



WOM

A Novanta Company

WOM – The Full Service OEM Provider

www.wom.group



**We work systematically
to be the leading OEM in
Minimally Invasive Medicine.**

Dr. Clemens Scholz, CEO | Berlin

We stand by our values

WIN WITH OUR CUSTOMERS

We deliver value added solutions to our customers that help them differentiate.

KEEP YOUR PROMISES

We do what we say and walk our talk.

STRETCH FOR THE LIMIT

Have the courage to take calculated risks in the pursuit of extraordinary results.

BE REAL

We embrace a respectful, open and honest environment.

BE A GREAT TEAM

When we work together, we win together.

SUSTAINABILITY AND SOCIAL RESPONSIBILITY

Progress with social and environmental responsibility.

We are part of a strong NOVANTA group

Novanta company overview

Markets served with mission critical technologies



Micromachining
Additive Manufacturing
Marking and Coding
Digital Converting
PCB Manufacturing
Metrology and Inspection

Minimally Invasive Surgery
Life Science
Ophthalmology
In Vitro Diagnostics
Robotic Surgery
Patient Monitoring
Surgical Tool Tracking
Dermatology



Boston, USA
Headquarter



2,200
Employees



\$ 650 M
Sales 2018
Revenue with 60% outside
the US (Nasdaq: NOVT)



9 %
R&D rate on sales 2018
Revenue spent in R&D
+400 patents

WOM belongs to the MIS division



Photonics



Laser beam steering sub-systems



CW lasers, ultrafast lasers and beam delivery sub-systems



CO₂ lasers



Vision

Detection & Analysis



Machine vision, RFID, barcode readers and spectrometers

Minimally Invasive Surgery



Insufflators, pumps and disposable tube sets



Medical visualization, wireless imaging and embedded touchscreens



Precision Motion



Encoders, motors and integrated mechatronic solutions
Air bearing systems

Novanta has a global presence

Global reach to over 3,000 OEM customers around the world



We are a pioneer in MIS with a successful history



70s

World's first hysteroscopy insufflator was developed by WOM founder, Peter P. Wiest



80s

Company concentrated on the field of arthroscopy, focusing on diagnostic and therapeutic treatment of knee joints

Entry into the laparoscopy market



90s

World's first insufflator with 40 l/min. is launched on the market

WOM opens production in Ludwigsstadt, Bavaria, Germany

WOM USA foundation, Orlando, Florida



00s

Launch of the HYS-SURGIMAT®

Market launch of RFID coded tube sets

Launch of 1st insufflator model for pediatric MIS

Light ARTHRO pump with high performance

First autoclavable 3-chip Medical-HD® Camera



10s

Multi indication pump for ARTRO, HYS, URO and LAP

HYS pump with 2-load cell deficit balancing

Gamma Finder® III

Insufflators with smoke evacuation & humidification

Cleanroom production in Ludwigsstadt

WOM Asia foundation, Hong Kong



20s

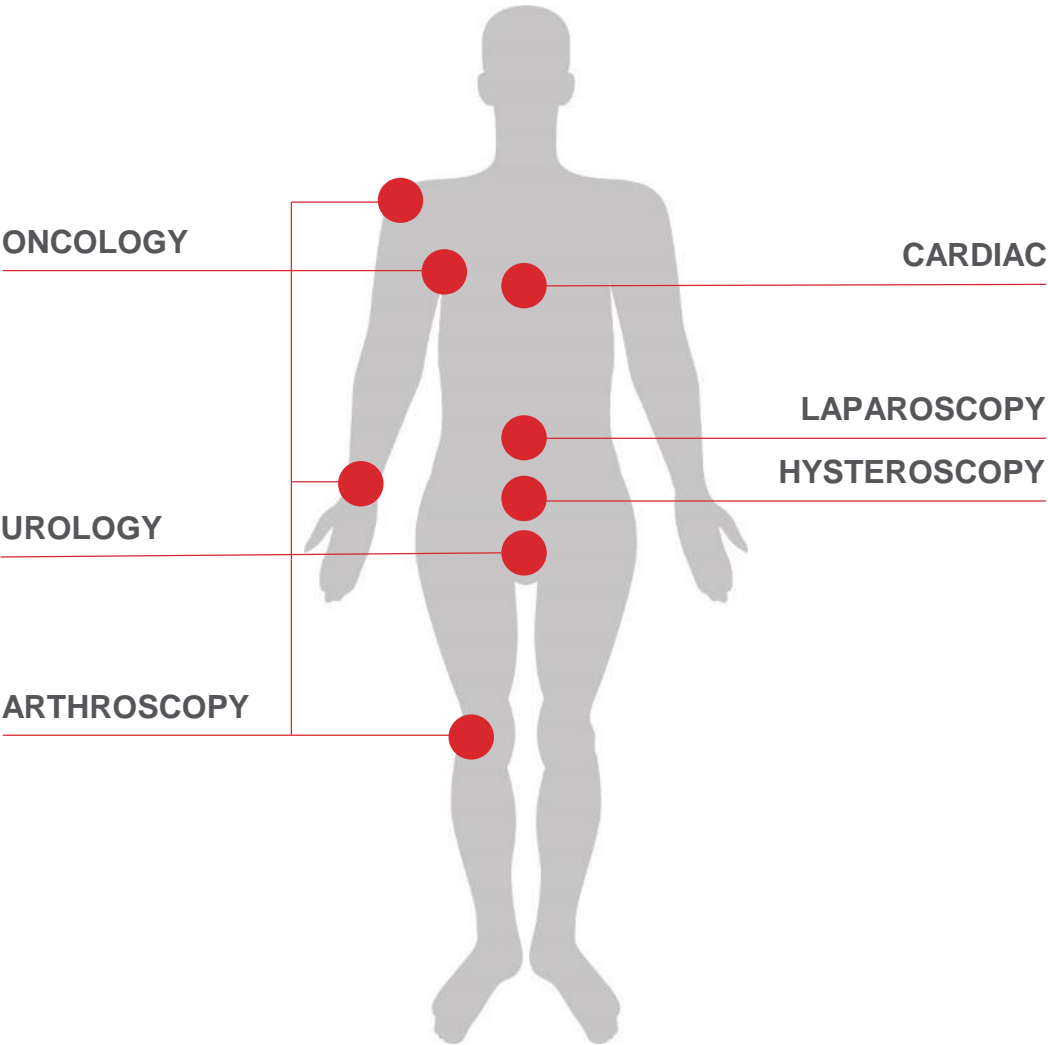
Cleanroom production, Ludwigsstadt, expansion

Arthroscopy fluid management system

Multi indication pump next generation

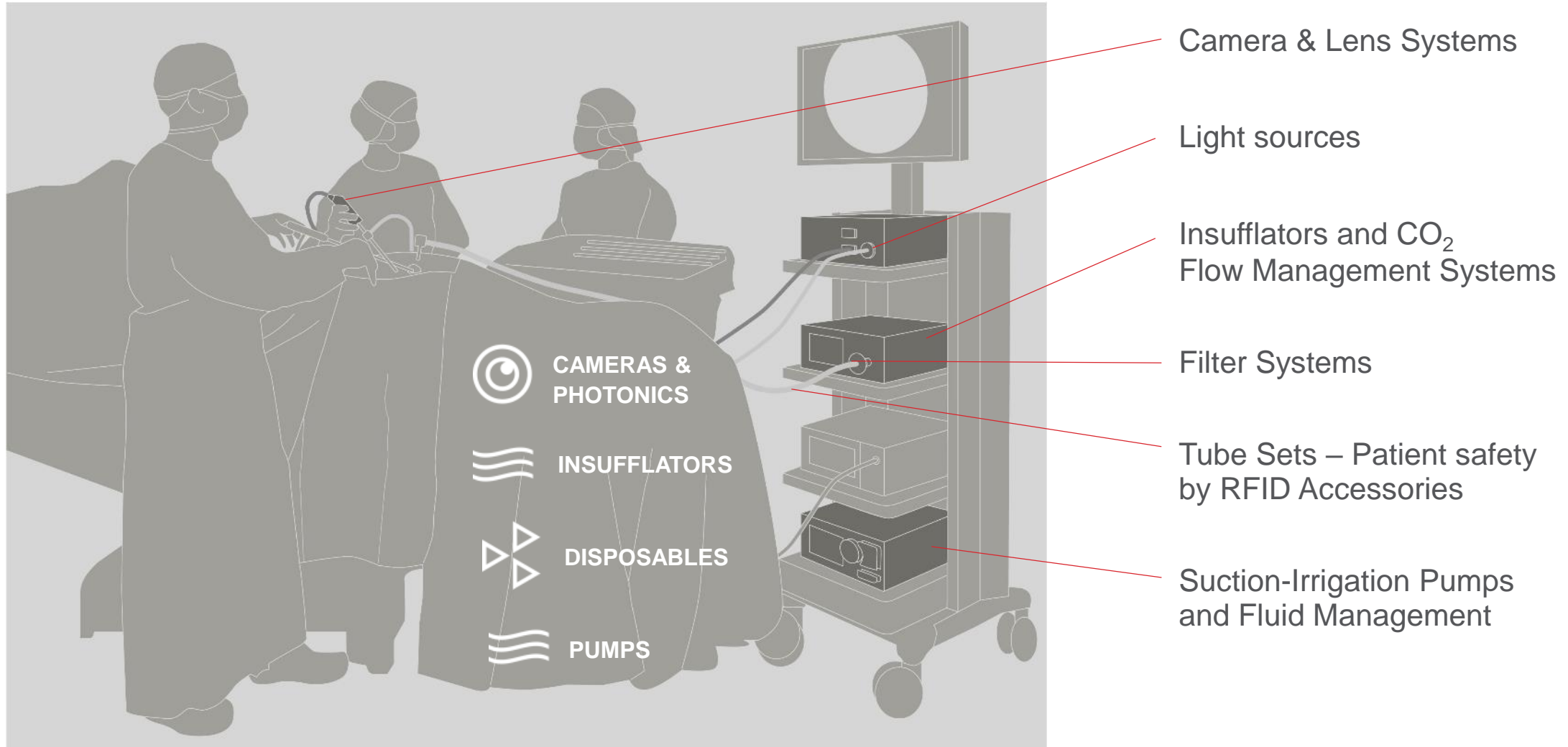
Integrated smoke evacuation insufflator next generation

WOM at home in Minimally Invasive Surgery

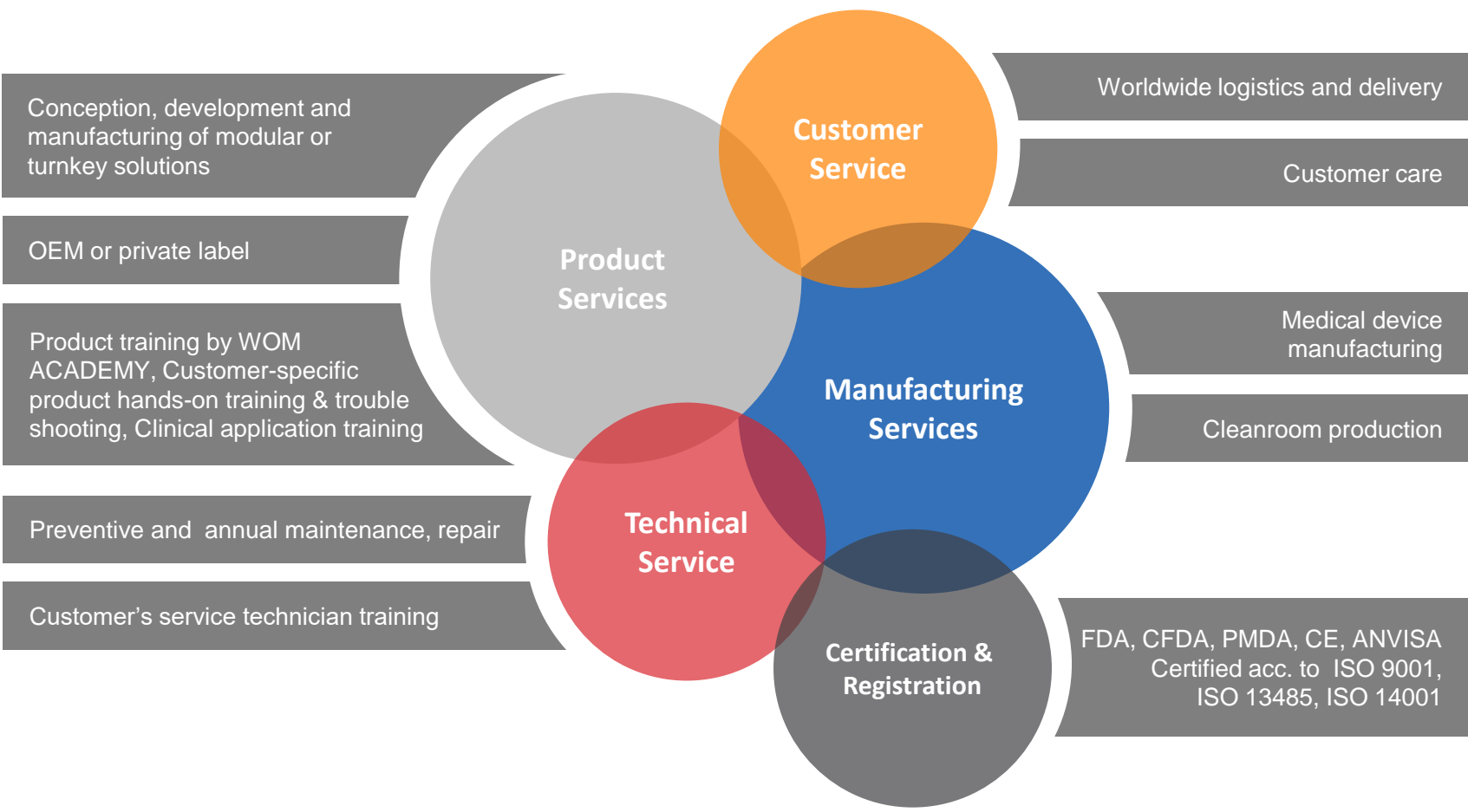


ARTHROSCOPY	JOINTS <ul style="list-style-type: none">• Create a field of view in the knee, shoulder, hip and small joints
UROLOGY	URETER SYSTEM <ul style="list-style-type: none">• Includes the urinary organ from the outside to the inside: urethra, bladder, ureter and kidney
LAPAROSCOPY	ABDOMEN <ul style="list-style-type: none">• Distention of the abdomen with CO₂• Suction/irrigation of in body cavities
HYSTEROSCOPY	UTERUS <ul style="list-style-type: none">• Distention of the uterus with liquids
ONCOLOGY	LYMPH NODES <ul style="list-style-type: none">• Detection of radioactively marked sentinel lymph node
CARDIAC	HEART <ul style="list-style-type: none">• Surgical treatment of congenital and acquired diseases• Lesions of the heart and blood vessels near the heart

We are as diverse in our technology & products like MIS



We provide customized services



47

Years of experience



500

Employees
from **30 Countries**
(2018)



5

Locations
Berlin, Ludwigsstadt,
Reichenbach, Orlando,
Hong Kong

We take care of registrations and approvals

We take over your global approvals

- Products complying with international regulatory requirements U.S. FDA Food and Drug Administration, European CE marking, Chinese CFDA, Japanese PMDA
- Products sold in over 30 countries
- Over 40 FDA approvals
- Manuals for our products have been published in 38 languages, including Chinese, Korean, and Arabic



Certified acc. to ISO 9001, EN/ CMDCAS ISO 13485, ISO 14001
NRTL (Nationally Recognized Testing Laboratory)
& UL (Underwriters Laboratories) production tests
Customer audits
Supplier audits
Sustainability audit by EcoVadis
Environmental audit ISO 14001:2015



We are close to the customer

Five locations on three continents

Berlin – Headquarters

- Research & Development, Sales & Marketing, Financing, Human Resources, Regulatory Affairs, Compliance

Ludwigsstadt & Reichenbach – Production sites

- Production, Supply Chain, Quality Management, Technical Service

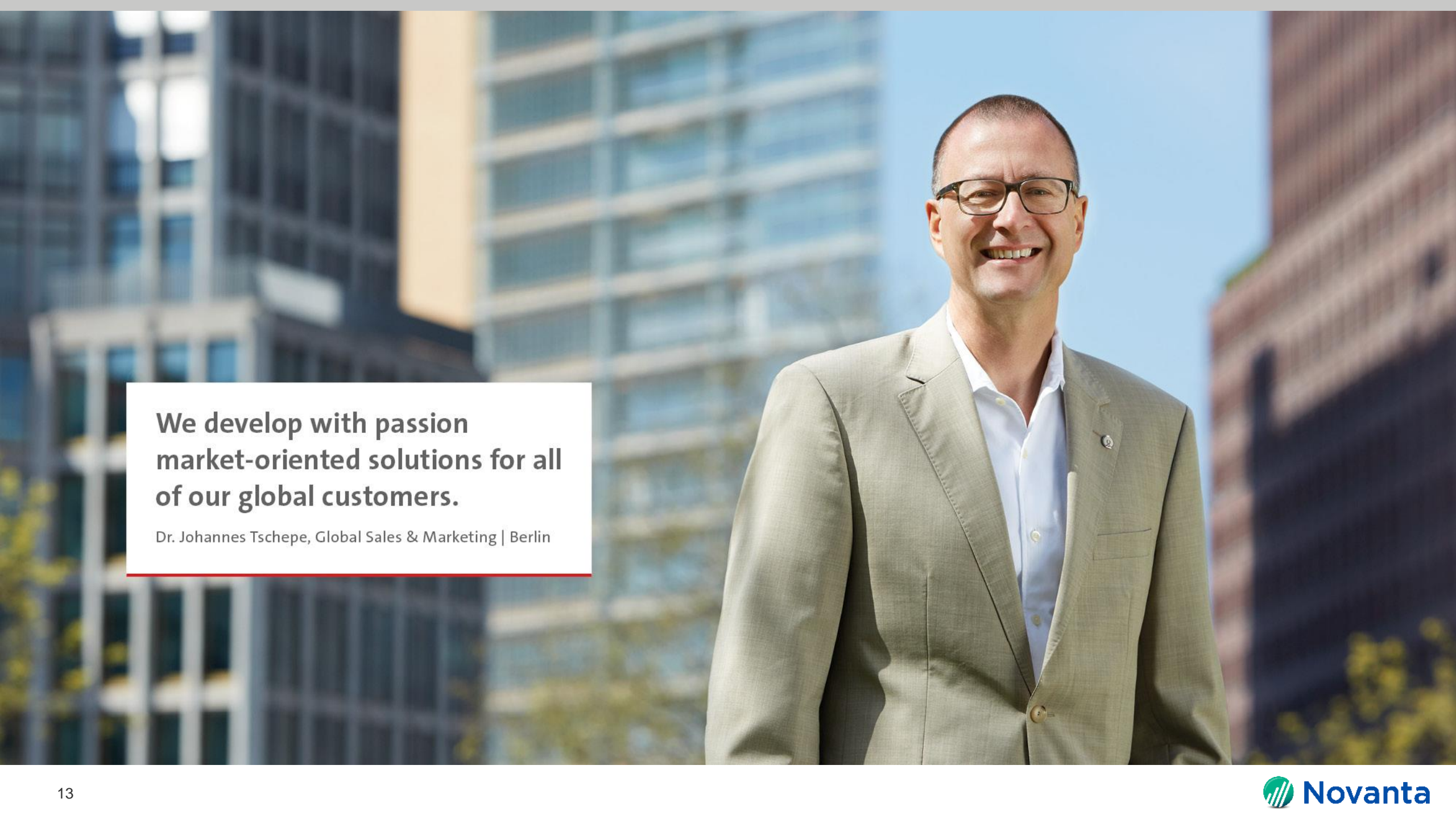
Orlando, FL – Sales subsidiary

- Sales & Marketing, Technical Service

Hong Kong – Sales subsidiary

- Sales & Marketing, Technical Service



A man with short hair and glasses, wearing a light-colored suit jacket over a white shirt, is smiling and standing in front of a modern glass skyscraper. The background is slightly blurred, showing the building's facade and some greenery at the bottom.

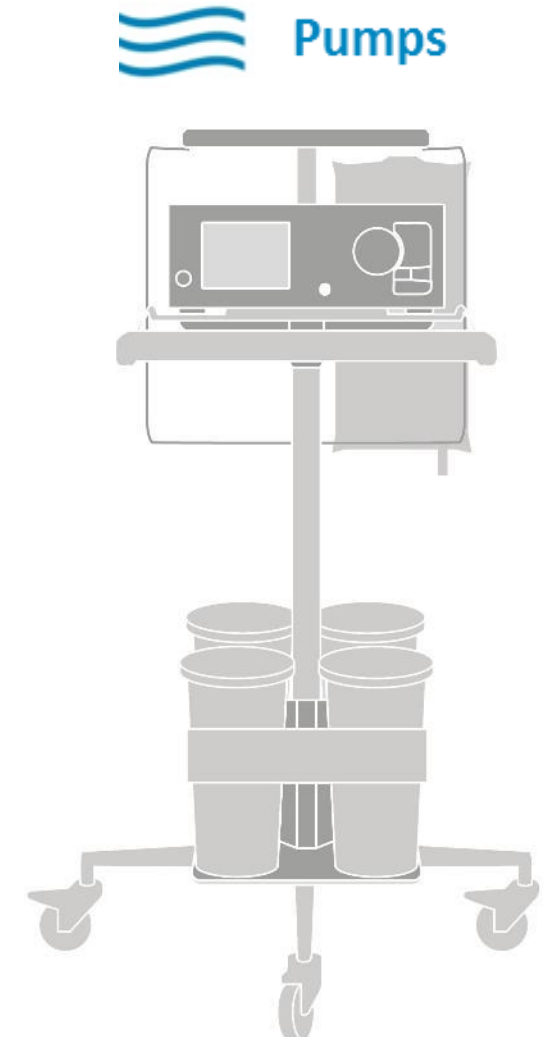
**We develop with passion
market-oriented solutions for all
of our global customers.**

Dr. Johannes Tschepe, Global Sales & Marketing | Berlin

We develop innovative pumps

Market dominant pump technologies

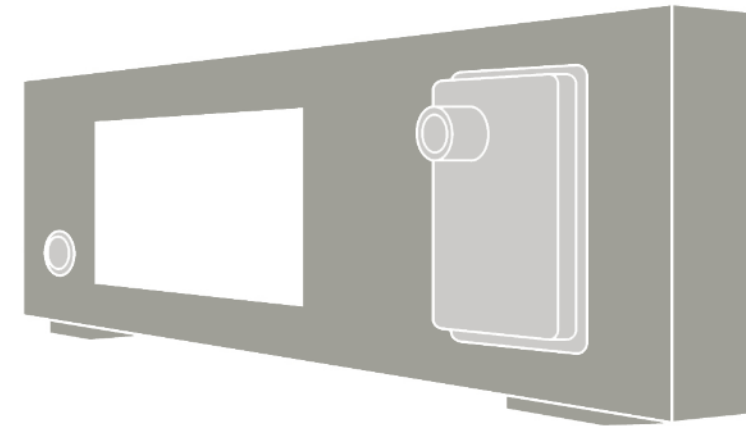
- Suction-Irrigation Pumps and Fluid Management
- Pressure/flow control
- Peristaltic and Vacuum Pumps, single and double roller systems
- Fluid Balancing Systems
- Intelligent Instrument Detection
- Cassette solution for tubing
- Multi-Indication Pump solutions
 - Arthroscopy
 - Hysteroscopy
 - Laparoscopy
 - Urology



We are specialists in insufflators

Market and innovation leader of CO₂ flow management systems

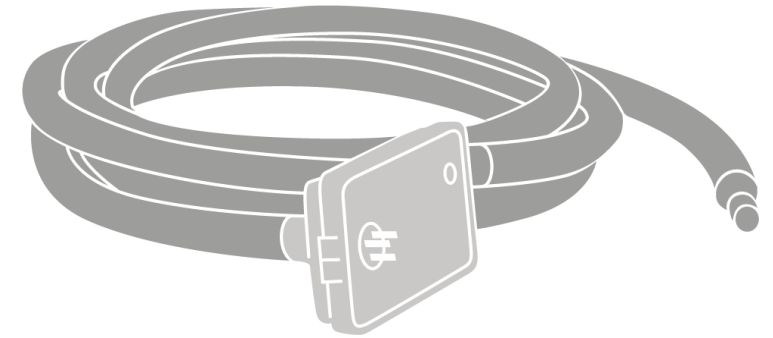
- Provider of insufflation technologies for
 - Integrated smoke evacuation
 - CO₂ humidification
 - CO₂ heating
 - Discontinuous and quasi continuous pressure measurement
 - Multifunction tube sets
 - Multi-indication solutions
- Laparoscopic indications
 - Standard, metabolic surgery, pediatric surgery
 - Robotic
- Cardiac surgical indications
 - Endoscopic vessel harvesting
 - Cardiac surgery



We make disposables safe, useful and reusable

Accessories and devices – perfectly aligned

- Patient safety through RFID technology
- Best performance using original accessories
- Reusable, day-patient, and disposable tube sets (DEHP-free)
- Tube sets with an integrated heating element were developed to heat the medical CO₂ as well as systems that deliver humidified gas to the patient
- All-in-one tube set systems
- Innovative filter systems for flue gas extraction (SEVAC and CO₂ filters)





**We are a special team and give
everything for our projects.**

Team Insufflator FM300 | Berlin

WOM offers innovative technical solutions

Cleanroom capabilities

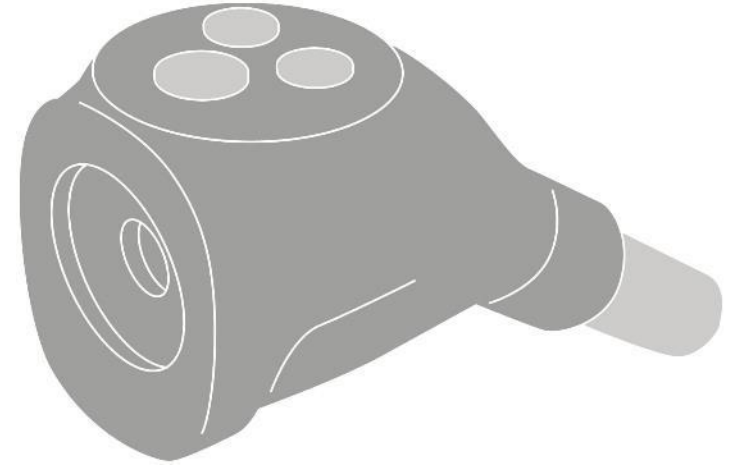
- Assembly and component manufacturing
- Injection molding
- Laser and US welding
- Production in our own clean room (ISO 14644, ISO 7+8) or by a certified supplier, and carefully packaged for sterilization
- Sterilization at service partner and sterile packaging



WOM offers innovative technical solutions

Autoclavability – sealing technologies

- Housing, cables, connectors
- Titanium/stainless steel laser welding
- Flux free soft soldering – sapphire to titanium and sapphire to stainless steel
- Leak tests



We offer smooth and high-quality technical service

- Training and certification of service technicians
- Preventive maintenance (calibration) and repair
- Original spare parts
- Warranty extension
- Six locations
 - Berlin
 - Ludwigsstadt
 - Orlando
 - Hong Kong
 - Guangzhou
 - Belo Horizonte



We transfer knowledge

The WOM ACADEMY provides knowledge in our core competencies of technology, clinical use, and technical service

- Customer-specific product and technical service training
 - Hands-on training & troubleshooting
 - Clinical application training
 - Uninstalling and reinstalling system components
 - Calibration and software update
- Modular training based on learning path recommendation – from *Basic* to *Advanced PLUS* with test and certification
- Worldwide training for customers and Employees
 - At the WOM ACADEMY in one of our international location or at your location
 - Provided in German, English, Spanish, Chinese, Russian





**WOM works with the best
clinics and their surgical
teams for decades.**

Dr. Colin Krüger, Immanuel Klinik | Rüdersdorf

We work with our excellent partners

- **Three of our Berlin partners are “WOM Excellence Centers”**
 - Vivantes Humboldt-Klinikum in the field of laparoscopy
 - Vivantes Klinikum Neukölln as an excellent partner for hysteroscopy
 - Westklinik Dahlem for excellence in arthroscopy
- **A unique network of**
 - Renowned medical specialists
 - Well-known universities
 - Distinguished research institutions
- **Concrete cooperations 2018**
 - 8 hospitals involved in validations
 - 1,573 clinical validation operations performed and evaluated
 - 5 different newly developed medical devices
 - Feedback from 24 surgeons



We are driven by innovation

Innovation – part of WOM's company strategy

- Professional innovation management with WOM InnoHub
- Active advancement of employee innovation
- Early involvement of customers
- Close cooperation with physicians
- For the third time winner of the innovation award TOP100
- Winner of the European Innovation Impact Award 2017 for the best innovation management in healthcare
- Seal of approval for research activities from the *Stifterverband Deutsche Wissenschaft*
- More than 50 patents





**We prioritize quality for all
of our customers.**

Timo Bauernsachs, Global Quality | Ludwigsstadt

We manufacture „Made in Germany“

Ludwigsstadt & Reichenbach facility

- Is a Novanta manufacturing competence center for medical equipment
 - Provides world-class manufacturing of
 - Medical devices
 - Cleanroom products
- One-piece-flow device production based on the lean management Synchro philosophy
 - Short lead & production times
 - Versatile production processes
 - Broad range of product variations
 - High flexibility in ordering and delivery



40,000 sq ft
Production area



212,500
medical devices
since 1991



Cleanroom
Parts & component
production under ISO 8
conditions

Assembly of medical
consumables under
ISO 7 conditions

We take responsibility – Sustainability at WOM

Strategically positioned for the years 2019 to 2024

- Commitment to the "Agenda 2030 for Sustainable Development" of the United Nations
- Participant of the UN Global Compact
- Clear objectives and defined measures for the following areas
 - Products
 - People
 - Environment
 - Commitment
- Binding Novanta Code of Ethics for all employees

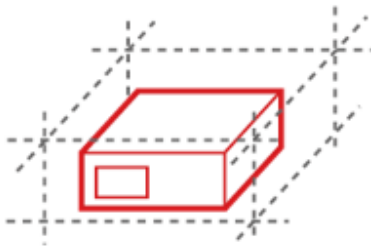


WOM is a Full Service OEM Provider

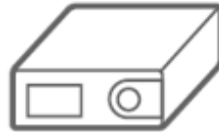
Market Input and Ideas



Development
WOM Platform & Customer Variations
Prototyping to Specifications



Novanta Manufacturing
Competence Center of MIS



Lab and Clinical Validation
Registration & Approvals

Registration and Distribution



Commercialization
and Service



Product Training



Now you have a glimpse into the world of WOM

For more information please contact us
personally or www.wom.group

