

# Technology for Life

—

**Dräger**



**Complexity is part  
of everyday life**



# Reduce complexity

Get the most information from your data – no matter from which supplier.

Dialyse  
**GAMBRO**

Ventilation  
**Dräger**

Infusion  
**B | BRAUN**

Monitoring  
**PHILIPS**

Bed  
**LINET**

IT  
**Cerner**

Hospital Information System

Monitoring Gateway

Electronical patient Health Records

Proprietary monitoring network

Serial Converter

Serial Converter

## Significant challenges for data exchange

- Different communication protocols
- Incomplete data transmission
- Unidirectional communication between devices and the HIS
- Limited data security
- High integration effort and costs



## Our vision and commitment

---

“My goal is to improve acute care with technologies and services that lead to **therapy assistance** and ultimately to **hospital automation.**”

Stefan Dräger  
Chairman & CEO

# Clinical value of standardized interoperability

**SDC**

ISO/IEEE 11073-SDC

A new international standard for secure and dynamic connectivity enabling vendor-independent interoperability of medical devices in high acuity clinical environments.



**Visualisation**



**Assistance**



**Automation**

**MED PLAN**  
ENGINEERING GMBH

**Fraunhofer**  
FOKUS

**DEKOM**  
VISIONS IN MEDICINE

**ziehm academy**

**SIMEON**  
MEDICAL

**YACOUB**  
AUTOMATION GMBH

**RHOH-KLINIKUM AG**

**UNIKLINIK**  
RWTHAACHEN

**UNIVERSITÄT ZU LÜBECK**  
INSTITUT FÜR MEDIZINISCHE INFORMATIK

**IHE**  
DUITSCHLAND

**DIN**

**Universitätsklinikum**  
Carl Gustav Carus  
DRESDEN

**UNIVERSITÄTS**  
KLINIKUM  
TÜBINGEN

**UNIVERSITÄT ZU LÜBECK**  
INSTITUT FÜR TELEMATIK

**BOWA**  
EINFACH SICHER

**H17**  
H17 Deutschland

**HS MÖLLER-WEDEL**  
INTERNATIONAL

**E.punkt** medical services

**synedra**  
Information technologies

**.steute**

**Universität**  
Rostock

**RICHARD**  
WOLF

**ziehm imaging**  
dedicated to clinical innovation

**RITEC**  
ELECTRONIC AG

**OFFIS**

**medIT**

**Trumpf**  
Medical

**Dräger**

**STORZ**  
KARL STORZ - ENDOSKOP

**UniTransferKlinik**  
Lübeck

**UL**

**medi**  
TEC

**Lehrstuhl**  
für Medizintechnik im  
Heinrich-Heintz-Institut für  
Biomedizinische Technik  
**RWTHAACHEN**  
UNIVERSITY

**SurgiTAIX**

**iccas**

**UNIVERSITÄT LEIPZIG**

**KLS martin**  
GROUP

**IT4process**

**VDE**

**Söring**

**MAQUET**  
GETINGE GROUP

**LOCALITE**

**inomed**  
Robotics and Embedded Systems

**INTEGRATIVE**  
TELEANÄSTHESIE

**Universitätsklinikum**  
Heidelberg

**VISUS**

**MT2IT**  
Synagon

**MEDNOVO**  
Medical Software Solutions

**healthcare**  
Consulting

**AKTORmed**  
ROBOTIC SURGERY

**BEGER DESIGN**

**Forschungsgruppe**  
MITI

**TECHNISCHE**  
UNIVERSITÄT  
MÜNCHEN  
**mimed**

**STEPHAN**

**semvix**

**UNA**  
Universität Augsburg  
Forschungszentrum für  
Medizinprodukte

**Cerner**

**LANCOM**  
Systems

**ESCTAIC**

**ILARA**

**DocsInClouds**

**Open**  
Connections

**DR. HORNECKER**

**UK**  
SH  
UNIVERSITÄTSKLINIKUM  
Südwestfalen

**ICT**

**Fraunhofer**  
Heinrich-Heintz-Institut

**Fraunhofer**  
MEVIS

**CeMPEG**

**EIZO**

**HB**  
TECHNOLOGIES AG

**myCare2x**

**HEBU**

**qcmmed**

**infoteam**  
software AG

**CeMPEG**

**weberINSTRUMENTE**

**Healthcare IT Solutions**

**GADV**  
software & technology

**UNIVERSITÄT ZU LÜBECK**  
INSTITUTE FOR SOFTWARE ENGINEERING  
AND PROGRAMMING LANGUAGES

**TEKNO**  
GERMANY

**SMARTIT**

# Thank you

---

**Thomas Kunz (Head of Sales and Service Medical)**

**Michael Wylezek (Account Manager)**

Dräger Switzerland  
Waldeggstrasse 30  
3097 Liebefeld

+41 58 748 74 74 | [info.ch@draeger.com](mailto:info.ch@draeger.com)

Dräger Schweiz AG

# Bibliography

---

OR.NET Secure and dynamic networking in operating room and hospital - [Broschüre2016\\_ENG\\_final.pdf \(ornet.org\)](#)

OR.Net „Medical device approval based on the SDC Participant Key Purpose standards for safe interoperability “

Markus Birkle; Julia Benzko; Nikita Shevchenko: Das Projekt OR.NET - Sichere dynamische Vernetzung in OP und Klinik - Deutsche Zeitschrift für klinische Forschung, Innovation und Praxis, Vol. 11/12-2012, pp. 41-45, 2012

Christian Kücherer, Julia Benzko, Timm Bußhaus: Forschungsprojekt OR.NET: Ein Abschied von Insellösungen, ePaper Praxis, 4/2013.

Vlado Altmann, Hendrik Bohn, Frank Golatowski: Web Services for Embedded Devices, The Industrial Communication Technology Handbook 2nd Edition, CRC Press, Boca Raton, Florida, USA, Juli 2014

Martin Leucker: Challenges for the Dynamic Interconnection of Medical Devices. ISoLA (2) 2014: 387-390

Jörg-Uwe Meyer, “An Open Web Interface Based Interoperability Systems Platform for Live Point of Care Surgical Applications”, BMT 2015, Lübeck, 49thDGBMT Annual Conference, September 16-18, 2015

Andersen B., Ulrich H., Rehmann D., Kock A.-K., Wrage J.-H., Ingenerf J. Reporting Device Observations for semantic interoperability of surgical devices and clinical information systems. In: 37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC 2015), Milan, Italy, IEEE, 1725-1728

**Dräger**