

THE WORLD OF IXYS



RFID EXPERTISE

Efficiency through Technology

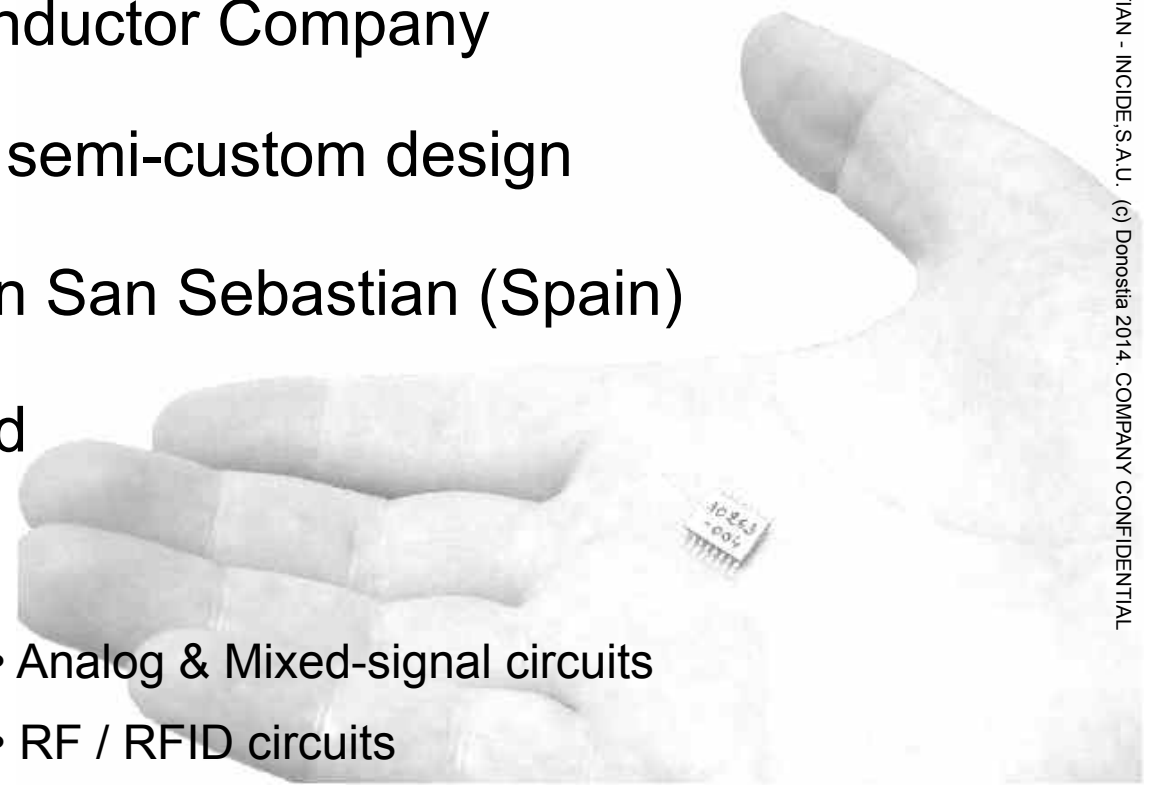
www.ixys.es

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IXYS SAN SEBASTIAN



- Fabless Semiconductor Company
- Full-custom and semi-custom design
- Headquartered in San Sebastian (Spain)
- ISO9001 certified
- Core business:
 - Analog & Mixed-signal circuits
 - RF / RFID circuits



Mission

Focus our expertise on core competences to provide excellent mixed-signal designs, maintaining access to world-class manufacturing capabilities for high quality products

Custom integrated circuits

- Development of mixed-signal ICs
- Production management in fabless model

Engineering Services

- IP Development and supply
 - Design consultancy
- Specific technical engineering

Custom ASIC Solutions

development

- Feasibility Study
- Design
- Prototyping
- Engineering Runs
- Industrialization

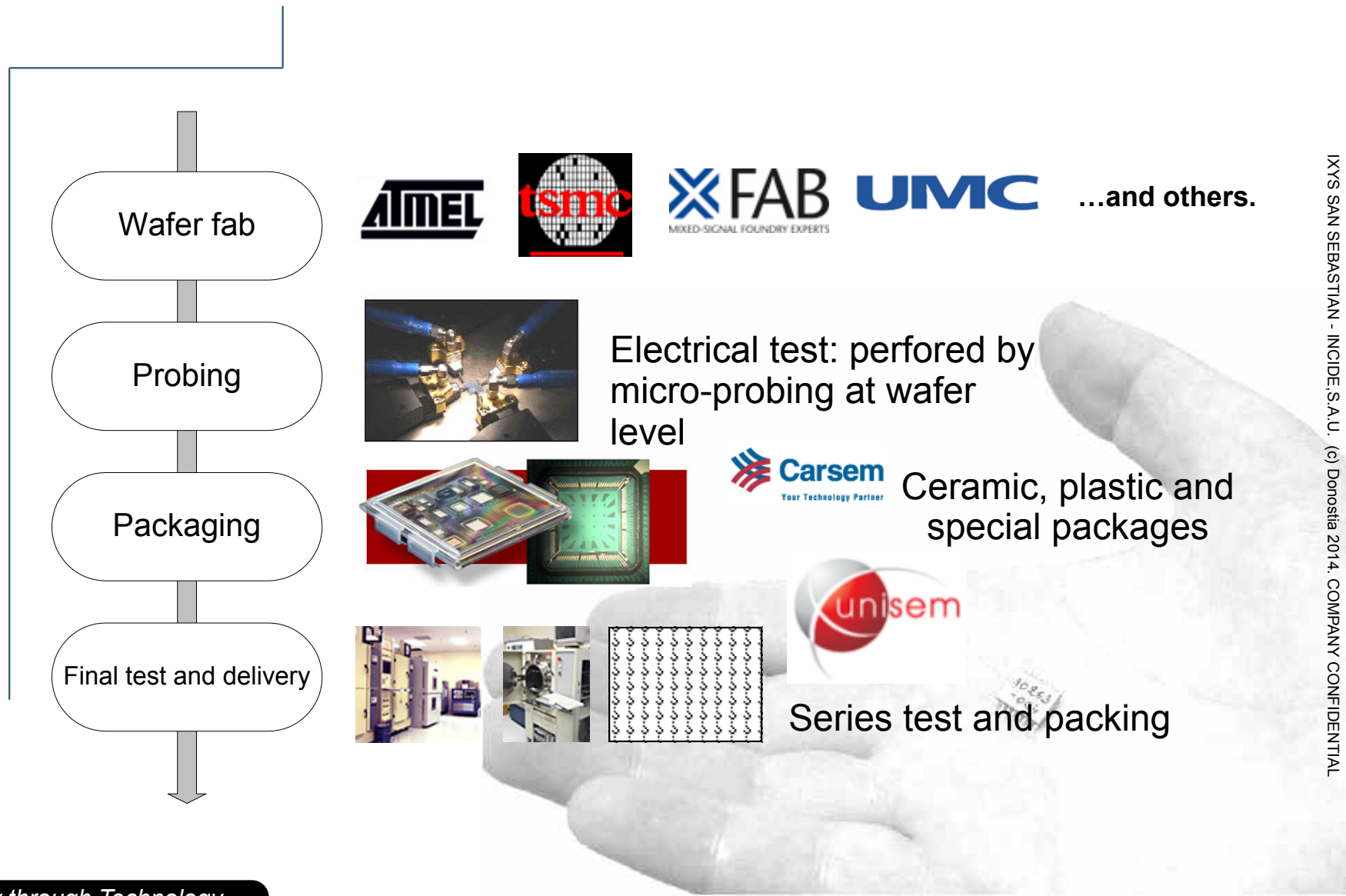
production

- Management of full IC fabrication process
- Wide selection of processes and technologies

SERIES PRODUCTION



Manufacturing flow




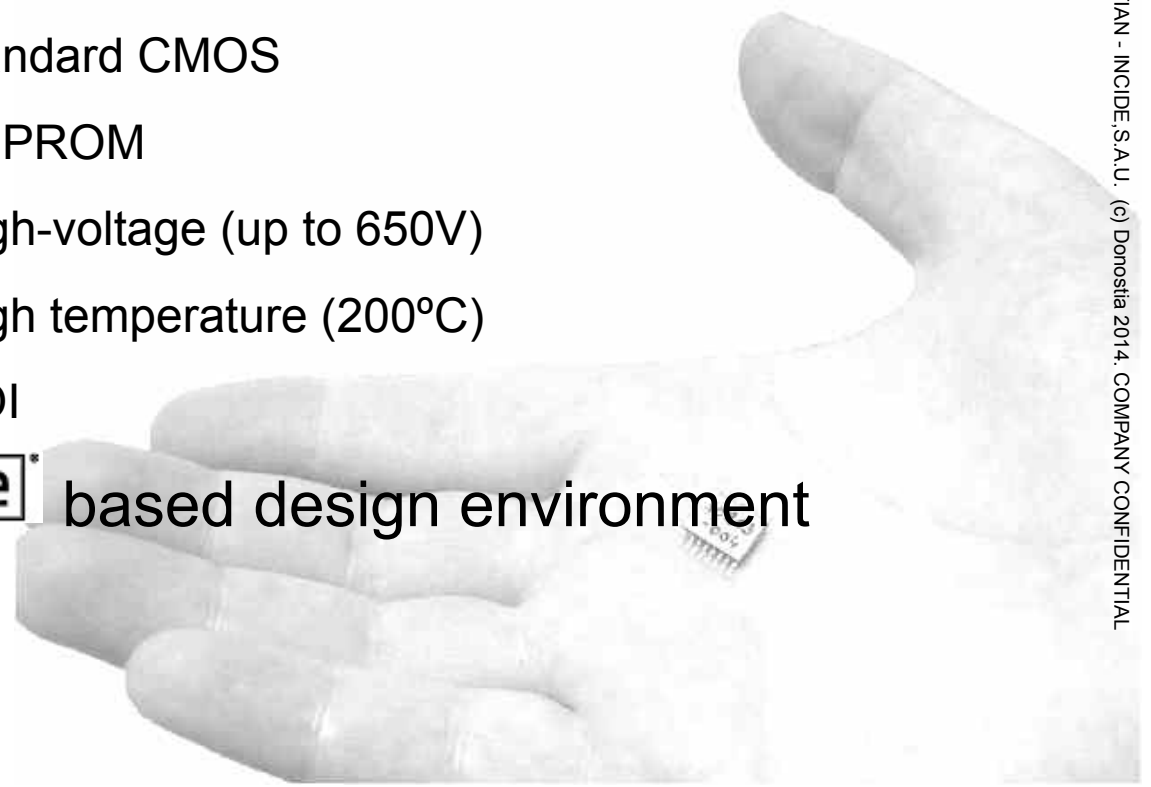
Manufacturing flow: foundry

- Foundry independent fabless house
- Different technologies:

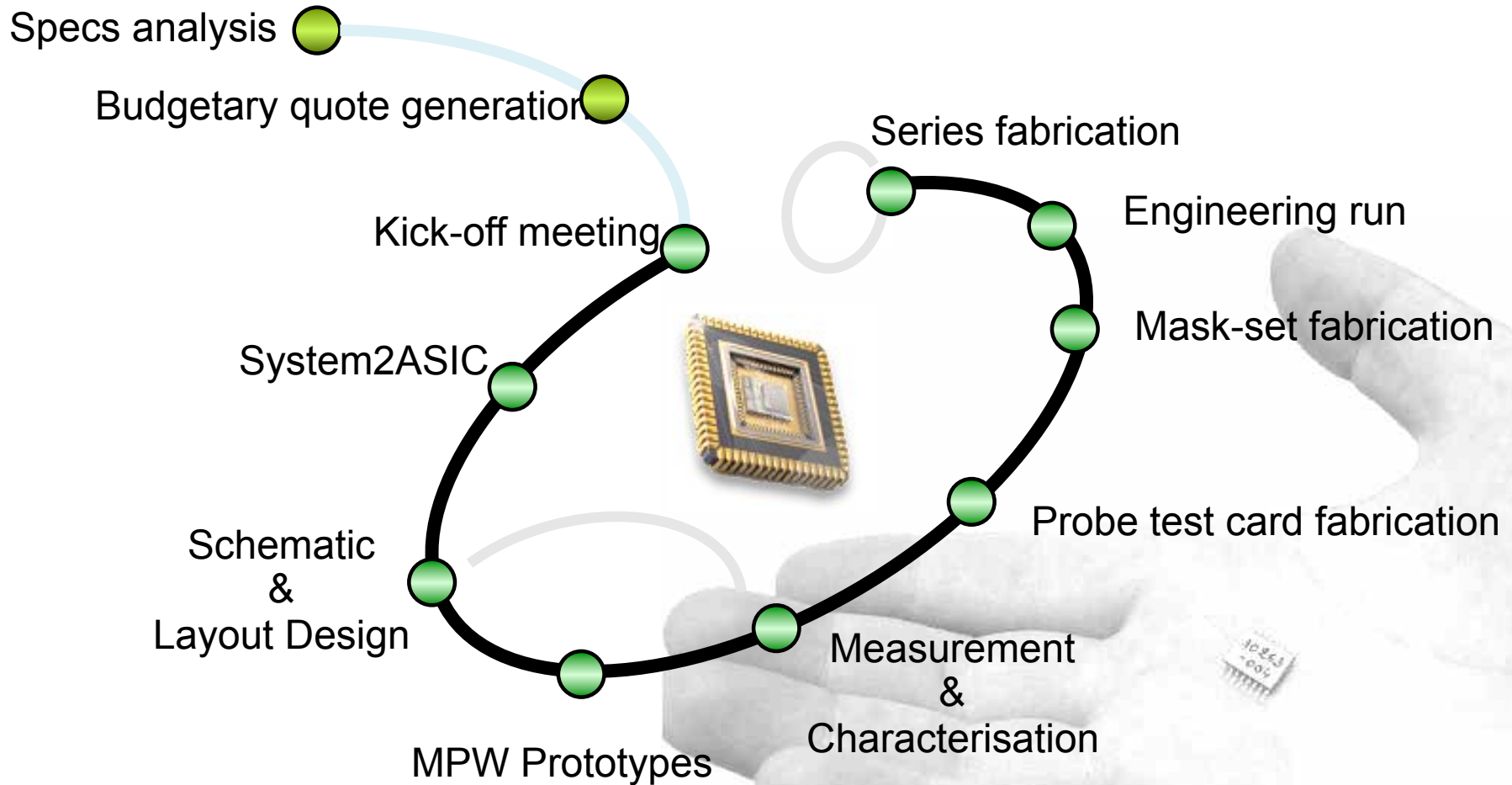


- standard CMOS
- EEPROM
- High-voltage (up to 650V)
- High temperature (200°C)
- SOI

-  based design environment



Business flow



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RFID expertise

From silicon to system

- **Low frequency RFID systems (125kHz, 134,2kHz)**

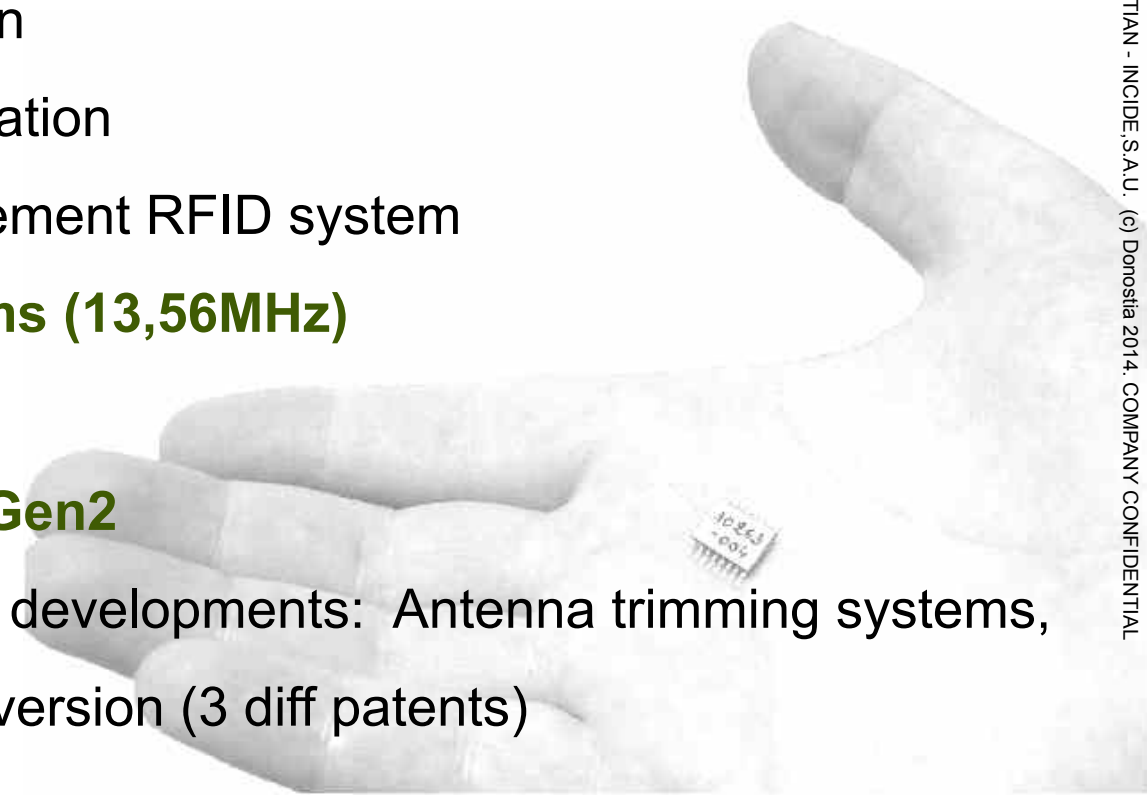
- Applications:

- Livestock Identification
- Tag-on-metal identification
- Temperature measurement RFID system

- **High-frequency RFID systems (13,56MHz)**

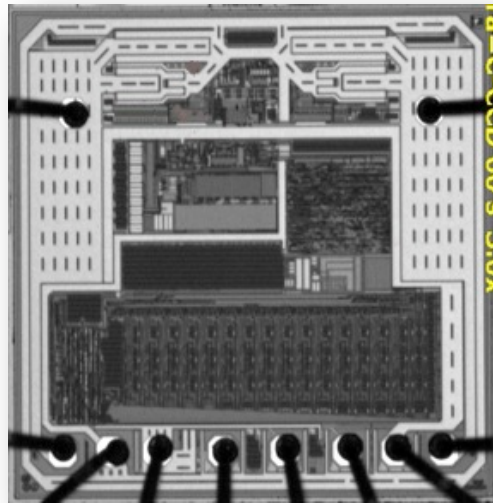
- **UHF RFID IPs according to Gen2**

- Different patents for RFID developments: Antenna trimming systems, sensor to RFID analog conversion (3 diff patents)



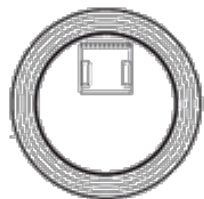
RFID expertise: success cases...

NCD1100

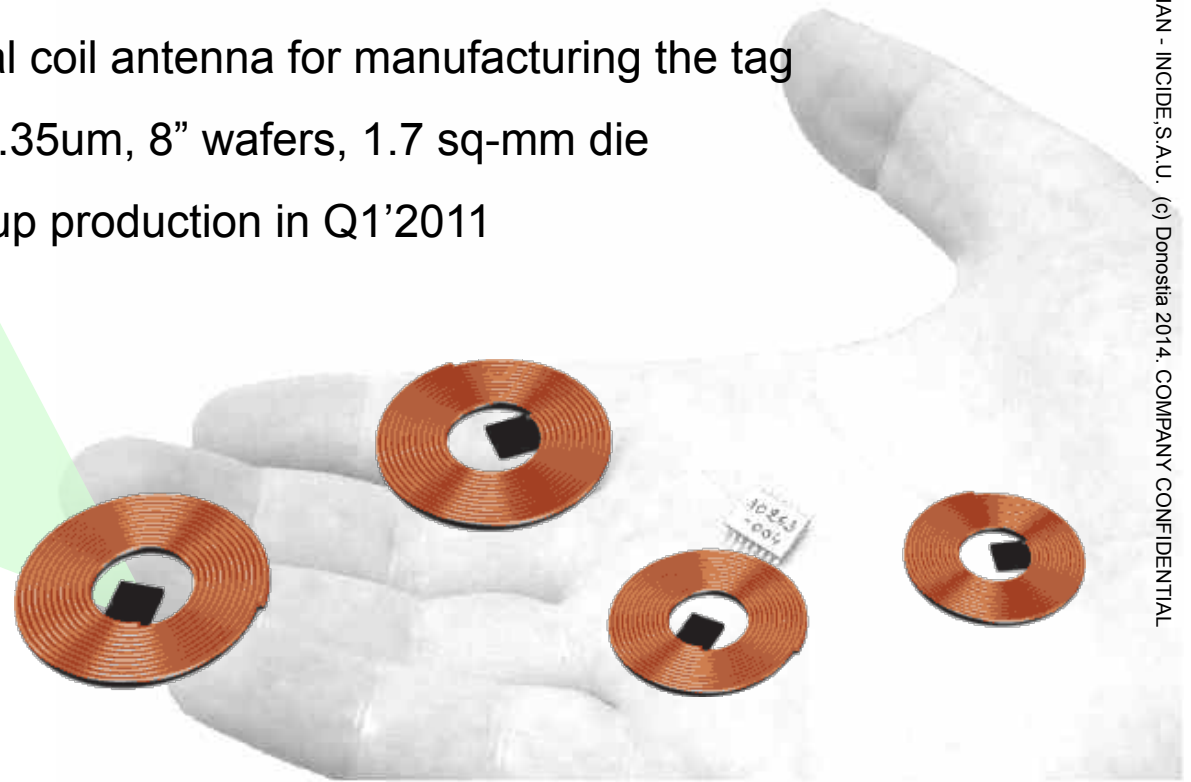


NCD1100

- Tag-on-Metal LF RFID
- Oriented to jewelry and medicine blisters identification
- External coil antenna for manufacturing the tag
- XFab 0.35um, 8" wafers, 1.7 sq-mm die
- Ramp-up production in Q1'2011



**Vial Inlay
IXT8-1**



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RFID expertise: success cases...

NCD1100



- NCD1100 tag included in each blister and/or blood bag

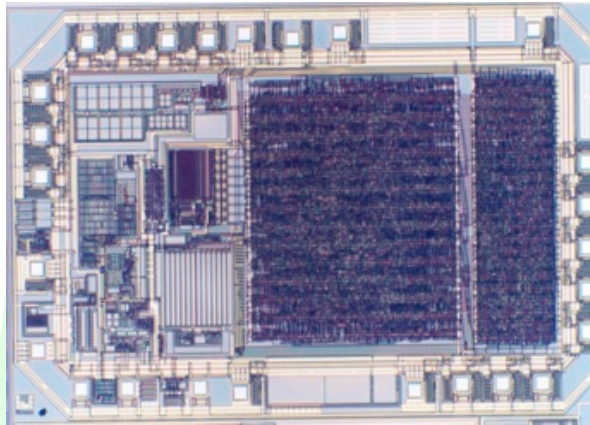
- Automatic freeze including proprietary patented RFID reader for high-precision reading

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RFID expertise: success cases...

NCD1025

- LF HDX RFID for livestock ID and temp meas
- Eartag or glass transponder format
- In production since Q4'2008
- ATMEL 0.5um, 6" wafers
- **NCD1025 including an integrated temperature sensor**



NCD1025

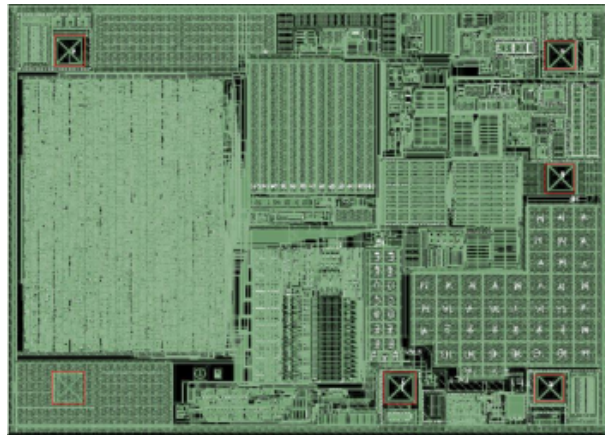


biocompatible glass transponder
for underskin injection in livestock



RFID expertise: success cases...

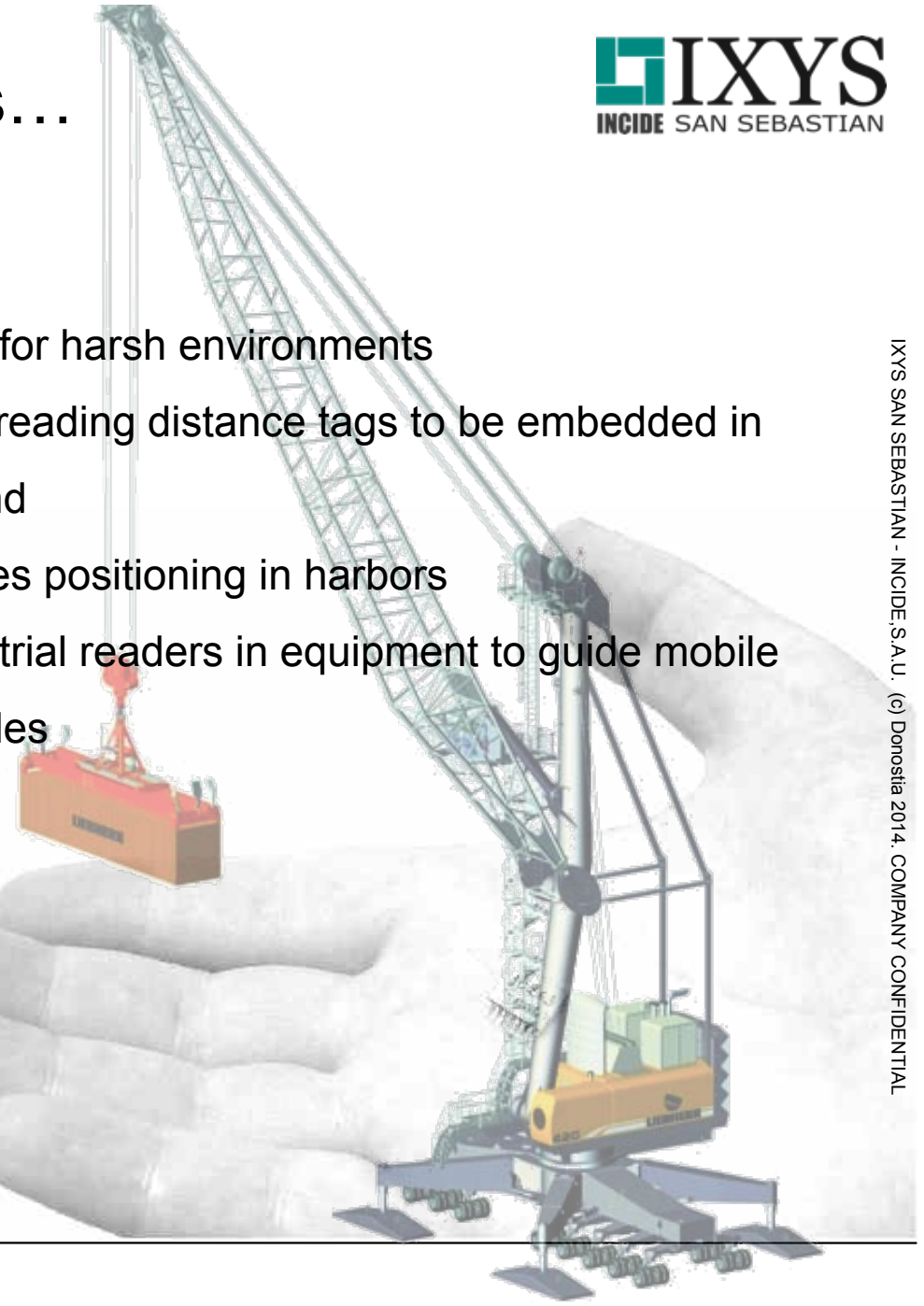
NCD1015TAG



NCD1015



- RFID for harsh environments
- High reading distance tags to be embedded in ground
- Cranes positioning in harbors
- Industrial readers in equipment to guide mobile vehicles



Contact



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