Marktwerking in het forensisch onderzoek. Een veldverkenning

Onderzoek in opdracht van het WODC van het Ministerie van Justitie

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Executive Summary

**Motive, research question and method**

Forensic science contributes to evidence in criminal cases. As a result of technological advancements, much value is attached to the possibilities offered by forensic technologies to contribute to criminal investigation. This report focuses on technology-related forensic science, i.e., research targeted at the development and application of science and technical methods that investigate traces for intelligence or evidence purposes in the criminal justice system.

Virtually all technology-related forensic science in the Netherlands is traditionally carried out by the Netherlands Forensic Institute (*Nederlands Forensisch Instituut, NFI*). A significant increase in the demand for forensic science over the past few years and the appearance of several alternative suppliers on the market have raised the question whether other institutions besides the NFI can or should play a role in technology-related forensic science in criminal matters, and whether (more) competition could or should be introduced in forensic science sector.

The objective of this research is sketch the current forensic-science landscape in the Netherlands and to indicate how the police, the judiciary, providers of forensic science, and academics in this field view competition in this area. This objective brings us to the core question of this research: can private and academic or higher professional education institutes play a role in technology-related forensic science in the Netherlands and, if so, under what conditions?

Based on interviews, expert meetings and additional desk research, we surveyed in which areas technology-related forensic science was carried out in recent years, which institutes were used and why, what conditions and guarantees apply or should apply in the Netherlands in forensic examinations, and which effects and possible side-effects are expected if competition is introduced. To set the Dutch landscape in perspective, we have also described how forensic science is carried out in the United Kingdom and the United States.

This research has an exploratory character. It offers a first sketch of the forensic-science landscape in the Netherlands, of which few empirical descriptions are available. The qualitative interviews and expert meetings offer a view of current developments and views, but the opinions were mostly expressed on a personal basis and are therefore difficult to generalize. Emphasis was given to a qualitative exploration; no quantitative research has been done into, for example, the nature and exact extent of forensic examinations by other providers besides the NFI. As a result, generalization of the research findings is limited. The purpose is to provide a field sketch that serves as a basis for further policy-making for the future of forensic science.

**The landscape of forensic science in the Netherlands**

Almost all technology-related forensic science in the Netherlands is traditionally carried out by the NFI, which was created in 1999 by merging the Forensic Laboratory (*Gerechtelijk Laboratorium, founded in 1945*) and the Judicial Medical Laboratory (*Laboratorium voor de Gerechtelijke Pathologie, established in 1951*). Only a fraction (estimated to be less than 1%) of all the research is carried out by other institutions, such as the Forensic Laboratory for DNA Research (FLDO), Independent Forensic Services (IFS), Verilabs, Fox-IT and The Maastricht Forensic Institute (TMFI). From time to time, forensic examinations are also carried out by (semi-)public institutions such as TNO or the National Institute for Public Health and the Environment (RIVM).

Various disciplines are used, mainly DNA investigation (e.g., FLDO, Verilabs, IFS) but also digital examinations (Fox-IT) or toxicological examinations (e.g., TMFI).

An important reason for having other institutes carry out an examination is counter-appraisal. On 1 January 2010, the Experts in Criminal Matters Act entered into force, which provides the accused with a general statutory right to a counter-appraisal by an independent expert. In the context of this report, this means an independent forensic-technical expert. In practical terms, this implies that the expert will work at different laboratory to that of the expert who carried out the initial investigation. This suggests that the law has already excluded the possibility that only one institute carry out technology-related forensic science, even in specific areas of expertise. A suspect must always have the right to request a counter-appraisal. It seems reasonable to assume that the suspect must be able to have this counter-appraisal carried out in the Netherlands, also because translation of foreign-language reports is not an easy task. However, there could be cases involving, for example, a rare field of expertise, where a suspect is unable to
find an independent second expert in the Netherlands and will therefore have to rely on experts from abroad; those will be exceptions that confirm the rule.

Our (qualitative) study does not provide any quantitative information about the cases where private or academic institutes have been used by the police and the Public Prosecutor’s Office (Openbaar Ministerie). What is clear is that it usually involves DNA counter-appraisal or other forms of counter-appraisal, as well as labour-intensive customized or specialist examinations, such as digital analysis. Usually, it concerns an investigation at a later stage in the investigation process. An important reason for contracting private or university/professional-education institutes for investigations is an expectation of fast results. The organisations themselves also say they can compete in quality; those requiring their services are, however, often unfamiliar with the quality (and quality-assurance systems) of these providers and choose, in many cases, the NFI as ‘preferred supplier’.

The practice of technology-related forensic science thus shows that, in addition to the NFI, various other forensic-science providers supply these services. Providers keep a vigilant eye on each other and this affects their product supply. In this sense, there is a modest market of supply and demand, but competition is very limited. The NFI does not have a legal monopoly, but it does enjoy a privileged position. Firstly, the NFI has an exceptional position because of the financing system. Forensic investigations are financed through bulk funding to the NFI (approx. 65 million Euros, 15% of which is for research and development) out of the Ministry of Justice’s budget, while capacity levels per product group are established in a Service Level Agreement. The police and the judiciary do not have to pay for work by the NFI as long as it is covered by the Service Level Agreement. They do have to pay for investigations carried out by other providers.

Secondly, the police and the Public Prosecutor have a tendency to approach the NFI first, because they have always done so. When the NFI is unable to provide a service, the NFI often acts as a broker for the demanding party, and it profiles itself as a leader in the field. In addition to the benefits of its financial position, the NFI also owes its dominant position to the police and the Public Prosecutor’s appreciation of the quality of work that they traditionally associate with the NFI. In short, the NFI is the dominant player in the forensic-science field that owes its particularly strong position to the historical development and the financing system in criminal justice forensics. We can probably say that there is a modest market in the Netherlands at present, but there is certainly no question of a free, competitive market.

Quality assurance

Good-quality forensic investigation is essential for the reliability of forensic evidence. Technology-related forensic science in the Netherlands is – to a greater or lesser degree, dependent on the area – subject to a quality assurance system using different instruments. This includes laws and regulations, accreditation by the Council for Accreditation based on ISO Standard 17025, and all kinds of self-regulation, such as certification of scientists by an external body, peer review by colleagues, and internal audits. Relatively few statutory rules apply to forensic investigation; only for DNA investigations and, to a lesser degree, blood and urine tests for alcohol-related traffic controls is a legal framework in place with various quality assurance measures, including compulsory laboratory accreditation. In addition, the Experts in Criminal Matters Act, which came into force on 1 January 2010, sets requirements for expert evidence in court, and a Netherlands Registry of Court Experts (Nederlands Register Gerechtelijk Deskundigen, NRGD) has been created. Most of the institutes working in the Netherlands are accredited for one or more forensic services, and they use various types of self-regulation.

Although quality will ultimately determine the evidentiary value of forensic science in court, and in that sense is seen by the field as the main requirement of technology-related forensic science, speed also plays an important role. For various reasons, some matters can get stuck on the shelf; this results in a work backlog resulting in a loss of speed below a critical level, which prevents the police from doing their job well. In addition, the police sometimes need a forensic examination for intelligence purposes, to quickly assist them in determining the direction of the investigation. In such cases of ‘indicative examination’, the value of speed becomes more important relative to the value of quality. In addition to the parameters of speed and quality, safety also plays a role, especially for safeguarding physical traces in the chain of custody (for which Forensic-Technical Standards have been developed) and also for safeguarding the integrity of forensic scientists. For the latter purpose, security screening can provide a certain guarantee, although in practice, fewer forensic scientists are screened than is often thought by the field.
In criminal investigations, one type of trace does not provide the ultimate answer because each trace has its own weaknesses; this is also true for quality assurance measures. Here too, a combination of instruments appears to be necessary. According to the multi-layering model, an intelligent combination of quality measures can provide a satisfactory outlook to establish a system that ensures sufficient quality of technology-related forensic science. The core of the multi-layering model is that there is no 100% guarantee security layer; only when multiple layers of security are stacked on top of each other, will gaps in the underlying layers gradually be covered. In the sector of public security, this model has two layers; a first layer of laws and regulations secures access to the market and dictates the basic procedures to be followed, and a second layer focuses more on the qualitative aspects of the design of work processes and reporting. Such a combined or integrated quality approach is equally applicable to a monopolistic forensic market as it applies to a completely free market of forensic science. Therefore, regardless of how the market will ultimately look like, working towards a combined, multi-layered quality assurance system is a sensible investment.

A glimpse over the border

The United States and the United Kingdom provide interesting material for comparison with the Netherlands, because both countries have competition in the forensic-science market. This has traditionally been the case in the United States, whereas in the United Kingdom competition was introduced during the past decades, when the Forensic Science Service was made a (government-owned) company and its forensic-investigation budget was transferred to the police. Both countries have a diverse landscape of providers, both publicly and privately financed ones. The landscape in the United States is considerably more fragmented than that of the United Kingdom, not only because it is a bigger country but also because of its long tradition of a free, competitive market and relatively little government regulation. Although our study aimed at highlighting best-practice examples from the United States and the United Kingdom, we must perhaps conclude that the primary lessons to be drawn concern rather what has not gone well in their systems.

The effects of competition in the United Kingdom (as far as they can be assessed based on our limited research) seem to point to efficiency improvements (lower prices, quicker processing times), but also to shock effects because of an (according to some, too) abrupt transition to free competition, with an excess of supply and as a result, too much price competition. We can conclude from this that it is precisely the transitional phase from a monopoly to a (more or less) free competitive market that requires a lot of attention; it is worth considering a gradual introduction of competition in the market. In addition, attention should be given to (fundamental) research and development; according to some respondents, the former monopolist Forensic Science Service’s strong international reputation in this area has significantly declined. In our study we could not determine whether this effect is offset by an increase in (fundamental) research and development by other providers; this is a question that requires further research.

The experiences in the United States (as far as available on the basis of our limited desk research) indicate that an overly free competitive market without governance and regulation has many disadvantages, including large differences in quality, quality assurance and training, little attention for (fundamental) research and development, and a relatively poor knowledge base of forensic science. The National Research Council’s recommendations regarding these shortcomings can prove valuable for the discussion in the Netherlands, for example, regarding whether or not a National Institute of Forensic Science should be set up for monitoring, governance, and/or advice, and whether more stringent quality instruments should be introduced.

Our glimpse across the border indicates that options should not be sought in extremes, but by making a choice between the best of both worlds: market competition and regulation. The most important lesson from both the United States and the United Kingdom is that the forensic-science market can only mature if there are clear, enforceable rules for quality of forensic services. This is not only important for providers themselves, so that they know which rules and conditions apply when they want to play a role in the forensic market, but also for the demand side, so that they have guidelines to help them decide who they want to engage for forensic investigations.
Considerations for introducing competition in forensic science

Views are divided as to how the forensic-science field in the Netherlands should develop and whether (more) competition can or should be introduced. Different considerations and circumstances play a role. We currently see at least some market functioning of supply and demand, if we want to characterise as such the fact that other providers exist besides the NFI. In any event, they help keep the NFI on its toes. However, is not easy for newcomers to capture a larger share of the market – the NFI has an established position and its financing structure poses too much of a barrier. Despite criticism (which is occasionally still heard) from the police and the Public Prosecutor about the length of processing times and about parts of NFI’s services, these parties are generally satisfied with NFI’s quality of work. Nevertheless, we regularly heard someone stating that private institutes can work faster or more cheaply, or are able to provide specialist expertise the NFI does not have. Respondents mentioned that introducing competition means that the NFI would become more flexible and, for example, would sooner adapt its product range to fit the market demand, stimulated by the services catalogue or prices that private companies offer. If one takes quality to include a broad, demand-targeted range of services, then competition will have a positive effect on NFI’s quality. Trust, particularly in the quality of work and in the integrity of the forensic scientists, continues to be the main reason why the police and judiciary choose the NFI. In our study, we heard some remarks about whether the perception of the quality level always corresponds with the actual quality. Sometimes the NFI is given more credit than is justified, for example, that all NFI staff are screened and that the NFI is accredited in all fields; also, sometimes the perception of private-sector institutes – for example, that they are not accredited – is incorrect.

If a choice is made to further introduce competition in the forensic science sector, all providers must be able to present themselves as reliable partners for police and the judiciary. A competitive market therefore first of all calls for an integral, multi-level system of quality assurance, for both NFI and other providers. That system must ensure that the police and the judiciary can rely, in principle, on all providers that meet the quality requirements as reliable partners. Subsequently, it is up to the service providers to build up a good reputation and good relations with their clients, or to provide a unique product, such as a certain type of analysis method, a unique combination of techniques, or a special service. During the transitional phase to a properly functioning market, close attention should be paid to the NFI’s psychological advantage due to its traditional position as a trusted, preferred supplier. NFI’s alleged brokerage role – which is not a formal role, but which exists in the perception of several police and Public Prosecutor officials – conflicts with the introduction of more competition, because other providers have less room to profile themselves competitively and to maintain direct contact with clients.

A competitive market furthermore requires a certain financing system. If the police and the Public Prosecutor have to purchase forensic investigation services, with freedom to choose between different providers, they must have the corresponding budget available to them. An open question is who should manage that budget: the police or, more logically because of their position as captain of the investigation, the Public Prosecutor? And to what level within the Public Prosecutor’s Office: at macro level by the Board of Procurators General, the national forensic prosecutor, the forensic investigation co-operatives (Forensische Samenwerking in de Opsporing, FSOs), or the forensic prosecutors in the regional Public Prosecutor’s Office? Another point for consideration is whether the police or the judiciary are in a position to assess the quality of forensic service providers’ results. This requires specialist knowledge which the demand side of forensic services often does not have. Finally, some people also point out the possibility that in the event of transferring budget to the police or the Public Prosecutor, the police will carry out more forensic examinations themselves, a development already observed in the United Kingdom. This calls for reflection on the differences that currently exist in quality-assurance requirements between (external) expert investigations and (internal) technical investigations.

During our research, we frequently heard the view that not all types of forensic science are suitable for a competitive market; some types require expensive equipment and are applied so infrequently that they will be unprofitable for multiple providers. The question then is, if we choose to introduce more competition, what proportion of the overall forensics budget must be transferred to the police and the Public Prosecutor, and which part will be used to facilitate certain types of forensic-science services by the government itself. In the latter case, the government uses the budget allocation instrument to steer the market of forensic services. This enables the government, for example, to ensure that certain unprofitable but essential analysis facilities are
maintained (not necessarily with the NFI, because other specialist providers could also do this). It also allows the government to ensure that money is invested in fundamental research, which in the long term can lead to new forensic techniques or applications, and not to rely on companies' willingness to invest in fundamental research. Via capacity regulation and research promotion, the government can therefore continue to exert influence on the forensics market, to prevent the market from being driven purely by economic reasons. According to many, there are limits to the extent to which forensic examinations can be carried out in a competitive market.

The forensics market faces limitations in the possibilities for introducing competition, not only on the supply side, but certainly also on the demand side. Buying forensic services means that the procurement party, the customer, is willing and able to compare products and services and to assess what is a responsible choice in light of the requirements of criminal justice. The customer must be able to assess forensic techniques and processes on the basis of their quality or price/performance ratio. This demands a lot from a police department or a Public Prosecutor’s Office, not only in terms of expertise but also in terms of (additional) capacity. Regarding the latter, the judiciary voices concerns that competition in forensic services will add administrative burdens to the Public Prosecutor. As regards expertise, clients could be supported by an integrated system of quality standards, allowing them to rely on suppliers with a 'trustmark' as being trustworthy. This does not mean that the quality assessment problem has been resolved, but simply that it has been transferred for assessment by others. The providers can do this partly themselves (e.g., through peer review), but government will also have to play a role. Since the assessment of forensics providers and products cannot be left entirely to individual police officers or public prosecutors, a government-provided quality assessment concerning these providers and their products must be available. In so doing, the government enforces quality standards, so that even when a completely liberalised market is opted for, this market continues to be regulated.

However big or small the liberalised part of the forensics market will be, if there are multiple players in the field, fair competition must be ensured. It is the government’s task to enforce this. When introducing more competition, the government must make provisions to this end. Several respondents in our research emphasised that it cannot be easily assumed that fair competition will be achieved just by assigning enforcement to a supervisory body, for example, the Netherlands Competition Authority (Nederlandse Mededingingsautoriteit, NMa). Important considerations for fair competition, especially in a transitional phase, are stimulating competition by providing sufficient information to the demand side (which initially could continue to regard the NFI as preferred supplier), preventing cross-subsidisation of the NFI in a partly liberalised market (i.e., that cost of products in the liberalised market segment are charged to products in the monopolised segment), and being alert to indirect forms of power when the NFI as dominant player, consciously or unconsciously, determines the agenda of, for example, detective training courses or for setting expert requirements for the national expert registry (NRGD). In addition, the implications need to be researched of the pending ‘Market and Government’ Bill for the forensic field and NFI’s position within it.

Competition in forensic services cannot be easily be compared with competition in, for example, health care, public transport, postal or energy services, where large numbers of consumers are the customers, as opposed to crime forensics where a small number of public authorities are the main customers. The aforementioned sectors are much larger and more extensive than forensic science. For comparative purposes, it is more appropriate to look at developments in the sector of public security, which, in fact, includes forensic services. The technology-related forensic science for criminal justice is a small part of the forensics market, which has a much wider range of private actors as well, both as clients and providers. Increasingly, we see links between private and public actors and processes. Experiences in the field of the public-private security market indicate that competition in the security market is possible. The private forensics market that has evolved in practice can be seen as part of a broader shift of prevention, security, and investigation tasks from the public to the private sector. These developments show that private and public activities can sometimes become intertwined in undesirable ways (grey policing). Transparency and state supervision are therefore important keywords for safeguarding public interests if forensic science for criminal justice moves towards the broader public-private market for forensics and security.

What other effects can be expected depends to an important degree on how competition will be introduced (to a greater or lesser extent, and at what speed), and how the process of introducing competition is supervised or governed. Of course, it is anticipated that the NFI will
lose market share to other providers, but how much is difficult to assess. There may be other players who will enter the market besides the current alternative providers; however, since the Netherlands is a small country we do not expect a large number of substantial providers to enter the scene. Looking at the situation in the United Kingdom, we might think of some two large(r) players and a few more small, specialised providers. In this connection, it can be anticipated that competition will lead to a more varied range of forensics products (supply-driven creation of new demand) and that the supply will follow the demands of clients faster or more specifically. As for speed, it is believed that competition will lead to quicker processes and therefore shorter waiting periods (which can already be observed currently). There are different views on the impact on application-oriented research and development. Some fear an unfavourable effect, others expect that research and development will not deteriorate and may even improve in a competitive market. However, there is a consensus that fundamental research needs separate attention, for example, through separate public funding.

In general terms, we can conclude that the field for the most part is open to (some kind of) competition in technology-related forensic science, as long as the quality of providers is sufficiently guaranteed through an integral quality control system and competition is carefully introduced. However, opinions are divided on the extent to which competition can or should be established, and with what speed. There are more restraints with regard to competition on the demand side than on the supply side, where both NFI and other providers are in favour of more far-reaching competition.

Further policy debate will have to take place on these issues. The following three scenarios, with different degrees of competition, are provided to support that debate.

Three scenarios
A complete monopoly is no longer realistic, and neither is a completely free market. Instead, we outline scenarios based on two variables: the extent to which the market is liberalised (including transfer of the forensics budget from NFI to the Public Prosecutor’s Office) for various product types (e.g., only DNA investigation, or across the whole forensic-science spectrum), and the degree of government control to supervise the market. We have elaborated three scenarios where we briefly mention the most obvious advantages and disadvantages and considerations.

“NFI+” (no liberalised market, a lot of government control)
No further competition is introduced for forensic science, but the present situation is continued, with small suppliers and a dominant NFI operating on the market. The NFI retains its current status and bulk funding, but in order to guarantee quality assurance, the NFI will need to comply with further legal requirements. In order to facilitate counter-appraisal, for the most important product groups the law will designate a laboratory as an authorised provider, similar to the situation in DNA forensics where the Forensic Laboratory for DNA Research (FLDO) was designated as an approved laboratory. These providers receive structural public funding for their counter-appraisal tasks. All providers have to comply with legal requirements, including mandatory accreditation for the relevant product group and forensic scientists must acquire certification based on external review. In addition to the NFI and the designated specialist “counter-service” providers, other players are free to join the criminal forensics market for primary examinations or counter-appraisals, provided they comply with all legal requirements, including accreditation and certification.

The advantages of this scenario are continuity and stability with much scope for public control, but it has disadvantages in that it does not provide market incentives for efficiency and innovation or against increasing case backlogs, and because of its financial structure it offers no opportunity for fair competition from alternative service providers. Special considerations for this scenario are funding of counter-appraisal labs and quality control by external parties.

“DNA-Tox-IT” (partially liberalised market, relatively little government control)
The market for technology-related forensic science will be partially opened up for the three most important product groups where there is sufficient supply and demand: DNA, toxicology, and digital forensics. The budget for these types of forensic investigations will be transferred from the NFI to the Public Prosecutor’s Office which, after consultation within the FSOs, will decide from which (Dutch or foreign) provider they will buy DNA, toxicological, or digital forensic services.
Providers must meet minimum legal requirements (such as accreditation for DNA and toxicological investigations), but quality is further guaranteed because providers compete on quality. For the rest of the required product groups, the NFI remains the preferred supplier, receiving bulk funding and agreeing upon capacity levels in Service Level Agreements. Other suppliers are free to offer their services in other areas, but the judiciary has to pay for these separately, so this will only happen sporadically. The current judicial budget for forensic research and development is transferred to the Netherlands Organisation for Scientific Research (NWO), which creates a specific programme to fund research by consortia of forensic laboratories and academic researchers.

This scenario provides competition where possible and continuity where necessary; it also gives a competitive impetus for (scientific) research. However, there are downsides in that the costs for continuation of non-liberalised product groups are relatively high; the administrative burdens for clients will increase; the NFI will be prevented from competing on the private market in DNA, toxicological, and digital research; and antitrust enforcement for this “half-market” is particularly complex. Important considerations are getting competition going in the initial phase, the definition of service level agreements for low-frequency forensic-product types, and quality assurance in the liberalised market segment.

"Dutch Forensic Authority" (fully liberalised market, relatively much government control) The forensic-science market is gradually liberalised, starting with DNA and digital forensics, followed by other product groups. After ten years the whole market must be liberalised. It is anticipated that besides the NFI, another large (international) full-service laboratory as well as several small, specialist providers will be operational. All providers must comply with general legal requirements. The NFI will be privatised, so that it can operate on the entire market for forensic science, including the private market, in competition with other providers; nevertheless, the State will remain its sole shareholder. The forensics budget will – as gradually as the product groups are liberalised – be transferred from NFI to the Public Prosecutor’s Office, which will invest in capacity and expertise so that they can make the right choices when buying forensic services. To ensure that the dynamic market of supply and demand retains sufficient high quality and innovation, a Dutch Forensic Authority will be established with three responsibilities: to supervise compliance with legal requirements, to act as consultant and expertise centre in the field of forensic investigations, and to foster research and development.

This scenario offers benefits such as dynamism, innovation opportunities through competitive market forces, and being connected to market developments in the broader public-private security sector, increasing the NFI’s opportunities to enter the broader (European) market. The disadvantages are an uncertain transition situation for providers, that it requires investments from the Public Prosecutor’s Office, and that less direct public control is possible. Important considerations are getting the competition going in the initial phase and effective supervision of fair competition.

**Final considerations**

Discussions and policymaking concerning competition in technology-related forensic science are at an early stage. There have been many developments in a relatively short period of time that have affected the field of forensic investigations, both in the Netherlands and abroad. The Netherlands is in a special position vis-à-vis countries such as the United Kingdom and the United States, because the Netherlands has a much smaller market for criminal forensics. In this respect, it is often said that the Netherlands is too small for a criminal forensics market. However, this does not mean that there is no room for competition: there is a large market for Dutch forensic service providers both in geographical terms (Europe) as well as in sectoral terms (the private security sector). In the case of cross-border provision of services there are, however, still several legal and language barriers (for example, reports) to take.

To conclude, we provide some considerations to put into perspective the further discussion and policy-making regarding the future of forensic science. Criminal technology-related forensic science is gaining importance, but it is only a small part of criminal justice. Financially, forensic science involves only a fraction of the justice budget, and in many criminal cases, forensic evidence plays just a secondary role. Moreover, some forensic science takes place outside the
context of laboratories that has been the focus of this study, ranging from crime-scene investigations through examinations carried out internally by the police to expert testimony in court on the basis of forensic evidence from available reports. It is useful to view the question on competition in the field of criminal forensic science in this perspective.

This discussion and policy-making regarding competition in forensic science are also part of much broader discussions that are presently the focus of attention. There is the question of scientific expertise and the role experts and scientific knowledge play in policy decision-making (a discussion which, for example, occurs in relation to climate change and vaccination programmes, but also in criminal law). Another broader issue is the much-discussed question of introducing competition in public sectors. The discussions regarding the future of forensic science could be enriched if insights into these broader discussions are taken into consideration.

In conclusion, the most important consideration is that, in our view, it makes sense to broaden the discussion by incorporating the broader security sector, where a dynamic public-private market is taking shape. Because of the many cross-sector connections which are now developing between police, private investigators, private security agencies, private forensic service providers, insurance companies, and other companies, the market for criminal forensics cannot be isolated from the broader market in the security sector. This calls for a broad, integrated approach to the governance of security.

So there is more than enough material for discussion. Fortunately, during our study we have observed a great willingness to engage in discussion: the subject interests all the actors involved, and in our field exploration we found a broadly shared sense of urgency to make progress in the policy process around introducing competition in forensic science.