



Deutsche Handelskammer
für Spanien
Cámara de Comercio Alemana
para España



MITTELSTAND
GLOBAL
EXPORTINITIATIVE ENERGIE

German-Spanish Conference
Local Heating and Cooling Grids with Renewable Energies
Barcelona, November 28th 2017

Safety for local heating grids via remote monitoring

Monitoring systems with automatic leak detection
for district heating grids

Martin Römer, Managing Director, JR-ISOTRONIC Ltd.



About JR-ISOTRONIC

- Renowned operators have been using our monitoring system for more than 30 years, thus increasing the efficiency of their network operation.
- JR-ISOTRONIC is the developer, manufacturer and distributor of ISOTRONIC's patent- registered monitoring system for district heating grids.
- Continuous development of new metrological devices for status analysis and fault detection.
- Long-term experience in the monitoring of plastic sheaths pipe systems
- Competent partner in planning, realization, quality management, damage assessment and personnel training for plastic sheaths pipe networks



Established Customers (selection)

District Heating...

- Vattenfall Europe Hamburg 831 km
- District Heating Leipzig 450 km
- District Heating Kassel 171 km
- Public Utility Belgrad, Serbia 506 km
- EnBW Stuttgart 254 km
- District Heating Grid Saar 179 km
- Public Utility Saint Gall, CH 132 km
-

... as well as Local Heating Grids

- Bad Bergzabern 2 km
- Ettenheim 3 km
- Lörach 4 km
- Hägelberg 6 km
- Breitnau 4 km
- Aldingen 5 km
-

and Local Cooling Grids / Geothermics

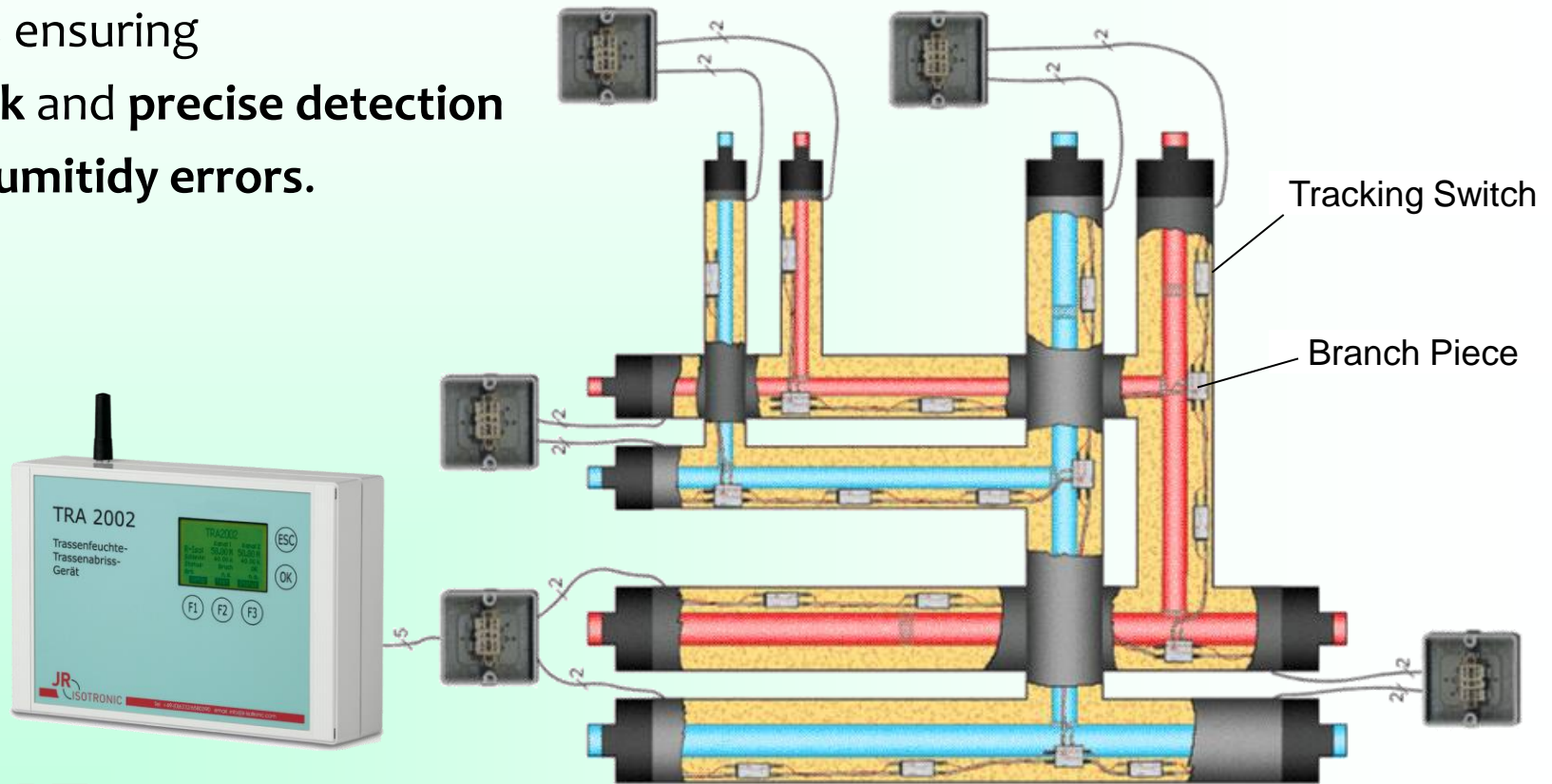
- Airport Frankfurt 1,5 km
- District Heating Grid Saar 2,0 km
- Geothermics Staffelstein 4,0 km
- Neustadt- Klewe 5,0 km
-

Our Core Business

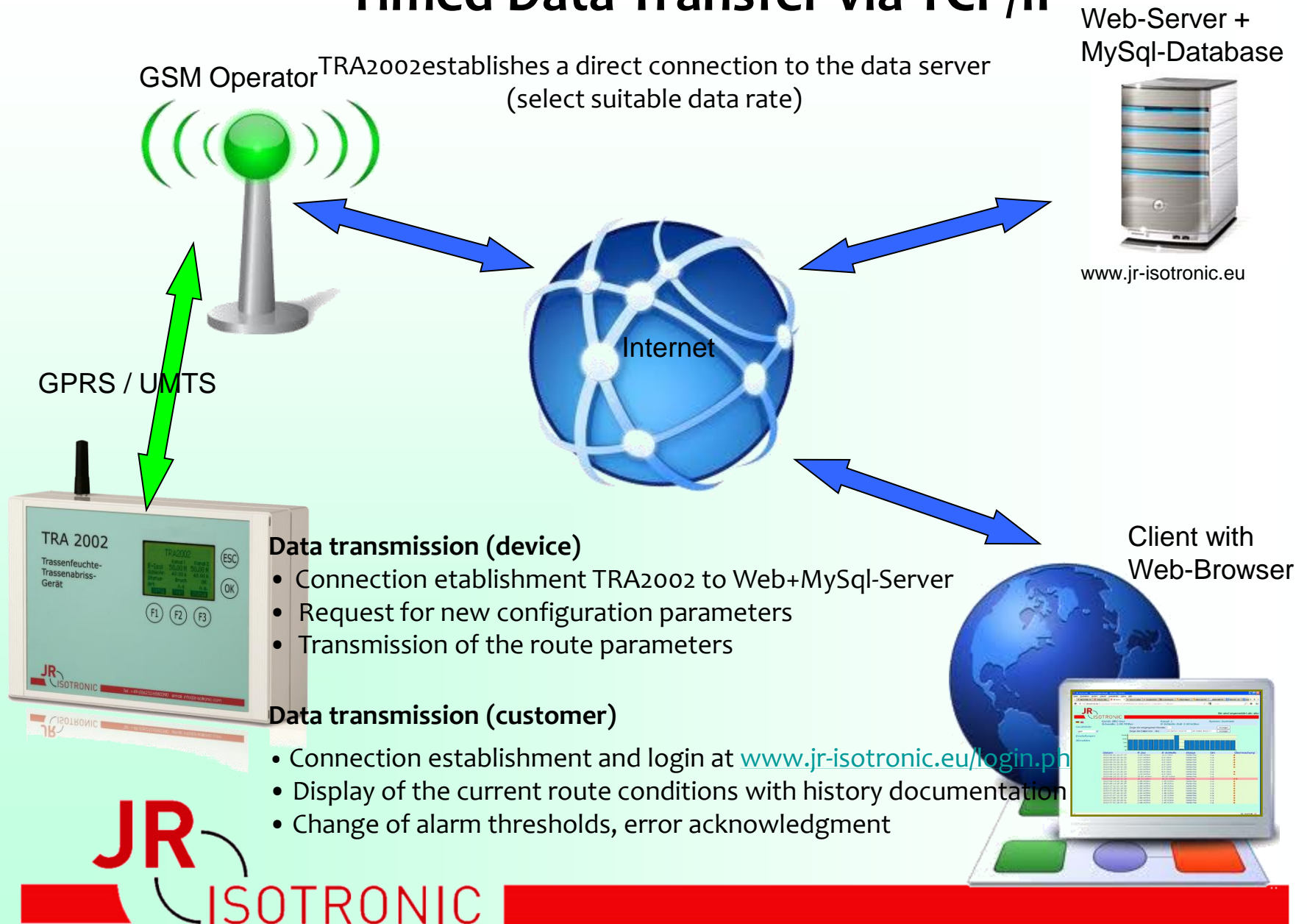
- Consulting and planning of monitoring networks for district and local heating grids.
- Measurement of insulation and tear-off faults in monitoring networks.
- Visualization and remote transmission of systemically-relevant network data.
- Distribution of sensors for real-time detection of insulation defects during the period of warranty.
- Distribution of patented detection devices for insulation defects and visualization in a database.

ISOTRONIC Route Monitoring

is a **hierarchical system** with **integrated tracking switches** at the **joints (sleeves)** along the route thus ensuring **quick and precise detection of humidity errors.**



Timed Data Transfer via TCP/IP



Possible Business Partners

- **Operators** of district heating / cooling grids
- **Pipelayers** of district heating / cooling grids
- **Planers** of district heating / cooling grids
- **Sales partners** for JR-ISOTRONIC products

Monitoring of Plastic Sheaths Pipes Why?

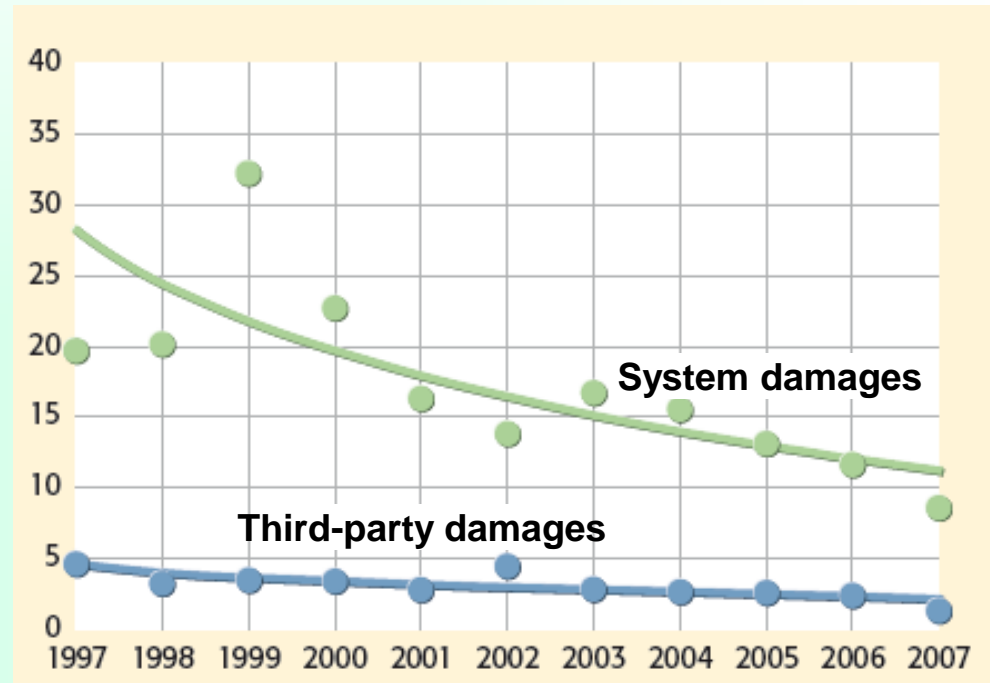
- Damage caused by processing errors during pipe and sleeve production is usually not visible from the outside (system damage).
- Damage caused by external influences, e.g. dredging, often go unnoticed or not reported (third-party damage).



Development of System and Third-party Damages

(per 100km)

- System damages: Strong decrease due to the training of fitters and precise work instructions
- Third-party damages: Less damages through improved documentation of the route



⇒ Route Monitoring

Monitoring of Plastik Sheaths Pipes That is why!

100% accuracy is not achievable
but you can
reduce significantly
system and third-party damages
by **monitoring systems** with
automatic leak detection.

Thank you for your attention!

