

## [SE07-MED]

# Medical Technology and Innovation for Sustainable Impact in Global Health

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### **Brief Bio**

*Session Leader(s)*

Klaus Schönenberger obtained a PhD (1996) from EPFL on medical technology. After a post-doc at Lawrence Livermore National Laboratory, he spent 10 years working in the medical devices industry in leading positions such as Global Vice-President of Research and Technology in a company with a turnover of \$1bn. In 2010 he started-up EssentialMed, an innovative non-profit venture, which he is now leading as CEO. In 2011 he joined EPFL to launch EssentialTech, a program directed at developing technologies and business models to fight poverty.

### **Abstract**

*Short description, including alignment with conference themes and objectives*

Many important medical devices, such as X-ray diagnostic imaging systems and neonatal incubators, which are essential to primary healthcare are still not available in much of the developing world; even when they are available, they are often dysfunctional and not properly exploited, thereby diminishing and/or eliminating their intended benefit and impact. The context of healthcare delivery in developing countries has very specific and universally recognized characteristics. These unique features warrant a complete or significant rethink/redesign of technology solutions and business models, so as to better fit the local needs and are a necessary condition for successful large scale and sustainable deployment. However, a complete redesign/rethinking of technology and business models typically requires high financial investments, a factor that discourages companies and investors as they still perceive these “markets” as financially unattractive and too risky.

The session will reflect on how the development and deployment strategy can be adapted to reduce or mitigate risks early on in the process, in an effort to attempt to tackle the problem of perceived lack of attractiveness for investors or companies. In this regard, medtech innovations that were (or are in process of being) successfully transferred, deployed and scaled-up are of particular interest.

### **Description**

*Proposed discussion focus*

Presentations will be selected which illustrate good (and bad) practices in creating, deploying and scaling-up innovative technologies targeting global health issues.

- Some authors affirm that the technology must be radically rethought to be successful in these contexts. What does this mean in practice and how much redesigning is optimal? What is the involvement of local stakeholders?
- Which successful business models can be proposed to assure a sustainable impact? How can global and local market forces contribute, and how can those forces be unleashed?
- What financial solutions exist for financing the development and deployment of such technologies, including alternative/creative investments from impact/venture philanthropy, crowd funding etc.?
- What are the main risks of failure for an entrepreneur and how can these risks be mitigated?

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# **Medical Technology and Innovation for Sustainable Impact in Global Health**

### **Objectives**

*Justification and expected impact during and after the conference*

Risk is inherent to entrepreneurship, but this risk is perceived as even higher in developing markets because there are few prior established benchmarks. This session will hear from players operating in these markets how the different risks were/are mitigated, using examples of innovations that are in the process of development, deployment and/or scale-up phase. It is expected that the participants will extract lessons about good strategies and best practice for maximizing the chances of successfully translating a new technology to the private sector and sustainably scaling it up, thereby maximizing positive impact on global health.

### **Target Audience**

- Academics interested in proposing and developing innovations for the Global South.
- Entrepreneurs wishing to take their innovation to market.
- Private companies interested in expanding their markets in the Global South.
- Investors, private equity investors, impact investors/venture philanthropists.