

## Developing and managing operational capabilities in startup companies

– *Master's Thesis Proposal* –

IDUN Technologies is an ETH Spin-off which is developing and producing soft and dry conductive electrodes for biopotential monitoring (ECG, EEG, EMG). With a unique and patented surface structure these electrodes provide high quality signals with skin-friendly materials without electrolyte gel or glue. Being a hardware startup with a tangible product, INDUN Technologies faces various challenges around its production and its supply chain such as the following:

- Make or buy: What steps in the value chain should be outsourced?
- How to select suitable suppliers?
- How can a startup avoid becoming dependent on specific suppliers?
- How can a startup create lock-in effects through its supply chain strategy?
- How can a startup increase its negotiation power despite sourcing and delivering only small volumes?

While there is a plethora of studies investigating operational capabilities of established firms, there is little known about how hardware startups can develop or acquire operational capabilities that are necessary to deliver value. Therefore, in cooperation with IDUN Technologies, this thesis seeks to explore how hardware startups can manage their operations and develop the necessary operational and supply chain capabilities.

### REQUIRMENTS

Please send your CV, transcript of records and a brief proposal (max. 1 page) including your motivation to Stefan Kurpjuweit (skurpjuweit@ethz.ch). We are looking for a highly motivated student who is interested in working at the interface between Entrepreneurship and Operations & Supply Chain Management.