

*Crime scenes can now be stored digitally and examined virtually*

## **CSI The Hague demonstrates the forensic techniques of the future**

**Can you imagine a crime scene (CS) that always remains intact and open to examination? With CSI The Hague, the answer is yes. This consortium, in which the Netherlands Forensic Institute is collaborating with prominent knowledge institutes and high-tech companies, is busy developing the forensic techniques of the future. With the aid of these techniques, a CS may be stored in digital form and examined virtually. On 26th October, these innovations will be demonstrated within the specially built CSI Lab. They include the possibility to enter a digital CS and explore it with a kind of 'virtual reality' visor. Uniquely innovative, there is no other forensic training facility like the CSI Lab in the world.**

### Examination after the CS has been released

You can only examine a crime scene once. Any traces of evidence that are missed are lost forever. Within the CSI Lab, the above-mentioned visor (or 'head-mounted device') and a tablet have been developed so as to enable investigators to make 3D recordings of a CS and then use augmented reality techniques to add findings and notes. Cameras that record heat traces and blood traces have also been developed in the lab. The images that have been created can be projected and kept safe within the lab. And at a later stage, long after the real crime scene has been released, detectives and forensic investigators will still be able to use 'serious gaming' techniques to virtually examine the CS and test out hypotheses.

"The ability to store a crime scene digitally and three-dimensionally is relevant not only to the people who actually examine the CS, but also helps the Public Prosecutor, judges, solicitors and barristers to gain an insight into what has possibly happened," explains the Netherlands Forensic Institute's Andro Vos, who is the project leader of CSI The Hague.

### Virtual and physical training possibilities

It is also possible to create a reliable simulation of real scenarios virtually within the CSI Lab to train people in applying new and existing investigation methods at a CS. In addition to the virtual CS, a real CS has also been constructed in the CSI Lab, thereby enabling virtual and physical training methods to be combined.

### Increasing complex insights

While examining a physical CS, it is possible to monitor and analyse the behaviour of the forensic investigators. For example, the heart rates and pathways taken by those present can be followed from the observation room. This information increases our insights into the complexities of CS investigation. We can then use it as a basis to develop new investigation methods and further improve existing ones.

### Making existing technologies suitable for use within the forensic domain

The following parties are working together within CSI The Hague: the Academic Medical Centre of the University of Amsterdam, Capgemini, Chess, E-Semble, Eagle Vision, Forensic Technical Solutions, The Hague University, Noldus, TIGNL, Philips, Thales Nederland, TNO, TU Delft and the NFI. The partners within CSI The Hague are making existing technologies, including those used in medical science and space travel, suitable for application within the forensic domain.

### The future: consolidation and validation

"The project was launched in 2009 and we are now able to make use of the CSI Lab. It's the place where we can combine the techniques that we've developed, and we are very proud of it. But we've not yet finished. We will continue working together as a consortium to create new innovations. Next year, for instance, we will be concentrating on two different challenges. The first will be to combine all the possibilities we have in a convenient and open way. And the second will be to validate the techniques we have developed in order to allow them to be applied more broadly," says Vos.

**Editor's note - not for publication**

You are most welcome to come and take a look at the CSI Lab on Wednesday 26th October. As space is limited, several demonstrations will be given that day. If you would like to be present at one of these demonstrations, or would like more information about CSI The Hague and/or the CSI Lab, please contact one of the NFI's press officers:  
Eef Herregodts, 070-8886117/06-10406271 or Inge Oevering, 070-8886164/06-48132185.  
The CSI Lab is located within the Netherlands Forensic Institute in The Hague.