Supporting data-driven decision-making across the Irish Prison Service: The introduction of operational dashboards

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Presentation Overview

• Context and Objectives

• Process

• Sample dashboards: Live and Screenshots

• Challenges and benefits
• Ernst & Young (EY) commissioned in Sept 2019 to build operational dashboards for use by management across the Irish prison service

• Current status: reaching the end of this project

• Previous practice: multiple spreadsheet reports at various intervals for management across the service

• Difficulty in trend analysis, risk identification and data discovery

• Potential of data not realised
Objectives

• Initiated under Corporate Governance Framework with a view to:
  
  o Enhancing performance through implementation and monitoring of KPI’s
  o Facilitating trend analysis and the identification and management of risks
  o Supporting a key strategic objective of becoming a data-driven organisation
  o Supporting broader policy objectives of the CJS through provision of quality data and metrics that inform and support policy decision-making
"Our dashboards are so advanced, they automatically filter out any bad news"
Databases in Irish Prison Service

• Prisoner Information Management System (PIMS)
• Prisoner Education Management System (PEMS)
• National Incident Management System (NIMS)
• Prisoner Healthcare Management System (PHMS)
• Prisoner Account Management System (PAMS)
• Psychologist Case Tracking System (PCTS)
• Human Resources Management System (HRMS)
• Clockwise System
• CoreHR
Process

Kick Off
- Kick off session
- Project Authorisation Actions (e.g. Security Clearance)
- Schedule key 121s/interviews

Requirements Gathering
- Interviews
- Documentation and Prioritisation of Requirements
- Scope Agreement and Sign Off

Development
- Data Extraction & Processing
- Visualisation Development
- Iteration & Enhancement
- User Acceptance Testing

Close Out
- Demo and Workshop
- Sign Off & Next Steps (Phase 1)

Close Out
Tableau Live Examples

http://ipstableau.prisons.ie/#/views/PIMS_15972699966760/1_Population?iid=1

http://ipstableau.prisons.ie/#/views/PIMS_15972699966760/2_Demographics-General?iid=2

http://ipstableau.prisons.ie/#/views/PIMS_15972699966760/6_AdmissionsOverTime?iid=2
PIMS: 5. Prisoner Journey

Times in Custody: 4

# Prisons Spent Time In: 6
Total Days in Custody: 2,138
# Times Committed: 4
Avg Length of Stay (Days): 534.50

Note: The prisoner journey dashboard includes all movements post PIMS go-live. If a prisoner was in system during PIMS go-live the journey will include their last PRiS custodial term.

Prisoner Details
- Ethnicity: Caucasian
- Gender: Male
- Nationality: Irish
- Religion: Roman Catholic
- Occupation Status: Unemployed
- Occupation: Unemployed
- Age Group: 40 to < 50
- Age Left School: 0
- County: Dublin County
- Sex Offender ID: No

Prisoner Journey

<table>
<thead>
<tr>
<th>In Custody</th>
<th>Committed</th>
<th>Transfer</th>
<th>Released</th>
<th>Released</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>2011</td>
<td>2012</td>
<td>2013</td>
<td>2014</td>
</tr>
</tbody>
</table>

Prisoner Journey - Detail

<table>
<thead>
<tr>
<th>PrisonerID</th>
<th>Prison Term</th>
<th>Custody Status</th>
<th>Movement Start Time</th>
<th>Next Movement Start Time</th>
<th>Previous Establishment</th>
<th>Current Establishment</th>
<th>Movement</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>In Custody</td>
<td>12/18/2017 5:17:00 PM</td>
<td>12/23/2017 4:47:18 PM</td>
<td>1/8/2019 6:13:00 PM</td>
<td>In Custody</td>
<td>Committed</td>
<td>3.0</td>
</tr>
<tr>
<td>4</td>
<td>In Custody</td>
<td>1/11/2019 6:07:00 PM</td>
<td>1/30/2020 12:16:45 PM</td>
<td></td>
<td></td>
<td></td>
<td>383.8</td>
</tr>
</tbody>
</table>
PIMS: 6. Admissions Over Time

Total # of Prisoners: 4,570
Selected # of Prisoners: 3,118
Number of Prisons: 12
Capacity: 4,375
Occupancy Rate: 72.98%

Committed Calendar

Year: 2018, 2019, 2020
Weekday: Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday

Committed by Month:

Year: 2018, 2019, 2020

Committed by Day of the Week:

Weekday: Saturday, Sunday, Monday, Tuesday, Wednesday, Thursday, Friday

Admissions (6 Months)
## PEMS: Student Attendance

### Education Centre
- Prison A
- Prison B
- Prison C
- Prison D
- Prison E
- Prison F
- Prison G
- Prison H
- Prison I

### Attendance Date
- Start: 1/1/2019
- End: 6/29/2020

### Class Type
- (All)

### Prisoner ID
- (All)

### Subject
- (All)

### Gender
- (All)

### Nationality
- (All)

### Ethnicity
- (All)

### Trend by Class Date (Record Count)

### Attendance by Prison

#### Prison Details
- **Prisoner ID**: Cloverhill
  - **Education Unit**: Both
  - **Read or Write?**: Yes
  - **Nationality**: Irish
  - **Religion**: Roman Catholic
  - **Level of Education**: Secondary - No certificate
  - **Subject**: Joel for interview

- **Prisoner ID**: Mountjoy (Male)
  - **Education Unit**: Both
  - **Read or Write?**: Yes
  - **Nationality**: Irish
  - **Religion**: Roman Catholic
  - **Level of Education**: Primary Certificate
  - **Subject**: Art

### Prisoner Details

### Number of Education Centres: 13
### Number of Unique Timetabled Prisoners: 6,052
### Number of Subjects: 511
Completion and Roll Out

• To be completed and rolled out by mid-October

• Senior management in Headquarters and across the Prison Estate to have access to relevant dashboards
Challenges

• Uncertainty from key stakeholders
• Real-time solutions
• Data Quality
• Covid-19!
• Additional Requirements
• ...
Benefits

- Easily accessible data
- Data Discovery through drill down capability and data visualisation
- Timesaving efficiency
- Reduce the Cognos Reporting Burden on IT
- Easily monitor key KPIs
- Facilitate forecasting to assist resource management
Benefits

“Quick analysis of data to respond to Audit queries, Senior Management queries – to get this information currently involves manipulation of data in excel which is time consuming”

“Easy to use for non PAMS users who can access understandable data without the need for a ‘middleman’ in Finance or IT, therefore, freeing up resources”

Finance Team Super User
Benefits

“Being able to respond to PQ’s, press queries, public accounts with quickly accessible data; Being able to produce an annual infographics to improve transparency, to promote our work and improve recruitment; To review flow of referrals, waiting lists/waiting times and service delivery output of the psychology service to help the manage service”

Psychology Service Super User
“What we really need in IT is someone who has super powers.”
Thank you for your attention!

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