

# Vision Statement Hansken

Digital data and deduced digital traces play a continuously growing role in investigations and the furnishing of proof in crime cases. The volume, variety and variation of this data grow rapidly. As a result, there is a serious shortage of digital forensic knowledge and a growing need for new knowledge to handle this growth.

Hansken is designed to give access to and insight in digital data and traces originating from seized and demanded material. Since 2012, the Netherlands Forensic Institute (NFI) has been developing a prototype to provide Digital Forensics as a Service (DFaaS) [1,2]. In recent years, parts of this platform have been rolled out and successfully applied at the Dutch National Police and the Dutch Fiscal Information and Investigation Service, amongst others. Hansken has proven itself in supporting over 700 crime cases and withstood a profound judicial review.

## **Vision Statement**

Hansken is the forensic data analysis platform that is widely used for giving access to and insight in data and traces originating from seized or demanded material to detectives investigating crime cases at (inter)national law enforcement agencies.

Law enforcement agencies and science institutes closely cooperate in the continuous development of the platform and in innovative R&D enabled by Hansken.

Newly gained knowledge is shared via Hansken as knowledge hub and applied in crime case investigations, increasing both investigative power and speed.

## Main advantages

### Improved investigative capacity and speed

Analysis capacity increases because case detectives can independently investigate digital data and traces. Experts focus on deepening and interpreting identified traces.

#### Improved investigative results

Case detectives can concurrently investigate large quantities of data coherently. Parties can bundle their forces (capacity and knowledge) for further developing the platform.

Stored and automated knowledge is actively shared amongst all crime cases.

#### Increased innovation

Digital forensic knowledge is strengthened and enlarged by (inter)national cooperation. Parties can connect existing tools and libraries to the platform and develop there own extensions.

#### High quality reporting

The quality and transparency of case reports increases since the Hansken platform implements legal and forensic principles. For each trace, the chains of evidence and custody are in place.

## Optimized organizational integration

Use of the platform makes it possible for parties to easily cooperate and bundle their investigative forces while maintaining the forensic quality.

## investigate

make use of the platform for crime case investigations efficient mobilization: case detectives digital experts

## innovate

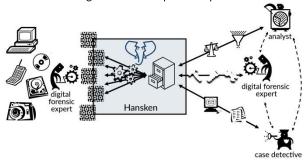
R&D with focus on extending digital forensic knowledge continuous development of the DFaaS platform

## -share

share digital forensic methods and procedures share digital forensic tools and technology

Hansken, the open cyber forensic platform

Case detectives are enabled to independently investigate digital data and traces without being directly supported by digital forensic experts. Experts focus on deepening and interpreting identified traces. In this way, case investigations are sped up and a substantial contribution to solving the need for more digital forensic expertise is provided.



To further increase investigative power, national and international law enforcement agencies and science institutes closely cooperate in developing and sharing digital forensic knowledge. Providing clearer insight in available traces results in better investigative outcomes. Parties use Hansken as joint platform for:

- case investigations;
- research and development;
- sharing and reuse of digital forensic knowledge.

# Hansken community

Our goal is to maximize the sharing of digital forensic knowledge and the bundling of innovation. To make this possible, we make Hansken widely available to law enforcement agencies and science institutes, national and international.

Parties can contribute to the further development of the platform by joining the Hansken community. Starting point for the community is that members share knowledge. The source of the supporting platform software is made available and members closely cooperate on the development of the platform and the forensic tools and libraries.

Members set up their own infrastructure and are fully responsible for their implementation of Hansken. Members are allowed to extend their implementation with additional functionality.

#### Membership for law enforcement agencies

Law enforcement agencies primarily use the platform for case investigations and where possible for innovation (R&D).

They actively share (newly gained) forensic knowledge and developed functionality with all members of the community. After testing and acceptance, the NFI adds new functionality to the platform, making it widely available to all users of Hansken.

#### Membership for science institutes

Science institutes get user rights to the platform in order to use it for scientific research.

They provide the NFI with license free right of use of R&D results based on Hansken. The NFI takes care of judging and possible embedding these R&D results in the platform.

#### Role of the Netherlands Forensic Institute

Hansken is owned and maintained by the Dutch government and is primarily servicing the Dutch criminal justice system. The NFI acts as product owner of Hansken, with focus on the NFI's primary tasks. Third parties are involved for activities out of the NFI's scope.

Commissioned by the Dutch Public Prosecution Service, the NFI guards that legal and forensic principles are applied to newly developed functionality.

For maintenance and operational costs, end-user licenses for the forensic tools and libraries developed by the NFI are provided to law enforcement agencies. Licensees are responsible for their own implementation and operational management of these tools and libraries.

## References

Two publications appeared on the changing investigative process [1] and the technical design [2] of Hansken.

[1] Ruud van Baar, Harm van Beek, Erwin van Eijk Digital Forensics as a Service: A game changer Digital Investigation 11 (2014): S54-S62. Available at https://doi.org/10.1016/j.diin.2014.03.007



[2] Harm van Beek, et al. Digital forensics as a Service: Game on Digital Investigation 15 (2015): 20-38. Available at https://doi.org/10.1016/j.diin.2015.07.004



For more information on Hansken and/or other products and services of the Netherlands Forensic Institute, please contact:

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## Strengths of Hansken

- 1. Investigations are more effective and efficient by mobilizing case detectives and digital forensic experts;
- 2. Case detectives and digital experts can join their forces for simultaneously analyzing large data collections;
- 3. Standardized interfaces make it possible to extend Hansken with extra functionality;
- 4. Hansken secures the application of legal and forensic principles (security, privacy and transparency, amongst others);
- 5. Hansken is the forensic investigation and research platform facilitating innovation and knowledge sharing.