



## ***NEXT GENERATION PREDICTIVE POLICING***

### ***Competition Brief***

#### **SUMMARY**

The 'Next Generation Predictive Policing Project' is a new national competition launched by South Wales Police in conjunction with Gwent Police, to identify and develop innovative solutions that maximise the effectiveness of resources and enhance the service provided to the communities of Southern Wales.

This competition is jointly funded by the Police Forces, Welsh Government and Innovate UK.

The competition process is being run by South Wales Police as part of the Fusion Programme, which aims to change policing through the innovative and dynamic use of technology.

The contest is seeking to develop innovative solutions that utilise predictive analytic tools, methods and processes to integrate, interpret, visualise and forecast using existing and future police and partner data sets.

Organisations are invited to compete for a share of a total £250,000 fund for the further development and commercialisation of innovative technologies, processes and business models.

## BACKGROUND

South Wales Police is the largest police force in Wales and covers a geographical area that encompasses both the large cities of Cardiff and Swansea, the rural Vale and the South Wales valleys. Whilst smaller than South Wales Police, Gwent Police force has a similar geographical and socio-economic demographic, that includes a mix of rural towns, countryside and urban communities such as Newport, Caerphilly and Cwmbran. On a daily basis both forces have to deal with a wide variety of issues associated with such diverse environment and population.

Within their broad remit, the forces are responsible for the prevention and detection of crime, ensuring the safety of the communities of Southern Wales, the policing of planned major events and dealing with spontaneous disorder. They also have a joint responsibility along with key partners for a wide variety of issues including the protection of vulnerable people, problem solving in respect of anti-social behaviour and harm reduction in regard to drug and alcohol abuse; all of which have the potential to have a detrimental effect on the quality of life of the residents of Southern Wales.

As organisations, both are constantly striving to improve on processes and the service they provide to local communities. In recent years they have not only invested in personnel but also in IT infrastructure and solutions. As a consequence of the complex nature of many police processes, procedures and legislative requirements these solutions are often stand-alone and complicated to interrogate. This makes it a difficult and time consuming process to access, assimilate and interpret the data in order to make informed, operational policing decisions.

Currently, local police commanders have to interrogate a number of disparate systems in order to access the critical information they need to make informed decisions on how to best tackle operational problems or identified issues. Most of this is currently carried out in accordance with national or locally agreed policies and procedures as well as local policing knowledge. Whilst good quality analysis is available, it is retrospective and manually produced which does not assist with dynamic decision making.

Examples of the large and complicated datasets important to operational and organisational decision making that are held within these stand-alone systems include;

- Personnel information, skill set, organisation structure, rota and duties.
- Mapping and GPRS tracking of incidents / resources (staff and vehicles).
- Initial resource deployment via 999 or non-emergency numbers.
- Crime and incidents records management including nominal records, intelligence, warning records and flags.
- Prisoner management system relating to intelligence and location.

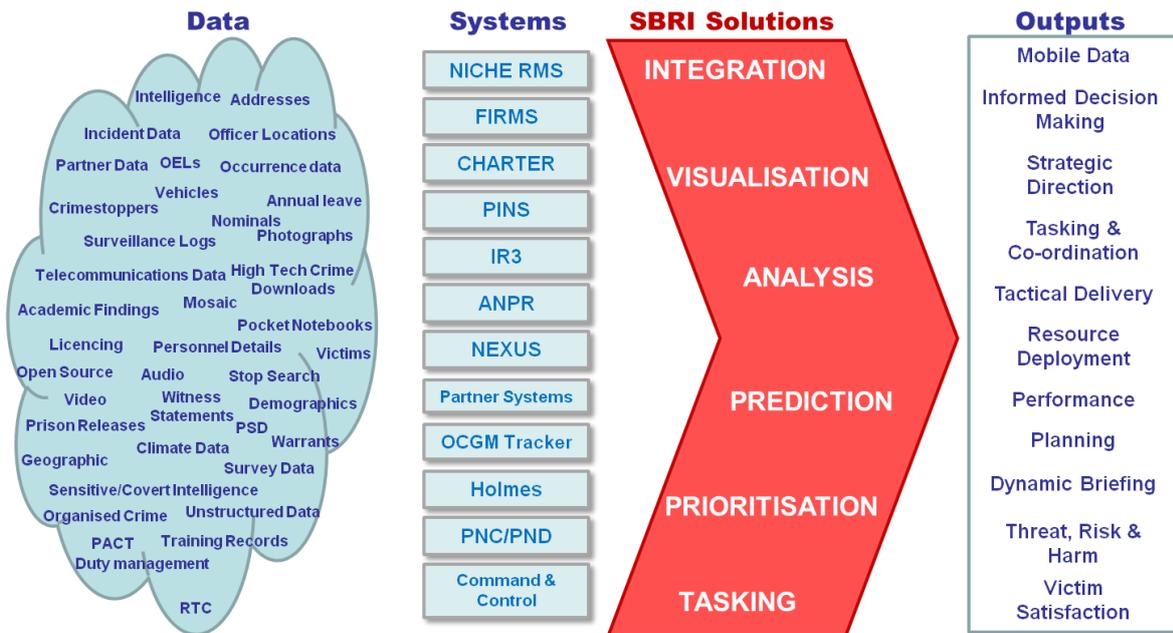
## Competition Scope

The overall purpose of any solution will be to facilitate effective crime and disorder prevention and detection, through efficient tasking of police resources. This will need to be done in real-time as an automated, proactive process that fits with existing infrastructure, procedures and legislative requirements to assist operational decision makers to prioritise, allocate resources and manage risk.

The chart below attempts to illustrate in simple terms where a predictive policing solution would fit into the cycle between initial data collection and collation into any number of disparate systems before finally being utilised for operational and organisational decision making.

The added value that any solution may provide would include automated holistic interpretation of available information to identify what has happened, what we know about the situation (who, what, where, when, why and how), the resources we have available, what is likely to happen in the future (prediction) and suggestions for a potential course of action. In order to maximise benefit any solution would need to be intuitive to use and provide the outcomes in a real time and visual format.

Most of these things manually take place at the moment, but are often time consuming, reactive in approach and reliant on specialist local knowledge and experience.



A successful predictive policing solution would not replace the need for specialist knowledge and professional judgement, but would enhance it greatly by speeding up the research process and ensuring that decisions made are as informed as they can be.

The project would realistically expect any successful solution to assist in delivering the following outcomes:

- Improved prevention, detection and disruption of criminal activity and disorder.
- More efficient use of staff and resources to ensure we have the right people in the right place, at the right time.
- Improved planning and forecasting to ensure best value is obtained from our staff and resources.
- Provide greater information and intelligence to front line officers enabling them to provide an improved and more efficient service to the public of Southern Wales.
- An improvement in public confidence and customer satisfaction for the local communities we police.

## **An Introduction to SBRI**

SBRI is a mechanism which enables public sector bodies to connect with innovative ideas from technology businesses that have the potential to provide innovative solutions to specific Public Sector challenges and unmet needs.

The Public sector is able to find innovative solutions by reaching out to organisations from different sectors including small and emerging businesses. New technical solutions are created through accelerated technology development, whilst risk is reduced through a phased development programme. SBRI also provides applicants with a transparent competitive and a reliable source of early-stage funding.

SBRI competitions are open to all organisations that can demonstrate a route to market for their solution. The SBRI scheme is particularly suited to small and medium-sized business, as the contracts are of relatively small value and operate on short timescales. Developments are 100% funded and focus on specific identified needs, increasing the chance of exploitation. Suppliers for each project will be selected by an open competition process and retain the intellectual property generated from the project, with certain rights of use retained by the contracting Commissioner.

## **Application process**

To apply for this competition you must first register, you can do this by going to the web page for this competition at sell2wales [http://www.sell2wales.gov.uk/search/search\\_switch.aspx?ID=21196](http://www.sell2wales.gov.uk/search/search_switch.aspx?ID=21196)

When you register you will be able to download all of the supporting information you need, including the Guidance for Applicants and the application form.

This competition opens on Monday 19<sup>th</sup> January 2015 and closes at noon on Monday 16<sup>th</sup> March 2015. Shortlisted Organisations will be invited for interview between 1<sup>st</sup> and 2<sup>nd</sup> April 2015. The deadline for registration is midday on Friday 6<sup>th</sup> March 2015.

A briefing event for companies interested in submitting an application for this competition will be held at the Millennium Stadium in Cardiff on Wednesday 4<sup>th</sup> February 2015. The briefing event will provide an opportunity to find out more detail about project objectives, working within a law enforcement context, technological specifications and desired outcomes. There will also be the opportunity to speak with and ask questions of the project team.

Spaces at the event are limited to 50 places, these will be allocated on a first come first served basis. To reserve a place at the event please send your request along with the names and contact details of the attendees (no more than 2 per company, if there is a high demand for spaces you may be informed that only 1 space is available) clearly marked as BRIEFING EVENT to:

[gm-sbrichallenge@south-wales.pnn.police.uk](mailto:gm-sbrichallenge@south-wales.pnn.police.uk)

It is important to note that all successful organisations and the staff that they have working on this project will be required to undergo appropriate levels of police vetting. This can take several weeks and may delay the awarding of a contract for the feasibility assessment stage.

### **Further information**

For more information about this competition, please see the our webpage: [www.sell2wales.gov.uk](http://www.sell2wales.gov.uk)

[http://www.sell2wales.gov.uk/search/search\\_switch.aspx?ID=21196](http://www.sell2wales.gov.uk/search/search_switch.aspx?ID=21196)

A Technical helpline is available for any issues with the sell2wales website on 08445610672

For more information about SBRI see [www.innovateuk.org/funding-competitions](http://www.innovateuk.org/funding-competitions)

To make contact with the project team: [gm-sbrichallenge@south-wales.pnn.police.uk](mailto:gm-sbrichallenge@south-wales.pnn.police.uk)

### **Key Dates**

- Competition Opens - Monday 19<sup>th</sup> January 2015
- Deadline for Registration midday on Friday 6<sup>th</sup> March 2015
- Briefing event to be held at the Millennium Stadium in Cardiff on Wednesday 4<sup>th</sup> February 2015
- Deadline for receipt of applications - Noon on Monday 16<sup>th</sup> March 2015
- Interviews for Shortlisted applicants – Wednesday 1<sup>st</sup> and Thursday 2<sup>nd</sup> April 2015
- Applicants informed – Tuesday 7<sup>th</sup> April 2015
- Feedback to applicants available from Tuesday 7<sup>th</sup> April 2015
- Completion of Vetting – Approximately Friday 15<sup>th</sup> May 2015
- Contracts Awarded – Week Commencing 18<sup>th</sup> May 2015
- Phase 1 Projects Commence – Two weeks after contract awarded.
- Phase 1 Projects Completed – No later than 16 weeks after project commenced.