NDAS

An overview

November 2019








NCA
National Crime Agency

DIGITAL POLICING PORTFOLIO

Agenda

1. Introduction

2. Project Overview

NDAS: An Overview Across Phases

NDAS has run across 2 phases to date and is currently in its 3rd (Acceleration) Phase

Strategic Phase

Dec 2016 → Mar 2017

ON-GOING ENGAGEMENT

- **9 NDAS founding partners** with 4 forces sharing data
- Wider **Public Sector engaged** throughout
- PTF **Business Case Submitted** & **Permission granted** to kick start NDAS

Foundation Phase

Aug 2018 → Mar 2019

USE CASE 1 – Most Serious Violence (MSV)

Predicting those nominals most likely to commit a first time knife or firearms offence, enabling early interventions

Result: 73% precision rate

USE CASE 2 – Workforce Wellbeing (WW)

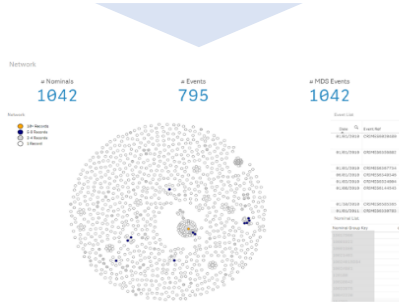
Predicting those employees most at risk of taking long term sick leave, enabling interventions and workforce planning

Result: 44% precision rate

USE CASE 3 – Modern Slavery (MS)

Descriptive analytics and Natural Language Processing (NLP) to build a network view of Modern Slavery related nominals

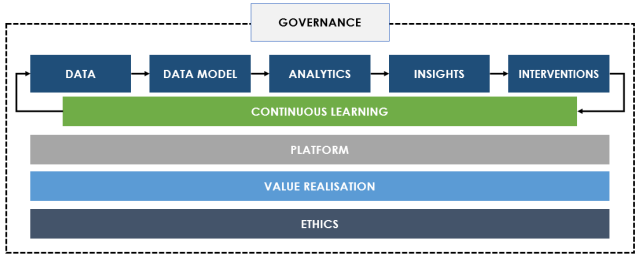
Result: NLP identified 23K nominals previously untagged as MS



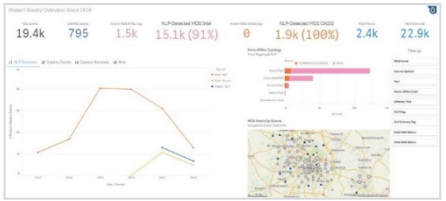
Acceleration Phase

Jul 2019 → Present

Operationalise
NDAS use cases (MSV & MS) for data sharing forces



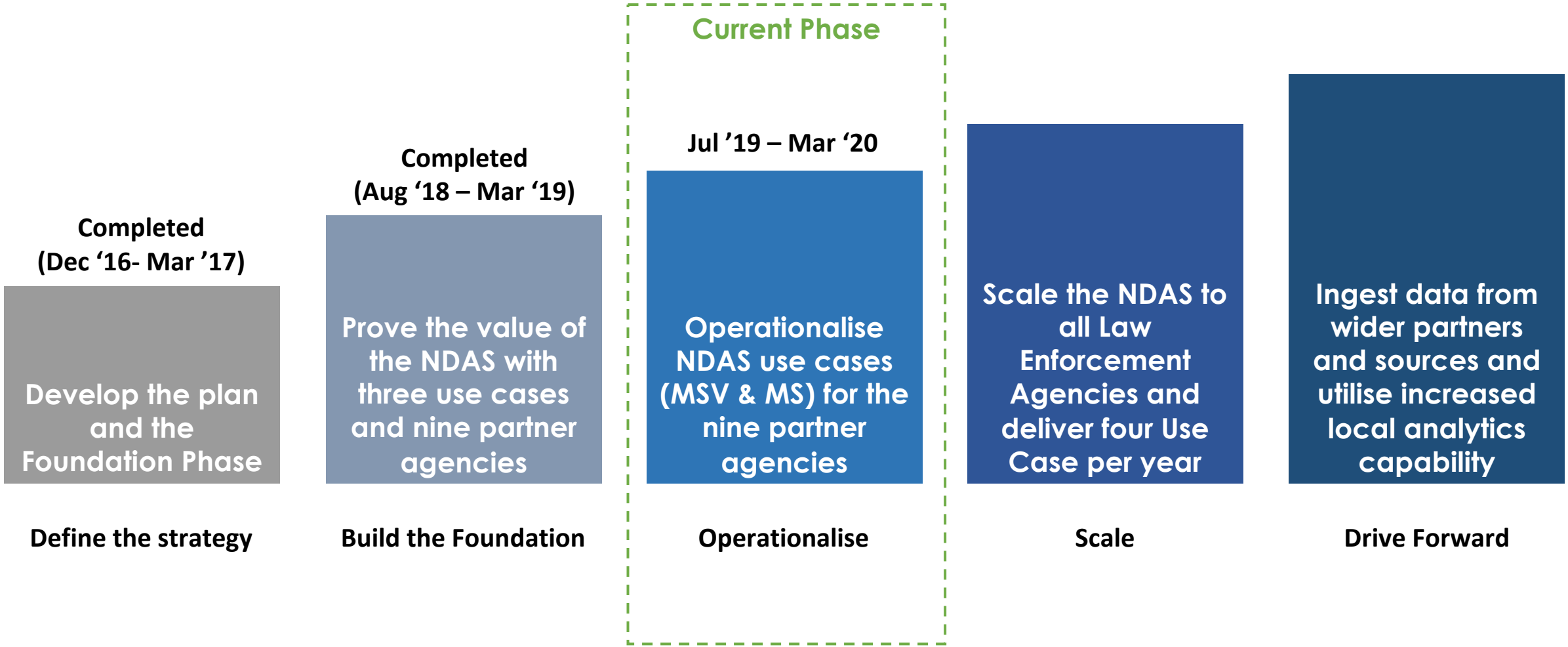
Dashboard Development
Testing and refining for end-user adoption



Insight & Interventions
Using analytics insights to develop a tool kit of possible interventions aligned to an **Ethical Framework**

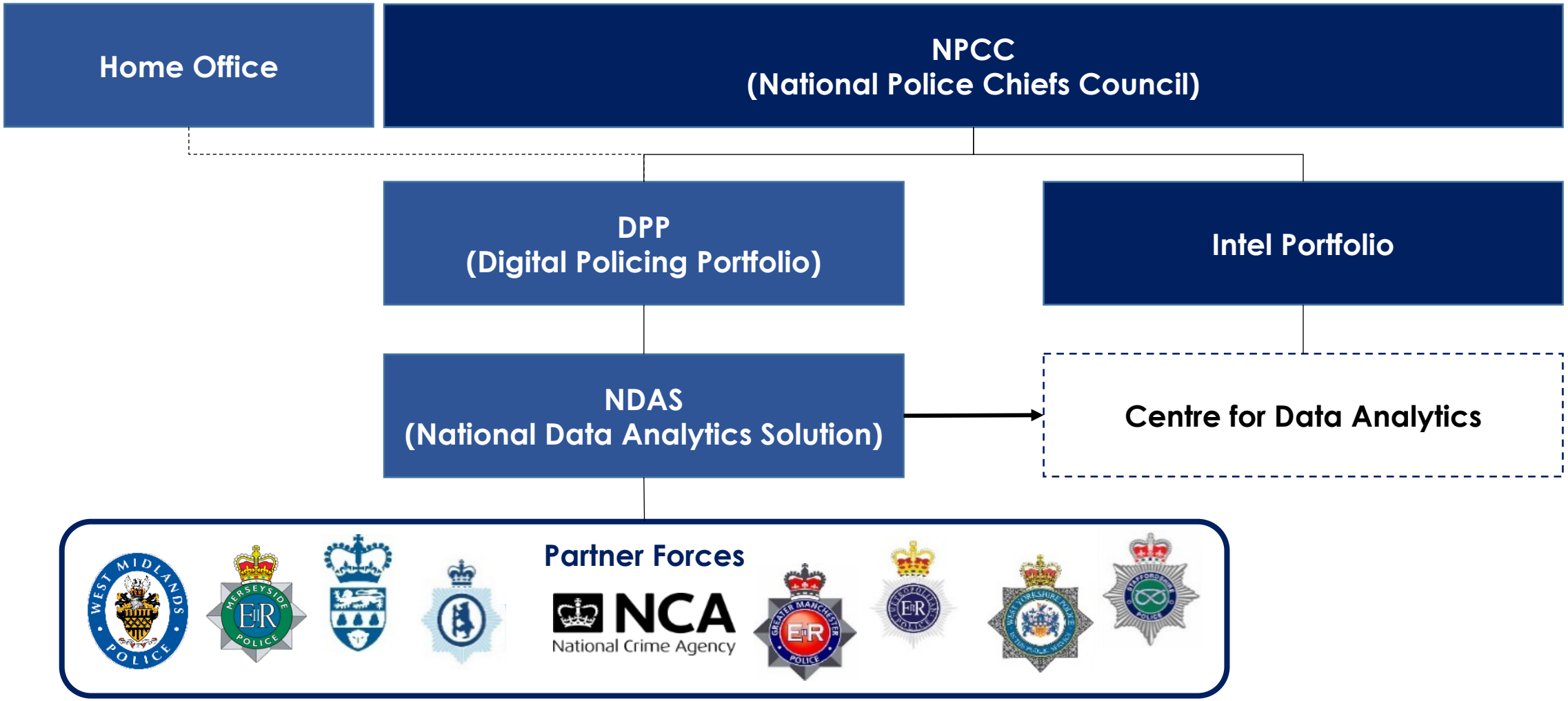
The NDAS Journey

In each phase, the capabilities of NDAS increase as its design and operating model matures



NDAS & DPP

NPCC are delivering NDAS through the DPP for the Intel Portfolio ambition for Centre of Data Analytics



3. Most Serious Violence

Most Serious Violence (MSV)

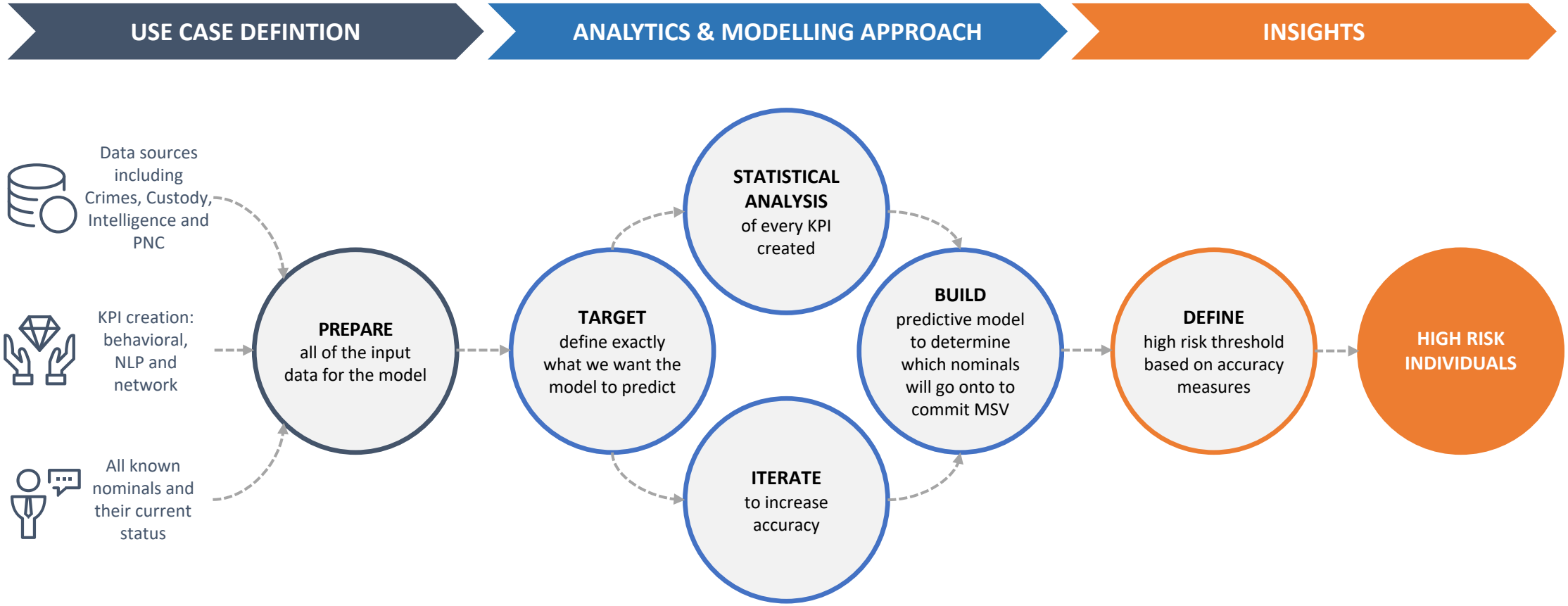
This use case aims to predict which individual nominals, who are already known to the police, are likely to commit their first most serious violence offence with a gun or a knife in the next 24 months. The model we have built takes nominals as inputs and outputs a propensity score which can then be analysed and actioned by police forces

USE CASE DEFINTION → ANALYTICS & MODELLING APPROACH → INSIGHTS

Key Predictive Indicators (KPIs)	Risk Score
Create key predictive indicators (KPIs) that highlight the likelihood of someone, already known to the police, committing their first Most Serious Violence offence. Although interventions are not in scope for the NDAS Foundation Phase, it is hoped that these KPIs will kickstart this conversation.	Calculate a risk score to show the likelihood of an individual committing a first time serious violence offence involving a knife or gun within the next five years, based on the individual's previous interactions with the police.

MSV Overview

The most serious violence use case looks to use statistical analysis to identify factors that lead to someone committing their first most serious violence offence. These factors can then be applied to a wider police dataset to identify people who match a number of these key predictive factors but have not yet committed a knife or gun MSV offence. Through applying these factors, the model can output a propensity score which police forces can chose to action as a piece of intelligence

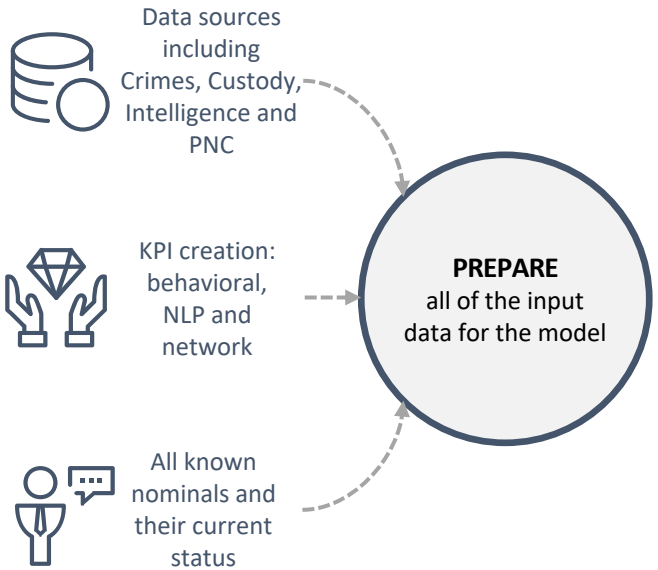


West Midlands Police

MSV Modelling Approach West Midlands Police

Processing 2.4million individuals has led to huge computational run times, especially when trying to identify such a small proportion of people. The most effective way to increase the model efficiency and the proportionality of MSV offenders has been to remove any person with historical crime severity score less than 128 based on the policing advice that low risk offenders are unlikely to escalate to become serious violence offenders

USE CASE DEFINTION | **ANALYTICS & MODELLING APPROACH** | INSIGHTS



2,427,693* people

1,317 commit MSV**

People with a severity score of >128

1,103,067 people

1,177 commit MSV

1,324,626 people

140 commit MSV

In order to train and test the accuracy of the model, this population was split into 3 groups:

TRAINING
70% of all nominals with a crime recorded before 2014-01-01

TESTING
30% of all nominals with a crime recorded before 2014-01-01

OUT OF TIME TESTING
all nominals with a crime recorded between 2014-01-01 and 2016-01-01

By filtering people with low severity, the overall population size is reduced by half with the only impact being that 140 of the target MSV population is not used for training the model.

*Unique number of nominals known in the crimes database by 2016-01-01
**Number of nominals who go onto to commit an MSV within 24 months of their latest crime record reported between 2014-01-01 and 2016-01-01

MSV Insights Key Predictive Indicators West Midlands Police

The model has identified more than 20 key predictive indicators, which when combined together create a risk profile for nominals.

Behavioural Network NLP

USE CASE DEFINTION → ANALYTICS & MODELLING APPROACH → INSIGHTS

TOP 14 KEY PREDICTIVE INDICATORS

1. **Age.**
   The age of the nominal at the time of their most recent crime
2. **Days Since First Record.**
   The number of days since the first recorded IMS, ICIS or crime report
3. **Total Weight Of Connected Harm for Previous Month.**
   Every nominal has a harm weight value attached to each of their connections to other nominals. This is the sum of those weights for the previous month.
4. **Total Number Of Previous Records Weighted By Recency.**
   The total number of ICIS, IMS or crimes recorded for a nominal weighted by recency
5. **Days Since First Crime.**
   The number of days since a nominals first crime has occurred
6. **Days Since First Crime As Victim.**
   The number of days since the first time the nominal was reported as a victim of crime
7. **Sum Of Crime Severity.**
   The sum of the nominal's severity scores for each of their crimes
8. **Sum Of Crime Severity Weighted By Recency.**
   The sum of the nominal's severity scores for each of their crimes, where crimes further back in the past are weighted lower than more recent crimes
9. **Max Connections To Other Nominals In The Previous 2 Years.**
   This is the maximum count of links a nominal has to other nominals over the previous 24 months.
10. **Minimum Crime Severity.**
    The score of least severe crime committed by the nominal
11. **Recency Of Custody Arrests.**
    The frequency of ICIS reports relating to arrests with log recency applied
12. **Number Of Custody Arrests In The Previous 48 Months.**
    The frequency of ICIS reports relating to arrests over the last 48 months
13. **Max Page Rank Value For The Previous Month.**
    Every nominal has a page rank value. This is the page rank value for the previous month.
14. **Frequency Of Knife Mentions**
    Maximum number of mentions of "knife" in intelligence reports weighted by recency

MSV Insights High Risk Nominals West Midlands Police

The model outputs a list of people with their propensity score based on how many of the risk factors that person meets. A threshold score needs to be set where people above this score are considered 'high risk'. If this value is set too high, not enough data can be presented to make the model useful, if it is set too low, police forces will have too many people who require further investigation or intervention. Police forces can chose where to draw this cut off mark

USE CASE DEFINTION → ANALYTICS & MODELLING APPROACH → INSIGHTS

DEFINE high risk threshold based on accuracy measures

HIGH RISK CUT OFF

	60%	70%	80%	82%
Number of predicted high risk nominals	2016	705	200	136
Number of nominals that went on to commit MSV within 24 months	371	240	101	74
Precision % high risk nominals that committed MSV	18.4%	34.0%	50.5%	54.4%
Recall % of nominals identified out of the total MSV offenders	30.8%	19.9%	8.4%	6.1%

HIGH RISK INDIVIDUALS

Our models predicted **136 high risk nominals**. Of this **136** nominals…

- **74** — **MSV Offender.** Charged with committing MSV
- **8** — **MSV Suspect.** Suspected but not charged with MSV
- **53** — **Criminal Activity.** No involvement in MSV crime but involved in other crimes
- **1** — **No further activity.** No criminal activity after Jan 2017

West Yorkshire Police

Modelling Approach West Yorkshire Police

Processing 1.1 million individuals has led to huge computational run times, especially when trying to identify such a small proportion of people. The most effective way to increase the model efficiency and the proportionality of MSV offenders has been to remove any person with historical crime severity score less than 128 based on the policing advice that low risk offenders are unlikely to escalate to become serious violence offenders

USE CASE DEFINTION | **ANALYTICS & MODELLING APPROACH** | INSIGHTS

Data sources including Crimes, Custody, Intelligence and PNC

KPI creation: behavioral, NLP and network

All known nominals and their current status

PREPARE
all of the input data for the model

881,631* people

781 commit MSV**

People with a severity score of >128

376,836 people

687 commit MSV

504,795 people

94 commit MSV

In order to train and test the accuracy of the model, this population was split into 3 groups:

TRAINING
70% of all nominals with a crime recorded before 2014-01-01

TESTING
30% of all nominals with a crime recorded before 2014-01-01

OUT OF TIME TESTING
all nominals with a crime recorded between 2014-01-01 and 2016-01-01

*Unique number of nominals known in the crimes database by 2016-01-01
**Number of nominals who go onto to commit an MSV within 24 months of their latest crime record reported between 2014-01-01 and 2016-01-01

MSV Insights Key Predictive Indicators West Yorkshire Police

The model has identified more than 20 key predictive indicators, which when combined together create a risk profile for nominals.

Behavioural Network NLP

USE CASE DEFINTION → ANALYTICS & MODELLING APPROACH → INSIGHTS

TOP 14 KEY PREDICTIVE INDICATORS

1. **Days Since First Record.**
   The number of days since the first recorded IMS, ICIS or crime report
2. **Days Since First Crime.**
   The number of days since a nominals first crime has occurred
3. **Age.**
   The age of the nominal at the time of their most recent crime
4. **Total Weight Of Connected Harm for Previous Month.**
   Every nominal has a harm weight value attached to each of their connections to other nominals. This is the sum of those weights for the previous month.
5. **Average Page Rank Value.**
   Every nominal has a page rank value. This is the average page rank value for all previous records.
6. **Minimum Crime Severity.**
   The score of least severe crime committed by the nominal
7. **Minimum Weight Of Connected Harm for Previous Month.**
   Every nominal has a harm weight value attached to each of their connections to other nominals. This is the minimum of those weights over the previous month.
8. **Days Since First Crime As Victim.**
   The number of days since the first time the nominal was reported as a victim of crime
9. **Maximum Crime Severity.**
   The score of least severe crime committed by the nominal
10. **Total Page Rank Value in the Previous 24 Months.**
    Every nominal has a page rank value. This is the sum of all page rank values for all previous records over the last 2 years.
11. **Minimum Weight Of Connected Harm for Previous 12 Months.**
    Every nominal has a harm weight value attached to each of their connections to other nominals. This is the minimum of those weights over the previous year.
12. **Number Of Custody Arrests In The Previous 48 Months.**
    The frequency of ICIS reports relating to arrests over the last 48 months
13. **Total Number Of Previous Records Weighted By Recency.**
    The total number of ICIS, IMS or crimes recorded for a nominal weighted by recency
14. **Frequency Of Knife Mentions**
    Maximum number of mentions of “knife” in intelligence reports weighted by recency

MSV Insights High Risk Nominals West Yorkshire Police

The model outputs a list of people with their propensity score based on how many of the risk factors that person meets. A threshold score needs to be set where people above this score are considered 'high risk'. If this value is set too high, not enough data can be presented to make the model useful, if it is set too low, police forces will have too many people who require further investigation or intervention. Police forces can chose where to draw this cut off mark

USE CASE DEFINTION → ANALYTICS & MODELLING APPROACH → INSIGHTS

DEFINE
high risk threshold based on accuracy measures

HIGH RISK CUT OFF

	50%	60%	70%
Number of predicted high risk nominals	1187	383	134
Number of nominals that went on to commit MSV within 24 months	183	143	99
Precision % high risk nominals that committed MSV	15.4%	37.9%	73.9%
Recall % of nominals identified out of the total MSV offenders	26.6%	21.1%	14.4%

HIGH RISK INDIVIDUALS

Our models predicted **134 high risk nominals**. Of this **134** nominals…

- **99** — **MSV Offender.** Charged with committing MSV
- **1** — **MSV Suspect.** Suspected but not charged with MSV
- **28** — **Criminal Activity.** No involvement in MSV crime but involved in other crimes
  - **14** — **Criminal Offender Activity.** No involvement in MSV crime but involved in other crimes as the offender
  - **4** — **Serious Criminal Offender Activity.** Offender severity greater than 1000
- **6** — **No further activity.** No criminal activity 24 months following their latest record

Dashboard Example

KPI Cross-Analysis

High Risk Nominals
136

Select KPI 1:

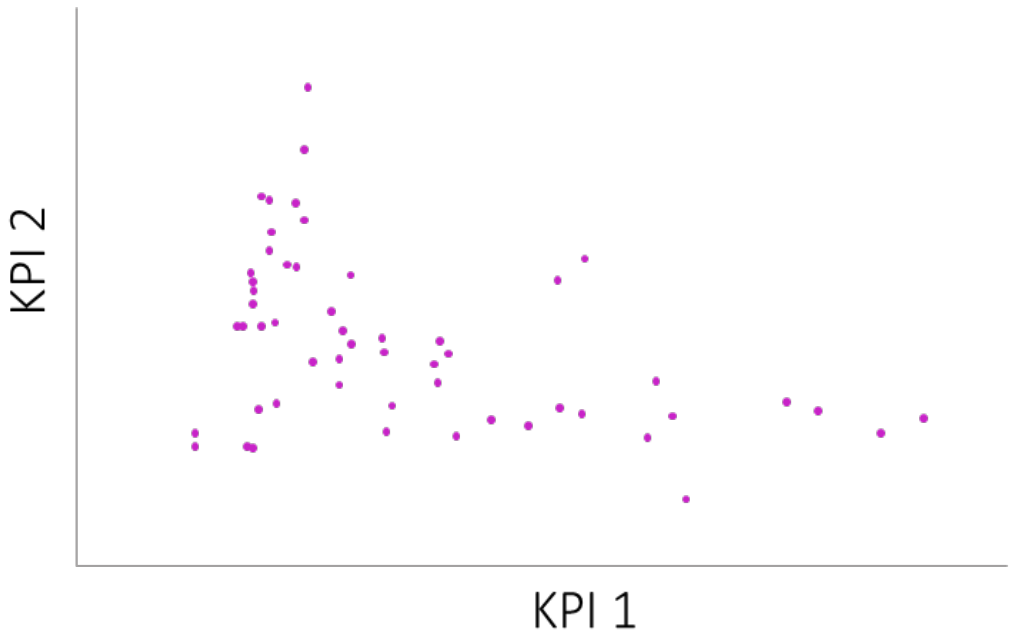
Select KPI 2:

KPI Correlation

	KPI1	KPI2	Target Correl
1	Age	Days Since First Record	0.71
2	Days Since First Record	Total Number Of Previous Records Weighted By Recency	0.62
3	Total Number Of Previous Records Weighted By Recency	Maximum Crime Severity	0.43
4	Maximum Crime Severity	Minimum Crime Severity	0.38
5	Minimum Crime Severity	Sum Of Crime Severity	0.12
6	Sum Of Crime Severity	Age	0.11

KPI Cross-Analysis

Select KPI 1 (x axis) and KPI 2 (y axis) to see their correlation



KPI Distribution

KPI Correlation

NLP KPIs

Network KPIs

MSV Wireframe Screenshots - WIP

NDAS Most Serious Violence - Acceleration Phase Violence Prevention | Edit | My new sheet

No selections applied | Insights

Interactive Network

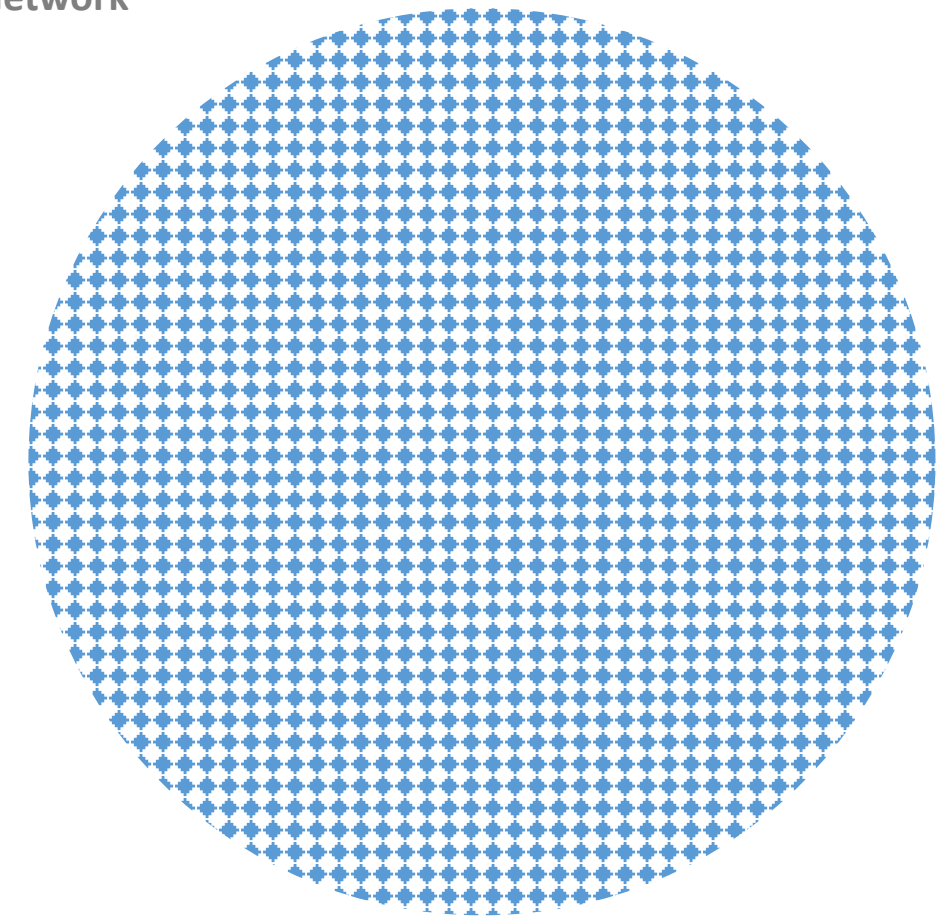
Nominal Filters:

- Connected Off Sev:
- Model Risk Level:
- Current Age:
- Ever MSV Vic Flag:
- Ever MSV Flag:

Event Filters:

- Time frame:
- MSV Flag:
- Weapon Type:
- Offence Type:
- Nominal Event Role:

Nominal Network



Total Nominals
612

High Risk Nominals
136

Total Records
1498

Crimes
431

Intel
1067

Generate Network

Create Detail App

Can also include jump to nominal profile if within model?

MSV Wireframe Screenshots - WIP

NDAS Most Serious Violence - Acceleration Phase Violence Prevention

Edit | My new sheet | Insights

Distance from MSV: <4 | Prev_Total_Weight_Degree : >5

Interactive Network

Nominal Filters:

- Distance From MSV:
- Prev_Total_Weight_Degree:
- Page Rank:
- Connected Off Sev:
- Ever MSV Vic Flag:
- Current Age:
- Ever MSV Flag:
- Model Risk Level:

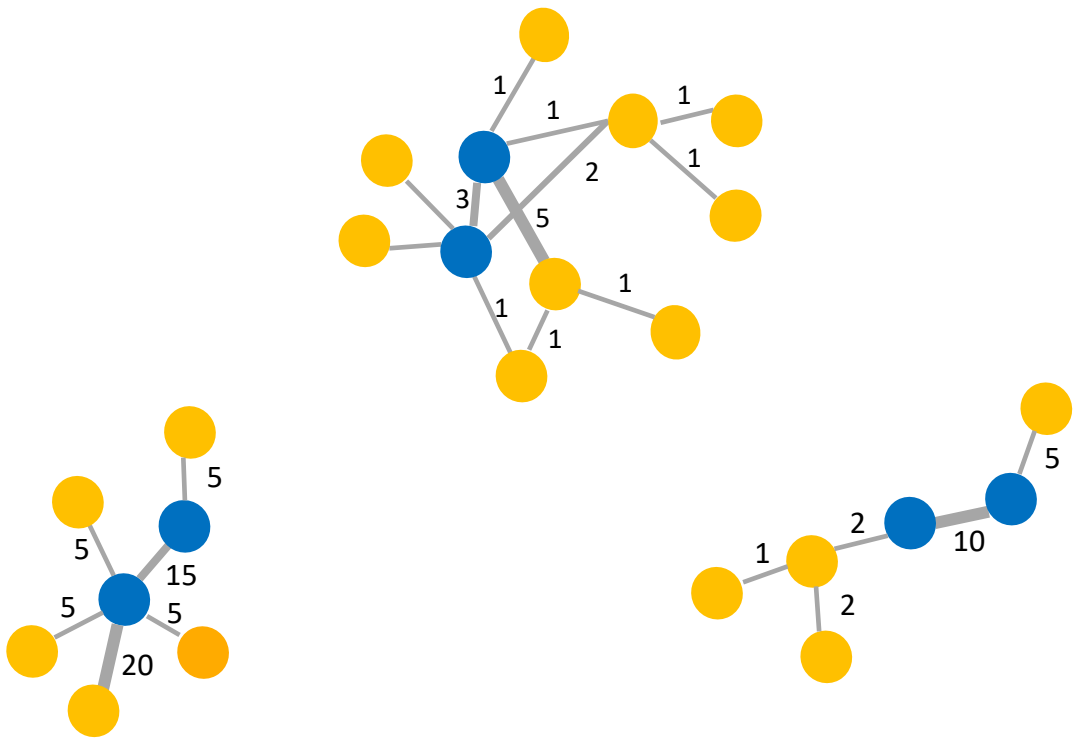
Event Filters:

- Time frame:
- MSV Flag:
- Weapon Type:
- Offence Type:
- Nominal Event Role:

Nominal Network

Involved in MSV:
- No
- Yes

Filtering for high total weight degree retains only nominals with summed connection weights of 5 and above, plus their primary connections.
As connection weight is a function of severity, event type and recency, this is a more powerful metric than connected harm



Total Nominals
612

High Risk Nominals
136

Total Records
1498

Crimes
431

Intel
1067

Generate Network

Create Detail App

NDAS Most Serious Violence - Acceleration Phase

Edit | My

Offender mgmt. dashboard

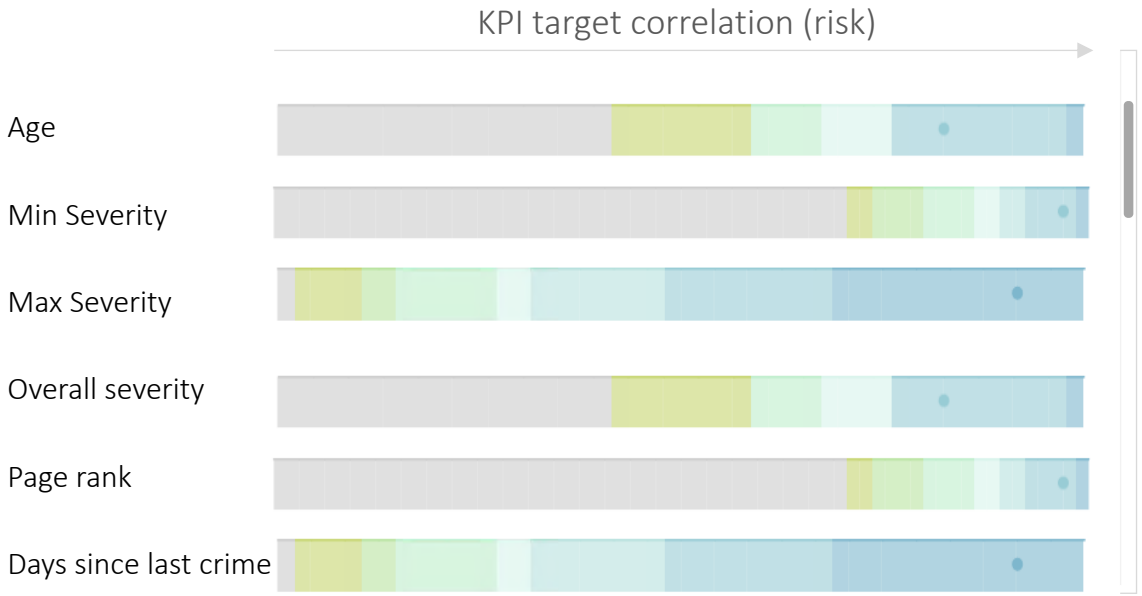
No selections applied

Nominal Profile

Nominal Key	Model Output	Total Records
ABCD1234	0.93	17

Behavioural KPIs | NLP KPIs | Network KPIs

Predictive strength per KPI



Timeline

Event History

REF	Date	Source	Detail
1	22/03/2018	Crime	Theft Shop or Stall
2	13/01/2018	Intel	*Intel log detail text here*
3	11/08/2017	Crime	Possess F/ARM
4	05/08/2017	Crime	Malicious Wounding
5	24/04/2017	Crime	Theft Shop or Stall
6	03/04/2015	Crime	Theft Shop or Stall

4. Modern Slavery

Modern Slavery – West Yorkshire Police

Modern Slavery is an exploratory use case, with the objective of uncovering previously unknown insight related to the offence. Through strong SME engagement the pod were able to develop a solution incorporating a number of Data Science methodologies.

USE CASE DEFINTION → ANALYTICS & MODELLING APPROACH → INSIGHTS

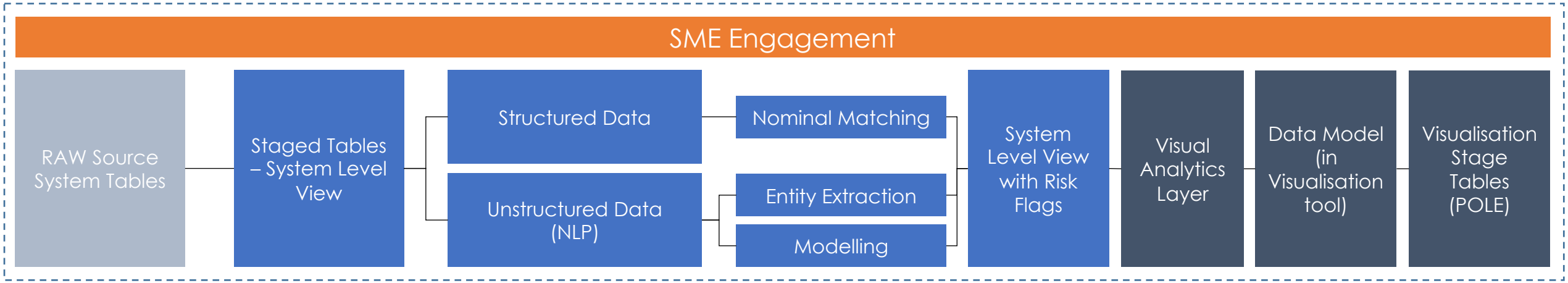
Use Case Goal

Using a Network based approach, we will connect POLE (People, Objects, Locations, Events) related to known MS cases across the Partner Forces. We will utilize this Network information as a foundation to discover previously unidentifiable MS patterns and trends.

Modern Slavery – West Midlands Police

Starting with raw extract file from source systems, millions rows of data have been processed through Nominal Matching and Natural Language Processing, as well as pre-defined logical equations, to form a single visual analytics layer

USE CASE DEFINTION | **ANALYTICS & MODELLING APPROACH** | INSIGHTS



64 tables across **6 source systems**

Match nominals across systems, **from 4.9m~ to 3.8m~**

NLP used to uncover possible cases of MS with **2.2m case notes** assessed, as well as **1.6m~ VRMs** and **2.6m~ Telephone #s** extracted

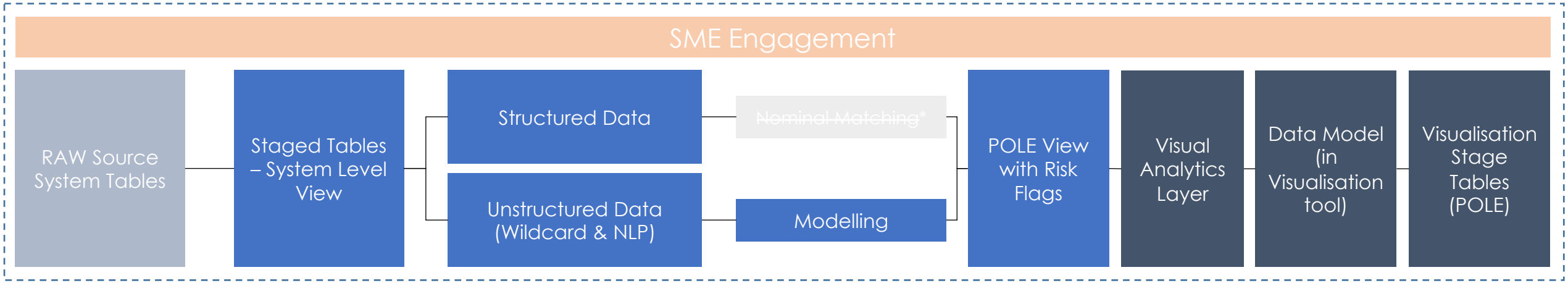
Visualisation Stage Tables, providing a consolidated view of systems, nominal matching, NLP and Risk Factors

1 Visual analytics layer to drive insight and enable exploration

Modern Slavery – West Yorkshire Police

Starting with raw extract file from source systems, millions of rows of data have been processed through the analytical model formed from WYP engagement, to form a visual analytics layer

USE CASE DEFINTION | **ANALYTICS & MODELLING APPROACH** | INSIGHTS



4 occurrence types based on Niche extract

Nominal matching was not deemed necessary due to ***Nominal consolidation from Niche**

Initial modelling has been formed to work towards **HO Typology**

Visualisation Stage Tables, providing a consolidated view of occurrence types, nominals, modelling and Risk Factors

1 Visual analytics layer to drive insight and enable exploration

West Midlands Police

Modern Slavery – West Midlands Police

Building the solution for the Modern Slavery use case has led to a number of successes

USE CASE DEFINTION → ANALYTICS & MODELLING APPROACH → **INSIGHTS**

Key Successes

Network Degree	**15,000 MS Intel Logs**	**6 data source** systems have been converted into **3 key data tables**
For the MS nominals that WMP are aware of, network analytics have been able to identify that on average an MS nominal is connected to **54 nominals**	Through NLP Text Modelling we identified **15,000*** **intelligence logs** related to Modern Slavery that were **not previously tagged** – this went on to identify an extra **17,000 nominals**	Consolidation of different data sources reduced insight generation for MS analysts **from 200 hours** to only a few minutes**

**These are the combinations of words that have been identified scientifically as well as manually as prominent words in tagged MS cases, as well as definite MS cases tagged by the team's analysis.
*200 hours are a number quoted by an MS analyst as an example of how long it took to form an MS report.

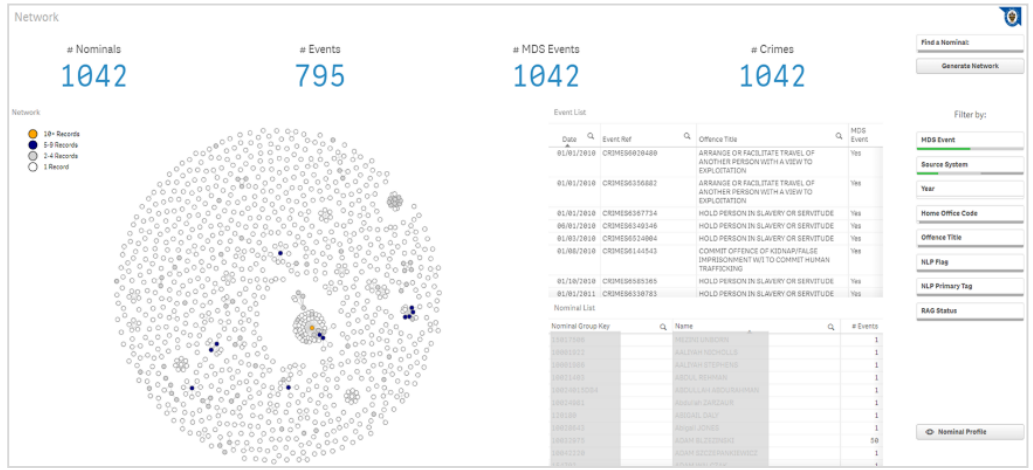
Modern Slavery – West Midlands Police

Deliver a single visual analytics layer that provides high-level insight into Modern Slavery, as well as enabling operational officers with the ability to drill down into the detail of Modern Slavery cases.

USE CASE DEFINTION → ANALYTICS & MODELLING APPROACH → **INSIGHTS**

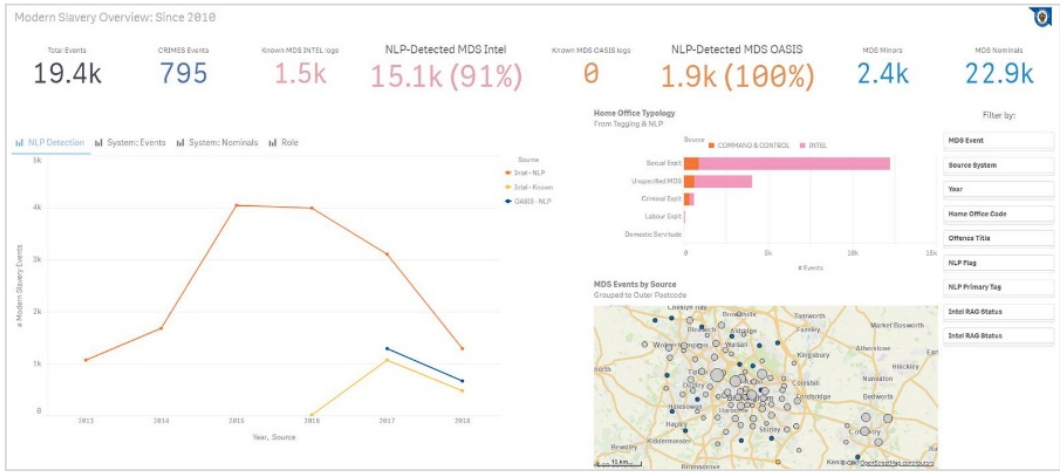
The insights for the MS use case have been built out into a visualisation dashboard

Strategic Insight



Networks

Operational Insight



Individuals

West Yorkshire Police

Modern Slavery – West Yorkshire Police

Building the solution for the Modern Slavery use case has led to a number of successes

USE CASE DEFINTION → ANALYTICS & MODELLING APPROACH → **INSIGHTS**

Key Successes

Network Analytics	11,900 MS Intel Logs	**4 occurrence types** within Niche have been converted into **3 key data tables**
For the events deemed to be MS related, network analytics identified **53 Operations**, which connected to **5,504 Nominals** – resulting in a ratio of **1:104**	Through NLP Text Modelling we identified **11,900*** **intelligence logs** related to Modern Slavery that were **not previously tagged** – this went on to identify **23,600 nominals**	Through SME engagement, the pod were able to consolidate **4 occurrence types into 3 base tables**. This enabled exploration of the data via **Risk Factors**, reducing time to **insight from 200 hours** to only a few minutes**

*These are the combinations of words that have been identified scientifically as well as manually as prominent words in tagged MS cases, not inclusive of events deemed as MS by WYP SMEs.
**200 hours is a number quoted by an WYP MS analyst as an example of how long it took to form an MS report.

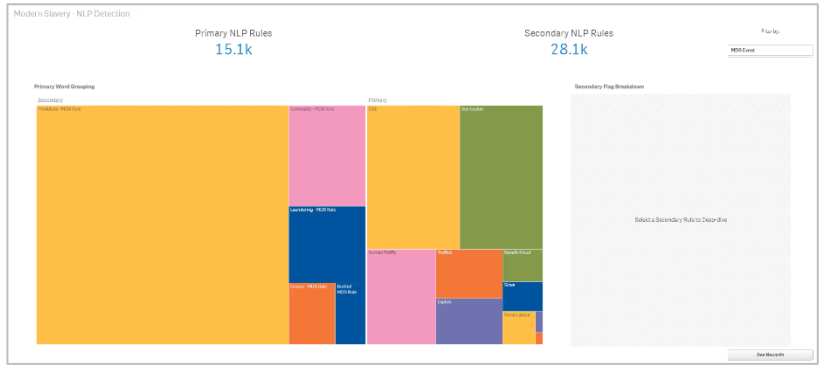
Modern Slavery – West Yorkshire Police

Deliver a single visual analytics layer that provides high-level insight into Modern Slavery, as well as enabling operational officers with the ability to drill down into the detail of Modern Slavery cases.

USE CASE DEFINTION → ANALYTICS & MODELLING APPROACH → **INSIGHTS**

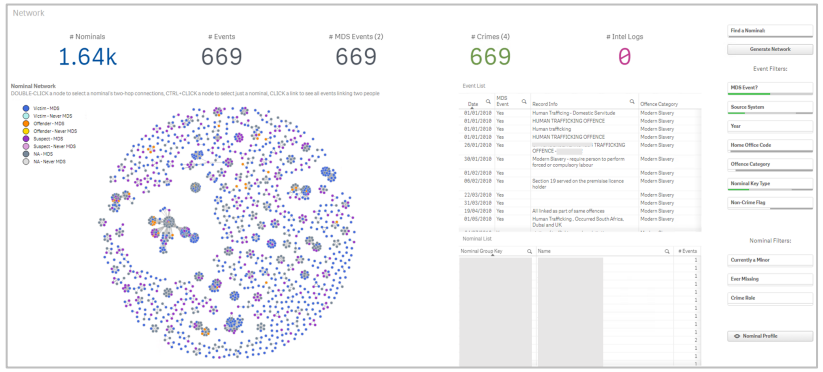
The insights for the MS use case have been built out into a Qlik Sense dashboard

Strategic Insight

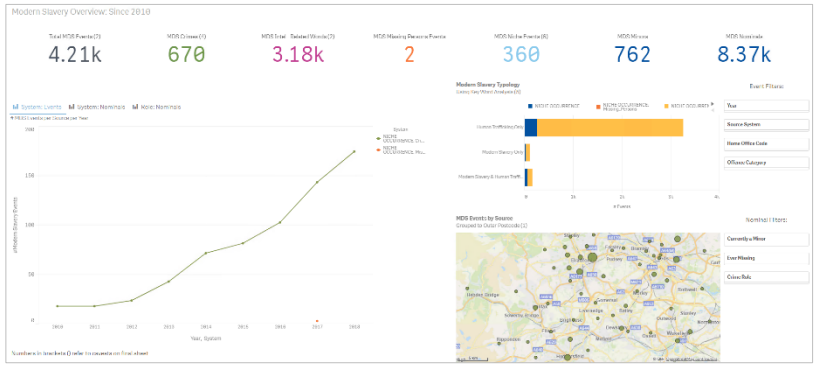


Trends

Operational Insight



Networks

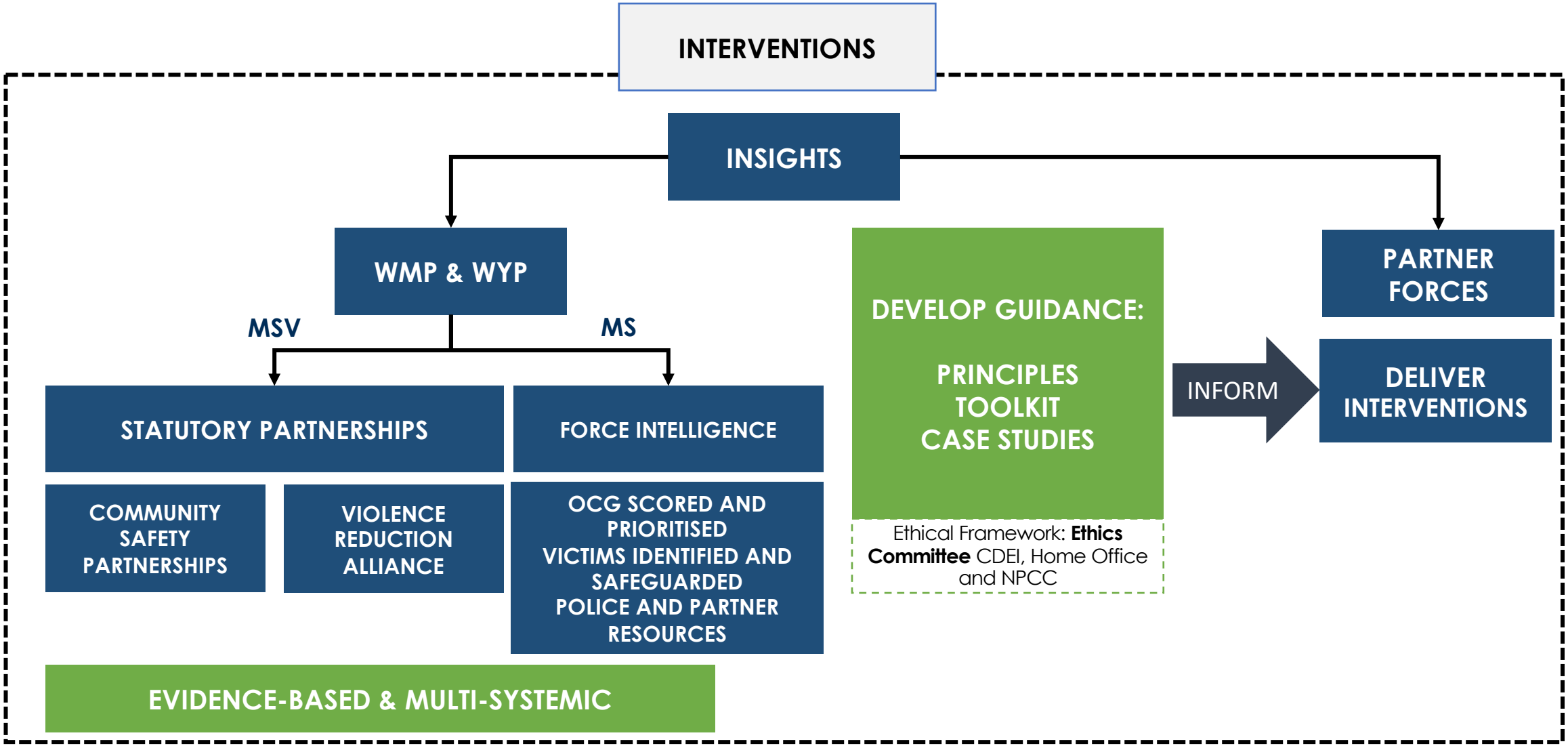


Individuals

5. Interventions

Delivering Interventions

The delivery of interventions in this phase will be based on defined principles of the use of data analytics, including ethical considerations, and will be evidence-based



Interventions Update Deep Dive - Summary PoC Results Analysis - WMP

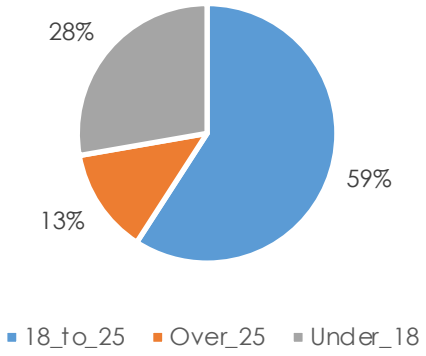
Following the Most Serious Violence PoC the results have been analysed to support and guide next steps and defining interventions

Summary of Findings for MSV PoC

1. The majority of nominals in the high scoring list are **male, under 25's**
2. The nominals in the high scoring list are from **a mix of ethnicities**, primarily White Northern European, Black and Asian
3. The **true positives** showed a **higher proportion** of **over 25's** in the distribution of age grouping compared to high-scoring false positives
4. **Gender and ethnicity** distributions are **similar** for high-scoring true positives and high-scoring false positives

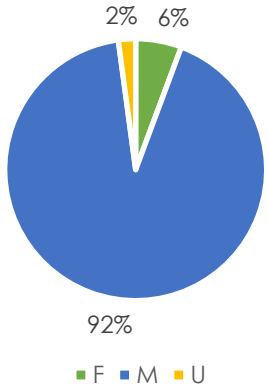
In the **high scoring list** of nominals from the PoC phase:

Age



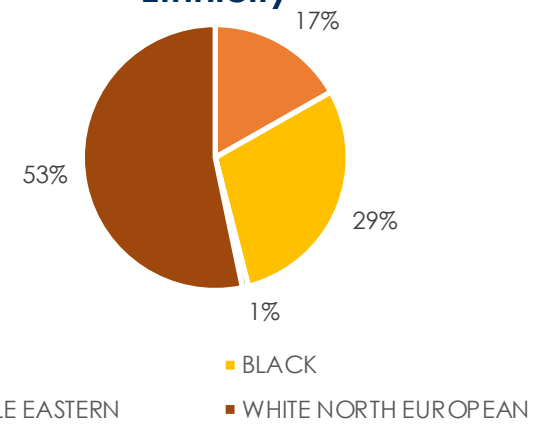
87% of nominals are **under the age of 25**

Gender



The majority of nominals are **male**

Ethnicity



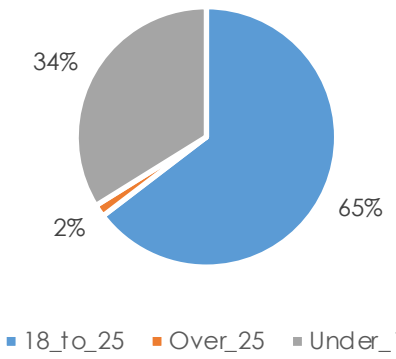
There are **3 prominent ethnicity codes**: *White Northern European, Black, Asian*

Threshold for high score is 0.820, defined in the PoC phase (subject to review)
The PoC phase generated one list dated 01/01/2016 with a prediction window of 24 months using the out-of-time data set
There are observations with multiple values for some features (gender and ethnicity) based on data in the WMP source systems

Interventions Update Deep Dive - Summary PoC Results Analysis - WMP

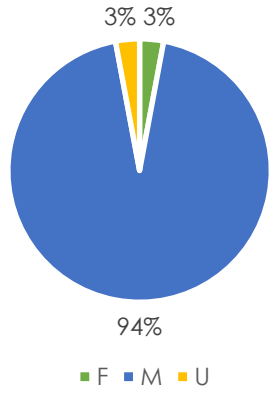
In the **false positive list** of high-scoring nominals from the PoC phase:

Age



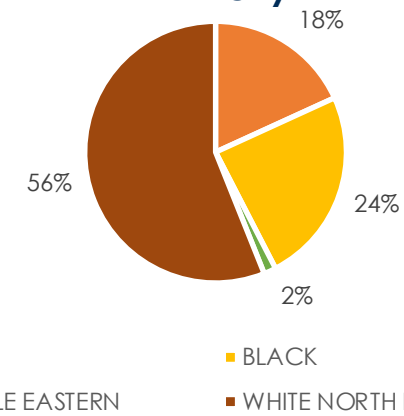
98% of false positive high-scoring nominals are **under the age of 25** compared to **76%** of true positive high-scoring nominals.

Gender



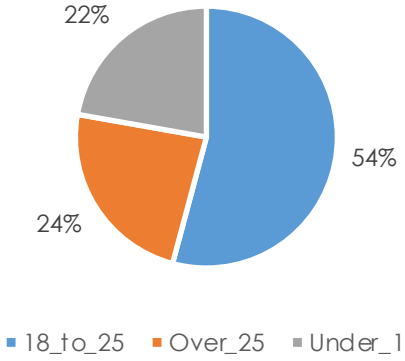
The majority of false positive high-scoring nominals are **male**, similar to the true positive high-scoring nominals.

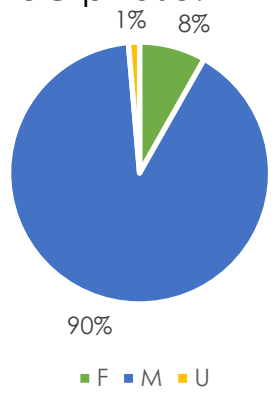
Ethnicity

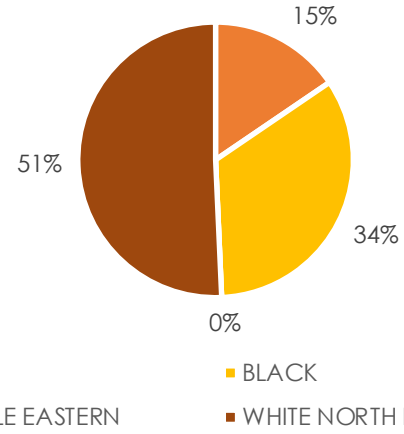


Across both true positive and false positive high-scoring nominals, there are **3 prominent ethnicity codes**: *White Northern European, Black, Asian.*

In the **true positive list** of high-scoring nominals from the PoC phase:

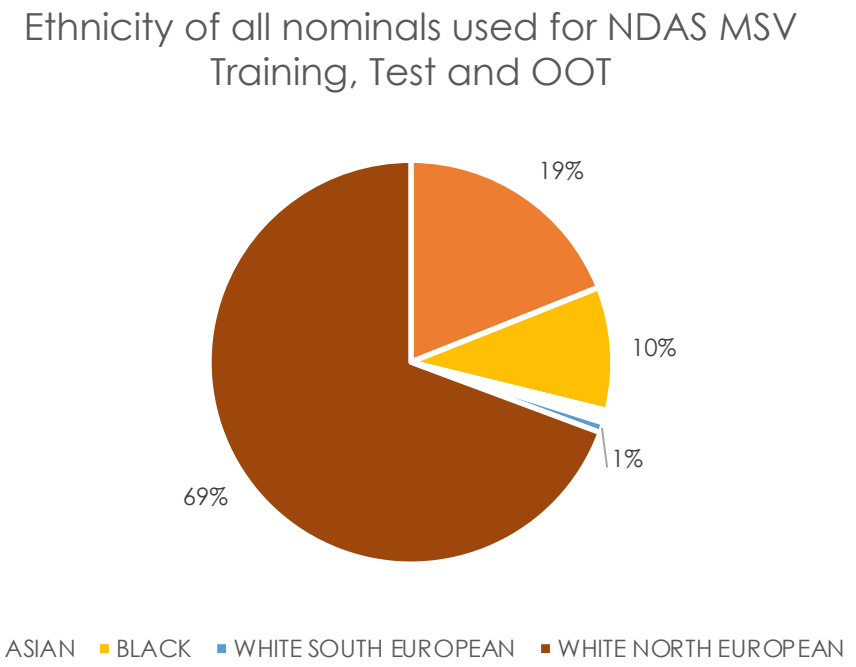






Threshold for high score is 0.820, defined in the PoC phase (subject to review)
The PoC phase generated one list dated 01/01/2016 with a prediction window of 24 months using the out-of-time data set
There are observations with multiple values for some features (gender and ethnicity) based on data in the WMP source systems

1. WMP All Data Used by NDAS (Training, Test and Out-of-Time)



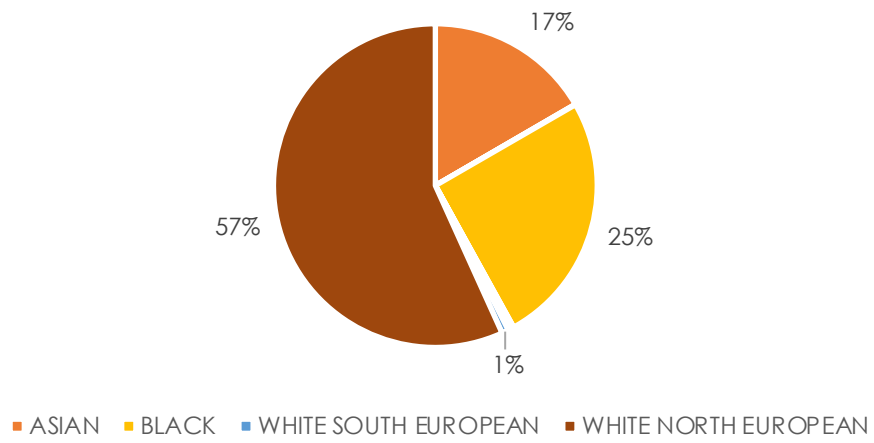
765,308 nominal group key ethnicities

- Source: CRIMES database
- Filter: >128 severity score

Q1 - Is the distribution for nominals where MSV is observed in the OOT period reflective of those where MSV is observed in the Training & Test time period?

2a. WMP NDAS Training and Test – Observed MSV

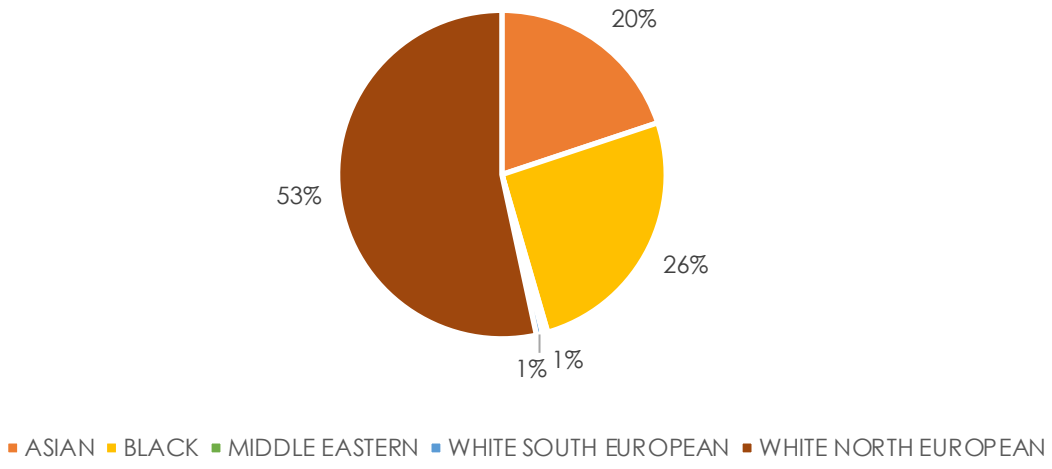
Ethnicity of all nominals in the Training and Test datasets who went on to be charged with MSV within 2 years of their previous record



5,139 nominal group key ethnicities

2b. WMP NDAS Out-of-Time (OOT) – Observed MSV

Ethnicity of all nominals in the OOT dataset who went on to be charged with MSV within 2 years of their previous record



1,306 nominal group key ethnicities

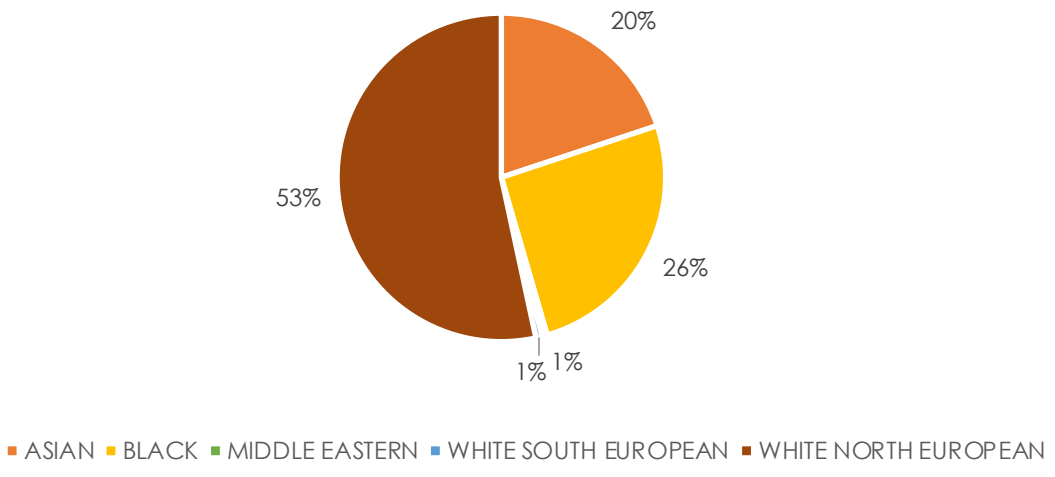
Summary: There is no statistical difference on the ethnicity distributions of the NDAS Training & Test MSV and OOT MSV populations with 99%* confidence level

*Conducted multinomial test: The Exact Multinomial Test is a Goodness-of-fit test for discrete multivariate data. It is tested if a given observation is likely to have occurred under the assumption of an ab-initio model.

Q2 - Is the distribution for nominals with a positive MSV prediction in the OOT dataset reflective of those nominals where MSV is observed in the same time period?

3b. WMP NDAS Out-of-Time (OOT) – Observed MSV

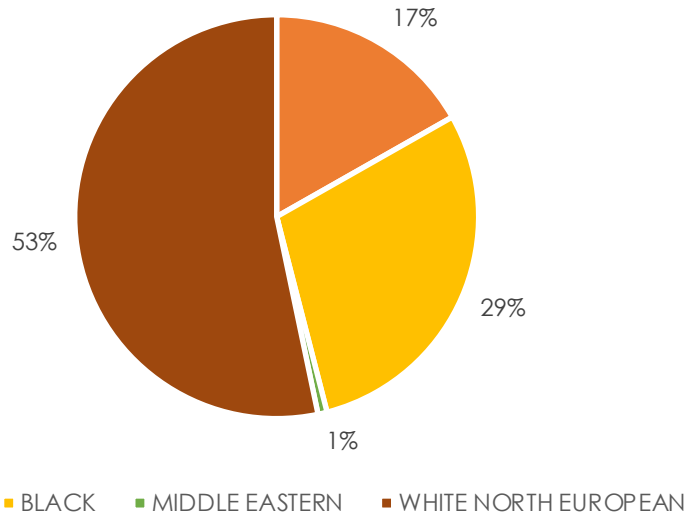
Ethnicity of all nominals in the OOT dataset who went on to be charged MSV within 2 years of their previous record



1,306 nominal group key ethnicities

3b. WMP NDAS Out-of-Time (OOT) – Predicted MSV

Ethnicity for NDAS MSV High Scoring Nominals



156 nominal group key ethnicities

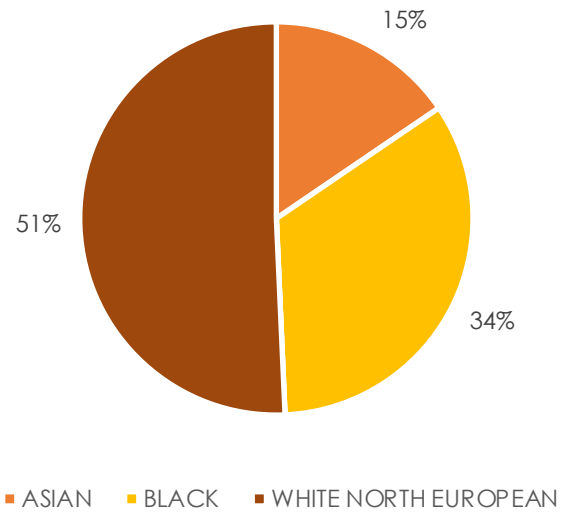
Summary: There is no statistical difference on the ethnicity distributions of the NDAS OOT MSV observed and predicted populations with 99%* confidence level

*Conducted multinomial test: The Exact Multinomial Test is a Goodness-of-fit test for discrete multivariate data. It is tested if a given observation is likely to have occurred under the assumption of an ab-initio model.

Distribution of True Positives and False Positives

4a. WMP NDAS Out-of-Time (OOT) – Predicted MSV – True Positives

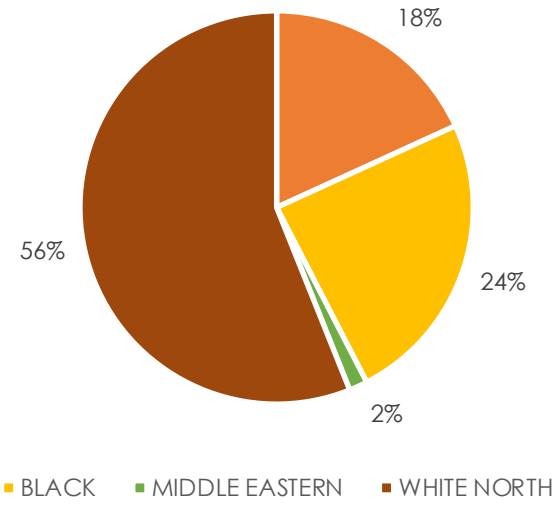
Ethnicity for OOT Predicted - True Positive Nominals



79 nominal group key ethnicities

4a. WMP NDAS Out-of-Time (OOT) – Predicted MSV – False Positives

Ethnicity for OOT Predicted - False Positive Nominals



77 nominal group key ethnicities

- Small sample size (n<100)

Ethics Submission – Modern Slavery Pro's & Con's

Would it be considered to be used in the public interest and to be ethical?

The deployment of this use case may lead law enforcement to locate victims who do not wish to be found, including:

- victims who will be liable for deportation
- victims whose opportunities in their home country are even less than those offered to them by traffickers.

The ability of the police to safeguard victims once found is reflective of existing national structures and policies and will vary depending on the particular context and experience of individual victims. The following factors should be considered:

1. A significant proportion of victims of trafficking identified in the UK are UK nationals – children from the UK are most likely to be trafficked, and adults the third most likely (2018 Annual Report on Modern Slavery, Home Office).

2. The second highest contributor is Albania, and the home Office is investing considerable resources to working with the Albanian government to make the community of Albania more resilient to modern slavery and human trafficking.

3. Recent changes to the National Referral Mechanism (NRM): support is bespoke to victims, rather than a standard 45 days. This support includes the allocation of a support worker and access to legal support to fight any deportation proceedings. Where there is an investigation into a trafficking Organised Crime Group (OCG), UK Visas and Immigration are approachable to requests by investigators to keeping victims in the country to support the investigation.

4. There are tens of thousands of victims of modern slavery in the UK. Many are victims of serious sexual offences. Many exist under fear of serious violence or death, and many are the victims of serious violent offending. The risks of police activity adversely affecting a minority of these victims is more than offset by the opportunity to promote long-term public protection by dismantling the OCGs involved.

5. Prioritising activities to target OCGs means that activity will be directed towards the those that present the most physical risk to victims and communities, thereby ensuring that this is not just a mechanism to identify victims but rather a mechanism to understand and systematically dismantle the networks involved.

6. Our Ask

Our Ask

We are asking the West Midlands Ethics Committee for guidance and support on our planned deployment

We are seeking guidance and support to deploy the MSV and MS use cases for West Midlands Police and West Yorkshire Police:

- **Ethical framework for interventions**
- **Development the toolkit for interventions**
- **Post implementation continued review**
- **Starting with WMP and WYP**
- **Broadening the scope to include other forces**