# Schedule of Accreditation

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| Organisation Name | Forensic Science Ireland |
| Trading As | |
| INAB Reg No | 137T |
| Contact Name | Fiona Thornton |
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| Accreditation Standard | EN ISO/IEC 17025 T |
| Standard Version | 2017 |
| Date of award of accreditation | 07/04/2003 |
| Scope Classification | Forensic testing |

Services available to the public[1]

[1] Refer to document on interpreting INAB Scopes of Accreditation

| Sites from which accredited services are delivered | | |
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| (the detail of the accredited services delivered at each site are on the Scope of Accreditation) | | |
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| | **Name** | **Address** |
| 1 | Forensic Science Ireland (BLC) | Backweston Laboratory Campus, Stacumny Lane, Celbridge, Kildare, Ireland |

# Scope of Accreditation

## Forensic Science Ireland (BLC)

### Forensic Testing

**Category: A**

| Forensic field - Tests | Parameter | Matrix | Equipment/technique | Range of measurement | Std Ref/SOP | |
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| 1201 Controlled substances - .02 Chemical qualitative | Detection of non-Cannabis controlled drugs. | LSD | Thin Layer Chromatography, Gas Chromatography with Mass Spectrometry | Product limit of identification:<br>LSD 16µg | FSIDTP607, FSIDTP406, FSIDTP401, FSIDTP403 | |
| | | Narcotic Analgesics and Stimulants. Samples submitted as wraps or packages containing: powders, illicit tablets, samples of liquid, pharmaceutical preparations | Thin Layer Chromatography | Product limit of identification:<br><br>Narcotic Analgesics<br>Diamorphine = 1%<br>Dihydrocodeine = 1%<br>Methadone = 2%<br>Morphine = 1%<br>Oxycodone = 1%<br>Stimulants Amphetamines = 1%<br>Methylamphetamine = 1% | FSIDTP406 | |
| | Detection of non-Cannabis controlled drugs. | Ecstasy type compounds, Benzodiazepines and miscellaneous compounds . | Gas Chromatography with Mass Spectrometry | Product limit of identification:<br><br>Ecstasy type compounds<br>MDMA = 1%<br>MDEA = 1% | FSIDTP401<br>FSIDTP403 | |

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| | | Samples submitted as wraps or packages containing: powders, illicit tablets, samples of liquid, pharmaceutical preparations | | Benzodiazepines:<br>Alprazolam = 3%<br>Diazepam = 1%<br>Flunitrazepam = 1%<br>Flurazepam = 2%<br>Nitrazepam = 2%<br>Temazepam = 1%<br>Miscellaneous Cocaine = 0.5%<br>Ketamine = 1% | | |
| | | Narcotic Analgesics and Stimulants. Samples submitted as wraps or packages containing: powders, illicit tablets, samples of liquid, pharmaceutical preparations | Gas Chromatography with Mass Spectrometry | Product limit of identification:<br><br>Narcotic Analgesics<br>Diamorphine = 1%<br>Dihydrocodeine = 1%<br>Methadone = 2%<br>Morphine = 1%<br>Oxycodone = 1%<br>Stimulants Amphetamines = 1%<br>Methylamphetamine = 1% | FSIDTP401<br>FSIDTP403 | |
| | | Samples submitted as wraps or packages containing: powders, illicit tablets, samples of liquid, pharmaceutical preparations and edibles **1234 | Gas Chromatography with Mass Spectrometry | Product limit of identification:<br><br>Phenazepam = 1%<br>Pyrrolidinovaler - ophenane (PVP) =1%<br>Trifluoromethylphenylpiperazine (TFMPP) = 1%<br>4-methylmethcathinone (4-Mephedrone) =3%<br>Zopiclone = 4%<br>Δ9-Tetrahydrocannabinol = 0.1% | FSIDTP301<br>FSIDTP302<br>FSIAP054<br>FSIDTP404<br>FSIDTP601<br>FSIDTS501 | |
| 1201 Controlled substances - .04 Botanical comparison | Qualitative analysis of Cannabis and Cannabis products | Bulk Cannabis Resin<br>Herbal Material<br>Cannabis Plants | Microscopy | n/a | FSIDTP002 | |
| | | | Thin Layer Chromatography | n/a | FSIDTP001, FSIDTP406 | |
| 1201 Controlled substances - .05 | Detection of non-Cannabis controlled drugs. | Narcotic Analgesics and | Visual Inspection | n/a | FSIDTP601 | |

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| Identification of controlled substances | | Stimulants. Samples submitted as wraps or packages containing: powders, illicit tablets, samples of liquid, pharmaceutical preparations | | | | |
| 1202 Toxicology - .01 Alcohol quantification | Alcohol quantification | Alcohol (Ethanol) quantitation in beverage samples | GC-FID (Gas Chromatography with flame ionization detector) | 1-100% | FSIDTP201, FSIDTP202, FSIDTP205, FSIDTP207, FSIDTP208, FSIDTP211, FSIDTP212 | |
| | | Blood Alcohol | GC-FID (Gas Chromatography with flame ionization detector) | 5 to 400mg% | FSIDTP201, FSIDTP202, FSIDTP205, FSIDTP207, FSIDTP208, FSIDTP211, FSIDTP212 | |
| | Alcohol Technical Defence | Reporting Ethanol results from biological samples | UKIAFT guidelines v 2.1<br>Excel Spreadsheets: “Alcohol Back-Calculator” & “ATD Calculator” | As recommended by UKIAFT. See validation report attached | FSIDTP205 | |
| 1202 Toxicology - .02 Alcohol detection | Alcohol identification | Alcohol (Ethanol) identification in beverage samples | GC-FID (Gas Chromatography with flame ionization detector) | n/a | FSIDTP215 | |
| | | Blood alcohol | GC-FID (Gas Chromatography with flame ionization detector) | n/a | FSIDTP215 | |
| 1202 Toxicology - .03 Drug identification | Screen and confirmation of Drugs of Abuse in Urine | Urine | LCMSMS | n/a | FSIDTP254, FSIDTP255, FSIDTP256, | |

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| | | | | | FSIDTP257, FSIDTS253 | |
| 1203 Chemistry - .01 Comparison examinations (identification, qualitative, quantitative) | Infra red identification/comparison of fibres | Polymers (including textile fibres). Fibre identification and comparison | Fourier Transform Infra Red (FT-IR) Analysis | n/a | FSICTP155 | |
| | Microscopic comparison of fibres | Polymers (eg textile fibres). Fibre identification and comparison | Microscopic examination | n/a | FSICTP153 | |
| | Micro-spectrophotometry of fibre samples | Polymers (including textile fibres). Fibre identification and comparison | Micro-spectrophotometry | n/a | FSICTP154 | |
| | Opinions and Interpretation (inclusive of Evaluative Reporting) for Chemistry Cases * | Glass, fibre, footwear, paint and Firearm residue (FAR) cases | Pre Case Assessment, Examination strategy, Assignment of transfer/ persistence/recovery probabilities, Likelihood ratio | n/a | FSIAP109*<br>FSICTP002*<br>FSICTP013*<br>FSICTS151*<br>FSICTP162*<br>FSICTP051*<br>FSICTP052*<br>FSICTP250*<br>FSICTP255*<br>FSICTP206<br>FSICTP207<br>FSICTS209 | |
| | | Paint cases | Pre Case Assessment, Examination strategy, Assignment of transfer/ persistence/recovery probabilities, Likelihood ratio | n/a * | FSIAP109*<br>FSICTP206*<br>FSICTP207*<br>FSICTS209* | |
| | Paint comparison | Paint | Fourier Transform Infra Red (FT-IR) Analysis | n/a | FSICTP205 | |
| | | | Microscopic comparison of paints | n/a | FSICTP204 | |

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| | | | Paint recovery and preparation | n/a | FSICTP201-FSICTP203, FSICTP163 | |
| | Polarising microscopy of fibres | Polymers (including textile fibres). Fibre identification and comparison | Polarised Light Microscopy (PLM) | n/a | FSICTP156 | |
| | Recovery and preparation of fibres for microscopic examination | Polymers (eg textile fibres). Fibre identification and comparison | Fibre recovery and preparation | n/a | FSICTP150, FSICTP151, FSICTP152 | |
| | Recovery of glass fragments | Glass fragments recovered from items compared with control/reference glass samples | Visual | n/a | FSICTP004 | |
| | Refractive Index Measurements | | Refractive Index Measurements | n/a | FSICTP006, FSICTP005 and FSICTP008 | |
| | Surface characteristics using interference microscopy | | Microscopy | n/a | FSICTP009 | |
| | Thermal history by annealing and re-measuring refractive index | | Microscopy | n/a | FSICTP006 and FSICTP007 | |
| | UV-Visible Micro-spectrophotometry | Polymers (including textile fibres). Fibre identification and comparison | UV-Visible Micro-spectrophotometry | n/a | FSICTP160, FSICTP161 | |
| 1203 Chemistry - .02 Detection of fire accelerants and explosives | Hydrocarbon fire accelerants analysis | Fire debris from crime scenes | ATD GC-MS<br>SPME | ATD GC-MS LOD:<br>Neat petrol 0.5 µl<br>Neat diesel 0.5µl<br><br>SPME LOD:<br>Neat petrol 0.05 µl<br>Neat diesel 0.02µl | FSICTP104, FSICTP115 | |
| | | Liquids from crime scenes | GC-MS | Typical analysis is of neat liquids | FSICTP104, FSICTP116 | |

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| 1203 Chemistry - .04 Offensive chemicals | Identification of Chlorobenzylidenemalononitrile (CS), Capsaicin and Dihydrocpasaicin in offensive sprays | Offensive spray products (eg canisters) | Gas Chromatography with Mass Spectrometry - GC MS | LOD:<br>CS = 5ppm<br>Capsaicin = 5.5ppm<br>Dihydrocapsaicin = 4.5ppm | FSICTP350 and FSICTP352 | |
| 1204 Biology - .01 DNA analysis | *Mixture Interpretation using STRmix probabilistic genotyping software<br><br>Related Opinions and Interpretation:<br>Interpretation of DNA profiles generated internally from crime stains (single source/major minor mixtures/complex mixtures) and reference samples. Statistical analysis and comparison of DNA profiles generated from crime stains with compatible reference DNA profiles (internally generated or from other accredited laboratories). | Crime stain samples | STRmix | n/a | FSIBTP564, FSIBTP589* | |
| | Analysis of NGM Select profiles using Genemapper ID X software<br><br>Related Opinions and Interpretation:<br>Comparison, statistical analysis and interpretation of DNA profiles from crime stains with reference DNA profiles * | DNA profiles | Genemapper ID X software | n/a | FSIBTP048*<br>FSIBTS030* | |
| | Automated processing of buccal FTA samples with the Hamilton STARlet | Reference FTA samples | Hamilton STARlet liquid handling system | n/a | FSIBTP587 and FSIBTP044 | |
| | Bone Extraction and Purification of DNA from bones and teeth | Bone and tooth samples | Organic Method, EZ1 instrument | Extract DNA > 0.001ng/ul | FSIBTP057, FSIBTP570, FSIBTP571 | |
| | DNA Amplification:<br>Use of NGM Select to generate DNA profiles and Related | Crimestain and reference material | NGM Select kit, Thermocycler | n/a | FSIBTP051 | |

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| Opinions and Interpretation: Comparison, statistical analysis and interpretation of DNA profiles from crime stains with reference DNA profiles | | | | | |
| DNA Amplification: HDPlex | Crime stain and reference samples | Investigator HDplex Kit | n/a | FSIBTP580 FSIBTP578 | |
| DNA Extraction and Purification (manual) | Various human body fluids (blood, semen, saliva), hair, epithelial cells and tissue samples and samples associated with crime scenes | Lysis and automated purification of DNA using the EZ1 Advanced XL and the EZ1 Investigator kit | n/a | FSIBTP057 FSIBTP005 | |
| DNA quantification | Crimestain and reference material - automated and manual quantification | Promega PowerQuant | n/a | FSIBTP574 | |
| Generation of Mitochondrial DNA profiles Related Opinions and Interpretation: Interpretation of DNA profiles generated internally from DNA extracts of crime stains (single source), human identification and reference samples. Statistical analysis and comparison of mtDNA profiles generated from crime stains with compatible reference DNA profiles (internally generated or from other accredited laboratories). | DNA extracts | MiSeq FGx System using the ForenSeq mtDNA whole genome kit | n/a | FSIBTP592, FSIBTP593 and FSIBTP591 | |
| Genetic characterisation of NGMSelect profiles using 3500xl genetic analyser<br><br>Related Opinions and Interpretation: Comparison, statistical analysis and interpretation of DNA | Crimestain and reference material | 3500xl genetic analyser | n/a | FSIBTP052* and FSIBTP053* | |

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| | profiles from crime stains with reference DNA profiles * | | | | | |
| | Lysis, automated DNA purification, quantification, PCR and sequencing set up using Robotic 96 well automated platform. | Various human body fluid (blood, semen, saliva), hair, epithelial cells and tissue samples and samples associated with crime scenes | Robotic liquid handler platform<br><br>DNAIQ extraction chemistry, PowerQuant | n/a | FSIBTP057, FSIBTP005, FSIBTP064 | |
| | Opinions and Interpretation (inclusive of Evaluative Reporting) for Sexual Assault Cases * | Sexual assault cases | Pre Case Assessment (LIMS)<br>Examination strategy<br>Assignment of transfer/ persistence/recovery probabilities.<br>Likelihood ratio | n/a | FSIBTP579*<br>FSIBTP575*<br>FSIBTP576*<br>FSIBTP583*<br>FSIAP109* | |
| | Reference DNA Sample Processing: FTA cards | Reference FTA samples | NGM Select Express Kit,<br>Thermocycler | n/a | FSIBTP044 | |
| | Robotic 96 well automated platform for the processing of buccal FTA samples | | Robotic 96 well automated platform | n/a | FSIBTP044 | |
| | YSTR<br>Related Opinions and Interpretation:<br>Comparison, statistical analysis and interpretation of Y23 DNA profiles from crime stains with reference DNA profiles | Crime stain and reference samples | Promega Power Plex Y23 STR Kit,<br>Thermocycler | n/a | FSIBTP080*<br>FSIBTS038* | |
| 1204 Biology - .02 Blood pattern analysis | Identification (searching and stain selection/sampling) of blood and BPA on clothing and other items examined at the laboratory<br>Interpretation - related opinions and interpretation (inclusive of Evaluative Reporting for BPA) | Items of clothing and items from the scene | Visual Inspection | n/a | FSIBTP154*, FSIBTP156* and FSIBTP157* | |
| 1204 Biology - .04 Body fluid identification | Detection of Acid Phosphatase (AP) | Items of clothing and swabs relating | Brentamine Test | n/a | FSIBTP100 | |

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| | | to Sexual Assault cases | | | | |
| | Detection of Blood using KM Solution | Items of clothing and items from the scene | Kastle Meyer Test | n/a | FSIBTP150 | |
| | Detection of Human Blood | | ABA card Hema trace test | n/a | FSIBTP159 | |
| | Extraction and detection of salivary α-amylase using RSID saliva membrane test | Items of clothing and swabs relating to Sexual Assault cases | RSID Saliva Membrane Test | n/a | FSIBTP111 | |
| | Extraction and detection of seminal fluid using RSID semen membrane test | | RSID Semen Membrane test | n/a | FSIBTP110 | |
| | Extraction and detection of urine using RSID Urine membrane test | | RSID Urine Membrane Test | n/a | FSIBTP114 | |
| | Extraction of spermatazoa using whole swab method | | Whole swab extraction | n/a | FSIBTP109 | |
| | Identification of human spermatazoa | | Microscopy | n/a | FSIBTP101 - FSIBTP102 | |
| | The Phadebas® Forensic Press test for the detection of salivary α – amylase. | Crimestain samples | Phadebas® Forensic Press test paper by Magle | n/a | FSIBTP211, FSIBTP212 | |
| 1204 Biology - .05 Damage to clothing | Identification, assessment and interpretation of damage to clothing and fabric | Items of clothing and fabric | Visual examinations, low power microscopy and dimensional measurement | n/a | FSIBTP200, FSIBTP201* | |
| 1205 Firearms, ammunition & explosives - .01 Firearm residue detection and analysis | Analysis of Black Powder | Samples of Black Powder (loose powder, grains, other combinations of Potassium Nitrate and/or Charcoal and/or Sulfur) | - FTIR,<br>- Ion Chromatography,<br>- GCMS,<br>- Microscopy,<br>- SEM-EDX,<br>- micro-XRF | LOD as determined by IC:<br>Potassium = 0.1ppm<br>Nitrate = 0.02ppm<br><br>GC-MS:<br>Sulfur = 2.5ppm | FSICTP310<br>FSICTP311<br>FSICTP305<br>FSICTP306<br>FSICTP308<br>FSICTP314<br>FSICTP315 | |
| | Detection and identification of Firearm Residue (FAR) | Fire and explosions (including firearm discharge residues | Scanning Electron Microscopy (SEM) | LOD 0.5μm | FSICTP250-FSICTP252, FSICTP255- | |

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| | | | | | FSICTP257<br>FSICTP259 | |
| | Explosives - Identification of bulk material for the following compounds: Nirocellulose, PETN, RDX and Nitroxoglycerine in suspect materials | Suspect devices from crime scenes | FTIR and GCMS, | Ranges: LOD<br>Nitroglycerine - 2.5ppm,<br>Nitrocellulose -<br>PETN - 5ppm<br>RDX - 5ppm Sulfur 2.5ppm | FSICTP300 - FSICTP302, FSICTP305-FSICTP308 | |
| | Identification of inorganic oxidisers - Potassium perchlorate,<br>Potassium chlorate,<br>Barium Nitrate,<br>Barium Chlorate,<br>Barium Perchlorate,<br>Sodium Nitrate,<br>Sodium Chlorate,<br>Sodium Perchlorate,<br>Strontium Nitrate,<br>Ammonium Nitrate,<br>Sodium Nitrite, ** | Components of pyrotechnic mixtures e.g. fireworks, bangers, sparklers etc | - FTIR, GCMS SEM-EDX,<br>-Ion Chromatography (IC)),<br>micro-XRF | LOD as determined by IC:<br>Potassium - 0.1ppm<br>Perchlorate - 0.05ppm<br>Chlorate - 0.04ppm<br>Barium - 1ppm<br>Nitrate - 0.02ppm<br>Sodium - 0.04ppm<br>Strontium - 2ppm<br>Ammonium - 0.075ppm<br>Nitrite - 0.02ppm | FSIAP054, FSICTP400, FSICTP401, FSICTP402, FSICTS400, FSICTS401, FSICTP313, FSICTP314, FSICTP315 | |
| 1206 Questioned documents - .01 Handwriting examination and comparison | Handwriting | Documents | Spectral comparison in the visual and extravisual range (VSC), Stereo Microscopes, Digital Camera | n/a | FSICTP554* | |
| 1206 Questioned documents - .02 Signature examination and comparison | Signatures | | Spectral comparison in the visual and extravisual range (VSC), Stereo Microscopes, Digital Camera | n/a | FSICTP555* | |
| 1206 Questioned documents - .03 Detection and enhancement of Indented Impressions | Indented Impressions * | | Spectral comparison in the visual and extravisual range (VSC), Stereo Microscopes, Digital Camera, Electrostatic detection of Indented writings (ESDA) | n/a | FSICTP552<br>FSICTP551 | |

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| 1206 Questioned documents - .04 Examination of documents for evidence of alteration | Alteration * | Cards, postcards, documents | Spectral comparison in the visual and extravisual range (VSC), Stereo Microscopes, Digital Camera, Electrostatic detection of Indented writings (ESDA) | n/a | FSICTP551 FSICTP552 | |
| 1206 Questioned documents - .05 Examination of security documents for authenticity | Authenticity * | | Spectral comparison in the visual and extravisual range (VSC), Stereo Microscopes, Digital Camera | n/a | FSICTP553 | |
| 1207 Fingerprinting - .01 Ten print procedure | Processing of Tenprints | Tenprint sets | MBIS, Digital Camera, flatbed scanner, handheld scanner Magnifier | n/a | FSICTP541, FSICTP536 | |
| 1207 Fingerprinting - .02 Latent print identification | Fingerprints | Surfaces suitable for retaining friction ridge detail | Vacuum metal deposition procedure | n/a | FSICTP543 | |
| | Processing of latent prints | Tenprint sets | MBIS, Digital Camera, flatbed scanner, handheld scanner Magnifier | n/a | FSICTP541, FSICTP536 | |
| 1207 Fingerprinting - .03 Ninhydrin procedure | Fingerprints | Surfaces suitable for retaining friction ridge detail | Indanedione procedure | n/a | FSICTP545 | |
| | | | Ninhydrin Humidity Oven, Glue Fuming, Glue Cabinet, By40 dye, Fingerprint powders | n/a | FSICTP503 | |
| 1207 Fingerprinting - .04 Superglue procedure | | | Lumicyano procedure | n/a | FSICTP546 | |
| | | | Ninhydrin Humidity Oven, Glue Fuming, | n/a | FSICTP504 | |

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| | | | Glue Cabinet, By40 dye, Fingerprint powders | | | |
| 1207 Fingerprinting - .05 Dye procedure | | | Acid Dye Procedure | n/a | FSICTP511 | |
| | | | Ninhydrin Humidity Oven, Glue Fuming, Glue Cabinet, By40 dye, Fingerprint powders | n/a | FSICTP505, FSICTP510 | |
| | | | Solvent Black 3 Procedure | n/a | FSICTP528 | |
| 1207 Fingerprinting - .06 Fingerprint powder procedure | | | Fingerprint Fluorescent powders | n/a | FSICTP544 | |
| | | | Ninhydrin Humidity Oven, Glue Fuming, Glue Cabinet, By40 dye, Fingerprint powders | n/a | FSICTP506 | |
| | | | Powder Suspension Procedure | n/a | FSICTP530 | |
| 1207 Fingerprinting - .07 High intensity light procedure | | | High Intensity Lights | n/a | FSICTP507 | |
| 1207 Fingerprinting - .08 Image capture procedure | | Fingerprint donors | Reflected UV Imaging of Superglue Fumed Evidence Fingermark Visualisation and Imaging with IR Fluorescent Powders and IR Light Sources | n/a | FSICTP518* FSICTP519* | |
| | | Surfaces suitable for retaining friction ridge detail | High Intensity Lights, Digital Camera and scanner | n/a | FSICTP508 | |
| 1207 Fingerprinting - .09 Thermal coating removal | | | Acetone Thermal Coating Removal | n/a | FSICTP509 | |

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| 1210 Marks & impressions - .01 Footwear | Enhancement of footwear marks using physical and chemical means | Footwear and footwear impressions from suspected crime scenes | Visual comparison | n/a | FSICTP051 - FSICTP061 (incl) | |
| | Identification and comparison of footwear and footwear marks | | Visual comparison | n/a | FSICTP051 - FSICTP061 (incl) | |
| | Use of Trasoscan Lucia Forensic for scanning gel lifts and other items in footwear cases | Impressions on flat surfaces, such as gel lifts, papers etc, and also for images submitted on discs (which will/may be limited by the quality of the original photograph) | Visual comparison | n/a | FSICTP066 | |

** The laboratory is accredited to provide opinions and interpretations for the tests identified*

***The laboratory is accredited for a flexible scope of testing in the following categories*
*Note 1 Range of measurement may be extended*
*Note 2 Parameters may be added*
*Note 3 Test matrices may be added*
*Note 4 Equipment/kit*

*For further details please refer to the laboratories 'Master list of Flexible scope changes', available directly from the laboratory.*