

Overview Medical Diagnostics

Non apparatus-based

Anamnesis (questions, talks)

Medical inspection

Palpation

Ausculation / Percussion

Apparatus-based diagnostics

Radiology

CT, MRT, PET

Sonography (Ultrasound)

Functional tests (ECG, spirometry,

blood pressure, pulse oximetry...)

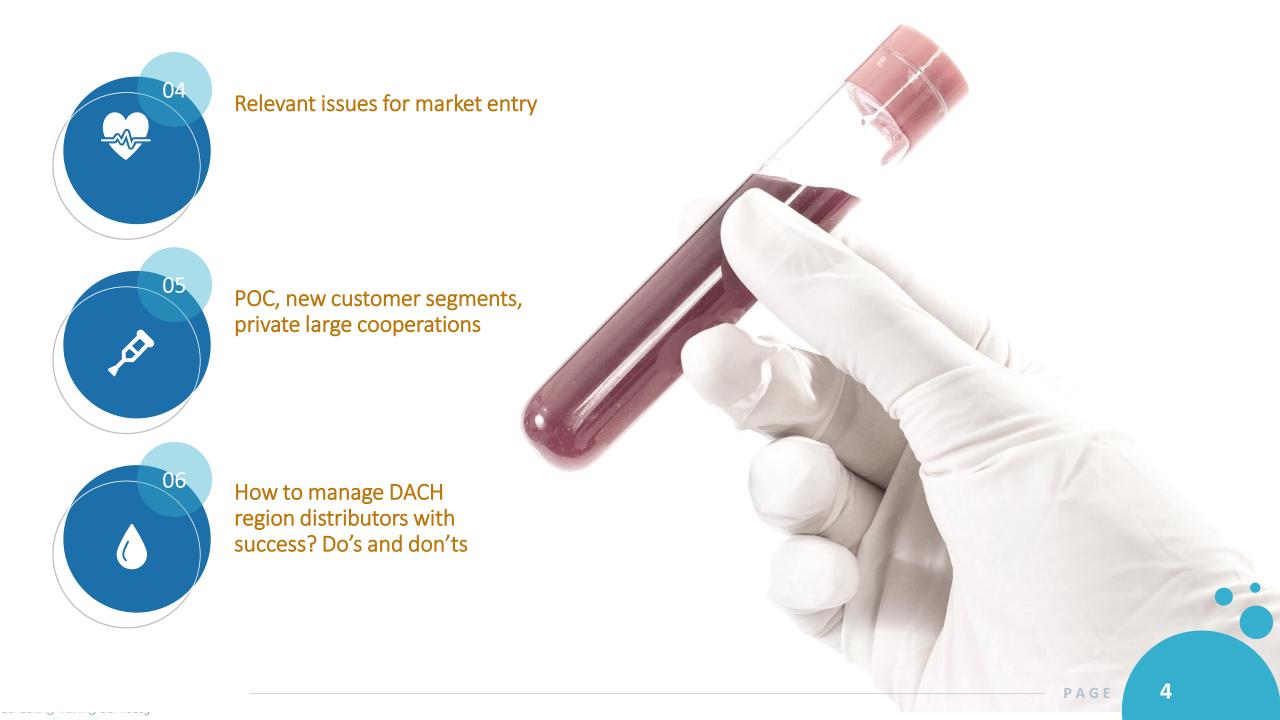
Endoscopy

Laboratory diagnostics

IT-Supported diagnostics (health apps, telemedicine, AI)



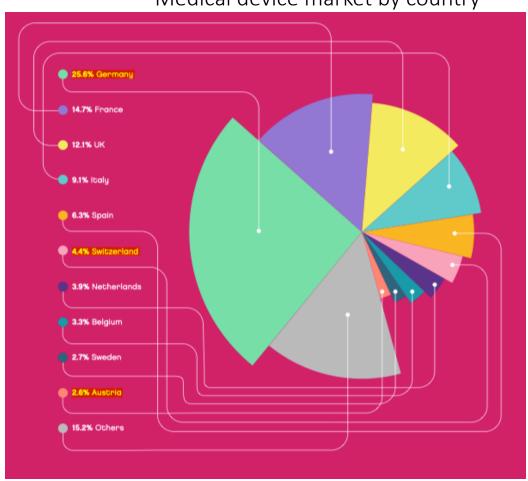




European medical technology market ca. 140 billion € in 2020

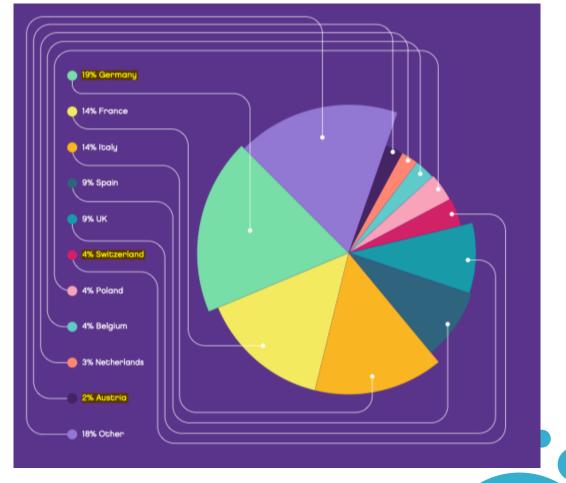


Medical device market by country



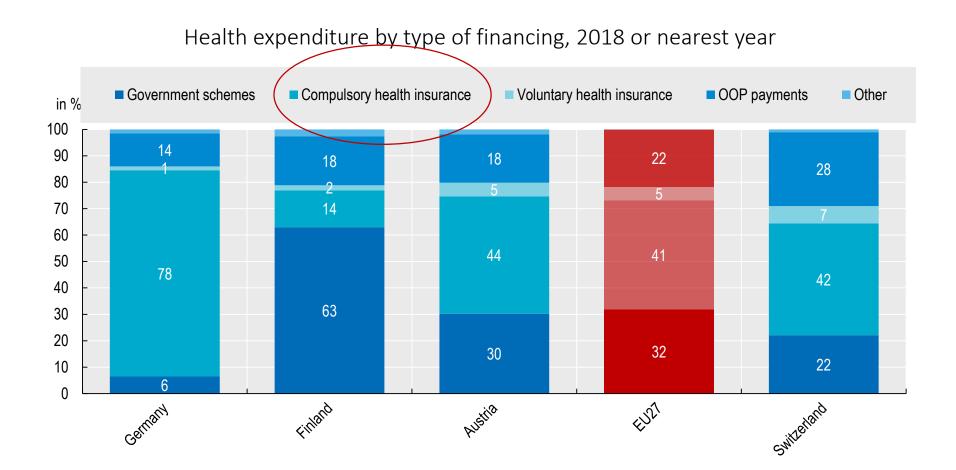
Source: The European Medical Technology Industry in figures, 2021

IVD market by country





Channel partners rely on the suitability of the diagnostics to the national funding schemes!



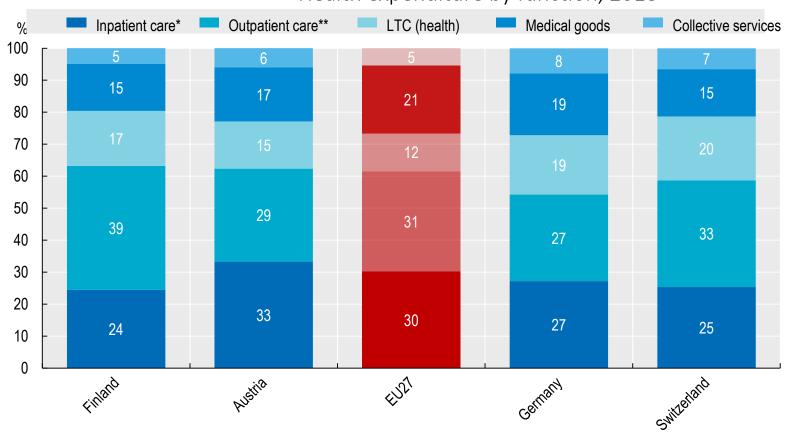
Source: OECD Health Statistics 2020; Eurostat Database; WHO Global Health Expenditure Database











^{*} Refers to curative-rehabilitative care in inpatient and day care settings. ** Includes home care and ancillary services and can be provided in ambulatory care settings or hospitals.

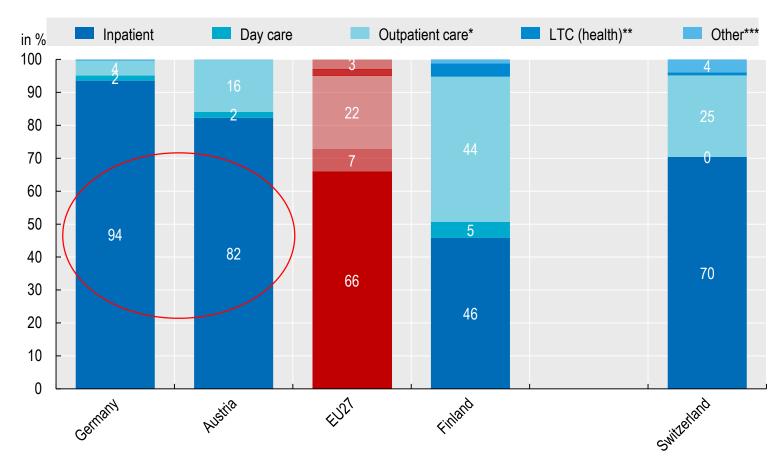
Source: OECD Health Statistics 2020; Eurostat Database;

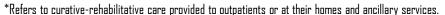




Hospitals in the DACH region are less involved in outpatient diagnostics!

Hospital expenditures by type of service, 2018





^{**}Refers to inpatient LTC services for people with LTC needs.

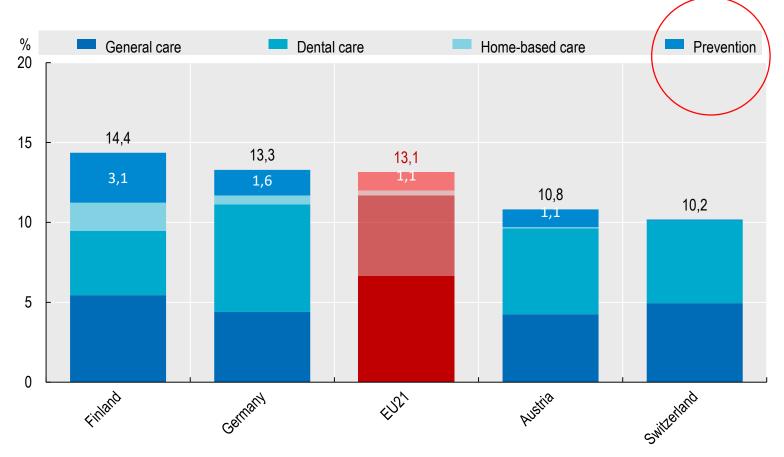
^{***}Includes medical goods and collective health services.
Source: OECD Health Statistics 2020: Eurostat Database.





Diagnostics are essential in prevention but not all countries put the same focus on it!

Spending on primary health care services as share of total health spending, 2018



Additional providers of prevention are:

- Health insurers
- 2. Occupational health
- 3. High-end diagnostic service centers (§ OOP)

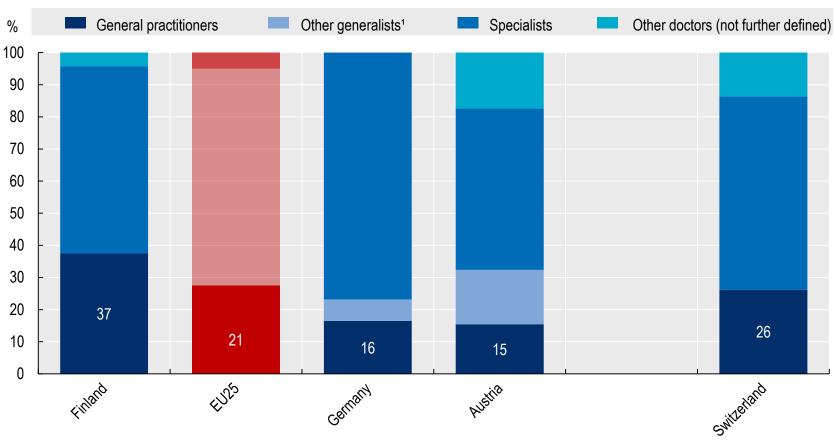


Source: OECD Health Statistics 2020;

Lack of GPs and unequal distribution of specialists leads to challenges in diagnostic services and care!



Share of different categories of doctors, 2018 (or nearest year)



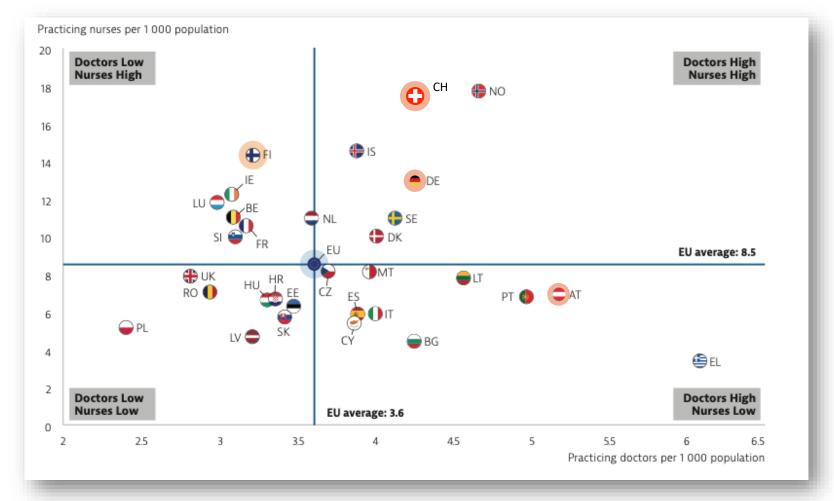
1.Other generalists include non-specialist doctors working in hospital and recent medical graduates who have not started yet their post-graduate specialty training.

Source: OECD Health Statistics 2020: Eurostat Database.





Ratio of nurses to doctors, 2018 (or nearest year)



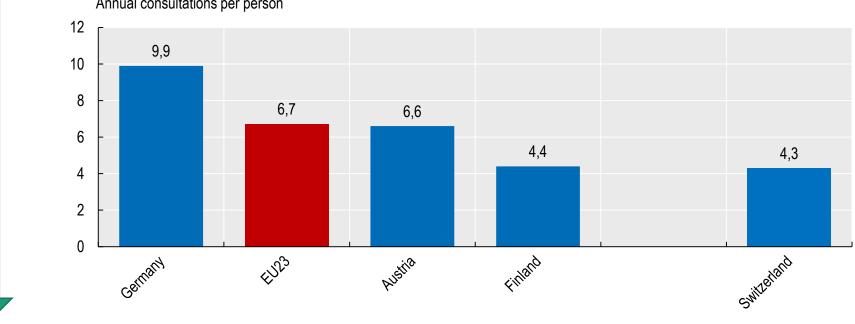


Efficient sales and service channels are expected to avoid additional workload for the clients!



Number of doctor consultations per person, 2018 (or nearest year)

Annual consultations per person



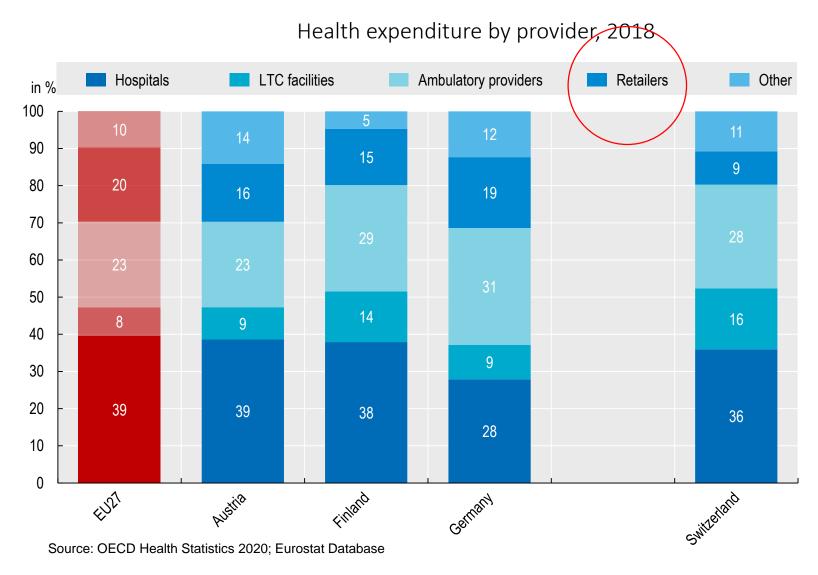
Estimated number of consulations per doctor

2296 **1939** 1259 1310 1101





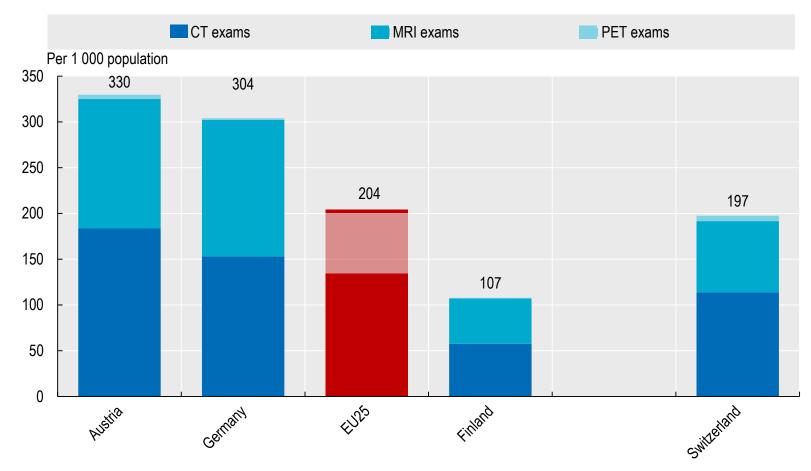
Channel partners must provide access to the key clients for the diagnostics!







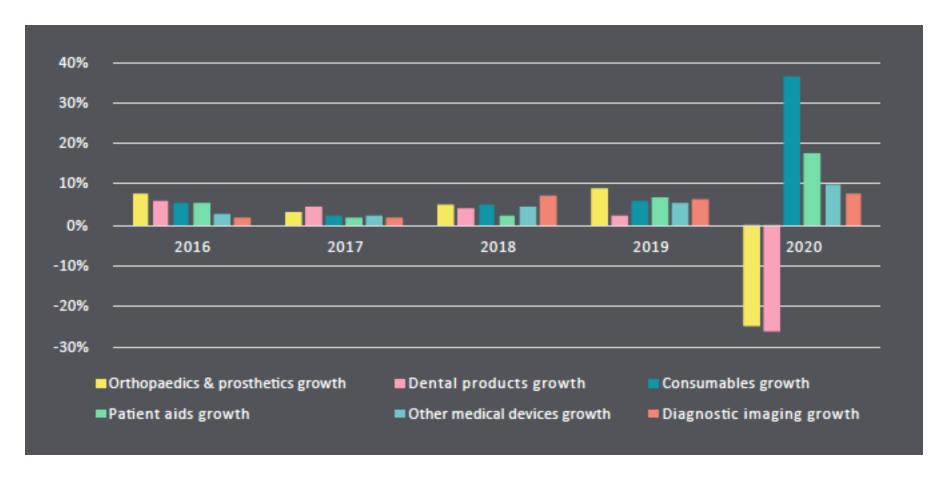
CT, MRI or PET exams per 1000 population, 2018 (or nearest year)







Impact of COVID-19 on various medtech sectors

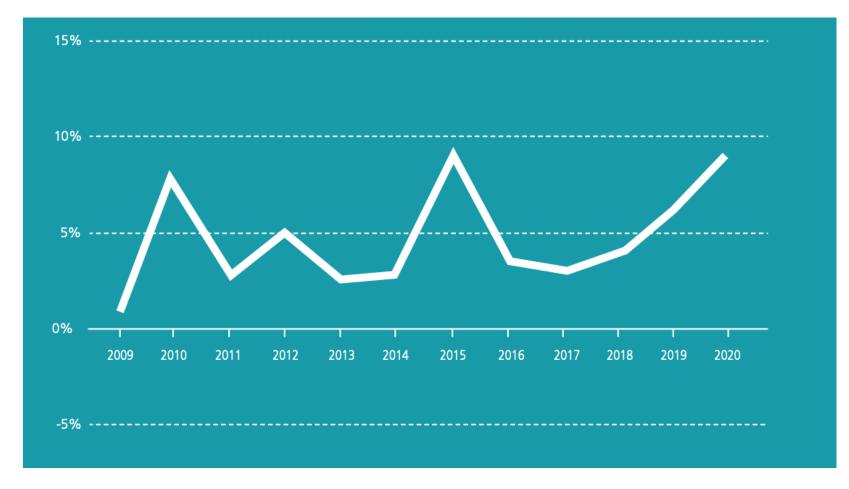


Source: The European Medical Technology Industry in figures, 2021





European medical device growth rates



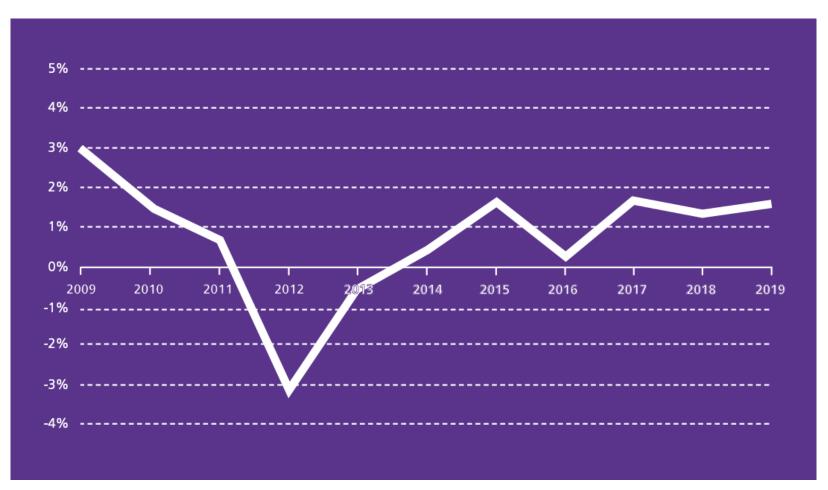
Source: The European Medical Technology Industry in figures, 2021











2020

Total diagnostics 25,9% Reagents total 28,1%

- Clinical chemistry 15,5%
- Immuno chemistry 2,1%
- Haematology/Histol/Cyt. -3,6%
- Microbiology (Culture) 5,8%
- Infectious Diseases 291,4 %
- Genetic Testing 1,1% Instrument/Consumables 17,5%

Instrument/Consumables 17,5% Services/Spare Parts 3,5%



The European Medical Technology Industry in figures, 2021 VDGH, Working group Market Research, 2021





BUSINESS **FINLAND**

Channel management intro



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Channel management starts with channel selection

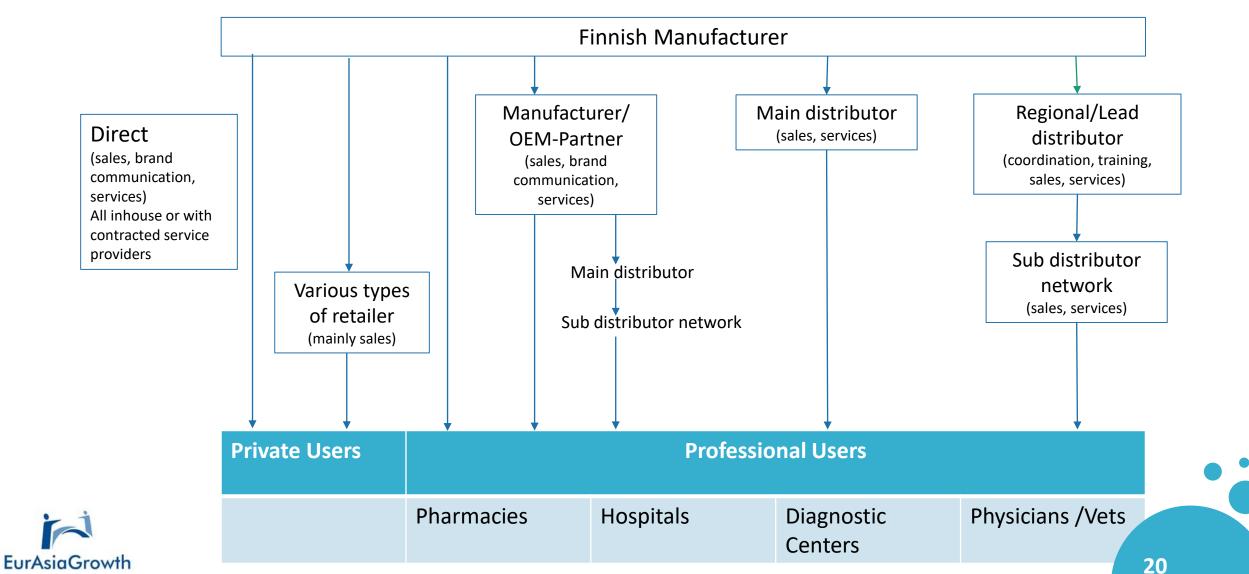
low **Product** complexity Professional user relevance Private user for the user high dominated solutions low high Number of users



and



Typical channel structure options diagnostic devices



Consulting-Training-Services





Examples of successful distributor models

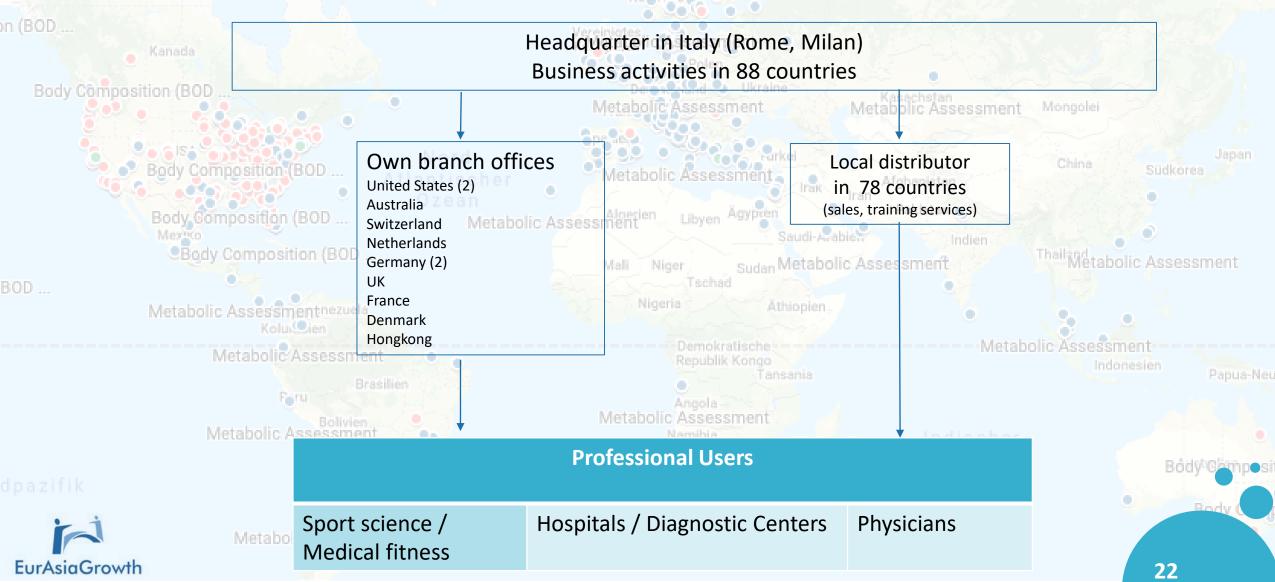




Consulting-Training-Services

Cardio pulmonary, metabolic and body composition diagnostic equipment for professional users

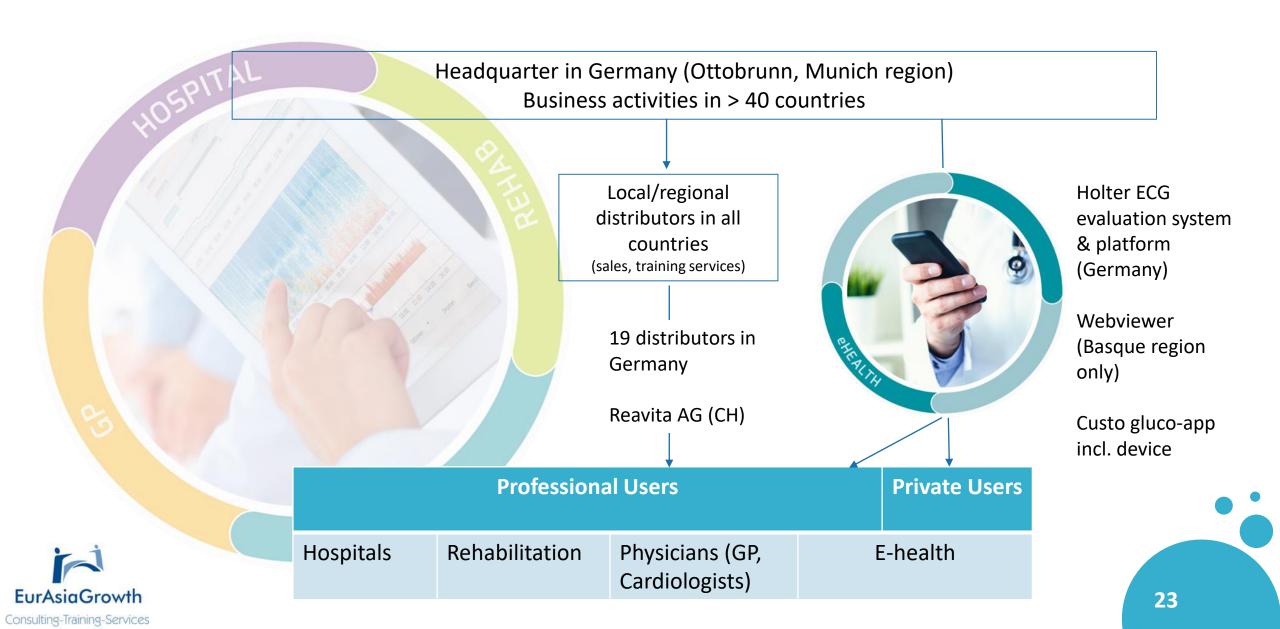






Cardio pulmonary diagnostics + ehealth services





medisana. Specialist home health care market incl. diagnostics

Headquarter in Germany (Neuss, Düsseldorf region)
Part of Smart Healthcare Technology Group Co. Ltd. China
Business activities in > 40 countries

Own branch offices

Own internet shop +

Amazon, online

pharmacies

Germany (2) Spain

Austria

Hongkong

Russia

UAE

Local/regional distributors in 35 countries (sales, training, services)

Drugstore chains (e.g. Rossmann, dm) & pharmacies

Discounters (Lidl, Aldi)

Blood pressure monitor
Personal scales
Blood glucose monitor
Thermometer
Pulsoximeter
Heart rate monitor
Fitness tracker
Home Care Robot

Sars-Cov2-Antigen tests Medical masks

Special shops for electronics (Media Markt, Conrad)



Private Users



NanoRepro AG

IVD (POCT) + Nutritional supplements



Business Concept

Contract R&D +
manufacturing + external
products under one brand
and brands of licence
partners

Own internet

shop + Amazon

Headquarter in Germany (Marburg)

B₂C

25 quick tests:

Fertility, prevention, allergy, food intolerance

8 food supplements:

8 products (brand: alphabiol)

Starting 2021:

SARS-CoV-2 antigen for consumers

Suppliers

- Azure Biotech INC
- BTNX Inc.
- Labnovation
 Technologies Inc

Nantong Diagnos Ltd.

National

Licence partners





MIGROS

Various retail channel partners

International

25 Distributors

B2B

Infectious diseases:

HIV-Quick; Strep-A, Influenca AB

Prevention:

Troponin I; D-Dimer; Microalbumin

Starting 2020:

SARS-CoV-2 antigen & antibody tests for professionals

Private Users

Pharmacies

Professional users

(Purchasing cooperations, senior homes, hospitals, physicians, pharmacies)



25



Business dynamic during the Sars-CoV-2 pandemic



News 2020 / 2021 - NN6

2018 Break-even

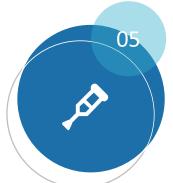
- → 10. März 2020: Sales start SARS-CoV2-Antibody-Test
- → 30. März 2020: Capital increase 10 %
- → 22. September 2020: Sales start SARS-CoV2- Antigen-Test
- → 30. Oktober 2020: Order 6 Mio. Euro
- → 03. November 2020: Order 8,5 Mio. Euro
- → 17. November 2020: Order 14,5 Mio. Euro
- ▶ 02. Dezember 2020: Order > 20 Mio. Euro
- → 10. Dezember 2020: Own SARS-CoV2 Antigen-Test "NanoRepro" Brand
- → 23. Dezember 2020: Capital increase € 8.00 Mio
- → 07. Januar 2021: Application Corona-Antigentest for consumers
- ▶ 11. Februar 2021: NanoRepro turnover 10 times higher with record results for 2020
- → 25. Februar 2021: Large order about 30 Mio. EUR and potential for additional 100 Mio. EUR
- → 26. Februar 2021: COVID-19-Antigen-Test received approval of Paul-Ehrlich-Institute



27.08.2021: Viromed Group purchased large number of shares; merger is in process.....



Relevant issues for market entry

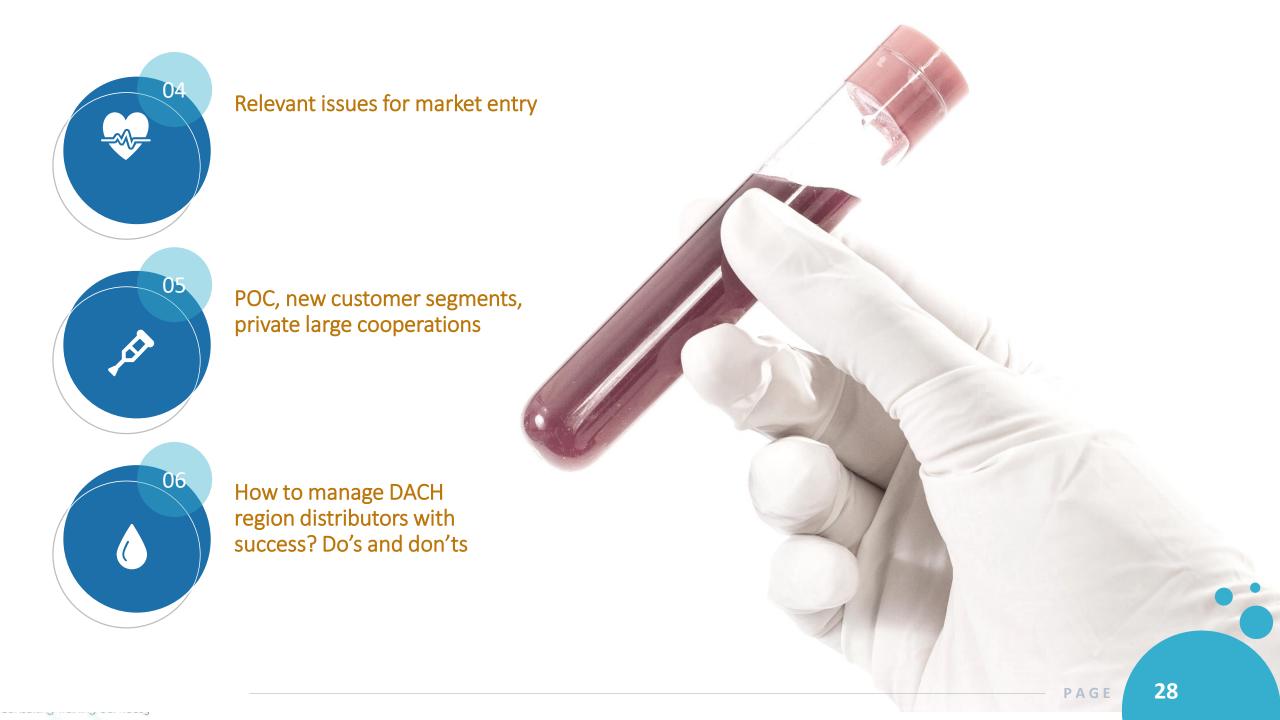


POC, new customer segments, private large cooperations



How to manage DACH region distributors with success? Do's and don'ts









Relevant issues for market entry







Especially in the areas of sales, marketing & services, the development of digital formats has been massively accelerated by COVID-19, with extensive effects in the next few years.

Digital interaction with important target groups in the health care sector such as doctors, purchasing, medical technology, nursing staff and payers is becoming the standard in medical technology sales.

Georg Stadler, Ex-Chairman Lohmann & Rauscher

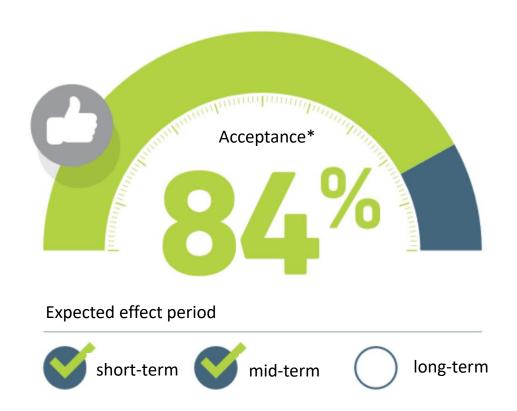
Source: Trend Report 2021; Medizintechnik; Spectaris; R. Berger; Medical Mountains



EurAsia Growth



1. Digital sales and services are increasing



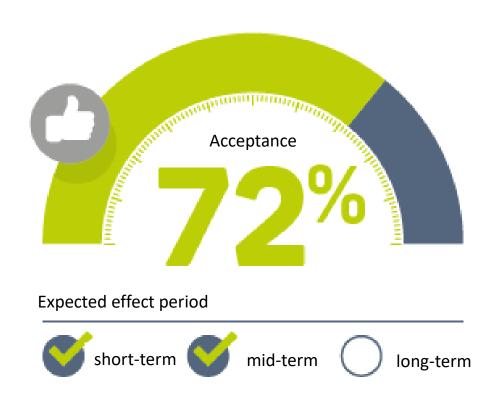
- Limited access of sales reps and technicians to all type of care providers
- Webinars widely accepted for trainings of health professionals
- Sales staff and partners need training and support

New sales and communication culture requested





2. Exhibitions will be replaced by digital formats



- Reduced number of participants at key events, e.g. MEDICA
- Less chances for direct contacts with users and partners
- Local events stay important

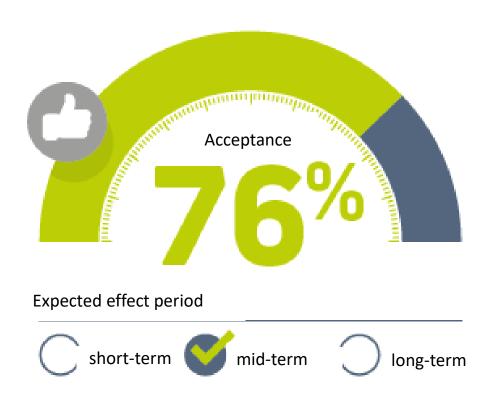


Reviewed resource allocation and optimization of the relationship building





3. Accelerated process digitization in medical technology and hospitals



- Different status and speed in DACH region
- Awareness for digital processes further increased

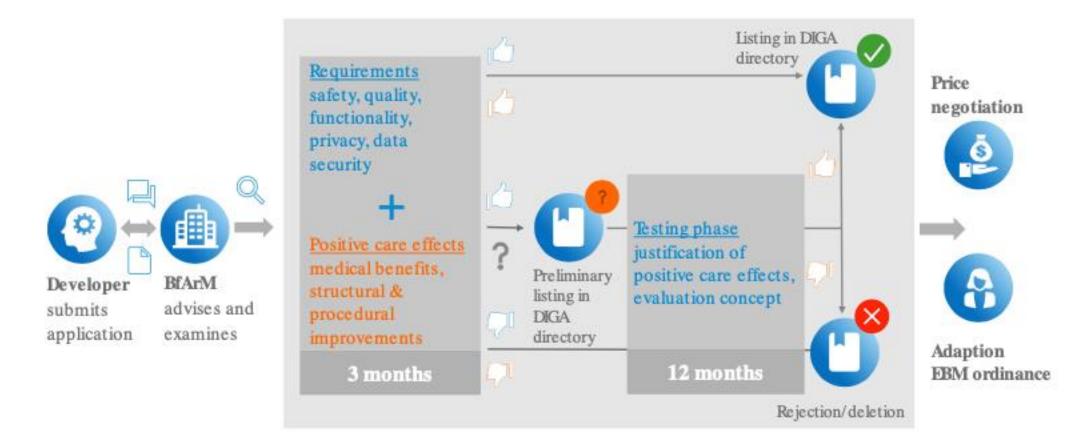


Seamless internal cooperation between all stakeholders mandatory





DiGA – New option to short-cut the pathway to German reimbursement system **FINLAND** for data-driven MDs (class I, IIa) with proven patient benefits



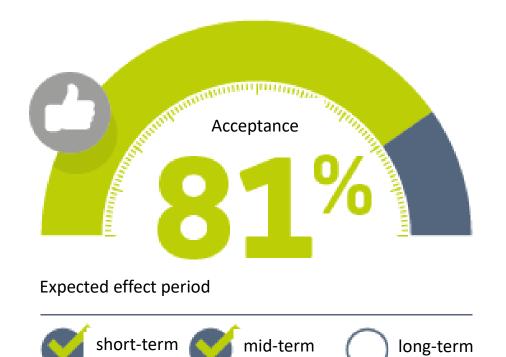


Source: Federal Institute for Drugs and Medical Devices (BfArM); hih - health innovation hub 2020









- Visible in health care provision and medtech industry
- New EU MDR and MepV (Swiss) since Mai 2021 valid
- Mutual Recognition Agreement, MRA no longer valid!
- Improved competition pressure for SMEs
- Income situation of health insurances under stress
- Market shakeout



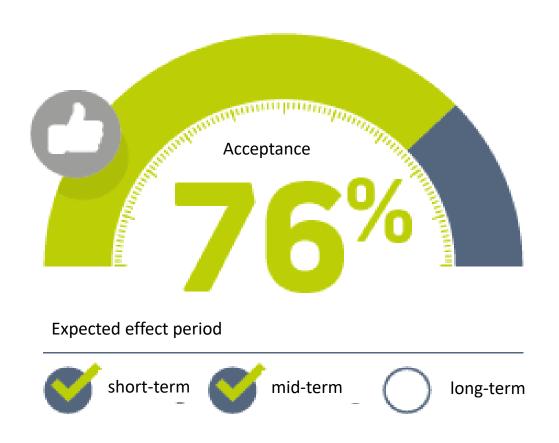
Opportunities for survivors!
Challenges especially in/for Switzerland



Source: Spectaris, R. Berger, Medical Mountain; Trendreport Medizintechnik // Wie SARS-CoV-2 die Medizintechnik verändert 2021



5. IVD, robotic/automation and sensor technique are the winners



- Covid-19 caused a boom in the IVD sector
- Robotic and automation is expected to improve the efficiency
- Leading HC providers count on technologies to balance the lack of personal



Improved awareness for usefulness of selected technologies to guarantee the quality of care



Source: Spectaris, R. Berger, Medical Mountain; Trendreport Medizintechnik // Wie SARS-CoV-2 die Medizintechnik verändert 2021



The 'NEW NORMAL' specifies winners and loosers

The Conquerors

Companies that manage through digital excellence, competence and qualified specialists to succeed in opening up new markets and customer segments.

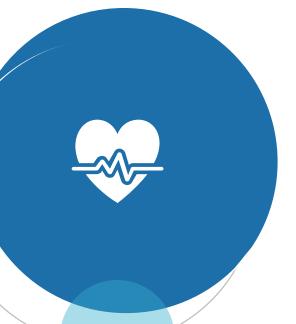
The Keepers

They can defend their previous market position by taking advantage of the opportunities offered by digitization more or less efficiently.

The Latecomers

Mainly SMEs. They clearly count to the companies that suffer from the pandemic and the increasing regulatory burden.





BUSINESS **FINLAND**

POC, new customer segments private large cooperations





Selected hospital groups as key clients for various diagnostics

| Position | Company | No. of POCs*/beds | Employees (ø) | Turnover (mio €) | Ownership | Regional Coverage |
|----------|------------------|-------------------|------------------|---------------------|-----------------------|----------------------|
| 1 | Helios Group | 225/28.380 | 53.423 | 5.940,00 | private | DE, ES |
| 2 | Asklepios | 160/27.090 | 36.265 | 3.537,30 | private | DE |
| 3 | Sana Kliniken AG | 103/11.331 | 30.638 | 2.841,20 | private | DE |
| 4 | BG Kliniken | 12/4.694 | 14.517 | 1.447,70 | public (insurance) | DE |
| 7 | Agaplesion | 57/6.255 | 20.411 | 1.288,90 | NGO | DE |
| 14 | Ameos | 95 /9.000 | 13.300 | 880 | private | DE, A, CH |
| - | Vamed | 58 | 19.226 | 2.067,00 | private | A, DE, CH, Czech |
| - | Hirslanden | 39/1.904 | 10.711 | 1.796 CHF | private | CH, UAE, NAM,ZAF |

^{*}POCs: Hospitals, out-patient clinics, MVZ, rehabilitation centers, competence centers

Source: Bibliomed; Klinikranking 2019; https://www.bibliomedmanager.de/klinikranking/fw-curacon-klinikranking-2021; combined with own researches



1. Example – Helios Group & Vamed as part of Fresenius





Sales 2020: € 36.3 bn EBIT 2020¹: € 4,612 m









Ownership: 32%

Dialysis Products Health Care Services

- · Dialysis services
- · Hemodialysis products
- · Peritoneal dialysis products
- · Care coordination

Sales 2020: €17.9 bn EBIT 2020: €2,449 m Ownership: 100%

Hospital Supplies

- IV drugs
- · Clinical nutrition
- · Infusion therapy
- Medical devices/Transfusiontechnology
- Biosimilars

Sales 2020: €7.0 bn EBIT 1 2020: €1,095 m Ownership: 100%

Hospital Operation

- · Acute care
- · Outpatient services

Sales 2020: €9.8 bn EBIT 2020: €1.025 m Ownership: 77%

Projects and Services for Hospitals

- · Post-acute care
- · Project development & Planning
- · Turnkey construction
- Maintenance & Technical and total operational management

Sales 2020: €2.1 bn EBIT 2020: €29 m



Fresenius Medical Care is fully consolidated in the financial statements of Fresenius SE & Co. KGaA

Before special items

1. Example – Helios Group & VAMED



| Helios Group | | | | | |
|--|---|--|--|--|--|
| Helios Germany | Quironsalud Spain | | | | |
| 89 hospitals | 52 hospitals | | | | |
| 130 health centres(MVZ) | 70 health centres | | | | |
| 6 prevention centres | 300 occupational health units | | | | |
| In-patient: 1,1 million out-patient: 4,1 million | In-patient: 0,9 million Out-patient: 14,1 million | | | | |
| 73.000 employees 6,3 bill. € in 2020 | 40.000 employees 3,5 bill.€ in 2020 | | | | |

| | VAMED | | | | |
|---|-----------------------------|---|--|--|--|
| | Prevention & health tourism | VAMED Vitality World with 8 Health Resorts Occupational health management in companies Occupational health centre | | | |
| | Acute and specialized care | 6 Health centres and hospitals, Austria 3 Clinics in Germany, CzechRep | | | |
| | Rehabilitation | 16 clinics in Austria 3 clinics in Switzerland 1 clinic in Czech 20 units in Germany | | | |
| - | | 19.226 employees 2,1 bill. € in 2020 (-6,3%) | | | |



2. Example – Sana Group AG **103 Clinics in Germany** Oldenburg Bad Doberan Königs Wusterhausen Lübben Duisburg Hoverswerda (Dresden en O Koblenz O Boppard Offenbac Pegnitz 3 heart centers 4 orthopaedic hospitals Bad Kötzting 3 rehabilitation clinics Bad Wildbad

München

 Mindelheim Ottobeuren

 Clinic, majority ownership Clinic, minority ownership Clinic, managed by Sana

Stand: Januar 2021

Others:

4 Care homes

centres (MVZ)

28 Medical service

30 Medical shops

44 acute care hospitals

Care home, majority owner



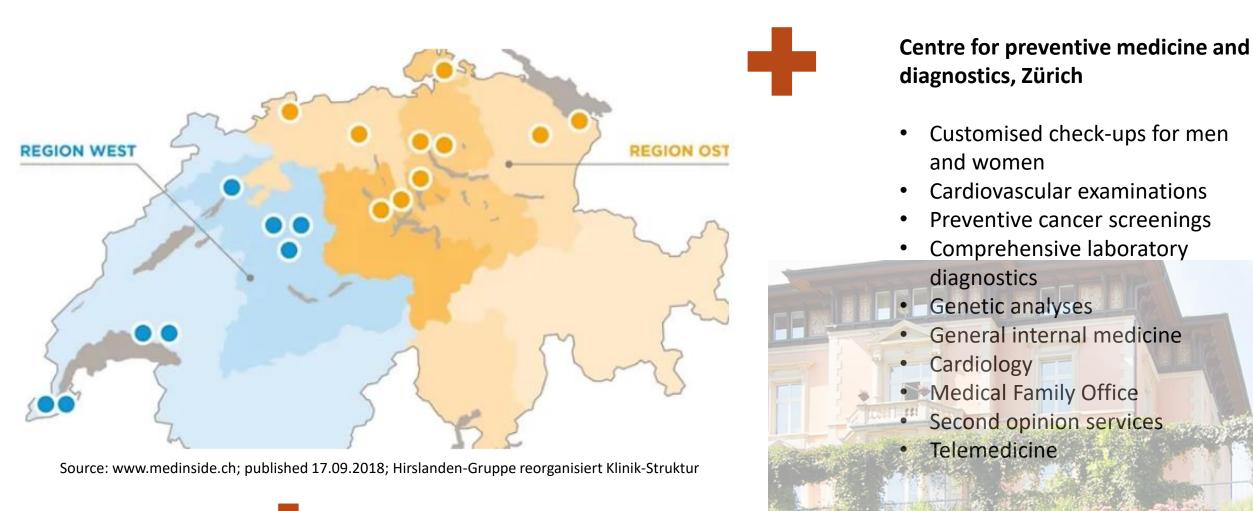
Services for external Clients

- Purchasing & Logistic (> 600 clients; health service providers in Germany and Switzerland (e.g. Hirslanden Clinic Group)
- Purchasing volume: 2,3 bill € p.a.
- All technical Services (AEMP, Samedis platform)
- Medical Service Consulting
- Construction and Maintenance
- Cleaning, Security and Transport
- Catering

Purchasing services for Hirslanden Clinic Group since 2018

3. Hirslanden - Largest Private Swiss Hospital Group





(outpatient services, pharmacies, health insurances)

Cooperation with Medbase AG

EurAsiaGrowth

Consulting-Training-Services

4. IVD – The 5 biggest players in Germany



| Company | Locations in Germany | Turnover in mio € in Germany | Turnover development | Remarks |
|------------------|-------------------------|------------------------------------|-------------------------|---|
| amedes | 65 | 2018: 364 2017: 354 | + 3% | Incl. purchasing services for physicians |
| LADR | 86 | 2017: 243 2015: 220 | +11% | Presence in Finland, RUS, Pol, Romania |
| Limbach Gruppe | 32 | 2016: 644 2014: 455 | +41% | |
| Sonic Healthcare | 58 | 2018: 734 2016: 591 | +24% | Purchased 2016 Staber laboratories |
| Synlab | 65 | 2015: 405 2013: 382 | +6% | Global player |

Source: Branchenanalyse Laboranalytik; 2016; updated 2020













Present in more than

40 courties on

4 continents

Locations 2020

5. Synlab - Europe's Number One

Germany: 48

Austria: 9 labs, region Vienna

Switzerland: 15 labs + 12

sampling spots

Service sectors

All type of medical IVD diagnostics for human and animal health

Environmental, food and other tests

in cooperation with SGS **Germany GmbH**

Sales revenues of approx. **EUR 1.9 BILLION**

veterinary, environment, pinarma,

food, hygiene and products

EurAsiaGrowth



BUSINESS

FINLAND

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So funktioniert der Darmflora-Test

6. POC - Biomes NGS GmbH

Du entnimmst deine P

Dein Testkit enthält alles, wa brauchst. Eine winzige Menge

Wir analysieren deine

Mithilfe der NGS-Methode wi analysiert.

Du erkundest online

Target clients: Consumers

Product: deep analysis of the microbiome; food

supplement

Sales partners: Nutrionists, naturopaths,

trainers, health therapists, occupational health

specialists

Scientific partners: Charité, Carl-Thiem-Klinikum

Cottbus, University Vienna, TU Wildau,

Universidad Bernardo O'Higgins

Status: Established 2017; not yet profitable;

actual about 20.000 clients

Cost/test: 150 €

Erkunde die Auswertung deir

Informationen und Empfehlungen online in einem geschützten

Bereich.









How to manage DACH region distributors with success? Desand don'ts





Selection process

- Select distributors / channel partners – don't let them select you
- Be prepared to have various type of partners in the DACH region
- Look for capabilities to develop markets together



Communication

- Establish simple communication routines
- Develop together new ways of communication channels with the various product users





Ensure in each
Target Market Your
Partner Matches
Your Channel
Strategy

BUSINESS **FINLAND**



Support and Networking

- Establish long-term partnerships
- Support market entry with money, managers and proven sales/marketing tools
- Build links among national partners



Controlling

- Fix concrete and measurable goals for sales and marketing
- Establish a practical reporting system



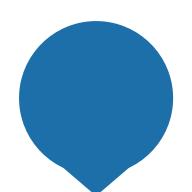


Wishes from Your partners...



To be part of the future innovation process is important for us.

It help us to motivate our staff members as well!

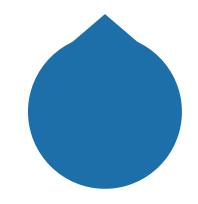


We expect to provide input to the channel strategy of our suppliers.

Channel conflicts kill our business.

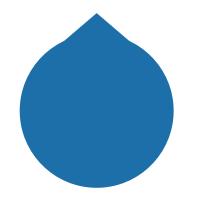


We appreciate, if our future partner listen better and respect the situation in our country, e.g. pricing, quality expectations, business model.



Sometimes we feel alone if difficulties with products or clients occur.

Support in challenging customer situations is essential.



Awareness for the high competition pressure in DACH markets.

I also expect that the company knows the ecosystem of the markets and its rules.









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