We are connecting business partners

PRESENTATION

PRESENTER / DATE:
- THE COMPANY

- COMPETENCES & EXPERIENCE

- OFFERED PRODUCTS & SERVICES
We are connecting business partners

THE COMPANY

ARE CON

is a sales, service and consulting organization within the smart card industry, targeting to connect business partners for mutual success.
THE COMPANY

ARE CON IN A NUTSHELL ... >50 / 25% / 2008

YEARS OF SMARTCARD INDUSTRY KNOWLEDGE

ANNUAL GROWTH RATE

YEAR OF FOUNDATION

We are connecting business partners
THE COMPANY

COMPETENCES & EXPERIENCE

OFFERED PRODUCTS & SERVICES
COMPETENCES & EXPERIENCE

OUR STRENGTHS

▪ Long practical experience and know-how in different areas of the Smart Card Industry (card manufacturing / pre-press / personalization / security printing / technical consultancy etc.)
▪ Large international network
▪ Customer-oriented mentality
▪ Highest standards of quality
▪ Innovative and flexible thinking

YOUR ADVANTAGES

▪ Fast lead times
▪ Optimized and tailormade solutions
▪ Benefit from our experience and be one step ahead!

We are connecting business partners
COMPETENCES & EXPERIENCE

Bernhard F. Wernberger
Managing Director

Experience:
- Managing Director at Novacard GmbH
- Manager BS IT/Access at Winter AG
- Management Consultant
- Director Sales EMEA at Power Integrations GmbH
- Account Manager Identification at NXP (Philips Semi.)
- Global Purchasing Coordinator at NXP (Philips Semi.)

Degree in Engineering & Business
COMPETENCES & EXPERIENCE

Anja Knitter

Head of Finance / Authorized Representative

Experience:
- Authorized Representative at Novacard GmbH
- Commercial Clerk at Novacard GmbH
- Order Preparation Card Manufacturing at Rothahn Essich GmbH
We are connecting business partners

- THE COMPANY
- COMPETENCES & EXPERIENCE
- OFFERED PRODUCTS & SERVICES
We are connecting business partners

DISTRIBUTION

REPRESENTATION

CONSULTING
We offer components and semi-finished products around the smart card to

- Card manufacturers
- State printers
- Governmental organizations
- System integrators
- etc.
We are connecting business partners

DISTRIBUTION

- INLAYS
- MODULES
- LAMINATION PLATES
- SMART CARDS
- ACCESSORIES
- SERVICE
- FOILS

We are connecting business partners
PRODUCT PORTFOLIO

- CUSTOMIZED FORMATS (3x6/3x7/3x8/2x5 etc.)
- DIFFERENT MATERIALS (PVC / PC / PET etc.)
- DIFFERENT THICKNESSES AND ANTENNA PROCESSINGS (embedded wire, etched antenna, direct bonding etc.)
- LF MODULES (Hitag 1 / Hitag 2 / EM 4200 / ATA 5577 etc.)
- HF MODULES (Mifare Classic / Mifare DESFire / Legic / I-Code etc.)
- UHF MODULES (Monza 4QT, U-Code, Alien-Higgs 3 etc.)
- HYBRID TECHNOLOGIES (combination of LF, HF, UHF, contact chips, magstripes, barcodes)
PRODUCT PORTFOLIO

- Secure memory chips
- Crypto memory chips
- Microprocessor chips
- 6 or 8 contacts
- Selection of numerous packages, various adhesives for different card materials etc.
- Manufacturer: Microchip / Infineon, ATMEL, NXP etc.
DISTRIBUTION

CONTACTLESS CARDS

- **HF – HIGH FREQUENCY MODULES**
  NXP MIFARE Ultralight, NXP MIFARE Classic, NXP Mifare DESFire, NXP I-Code, LEGIC Prime, LEGIC Advant, LEGIC CTC etc.

- **LF – LOW FREQUENCY MODULES**
  NXP Hitag 1, NXP Hitag 2, EM 4102, EM 4450, Atmel ATA5577 etc.

- **UHF – ULTRA HIGH FREQUENCY MODULES**
  Impinj Monza 4QT, Alien-Higgs 3, NXP UCODE etc.

- **NFC – NEAR FIELD COMMUNICATION**
  NXP NTAG203 etc.
CONTACT CARDS

▪ MEMORY CARDS

Secure Memories
▪ Atmel AT24C02- AT24C1024
▪ Microchip 24LC01-24LC512
▪ Infineon SLE 5532 / 5542 / 5552 / 5518 / 5528 / 5538

Crypto Memories
▪ Atmel AT88SC0104-AT88SC25616

▪ MICROPROCESSOR CARDS

▪ NXP with JCOP OS / J1A020-J3D145
▪ Infineon with CardOS 4.4 / 5.0 - SLE 66CX680PE – 78CLX800P
HYBRID CARDS

COMBINATION OF VARIOUS TECHNOLOGIES ON ONE CARD

- HF / LF / UHF / contact chips / magstripes / barcodes
COLLECTION OF FURTHER CARD FEATURES

- Special form factors
- Holograms
- Signature panel
- Scratch off panel
- Thermo-rewritable foil
- Punch holes
- Security printing
- Relief structures
- Etc.
DISTRIBUTION

CORE MATERIAL + OVERLAYS

- PVC / PET-G / PET-F / PVC-ABS / PC

OPTIONS

- Overlays with special coatings and surface qualities
- High VICAT values
- Selection of thicknesses from 45 µm up to 820 µm
- Quality varieties for different applications (credit cards, contactless cards, dual interface cards, standard and low cost cards)
PRINTING
- Thermal transfer printing
- Dye sublimation printing
- Embossing
- Re-transfer printing
- Inkjet Printing
- Laser Personalization

ENCODING
- Encoding of magstripes and barcodes
- Encoding of contact and contactless cards (LF/HF/Multi technologies)

FURTHER SERVICES
- Chip initialization / pre-personalization / programming
- Applet loading
- Layout & Pre-press service
- Mailing
We are connecting business partners

FURTHER RFID MEDIA
- Key fobs
- RFID / UHF / NFC labels
- RFID wristband
- Wearables

CARD ACCESSORIES
- Lanyards
- Yo-Yos
- Clips
- Badge holder

CARD PRINTER

SEMI-FINISHED PRODUCTS
High quality lamination plates and pads for standard and security card manufacturing

LAMINATION PLATES

- Different surfaces: glossy / light matt / silk matt
- Tactile surface structures
- Special features: Braille lettering, microtext

LAMINATION PADS

- Press pads for standard (155 °C) and high temperature lamination (215 °C)
ARE CON represents SMART PACKAGING SOLUTIONS (SPS),
Main provider of secure and high added value components for card and document manufacturers and World Leader in Dual Interface Banking and eID documents.
### PRODUCT LINE

<table>
<thead>
<tr>
<th>PRODUCTS</th>
<th>eBoost PAY®</th>
<th>eBoost ID®</th>
<th>eBoost PASS®</th>
</tr>
</thead>
<tbody>
<tr>
<td>DUAL 6, DUAL 8</td>
<td>For Banking &amp; Transportation</td>
<td>For eID cards</td>
<td>For ePassport</td>
</tr>
<tr>
<td>Inlay Prelam</td>
<td></td>
<td>Inlay Prelam</td>
<td>Inlay for Datapage Polycarbonate*</td>
</tr>
<tr>
<td>SILVER GOLD</td>
<td></td>
<td>SILVER GOLD</td>
<td></td>
</tr>
<tr>
<td>CMI</td>
<td></td>
<td>CMI CAI</td>
<td>CMI CAI</td>
</tr>
<tr>
<td>Pre-personalization OS loading service</td>
<td>Pre-personalization OS loading service</td>
<td>Pre-personalization OS loading service</td>
<td></td>
</tr>
</tbody>
</table>

**Note:**
- CMI: customized module image
- CAI: customized antenna image
- VMI: variable module image
- *: under development
We offer consultancy and business development services for the government and smart card industry in purchasing, processing and sales of complex ID-related products.
We are connecting business partners

CONSULTING

- PROCESS & COST ANALYSIS
- ENGINEERING & SALES CONSULTANCY
- TENDER PREPARATION
We are connecting business partners

For further information please contact:

Bernhard F. Wernberger
Stau 144 “Wasserturm”
D-26122 Oldenburg

Tel: +49-441-8000 675
Fax: +49-441-8000 674
Mobile: +49-160-907 13 587
e-Mail: wernberger@are-con.com
QUESTIONS?