

Prof. Dr. Karl A. Stroetmann

has a Ph.D. in International Finance, Business Administration and Economics, Sauder School of Business, University of British Columbia, Vancouver, B.C., Canada

He is a

✓ Adjunct Professor, School of Health Information Science, University of Victoria, Victoria, BC, Canada (since 2013)

✓ Trustee, Integrata Foundation for the Human Usage of Information Technology, Tübingen, Germany (since 2012)

✓ Life Fellow, Royal Society of Medicine (RSM), London, UK (since 2005)

Karl has been Principal Consultant/Investigator for health systems policy, digital health strategies, eHealth infrastructures and applications, wellbeing, and healthcare services. His work has involved policy & strategy development, studies and research work with and for global organisations (WHO; Organisation for Economic Cooperation and Development – OECD; Geneva-based Global Fund to Fight AIDS, Tuberculosis and Malaria to support attainment of the Sustainable Development Goals), European organisations (European Union - European Commission and European Parliament; European Space Agency), national governments and their competent authorities, industry, health service providers and health plans in Europe, Africa & globally. Topics relate to policy and strategy development and implementation, market validation, business development, health system and socio-economic (technology) impact assessment/benefit-cost analysis, market research, support for clinical research and long-term biomedical/systems biology projects.

Karl has led or participated in the acquisition and execution of Third-Party-funded research, market implementation and policy projects worth beyond 100 million US\$. He was scientific coordinator of the UNICOM (Up-scaling the global univocal identification of medicines) project. It facilitates semantic interoperability of pharmaceutical and medicinal products. This will ensure that all sources of medicines information can be accurately cross-referenced with each other anywhere in the world. It will improve patient safety and enable better healthcare for all, thereby supporting SDG 3. Karl organised the trans-Atlantic consortium of 40 partners from 18 countries, involving National Regulatory Authorities, eHealth Agencies, healthcare providers, IT industry and other actors. The budget of this four-year project was about US\$ 25 million.

Earlier project work involved, inter alia, the following:

- Digital Health Ecosystems for African countries – A Guide for Public and Private Investors for the German International Cooperation Society (GIZ) and the Federal Government's Industry Strategic Partnership Digital Africa.
- Evaluation and update of the national eHealth Policy, Strategy and Implementation Roadmap of the Grand-Duché de Luxembourg for the Ministère de la Santé
- WHO Policy Brief - How can telehealth help in the provision of integrated care?

- Reform of Financing Secondary Health Care in Bosnia and Herzegovina - Establishment of the AR-DRG system in hospitals; guidance, management, implementation, support and training for the introduction of DRG systems in 14 hospitals
- Data Mining and Big Data in medicine - Legal, ethical, political and socio-economic challenges. Study for The Office of Technology Assessment at the German Bundestag (Federal Parliament)
- Interoperable eSystems for Africa Enhanced by Satellites – Development of an interoperability approach towards designing, implementing and operating a pan-African eHealth platform as envisaged by the European Space Agency’s Satellite-Enhanced Telemedicine and eHealth for sub-Saharan Africa (eHSA) Programme; including collection of detailed national and health system data on 48 SSA countries to assess and evaluate their eHealth readiness.
- Detailed case studies of national or district eHealth platforms and electronic health record (EHR) systems in 8 countries on 5 continents
- epSOS - Smart Open Services for European Patients, the Open eHealth initiative for a European large scale pilot of patient summary and electronic prescription; cooperation of 25 EU Member States health ministries, their competence centres and industry to foster the creation and deployment of seamless pan-European eHealth services.
- Satellite-enhanced Telemedicine and eHealth for Sub-Saharan Africa - Study of Regulatory Solutions for the European Space Agency (ESA) and its Satellite-Enhanced Telemedicine and eHealth for sub-Saharan Africa (eHSA) Programme
- Development of guidelines in support of European ePrescription interoperability – Development of comprehensive interoperability regulatory guidelines for the European Union/its 28 Member States.
- Development, piloting and online provision of a benefit/cost assessment and evaluation tool for Telemedicine (ASSIST) to support the European Space Agency and its industry partners in better focussing R&D and business development on initiatives that have clear and objective added value
- Regulatory Impact Assessment (Benefit-Cost Analysis) of the Swiss eHealth Strategy - informing the Swiss government, parliament and society
- National eHealth Strategies - Assessment of policy/strategy progress as well as implementation measures for national and regional eHealth solutions in 34 European countries, with emphasis on barriers and enablers beyond technology. The focus was on infrastructure elements and selected digital health solutions
- Socio-economic impact assessment (benefits/costs) of interoperable national and regional electronic health records and ePrescription systems and lessons learned – 10 case studies for the European Commission
- Evaluative Study on the EU Cross-border Healthcare Directive. The Directive established rules for facilitating the access to high-quality healthcare by citizens abroad. The assessment provided an initial evaluation of selected impacts of the Directive on cross-border healthcare/patient mobility and healthcare services

Selected publications:

- Predictive modelling and identification of critical variables of mortality risk in COVID-19 Patients (co-author). Scientific Reports, Nature Portfolio, Nov. 2023; <https://doi.org/10.1038/s41598-023-46712-w> (Open access)

Towards AI-enabled Multimodal Diagnostics and Management of COVID-19 and Comorbidities in Resource-limited Settings (co-author), Informatics. Vol. 8. No. 4. MDPI, 2021
<https://www.mdpi.com/2227-9709/8/4/63> (Open access: Multidisciplinary Digital Publishing Institute, Switzerland)

From siloed applications to national Digital Health Ecosystems: - A strategic perspective for African countries. In F. Lau et al. (Eds.). From Research to Practice: Improving Usability, Safety and Patient Outcomes with Health Information Technology - Studies in health technology and informatics 257 (2019), 404-412

- SmartHealthSystems – Digitalisierungsstrategien im internationalen Vergleich (English translation available: SmartHealthSystems – International comparison of health system digitalisation strategies in 17 countries). Co-author: A global analysis for the Bertelsmann-Stiftung, Gütersloh/Germany, Nov. 2018

- Integrating Digital Health Services: An Open Platform Approach for Resource-Constrained Countries. Proceedings of the International Conference on Multidisciplinary Research, Mauritius, June 2018

- Analyse des problèmes [de eHealth] rapportés par les Médecins Généralistes – Recommandations (Analysis of [eHealth] problems reported by general practitioners (in Belgium) and recommendations). Brussels: : [Belgian] Société Scientifique de Médecine Générale (SSMG) - Cellule e-santé SSMG, Feb. 2018

- eSurveillance for public health – an implementation approach for sub-Saharan Africa. In: Paul Cunningham and Miriam Cunningham (Eds). IST-Africa 2017 Conference Proceedings, 2017, IEEE Xplore

- The univocal electronic identification and safe dispensation of medicinal products across Europe – challenges and solution proposal. GMS Med Inform Biom Epidemiol 2017; 13(2) pp. 8-23: Doc09 (20171221)

- Model-driven paediatric cardiomyopathy pathways – a clinical impact assessment. In F. Lau et al. (Eds.). Building Capacity for Health Informatics in the Future - Studies in health technology and informatics 234 (2017): 309-314

- Patient-centric care and chronic disease management: a stakeholder perspective. In: Studies in Health Technology and Informatics, Volume 208. Amsterdam: IOS Press, 2015, pp. 324-330

- Health system efficiency and eHealth interoperability – How much interoperability do we need? In: A. Roca et al. (ed.) New Perspectives in Information Systems and Technologies - Volume 2. Advances in Intelligent Systems and Computing – Volume 276, Heidelberg: Springer, 2014, pp. 394-406

- Scoping global good eHealth platforms: Implications for Sub-Saharan Africa. In Paul Cunningham and Miriam Cunningham (Eds). IST Africa 2014 Conference Proceedings. IEEE Xplore, 2014