



DR. VON FROREICH • BIOSCIENTIA
MEDIZINISCHES LABOR

Introduction to management approaches of medical laboratories in response to current challenges and trends in the German market

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Tehran, Iran, April 2015

Agenda

- ▶ Introduction to Laboratory Dr. von Froreich-Bioscientia
- ▶ Current market trends in Germany
- ▶ Responses to market demands
- ▶ Solutions at Laboratory Dr. von Froreich-Bioscientia



Laboratory Dr. von Froreich - Bioscientia

- ▶ **Figures & facts daily performance**
 - ▶ 12,000 orders, 20,000 samples & 150,000 tests
 - ▶ 1,500 referrers & 35 hospitals
- ▶ **Team**
 - ▶ 10 Doctors, approx. 250 full-time equivalent staff, approx. 430 headcount
 - ▶ Close co-operation with external doctors
 - ▶ 140 couriers, 120 daily tours
- ▶ **Diagnostic spectrum**
 - ▶ Clinical chemistry, immunological & serological testing
 - ▶ Molecular biology tests (e.g. PCR)
 - ▶ Microbiology
 - ▶ Special tests (i. e. drug monitoring)
 - ▶ Participation in international clinical trial studies
- ▶ **Member of Sonic Healthcare**
 - ▶ Highly efficient network
 - ▶ Realization of synergies



Laboratory Dr. von Froreich - Bioscientia

- ▶ **Quality Management**
 - ▶ Accreditation (DIN EN ISO 15189)
 - ▶ One of the first german laboratories ever to undergo accreditation
 - ▶ (1996 back then DIN EN 45001)

- ▶ **Activities of the QM-Team**
 - ▶ Internal audits
 - ▶ Actualizing & updating QM compendium; description of processes
 - ▶ Control and assessment of SOPs, Steering QM documents, methods etc.
 - ▶ Monitoring interlaboratory comparison, Round Robin- and proficiency tests
 - ▶ Monitoring internal quality controls and compliance with legal requirements
 - ▶ Validation/Verification of new methods/diagnostic devices
 - ▶ Supervision of external audits/ clinical trials
 - ▶ Archiving all QM relevant documents



Laboratory Dr. von Froreich - Bioscientia

Navigation: Datei Ansicht Extras ? Luth, Claudia

Suchung Baustelle: Links in grauer Schrift sind noch nicht aktiv in Ordner suchen roXtra

Startseite QM

Vorsicht Ansicht Details Workflow Audit-Trail Extras

Suchen: nur auf QM-Seite möglich

DR. VON FROREICH · BIOSCIENTIA
MEDIZINISCHES LABOR
Informations- und Dokumentenmanagementsystem

[Allgemeine Listen \(abteilungs-/laborübergreifend\)](#)

[Formulare](#)

[Gesetze und Normen](#)

[Datenschutz/Mitarbeiterinformationen](#)

[Ringversuche](#)

[Validierungen/Verifizierungen](#)

[Literaturverzeichnis/Quellen](#)

[Präsentationen](#)

[Gefahrstoffe](#)

[DAkS: Infos, Urkunden + Anhänge](#)

[DGUV 3 \(BGV A3\) Prüfprotokolle](#)

Links zu den Abteilungen

[Stephansplatz](#)

[RIA](#) [Chemie](#) [BAK](#) [Sero](#)

[Mole](#) [LG/RD Analytik](#) [Studien](#) [Annahme](#)

[Immunologie Cobas](#) [EDV](#) [QM](#) [Sonstige](#)

Dokumente

Favoriten

Aufgaben 4

Eskalationen 27



Sonic Healthcare Germany

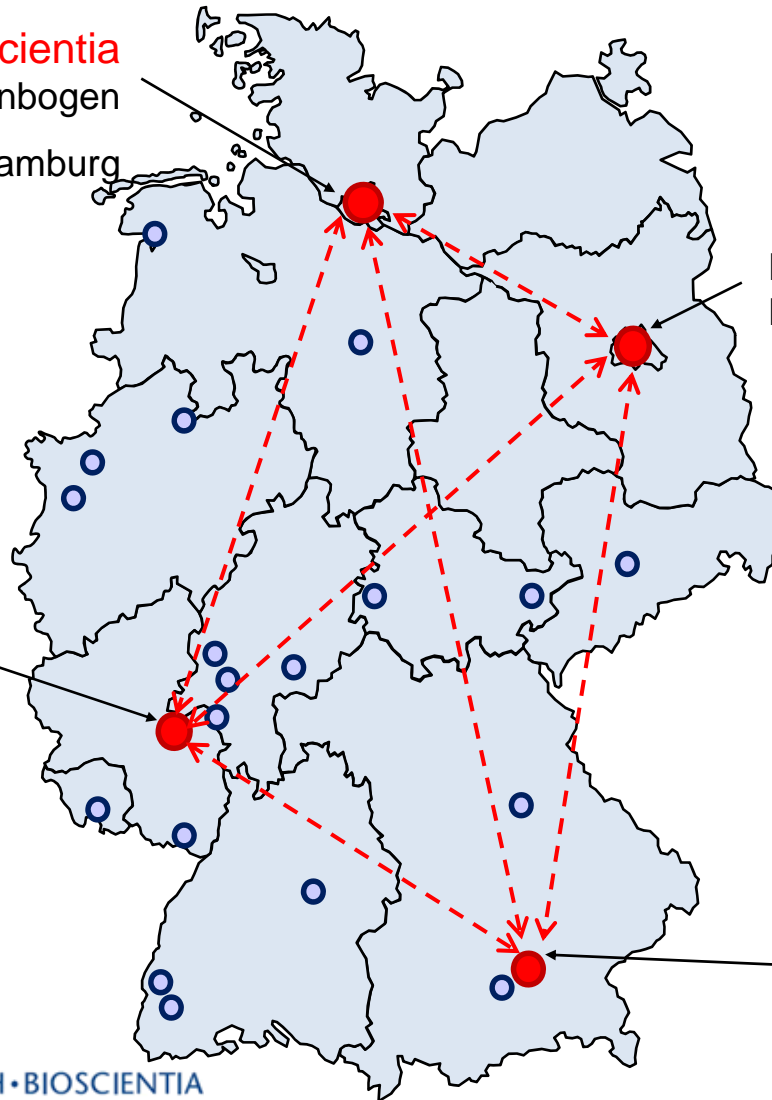
Dr. von Froreich-Bioscientia
Labor Lademannbogen

Hamburg

Bioscientia
Ingelheim

Labor 28
Berlin

Schottdorf
Augsburg



- Local Sonic Lab
- Sonic „Hub“- Lab
- ← - - - → Overnight Courier



Sonic Healthcare



- Worldwide 23,000 staff
 - Headquarter Sydney, Australia
 - No. 3 in USA, No. 1. in Australia und Europe



Current market trends / challenges in Germany

- ▶ Growing demand for lab diagnostics
 - ▶ More lab orders per patient, more tests per order
- ▶ Challenging economical conditions
 - ▶ Fee cuts / limited budgets
 - ▶ Rising costs (mainly logistics, staff, energy)
- ▶ Rising requirements on lab services and service levels
 - ▶ Turn around times for reports
 - ▶ Sample collection frequencies
 - ▶ IT Services (e.g. electronic transfer of orders/results)
 - ▶ Lab reports to include recommendations for therapy and treatment and / or information for patients
- ▶ Continuously increasing demands on quality management
- ▶ Diagnostics industry
 - ▶ Rapid technical progress
 - ▶ New tests and test methods
 - ▶ Globalization & consolidation process



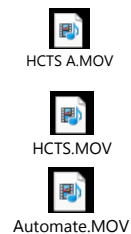
Responses to market demands

- ▶ **Lab automatization / modernization**
 - ▶ Fully automated routine diagnostics
 - ▶ Consolidation of analytical devices (smaller, more efficient, wider range)
 - ▶ New innovative testing methods/devices (e.g. Maldi-TOF)
 - ▶ Electronic orders
- ▶ **Consolidation of laboratories / creation of lab groups**
 - ▶ Synergies by centralized procurement
 - ▶ Clustering of „slow mover“ within lab groups
 - ▶ Electronic exchange of order & report data between partner labs
 - ▶ Shared services/projects (e.g. development of order entry systems / joined logistics)
- ▶ **Improved service levels**
 - ▶ Turn around times for reports down to 3-4 hours (routine diagnostics)
 - ▶ Up to 5 daily sample collections
 - ▶ Provision of electronic ordering and reporting systems
 - ▶ More comprehensive reports exceeding medical validation requirements



Solutions at Laboratory Dr. von Froreich-Bioscientia

▶ Vision: Completely automated process for rationalizable diagnostics



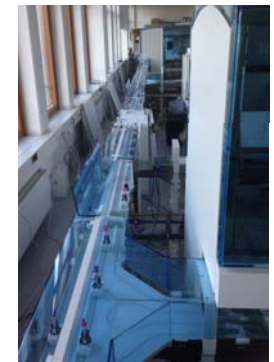
▶ Lab Entry

- Automated sample sorting / scan ✓
- Automated sample aliquotation ✓
- Automated decapping and centrifugation ✗
- Automated quality check of specimen ✗
- Electronic orders ✓



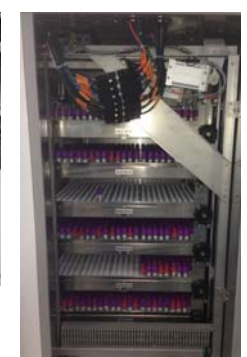
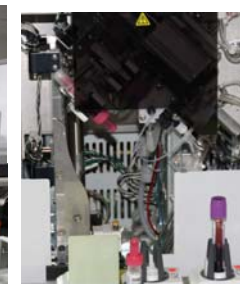
▶ Sample Management

- Automated sample transportation to all analytical devices ✓
- Automated sample transportation to archives ✓
- Automated reflex testing and re-demand ✓
- Automated sample disposal ✓



▶ Analysis

- Fully automated technical validation ✓
- Automated transfer of results into LIMS ✓



Solutions at Laboratory Dr. von Froreich-Bioscientia

▶ Vision: Full electronic order process



OE1.png



OE2.png



OE3.png



OE5.png



OE6.png



OE9.png

- ▶ Transfers electronic orders into designated lab via Internet (SSL encoded)
- ▶ Acts as an expert system by helping to choose correct analyses and materials
- ▶ Caters for pre-defined, tailored profiles incl. individual naming
- ▶ Displays necessary collection materials (tubes, cap colors, containers) in order of specimen collection
- ▶ Prompts relevant clinical questions depending on chosen analyses
- ▶ Calculates prices
- ▶ Takes care of all regulatory and legal requirements
- ▶ Prints tube barcodes and patient names
- ▶ Prints necessary forms or facilitates digitally signed orders
- ▶ Highly configurable for different labs and referrer types (according to local workflow)
- ▶ Allows users to view results and result status (e.g. preliminary results)
- ▶ English translation of GUI will be available soon





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Thank you