



Photos: pv magazine/Patrick Alleyn

The Solar Superheroes stopped into Shanghai's Bund for an iconic photo call. From left to right, Apollon, Diamond Wire, Flash, Silver Maze, Coal, Inspector Vi, Laminator and Wire Mesh.

The Solar Superhero story... so far

Solar Superheroes: Sometimes the best ideas are born in unlikely settings. Sometimes they happen over freshly squeezed juice.

If you attended SNEC this year, it would have been pretty hard to miss **pv magazine's** Solar Superheroes. Stalking the aisles, the seven superheroes were mobbed by crowds, posing for selfies, putting on solo, two- and three-way routines and dramatic kung-fu-style battles against the imposing figure of Coal, their arch nemesis. Each superhero was decked out in a colorful costume, and when arriving at a sponsor's booth, the likeness to their comic book form was striking.

Print editions of both Episode I, in three parts, and the first two installments of Episode II, were compiled into a special publication, in both Chinese

and English. Copies veritably flew off the stands. It was a welcome addition to the 2016 SNEC and was a frequent talking point among attendees during and long after the event. But how did it all come into being?

Solar Superheroes: the awakening

The idea behind the Solar Superheroes first emerged only 13 months before the 2016 SNEC. From conversation to realization as a comic series and live act is no small undertaking, if we do say so ourselves, but it's been a labor of love.

In many ways, Italian backsheet provider Coveme is to thank for the Solar Superheroes. On the second night of the

2015 SNEC, Coveme hosted a dinner. So well attended was the event that the **pv magazine** was a part of the overflow, unable to get a table at the main event.

Improvising, the Coveme team arranged for a table for attendees unable to be seated in the main hall. It was a happy circumstance as at the table sat representatives of laminating equipment supplier Bürkle, TÜV Rheinland and some other PV module technology providers. And it is fair to say, hilarity ensued.

Putting flesh on the bones

Given the success of the superhero genre in recent Hollywood films, the table tried



Wish Mesh struts her stuff at the SNEC trade show. The Solar Superheroes drew vast crowds wherever they went.

to answer the question: what would various solar manufacturing technologies look like, if they were to take superhero form?

It was quickly decided that wet chemical processes would be a rather down-

beat character, bringing with it a puddle of water around its feet wherever it went. The factory auditor would be a be-suited engineer, replete with clipboard and certification stickers, that it could throw in rapid succession at its enemies, plastering

them into submission. A flasher should be represented as, well, a flasher and so on.

And the enemies? This too would have to be determined. Coal was obvious, and oil of course. Gas, it was con-

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Social Media presents an ideal platform for spreading the Solar Superhero message, one selfie at a time.

cluded, would be a malodorous and perhaps lesser evil, and nuclear? Well, much debate followed.

As the evening continued, the bouts of laughter rang out from the spontaneous superhero brainstorm. **pv magazine's** attempt to procure cold beer to accompany the meal was one source of mirth, with beer orders invariably resulting in a glass of freshly squeezed orange juice: Something the Laminator would not tolerate, the Bürkle team insisted.

The morning after

The morning after the night before can sometimes be full of regret, but in this case, it couldn't be further from the truth. The seed had been planted, and when some of the dinner attendees met again, it was decided that this stupid idea might not be so stupid after all.

It is invariably challenging to convey just how the incremental and evolutionary process of manufacturing improvements, coupled with scale, has delivered the remarkable cost reductions and efficiency increases that have driven solar's competitiveness to the place where it is today. Why not tell the story in a fun, creative and engaging way? But how could the technologies inside and behind solar manufacturing be brought to life?

pv magazine departed Shanghai in 2015 with many questions, but a determination to see the Solar Superheroes take shape.

The search for an illustrator saw a number of overseas options investigated, before a German designer sketched out the first Laminator and we all knew, Stefan Lochmann was our man. Diamond Wire (Meyer Burger), Flash (Wavelabs), Silver Maze (Heraeus) and Wire Mesh

(Meyer Burger) all followed, and while in some cases it took some convincing, the amazing Solar Superhero sponsors came on board.

Character development

Jokes aside, developing characters that would both demonstrate the respective companies' technology and brand, and that would engage readers, would require more than a few orange juices between friends. Here the sponsors' embraced the concept.

"We had fun over lunch," reported Wavelabs' founder and CEO Torsten Brammer on providing the input on Flash. "Beard, at least three-day-beard and glasses with a black frame. They can be sunglasses, which makes sense because he [Flash] does not want to blind himself [with his LED flash]," he elaborated. Flash's garrulous humor and amorous advances, often unwanted, towards the female members of the Superhero gang were also stipulated.

"It's the funniest meeting we've ever had among our team," added Robert Gaiser from Bürkle. "Three of four people from the brainstorming team have a bald head, so therefore we decided that he should also have a bald head and a beard when he doesn't wear his helmet." Details, but important nonetheless. Gaiser and the team at Bürkle stipulated that Lami-

nator should have a leadership role, and given their attendance at the evening where the idea first emerged, **pv magazine** acquiesced. However, the overriding theme of cooperation amongst competition prevails throughout the comic series.

A leader?

All superhero groups have their internal tensions and a guiding mentor is a good thing to have. Enter: Professor Green.

With his strong profile among the Chinese PV industry and his and the University of New South Wales' distinguished role in solar research, Martin Green was approached to be the man behind our superheroes.

"Indeed unusual," Green responded to the initial inquiry. "But OK with me."

Launch and beyond

The first Solar Superhero comic was published in the September 2015 edition of **pv magazine** and distributed at the Solar Power International show in Las Vegas and EU PVSEC in Amsterdam. With it came many questions - "What is this? Will you keep going? Just, why?" - but with episodes continuing in the print editions of the magazine and hosted online, momentum began to build.

"I actually now look forward to seeing what the superheroes up to each edition," **pv magazine** was told at this year's

SPECIAL THANKS TO SOLAR SUPERHERO COLLABORATORS

- Bürkle:** Michael Essich, Robert Gaiser, Ken Song
- Heraeus:** Andreas Liebheit, Michael Treutel, Verena Klotz, Gail Strong Heimberger
- Meyer Burger:** Ingrid Carstensen, Roger Glauser, Ramon Müller, Jose Bautista
- 3D-Micromac:** Mandy Gebhardt, Kristin Schumann, Frederick Bamberg
- Victronic:** Birgit Voigt, Richard Moreth, Florian Steiner, Bill Wang
- Wavelabs:** Torsten Brammer, Jason Nutter, Falk Wildgrube, Volker Gutework, Jörn Suthues

SNEC, which was precisely the feedback we were looking for.

Life-sized figures of some of the superheroes were made. Laminator, Silver Maze and Flash were the first, and when it became apparent how in demand they were for photo opportunities, the idea of a live act began to take shape.

New characters were born with Inspector Vi (Vitronic) and Apollon (3D Micro-mac) joining the Solar Superhero ranks at the start of this year, adding powerful imaging equipment and lasers to the technology mix. Tim Nebel from Hamburg agency WBN also joined behind the scenes, providing invaluable input into taking the superhero concept to the next level. At a meeting of the Solar Superhero sponsors in Berlin the crazy idea of bringing the Solar Superheroes to life at SNEC 2016 was signed off, and work began on the ambitious plan.

To go from two dimensions in the comic to a live act brought with it many challenges, and **pv magazine's** head of sales, Andrea Jeremias, drew on her experience in theatre production, alongside her boundless enthusiasm, to source costume designers and a choreographer to realize the live acts. Joe Alexander came on board as choreographer and rehearsals began.

What an impact a live act makes. SNEC 2016 saw much of the work behind the Solar Superheroes pay off, and to see some of the sponsor booths decked out with their superhero in living color was



The Solar Superhero comics have been published in Chinese, Japanese and English.

an excellent affirmation of the concept. As were the crowds of SNEC attendees. It was hard to follow the superheroes on foot as they were frequently mobbed by crowds, and even Coal picked up a few admirers (he also terrified a small child, as well he should).

Where to next?

Onwards and upwards! The upstream Solar Superheroes are now well established and with each selfie, WeChat, Instagram, tweet, Facebook post, edition of the comic and performance of the 'real-

life' heroes, momentum builds. Intersolar Munich will see the live-action Solar Superheroes make their European debut.

As any solar engineer will tell you, innovation is seldom easy, and this also applies to the marketing and communications space. As such, the team at **pv magazine** wishes to thank the people who brought the idea of developing a band of Solar Superheroes forward within their companies (see box p. 116). So I'll see you and the Superheroes in Munich! Until then, make mine an orange juice. ♦

Jonathan Gifford

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