

Interview with Nunzio La Vecchia, Chief Technical Officer, and Prof Jens Ellermann, President of the Board of Directors of nanoFlowcell AG at the Geneva International Motor Show on 3 March 2015.

Question: With its world premieres of the QUANT F and QUANTiNO, nanoFlowcell AG is a key talking point at the 2015 Geneva International Motor Show. Where are nanoFlowcell AG and flow cell technology now headed?

Nunzio La Vecchia: nanoFlowcell AG is a research and development company which is dedicated to the ongoing development of flow cell technology. In the automotive sector we see this as offering the best alternative for sustainable drive technology in the field of electric mobility. The performance figures and ranges that we are currently attaining without any harmful emissions with our nanoFlowcell® technology in all-electric mode in test drives on the race track and on public roads provide us with a highly positive outlook. nanoFlowcell AG is on the right track. In future, any professional examination of the available alternatives for electric mobility will have to include flow cell technology. Performance, range, zero harmful emissions and a simple refuelling process for the ionic liquid without any time-consuming charging – the nanoFlowcell® offers a host of advantages as a new drive technology. The required infrastructure can also be set up within a short time frame. As the ionic liquid is neither combustible nor toxic, blanket coverage using existing systems, such as petrol stations, is quite conceivable.

Prof. Jens Ellermann: Flow cell technology is not limited to the automotive sector. The nanoFlowcell® with ionic liquid can be used in all applications requiring electrical energy. The scope of potential applications is extremely diverse. One of the main tasks for nanoFlowcell AG in the coming weeks and months will be to identify suitable partners from various fields for whom deployment of the nanoFlowcell® is a feasible proposition. Initial discussions have already taken place in this respect. Along with the automotive sector, areas such as aerospace, the transport industry – that is, trains, trucks or shipping – and terrestrial applications are also predestined for the use of flow cell technology. Corresponding research projects have already been initiated by nanoFlowcell AG and are progressing well.

Question: Critics claim that flow cell technology cannot be sufficiently advanced for it to be deployed in any meaningful way in the automotive sector. What do you say to this?

Nunzio La Vecchia: That's an interesting assertion. I would have loved to have seen these critics at the roadside as I spent a whole morning driving the QUANT E around Zurich in February – I would have waved to them with a smile as I swept past them. But seriously – the QUANT E is already up and running with the nanoFlowcell® on public roads and on test and race tracks in Germany and Switzerland. The performance figures are exceptional. The acceleration is phenomenal – and without any harmful emissions. I'm fully convinced that the nanoFlowcell® is headed for a positive future.

Prof. Jens Ellermann: Sometimes one has to question what intentions lie behind such claims. Are these competitors pursuing their own interests, are institutions afraid of losing their research funding – or is it simply a case of ignorance? We have established a substantial research lead with the nanoFlowcell® and the development of the ionic liquid. We are now going to exploit this lead to realise meaningful applications with strong partners – according to the motto: join the flow.

Question: What are the next steps for nanoFlowcell AG?

Nunzio La Vecchia: In the automotive sector, we are aiming for homologation for the purposes of series production with the new QUANT F. 90 percent of the interior already meet the requirements in order to pertain approval for series production. The exterior is already 100 percent compliant with the qualifying conditions. With the QUANTiNO, the first QUANT low-voltage vehicle, we have created a new category of electric vehicles which will take the issue of range to a new level in the coming months and years. The nanoFlowcell® in combination with low-voltage systems represents an approach that has what it takes to revolutionise electric mobility. And this year will see the QUANTiNO powered by nanoFlowcell® running on only 48 volts. With regard to potential applications for the nanoFlowcell® in other areas, we will be expanding our research and development capacities and projects in order to consolidate and build on our research lead in these areas, too.

Prof. Jens Ellermann: In the context of the development of nanoFlowcell AG and expansion of the powered by nanoFlowcell® product portfolio, we will no doubt be entering into strategic partnerships and collaborations with renowned companies. There is a very high level of interest and we are already involved in good discussions. In order to further step up the company's growth in future, we are also considering other strategic options, however. An initial public offering could also provide an effective means to drive the further development of the innovative flow cell technology and to make it accessible to the general public. Here too, we are making good progress. Step by step.