



Equality Impact Assessment

A practical tool to identify discrimination

Title:	Facial Recognition Technology – <i>Equitability Study Annex</i>
Department Responsible:	Digital Services Division
Completed By:	Chief Inspector Scott Lloyd
Date:	01/07/22

Change Control

Version	Date	Authority	Evidence of approval	Record of change
1.0	01.07.2022	Project Oversight	Chief Inspector Scott Lloyd	Initial Draft

What is an Equality Impact Assessment?

An Equality Impact Assessment (EIA) is an evidence-based assessment of how the Forces' Guidance, Procedures or Projects will positively support the Forces' general equality duties.

Why do we need an EIA?

Completing the EIA will help you analyse Guidance, Procedures or Projects aims and objectives to make sure they do not discriminate or disadvantage people. Discrimination is where someone is treated less favourably or put at a disadvantage because of their protected characteristic.

Improving or promoting equality is when you identify ways to remove barriers and improve participation for people with a protected characteristic. The vast majority of organisations and their managers do not set out to discriminate on purpose against their staff, clients, customers or members of the public.

Discrimination is usually unintended and can even remain undetected until someone complains or is let down by the system or the service they have received. This is how indirect discrimination can work and why EIA's are used to identify this disadvantage and to take appropriate steps.

The EIA will identify any potential negative disproportionate impacts on people or groups of people, specifically those identified as having a protected characteristic as identified in the

Equality Act 2010. The EIA will also outline any steps required to mitigate any negative impact as well as identify ways to promote equality of opportunity.

When should you carry out an EIA?

An EIA should be completed as part of a new project and when making changes to a project to form part of the Guidance and Procedure documentation.

How do you carry out an EIA?

The EIA will identify any potential negative disproportionate impacts on people or groups of people, specifically those identified as having a protected characteristic as identified in the Equality Act 2010. The EIA will also outline any steps required to mitigate any negative impact as well as identify ways to promote equality of opportunity.

The EIA is in two parts:

1. It is compulsory to complete Part 1 & 2 in relation to each Guidance, Procedure or Project. This should be undertaken prior to a Guidance, Procedure or Project being developed or reviewed. Completion of part 1 & 2 will determine whether it is necessary to complete Part 3 which is the full EIA.
2. Part 3 is a full EIA which is completed when the initial screening (part 1&2) has indicated that a Guidance, Procedure or Project has potential for differential / adverse impact.

All - Please complete Part 1 & 2

Part 1 – Initial Assessment

Overview, aims and purpose of this EIA Annex: This is an EIA annex (the **Annex**) to the SWP FRT EIA. This Annex relates to further considerations relevant to the Public Sector Equality Duty (PSED) in relations to the Equitability Study as further identified in the FRT Trial Plan Documents. It aims to identify considerations relevant to those with Protected Characteristics, mitigate the impacts which may arise from the Equitability Study, and assess the position in relation to the aims of the Equitability Study and the PSED. This EIA Annex is further supported by the SWP LFR pre-deployment documents, which are used to apply for, authorise and review an LFR Deployment.

Overview, aims, legal basis and purpose of the Equitability Study:

- [The importance of FRT to UK Law Enforcement and SWP:](#) Refer to Section C of the DPIA Annex.
- [The legal context to support the need for the Equitability Study:](#) Refer to Section C (para 5-6) of the DPIA Annex.

- [SWP position and rationale for the Equitability Study](#): Refer to Section C (para 7-13) of the DPIA Annex
- [An overview of the Equitability Study and its objectives](#): Refer to Section D of the DPIA Annex.

NOTE: Terms & Definitions: Unless otherwise defined in this FRT EIA Equitability Study Annex, capitalised terms shall have the meaning given to them (in priority order) in the SWP LFR DPIA Annex and the FRT Equitability Study Plan.

Part 2: Impact on Protected Characteristics

Policy/Action: Does this proposal / policy have any relevance to:			
Equality Groups	Positive	Adverse	Neutral
Age		X	
Disability		X	
Gender Reassignment		X	
Marriage/Civil Partnership			X
Pregnancy and Maternity			X
Race		X	
Religion or belief		X	
Sex Orientation			X
Sex		X	
Welsh			X

Part 3: Full Equality Impact Assessment

Is a Full Equality Impact Assessment Required?	YES	
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Part 4: Examination of available information

This document serves as an Annex for the EIA; please refer to the SWP FRT EIA for details. The SWP FRT EIA is maintained and periodically published to reflect the ongoing engagement and review of available materials. Points of particular relevance to the Equitability Study include:

- NIST Face Recognition Vendor Test (FRVT) Part 3: Demographic Effects
- SWP LFR Trial (lead by Cardiff University Police Science Institute)
- College of Policing APP- Live Facial Recognition.
- Court of Appeal – Bridges v Chief Constable of South Wales Police

- The Biometrics and Surveillance Camera Commissioner: The then Surveillance Camera Commissioner published 'Facing the Camera'.
- The ICO: The then Information Commissioner has issued an opinion (dated 31 October 2019) concerning the use of live facial recognition technology by law enforcement in public places

Part 5: EIA Action Plan Template Service Delivery Impacts

Potential positive / negative issues / impacts	Activity	Role Holder	Action By Date	Progress/Timescale/ Monitoring
<p>AGE / RACE / GENDER: Impacted</p> <p>The Equitability Study has a critical objective to evaluate the performance of facial recognition technologies in an operational setting in terms of (i) accuracy and (ii) equitability (bias) related to subject demographics. In line with the Equitability Study, the retrospective analysis will therefore focus of these demographics in order to assess if there is a performance differential associated with them when using FR technology in the operational environment.</p> <p>OTHER PROTECTED CHARACTERISTICS: Impacted</p> <p>The Equitability Study, on advice from the NPL as regards the ability to undertake operational testing, SWP is not testing affects of disability, disfigurement, gender</p>	<p>SWP ACCEPT THIS IMPACT BASED ON THE FOLLOWING CRITERIA:</p> <ul style="list-style-type: none"> • SWP has already undertaken considerable diligence and testing on NEC FR algorithms. The National Institute of Standards and Technology (NIST) have tested NEC algorithms. SWP pays regard to the tests undertaken by NIST on NEC algorithms and also undertakes its own operational tests. NIST noted that NEC has: <ul style="list-style-type: none"> <i>“provided an algorithm for which the false positive differential was undetectable”</i> and the NEC-3 algorithm <i>“is on many measures, the most accurate [NIST] have evaluated”</i>. • The Court of Appeal in ‘Bridges’ recognised this position, applying the ‘reasonable steps’ test, that the need to make enquiries as to the performance of the algorithm, focusing particularly on race and sex – conditioned on what is reasonable in the context: <ul style="list-style-type: none"> <i>“We acknowledge that what is required by the PSED is dependent on the context and does not require the impossible.</i> 	Digital Services Division	Complete	

<p>transition on facial recognition performance. Such individuals are not excluded from participating in the trials as cohort subjects, though data regarding disability, or disfigurement is not collected.</p>	<p><i>It requires the taking of reasonable steps to make enquiries about what may not yet be known to a public authority about the potential impact of a proposed decision or policy on people with the relevant characteristics, in particular for present purposes race and sex."</i></p> <p><i>"all police forces that intend to use [LFR] in the future would wish to satisfy themselves that everything reasonable which could be done had been done in order to make sure that the software used does not have a racial or gender bias."</i></p> <ul style="list-style-type: none">• The objectives of the Equitability Study will inform the policing use of FR tools and increased effectiveness when using FR tools to prevent, investigate, detect or prosecute criminal offences or seek to execute criminal penalties. It also ensures officers have a resilient basis, gained from research in the operational context make decisions drawing on how they could expect FR to perform in terms of their policing objectives and demographic performance when seeking to prevent threats to public security. This processing will therefore help shape decisions to Watchlist a subject for location, or run a search in circumstances by allowing greater regard to be had, based on the output of this work, for when law enforcement can expect			
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	<p>results should they decide to use FR (or the absence of results can also be understood, and be informative to investigative). Supporting quality decision making is a key aspect of the PSED, and this study will aid officers to do so – including understand any demographic differential in performance and the mitigations needed when procuring FR, designing policy for FR or supporting individual decisions using FR.</p> <p>TO REDUCE IMPACT SWP IMPLEMENTS THE FOLLOWING POSITIVE ACTION:</p> <ul style="list-style-type: none">• The FRT Equitability Study Plan: The creation and use of this document brings professional and scientific rigour to the testing process. Its publication (and other awareness raising measures outlined in this document) ensures that SWP is clear and transparent from the outset what data will be captured or otherwise processed, how it will be processed and why it will be processed. It ensures the study is bounded and limits the impact to what which is necessary in order to achieve the objectives.• Adherence to ISO standards: The evaluation will be conducted in accordance with international standards for testing and reporting the performance of biometric recognition systems: ISO/IEC 19795-1 and ISO/IEC 19795-2. In the terminology of the standards for biometric performance testing and reporting, the performance will be evaluated as a “technology evaluation”.			
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	<ul style="list-style-type: none">• Separation from operational policing investigations: During an operational Deployment, where volunteers are passing the LFR system, their images will be segregated from any operational Watchlist. Likewise, the operational Watchlist is not retained following the Deployment and therefore will not be subject to retrospective analysis of comingled with imagery from the Equitability Study. The retrospective analysis will be undertaken using dedicated images (comprising volunteer and MPS Form 3018 derived data) via the NPL and MPS TRI. This key point ensures segregation from operational policing and means there are no operational consequences to those subject to retrospective analysis – its purpose being purely research in connection with the Equitability Study. The team and processing is located away from operational investigations and uses dedicated IT resource to reinforce this position.• Ensuring value of the activity and maximising the value of the study to law enforcement and the assurance it can bring to those with protected characteristics: The design of the Equitability Study is such to ensure that this activity benefits not just SWP use case but informs RFR, OIFR and wider UK Law Enforcement activity. The use of a licence agreement for further testing ensures the safeguards outlines in the FRT Equitability Study Documents apply to ensure these standards as maintained. This study would not be possible without this data and the MPS is one of the few police forces, if not the only			
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	<p>police force, with the ability to generate a statistically significant research report.</p> <ul style="list-style-type: none">• Regular review: The Equitability Study will be subject to regular review to ensure it is in compliance with the FRT Equitability Study Plan and that remains necessary, proportionate and effective in achieving its objectives and that the control measures in the FRT Equitability Study Documents remain effective.• Approach to Volunteers to uphold individual rights: Where volunteers have received payment to recompense subjects for their participation, the exercise of individual rights will not result in the claw-back of any payment – this reflects the genuine choice volunteers have to participate and agree to their processing of data.• Managing the risk of exploitation: Whilst SWP has gone to great lengths to ensure the purpose and data processing involved in the Equitability Study is transparent – including publishing this EIA Annex and other documentation, it is mindful that there are potential risks to those with protected characteristics given criminals have the wherewithal to exploit knowledge of police tactics. This is especially relevant when considering topics covered by the Equitability Study include the FR performance in the context of age. With issues such as children being exploited by ‘County Lines’ criminality, the use of Part III of the Data Protection Act 2018 provides an appropriate law enforcement regime to protect the public and ensure the effectiveness of law enforcement activity.• Scientific and technical advice, including from industry leaders			
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	<p>such as the NPL regarding the viability and scope testing in relation to demographic differentials: The NPL have outlined their advice and rationale including the following:</p> <p><i>“In this evaluation we are not testing affects of disability, disfigurement, gender transition on facial recognition performance. Disabilities do not readily classify into a small number of similar categories or levels (unlike ethnicity, gender and age), and the statistical considerations to assess performance differentials would require a far larger cohort than can be addressed in this evaluation or any evaluation that could be viably undertaken by law enforcement in a way that would generate representative and applicable results when balanced against the volume of data processing and subjects that would need to be willing to be involved. When set against the typical law enforcement use case, it does not justify the need to undertake this research for limited further assurance to a necessity standard.”</i></p> <ul style="list-style-type: none">• Similar points arise in relation to other protected characteristics and these must be set in the context of what it is viable to test for in an operational context, and the ‘reasonable steps’ requirement in the PSED.			
AGE / RACE / GENDER:	SWP ACCEPT THIS IMPACT BASED ON THE FOLLOWING CRITERIA:	Digital Services Division Team	Complete	

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<p>Impacted</p> <p>The Equitability Study has an objective to evaluate the performance of facial recognition technologies in an operational setting in terms of (i) accuracy and (ii) equitability (bias) related to subject demographics. In line with the Equitability Study, the Filler Data and Volunteer Data composition will therefore focus of these demographics in order to assess if there is a performance differential associated with them when using FR technology in the operational environment. The MPS does not hold the same number of images for all demographics in order to conduct the Filler Data required. In order to ensure the study is statistically significant when it comes to demographic differential performance, as a percentage of total holdings for each demographic, certain holdings will draw more via the MPS Form 3018 process than others.</p>	<ul style="list-style-type: none"> SWP has already undertaken considerable diligence and testing on NEC FR algorithms. The National Institute of Standards and Technology (NIST) have tested NEC algorithms. The Met pays regard to the tests undertaken by NIST on NEC algorithms and also undertakes its own operational tests. NIST noted that NEC has: <ul style="list-style-type: none"> <i>“provided an algorithm for which the false positive differential was undetectable”</i> and the NEC-3 algorithm <i>“is on many measures, the most accurate [NIST] have evaluated”</i>. The Court of Appeal in ‘Bridges’ recognised this position, applying the ‘reasonable steps’ test, that the need to make enquiries as to the performance of the algorithm, focusing particularly on race and sex – conditioned on what is reasonable in the context: <ul style="list-style-type: none"> <i>“We acknowledge that what is required by the PSED is dependent on the context and does not require the impossible. It requires the taking of reasonable steps to make enquiries about what may not yet be known to a public authority about the potential impact of a proposed decision or policy on people with the relevant characteristics, in particular for present purposes race and sex.”</i> 			
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	<p><i>“all police forces that intend to use [LFR] in the future would wish to satisfy themselves that everything reasonable which could be done had been done in order to make sure that the software used does not have a racial or gender bias.”</i></p> <ul style="list-style-type: none">• The objectives of the Equitability Study will inform the policing use of FR tools and increased effectiveness when using FR tools to prevent, investigate, detect or prosecute criminal offences or seek to execute criminal penalties. It also ensures officers have a resilient basis, gained from research in the operational context make decisions drawing on how they could expect FR to perform in terms of their policing objectives and demographic performance when seeking to prevent threats to public security. This processing will therefore help shape decisions to Watchlist a subject for location, or run a search in circumstances by allowing greater regard to be had, based on the output of this work, for when law enforcement can expect results should they decide to use FR (or the absence of results can also be understood, and be informative to investigative). Supporting quality decision making is a key aspect of the PSED, and this study will aid officers to do so – including understand any demographic differential in performance and the mitigations needed when procuring FR, designing policy for FR or supporting individual decisions using FR.			
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	<p>TO REDUCE IMPACT SWP IMPLEMENTS THE FOLLOWING POSITIVE ACTION:</p> <ul style="list-style-type: none">• The FRT Equitability Study Plan: The creation and use of this document brings professional and scientific rigour to the testing process. Its publication (and other awareness raising measures outlined in this document) ensures that SWP is clear and transparent from the outset what data will be captured or otherwise processed, how it will be processed and why it will be processed. It ensures the study is bounded and limits the impact to what which is necessary in order to achieve the objectives. This is especially relevant to explain the process by which the level of filler data required has been determined, and how it is controlled and is outlined in particular at Section 6 of the Equitability Study.• Adherence to ISO standards: The evaluation will be conducted in accordance with international standards for testing and reporting the performance of biometric recognition systems: ISO/IEC 19795-1 and ISO/IEC 19795-2. In the terminology of the standards for biometric performance testing and reporting, the performance will be evaluated as a “technology evaluation”.• MPS Form 3018 processes: Data provided to Equitability Study via the MPS Form 3018 process. This articulates the necessity and proportionality for the data and is reviewed and approved by the MPS Data Protection Officer – with a legal role that includes consideration			
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	<p>of the interests of those who would form part of the Filler Data.</p> <ul style="list-style-type: none">• Pseudonymization: The filler data benefits from having data minimised (per Section E of the DPIA Annex) and each subject being referred to by a unique reference numbers (URN) rather than name. This helps protect identifies (not that the NPL is focused on seeking to identify subjects in the Filler Data and is separated from operational police systems and the Data Office where the URN reconciliation is held) The URN system means if the underlying record is deleted, the URN reference will be used to flag to the Equitability Study that a corresponding deletion of the probe image and meta-data is also required.• Separation from operational policing investigations: The retrospective analysis will be undertaken using dedicated images (comprising volunteer and MPS Form 3018 derived data) via the NPL and MPS TRI. This key point ensures segregation from operational policing and means there are no operational consequences to those subject to retrospective analysis – its purpose being purely research in connection with the Equitability Study. The team and processing is located away from operational investigations and uses dedicated IT resource to reinforce this position.• Ensuring value of the activity and maximising the value of the study to law enforcement and the assurance it can bring to those with protected characteristics: The design of the Equitability Study is such to ensure that this activity benefits not just SWP LFR use case			
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	<p>but informs RFR, OIFR and wider UK Law Enforcement activity. The use of a licence agreement for further testing ensures the safeguards outlines in the FRT Equitability Study Documents apply to ensure these standards as maintained.</p> <ul style="list-style-type: none"> • Regular review: The Equitability Study will be subject to regular review to ensure it is in compliance with the FRT Equitability Study Plan and that remains necessary, proportionate and effective in achieving its objectives and that the control measures in the FRT Equitability Study Documents remain effective. • Awareness measures: The awareness raising measures (including signage at the location, SWP website, SWP social media, published documents) represent a reasonable approach in the circumstances to making those who have had a custody image taken aware that that data may be used as part of the filler dataset for research purposes SWP will also publish its findings to ensure the benefit and learning is available to all. 			
<p>THE PUBLIC:</p> <p>Impacted</p> <p>Public engagement has identified concerns regarding the ethical and legal use of</p>	<ul style="list-style-type: none"> • The equitability study, and ability to offer real-world assurance responds to these concerns. • The objectives of the Equitability Study will inform the policing use of 			

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<p>personal data, intrusiveness and unlawful targeting of individuals and/or groups.</p>	<p>FR tools and increased effectiveness when using FR tools to prevent, investigate, detect or prosecute criminal offences or seek to execute criminal penalties. It also ensures officers have a resilient basis, gained from research in the operational context make decisions drawing on how they could expect FR to perform in terms of their policing objectives and demographic performance when seeking to prevent threats to public security. This Equitability Study will therefore inform officer decision, and through published findings, assure and inform the public as to how SWP understands and uses its FR technology to the public safe.</p> <ul style="list-style-type: none">• Public and Community Impact have been addressed in the completion of a DPIA Annex, the Equitability Study Trial Plan, and will be supported by consideration of the study objectives during the Community Impact Assessment (on a per Deployment basis).			
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Part 6: Ensure Monitoring and review arrangements are put in place

How will the implementation of the proposal / policy be monitored and by whom?

SWP Facial Recognition Technology Board. This board meets on a regular basis. The Chief Superintendent of Digital Services Division currently chairs the SWP Facial Recognition Technology Board. This board is attended by a variety of key stakeholders and SME's from across SWP and partners including those from operational, technical, legal, community engagement and data protection. SWP Facial Recognition Technology Board will continue to take place to provide oversight and scrutiny. It will also ensure continued compliance with the Equitability Study Trial Plan, Data Protection Act 2018 and the Equality Act 2010.

All Public Authorities such as South Wales Police (SWP) have to comply with section 149 of the Equality Act 2010 more commonly known as the General Duty.

The Duty requires us to:

- **Eliminate discrimination, harassment and victimisation and any other conduct that is prohibited by or under the Act.**
- **Advance equality of opportunity between people who share a relevant protected characteristic and people who do not share it.**
- **Foster good relations between people who share a relevant protected characteristic and those who do not share it.**

One of the ways we can demonstrate that we are complying with the General Duty is to document how decisions are reached and resulting activities including monitoring and review arrangements. In SWP, the way we evidence this is by completing EIAs.

What is the timetable for monitoring, with dates?

The Facial Recognition Technology Board meet on alternatives months or such other frequency as may be deemed appropriate by the chair. This ensures that any actions raised can be met in a timely manner and any issues surrounding compliance can also dealt with expeditiously.

Part 7: Public availability of reports / result. What are the arrangements of publishing, where and by whom?

This document will be available on both SWP internal intranet (BOB) and the SWP FRT external facing website.

Part 8: Approval and Sign Off

This Full Equality Impact Assessment was completed by:		
Name	Position	Date
Chief Inspector Scott Lloyd	Project Oversight	01/07/2022

This Full Equality Impact Assessment was authorised by:		
Name	Position	Date

Appendix A

Amendment Log

1. Use this table to record and explain any decisions / amendments made during the development or review of the Guidance, Procedure or Project.

Decision / Amendment	Rationale / Explanation of Action taken	Authorise By

2. Record of responses received during the **consultation** process.

Consultee	Comment / Response	Action and Rationale