

CGM Investor & Analyst Conference 2018

CompuGroup Medical SE
18.10.2018



Agenda

11:00 – 11:30	Registration
11:30 – 11:45	Welcome <i>Christian B. Teig, Chief Financial Officer</i>
11:45 – 12:15	Extension of the Executive Board <i>Frank Gotthardt, Chief Executive Officer</i>
12:15 – 13:15	New growth opportunities in Telemedicine <i>Klaus Donhauser, VP Product Management</i>
13:15 – 13:30	Break
13:30 – 14:30	Clickdoc <i>Christian B. Teig, Chief Financial Officer</i>
14:30 – 14:45	Break
14:45 – 15:45	Telematics Infrastructure and eHealth roadmap in Germany <i>Uwe Eibich, Executive Vice President</i>

CGM Investor & Analyst Conference 2018

Welcome
Extension of the Executive Board

Frank Gotthardt, CEO
Christian B. Teig, CFO

18th October, 2018
Innovationsforum, Koblenz

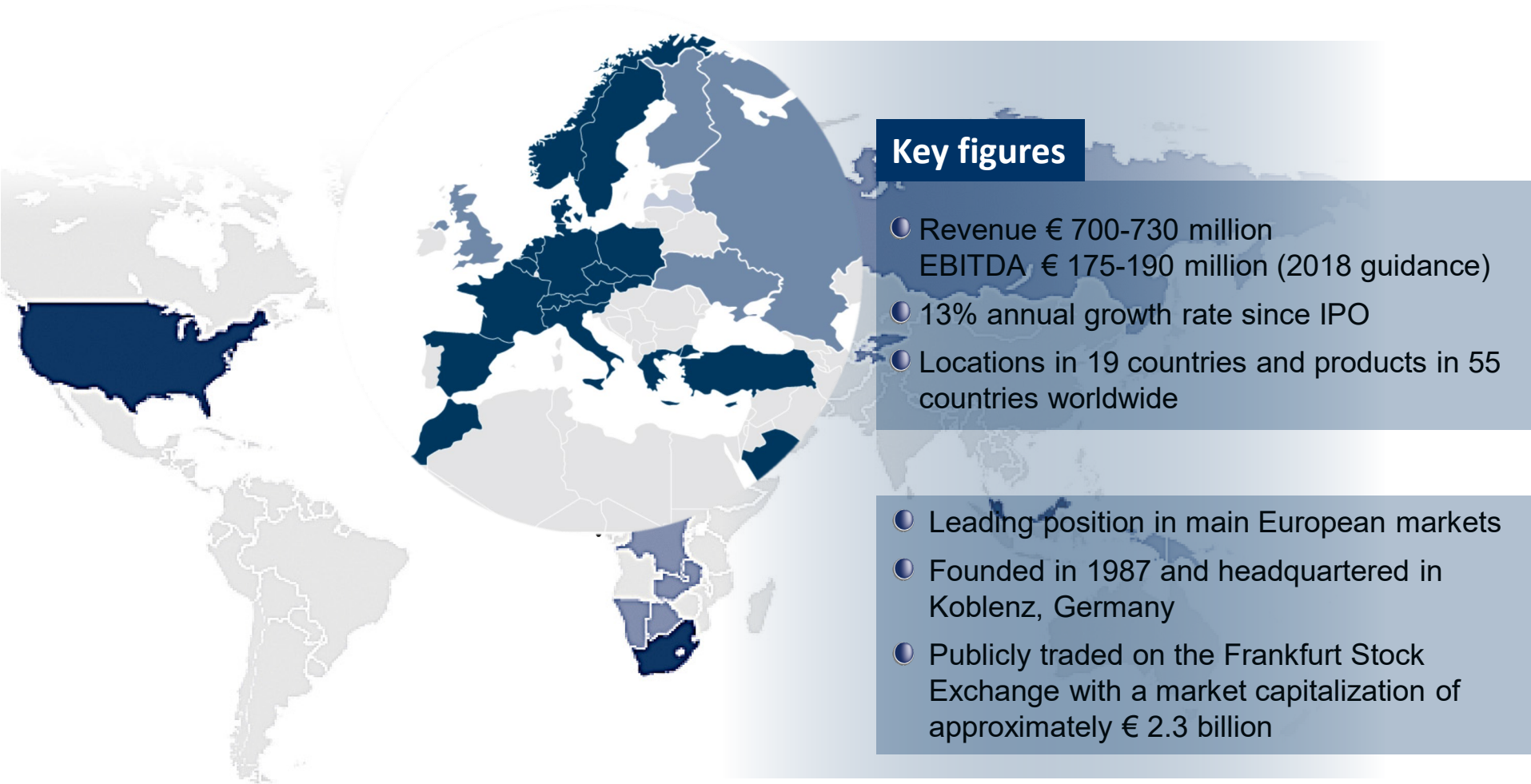


Agenda

Welcome

Extension of the Executive Board

CGM – a global healthcare IT provider



4 business segments



Ambulatory Information Systems

- Doctors
- Dentists
- Other outpatient providers

~65% of revenue



Pharmacy Information Systems

- Retail pharmacies

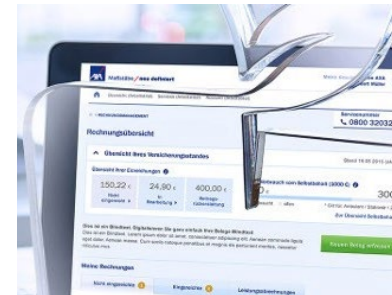
~15% of revenue



Hospital Information Systems

- Hospitals
- Reha and elderly care
- Social care institutions

~14% of revenue



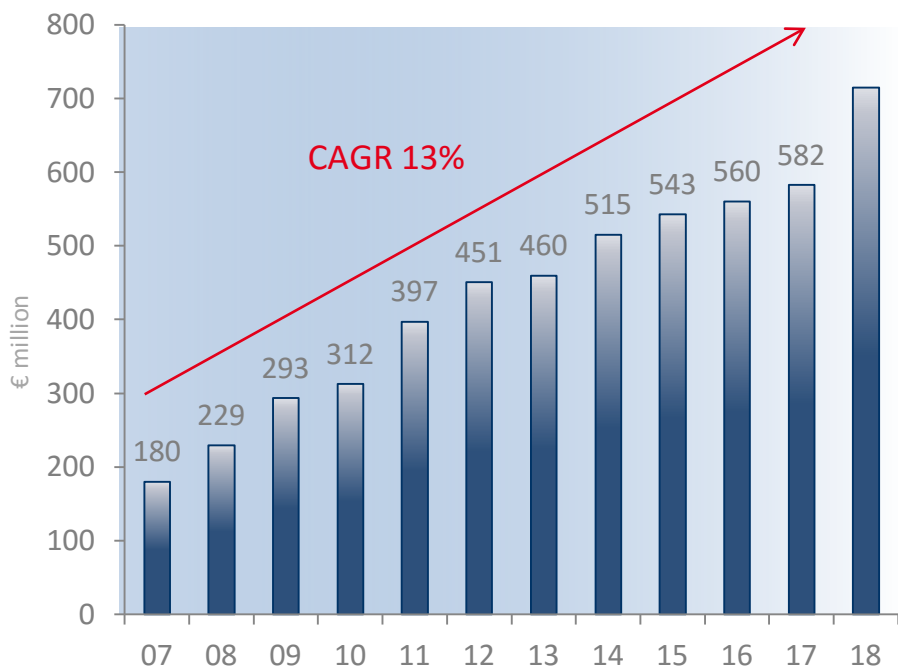
Health Connectivity Services

- Health insurance companies
- Pharma companies
- Consumers

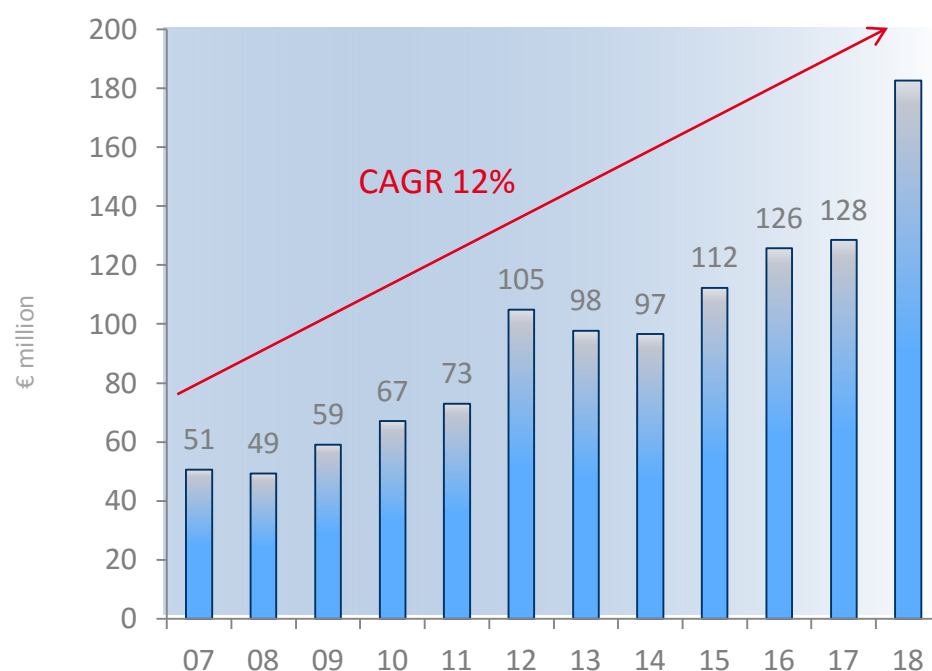
~6% of revenue

Historical revenue and EBITDA growth

Group Revenue

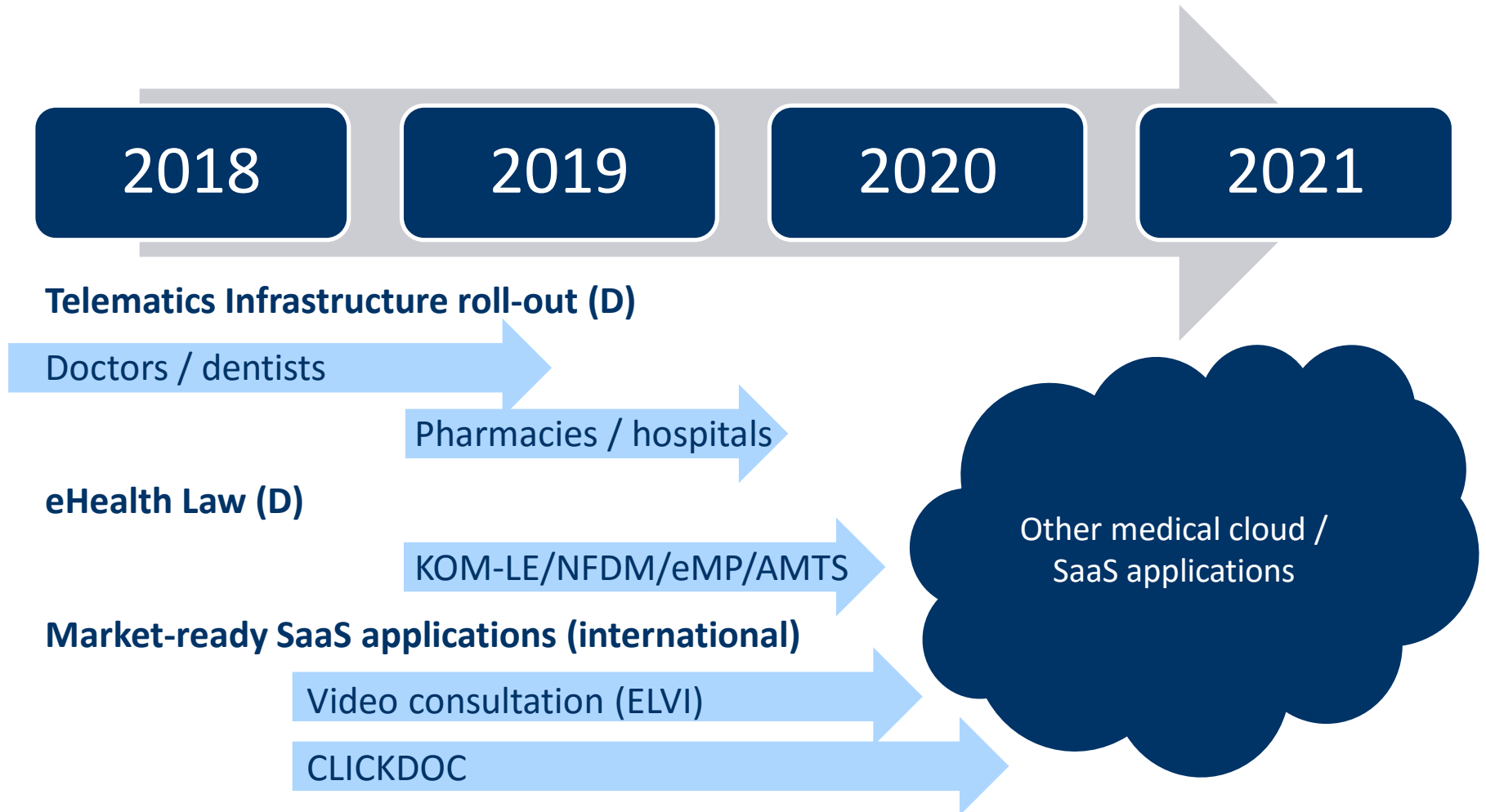


Group EBITDA



- Strong growth in revenues and EBITDA driven by strong operational performance, supportive business environment and stable, recurring revenue base

Near-term growth roadmap



Agenda

Welcome

Extension of the Executive Board

Two new Executive Board members



Dr. Ralph Körfggen – Board member for the outpatient sector

Ralph Körfggen has extensive experience in the development of international markets and the growth of digital business models. In Deutsche Bahn AG he held various positions and was responsible for the largest digital distribution platforms in the European mobility market. He has also been a management consultant in Roland Berger & Partner.



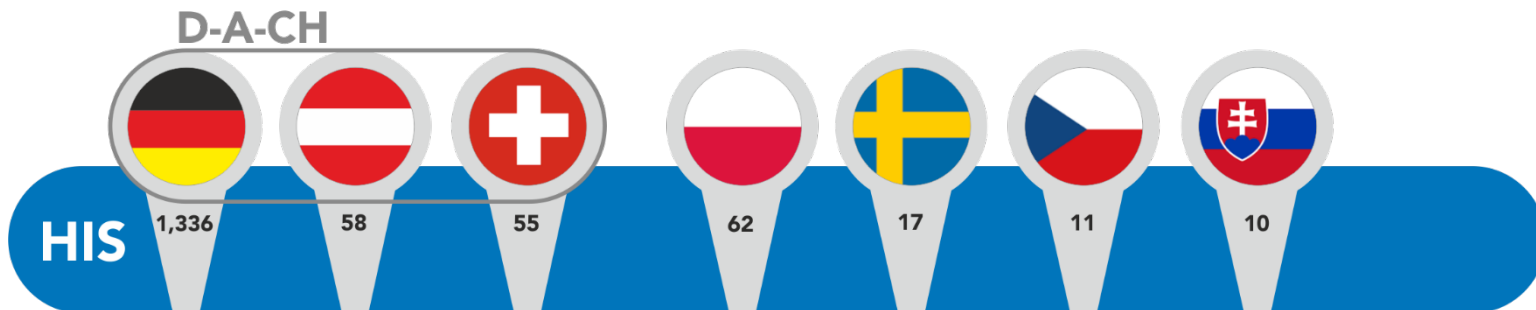
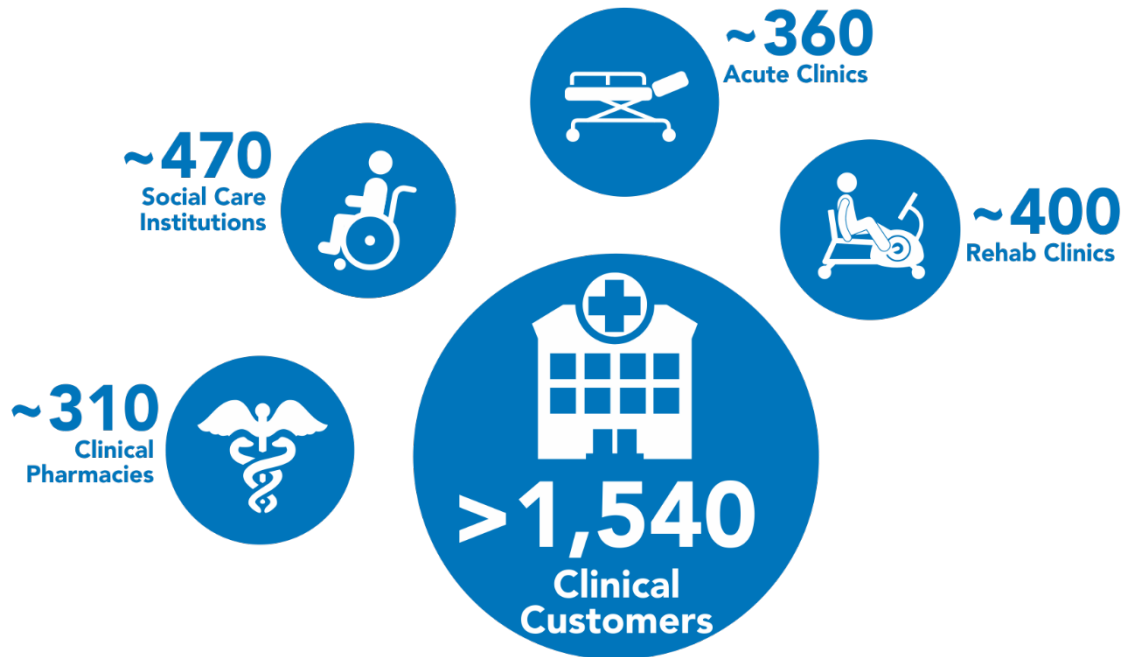
Hannes Reichl - Board member for the inpatient sector

Hannes Reichl has been Senior Vice President in CGM with responsibility for the HIS segment and lab business since 2016. Since joining CGM in 2007, he has held various management positions in the doctors' software, lab and hospital business with focus on operational management, strategic business development and the integration of acquired companies.

Inpatient sector in CGM



More than 1,540 customers



3 strategic products

Suites	Target Markets
CGM CLINICAL Clinical Workflow System	Acute & Rehab Clinics  
CGM SOCIAL Social Institution Workflow System	Social Institutions 
CGM HEALTH ALLIANCE Collaborative Workflow System	Health Regions 

Targets

- Grow the platform and win new clients in D-A-CH markets
 - Reha Germany (currently 40% market share)
 - CGM won >8,500 reha beds in Germany in 18 months (+5% market share)
 - Win large hospital groups in Germany and Austria
 - Strong 2018 growth in order intake (double digit)
 - Current sales pipeline > EUR 200 million
- Converge from >30 products into a common product suite
 - Currently 8 pilot sites with CGM Clinical
- Explore further HIS markets in Europe (e.g. France, Spain) with existing CGM footprint in AIS
- TI in Germany 2019
- "Top 3 HIS Vendor" in Europe

CGM Investor & Analyst Conference 2018

New growth opportunities in Telemedicine

Klaus Donhauser, VP Product Management

18th October, 2018

Innovationsforum, Koblenz



Agenda

ELVI – a new product capability in CGM

Regulatory changes to support telemedicine

Growth opportunities

La-Well acquisition in April 2018

- La-Well Systems GmbH, with registered office in Bünde, Germany
- La-Well currently develops and distributes two products
- The main product is software for conducting secure video consultations from doctor to doctor as well as from doctor to patient
- It was the first application of this kind to be certified in Germany and thus fulfils all technical requirements of data protection legislation
- The second product is a platform for marketing, information and entertainment for patients in waiting rooms (waiting room TV)



Video conferencing solution

- CGM ELVI (Electronic Visit) is a browser-based video conferencing solution, and serves as a communication tool between
 - Doctor and patient
 - Doctor and doctor
 - Doctor and other healthcare professionals
- CGM ELVI is tailor-made for video consultations in the healthcare sector

CGM ELVI

Elektronische Videosprechstunde



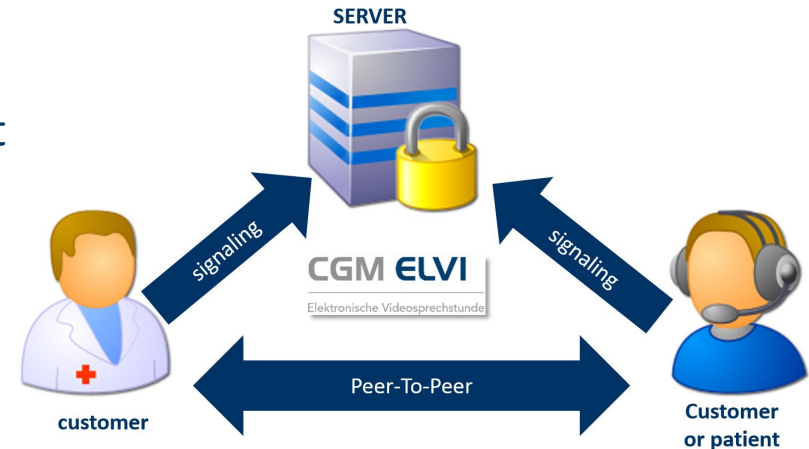
Designed in healthcare for healthcare

- Doctor to patient communication platform
 - Video conference
 - Chat function
 - Document exchange and screen shots (no storage)
- Peer consultation function between doctors. Video conference with up to 5 participants at the same time
- Designed to the highest security standards. The only product certified by the TÜV
- Fulfills all requirements of a video consultation provider from the German Central Association of Statutory Health Insurances (GKV) and the National Association of Statutory Health Insurance Physicians (KBV)
- Developed within doctors' offices. Is already used in many medical practices, hospitals and nursing homes
- Available in many languages. German, English, French, Italian, etc.



Highest possible security standard

- The eVi® software was certified by TÜV IT Nord GmbH in June 2017
- The obtained Trusted Side Certificate stands for
 - Legal compliance and data processing transparency - data protection is a top priority!
 - Professional data protection management
 - Security of the eVi® software and the underlying servers
- The complete certificate can be found at:



www.tuvit.de/fileadmin/Content/TUV_IT/zertifikate/de/5533UD_s.pdf

Tried and tested solution

Tried and tested in different projects and areas, e.g. ::

- TELnet @ NRW project (Innovation Fund Project) with the university clinics Münster and Aachen
- OVID - EU funded project with the University of Münster
- KVWL nursing home project with the AOK North-West in the regions of Bünde, Lippe, Marl, Münster, Unna, Siegen, Rheine, Steinfurt and Bielefeld, rollout in Schleswig-Holstein
- NWGA - NetzWerk GesundAktiv - Outpatient care in one's own home - (Innovation Fund Project)
- Video consultation in the care of dementia patients - German Alzheimer Society e.V. and Hamm-Lippstadt University of Applied Sciences



NORDWEST

KVWL



Deutsche Alzheimer
Gesellschaft e.V.
Selbsthilfe Demenz

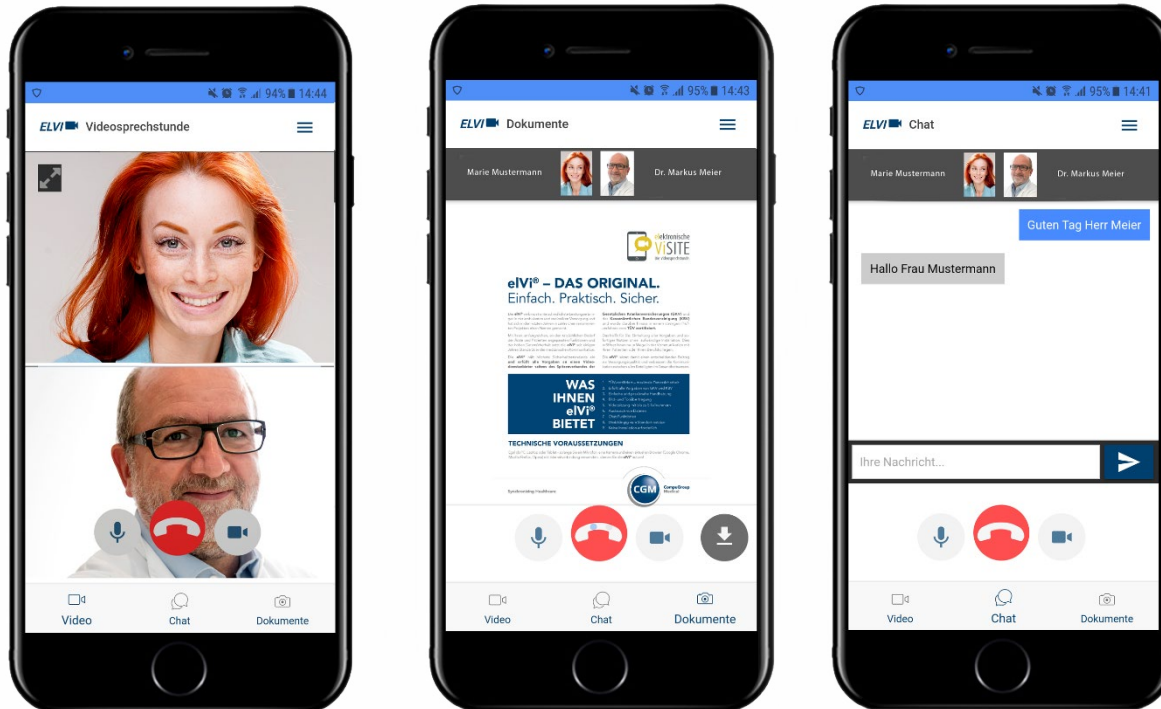


Easy to use web application

- ELVI is a browser-based software. Nothing needs to be installed
- It can be accessed at any time via www.elvi.de/visite
- There is no special technical equipment required. A standard laptop with webcam, microphone and speaker is sufficient
- The internet connection is important
 - The better the internet, the better the video quality of ELVI
 - Minimum standard: 16MB/s DSL line or mobile internet access



Mobile app available



Easy workflows

Doctor-to-doctor advisory



Step 1: Log into elVi®

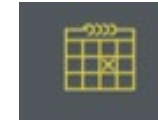


Step 2: Open the elVi® list of contacts and select doctor



Step 3: Call the doctor, communicate over elVi® and exchange documents and information safely

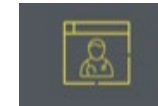
Patient video consultation



Step 1: Patient gets appointment and elVi® access code from doctor

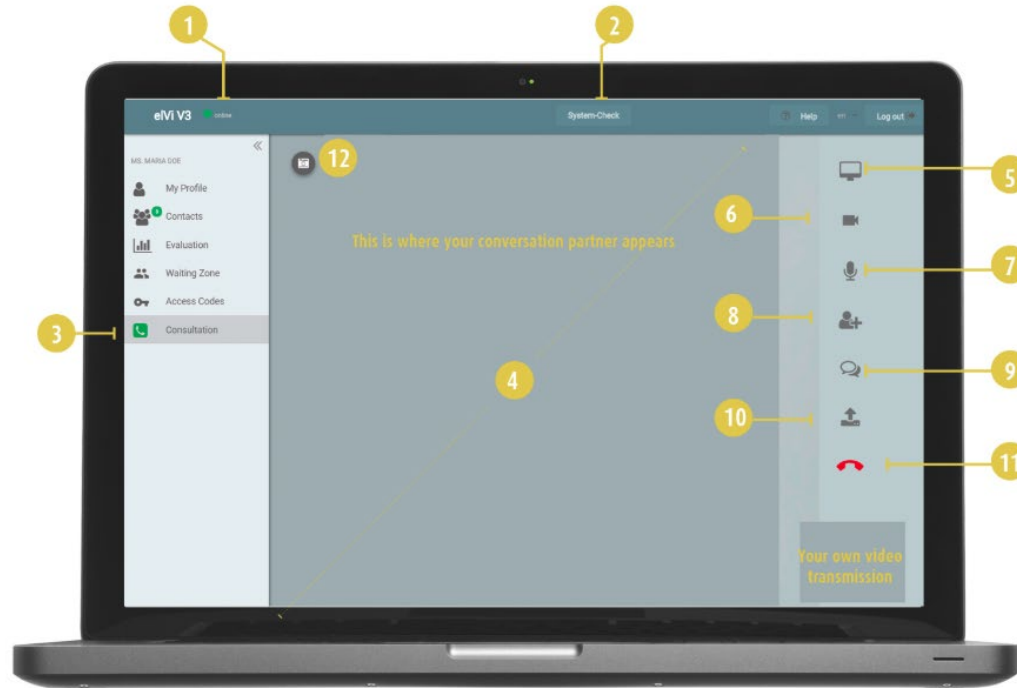


Step 2: At time of appointment, simply open the elVi® smartphone app or enter the access code in the elVi® virtual waiting room



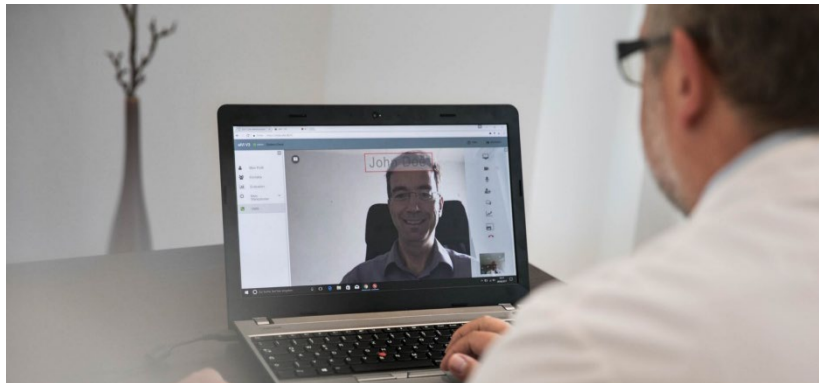
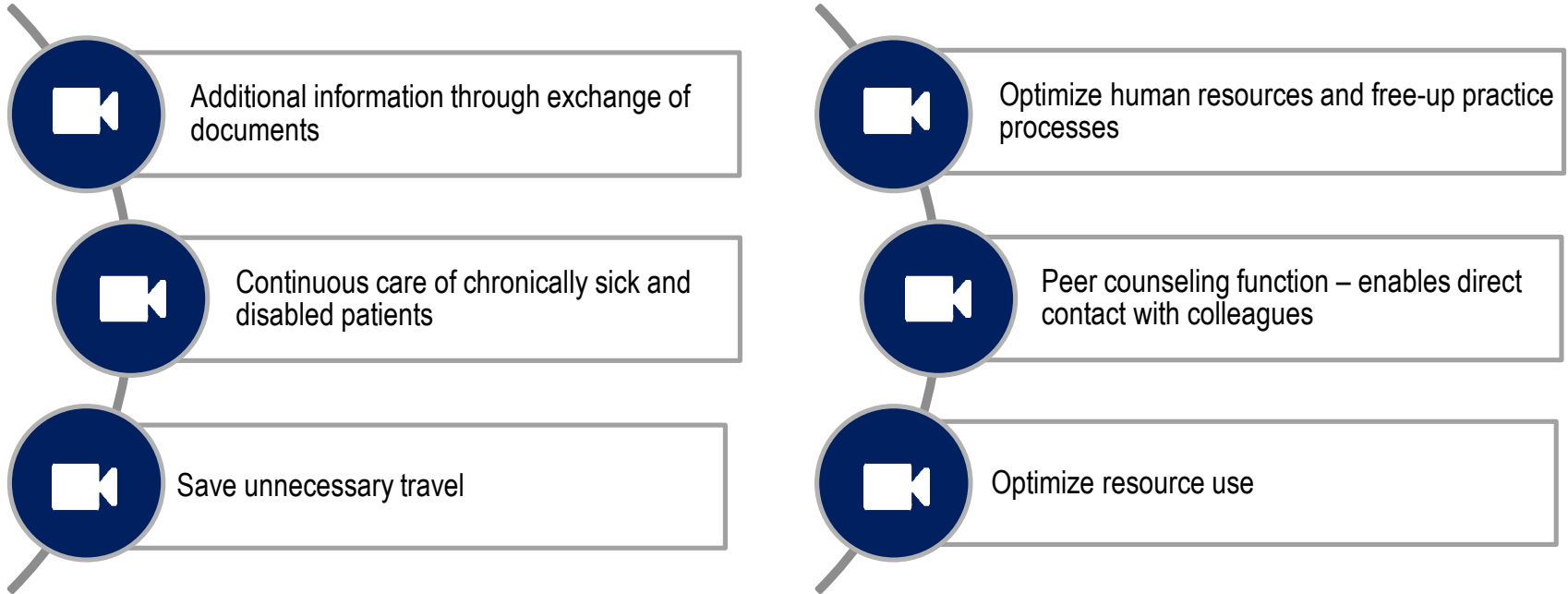
Step 3: You meet the doctor in the elVi® video consultation – without travel and waiting time

Full suite of interaction capabilities

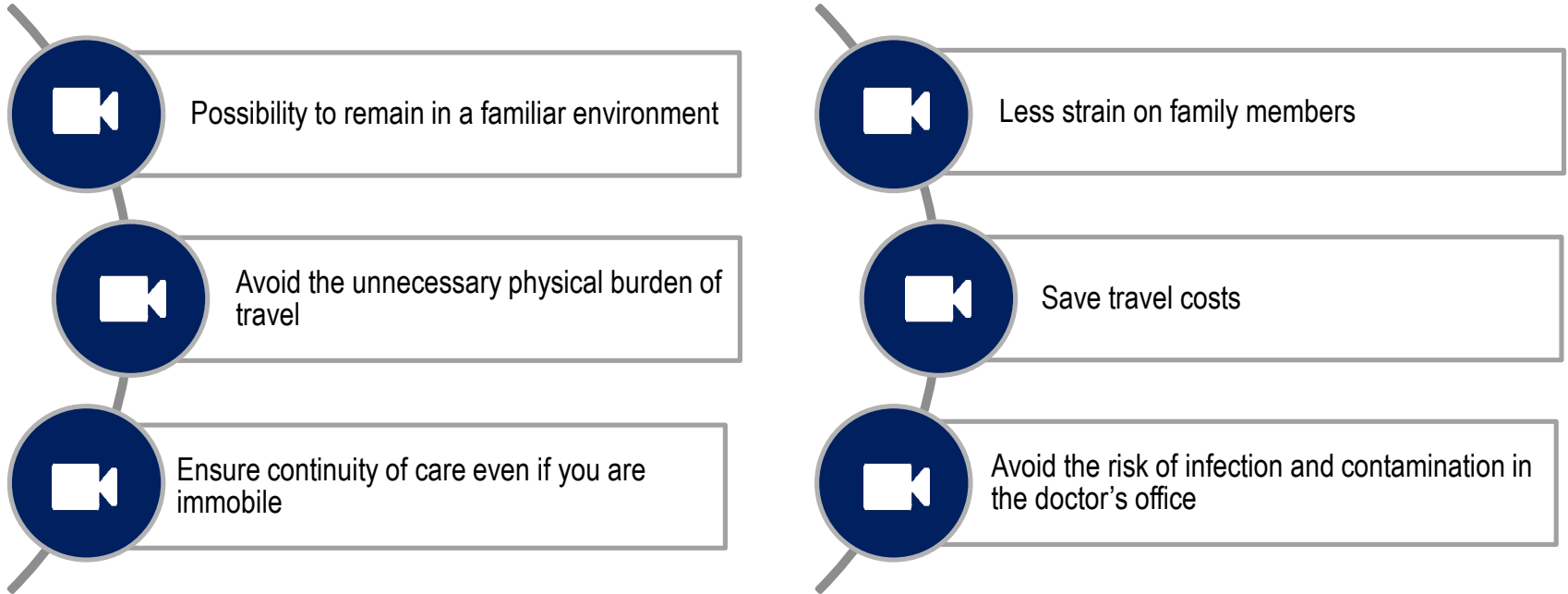


- | | | |
|---|---|------------------------------------|
| 1 Connectivity quality indicator. | 5 Enlarge video display. | 9 Send text messages. |
| 2 Check your connection and camera and microphone settings. | 6 Deactivate video transmission. | 10 Exchange and present documents. |
| 3 Return to ongoing video consultation. | 7 Mute your microphone. | 11 Terminate ongoing consultation. |
| 4 Video transmission of ongoing video consultation. | 8 Add people to ongoing video consultation. | 12 Take a screenshot. |

Many advantages for doctors



Many advantages for patients



Agenda

ELVI – a new product capability in CGM

Regulatory changes to support telemedicine

Growth opportunities



Fernbehandlungsverbot aufgehoben Startschuss für erste Televisiten mit eVi® im PNHL

„Es muss medizinisch vertretbar sein“ – unter dieser Grundvoraussetzung hebt die Ärztekammer Schleswig-Holstein das Fernbehandlungsverbot als erste Kammer bundesweit auf und nimmt damit eine Vorreiterposition ein. Anders als in Baden-Württemberg, wo bereits seit 2016 ein modellhaftes Außerkrafttreten des Fernbehandlungsverbots unter Auflagen möglich ist, wird die Fernbehandlung in Schleswig-Holstein künftig auch außerhalb von Modellprojekten möglich sein.



Online in die Praxis

Die elektronische Arztvisite spart Zeit, reduziert Wege, ist einfach und noch sicherer.

Gern beraten wir Sie kostenfrei und unverbindlich unter: 0800 2655-505175

aok.de/nw
AOK NordWest
Gesundheit in besten Händen.

New federal regulation is proposed

- Changes in regulation of video consultations are proposed in the Strengthening of Nursing Care Workers Act (Pflegepersonal-Stärkungs-Gesetz)
 - Vote in Parliament (Bundestag): 8/9 November
 - Federal Council (Bundesrat): 23 November or 14 December
- With effect from 1st April 2019, video consultations will be allowed and also reimbursed for a wide range of situations
 - The previous German statutory limitations on use of video consultation by doctors will be removed
 - It is now left to the discretion of the doctor whether a video consultation with the patient is appropriate
 - Video consultation can also be used as part of the cooperation between inpatient care facilities and office-based doctors
 - Video consultation can be used in psychotherapeutic care
 - Video consultation can also be provided in certain cases for dental services



Scope of financing will be increased

- In April 2017, the doctors association (KBV) and insurance organization (GKV) agreed on a financing arrangement for video consultations
 - For video consultation hours, physician practices receive up to € 800 per doctor per year to cover technology costs
 - This fee is paid for up to 50 video consultations per quarter, also for repeat consultations for the same treatment case
 - In addition, an additional fee can be charged corresponding to a normal telephone doctor-patient contact (€ 9.27 per consultation)
- The charging of fees under this agreement is currently limited to a few cases and situations – mostly follow-up consultations for on-going treatments
- In the new law, the doctors and insurances are given the task to define further disease areas and consultation types to qualify for video conference reimbursement
- It is expected that the € 9.27 fee will be increased to € 25, corresponding to a normal physical consultation

New regulation also in France

- Since 15th September 2018, teleconsultations are covered by the health insurance with the same reimbursement as consultations in the practice (with new codes)
- Certain conditions and restrictions apply
 - Covers patients and doctors who know each other and see each other on a regular basis ; at least one physical visit in the past 12 months
 - An exception to this rule applies if the physician falls within the framework of the coordinated rural care organization
 - Doctors have an obligation to provide a secure video link with secure document exchange and with appropriate logging (e.g. trace of the patient's consent)
 - The video conferencing solution must be hosted in a data center certified for French healthcare (HDS - Hébergement des Données de Santé)



CGM is ready for the French market

- On 20 September 2018, CGM received authorization from the CNDA to include the teleconsultation charge codes in its billing repository, thus enabling doctors to bill their actions and patients to be reimbursed
- CGM thus becomes the first player to provide a solution that meets all teleconsultation requirements and specifications on the French market
- Assistance to equip doctors will be effective from 2019 (payment 2020)
 - 350 € to update equipment and subscribe to telemedicine platforms
 - 175 € for connected medical device
- Reimbursement for each consultation:
 - One teleconsultation is charged 25 € with a new code for GPs. This is the same fee as for normal physical consultations
 - For other medical specialties, the teleconsultant physician can invoice a fee of between 23 and 58 € depending on the specialty concerned

Agenda

ELVI – a new product capability in CGM

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Consumers will drive adoption

45%

of patients would use
a video consultation
with their GP or
specialist

50%

of all GP contacts
could take place
online, according to the
consulting firm Deloitte

Sources: Stiftung Gesundheit. Bertelsmann Stiftung

Pricing for office-based doctors and dentists

CGM ELVI

Elektronische Videosprechstunde

	free test	basic	standard
	0.00 € 14 days	59.00 € monthly	49.00 € monthly
Minimum contract period	no contract	monthly canceled	12 months
Premium Support	E-Mail & Phone	E-Mail & Phone	E-Mail & Phone
Video consultation	yes	yes	yes
Conference (up to 5 persons)	yes	yes	yes
File presentation & transfer	yes	yes	yes
Vital signs transmission	yes	yes	yes
	try it for free	try it for free	try it for free



Bundle prices may be offered in combination with other products (e.g. CLICKDOC)

Financial sense for German doctors

Video consultation is a now part of the reimbursement scheme for Statutory Health Insurance Physicians



Technology package GOP 01450 4.21 € 50 x VC use per quarter

= € 800 technology package p.a.
vs. € 588 cost p.a. for an ELVI-subscription

Doctors are now financially indifferent to the nature of consultations

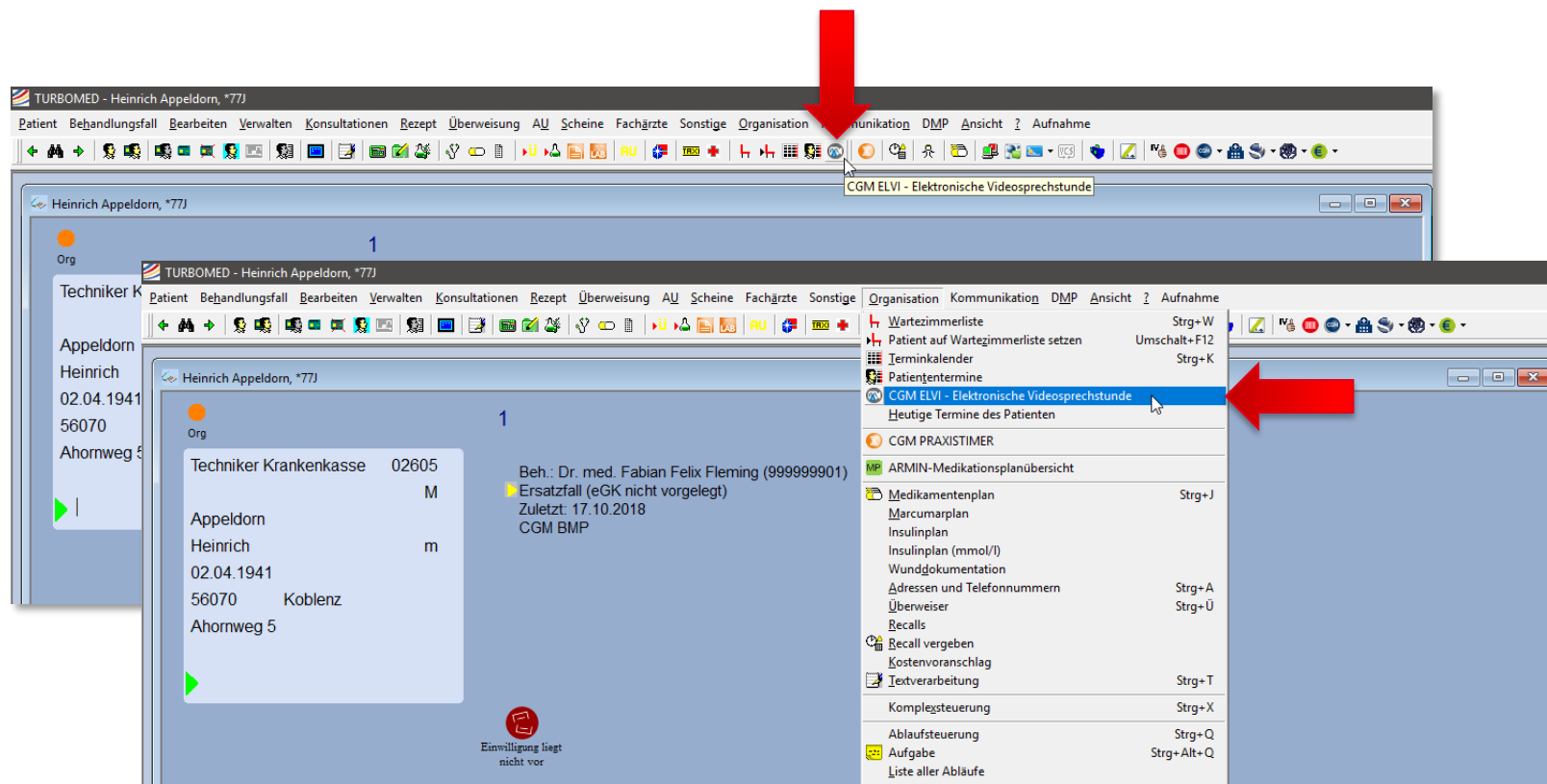
Video consultation / telephone consultation (current)	9.27 €
Video consultation / physical consultation (expected)	25.00 €

CGM AIS upsell potential

Main markets	Doctors	Dentists	Total providers
Germany	~ 70,000	~ 15,000	~ 85,000
France	~ 30,000		~ 30,000
Italy	~ 13,000	~ 2,000	~ 15,000
Czech Republic	~ 12,000		~ 12,000

- Joint distribution campaign with CLICKDOC in 2019 for Germany and France (see next presentation for details)
- Success factors:
 - Perfect AIS integration
 - Existing customer relationships, AIS organizations and dealers
 - TI success (Germany)

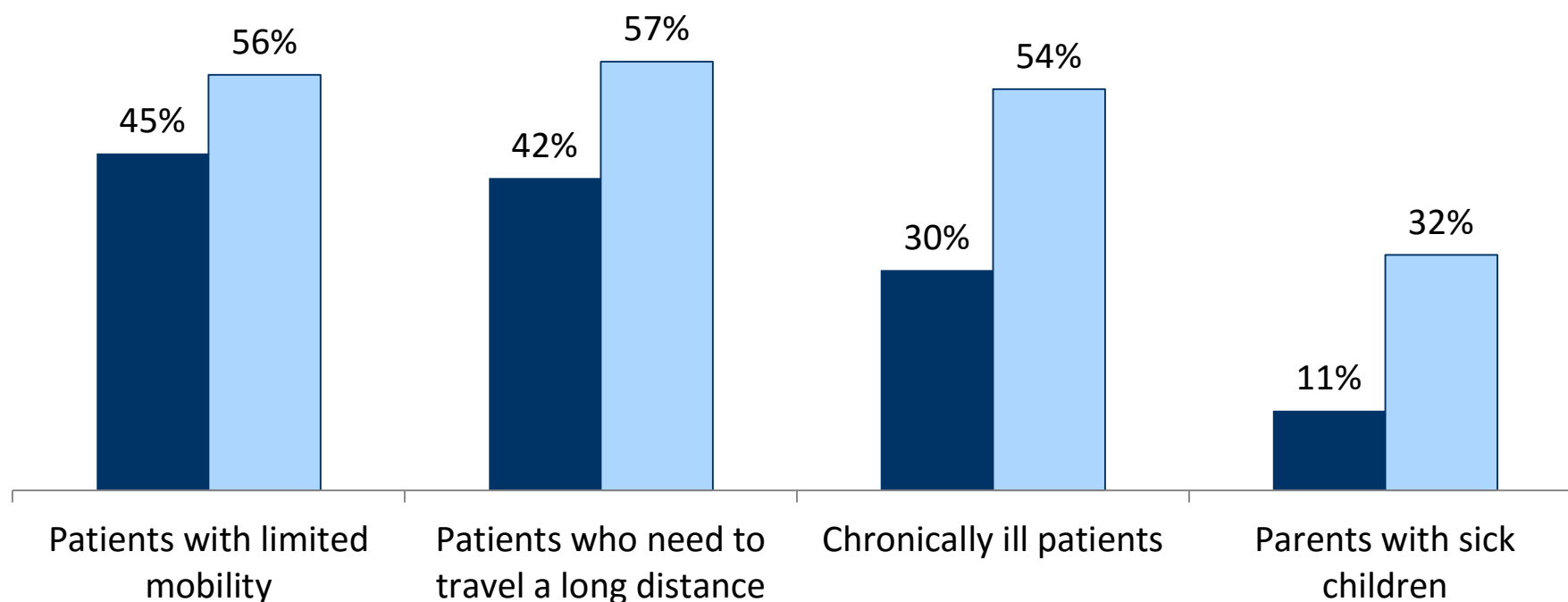
AIS integration already exists



Strong relevance also in inpatient sector

Patient groups where physicians see a video consultation as appropriate

■ Ambulatory doctors ■ Hospital doctors



Sources: Stiftung Gesundheit. Bertelsmann Stiftung

Large savings in rehab and nursing

Time and cost savings with for 200 wound control sessions via video consultation

Transportation costs

200 total transports

- a. 70 Wheelchair taxi x 86,- €
- b. 110 Ambulance x 28,- €
- c. 20 Ambulance with disinfection
 x 210,- €

14 t€ saved
from avoided transportation costs

Nursing home personnel costs

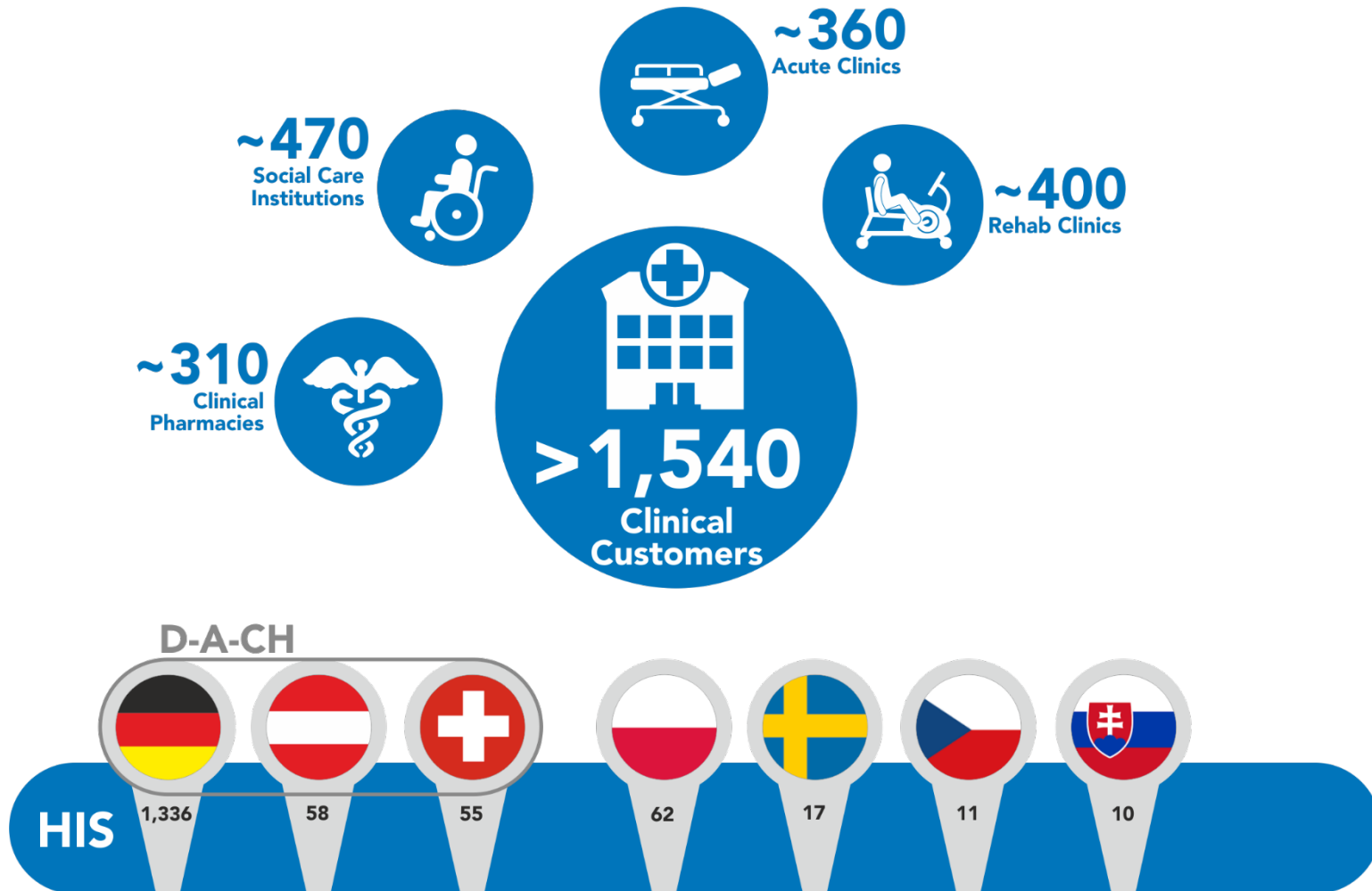
200 transport attendances each 3 hours
(from nursing home to practice and back)

= 600 h nursing hours (a 19,65 €)

12 t€ saved
from labor costs that would otherwise have
been incurred only to accompany patient

Saved hours by ambulatory doctor (in addition)
100h saved at Ø 30 min arrival and departure time per visit

Cross selling also in HIS segment



Break

15 minutes

CGM Investor & Analyst Conference 2018

CLICKDOC global launch

Christian B. Teig, CFO

18th October, 2018

Innovationsforum, Koblenz



CLICKDOC - a new service from CGM

CLICKDOC in France and Germany

Global opportunity

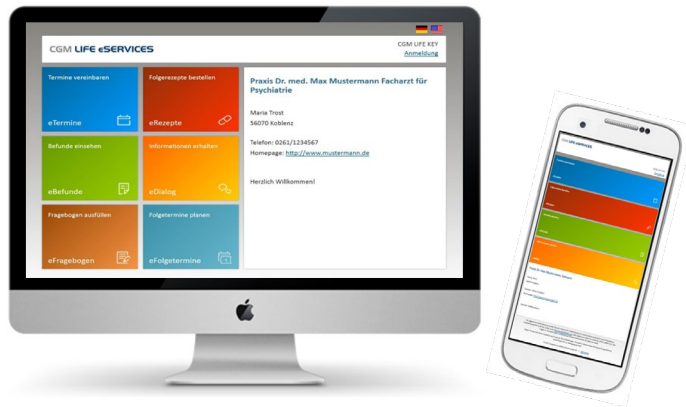
CGM eServices since 2010

Patient-Services

- eAppointment
- eFinding
- eDialog
- ePrescription
- eInvoices
- eQuestionnaire
- eRecall
- eInvoice

Success

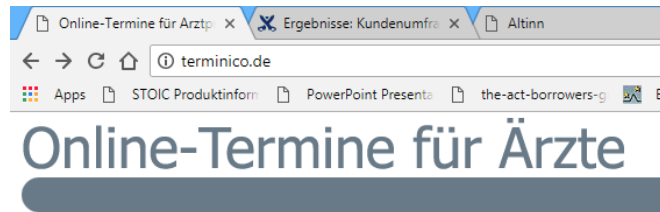
- > 8,900 Registered providers
- Registered patients 1.1mio
40% YOY growth
- Transactions >1mio.
(mainly appointments, renewal prescriptions)



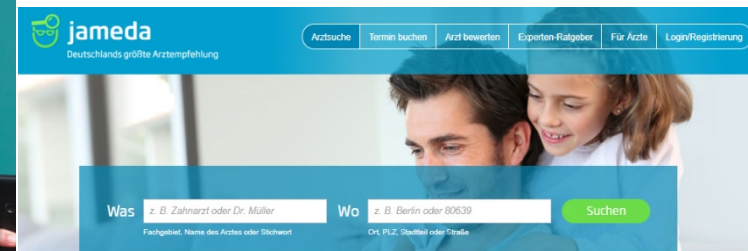
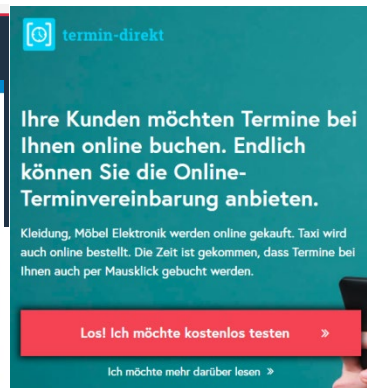
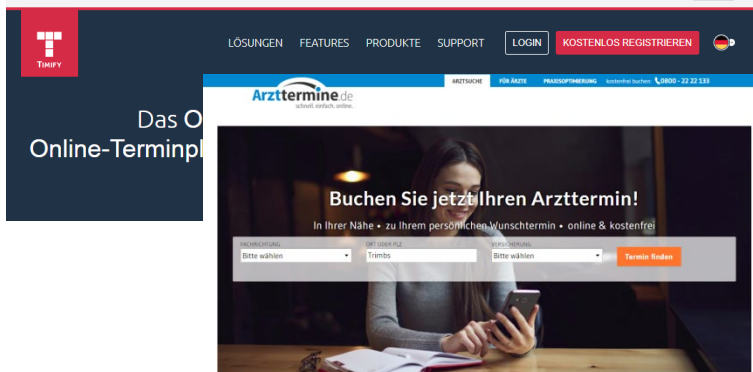
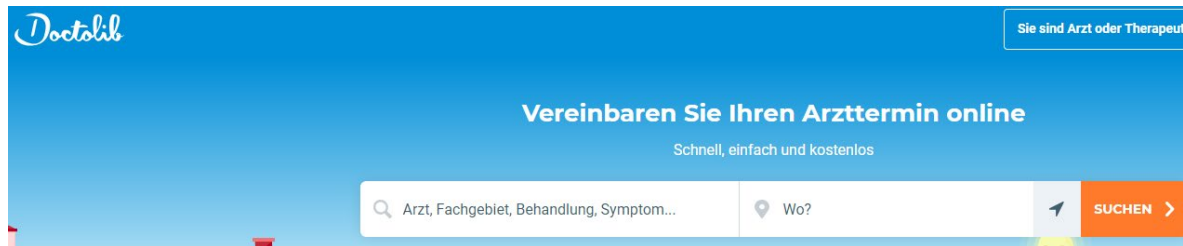
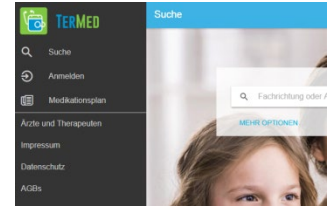
Markets

- Germany
- Austria
- France
- Belgium
- Netherlands
- USA
- CZ
- FR
- IT

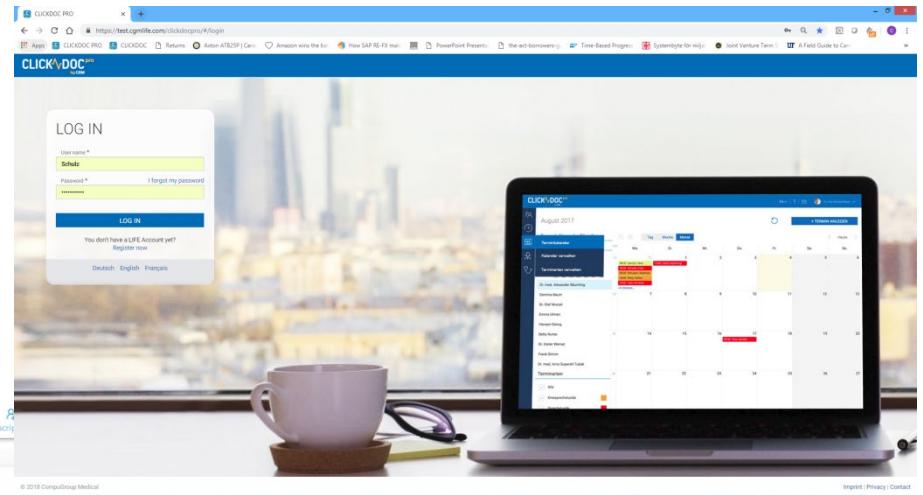
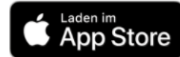
Online scheduling services



Wollen Sie Ihre Praxis-Homepage online buchen? Gute Idee! Nutzen Sie Telefonzentrale.



CLICKDOC - a new service from CGM



CLICKDOC

CLICKDOC PRO | Rechercher | Mes rendez-vous | Connexion | Inscription

**PRENEZ RENDEZ-VOUS
AVEC UN PROFESSIONNEL DE SANTÉ**

Nom, spécialité | Ville, code postal | **RECHERCHER**

CLICKDOC, DES SERVICES INNOVANTS POUR VOTRE SANTÉ !

PATIENTS

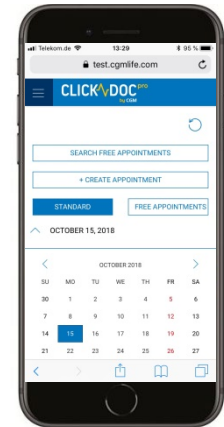
CLICKDOC

Votre nouveau service de rendez-vous en ligne.

PROFESSIONNELS

CLICKDOC PRO

Les rendez-vous de vos Patients en ligne.



Success factors

- Play on unique CGM strengths

Perfect AIS integration

Existing customer relationships, AIS organizations and dealers

TI success (Germany)

- Offer something new and different

A service to reinforce long-term doctor-to-patient relationships

Distinctive brand

- Powerful distribution

Self-activation in AIS

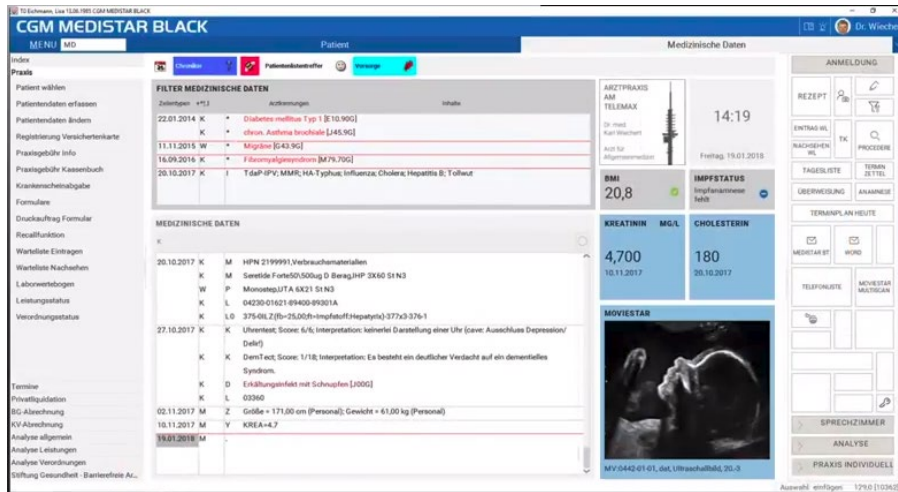
Telesales

Field-sales

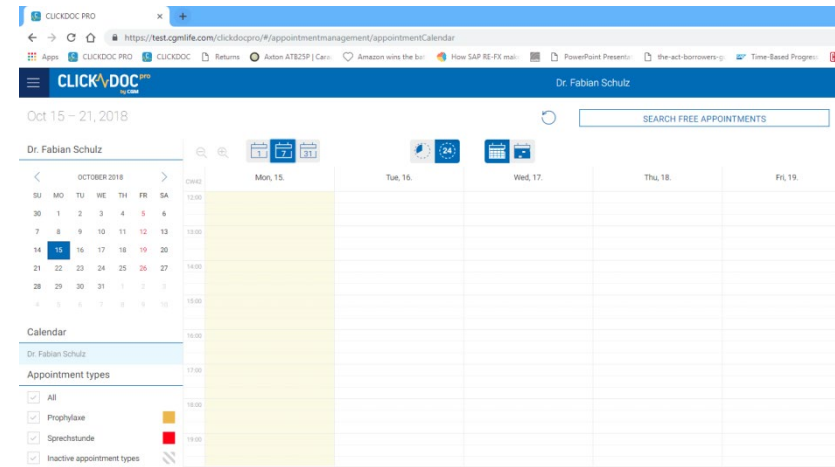


Perfect AIS integration

AIS (on-premise)



CLICKDOC Pro (SaaS)



Synchronization

- Calendars & appointments
- Messages and documents
- Patient directory

CLICKDOC Pro in AIS

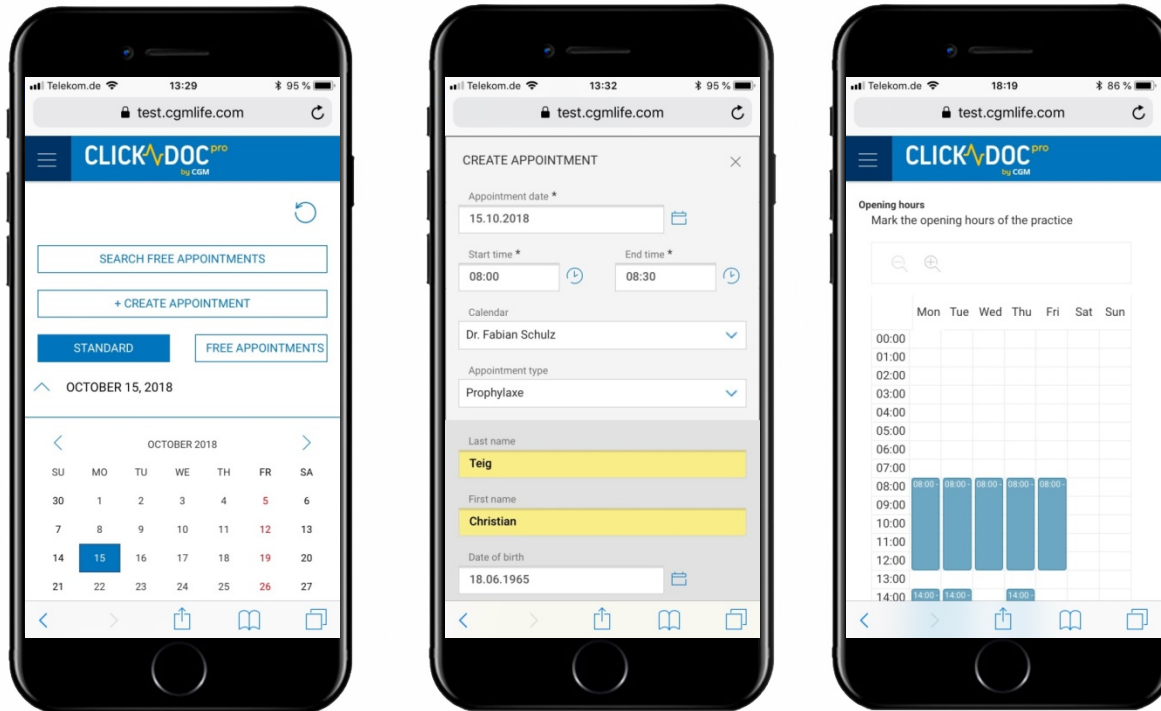
The screenshot displays the AIS (AxiSanté) software interface. At the top, a menu bar includes 'Fichier', 'Paramètres', 'Outils', 'Aide', and 'Praticien'. Below the menu, a toolbar contains various icons, including a button labeled 'CLICKDOC PRO' which is circled in red. A yellow callout box points to this button with the text: « CLICKDOC PRO » button: to open web app from AIS.

The main window shows the 'Planning' section, titled 'Liste des rendez-vous en ligne'. It features a search bar with 'Praticien' set to 'MEDCAB0009682 LEON'. Below the search bar, there are tabs for 'Patient connu' and 'Patient inconnu', and buttons for 'A Valider', 'Validé', 'Refusé', and 'Annulé'. A table lists appointment requests with columns for 'Praticien', 'Patient', 'Stat. Pat.', 'Date de naiss.', 'Téléphone', 'Date', 'Heure', 'Note Patient', and 'Note Praticien'. The table shows three entries for 'LEON MEDCAB...' with dates '08/02/2018' and '09/02/2018'.

On the right side of the interface, there is a calendar for 'février 2018' and a button labeled 'RDV CLICKDOC' which is also circled in red. A yellow callout box points to this button with the text: « CLICKDOC » logo/text: When dealing with online appointment requests in AIS.

At the bottom of the planning section, there is a status bar with buttons for 'Valider les RDV', 'Refuser les RDV', 'Supprimer les RDV', and 'Fermer'. The bottom of the screen shows the Windows taskbar with various icons and the system clock displaying '11:55 22/02/2018'.

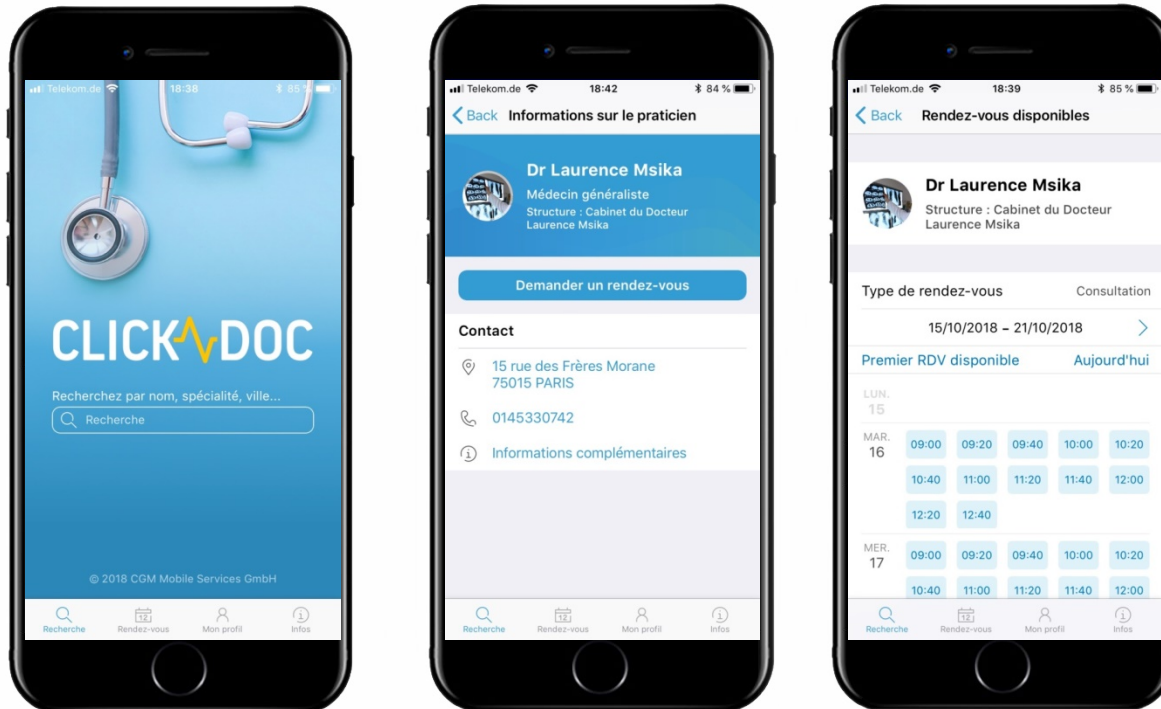
Mobile use for doctors



Consumer webpage



Consumer app



More than a scheduling service

Search and book

- Search for best available doctor and time slot
- Book appointments directly (CLICKDOC doctors and open time-slots only)
- Wish appointment (request an appointment with any doctor at any time)
- Appointment confirmations, notifications, reminders and changes

Electronic communication with providers

- Send and receive messages
- Exchange documents
- Online prescription renewal
- Video consultation (link)

Health information (3rd party)

- Magazine
- Self-assessment tools

Personal Health Records (links)

- CGM Life
- National EHR



Agenda

CLICKDOC - a new service from CGM

CLICKDOC in France and Germany

Global opportunity

The French outpatient market

	Providers	Market leader	Market leader %	CGM %	CGM providers
GPs	~ 55,000	CGM	35%	35%	~ 19,000
Specialists	~ 54,000	CGM	20%	20%	~ 10,000
Dentists	~ 36,000	Julie	33%	2%	~ 700
Other healthcare professionals	~ 182,000	Cegedim	26%	--	~ 700

CGM NET

Le Réseau 100% Santé

In addition to the AIS customers in France, CGM has ~ 9,000 healthcare providers as ISP customers only (DSL product)

Source: GIE SESAM VITAL

Go to market in 3 phases

		Phase 1	Phase 2	Phase 3
target	CGM AIS customers	✓		
	CGM NET customers		✓	
	Non CGM customers			✓
USPs	AIS integration	✓		
	Try & Buy campaigns	✓	✓	
	Video consultation	✓	✓	✓
	One Stop Shopping	✓	✓	
	Try & Buy			✓
	Existing platform success			✓
	Cumulated target market (providers)	30 000	40 000	300 000



**Begins
November 2018**

Pricing landscape

Per HCP	CLICKDOC	Doctolib <small>PRO</small>	mondocteur	R D V medicaux	docavenue (Cegedim)	
Monthly service	49.99 €/69.98*	109 €	99 €	59 / 89 €	0 €	49 €
Trial period for free	3 months	none	none	none	none	2 months
Online appointments per month, including reminders per SMS (incl. from AIS)	Unlimited	Unlimited	Unlimited	Unlimited	0.30 € / appointment + 0.15 € per SMS Max 79€/month	Unlimited
Minimum contract duration	12 months	none	none	none	none	none

*Price for CGM AIS customers / non-CGM customers

Mondocteur offers are no longer available, website refers to Doctolib

Pricing as of October 2018. Prices may change

Distribution process

1. Self activation via AIS

- After AIS Update
 - CLICKDOC Pro (mobile calendar) is automatically activated
 - CLICKDOC (Online booking for patients) can be subscribed within AIS
- Self activated customers are monitored in order to to implement customer success strategy
- Tele-sales will follow up on all customers that have yet to be activated

2. Telesales

- Focus on prospects with mostly standard requirements (e.g. single doctor offices)
- Others will be proposed a face-to- face appointments

3. Field sales

- Even though expensive, field sales may be needed to give high adoption rates
 - The service will result in an organizational change in the practice
 - We will also target non-CGM customers

Customer success management

● Tools to help doctors to CLICKDOC

- Vanity URL (www.clickdoc.fr/dr.marc.dupont) + Patient invitation in AIS
- Personalized pre-printed welcome packages could include
 - Business cards with vanity URL / QR-code
 - Posters for waiting rooms, Post-Its, stickers, stamps,...
 - Time tables with vanity URL / QR-code
 - Prescriptions, forms in AIS
- Potential additional tools
 - Answering Machine (provide professional announcements)
 - Photos (send professional photographers)
 - ...
- How-to videos in order to assist configuration of services



You have reached Dr. Dupont. To book or modify appointment go to www.clickdoc.com/dr.Marc.Dupont



The German outpatient market

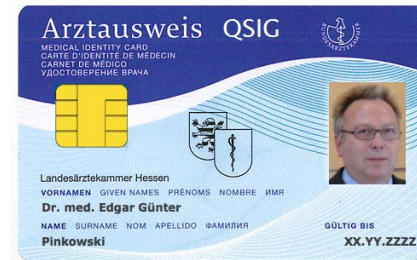
	Providers	Market leader	Market leader %	CGM %	CGM providers
Doctors	~ 150,000	CGM	45%	45%	~ 70,000
Dentists	~ 70,000	CGM	20%	20%	~ 15,000
Psychotherapists	~ 29,000	Psyprax	40%	--	--
Physiotherapists	~ 170,000	Theorg		--	--
Naturopaths and homeopaths	~ 42,000			--	--
Occupational therapists	~ 27,000			--	--
Speech therapists	~ 21,000			--	--
Other healthcare professionals	~ 5,000			--	--

About 500,000 providers

Sources: Statistisches Bundesamt, KBV, KZBV

TI as enabling factor in Germany

- Ensures a high integrity and secure network connection
- Practice or institutional card (SMC-B)
 - CLICKDOC self-activation and AIS synchronization is based on the SMC-B identity
 - SMC-B card sits in card reader and is uniquely paired with each connector
- Health Professional Card (HBA)
 - Will arrive in 2019 – 2020
 - Absolute authentication of each provider
 - Will enable more sophisticated user rights and calendar management



Same distribution process as France

1. Self activation via AIS

- After AIS Update (and valid SMC-B)
 - CLICKDOC Pro (mobile calendar) is automatically activated
 - CLICKDOC (Online booking for patients) can be subscribed within AIS
- Self activated customers are monitored in order to to implement customer success strategy
- Tele-sales will follow up on all customers that have yet to be activated

2. Telesales

- Focus on prospects with mostly standard requirements (e.g. single doctor offices)
- Others will be proposed a face-to- face appointments

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- Even though expensive, field sales may be needed to give high adoption rates
 - The service will result in an organizational change in the practice
 - We will also target non-CGM customers



Joint CLICKDOC and ELVI distribution

- CLICKDOC and ELVI constitute a **Relationship Platform**
- Together, they support and reinforce the long-term doctor-patient relationship
- Both are fully integrated with the current AIS products from CGM
- For consumers, it represents a one stop shop for all digital interaction with healthcare providers



+



elektronische
ViSITE
Die Videosprechstunde.

Agenda

CLICKDOC - a new service from CGM

CLICKDOC in France and Germany

Global opportunity

Successive launches during 2019

- Markets where CGM eServices are already well established
 - Czech Republic
 - Scandinavia (N/S/DK)
 - Austria
- Other CGM markets
 - Italy
 - Belgium
 - United States
 - South Africa
 - Netherlands
 - Spain
- All countries will greatly benefit from the experience gained in Germany and France

Break

15 minutes

CGM Investor & Analyst Conference 2018

Telematics Infrastructure and the eHealth roadmap in Germany

Uwe Eibich, Executive Vice President

18th October, 2018

Innovationsforum, Koblenz



Telematics Infrastructure (TI) background

Market status TI roll-out

German eHealth roadmap

15 years of history

- Introduction of the electronic health card (eGK), with the aim of improving medical care
- The legal basis for the introduction of the eGK is created in 2003 (GMG law)
- The ORS1 project to develop and test the Telematics Infrastructure (TI) technology started in 2013
- In 2017 the first phase (VSDM) of the ORS1 ended; the second phase (NFDMP/eMP) was changed to a market oriented model.
- The official start of Online Productive Operation of TI was decided in July 2017
- CGM started TI roll out end of 2017 with first certified TI components
- Deadline for doctors and dentists to use VSDM service until Dec, 31st 2018 (pending)



Spahn bekennt sich klar zur Gesundheitskarte

Nach zuletzt kritischen Worten auch von Gesundheitsminister Jens Spahn ist bereits das Ende des Projekts der Gesundheitskarte ausgerufen worden. Jetzt hat der Minister die Dinge klar gestellt.

 Kommentieren (1)

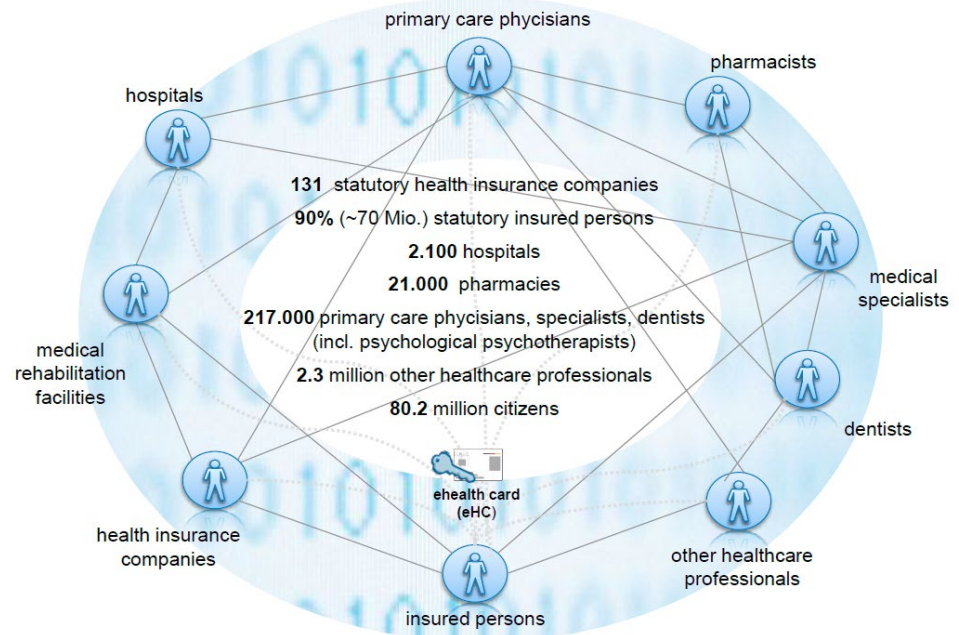


Gesundheitsminister Spahn auf dem Ärztetag, bei dem es auch um das Thema Fernbehandlung ging.
© Michaela Illian

A secure network for German healthcare

Telematics Infrastructure

- Comprehensive network infrastructure for every ambulatory and inpatient facility
- Definite and unambiguous authentication of all participants
- Highest level of security for safe and reliable exchange of sensitive health data
- Secure data exchange only with the consent of the patient: two-key principle (eGK & HBA)
- Foundation for medical eHealth services



CGM offers a complete chain of components to access TI

- **CGM Online access (VPN service)**

Secure online connection to the telematics infrastructure (VPN service) and, if not already available, (DSL) Internet access

- **Connector KoCoBox Med +**

Highly secure access point of the practice / clinic to the TI and connection of the primary systems and card terminals

- **VSDM-Module for primary systems**

Primary software (AIS, HIS) supports connector and VSDM implementation

- **eHealth card terminal (stationary / mobile)**

Reading of the eGK, the practice or institution card and the electronic health professional certificate

- **Practice or Institution Card (SMC-B)**

Connection to TI only possible if practice or hospital is registered

- **Electronic Health Professional Certificate (HBA)**

Chip card for identifying the holder in the TI; Required for QES or medical value-added services



Agenda

Telematics Infrastructure (TI) background

Market status TI roll-out

German eHealth roadmap

Doctors and dentists say 'yes' to TI



Current market situation

- CGM is offering a complete TI product bundle since end of 2017
- ~38,000 practices have ordered a TI connection from CGM, of which ~8,000 practices are using a competitive CGM primary software product¹
- Nearly all software vendors have developed the necessary interface to TI and VSDM
- A new financing agreement for the 2nd half of 2018 has been concluded
- T-Systems has received approval for all components of the TI product chain and started shipping in early September 2018
- Other providers of TI components (Arvato / Secunet, RISE) are still in the approval process



Jens Spahn, Federal Minister of Health:

"Although I understand the restraints after 14 years of waiting for the health card, I advise doctors: **Get a connector.** It is the basic requirement for further networking. We need a secure network and secure communication methods so that the electronic patient record, ePrescription and emergency care data set can be deployed. Without connectors doctors lose the connection to the future!"

Deutsches Ärzteblatt
(German Medical Journal), 23. Juli 2018

¹) Status 30.09.2018

CGM installations are running very satisfactory

● **Connector KocoBox Med+**

- Connectors are working reliably and performant. The hardware is very stable.
- Software disruptions are transmitted via a decentralized error monitoring system to CGM and evaluated daily
- In this way, an early - at best - proactive support is ensured

● **CGM VPN access service**

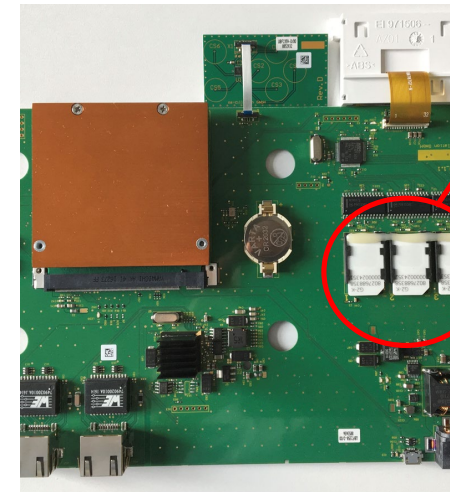
- Stable operation of this central TI component
- Two major disruptions due to external influence (Internet malfunction, TI central operations error)
- Capacity increase to accommodate further connections is in preparation

● **Ingenico eHealth Card Terminals**

- Currently there is no information on defects; sporadic connection problems to connectors
- Mobile card terminals approved since July 2018; Limited production capacity in 2018. Delivery of already ordered devices is in progress

Next generation Connector

- Development of a next generation HW platform is already in progress
- Each connector uses a device-specific Security Module-Smartcard (gSMC-K) as a unique identifier containing security certificates
- Security certificates, stored on the gSMC-K, have a validity window of 5 years
- Currently the connector is no longer usable after the validity period of the certificates is expired
- An update of Security certificates is not defined and specified by gematik until now
- For card readers, the identity card (gSMC-KT) can be replaced by the user like a SIM card in a mobile phone

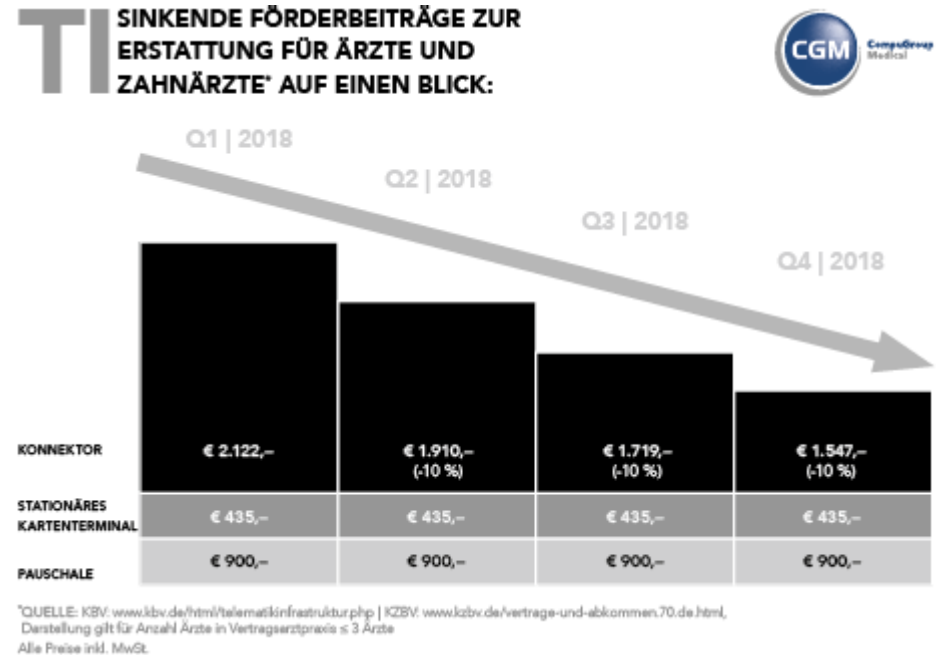


gSMC-K



New financing agreement since June 2018

- The former financing agreement reduced funding in 2nd half of 2018 to EUR 2,055 per installation
- This corresponded to a ~40% drop compared to Q2-2018!
- New agreement since June 2018: Connector reimbursement reduced by 10% each in Q3 and Q4-2018
- Less "expensive" than before for customers to wait



Financing (incl. VAT)	Q1/2018	Q2/2018	Q3/2018	Q4/2018
NEW agreement	3.457 EUR	3.245 EUR	3.054 EUR	2.882 EUR
OLD agreement	3.457 EUR	3.245 EUR	2.055 EUR	2.055 EUR

Current offer

- One stop shop!
- TI offer suitable to ALL doctors and dentists in Germany
- Includes delivery and installation on site
- Price corresponds to TI financing in Q4 / 2018 = 2,880 EUR incl. VAT
- Package sold by CGM partners and CGM call center
- Competitors (T-Systems, Medatixx) offer TI package at the same price level

NOW OR NEVER
ANGEBOT ALLE TI-KOMPONENTEN AUS EINER HAND.

FAX: 0261 8000-2399 | E-MAIL: bestellung.TI@cgm.com | CGM-INFOLINE: 0261 8000-2323

HIERMIT BESTELLE ICH:

☒ **CGM-PAKET TELEMATIK-INFRASTRUKTUR**

- eHealth-Konnektor KoCoBox MED+ (QES-ready)
- **TI-NSDM-Modul** (für Anwender einer CGM-Arztsoftware im Wert von € 390,- bereits im Aktionspreis enthalten!*)
- Freischaltung VPN-Zugangsdienst
- Secure Internet Service (SIS) mit 1,5 GB Datenvolumen**
- Installation und Inbetriebnahme in Ihrer Praxis
- Einweisung der Mitarbeiter in Ihrer Praxis

☒ **eHEALTH-KARTE TERMINAL**
ORGA 6141 online inkl. gSMC-KT oder

☐ **CHERRY Tastatur G87-1505**
inkl. gSMC-KT

AKTIONSPREIS
€ 2.420,17*

Erstattungspauschale in Q3/2018 beträgt **€ 3.054,-** inkl. MwSt.

BIS ZUM 30.09.2018
PREISVORTEIL VON € 174,- NUTZEN! inkl. MwSt.

ZUSÄTZLICH BESTELLE ICH:

☐ Stück stationäres eHealth-Karterminal(s)
ORGA 6141 online inkl. gSMC-KT zum Preis von jeweils € 539,- (8 inkl.21 inkl. MwSt.)

☐ Stück mobile(s) eHealth-Karterminal(s)
ORGA 730 M online zum Preis von jeweils € 299,- (8 inkl.21 inkl. MwSt.)

☐ Stück stationäres eHealth-Karterminal(s)
CHERRY Tastatur G87-1505 inkl. gSMC-KT zum Preis von jeweils € 559,- (8 inkl.21 inkl. MwSt.)

Ich bestätige hiermit verbindlich, dass ich das CGM Deutschland AG, Geschäftsbereich Telematikinfrastruktur, zu dem auf Seite 2 aufgeführten Bedingungen, das CGM-Paket Telematikinfrastruktur für eine Hauptdienstleistung zum Aktionspreis von € 2.420,17 zzgl. MwSt. Zusätzlich bestelle ich das Service-Paket Betrieb zum monatlichen Preis von € 49,97 zzgl. MwSt. bei 20 Monaten Mindestvertragslaufzeit sowie die u. g. Anzahl zusätzlicher Kartenterminals. Das CGM sowie die besonderen Geschäftsbedingungen (S. 2) werde ich anständig eingehenden Bedingungen der G88 habe ich zur Kenntnis genommen. Das AGB und das S8 können unter gcm.com/telematikinfrastruktur abgerufen oder heruntergeladen werden.

* Angeboten gültig bis 30.09.2018.

** Zur Nutzung ist ein zusätzlicher Vertrag mit TIS/ISD erforderlich.

Bei einem Nutzungsdauer von über 1,5 Jahren: Monatskosten anteilhaft.

*** Nur in Verbindung mit einem eHealth-Konnektor KoCoBox MED+.

Preis inkl. MwSt.

SERVICE-PAKET BETRIEB

- Servicegebühr eHealth-Konnektor KoCoBox MED+
- VPN-Zugangsdienst (aktuelle Bestandteile inklusive)

€ 69,47 mtl. € 82,67 inkl. MwSt.

Erstattungspauschale Betriebskosten
€ 248,- pro Quartal bzw. € 82,67 mtl. inkl. MwSt.

Ort / Datum

Vorname / Nachname (in Druckschrift)

Unterschrift

CompuGroup Medical

SEITE 1 VON 2
- ONLINE -

Online offer “Do-it-yourself”

- Online order portal www.kocobox.de
- Neutral product offer
- Suitable for every practice software
- Self-installation by doctor
- Smart SW tools enable self installation of TI components
- Technical service (installation) can be booked optionally
- Attractive price
- Immediate delivery
- ~500 orders so far



*Angebot gilt für Bestellen eines vorhandenen TI-Integrationsmoduls (VSDM-TI-Modul). Anwender der ODM erhalten bereits kostenlos das TI-Integrationsmodul in Verbindung mit dem Kocobox MED+ und sind daher von diesem zusätzlichen Rabatt ausgeschlossen.



Telematikinfrasturktur für alle – sparen Sie bis zu 715 €!

Für jede Praxissoftware geeignet.** KoCo ist bereits mit über

50 verschiedenen **Arzt- und Zahnarztinformationssystemen** erfolgreich.

(** gilt für jede von der gematik bestätigte Praxissoftware)

Growing TI business with non-CGM customers

- Growing number of TI orders from practices using a primary software product of a competitor
- More than 90 different primary systems have been proven to work with the CGM TI components
- Multi channel sales : Order via direct sales, cooperation with software providers, online shop and reseller
 - ~4,500 orders through resellers and cooperation with software providers
 - ~3,000 orders via direct sales
 - ~500 orders in online shop (KoCo)

Primary Software System	Type
APW WIEGAND	Doctor
DATA MED	Doctor
DATA-AL	Doctor
doc-concept	Doctor
DURIA	Doctor
ELEFANT	Doctor
InterData	Doctor
ORBIS	Doctor
PegaMed	Doctor
PsyPrax	Doctor
QUINCY	Doctor
T2med	Doctor
TOMEDO	Doctor
x.comfort	Doctor
x.concept	Doctor
CHARLY	Dental
DAMPSoft	Dental
DENSOFFICE	Dental
ERGODENT	Dental
EVIDENT	Dental
IVORIS	Dental
LINUDENT	Dental
.. and many other systems	

TI roll-out will take place in 2018 and 2019

● Doctors and dentists

- Even at full capacity for the rest of the year, the current suppliers will not be able to equip more than half of the German practices in 2018
- Deadline for financial sanctions (1% cut-off) will likely be shifted to June, 30th 2019

● Hospitals

- A financing agreement for hospitals is available since September 2018
- Dedicated hospital connectors are so far not available
- CGM connector can be used if it supports NFDM (Emergency Care Data Set), eMP (Electronic Medication Plan) and KOM-LE (Electronic Letters)

● Pharmacies

- A financing agreement is expected shortly
- Pharmacies require a connector offering NFDM and eMP services.
- Otherwise, very similar to a doctor/dental practice.

Deadline for doctors will likely be shifted

- The Ministry of Health has confirmed its intention to change the deadline for financial sanctions towards doctors and dentists who have not connected to the TI resp. do not use VSDM services
- The new deadline for installation and the start of master data management (VSDM) is expected to be 30.06.2019
- It remains a requirement that the practice owners must have ordered a TI connection by 31.12.2018 and signed a contract by then
- The deadline extension will be proposed to the German Parliament via an amendment to the Strengthening of Nursing Care Workers Act (Pflegepersonal-Stärkungs-Gesetz - PpSG)
 - Vote in Parliament (Bundestag): 8/9 November
 - Approval by the Federal Council (Bundesrat): 23 November or 14 December
- The legal changes do not affect the existing financing agreement

TI financing for hospitals in place

- Agreement valid from October 2018
- Over EUR 400 million total financing to connect hospitals to the TI
 - Card terminals, connectors and the necessary digital certificates
 - Changes to hospital software, infrastructure and operating concepts that accompany the TI
- Compensation for annual operating costs have also been set at lump sums totaling around EUR 18 million per year

Calculation examples (EUR)	170 beds, 30 doctors	1,420 beds, 426 doctors
Connectors	3,094	18,000
Card readers	10,005	93,440
Changes to HIS	50,000	50,000
Organizational change	25,500	213,000
Other investments and expenses	20,000	202,000
Total funding	108,599	576,440

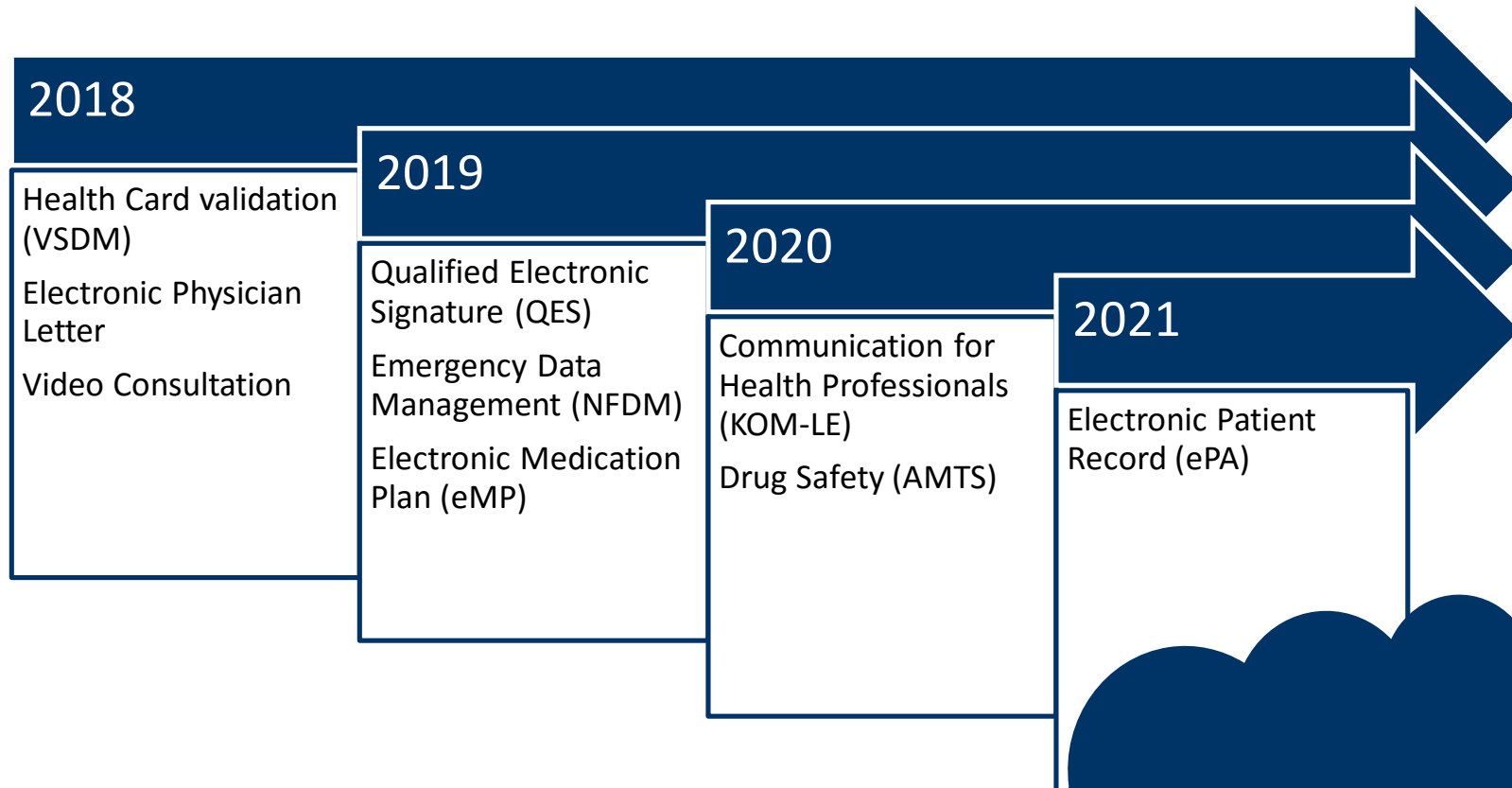
Agenda

Telematics Infrastructure (TI) background

Market status TI roll-out

German eHealth roadmap

eHealth roadmap in Germany



Upcoming eHealth–Apps, e.g.

- Electronic Prescription
- e-Forms, e.g. e-AU
- ...

QES is a prerequisite for further TI applications

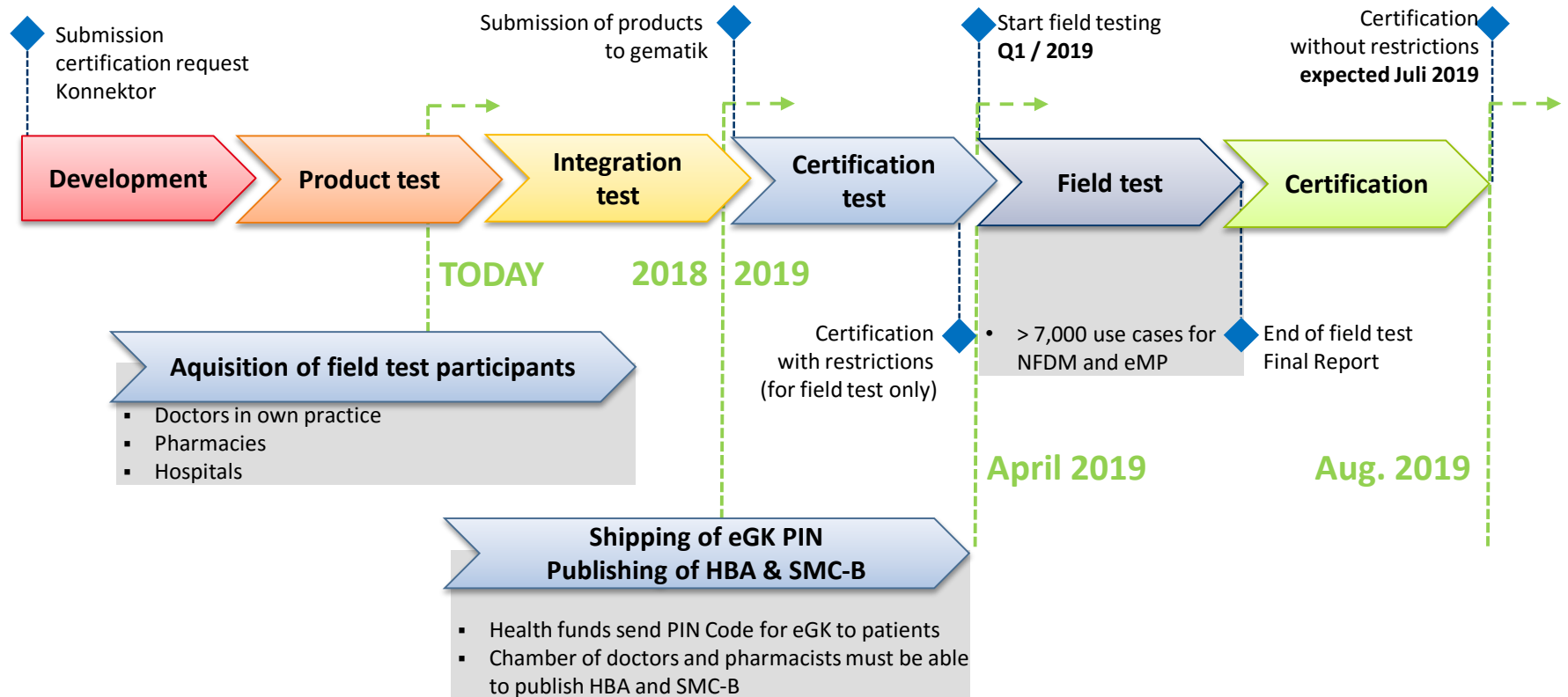
- The Qualified Electronic Signature (QES) is a legally compliant electronic signature for formal documents
- QES guarantees the recipient that the sender is a verified user of the Telematics Infrastructure and that the signed document has not been changed after signature
- A Qualified Electronic Signature can only be made with an electronic health professional card (eHBA) and a pin code entry
- A QES software upgrade is included in all connectors sold and will be distributed with the upcoming release mid of 2019
- QES is a necessary prerequisite for NFDM



NFDM and eMP are planned as concurrent release

- Emergency Care Data Set (NFDM)
 - Provides quick access to emergency-related data such as medications, allergies, drug intolerances and diagnoses as well as additional information that patients can volunteer
 - The emergency data can be created, maintained and read by a physician when you are with a doctor (using TI & Koco-Box)
 - The right to access exists also in the preclinical rescue service, in the emergency department and for patients with acute complaints in outpatient treatment
- Electronic Medication Plan (eMP)
 - In the future, even demanding examinations will become possible individual patient data such as body weight or organ function information account.
 - The eMP will also enable better Medication Safety applications (AMTS)

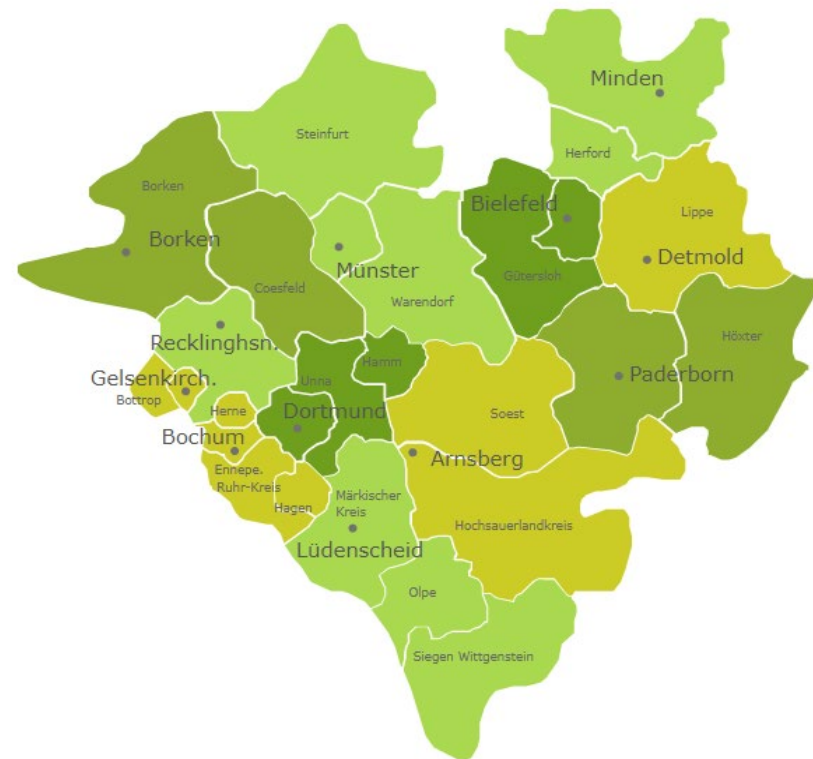
Project Overview NFDM/eMP



- QES, NFDM and eMP expected in 2nd semester 2019
- Longer term connector updates will follow, e.g. for electronic patient record

New medical services : Test region Westfalen-Lippe

- Field test to approve the use of
 - emergency data management (NFDM)
 - e-medication plan(eMP)
- Participants:
 - 70-75 GPs / specialists
 - 8-16 pharmacies
 - 1-2 hospitals
 - Several software vendors
 - Patients
- Cooperation with the regional Doctors association (KV WL)
- Duration approx. 6 to 8 weeks
- Generation and documentation of 7,000+ use cases



Bildquelle <https://www.kvwl.de/wir/selbstverwaltung/bezirksstellen.htm>

NFDM/eMP with mostly short-term financing

Financing of TI equipment	Reimbursement
Connector update for NFDM/eMP, one-time	530.00 EUR
Operating costs and maintenance, monthly	1.50 EUR



Practice buys
connector upgrade

CGM Offer	Price incl. VAT
Connector update for NFDM/eMP	530.00 EUR
Operating costs and maintenance, monthly	1.50 EUR



No co-payment !

Doctors' compensation	Fee
Creating each initial emergency data set	8.53 EUR
Updating each emergency data set	0.43 EUR
Deleting each emergency data set	0.11 EUR



Practice buys NFDM
module for practice
software

CGM Offer	Price incl. VAT
NFDM module for CGM AIS	[tbd] EUR
Operating costs and maintenance, monthly	[tbd] EUR

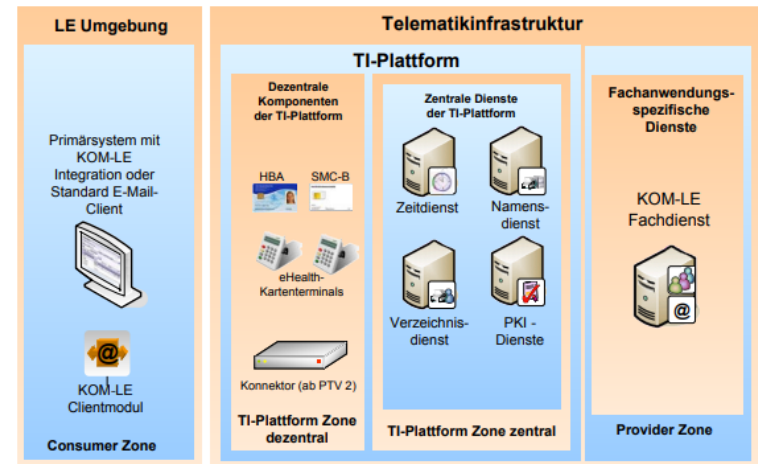


NFDM module
financed by
additional fees

The fee for updating an emergency data set is paid as a lump sum per treatment case per quarter. With 1,000 cases per quarter, approx. 1,700 EUR p.a. additional fee. Added to this is the remuneration for creating each initial emergency data set.

KOM-LE is planned to be released in 2019

- Secure exchange of digitally signed documents between healthcare providers (KOM-LE)
- e-Letters from doctor to doctor
- Doctor referring patients to a specialist or hospital
- Discharge letters from hospitals to the family doctor
- Requires a KOM-LE client module and functionality in the primary software
- Also requires a professional KOM-LE service in the central TI network to provide the subcomponents Account Manager and Mail Server
- The use of KOM-LE is voluntary and not a requirement within the TI

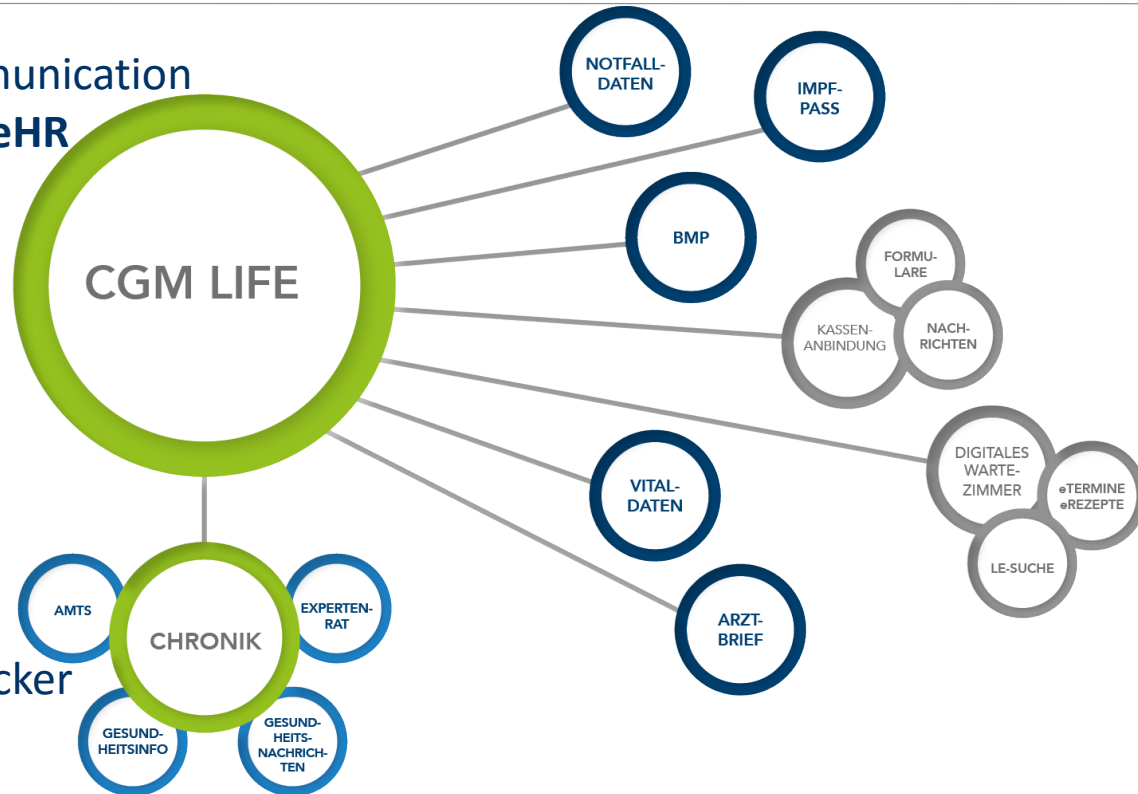


Electronic Patient Record (ePA) as regulated competition

- BMG tries to speed up the introduction of an ePA (SGB V §291a) for insured persons of a statutory health fund
- gematik has to release ePA specifications until end of 2018
- gematik has to release specifications for patient access (via Smartphone) until April 2019
- New health cards equipped with NFC chips starting in Dec 2019
- Introduction of ePA until 2021
- Memorandum resp. LOI between health funds and doctors association
- Discussion about necessary law (TSVG) is ongoing
- eHealth law II is expected in 2nd semester 2019

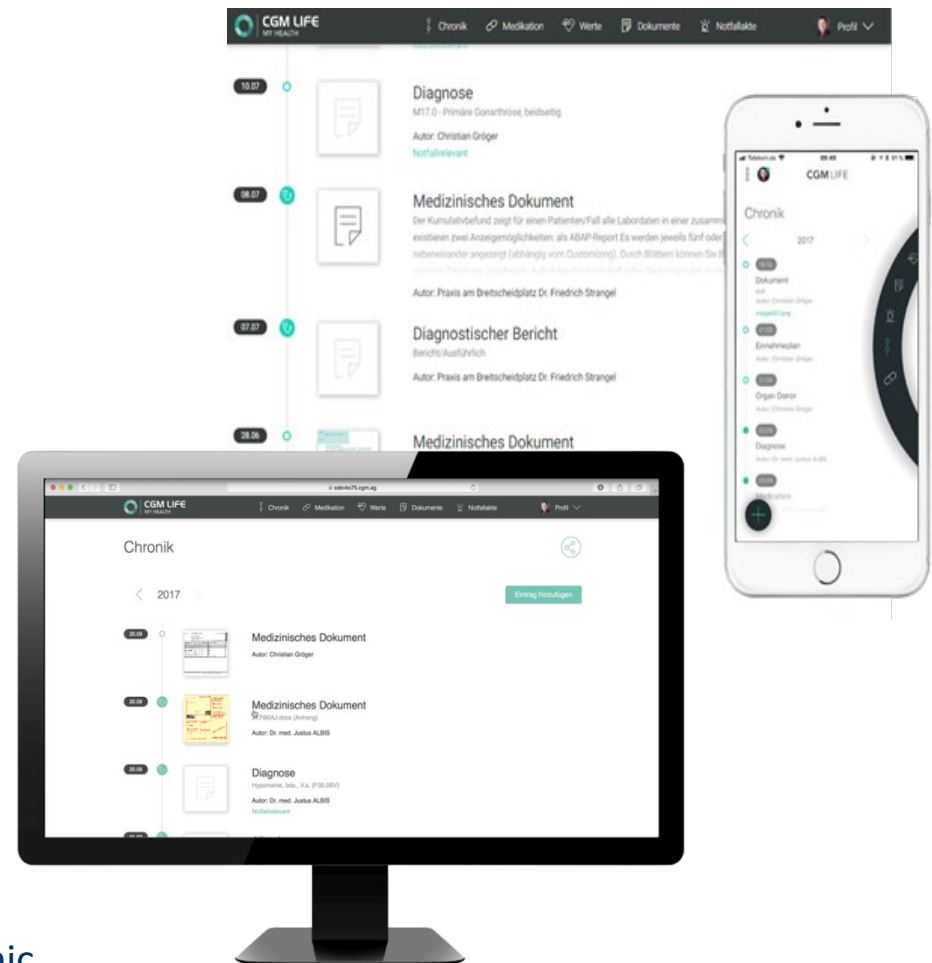
CGM LIFE - Digital Services for Patients

- CGM LIFE connectivity & communication platform based **on a personal eHR**
- Medical Chronic / History
- Emergency Data
- Medication Plan
- Vaccination certificate
- Medical Documents
- Tracking of Vital Data, e.g. blood pressure, fitness tracker
- **Embedded eHealth Workflow**, e.g. e-forms, claim management, appointment booking, transfer of findings
- **Software Assisted Medicine**, e.g. Diabetes guideline, AMTS



Health management with CGM LIFE health record

- CGM LIFE connectivity & communication platform based on a personal eHR
- Accompanied by doctors and determined by patients
- Today 1.4 M CGM LIFE accounts (patients)
- Interoperable and digitally networked with health providers (doctors, pharmacies, clinics)
- Interoperable and digitally networked with health funds
- Patient Access via Smartphone or Web
- Highest Data Safety & Security Standards, e.g. 2-Factor-Authentication, End2End-Encryption; TI compatible
- Partner Ready Program to connect 3rd-party applications
- Projects: 'Meine Gesundheit Services', electronic sickness notification (eAU), Medication NRW



Outlook

- Telematics Infrastructure is an important precondition to enable new digital services in health care
- Personal Health Records will become an important factor to establish and enable new eHealth services and connect patients and health care professionals
- Current studies show huge potentials in digitization of health care
- McKinsey ¹⁾ : "*Digital service can lead to a **saving potential** of 34 billions EUR.*"
- Strategy& ²⁾ : "*The **efficiency potential** of eHealth in German Health care is approx. 39 billion euros.*"

Digital service ¹⁾	Potential
Paperless data eHealth record, e-prescription, drug safety check, ...	9,0 bn EUR
Online Interaction Teleconsultation, remote monitoring, , e-triage	8,9 bn EUR
Workflow automation eCare, tracking, discharge management, automated logistics, ..	6,1 bn EUR
Decision support AI-based treatment advice, cost analysis, genetic tests, ..	5,6 bn EUR
Patient self treatment Management of chronic diseases, medical chat bots, remote diagnosis tools, ...	3,8 bn EUR
Patient self services Online appointment booking	0,5 bn EUR

1) McKinsey : Digitalisierung im Gesundheitswesen: Die Chancen für Deutschland

2) Strategy& : Effizienzpotentiale durch eHealth

Thank you for your attention!

CompuGroup Medical SE

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