

Plenumsvortrag 4

Young Entrepreneurs in Chemistry: Getting out of the laboratory

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University education has traditionally focused on high level education of students to become employable in our pharmaceutical or/and chemical industry (large majority of students) or themselves becoming successful academics (a minority, in most cases).

The recent fundamental changes in global economy have partially reached the university life with simple access to information, rapid access to chemicals and a much higher flow of papers and patents than a decade ago. Political processes to change the university focus tend to react on the level of decades, and therefore have delayed the fundamental economic changes (so called Information and Communication Technologies, ICT) to rapidly affect us, i.e. our life at universities.

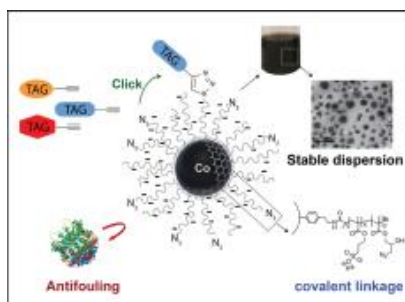
The advent of internet search based marketing and advertising in social media have enabled individuals to become producers of information, and enables them to access clients globally at comparatively low costs. As faculty, most of us have grown up in a world where only large companies have access to market and therefore limit the number of actors interacting with clients.

In 2004, our team realized that we had access to a novel technology to make virtually any inorganic nanoparticle within hours. We realized that many researchers were in need for such small particles but had no means to manufacture them. In the following years, former Ph.D. students with the option for a promising academic career, or being offered tempting jobs in industrial R&D laboratories, decided to opt for years of very low pay, high risk to lose their income, but became entrepreneurs, i.e. they worked for small, new companies they cofounded, and own.

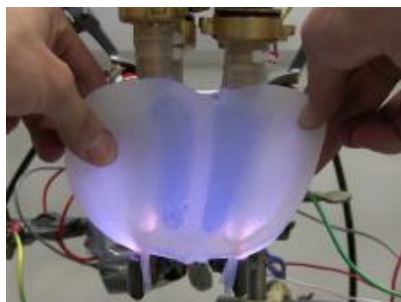
Economic studies are clear: The large success stories of today have often started as small entities leaving universities. If Switzerland wants to compete in this global economic challenge, we must adapt to the modern, fast, ICT-dominated way of developing new materials, applications, treatments...

In this presentation, I try to show some key educational aspects that had changed the way the majority of my team's Ph.D. students think about their future, and why they pursue non-traditional options in their developing career. As such, I must take an observer's position, and try to correctly reflect the young entrepreneur's decisions: academic, industrial or trying it out.

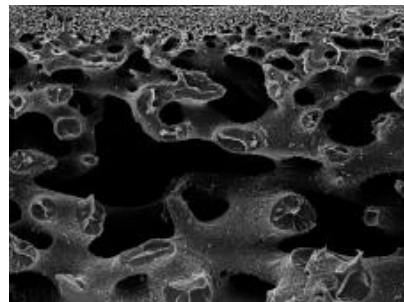
I believe that the ongoing rapid re-building of the global economy asks faculty to adapt. In chemistry, we are shocked to see some of the long standing giants in our world to struggle, losing control of their independence or being taken over by rather unknown, young companies. Rather than waiting what happens, I assume the present change should be made as fast as possible, to best enable chemical engineering and chemistry students to realize their own future.



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