**Statement of User Need**

Part 1 – User Need *(to be completed by SUN Owner)*

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| **Title** | Future Firefighter Concept |
| **Account Area** | Public Safety |
| **HOCH Theme** | Frontline Technologies |
| **Operational Adviser** | Frontline |

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| **Overview of work** |
| **Statement of Need** | The UK Fire Service wishes to be seen as an inclusive employer, encouraging applicants from our all of our diverse communities. The role of fire and rescue services is forever evolving; which not only involves tackling fires but encompasses a broad range of emergency response, such as technical rescues, assisting partner agencies (particularly Ambulance with medical emergencies) and also assisting with community safety.The workwear (station-wear) worn by fire service personnel across the UK is not standardised, having a mixture of colours, designs and styles. This not only makes procuring these items inefficient but also prohibits potential innovations in the Primary Protective Clothing (PPC) worn over station-wear that affords the protections required whilst dealing with a multitude of emergencies that have a multitude of risks.In terms of the PPC it is often stated that we should buy “the best” as that is what the firefighters deserve and to assure their safety. However, this is difficult to quantify and when pushed no one can articulate what “best” looks like. In addition, it’s often stated that at the end of supply frameworks/contracts we are using outdated specifications and technologies (albeit we do include technical refreshes); so how in a new concept do we keep abreast of technological advancements, keeping the specifications relevant throughout the life of the garments. The reality is somewhat different as we write output based performance requirements, trying to prevent performance creep where it is not required, and avoiding ‘gold plating’ and all the “bells and whistles” so that whilst afford the correct protection we deliver ‘value for money’ as well.The current PPC is designed as a stand-alone garment; whereby the protection it affords is measured in isolation, taking no account of what maybe being worn beneath (i.e. station-wear). However, it is recognised that what is worn underneath this PPC can have an effect on the overall performance of the PPC having either a positive or negative affect on the wearer, for example in terms of thermoregulation.Furthermore, the traditional PPC is designed predominately as firefighting personal protective equipment (PPE) to afford protection from heat and flame at a level that protects in the most serious of conditions. Whilst some services have introduced a separate PPE jacket for technical rescue and smaller (less intense/outdoor) fires, which is widely liked, the PPC trouser remains the same.The Fire Sector believes there is a unique opportunity to develop an innovative approach to the garments (station-wear and PPE) to a standard specification, which not only ensures the highest levels safety of firefighters but also demonstrates that the fire service is a modern and inclusive employer in the way that its uniform is designed and branded. It is likely that full implementation could take between 5-10 years as the outcomes and recommendations will impact not only financially but also culturally in each Fire Service.There is also concern that current product standards (BS EN standards) for firefighter PPE do not reflect the current levels afforded throughout the UK at present and hence a ‘national forward’ was inserted into the latest revised product standard (BS EN 469:2020). There is also doubt about the accuracy and suitability of test methods within the product standards.An important aspect of this work will be engagement with the end users which will need to include a variety of staff and accredited organisations, such as Fire Brigades Union (FBU), Women in the Fire Service and Asian Fire Service Association (AFSA), as well as unions. It will also be necessary to hear the views of individual fire and rescue services, including individual end users and as such will require a reasonable amount of time to arrange, conduct and collate these views from as many people and organisations as practicable.Focus on technology (respiratory equipment, biometric monitoring, location tracking) should form part of a separate piece of work, but research delivered in the context of this SUN should be conscious of advances in associated technologies. |

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| **Evidence Base** |
| Although there is an established four year National Workwear Framework, established in 2019, there remains limited take up of the framework from the sector. Currently there are only 8 fire services who have call-off contracts; most significant of which is the Scottish Fire and Rescue Service who represent (7000) wearers.The reasons that lie behind the lack of take-up are perhaps varied and set amongst the variety of different requirements for design, colour and badging; for example, there are four different colours of work rig shirts (with and without epaulettes) and two different designs of trouser available in two colours.Whilst the National project group, established in 2017, endeavoured to rationalise the requirement as best possible, there still remained boundaries that services were not prepared to cross; again in terms of colour, design and badging.In the most simplistic terms a singular design (including colour and badging) would drive the most efficient and perhaps most significant savings for the Sector.**Enclothed Cognition**The power of clothing upon how people perceive us is widely recognised. Alongside this is the effect that the power of clothes have on our own thoughts.Researchers have identified a phenomenon called ‘enclothed cognition’ where they suggest that “clothes can have profound and systematic psychological and behavioural consequences for their wearers”. The findings are thought to depend on two conditions- first, the symbolic meaning of the clothing and second, the actual wearing of the clothes.Essentially, get the design and functionality correct and not only will other people’s perceptions be affected but also those of the wearer, increasing productivity.**Opportunities**There are a number of opportunities that arise from the current position:ResearchA new approach to National Uniform should be based on sound research. Home Office have already commissioned research the same on behalf of the Police, looking to what the future appearance and functionality of uniforms should look like. Early indications are that HO (through DSTL) would be willing to undertake a similar project on behalf of fire.This in-depth research could be taken forward to create a design owned by the sector to use in future procurements.RebrandThe last 18 months have highlighted that the fire service can be an adaptable, agile organisation able to assist in many facets of emergency and community response. With an overall reduction in fire calls year on year a service rebrand could ensure that ‘Fire’s’ value as a public service is not only maintained but perhaps enhanced. Culture within the fire service has been an important issue for many years, both in terms of changing pre-existing bad culture and promoting healthy new culture. A rebrand and a new uniform design can assist in fostering a positive and inclusive culture.If approached in the right manner, with a research based professional design, there is the potential to bring the service behind a singular multi-functional uniform that all can be proud of.Rebrand could see the introduction of a generic ‘fire and rescue’ service logo (badge) that staff would be happy to stand behind. InclusivityAs a diverse employer and one committed to inclusivity, a rebrand can demonstrate that our uniform is truly inclusive and form no barrier to recruitment and retention.Fire StandardsA rebrand could be also be used to launch future Fire Service Standards with the reaffirmation of fire service standards of behaviour.SustainabilityA rebrand can also demonstrate our commitment to environmental issues and even further to World Health Organisations Sustainability Goals, particularly those around sustainable sourcing and prevention of modern slavery.ISO 21942:2019 Station uniform for firefightersThis new standard introduces qualitative attributes of uniform such as tear strength, seam strength and colour fastness along with requirements for heat and flame resistance. The opportunity here is not only one of standardisation (there are two levels of performance contained within the standard) but also that if protection is afforded at this level, then performance of outer layers of PPE may be able to change, through innovation. Currently almost 95% of firefighter's activities do not require the highest levels of protection afforded by the primary protective clothing (PPC) structural firefighting PPE, designed to protected against extreme radiant heat and direct flame contact. Within the remaining 5%, the actual personnel committed into the extreme environment is likely to be relatively small numbers. However, this PPC has become the main element of PPE for the 95% of other activities; some of which without the presence of heat and flame risks, such as technical rescues.This change may see a reduction in the cost of outer layers and a balancing of overall cost between the two areas.StandardisationTrue standardisation driven by some or all of the factors contained within this document will lead to a singular approach to workwear/uniform needs across the sector, whilst giving a strong identity to the fire sector across the country. This standardisation will ensure that the real and achievable efficiencies in terms of actual resource cost, time and effort are realised (i.e. Do it well, do it once).Inter and intra - operability is enhanced with a single specification and in the future would create the same level of protection and resilience.Further collaborationWithout overemphasising the benefits of collaboration in terms of aggregation of demand; there are also cross service collaborative opportunities for uniform, especially with Police Services who have similar workwear requirements. These opportunities are already being explored through Home Office links with Police National workwear strategic and end-user groups. This in turn links with pressure for Police and Crime Commissioners to have added responsibility for Fire and Rescue Services.ResilienceThe sector has experienced significant difficulties within supply chains over the last 22 months, leading to shortages of goods and delays in supply, due to Covid and Brexit. This has not only resulted in logistical issues but also in escalating costs.A singular national uniform presents an opportunity by creating and owning a new innovative design, which could be supplied by a variety of companies. This would help to mitigate singular points of failure within the supply chain and ensure that a constant, standardised specification is available. Some economies may be lost with this approach. Equally, at end of contracts unused stock can more easily be adopted and utilised in replacement contracts that may be a different supplier. **Threats**The most significant current threat is that of a reduction in budgets going forward over the short to medium term financial periods. In addition, a new ISO standard for Station Uniforms was published in 2019. If adopted, this could see a rise in costs due to the minimum performance requirements and additionally may be perceived as changing workwear to personal protective equipment (PPE) which in turn requires management processes to ensure compliance with the PPE at work regulations.**Summary**

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| StrengthsEnhanced wearer safety (ISO 21942)Sound economic advantagesAssured qualityInclusivitySustainabilityCross Sector collaborationResilienceEnclothed Cognition | WeaknessesPre-existing culturesIndividual identity (badging)Workforce resistanceFeeling of creating a National Fire Service |

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