

# **5 YEAR CORPORATE STRATEGIC PLAN**

**2023 - 2027**

## **MEDICAL BUREAU OF ROAD SAFETY**

School of Medicine and Medical Science,

University College Dublin,

Belfield, Dublin 4.

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## **1.0 EXECUTIVE SUMMARY**

The strategy takes into account the proposed changes in work load based on trend analysis of previous years. The strategy also takes into account the problem of drugs and driving and the need for the Medical Bureau of Road Safety to accommodate both the number of specimens for analysis and also in the type of drugs to be analysed, as well as advancements in technology for preliminary drug and alcohol detection systems available for use by law enforcement officers

### **1.1 MISSION**

The Mission of the Medical Bureau of Road Safety (Bureau) is to provide a high quality National forensic service in alcohol/drug (intoxicant) detection in support of the effective operation of the road traffic legislation.

### **1.2 5 YEAR OBJECTIVES**

1. To continue to provide a high quality national forensic service in alcohol and drug analysis, the provision of Bureau certificates and Court assistance.
2. To maintain the ISO17025 accredited status achieved for the analytical programmes within the Bureau and to extend the scope of accreditation to additional areas.
3. To adapt and incorporate into the Bureau activities any legislative requirements over the five year period.
4. To commence and/or complete actions for which the Bureau is given responsibility under the Government Road Safety Strategy 2021-2030.
5. To continue to build up a forensic toxicology (including alcohol) knowledge base within the Bureau scientific staff.
6. To maintain Garda capacity to detect intoxicated drivers by continuing to provide drug and alcohol testing devices.
7. To maintain the capacity of the Irish Aviation Authority in air crew alcohol testing by providing equipment for such testing
8. To ensure that all work in the Bureau is maintained and improved where possible to a high standard of quality that is required of a national forensic laboratory in a cost effective and efficient way.
9. To assist with education, enforcement and legislation measures that are set out in the National Road Safety Strategy and beyond.
10. To maintain effective financial management systems and operate within best accounting practices and frameworks.

11. To ensure that the Bureau has Corporate Governance in operation and has the ability to objectively and effectively assess management and corporate performance.

### **1.3 KEYS TO SUCCESS**

In order for the Bureau to achieve its objectives it relies on good planning, provision of adequate resources, staff and instrumentation for the detection of alcohol and/or drugs.

#### **Planning**

The Bureau is a service organisation and in order to provide an efficient service it must know the requirements of its clients. The Bureau communicates regularly with the Department of Department of Transport (DOT) and the Garda National Roads Policing Bureau (GNRPB) in relation to the service being provided and the legislative and operational changes that are required to continue to provide a reliable and efficient service in support of the road traffic legislation.

Careful planning for the most efficient use of resources of the Bureau is constantly required.

The Chief Analyst and Principal Analyst are involved in the Preliminary Drug Testing Review group along with members from DOT and GNRPB.

The Bureau is made aware of policing plans and takes particular notice of increases in Roads Policing personnel as this leads to increased enforcement which increases specimens being forwarded to the Bureau.

In order for timely planning the Bureau must be aware of any legislative change that will affect the workload.

The Bureau must remain flexible enough to respond quickly and adapt to changing demand for services which may be brought about by special or increased operations by AGS.

#### **Resources**

The Bureau depends on the grant given by the DOT and tries to plan and work within that budget. However, it is the work of An Garda Síochána that dictate the volume and nature of the work that is carried out by the Bureau, i.e. the number of specimens forwarded and whether it is alcohol and/or drug analysis that is required. To maintain supplies of specimen collection kits to An Garda Síochána, roadside breath alcohol devices, evidential breath test instruments and PDT device/stks requires adequate resources. The Bureau must deliver both quality and value for money and will continue to review its activities to ensure it operates in a cost effective manner.

#### **Staffing**

The analytical work and associated activities requires highly trained and competent staff. Sufficient staff to carry out the functions of the Bureau is essential. The law requires that

analysis and issuing of results are carried out as soon as practicable. All scientific staff require suitable and continuous training to maintain their competence and be suitable expert witnesses. The reputation of the Bureau has been built up over fifty-four years of good scientific and administrative practice and each staff member works hard to maintain the high standard required of a national forensic laboratory.

### **Instrumentation**

The Bureau cannot operate without instrumentation and continues to provide the laboratory with suitable analytical instruments keeping abreast of innovation in technology both in the field of alcohol and drug detection. The Bureau issues An Garda Síochána with evidential breath testing instruments and preliminary drug testing devices in selected Garda stations. Devices for roadside preliminary breath alcohol and preliminary drug testing are also issued. The Bureau will continue to investigate the developments in both chemical drug testing and alcohol testing devices. The Bureau requires that its testing equipment is calibrated and in good working order.

### **Information Technology**

The Bureau has increased its information technology resources in line with increased demands in all aspects of the work of the Bureau. The Bureau operates a local Area Network to maintain the security and integrity of all work. A fibre optic cable back up system is in place and a high level of back up procedures and monitoring are in place. The Bureau maintains a computerised document control system and a laboratory information system (LIMS) The Bureau will continue to keep abreast of changes in IT technology and IT security. A firewall will be installed to allow for limited software updates on the air gapped LAN system. It is likely that some of the IT functions of the Bureau will move to cloud based systems in the lifetime of the strategy.

## **2.0 MANAGEMENT SUMMARY**

The Board of the Bureau comprises of five members (including the Director) which is appointed by the Minister of Transport for a five year term. The current Board members are Dr. Declan Bedford (Chairman), Professor Denis Cusack (Director), and Professor Patricia Fitzpatrick, Ms. Joan O'Brien and Mr. Sean Quigley.

The Director is responsible for managing the day to day business of the Bureau. The Bureau has made an arrangement with UCD for the use by the Bureau of its staff, premises and equipment for the majority of its functions. The Director, Chief Analyst and Senior Administrative Officer for the Senior Management Team.

All testing is carried in the Bureaus UCD facility and it is not planned that any other laboratory will be used for testing in the lifetime of this strategy.

The functions of the Bureau are divided into different programmes and services: Alcohol which includes Blood & Urine Alcohol and Breath Alcohol; Toxicology; Quality Assurance; Information Technology and Corporate Services.

All areas have been developed and the IT and toxicology programmes in particular have expanded in recent years in line with increase in demands in all aspects of the work of the Bureau.

## **2.1 ORGANISATIONAL STRUCTURE**

A diagrammatic presentation of the organisational structure of the Bureau is outlined on the next page.

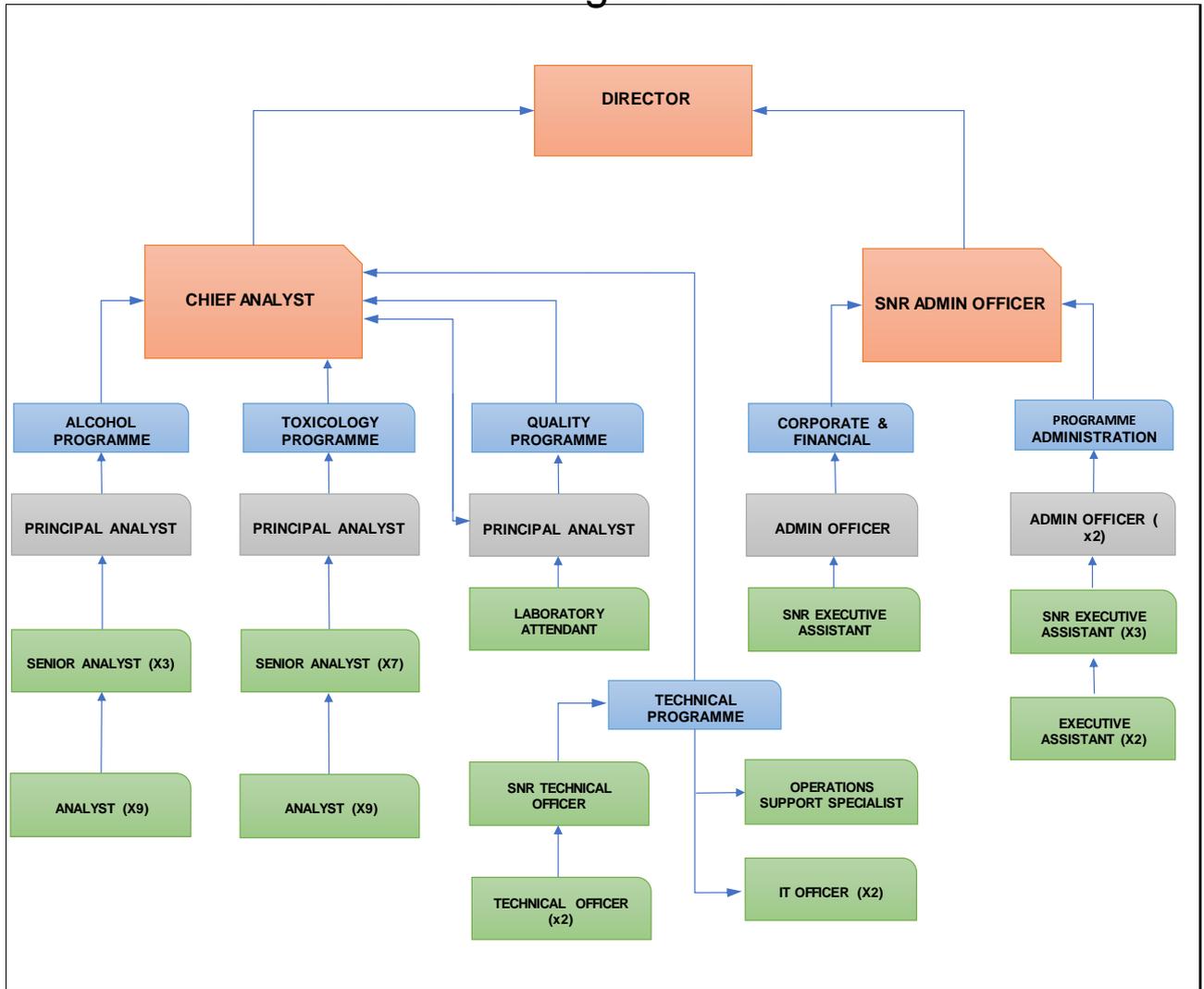
## **2.2 EXECUTIVE MANAGEMENT TEAM**

Director: Professor Denis Cusack  
Head of Laboratories (Chief Analyst): H. Kearns  
Principal Analyst Alcohol Programme: L. Lawlor  
Principal Analyst - Quality Manager: S. McDonald  
Principal Analyst Toxicology Programme: Dr R. Maguire  
Head of Administration (Senior Administrator): T. Clarke

## **2.3 SENIOR MANAGEMENT TEAM**

Director: Professor Denis Cusack  
Head of Laboratories (Chief Analyst): H. Kearns  
Head of Administration (Senior Administrator): T. Clarke

## MBRS Current Staff Organisation Chart



### 3.0 ESTABLISHMENT OF THE MEDICAL BUREAU OF ROAD SAFETY

The Medical Bureau of Road Safety (Bureau) is responsible for the chemical testing of intoxicants in driving in Ireland. It is a corporate body established in November 1968 by the Minister for Local Government under Part V of the Road Traffic Act 1968. The Minister's title was altered to Minister for the Environment & Local Government on 22<sup>nd</sup> July 1997. In June 2002 the Medical Bureau of Road Safety came under the aegis of the Minister for Transport, Tourism and Sport following the transfer of departmental Administration and Ministerial Functions Order 2002. The Medical Bureau of Road Safety is currently under the Department of Transport.

### **3.1 FUNCTIONS OF THE MEDICAL BUREAU OF ROAD SAFETY**

The Functions of the Bureau are laid down in the Road Traffic Acts 1968 – 2016

- Receipt and analysis of specimens of blood and urine forwarded to the Bureau and the issue of reports on such analysis—for the concentration of alcohol.
- Receipt and analysis of specimens of blood and urine forwarded to the Bureau and the issue of reports on such analysis—for the presence of a drug or drugs.
- Receipt and analysis of specimens of blood and urine forwarded to the Bureau and the issue of reports on such analysis—for the concentration of a drug or drugs.
- Provision of equipment for the taking of such specimens.
- Approval, supply and testing of apparatus for indicating the presence of alcohol in the breath.
- Approval, supply and testing of apparatus for indicating the presence of drugs in oral fluid.
- Approval, supply and testing of apparatus for indicating the concentration of alcohol in the breath.
- Provide assistance to the Court.
- Research on drinking and drugs in relation to driving, including the methods of determining the amount of alcohol or drugs in a person's body and the epidemiology of driving under the influence of intoxicants.

### **4.0 GOAL**

It is the continuing policy of the Medical Bureau of Road Safety to achieve and maintain a high standard of quality in all aspects of the work of the Bureau.

### **4.1 OBJECTIVES**

The programme of work for the Medical Bureau of Road Safety will continue to focus on the main legal responsibilities as set out in the Road Traffic Acts and the action plan of the National Road Safety Strategy and beyond. The Bureau will continue to engage with the RSA and have an active role in the development and implementation of the Road Safety Strategy 2021-2030.

### **4.2 SHORT- TERM GOALS (1 -2 YEARS)**

#### **Blood & Urine Alcohol Programme**

1. To maintain ISO 17025 accredited status for blood and urine alcohol analysis carried out in the Bureau. (Point 2 of the 5 year objectives)
2. To maintain the provision of equipment to Gardaí for the taking of specimens. (Point 1 of 5 year objectives)
3. To review the equipment (kits) provided to the Gardaí for the provision of blood and urine specimens
4. To review reporting of analysis format. (Point 4 of 5 year objectives)

## **Breath Alcohol Programme**

1. To maintain ISO 17025 accredited status for performance testing of evidential breath alcohol testing instruments installed in Garda stations by Bureau scientists. (Point 2 of 5 year objectives)
2. To continue to support the Gardaí in the operation of the EBT instruments in Garda stations. (Point 1 of 5 year objectives)
3. To maintain ISO 17025 accredited status for performance testing of roadside breath alcohol testing devices by Bureau scientists. (Point 2 of 5 year objectives)
4. To continue to support the mandatory alcohol testing legislation with Dräger 7510 devices. (Point 1 of 5 year objectives)
5. To support the training of Garda operators in the use of Evidential Breath Testing instruments. (Point 6 of 5 year objectives)
6. To maintain the Laboratory Information Management system for PBT devices and to develop an in-house IT Solutions for EBT management and scheduling. (Point 1 of 5 year objectives)
7. To access the need to tender for replacement of Evidential Breath Testing instruments type.
8. To assess technologies used for stationary and mobile evidential breath alcohol testing.
9. To support the Irish Aviation Authority alcohol testing scheme by maintaining and calibration of Dräger 7510 devices for that purpose.

## **Toxicology Programme**

1. To maintain ISO 17025 accredited status for preliminary and confirmatory blood and urine drug analysis carried out in the Bureau. (Point 2 of 5 year objectives)
2. To support the training of Garda instructors in Preliminary Drug Testing Device and/or tester use (PDT) (Point 6 of 5 year objectives)
3. To continue to build up knowledge of PDT and drug testing generally. (Point 6 of 5 year objectives)
4. To continue to supply and test PDT devices to AGS, a PDT programme. (Point 6 of 5 year objectives)
5. To review the use of PDT devices.

6. To expand the drug screening panel within the Bureau at UCD premises. (Point 5 of 5 year objectives)
7. To expand the drug confirmatory programme within the Bureau at UCD premises. (Point 5 of 5 year objectives)
8. To implement an updated PDT system following completion of the tender process.
9. Carry out review on Oral Fluid as an alternative matrix for drug testing in intoxicated drivers.
10. Continue to expand automation procedures and practices into the sample preparation for drug analysis.

### **All programmes**

1. To continue to provide court assistance. (Point 1 of 5 year objectives)
2. To ensure that the Bureau facilitates the Official Languages Act. (Point 3 of 5 year objectives)
3. All work in the Bureau will be maintained and improved where possible to a high standard of quality that is required of a national forensic laboratory. (Point 7 of 5 year objectives)
4. To improve and develop the recording, storage and retrieval of data in the Bureau. (Point 7 of 5 year objectives)
5. To adapt technologies, IT and other to continue to improve efficiency and reduce risk.
6. To assist with education, enforcement and legislation measures as outlined in the Government Road Safety Strategy 2021 - 2030 and beyond. (Point 8 of 5 year objectives)
7. To comply with General data protection regulations

### **Corporate Services**

1. To ensure that the Bureau has its structures and processes in place to conform to the Code of Practice for the Governance of State Bodies. (Point 10 of 5 year objectives)
2. To improve and develop the management of the accounting records and data in the Bureau. (Point 9 of 5 year objectives)

### **4.3 LONG- TERM GOALS (3- 5 YEARS)**

#### **Blood & Urine Alcohol Programme**

1. To maintain ISO 17025 accredited status for blood and urine alcohol analysis carried out in the Bureau. (Point 2 of 5 year objectives)
2. To maintain the production and issue of equipment (kits) for the provision of blood and urine specimens as required by the Gardaí. (Point 1 of 5 year objectives)

#### **Breath Alcohol Testing Programme**

1. To maintain ISO 17025 accredited status for performance testing of evidential breath alcohol testing instruments installed in Garda stations by MBRS scientists. (Point 2 of 5 year objectives)
2. To continue to support the Gardaí in the operation of the EBT instruments in Garda stations. (Point 1 of 5 year objectives)
3. To maintain ISO 17025 accredited status for performance testing of roadside breath alcohol testing devices by Bureau scientists. (Point 2 of 5 year objectives)
4. To continue to support the mandatory alcohol testing legislation and continue to replace the current roadside breath alcohol testing devices with those procured in 2016. (Point 1 of 5 year objectives).
5. To assess technologies used for stationary and mobile evidential breath alcohol testing.

#### **Toxicology Programme**

1. To maintain ISO 17025 accredited status for preliminary and confirmatory blood and urine drug analysis carried out in the Bureau. (Point 2 of 5 year objectives)
2. To maintain the PDT testing programme. (Point 6 of 5 year objectives)
3. To increase drug testing capability to test all samples received in the Bureau.
4. To expand the drug testing panel in line with emerging trends.

#### **All Programmes**

1. To continue to provide court assistance. (Point 1 of 5 year objectives)
2. To develop and train scientific staff to a level which will ensure the laboratories competence in forensic toxicology analysis and method development.(Point 4 of 5 year objectives)

3. To facilitate any further legislative changes that may be planned. (Point 3 of 5 year objectives)
4. To ensure that all work in the Bureau will be maintained and improved where possible to a high standard of quality that is required of a national forensic laboratory. (Point 7 of 5 year objectives)
5. To assist with education, enforcement and legislation measures as outlined in the 2021- 2030 National Road Safety Strategy and beyond. (Point 8 of 5 year objectives)
6. Move some IT elements to cloud based IT systems where appropriate.

### **Corporate Services**

1. To continue to maintain the structures and processes in place to conform to the Code of Practice for the Governance of State Bodies. (Point 10 of 5 year objectives).
2. To ensure that financial management will be maintained in accordance with best accounting practice and frameworks. (Point 9 of 5 year objectives).

### **5.0 CHALLENGES FACING THE MEDICAL BUREAU OF ROAD SAFETY**

- The provision of sufficient resources both in budget and staffing for the Bureau to meet the legal requirements of carrying out its functions.
- Constant legal challenges to the existing work carried out by the Bureau.
- Method development and validation for the different classes of drugs to be detected.
- The need for monitoring trends of general alcohol and drug use in order to determine which drugs to analyse.
- Increase in intoxicated driving will increase the workload of the Bureau, this behaviour can be brought about suddenly by related and unrelated circumstances, such as legalisation of recreational drugs and/or pandemic and large scale lockdown enforcement.
- The number of specimens received in the Bureau is dependent on enforcement and this may increase over the lifetime of this plan in a manner not predictable by the Bureau. The introduction of the non-device based drug testing system may increase enforcement without an increase in Roads Policing personnel.
- Developments in roadside and garda station based and laboratory drug testing.
- Maintenance and expansion of accreditation to ISO 17025 for all analytical testing.
- Building and maintaining a well trained and competent scientific staff taking account of staff turnover and leave requirements
- Keeping abreast of developments in technologies used for preliminary breath alcohol and preliminary drug testing as well as evidential breath testing technologies.

- Maintaining the building, laboratory and IT facility to a level adequate to facilitate the forensic testing be maintained at such a high standard.

## **5.1 OPERATING ENVIRONMENT**

The Bureau currently operates under the Road Traffic Acts 1968 to 2018 and the Government Road Safety Strategy 2021 - 2030. Under this strategy the Bureau will also operate under additional road traffic legislation as required.

The Bureau also has legal obligations under the Bureau Establishment Order 1968 to the Minister of Transport, Tourism and Sport. It also conforms to the Code of Practice for the Governance of State Bodies.

- Provide the Minister with an Annual Report
- Provide the Minister with a copy of the annual accounts and the auditor's certificate
- Provide the Minister with information from time to time which may be required regarding the functions of the Bureau.

The Bureau is subject to FOI since 2005. Clarification of the records subject to FOI was made under RTA 2010.

### **GDPR**

The Bureau will comply with its obligations under the General Data Protection regulation.

### **Code of Practice**

The Bureau also conforms to the Code of Practice for the Governance of State Bodies

## **5.2 RISK MANAGEMENT PROCESS**

Risk management is included as an integral component of the Medical Bureau of Road Safety's planning process in relation to the operational, financial and reputational risks that may affect the body. The executive management team have devised a business continuity strategy and set in place a business continuity management process.

## **5.3 CORPORATE RISK ANALYSIS**

On an annual basis, the Board evaluates its approach to risk management and the process that the Bureau has in place to mitigate any identified/potential risks.

## **5.4 RISK CONTROLS**

Key aspects of the Bureau's risk management system include:

- Identifying the nature, extent and possible implication of risks facing the Bureau
- Assessing the likelihood of identified risks occurring
- Assessing the ability to manage and mitigate risks that do occur

A risk management policy and register is in operation and will continue to be annually reviewed.

## **6.0 STRATEGY & IMPLEMENTATION SUMMARY**

The scientific programmes within the Bureau have strategies and implementation plans. All however can be subdivided in to the following categories: analysis (testing), Quality assurance, equipment requirements, court attendances, maintenance and increase of forensic toxicology (including alcohol) expertise of the Bureau. All programmes will be working towards achieving the goals set out both in the short term and in the long term.

### **6.1 IMPLEMENTATION OF OBJECTIVES**

#### **Blood & Urine Alcohol Programme**

##### **Blood & Urine Alcohol Analysis**

The Bureau will continue to analyse blood and urine specimens for alcohol concentration using Gas Chromatography (GC) Headspace analysis. Each specimen is analysed twice by two different analysts using two different GC instruments with different chromatographic columns. This is international best practice.

The specimen numbers received in the Bureau have been increasing over the last few years with the current expectation that the numbers will be maintained between approximately 6,000 annually during the period of this strategy. (*See important assumptions, section 7.1*)

##### **Quality Assurance**

The Bureau will continue to operate a quality assurance programme in this area in order to comply with the requirements of the ISO 17025 standard. (Point 2 of 5 year objectives)

##### **Equipment**

The need for constant use of instruments also requires the constant review of the suitability of the equipment and replacement equipment will be required during the lifetime of this strategy. (Point 1 of 5 year objectives)

##### **Equipment for the Provision of Specimens**

The specimen collection kits for the provision of specimens forwarded to the Bureau are prepared and provided to the AGS by the Bureau. (Point 3 of 5 year objectives)

It is envisaged that the Bureau will continue to maintain its kit output annually in line with demand. (*See Important Assumptions Section 7.1*) (Point 1 of 5 year objectives)

The contents of the kits are constantly kept under review and sourcing of items particular to alcohol testing is a constant challenge. Regular recall of issued kits will be carried out over the lifetime of this strategy to take account of expiry dates.

## **Breath Alcohol Testing Programme**

### **Evidential Breath Testing (EBT)**

#### **Quality Assurance**

The Bureau will maintain accreditation for -testing the EBT instruments in stations. (Point 2 of 5 year objectives)

#### **Instruments**

There are currently 87 instruments installed in Garda stations nationwide. The Gardai select the stations which can change from time to time and the Bureau will work closely with Garda National Roads Policing Bureau (GNRPB) and DOT in order to review and maintain the supply to the selected stations and supply of any further additional instruments which may be required for the lifetime of this strategy. (Point 1 of the 5 year objectives)

#### **Schedule of Visits and Level of Testing**

Under the RTA the MBRS is responsible for the forensic integrity of the instruments and will continue to maintain the instruments in good working order. The calibration of the instruments is now carried out annually at the premises of the manufacturer's agent in Ireland. Post calibration instruments are installed and then tested by a Bureau scientist in situ, the instrument is also tested six months post installation.

The Bureau will continue to carry out six monthly testing on all installed EBT instruments. (Point 1 of 5 year objectives)

Non-scheduled visits will be carried out in response to fault calls made by the Gardaí on an as soon as practicable basis. (Point 1 of 5 year objectives)

#### **Training of Garda operators and supervisors**

The Bureau will continue to provide Garda operator and supervisor courses in conjunction with the Garda Training College as agreed throughout the lifetime of this strategy. (Point 1 of 5 year objectives)

## **Preliminary Alcohol Breath Testing (Roadside Testing)**

#### **Equipment**

1,400 roadside breath testing devices are available for issue to the Gardaí. A breakdown (BER) rate of approximately 100 devices per year is estimated and these will be replaced to maintain the number of devices available for issue at 1,400 to include 200 buffer stock

which facilitates a hot swap system of calibration and testing. The Dräger 7510 will be in use for the entire lifetime of this five strategy and beyond. (Point 1 of 5 year objectives)

### **Provision of Mouthpieces to Gardaí**

Annual usage is estimated at 350,000 mouthpieces, which are issued as requested by An Garda Síochána. This number will be kept under constant review in consultation with AGS. (Point 8 of 5 year objectives)

### **Routine Testing**

Each device is scheduled for recalibration on a six-monthly basis. The Bureau will continue to test and calibrate the Draeger devices in the laboratory. The Bureau also carries out in house repair of these devices when required and expect to continue to carry out these repairs in-house. Some repairs will require Draeger service (Point 1 of 5 year objectives).

### **Quality Assurance**

The Bureau will maintain accreditation under ISO 17025 for roadside breath alcohol devices. It will continue to maintain a high level of quality assurance in its testing programme for the lifetime of this strategy. (Point 2 of 5 year objectives)

## **Toxicology Programme**

### **Blood & Urine Drug Analyses**

#### **Drug Screening**

The Bureau currently analyse blood and urine specimens having an alcohol concentration under the 100 mg/100ml blood limit (and equivalent urine limit) for alcohol, for the presence of drug or drugs. Specimens are also tested for drugs where an information form has been forwarded indicating that the Preliminary Drug Testing Device has been used and indicated a positive result.

Gardaí can continue to request drug analyses on specimens with alcohol levels above the 100mg/100ml blood alcohol legal limit and also for specimens where an EBT statement for breath alcohol content has already been issued. (Point 1 of 5 year objectives)

The number of specimens analysed for the presence of a drug or drugs has increased significantly since the introduction of preliminary Drug Testing in oral fluid

It is planned to expand drug testing to all specimens, so that all specimens forwarded to the Bureau will be tested for drugs. All specimens which provided by drivers who have not provided an EBT specimen will also be tested for alcohol.

The Bureau will continue to review its testing capacity and aim to expand the drugs included in the panel.

## **Equipment**

New instrumentation will be purchased over the lifetime of this strategy to address the increased amount of testing, the continued requirement for development of expanded testing and instrument redundancy. The Bureau will continue to keep up to date with drug driving prevalence and detection methodologies. (Point 1 of 5 year objectives)

## **Quality Assurance**

The Bureau will seek accreditation to ISO 17025 for the preliminary analysis carried out by chromatographic means as these tests are incorporated into routine analysis and will continue to operate a quality assurance programme in this area to retain its ISO 17025 accredited status. (Point 2 of 5 year objectives)

## **Confirmatory analysis**

The Bureau will continue to carry out all confirmatory testing in blood and urine specimens in the UCD laboratory.

The Bureau will carry out confirmatory drug testing on specimens for as many drugs as the volume of specimen allowed and where specimens had screened positive for multiple drugs. This procedure will continue and methods will be developed to reduce test volume requirements to enable further testing.

The Bureau will continue to quantify and report drug concentrations for drugs specified in the RTA 2016.

*(See Important Assumption, Section 7.1)* (Point 5 of 5 year objectives)

## **Equipment**

Additional sample preparation automation instrumentation will be required during the life time of this strategy. Older analytical instruments will be kept under review and will need to be replaced during this five year strategy period. (Point 7 of 5 year objectives).

New instrumentation will be purchased over the lifetime of this strategy to address the increased amount of testing, the continued requirement for development of expanded testing and instrument redundancy

## **Quality Assurance**

The Bureau will continue to operate a quality assurance programme in this area to retain its ISO 17025 accredited status and to expand accreditation to all tests as they are incorporated into routine analysis. (Point 2 of 5 year objectives)

## **Preliminary Drug Testing(PDT)**

A devices free drug testing system will be in place during the lifetime of this system and batch quality testing will be required to ensure the continued validity of the system.

The Bureau will continue to test drugs in oral fluid in order to enable the laboratory to quality check the consumable part (STKs) of the PDT device on a regular basis as new batches of STKs are purchased.

Implementation of the new device free system will commence in 2022. Maintenance of the updated system will continue for a four year period thereafter.

The Bureau will continue to participate in any surveys or research in this area. (Point 6 of 5 year objectives)

## **Research**

Drugs and driving (DUID) continues to be an area of concern to the Government especially with regard to enforcement. The type of research area that the Bureau will be involved in will be decided by the Director, in consultation with the Department of Transport (DOT), as part of the Government's Road Safety Strategy. (Point 8 of 5 year objectives)

The Toxicology programme continues to monitor specimens which have returned negative drug and alcohol result and look for 'unknowns' using a High Resolution Mass Spectrometry instrument.

## **All Programmes**

### **Court Attendances**

The requests by Prosecution and Defence solicitors for MBRS scientists to attend courts nationwide and present evidence with regard to Bureau analysis for alcohol and drugs and for evidential breath alcohol testing is part of the service of the Bureau. It is envisaged that legal challenges will continue to demand the time of both administrative and analytical staff in and out of court. (Point 1 of 5 year objectives)

### **Forensic Toxicology (Including Alcohol) Knowledge – Base within the Bureau**

The quantity and quality of the work of the Bureau will be maintained by a high level of staff training. The analysis is extremely labour/instrumentation intensive with a high skill requirement. All analytical staff have a third level qualifications and most have post graduate qualifications.

Analysts are required to follow well planned training programmes to completion before being permitted to sign a statutory certificate on behalf of the Bureau.

Forensic alcohol and toxicological knowledge is acquired by several routes, by qualification, reading relevant scientific journals, attendance at courses, conferences and meetings, building up relationships with similar laboratories within the country and overseas. All analysts are expected to conduct self directed learning. The Bureau will continue to invest in training to maintain the highest forensic standards.  
(Point 4 of 5 year objectives)

### **General Staff Development**

All staff are reviewed annually and are encouraged to attend suitable courses, which are relevant to the work of the Bureau and for their own personal development. (Point 7 of 5 year objectives)

### **IT Services**

The Bureau is provided with IT services from UCD but it also has an independent Local Area Network system (LAN (Points 7 & 8 of 5 year objectives) The LAN is providing assistance with managing the Bureau's many functions. Data protection, security and IT upgrading are important features of the Bureau IT services. An offsite back up system is in place to enable systems and data to be backed up via a fibre link off site and facilitate quick restore if required. This system requires maintenance and monitoring on an ongoing basis.

The LAN may need to be moved to a cloud based system in the lifetime of this Strategy to ensure a stable IT environment is provided.

### **Laboratory Information Management System (LIMS)**

The Bureau purchased a LIMS in 2010 and the first phase of the implementation strategy was completed by mid 2011. The strategy commenced with the blood and urine alcohol programme has expanded to include the toxicology programme and PBT programme. As new test methods come on stream there is a requirement for instrument integration and a requirement for IT consultation to be bought in for particular projects, this will augment the IT skills Bureau staff are developing.

The Bureau will continue to review the use of LIMS in line with developments in the different programmes and software upgrades over the lifetime of the strategy. (points 1, 7 & 8 of 5 year objectives).

### **Quality Management System**

The Bureau operates an electronic Quality Management System. The Bureau uses the system to maintain and record, documentation, training, equipment, non-conformances, complaints, improvements and staff continuous professional development. (Points 1, 2 & 7 of 5year objectives) The Bureau will continue to access upgrades to this system throughout the lifetime e of this strategy.

### **Corporate Services**

To improve the efficiency of the financial management it is planned to update accounting software. (Point 9 of 5 year objectives)

## **6.2 PERFORMANCE INDICATORS**

The main performance indicator for the quality of the work of the Bureau is in the maintenance of its ISO accreditation status for the analytical activities accredited.

The Bureau participates in external proficiency testing for each of its programmes. There are also specific performance indicators for the specific programmes.

In the Blood & Urine Alcohol Programme the specific indicators are

- The specimens will continue to be analysed as soon as practicable within the meaning of the legislation. (Reporting within two weeks)
- A sufficient number of the analytical staff will be trained to competent level to carry out the analysis and be capable of providing expert witness testimony on behalf of the Bureau.
- The levels of specimen collection kits will continue to be provided to the Gardaí to meet their requirements. (8,500 kits to be provided annually)
- Successful participation in external Proficiency Testing (PT) schemes.

In the Breath Alcohol Testing Programme the specific indicators are

- A sufficient number of the analytical staff will be trained to competent level to carry out the testing of instruments and devices and be capable of providing expert witness testimony on behalf of the Bureau.
- As many as possible of the instruments in stations will be maintained and available for use by Garda operators at any given time. (minimise the down time for any EBT instrument <1 week)
- Successful participation in external PT scheme and internal PT scheme.
- The Bureau to provide the number of new instruments in stations as required by Gardaí in an agreed timeframe. (87 nationwide depending on any change in division structure)
- The Bureau to provide the Gardaí with courses for operators/supervisors in an agreed time frame.
- The Bureau will provide and maintain sufficient roadside breath testing devices as required by the Gardai.(approximately 1,200 issued at all time)

In the Toxicology Programme the specific indicators are

- The specimens will continue to be analysed as soon as practicable within the meaning of the legislation. (reporting within four months)
- A sufficient number of the analytical staff will be trained to competent level to carry out the analysis and be capable of providing expert witness testimony on behalf of the Bureau.
- Confirmatory analysis in use for the drug classes to be maintained
- Additional drug classes to be set up and validated at Bureau premises at UCD.
- Monitoring of changes in drug trends to assist with the appropriate choices of drug classes for testing in the Bureau.
- Successful participation in several external PT schemes.
- Add tests to list of additional accredited tests under flexible scope.
- Add additional tests to LIMS system.
- Provide the Gardaí with preliminary drug testing devices in line with legislative requirements.

In the Corporate Services the specific indicators are

- The monthly accounting statements will continue to be reconciled as soon as practicable.
- Preparation of the annual financial statements for audit by the Comptroller and Auditor General in a timely manner.

- Preparation of essential reports as required under the Code of Practice for the Governance of State Bodies.

### **6.3 ACHIEVEMENTS AGAINST PERFORMANCE INDICATORS**

The main achievement of the Bureau is the continued acceptance by the courts of the forensic results issued by the Bureau.

Achievements by the Bureau will be measured by the quality and quantity of the service provided in alcohol and drug analyses and the supply of equipment to the Gardai for the provision of the specimens.

It will also measure achievements against the supply and testing of roadside drug testing devices to the highest forensic standards.

It will also measure achievements against the supply and testing of the EBT instruments and the roadside testing devices to the highest forensic standards.

The continuing maintenance of accreditation to ISO 17025 standard for the activities already accredited and to achieve accreditation for new confirmatory drug analysis as they are developed.

Continued success is maintained in proficiency testing schemes for all programmes.

Effective financial management systems as measured by internal audits and audits of the Comptroller and Auditor General.

### **7.0 5 YEAR FINANCIAL PLAN**

The Medical Bureau of Road Safety receives its funding from an annual grant out of the vote for the Department of Transport Tourism and Sport.

The budget requirements are based on the performance indicators set out within the strategic plans.

### **7.1 IMPORTANT ASSUMPTIONS**

The Bureau in devising its 5 year financial plan has based it on the following assumptions of:

- Expected workloads within the different programmes are as outlined in table 1 below.
- Staffing levels will increase by 2 above the current Employment Control Framework level.
- Sufficient Instrumentation is provided for the individual programmes including IT.
- Allowance has been made within the projected capital estimate for replacement of essential laboratory equipment but does not allow for any significant breakdown within any of the programmes.

- The Bureau has estimated the expenditure within the building utilities based on the costings for the previous three years.
- The Bureau has included projected development costs for the toxicology programme over the lifetime of the strategy.

## 7.2 Key Financial Indicators

The main key financial indicators for the effectiveness of financial management for the Bureau are:

**Funding** - The Bureau to continue to obtain sufficient funding to operate all of its functions.

**Financial Cost Effectiveness** - The Bureau is committed to continuing to maintain financial cost effectiveness by annually reviewing its suppliers and monitoring expenditure within all areas. The Bureau under a Licence Agreement with University College Dublin has the availability of being able to utilise a number of shared services i.e. IT, utilities, HR expertise, Bursars Office and many others. On an annual basis the Bureau re-negotiates service level agreements in order to ensure best practice.

**Continuation of use of Preferred Suppliers Listings** – The Bureau to continue to use agreed preferred suppliers on the UCD lists when possible.

## 7.3 Projected Financing Requirements

Appendix 1 shows the financing requirements during the period 2023 – 2027.

**APPENDIX 1****PROJECTED INCOME AND EXPENDITURE ACCOUNT****2023 – 2027**

<b>INCOME</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
	<b>€</b>	<b>€</b>	<b>€</b>	<b>€</b>	<b>€</b>
<b>Oireachtas Grant</b>	<b>7,223,700</b>	<b>7,391,200</b>	<b>7,441,200</b>	<b>7,491,200</b>	<b>7,541,200</b>

<b>EXPENDITURE</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>
<b>PAY</b>	<b>€</b>	<b>€</b>	<b>€</b>	<b>€</b>	<b>€</b>
<b>Salaries and Wages</b>	<b>3,538,600</b>	<b>3,638,600</b>	<b>3,688,600</b>	<b>3,738,600</b>	<b>3,788,600</b>
<b>NON PAY</b>					
<b>Alcohol Programme</b>	<b>1,675,100</b>	<b>1,692,600</b>	<b>1,692,600</b>	<b>1,692,600</b>	<b>1,692,600</b>
<b>Drug Analysis Programme</b>	<b>600,000</b>	<b>650,000</b>	<b>650,000</b>	<b>650,000</b>	<b>650,000</b>
<b>Roadside Chemical Drug Testing</b>	<b>300,000</b>	<b>300,000</b>	<b>300,000</b>	<b>300,000</b>	<b>300,000</b>
<b>Evidential Breath Testing Programme</b>	<b>365,000</b>	<b>365,000</b>	<b>365,000</b>	<b>365,000</b>	<b>365,000</b>
<b>Breath Screening Devices Programme</b>	<b>180,000</b>	<b>180,000</b>	<b>180,000</b>	<b>180,000</b>	<b>180,000</b>
<b>IT Programme</b>	<b>115,000</b>	<b>115,000</b>	<b>115,000</b>	<b>115,000</b>	<b>115,000</b>
<b>CAPITAL</b>					
<b>Capital</b>	<b>450,000</b>	<b>450,000</b>	<b>450,000</b>	<b>450,000</b>	<b>450,000</b>
<b>Surplus/(Deficit) for Year</b>	<b>Nil</b>	<b>Nil</b>	<b>NIL</b>	<b>NIL</b>	<b>Nil</b>

<b>Table 1 Performance Assumptions</b>						
<b><u>Alcohol Programme</u></b>		<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>
Number of specimens		6,600	6,600	6,600	6,600	6,600
Number of kits issued		7,500	8,500	8,500	8,500	8,500
<b><u>Toxicology Programme</u></b>						
Number of specimens						
Preliminary analyses		5,000	5,000	5,000	5,000	5,000
Confirmatory analyses		4,500	4,500	4,500	4,500	4,500
<b><u>PDT</u></b>						
Stks		25,000	30,000	30,000	30,000	30,000
<b>Training Courses(Train the Trainer)</b>		2	2	2	2	2
<b><u>Breath Testing Programme</u></b>						
<b><u>EBT</u></b>						
No of instruments supported		87	87	87	87	87
Testing in stations/laboratory		200	200	200	200	200
No of training courses EBT						
Operator	20	20	20	20	20	20
Supervisor	10	10	10	10	10	10
<b><u>PBT</u></b>						
<b>Training Courses(Train the Trainer)</b>		5	5	5	5	5
No of Devices supported PBT		1,400	1,400	1,400	1,400	1,400

**\*Requirement to be reviewed quarterly by the Bureau and An Garda Síochána.**