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Digitalisation in Corrections
Recidivism Reduction

Implementing an inmate monitoring system in a correctional environment
Scenario Description

DIGICOR Digital Scenarios

Recognising the marked resistance of European penitentiary services towards technological modernisation, the Digital Scenarios seek to directly influence senior officers and those responsible for the operational management of penitentiary settings by aggregating and disseminating innovative and evidence-based practices in the field of digital readiness in prisons.

Raising these stakeholders' awareness regarding the benefits of well-implemented digital solutions in the prison setting, namely in what concerns inmate rehabilitation, will contribute to enhancing the prison services openness towards modernisation.

Scenarios to be developed:

Inmate communications
- Scenario 1: Telephony
- Scenario 2: Videocall and video visitation
- Scenario 3: Secure e-mail/text messages/digital letters

Education and e-learning
- Scenario 4: e-learning and access to online resources

Digital self-service solutions
- Scenario 5: implementing integrated digital self-service solutions

Training and treatment using Virtual and Augmented reality
- Scenario 6: Inmate's treatment and training using VR
- Scenario 7: Officers training using VR and AR

Videoconference with courts
- Scenario 8: Implementing videoconference systems with courts

Telemedicine
- Scenario 9: Implementing telemedicine

Offender and Case Management Systems
- Scenario 10: Implementing offender and case management systems

Electronic monitoring in prisons and probation
- Scenario 11: Implementing an EM project (RFID and GPS)
- Scenario 12: Implementing an EM project (mobile phone)
- Scenario 13: Implementing an inmate monitoring system in a correctional environment

Smart Prisons and digital transformation in corrections
- Scenario 14: Implementing a "Smart Prison initiative"

Artificial Intelligence in corrections
- Scenario 15: Using AI and xAI in prisons and probation

DIGICOR Digital Scenario Form

Scenario #: 13 Implementing an inmate monitoring system in a correctional environment

Problem/problems that it aims to solve:

Research has shown that those inmates in institutions with smart surveillance were more likely to report a rehabilitative experience and that it can help with reintegration into society.

Description of the solution:

Inmate Monitoring in the prisons setting can be solved in several ways, for example:

- **Using Robotics.**
- **Using CCTV.**
- **Using Fitbits.**
- **Using Facial Recognition.**
- **Using Electronic Bracelets.**
- **Using Anklets.**
- **Using other wearable devices.**

Expected benefits:

For the organisation and staff:
- **Allows staff to remotely monitor inmates and remotely place restrictions on inmates if needed.**
- **Enables altering should the inmate breach the regulations.**
- **Can provide early detection of health issues.**
- **Can provide detection of aggressive and violent behaviour.**
For the inmates:
- **Positively affects the behaviours of inmates and contributes to social reinsertion.**

Evidence of effectiveness:

Evidence of effectiveness is the trial programme developed in Hong Kong (Leung 2019), where Robot Guards equipped with three-dimensional cameras, sensors, and recognition algorithms patrol the prison autonomously under the supervision of a remote correctional officer. The aim is to have an intelligent hyper-security and surveillance system by adding to the robot guards increased closed-circuit television cameras, facial recognition technology, video analytics, and tracking bracelets (Leung 2019). China's smart prison (Yancheng Prison) enables the surveillance of

inmates via a network of sensors and cameras coupled with an artificial intelligence technology that can follow and monitor each inmate in real time (Chen, 2019).

Key phases of the implementation:

Phases of implementation will vary depending on the extent of the project undertaken. The list below outlines some of the key phases for a successful implementation.

- Extensive market soundings are undertaken to ensure best-of-breed solutions.
- Consideration is given to having a Proof of Concept and/or Pilot Phase to ensure that the requirements are fully understood and agreed upon.
- A cost benefit exercise is undertaken to ensure the costs and benefits are understood and that sufficient funding is in place.
- A comprehensive tender process is undertaken once the requirements are agreed upon.
- Buy in is obtained from Senior Management, Staff and Staff representatives through extensive engagement.
- Communication to ensure the benefits are understood by management, staff and inmates.
- A change management exercise is undertaken and local champions of change are put in place.
- The project is carefully planned and managed from start to finish.
- Clear and agreed objectives are outlined so it is understood what success means.
- Post project reviews are undertaken.

Key success factors:

It is recommended that before undertaking any project of this type that it is understood what helps to ensure a successful project.

- Clear and clearly articulated project goals.
- A comprehensive and detailed Project plan.
- Early definition of deliverable quality criteria.
- Active senior management support with a shared vision throughout the project's life.
- A fully representative Project board in place from the start of the Project.
- Carefully planned Project implementation.
- Concise, consistent, complete, and unambiguous business and technical requirements.
- Realistic cost estimates and Project schedules.
- Early risk analysis and ongoing risk management.
- A clearly defined business process change management implementation plan.
- Proactive Project issue resolution.
- Stakeholder involvement throughout the Project life cycle.

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- **Defined and consistently executed Project management to minimize scope increases.**
- **A skilled Project Manager experienced in the execution of project management best practices.**
- **Execution of a formal Project development methodology.**
- **An experienced implementation team(s).**

Key risk factors:

Key risks to note are:

- **No proof of concept and/or Pilot Phase to ensure that the requirements are fully understood and agreed upon.**
- **No cost benefit exercise is undertaken to ensure the costs and benefits are understood and that sufficient funding is in place.**
- **No clear understanding of the market options available that potentially lead to a poorly tendered solution.**
- **Lack of buy-in from Senior Management, Staff and Staff representatives.**
- **No change management and/or local champions of change.**
- **Systems are not properly secured leading to abuse by inmates.**
- **Lack of proper project planning.**
- **Insufficient engagement to ensure the benefits are understood by management, staff and inmates.**
- **No clear and agreed objectives for the project.**

Jurisdictions in which it has been implemented:

Many countries have implemented some form of Inmate Monitoring solution. Countries such as Australia, Finland, Hong Kong, Singapore, Malaysia, the USA, China and The Netherlands have all implemented some form of inmate monitoring solution.

Specific Regulations to consider

These will vary from jurisdiction to jurisdiction it is therefore recommended that an exercise to consider the specific regulations in your jurisdiction is undertaken as part of the pre-project planning phase.

Estimated implementation period:

This will vary depending on the extent and complexities of the project undertaken. It is recommended that a detailed project plan is developed and agreed upon in conjunction with the selected service provider.

Estimated cost

This will vary depending on the option chosen. It is recommended that detailed market soundings are undertaken in advance of tender commencement to gain an understanding of potential solutions that best suit the requirements of the jurisdiction. The tender process itself will also serve to ensure the most economic and advantageous solution is obtained.

Useful resources:

https://link.springer.com/chapter/10.1007/978-3-642-29387-0_49
https://www.crimejusticejournal.com/article/view/2137

Main suppliers:

There are several suppliers in the market. The following list serves to give examples of some of the service providers. It is recommended that jurisdictions carry out detailed market soundings in advance of project commencement to gain an understanding of the market suppliers in their area.

- **Refine**
- **Sentinel**
- **Laipac**

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Digitalisation in corrections towards reduced recidivism