

# GIM INTERVIEWS JOHANNES SAILE, MANAGING DIRECTOR INPHO GMBH AND DAVID HADDEN, SEGMENT MANAGER SPATIAL IMAGING EUROPE, TRIMBLE

## An Integrated Solution

Notwithstanding firm managerial confidence that it would keep its independence, on 14th February 2007 INPHO GmbH found itself acquired by Trimble. We went to Trimble's main European office in Raunheim, Germany to meet Johannes Saile and David Hadden and talk about the acquisition. But as Google Earth and Microsoft Virtual Earth have managed over just a few years to become ubiquitous, including in the world of geo-information, they inconspicuously eased their way into the discussions too.

In 1980 Professor Ackermann founded the photogrammetric firm INPHO GmbH as a spin-off from his institute at Stuttgart University, Germany. On the company's 25th anniversary in 2005 we interviewed managing director Johannes Saile (GIM, May 2005). In response to our question as to how the company had succeeded in avoiding acquisition and maintained its independence, he convincingly replied, "One secret might be that most of our shareholders are staff members as well, interested in keeping our activities self-determined next to doing prosperous business [...] we are confident of keeping our independent position." However, two years later came the announcement: "After 26 years, a new era begins for INPHO. Trimble is the new owner of INPHO and Johannes Saile and the staff will operate the company as a wholly-owned subsidiary."

### What changed your mind?

*Johannes Saile:* We had been approached by Trimble. Because of the ongoing developments in geo-data acquisition technology, including the trend towards system and data integration, Trimble identified the fact that geo-referenced pixels would become an important part of their future technology and product portfolio. We could offer that expertise. From the first meeting up until the final decision we discussed several models of co-operation. At the end of the day we determined that Trimble was an ideal partner. It was looking for photogrammetric solutions and a real team-up that would create a beneficial environment for development, marketing, sales and support. So the final model of co-operation was full acquisition. We are excited about our partnership with Trimble.

### What were the feelings of Professor Ackermann?

*Johannes Saile:* Actually, Professor Ackermann was already for some time of the opinion that we should work closer together with a strong partner. As founder he had always felt a responsibility for the company and its staff. There have been a number of contacts with other companies over the years but none had led to a satisfactory solution. Trimble was more promising and sustainable than had been any previous contacts. The scale and synergy, in combination with becoming Trimble's centre of excellence for photogrammetry, was an ideal fit.

### Trimble's core business focuses on terrestrial data acquisition equipment. What were the reasons for Trimble to acquire INPHO?

*David Hadden:* That is true, manufacturing terrestrial data acquisition equipment is one of our core business activities. But we always look to broaden our technology and product portfolio to provide the most complete solution for our users, and when we saw an opportunity to expand our capabilities into photogrammetry, INPHO was the best choice. The company adds a new dimension and allows us to address the geospatial industry with INPHO photogrammetry expertise. We have been monitoring the aerial photogrammetry industry for some time, but until now there has never been a right moment for us to embrace the technology. Today, however, given increased interest in combining terrestrial and airborne technologies, the time was right. With the creation of our Spatial Imaging portfolio and the partnership with INPHO we are driving convergence of the aerial and terrestrial markets to provide what the customers need, an integrated solution.

### What do you mean by an integrated solution?

*David Hadden:* It has become clear to us that the geospatial industry has identified an increasing number of opportunities and applications in industries such as transportation, civil engineering, natural resource management, and utilities. Aerial photogrammetry provides the overhead view, while terrestrial systems, such as our new VX Spatial Station and RealWorks Survey, provide the terrestrial one. In today's world, users want both. For example, with Google Earth you can type in any worldwide location and see it from an aerial perspective. Of course, in many areas the resolution is low and positions are on an uncertain datum, but some of our users already combine their surveying and Spatial Imaging results and 3D-models in Google Earth.

## **Maybe things will work out the other way around, as with the Microsoft take-over of Vexcel?**

*Johannes Saile:* Google's platform philosophy is quite different from Microsoft, which acquires imagery by contracting image capture out to photogrammetric firms and then itself processes the photographs. Google, on the other hand, at least in my understanding, provides a platform for distribution of geo-information. It is not actually concerned with how the information is acquired. If someone has data to share, Google provides the platform. Information is compiled from around the globe. For example, people in China may be interested in different types of information than is wanted by people in Europe. So it makes sense to offer the world one common platform, that way people who want to share information can collaborate. This is certainly one valid approach.

## **Many professionals involved in geomatics engineering are excited about Microsoft Virtual Earth, especially the 3D possibilities.**

*Johannes Saile:* One should make a clear distinction between the use of geo-information and types of engineering applications where high accuracies are required. If you are designing a road, constructing a highway or inspecting a power-line, the measurements must be accurate. Of course, there are already some cities where resolution has come down to about 15cm, and when Earth-viewer platforms become more powerful resolution may come down to 10cm, or even 5cm for the whole of the globe. But at Trimble we are looking at the one-centimetre range in both observable detail and positional accuracy.

## **How do the products offered by INPHO fit within the Trimble product range, and how much room will INPHO have for developing their own products?**

*David Hadden:* INPHO has successfully established a strong presence in the aerial photogrammetry market, and together we will continue to build upon this success. Historically, Trimble has not had a strong presence in the photogrammetry market, so we hope to achieve two goals with this partnership. Firstly, the knowledge and expertise of INPHO allows us to develop complementary products. For example, you can imagine the opportunities to leverage both the airborne solutions with terrestrial solutions, such as our VX Spatial Station, which is equipped with digital imaging technology. And secondly, our strong marketing and distribution experience helps INPHO reach more customers, increasing worldwide adoption of its solutions.

## **Will the brand name INPHO GmbH continue to exist over coming years?**

*David Hadden:* INPHO has developed brand recognition within its market. Trimble has always adopted differing operating models and approaches to the markets it serves. Applanix for example, a provider of systems for inertial navigation combined with GPS for aerial mapping, offers its products under the brand 'Applanix – A Trimble Company'. Tripod Data Systems, provider of field computers and survey software, also operates under a separate brand, 'TDS – A Trimble Company'. On the other hand, taking terrestrial laser scanning and our acquisition of MENSİ, we determined that the best approach was to integrate the brands. The 3D-laser scanner capability and software are now a part of the Trimble Spatial Imaging portfolio, and this approach works very well.

## **Just to learn more about Trimble's acquisition policy, also within the framework of the INPHO transaction, why did Trimble acquire MENSİ?**

*David Hadden:* MENSİ also filled a technology gap for us. MENSİ was for many years a subsidiary of the EDF group (Electricité de France) and was acquired by Trimble in 2003. EDF acquired MENSİ because in the 1980s there was no easy way to make accurate "as-built" plans for nuclear plants. The organisation independently developed laser-scanning technology and software as an "in-house" service, using revolutionary techniques and technology. It not only operated in France but also provided consultation to many other countries around the world. In recent years EDF has been transformed from a government organisation into a private company, refocusing its core business on generating electricity; it thus decided to sell the laser-scanning operations. It was a quite natural fit for Trimble.

## **In our November 2001 issue we published an article by INPHO developers on inJECT, a semiautomatic building-extraction technology. What is the status of this technology today?**

*Johannes Saile:* InJECT was developed as an interactive system to assist the photogrammetric operator by automating some procedures. It also made redundant stereo viewing, since the system was able to extract 3D information by measuring in mono-images. This product was not widely accepted within the photogrammetric community and we have taken it off the market. This does not, however, mean that we will not use the technology in the future. With reference to automation of photogrammetric processes in general, aerial triangulation is fairly well automated, but there is certainly more automation needed. Extraction of Digital Elevation Models (DEM) is highly automated but in some areas, especially in highly urbanised ones, failures may still occur; procedures need improving for these. The generation of orthoimages is also fairly well automated. But looking at automated extraction of buildings, roads and other features, there is still a long way to go. However, convergence of aerial and terrestrial imaging technologies is happening rapidly and offers a lot of potential opportunities to the surveying and photogrammetry markets. We are excited about what we can provide our customers today and into the future.