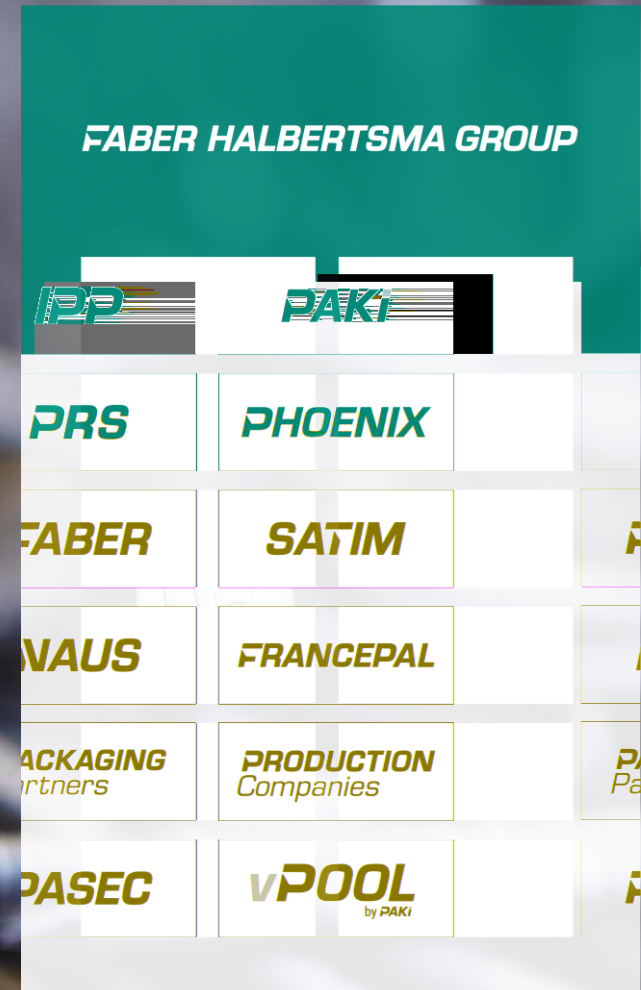


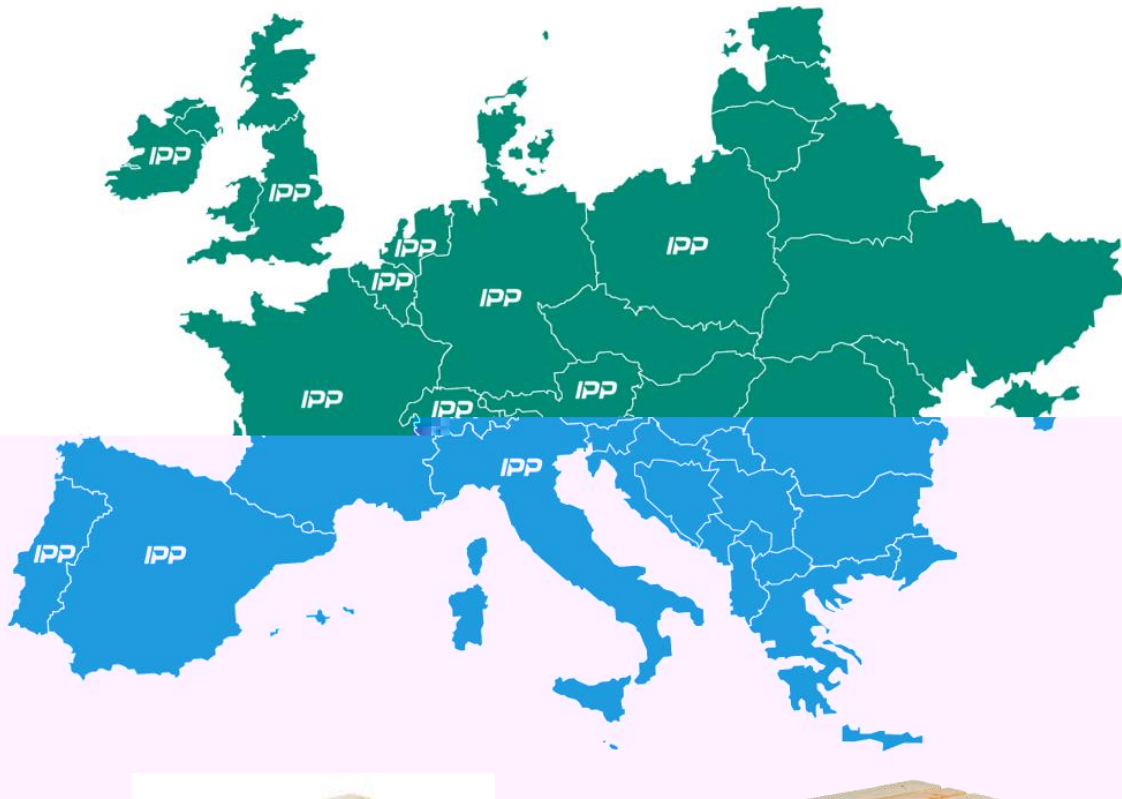
***Standards and Collaboration as enabler for pooling services*** – first-hand insights into project by IPP

ALICE – IPIC 2021, 15.06.2021



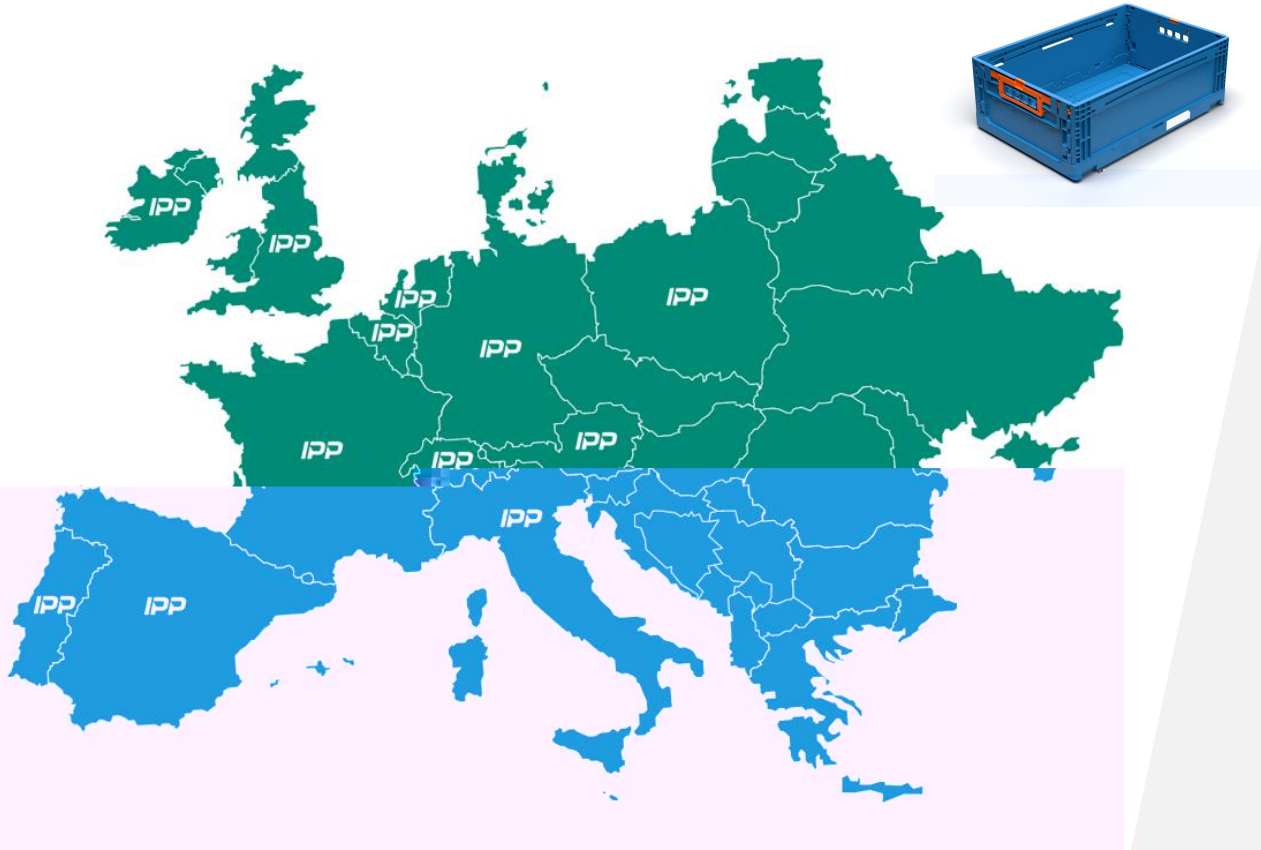
- IPP provides sustainable closed pallet and box pooling services for the FMCG and recycling industry, covering most of Western Europe.
- PRS, short for Pallet Return System, provides sustainable closed pallet pooling services to the European polymer industry.
- PAKi is one of Europe's leading sustainable open pooling services for exchangeable standardised load carriers.
- vPOOL offers sustainable open pooling services for food grade load carriers throughout Europe.





- BeNeLux
- Germany, Austria, Switzerland
- UK & Ireland
- France
- Iberia
- Poland





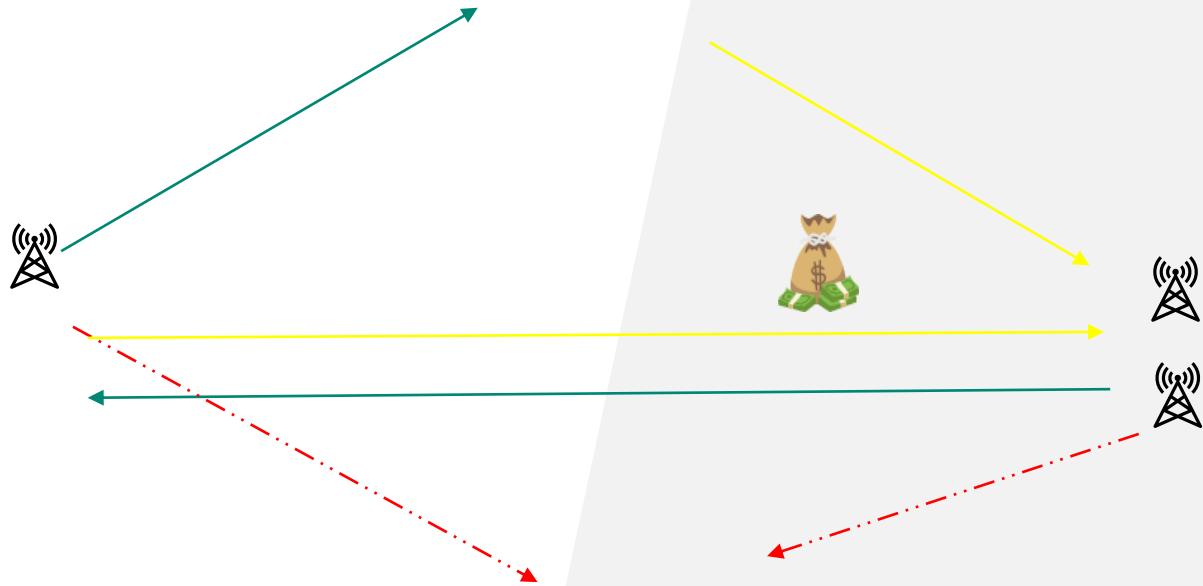
## ... fitting into our strategic portfolio of load carriers and services

- Synergies with existing flows and products
- Sustainable multiple-use approach
- New, innovative technologies and options
- Road towards serialized, data-based management of returnable assets
- 7 digit initial invest into the future ...

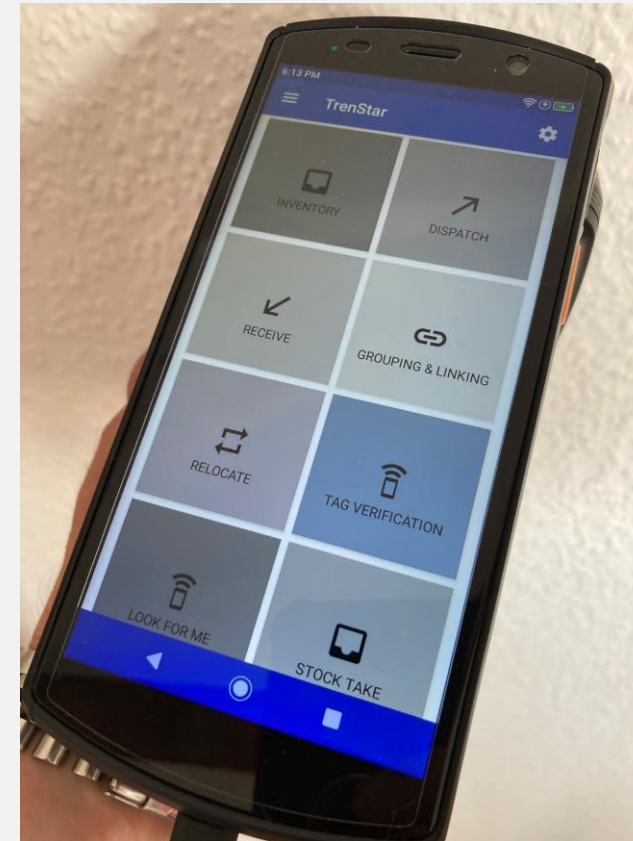
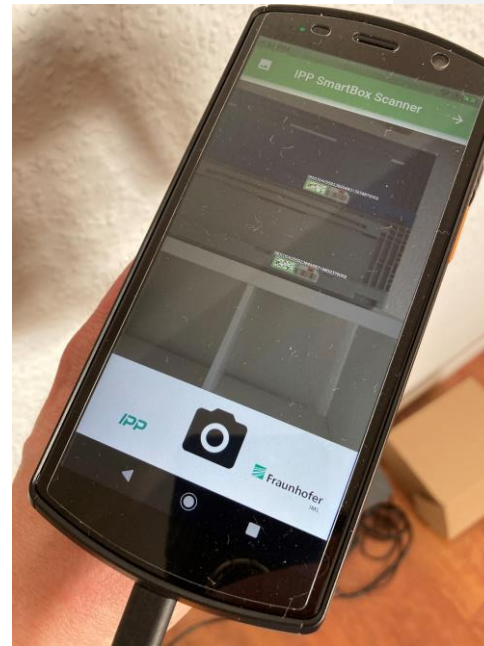


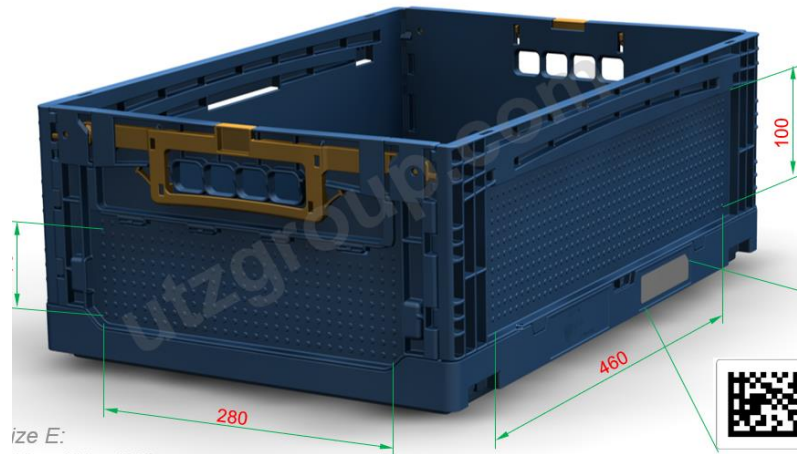
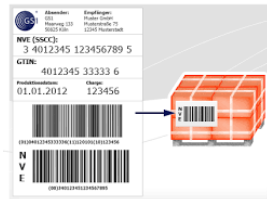
- From Intra-logistical view towards cooperative asset use and management
- Collaboration in technical and organizational development
- Acceptance & Commitment
- Gain- & Cost-Sharing





## Innovative technologies – (r)evolution towards smart RTIs





## From load carrier to data carrier ...

- Step by step ramp-up
- Identification-Software and Hardware
- Barcodes supplemented by RFID tags
- 2D barcodes enable camera based bulk-reading
- Linking the physical to the digital world
- Linking box to the goods inside

... more than a box



Eric Schrover

e-mail: [e.schrover@ipp-pooling.com](mailto:e.schrover@ipp-pooling.com)

phone no: +31 6 29735068

Stefan Herbergs

e-mail: [s.herbergs@ipp-pooling.com](mailto:s.herbergs@ipp-pooling.com)

phone no: +49 2332 999 3901

Dirk Freda

e-mail: [d.freda@ipp-pooling.com](mailto:d.freda@ipp-pooling.com)

phone no: +49 172 3486621