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Studying – Researching – Company founding

**Technical Universities and Innovations:
Start-ups and Spin-offs taking special account of
higher education**

Management Summary
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Management Summary

Company foundings play an important role in today's political and scientific debate, because they are regarded as a key factor in economic restructuring and growth. This study, based on the THISS project, Technical Universities and Innovations: Start-ups and Spin-offs taking special account of higher education and support structures, investigates *founding processes typically originated by university and technical institute graduates*. Particular attention is paid to the role of the Universities of Applied Sciences (UAS) and the Swiss Federal Institutes of Technology (ETH) in company founding processes.

The study draws comparisons between *actual company founders*, potential founders and *non-founders*. It also examines differences depending on whether those involved graduated from the Swiss Federal Institutes of Technology or the Universities of Applied Sciences.

Thanks to the THISS project, representative data for the whole of Switzerland is now available for the first time in the technical sciences area. The *key results are summarized in 17 theses* as follows:

Company founding motivation and potential

- *Independence, self-reliance, self-realization* and the desire to run one's *own business* are the main motives for company founding.
- *At least every second graduate* in technical sciences considers the possibility of founding a company or becoming professionally independent.

Impediments to company founding

- Satisfaction with the current *employment situation* is the main reason for not founding a company.
- *Financing problems* are a basic obstacle to company founding.

The main success factors in company founding

- *Professional experience* plays a primary role in company founding motivation and behaviour.
- *Contacts and personal relationships* help to promote company founding.
- Apart from practical knowledge of how to found a company, *comprehensive soft skills and entrepreneurial capabilities are required*. Company founders must for example have an integral approach, project management and problem-solving abilities, and they must be good communicators.
- *Services in support of company founding* are more important for potential founders than for actual founders.

The role of the Swiss Federal Institutes of Technology and Universities of Applied Sciences in the founding process

- The Swiss Federal Institutes of Technology and the Universities of Applied Sciences provide valuable support with company founding in the *pre-founding and motivation phase* as well as through their *contact potential*.
- *Research activities* favour the founding process.
- The Swiss Federal Institutes of Technology and the Universities of Applied Sciences are faced with the challenge of imparting *soft skills and entrepreneurial capabilities* apart from specialized knowledge and scientific know-how.
- For company founders the Universities of Applied Sciences and Swiss Federal Institutes of Technology are the main providers of *professional training*. Despite the great need for management training, *specialized technical training courses* play an important role here.

Characterisation and development of companies founded

- The companies founded by graduates are generally *successful*.
- Not all companies founded in the technical area are of an innovative high-tech nature. The *employment creation effects* are relatively insignificant.

The differences between the Universities of Applied Sciences and the two Swiss Federal Institutes of Technology (ETH Zurich and EPF Lausanne)

- Graduates from a University of Applied Sciences are more affected by *financial impediments* to company founding.
- *Postgraduate research* promotes a trend toward company founding. The two Swiss Federal Institutes of Technology have an advantage here compared with the Universities of Applied Sciences, whose graduates also have a greater need for services offered by their universities or institutes in support of company founding.
- Graduates from a University of Applied Sciences tend to set up businesses on their own, while graduates from the Swiss Federal Institutes of Technology more frequently form companies.

This study also shows up various *fields of action*, and proposes that the *spirit of enterprise* should be promoted among the students and staff. Furthermore, the curricula of universities and institutes of higher learning should be extended in the field of *company founding skills*, the main focus thereby being on comprehensive entrepreneurial competence rather than on merely imparting specific business knowledge and skills. The Universities of Applied Sciences and the two Swiss Federal Institutes of Technology are particularly strong in *implementing and commercializing knowledge and know-how won from research work*. Moreover, their internal and extramural *networking* must be further developed.