

Meeting	SPA Policing Performance Committee
Date	26 August 2020
Location	Video Conference
Title of Paper	Demand and Productivity Unit Progress Report
Presented By	Chief Inspector Neil MacDougall
Recommendation to Members	For Discussion
Appendix Attached	Yes Appendix A - Organisation structure for the DPU function Minimum Viable Structure implemented June 2019 Appendix B - Organisation structure for the DPU function Current Structure including Temp. Funded roles

PURPOSE

The purpose of this paper is to provide an overview of the work of the Demand & Productivity Unit. The paper is framed around:

- Background
- Outputs and Dependencies
- Learning
- Plans

Members are invited to discuss the content of this paper.

1. BACKGROUND

- 1.1 This report has been commissioned by the Committee to understand the progress of the Demand & Productivity Unit and its efforts to understand demand within Police Scotland.

2. FURTHER DETAIL ON THE REPORT TOPIC

2.1 Context

- 2.1.1 The Demand & Productivity Unit (DPU) was created as a key deliverable of the Demand, Productivity and Performance Programme (DPP) in June 2019. The DPU was initiated in a *Minimum Viable Structure* (MVS) with the intention that funding would be found in future to ensure its sustainability. DPU remains in a MVS structure supplemented by short term contracts for which recruitment remains ongoing.

- 2.1.2 For context, the following articulates the impact of the MVS: *The impact of this (MVS) will however be significant and the outputs and expectations of the function will need to be reconsidered and reduced. The DP function is likely to evolve as a data production unit in this model with analysis and insights being limited.*

- 2.1.3 Both the DPP and DPU outputs have, to date, focused on understanding demand in Local Policing only. The challenges in extending the model, or developing a bespoke one, for national divisions are significant. With the fact that the DPU remains in a MVS, it has simply not been possible to conduct the exploratory work required to initiate extended demand work.

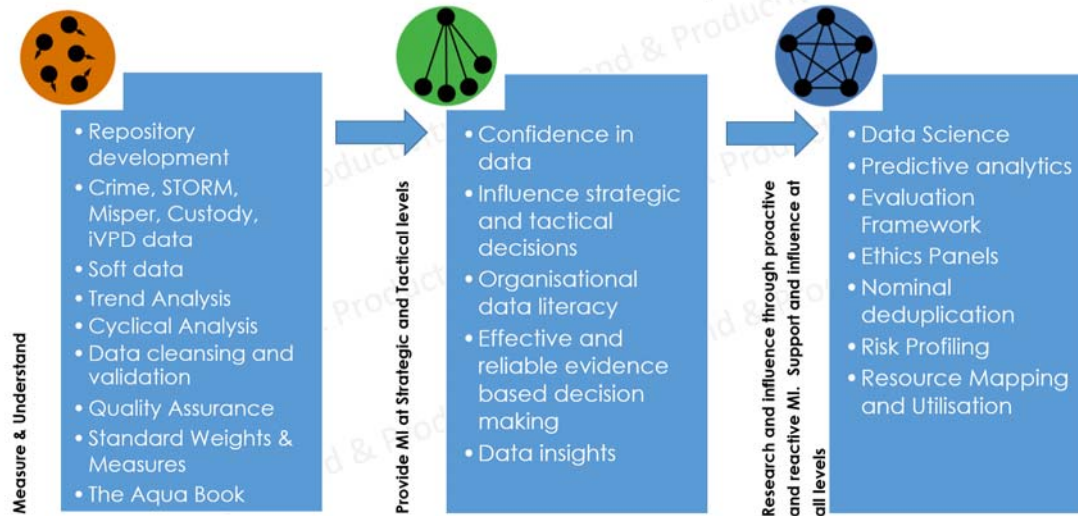
- 2.1.4 In early 2020 the DPU were subject of an SPA sponsored audit by Scott Moncrieff. The outcome report from this audit in July 2020 reinforced the importance of the data development side of DPU (and its crucial connection to the work of the Chief Data Officer) but acknowledged the achievements of the small team.

2.2 Outputs and Dependencies

- 2.2.1 It is easiest to think of the demand function in two separate but linked parts: firstly as a data development function and secondly as a demand analysis function.

- 2.2.2 Whilst quantity has been limited, DPU outputs are now embedded into operational analysis at strategic and tactical levels.

Demand Function – Phases of Development



2.2.3 Ongoing activity for DPU to date includes:

- In partnership with ICT, DPU continue to develop and improve the Source for Evidence-Based Policing (SEB-P data repository) and the data within it.
- Develop and improve the Power BI thematic dashboards increasing accessibility and automation.
- Positively influence Police Scotland's analytics community – including Analysis and Performance Unit (APU) integration.
- Engagement activity and benchmarking with UK Policing.

2.2.4 Key outputs:

COVID-19

DPU have been instrumental in Police Scotland's response to COVID-19, providing the analytical and data support that underpinned the work of Operation Talla Information Cell. At the commencement of Operation Talla, the DPU designed bespoke dashboards covering; crime, incident, vulnerability, custody, resource and call demand. These outputs serviced the needs of the organisation as well as being shared with SPA colleagues and government partners throughout the response. This live-time feed of data would not have been possible without the DPU.

Operational Delivery Board (ODB)

In terms of internal reporting, DPU have routinely provided demand analysis to ODB. This has benefitted the fledgling function by providing strategic direction for its early outputs and demand metrics are now integrated within the new Tactical Assessments with DPU data and analysis reshaping these key strategic products.

This reporting outlet also facilitates the understanding of the significant shifts in demand from COVID-19 and the tracking of the return to normality through DPU trend analysis.

Demand Baseline and Resource Allocation Model (RAM)

The ambition of the demand baseline work is to truly understand demand. Whilst it is accepted that demand is linked to volume (and volume is often used interchangeably with 'demand'), it needs to be uncoupled from volume to enable a clearer and more accurate appraisal of the resources required to service a particular area of business.

The work of the DPU during 2019/20 was prioritised around developing and understanding data, ensuring quality and integrity. Improvements have been made across crime, STORM, Custody, Missing Persons, VPD and Operational Abstractions data during year one. But there remains work to do around soft data and ensuring the baseline is complete and the data is of best standard possible.

Simultaneously, the RAM was developed by former DPP staff with the model then handed over to DPU in early 2020. The DPU are in the process of reviewing and ultimately operationalising the model – the RAM being underpinned by the demand baseline, and in sequence, the baseline underpinned by DPU data.

For the remainder of 2020/21, DPU are working towards completing the data development work required for the RAM.

Bespoke Analysis – Local Policing Overtime Weighting

DPU have provided some bespoke analysis, including overtime analysis and a demand methodology for budget allocation weighting for the DCC Local Policing. This enhances our understanding of demand from a cost perspective and demonstrates the potential to support financial sustainability for the organisation in future.

Strategic Workforce Plan (SWP)

Demand analysis has long been cited as key to this work and the DPU have had weekly engagement with the SWP team and have provided trend analysis, pro-active/reactive crime trends and dashboards to support the work. DPU were also fully engaged during the review of divisional returns for the SWP, so whilst divisions were encouraged to use the available dashboards, DPU also provided consistency for the returns via feedback and advice to

the SWP team. It is acknowledged that as DPU outputs mature and are used more widely, the influence on SWP in future can increase.

2.3 Learning

- 2.3.1 Notwithstanding the necessity to continuously review and improve data and methodologies, it also needs to be accepted that by its very nature in policing, some demand analysis will never be 100% accurate. The value of being able to understand demand is in its ability to underpin strategic decision making on an evidence base that is better than what exists at present.
- 2.3.2 The SPA sponsored audit, DPU peer-review of the LPDP RAM and learning around validation of data and analysis from sources such as the Treasury's Aqua Book are all part of the ongoing learning of how best to integrate demand analysis and ensure sufficient quality.
- 2.3.3 As mentioned above, the DPU has also benefitted from access to strategic decision making forums which has helped shape its thinking and outputs, focusing development of its hypothesis on not just, 'what?' but also, 'so what?' ODB continues to direct the DPU analysis and ensures it is prioritised around the strategic needs of the force.
- 2.3.4 Specific learning has been gleaned from Operation Talla – the adoption and integration of Op Talla dashboards, with up to the minute reporting and modern visualisation, to ODB and the new Regional Delivery Board model is evidence of that.
- 2.3.5 Equally, learning around the process of dashboard development itself has taken place where the level of business area involvement in design processes has been explored. The key point being that whilst business areas need input, at times the focus on replacing what we already have rather than what's actually possible can restrict the process, so DPU must drive the concept and push boundaries.
- 2.3.6 The DPU involvement in the SWFP process has provided organisational learning both for divisions, who now have a greater understanding of how to use DPU products, and DPU who have gained insight as to the future requirements for demand and dashboard work.

2.4 Plans

2.4.1 Despite resource challenges, the DPU continue to work towards the objective of being an enabling function whose purpose is to measure and understand demand.

2.4.2 In addition to the outputs in the above section, specific work for 2020/21 and beyond includes:

- SPA Audit actions.
- Operationalising the RAM and improving the demand baseline.
- Dashboard development – including: VPD; advanced STORM dashboards to automate demand metrics; and introducing crime/incident/VPD/misper per 10k population.
- SEB-P development will be a continuous improvement activity – the need to constantly validate data, review process and policy change and understand the data to advanced levels.
- Productivity measurement and tracking – Change Portfolio benefits tracking now fall to the Project Management Office using the methodology developed during DPP. The DPU plan to enable productivity improvements through the provision of metrics contained within the RAM. This could also be reported via Force, Regional and Local tasking processes once matured.
- Data Science – Linking directly to an advanced understanding of data is the development of an initial data science capability. Plans include:
 - Recruiting and developing a permanent data science capability (2 staff);
 - Recent acceptance to Scottish Government’s Data Science Accelerator Programme with a small project designed to develop the necessary data and skills;
 - Partnership with the Chief Data Officer to develop relevant frameworks to support development of predictive analytics

There remains numerous challenges in securing modern/advanced analytical tools and establishment of a bespoke ethics framework. However, developing the in-house capability should be seen as a positive.

2.4.3 National Demand analysis – the ambition remains to secure resource for the full DPU as designed during the DPP Programme, then scope the data availability and demand analysis required for

national divisions. This remains dependent on finance and resource availability for investment in DPU capability and capacity.

2.4.4 The DPU design function is shown in appendix A with the current DPU resources (enhanced by temporary contracts) shown in appendix B. Analytics Transformation offers the opportunity to revisit the original design but enhanced outputs will be reliant on enhanced capability and capacity requiring investment.

3. FINANCIAL IMPLICATIONS

3.1 There are no financial implications in this report.

4. PERSONNEL IMPLICATIONS

4.1 There are no personnel implications in this report.

5. LEGAL IMPLICATIONS

5.1 There are no legal implications in this report.

6. REPUTATIONAL IMPLICATIONS

6.1 There are no reputational implications in this report.

7. SOCIAL IMPLICATIONS

7.1 There are no social implications in this report.

8. COMMUNITY IMPACT

8.1 There are no community implications in this report.

9. EQUALITIES IMPLICATIONS

9.1 There are no equalities implications in this report.

10. ENVIRONMENT IMPLICATIONS

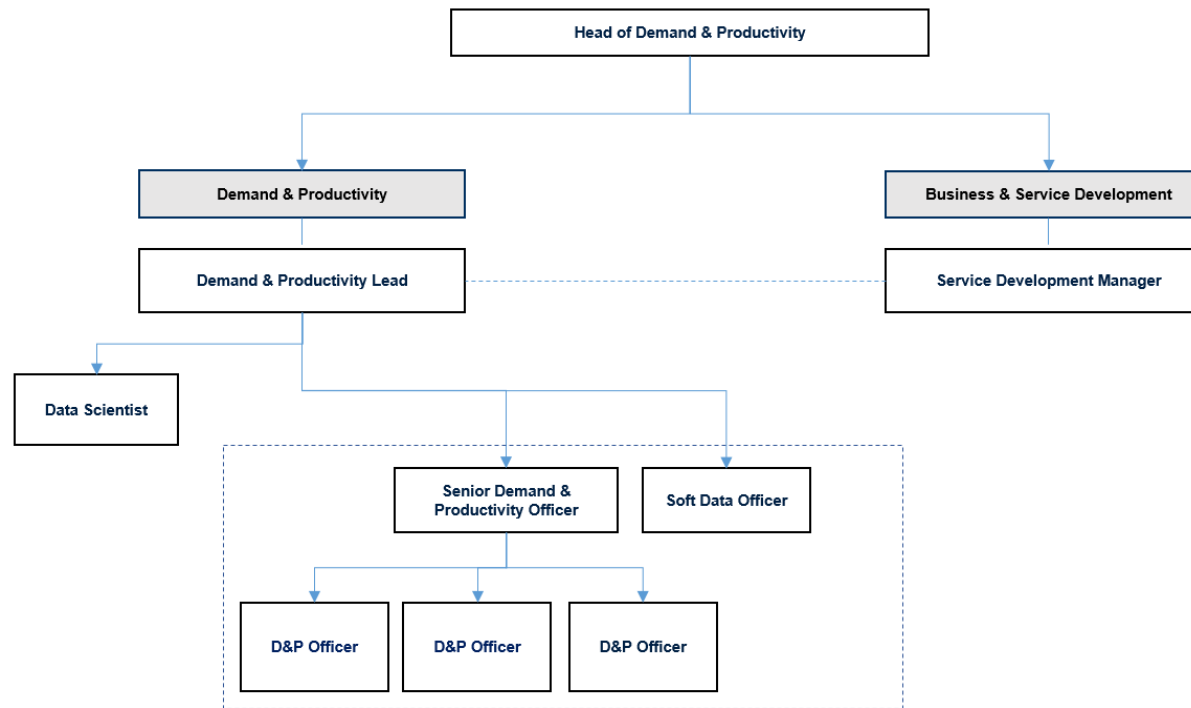
10.1 There are no environmental implications associated with this report.

RECOMMENDATIONS

Members are invited to discuss the content of this paper.

Appendix A Organisation structure for the DPU function

Minimum Viable Structure implemented June 2019



Appendix B Organisation structure for the DPU function

Current Structure including Temp. Funded roles

