

Welcome Speech

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Minister Biltgen, Ladies and Gentlemen Good afternoon³

It's a great pleasure to be here to participate in the SnT Partnership Day.

Maybe to start I would like to say a few words about SES and its reasoning behind developing such a relationship with SnT

As you know SES is a leading satellite operator with 50 satellites in orbit and 7 under construction. To support these activities we have a technical staff of just under 400 distributed on a world wide basis. To maintain our market leading position we constantly need to review how we operate and how we can provide the best possible service for our customers. This analysis takes many forms ranging from optimizing our cost base, launch activities, satellite design, etc.

More specifically around 3 years ago we launched an internal initiative to identify innovative activities that would help us to achieve these goals. We started with around 70 ideas ranging from mild to wild and then focused on those we believed would give us the best return for the effort and costs involved in developing them. Then we ran into a practical issue. SES is a satellite operator not a research and development agency. Whilst we have considerable intellectual talent internally we do not have the luxury to be able to divert engineering resources from the core activities to look at the more esoteric development opportunities.

Therefore we faced a challenge, which we addressed by engaging with industry and various academic institutions, including Princeton University, La Sapienza (Rome), UCL to name a few. Then we started to focus closer to home.

SES has a policy of academic development of its staff and has supported more than 80 Masters programs and more than 10 Doctorate studies. One of the first of these Doctorate programs was engaged with the then, newly founded LIASIT (Luxembourg International Advanced Studies for Information Technology) Institution in, I believe 2003 timeframe. In fact I believe SES sponsored the first LIASIT Doctoral student Christoff Martin who successfully defended his thesis in 2005.

³ Original talk text

This relationship was beneficial for both SES and Luxembourg academia and perhaps in some way gave us a preview for the future.

Therefore in 2009 we were delighted that the decision was made to launch SnT under the directorship of Prof Ottersten and co-directorship of Prof. Engel we knew we were in very good hands and proceeded to form a close relationship regarding several different projects that are of strategic importance to the development of SES.

Today we have 11 PhD projects in process engaging 10 PhD candidates, 6 research assistants and 6 faculty members. This is a tremendous asset for SES to able to call upon and we are most grateful for the support. My colleague Dr Philippe Francken will introduce several of these projects a little later.

For SES the key importance of this partnership is the ability to tune our various projects to have both a significant intellectual challenge at a Doctoral research level and to have a pragmatic industrial outcome. For SES we believe it's essential to the successful development of the company.

In addition to the direct relationship with SnT we have also found an additional unforeseen benefit and that is the interchange of information with the other SnT partners, e.g. Lux Govt, BCEE, P & T etc. Several of the projects of great concern to us are of equal importance to our colleagues for example the threat of Cyber attack and the challenge of IT Security.

As we continue to develop our services on a global basis it becomes ever more essential to be able to count upon innovative developments. An example of the benefits of this research has recently become increasingly important.

With the continual development of space communications, satellites are being placed ever closer together in orbit. The consequence of this is that reception devices on earth are receiving ever-greater levels on interference often rendering the service unusable.

In 2008 , through our relationship with LIASIT and KTH namely Prof Ottersten, one of our SES colleagues Joel Grotz submitted his PhD thesis outlining a method to cancel this form of interference and allow successful communications in this environment. Last week the SES agreed to invest 2.5MEuros to develop a pre-production system with the objective of subsequently approaching industry to produce reception devices incorporating Joel's concepts.

For SES and the satellite communications community in general this may be a game changer. Without the close relationship of a Luxembourg based doctoral school it would have been impossible to achieve. There are several other examples of innovation being researched within SnT that we believe will bring forth fruits that will change the way we conduct our business in the future.

The success of SnT has been spectacular and that is in no small part due to the support of Prof Tarrach, coupled to the focus and excellent academic qualities exhibited daily by Professors Ottersten and Engel.

Sorry to embarrass you gentlemen but it's a matter of fact!

SES is extremely proud to be a partner of SnT and we wish the interdisciplinary Centre all the best success for the future.

Many thanks for your attention and please enjoy the remainder of the afternoon's events.