



„Crime in Germany under the influence of global crises and conflicts?“

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Challenges to be met by an adequate information structure within the European Security Architecture

Long version

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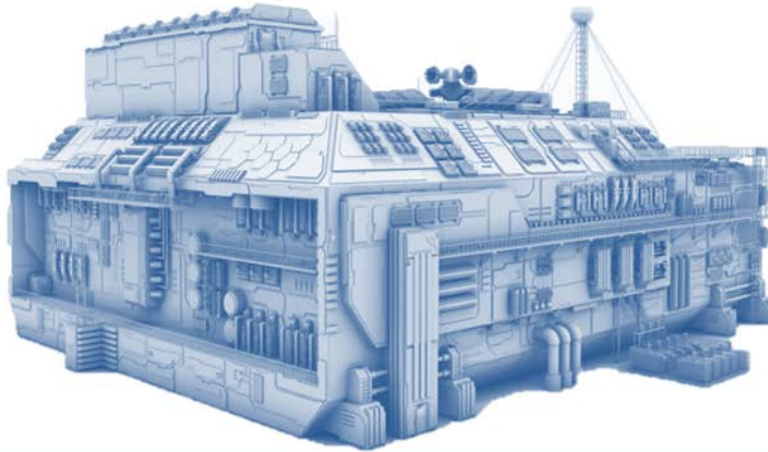


**Towards an integrated
European information
architecture**

Erik Akerboom
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Police as an information factory



The power of "the police as an information factory" is the realization that there is much more information available than we know how to use.

This insight begs for innovation and connecting to new developments and partners. If we continue to do more of the same we will fail to topple new criminal trends. The question is how we, as police partners, can make better use of this information "gold mine".

Both on a national and an international level.

Our police organizations will need to become high-tech-information factories with state-of-the-art connections across our borders. We need to initiate systems development at the highest management level.

The challenges in investigative quality I see in my own police service apply, I have no doubt, in a similar way to international police cooperation.

This became even more clear to me during the Dutch EU presidency this year.

Roadmap information exchange



Free movement in Schengen has brought unique economic and social benefits, and it is therefore one of the main achievements of the EU.

Ensuring safety in this open Europe however was heavily challenged in recent years. The pressure of migration, the refugee crisis and the wave of terror attacks obviously require a new approach to our work. The Dutch Presidency has tried to contribute to this approach with an emphasis on improving international information exchange.

This resulted in June in a policy document, called:

“the Roadmap to enhance information exchange and information management, including interoperability solutions.”

It aims to support operational investigations and professionals – our people who work on the streets and at borders, performing police duties and investigations.

The road map provides a long list of measures that are in themselves legitimate but often also rather abstract. At least as interesting is the analysis of generic challenges for effective information exchange, that the roadmap provides.

These are, in order of importance:

1. The Human factor, notably law enforcement tradition and trust issues,
2. Scarce Resources, and
3. System requirements

On the basis of those obstacles, I would like to invite you to take a look with me at what we, as police chiefs, might be able to put in place to achieve our goals in a practical sense.

And what can be expected from us to be truly progressive, visionary and innovative?

Questions we should ask ourselves along the way are: What can we influence and what not? What is needed and what can we do in terms of:

- Our behaviour,
- Our investment in capacity, capabilities and systems
- Our relationships and influencing?



Nothing seems as immutable as the way in which organizations have pursued change. A cycle that repeats generation after generation. I want the police to break that cycle. I want us to alter the way in which we change and adapt.

By switching from non-committal policy towards serious practice.

By taking our daily reality as a starting point. And not the seemingly feasible, paper version of it.

That movement comes with vulnerability. So be it!

I think it's high time to get real in our practice.
To elevate practice development to strategy. Also in our thinking about innovation.



The next generic challenge for information exchange is the - maybe not so human- factor: Trust

The first and foremost key element in international police cooperation, and specifically in information exchange is mutual trust.

But how do we as police services build more trust while geopolitical developments move in the opposite direction?

I believe that we can overcome the perpetuating political influences on effective criminal information sharing by developing an information architecture in which **intrinsic trust** is embedded.

The design questions that need to be answered are:

- How can we guarantee validation of sources
- How do we keep control over our data
- How do we track and trace the information and how it is being processed, shared and used

The most stable basis for trust in effective information sharing can be found in:

- Smart querying
- of mostly unstructured data
- in an interoperable cloud of national systems,
- that has been provided with the standard basic marking before entering
- and tracing attributes when made accessible.

Countries make their marked up information available to an international law enforcement cloud, and would, when necessary, provide push messages to one or more parties to notify them of specific entries.

This demands a high level of interoperability of national systems on the international interface.

For optimal efficiency it is also crucial that this interface supports a single-search facility over all connected data while the attribute based access control ensures a proper and legitimate response.

Once again, innovative recording through standard basic marking in my opinion is key. But that is only step 1, applied before information is made available for sharing. The next step is making sure that all parties can audit what happens with that information once it is made available.

For this we can learn from modern postal and parcel services like Deutsche Post and the like. Through their tracking and tracing system a new attribute is added to a record every time a package is handled or moved.

Also, different elements of the information can only be visible to certain persons, based on their functional needs.

The same should apply to data that we make available for international sharing. At any given time it should be visible in real time who queried the information and how it was then handled or processed.

Standardized Attribute-Based Access Control should make sure that visibility and access to the information is only granted to those who need this for the effective fulfilment of their duties.

In a sense this is no different from how national systems should be designed.

For a system like this to work most efficiently, the records should remain with the providing agency and remote access should be granted to the trusted community.

This would mean that in the future, information sharing between law enforcement agencies should no longer take place through centralized databanks, for example hosted by INTERPOL or Europol, or by sending information through bilateral message. Like in the banking industry we will move more and more towards a separation from data storage and operational applications.



Now let me return to the dimension of ability which directly relates to the resource challenges we face.

Police resources have and always will be scarce. Not in the least our most valuable asset; the human resources that are needed to obtain, process and analyse information promptly and adequately.

In our approach, we must be willing to abandon the beaten path.

As I understand it, the BKA will attract a total of 1,000 new employees over the next three years and is taking the opportunity to look critically at what skills are really needed in order to cope with these new challenges.

Despite an aging workforce, other police services in Europe may not all have that luxury in the short term and actually find themselves faced with austerity measures, restrictive labour laws and strong unions.

It is our duty as chiefs of police to create the framework within which our services can quickly invest in the required capacity, quality and expertise.

And here we can help and strengthen each other internationally. Interoperability should not be limited to technical systems alone.

We must together determine:

- the capacity we need to unlock to make the system work,
- the knowledge and behaviour needed,
- what that means for training and
- how we develop and implement these things together as much as possible.

We will, if necessary, need to jointly set up a constructive dialogue to ensure continuity in our people's legal position and at the same time provide us with the opportunity to quickly mobilize the necessary capacity and skills which are now required to lift our intelligence process to the next level.

My own police service is in desperate need of different expertise and resources: In this day and age I simply cannot justify to either the public or my people that the police has insufficient funding for innovation. Three-quarters of our budget is spent on salaries, the rest almost completely on material resources. Hardly anything remains for technological development.

We need colleagues with different skills and we need new information technology for data analysis. If the police budget can or may not be increased, I should be able to move people around. If necessary slightly fewer detectives, but with the required expertise. Police work is always about people. However, we must keep track with technological progress.

Each and every one of the police services represented in this room is sitting on a gold mine: It is high time that we start exploit that in the most optimal manner.

From the wealth of information the police have, we use only a quarter. We unlock more and more data. Through social media, digital seizure, interception of communications, searches of databases, and so on.

Actually processing and using these massive amounts of data is becoming significantly more important. If we succeed, through innovative ways, to make that data also available to each other across our borders through a secure law enforcement cloud, then we can perform joint remote analyses with and for each other.

For this, we need more data analysts. Smart analysts who understand what they need to look for. Young colleagues who are used to take advantage of the most modern methods to collaborate internationally.

This transition will affect the composition of our workforce.

Currently, each unit of my police service has too few specialists to analyse and interpret data. But society cannot afford the police to lose this race.

I mentioned at the beginning of my speech already the so called *Refinery*.

This advanced provision can unlock data rapidly within our police force. From open sources, seized telephones, automatic licensing, and so on. With this instrument we interpret the meaning of data, which we visualize and then make connections between seemingly unrelated events.

Through automation we can offer our analysis in near real time to front line officers and criminal investigators. Our operational response during criminal counterterrorism investigations get a great boost and brings a proactive approach to crime within reach. With the arrival of the *Refinery*, we get a lot more out of that gold mine up than ever before. I would like to continue to work in this direction with you at the international level.

Therefore, the Netherlands Police will invest more in data and technology from 2017. Not only in terms of money. Also, by introducing a new way of organizing. Technological investments pay off, especially in combination with innovative ways of managing and organizing. Research has shown this.

In 2017 we will also start a virtual breeding ground on data and technology. We bring together the 'nests' that are already existing in this field. Think for example of innovative initiatives in sensing, cloud computing, big data, digital forensics. But also of artificial intelligence, cybercrime and real-time intelligence.

If the expertise on these subjects is still too fragmented within one police force imagine what would happen if we bring them together at an international level!

The first step we must take is to link them up with their fellows in their neighbouring countries. Not only to ensure that we are not doing the same thing for twice the budget, but also to celebrate our different backgrounds and combine the different insights that may arise from them.

At the same we should not get fixated on metadata and highly trained analysts alone. The eyes, ears, knowledge and expertise of colleagues in uniform service remain essential to our understanding and overall picture of security.

It's up to you and me to bring those world further together. To avoid thinking in separate columns and start thinking and acting more problem-oriented.

Much can be gained by bringing together different types of specialists that are already present in our organisations and avoid thinking in n boxes of criminal investigation, intelligence, etc.

Moreover, some useful innovations can be implemented fairly quickly and on a small scale basis as well. Over the last 2 years, the regional unit of Limburg provided 400 colleagues with a training in *Data mining for Information led policing*.

With the simple help of Microsoft Excel. They learned how to enrich your information position and reveal relations and associations by means of smart but valid connection between different data sources.

4 simple steps, in 4 hours that were received enthusiastically as an innovation to their daily routine.

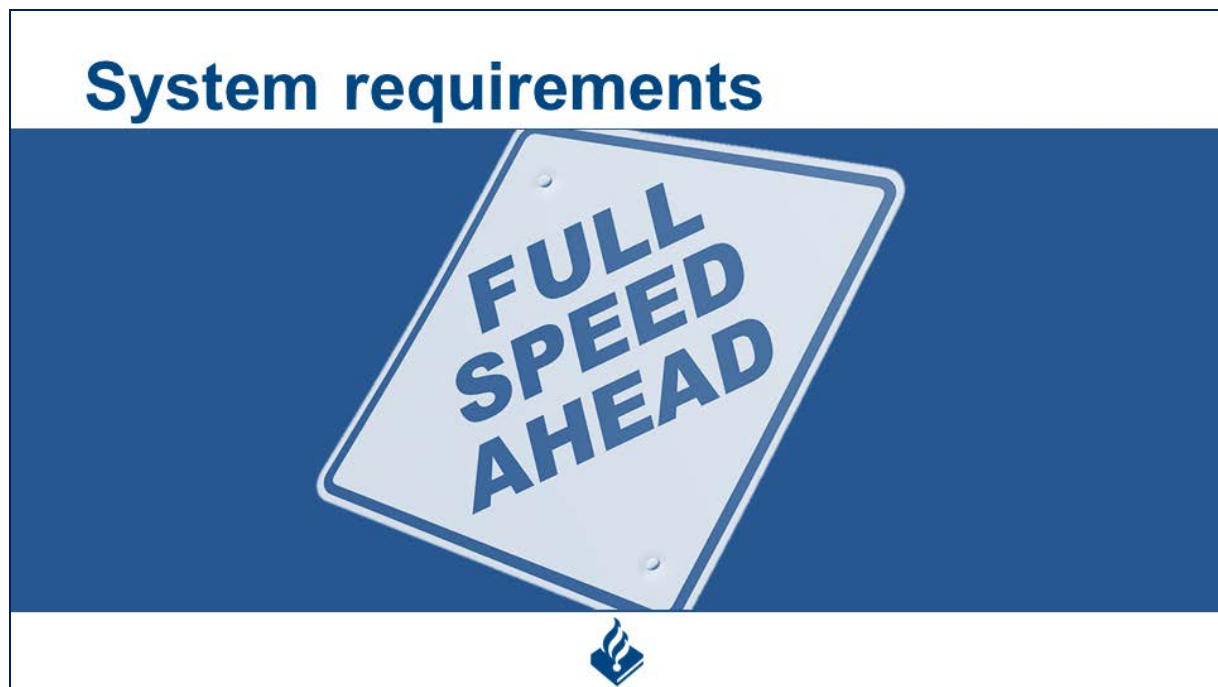
I would like us to share these little gems of innovations in a more structured manner in the future.

Despite all innovation, the police will always meet a higher demand than they can respond to. And consequently we will always be forced to make choices. Therefore I recently called upon corporate partners again to take up their responsibility.

Through public private participation businesses can give preventive and remedial follow up on police alerts. At the same time, businesses such as banks and internet companies, through their own monitoring and reporting systems can play an important role in detecting and analysing threats and offences.

They can then and provide the police with comprehensive reports which may save us a significant amount of investigation effort.

We can then focus our scarce resources more on the worst culprits or those that hide themselves in the darkest corners of the web.



The European *Roadmap to enhance information exchange* clearly states that at this point in time our efforts should not focus on building new systems but start using the existing ones at their full potential.

I believe that is the right - and most achievable - approach for the short term. Not in the least because I believe no system change can compensate for lack of proper behaviour. To fill and use the available mechanisms for information exchange as much as possible is a *conditio sine qua non*.

If we aren't using the current systems properly and to their full potential, it's no use building new and better ones.

I trust that all of us see this need and we must jointly step up to that plate and start to feed into these existing systems more adequately.

But at the same time I also feel an urgent need to assess future system needs already today. Because organisations in this era no longer have the luxury to take years to prepare themselves for the future.

Local, linear and calm developments are of the past. They are replaced by global and exponentially fast developments. Those organisations that cannot keep up with that pace will become obsolete in the near future.

And what will that future look like?

I have given you my first thoughts today and I am eager to hear also your opinion!

Just to give you a little teaser, think of this:

- Über is now an enormous taxi company...
but has no cars!
- AirBnb developed in a short period into an enormous hotel company...
but owns no property!

Might INTERPOL, Europol and SIS in the near future become even more effective cooperation mechanisms without actually holding information in their central databases anymore?

Can you imagine that? I hope after today you will feel triggered to explore the possibility!



In the past, we as a police, were mainly concerned with the question “Who did it? “ In other words : we responded to crimes that had already been committed. For obvious reasons this approach can no longer suffice.

Since the foundations for intelligence led policing were laid in the 1970's the objective has been to move from a responsive police to a police that can anticipate if not predict crime.

The aim is to be at the right place at the right time. Prevent, disrupt and apprehend. Those principle still stand and much has been accomplished since.

But as we have seen over the last 20 minutes, we are faced with two major new challenges:

- the amount of data we are -or in hindsight were expected – to incorporate in our work has grown exponentially.
- and the threats have become much more grave and imminent.

Society demands that we do whatever is in our power to prevent and disrupt terrorist attacks. And with other organised crime types such as cybercrime our efforts should be in predicting and disrupting the enabling infrastructures and behaviours that lead up to criminal offences.

Because if we don't, the sheer number of offences and victims that follow are already far beyond what our capacity can reasonably handle in a responsive manner.

We should at the same time not forget to manage society's expectation that we cannot prevent everything. We need to have a common narrative to the world that we can manage but not exclude risks to security!

Tracing back in hindsight to that one message we misjudged is so much easier than identifying the threat in that same message as it comes in amidst thousands of other messages that potentially are just as vital for preventing an attack.

I have been often asked the question whether there is limit to the extent to which the police should be able to use nominal data. I leave the answer to that question to politics.

The need to address the issue from a security perspective while respecting the legal limits set by our parliaments. After all, one cannot break to law to enforce the law.

That said, I would prefer having access to more rather than less relevant data. European and national politicians demand from us that all relevant data is recorded and shared unless there are operational or legal grounds not to do so.

It is therefore up to them to create the legal framework and up to us to vocalise the operational interests in a loud and clear voice.

More than before I believe the police need to provide the political decision making process with clear and independent input.

It is of little use to conclude afterwards that nobody listened to you, if you haven't raised your voice.

So now I would like to thank you for your attention and ask you to raise your voice and discuss with me your opinions, questions and remarks!