

Editorial

Startups were the theme of earlier editions of CHIMIA,^[1] portraying emerging and highly successful companies such as Actelion and Chemspeed, plus a few peers still active in business. In this edition, we hope to introduce the next generation Actelions and Chemspeeds. Here, we also direct the focus on Swiss public and private institutions that support startups at different stages of development (consulting, networking, financing, infrastructure, *etc.*).

The life of a startup divides into two main stages: First, knowledge is transformed into innovation, which is then converted into cash flow. Both stages come with entirely different challenges: First, the attention is on science & technology, about building the team, acquiring capital, and forming strategic partnerships. Once the product or service is market-ready, the business and marketing challenge sets in. The focus of this issue of CHIMIA is on the early stage; for the second phase, we refer the reader to the book 'From Innovation to Cash Flows' by Constance Lütolf-Carroll *et al.*^[2]

For startups to be successful, they need a good environment and an effective infrastructure. Silicon Valley, often referred to as the perfect example, is a cluster of top universities, research labs, businesses, attracting great talent and unmatched (risk-)capital. On top of this, there are services ranging from intellectual property protection to prototype manufacturing, available right across the street – the perfect *ecosystem*.

Still, according to the Global Innovation Index^[3] Switzerland holds the number one position, followed by Sweden, and the United States. Switzerland holds the lead not just since yesterday, but has done so for a decade! The GII looks at the entire business and innovation cycle, from 'input' (investment) to 'output' (return), using as many as eighty criteria clustered into seven groups. The fact that Switzerland and Sweden "achieve more [output] with less [input]" gives the two countries the edge over the USA.

Providing expert input to create optimal output is the mission of the services we present in the first part of this issue. Whereas some assist the birth of new startups, others provide infrastructure or prepare the teenage startups for the challenges of the global markets.

In the second part, we portray nine startups representing different areas. Our selection criteria for this issue of CHIMIA were a strong focus on the chemical sciences and on Swiss roots. We are pleased to present a highly diverse group of ventures advancing new technologies, drugs and medicines or materials.

We hope that the presented stories will make you hungry for the launch of your own startup!

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[1] a) CHIMIA **2000**, 54(4); b) CHIMIA **2014**, 68(12), <https://www.ingentaconnect.com/content/scs/chimia/2014/00000068/00000012>

[2] C. Lütolf-Carroll, A. Pirnes, Withers LLP, 'From Innovation to Cash Flows', Wiley, **2009**, ISBN 13:9780470118092.

[3] The Global Innovation Index (GII) is an annual ranking of countries by their capacity for, and success in, innovation, published by Cornell University, INSEAD, and the World Intellectual Property Organization. <https://www.globalinnovationindex.org>

The Editorial Board of CHIMIA expresses its gratitude to the guest editors, David Spichiger, Hans Peter Lüthi and Guido Koch, for organizing this special issue highlighting the very active Startup scene in Switzerland, featuring both the wide-ranging support available and the impressive innovation displayed by the Startup companies themselves.