
Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4



Heraeus: Discussion of a collaboration contract 



AzureWave - Pegatron: preproduction series

Apps: metal housing replacement for EMI shielding on EMC chips (microelectronic components with high density of transistors) 

**Other Key Players:* ASE, TSMC

Sensors



Agfa: Initiation of a collaboration discussion 



Qualcomm: validated product

Apps: touch screen sensors for fingerprint reader and ultra thin film transistor 

TCF

Transparent
conductive film



Meta: prototyping 



Nissha: prototyping in a pilot line 

Apps: transparent heaters in Automotive

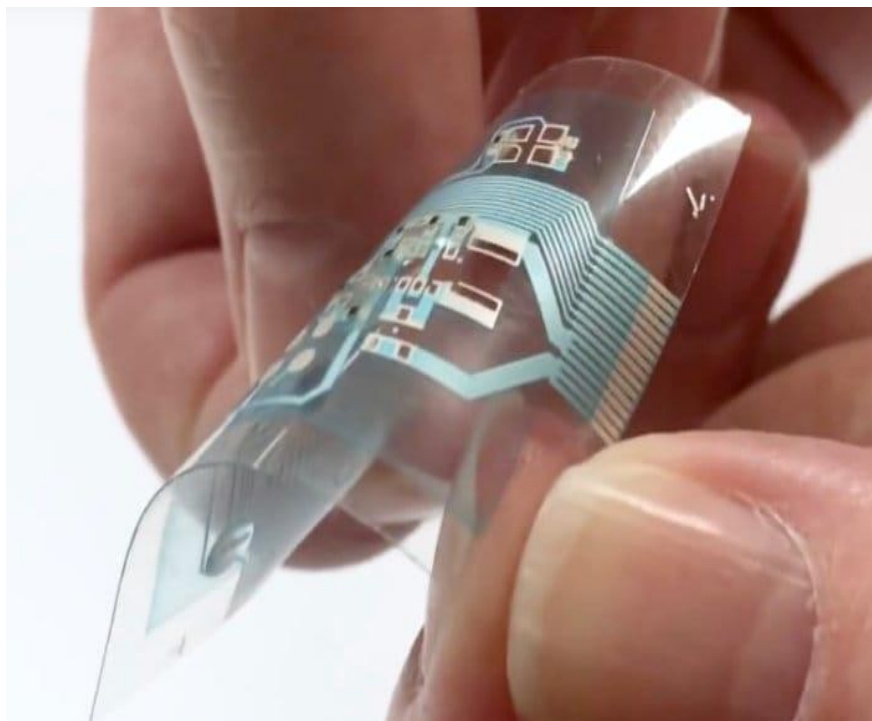
**Other Key Players:* Garmin, Smart watches manufacturer; Transition for smart glasses (IoT)
Key Players to identify in Large Display & Lighting

 Milestones

Immediate Traction Is On 6 Key Markets... 2/2

04

FLEXIBLE PRINTED
CIRCUITS



FPCBs for sensors in
automotive

FPCBs

\$6B

High loading silver inks

05

PV



Printed fine conductive tracks
Busbars

SILICON PV
ORGANIC PV

\$82B

High loading silver inks

06

IoT

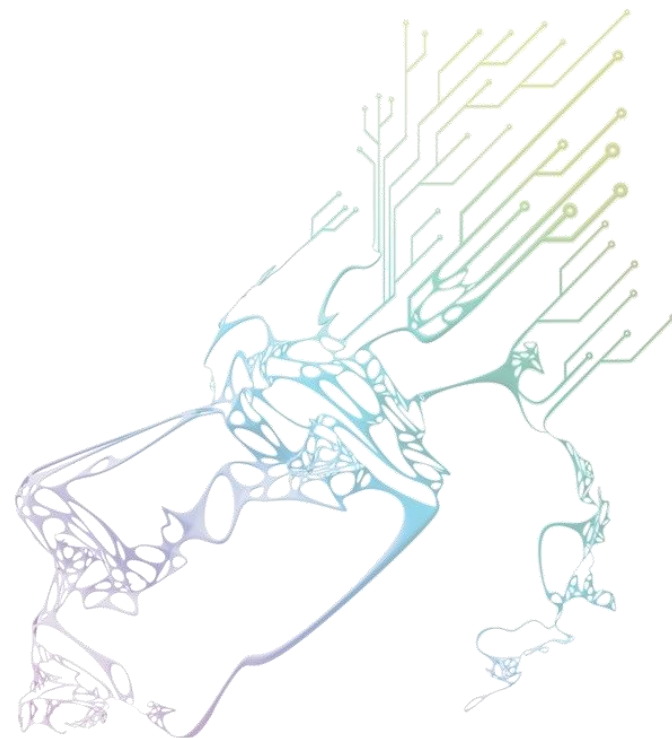


Antenna
Smart glasses

IoT

\$104B

High loading silver inks



\$192B

Flexible printed circuit: [Flexible Printed Circuit Board Market is estimated to Rise \(globenewswire.com\)](https://www.globenewswire.com)

PV: [Solar Photovoltaic \[PV\] Market Share, Growth & Trends, 2028 \(fortunebusinessinsights.com\)](https://fortunebusinessinsights.com)

IOT: [IoT Connectivity Market size worth \\$ 693.26 Billion, Globally, by 2028 at 20.33% CAGR: Verified Market Research® \(prnewswire.com\)](https://prnewswire.com)

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...With Varying Progress Timeline 2/2

2022		2023				2024				2025				2026			
Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4

FPCBs
Flexible printed circuits



Continental: validated product
Apps: in-molded FPCBs for sensors in Automotive
**Other Key Players:* Agfa



PV
Photovoltaics



EMC: Organic PV
Apps: busbars and finger grids in PV
**Other Key Players:* Nanobit



Italian electricity supplier: Silicon PV
Apps: busbars and finger grids in PV
**Key Players:* Dupont



EssilorLuxottica: smart glasses
Apps: conductive busbars for ophthalmics



IoT
Internet of Things



Medisur: point-of-care devices
Apps: conductive busbars for Health Diagnostic Tests

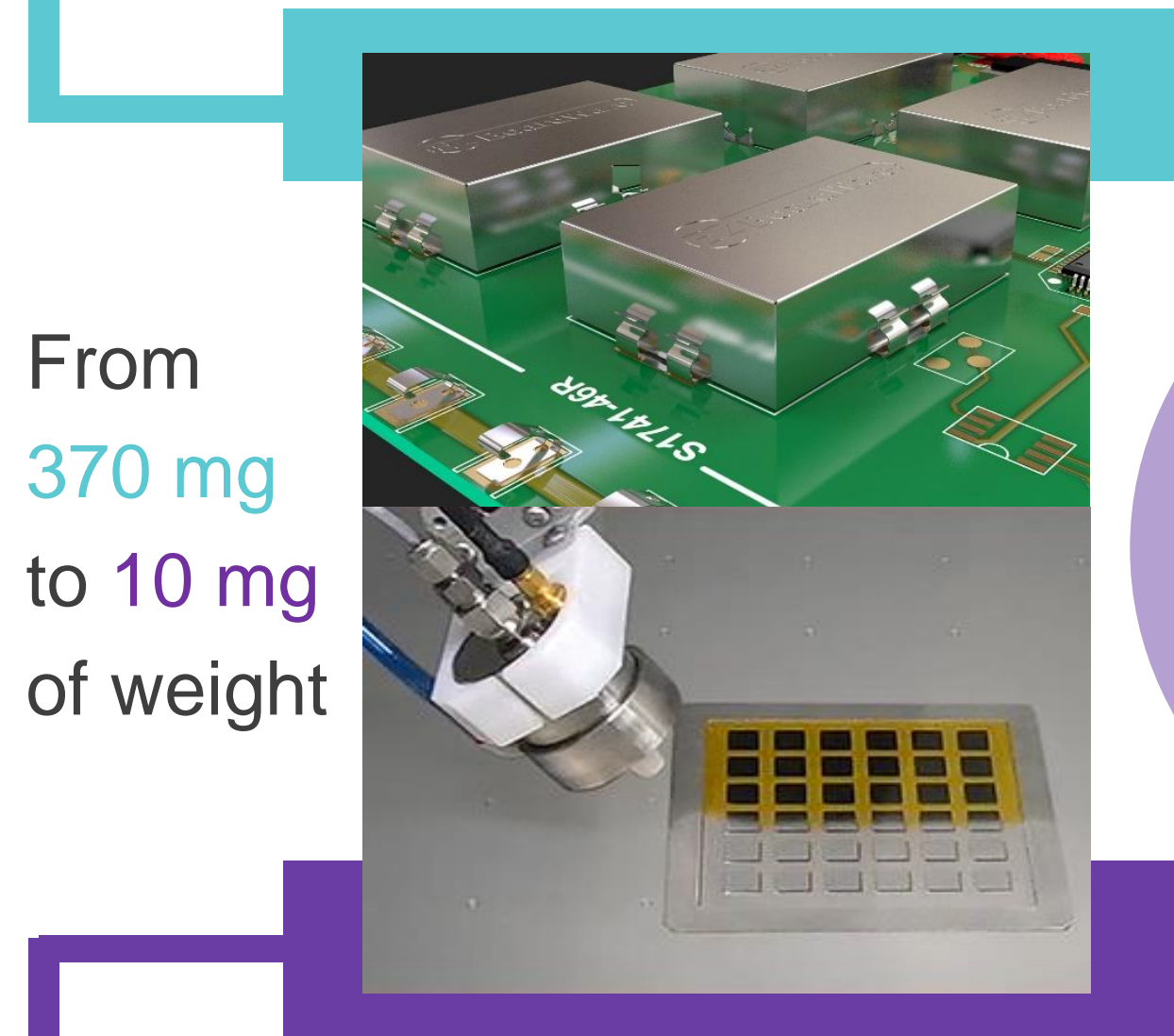


Short term market application : EMI Shielding

Validation product on-going: Heraeus



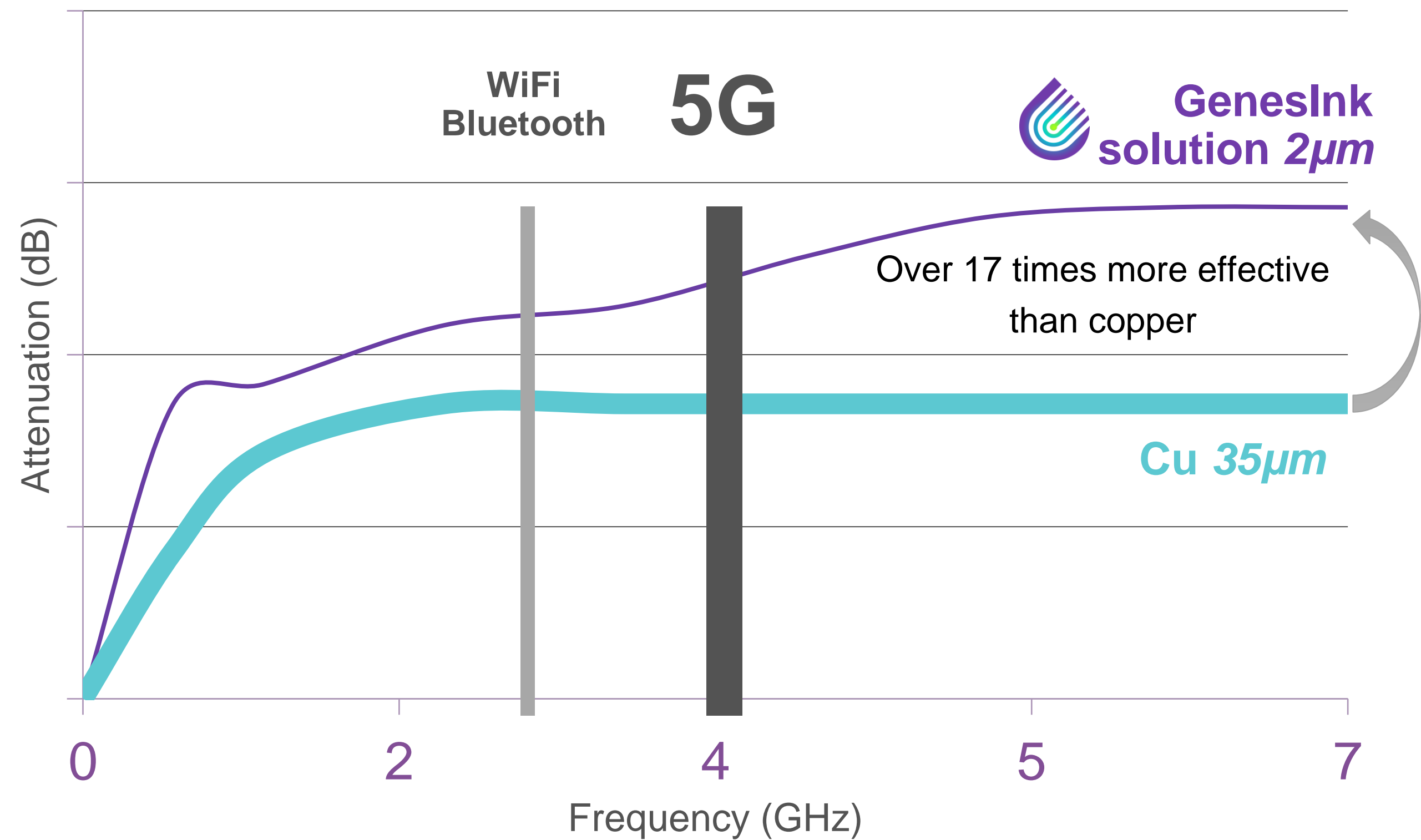
Replacing rigid metal housing by a single-step "direct spray coating" of a silver solution **1000 times thinner** allows designers and manufacturers to embed electronics everywhere



From
370 mg
to 10 mg
of weight

EMI SHIELDING
\$8B TAM
IN 2027
CAGR 4%

High adhesion on all substrates on top and sidewalls.



EMI SHIELDING: [EMI Shielding Market Size, Share, Industry Report \(2021-2026\) \(marketsandmarkets.com\)](#)

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Market application: Transparent Heaters

Product Validated: **NISSHA**



GENESINK Products: TCF =Transparent Conductive Film

Printed patternable heater



**Advantages: Fast and homogeneous heating, high transparency,
Flexibility, low power, low CAPEX**

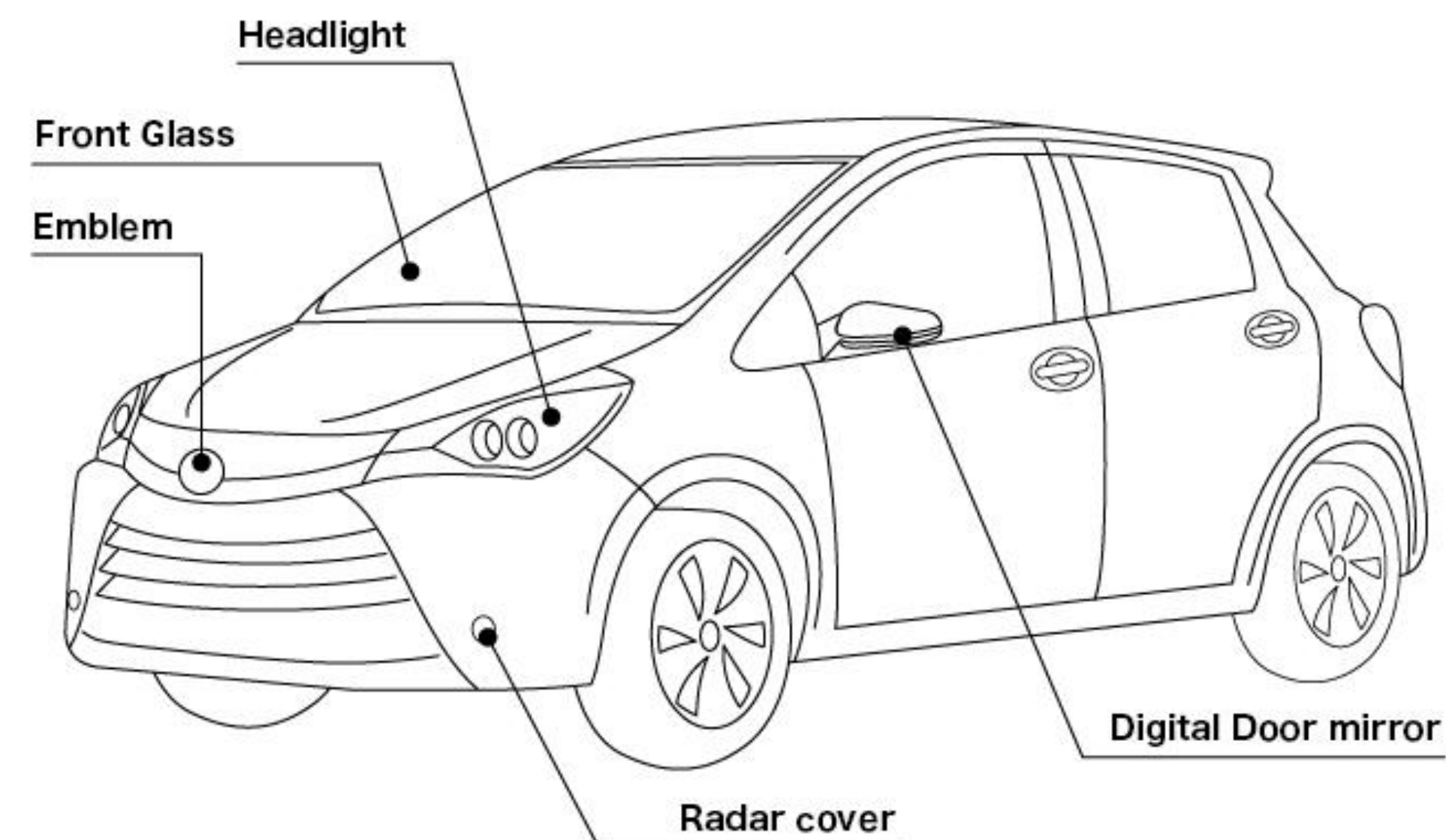
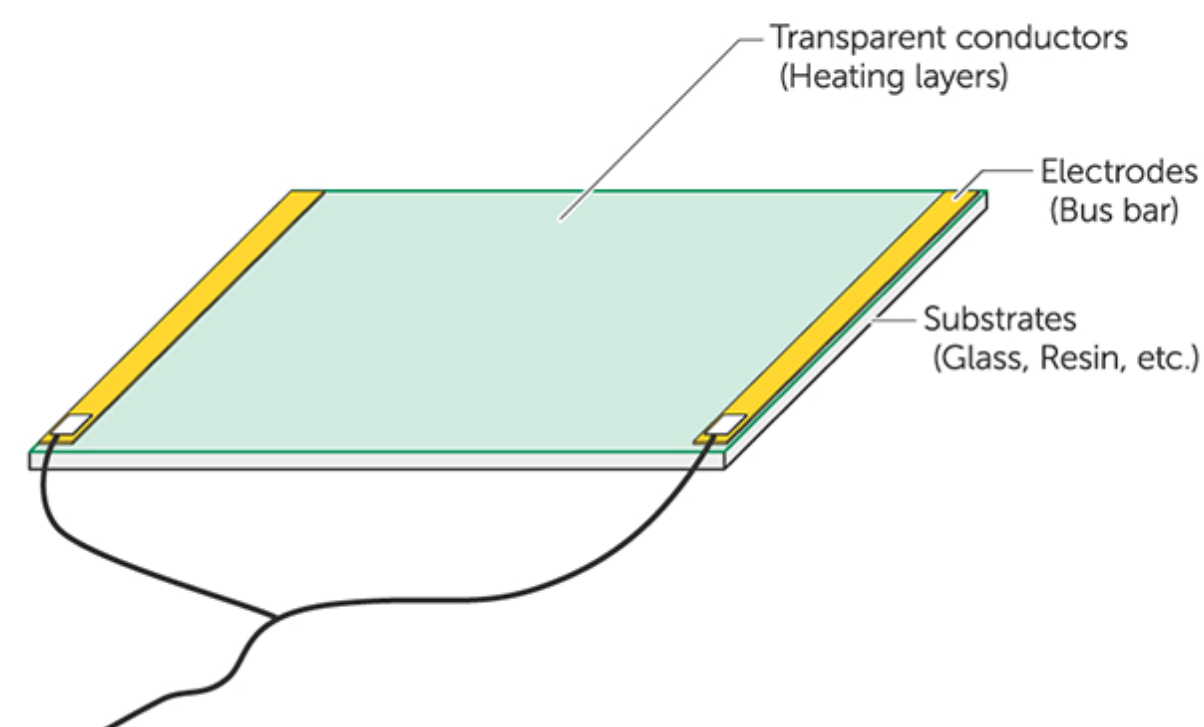
Sheet resistance	50 ± 5 Ω/□
Transparency	92 ± 2 %
Viscosity(20°C)	1200 ± 100 mPa.s
density	1
Roughness (Rq)	2 - 5 nm
Thickness	600 nm
Sintering Conditions	RT 90s + 90°C 5min

KEY NUMBERS

TAM

Transparent heater

**\$1,7B
IN 2027
CAGR 7,2%**



Transparent heater : <https://www.marketsandmarkets.com/Market-Reports/flexible-heater-market-51373429.html>

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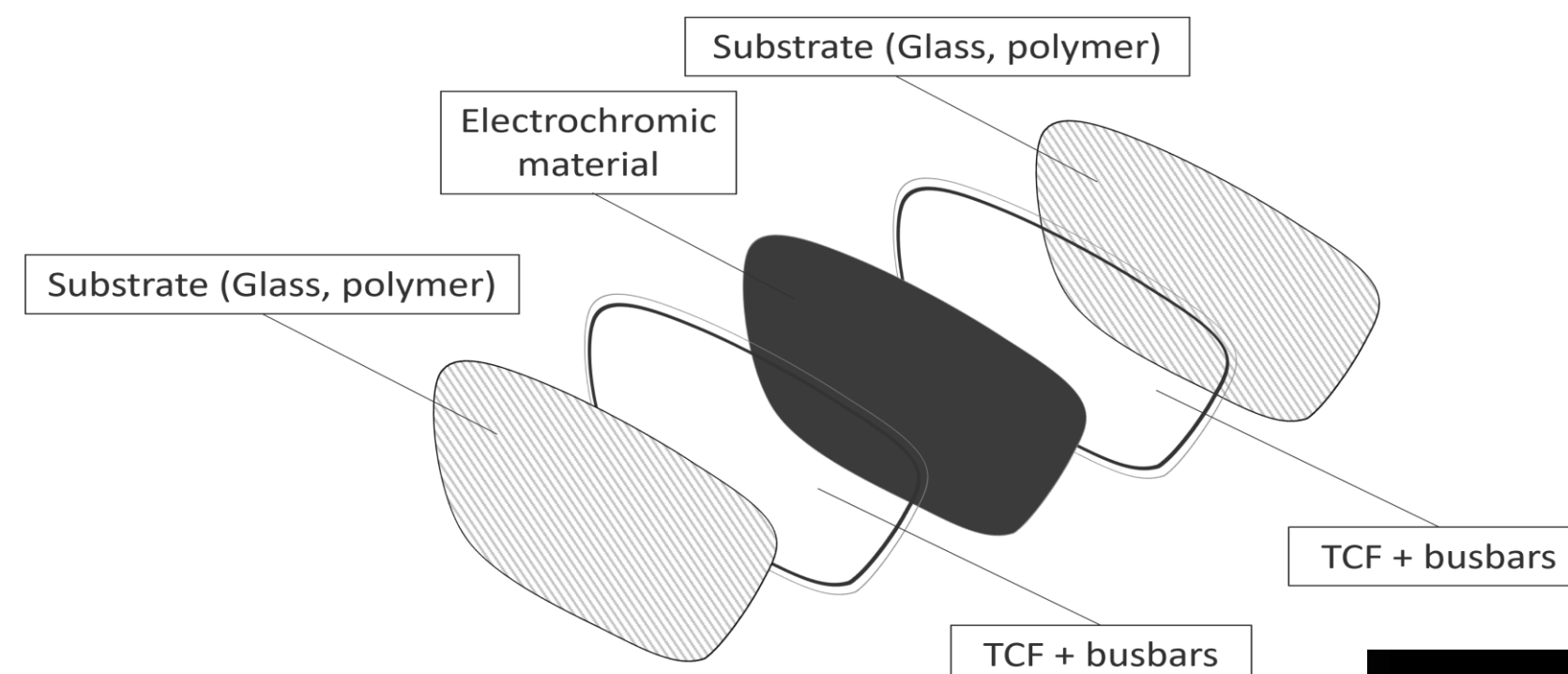
Market Application: Intelligent Eyewear AR/VR

Pilot Production: **EssilorLuxottica**



GENESINK Products:

- Silver conductive tracks through 3D dispensing
- Transparent Conductive Film



Sheet resistance	$15 \pm 5 \Omega/\square$
Transparency	$\geq 90 \%$
Viscosity(20°C)	$40 \pm 5 \text{ mPa.s}$
density	0,8
Roughness (Rq)	$< 7 \text{ nm}$
Thickness	200 nm
Sintering Conditions	RT 90s + 90°C

Optical Market

**\$25.9B
IN 2028
CAGR 6%**

AR/VR

**\$4,9B
IN 2028
CAGR 16%**

Optical: <https://www.fortunebusinessinsights.com/industry-reports/eyewear-market-101749>
AR/VR : <https://www.alliedmarketresearch.com/ar-and-vr-smart-glasses-market-A11110>

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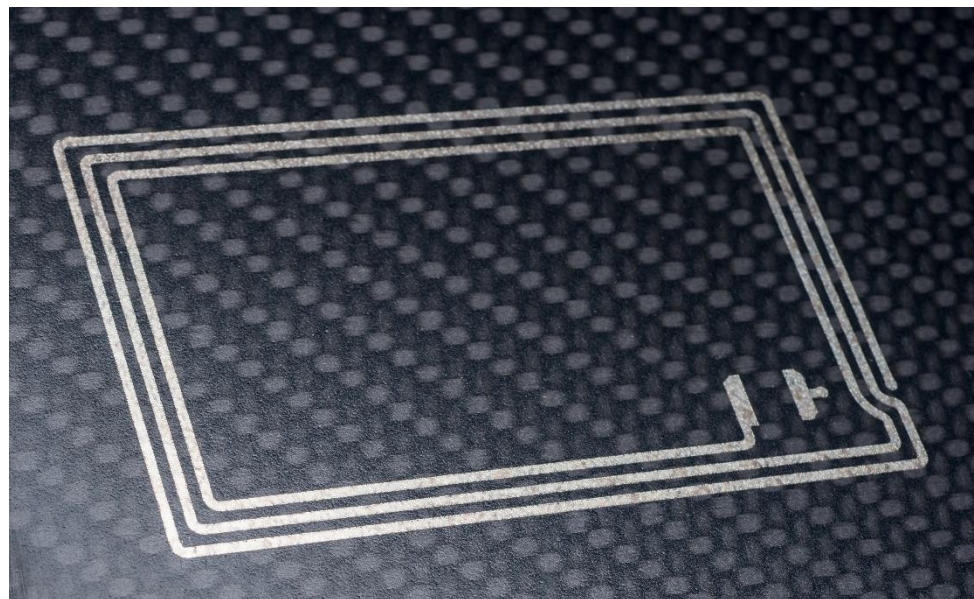
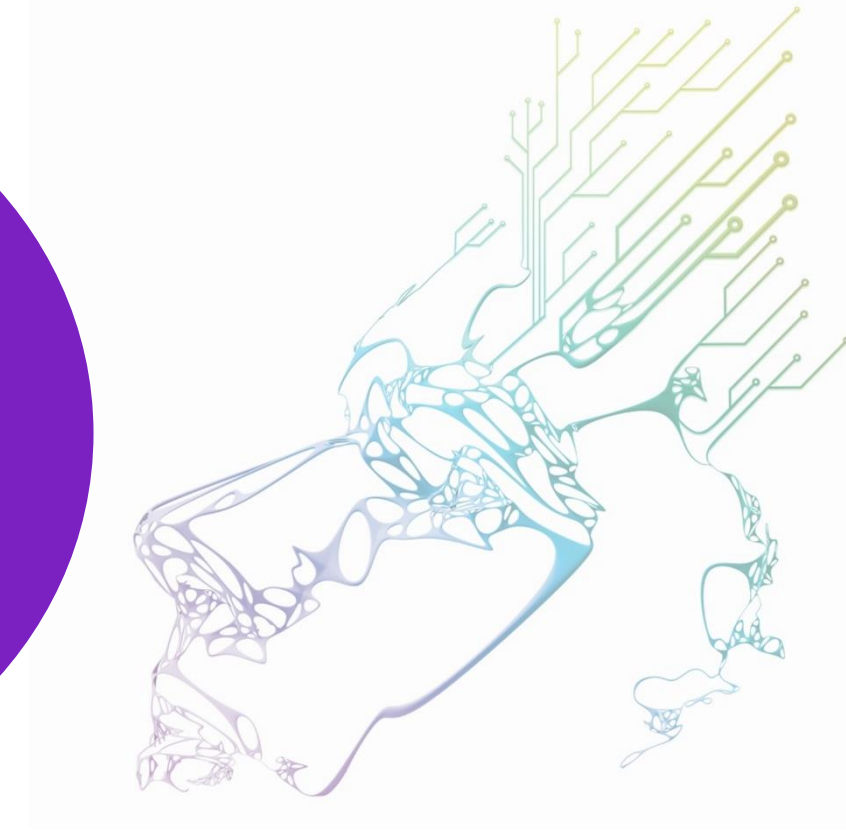
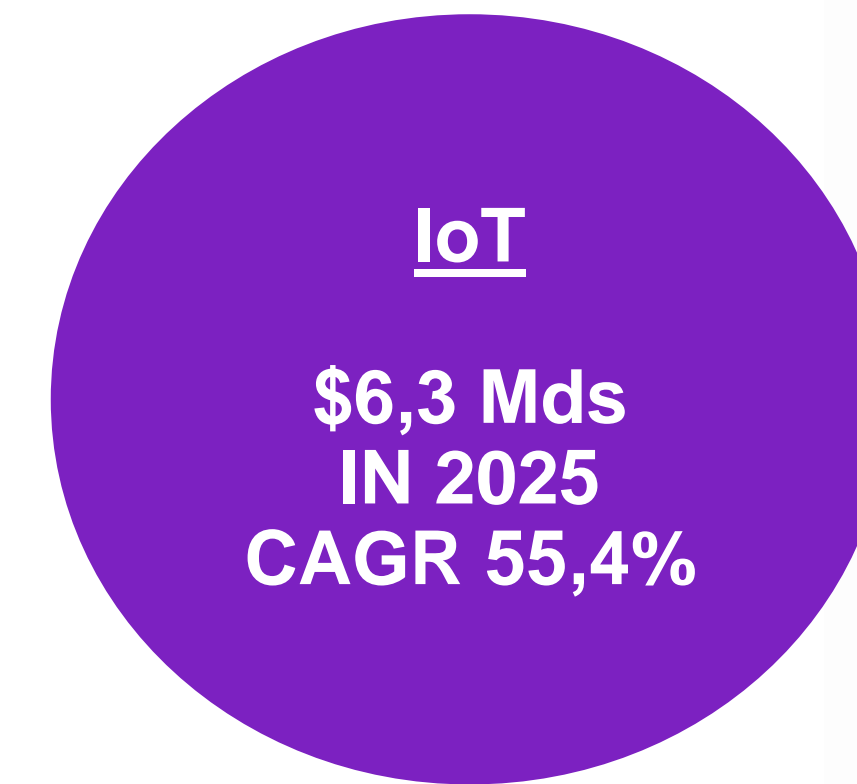


[Video of Essilor-Luxottica innovation with our product](#)

Market application: IoT & Antennas

Validation on-going 

- Increased adoption of Industry 4.0 raises the demand for *low latency connectivity, increasing number of connected IoT devices and growing data traffic* are driving the 5G IoT market
- North America is expected to hold the largest 5G IoT market share during the forecast period, followed by Europe and then Asia Pacific.



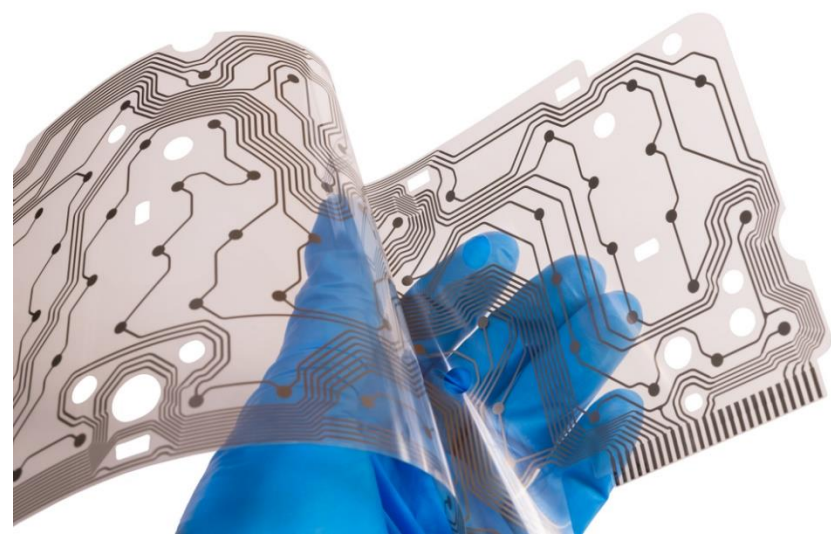
- ✓ Various applications dedicated to IoT and 5G connectivity:
 - ☐ Antennas and sensors
 - ☐ Stretchable and wearable electronics
 - ☐ In-mold electronics
 - ☐ EMI shielding
- ✓ Compatible with flexible, stretchable, and rigid substrates : polymers, papers, cellulose, glass, composites and silicon

5G frequency bands :

GenesInk's nanomaterials are adapted to all types of antennas and frequencies (RFID, 4G, wifi, cellular, etc.)

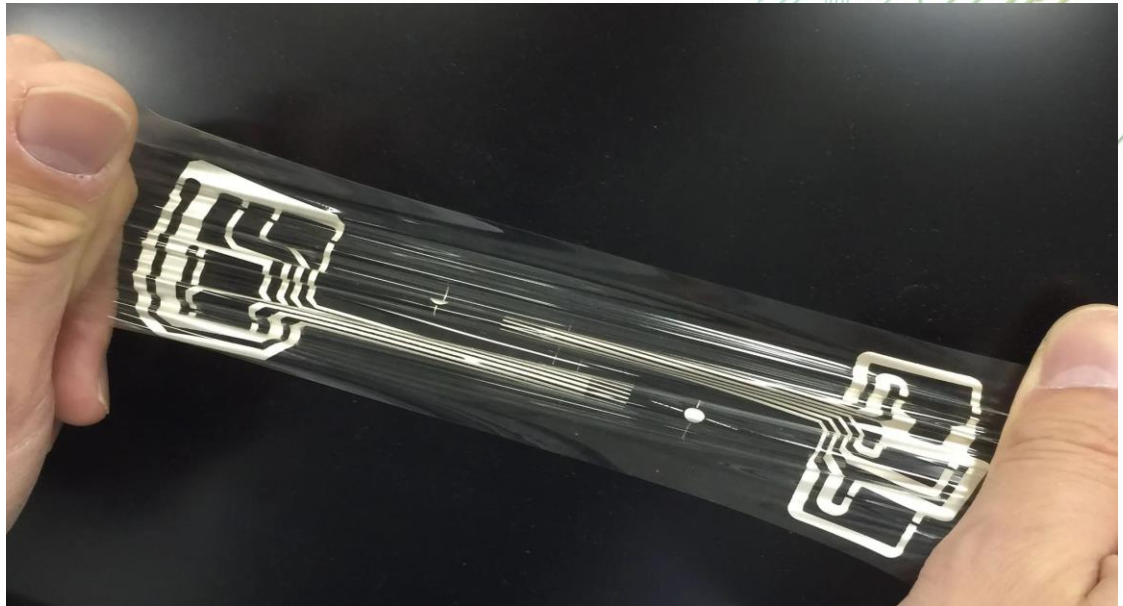
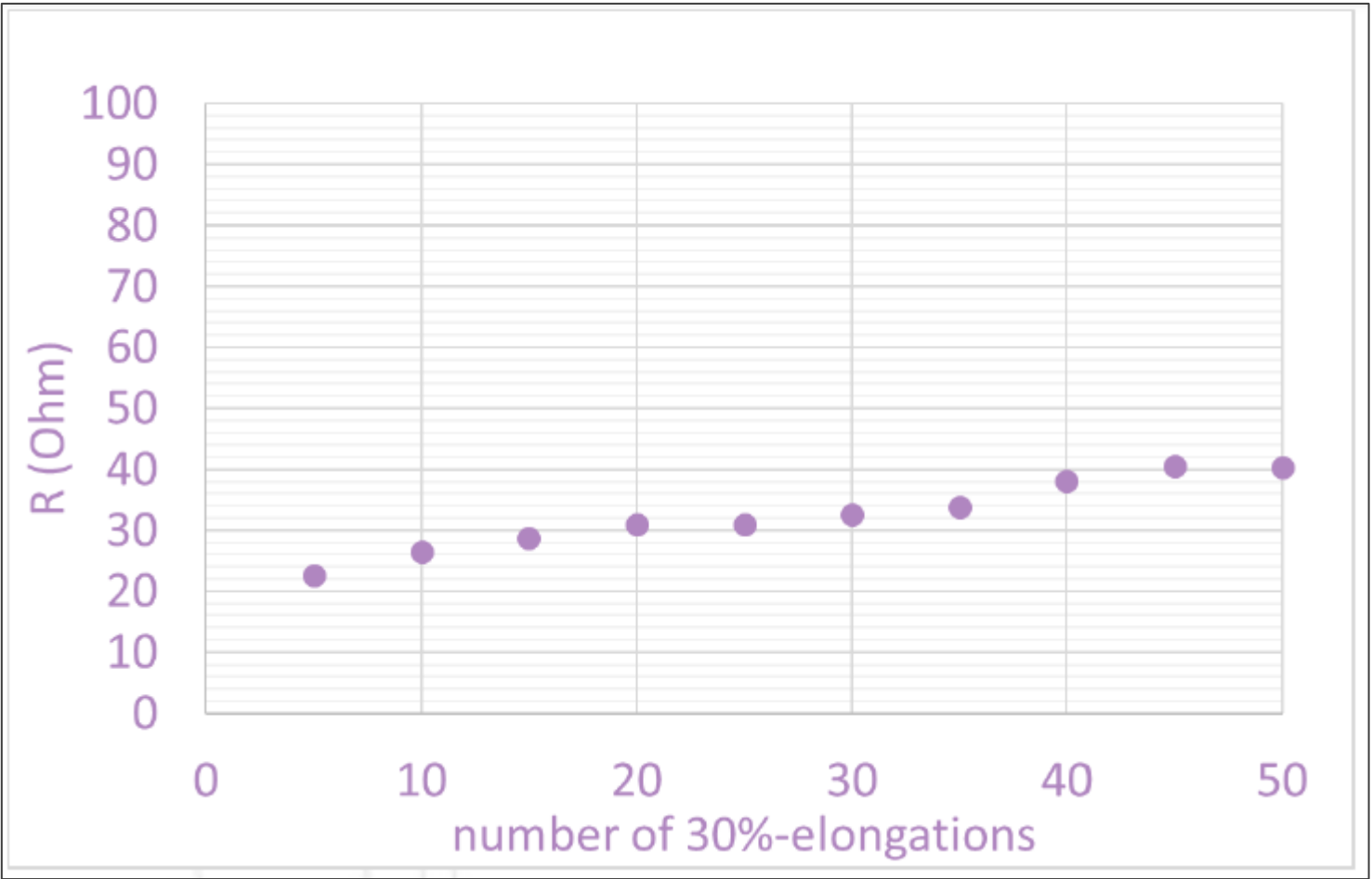
Market Application: Flexible Printed Circuits

Validation on-Going



	Smart Screen s
Silver content (%)	55
Viscosity (cPs)	13 500 - 17 500 @40s-1
Density (g/mL)	2
Resistivity @150°C (μOhm.cm)	25

- Offers possibility to print on various substrates including **plastics**
- Flexibility due to **thickness, adhesion** and **nanostructure**
- Offers a 2 mm bending radius
- Easier to integrate in a final system
- Easier to integrate in a final system
- Enables **new device designs**



Streachable application :
Wearable, smart clothing,
wearable electronics,
automotive and
aeronautics appliances.

FPCB

\$55B
IN 2031
CAGR 10,3%

KEY NUMBERS
TAM

Stretchable electronic

\$4,8B
IN 2029
CAGR 25,2%

FPCB: <https://www.globenewswire.com/en/news-release/2022/06/16/2464132/0/en/Flexible-Printed-Circuit-Board-Market-is-estimated-to-Rise-at-a-CAGR-of-10-3-during-the-Forecast-Period-TMR-Study.html>
Stretchable Electronic: <https://www.globenewswire.com/news-release/2022/08/11/2496873/0/en/Stretchable-Electronics-Market-Growing-at-a-Significant-Rate-CAGR-of-25-2-to-reach-USD-4-80-billion-by-Exactitude-Consultancy.html>

Market application: Solar Panels

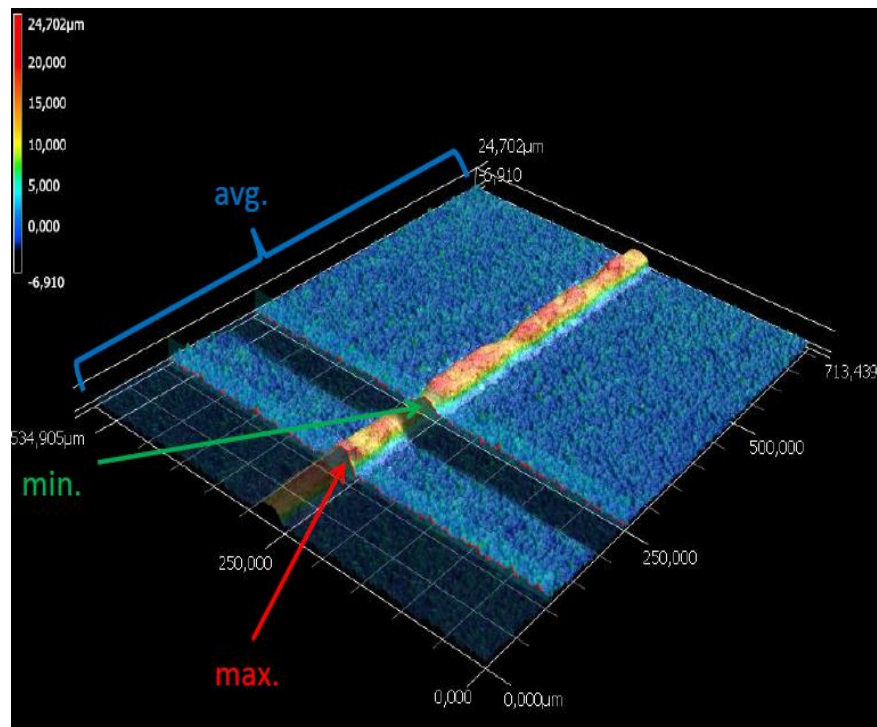
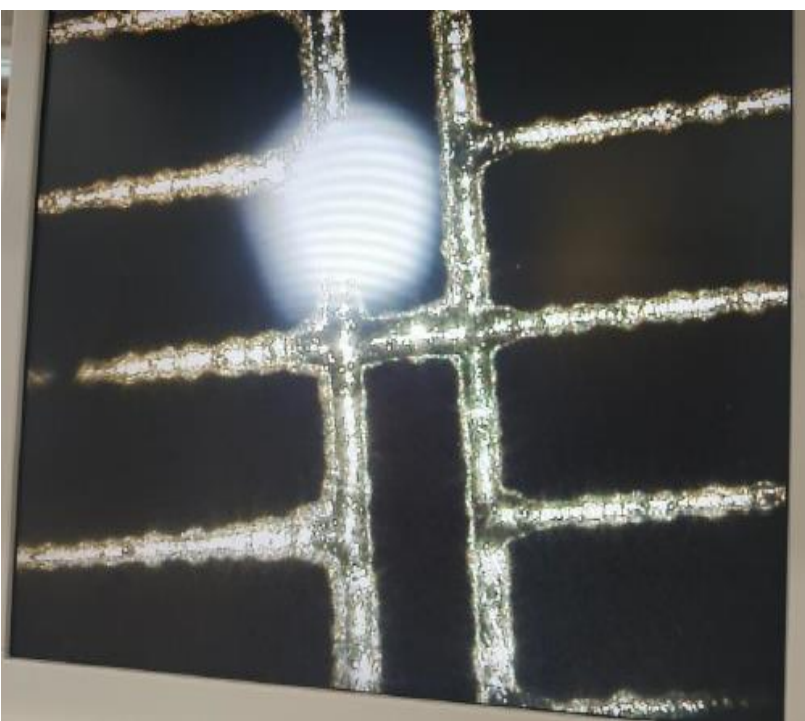
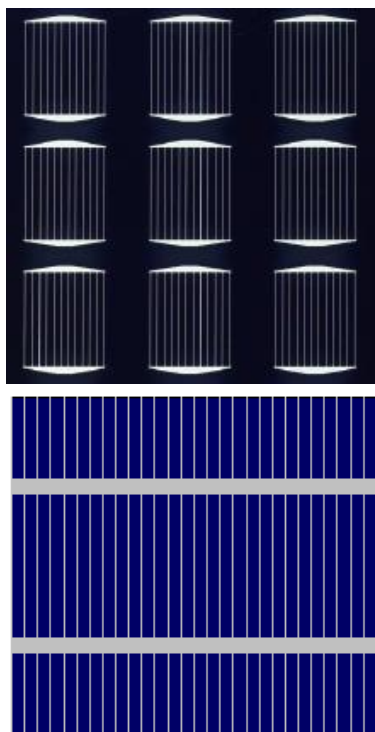
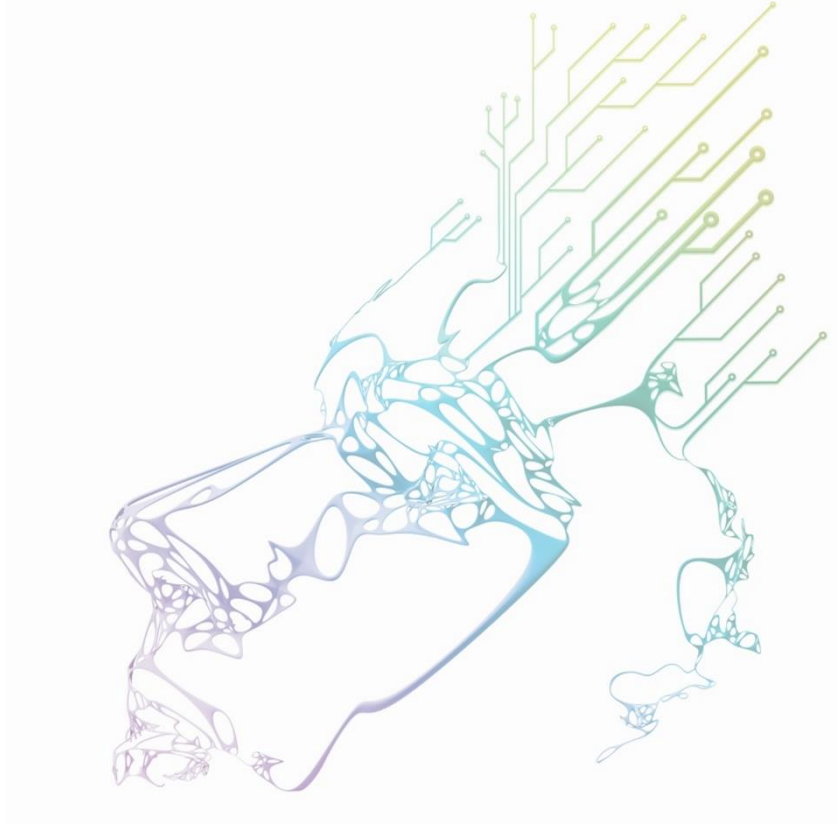
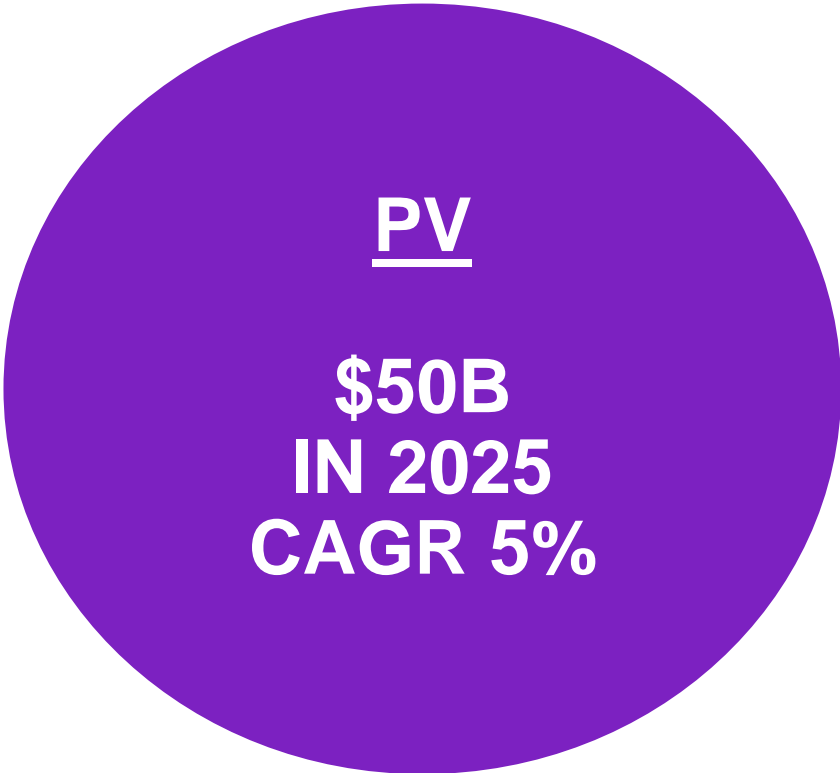
Validation on-going: Italian Energy Supplier



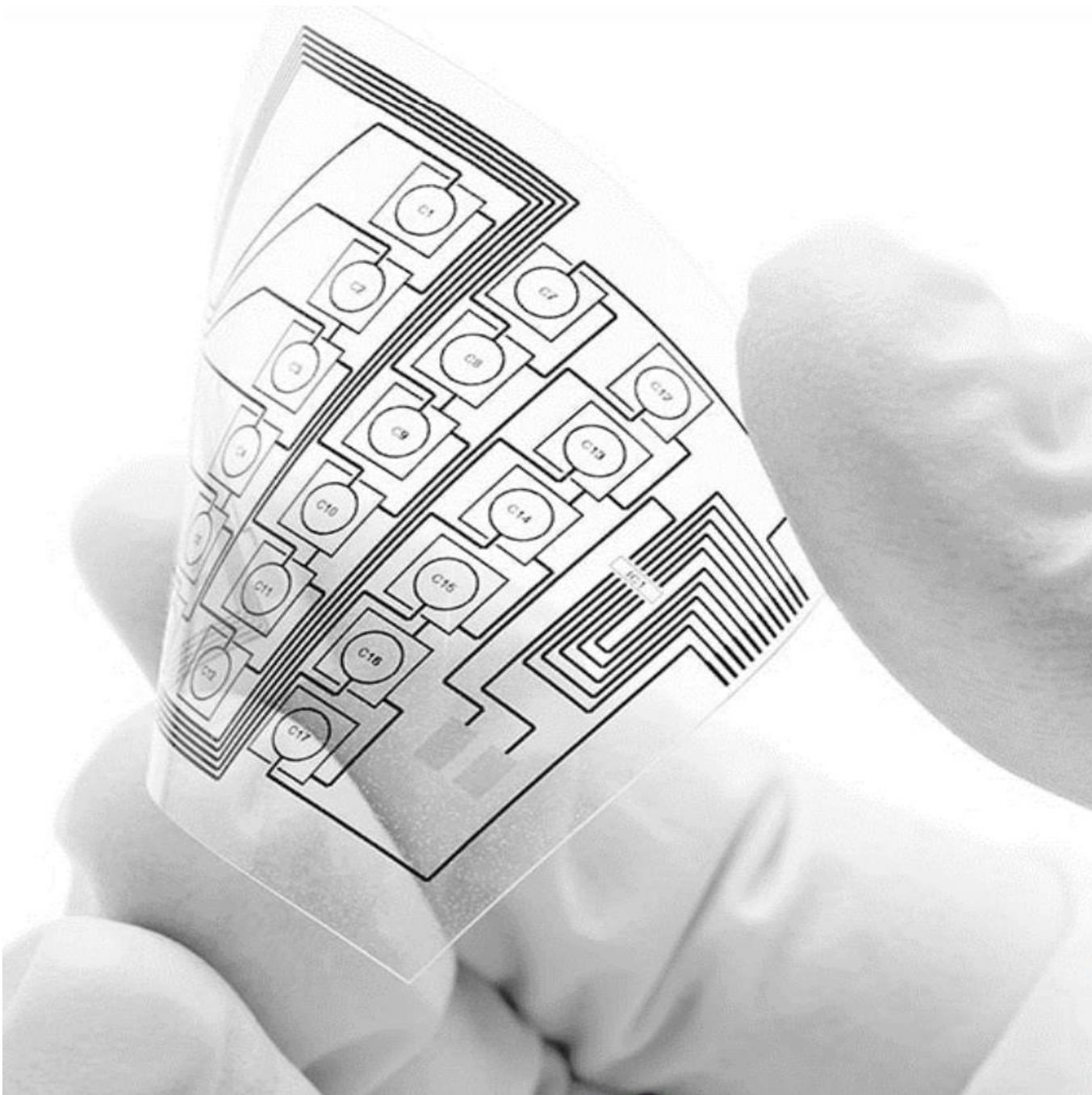
GENESINK Products: Silver Cell strips and interconnects for Si PV through screen-printing required **LOW CAPEX** requirement
Genesink solution below 200C by consuming 75% less material



Busbars of standard solar cells
Front grid fingers: 6 μm and width 60 μm
Busbar thickness: 6 μm and width: 1 mm



Properties	GenesInk solution
Voc [V]	0.73
Isc [A]	9.3
FF [%]	>70
Eff. [%]	20
R ($\text{m}\Omega/\square$)	10



Future Market Application : Connected Health and Medical Tests

Project initiated: Medisur



GENESINK Products: Silver conductive circuit



Target products : optical sensors, biosensors, touch sensors,

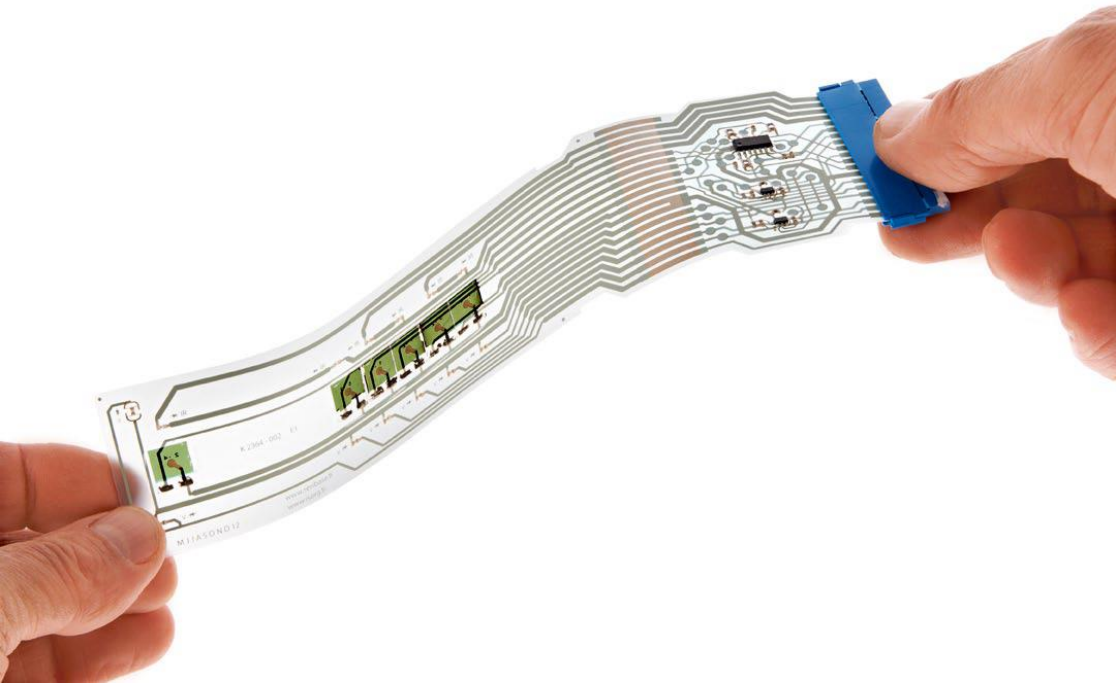
KEY NUMBERS

TAM

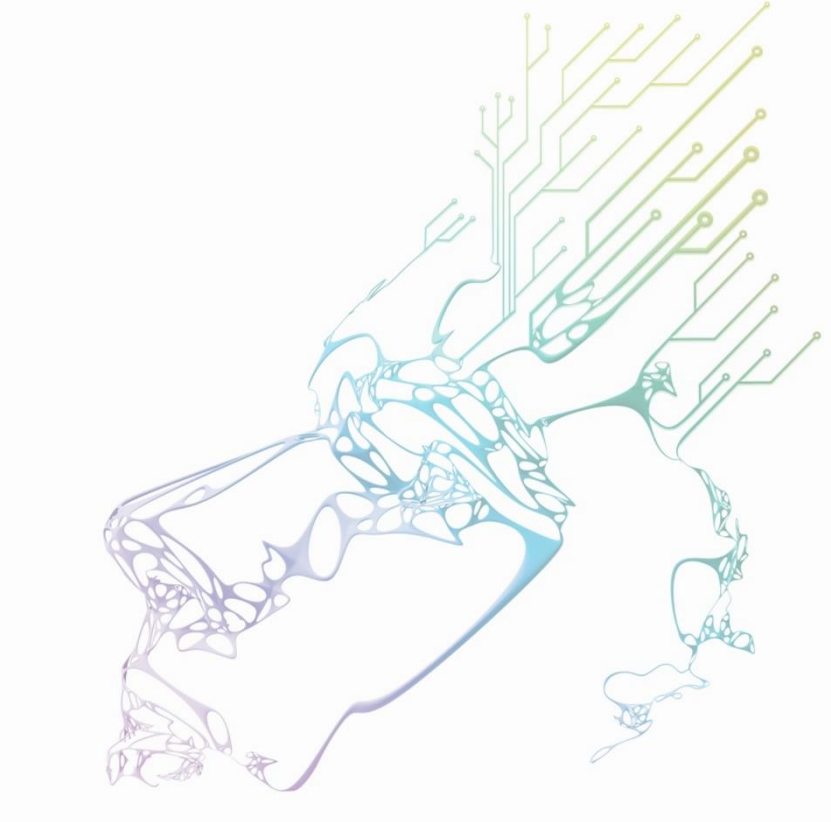
Sensors

\$53B
IN 2027
CAGR 9%

	Smart Screen F
Silver content (%)	55
Viscosity (cPs)	5000 - 7000 @40s-1
Density (g/mL)	2
Resistivity @150°C (μOhm.cm)	5



ERRC* Analysis – What Makes Us Unique



Eliminate	Reduce
Production Process steps Waste in Production Temperature constraints All the Carcinogenic Mutagenic Reprotoxic (CMRs) products	Production lead-time Material consumption Energy consumption Delivery time Environmental footprint
Raise	Create
Conductivity allows miniaturization and ubiquity, Exclusive license allows to eliminate competition Flexibility, lightweight, transparency allow to be everywhere Increase product stability, allow storage Hyper specialty chemicals for specific customization allow customer differentiation.	Conductivity allows to create new products Flexibility, lightweight, transparency allows to create new products New design service (Marketplace)

ERCC Grid From the Blue Ocean Strategy Best Seller book

Leadership team combines materials science & electronics experience



CORINNE VERSINI
Founder, CEO

- 30+ years in the electronics industry
- Sales and Procurement Director at IBM & STMicroelectronics
- Elected “Engineer of the year” in 2016 by “The Academy of Science”



BENJAMIN DHUEGE
CTO

- 10 years as Head of R&D in startups
- PhD in Material Sciences with specialization in polymers and formulation



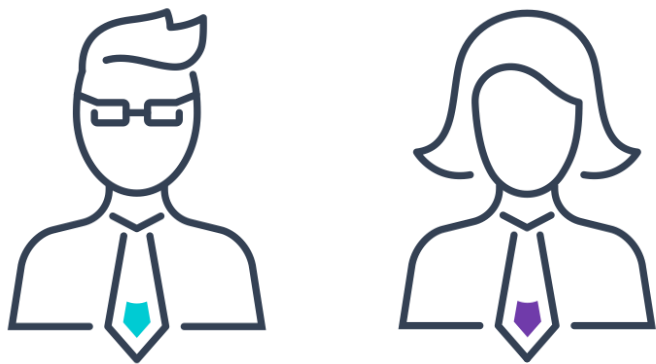
EMMANUELLE PIETRI
Customer Support

- 15 years as Production manager
- Expert in QHSE (Quality, Health, Safety & Environment)
- Experienced in ERP tool



PASCALE BRUYAT
External CFO

- 30-year experience in finance and audit
- 5 years as auditor, 15 years CFO in the semiconductor market
- 10 years as a fractioned CGFO for SME’s and mid-size companies



18 talented people



**STÉPHANIE
VILLECROZE**
Back office leader



**GRÉGOIRE
STAELENS**
Electronic specialist

Governance Team With Experienced People in Innovation

Board



ALBERTO HADDAD
Chairman
Entrepreneur, Investor



AARON MICHELIN
CEO Corporatum Oy,
Entrepreneur, Investor



JACQUES SENECA
– Non-Exec Strategic
Advisory & Investment
Gemplus/Gemalto EVP

Strategic Advisors



VICTORIA HERNANDEZ
Business Angel Caixa Board Member,
former CEO Orange Spain



THIBAUD LE SEGUILLON
CEO, Industria



JEAN-YVES GOMEZ
Founder and CEO ISORG



JEAN-PIERRE GLOTON
Co-founder GEMPLUS & JPG Pack
manager

Scientific Advisors



DR BEATRICE-HELENA ARIANO
Life Science Forum Basel
President & Member of the Board



DR GIOVANNI NISATO
Managing Director,
Innovation Horizons GmbH



DR. ESRA KÜÇÜKPINAR
Scientist at Fraunhofer for Process
Engineering and Packaging (IVV)



VALÉRIE SERRADEIL
Innovation & Collaboration
R&D Programs Manager at
ST Microelectronics



Why Invest In Genesink

- One of a handful of companies with the know-how to transform global electronics NOW
- 4 Platforms that enable ubiquitous connectivity across a broad number of industries representing a \$200 billion+ opportunity
- Genesink's nano-inks are a game-changer for performance, transparency, sustainability and weight
- Marquis list of partners in test demonstrates the pertinence of the need across industry mix
- Business model underpinned by licensing fees, joint R&D, recurring royalty streams and large-scale recurring revenues
- Asset light strategy means focus on immediate value creation for significant return on investment.

Reach us



www.genesink.com

Financé par



The future of electronics is now:
Flexible, Eco-friendly, Light &
Transparent.

For more information contact me corinne.versini@genesink.com

+33603909732





Thank you for your attention