

5.3 Summary

In this study several experiences with the use of electronic monitoring (EM) have been evaluated. One of the key issues is whether EM contributed to public safety and/or to a more efficient staff allocation. The evaluation has been done in two correctional facilities, BBI Bankenbosch and Amerswiel. The two cases concern two different applications of EM in two rather different settings.

Bankenbosch

In the Bankenbosch case a static EM is used. The system has only local coverage within the premises of the facility. All inmates were already connected to the system from the very first beginning of the pilot. Although both suppliers involved already have much experience with EM and proven technology was used, the technology did not appear to be functioning well for a long time. The main reason is the rather specific, lightweight construction of the (out)buildings. Because of this the radio signals go straight through the walls. This means more – expensive – base stations are needed to cover the terrain. To improve this the base stations are concentrated at the outbuildings. In this way the layout of the system is rigidly optimised to meet the original goal of the pilot, i.e. to prevent movements of inmates between the outbuildings during the night. At the same time this particular layout makes the system less suitable for other purposes such as the observation of the daytime activity scheme. The combination of the weak shielding of the signals and the rather sensitive adjustment of the system (which is inherent in the particular technical design) initially generates a lot of false alarms. In particular at the beginning of the project the use of the EM-system needs to be supported by a camera (CCTV) system to check the status of the numerous alarms. The long starting-up period with many bugs considerably diminishes the confidence of the staff in the system. The organisational acceptance will only improve once a number of problematic base stations are better shielded and the total number alarms has dropped to a workable load/situation/an acceptable workload.

The initial goal of the deployment of the EM system was to reduce the number of staff during the nightshift. That goal was thwarted by the stricter interpretation of the emergency assistance regulations after the tragic fire accident at Schiphol Airport prison. The business case that has been used in the study is however still based on the original situation in which a significant reduction in staff is expected. Although the costs and benefits are less favourable compared to the ones quoted in the original plans it is still possible to come to a sustainable business case. However in this case all benefits should be taken to the account of the EM-system (and not partly to the CCTV-system).

The secondary goal – to prevent illicit movements during the night – is clearly met. It remains unclear though, to what extent this has contributed to the improvement of the security situation at the facility. According to all people involved it has become much more quiet during the nights and the number of minor offences has also declined. Based on these experiences it is plausible to assume that the use of EM has indeed improved the situation at Bankenbosch. However the statistics do not give proof of these improvements. The problem at hand is that a base line measurement is lacking and that the minor offences are not included in the statistics anyway.

From a technical perspective EM seems to be particularly suitable to trace movements of inmates – such as the observation of the daytime activity scheme. In the present plan EM is used to prevent rather than trace movements. The (virtual) confinement of inmates can probably also be done by less complex and less expensive technologies.

Amerswiel

Amerswiel and Bankenbosch have the same combination of suppliers. In nearly all other respects the two pilots differ. The Amerswiel pilot uses a dynamic monitoring system which only works outside the premises of the institute. Compared to the Bankenbosch pilot the number of inmates involved in the pilot is much lower. Furthermore, hosting and maintenance of the EM-system is not done locally but outsourced to one of the suppliers (*Software as a Service, SaaS*). The Amerswiel pilot is also embedded within a broader context and has a clear goal within that broader framework, being to enable outside posting of inmates, which could otherwise not have permitted to work outside the premises of the facility. In short the pilot does not draw as heavy on the internal organisation as in the Bankenbosch case.

Moreover the EM-system has been implemented in a rather clever way. Contrary to Bankenbosch not all messages that are generated by the system are checked. Instead only those messages which might indicate deviations (such as gaps or unusual stops in the regular route) are further inspected. This routine seems to work well for the (ex post) check on the outward and inward journey of the inmate. The check on the inmate's movements during the work itself is more problematic since it requires expert knowledge to distinguish between noise and signal. So far the detection of incidents has been faultless. However it remains unclear whether more – unnoticed – incidents have occurred.

In case of possible deviations inquiries are being made at the employer and the inmate involved. If there is no sound alibi consistent sanctions are applied – the inmate is no longer allowed to work outside the facility. In the specific situation of Amerswiel the consequences can be far-reaching. The inmate not only loses income but if extramural labour is compulsory, he will be transferred to another facility with a stricter regime. The management team of Amerswiel is similarly strict towards potential employers. Unknown employers have to endorse the use of electronic monitoring. If the employer does not agree, the posting of the inmate is cancelled. As a result of this some employers in bad faith have decided to withdraw. This is regarded as an indirect benefit by the Amerswiel management team (for opportunity costs are saved). Another – more important – indirect benefit that is mentioned is the so-called reintegration motive. The basic thought is that regular work outside the facility significantly improves the inmate's reintegration process. It is precisely because of the use of EM that more inmates get the opportunity to work outside the correctional facility.

The business case that has been drafted for the Amerswiel pilot is exclusively based on direct benefits. The main direct benefit is determined by the difference between net revenues for extramural and intramural work. These revenues are proportional to the number of inmates that takes part in the pilot. In the original plan (in which the EM-system is a one-off purchase) costs are largely fixed. Therefore break even is only realised when a considerable number of inmates participate in the pilot. The current number of inmates involved is much lower. If the fixed costs are partly made variable, which is usually the case with an SaaS-construction, the threshold is much lower – yet still above the current number of participants. Overall conclusions are that the EM-system is quite effective. It clearly contributes to security both directly (better supervision) and indirectly (better resocialisation). Furthermore, and contrary to the Bankenbosch pilot, there seem to be no technological alternatives available for the specific object that is pursued (tracing inmates whose work outside the correctional facility requires constant moving).

When it comes to efficiency however, there are similar doubts in the case of Bankenbosch. The EM-system is relatively expensive in use. The business case only breaks even with a substantial number of participants. Therefore in most of the scenarios the indirect benefits (especially the reintegration motive) will have to settle the matter.

The most important conclusions of the study are:

- In both pilots the EM-system lives up to expectations with regard to the contribution to security, even though in Bankenbosch only after a long starting-up period.
- In terms of efficiency in both cases the results are not quite positive/so good. It is possible to make a business case but only when favourable preconditions are used. Moreover the same goal could probably be reached with less complicated and less expensive solutions. As for the Amerswiel pilot the business case requires a substantial number of participating inmates to break even.
- Initially much was expected from the use of EM for *surveillance*. However the picture that emerges from the pilots is that the use of EM has most added value for the *treatment* of inmates (improvement of the resocialisation process).
- In case of *intramural* treatment this applies particularly to the use of EM for the control of the daytime activity program, in case of *extramural* treatment to the possibility to release inmates sooner for work and/or leave.
- The most important issue with regard to the *roll-out of EM in general* is the apparent presence of so-called system failures: in this individual case the cons outweigh the pros whereas at the higher (societal) system level benefits exceed costs. It is precisely because the major added value of the use of EM is in the adjustment and coupling of distinctive stages in the judicial chain that an integral analysis is needed to come to a sound judgement. For a further, more useful development of EM all experiences must be considered interrelated, across the entire judicial value chain.
- Further research is especially needed at the systems level, with a particular focus on the effects of large-scale deployment of EM at societal costs and benefits.
- Further continuation of the current isolated pilots has little added value. The possible large-scale roll-out of EM should be done in an integrated manner, embedded in a coherent national strategy.