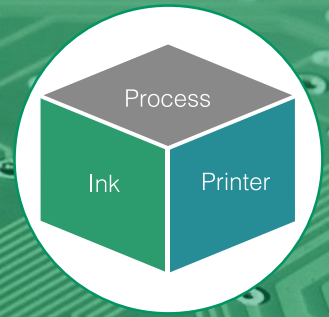


Removing the barriers from additive manufacturing of electronics to implement electronics everywhere

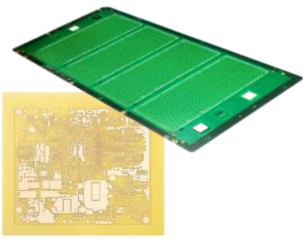


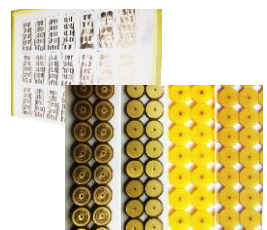
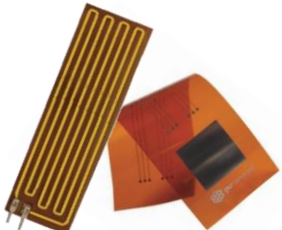

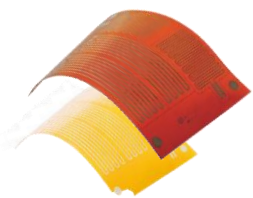
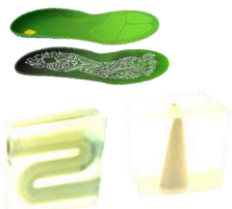


Mass-production digital printing solutions: conductive inks, process and printers for printed electronics

Classic electronic mass production methods such as etching & screen printing are commonly used today. However, these production methods are costly, rigid & wasteful in time & material as they are environmentally unfriendly. Until now, there was no alternative to these technologies. Conductive digital printing was at an early stage, required years of expertise and could not meet the demands of mass production.

PVnanocell solved the challenge of mass production printing by developing the patented Sicrys™ – Single Crystal Silver inks, implementing its Complete Solution business model and 5D digital printing disruptive technology. The inks deliver superior quality & cost-performance capabilities designated for mass production. This solution drastically shortens the technology transition process and time to market, enabling the growth in Printed Electronics \$8b growing market (CAGR 21.5%), to introduce electronics everywhere.

Proven as superior solution for most market applications

Improving existent solutions: Lower cost, drastically faster, eco-friendly		Enabling new and customized electronics	
 <p>PCBs</p>	 <p>Touch Screens</p>	 <p>Antennas for Mobile Devices</p>	 <p>Unique Medical & Two-side Applications</p>
 <p>Sensors & Heaters</p>	 <p>Solar Cells</p>	 <p>Flexible Electronics</p>	 <p>3D Printed Elements</p>

Challenge



Multiple companies, teams & disciplines are involved in developing digital printing solutions. A long, tedious and costly process.

Solution

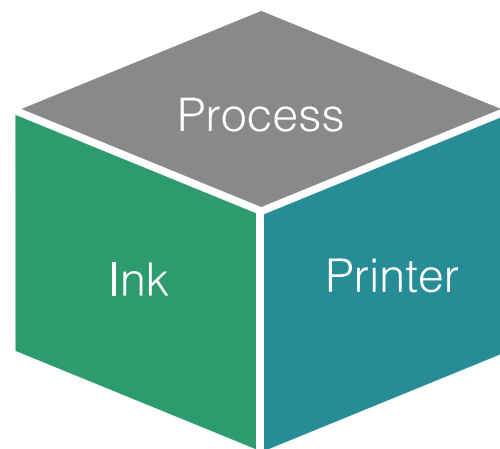


One company, one team implementing the Complete Solution and 5D digital printing disruptive technology. Quickly & Efficiently!

Complete Solution

PVnanocell allows you to enjoy the benefits of digital conductive printing without the complexity of developing the processes yourself. We perform the Design for Manufacturing for the customer and provide tested, proven solutions based on our 3 pillars:

1. Awards winning Sicrys™, silver-based conductive inks.
2. Inkjet prototyping & production printers. Compatible with a wide range of applications.
3. Customer-tailored 5D printing process, based on years of development & optimization experience.



PV Nano Cell Commercial mass production sales, SaaS like revenue business model, high GM, expanding customer pipeline and M&A growth plans a unique investment opportunity.

Value Proposition



Market's Best
Cost - Performance



New Designs
& Flexibility



Shorter Time
to Market



24/7
High Throughput



Reduce Products'
Size & Weight



Green
Process



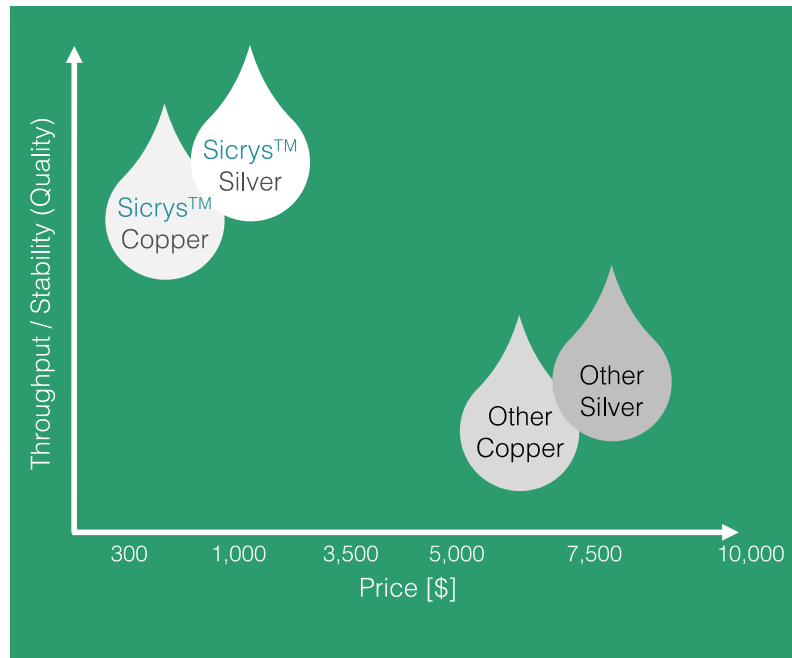
3D Electronics
Enabler



Multi Materials
Printing

Competitive advantages of Sicrys™ inks

- ♥ Robust high throughput - 24/7 printing.
- ♥ Shelf life: over 1 year
 - No agglomeration
 - No sedimentation
- ♥ Pattern printing: down to 50 μm.
- ♥ Low resistivity: $\rho < 2.5 \times$ bulk.
- ♥ Low sintering temp. $< 130 \text{ }^\circ\text{C}$
- ♥ Lower viscosity at high metal loading (50%+).
- ♥ Variable thickness
- ♥ SMT/soldering capable.
- ♥ Diverse offering: Silver (environmental durable), Copper and solar cell metallization inks.
- ♥ Competitive pricing.



Property*	Our Inkjet Printing	Screen Printing	Etching
Cost of Production [\$]	C	1.3 – 2.0 x C	1.3 – 1.6 x C
Throughput [Units/Hr]	P	0.5 – 1.0 x P	0.5 – 1.0 x P
Time to Market	T	1.2 – 1.6 x T	1.1 – 1.3 x T

*Application sensitive

Grants & Awards



Partners



Major Clients



Additional clients in the automotive, solar cells and other fields (under NDA).