

Preventing harmful crime through evidence-based policing

City of London Police

The Challenge

- Increase police effectiveness with fewer resources
- Prevent the occurrence of harmful crimes

The Benefits

- Optimal use of finite policing resources
- A significant increase in arrests
- Effective crime prevention strategies
- Better information for officers on the beat
- Improved collaboration with local businesses

At a time when police resources are stretched to the limit in the UK, City of London Police has used ArcGIS to implement a new, evidence-based approach to urban policing. The force is now operating more strategically, increasing its arrests and preventing harmful crimes at the heart of London's financial centre.

The Challenge

While the City of London covers little more than a square mile and has just 8,000 permanent residents, it is visited every day by over 500,000 workers, students and tourists. In addition, the area's 715 streets are all highly urbanised and surrounded by historic buildings, high value business premises and soaring skyscrapers, making this financial district an incredibly challenging environment for policing. Following a gradual reduction in funding, City of London Police needed to find a smarter, more targeted approach to crime prevention that would optimise the use of its resources and improve its effectiveness.

The Solution

For many years, City of London Police has used Esri's ArcGIS platform to help it analyse patterns in crime and plan policing responses. Through a research programme at Cambridge University, the force identified an opportunity to leverage advanced functionality within the ArcGIS platform and develop a new smarter approach to crime prevention. It then worked with Esri UK to elevate the use of its existing ArcGIS solutions and transform the academic research into a real-world policing tool.

Under the leadership of Detective Inspector Lee Bowen, City of London Police first used algorithms in ArcGIS Pro to analyse a database of 21,000 crimes and identify where the most crime was taking place, in the fewest locations. While the force had used ArcGIS before to show crime hot spots, its new, more advanced spatial analysis enables police officers to pinpoint the fewest locations where the most crimes take place and therefore identify policing priorities with a previously-unattainable level of precision.

Next, City of London Police used ArcGIS Pro to analyse the relative harm caused by each individual crime, using the Cambridge Crime Harm Index as a way of measuring the severity of crimes. This spatial analysis revealed only a handful of 50m2 locations with a high proportion of serious crime and gave police officers unequivocal evidence of the areas where it should focus its activities, for the first time.

City of London Police then used ArcGIS to develop interactive story maps to make all of its new intelligence about priority policing areas and harmful crime accessible to police officers in a format that is easy for them to understand. Officers working on the beat now use these story maps on mobile devices to get instant access to information on specific crimes in their locations, right when they need it.



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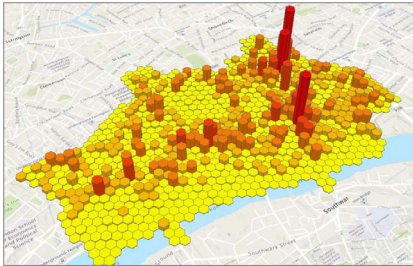
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Detective Inspector Lee Bowen, City of London Police



ArcGIS reveals the 50m2 areas of the City of London where the most harmful crimes occur

The Benefits

Optimal use of finite policing resources

Using the insight provided by ArcGIS, City of London Police can now deploy police officers and resources to exactly those locations where high volumes of crime and the most harmful crimes occur. The spatial analysis is used every day to inform the City of London Police Patrol Plan, allowing true evidence-based targeting of resources within the force for the first time. “Our use of ArcGIS enables us to put the right people in the right place, at the right time, to deliver the best possible public service with the resources we have available,” says Detective Inspector Bowen.

A significant increase in arrests

The adoption of advanced spatial analysis has undoubtedly improved the effectiveness of police activities in the City of London and contributed to large numbers of arrests in the area. “Arrests have increased dramatically since we started to focus our efforts on those priority crime areas identified by ArcGIS,” Bowen says. “We have also been able to prioritise the crimes communities are most concerned about, by focusing on areas with a large number of crimes with a high harm index.”

Effective crime prevention strategies

By allocating resources more strategically, based on better evidence about criminal activity, the City of London Police is improving its ability to prevent crime and therefore eliminate costs across the whole criminal justice process. Jane Gyford, former Commander of Operations, City of London Police, says: “In policing we talk about prevention all the time, but actually being truly strategically preventative is a key aim of City of London Police. Our use of spatial analysis helps to put the police ahead of the criminal.”

Better information for officers on the beat

Police officers within the force can now use story maps on the beat to find out detailed information about crimes, in the locations where they are working. The story maps give police officers autonomy, so when they are patrolling a high harm location, they have the information they need at their fingertips to make decisions about the best premises to visit and how to engage with the public to improve their effectiveness.

Improved collaboration in crime prevention initiatives

City of London Police is also sharing the insight it gains from its spatial analysis with external organisations and the Crime Prevention Association, as part of a range of target hardening initiatives that aim to make it harder for criminals to operate. For example, the force advises companies on ways to improve lighting and make private security professionals more effective as deterrents. “ArcGIS gives us evidence we can share with businesses in the City of London, so that they understand the risks in their location and can take measures to minimise their vulnerability to crime,” Bowen says.

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