

FRAUNHOFER INSTITUTE FOR MATERIAL FLOW AND LOGISTICS IML

## WICI – TESTING SITE FOR RFID AND TELEMATICS







## **TELEMATICS IN RECYCLING MANAGEMENT**

The application of IT, especially in RFID technology or telematics, is an unknown territory for many enterprises in the waste management and recycling sector. The enormous potential for efficiency increases and cost reductions provided by IT systems in business process optimization is unquestionable. Many enterprises of that sector have a lack of experience in the practical use of the new technology. Furthermore, manufacturers and service providers are still intensively carrying out the further development of their products in view of the specific requirements of the recycling and waste management.

With the WICI testing site (Laboratory for Waste Management, Information and Communication Technologies) Fraunhofer IML developed a demonstration, testing and development site for the recycling management. WICI allows enterprises I&C systems and technologies to be examined, tested and customized by a competent and neutral entity.

#### Services from practice for practice

Within the WICI framework an interdisciplinary team of engineers, computer scientists and logisticians does research for new and improved technical solutions to make the work of recycling and waste management more reliable and efficient. The main focus of the WICI testing site is directed on technological examinations – e.g. under which conditions and how reliable do new RFID components or a GPS support make processes or services in waste management more efficient. Furthermore, WICI testing site experts answer economic questions on profitability or a balanced cost-benefit ratio.

Main target is to provide system suppliers competent support in the development of products and enterprises of the recycling and waste management investment safety.

Fraunhofer IML cooperates with several enterprises of the information and communication sector. Thus, Fraunhofer IML can provide a vehicle of the firm »Multicar« as a part of the WICI testing site equipped with information and communication components. In combination with the Fraunhofer IML

»software park« it is possible to model complete business processes and assess them in view of the application of telematics.

#### The right processes for the right systems

Within the scope of optimization projects Fraunhofer IML has a comprehensive approach in mind. Especially for the application of latest technology always goes: The technology has to fit to the products and the investment in modern equipment is only a first step towards more efficiency and lower costs. Only those who modernize technology and processes equally will gain maximum benefit.

Here Fraunhofer IML does not only provide competent assistance in the development and selection of new solutions. In addition to that project partners can enlist the complex know-how of the institute in process optimization and the existing knowledge of the business.

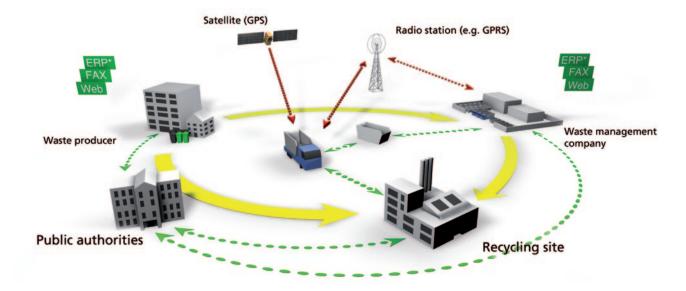


#### **List of WICI services**

- Potential analyses for the introduction on new technical solutions
- Optimization of business processes and setting up of a business
- Test and assessment of RFID and telematic components
- Ranges and identification reliability of RFID
- GPS systems for tour planning and routing
- Data exchange between containers, back-office and authorities
- Determination of the effects of the system application on customers
- Customer satisfaction analyses
- Qualification of the staff: create acceptance and achieve a reliable handling of the systems
- Testing at the customer's side

#### **Your benefits**

- System suppliers can test own developments and/or demonstrate them customers
- Interested users can test components and compare among each other
- Test installations provide the simulation of services and simulate real situations
- Neutral market overview of I&C products
- Active participation in research projects
- Investment reliability
- Suitable and optimal processes



Telematics means the combination of technologies from the sectors of »telecommunication« and »computing science«. Due to the combination of information in different EDP systems via telecommunication and data processing solutions telematic systems create a new type of approach to the improvement and optimization of processes, planning and control in logistics and transportation.

### Fraunhofer Institute for Material Flow and Logistics IML

Board of Directors: Univ.-Prof. Dr.-Ing. Uwe Clausen Univ.-Prof. Dr.-Ing. Axel Kuhn Univ.-Prof. Dr. Michael ten Hompel (managing)

Joseph-von-Fraunhofer-Str. 2–4 44227 Dortmund, Germany

# Department and Resource LogisticsContact:Dr.-Ing.Dr.-Ing.Dr.-Ing.Hard SchneiderPhone+49 (0) 231 9743-443Fax+49 (0) 231 9743-77443E-mailmarc.schneider@iml.fraunhofer.deWebwww.iml.fraunhofer.de/ressourcenlogistik