

Chief Constables' Council

Title: National Biometrics Function and National Facial Recognition Project

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1. EXECUTIVE SUMMARY

This paper looks to reaffirm the commitment made at Chief Constable's Council (CCC) in October 2020 for a National Biometric Function (NBF). CCC in May 2021 also agreed that central support was the preferred option to assist with a coordinated local and regional delivery of Retrospective Facial Recognition (RFR).

The primary purpose of this paper is to propose to use the funding set aside for the NBF in the interim period to focus on face combined with an additional small force funded contribution, which will enable the creation of the National Facial Recognition Project (NFRP), whilst also supporting the development of the biometric function.

The NBF is intended to improve UK law enforcement's strategic approach to traditional and emerging biometrics. The original paper is set out in Appendix A.

This paper incorporates a proposal for the commissioning of a NFRP that will be delivered through the NBF enabling the wider roll out of facial recognition technology across UK law enforcement.

Chief Constable Council agreed in October 2020 the business case to secure force funding (£517,796) for a small central team (4FTE) to support the NPCC National Biometrics Strategy Board (NBSB) with spending secured for 18 months over the second half of 20/21 and 21/22.



Due to a recent change in NPCC Biometric leadership the secured funds are yet to be commissioned.

This paper seeks to achieve six primary aims:

- i. Outline the amended remit for the NBF to focus on the delivery of face in the interim period.
- ii. A decision for the recommitment of force funding for the NBF for the second half of 21/22 and 22/23.
- iii. A decision as to the operating model for the NBF.
- iv. A decision for the creation of the NFRP.
- v. A decision for additional force funding to support the NFRP.
- vi. A decision for potential cost recovery through the Comprehensive Spending Review (CSR).

It is proposed that the NBF will undertake two functions. **Function One:** To review, design and develop proposals for a cohesive UK law enforcement capability for biometrics with specific emphasis on emerging biometrics and the evolution of traditional structures. An initial early priority will be to assist forces deliver RFR.

Function Two: Provide a coordination function to support the NBSB, its programme as well as subsidiary Committee structures to include the NPCC Facial Recognition Board and the NPCC Voice Recognition Board.

The paper will detail three potential operating models for the NBF; a lead force model, integration within the NPCC Strategic Hub and a hybrid model.

It is recommended that a decision is supported for a lead force model which will facilitate the rapid development of a NBF.

There was a collective agreement in Chief Constables Council in May 2021 for central support to be realised to assist forces deliver facial recognition technology.

The NFRP will provide support and assist with implementing facial recognition technology on a local and regional basis. The project will act as central support to local and regional implementation teams who will maintain responsibility and liability of ownership.

It is proposed the NBF would provide the bulk of resources to deliver the NFRP. However, a small number of additional resources are considered necessary to provide specialist knowledge and expertise. This equates to additional force funding of £144,253 sought over an 18-month period.

With member agreement, part or all resourcing costs for the NBF and NFRP could be drawn from any successful CSR bid.

The current proposal for the NBF and NFRP has been considered and endorsed by attendees of the NPCC Facial Recognition Technology Board and the NBSB prior to submission to Chief Constable's Council.

There are considerable operational benefits presented by facial recognition technology which is complimented by financial efficiencies. RFR significantly reduces the timeline for individual identification, particularly within the context of investigating volume crime and protecting the most vulnerable. Focusing on the identification process, South Wales Police has realised non-cashable financial savings of £535,521.31 per annum since the introduction of the RFR capability with further savings anticipated following the introduction of a public submissions portal later this year.

Aggregating this benefit nationally, it is anticipated that an annual efficiency saving of £23,695,643.40 to the service could be achieved (individual force savings are illustrated in Appendix C).¹ It should be stressed, however, that this is an estimate limited to police resource costs associated to the identification process in a single use case and does not reflect the wider efficiencies and benefits to policing, the criminal justice system and society.

Along with identifying wanted suspects LFR presents opportunities to prevent criminality. The use of Live Facial Recognition to identify and disrupt an organised crime group at a public safety event in Cardiff in 2020 resulted in a cost avoidance to society of £ 439,668.²

In summary a number of decisions are sought within this paper, namely: -

Decision One: Support the recommitment of force funding for a NBF for eighteen months for 21/22 and 22/23

Decision Two: If agreed, support the hosting of the NBF by South Wales Police

Decision Three: Support the commissioning of a NFRP to provide a national capability to support the wider uptake of facial recognition technology within UK law enforcement

Decision Four: Support the inclusion of facial recognition technology in the NPCC Comprehensive Spending Review (CSR) bid with a view to full or part cost recovery for the NFRP

Decision Five: Support force funding for the specialist resources required for the NFRP

¹ The predicted business benefit is based on staff costs saved as a consequence of revised business processes introduced following the adoption of the NEC retrospective facial recognition solution. The aggregation is based on ratio of the savings achieved by South Wales Police and force contributions under the current police funding formula. The predicted business benefits are limited to staff cost savings and does not include the avoidance of criminal justice and societal costs. It is envisaged that a national business benefits realisation framework would be a key strategic objective of a National Facial Recognition Project.

² The use of AFR at a music concert led to the identification and arrest of an organised crime group responsible for mobile phone thefts across the UK. Based on average of 54 offences have been prevented at the event, the cost avoided to society was calculated based using data within the Home Office Research Report, "The Economic and Social Cost to Society", Research Report 99, published in July 2018.

2. PART A - NPCC NATIONAL BIOMETRICS FUNCTION

In October 2020, Chief Constables' Council agreed to the creation of a NBF to shape the police service's strategic approach to traditional and emerging biometrics.

The business case sponsored by former Chief Constable Andy Cooke QPM, Merseyside Police, secured force funding (£517,796) for a small central team (4FTE) to support the NBSB.

Whilst the commissioning of the NBF was agreed, the new national capability has yet to be fully established. This follows the retirement of Chief Constable Cooke and the transfer of the national portfolio to Chief Constable Jeremy Vaughan, South Wales Police following his appointment in April 2021.

At the request of the Chairs of the NPCC and the NPCC Finance Committee, reconfirmation of the original business case has been requested due to the passage of time and significant changes in the composition of the Chief Constables' Council.

Consequently, Part A of this paper represents a refreshed outline business case that seeks to ensure the continuing development of a NBF.

3. BUSINESS OBJECTIVE AND SCOPE

The business requirement associated with this proposal is the development and adoption of a cohesive UK law enforcement approach to traditional and emerging biometrics.

The business objective can be broken down into **two** distinct but interdependent functions that will deliver the strategic objectives of the NBSB:

Function One: To review, design and develop proposals for a cohesive UK law enforcement capability for biometrics with specific emphasis on emerging biometrics and the evolution of traditional structures.

Function Two: Provide a coordination function to support the NBSB, its programme as well as subsidiary Committee structures to include the NPCC Facial Recognition Board and NPCC Voice Board.

The scope of the NBSB extends to traditional and emerging biometrics but with a significant emphasis on the latter. Developing an agnostic, future proofed approach to biometrics is a key deliverable given the rapid pace of change and wider interdependencies.

4. PROPOSAL

Proposed Options

The following options have been identified:

Option One: Maintain the status quo, namely the current framework for traditional biometrics whilst adopting an ad-hoc approach to law enforcement agencies use of emerging biometrics.

Option Two: Forces and law enforcement agencies continue to develop individual capabilities and approaches with little or no national oversight or influence.

Option Three: Deliver a blueprint for a national biometrics approach with no national coordinated biometrics support to manage current issues.

Option Four: Deliver a blueprint for a national biometrics approach with national coordinated biometrics support, to manage current and future issues, maintain public confidence and deliver value for money.

Preferred Option: Option Four

In keeping with the decision reached at Chief Constable's Council in October 2020, option four remains preferred.

The creation of a NBF is the only option that supports all aspects of the appraisal criteria and will require the recommitment of earlier agreed funding to support the NPCC and NBSB members achieve their objectives.

As previously described, the NBF will provide two interdependent functions reviewable every 12 months, namely:

Function One Objectives:

The proposed objectives relating to the NBF's first function are:

- Create a law enforcement vision and strategy to inform and influence the future direction of biometrics.
- Design and coordinate a UK law enforcement emerging biometrics programme with initial emphasis on the wider rollout of facial recognition technology.
- Baseline the current biometrics interdependencies across forensics, technology, data, regulatory oversight and ethics.
- Establish the current biometrics governance, decision making and meeting structures.
- Identify interdependent NPCC portfolios or meeting structures.
- Identify Home Office or wider law enforcement interested or influential meeting structures.
- Map the current resources employed on biometrics activity.

- Design an appropriate future proofed infrastructure to achieve the NPCC and wider law enforcement's aspirations for biometrics.
- Work with key partners to build a cohesive approach across biometrics and connected or interdependent NPCC portfolios.
- For an interim period support the NFRP

Function Two Objectives:

- Support the NBSB and the joint chairs in their capacity as national leads.
- Act as a secretariat to the NBSB meetings and aligned governance structures.
- Support agreed virtual subgroups and provide oversight to the Chairs of the NBSB.
- Act as a central coordination function for traditional and emerging biometrics, including the development of doctrine, evaluation and practice.
- At the direction of the NBSB, develop UK law enforcement's approach to biometrics in line with policing and HM Government requirements and ethical considerations.
- Liaise with key stakeholders and NPCC leads to enhance cohesion and coordination across portfolios and interdependent programmes and workstreams.
- Link with the College of Policing and wider law enforcement to ensure that appropriate doctrine, guidance and training relevant to biometrics is in place.
- Act as a central link to the relevant regulatory Commissioners or oversight bodies.
- To work across policing and wider law enforcement to align activities, wherever possible and appropriate, relating to biometrics with those elsewhere in HM Government.

5. RESOURCING

Establishment

The business case agreed at Chief Constables' Council agreed in October 2020 secured force funding for the following resources for an eighteen-month period:

Resource	Establishment (FTE)
Biometrics Capability Lead (Chief Inspector)	1
Project Manager (Inspector)	1
Biometrics Capability Support Officer (SCP42)	1
Project Support and Communications Officer (SCP42)	1

Total	4
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The recommitment of these resources for a NBF is sought for 21/22 and 22/23.

Resourcing Model

Three resourcing models for a NBF have been identified, namely:

Option Five: Lead force model

Under this model, a lead force for the NBF will be identified providing direction and control and an employing body.

South Wales Police is willing to undertake this role given Chief Constable Vaughan's Chair of the NBSB.

This option is also consistent with existing delivery models for national collaborative functions and would ensure close proximity and support given the Chair's ambitions for rapid progress.

Option Six: Integration within the NPCC Strategic Hub

This option envisages the integration of these resources within the NPCC Strategic Hub with the Metropolitan Police Service (MPS) acting as the lead employer.

Whilst consistent with the approach taken with some NPCC functions, this approach would require negotiations with, and the agreement of the MPS.

Option Seven: Hybrid Model

This option is a hybrid model that would see South Wales Police acting as the lead force employer for a time limited period before a managed integration of the NBF into the NPCC Strategic Hub or an alternative body.

Whilst subject to future funding settlements, a transition period of three years to five years is envisaged. This approach would afford the service flexibility to integrate the NBF into current or future national programmes or structures.

All three models envisage the function's strategic priorities being determined by the NBSB.

Preferred Option: Option Five

Should this business case be agreed, option five is the preferred model and will facilitate the rapid development of a NBF. Proximity to the new police portfolio lead is another recognised benefit and will support the transition and development of this rapidly evolving business area.

The option to integrate this capability under Transfer of Undertakings (Protection of Employment) regulations into the NPCC Strategic Hub or another structure remains available.

6. FUNDING

The financial liabilities, including contingency funding, arising from these proposals are outlined below and are based on the NPCC Recharging Guidance for Police Services:

Resource	Cost 2021/22 Financial year: £	Cost 2022/23 ³ Financial year: £	Total Cost (18 months): £
Resources	£ 156,932	£ 321,710	£ 478,642
10 % Contingency	£15,693	£ 32,171	£47,864
Total	£172,625	£ 353,881	£ 526,506

These represent uprated costs from the previously agreed business case and take account of anticipated inflationary and pay increases. It is anticipated that 6 months of funding will be sought for 21/22 with any surplus of funds due to a delay in occupancy of posts to be carried over to 22/23.

Reconfirmation of force funding is sought from members and a schedule of contributions is set out in Appendix B.

7. BUSINESS BENEFITS

There are significant strategic, operational and capability benefits for the NPCC and wider UK law enforcement in establishing a coordinated, cohesive response to biometrics.

No.	Benefit	Benefit category
1	Professionalise the strategic approach to biometrics by articulating the UK law enforcement's vision and strategy. This will, in turn, inform future operational and legal requirements.	Effectiveness Sustainability Governance
2	Maximise biometrics capabilities for the benefit of policing in an ethical and equitable manner. Develop new investigative tools to advance positive criminal justice outcomes for policing and wider law enforcement.	Effectiveness Efficiency Sustainability Governance
3	Avoid duplication and enhance effectiveness across allied areas such as data, technology and traditional forensics, thereby achieving cohesive and integrated biometric capabilities beneficial to law enforcement.	Effectiveness Efficiency
4	Deliver against Ministerial commitments by reducing silo working across interdependent programmes and workstreams. The NBF's baseline review of emerging biometrics and interdependent programmes will provide opportunities to identify and exploit financial and operational efficiencies.	Efficiency Sustainability

³ 2022/23 costs based on a 2.5% increase to reflect a predicted pay award.

5	Enhance confidence of the public and regulators by adopting a cohesive and transparent approach. Develop and deliver a positive communications strategy outlining the benefits of utilising biometrics to keep communities safe.	Sustainability
6	Support the NPCC capability build by following the transformation model.	Effectiveness Sustainability

8. BUSINESS DELIVERABLES

The creation of a fully constituted NBF will support the ethical development of progressive biometric capabilities within UK law enforcement.

In specific terms, the following deliverables are envisaged:

Strategic Deliverables

No.	Description
1.	Integrated governance and effective central coordination of a complex and rapidly developing business area.
2.	Development of a national biometrics vision and strategy which encompasses established and emerging biometrics.
3.	National leadership and liaison with key strategic stakeholders, including the Home Office, the Association of Police and Crime Commissioners and regulators.

Tactical Deliverables

No.	Description
1.	Support the delivery of the NBSB priorities.
2.	Provide an effective secretariat and accountability arrangements in support of the NBSB.
3.	Lead the development of a national biometrics vision and strategy which encompasses both established and emerging biometrics.
4.	Support the prioritised delivery of facial recognition technology across policing.
5.	Support the development of authorised professional practice, policy and guidance for emerging biometrics.
6.	Identify and commission training requirements across the criminal justice system.
7.	Establish and develop professional relationships in support of the NPCC's biometrics agenda.
8.	Establish a central knowledge base for biometrics.
9.	Develop an integrated approach to resolution of strategic infrastructure, legislation and public communication issues relating to traditional and emerging biometrics.

10.	Develop a robust and consistent mechanism for the trial and evaluation of new biometric technologies, aligning these, where appropriate, with international and ISO standards.
11.	Realise efficiency gains by increasing coordination and prioritisation in line with operational requirements and HM Government policy.
12.	Development of a positive and cohesive communications narrative relating to emerging and traditional biometrics.

9. STAKEHOLDERS

The support of the following organisations is critical to enable the continued development of a NBF:

- Home Office
- National Police Chiefs' Council
- [REDACTED]
- National Counter Terrorism Policing
- Association of Police and Crime Commissioners
- National Policing Chief Scientific Advisor

10. ORGANISATIONAL RISK

There are significant risks for UK law enforcement if it does not progress its approach to biometrics in a coordinated and transparent manner.

These include:

- Loss of political and public confidence.
- Failure to exploit biometric opportunities and capabilities to support the policing mission.
- Duplication of effort and competition for funding.
- Failure to meet the operational need.
- Failure to proactively tackle potential ethical and equality discrepancies across biometrics.
- A lack of understanding as to how emerging biometrics could be exploited now and into the future by criminal networks.
- The technological pace relating to biometrics is accelerating. Consequently, a failure by the service to engage risks losing influence on its ethical development. A failure to recognise the need for early investment may necessitate greater funding and resource in the long term.

Consequently, the recommitment of funding for a NBF at this juncture is strongly recommended.

PART B: NATIONAL FACIAL RECOGNITION PROJECT

This section of the document outlines proposals for the wider adoption of facial recognition technology by UK law enforcement and follows discussions at Chief Constables' Council in May 2021 where a high-level agreement to pursue this capability was agreed.

The proposals within relate to the rollout of an interim capability ahead of the anticipated delivery of a Home Office Strategic Facial Matching platform in 2024.

11. BACKGROUND

Facial recognition technology has existed for over forty years but has advanced significantly in the last ten years following the advent of machine learning and artificial intelligence.

An early iteration of facial matching was incorporated in the Police National Database (PND) but its uptake and use has been limited by algorithmic and image quality issues.

A more bespoke solution was developed in 2017 following a successful bid by South Wales Police to the Home Office Police Transformation Fund (PTF). This resulted in the development of two use cases, namely Live Facial Recognition (LFR) and Retrospective Facial Recognition (RFR).

Live Facial Recognition enables the dynamic matching of video camera footage of individuals to a watch list alerting a human operator where a suspected identification is made. LFR is intended to locate persons in public settings with deployments including the targeting of organised crime groups and locating missing persons. The capability has been deployed by South Wales Police and the Metropolitan Police Service (MPS) in mobile vehicles.

In contrast, Retrospective Facial Recognition is used to compare a crime scene image, such as a CCTV still, against provenanced data sets, including police custody photographs. Akin to the LFR use case, Retrospective Facial Recognition will generate suggested persons of interest for a human operator to consider for formal identification.

Since its introduction in 2017, South Wales Police has made over 3,000 positive identifications using RFR technology leading to the arrest of individuals for a diverse range of offences, including murder, sexual offences, organised and volume crime. RFR has also been used to rapidly identify injured, incapacitated, or deceased persons, thereby, reducing the need for protracted enquiries to trace next of kin.

The operational benefits presented by facial recognition technology is complimented by financial efficiencies. RFR rapidly reduces the timeline for suspect identification, particularly within the context of investigating volume crime. South Wales Police has realised financial savings of £535,521.31 per annum since the introduction of the RFR capability with further savings anticipated following the introduction of a public submissions portal later this year.

Aggregating this benefit nationally, it is anticipated that an annual efficiency of £23,695,643.40 to the service could be achieved (individual force saving are illustrated in Appendix C).⁴ It should be stressed, however, that this is a conservative estimate limited to police resource costs in a single use case and does not reflect the wider efficiencies and benefits to the criminal justice system and society.

⁴ The predicted business benefit is based on staff costs saved as a consequence of revised business processes introduced following the adoption of the NEC retrospective facial recognition solution. The aggregation is based on ratio of the savings achieved by South Wales Police and force contributions under the current police funding formula. The predicted business benefits are limited to staff cost savings and does not include the avoidance of criminal justice and societal costs. It is envisaged that a national business benefits realisation framework would be a key strategic objective of a National Facial Recognition Project.

Along with identifying wanted suspects LFR presents opportunities to prevent criminality. The use of Live Facial Recognition to identify and disrupt an organised crime group at a public safety event in Cardiff in 2020 resulted in a cost avoidance to society of £ 439,668.⁵

As an emerging biometric, the use of facial recognition technology by law enforcement has generated public interest and, in some instances, challenge from civil liberties groups and the Information Commissioners' Office.

In 2019, this was manifested by legal challenge in the case of R (Bridges) v Chief Constable of South Wales and SSHD. The case, and a subsequent appeal to the Court of Appeal, has settled many of the outstanding concerns relating to doctrine, privacy and equality impact and regulatory oversight.

A Home Office Biometric strategy has set out a framework for the development of emerging biometrics, such as AFR, and will shortly be complimented by forthcoming Authorised Professional Practice (APP).

Regulatory acceptance of facial recognition technology is also growing with recent positive and pragmatic comments from the Commissioner for the Retention and Use of Biometric Material and Surveillance Camera Commissioner, Professor Fraser Sampson.

Consequently, the conditions for the wider rollout of facial recognition technology within UK law enforcement are considered to exist.

A national facial recognition solution, Strategic Facial Matching (SFM), is currently being progressed by Home Office Biometrics under the leadership of Chris Simms OBE QPM DL. Funding for the core solution, which is exclusively for the retrospective use case, has been secured with an expectation of delivery in 2024.

Whilst a positive development, a capability gap in the availability and use of facial recognition technology by UK law enforcement presently exists. A benchmarking exercise presented to the NPCC Strategic Facial Recognition Board in January 2021, appendix D, indicates that only seven law enforcement agencies in England and Wales are presently using retrospective facial recognition technology. Consequently, opportunities to bring significant numbers of offenders to justice are being missed on a daily basis.

Ambitions to address this situation were expressed by Chief Constables at May's Council meeting and is now reflected by the proposal set out within.

12. BUSINESS OBJECTIVE AND SCOPE

The desired business objectives are:

- The adoption of Facial Recognition technology by UK law enforcement through service wide business change.
- Developing an interim retrospective facial recognition offer to UK law enforcement ahead of the deployment of Strategic Facial Matching. This includes an enterprise and mobile application for use on force smartphone or tablets.
- Developing options for a Live Facial Recognition capability for policing based on a force, regional or national delivery model.

⁵ The use of AFR at a music concert led to the identification and arrest of an organised crime group responsible for mobile phone thefts across the UK. Based on average of 54 offences have been prevented at the event, the cost avoided to society was calculated based using data within the Home Office Research Report, "The Economic and Social Cost to Society", Research Report 99, published in July 2018.

In keeping with the strategic principles set out in the Home Office's Biometric Strategy and the NBSB, a consistent, coordinated and ethical approach to embedding facial recognition technology within law enforcement will be needed.

To achieve this, the commissioning of a NFRP is proposed with delivery being led by the proposed NBF.

Recognising the constitutional independence of forces and the existence of collaborative arrangements, force or regional delivery is believed to be the most viable approach. This reflects the complexity of delivering a single solution and the projected timeline that Home Office colleagues are currently working to.

13. PROPOSAL

Options Appraisal

The delivery of this proposal focuses on four considerations: standardisation, technology, consolidation and sustainability.

Standardisation

A standardised approach to the delivery and use of facial technology is considered both desirable and necessary given the public interest and regulatory oversight associated with this emerging biometric.

Drawing on the learning from pathfinder forces, the effective and ethical implementation of both use cases hinges on robust and legally sound operating models. Consequently, consistent operational doctrine and data protection and equality impact assessments are critical.

A national capability to support business change is, therefore, considered highly advantageous and will help forces implement facial recognition solutions in an expeditious and ethically sound manner.

Technology

The technology underpinning facial technology continues to develop at pace with a growing market of new and established providers.

The design of a national technical specification and procurement pathway for retrospective and live facial recognition technologies will ensure forces can readily access the most up to date technology taking account of individual or regional needs.

Given the breadth of demand facing the Police Digital Service, a national capability within the NBSB to aid technical design and integration with enabling infrastructures, including cloud-based storage and force record management systems, will also reduce duplication of effort.

Consolidation

A consolidated approach to delivery will deliver operational and financial efficiencies for UK law enforcement. Nationally developed products to support implementation and delivery will prevent duplication of effort.

Consistency in doctrine and practice will also maximise the effective and ethical use of what remains an emerging biometric technology.

Sustainability

The proposals set out in this paper are intended to ensure that UK law enforcement can access facial recognition technology. The technical specification and route to market reflects this timeline and is intended to address the current and residual capability gaps arising from the Strategic Facial Matching project.

A NFRP will also enable service wide business change in readiness for the delivery of a national RFR solution in 2024.

Following a presentation to Chief Constable's Council in May 2021, a high-level agreement to pursue the wider rollout of facial recognition technology was agreed by members.

Since this date, the National Facial Recognition Board and the NBSB have considered a proposal for a NFRP.

The desired business objective is the adoption of Retrospective Facial Recognition technology by UK law enforcement as an interim capability ahead of the proposed Home Office Strategic Facial Matching project. This includes an enterprise and mobile application for use on force smartphones or tablets.

The adoption of Live Facial Recognition for interested forces is a secondary objective given that operational requirements will vary across the UK.

In keeping with the strategic principles set out in the Home Office's Biometric Strategy and the NBSB, a consistent, coordinated and ethical approach to embedding facial recognition technology within law enforcement will be needed.

To achieve this, a national project within the governance of the NBSB is proposed to support delivery.

The National Facial Recognition Board, chaired by Director Lindsey Chiswick, Metropolitan Police Service and the NBSB considered a range of options, appendix E, for enhancing UK law enforcement's uptake of facial recognition technology.

Following deliberation, an outline business case advancing two options has been endorsed by the NBSB.

Option Eight: Maintain status quo

Under this option, individual forces or regions would be responsible for the acquisition and implementation of facial recognition technology.

Option Nine: Supported delivery by the NBF

This option envisages the use of the NBF with a small temporary uplift in resources to support force or regional adoption of facial recognition technology.

As a central project team, the NBF would support to forces or collaborative regions by:

- Hosting of national workshops to provide advice and guidance on implementation and share best practice.
- Developing standardised products to support implementation, including authorised professional practice, (APP), data protection and equality impact assessments, standard operating procedures and template business cases.
- Working with Blue Light Commercial and the Police Digital Service to develop a national procurement framework and technical specification.
- Advising on standards with particular focus on a centralised understanding and advice function with regards the Public Sector Equality Duty viewed through the prism of the Bridges judgment⁶.
- Development of standards with regards acceptable demographic variance and the coordination and sharing of appropriate datasets.

⁶ *R (on the application of Bridges) v Chief Constable of South Wales Police* ([2020] EWCA Civ 1058)

- Encouraging a consistent approach to evaluations and business benefits realisation.
- Development of a suite of communications to support local public consultation and stakeholder engagement.

Individual forces or collaborations would, however, retain responsibility for local delivery, including procurement, project management and technical design. Legal concurrence and corresponding liabilities would also remain a devolved responsibility along with public consultation.

The preferred option represents a supportive delivery model enabling forces or regions to engage with facial recognition technology at a pace and scale that meets local needs. It also respects the constitutional independence of forces and the complexity of delivering a national solution given the anticipated delivery of a Home Office Strategic Facial Matching platform in 2024.

The proposed project will have a delivery timeline of eighteen months, which reflects the need to develop a national procurement framework and technical specification.

14. RESOURCE IMPLICATIONS

The NBF would provide the bulk of resources to deliver a NFRP. However, a small number of additional resources are considered necessary to afford the NBF with specialist knowledge and expertise in areas such as data protection, ethics and equality impact.

Drawing on the experience of pathfinder forces, the following additional resources are considered necessary to ensure effective national support can be provided to forces:

Resource	Establishment (FTE)	Base Cost	Cost per year
Data Protection Officer (SCP 50)	0.5	£ 65,716.00	£ 32,858.00
Legal / Biometrics Ethics Expert (SCP41)	1	£ 53,135.00	£ 53,135.00
Total	1.5		£ 85,993.00

Both resourcing models are predicated on the appointment of temporary resources for eighteen months with staff being hosted in the NBF.

15. FUNDING

The financial liabilities, including contingency funding, arising from this proposal is outlined below:

Resource	Cost 2021/22 Financial year: £	Cost 2022/23 ⁷ Financial year: £	Total Cost (18 months): £
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⁷ 2022/23 costs based on a 2.5% increase to reflect a predicted pay award.

Resources	£ 42,996.50	£ 88,142.82	£ 128,989.49
10% Contingency	£ 4,299.65	£ 8,814.28	£12,898.94
Total	£ 47,296.15	£ 96,957.10	£ 144,253.25

Funding Options

Two funding options are presented for consideration by members.

Option Ten: Inclusion of a NFRP into the NPCC Comprehensive Spending Review Bid

The inclusion of the financial requirements for a NFRP into the NPCC Comprehensive Spending Review bid provides an opportunity to secure central funding and has been invited by both the NPCC Finance and Information Management and Operational Requirements (IMORCC) committees.

Investment in Facial Recognition Technology also resonates with the Home Office's ambitions for a more productive and effective policing workforce.

With member's agreement, the part or total resourcing costs associated with the NBF or the NFRP could be drawn from any successful CSR bid. This could be extended to force capital costs for facial recognition technology but would require further scoping by the NBF.

Option Eleven: Force Funding

In the absence of central funding, individual force contributions are set out in Appendix A. This funding is in addition to the financial liabilities associated with the NBF.

In the absence of central funding, the agreement of members is sought for this option.

Residual Funding Requirements

In the absence of a success CSR bid, capital and revenue requirements for procuring facial recognition technology would remain outside the scope of this project and would fall to individual forces.

Indicative costs for Retrospective Facial Recognition solutions for a force with a warranted establishment of 1000 officers is in the region of £ 160,000 reflecting capital outlay and a proprietary license.

A mobile Live Facial Recognition solution costs is predicted to be in the region of £70,000 per vehicle.

It must be stressed that these are indicative costs and, again, the proposed project team will seek to achieve greater value for money through the development a national procurement framework for use by forces or collaborative arrangements.

16. BUSINESS BENEFITS

The business benefits arising from the adoption of an interim facial recognition capability for policing are significant and are outlined below.

No.	Benefit	Benefit Category
1	Support NPCC capacity build through the development of facial recognition capabilities for UK law enforcement.	Effectiveness Sustainability

2.	Protect the public and improve criminal justice and safeguarding outcomes by enhancing law enforcement's ability to identify unknown suspects or subjects.	Effectiveness
3.	Realise cashable and non-cashable efficiencies in investigations involving unidentified suspects or subjects.	Effectiveness
4.	Enhance the confidence of the public and regulators in facial recognition technologies by facilitating its consistent and ethical adoption by UK law enforcement.	Sustainability Governance
5.	Realise the ambitions of the Policing Vision 2025 and the National Policing Digital Strategy by ethically exploiting facial recognition technology to tackle harm and transform services.	Sustainability Governance
6.	Support service wide business change and develop new facial recognition technology use cases	Governance
7.	Discern operational and organisational learning to support the delivery of the Home Office Biometrics Strategic Facial Matching platform.	Sustainability

17. PROJECT DELIVERABLES

The strategic and tactical deliverables of these proposals are detailed below:

Strategic Deliverables

No.	Description
1.	With force engagement, support the wider roll out of facial recognition capabilities across UK Law Enforcement within eighteen months.
2.	The development and adoption of a consistent and ethical operating model that enhances the confidence of the public and regulators.
3.	The creation of a national technological specification for facial recognition that will provide UK law enforcement with cutting edge capabilities.
4.	The development of a dynamic route to market that aggregates the service's buying power and provides value for money.
5.	The adoption of national facial recognition standards to include agreed acceptable demographic accuracy variance.
6.	Deliver effective business change and support the medium-term transition to the Strategic Facial Matching solution.

Tactical Deliverables

No.	Description
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1.	National support to the force or regional adoption of facial recognition technology.
2.	Centralised engagement with key stakeholders and regulators.
3.	The creation of a national procurement framework for facial recognition technology in conjunction with the Blue Light Commercial and the Police Digital Service.
4.	Development of Authorised Professional Practice (APP) for the police use of facial recognition technology.
5.	Development of a template force policy and concept of operations for facial recognition use cases.
6.	Template business cases for submission to force governance structures.
7.	Model data protection and equality impact assessments to support force and regional implementation.
9.	Development of a national communications strategy and corresponding products.
10.	Establishment of an online learning resource within Knowledge Hub for facial recognition.
11.	Provision of advice and guidance to support local implementation.

18. STAKEHOLDERS

Stakeholders to this project include:

- Home Office Biometrics
- UK law enforcement community
- Biometrics and Surveillance Commissioner
- Information Commissioners Office
- IMMORC
- Blue Light Commercial
- Police Digital Service
- Forensic Capability Network
- Police National Database
- Association of Police and Crime Commissioners
- National Policing Chief Scientific Advisor

Bilateral briefings and project governance structures will be used to engage and secure the ongoing support of key stakeholders.

19. ORGANISATIONAL RISK

Facial recognition technology presents both opportunities and risks for law enforcement.

Whilst the benefits have already been articulated, a failure to harness this technology in a consistent and coherent way risks:

- Public safety through offenders not being brought to justice.
- Effective demand management, particularly in the context of the investigation of volume and serious crime.

- An asymmetrical approach to service capability in a rapidly developing area.
- Financial inefficiencies through fragmented market engagement.
- Duplication of effort in terms of doctrine development and operational practice.
- A loss of public and regulatory confidence, particularly where a force's employment of facial recognition technology is inconsistent with doctrine and legislation.
- UK law enforcement losing influence with the private sector to support the ethical development of facial recognition technology.

20. APPROVAL OF COORDINATING COMMITTEES

The NPCC Facial Recognition Board and the NBSB endorsed these proposals following meetings held in July 2021.

21. CONCLUSION

The proposals outlined in this paper are intended to reconfirm the NPCC's commitment to a NBF.

The NBF will ensure that UK law enforcement acts collectively and cohesively by working across all agencies and in conjunction with the Home Office to exploit established and emerging biometric opportunities in a manner that instils political and public confidence.

In order to achieve this aim, investment in a national capability to comprehend what is a complex and constantly evolving landscape and provide standardisation and coordination of approach will be critical to maximise the potential of biometrics in support of the policing vision.

As a priority workstream of the NBF, a NFRP will progress the consensus reached at Chief Constable's Council in May 2021 for the wider rollout of facial recognition technology across UK law enforcement.

The preferred option will provide a national capability to support forces and collaborative arrangements and ensure that the expansion of this technology is undertaken in an ethical and transparent manner,

Finally, the project will prime business change in anticipation of the delivery of the Strategic Facial Matching platform in 2024.

22. DECISIONS REQUIRED

Members are asked to:

Decision One: Support the recommittal of force funding for a NBF for eighteen months for 21/22 and 22/23 – Option Four.

Decision Two: If agreed, support the hosting of the NBF by South Wales Police – Option Five.

Decision Three: Support the commissioning of a NFRP to provide a national capability to support the wider uptake of facial recognition technology within UK law enforcement – Option Nine.

Decision Four: Support the inclusion of facial recognition technology in the NPCC Comprehensive Spending Review (CSR) bid with a view to full or part cost recovery for the NFRP – Option Ten.

Decision Five: Support force funding for the specialist resources required for the NFRP – Option Eleven.

Jeremy M Vaughan
Prif Gwnstabl | Chief Constable
Heddlu de Cymru | South Wales Police

Appendix A: Business Case to evolve the NPCC approach to Biometrics – see attached.

Appendix B: Proposed force contributions based on existing funding model for a National Biometrics Function and a National Facial Recognition Project

Force	NRE %	FY 21/22	FY 22/23
Avon & Somerset	2.52%	£5,533	£11,344
Bedfordshire	0.94%	£2,061	£4,225
Cambridgeshire	1.20%	£2,644	£5,421
Cheshire	1.61%	£3,540	£7,256
City of London	0.62%	£1,372	£2,813
Cleveland	1.09%	£2,400	£4,920
Cumbria	0.89%	£1,953	£4,004
Derbyshire	1.49%	£3,278	£6,719
Devon & Cornwall	2.59%	£5,694	£11,672
Dorset	1.10%	£2,415	£4,951
Durham	1.02%	£2,242	£4,597
Dyfed-Powys	0.89%	£1,951	£3,999
Essex	2.45%	£5,378	£11,024
Gloucestershire	0.97%	£2,136	£4,379
Greater Manchester	4.90%	£10,774	£22,087
Gwent	1.09%	£2,402	£4,925
Hampshire	2.82%	£6,211	£12,732
Hertfordshire	1.70%	£3,745	£7,678
Humberside	1.53%	£3,374	£6,916
Kent	2.60%	£5,714	£11,713
Lancashire	2.36%	£5,200	£10,660
Leicestershire	1.56%	£3,440	£7,051
Lincolnshire	1.01%	£2,229	£4,569
Merseyside	2.74%	£6,020	£12,340
MOPAC	22.10%	£48,600	£99,631
Norfolk	1.36%	£2,980	£6,110
North Wales	1.28%	£2,822	£5,786
North Yorkshire	1.26%	£2,768	£5,675
Northamptonshire	1.11%	£2,448	£5,018
Northumbria	2.33%	£5,131	£10,518
Nottinghamshire	1.73%	£3,799	£7,788
South Wales	2.43%	£5,338	£10,943
South Yorkshire	2.16%	£4,744	£9,725
Staffordshire	1.61%	£3,539	£7,255
Suffolk	1.03%	£2,272	£4,657
Surrey	1.90%	£4,179	£8,567

Sussex	2.39%	£5,247	£10,756
Thames Valley	3.52%	£7,748	£15,883
Warwickshire	0.85%	£1,860	£3,813
West Mercia	1.81%	£3,989	£8,178
West Midlands	4.75%	£10,442	£21,406
West Yorkshire	3.70%	£8,146	£16,700
Wiltshire	0.98%	£2,163	£4,434
Total	100.00 %	£219,921	£450,838

Appendix C: Predicted annual non-cashable business benefits to policing using Retrospective Facial Recognition Technology⁸

Force	Funding Formula Share 2021/22	%	Predicted RFR Saving
		Share	
Avon & Somerset	£185,784,066	2.29%	£542,630.23
Bedfordshire	£73,228,992	0.90%	£213,260.79
Cambridgeshire	£83,862,091	1.03%	£244,065.12
Cheshire	£122,214,837	1.50%	£355,434.65
City of London	£59,847,317	0.74%	£175,347.76
Cleveland	£97,409,867	1.20%	£284,347.72
Cumbria	£68,490,485	0.84%	£199,043.40
Derbyshire	£114,835,193	1.41%	£334,108.57
Devon & Cornwall	£190,770,948	2.35%	£556,847.62
Dorset	£67,369,481	0.83%	£196,673.84
Durham	£91,644,877	1.13%	£267,760.77
Dyfed-Powys	£57,497,297	0.71%	£168,239.06
Essex	£182,565,455	2.25%	£533,151.97
Gloucestershire	£62,025,183	0.76%	£180,086.89
Greater Manchester	£469,325,195	5.78%	£1,369,608.19
Gwent	£83,438,534	1.03%	£244,065.12
Hampshire	£210,674,645	2.59%	£613,717.16
Hertfordshire	£123,957,689	1.53%	£362,543.34
Humberside	£130,917,891	1.61%	£381,499.85
Kent	£198,861,687	2.45%	£580,543.26
Lancashire	£206,716,021	2.55%	£604,238.90
Leicestershire	£120,771,997	1.49%	£353,065.08
Lincolnshire	£67,553,227	0.83%	£196,673.84
Merseyside	£270,671,378	3.33%	£789,064.92
MOPAC	£1,853,410,177	22.82%	£5,407,345.82
Norfolk	£90,863,597	1.12%	£265,391.20
North Wales	£83,653,323	1.03%	£244,065.12

⁸ The predicted business benefit is based on staff costs saved as a consequence of revised business processes introduced following the adoption of the NEC retrospective facial recognition solution. The aggregation is based on ratio of the savings achieved by South Wales Police and force contributions under the current police funding formula. The predicted business benefits are limited to staff cost savings and does not include the avoidance of criminal justice and societal costs. It is envisaged that a national business benefits realisation framework would be a key strategic objective of a National Facial Recognition Project

North Yorkshire	£79,050,215	0.97%	£229,847.74
Northamptonshire	£77,471,319	0.95%	£225,108.61
Northumbria	£250,182,621	3.08%	£729,825.81
Nottinghamshire	£144,996,873	1.79%	£424,152.01
South Wales	£183,639,318	2.26%	£535,521.54
South Yorkshire	£204,819,918	2.52%	£597,130.22
Staffordshire	£122,416,628	1.51%	£357,908.22
Suffolk	£73,146,671	0.90%	£213,260.79
Surrey	£105,115,557	1.29%	£305,673.80
Sussex	£174,519,705	2.15%	£509,456.33
Thames Valley	£247,437,364	3.05%	£722,717.12
Warwickshire	£55,742,938	0.69%	£163,499.94
West Mercia	£126,226,837	1.55%	£367,282.47
West Midlands	£495,882,583	6.11%	£1,447,803.81
West Yorkshire	£346,045,543	4.26%	£1,009,434.41
Wiltshire	£66,908,746	0.82%	£194,304.27
Total	£8,121,964,286		£23,695,643.40

Appendix D: Summary of Benchmarking Exercise relating to the utilisation of Retrospective Facial Recognition Technology

Key:

Green - Utilising RFR

Red - Not Utilising RFR

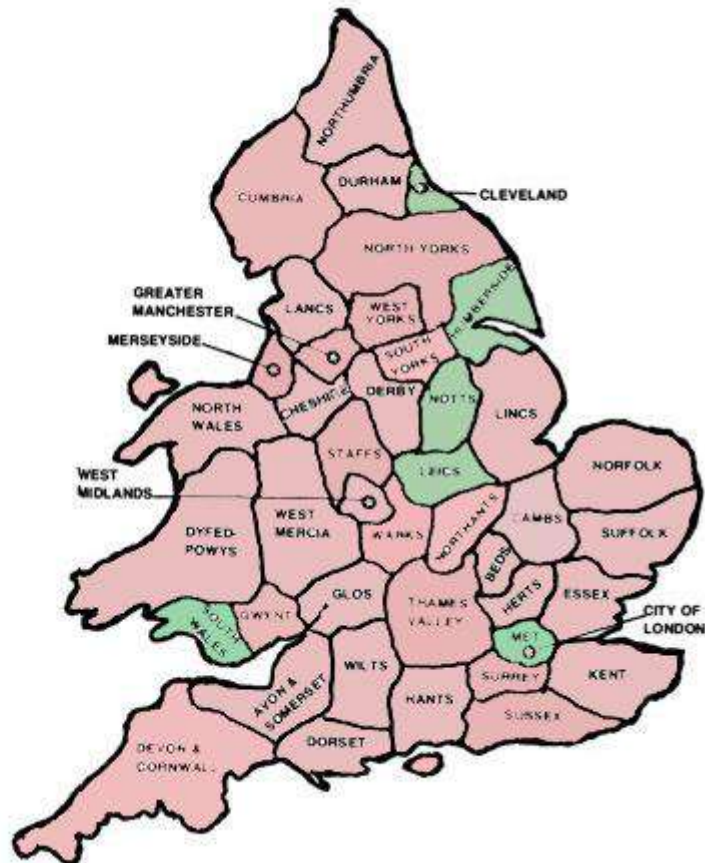
Additional Info:

Scotland - Not Utilising

BTP - Not Utilising

CT - Utilising

NCA - Not Utilising



Appendix E: Options appraisal for a National Facial Recognition Project considered by the National Biometrics Strategy Board and the National Facial Recognition Technology Board

Option One: Maintain status quo

Under this option, individual forces or regions would be responsible for the acquisition and implementation of facial recognition technology. Central support would be limited to the development of a national procurement framework and technical specification.

This option is to be delivered through the relevant working groups aligned to the NPCC Facial Recognition Technology (FRT) Board.

Option Two: Promotion of the use of Retrospective Facial Recognition capabilities within the Police National Database

The Police National Database (PND) is currently available to all UK police forces and a number of selected law enforcement agencies. As well as allowing these organisations to share intelligence, PND also allows users the ability undertake Retrospective Facial Recognition (RFR) searches.

Facial recognition was introduced on PND in 2013 with searches being made against around 14 million custody images that have been uploaded by all UK police forces and selected law enforcement agencies.

Currently, PND utilises an algorithm supplied by Cognitec that was upgraded in 2017 with plans to for a further upgrade in August 2021. In parallel, accuracy testing is to be completed for business assurance purposes and will be followed by a robust communication strategy to drive usage.

Whilst the decommissioning of PND is anticipated in the medium term, it represents an existing capability. Consequently, maintaining the status quo and promoting PND as the service's preferential facial recognition solution is a low cost option.

Option Three: Deferring investment pending delivery of the Home Office Biometrics Strategic Facial Matching Platform

Deferring investment pending the anticipated delivery of the Home Office Biometrics Strategic Facial Matching Platform in 2024 is a further proposal.

A Home Office business case for the SFM's delivery is currently being refreshed, but has secured funding for the delivery of core functionality by 2024. This will include a national retrospective facial recognition capability using extracts of PND, but will eventually transition to force custody image datasets. A serious crime cache to enable searches against suspects for outstanding legacy offences is also in scope.

Access to further indices including images held by the Driver and Vehicle Licensing Agency (DVLA), the Identity and Passport Agency (IPA) and Immigration Enforcement (IE) is also anticipated subject to changes to data processing and fair use requirements.

In December 2020, the Home Office Biometrics programme undertook a scoping exercise of policing's user requirements. These include the development of a mobile application for street identifications and integration into force IT solutions, including mobile devices. At present, these requirements are presently unfunded, although are expected to feature in future iterations of the SFM business case.

Akin to any interim capability that may be delivered, the successful implementation of the SFM will hinge on effective business change – a requirement that has yet to be articulated or resourced.

It should be stressed that retrospective Facial Recognition technology remains the sole focus of the SFR project and there is no intention to extend this to live identification use case. Consequently, the development of LFR for the service will need to be delivered from with UK law enforcement.

Option Four: Supported Delivery

This option would see the establishment of a small temporary project team (5 FTE) within the NPCC Biometrics Function to support force or regional adoption of facial recognition technology.

The project team would be responsible for the development of standardised products to enable delivery and business change. This would include a national procurement framework and technical specification, data protection and equality impact assessments, standard operating procedures and template business cases.

Local project delivery, including technical design and implementation, would remain the responsibility of individual forces or regions with no expectation of recourse to the national function beyond the provision of advice and generic products.

The project team would be responsible for advising on standards with particular focus on a centralised understanding and advice function with regards the Public Sector Equality Duty viewed through the prism of the Bridges⁹ judgment.

This team would assist in the development of standards with regards acceptable demographic variance and the and the coordination and sharing of appropriate datasets.

Subject to further funding settlements, the national project team could support business change requirements associated with the delivery of the Strategic Facial Matcher platform in 2024. This, however, would be limited given the team's modest establishment.

Option Five: National Coordination and Delivery

Option Five envisages formal national coordination for the adoption of facial recognition technology.

A central project office (14 FTE) with regional implementation coordinators would work with forces to coordinate business change and the design and delivery of use case technologies chosen by forces or regional collaborations.

Governance and accountability would be provided by the NPCC Biometric Strategy Board (NBSB). A secretariat would be established to oversee progress which would also support the NBSB, FRT Board and Voice Board. Delivery would also be supported by local and regional workshops.

The project team would also play a greater role by developing technical designs for implementation that could be adopted by forces and regions. Liaison with technology providers, such as suppliers of Records Management Systems, would also be in scope along with the development of a smartphone or tablet RFR application.

As per option three, the project team would also be responsible for the development of standardised products, such as a national procurement framework and technical specification, data protection and equality impact assessments, standard operating procedures and template business cases.

Opportunities to explore the development of force or collaborative models for live facial recognition technology would also be in scope given the team's broader capacity.

Individual forces would, however, retain responsibility for technical implementation and local project management support.

The project team would take responsibility for the coordination of Freedom of Information requests with local responsibility residing with the relevant force/region. The project team would also be responsible for advising

⁹ *R (on the application of Bridges) v Chief Constable of South Wales Police* ([2020] EWCA Civ 1058)

on standards with particular focus on a centralised understanding and advice function with regards the Public Sector Equality Duty viewed through the prism of the Bridges¹⁰ judgment.

This team would assist in the development of standards with regards acceptable demographic variance and the coordination and sharing of appropriate datasets.

Subject to further funding settlements, the national project team could support business change requirements associated with the delivery of the Strategic Facial Matcher platform in 2024.

¹⁰ *R (on the application of Bridges) v Chief Constable of South Wales Police* ([2020] EWCA Civ 1058)