

NEWSLETTER

Technobis Group

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Kick-off meeting of the SARISTU project

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INTRODUCTION

There's no denying that summer is over. Outside, the leaves are falling from the trees, accompanied by the familiar pattern of the rain. Setting off for work in the dark this morning, I found myself reflecting that this is not my favorite time of year. Inside, the view is more encouraging. I can see that everyone has returned from their summer vacation safe and sound, and that projects and production are picking up again. The fall is good for business.

Following my summer vacation, I spent one week in Hamburg for the kick-off meeting of the SARISTU project at Airbus and I started the project at a major Dutch company. Both projects will run for the next few years and we now face the problem of finding the right people to execute them. Strictly speaking, it's more of a challenge than a problem. But a solution needs to be found nonetheless.

Good news arrived from our partner in solar technology, RGS Development: they have been taken over by a major American company that will restart development for direct casting of solar wafers. For Technobis, this means we will continue to develop

and improve the batch process line, start work on the continuous casting line and prepare for the production of all handlers (operating at 1000 degrees Celsius in a vacuum environment) in the coming years. You will find details of most of these projects in this newsletter.

I wish you an enjoyable read!

Pim Kat, CEO



Technobis Group

Technobis Group is a developer and supplier of high-tech instruments and modules for the most dedicated national and international OEM companies.



Technobis Mechatronics (TBM)

Technobis Mechatronics specializes in carrying out complete product development projects, from an initial idea to a successful turnkey product, prototype or series product. Building on over 14 years of experience, we have emerged as a trusted supplier of mechatronic systems in a wide range of markets.



Technobis Fibre Technologies (TFT-FOS)

Technobis Fibre Technologies specializes in the development and supply of total solutions in high-speed, multi-sensor fibre interrogators and sensors.

TAPAS PROJECT

Torsion box skin completed

On June 10th 2011, the TAPAS torsion box demonstrator skin was shipped from Hoogeveen to the Fokker Aerostructures Papendrecht facility. The skin was manufactured successfully in May of 2011 and successfully instrumented with strain gauges and optical fibres for Structural Health Monitoring and then assembled into a torsion box. A full scale static, dynamic and damage tolerance test campaign will start later in 2011 at the Dutch Aerospace Laboratory.

The fuselage demonstrator will be manufactured in the first half of 2012.

Thermoplastic skin TAPAS project is being assembled

On November 18th 2011, Fokker Aerostructures production manager Jan Luijten toured the Gulfstream G650 assembly jig with TAPAS (Thermoplastic affordable primary aircraft structure) project team members and employees of NL Agency (an agency of the Dutch



ministry of economic affairs).

A skin in a new thermoplastic composite technology was mounted in the jig. The thermoplastic skin contains new technology such as butt-jointed T-stiffeners and compares favorably with other concepts with respect to weight and cost. The torsion box, also including a thermoplastic rib, is being assembled and will then be

transported to the Dutch Aerospace Laboratory. The horizontal tail will be subjected to a full certification test program. After successful completion, Fokker Engineering is to pronounce the technology airworthy and certifiable. From that point onward, Fokker Aerostructures will offer customers products with the new technology.





SARISTU PROJECT

Technobis Fibre Technologies participates in the EC-funded SARISTU project, which has a budget of 50.95 million. The SARISTU project focuses on technologies and research activities related to smart/intelligent structural concepts designed to verify morphing, self-sensing and multifunctional capabilities in the wing and fuselage areas of next generation aircrafts.

From September 6 to 8, Technobis Fibre Technologies attended the kick-off meeting of the SARISTU project at Airbus in Hamburg. Technobis Fibre Technologies is participating in the 4th Application Scenario of this project, which involves integrating a fibre optic monitoring system in stiffened aircraft structures for three different purposes: strain monitoring, shape monitoring and damage identification.

IBSEN & TFT-FOS

While attending the Laser 2011 trade fair in Munich, I was approached by Bjarke Rose of Ibsen (Denmark). He stated that Ibsen produces the best spectrometers in the world and I replied that TFT produces the best interrogators in the world. This sparked an interesting discussion and resulted in a visit to Ibsen in Denmark. Sometime later, Ibsen returned the favor and paid us a call at TFT.

After examining the core business of both companies, we concluded that joining forces on development and making use of each other's capabilities would clearly be of mutual benefit. This resulted in using Ibsen spectrometers as a first step in the ultra-high-resolution fibre sensing program and in developing a combination of TFT electronics and software and the Ibsen spectrometer to produce the first series of 850nm FBG technology for Ibsen.

We are delighted with this new cooperation and sincerely value the open discussions we are able to have with the people from Ibsen.



Spectrometer applications



NEW FACE AT TECHNOBIS FIBRE TECHNOLOGIES

As new projects arise, Technobis Fibre Technologies responds by strengthening its development team. It was the advent of a new project that heralded the start of Michael Haverdings' career at TFT as a Development Engineer.

In fact, his career at TFT began earlier this year with a graduation internship for his Bachelor's degree in Engineering, which he passed with flying colors. This achievement is the culmination of four years of studying Applied Physics at The Hague University of Applied Sciences (formerly TH-Rijswijk).

Michael dedicated one year of his studies to photonics, with optics as his field of specialization. As part of a previous

internship in the photonics lab of the Biomedical Engineering and Physics department at Amsterdam Medical Center, Michael developed a sound working knowledge of areas such as fibre optics and fibre optic sensing.

Needless to say, Michael's specialization is an ideal match with Technobis Fibre Technologies. And with his physics background, he is well-equipped to tackle a variety of problems. He is sure to be a valuable member of our team.



Michael Haverding



ASSEMBLY AND TESTING AT TECHNOBIS MECHATRONICS

One of the important pillars of the Technobis Group is the assembly and testing department at Technobis Mechatronics. This department's main focus is on producing a series of high-tech life science products. The assembly of these high-tech products requires a large number of competencies, acquired through 15 years of experience in assembly and testing at Technobis Mechatronics.

The assembly, testing and tuning of mechatronic and optical systems are specialties of the assembly and testing department.

Main competences:

- Mechanical assembly
- Electrical assembly (PCBs, cabling)
- Optical assembly
- Software installation and testing
- Testing and tuning of total assemblies
- On-site assembly

In order to meet our customers' high standards and specific requirements, and to ensure optimal system performance in terms of quality, cleanliness and safety, the assembly and testing department works at the highest possible level.



Operetta

Main advantages:

- Supply chain management
- Low cost sourcing
- Logistics, inventory and change management
- Smooth and efficient assembly process
- Clean workplace, suited to assembly, testing and tuning of life science products
- ESD safe floor for assembly of sensitive electronics
- Experienced assembly team of professionals with excellent knowledge of a wide range of assembly technologies and solid backup from our development department

Our customers obtain maximum advantage by ordering a complete supply of mechatronic or optical assemblies, fully tested and packaged. Focusing on our core competencies allows our customers to optimize their assets and reduce time to sale. From start to finish, our team works as an extension of your company.

MEET US AT:

PHOTONICS WEST
San Francisco, USA,
January 24–26, 2012.



FBG ORDER WEBSITE

Visit our new FBG order website and activate your account!
<http://fbg.tft-fos.nl>

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