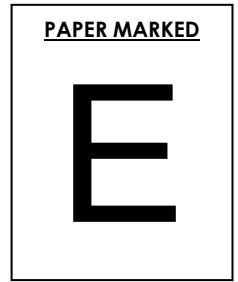


**POLICE AND CRIME  
COMMISSIONER FOR  
LEICESTERSHIRE**

**ETHICS, INTEGRITY AND  
COMPLAINTS COMMITTEE**



Report of	<b>OFFICE OF CHIEF CONSTABLE</b>
Subject	<b>BID PROCESS - ETHICAL CONSIDERATIONS OF SHARING DIGITAL DATA</b>
Date	<b>FRIDAY 17 SEPTEMBER 2021 – 2:00 p.m.</b>
Author	<b>ANDY ELLIOTT, HEAD OF CHANGE</b>

**Purpose of Report**

1. To share with the Committee the bid submitted to the Home Office Star Fund and to discuss with them the ethical considerations regarding sharing of data with and between partners in order to deliver improved outcomes and services to the citizens of Leicester, Leicestershire and Rutland.

**Recommendations**

2. The Committee is recommended to discuss the contents of the report and provide feedback to assist in future bidding processes and partnership data sharing initiatives.

**Ethical Dilemmas**

3. The main ethical dilemma relates to the collation and use of data provided to partners through the course of their interactions with the Police and other public sector partners that is then combined and analysed to improve services and outcomes. Citizens interact with public sector agencies to access and request services. In these interactions data is collected. Collating and analysing this data can create a much more holistic view of the citizens circumstances and can present opportunities for preventative action and interventions and lead to better service delivery and outcomes. This use of combined data can lead to improved opportunities for preventative actions but is using data for a potentially different purpose than the one it was initially provided for. What are the ethical considerations in these circumstances?

## **Background**

4. In June 2021 a bid was submitted to the Home Office STAR fund to bid for funding to develop a data sharing application to help improve service delivery and outcomes for victims of Domestic Abuse (DA). The bid has been included for the committee members to read. Unfortunately, the bid was unsuccessful. Feedback has been requested as to why the bid failed but has yet to be received at time of writing this paper. The bid proposed using data held by the Police and potentially other partners to apply Artificial Intelligence to assist in analysing and interrogating data to help inexperienced officers in dealing with DA at first point of contact. This approach and use of data is now common in the private sector and is used constantly in our daily lives. The public sector has huge data sets that could utilise data in the same way to assist in being preventative and improve outcomes and services to citizens. The public sector struggle to follow the same path often because of concerns over data sharing legality and ethical considerations. The thoughts and views of the committee could be most helpful in moving forwards in this area and avoiding potential issues and problems in the future.

## **Body of report**

5. To avoid replication of content the main bid submission has been included as an appendix to this report.
6. The submission included the following narrative that was contained in the body of the email submission and should assist the committee in understanding the reasoning and background for the bid.

*Thank you for the opportunity to bid for Scientific, Analysis and Research (STAR) Board Funding. We would be proud to contribute to the Policing pool of knowledge in addressing an important policing issue – how to codify our experienced officer's knowledge and understanding, built over long careers in policing, into decision making support that can assist new, less experienced officers.*

*Seeking to address Domestic Abuse is a key priority for our Force. The Chief Officer team have defined 12 priority outcomes for delivery and 8 of these rely on better use of existing data and data sharing and collaboration with partners. We have contributed to Partners Data Accelerator Project thinking; they are now contributing to our STAR thinking. We have assembled a team who are committed to an innovative and forward-looking partnership effort which will enhance policing through application of science, technology, and research.*

*There are three compelling reasons to fund our application for support to our project called **Information Sharing Platform, Enabling Educated Decisions – Domestic Abuse (iSPEED-DA)**.*

- *Our **Innovative approach** – in ideation and learning from others, in leadership engagement and delivery method, in planning for scaling from the outset (test local, scale national, then beyond).*

- **Our Unique Partnership** – our proposed team includes global thought leaders, higher education AI and big data specialists and consultant experts who are socially invested in policing - directed by Police Subject Matter Experts.
- **Our Priority Focus on Delivery and Commitment to Share** an exemplar DDaT programme and learning based bid.

We and our partners have invested significantly in this bid team effort in seeking to show how we will meet comprehensively the Assessment Criteria

### **Quality of proposal**

- ✓ Scientific excellence and contribution to existing knowledge - UWE
- ✓ Clear work plan with realistic, testable milestones and clear deliverables – ODN & Accionlabs
- ✓ Addresses an issue relevant to the Board's priorities – priorities A&D
- ✓ Addresses risks to and management of the bid over its lifespan – ODN & Accionlabs
- ✓ Where relevant, commits to research transparency and integrity, such as engagement with Open Science practices-- UWE

The bid from Leicestershire Police is formulated to deal with two known risk factors that are affecting policing locally and nationally – an increase in domestic abuse and an increase in the number of inexperienced officers attending incidents. The ability to change these factors is very limited, but the force can mitigate the risks by using technology and data to improve our ability to respond better, act quicker and be more preventative by using technology, science, and data better. Our partners offer scientific excellence, significantly more experience than policing in AI and analytics and a proven track record in industry in the UK and around the world.

### **Pathways to impact**

- ✓ Likely importance and timeliness to policing - risk based progressive development approach to solving a real time decision support and data capture challenge.
- ✓ Effectiveness of plans to disseminate to users and positively affect the police mission – already collaborating Nationally and locally, with UWE and Partners committed to international briefing.
- ✓ Evidence of well thought-through and realistic dissemination plans to maximise the wider impact of the work (e.g., for other Police Forces).

The ISPEED DA proposal is scalable across policing and also to other challenging incident themes that include partners and are often not seen as traditional policing areas such as mental health and other areas of public protection. Implementation of ISPEED would help victims of DA, policing and our partners to provide a better service at first response to DA incidents and hopefully help prevent escalation for victims and their families by joining up data held to assess and evaluate risk quicker. The use of new existing technologies alongside new computing capability offers a great opportunity for policing to take a leap forwards through the use of partnering with experts in science, technology and change implementation.

### **Capability of applicants**

- ✓ *Evidence of sufficient resourcing and expertise to deliver a successful bid – the team is resourced and ready to mobilise quickly if the bid is successful.*
- ✓ *Innovative collaborations that would not occur otherwise – UWE and Accionlabs offer global collaboration.*
- ✓ *Where applicable, evidence of how this activity will serve as professional development for some (e.g., early career) team members – described throughout our bid.*

*The bid is structured to buy in the expertise that is not available in policing to accelerate the ability to deliver real transformational change. The local Leicestershire team will include project specialists, developers, enterprise architects and SME officers as well as colleagues from our partners and a clear parallel benefit to those involved locally will be to see what experts can do and gain knowledge transfer in real time that is otherwise not attainable which will help local professional development.*

### **Value for money**

- ✓ *Reasonable and fully justified costs for the specified work*
- ✓ *Synergies with other activities such that, combined, the bid and those projects bring additional value – we are already sharing training in the innovative delivery and benefits realisation approach with other Forces.*

*The bid proposal may seem to be requesting a significant portion of the available funds. I would add that this is fully intentional as the change we are proposing is a leap forward for policing, not a step. The expert partners we have engaged are leaders in their fields. The initial costs are high because this proposal requires significant computing power and platforms on which to deliver the transformational change we describe. If funded, it puts in place a capability that is not present in policing but could be pump primed by this bid and then expanded through future CSR bids from PDS and NPTC that would move policing significantly further forward and closer to the vision outlined in the national DDaT strategy and National Policing Vision.*

### **Commercial Innovation**

*Our partners have already contributed significantly to this bid and in understanding what policing need to deliver a decision support 'engine and capability' into the hands of officers in real time. The technology platform, when proven successful, can expand simply beyond DA. Our partners Accionlabs and ODN have offered their time to develop the initial prototype at their cost, to demonstrate the operational benefits being sought prior to major investment.*

*Leicester Police would be proud to contribute a scalable solution which can address several Policing needs. We look forward to hearing if we can support policing through the award of STAR funding.*

## **Implications**

Financial: NA as the bid was not successful

Legal: NA as the bid was not successful

Equality Impact Assessment: NA as the bid was not successful

Risks and Impact: NA as the bid was not successful

Link to Police and Crime Plan: The bid aligned well to the desires to work collaboratively with partners and improve outcomes for citizens of LLR.

## **List of Appendices**

App 1 - Bid Submission

## **Person to Contact**

*Andy Elliott, Head of Change, [Andrew.elliott@leics.police.uk](mailto:Andrew.elliott@leics.police.uk)*

<b>OVERVIEW</b>	
1. Project name	
	iSPEED DA – Information Sharing Platform, Enabling Educated Decisions – Domestic Abuse
2. Project lead and point of contact	
	Project lead: Andy Elliott
	Contact name (if different): As above
	Email address: Andrew.elliott@leics.police.uk
3. What organisation are you from?	
	Leicestershire Police
4. How much funding are you requesting? (£)	
	<p>Application Section 5 below requests <b>funding of up to £2.384m plus VAT = £2.861 million</b> grant funding.</p> <p>We have built the workplans described in Section 4 around progressive delivery of operational benefits and functionality in developing a situational intelligence console and AI engine, in three phases.</p>
5. If applicable, which priority(ies) from Section 2.2 does your bid address?	
	<p>The main area of policing we wish to tackle is <b><i>Priority A. Combatting Violence, Abuse, and Intimidation against Women and Girls (VAIWG)</i></b>. We will do this by focusing on improving our responses to Domestic Abuse via our call handlers and first response officers, improving access to a wider set of data to assist in evaluating risk earlier and preventing serious harm to victims of domestic abuse and therefore also focus on <b><i>Priority D. Enhancing frontline policing through innovative use and exploitation of science, technology, analysis, or research.</i></b></p> <p><b>Priority alignment:</b> We have been working with the Chief Officer Team and the Office of the Police and Crime Commissioner recently to prioritise their desired Policing Outcomes to implement our Digital Transformation Blueprint. The innovative approach to elicit agreement will be followed throughout delivery of this initiative, as described in sections 2 and 3 of our Application. The Force leadership have prioritised twelve outcomes for delivery, described in the Show-Me Event (SME) Table, in Fig 5.1 below.</p>



<b>'SHOW ME' EVENT DESCRIPTION</b>		
 <p><b>Leicestershire Police</b> Protecting our communities</p>	<p><b>What will I see happening that will tell me that my expectations have been met?</b> Senior leaders priority outcomes that assist in prioritising digital transformational change through the Blueprint Programme</p>	 <p><b>Assured Outcome Delivery</b></p>
<b>Joining up digital delivery to make citizens and officers feel safer</b>		
<p><b>SME 1</b> (WB) (PH)</p>	<p>I attend a number of LLR community meetings and hear youth leaders' and representatives' tell stories about how OPCC funded initiatives helped young people achieve their full potential. Younger people show my team a positive attitude towards the effort officers have made to engage with, and support, community groups and individuals in making them feel safer in our counties.</p>	
<p><b>SME 2</b> (WB) (PH)</p>	<p>I am shown how the OPCC and Senior Officers take an increasingly central role in how partner agencies work together with the police to improve the lives of the citizens of LLR by investing in Digital Partnering, data sharing agreements and joint access systems to provide Officers and public sector staff access to citizen data (near real time) to identify underlying risk and protective factors to provide support to people and warning information to officers before it's needed.</p>	
<p><b>SME 3</b> (JD) (RN)</p>	<p>I am shown our new exemplary public contact and information access management capability demonstrating integration with partners data sources to help citizens tailor our information provided, to their neighbourhoods, and inform our response priority setting. Citizens can see what is happening via digital apps in their neighbourhood and officers can use real time intelligence to problem manage locally and be truly preventative in our response.</p>	
<b>Becoming an effective data driven organisation</b>		
<p><b>SME 4</b> (SC)</p>	<p>I am shown a comprehensive, and usable, set of partnership data - about our citizens' activities and community challenges - which lets us plan to address, or get ahead of, individual problems, not just those affecting the police.</p>	
<p><b>SME 5</b> (RN)</p>	<p>I am shown how staff and officers have learned new skills, and can access systems and information from anywhere, to problem solve and choose the right interventions in response to crime data and business intelligence information reports which are tailored to meet the users needs.</p>	
<b>Digital Efficiency to enable a sustainable policing model</b>		
<p><b>SME 6</b> (RN) (KS)</p>	<p>I demonstrate to the PCC and HMICFRS colleagues how we have exploited the M365 tools and process improvement capabilities fully, by showing how we deal with our officers and staff better, have improved interactions with citizens, and share data and insights with partners effectively to achieve more positive outcomes.</p>	
<p><b>SME 7</b> (DS) (JS)</p>	<p>I am able to identify, secure, preserve and recover evidence via digital applications from the community and partners and I can share this within the Criminal Justice system without duplication and meeting evidence, information sharing and security needs. The simplified process of investigating crime has led to increased convictions and positive outcomes for victims that is far more efficient and effective than we have ever been before.</p>	
<p><b>SME 8</b> (DS) (RN) (KS)</p>	<p>Whilst out on patrol with Leicestershire Officers I see our digital transformation in practice. I have the digital equipment and infrastructure to receive crime pattern data and intelligence updates proactively that are linked to my location that enable me to identify victims, offenders and locations that may be at a high risk of harm and crime.</p>	
<b>Leading Capability Development and Demonstrating Value for Money</b>		
<p><b>SME 9</b> (SC)</p>	<p>I meet National Police Chief Council colleagues and am shown how everyone is using standard business products and rules to improve our Policing services. We have agreed to use data and digital standards consistently and we have documented a shared view on how we will converge our technology over time to maximise the value delivered from investments in digital.</p>	
<p><b>SME 10</b> (WB) (PH) (SC)</p>	<p>I show other OPCC colleagues how our Force has taken a leading role alongside PDS in planning for, and promoting, a National Convergence Initiative where we invested together in improving our operational processes and procuring ICT to deliver joined up intelligence for officers and supporting interventions proactively for citizens who need it.</p>	
<p><b>SME 11</b> (PD) (KS) (RN)</p>	<p>When finalising year end accounts with the OPCC and COT I am able to demonstrate the benefits that investments in digital change and increased productivity from this has reduced costs and increased efficiencies for front line officers and back office support staff. We have proved that real benefit has been delivered that can be audited and validated externally if required.</p>	
<p><b>SME 12</b> (RN)</p>	<p>I see senior officers display our agreed new change leadership behaviours at COT meetings and shift briefings when they talk about, and demonstrate, the lessons learned from previous change initiatives and the tough prioritisation decisions we've had to make, and stick to, on investments in resources and technology.</p>	

Fig. 5.1 Defining Successful Outcomes for Leicestershire Police Transformation Blueprint

Eight of these operational improvement outcomes are predicated on better sharing of partners' data and improving predictive analytics capabilities; our support application illustrates comprehensive alignment with STAR priorities A and D, as described below.

The Leadership Team have created a short video to illustrate their intent to enhance frontline policing, based on these 12 SME's:



<https://outcomedeliverynetwork.com/supporting-leicestershire-police-delivering-their-digital-transformation-blueprint/>



Fig. 5.2 Delivering Leicester Police Transformation Blueprint - inspiring vision

Additionally, the Strategic Partnership Board for Leicestershire, chaired by our PCC, involving our Local Authorities, NHS and Third Sector Partners, recently (24.05.21) made commitments to improve data sharing to improve the lives of its citizens and protect the vulnerable, whilst collaborating on a Data Accelerator Project.

Our proposed partners have already signed local Data Sharing Agreements.

6. In **no more than 200 words**, please summarise your bid. Outline your goal, your method, and what benefits you expect to be realised.

Leicestershire Police and Partners intend to collaborate and share data better to improve the lives of its citizens and protect the vulnerable.



The Chief Supt leading this initiative sets the team the clear goal in Fig 6.1:

*“I am shown up to date information on citizens' risk of Domestic Abuse (DA) that is shared by relevant Partners..... that this information is integrated into our review of DA victims' situation and circumstances and used to .... build better pictures of risk in each case. I see action taken in response to the risks identified by this holistic review which takes opportunities to protect DA victims and their families.”*

Fig. 6.1 Change Leader's iSPEED desired outcome



We will utilise our Partner's innovative Assured Outcome Delivery method to implementation– <https://outcomedeliverynetwork.com/change-leadership-innovation-2/> and an effective public-private partnership incorporating Global Expertise in data analytics, machine learning and AI, a leading academic research team and consultants who are socially invested in supporting Police to serve the community better.

Fig 6.2 below summarises the key benefits this unique partnership seeks to deliver for citizens in Leicestershire.

LEICESTERSHIRE POLICE - DOMESTIC ABUSE	
 <p>Leicestershire Police Protecting our communities</p>	<p>Data Analytics and Preventative Intel Improvements <i>A view of the expected benefits from implementation of improved data processing and sharing, and how we will measure success.</i></p>  <p>Assured Outcome Delivery</p>
Changing the way we use data	How we'll know we've been successful
 → 	<p>We will be using system which is able to share internal and partner data in real-time with frontline officers more effectively, presenting a clear view of known information on their mobile devices, as well as any recommended interventions for Domestic Abuse (DA).</p> <p>We'll measure the success of the new system by a) gathering officer feedback on the usability and effectiveness of the system, b) testing the resilience of the system, and c) reviewing usage data of the system.</p>
 → 	<p>We will be using system which allows inexperienced officers to easily operate the user-friendly platform and access data at speed and under pressure to make better informed decisions that guide their actions.</p> <p>As a result, we'll see fewer DA cases being re-graded by the ASH team and the DAIU which will reduce internal re-work. We will see new officers making data-driven decisions, limiting the room for error and ultimately providing a better service to the public, measurable by existing feedback channels.</p>
 → 	<p>The system will demonstrate it's efficacy at a local level in Leicestershire Police, with a view to mirroring the data analytics and intel system across different departments and sharing more widely across national Policing.</p> <p>We will see this has happened when colleagues in different departments are using adapted versions of the system to support in their interventions with vulnerable people, not just in Leicestershire Police, but across the national picture. This system could be rolled out nationally and data could be shared with other force areas.</p>
 → 	<p>We will see the system prompting officers with real-time information and recommendations to influence the use of preventative action at the first opportunity that reduces the risk of ongoing DA.</p> <p>We'll conduct sample based qualitative analysis which will outline the support provided by officers who are utilising the new system, as well as measuring arrest rates through positive action and seeing an increased number of targeted referrals to partner agencies.</p>
 → 	<p>Officers working in DA will have early access to actionable data to support them in making quick decisions and managing risk.</p> <p>We'll see that early response and mitigation of risk will result in fewer serious assaults and deaths of victims of DA, measurable by review of existing quantitative data reporting channels.</p>
 → 	<p>Having a secure system for processing and sharing data will improve the end to end management of DA cases, reducing the number of repeat cases over time and reducing the likelihood of data breaches from paper files.</p> <p>We will see that officers and staff are able to review previous case files easily and are prompted by any early indications of potential repeat offenses. We'll also see that these new pre-emptive digital ways of working will reduce case handling and backlog, and limit the associated paper processes.</p>
 → 	<p>The system will have victim consent-based flags from partner agencies which will provide victims with the assurance that police have prior knowledge of DA reported to partners.</p> <p>We will see from existing telephone research team reports that there is an increased level of confidence from DA victims, now with the knowledge that the Police response to DA is based on data and recommendations in collaboration with a group of expert partner organisations.</p>

Fig. 6.2 iSPEED Anticipated Benefits – Aimed locally: Scalable Nationally

We trust the pathway to impact in this bid is compelling in describing:

- **Our Innovation** – in ideation, leadership engagement and delivery intent approaches (test local, scale national, then beyond).
- **Unique Partnership** – Global thought leaders, higher education AI and big data specialists and consultant experts - driven by Police.

- **Priority Focus** on **Delivery** and commitment to share an exemplar DDaT programme and learning.

We have assembled a team with sufficient resources and expertise – Policing and Private Sector - who are ready to commence implementation quickly if we are fortunate to receive STAR funding. [200]

## APPLICATION

### RATIONALE

1. What knowledge gap or challenge are you trying to overcome? Please cite any relevant literature, research, case examples, or other data or material to support your rationale (Indicative max. word count: 250 words).

Reporting to Police is a difficult choice for DA victims, often delayed until more than 30 occasions of abuse, sometimes after engagement with volunteer groups, hospitalisations, school incidents, social service involvement or non-related Police incidents. With no access to this data, inexperienced responding officers attend a scene poorly informed, ill-prepared to support the victim and ill-equipped to respond appropriately.

Capturing and analysing this disparate data, alongside the Police report, would enable tailored, real-time, situational information to be delivered directly to the officers, predicting the true context of the victim, identifying cases of genuine priority, deliver guidance and experience and even provide early warnings of potentially dangerous situations.

Enriching the outcome by automating the capture and interpretation of unstructured data (video, voice, notes etc) would mature the process while significantly reducing the administrative burden on the officers and accelerating the capture and categorisation of vital evidence.

Example: victim reports DA to Police for the first time. Police see one instance and only the detail supplied by the victim at that time, who will be stressed/under pressure/scared. Single data source consideration has potential to overlook extent and severity of risk, thus impacting adversely on the level and nature of the Police response. If we add in partner data, and timeframes of previous occurrence first consideration by Police might include recent A&E attendance with suspected DA flag, recent local authority re-housing need, and DA concerns at children's school. This richer picture, permits greater risk appreciation by attending/investigating Police Officers.

[246 words]

#### **Policing References / Sources:**

1. [https://whatworks.college.police.uk/Research/Documents/Risk-led\\_policing\\_and\\_DASH\\_risk\\_model.pdf](https://whatworks.college.police.uk/Research/Documents/Risk-led_policing_and_DASH_risk_model.pdf)
2. <http://eprints.glos.ac.uk/7797/>
3. <https://academic.oup.com/bjc/article/59/5/1013/5518314>

(1) - College of Policing (2016) notes the risk of Police over-focussing on the 'current incident' when DA is reported, to the detriment of effectively identifying patterns of coercive control which carry increased risk

(2) - J Monckton-Smith (2019) Providing early, comprehensive access to relevant partner-held data would enable patterns of abuse to be identified and better risk-assessed. This currently happens post incident via weekday MARAC in High-Risk cases only.

(3) - Research questions the true validity of Police risk identification via current DASH – which is based on information from the victim (stressed/scared) and Police-held data only. Experience of intimate partner homicides has shown significant previous grading below the High-Risk level, i.e., Medium, and Standard risk cases can conceal the highest risks. Improving the scope and timeliness of all relevant reports across agencies should drive more joining the dots by officers often confronted with confused situations upon report to Police. Note that DA report volumes increase year on year, increasing the challenge to a low-experience front line.

UWE have identified studies showing that lack of reliable and quality data on DA and intimate partner violence are undermining early warning signs and potential life-saving interventions (Karakurt et al., 2017; Westera and Powell, 2017). Research has also shown that victim's data characteristics in terms of ethnicity, race, religion, age, class, sexuality, gender and English language proficiency among others can all shape how victims are impacted by domestic abuse (O'Neal and Beckman, 2017).

#### **UWE References / Sources:**

- Karakurt, G., Patel, V., Whiting, K., & Koyutürk, M. (2017). Mining electronic health records data: Domestic violence and adverse health effects. *Journal of family violence*, 32(1), 79-87.
- Westera, N. J., & Powell, M. B. (2017). Prosecutors' perceptions of how to improve the quality of evidence in domestic violence cases. *Policing and society*, 27(2), 157-172.
- O'Neal, E. N., & Beckman, L. O. (2017). Intersections of race, ethnicity, and gender: Reframing knowledge surrounding barriers to social services among Latina intimate partner violence victims. *Violence against women*, 23(5), 643-665.

Fig. 1.1 Partners' Initial Research Review

2. What is innovative about your intended work? How will it add value to existing knowledge and practice? (Indicative max. word count: 250 words).

Our delivery plan to accelerate decision making experience using AI and Analytics contains a several innovations, explained below and throughout our application:

- Delivery approach
- Scalable collaboration
- Global product development and academic thought leadership
- Capability development from day 1
- Investment from our partners

AOD was developed to address the delivery shortcomings of traditional approaches and it provides a response to the challenges reported and accepted in Business Change Council review of approaches to benefits realisation and change leadership undertaken across Forces and the Home Office.

Illustrated in Fig 2.1 below, Leicestershire Police offer to share training sessions in AOD to Police colleagues as part of our bid plan. This innovative thinking has already been shared with the Police Business Change Council, staff in 20 Forces and the College of Policing.



Fig 2.1 Innovations in Assured Outcome Delivery

In Leicester, Leicestershire and Rutland our partners have become increasingly proactive in working together and recently made collaboration commitments to share data via the LLR Strategic Partnership Board. Through working with Police Digital Service we have ensured the approach proposed is scalable to policing nationally to deliver the ambition highlighted in the DDaT strategy on partnership working for more effective use of data and technology.

Leicestershire Police is engaged with PDS and NPTC through co-working and the innovative approach proposed is supported both in force and with LLR strategic public sector partners.

Global product development innovation and leading practice AI and Analytics has been secured by ODN introducing Accionlabs as partners, as illustrated in Figure 2.2 below. [246]

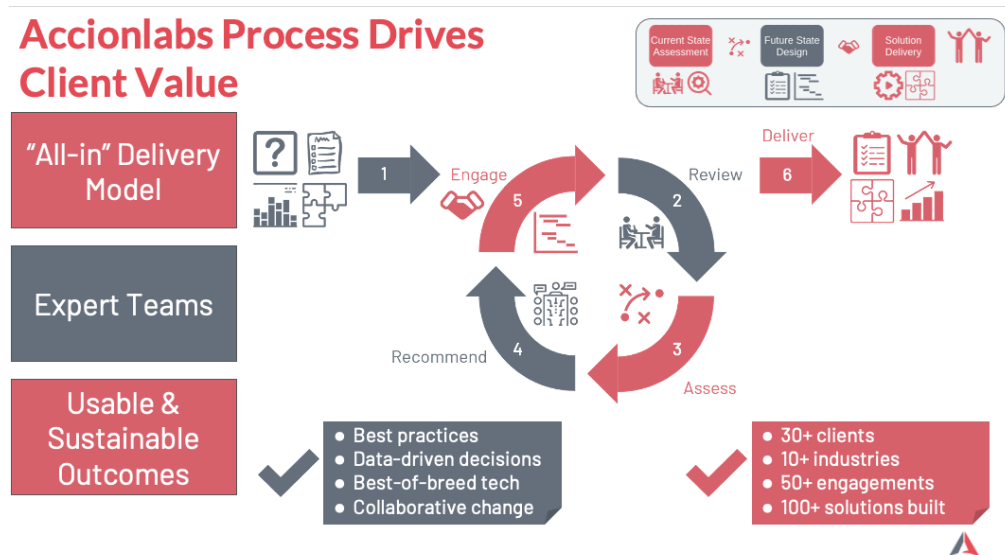


Fig 2.2 Innovations in Value Adding Development Process

<https://www.accionlabs.com/accion-innovation-center>

## METHOD AND DELIVERY

3. What steps will you take in your work? How do these steps address the challenge described above? You should set out your method and explain how you will complete the work (Indicative max. word count: 1000)

The iSPEED project will utilise a proven approach to exploit global research and new thinking in artificial intelligence, machine learning and data analytics. We will build a series of analytics and categorisation engines into a situational intelligence console and recommendations engine to utilise Police and partner data that is enhanced, analysed, and used to produce recommendations for police officer interventions. These situational insights will be rendered on a mobile device dashboard which presents to first response officers attending incidents of Domestic Abuse to make better informed decisions earlier and act to prevent violence against victims of DA.

Using the power of machine learning and intervention flagging by partners, alongside analysis of a combined set of data using a set of rules developed with experienced officers, the iSPEED toolset will be utilised to assist all officers to make decisions based on Policing expertise and College of Policing

APPs to protect citizens from Domestic Abuse. The project will 'accelerate experience and understanding' and support development of our officers. The visualisation of data to frontline officers, presented on a mobile device, will assist inexperienced officers to consider a wider set of data sources including key word or behavioural indicators, to create an initial risk assessment based on algorithmic patterns that will help preventative action to be taken by appropriate agencies to reduce risk and safeguard vulnerable persons.

The bid is supported by a public/private sector design and delivery approach (UK police and public sector bodies/UK consultants with delivery track record/ Overseas data analytics and digital transformation specialists and a UK University). Project partners have already been engaged in developing approaches in the formulation of this bid and to assist in accelerating capabilities in building and exploiting existing data and tools, and using appropriate data sets from other agencies to assist in preventative capabilities linked to DA. The approach will follow a structured methodology provided by a leading global analytics organisation applying proven techniques to enhance success potential of the project by focusing on end deliverables and implementing in sprints targeted at specific delivery milestones. [341 words]

The design and delivery approach to create the iSPEED intelligent platform is described in the following sections:

- 3.1. Intelligent Platform Landscape
- 3.2. Intelligent Platform Engine Architecture
- 3.3. Realising the Intelligent Platform: Process Framework
- 3.4. Programme Delivery Concept Overview
- 3.5. Key Deliverables - Programme Thinking

### **3.1. Intelligent Platform Landscape**

The development metaphor diagram in Fig 3.1 below is used to show the build steps in the model we use – (Technical) Foundations which support Data Acquisition and Routing Tech, which informs an Information Management layer, that informs an Application and Services tech layer. All of these are required to support the clever thinking in Intelligent platform applications described in 3.2. [107 words]



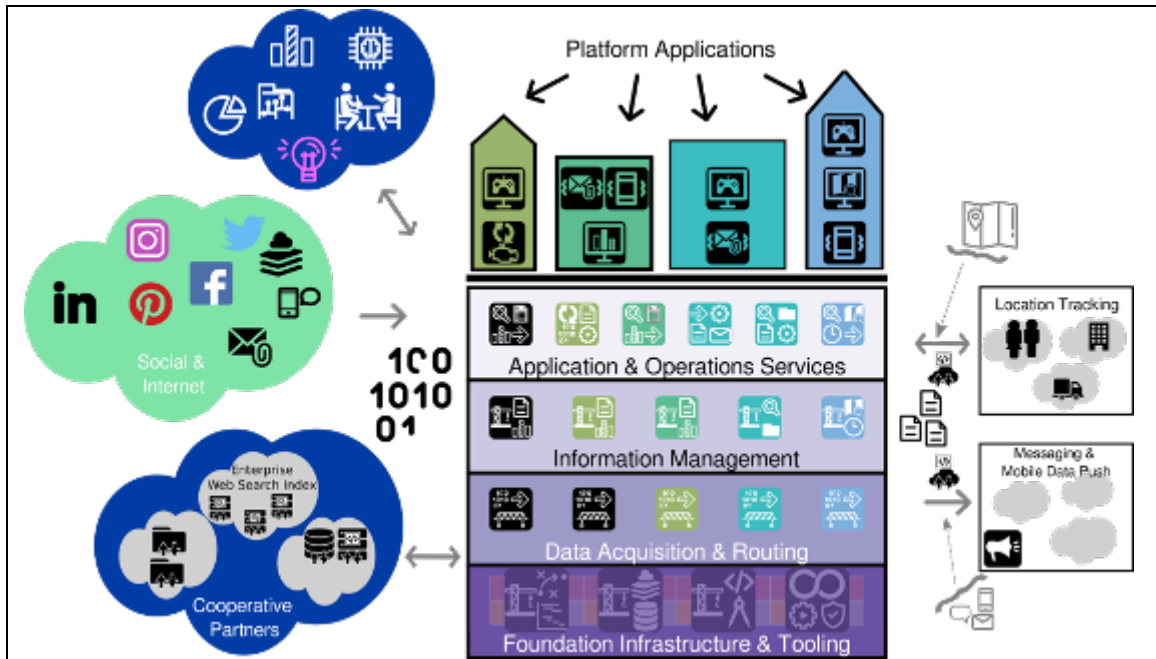


Fig 3.1 Intelligent Platform Landscape

### 3.2. Intelligent Platform Engine Architecture

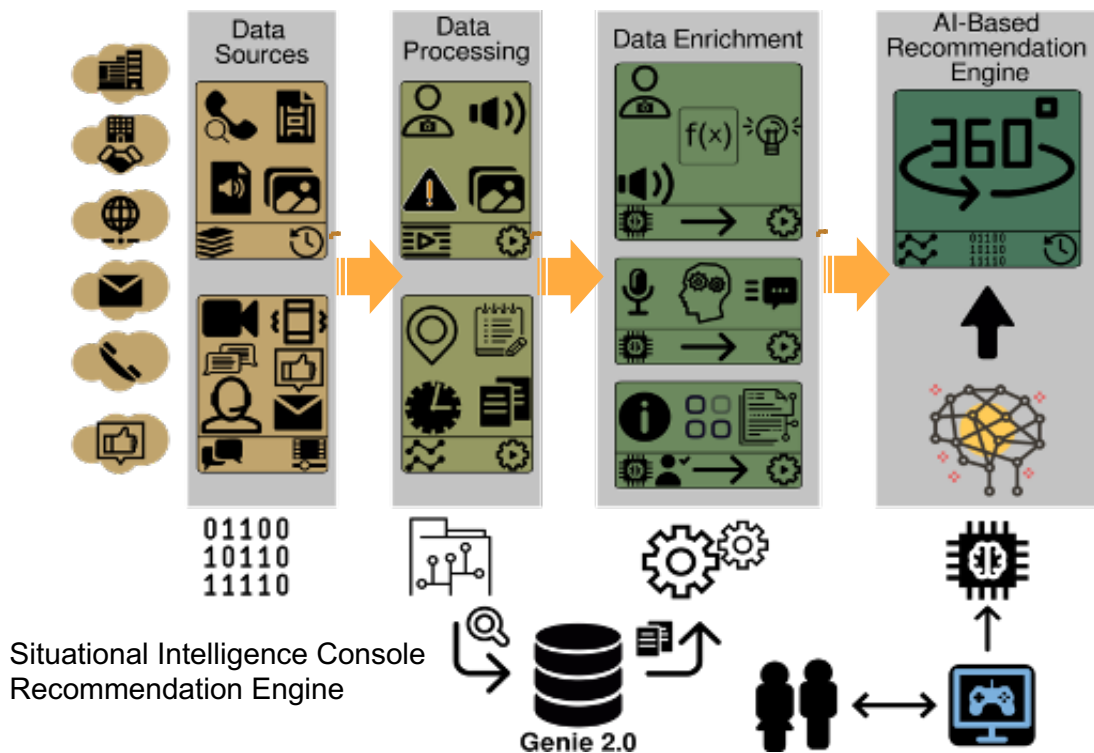


Fig 3.2 Intelligent Platform Engine Architecture

To build a Situational Intelligence Console, or AI-based recommendation engine, we combine four Architecture elements progressively to inform the



Insight and recommendation engine which will lead officers to make better intervention decisions (building in the experienced officers thinking to inform newer officers learning and provide situation-specific advice). Firstly, we codify Data Collection (1) from various sources (calls, texts, CCTV, BWV, officer notes, partner sources etc), which is then Data Processed (2) as input to three data enrichment engines (3) for entity extraction, language transcription and categorisation – with automation and human interventions – to finally present (4) as a decision support tools presented to officers in ‘four quadrant / four screen format’ described in Fig. 3.8. [114 words]

### 3.3. Realising the Intelligent Platform: Process Framework

Figure 3.3 below presents a process development route map to outline the steps we will implement in our programme.

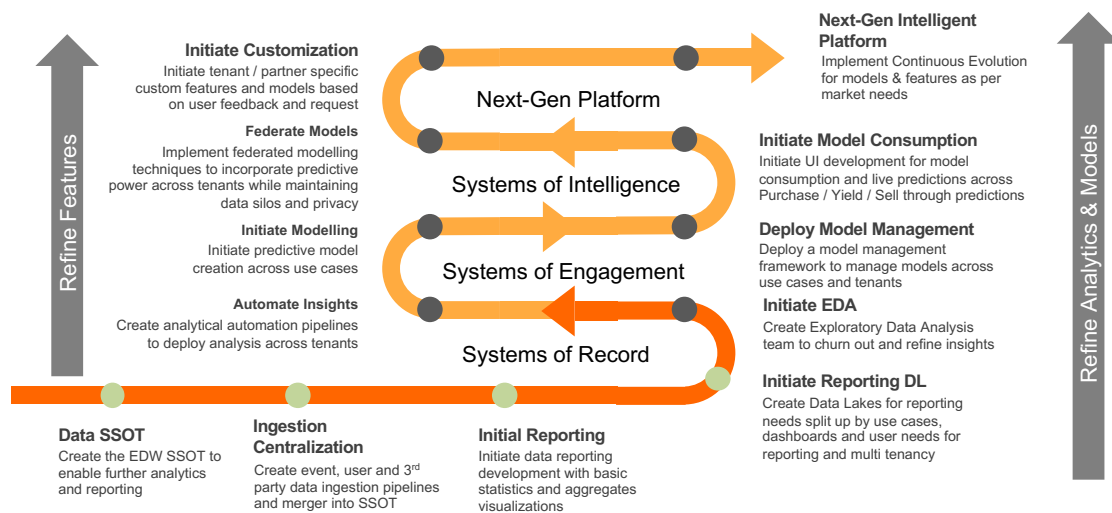


Fig 3.3 Intelligent Platform Process Framework

### 3.4. Programme Delivery Concept Overview

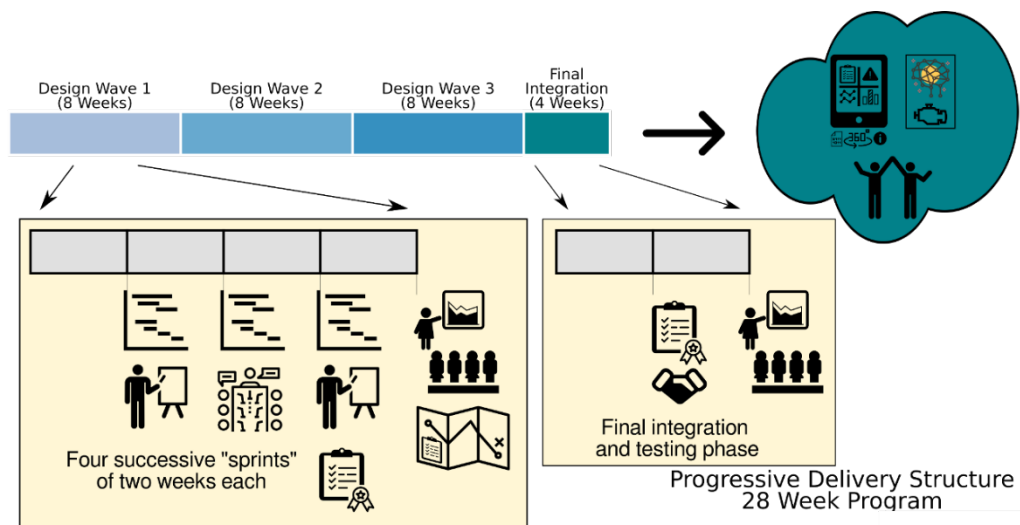


Fig 3.4 Programme Delivery Concept

As described in section 4 below we envisage a series of sprints for iterative functionality design and delivery based in leading practice and research ideas.

### 3.5. Key Deliverables - Programme Thinking

We have developed our thinking to deliver value progressively, utilising leading practice thinking from academia and private sector partners Accionlabs introducing additional development risk over four waves (accepting that utilising new technology ideas has a lower guarantee of successful implementation, for instance, in designing predictive behaviour assessment algorithms). The progressive iterations of wave 2 to 4 provides for the option to deliver interim ‘tipping point’ functionality if the grant application cannot be fully funded due to there being other better planned, or more deserving, applications. We trust our bid is compelling in seeking to achieve the ambitious outcomes described in this bid, and that the review team wish to support this local focussed collaborative improvement effort which is designed for scalable delivery on a national basis with the support of the Chief PDS DDaT Officer. [176 words]

### Key Deliverables : Programme Thinking



Wave 1 → Wave 2 → Wave 3 → Wave 4			
<i>Necessary Dev / Integration</i>	<i>Advanced Dev Medium Risk / Reward</i>	<i>Research Medium Risk / Reward</i>	<i>Research High Risk / Reward</i>
Transcription / Tagging Support & Data Engineering	Situational Intelligence Console (timeline, quadrant) ("Dashboard")	Initial Contact / Field AV Transcription & Tagging	Sentiment / Stress Analysis Engine
Multimedia / Multimodal Search	Environment / Activity Console ("Dashboard")	Officer / Agent Notes Transcription	Probable Behaviour Detection Engine
Application Operations Support	Advanced Genie Automation / Data Integration	Live Translation Support	
Dashboard Layout (Multi-format)			

Fig 3.5 Programme Deliverables

Our phased delivery approach is described further in Figure 4.1 below.

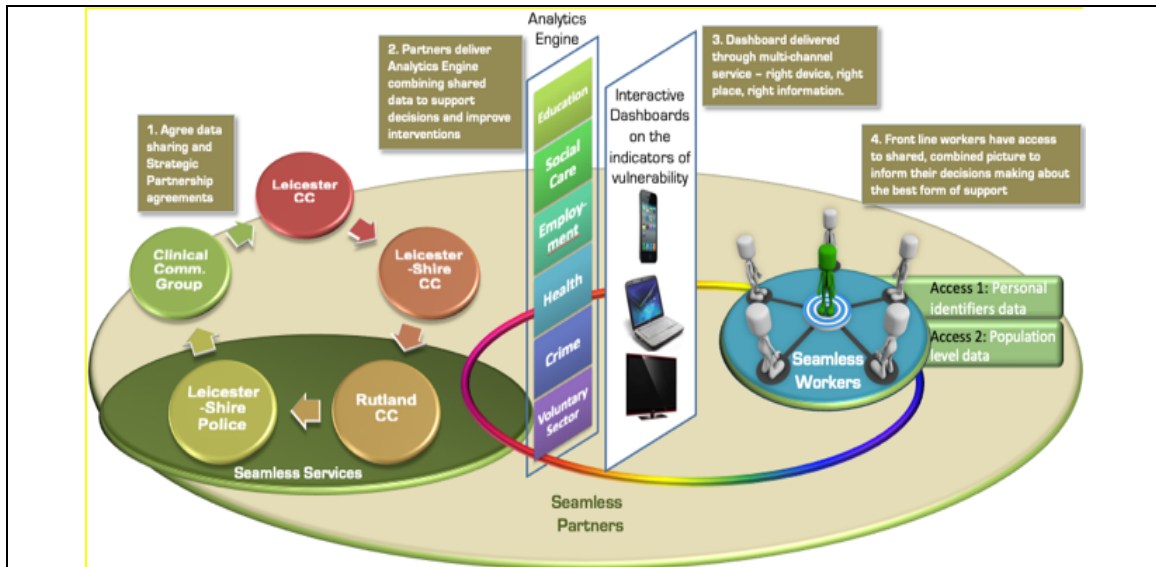


Fig 3.6 Partnership Data Sharing Collaboration

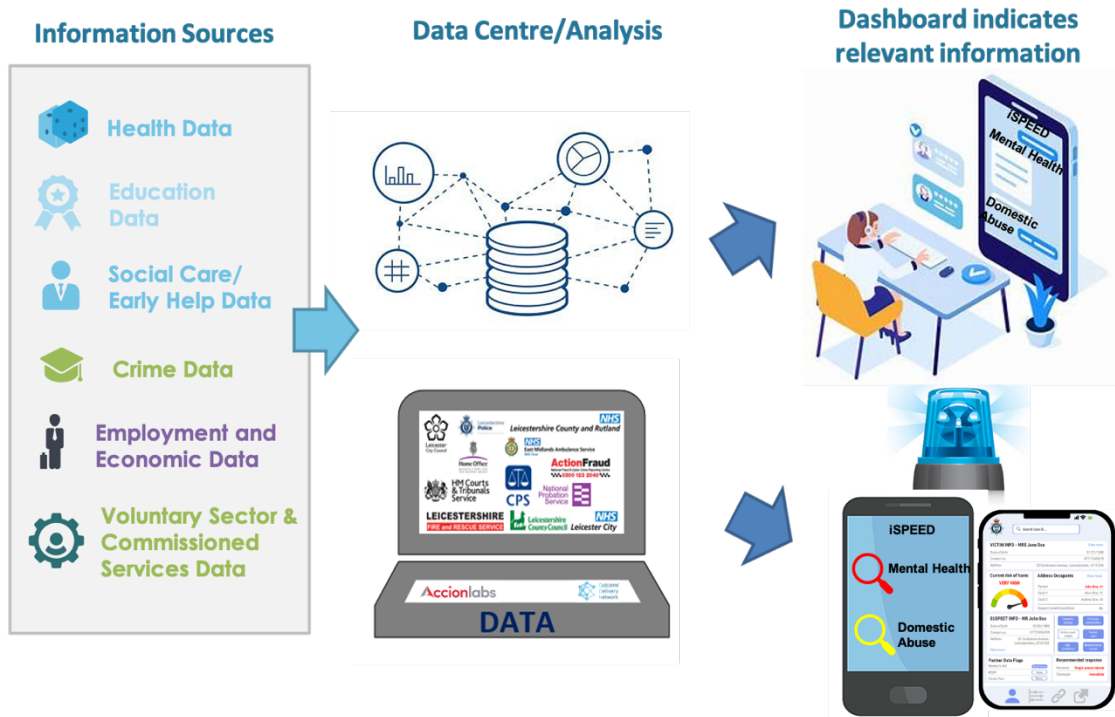


Fig 3.7 Applications Development For Future Frontline Decision Support

The deliverables from the research programme will be the Intelligent Platform Engine described in Figure 3.2 above. The presentation solution will be via a four-quadrant tablet, or four phone screens developed in a similar manner to the examples in Figures 3.8 and 3.9 below.

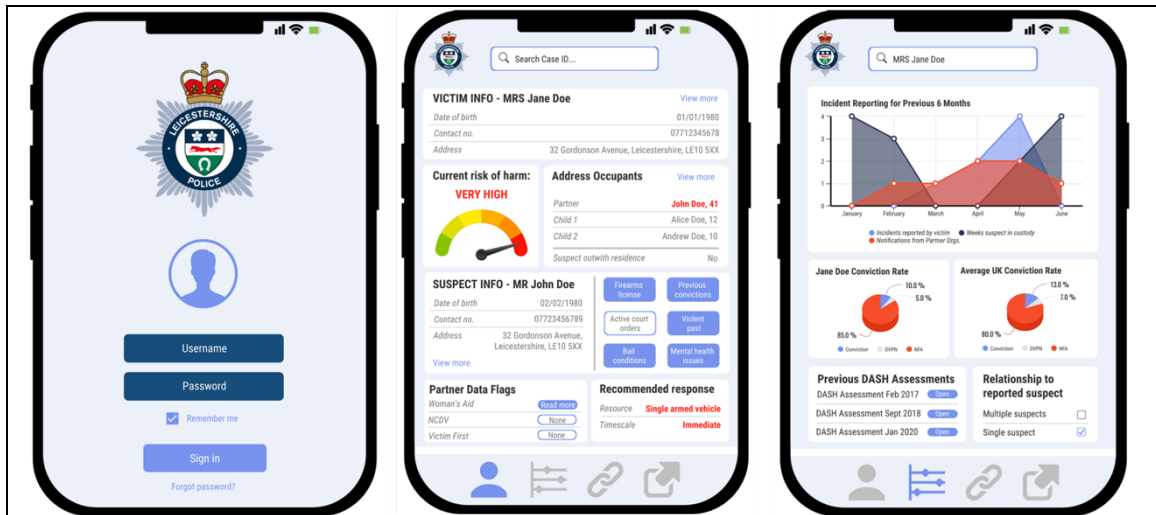


Fig 3.8. Illustrative Decision Support Prototype (Quadrant 1,2)

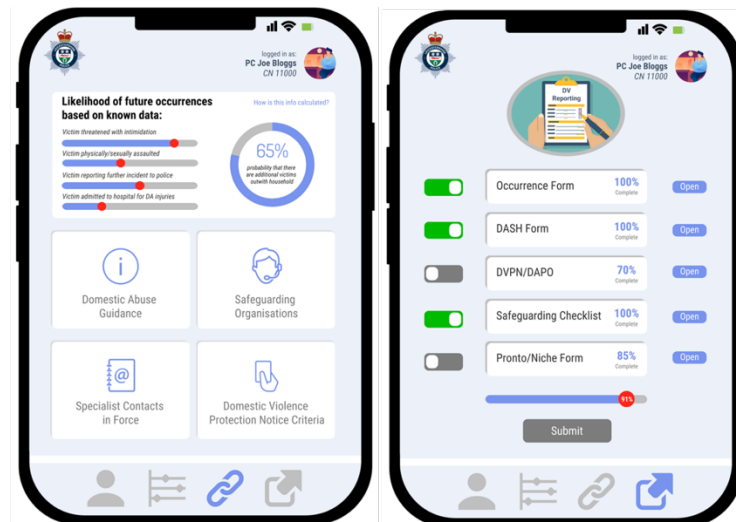


Fig 3.9. Illustrative Decision Support Prototype (Quadrant 3,4)

[782 words]

4. Provide a delivery plan that maps project milestones against a timeline (e.g., per month). We recognise unanticipated events may mean you cannot stick to this plan; please give a 'best case' projection.

The partners have developed an ambitious scope to work with academic and global thought leaders in seeking to exploit research and best practice to help address the desire to provide decision making support to call handlers and front-line officers in seeking to keep citizens safe from Domestic Abuse. We are confident of the team's ability to create an effective and scalable toolset for policing should adequate funding be available to deliver all four iterations or 'waves' of development as described in section 3 above.

We hope this well-planned conceptual development proposal is compelling enough to attract grant award to achieve all the benefits anticipated for the full scope. Should this not be possible for restricted financial award availability we will scale back development progress and work with PDS in contributing to their next CSR bid to prepare this scope for wider scaling over a longer period than shown in our ideal scenario shown below.

We have scoped a plan in Figure 4.2 below to deliver valuable products and functionality progressively in three phases, or 'scopes' - wave 1, wave 2, and wave 3&4 activities on our plan, as shown in Figure 4.1. [192 words]

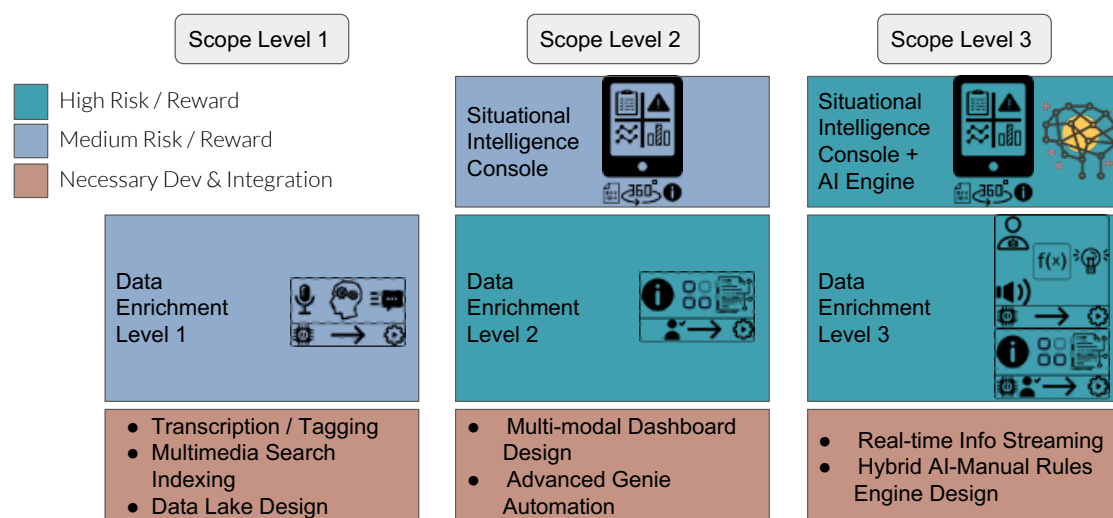


Fig 4.1 Progressive Delivery of Situational Intelligence Console

iSPEED Domestic Abuse High Level Plan		2021/2022												22/23
Activity	Completed by	Q1			Q2			Q3			Q4			Q1
		May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
Pre project design workshops and partner engagements, bid build	Starter team	█	█											
Bid Submission	Starter team		█											
Investment award outcomes	Home Office			█	█									
Business case development based on investment award (scaled accordingly)	External partner and central team				█									
Define specific data sources and requirements	External partner and central team				█									
Procurement of partners	External partner and central team				█									
Internal Workshops	External partner and central team				█									
Operating agreement and contracts arranged	External partner and central team				█									
Create central expert resources, collaborative workspace and working protocols and procedures	Central team				█									
Complete benefits identification and value streams with measures. Complete R2L plans and deliverables/outcomes	External partner and central team					█								
Infrastructure platform definition, design and build	External partners and central team						█	█						
Analytical definition, design and build	External partners and central team						█	█						
Data sources defined, extraction and storage design and build	External partners and central team						█	█						
Application definition design and build	External partners and central team							█	█					
Test plans for platform, analytics, data and application	External partners and central team								█					
Explore partner data options	External partners and central team							█						
Wave 1 - build/test	External partners and central team						█	█						
Wave 2 - build/test	External partners and central team								█	█				
Wave 3 - build/test	External partners and central team									█	█			
Wave 4 - build/test integrations	External partners and central team											█		
Review ethical approach and DPIA	Central team						█	█						
Develop data sharing proof of concept platform utilising applicable data sets	External partner/central team								█	█	█			
Deployment to operational test group	Central team										█	█		
Evaluation of test exercises, bug-fix, re-test	External partner/central team										█	█		
Benefits check 1	Central team										█	█		
Design training and Deployment to operational response teams	Central team										█	█		
Benefits check 2	Central Team												█	
Develop communications plan for sharing thinking and operational testing with other Forces and PDS, and for academic dissemination	Central Team											█	█	
Develop scalability plan and CSR bid with PDS	Central & External Team with PDS				█	█					█	█	█	

Fig 4.2 High Level Plan Decision Support Prototype Development

## COSTS

5. Provide a breakdown of costs for all items, products, services, and resources associated with delivering your project. For each cost, show why it is necessary and how you have ensured it represents value for money. The total of this breakdown should tally with the total requested.

	Roles	Organisation	Budget
Scope 1 – Design, Indexing and Tagging			
	Police specialist PM, Analyst & Cloud Arch.	Leics Police	£90,000
	PM, BA, Benefits Realisation Consultants	ODN	£110,000
	Research and Big Data Scientists	UWE	£66,000
	Design Team Indexing Team Prototype Team	Accionlabs / ODN	£715,000
Scope 2 – Multimodal Dashboard and Genie Automation			
	Police specialist PM, Analyst & Cloud Arch.	Leics Police	£80,000
	PM, BA, Benefits Realisation Consultants	ODN	£110,000
	Research and Big Data Scientists	UWE	£66,000
	Design Team Automation Team Dashboard Team	Accionlabs / ODN	£446,000
Scope 3 – Situational Intelligence Console and AI Engine			
	Police specialist PM, Analyst & Cloud Arch.	Leics Police	£80,000
	PM, BA, Benefits Realisation Consultants	ODN	£110,000
	Research and Big Data Scientists	UWE	£66,000
	Design team AI Team Console Team	Accionlabs / ODN	£445,000
	TOTAL COST		£2,384,000

VAT at 20% has been added to these figures, as directed in the Prospectus, to represent the grant application total of **£2.861 million** contained in Section 4 of the overview above.

The force has already implemented an Azure platform on its own tenant and is progressing development of our cloud capabilities. Some AI has been used for translation workloads and the digital change programme incorporates AI / Analytics / and RPA projects.

A value for money phased solution has been developed by combining Commercial leading practice with Academic innovation, tested for cost effectiveness by benchmarking by the UWE Big Data Lab team.

[97]



## Resources to deliver successfully

Leicestershire Police and the Office of the Police and Crime Commissioner have worked hard to develop a unique public – private partnership team to deliver the ambitious outcomes desired by our PCC and the Chief Officer Team.



Leicestershire  
**Police**  
Protecting our communities



**POLICE & CRIME  
COMMISSIONER**  
for Leicestershire  
Prevention | Partnership | Protection



Leicester  
City Council



Leicestershire  
County Council



Rutland  
County Council



Leicestershire Partnership  
NHS Trust



UNITED AGAINST  
VIOLENCE & ABUS



Victim First  
Leicester, Leicestershire & Rutland

**SafeLink**



Outcome  
Delivery  
Network

**Accionlabs**  
Driving Outcomes Through Action



University of the  
West of England  
**BRISTOL**


We have been fortunate to secure partners who are investing with us in developing a prototype to initiate and shape this innovative effort to provide Officers with actionable intelligence where they need it, when they need it to keep themselves safe when serving and supporting our citizens from the threat and harm of Domestic Abuse:

- Partner expertise and data sharing collaboration will be achieved with representation across the series of design workshops from the outset
- ODN expertise – Transformation subject matter experts supporting 10 Forces, PDS, and NEP over the last four years. Partner Steve Dickie will lead team contributions to support programme management, benefits realisation coaching and design analysis provided by Alan Rowley, Russell Chopping and Struan Dickie - <https://outcomedeliverynetwork.com/our-members/>
- Accionlabs – Global Subject matter Experts in AI and Machine Learning and Data analytics Engines Product Development. Partner Contact Manager Krishna Singh will lead a team including Global CTO Ash Bijoor and Dave Thompson CxO Advisory Board Member – <https://www.accionlabs.com/about-accion>.
- UWE – Academic experts in AI and Big Data - with whom ODN have collaborated successfully previously in delivering InnovateUK grant funded programmes. Their BigDataLab insight team contributions will be led by Dr Hakeem Owalabi - <https://bigdatalab.org.uk/people/>.
- Policing expertise – the Leicestershire internal team working on this project will be made up of skilled policing and transformation specialists. Two subject matter expert detectives with nearly 60 years policing experience have been, and will be, working with the wider team to ensure that the user requirements are clearly defined and met and that products meet the needs of officers. New officers will be used to test the tools created to ensure they fit the requirements of a new generation of officers used to using technology in

every aspect of daily life. Alongside the policing specialists the change team will provide some broad transformational change experience and over 30 years experience of delivery transformational change in the public sector. The change team has a newly formed Digital Optimisation and Innovation Team made up of developers, project managers, analysts, IT staff and enterprise architects who will work alongside the private sector partners to help design, plan and implement the project. The opportunity for learning and skills transfer from industry experts into policing is a fantastic opportunity which will be exploited fully. This skill sharing can also be offered to our partner agencies who will work with us on the project.

### Who We Are: Accion Data Labs

<p><b>250+ Experts</b> in data, BI and AI/ML from ETL to visualization</p>	<p><b>30+ Clients</b> served across 10+ industries globally</p>	<p><b>20+ Data Lakes</b> delivered</p>
<p><b>30+ TB</b> <b>17B+ record</b> databases implemented</p>	<p><b>4B+ records</b> weekly AI-powered de-duplication processes deployed</p>	<p><b>25+ key systems</b> <b>All major clouds</b> used in active development</p>

We are extended by 3000+ technologists of Accion Labs, a global, PE-backed technology services firm 

### What Accionlabs Do

<p><b>Empower Innovation</b> through rich analytics and "what-if" planning</p>	<p><b>Monetize Data Assets</b> with rich interfaces and timely delivery to partners</p>
<p><b>Build a Data-Driven Culture</b> with self-service tools and consistent data views</p>	<p><b>Drive Efficiency and Resiliency</b> with AI/ML-powered insights and automation</p>
<p><b>Formulate Data Strategies</b> that align organizations and drive innovation</p>	<p><b>Enforce Compliance and Governance</b> with data quality and access control</p>
<p><b>Drive Operational Excellence</b> across the enterprise for data and ML flows</p>	<p><b>Build Data Pipelines</b> at enterprise scale to enable real-time analytics and automation</p>

We work actively for clients in 120+ open-source and commercial distributions, application platforms, and data stores including



**Our UWE Big Data Lab** partners will contribute to ensuring better understanding of the biases and limitations of existing data capture practices in DA cases, thus helping to facilitate improvement in data collection and intelligence-led utilisation, especially from multiple and triangulated sources. Their proposed team includes expertise in social behaviour modelling and predictions, including AI and Big Data Analytics that can help unravel obscure

signs and patterns from data, thereby facilitating frontline officers with quick and useful intelligence to make informed and timely decisions.

### **Open Science and Research Transparency:**

UWE will contribute by developing quality scientific research outputs from the project and offer to disseminate same through the following routes:

- **National and International Conferences** (i.e., IEEE, International Conference Police studies, Policing Theory and Research, International Conference on Law, Policing and Justice, The Police Foundation etc.).
- **High-Impact Journals** (i.e., Journal of Family Violence, Family Court Review, Journal of Interpersonal Violence etc.) will be put out throughout project duration taking into consideration confidential agreements.
- **Research Open-Access Policy:** UWE will also ensure that all the research outputs emanating from the project not only acknowledge the funding body and the project partners but are made open access. This will ensure research outputs are disseminated and accessible to wider audiences with due consideration for GDPR and other data privacy guidelines.

The dissemination plan will be subject of course to approval with Partners and funding agencies. Should reviewers wish to consider more detail of the research background and membership of the UWE team, please refer to Appendix 1 at the end of this document.

The proposed delivery partnership has been procured via Public Procurement Frameworks and will be able to mobilise quickly if this application is successful, and thus accelerated start will maximise a successful delivery timescale before March 22. The partnership approach to extend benefits using AOD and to evaluate fully the operational benefits listed in Fig. 6.2 below gives the applicants confidence on delivering value for money alongside operational and service enhancements on this investment programme.

### **Capability development focus from day 1**

- ODN have scheduled skills sharing sessions for Partners in AOD on 28<sup>th</sup> and 29<sup>th</sup> June, and Business Influencing & Delivering Productivity on 5<sup>th</sup> and 6<sup>th</sup> July. Leicestershire Police have invited partners to join these sessions and will rerun them for other Forces as part of the planned activity over the next eight months.
- Accionlabs and UWE commit similarly to share training sessions on Intelligence engine process redesign and dashboard shaping.
- The Policing team have committed to scheduling attendance for young officers and junior staff to work with the programme teams to enable

career development programme by coaching from the experienced delivery team.

- Training and skills sharing opportunities will be offered to all local partners who contribute data and design resources to this programme.

#### **Value for money option**

- Our partners ODN and Accionlabs have offered to provide investment of their time to support this bid and in developing the initial prototype to commence conceptual design consultation. [926]

### **IMPACT AND EVALUATION**

6. If your work delivers in line with your expectations, what tangible benefits do you expect to be realised? How will they be evidenced? (Indicative max. word count: 250 words).

The Superintendent Head of public Protection has defined his vision: Show Me:  
*“..... up to date information on citizens' risk of DA that is shared with Leicestershire Police by relevant Partners.....this information is integrated into our review of DA victims' situation and circumstances and used to build better pictures of risk in each case..... action taken in response to the risks identified by this holistic review which protects DA victims and their families.....”*

*“..... evidence of value added to Leicestershire Police operations by the receiving of relevant, new and good quality information on citizens' DA vulnerabilities from Partners, that has not previously been shared.”*

*“.....Leicestershire Police sharing information to relevant partners in a manner that is secure and carried out in a timely manner, makes efficient use of technology and saves time for our staff.”*

These are binary testable requirements – we either deliver these changes, or we don't! We will also undertake formal evaluation by partners surveys to assess increase in data quality transferred. Our internal audit team will inspect and assess improvements in performance. Feedback via survey will be sought from application users and also via victim satisfaction surveys.

We will next use the AOD approach to consider the full list of 60 Value Drivers selected by the ACO responsible for Finance in Leicestershire Police to compare against all the outcomes selected, to consider a fuller list of potential benefits from a successful iSPEED programme. [ 237 words]



Fig 6.2 iSPEED Anticipated Benefits – Aimed locally; Scalable Nationally

7. How do you plan to ensure the benefits, as well as your learning, have an impact beyond your organisation, e.g., at regional, national, or even international level? If there are synergies with projects taking place elsewhere, describe these here (Indicative max. word count: 250 words).

The force is following a digital transformation roadmap directly aligned to the National Policing DDaT Strategy and the National Policing Vision 2030. The force DDaT strategy outlines the clear links to exploiting data and using technology that this bid proposes.

The force has direct links, through parttime staff secondments, into PDS and the Home Office aligned to the Law Enforcement Capability Model work and as such has the opportunity to influence and direct scalability of pilot products nationally. The bid has engaged external partners who have the capacity and capability to accelerate progress far beyond what a single force is capable of. The external partners have committed time and effort at their risk to formulate this bid.

PDS are aware of the scalability option for the iSPEED programme; they will be involved in the prototype shaping workshops to ensure national value could be created, when successful.

Our external bid partners want to add value to UK Policing as well as creating new commercial opportunities for themselves – it is a transparent relationship. Locally we have a firm partnership commitment, through our Strategic Partnership Board, to protecting the vulnerable, sharing data and improving our service delivery to the citizens of Leicester, Leicestershire, and Rutland. The force also has a local team already looking at DA improvements and intent on delivering improvements to service delivery in a concerning area of growing demand locally and nationally.

UWE have committed to contribute to academic dissemination of the innovations in iSPEED.

[245 words]



## ETHICAL, LEGAL AND DELIVERY RISKS

8. Outline major risks to the delivery of your bid, including any ethical and legal implications. For each delivery, ethical and legal risk provide: (a) the nature of the risk and the likely impact should it occur; (b) the actions you will take to monitor and mitigate this risk; and (c) where relevant, why alternative courses of action cannot achieve a better outcome. (Indicative max. word count: 500 words).

The force has an Ethics Committee that meet quarterly to discuss such matters. The board is made up of citizens and academic experts from local Universities who respond to policing issues relating to ethical use of police resources, powers, data and change proposals. The bid and proposal will be discussed at the next Ethics Committee Meeting in September and has already been added to the next agenda via the OPCC.

Our programme team are experienced in risk management and dealing with multiple programme dependencies, IT infrastructure and resourcing challenges across Policing at a local and national level. We propose to use elements of the AOD approach on this programme to consider Risk management as **the ascendent** management process on the iSPEED programme. We will take a proactive approach to overcome risks, utilising a Benefits Control Process which gives our team access to senior officers and resources to prioritise resolution of any elements which threatens the programme benefit profile once it has been signed off by the Chief Office Team. Our positive approach to considering and addressing risks is illustrated in Fig 8.1 below, which shows how we are already looking to offset any negative impacts the project team may face.

The innovation in our Benefits Control Process derives from using an AOD tool to ensure all Programme teams know the financial value risked if there is any delay to delivery of the Sponsors outcomes. The approach won't indulge in risk management "industry" of writing into Risk and Issues Registers and then 'scoring' risks and mitigations etc. and perhaps waiting 4-8 weeks for programme Boards to address key risks. Rather we will withdraw authority to proceed if the risk value is high enough and then convene a replanning workshop meeting to come up with an alternative approach to avoid the risk identified! We find this approach usually finds an innovative alternate route to maintain progress and hence expected benefits value and targeted date delivery. [323 words]



<b>Risk</b>	<b>Mitigation</b>
If security access/assurance to internal systems delays development, then wave iterations will take longer to test and integration time in wave 4 will be extended.	The project team will work closely with the force information security team to ensure any security access issues are identified at an early stage to find resolutions.
If there is slow or no access to systems experts and officers, then partner resources will be less productive than planned.	The project plan will ensure that time with systems experts and officers is allocated at an early stage so that they can be abstracted from BAU duties. Design, Challenge and Decision workshops will be scheduled four weeks in advance.
If all officer devices are not able to display the proposed output and needs upgrades / replacement, then user satisfaction will be impacted adversely.	The solutions and product will be developed with the officer device specifications in mind and will address limitations of current devices, in defining intelligence data presented on mobile devices.
If data does not provide enough level of detail to inform the new solution to achieve output required, then we will discover this in wave 1 and then build partners sources in later.	The product will be developed and tested with end users to ensure that data provides a sufficient level of detail to achieve the output required. The research side of the plan will expose the solution to ambitious challenges on delivery; the iterative nature of development and test will help us get progressive value from each wave investment of effort.
If the roll out of iSPEED to other Forces is impacted by progress of NEP rollout, then we will need to flex out support resources to implement/	The progress of the NEP rollout could be a key resource or infrastructure interdependency. While the project will not be able to influence this, the progress will be tracked and any resulting issues dealt with and rescheduled where possible.
If policies and / or processes are not fully developed or available to lead the new solution, implementation progress would be delayed.	Policies and procedures will be reviewed as part of the project to ensure that they are fully developed and guide the new solution development process from the outset. National CISO team will be consulted early to align with key cyber principles and protocols in the designed solutions.
If unforeseen, undocumented, complex technical issues arise due to accessing legacy systems, then we will use learning from others to avoid or reduce delays.	Work alongside systems experts in Accionlabs and UWE to help our IT teams to identify any key risks with accessing legacy systems at an early stage and build contingency in the project plan to deal with any unforeseen issues.
If 'business as usual' system or security upgrades impact solution development, then wave iteration plans will need to be flexible.	System and security upgrades will be planned and factored into the solution development alongside working with systems experts to understand the impact of any future system or security upgrades. The key impacts would be in wave 4 build and so we will focus on planning in advance with ICT team to be ready with system updates in advance.

<p>If the internal IAAS/Mobile Solution doesn't deliver the data to officers fast enough to meet need, then users will be frustrated, and service not enhanced for officers and citizens.</p>	<p>The product will be developed and tested with end users to ensure that data is provided fast enough to meet the needs of the end users. A key focus on data sharing and accessing partners applications will be built into all pre-release testing.</p>
<p>If internal IT resources are not be available to support delivery due to the short timescales involved in responding to BAU support needs, then iSPEED may be delayed.</p>	<p>The project plan will ensure that time with systems experts is allocated at an early stage so that they can be abstracted from BAU duties in good time. Similar focus will be introduced to the scheduling of BAU tasks for the ICT resource managers.</p>
<p>If vetting timescales delay access to systems for Accionlabs or UWE staff then progress delays may result.</p>	<p>ODN will expedite accelerated staff vetting, and pay for premium vetting service to minimise time to granting. Design workshops and prototyping activity for wave 1 will not require NPPV, the ODN team are all vetted already.</p>

Figure 8.1 Proactive management of iSPEED Programme Risks

9. Has your bid been submitted to any ethics board or committee? If YES, please list their recommendations and how you plan, or already have, addressed them. (Please delete as appropriate; Indicative max. word count: 100 words).

The bid proposal has been committed to the next Ethics Committee meeting in September. The force has already discussed numerous matters relating to similar ethical matters re early intervention and data sharing with this group and received positive comments and an agreement to move forwards on the matters discussed. As a public sector collective, the Strategic Partnership Board of Leicester, Leicestershire, and Rutland are committed to working together and have recently collaborated on the Data Accelerator bid for Local Authorities as a multi-agency collective. (85 words)

**Please submit your completed form to [PoliceSTARfund@homeoffice.gov.uk](mailto:PoliceSTARfund@homeoffice.gov.uk) by 17:00 on Friday 18 June 2021.**

## **Appendix 1 – Further UWE Research Credentials: Profile of the UWE Big-DEAL Research Laboratory**

**The academic PI and the Team:** The academic PI (**Professor Lukumon Oyedele**) is the founding Director of the Big Data and Artificial Intelligence Lab (BDAL) at the University of the West of England (UWE) Bristol. He currently holds the position of the Chair Professor of Digital Enterprise and Project Management at UWE Bristol. **Professor Oyedele founded the first of its kind UWE-led Commercial Innovation Hub named: Big Data and Artificial Intelligence Laboratory (Big-DEAL). Big-DEAL currently has 33 strong active researchers and is 100% externally funded** by several multinational companies, government ministries and public-sector departments **to the tune of £19.2million** of project funding. The Big-DEAL Laboratory has substantial research track record in managing and delivering large-scale, applied, collaborative (UKRI-funded and businesses) and multi-year research projects.

Big Data Lab <https://bigdatalab.org.uk/>;  
<https://www.uwe.ac.uk/research/centres-and-groups/big-deal>.

### **Successful and ongoing R&D Projects at UWE:**

- *Development of a productivity analytics system for Balfour Beatty Power Transmission and Distribution (**Big Data-BIM funded by Innovate UK @ £2 million**).*
- *Immersive Technology & IoT for Rail Asset Monitoring & Predictive Maintenance (**I-RAMP**) (**funded by Innovate UK @ £1.5 million**).*
- *Conversational-AI, Augmented Reality (AR) & BIM for on-site Assemblage (**Conversational-BIM funded by EPSRC @ £1.86 million**).*
- *Real-Time Emission Visualisation for Eco-Friendly Travels (**REVIS funded by Innovate UK @ £1.7million**).*
- *Intellisite I-VSS (Intelligent Video Site Services) **funded by Innovate UK @ £832k**.*
- *Computer Vision and IoT for Personalised Site Monitoring Analytics in Real-Time (**CV-SMART**) towards Behaviour-Based Safety (**funded by Innovate UK @£800k**).*

**The Big-DEAL Lab currently boasts a multi-disciplinary team of world-class researchers**, including computer programmers and data scientists, AI experts, AR/VR &MR immersive content creation and visualisation experts, Internet of Things (IoT) experts and smart city modelling, digital twin & 4-D simulation, project analytics, risk analytics & cyber security among others. The BDAL team is structured into six research groups:

- 1) **Big Data, Artificial Intelligence (AI), Deep-Learning and Machine Learning:** This group is made up of 5 researchers led by **Dr Muhammad Bilal** and boasts expertise in on-board AI, Conversational-AI and Computer Vision including Deep Learning (CNN, RNN, LSTM, GAN, etc). <https://people.uwe.ac.uk/Person/MuhammadBilal>
- 2) **Augmented Reality/Virtual Reality in Transport and Construction Sectors:** The group is made up of 4 researchers led by **Dr Juan Manuel Davila Delgado** and boasts expertise in advanced immersive content creation & visualisation via AR/VR. <https://people.uwe.ac.uk/Person/ManuelDaviadelgado>
- 3) **Social Behaviour Modelling and Predictions, Human Computer Interaction (HCI), Technology Management and Ethics:** This research group is made up of 5 researchers led by **Dr Hakeem Owolabi**. <https://people.uwe.ac.uk/Person/HakeemOwolabi>.
- 4) **Cloud Computing and Smart Solutions:** The group is made up of 4 researchers led by **Dr Lukman Akanbi** and focuses on driving the adoption of remote data gathering, cloud and IoT technologies and analytics for delivering cheaper and high-value solutions. <https://people.uwe.ac.uk/Person/LukmanAkanbi>
- 5) **Digital Twin, Digital Triplet, Digital Engineering & 5-D simulation Platform:** The group is made up of 4 researchers led by **Dr Olugbenga Akinade** and is into digital twin & modelling and simulation. <https://people.uwe.ac.uk/Person/OlugbengaAkinade>
- 6) **AI and Deep learning Optimisation:** This research group consist four researchers led by Dr Anu Ajayi. <https://people.uwe.ac.uk/Person/AnuoluwapoAjayi>

#### **International Collaborations:**

Big-DEAL will also work closely with international partners and leverage its expertise around Artificial Intelligence, IoT and Conversational-AI while also working with international partners and collaborators. The international collaborators include: (i) Professor Eul-Bum Lee, (Pohang University of Science and Technology, Korea); (ii) Dr. Tham Kwok Wai and Prof. Adekunle Adeyeye (National University of Singapore); (iii) Dr. Jason von Meding (University of Florida and University of Newcastle, Australia); (iv) Prof. Yusuf Arayici (Hasan Kalyoncu University, Turkey); (v) Prof. Tamer El-Diraby and Prof. Brenda McCabe (University of Toronto); (vi) Prof. Stub-French Sheryl (University of British Columbia); and (vii) Dr. Madhav Nepal Prasad (Queensland University Technology).