

# STUDER SOLARTECHNIK

## Manufacturing power electronics in Switzerland for more than 30 years

Studer exhibitions 2: Booth design in the early years. Photo credit: Studer Innotec



Serge Remy

From its beginning, Studer has been in the forefront of battery-based systems. Despite the constant evolution of the sector, and the arrival of new competitors, Studer has kept a leading position. All manufacturing is carried out in Switzerland, to the highest quality standards. Serge Remy, Head of Sales, gave PES a look back of over 30 years of history and bringing us right up to the present day.



# CH-3977 Granges



Studer's innovations stood out because they didn't stop with a mere invention; rather, they established a place for themselves in the market with new products, solutions and services.

In 1998 Studer created the very first inverter/charger compact all-in-one integrated solar charge controller. Over the next decade, business expanded worldwide to other applications within the renewable energy sector such as mobile, back-up and telecom systems.

On the eve of 2000, the local player Studer Innotec became a global player.

## Pure innovation

From the very beginning, Studer has been defined by its innovativeness. This is the quality that actually gave birth to our company.

The following decade brought the first Xtender multi-unit system, which was the start of a series of products for the optimizing the use of available energy, either as an off-grid inverter, battery charger, current injector, or support to an AC source. The Xtender is a high-tech device and a key player in the management of an energy system.

## Swiss made power

Developed, manufactured and tested in our facility in Sion, in the middle of the Alps, all Studer's products ensure Swiss quality. This means we have full control of the development and the manufacturing process, right through to the final testing of every single product before it's dispatched.

## Maximum power available

In 2014 Studer once again challenged the market, with the introduction of the Varioring, the first high voltage MPPT solar charge controller, which offered the highest

## The pioneer years

Here is the story of a company which started small, in a tiny country called Switzerland.

The man who founded this company in 1987, Roland Studer, had a great idea: to offer high value power electronics to a brand-new market, which then was still in its youth and to offer it beyond the frontier of Switzerland. Of course, it was solar photovoltaic.

## The first solar charge controller 200Wp with analog display is born

Only one year after, the first device was improved and got up to 300Wp, incorporating a digital display.

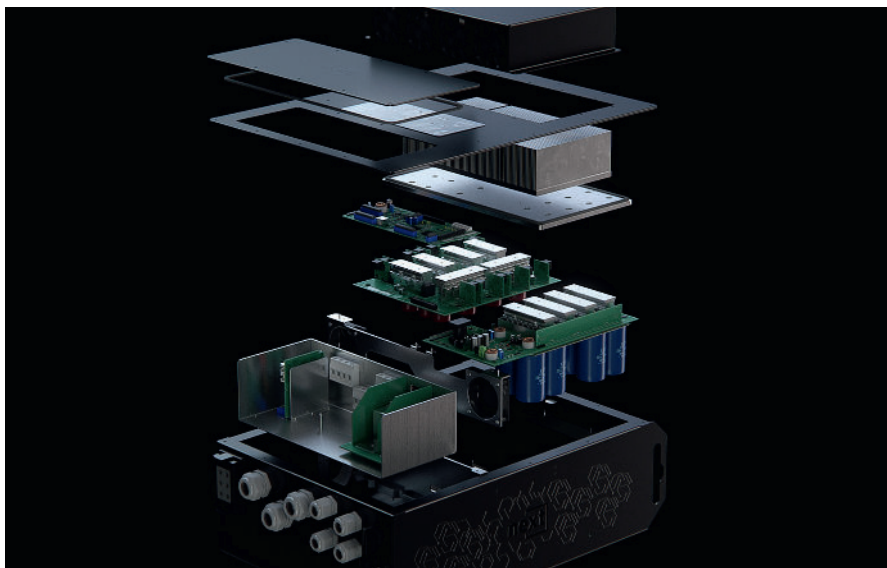
## The belle époque

During the 90's, Studer grew exponentially and developed its first sine wave inverter.



The very first exhibition in Switzerland, 1989. Photo credit: Studer Innotec





A design concept image of next, the new device that Studer will launch later this year.  
Photo credit: Studer Innotec

efficiency and the fastest regulation for similar products on the market. All this, allowing for the longest life possible of the battery. To round off this period, Studer was the winner of the International Solar award, recognizing its work over the years.

Studer took another step forward introducing new battery technologies. Thus, proving to be adjustable to any environment and situation. All of the products are now compatible with Lithium, NiFe, RedoxFlow and Saltwater batteries, making the product even more versatile.

Thirty years later, our users can rely not only on the products, but also on our reliable presence and after sales support for the duration. Studer Innotec is a family company.

We ensure that our products will meet and exceed the needs of the sustainable markets of tomorrow.

With an eye on our latest device, and with more than 30 years of experience behind us, the whole production process has been modernized, we are proud to underline that we have upheld our values since the first day.

Later this year Studer will be launching its new advanced and revolutionary product line called next, with next<sup>3</sup>.

This new solution combines the latest technology, ensuring high performance and maximum design flexibility for the entire system.

To learn a little more about Studer, PES spoke

to Serge Remy, Head of sales, who has been with the company for more than 20 years.

**PES:** Hi Serge, please tell us how you think the sector has evolved over the last three decades.

**SR:** Well, the solar sector quickly progressed to grid-tied applications, and focused on maximizing energy production. Since the beginning Studer designed and planned devices for battery-based systems. However, the industry only recently turned towards battery storage and really only since the appearance of the self-consumption and electrical vehicle applications.

This has resulted in a big jump in terms of battery technology evolution. While storage is a new field for many people, it has been the core element of our installations since the beginning. We find ourselves in a very interesting position, as experts for battery-based systems, our track record is a great asset.

**PES:** How has the customer profile changed since you first began?

**SR:** Our first customers were involved in small off-grid installations for very specific applications: mountain huts and isolated households. Then the device proved to be a great solution for off-grid mobile applications, such as boats, camping cars, etc.

Then with the boom in self-consumption, especially in Germany for us, our devices started to be used in the residential sector and attracted the interest of bigger clients and bigger sectors.

However, our philosophy has always been the same, and that's why the common point between all our clients is loyalty. We have been working with many of them for over 20 years.



Studer exhibitions 1: Welcoming clients to one the first Solar exhibitions. Photo credit: Studer Innotec





Studer lab: The laboratory where Roland Studer manufactured its first device. Photo credit: Studer Innotec

**PES: Studer manufactures all of its products in Switzerland. How does the relocation trend of similar products affect you?**

**SR:** Our products are conceived to be installed and operated, where the most important aspect to bear in mind, is the lifetime installation cost of maximizing the amount of energy available and ensuring the longest battery lifetime. Our products are designed to perform for the long run.

We address markets, where cost saving over the system lifetime offsets upfront cost. Of course, we have to offer further differentiation, which we do through innovation and an outstanding service to our customers.

**PES: What would you say was the turning point at Studer Innotec?**

**SR:** Definitely, the Xtender. The first smart battery inverter-charger, which resulted in a swiss-knife kind of concept. The same device was used in a variety of different applications, different contexts and regions, and it has evolved along with the sector.

If we take the first Xtender produced at our

factory, with a simple software upgrade it could fit in a very modern installation with lithium batteries and Modbus communication, including a Scada system. The Xtender changed the way the energy was managed in a system.

**PES: As a small or medium-sized enterprise, how does Studer manage to be present throughout the international scene?**

**SR:** Studer reaches the different markets through a network of more than 120 partners around the globe. We are certainly a business to business company; we therefore rely on our local partners to sell our products.

Many of them I'm proud to say have been working with us for the past 20 years. So, they are our eyes and hands where we personally do not reach.

**PES: How does the Support Team, which you always highlight, respond to a certain demand?**

**SR:** Well, we like to highlight this support, because first of all it's personalized. One of our team will follow the request right through until the end. And then of course our

specialization in the sector makes us experts at problem solving!

It may sound strange, but we love challenges! Our motto is 'if there is no solution, we help you find one'.

[www.studer-innotec.com](http://www.studer-innotec.com)

**Join Studer, test innovation!**

**Highlights:**

- Studer Innotec is a family company, which joins Swiss technology together with the Swiss culture of excellence and reliability, to offer only the best
- With several hundred thousand units manufactured and running all over the world, our products are applicable in any field and are at the same time designed to fit special applications
- From the beginning Studer has dedicated its know-how and innovation to the battery-based systems. It is our expertise and it will be our focus for the years to come