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Boosting Interregional Innovation Investment and cooperation among Health Innovation EcoSystems

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The Rapid Digitisation of Healthcare & AI in the Healthcare Sector – Challenges and Opportunities. The Case of Poland

Digital Technological Trends in Healthcare

Mr. Alexandru Mos, Clever House Engineering

As healthcare systems around the world face increasing pressure, the integration of artificial intelligence (AI) is no longer a futuristic concept - it's an urgent necessity. From rising patient expectations and the growing burden of chronic disease, to the ever-present need for greater efficiency and cost control, the healthcare sector is being pushed to innovate. Add to this the reality of global health crises like pandemics, and it's clear why staying ahead of AI trends is critical. Engaging with these technological shifts isn't just an option—it's a strategic imperative for healthcare providers, policymakers, and innovators alike. The digital transformation of healthcare is accelerating, supported by trends like cloud computing, cybersecurity, 3D printing, and personalized medicine. Data privacy security, integration complexity and regulatory compliance stays as main challenges to cope with.

Computer aided surgery & AI

Mr. Samo Eržen, Arctur d.o.o.

Presentation on AI and its role in enhancing surgical practices by - the tool (camera linked with the computer), supported and developed under Classica project (https://classicaproject.eu/). During the pilot testing / surgery they are getting data from doctors for the situations when doctors are sure that the tissue is cancerous – this is the dataset of knowledge. Separate datasets are created for different body parts and diseases. Insight into the future of development, according to speakers notes, goes into direction of solutions becoming integrated with robotics - where software is no longer separate, but built directly into smart medical devices.

Partnership Approach for Improving the Innovation Capacity of Healthcare Sector

Mr. Tomislav Rugelj, Slovene Enterprise Fund
The role of SEF (Slovenian Enterprise Fund) is providing financial and contextual support for the launch, growth, development and innovation for SMEs including startups and scaleups. They run Health Vertical accelerator program, with key priorities: tackling health inequalities and enhancing the responsiveness of healthcare systems by advancing innovations such as new therapies, medical devices, digital health solutions, and the development of new medicines. Success guidance: intensive health innovation training, informal meetings of stakeholders, conferences, consultancy, support in pre-clinical studies, international B2B meetings.

AI in Medical Diagnostics: Opportunities & Challenges. Role of machine learning in early disease detection

Mr. Dawid Nidzworski, Uroscan and Eaton Group

Examples of machine learning for early disease detection, tested in Poland & Gdansk health environment:

i) Uroscan: company will introduce the tests for general urine examination and special tests for bladder cancer detection but in further perspective, the company will launch dedicated tests for chronic kidney disease detection and ovarian cancer detection. In the long term, the Company will provide research and development in detection of various types of cancer in urine.

i) Ediphor: scalable platform technology delivers lab-quality, rapid, and ultra-low cost diagnostic testing in Point-of-Care and At-Home settings. As latest clinical trials reports that Ediphor's Flu test delivers 99.3% accuracy in independent clinical testing and is targeting commercial launch in January 2025.

Protecting medical data in the age of AI: privacy challenges & solutions

Mr. Błażej Zyglarski, Simplito

Simplito company specializes in designing, developing, and optimizing a wide range of software solutions, including enterprise-level applications, decentralized fintech tools, and privacy-focused communication platforms. One of the notable products is PrivMX, a suite of tools emphasizing end-to-end encryption for secure communication and data management. In the context of healthcare, we delved into a critical question “Where exactly is our medical data stored—and who has access to it?” and all participants agreed that understanding which companies or platforms handle sensitive patient information, and how securely it's managed, is essential for building trust and protecting patient privacy.

Case Study: Poland’s Digital Health Transformation
Mr. Tadeusz Jędrzejczyk, Health Department Deputy Director, Marshal Office of Pomorskie Voivodship

The regional healthcare system in Poland is currently implementing three key digital initiatives aimed at improving quality, safety, and coordination of care. The **e-Radiology Platform**

enables specialists to exchange medical imaging data for faster and more accurate consultations among them. The **Quality Assessment System**, part of the broader Regional e-Health framework, collects patient feedback to evaluate hospital staff and healthcare providers. Additionally, the **Regional Register of Adverse Events** is established i) to standardise a way in which information on adverse events is collected, ii) to monitor in real time adverse events in a healthcare entity; iii) to create comprehensive reports and analysis, iv) to promote corrective recommendations for improvement and decreasing the risk for the next similar case.

Mr. Darius Szplit, Medical University Gdansk
Presentation of testing products: ADMEDVOICE**,** Emergent (logistics in clinics), and KORBAN (comprehensive information acquisition).

Roundtable discussion: The path forward – Strategies for digital health success – Addressing challenges associated with digital health technologies
Moderator: Tomas Aleknavicius
Experts: Patryk Jar/Poland, Gunter Schreier/Austria, Zoltan Horvath/ Hungary

The biggest barriers to advancing eHealthcare technologies include **challenges with data**—its quality, accessibility, and integration across diverse systems. Experts also highlight the need to adapt processes for better data collection and suggest leveraging AI Factories, like those in Poznań and Kraków, to access advanced technical capabilities.

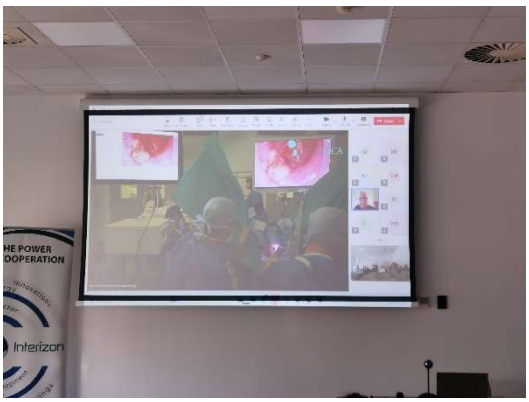
Experts agreed that **patient education is important** but should be approached realistically and inclusively. While some emphasized teaching patients - especially the elderly - how to use digital tools, others highlighted understanding patients' actual needs, supporting also offline access, and optionally using influencers to educate the broader public in a more effective and relatable way.

To highlight one thought, given by IT provider: »MedTech is very regulated and indeed for us there is a problem. In IT we first of all create tools and after this we optimise them. Never the other way around. So update of standards is needed and natural, but it should be done very, very carefully. «

To gain patients' trust in using their health data, experts emphasize the need for clear **categorization of data types** (plain data, encrypted data, sensitive data, personal data, ..) and , transparency, and strict adherence to ethical and legal standards. Ensuring transparency for developers could be achieved through initiatives like open, trustworthy AI platforms such as the proposed Open Euro LLM (https://openeurollm.eu/).

From a technical perspective, advancing the eHealthcare system relies on building strong collaborations between universities, SMEs, authorities, and patient organizations, as well as developing proof-of-concept projects to validate and refine innovative solutions.

When a non-university hospital opens its doors to innovation, it often means additional costs and increased workload. That's why **hospital managers play a key role** - if they recognize a clear patient-centered benefit in testing and implementing innovations, a real shift can happen.



Classica project: Clinical trials - Three phase testing (validation, tissue biopsy, tissue margination) (left) and during »getting knowledge during surgery« (right).

For further information, please contact:

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