Advanced Material

This Advanced Material contains a pre-seen case study provided to students prior to the exam date. Students should familiarise themselves with the Advanced Material before they sit the exam. The Advanced Material provides key information and forms the basis of the requirements set out in the exam day materials. Students should carry out research into the sector and apply learning from the workbooks.

Exam: Developing Strategy and Data Analysis

Exam Sitting: March 2024

Advanced Material

Assumed date for Advance Material is 7 February 2024.

YOUR ROLE: You are a qualified CIPFA accountant working for Genius Consulting. You are part of a multi-disciplinary team conducting a detailed strategic review of the current arrangements for policing services in the country of Vilenia. This strategic review is part of the 2025-2028 Strategic Plan for Vilenia Policing Services (VPS).

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Exhibit 1 – Background information

Vilenia – country overview

Vilenia is a country in Europe where English is one of the official languages and is widely spoken. It is part of the Schengen area, however it has retained its own currency - the Vilenia dollar (V$).

Vilenia has a surface area of 25,670 sq.km with over 250 kilometres of coastline. The population in 2022 was 9.3 million. It has over 9 million tourists visiting the country each year. The country is hilly in the North and in the East with a flat plain in the central area covering two thirds of the country and extending over to the west and down to the south. There are many forests and rivers, with some lakes in the North and central areas.

The coastline extends the full length of the western side of Vilenia. Ferries operate from the town of Plino to reach three inhabited islands located about 20km offshore.

There is a good road and rail network throughout the country and links to other countries in Europe by air, sea, road and rail. There is a large international airport in the west near to the capital city, Margosa, and another in the south near to the city of Borwich. There are well developed cycle routes in the larger cities and also between towns in the central region. As a whole the population of Vilenia is quite sporty, and cycling to/from work and leisure activities has always been very popular.

There are numerous farming communities in the central area and small rural communities in the North and South.

Crime in Vilenia

The overall crime rate is low in Vilenia however in recent years there has been a significant increase in some crime rates, especially bicycle thefts, other types of theft, drug-related crimes and cybercrime.

National crime data for selected crimes

	2018	2019	2020	2021	2022
Crimes against the person	3,371	3,412	3,079	3,233	3,348
Burglary	4,120	3,987	3,469	3,986	3,702
Bicycle theft	1,014	1,263	1,765	1,980	2,329
Theft (excluding bicycles)	8,453	7,678	7,989	8,675	8,977
Malicious damage	1,987	1,354	1,124	1,234	1,276
Drug-related crimes	2,190	2,987	3,235	3,789	4,786
Cybercrime	7,120	8,230	8,456	10,342	12,987

Information is not available as to whether the changes in crime rates are due to: more stringent policing which prevents crimes from occurring; better reporting and recording, so crimes that would previously be unreported are recorded; or simply an increase in certain crimes and a decrease in other crimes due to social factors.

Exhibit 2 – Vilenia Policing Services (VPS)

Organisation of policing services

Responsibility for policing in Vilenia rests with Vilenia Policing Services (VPS), which is part of the Ministry of Policing and Public Security. VPS is headed by the Police Commissioner, Tiffany Birks.

Vilenia is divided into five police districts, each of which is headed by a Policing Commander who is empowered under Section 184 of the Vilenia Police Services Regulation 2018.

Each of the five police districts has several police forces:

Vilenia Northern Police District (VNPD) – 3 police forces

Vilenia Central Police District (VCPD) – 6 police forces

Vilenia Western Police District (VWPD) – 4 police forces

Vilenia Eastern Police District (VEPD) – 4 police forces

Vilenia Southern Police District (VSPD) – 5 police forces

Each individual police force is headed by a Chief Policing Officer and has six levels of rank for police officers.

MINISTRY OF POLICING AND PUBLIC SECURITY

Minister – Joanna Perkins

Vilenia Policing Services (VPS)

Responsible for policing services in Vilenia.

Police Commissioner – Tiffany Birks

Vilenia Specialist Policing Services

Policing Commander – Gerry Allsop

Major Incidents

Terrorism

Drug-related Crime

Cybercrime

Vilenia Northern Police District (VNPD)

Policing Commander – Fred Biglet

3 police forces

Vilenia Correctional Services (VCS)

Responsible for prisons, parole and probation services in Vilenia

Vilenia Central Police District (VCPD)

Policing Commander – Crissie Watts

6 police forces

Vilenia Western Police District (VWPD)

Policing Commander – Dinah Bozbag

4 police forces

Vilenia Eastern Police District (VEPD)

Policing Commander – Joanie Khan

4 police forces

Vilenia Southern Police District (VSPD)

Policing Commander – Charles Muller

5 police forces

Mandate

The mandate for each police district and each police force in Vilenia is the same:

- maintain law and order;

- preserve peace;

- protect life and property;

- prevent and detect crime;

- apprehend offenders; and

- enforce all laws and regulations with which it is charged.

Each police force consists of both uniformed police officers and civilian staff, who work closely together. In each police force there are:

- **Community teams**, engaged in community policing (maintenance of law and order, preservation of the peace, protection of life and property, and prevention of crime)

- **Response teams**, which deal with crimes that are being committed, and

- **Detection teams**, which include detectives who investigate crimes with the aim of bringing criminals to justice.

There are currently 220 police stations in Vilenia's cities and larger towns. These have been reducing in numbers over the years, much to the disappointment of the public.

Both uniformed police officers and civilian staff complete administrative tasks and have responsibility for the input, storage and dissemination of each force's records.

Each of the five districts has an Area Control Room with a call centre taking requests for service from the public and then despatching police officers from the appropriate police force, depending on the location and nature of the incident. In total these centres respond to around 550,000 calls each year.

The five districts are supported by specialist policing divisions: Major Incidents, Terrorism, Drug-related Crime and Cybercrime. These divisions operate out of VPS headquarters in Margosa on a national basis. Corporate functions, including People and Development, Finance and Corporate Communications, are also based here, as is the Vilenia Policing Academy.

All police officers are trained during a two year initial period at the Academy by block release, whereby they alternate two weeks in the Academy then two months in the field. This provides them with a combination of theory and practical experience. During their time in VPS, police

officers frequently return to the Academy for further training. There are also training programmes for administrative staff.

Staffing levels

Police officers in Vilenia, as at June 2023, numbered 7,397 with unfilled positions for a further 1,342 officers. Additionally, there is a civilian staff of 4,133 with a unfilled positions for a further 102 employees. The current ratio of full-time equivalent police officers per 1,000 residents in Vilenia is 1.26, which is below the target set by Vilenia's government.

There is a strong sense within the police forces and amongst the general public that the number of police officers is in permanent decline despite central government pledging to ensure there are more police officers to protect members of the public and the public infrastructure so crime rates are reduced.

Funding and spending

Central government funding to police forces in Vilenia has reduced by 20% in real terms over the ten years to 2023. Some police forces receive additional funding from local councils, which levy a precept on local residents and businesses. Therefore some forces rely more heavily on central government funding than others.

	2020 $'000	2021 $'000	2022 $'000
Spending by VPS	401,236	398,345	348,968

Overall spending cuts over the last few years have varied among forces. Since wages and other personnel costs account for the majority of the spend by police forces there has been a corresponding reduction in the size of individual police forces across Vilenia. This in turn has led to minor reductions in the numbers of police officers in response and detection teams, and

significantly reduced community teams. The effect of these reductions on crime levels has not been determined. The specialist teams operating nationally are funded directly by central government and have only been subject to a slight decrease in funding during the same period.

Partnerships formed by policing services

VPS has formed partnerships with various organisations in Vilenia. These include partnerships with:

Vilenia Correctional Services

VPS increasingly collaborates with Vilenia Correctional Services to apprehend people who have absconded from probation or parole supervision. Police and correction officers perform joint supervision of selected offenders who are on probation or parole. Offenders are selected for joint supervision when they are considered high risk or they are believed to still be criminally active. These partnerships also involve information sharing, training, communications and joint operations.

Private security services

VPS occasionally collaborate with carefully selected private security firms.

Community partnerships

VPS also have community partnerships with local council organisations within communities that seek to reduce crime and also with local residents, businesses, educational institutions, and social and religious groups.

Further challenges facing VPS

VPS faces some further challenges:

Funding

- Legal restrictions that prevent police forces from running a budget deficit.

- Decreasing investment in appropriate technology, infrastructure and human resources, which are critical enablers of efficient and effective service delivery.

Staffing

- Serious recruitment and retention issues.

- Expectation of increased collaboration with Vilenia Correctional Services which will drain VPS resources.

Public attitudes and expectations

- Public support for policing services is not consistent across the population of Vilenia.

- In general the public want more visible policing, with more uniformed police from the community teams patrolling in towns and interacting with the public.

Digital technologies

- The rapid development of digital technologies impacts on the types of behaviours experienced in Vilenia, for example there has been an increase in trolling and the volume and type of cybercrimes.

- A need to integrate police systems across forces for both rapid response and investigation but in a way that is effective, respects data protection aspects and speeds up apprehending criminals and solving crimes.

- Digital technologies create an increase in the amount of evidence that police need to process when investigating a crime – for example social media accounts and CCTV footage. This requires more police officers and a different skill set. When evidence is digital, it must remain accessible and readable, and its long-term integrity must be preserved.

- Use of technology is changing the way in which the public engage with policing services and their expectations of police responses.

- The proliferation of device types and data formats makes it hard for police services to keep up with changing operating systems. Millions of changing applications and security patches can considerably delay investigative work.

- In the area of digital forensics, which includes mobile, network, cyber, email, web, system and data information that needs to be collected and analysed, major challenges are what laws are applicable and ethical aspects.

<u>Crimes</u>

- There are increases in crime in certain parts of Vilenia, especially bicycle theft and drug-related crimes in the cities.

- VPS needs to establish a better understanding among police officers of mental health issues and its potential impact on criminal behaviour.

- There is insufficient knowledge and understanding of crime outside towns and cities i.e. rural crime.

Exhibit 3 –Terms of reference for the strategic review

Date: 1 February 2024

A multi-disciplinary team [the Team] has been formed to conduct a detailed strategic review of the current arrangements for policing services in Vilenia.

The **objective of the review** is the transformation of the current organisation of policing in Vilenia into an efficient, agile, community-centric policing service which harnesses the power of digital technologies and enables it to prevent crime, respond to crimes and bring criminals to justice.

Over the years there have been proposals to restructure and perhaps merge police forces within districts, between districts or even nationally as a way to enhance efficiency and efficacy in response to reduced funding and changes in types of crimes and patterns of criminality. However, there have never been sufficiently strong political will or public pressure to progress the debate. It is important that the Team considers the possibility of some mergers.

The **terms of reference** for the review will include, but not be limited to, a review of the following:

Strategic options for the provision of policing services:

- Maintenance of police forces as currently constituted.

- Merger of police forces within each police district.

- Strategic alliance(s) with providers of private security services.

- Expansion of partnerships with other public sector agencies

Administrative support

- Whether administrative support could be outsourced, wholly or in part.

Funding arrangements:

- Maintenance of the current model of funding from central government and further funding from local councils for some policing services.

- Funding exclusively from central government.

Decisions regarding the level of funding are not in the remit of the Team, only the sources of funding.

<u>Digital technologies</u>

- How digital technologies can be used to facilitate police work:
    - automating administrative tasks
    - gathering and processing of information in criminal investigations
    - crime prevention.

Exhibit 4 – Foreword to the Vilenia Western Police District (VWPD) Strategic Plan 2019 to 2024

As Policing Commander of the Vilenia Western Police District I am pleased to present our Strategic Plan for the period 2019 to 2024.

Our Mission statement has been updated to reflect the changing environment in which we operate.

> *To deliver a professional, trusted, impartial policing service that enforces the law, reduces crime and builds safer communities.*

To this end our staff receive training at the Vilenia Policing Services Academy. The training also includes instilling an in-depth awareness of our key values: Professionalism – Impartiality – Inclusivity – Respect – Accountability – Acting with integrity.

As we seek to enforce the law and to prevent crime so we also need to investigate crimes and bring criminals to justice. This is an increasingly difficult task with reductions in funding, reductions in staff numbers, changes in the types of crimes being committed and changes in the amount and type of data available in police investigations. We can only achieve our mandate and realise our mission if we have the right people in our police forces – both as police officers and in our administrative support teams. It is imperative that we attract and retain the highest quality staff possible – people who reflect the diversities of our citizens and who can respect and live out our values.

Digital technologies bring us access to a wide range of information, making it easier to identify and apprehend suspects and bring them to justice. However, it also places a burden on police forces as they face a massive amount of data to be investigated. Our investments in digital technologies are enabling us to automate and reduce the amount of human involvement.

No police district or police force can be effective without the trust, confidence and support of the people it serves. We are very fortunate that we have the trust of our community in the Western part of Vilenia. Our area is particularly challenging as we have hundreds of kilometres

of coastline which facilitates the drug dealing communities from a variety of neighbouring countries as well as Vilenia. We are grateful for our close cooperation with the Vilenia Coastal Agency. Other partnerships are of great importance to us – our collaboration with Correctional Services and some private security firms are well known but we also have close partnerships with a variety of community organisations across the region.

Dinah Bozbag

Policing Commander – Vilenia Western Police District (VWPD)

Exhibit 5 – Report into digital technologies in Vilenia Policing Services (summary)

Report publication date: 15 December 2023

A review of the use of digital technologies was commissioned by the Ministry of Policing and Public Security. This followed concerns expressed in Vilenia's parliament about the challenges that digital technologies present for policing as well as the opportunities they present in make policing more efficient, especially in speeding up the process of apprehending criminals and bringing them to justice.

The review was conducted by Genius Consulting.

What VPS is doing

- VPS has progressively acquired new technologies in crime management to assist it in maintaining safety and security in our country.

- Body Worn Cameras (BWC) are being piloted to capture real time data of police interactions.

- Electronic identification parades of suspects, digital recording of interviews with suspects, Automated Fingerprint Identification System (AFIS), CCTV and speed detection devices are regularly used by police forces across Vilenia.

- Interactive voice response is being used to provide an automated service to the public which reduces workload on staff in the call centres.

What VPS does not do well or does not do

- VPS has outdated systems and infrastructure, makes it difficult to achieve compliance with existing and emerging regulations.

- Policing services involves a lot of shift working. Ensuring that the right police officers with the right equipment and vehicles are in place both in the Community and the Response teams is key. This is not centralised even though the call centres for each policing district are centralised.

- Administrative units in some of Vilenia's police forces still rely heavily on manual paper files for recording evidence of requests for service from the public, tracking correspondence, progressing responses etc.

- There is no integrated case management to facilitate collaboration between police forces and specialist units as well as to speed up investigations. An integrated case management solution would also serve as a repository of information about crime, investigation and intelligence management etc. This would need to respect all data protection laws in Vilenia.

- The volumes of data requiring analysis makes automation critical. Automated systems can identify what is, and what is not, likely to be relevant thus making the task of investigation both easier and more efficient. They would avoid police officers having to trawl through all of a suspect's photos, emails, text messages, social media posts etc. For example, software is available that can flag up when there is movement in a CCTV clip, so police officers can skip straight to the most relevant footage.

- There is no standardisation of IT systems across VPS which prevents inter-operability. Data is also presented in different formats making it difficult to compare outputs.

- In cities it would be helpful to make use of the Internet of Things – integrating devices managing traffic flows, public lighting and other systems with sensors and cameras across the city could facilitate the detection of crime and apprehension of criminals.

Conclusion

VPS is making use of digital technologies but could take this a lot further. It needs to give police officers the digital tools and expertise they need to respond to and investigate all incidents and crimes effectively and efficiently.

VPS has a growing skills gap when it comes to digital investigation, forensics, intelligence and insight. This gap needs to be urgently addressed.

Exhibit 6 – Article in *The Policing Journal* (extracts)

International innovations in digital policing

By Bernie Andresson

The Vancouver Police Department has implemented a city-wide predictive policing tool to target property crime. The system uses machine learning to predict where break-ins are likely to occur. It pushes that information to the onboard computers of patrol vehicles at two hourly intervals so officers can alter their patrol locations with a view to preventing them. Predictions are offered within either a 100 or 500-metre radius of a particular location. A six-month pilot project in 2016 saw property crime reduced by as much as 27% in areas where it was tested, compared to data held on the previous four years. The accuracy of the system was also tested by generating predictions of locations for property crime on a given day, and the police then monitoring what actually happened without taking steps to intervene. According to the VPD Chief Officer, Adam Palmer, it achieved up to 80% accuracy in those tests.

Avon and Somerset Police in the UK has begun moving in a similar direction. It has rolled out Qlik Sense, a software tool that can extract data from more than ten separate police databases and link it together, along with data from emergency call logs and long-term data on recorded crimes in an area. Software developers in the force have developed a variety of apps to conduct searches of the entire dataset, based on features such as a suspect name, an address, or a vehicle registration plate. The system is able to combine predictive analytics with data visualisations to give officers a clearer idea of any situation and immediate context they are facing but also of the places and individuals likely to be at highest risk and vulnerability. They can alter force deployment decisions, strategy and even operational tactics as a result of that insight.

Tests of the software to see how serious failures in the past could have been prevented strongly demonstrated its potential value. For example, a man was murdered in 2013. He had

made numerous calls to the Avon and Somerset Police claiming he was being harassed by neighbours but was dismissed as a nuisance caller. Tests using the predictive analytics software showed he would have been flagged as a highly at risk potential victim. Had the new data integration and analytics platform been available at that time his murder may have been preventable.

Another data-driven approach to crime prevention has been demonstrated in Argentina. A study of electronic monitoring (EM) there looked at people linked to serious offences who received EM rather than a prison sentence. It found use of EM cut the risk of re-offending nearly in half, compared with a period in prison. Offenders in the EM programme received no additional counselling, education, training or other interventions.

Burgernet Netherlands is a digital collaboration platform that allows the police in the Netherlands to work together with citizens to combat crime and create safer communities. First introduced in 2009, it allows a police control room to send mobile alerts, in the form of either voice or text messages, to citizens who have chosen to participate, notifying them of incidents such as burglaries, vehicle thefts, missing persons, or other criminal activity in their neighbourhood. People are thus able to be both vigilant and share any information they might have by calling a free Burgernet number which connects them to the control room. The operator of the control room can then send the information to police officers. Once an incident is concluded everyone who responded to the alert receive an update on the outcome. Strong data security to protect the identities of people who participate is an integral part of the system. The Dutch police are trialling apps they have developed (Automon and 'Search Together') which allow the public to help in the search for stolen vehicles and missing persons through gamification.