Scottish Ambulance Service

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NHS SCOTLAND

Full Business Case

For the Replacement of Emergency, Patient Transport and Support Vehicles 2026/27 to 2030/31

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Contents

Section 1: Executive Summary

1.1 Introduction

The provision of services by the Scottish Ambulance Service (the Service) is dependent on reliable, well maintained vehicles. Vehicles have a short finite life and as a result, the Service has a recurrent requirement to replace them as they come to the end of their useful life.

There remains a continual need to replace vehicles as they come to the end of their useful life and are no longer fit for purpose. This is recognised by Scottish Government and capital funding has been earmarked by Scottish Government to fund this ambulance replacement programme.

The purpose of this Full Business Case is therefore to seek approval and funding for the next 5 years ambulance replacement programme – from 2026-2031.

Due to the specialist nature of our vehicles, there is an average gap of around 18 months between placing an order for a vehicle and the vehicle being in operational use, it is therefore necessary to seek approval of this business case in advance of 2026 implementation.

The certainty of funding over the 5 year period allows the Service to facilitate orders over this time line and provides enhanced purchasing leverage with suppliers to ensure value for money.

The business case also describes the procurement process and demonstrates that appropriate contractual, commercial and management arrangements are in place to successfully deliver the project.

The business case covers

- the direct replacement of A&E, Scheduled Care and Specialist Vehicles
- Support vehicles, such as those used by workshops, training, infection control, health and safety and operational regions will be replaced.
- the vehicle base, conversion and standard vehicle equipment list

Continued fleet resilience and stability is a core objective of this business case, with flexibility within the core requirement to meet any future demands or changes.

A consistent, ongoing fleet replacement plan provides an opportunity to contain service and maintenance costs. The older vehicles become, the costs of maintaining them to an operational level becomes increasing more expensive year on year. By being able to implement this robust replacement plan, it allows the Service to ensure that vehicles can be utilised over their life span in the most efficient and effective way possible.

The Service Path to Net Zero

The Service fully supports Scottish Government aims to reduce carbon emissions from road transport. The Scottish Ambulance Service 2030 'path to net zero' strategy clearly defines the fleet ambitions including

- Full electric for Training, Support and Scheduled Care vehicles. These vehicles are van-style vehicles and will be delivered by 2030. Thereby all non-emergency vehicles will be fully electric by 2030.
- Operational A&E vehicles are more of a challenge due to the size and weight but also due to the length of time currently required to charge the vehicle. The Service will continually monitor and assess new technology as it emerges. Our strategy working with industry and academia would aim to have emergency vehicles in place by 2032.

Provision has been made in this Business Case to continue the move towards full electric training, support and Scheduled Care vehicles. These vehicles are van-style vehicles and fall under the 2030 target stated above.

The Need for Change

The need for change and investment follows on from the previous five year vehicle replacement programme and Initial agreement. There has been no change of material importance to the current arrangements since the Initial Agreement. It is also unlikely that the current arrangements will change significantly during the investment process.

The need remains:

- To ensure service delivery is maintained and patient safety is not compromised, the vehicles in poor condition need to be replaced with newer, more reliable vehicles.
- To accommodate strategic developments which will have an impact on the number and type of vehicle required to deliver services.
- To contain maintenance costs at the current level, the vehicles in poor condition and out of warranty need to be replaced with more reliable models.
- To reduce environmental impact from carbon emissions through innovation and evolving technology.
- To be able to accommodate different technology and medical equipment to allow staff to be able treat a wider range of conditions.

Financial Case

The key change in cost in relation to this updated replacement programme business case is the move to electric vehicles. It is not anticipated that the move to A&E electric vehicles will take place in this business case time period as a result of ongoing manufacturing research and development.

As the service continues the transition to ultra low emission vehicles, the cost of Scheduled Care fleet will however be subject to an electric vehicle premium, increasing costs to [redacted] per vehicle. This is an increase of [redacted] on the like for like replacement cost per scheduled care vehicle.

Excluding A&E vehicles, the business case therefore delivers a fully electric fleet by 2030.

The business case assumes that all operational vehicles will be purchased through capital funding. The case also describes a lease option, however due to increased costs this is not recommended as the preferred option.

The total capital costs over the 5 year period are:

	Capital Funding Requirement					
	2026/27	2027/28	2028/29	2029/30	2030/31	TOTAL
	£000	£000	£000	£000	£000	£000
Total Conveying Response	[redacted]					
Total PRU Vehicles						
Total NRRD Vehicles						
Total Other						
Total Fleet						

These costs will deliver the following preferred type and number of vehicles required over the next 5 years to maintain service delivery and patient care.

As the Service transitions to its new organisational strategy, the numbers and types may need to be flexed, but the overall funding will be managed by the Service within the approved [redacted] funding.

	Replacement Numbers - Existing Fleet					
	2026/27	2027/28	2028/29	2029/30	2030/31	TOTAL
Total Conveying Response	138	139	129	115	112	633
Total PRU Vehicles	20	20	20	20	20	100
Total NRRD Vehicles	9	0	4	14	12	39
Total Other	60	56	60	56	61	293
Total Fleet	227	215	213	205	205	1065

The current revenue costs of maintenance are [redacted] (as per 23-24 costs). This is expected to increase by 4.27% on average each year due to inflationary increases. This will be funded from the Service core funding and internal efficiency savings.

Procurement Process

The Service uses Crown Commercial Service (CCS) frameworks (ref: RM6244) for most base vehicle procurement. The current contracts are due to expire (end date 28/11/2026) before the end of the period in which this Business Case covers, however these will be re-tendered in sufficient time to ensure there is no delay to orders being placed and delivery of vehicles.

Affordability

The capital costs associated with this programme will be funded via an ear-marked capital allocation from the Scottish Government following approval of this FBC by the Capital Investment Group.

Revenue costs associated with direct replacement of existing vehicles will be funded by the Service's core revenue budget.

Governance and Assurance

The Fleet Replacement Project will report jointly to the National Vehicle Design & Equipment Group (NVDEG) focusing on the operational delivery objectives and Capital Programme Governance Group (CPGG) focusing on the financial management controls.

In addition, the Service Performance and Planning Steering Group, reporting to the SAS Board, receive quarterly updates on progress of the replacement programme. This reporting will continue across the life of this Business Case.

The General Manager for Fleet Services, reporting to the Director of Finance, Logistics and Strategy, will oversee all work relating to this project and will be supported by Regional Fleet Managers and Operational Personnel to ensure the effective co-ordination of replacements to guarantee no detriment to service delivery.

8.2 Recommendation

It is recommended that the Scottish Government Capital Investment Group approve this FBC. Subject to approval being granted, the Service will proceed to fully implement the project.

This FBC has been produced in accordance with the guidance issued by the Scottish Government's Capital Investment Group (CIG).

Section 2: Introduction

2.1 Purpose of the Business Case

The provision of services by the Scottish Ambulance Service (the Service) is dependent on reliable, well maintained vehicles. Vehicles have a short finite life and as a result, the Service has a recurrent requirement to replace them as they come to the end of their useful life.

The purpose of this Full Business Case (FBC) is to confirm that the procured offer represents the best value commercial solution for delivering the project requirements within the affordability limits. It will also demonstrate that appropriate contractual, commercial and management arrangements are in place to successfully deliver the project. The FBC follows on from previous five year replacement cycles which established the need for; and strategic fit of the investment.

This need remains unchanged and it has been agreed with Scottish Government that the Service is not required to resubmit the Initial Agreement, given this is part of a 5 year replacement programme.

The FBC follows the guidance published in the Scottish Government Health and Social Care Directorate (SGHSCD) Scottish Capital Investment Manual (SCIM).

It should be noted that there is, at this stage, no end point to the Fleet Replacement Programme. There remains a continual need to replace vehicles as they come to the end of their useful life and are no longer fit for purpose. This is recognised by Scottish Government and capital monies have been earmarked by Scottish Government to fund this ambulance replacement programme.

This Programme will replace over 1,000 vehicles over the 5-year period covered by this Business Case. Continued project management processes have been incorporated to ensure financial and operational governance is maintained.

2.2 Scope

<u>Fleet Covered</u>

Existing Fleet	This Business Case covers the direct replacement of A&E, Scheduled Care and Specialist Vehicles. The fleet purchases will be flexible to cover a range of responses resulting in a mix of vehicle styles purchased for the same category. The different options and number of each type were considered and evaluated in the IA and previous five year replacement programme FBCs and this remains broadly unchanged. Support vehicles, such as those used by workshops, training, infection control, health and safety and operational regions will also be replaced.

	This Business Case covers the vehicle base, conversion and standard vehicle equipment list in relation to the replacement of existing fleet.

Time Period

This business case covers five years of procurement for vehicles commencing 2026/27. This is the third five-year business case for fleet replacement that the Service has developed to secure funding over the five-year period.

The Service has evaluated options which estimate the likely size and mix of the fleet in order to secure funding for the annual replacement of vehicles. In order to adapt to local and national service needs and changes, the Service will need to have some scope to vary the size and mix as requirements arise which may impact on vehicle requirements but will ensure that the funding packages are not exceeded.

Section 3: Strategic Case

3.3 Organisational Strategic Context

Organisational Overview

The Service operates as a mobile service meeting the scheduled, unscheduled and emergency care needs of a diverse population in every community at all times of day. The Services delivered by the Service are all transport based, either by taking operational staff to the patient or by taking the patient to the most appropriate point of care. To be able to deliver these services there must be the right mix and number of vehicles available.

2030 Organisational Strategy

The Service 2030 Organisational Strategy builds on the success of delivering the 2020 strategy and has been developed through consultation with citizens, staff, partner organisations, volunteers, local and national government, educational institutions, community groups, charities and voluntary organisations. The impact of this 2030 Strategy on the replacement programme remains unchanged and continues to rely on suitable supporting fleet.

The key elements of our 2030 strategy are described in the following diagram.

There is a range of work reporting through our 2030 Strategy Group reporting to the SAS Board that links to the requirement of this Full Business Case and have summarised these below:

1. Realistic Medicine

- Find out what matters most to the patients we treat.
- Treat patients as an equal partner in the decisions about their care.
- Share decisions about treatment options so that patients are informed to make the right choice about what's right for them

2. Getting the Resources Right

- Attracting and employing more staff
- Procuring more ambulances and other response vehicles and equipment
- Implementing shift patterns that are aligned with demand to respond when we are needed
- Maximising the number of locations, co-located with partner agencies where possible
- Training and developing our existing staff and adopting new ways of working
- Designing and implementing new roles with partners to meet changing healthcare needs.

3. Connecting and Collaborating

- We are developing opportunities to make the best use of our infrastructure, workforce and technology by collaborating with Health Boards, other emergency services, Local Authorities, Integrated Joint Boards and other stakeholders . By collaborating on shared systems and services, we will maximise efficiency and provide the most cost effective services for the public.

4. Enhancing our Clinical Model of Care

- Responding to patients who present with urgent care needs and appropriate non-immediately life threatening conditions by providing senior clinical decision making support in our Ambulance Control Centres
- Providing professional decision support to our crews on scene, enhanced through innovative technology
- Using new innovative technologies that enable remote monitoring of citizens, providing early intervention where necessary and promotion of self-care.
- Developing a national service directory of all available care pathways showing their operating hours, capacity and access criteria
- Delivering advice and guidance to our ambulance clinicians about the availability of different pathways of care available to their patients, as alternatives to hospital A&E departments

5. Enhancing our Contribution to Primary & Urgent Care

- Growing our workforce and enhancing skills to increase our involvement in Primary and Urgent Care services for both “In Hours” and “Out of Hours” provision
- Developing procedures and systems to allow appropriately qualified Service clinicians to digitally prescribe
- Developing our diagnostic capability, equipment and vehicles to deliver mobile testing capability and care to people in their homes.

6. Out of Hospital Cardiac Arrest (OHCA)

- Increasing bystander Cardiopulmonary Resuscitation (CPR) rates from around 65% to 85% by training a further 500,000 people in CPR
- Increasing Public Access Defibrillators (PAD) use to 20% by using our data to help inform communities where best to place PADs, encouraging 24/7 accessibility, and promoting registration of defibrillators to enable our call handlers to quickly direct bystanders
- Working with communities and partner organisations such as BASICs, Wildcat, Police Scotland and the Scottish Fire and Rescue Service to explore and develop further opportunities to respond to patients in those vital minutes before our crews arrive
- Undertaking research projects to improve our understanding of the early identification and stages of the chain of survival and adapt our education and service delivery model based on the findings.

7. Major Trauma

- Transition of our Trauma Desk within our Ambulance Control Centre to an advanced practice-led Critical Care Desk
- Supporting the identification and the co-ordination of our response to all critically ill patients who may benefit from advanced care while providing clinical advice and decision support for our crews
- Developing the clinical skills and experience of our Advanced Practitioners in Critical Care
- Introducing adult and paediatric Major Trauma Triage Tools to support our clinicians in identifying major trauma, providing guidance, and identifying the most appropriate hospital to ensure the best outcome for patients

8. Stroke

- Participating in the design of a whole system improvement in the management of stroke patients using Artificial Intelligence and digital developments
- Designing and implementing enhanced training for ambulance control staff and frontline staff to speed up the time it takes between receiving the 999 call to the patient receiving the appropriate stroke treatment out of, and in hospital

- Playing an integral role in developing and designing the optimum service for the three regional Thrombectomy Centres

9. COPD

- Working with partners to establish referral pathways which best meet the needs of patients with respiratory difficulties
- Working with partners to introduce and operate digitally enabled self-monitoring and self-care systems for COPD patients. Information from these systems will help inform our most appropriate response when patients call 999

10. Our Response to Major Incidents

- Protecting our staff and public, and provide safe and effective patient centred care
- Minimising consequential disruption to services, and support an early return to business as usual
- Maintaining capability to respond to other emergencies by increasing the number of trained, appropriately equipped, and protected responders who can deploy to a contamination incident from their regular routine duties
- Continuing to be a key partner in national and local resilience partnerships, and work closely with the other emergency services and across local authorities and local communities. We are building upon these collaborations as we redesign and reform

11. Falls

- Increase patients' access to community care pathways specifically designed for people who have fallen, to avoid unnecessary hospital admissions
- Developing our response to best manage their specific needs, including connection with other services
- Working with partners to identify people at risk at an early stage and provide a community based preventative role

12. Cancer and End of Life Care

- Providing specialist training and support to equip emergency responders from all services across Scotland to respond to the needs of individuals in the place that is right for them, reducing unnecessary hospital admissions and ensuring their end of life wishes are fulfilled
- Developing professional-to-professional pathways to support staff decision making and appropriate safeguarding when not conveying patients to hospital
- Improving access to existing patient information to support palliative and end of life care needs
- Understanding and recognising the holistic needs of patients and families at end of life

13. Dementia Care

- Develop and deliver a dementia strategy
- Develop and implement dementia-friendly ambulances

- Develop dementia specific education packages
- Support all staff to become Dementia Friends in collaboration with Alzheimer's Scotland
- Introduce Dementia Champions across Scotland in supporting local delivery of dementia care

14. Mental Health

- Implement our Mental Health Strategy
- Working to reduce stigma around mental health
- Continuing to strengthen our approach, considering physical and mental health together, ensuring the holistic needs of our patients are met
- Investing in the development of our staff to enhance mental health care and support
- Developing and rollout across Scotland our mental health response service
- Maximising our role as a system connector to ensure patient care needs are identified and supported within the health and care system

15. Learning Disabilities

- Work with communities to understand the challenges facing people with learning disabilities requiring our service
- Maximising the use of technology to enhance the experience for people with a learning disability requiring our service
- Working collaboratively with partners to align support for people with learning disabilities in relation to health care and treatment

16. Protecting Vulnerable Adults and Children

- Working with third sector and community teams to support the development of care packages which meet individual needs
- Supporting our people to develop their knowledge, skills and competence in relation to supporting vulnerable people
- Refreshing our approach and deliver the ambitions of our Corporate Parenting Plan to work together with formal and local partnerships within services to meet the needs of looked after and accommodated children, young people and care leavers as they interact and come into contact with the Scottish Ambulance Service. This will relate to elements of specific care needs, in employment and employability, as well as through a range of opportunities

17. Scheduled Care Services

- Working with patients, staff, the public and partners, to design and implement a new updated Scheduled Care Strategy with detailed actions, impacts and outcomes
- Undertaking a Demand and Capacity Review for scheduled care and as a priority, assess the impact of the development of the NTC's and delivery of cross boundary planned care on our resourcing requirements to get patients with a clinical need for transport, to and from hospital appointments, whilst managing our timed admissions and discharge capability to maintain flow through hospitals
- Designing and implementing a new patient needs assessment and booking process, embracing technology to increase digital access to the booking process

Almost every priority and ambition, described within our 2030 Strategy relies upon our vehicles as the foundation of delivering services. The use of modern, well equipped vehicles will support these changes in healthcare provision. Moves to more community based pathways with multi-disciplinary teams working across the system to deliver the most appropriate care for patients continues to rely on the most suitable vehicle and equipment to undertake these tasks.

3.4 National Strategic Context

The Fleet Replacement Business Case contributes to the nation strategic aims through

- New vehicles are built to higher environmental specifications and are subject to increased regulation on greenhouse gas emissions. By ensuring that the Service can replace vehicles as they come to their end of their useful life reduces the overall carbon footprint and greenhouse gas emissions associated with the delivery of services.

- Provision of the right type of vehicle, which is reliable and well maintained, for each category of incident responded to by the Service contributes to the quality of care experienced by the patient along with improved health and wellbeing outcomes.

3.5 National 'Green' Fleet Strategies

The Service fully supports Scottish Government aims to reduce carbon emissions from road transport. The Service 2030 'path to net zero' strategy clearly defines our fleet ambitions including

- Moving to full electric for Training, Support and Scheduled Care vehicles. These vehicles are van-style vehicles and will be delivered by 2030. All non-emergency vehicles will be fully electric by 2030.
- Operational A&E vehicles are more of a challenge due to the size and weight but also due to the length of time currently required to charge the vehicle. The Service will continually monitor and assess new technology as it emerges. Our strategy working with industry and academia would aim to have emergency vehicles in place by 2032.

The Service has been progressing these actions with:

- the implementation of solely zero emission, 2 wheel drive and 4 wheel vehicles below 3.5 tonne.
- Replacing all light fleet vehicles (Scheduled Care, RRVs, Training and Support) with electric vehicles.
- continue to develop electric vehicle charging infrastructure through integrated approach from power suppliers and users:
- consideration of emerging technology which may provide further options

The Service is also on track to remove all petrol and diesel fuelled cars from our fleet by 2025.

The Service continues to work with Police Scotland and the Scottish Fire and Rescue Service to develop an integrated electric charging infrastructure network to enable the three Emergency Services to use charging points installed at each other's sites. This will make the use of electric vehicles for operational use much easier.

The Service accounts for a significant proportion of road traffic in Scotland with associated health, environmental and financial impacts from carbon emissions, particulates and escalating fuel costs. Transport is the highest contributor to the overall SAS carbon footprint, certainty over replacement funding for the SAS fleet presents the Service with an opportunity to introduce a range of sustainable measures that could support a significant reduction in our total greenhouse gas emissions.

Scottish Government's Programme for Government

The Scottish Government re-affirmed their commitment to net zero in the 2024/25 programme for government.

This builds on previous programmes which outlined the national commitment to phase out petrol or diesel fleet in the public sector by using low and zero carbon transport initiatives

The two key targets for public sector fleet identified in the 2019-20 programme remain in place:

> *"We will work with public bodies to phase out petrol and diesel cars from our public sector fleet and phase out the need for any new petrol and diesel light commercial vehicles by 2025."*[1]
>
> *"We will work with public bodies, the automotive sector and Scotland's innovation community to create the conditions to phase out the need for all new petrol and diesel vehicles in Scotland's public sector fleet by 2030. We will apply flexibility and pragmatism for frontline and emergency service and specialist vehicles."*[2]

This strategy establishes an ambitious aim to phase out fossil-fuelled cars and all other fossil-fuelled vehicles within the public sector by 2025 and 2030 respectively. The strategy also states that a pragmatic approach will be applied to emergency service vehicles. This has been a key focus of the Service fleet planning and sustainability objectives.

Provision has been made in this Business Case to continue the move towards full electric training, support and Scheduled Care vehicles. These vehicles are van-style vehicles and fall within the 2030 target stated above.

[1]Scottish Government (2019). *Protecting Scotland's Future: the Government's Programme for Scotland 2019-20*, Chapter 1, p.43. [online] Available at: https://www.gov.scot/publications/protecting-scotlands-future-governments-programme-scotland-2019-20/

[2]Ibid, p.44

The Service new cars are all now predominantly electric, retaining a small number of hybrid & plug in hybrid to ensure we can continue to deliver patient care and service needs.

Operational A&E vehicles remain more of a challenge due to the size and weight, charging time, and the need for on-board power. The Service continues to monitor and assess new technology as it emerges however it is realistic to state that within this 5 year timeframe it is unlikely that there will be a full scale switch to ultra low emission for these operational vehicles but it is hoped to progress with a number of successful pilots in certain areas and the Service will maintain a key focus in this area. The Service 'path to net zero' Strategy remains with the aim of 2032 subject to manufacturer innovations and research.

The Service has been working with a manufacturer to develop a fully electric A&E vehicle and this is due to be 'in operation for research and development testing purposes' during 2025-26. The total cost of this vehicle is not cost effective for wider use, but signals the intent of the manufacturing industry to work with the Service to develop this further.

3.6 Summary of Current Arrangements

There has been no change of material importance to the current arrangements since the Initial Agreement. It is also unlikely that the current arrangements will change significantly during the investment process.

Owned Vehicles	2023/24
Number of Owned Vehicles	1,622
Net Book Value (£m)	58.14
Total Mileage per Annum	26,490,822

Age Profile	Less than 2 years old	2-5 years old	Over 5 years old
2023/24	38%	38%	24%

Fuel Type	Petrol	Diesel	Hybrid	Electric
2023/24	2%	76%	3%	19%

Owned Vehicle Assets									
	A&E Chassis Conversion	A&E Van Conversion	A&E 4X4 Chassis Conversion	Rapid Response Vehicles 4x4	PTS - Van Conversion	PTS - Car	Specialist Vehicles (SORT / Island / NeoNatal / Training etc.)	Admin/ Support	Total
Number of Vehicles	448	28	59	103	454	11	102	417	1622

3.7 Summary of the Need for Change

The need for change and investment was set out in the IA and previous five year programmes and is summarised in the table below:

What is the cause of the need for change?	What effect is it having, or likely to have, on the organisation?	Why action now?
To ensure service delivery is maintained and patient safety is not compromised, the vehicles in poor condition need to be replaced with newer, more reliable vehicles	Vehicles that are old and in poor condition have higher off the road downtime caused by mechanical failure and an increased maintenance and servicing requirement. This reduces the availability of vehicles able to respond to incidents thereby increasing response times and potentially affecting patient outcomes	Due to the investment provided by the current Fleet Business Case, the age and condition of the current vehicles has improved over the life of the business case. However, without ongoing investment to replace these vehicles at the optimum time there will be a significant increase in maintenance costs, that would be unaffordable. In addition . vehicles will increasingly be unavailable for responding to incidents thereby increasing response times and affecting patient outcomes
As the Service implements its 2030 Strategy new developments and opportunities are being identified that may have an impact on the number and type of vehicle required to delivery services.	Vehicles that are old and in poor condition are less flexible in being able to be adapted to meet the different needs of patients. The Service will continue to ensure patients are provided with the most appropriate response depending on the acuity level of the incident. If the right type of vehicle is not available due to increased downtime for old vehicles, patients may have to wait longer for a response	The investment provided by the current Fleet Business Case has allowed the Service to invest in different type of vehicles rather than focusing on the traditional A&E Ambulance and PTS Minibus. The Service now has a mix of PTS vehicles with both seating and trolley cot configuration along with different types of RRV vehicles and this is expected to continue into this next phase of the investment plan. Without ongoing investment the Service will not be able to adapt to changing priorities or business needs

The vehicles in poor condition and out of warranty need to be replaced with more reliable models to meet service needs. This also contains maintenance costs at the current level	Vehicles that are out of warranty and in poor condition incur higher maintenance and fuel costs than newer more reliable vehicles	Without continual investment in the fleet, maintenance costs will increase to an unaffordable level. In addition, there is a high risk that older vehicles cannot be repaired or maintained to a roadworthy condition and will need to be disposed. Without a replacement, the number of vehicles available reduces which increases response times and potentially affects patient outcomes
To reduce environmental impact from carbon emissions through innovation and evolving technology	As vehicles age, they have a damaging environmental impact through increased emissions	Newer vehicles are built to meet higher legislative environmental standards and have reduced carbon emissions. Investments are increasingly being made in alternative fuel types such as electric or PHEV which reduces the impact on the environment from delivery of services
The vehicles need to be able to accommodate different technology and medical equipment to allow staff to be able treat a wider range of conditions	Vehicles that are old and in poor condition are not able to adapt to new developments in patient care or use of digital technology.	New vehicles can be designed and specified to the Service's needs and will take into account emerging developments in patient care and technology.

3.8 Summary of Opportunities for Improvement

A summary of Opportunities for Improvement identified in the IA and previous five year programmes is included below.

The core principles of these remain unchanged with an update on the progress to date and then the next steps to deliver these to 2031.

Opportunity for Improvement	Description	Progress to Date	Next Steps – to 2031
Electric and Alternative Fuel Vehicles / Low Emission Fleet	The Scottish Ambulance fleet has sought to reduce emissions for several years while retaining operational robustness to ensure patient care. The development of alternative fuel vehicles is now changing at a very rapid pace with many viable vehicle types either available now or being indicated as imminent by manufacturers. The Service want to lead in the transition to specifying electric or alternative fuel vehicles across the fleet as quickly as	The service now has 311 electric vehicles in fleet. As the range of modern designed vehicles and availability improves, it is anticipated that all 2WD cars will be zero or ultra-low (<51gms CO2) by 2026. The emergency response vehicles, A&E and Paramedic Response are Low Emission Zone compliant aligned to the current Fleet Replacement Business Case funding. With longer replacement schedules of the remaining fleet, this will take a few more years but the Service is already around 88% Low Emission Zone compliant with the remaining older fleet. The Service is working with NHS, Scottish Fire and Rescue Service and Police Scotland to develop an integrated electric charging infrastructure networks to enable use of charging points installed at each other's sites. the Service secured Switched on Fleets funding further progressing the in electric vehicle charger infrastructure to support the roll out of electric vehicles nationally with over 52 sites installed with a mixture of Rapid and Ultra chargers. The Service will continue to work with the NHS Electric Vehicle Infrastructure project and partner	Continue with the transition to the introduction of purely zero emission 2 and 4 wheel drive vehicles below 3.5 tonne by 2025 Replace light fleet vehicles (scheduled care, RRVs, training and support) with electric vehicles. The IA costs include the purchase of electric vehicles for RRVs, training and support Further development of vehicle designs providing the performance and response capabilities required of A&E electric Ambulances may not be available within the next few years. This continues to be a focus in discussions with manufacturers and partner agencies. Delivery of an electric A&E in early 2025/26 to allow a pilot and gather analysis on the vehicle capabilities.

Opportunity for Improvement	Description	Progress to Date	Next Steps – to 2031
	technically and financially viable.	agencies to ensure strategic alignment and interoperability.	Continue to further develop electric vehicle charging infrastructure through an integrated approach from power suppliers and users. Most SAS sites are already at or close to their power supply capacities. This is now involving the installation of substations to support the continuation of the electric vehicle charging infrastructure
Telematics	The Service has continued with the installation of vehicle telematics..	Completed project evaluation. Anticipated benefits are staff safety/wellbeing (lone worker, driver location), improved energy use (driver behaviours, idling, unwarranted mileage), more accurate maintenance (associated cost reduction), improved vehicle utilisation (with increased resource visibility), reduced administrative burden (reporting, log sheets, odometer accuracy), legislative compliance (driver identification) and theft & insurance benefits The vehicles telematics now provide a daily odometer reading directly into the fleet system further supporting the maintenance programme for these vehicles. The service now has over 500 vehicles fitted with telematics installed.	Continue with the project to have all new vehicles that come into fleet have vehicle telematics installed.

Opportunity for Improvement	Description	Progress to Date	Next Steps – to 2031
Vehicle charging back office software	Migrate the current vehicle charging units back-office software to a new provider	Created a specification for anew back office, tender process is completed, and new supplier awarded the contract. The service is now in the process of project planning for the migration from the current back-office software that is used for the electric vehicle charging units to ensure minimum risk for when the current Charge Place Scotland software will no longer be available. This project will allow further control of the units to monitor and report on the use of the units the software will also allow for other partner agencies.	Complete the project for the migration of the back-office software to the new provider including a car charging app, integrate to the fleet management system and further develop the functions to ensure a robust service to support the vehicle charge infrastructure, ultra-low emission vehicles and users.
Tranman upgrade	Implement tablets eforms into the workshops to remove paper used for the vehicle maintenance schedule programme.	The testing programme has now been completed; the new software will be moved from test to the live system to allow the roll out across the workshops. All technicians and chargehands will have an individual tablet issued for use instead of using paper to allow more effective and efficient working which will provide more readily available information to support their remit and service delivery.	Progress the role out from the north to south fleet workshops, implementing 2 workshops at time to ensuring the staff have the support with having such a major change from current practices. Staff training packages will be delivered to each workshop and staff member. Evaluate each workshop rollout.

3.9 Summary of Investment Objectives

The investment objectives for this programme have been developed from the premise that it is essential that the Service has access to reliable, well maintained vehicles. As vehicles have a finite life, the Service must replace vehicles on a frequent basis due to their age and condition.

The Fleet team are responsible for the ongoing need to replace vehicles as they come to the end of their useful and are no longer fit for purpose. The commission of new vehicles and decommission of old vehicles is a standard piece of work carried out by the Service's Fleet department on an almost weekly basis.

The investment objectives included in the IA and previous five year programmes have been refined for this five year period and are shown in the following table.

Effect of the need for change on the organisation	What has to be achieved to deliver the necessary change? (Investment Objectives)
Vehicles that are old and in poor condition have higher off the road downtime caused by mechanical failure and an increased maintenance and servicing requirement. This reduces the availability of vehicles able to respond to incidents thereby increasing response times and potentially affecting patient outcomes	Reduction in vehicle downtime for maintenance. This actual time a vehicle is off-road and unavailable for operational use is measurable and is currently reported to the Board Performance and Planning Steering Group on a quarterly basis.
Vehicles that are old and in poor condition are not able to adapt to meet the different needs of patients. The Service will continue to ensure patients are provided with the most appropriate response depending on the acuity level of the incident and location. If the right type of vehicle is not available due to increased downtime for old vehicles, patients may have to wait longer for a response	To provide the right mix of vehicles required to provide the most appropriate response depending on the level of acuity of the incident. As above, the vehicle downtime is measurable. This will also be monitored by the Service National Vehicle Design and Equipment Group which has operational representational from the Service's regions.
Vehicles that are out of warranty and in poor condition incur higher maintenance and fuel costs than newer more reliable vehicles	To contain maintenance, fuel and logistical costs of vehicles by providing newer, more reliable vehicles. Fleet revenue expenditure will be monitored by the finance department with monthly reports provided to the General Manager for Fleet and any cost pressures or unfavourable trends highlighted. This is also reported at each Performance and Planning Steering Group and reported to the Board.
As vehicles age, they have a damaging environmental impact through increased emissions	To reduce environmental impact through innovation and evolving electric and alternative fuel technology. The Service will continue to move towards ultra low

	emission and alternative fuel vehicles within its fleet. Fleet is represented on the Service Climate Emergency Response and Sustainability group.
Vehicles that are old and in poor condition are not able to adapt to new developments in patient care or use of digital technology.	To increase the number of patients receiving a 'see & treat' response rather than being conveyed to hospital through use of innovation and evolving technology and in response to different clinical needs

3.10 Change to Cost of Investment

The key change in cost in relation to this updated replacement programme business case relates to the move to electric vehicles. As noted previously it is not anticipated that the move to A&E electric vehicles will take place in this time period as a result of ongoing manufacturing research and development. As the service continues the transition to ultra low emission vehicles, the cost of Scheduled Care fleet will however be subject to an electric vehicle premium, increasing costs to [redacted] per vehicle. This is an increase of [redacted] on the like for like replacement cost. This will deliver the Scottish Government targets to 2030 as noted previously. The period of the Business Case covers Scheduled Care vehicle purchases to March 2031 however some latterly purchased diesel fleet will remain in Service until circa 2036.

This increase in costs, specific to this development is highlighted in section 6: the financial case.

3.11 Preferred Strategic Solution

The preferred strategic solution is to replace the existing fleet.

Section 4: Economic Case

4.1 Confirmation of Preferred Option

The preferred business option as established in the IA and previous five year programmes is to purchase a range of vehicles, including a mix of styles, reflecting geography and patient need.

Recognising there are no material delivery model changes over the next 5 years, the Service intends to purchase a number of the following types of vehicles:

- A&E Box Body 4X2
- A&E Box Body 4X4
- A&E Island Remote Vehicle
- PRU – 4WD Car
- PTS Van 4x2 with stretcher
- PTS Van 4x2 without stretcher
- Support cars and vans

The type of A&E fleet options were assessed within the previous five year Fleet Replacement Business Case and scored against identified benefits. The benefits appraisal was carried out by the Service's National Vehicle Design and Equipment Group (NVDEG).

This Group advises the Service's Executive Team on matters relating to the design, specification, procurement and use of vehicles and equipment for the Service, with the aim of securing benefits from an optimum procurement methodology. The Group provides specialist advice and has representation across the service, with core membership including:

- Fleet Manager
- Head of Service
- Area Service Managers
- Health and Safety Manager
- Clinical Governance Manager
- Infection Control Specialist
- Staff side representative
- Specialist and/or other stakeholders external to the organisation may be co-opted onto the group as required.

An extract of the benefits appraisal and economic appraisal is included at Appendix A. This work describes the appraisal of the different types of vehicles and the agreed scoring. The group has reviewed this appraisal from the previous replacement plans and remains consistent with the previous assessment.

Options for other vehicles (paramedic response, scheduled care, NRRD or support vehicles) have negligible differences in costs so were not subject to a specific benefits appraisal. The final specification and design for these vehicles will be

established through NVDEG. The Service has committed that this will be managed within the proposed capital funding in this Business Case.

Manufacturers and converters continually introduce and develop designs and specifications, and it is anticipated, as seen during the last 5 years, that the Service will adopt innovations that improve patient care or the patient experience, give improved value, reduce environmental impact and/or enhance safety. The Service has confirmed these will be managed within the funding identified within this Business Case.

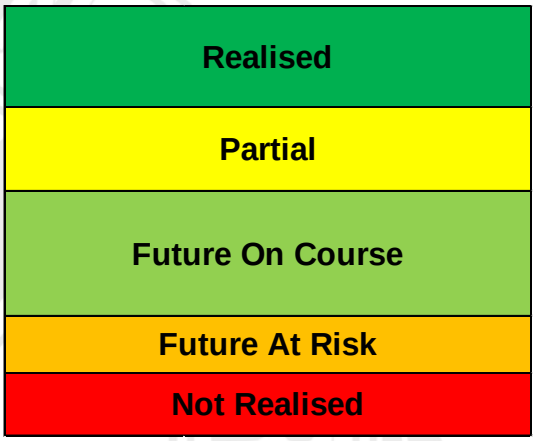
4.2 Benefits

The Benefits Register is included in detail within Appendix B.

As there is no end point to the Fleet Replacement Project, i.e. there is an ongoing requirement to replace vehicles; the current Benefits Register will be continually updated to reflect the current and future requirements.

This register describes:

- The benefits description
- A detail of where the benefit is realised
- The Measurement Criteria and how this is tracked
- Actions taken to implement the benefit
- Detail of the Baseline Observation
- Detail of other Dependencies
- Post Implementation Observation showing how this has been materialised
- Owner
- Benefits Status. This categorisation of these are noted below



The Benefit Descriptions are:

- Operations - Increased fleet resilience through provision of vehicle mix that meets pre-defined clinical and operational requirements to best address changing patient care requirements
- Operations - Increase bariatric capability through provision of greater number of vehicles with capability to respond to special requirements of bariatric patients
- Staff / Patients - Provide more vehicles with automatic gearboxes to improve comfort of journey for patients and staff by removing need for clutch control and manual gear changes.
- Fleet / Finance - Reduction in maintenance, fuel and logistical costs over whole life span of ambulance after capital cost of purchase accounted for
- Staff / Patients - Improved patient loading / access, ergonomics, safety, ease of access to vehicles for patients and patient loading improved
- Staff / Patients - Improved work environment for crews and patients in A&E ambulances due to increased space in vehicle cab and remodelled patient transport area
- Fleet / Staff - Driving performance is improved due to greater vehicle manoeuvrability and ease of use

- Fleet / Finance - The new vehicles will carry a period of manufacturer warranty that covers major faults
- Operations - Meeting the needs of specialist roles such as command vehicles - SORT as the project provides the ongoing ability to learn, adapt and provide vehicles that meet specialist role requirements
- Staff / Patients - Enhancing the clinical requirements in terms of equipping and providing space for all types of patients without the need to re-role seating types Flexible specs and Multi-purpose seating/vehicles

These benefits are likely to remain over the life of this replacement business case.

4.3 Risks

The Risk Register is included at Appendix C. This remains a live document and is managed in line with the Service risk management policy.

This currently has the following risks, with only one high risk relating to price increases due to inflation and exchange rates. Appendix C details the actions taken to mitigate these, with primarily the ability to manage this within a total ring fenced replacement funding allocation as described within this business case. All other risks are medium and have associated actions to mitigate.

Due to the previous 5 year funding allocation and the ability to manage this across the years, mitigates a number of the risks.

Description	Controls in place	Likelihood (current)	Consequence (current)	Risk level (current)
There is a risk that vehicles prove to be functionally unsuitable because of design or specification resulting in adverse effect on Service delivery.	Build projects split into sub-projects with specific scope and lead. Ensure specifications are developed with full engagement of front-line operational staff/users and key stakeholders including an ergonomics advisor. Utilisation of existing specifications to ensure conformity. Review plans at NVDEG. Review individual build project Risk Logs at Fleet SMT	Unlikely (2)	Minor (2)	Medium
There is a risk that there is an overspend on the project budget because of project creep or unavoidable circumstances, resulting in overspend or failure to deliver the project in full.	Budget projections set from current cost base. Provision to be made for inflationary and market led increases in costs. Project delivery & cost analysis reviewed at monthly capital meetings	Possible (3)	Moderate (3)	Medium
There is a risk of delays/changes during the project because of legal/contractual difficulties resulting in no supplier contract in place.	Contracts are in place for all vehicle supply requirements. Contracts expiring within the Business Case duration to be tendered and appointed in a timely manner. Engagement with procurement team to ensure contracts are in place in a timely manner. Review individual build project Risk Logs at Fleet SMT.	Unlikely (2)	Moderate (3)	Medium
There is a risk that insufficient funding will be made available because of unforeseen additional requirements resulting in the inability to provide the vehicles required to deliver patient care.	The Business Case preparation and submission is timely and details the funding requirements.Fleet Business Case approved (2016/17 to 2020/21 @ [redacted]). Monitor project delivery. Review additional/new requirements	Unlikely (2)	Moderate (3)	Medium
There is a risk that operational staff will not receive appropriate training for new vehicles or equipment because of requirements not being identified or lack of resource resulting in adverse effect on Service delivery.	Fleet Project Teams identify training requirements. Liaise with Ops and Training/Education Department to allow staff time for training. Training to be provided through: 1) Fleet Staff - Familiarisation 2) Ops Lead - Familiarisation/Cascade 3) Training Department, Manufacturer or Expert	Possible (3)	Moderate (3)	Medium
There is a risk that the Fleet Team will not have sufficient skilled resource to deliver the project or component parts because of lack of skilled staff resulting in adverse effect on Service delivery.	Fleet SMT review staffing levels and demands (business continuity and project delivery). Fleet SMT to manage staffing levels, recruitment, technical training and project guidance/processes	Possible (3)	Moderate (3)	Medium
There is a risk that the vehicle and equipment prices may rise because of fluctuating exchange rates and inflation resulting in project overspend or failure to complete the project within the allocated funding.	Contracts awarded define pricing for contracted periods. Regular dialogue and negotiation with suppliers maintained to identify potential emerging trends and take possible preventative/mitigating actions. Engagement with suppliers through regular review and planning meetings.	Likely (4)	Moderate (3)	High
There is a risk of delay because of unforeseen circumstances resulting in an impact on the replacement vehicle rollout.	Maintain communication amongst all relevant parties.	Unlikely (2)	Moderate (3)	Medium
There is a risk of additional demands on the Vehicle Replacement project funding envelope because of project additions & developments resulting in Fleet revenue pressures and benefits realisation.	Project changes to scope will be approved by VRPB & ETB.	Unlikely (2)	Moderate (3)	Medium

4.4 Leasing v Purchase

This Business Case assumes that all operational vehicles will be purchased through capital funding and the Service will be the legal owner. The Service previously evaluated leasing versus outright purchase within the last five year business case. It concluded that vehicle leasing is more expensive than outright capital purchases.

This option has been reconsidered for the 2026-2031 programme with indicative leasing costs compared to purchase costs, including the upfront lease or capital cost and recurring maintenance costs. Again, it was concluded that leasing vehicles is more expensive.

The table below summarises the outcome of the financial analysis of the two types of procurement method in relation to A&E vehicles. To simplify matters, the figures represent the costs of one vehicle type procured under either outright purchase or lease. For the purpose of the evaluation, figures are shown net of VAT.

Economic Appraisal of Procurement Methods						
Type	Asset Life	Net Present Value (NPV)		Equivalent Annual Charge (EAC)		Most Economic Procurement Method
		Purchase £	Lease £	Purchase £	Lease £	
AEU – Merc 519 Box 4x2	7	[redacted]	[redacted]	[redacted]	[redacted]	Purchase
AEU – Merc 519 Box 4x2	5	[redacted]	[redacted]	[redacted]	[redacted]	Purchase

The equivalent annual charge (EAC) figures represent the cost to acquire one vehicle (either up front capital cost or annual lease payment) and estimated fuel, maintenance and insurance costs. The EAC for leasing also includes a nominal figure at the end of the lease for penalty charges when the vehicles are returned to the leasing company. These charges are based on estimates in line with the service's experience of leasing vehicles. In addition, lease agreements are based on a pre-agreed terminal mileage clause with penalties charged for mileage in excess of these agreements.

The introduction of a new Accounting Standard IFRS16 from April 2021 is also considered as a drawback of leasing. This standard pertains that vehicles used for service delivery should be treated as a 'finance lease'. This means that while the Finance Company is the legal owner of the vehicle, the Service has full operating control over the asset for all or most of the vehicle's useful life. This classification will apply to all vehicles included in this business case. This classification means that the leased vehicles would be added to the Service's asset register and depreciated in line with other owned assets. At the end of the leased vehicles useful life, the vehicle would return to the leasing company and there is likely to be significant charges associated with that. Conversely, Service owned vehicles are auctioned at the end of their useful life, generating a small income that is reinvested back into the Service.

A further technical change in funding from 2025/26 will see IFRS 16 leases no longer funded from resource budget, resulting in the funding mechanism for leased vehicles being effectively the same to purchased vehicles.

4.5 Optimism Bias

Optimism bias is included within Business Cases to represent the fact that there tends to be an underestimate of the costs and duration of an investment project. The Fleet Replacement Programme does not fall into the classification of a specific project. Instead, this Business Case is concerned with purchasing vehicles at certain points in time. There is no technical complexity associated with the purchase and conversion of a vehicle. Vehicles are ordered in batches across the five financial years covered by this Business Case and delivery dates are confirmed at date of order.

The risks surrounding increases in prices or delays in completion are considered very low as being managed within the five year timeframe. In addition, all equipment installed in the vehicle is either standard off-the-shelf kit or will be transferred from an existing vehicle. Optimism bias has therefore not been included in the economic appraisal in section 4.4 above.

The costs included in the Business Case represent the costs currently being incurred by the Service, adjusted for inflationary increases.

4.6 Vehicle Replacement Cycles

The timing of replacements has been modified to smooth purchases over the lifetime of vehicles years, rather than having peaks at certain years.

Predicting an optimum serviceable life of many of the vehicle types used by the Service is highly complex for several reasons.

- When a vehicle is new and within the manufacturer's warranty period, the Service typically assign the vehicle to high demand/use applications and most costs are associated with high use wearable items (e.g. brakes, clutches and service items).
- As the vehicle leaves the warranty period costs escalate with any major component failures incurring significant costs.
- If the vehicle replacement plans are in place and effective, the Fleet department reassign the vehicle to a slightly lower demand role reducing the mechanical impact proportionally.
- As the vehicle enters the last stage of its operational life, it is reassigned again to provide cover for maintenance, operational peaks, overlaps, events or additional shifts.

In practical terms, the result of this fleet management is that for most vehicles the serviceable life is determined by the following factors:

- Physical condition
- Costly major unit failure near the end of the useful life of the vehicle

- The vehicle no longer meeting the needs for providing effective patient care.

Using historical data useful lives are provided in the table below.

However, at disposal each vehicle will be individually assessed.

Vehicle	Standard Useful Life (in years)
A&E Box	7
A&E Van	5
Neo-Natal Ambulance	7
Scheduled Care Vehicle	8 to 10[1]
Rapid Response Vehicle (RRV) Cars	5
Rapid Response Vehicle (RRV) Vans	5
Officer Cars (Leased)	4
Command and Control	10
Vans and Trucks up to 7.5 Tonne	7 to 10[1]

1 – Depending on use

The current age profiles for most vehicle types are in line with almost all other NHS Ambulance Services with the exception of the Scheduled Care Vehicles which the Service operate for up to 10 years in comparison to the normal seven year replacement cycle adopted by other ambulance services.

4.7 Vehicle Maintenance Requirements

The maintenance of the mechanical components are consistent between all vehicle types, however, alternative fuel vehicles (including electric) do have additional considerations and requirements. The Service has invested in a continuous programme of training of maintenance staff to IMI Level 2 certification in the maintenance of electric vehicles.

Following several years of increasing complexity and the associated increased maintenance resource requirements, the transition across to electric vehicles gives the opportunity to reduce the planned maintenance resource requirement by industry estimates of 20 to 25% for newer vehicles with reduced combustion engine and braking system maintenance. This is further enhanced with a power cost typically around 30 to 40% of comparable fossil fuel vehicles.

4.8 Preferred Way Forward

The following tables show the preferred type and number of vehicles required over the next 5 years to maintain service delivery and patient care. As the Service transitions to the 2030 Strategy, the numbers and types may need to be flexed, but the funding packages will not be exceeded.

Replacement of Existing Fleet

	2026/27	2027/28	2028/29	2029/30	2030/31	Total
Conveying						
A&E	70	65	65	65	60	325
A&E 4x4	0	6	6	0	0	12
NeoNatal					2	2
Island A&E	8	8	8	0	0	24
Island Basic						0
*EV Premium						0
PTS	60	60	50	50	50	270
EV Premium	*60*	*60*	*50*	*50*	*50*	*270*
Response						
PRU EV	20	20	20	20	20	100
Training						
Driver Training Units	4		4		5	13
NRRD						
Difficult Access A&E	3					3
Initial Response			4			4
Swift Water Resue				4		4
Command Response Unit					3	3
Incident Resonse Unit					3	3
Heavy Response Unit					3	3
Personel Carrier				3		3
Off Road (ATV)	6					6
ATV Carrier					3	3
Training - van (towbar)				4		4
Training - car				3		3
Car (EV)	42	42	42	42	42	210
Van	14	14	14	14	14	70
	227	**215**	**213**	**205**	**205**	**1065**

This remains consistent with the previous 5 years.

Section 5: Commercial Case

5.1 Procurement Strategy

This business case seeks to confirm a five year funding commitment from Scottish Government. This is the arrangement currently in place with Scottish Government. This business case covers the period from 2026/27 to 2030/31.

The business case is submitted in 2025-26 as delivery lead time can take up to eighteen months from order, this allows the Service to place orders with suppliers in advance of need to secure production line slots. This gives the Service assurance that vehicles will be delivered and paid for within the financial year. In addition, by placing orders in advance, suppliers have certainty over production commitments which has contained price increases to date benefiting the Service.

Base Vehicles

The Service uses Crown Commercial Service (CCS) frameworks (ref: RM6244) for most base vehicle procurement. The current contracts are due to expire (end date 28/11/2026) before the end of the period in which this Business Case covers, however these will be re-tendered in sufficient time to ensure there is no delay to orders being placed and delivery of vehicles.

The new CCS framework will be reviewed once 'live' to ensure suitability, acceptability and delivers value for the Service's requirements. Typical delivery of base vehicle chassis is 6-12 months from date of order but can be considerably longer with planned conversion times typically 3-6 months from receipt of chassis, based on orders being placed at time of chassis order allowing build slots to be secured with convertors.

Conversion Contracts

The Service has previously tendered conversion contracts and the current contracts will expire before the commencement of the next Fleet Business Case. New contracts will be awarded prior to commencement of this Fleet Replacement Programme. Work has begun on re-tendering for these contracts; timescales are detailed below.

Vehicle Type	Detail	Contract Notice Open Date	Contract Evaluation	Contract Award Date
Accident and Emergency Ambulance Conversion	Lot 1: A&E Box Body Conversion Lot 2: A&E Van Body Conversion Lot 3: A&E Island Spec Van Body Conversion Lot 4: A&E Remote Island Van Body Conversion	PQQ 1st April 2025 ITT 1st June 2025	Contract Evaluation 1st July 2025 Evaluation Conclusion &	Board Approval November 2025 Contract Award & Standstill
Scheduled Care	Lot 1 – Panel Van based conversion			

Vehicle Type	Detail	Contract Notice Open Date	Contract Evaluation	Contract Award Date
Vehicle Conversion			Recommendations 1st September 2025	1st December 2025
Specialist Response Vehicle Conversion	Lot 1 – Covert Response Vehicle Conversion Lot 2 – Marked Emergency Response Vehicle Conversion Lot 3 – Specialist Response Vehicle Conversion			

Accident & Emergency Ambulance Conversion

The four lots allow the vehicle procurement to be flexible and align with the Service's 2030 Strategy.

Each lot has the provision for alternative patient loading systems, interior layout and design and developments in technology. The vehicle mix between the options is without commitment or obligation.

The Framework will be valid for 3 years from 1st December 2025 (anticipated award date) with the option to extend the contract for a maximum of 24 months.

Scheduled Care Vehicle Conversion

The Framework will be valid for 3 years from 1st December 2025 (anticipated award date) with the option to extend the contract for a maximum of 24 months.

Specialist Response Vehicle Conversion

The Framework will be valid for 3 years from 1st December 2025 (anticipated award date) with the option to extend the contract for a maximum of 24 months.

5.2 Scope of Works and Services

The Business Case encompasses vehicles required by the Service for direct effective patient care and the support services required to facilitate that patient care.

Vehicles being commissioned into service should be built, finished and equipped to meet all legislative requirements and operational needs.

For each of the vehicle types, consideration has been given to the base vehicle, the cost of conversion of that vehicle and the essential items of equipment (as detailed in Appendix D) integral or directly fixed to that vehicle. This specifically includes trolley cots, standard patient loading chairs & restraint systems and similar equipment.

It does not include specialist or transferable clinical equipment such as defibrillators, telehealth, communications or development and provision of additional innovative equipment. As in the previous years, the replacement of these will would be subject to a separate dedicated business case.

5.3 Risk Allocation

The Business Case delivery is low risk and follows a project plan that is tested and evidenced as having been robust and effective over several years. This is deemed 'business as usual' as opposed to any specific new project actions. As in recent years, there has been a continued and increasing patient, user and stakeholder focus giving further enhancement to the design and build process.

The greatest risk relates to the funding availability and the associated risks of being unable to replace aging and obsolete vehicles.

5.4 Commercial and Contractual Arrangements

Payment Structure

Suppliers will invoice the Service on delivery of goods or completed works with payment being made when the Service is satisfied that they have receipted delivery in full and taken title to the goods or services as ordered.

Contractual Arrangements

Vehicle chassis purchases are currently and expected to be, upon renewal in 2026 via Crown Commercial Service (CCS) framework agreement.

Vehicle conversions are managed via Service specific procurements, which are and will be OJEU Published and managed by the Service's Procurement and Fleet departments.

Asset Ownership and Maintenance Responsibilities

With the exception of leased staff cars, the Service owns all fleet vehicles. Outright purchase allows the Service to manage the whole vehicle lifecycle, from ensuring all operating requirements are incorporated at design stage to achieving best value at disposal. Purchase has also consistently demonstrated to represent better value for money during options appraisal analysis.

Contractual Remedies

As required by the remedies directives, a ten-day standstill period between the award and the signature of a public contract will be implemented. All submitted tenderers will be advised about the outcome of the tender procedures.

Compliance with Regulations and Standards

As per Public Contracts Regulations 2015, the use of an approved public sector framework and supplier will be utilised. When required, an Official Journal European Union (OJEU) Tender will be carried out, following all required timelines, process and procedures as required by the regulations.

Operational and Contract Administration Arrangements

The Fleet Replacement Programme will be managed by the General Manager for Fleet and the Regional Fleet Managers along with Operational Personnel to ensure the effective co-ordination of replacements to guarantee no detriment to service delivery. The General Manager for Fleet will be responsible for the day to day running of the replacement programme and will manage the budget and resolve any risks and issues.

Quarterly reviews will be undertaken between the incumbent supplier, Service Fleet and Service Procurement staff to review supplier performance and compliance to the requirements, via a balanced scorecard methodology.

Personnel Implications

No TUPE, Staffing or Personnel implications have been identified.

Section 6: Financial Case

6.1 Review of Financial Case within the Initial Agreement & previous five-year programmes

Funding Assumptions

The planning assumption is that funding for this Programme will be via an ear-marked Capital Allocation from the Scottish Government Capital Investment Group to support a capital procured solution.

Revenue costs associated with vehicles such as repair and maintenance will be funded via the Service's core revenue budget in the relevant financial years.

Capital Requirements

The capital funding requirement is shown in the table below.

	Capital Funding Requirement					
	2026/27	2027/28	2028/29	2029/30	2030/31	TOTAL
	£000	£000	£000	£000	£000	£000
Total Conveying Response	[redacted]					
Total PRU Vehicles						
Total NRRD Vehicles						
Total Other						
Total Fleet						

The capital requirements show a total of [redacted] across the five year programme, an average of [redacted] per annum.

6.2 Capital Costs

Existing Vehicle Replacement

The table below sets out the capital requirements for the next 5 years against the vehicle types. The figures allow for a 4.27% annual increase in the costs of vehicles to allow for manufacturers increases this also includes the cost of additional technology and equipment (as listed in Appendix D) to be added.

Associated transferrable capital equipment to make the vehicle operational (defibrillator units, ambulance Telehealth and airwaves equipment) has been procured separately. Equipment will be removed from vehicles prior to decommission and reinstalled in replacement vehicles.

	Existing Vehicle replacement - Capital Costs					
	2026/27	2027/28	2028/29	2029/30	2030/31	Total
	£000	£000	£000	£000	£000	£000
Conveying						
A&E						
A&E 4x4						
NeoNatal						
Island A&E						
Island Basic						
**EV Premium*						
PTS						
**EV Premium*						
Response						
PRU EV						
Training						
Driver Training Units						
NRRD						
Difficult Access A&E						
Initial Response						
Swift Water Rescue						
Command Response Unit						
Incident Resonse Unit						
Heavy Response Unit						
Personel Carrier						
Off Road (ATV)						
ATV Carrier						
Training - van (towbar)						
Training - car						
Car (EV)						
Van						
Total						

6.3 Revenue Requirements

Core Revenue

Recurring revenue requirements to support and maintain the Service's fleet will be funded via the Service's existing core revenue budget.

The tables below set out the revenue costs for the preferred way forward as described in Section 4.7 above. The costs detailed below allow for a 4.27% annual increase to allow for suppliers' increases.

Current Maintenance and Running Costs

	Total Cost (£000) 2023/24	Revenue Budget Requirement (£000) 2026/27	2027/28	2028/29	2029/30	2030/31
Existing Vehicle Replacement						
Vehicle Maintenance	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Vehicle Running Costs						
Total Existing Vehicle Replacement						

The current revenue costs of maintenance are [redacted] (as per 23-24 costs). This is expected to increase by 4.27% on average each year. This will be funded from the Service core funding and internal efficiency savings.

Non-Core Revenue

	Estimated Annual Depreciation Charges 2021/22	2022/23	2023/24	2024/25	2025/26
Replacement of Existing Fleet - Annual Depreciation	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Current Vehicles - Annual Depreciation Charge					
Total Estimated Depreciation					
Fleet Annual Depreciation Budget	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Movement Decrease / (Increase)					

Depreciation charges are a function of asset life and value. In order to mitigate the potential increase in charges indicated in the table above, the Service will require to assess both elements on an on-going basis. The Service currently has an annual depreciation budget of £20m, uplifted to £25.8m from 2025/26.

6.4 Affordability of the Preferred Option

The capital costs associated with this programme will be funded via an ear-marked capital allocation from the Scottish Government following approval of this FBC by

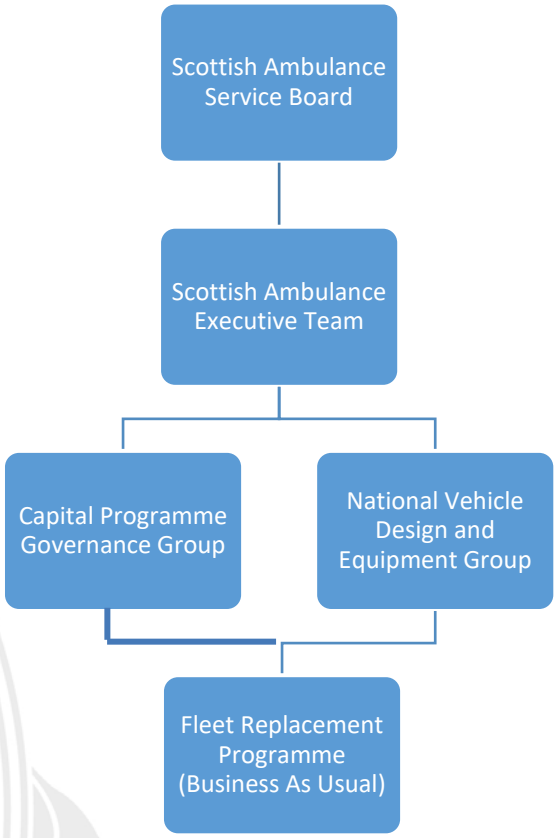
the Capital Investment Group. The numbers and types of fleet within this Business Case may be flexed as the Service transitions to its 2030 Strategy, but the capital requirement identified will not be exceeded.

Revenue costs associated with direct replacement of existing vehicles will be funded by the Service's core revenue budget. It is anticipated that revenue costs will be contained at their current level.

Section 7: Management Case

7.1 Reporting Structure and Governance Arrangements

The Service has an established governance structure to monitor progress of all programmes of work and provide governance in line with the published Strategic Framework. The diagram provides an overview of the governance structure:



The Fleet Replacement Programme is managed by the SAS General Manager for Fleet Services under 'Business as Usual' activities with progress on this will reported jointly to the National Vehicle Design & Equipment Group (NVDEG) focusing on the operational delivery objectives and Capital Programme Governance Group (CPGG) focusing on the financial management controls. This is also reported on a quarterly basis to the SAS Performance and Planning Steering Group.

7.2 Key Roles and Responsibilities

The General Manager for Fleet Services will oversee all work relating to this project and will be supported by Regional Fleet Managers and Operational Personnel to ensure the effective co-ordination of replacements to guarantee no detriment to service delivery.

Monthly updates will be given at the CPGG on expenditure and progress.

7.3 Project Recruitment Needs

All work relating to this investment will be undertaken by existing Service employees in the course of their substantive roles. This investment does not require additional staffing resource.

7.3 Project Plan

This Business Case is to provide funding to support the recurrent replacement of the Service's fleet. Therefore, there is no end point to the Fleet Replacement Programme. The planned replacement numbers are provided in detail in section 4.6 and are summarised in the table below:

	Replacement Numbers - Existing Fleet					
	2026/27	2027/28	2028/29	2029/30	2030/31	TOTAL
Total Conveying Response	138	139	129	115	112	633
Total PRU Vehicles	20	20	20	20	20	100
Total NRRD Vehicles	9	0	4	14	12	39
Total Other	60	56	60	56	61	293
Total Fleet	227	215	213	205	205	1065

7.4 Change Management Arrangements

Key stakeholders from operational regions will be be fully involved in the timetable planning for replacement vehicles to ensure all crews on shift have access to an appropriate vehicle at all times.

The programme is fairly straightforward as no existing vehicles are required to be off the road before the replacement vehicle is ready. The Fleet department will liaise with region to determine the most convenient times for transfer of vehicles. The process will be carefully managed to ensure service delivery and response times are not affected.

Any change from the agreed replacement plan, detailed in section 4.6, will need joint approval from the NVDEG and CPGG.

7.5 Stakeholder Engagement

Stakeholder engagement is facilitated through the Service's NVDEG who are responsible for providing specialist advice to the Service Executive Team. Core membership included key stakeholders (see section 4.1 for a list of core members). Specialist external or internal stakeholders may also be co-opted into the Group as required.

7.6 Benefits Realisation

The General Manager for Fleet will be responsible for ensuring the benefits identified are delivered throughout the replacement programme. The Benefits Register is a fluid document, and new benefits will be added as and when they are identified with ongoing monitoring to ensure these are achieved and maintained. The register is included at Appendix B.

7.7 Risk Management

The General Manager for Fleet will also be responsible for identifying and mitigating any risks as a result of the replacement programme. The risk register shown in Appendix C will be kept up to date with escalation to the Director of Finance, Logistics and Strategy, and the Executive Team as appropriate and in line with the Board risk management policy.

7.8 Programme Monitoring

The progress of this investment programme will be monitored by the Service's CPGG and NDVEG. Monthly updates will be provided to the CPGG and quarterly updates to NDVEG. Any divergence from the agreed plan or budget will be escalated to the Director of Finance, Logistics and Strategy in the first instance and then to the Executive Team and Board.

Section 8: Conclusion and Recommendation

8.1 Conclusion

This FBC has been produced in accordance with the guidance issued by the Scottish Government's Capital Investment Group (CIG). The information included in this document has demonstrated that reasons why the ongoing investment in replacement vehicles is required and the benefits of having funding agreed for a 5-year period and has shown that there is a good strategic fit between this proposal and the Service's strategy and the wider NHS Scotland's strategic priorities.

The preferred way forward would meet the Business Case objectives in terms of providing patients and staff with modern, safe, functionally suitable and operationally reliable vehicles. The Business Case uses procurement methods and replacement policies that offer value for money and that are affordable.

8.2 Recommendation

It is recommended that the Scottish Government Capital Investment Group approve this FBC. Subject to approval being granted, the Service will proceed to fully implement the project.

Appendices

Appendix A - Extract from Fleet Replacement Business Case 2016-2020: Benefits Scoring & Economic Appraisal

Appendix - Extracts from Fleet BC 2016-2

Appendix B - Benefits Register

Fleet VRP Benefits Register.xlsx

Appendix C - Risk Register

VRP-Risk-Log-Aug-2020.xlsx

Appendix D – Standard Equipment List

Appendix D – Standard Equipment List

A&E Standard Equipment
Torch & charger mount
Fire Extinguishers
Suction Unit & Mount Bracket
MULTI DIAL FLOMETER
ENTONOX DEMAND Valve
Stryker Trolleycot & Floor Locks
SAS SPEC Slide sheet
ACR
Prometheus Traction splint
Long Arm Vacuum Splint
Extra Long Leg Vacuum Splint
KED
Frac Straps Padding Complete
Immobiliser Adult 5 Strap (Box splint)
Orthopaedic Stretcher - Scoop EXL, Yellow, with pins, (Set of 4) Speedclip Biosafe straps
Combi Head Immobiliser
Millenia Board with Pins
Biosafe Strap with Seat Belt Buckle Set of 4
Banana Board
MANGAR Compressor & Charger with lifting cushion
EVACUMAT 80 X 204cm
Ibex mk5 Transeat
Controlled Drug Safe
Telehealth Communications Solution
Airwave Radio System & Safe