



Houlihan Lokey

Quo Vadis HIS?

A SNAPSHOT OF HOSPITAL INFORMATION SYSTEMS IN GERMANY

APRIL 2023

Houlihan Lokey is the trusted advisor to more top decision-makers than any other independent global investment bank.



Corporate Finance

- No. 1 Global M&A Advisor Under \$1 Billion
- Leading Capital Markets Advisor Raising More Than \$100 Billion in Past Five Years

Advisor	Deals
1 Houlihan Lokey	381
2 Rothschild	369
3 JP Morgan	217
4 Lazard	206
5 Goldman Sachs	203

Source: Refinitiv. Excludes accounting firms and brokers.



Financial Restructuring

- No. 1 Global Restructuring Advisor
- \$3.0 Trillion of Aggregate Transaction Value Completed

Advisor	Deals
1 Houlihan Lokey	58
2 PJT Partners	30
3 Lazard	29
4 Rothschild	25
5 Moelis	21

Source: Refinitiv.



Financial and Valuation Advisory

- No. 1 Global M&A Fairness Opinion Advisor Over the Past 25 Years
- 1,000+ Annual Valuation Engagements

Advisor	Deals
1 Houlihan Lokey	1,232
2 JP Morgan	1,030
3 Duff & Phelps, A Kroll Business	938
4 Morgan Stanley	725
5 BofA Securities	710

Source: Refinitiv. Announced or completed transactions.




Financial Sponsors Coverage

- No. 1 Global Advisor to Private Equity Firms
- 1,000+ Sponsors Covered Globally

Advisor	Deals
1 Houlihan Lokey	242
2 Lincoln International	192
3 Deloitte	190
4 Grant Thornton	151
5 William Blair & Company	118

Source: PitchBook.

Houlihan Lokey Is the No.1 Global Tech M&A Advisor With Unparalleled Reach



Americas Atlanta
Boston
Chicago
Dallas
Houston
Los Angeles

Miami
Minneapolis
New York
San Francisco
São Paulo
Washington, D.C.

Europe and Middle East Amsterdam
Antwerp
Dubai
Frankfurt
London
Madrid
Manchester

Milan
Munich
Paris
Stockholm
Tel Aviv
Zurich

Asia-Pacific Beijing
Fukuoka
Gurugram
Ho Chi Minh City
Hong Kong
Mumbai
Nagoya

Osaka
Shanghai
Singapore
Sydney
Tokyo

No.1

Tech M&A
Advisor*

14

Tech Locations
Worldwide

240+

Technology
Bankers

40+

Managing Directors

100+

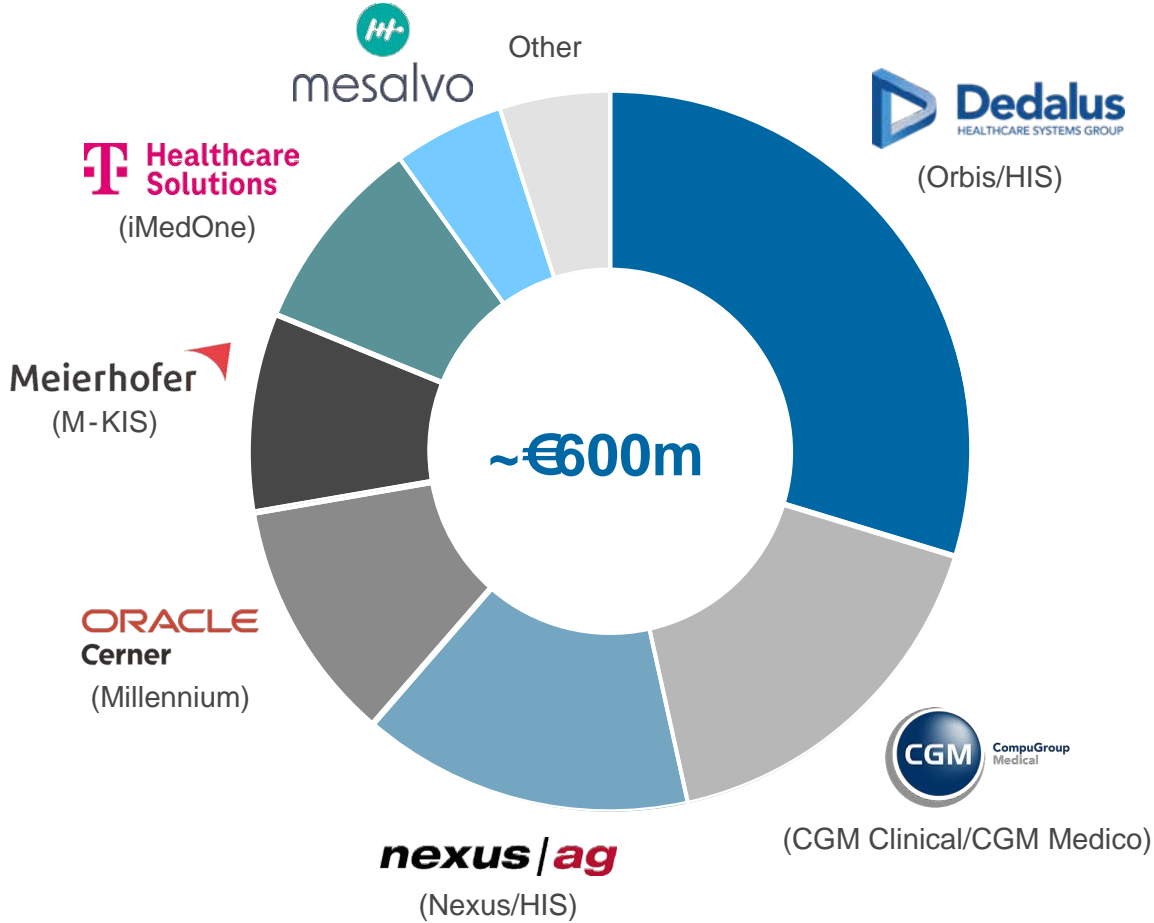
Technology Deals in
CY22

Key Vendors in the German HIS market

Despite being a mature market, the German HIS market continues to grow at double-digit growth rates.

German HIS Market

Approximate market shares by revenue








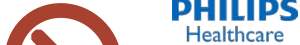



Sources: L.E.K., kma-online. As of March 2023.

Key Vendors in the German HIS Market (cont.)

Despite being a mature market, the German HIS market continues to grow at double-digit growth rates.

Recent Developments

	Orbis is the market leader in Germany with 818 installations (+15 in 2022); currently developing a cloud-version Orbis-U.
	Despite internal turbulences, CGM's HIS revenues increased by 8% to €277m in 2022; currently working on improved interoperability between PMS and HIS solutions.
	Continued growth to 281 installations (+12) and +11% revenue growth to €67m; increasing focus on interoperability.
	Continued growth driven by rollout within Asklepios; introduced new versions M-KIS Now and M-KIS Next.
	Stable number installations at around 100; focus on post-merger integration of iSolutions and Meona.
	Number of iMedOne installations stagnating at around 250; however, there are positive effects from TI implementation, plus increasing demand for patient portals and digital health solutions.
	I.s.h.med has a stable base of c. 250 hospitals in Germany with a particular focus on university clinics; adverse effects expected from discontinuation of SAP's IS-H.
	Philips will discontinue selling Tasy in Germany.
	SAP announced the end-of-life for IS-H by 2027.

Quo Vadis HIS? Trends in the German HIS Market

Many hospitals will be required to rethink their HIS to embrace and drive their digital transformation.

Increasing Patient Focus



Hospitals increasingly expect HIS to not only provide administrative support, but enable **mapping the patient journey**.



Next-gen HIS will see **improved patient interaction and communication interfaces** along the treatment pathway.

Interoperability



Improved interoperability with the rollout of the **electronic health record (ePA), the telematics infrastructure (TI), and messenger services (TI-M)**.



Accordingly, hospitals will need to rethink how data will be **stored** (centrally), **retrieved**, and **exchanged** in real time between all stakeholders in the healthcare system.

Conflicting Requirements



Hospitals will need to solve the conflicting requirements of **interoperability, data protection, and cybersecurity**.



Due to the high heterogeneity in the IT landscapes in the healthcare ecosystems, there is a growing **need for open interfaces and standard protocols** (e.g. FHIR).

Cloud-Based Applications



Upcoming regulatory changes are expected to result in a concentration of services in selected hospitals, which will further **increase the need for coordination among care providers**.



Next-gen HIS solutions will increasingly be **cloud-enabled** and need to facilitate the data exchange between various healthcare providers.

Investments Into the Digital Infrastructure of Hospitals

Krankenhauszukunftsgesetz (KHZG) fosters investments into the digital infrastructure of hospitals.

KHZG Overview



Since 2021, the German government provides **€3.0bn in federal plus €1.3bn in state funding** to accelerate the digitalization of hospitals.

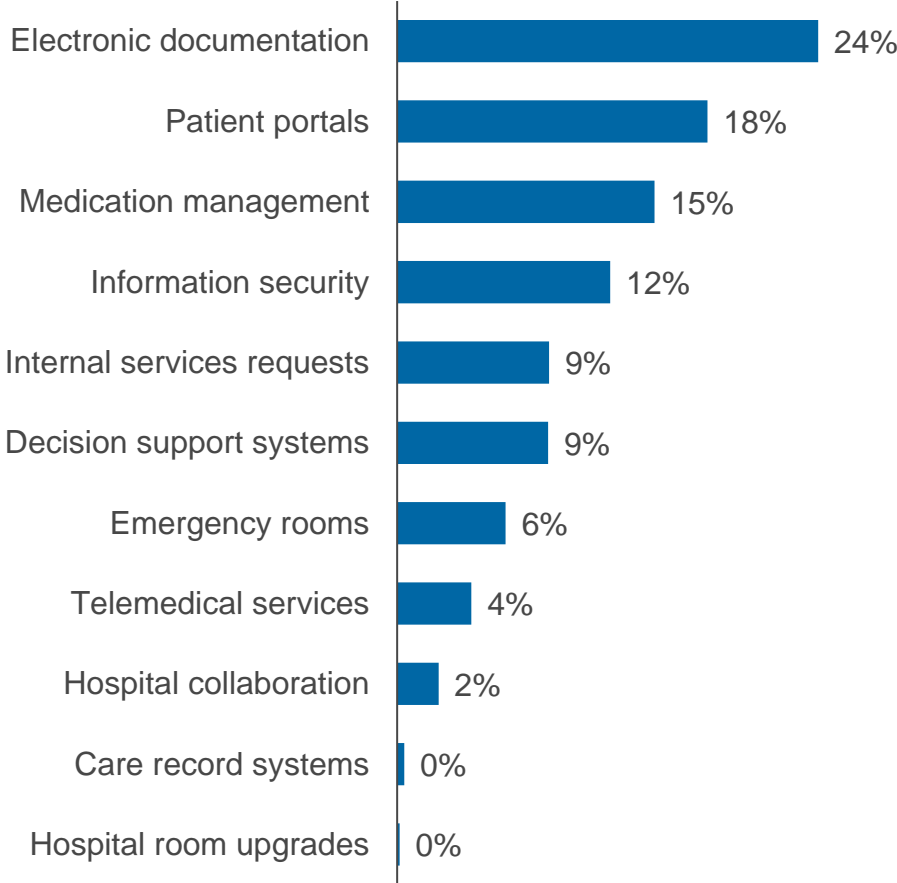


Funding is provided across 11 categories of investments, covering technology, information technology, personnel, and spatial improvements.



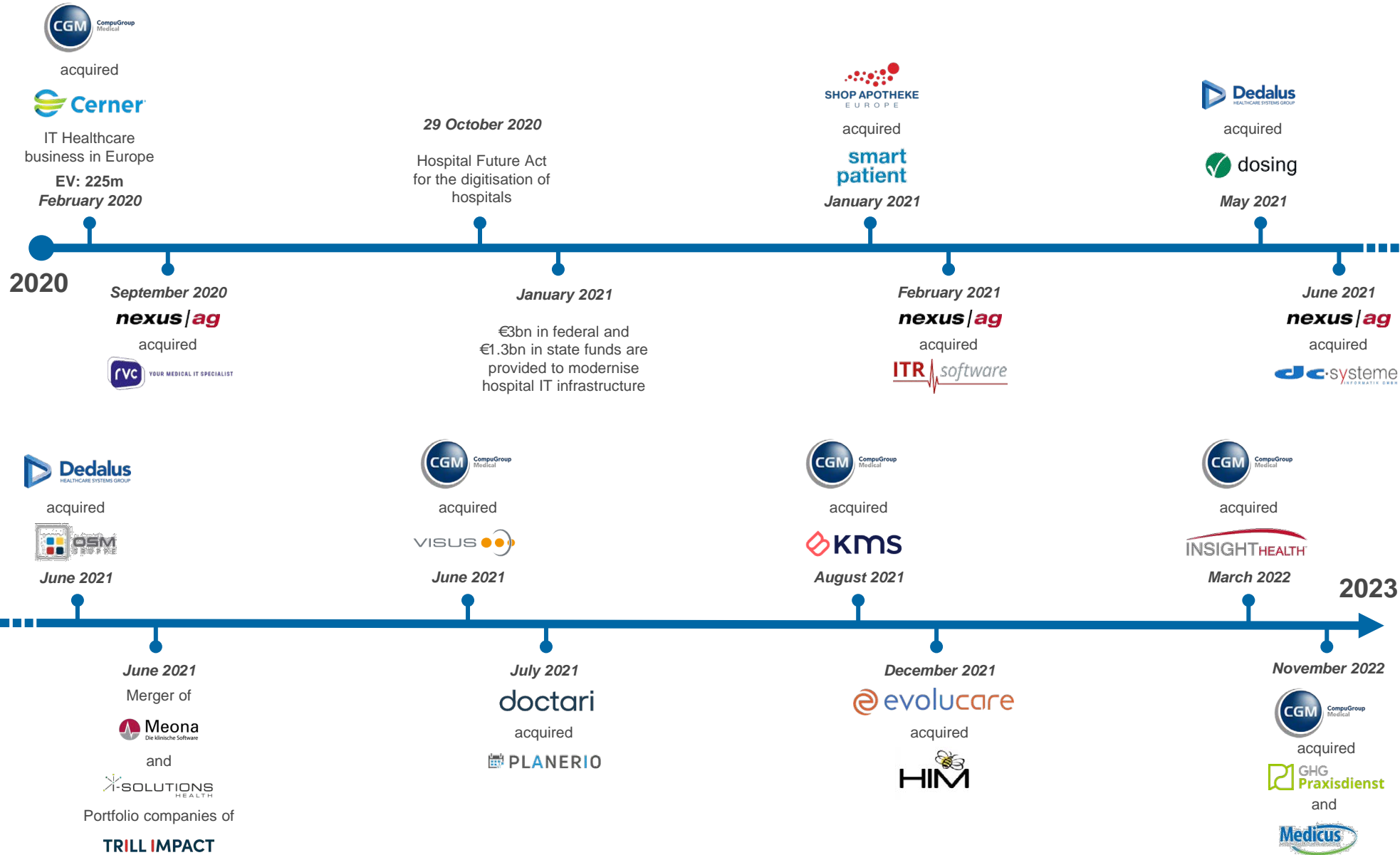
More than 6,300 funding requests⁽¹⁾ with a **total volume of €3.0bn** have already been submitted, i.e., c. 70% of funds available. Almost half of the planned investments relate to **electronic documentation** or **patient portals**.

KHZG Funding Requests by Category⁽¹⁾



Sources: Federal Ministry of Health; WMC Healthcare; Mergermarket.
(1) As of March 2023.

KHZG Fueled the Consolidation in the German HIS and Adjacent Healthcare Software Markets



Sources: Federal Ministry of Health; WMC Healthcare; Mergermarket.



Houlihan Lokey

© 2023 Houlihan Lokey. All rights reserved. This material may not be reproduced in any format by any means or redistributed without the prior written consent of Houlihan Lokey.

Houlihan Lokey is a trade name for Houlihan Lokey, Inc., and its subsidiaries and affiliates, which include the following licensed (or, in the case of Singapore, exempt) entities: in (i) the United States: Houlihan Lokey Capital, Inc., and Houlihan Lokey Advisors, LLC, each an SEC-registered broker-dealer and member of FINRA (www.finra.org) and SIPC (www.sipc.org) (investment banking services); (ii) Europe: Houlihan Lokey Advisory Limited, Houlihan Lokey EMEA, LLP, Houlihan Lokey (Corporate Finance) Limited, and Houlihan Lokey UK Limited, authorized and regulated by the U.K. Financial Conduct Authority; Houlihan Lokey (Europe) GmbH, authorized and regulated by the German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht); (iii) the United Arab Emirates, Dubai International Financial Centre (Dubai): Houlihan Lokey (MEA Financial Advisory) Limited, regulated by the Dubai Financial Services Authority for the provision of advising on financial products, arranging deals in investments, and arranging credit and advising on credit to professional clients only; (iv) Singapore: Houlihan Lokey (Singapore) Private Limited and Houlihan Lokey Advisers Singapore Private Limited, each an “exempt corporate finance adviser” able to provide exempt corporate finance advisory services to accredited investors only; (v) Hong Kong SAR: Houlihan Lokey (China) Limited, licensed in Hong Kong by the Securities and Futures Commission to conduct Type 1, 4, and 6 regulated activities to professional investors only; (vi) India: Houlihan Lokey Advisory (India) Private Limited, registered as an investment adviser with the Securities and Exchange Board of India (registration number INA000001217); and (vii) Australia: Houlihan Lokey (Australia) Pty Limited (ABN 74 601 825 227), a company incorporated in Australia and licensed by the [Australian Securities and Investments Commission](http://www.asic.gov.au) (AFSL number 474953) in respect of financial services provided to wholesale clients only. In the United Kingdom, European Economic Area (EEA), Dubai, Singapore, Hong Kong, India, and Australia, this communication is directed to intended recipients, including actual or potential professional clients (UK, EEA, and Dubai), accredited investors (Singapore), professional investors (Hong Kong), and wholesale clients (Australia), respectively. Other persons, such as retail clients, are NOT the intended recipients of our communications or services and should not act upon this communication.

Houlihan Lokey gathers its data from sources it considers reliable; however, it does not guarantee the accuracy or completeness of the information provided within this presentation. The material presented reflects information known to the authors at the time this presentation was written, and this information is subject to change. Any forward-looking information and statements contained herein are subject to various risks and uncertainties, many of which are difficult to predict, that could cause actual results and developments to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. In addition, past performance should not be taken as an indication or guarantee of future performance and information contained herein may be subject to variation as a result of currency fluctuations. Houlihan Lokey makes no representations or warranties, expressed or implied, regarding the accuracy of this material. The views expressed in this material accurately reflect the personal views of the authors regarding the subject securities and issuers and do not necessarily coincide with those of Houlihan Lokey. Officers, directors, and partners in the Houlihan Lokey group of companies may have positions in the securities of the companies discussed. This presentation does not constitute advice or a recommendation, offer, or solicitation with respect to the securities of any company discussed herein, is not intended to provide information upon which to base an investment decision, and should not be construed as such. Houlihan Lokey or its affiliates may from time to time provide investment banking or related services to these companies. Like all Houlihan Lokey employees, the authors of this presentation receive compensation that is affected by overall firm profitability.

Houlihan Lokey

Raiko Stelten

Managing Director

+49 (0) 69 204 34 6418 Direct

+49 (0) 17 13 35 0879 Mobile

Raiko.Stelten@HL.com

CORPORATE FINANCE
FINANCIAL RESTRUCTURING
FINANCIAL AND VALUATION ADVISORY

HL.com