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Report "GIHF-AI DHD 2024"

Digital Health Delegation in cooperation with the Free State of Saxony

From 10 to 14 November 2024, the European Leadership Network (ELNET) organized a digital health delegation trip to Israel as part of the German Israeli Health Forum for Artificial Intelligence (GIHF-AI). Participants were part of a high-ranking delegation from the German, primarily Saxon, healthcare sector and had the opportunity to get to know Israel's innovative and highly digitalized healthcare ecosystem. In addition to intensive exchanges with leading representatives of Israeli healthcare facilities, cooperation projects were initiated. The State Chancellery of Saxony supported the trip to promote networking between Israel and the Free State of Saxony in the healthcare field. This publication summarizes the program of the trip and provides political recommendations for action, which were developed by the participants together with ELNET following the trip.

FACTS AND FIGURES ON THE GIHF-AI DIGITAL HEALTH DELEGATION 2024

▸ Five-day trip to Israel (10.-14.11.2024) in cooperation with the State Chancellery of Saxony.

▸ Welcome evening with Ran Ridnik (Head of Directorate and Deputy Director General) and Yoel Ben-Or (Head of Digital Health Policy) from the Israeli Ministry of Health as well as numerous experts from Israel's digital health ecosystem.

▸ Visit to the German Embassy with a political briefing by Ambassador Steffen Seibert and introduction to the Israeli digital health ecosystem by HealthIL.

▸ Institutions/Companies visited (alphabetical): Alyn Hospital, Hadassah Medical Center (inkl. BIO-HOUSE), Peres Center for Peace & Innovation, Sheba Medical Center (inkl. ARC Center), Tel Aviv Sourasky Medical Center (Ichilov).

▸ Organizations visited (alphabetical): Belong.Life, BioT, Clalit Health Services, Cordio Medical, HealthIL, KSM Research & Innovation, Leumit, MDClone, Peregrine Ventures, Project Rozana, Sabar Health, Surgical Robot Technologies | Momentis Surgical.

▸ Participants (alphabetical): Prof. Dr. Wolfgang Holzgreve, Prof. Dr. Toralf Kirsten, Mina Luetkens, Prof. Dr. Irit Nachtigall, Prof. Dr. Martin Sedlmayr.

Recommendations for Action I

▶ **Education and Further Training**
The introduction of **specialized medical training in digital medicine** is essential to develop expertise in this field. In addition, **AI topics** should be integrated **into the curricula** of all healthcare professions, including human and veterinary medicine as well as nursing and documentation professions. Degree courses in computer science and related disciplines must also teach more content on digitalization and artificial intelligence in order to **train specialists for the digital transformation of the healthcare system**.

▶ **Infrastructure and Interoperability**
The nationwide **establishment of the FHIR standard** and the **strengthening of the electronic health record (ePA)** are essential for networked care. Routine clinical data should be used as a basis for research, supported by the reuse and secondary use as well as the **connection of existing structures to the EHDS**. This requires an **infrastructure that is as manufacturer neutral** as possible. Structures for processing medical big data, such as genome data centers, must be developed into Trusted Research Environments / Secure Processing Environments. University hospitals should be more closely involved in data transfer. The **BfArM's Health Data Lab (HDL)** should be expanded as a central data service with secure environments for data linkage. **Networking with the Medical Informatics Initiative (MII) and the Network of University Medicine (NUM)** is recommended.

▶ **Digitalization and AI Support in Healthcare**
The healthcare system should be consistently digitalized – from making appointments and providing care to intersectoral aftercare. **AI solutions** offer the potential to deploy resources such as personnel more efficiently and **mitigate the shortage of specialists**. In order to promote patient-oriented innovations, targeted support is needed for **open source-based AI projects** and evidence-based research into their effectiveness. **Regulatory relief** for non-invasive digital applications and digital health projects is necessary to reduce barriers to innovation.

▶ **Organizational Adjustments**
A **central AI agency** should initially be created at state level and later at federal level. This federal agency could be part of gematik and coordinate projects, set up an AI register and advise service providers on the integration of AI. At the same time, **redundant structures should be reduced**, such as the number of health insurance funds and sectoral boundaries, in order to simplify processes. Healthcare institutions need **Chief Digital Officers / Chief Technology Officers** as well as **innovation and digitalization teams** to strategically introduce new technologies and evaluate their benefits.

▶ **Data Access and Transparency**
Data transparency must become the foundation of the healthcare system in order to create trust and facilitate its use by all stakeholders. A **federated system** should be established that enables the **secure and easy data flow** between patients, service providers, and research institutions. **Citizens** should be given more control and access to their health data in order to act as **central players in the data ecosystem**. This must already be **taken into account** when **setting up the infrastructure** and technical developments in order to avoid technological hurdles to low-threshold access later on.

Recommendations for Action II

▶ **Financing Model**

The financing of digital healthcare projects should be designed to be sector-independent and service-oriented. **Pay-per-use models for IT solutions** offer a sustainable alternative to large-scale investments. A **national identifier** for patient data can facilitate the linking of medical information between different healthcare facilities, **including non-university structures**. In addition, **hospital financing** must be adapted so that **digital investments are promoted** and not hindered by rigid material budgets.

▶ **Public Relations and Acceptance**

In order to successfully shape digitalization in the healthcare sector, the **involvement of the public** is crucial. In particular, there is a need to further develop and promote **participatory research approaches** in order to gain trust and ensure relevance for affected population groups. Citizen dialogs and high-profile activities should be carried out to strengthen acceptance and trust in digital solutions. **Digital innovations** must be developed in a **human-centered** way, with measurable benefits and ease of use. This also requires a systematic needs analysis and **targeted communication** about the benefits of digitalization.

▶ **Focus on Regionalization**

In order to optimize healthcare provision, **regional networks** should be established in which maximum care providers act as central coordinators. The aim here is to exploit synergies through existing collaborations and the geographical proximity of the players involved. A particular focus is on **promoting preventative approaches** that enable proactive and forward-looking patient care. With its two university hospitals in Dresden and Leipzig and the Chemnitz Hospital, the **Free State of Saxony** offers the ideal conditions for a **model region**, especially for telemedical approaches in rural regions.

▶ **Cooperation between Israel and Saxony**

Close **cooperation with Israel** offers the opportunity to benefit from the **high level of expertise in innovative healthcare solutions** and advanced technology. At the same time, **Israeli clinics can learn from the best practices of Saxon institutions**. Israeli companies also gain access to the German and European markets and get to know Saxony as a potential location for branches in Germany. The shift from inpatient to outpatient treatment models through telemedical care and **"Hospital at Home" (HaH)** models is one example. In addition, centers for clinical studies have been established in Germany and at both university hospitals in Saxony. With their expertise, these could be used for the prospective validation of existing AI solutions from Israel.

Israel's Healthcare System: A Pioneer in Innovation and Digitalization

The Israeli healthcare system is one of the most innovative in the world. The care structure is supported by four large Health Maintenance Organizations (HMOs), which pursue an integrative approach. They combine health insurance and service provision, enabling seamless coordination and management of healthcare. In addition, healthcare data in Israel has been gradually digitized since the 1990s. A key advantage of the system is therefore the comprehensive availability of health data for innovations such as AI-based digital health applications in research and practice.

A high level of social acceptance for the use of health data for research purposes also facilitates the practical implementation of digital health projects. This is complemented by an innovative startup culture that is characterized by a willingness to take risks and the acceptance of failure as part of the innovation process. The digitalization strategy is also driven forward at the political management level through dedicated funding programs, while dynamic innovation teams made up of interdisciplinary experts ensure the implementation of specific projects.

Promotion of German-Israeli Cooperation in the Field of Digital Health in Cooperation with the State Chancellery of Saxony

With the German Israeli Health Forum for Artificial Intelligence (GIHF-AI), which was funded by the Federal Ministry of Health (BMG) for several years, the European Leadership Network (ELNET) has been consolidating cooperation in the field of digital health between Germany and Israel for over three years. In order to gain insights into digitalization and innovation in the Israeli healthcare system and to promote intercultural exchange between German and Israeli experts, ELNET organized a digital health dele-

gation to Israel from 10 to 14 November. The pilot project was supported by the State Chancellery of Saxony, which is why the exchange between Saxon and Israeli healthcare institutions was a particular focus.

The delegation trip began with a dinner at which Ran Ridnik (Head of Directorate and Deputy Director General) from the Israeli Ministry of Health welcomed the delegation and explained the ministry's digital health strategy. The participants also took the opportunity to exchange ideas with Israeli experts in the field of digital health. The following day was followed by a visit to the German Embassy, where Ambassador Steffen Seibert gave a comprehensive political briefing.

HealthIL, the leading innovation platform in the field of digital health in Israel, also presented a thorough overview of the Israeli digital health ecosystem. The NGO is funded by the Israeli Ministry of Health, the Ministry of Economy and Industry, the Israel National Digital Agency, the Israel Innovation Institute, and the Israel Innovation Authority. HealthIL is a central platform for promoting innovation in the healthcare sector and serves as a bridge between startups, healthcare institutions, research institutions, and industry to jointly develop technological solutions for current challenges in the healthcare sector.

Insights into Israel's Innovative Healthcare Facilities

This was followed by a visit to the Tel Aviv Sourasky Medical Center (Ichilov Hospital), which is one of the leading medical facilities in Israel and is known for its innovative approaches to medicine. The second largest hospital in the country is an important center for healthcare, research, and teaching. It pursues an integrated development approach with a team of 30 to 35 people, covering the entire innovation process from idea generation to implementation.

GIHF-AI Board of Trustees member Prof. Dr. Ran Balicer (CIO & Deputy Director General) of Clalit Health Services gave insights into the role of HMOs in Israel's healthcare system. Clalit, the largest HMO with a market share of 50 percent, uses Big Data and AI to transform traditional, reactive medicine into proactive, predictive, and personalized care.

Another item on the agenda was a visit to Alyn Hospital in Jerusalem, which specializes in pediatric rehabilitation and medical technology. Innovative projects such as AI-supported movement training and analysis are implemented by an interdisciplinary team. Hadassah Ein Kerem Hospital offered insights into projects on AI and bio-medical data with its BIOHOUSE. The hospital is the only institution in Israel that combines teaching and training on one campus. NurseAI, which uses AI to optimize patient care and nursing processes, stood out in particular. The system is aimed in particular at the field of tele-nursing, i.e. remote nursing support. The day in Jerusalem ended with a tour of the Old City.

The delegation also visited Sheba Medical Center, Israel's largest hospital. Sheba is pursuing a strategic AI vision and plans to become a fully AI-powered hospital by 2030. With its ARC (Accelerate, Redesign, Collaborate) Center, numerous projects are being developed, including a structured process for data analysis via the AD-AMS platform. ARC has built a global ecosystem that now includes more than 140 members in almost 30 countries. Sheba focuses its innovation efforts primarily on the areas of patient safety, skills shortages, and rising healthcare costs.

A visit to Peregrine Ventures offered insights into projects from Cordio Medical and Momentis Surgical. Cordio develops AI-based solutions for monitoring chronic diseases through speech analysis, while Momentis presents innovative robots for minimally invasive surgery.

Finally, the Peres Center for Peace and Innovation was on the agenda, presenting its initiatives in the field of health and intercultural exchange. The NGO Project Rozana also presented its work. Rozana is an international initiative that aims to build bridges between Israeli and Palestinian communities in the healthcare sector. The project focuses on improving access to healthcare and promotes cooperation between hospitals, medical staff, and communities in the region.

Conclusion and Outlook

Overall, the Israeli healthcare system shows how a strategic combination of an integrated structure, digital innovation, and social acceptance can enable sustainable progress in healthcare. The successful integration of AI into patient care requires a combination of education, infrastructure, regulatory adjustments, and social change. These measures lay the foundation for a data-driven, patient-centered, and future-proof healthcare system. The intensive exchange of knowledge and innovations with Israel can therefore lead to the development of new projects, technologies, and partnerships that benefit both Germany and Israel.

In this context, Saxony's healthcare landscape could also benefit from cooperation with Israel. Saxony already has a strong focus on digitalization and medical research. The exchange with Israel's innovation-proven healthcare institutions can help to adapt innovative technologies and concepts more quickly. There is great potential for synergies, particularly in areas such as telemedicine, AI-supported diagnostics, and the further development of health apps and platforms. At the same time, Saxony's existing infrastructure and geographical location make it an ideal German location for Israeli digital health companies. It is therefore advisable to build on the pilot project outlined here with corresponding initiatives.

An initiative by ELNET

GIHF-AI is an initiative by ELNET-Germany, a think tank and network organization in the context of German-Israeli relations. We work independently and across party lines on the basis of shared democratic interests and values.

Better mutual understanding is promoted through networking and information exchange. Since its founding in 2007, ELNET has focused its work on the topics of foreign and security policy, antisemitism, and innovation.

GIHF-AI

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