



**CONSUMER & HEALTH MANAGEMENT
INFORMATION SYSTEMS (CHS) –
SECURITY, CONSUMERIZATION,
DATAFICATION**

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Consumer & Health Management Information Systems – Profile & ambition



Consumer & Health Management Information Systems

	LTM 06/20	yoy
Revenue (€m)	47	+19%
EBITDA adjusted (€m)	11	+57%
Margin	23%	+6ppt

Business Focus

- Providing consumers with digital health solutions
- Offering a digital health platform – our **CGM LIFE ecosystem**
- Establishing an interface between doctors & patients – our **CLICKDOC solutions**
- Delivery of **big-data value** for **pharma, insurances, doctors and patients**
- **Supporting our customers regarding IT security on their path to increasing digitization**
- Steering the **TI product development and rollout**

Telematics Infrastructure – Providing our customers with **secure connectivity**

99.9%

Stable and resilient
TI connector

99.9% of **CGM TI connectors** **stayed connected** during the TI outage in May.

This is attributable to our **intensive R&D efforts & thorough testing** of our connector hard- and software.

1st

mover
e-Health connector

CGM connector **approved** by gematik **in July**. Upgrade available for all **~56k customers**. So far **~20k upgrade installations**.

Upgrade **enables**

- Value added **TI services**
- TI for **pharmacies**

>5,000

orders in
pharmacy segment

1st mover in **TI for pharmacies**. Rollout started in July. **> 5k orders** received by CGM Lauer and reseller partners by now.

Installations picking up at increasing speed.

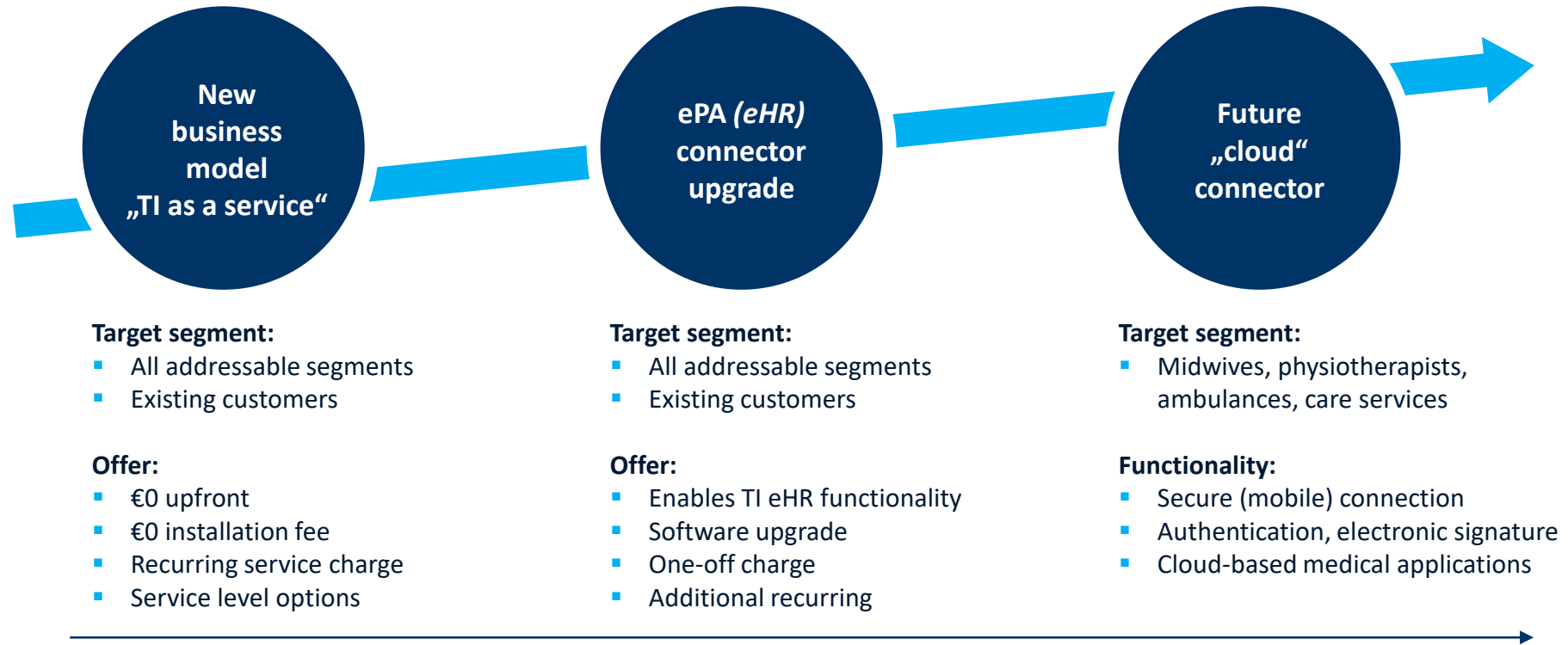
1st

KIM
provider

CGM KIM (secure TI email) **approved** as 1st provider by gematik **in June**. Rollout to begin early Q4/2020.

KIM is **mandatory** for the **digital transfer** of relevant patient documents like the future **e-sick notice**.

Telematics Infrastructure – Evolving our products



We **secure** our customers on their path to increasing digitization

Security-threats for our customers

- Increasing number of **cyber attacks** in healthcare
- Attackers **shut down practices** or **steal patient data** records
- Strong negative effects of **damaged reputation**
- **Enormous cost** for practice reactivation

German government plans **regulative measures** for practices & hospitals

Extra federal and state funding programs to enhance **IT security** (latest initiative law for future clinical digitization)

IT security regulation based on BSI standards for practices

CGM Solution

- **#fightcybercrime** campaign
- Supporting customers **re-compliance with upcoming regulation**
- **Monetization** through **security product bundles**:
 - **Tailored portfolio** to improve customers' IT security (Telemed Protect Silver, Gold, Platin)
 - **24/7 – alert service** in case of security incidents
 - **Security audits and checks**



Consumerization – Patients are increasingly taking an active role in the ecosystem

Consumerization of Healthcare

31 million
people in Germany
suffer from **chronic**
diseases ¹

527 million
wearables
to be **sold globally**
by 2024 ³



75%
of smartphone owners
use **health apps** ²

41%
of smartphone owners
would want to get a
second opinion from an
artificial intelligence ⁴

Doctors' increasing need for digitization



- **Less availability** of practice **personnel**
- **Shortage** of rural **physicians**
- **Cost pressure**
→ Need for **efficient, digital services**

COVID-19 additional booster for digitization

- Need for **remote treatments & monitoring**
- **Digitally integrated therapies** (e.g. for chronic diseases)
- **Regulatory push** for increasing digitization

CGM LIFE Ecosystem

CLICK&DOC
ONLINE BOOKING

CLICK&DOC
VIDEO CONSULTATION

 **CGM LIFE**
Patientenakte

 **CGM LIFE**
Partnerprogramm

MEDICITALIA⁺


HEALTHCENTER

1. CGM „DMP Programme für Chroniker (GKV-ca. Angaben)“, August 2019
2, 4. Bitkom e.V., „Bitkom Digital Health 2020“, 2020, Bitkom Research
3. IDC Corporate USA, „Worldwide Wearable Computing Device Forecast“, March 2020, IDC

CGM LIFE with eHR – Our new digital ecosystem addressing evolving consumerization

CGM eHR Joint-Venture “Meine Gesundheit”:

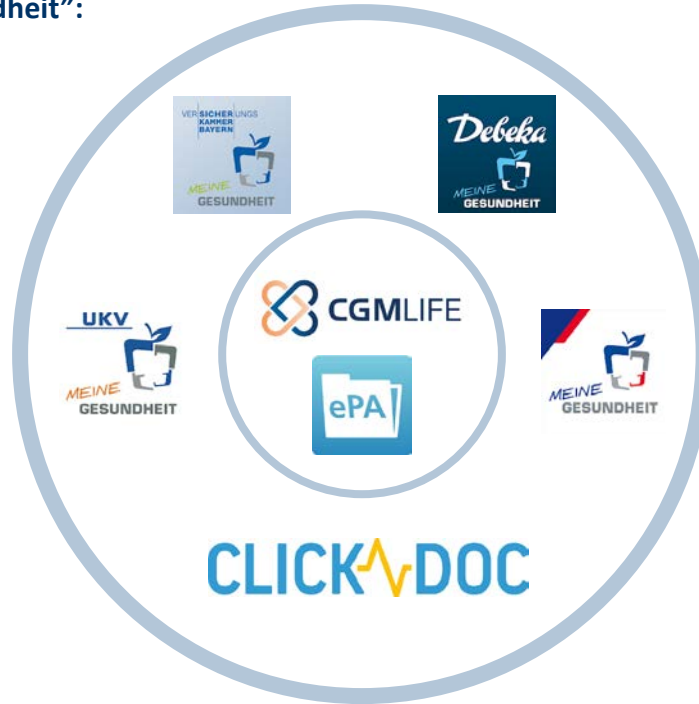


45%

Market share of privately-insured persons

Multiple services for private health insurances through the **Joint Venture** “Meine Gesundheit”

Private insurance companies entering the **Telematik Infrastruktur** in 2021 → **new revenue opportunities** to serve customers with **TI services**



1 ecosystem

CGM LIFE

ePA

- Deeply integrated with CGM ecosystems (PIS)
- Analytics, digital campaigning, digital invoice management as value added services for insurance companies
- Highly interoperable based on the regulatory initiatives
- Increasing reach through the whole German eHealth ecosystem as a booster for general acceptance of eHR solutions

Consumerization – CGM LIFE platform economy and strategy

Ecosystem approach

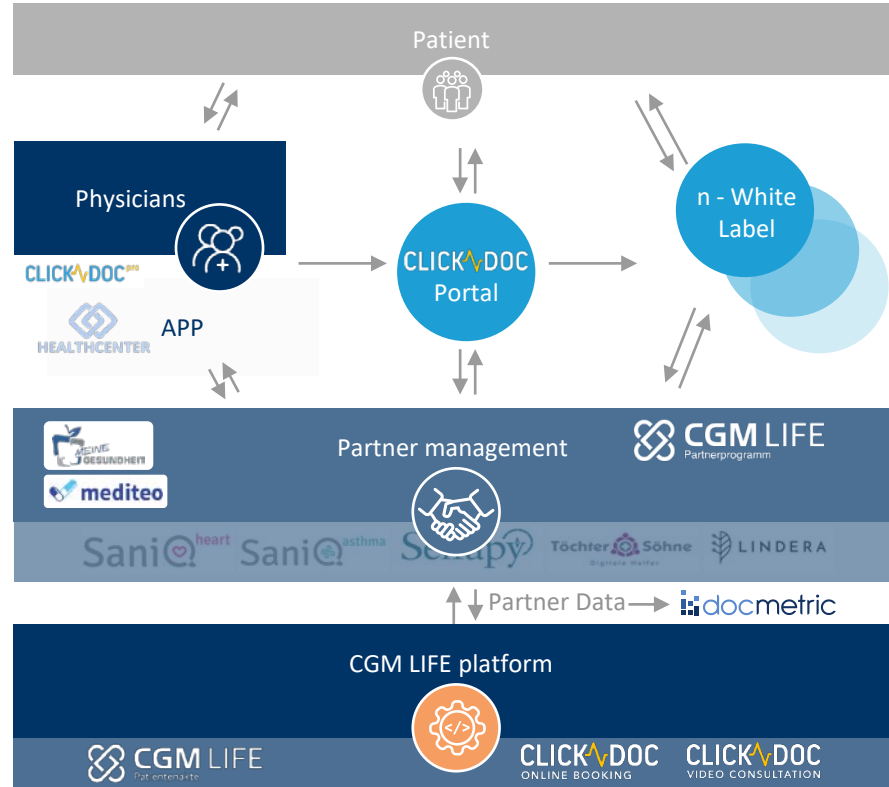
- **Multi-platform ecosystem** based on a strong **partnership strategy**
- Enabling **big corporates and insurances** to bring the best eHealth experience to **their employees and customers**
- **Monetizing reach** through **targeted advertising**

Partner app strategy

- **Providing B2C eHealth solutions** access to healthcare professionals
- **Integrating all services** in combination with CGM LIFE Platform and CLICKDOC
- **Monetizing reach** of eHealth store

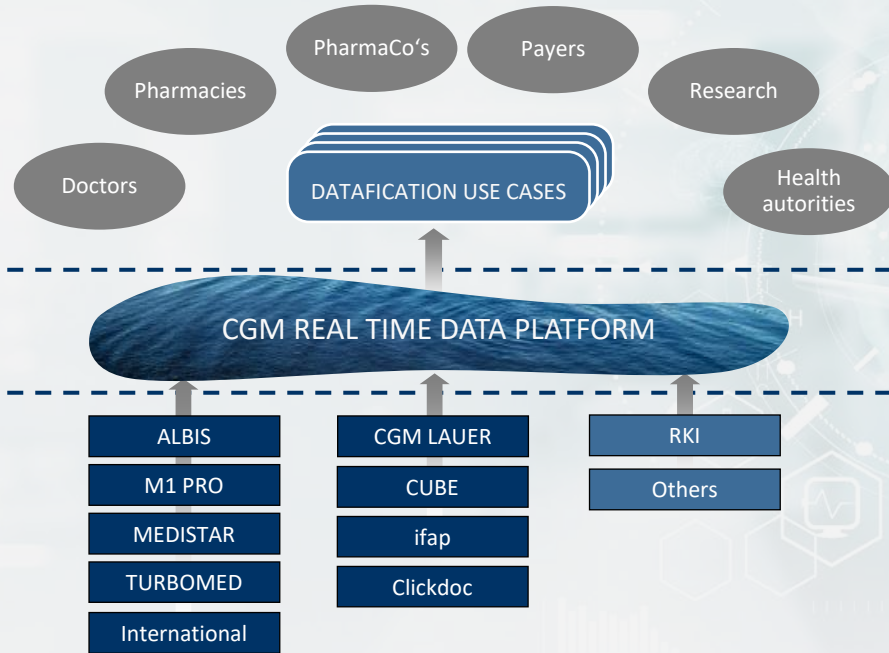
Secure technical platform

- Enabling partners to use **secure and scalable medical cloud technology**
- Providing **access** to already **existing data** of a patient
- Leading in a **unique and comprehensive patient journey**



CGM Core assets and evolution towards datafication

WE ARE WORKING TOWARDS INTEGRATION OF REAL-TIME HEALTHCARE DATA FROM MULTIPLE SOURCES...



... TO ENABLE HEALTH CARE PROVIDERS TO MAKE DATA-BASED IMPROVEMENTS TO HEALTH WELFARE

Datafication drivers

- **Data value:** key healthcare innovation areas like value based healthcare, evidence based medicine, personalized medicine, rare disease detection, ML-/AI-based clinical decision support etc. all require access to large fit-for-purpose datasets
- **Data availability:** rapidly increasing availability of health data (MedTech, apps, wearables, clinical trials) calls for data integration and analytics in horizontal data platforms

CGM assets

- **Access to healthcare provider systems and industry relationships** in 56 countries
- **Real-time interfaces** to practice and hospital management systems, existing platform for data aggregation, integration and analytics
- **Products** to deliver benefits to doctors in exchange for GDPR compliant, anonymized data sharing
- **~3k doctors** already contributing to CGM data platform through AIS systems (and growing), sending > 300k new datasets/day

Multi-platform with excellent assets for datafication

**REAL WORLD DATA
IN REAL TIME**

Trend detection for medical decision support

For patients, doctors, insurances, pharma

Outpatient data cockpit & pandemic monitor

Practice monitor

IFAP Praxiscenter & VOS

THERAFOX & data hub

Marketing & business intelligence

For pharma

Measured advertising

Pharma sales dashboard

Rare disease finder

Data brokerage & data panels

For data platforms

IQVIA™

hmr HEALTH MARKET RESEARCH

INSIGHTHEALTH

ROBERT KOCH INSTITUT

INTERNATIONAL SCALING

GERMANY
 ITALY
 FRANCE
 AUSTRIA
 CZECH
 ... and more to come

CGM ideally set for driving customers' security, consumerization & datafication

SECURITY

- **First-class reliability** e.g. with **99.9% stable and resilient TI connector**
- **Extension of TI to Pharmacies and value added services and Rollout of CGM KIM**
- Connectors will support **eHR and eRX functionality** and **mobile connections**

CONSUMERIZATION

- **Consumerization** in healthcare is **increasing strongly**
- **CGM well-positioned** in **digital health solutions** (CGM LIFE ecosystem and CLICKDOC)
- **45% market share** of privately insured persons with eHR joint-venture **“Meine Gesundheit”**

DATAFICTION

- Delivery of **big-data value** for **pharma, insurances, doctors and patients**
- CGM has **access** to one of the **most comprehensive data sources** for the **outpatient sector**
- **Significance** for **medical decision support, data brokerage** and **data panels**