TECHNOLOGICAL COMPLEXITY: TECHNOLOGY INFRASTRUCTURE AND INSTITUTIONAL SUPPORT (SHARED FACILITIES, RTOS)

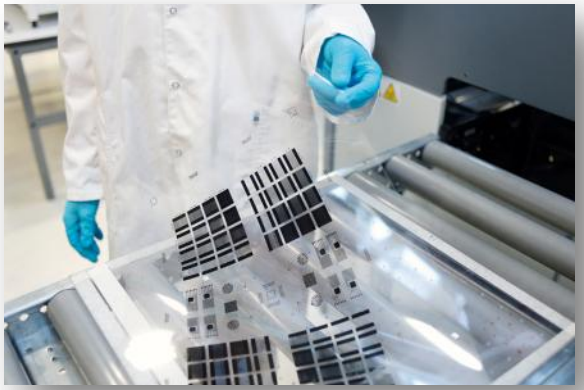
Chairman: Dr Göran Gustafsson
VP, Department Manager
Printed Electronics
Acreo Swedish ICT

PART OF RI.SE

SWEDISH ICT ACREO

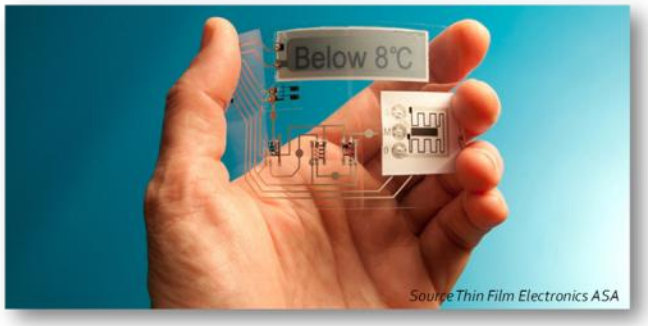
Pilot line: PEA Manufacturing

- Printed Electronic Arena - Manufacturing (PEA - Manufacturing) is a Pilot line for prototyping and small scale production in the field of Printed Electronics
- Established 2008
- Run by Acreo Swedish ICT (RTO)
- The running operation of the facility is financed by VINNOVA and European structural funds
- Budget about 0,2 MEuro/year
- Equipment has been funded by VR and European Structural Funds



Examples of m-KET based products and prototypes from PEA-M

Biosensor



Temperature sensor

Battery testrer

Smart card with display

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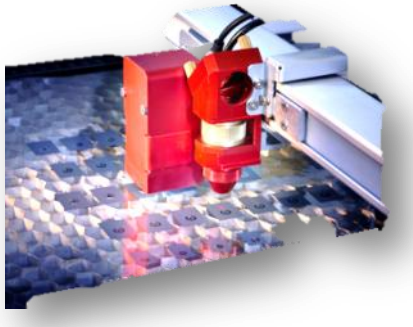
500 m^2 shared facility for prototyping and production

R2R label printer for display and circuitry manufacturing

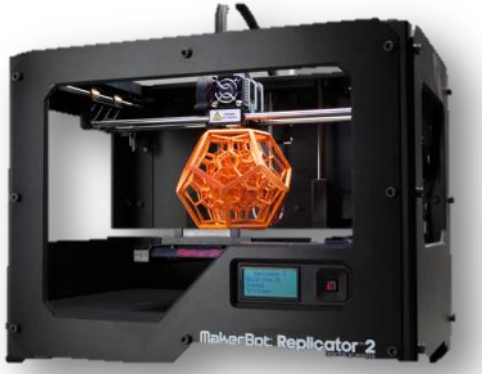
Coater for solar cell manufacturing



Laser ablation for prototyp manufacturing

Sheet printer for display and circuitry manufacturing

Dry Phase patterning machine for manufacturing of antennas, flex circuits etc



3D- printer for prototyp manufacturing

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CUSTOMERS

- The pilot line serves both start-ups and established companies, universities and institutions that want to test printed electronics into their products and processes.

EXAMPLES OF SWEDISH START - UPS

www.acreo.se

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EXAMPLES OF SWEDISH INDUSTRY PARTNERS

ERICSSON, BILLERUD, TELIA, THINFILM, SOGETI, aventure Functional Food & Biotechnologies, Nordvalls etiketter man märker, PEAB, procordia, ONSPOTSTORY

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EXAMPLES OF SWEDISH UNIVERSITIES AND INSTITUTES

LINKÖPINGS UNIVERSITET, Mittuniversitetet MID SWEDEN UNIVERSITY, VINN EXCELLENCE CENTER iPack, INNVENTIA

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Barriers for commercialization of m-KETs

- Technological complexity of m KETs, together with the high capital needed
- R&D on product and process side are needed in pilot production, although a demonstrator of a particular product is already available
- The equipment for scale-up and pilot production can differ strongly from laboratory equipment
- Too expensive to engage in pilot production

SOLUTIONS?

- Shared facilities for pilot production
- RTOs, who can play an important role in mKET pilot production activities
- Policy measures related to the involvement of RTOs and universities in pilot production

QUESTIONS

- What role should RTOs play in pilot production?
- What is so specific about shared facilities for pilot production?
- Equipment for complex m-KET?
- What needs to be taken into account in terms of public policies?
- Are there any particular KETs that especially need shared facilities?
- Are there any which do not?