



East Midlands Ambulance Service
NHS Trust



Outline Business Case Fleet Replacement Programme 2015-2019

Outline Business Case –Fleet Replacement Programme

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1 *Executive Summary*

- 1.1 East Midlands Ambulance Service is the provider of emergency ambulance services to the five counties of Derbyshire, Leicestershire, Lincolnshire, Northamptonshire and Nottinghamshire. The Trust serves a population of 5 million, receives 750,000 999 calls per annum and provides 580,000 responses each year. The Trust has a vision “to play a leading role in the provision, facilitation and transformation of clinically efficient urgent and emergency care delivered by highly skilled, compassionate staff proud to work at the heart of their local community”. That vision provides the focus for our ambition to play a central role in the urgent and emergency care system in the East Midlands, and to set the benchmark in terms of the quality and efficiency of service provision.
- 1.2 The Trust Board approved an Integrated Business Plan (IBP) in June 2014 covering the period 2014 to 2019 .The plan identifies how in years one and two we will continue to focus on delivery of performance targets, with delivery at a county level on a sustained basis, and develop partnership working, build our capacity and capability, support delivery of the right care and deliver excellence in patient experience and outcomes. In years 3 to 5 we will develop our services to be at the centre of the urgent care and emergency care system, provide a platform for integrated care, and develop the scope and range of the services we provide, including becoming a provider of transport services across the whole spectrum of urgent, emergency and planned care.
- 1.3 Implementation and delivery of our Integrated Business Plan will be underpinned by a number of supporting strategies. One of the major supporting strategies for IBP delivery is the Fleet Services Strategy which was approved by the Trust Board in October 2014.
- 1.4 The Fleet Services Strategy sets out how Fleet Services will support the Trust to deliver the IBP over the current strategic planning period, and highlights how Fleet Services will be transformed over this period to be a service which facilitates operational delivery ,works efficiently to high standards ,and delivers on a range of core key concepts. The Strategy is closely aligned to the Trust’s six strategic objectives covering quality, reputation, innovation, integration, workforce and efficiency.
- 1.5 Fleet Services currently manage 522 vehicles mainly on an in house basis through workshops in Alfreton, Northampton and Leicester, but also through service contracts for maintaining and servicing vehicles in Lincolnshire.
- 1.6 In considering the strategy the Trust Board recognised that it was essential to plan for an appropriate fleet replacement programme which facilitates a resilient and reliable fleet with an appropriate age profile and which provides the capacity needed as assessed by peak load modelling requirements. The Board have recognised that if fleet services are to adequately support efficient delivery of operational performance targets ,and provide optimum support to front line

services (particularly as our work continues to grow), then there needs to be a significant improvement in the current size and age profile of our vehicle fleet. In addition the Board recognised the need to change the current ratio of owned to leased vehicles to improve efficiency and value for money.

1.7 This business case therefore sets out the proposed level of investment required over the strategic planning period, to create a fleet portfolio with an improved profile in terms of number of vehicles, age of vehicles and percentage of owned vehicles. This business case covers only the vehicles required to support the emergency care contract. Separate business cases will be prepared for service expansion and non-core vehicles.

1.8 In the four year period from 2015-16 to 2018-19 the recommendation is that the Trust should invest £26m in vehicle replacement. This will give the optimum vehicle fleet to support operational delivery and operational performance in the most economical way. It will allow the purchase of 294 new vehicles over the next four years. The business case identifies that £19m of internally generated resources are available to support this investment programme. The case therefore proposes that a loan of £7m from the Trust Development Authority is approved, and the case demonstrates the benefits and affordability both of the overall planned investment and the element of replacement vehicle funding to be met by a loan. The loan would be taken up in equal instalments in 2015-16 and 2016-17.

1.9 The annual running costs of fleet services are currently £16m. This programme of investment would increase the fleet services running costs by £0.3m in 2015-16 rising to £1.4m per annum by 2019-20, and this additional cost would be met from increased commissioner income and internal investment.

1.10 Investment of £26m would facilitate an improved vehicle fleet which would reflect:

- An increase in the overall fleet size from 522 to 550 linked to current and future estimates of growth in workload, and capacity requirements.
- A reduction in the overall age profile of the fleet, which would mean a maximum age of seven years for Double Crewed Vehicles and 5 years for Fast Response Vehicles by the end of the strategic planning period in 2019.

2. Introduction

2.1 This business case sets out the proposed investment to be made in fleet replacement over the next four years and identifies that the optimum level of investment required is higher than the funds which can be made available from internally generated resources. It therefore proposes that a loan of £7m is taken to facilitate the level of capital investment required to create the optimum fleet to support operational delivery and operational performance.

- 2.2 The business case sets out how this investment supports the strategic direction of the trust and how it interfaces with the Trust's Integrated Business Plan and strategic objectives.
- 2.3 The case outlines the existing fleet profile, and identifies how the profile needs to be improved if it is to provide the required size and age profile to enhance operational delivery and performance. The case will show that the existing fleet is too small to meet current and forecast increases in demand ,has an age profile that contains risks in terms of vehicle availability and performance, benchmarks poorly against other ambulance Trusts, and has an owned/leased vehicle portfolio that could be improved to enhance efficiency and value for money.
- 2.4 There has been under-investment in the Trust's fleet over the last few years, which reflected earlier strategic ambitions associated with the proposed estates strategy linked to "Being the Best". Since that strategy was abandoned on affordability grounds, the Trust Board has started to address that under-investment in 2014-15 and has recognised the strategic shift away from estates to fleet services as part of its support strategy review process.
- 2.5 Peak load modelling has been used to help assess the capacity needed to facilitate optimum vehicle availability, based on current rota outputs.
- 2.6 The case for investment therefore is to ensure that the Trust has the optimum vehicle capacity in both size and age profile terms to support operational delivery, but at the same time limit the fleet to that which provides clear efficiency and value for money. The option appraisal exercise therefore compares different age profiles to assess benefits, and to assess added benefits from added investment.
- 2.7 The business case also reviews the overall fleet services strategy and fleet service management. This identifies the contribution that the overall strategy will make to the Trust, and the added benefits the strategy will provide in addition to this capital investment.
- 2.8 The financial section outlines the capital and revenue implications of the proposed investment. It identifies the capital investment proposed and the capital funding arrangements to ensure affordability. The revenue costs are identified together with sources of funding. The costs of new capital charges will be met from a combination of savings on existing capital charges and leasing, reduced maintenance and running costs, and a contribution from additional contract income generated. The revenue costs include management costs required to strengthen the fleet management team to support delivery of a significantly enhanced fleet replacement programme and to support delivery of a major change programme in terms of the overall fleet services strategy implementation.
- 2.9 The case also identifies the risks associated with the programme, and how those risks will be managed and mitigated. Appropriate project management and communication arrangements will also be put in place to ensure appropriate specification, planning, contracting, delivery and mobilisation of the changing

fleet and vehicles. A post-project implementation review will be carried out each year after the implementation of that year's programme.

3. Strategic Fit

3.1 This business case is a key enabler in terms of the implementation of the Trust's Fleet Services Strategy. Ensuring that we plan an appropriate fleet replacement programme which facilitates a resilient and reliable fleet with an appropriate age profile and which provides the capacity needed, is the top priority of the fleet services strategy, and this business case therefore sets out the proposals to create that programme. Creating the right fleet is the main requirement of the fleet services strategy, but the overall strategy sets out the way in which Fleet Services will be transformed over the strategic planning period by delivering on a range of core key concepts.

3.2 The fleet strategy is fully reconciled to the Trust's overall strategic objectives in the following ways:

Strategic Objective	Fleet Strategy Objective
Quality	To transform the way vehicles are maintained and serviced to provide a fleet that has an appropriate age profile and ensures resilience on a 24/7 basis
Reputation	To directly support patient and staff safety by ensuring vehicle specification and procurement are in line with best practice
Innovation	To maximise benefits of investment in fleet and technology
Integration	To ensure integration with strategic plans and other supporting strategies
Workforce	To recruit and retain a skilled and flexible workforce who are well trained and qualified
Efficiency	To deliver achievable efficiency savings which demonstrate the principles of best value and value for money

3.3 Taken together the following nine core key concepts of the fleet strategy will ensure both that we have the right fleet and that the fleet is managed ,organised, maintained and located in the optimum way to support operational performance:

- Fleet Replacement Plan
- Review of Workshop Provision
- External Servicing Contracts
- Reduction of Preventable Damage
- Review of Vehicle Resource Centre (VRC)
- Maximise benefits of Fleetwave
- Implement VueTrak
- Fuel Management Programme
- Develop Ambulance Support Team

- 3.4 The strategy therefore ensures that investing in a fleet replacement programme is matched by a transformational change programme in the way fleet services are run and managed, to maximise the benefits of having an enhanced vehicle profile.
- 3.5 The option appraisal process compares different levels of investment in fleet, but if improvements are not made to the existing profile then the Trust will not ensure the sustained availability of vehicles to support front line staff. This risk was highlighted in the 2014 Care Quality Commission (CQC) review of EMAS, where the CQC commented that we did not have sufficient number of vehicles available at all times due to not always ensuring that the right number and types of vehicle were in the right place at the right time. The CQC reported that staff can wait up to an hour at the start of their shift for a vehicle, that staff believe lack of vehicles causes the most problems during night shifts, and that vehicle shortages are often due to mechanical problems. The CQC also identified concerns with regard to the completeness of vehicle check lists and availability and access to equipment for vehicles. In the short term, the Trust has made improvements against these recommendations, in particular by almost doubling the vehicle replacement programme in 2014-15 and developing an action plan in response to the CQCs concerns.
- 3.6 In addition as section 4 of the business case shows in more detail the trust's vehicle fleet does not benchmark well against other Trusts (either in terms of spare capacity or total size and age profile of our fleet) to support maximising vehicle availability at the right time in the right place.

4. Fleet Analysis and Investment Case

4.1 The Trust's fleet currently comprises 522 vehicles. This section outlines the current profile of the fleet, and therefore identifies the main issues for consideration in terms of an improved fleet replacement programme. It sets out a clear case for major investment in the Trust's fleet over the next four years.

4.2 The overall number and type of vehicles in our fleet at present can be summarised as:

Type of Vehicle	Number of Vehicles
Double Crewed Ambulances (DCA)	248
Fast Response Vehicles (FRV)	148
HART	26
Patient Transport Services (PTS)	32
Other	68
Total	522

4.3 The size and type of fleet has changed over the last few years and can be summarised below (the 2015-16 plan is based on 2014-15 investment and includes the retention of 10 vehicles to cover winter demand)

Type of Vehicle	2012-13	2013-14	2014-15	2015-16 Plan	% Increase
DCA	275	258	248	253	-8
FRV	135	157	148	153	+13
HART	30	33	26	26	-14
PTS	32	32	32	32	0
Other	61	68	68	68	+12
Total	533	525	522	532	0

4.4 The number of vehicles we have has not kept pace with the rise in workload the trust now undertakes. During the equivalent period to section 4.3 above, workload has increased as follows:

Activity	2012-13	2013-14	2014-15	2015-16 Plan	%Increase
Calls	816838	786729	832815	849471	4
See and Treat	181920	185730	194203	200029	10
Conveyance	433165	444764	456099	457467	6

4.5 The age profile of our fleet is now of some concern, with a relatively aged fleet. 47% of our vehicles are now five years or older. The age profile causes problems in terms of operational performance, availability, and maintenance and repair costs. The Trust's age profile compares adversely when benchmarked against other Trusts who on average work to replacement programmes of 7 years for DCVs and five years for FRVs. The current age profile of our fleet can be summarised as:

Type of vehicle	<1 year	2 years	3 years	4 years	5 years	Over 5 years
DCA	0	39	81	2	89	37
FRV	0	8	60	10	22	48
HART	0	1	6	2	6	11
PTS	0	0	20	10	0	2
Other	20	10	4	5	14	15
Total	20	58	171	29	131	113

4.6 We have underinvested in replacing vehicles over the last few years. This was reflected in the recent CQC inspection of the Trust, particularly in terms of the impact of vehicle availability on the delivery of performance targets and the support provided to front line staff. This underinvestment can be linked to the previous strategic aims of the Trust outlined in the "Being the Best" programme, where the assumption was that significant investment in the estate would facilitate a material reduction in the size of the vehicle fleet, leading to low levels of replacement vehicle planning. Following the abandonment of that strategy on affordability grounds, the Trust Board have now refocused on improving the Fleet Replacement Programme. The planned

investment in 2014-15 has been almost doubled from £2.2m to £3.9m. The level of underinvestment over the last few years can be summarised as:

Year	2012-13(£m)	2013-14(£m)	Total(£m)
Depreciation	2.5	2.6	5.1
Capital Spend	1.2	1.4	2.6
Underinvestment	1.3	1.2	2.5

4.7 It is important to ensure that we have appropriate levels of spare capacity. This is required to ensure that vehicles are available at the right time in the right place to meet patient need and performance targets. Our current spare capacity levels are 24% for DCAs and 29% for FRVs. The current level of spare capacity is materially less than two other high performing ambulance Trusts:

Ambulance Trust	DCA Spare Capacity	FRV Spare Capacity
EMAS	24%	29%
Ambulance Trust 1	33%	41%
Ambulance Trust 2	39%	40%

4.8 The lower levels of spare capacity have caused concerns in terms of performance and availability, particularly related to vehicle VOR time (with regard to shift start times and “one vehicle stations”) ,the ability to release vehicles for cleaning and preparation, and the management of surge and winter pressures ,where the current fleet is too lean to provide full resilience. To help achieve a resilient fleet with this level of vehicle capacity it will also be essential to review cultural issues within the Trust around vehicle care and avoidable damage. This is one of the nine key core concepts summarised at section 3.3.

4.9 Over the last few years the Trust has adopted different funding mechanisms for its fleet and we now have a profile of vehicles where 53% are owned and 47 % are leased. The strategic intention is to significantly increase the % of owned vehicles. Changes in accounting arrangements, value for money assessments, higher revenue costs, and reduced vehicle replacement flexibility mean that leasing is no longer a favoured option for procuring and funding our vehicle fleet. Reducing the number of leased vehicles will help secure the funding for re-investment in new owned vehicles.

4.10 In summary therefore there is a clear case for significant investment in the trust’s fleet:

- The total number of vehicles we have has not increased over recent years, at a time when the workload undertaken by the Trust has grown significantly and is forecast to continue to grow
- -The age profile of the Trust’s fleet benchmarks poorly against other Trusts, causes operational, availability and financial risks, and has been subject to CQC criticism.
- -There has been historical under- investment in fleet replacement linked to the “Being the Best” programme ,which the Trust Board are now starting to address.

- -The level of spare vehicle capacity needs review as it benchmarks poorly against high performing Ambulance Trusts and can impact on vehicle availability and therefore operational performance.
- -The Trust leases 47% of its vehicles at present, and could improve efficiency and value for money by reducing the percentage of leased vehicles to support a higher level of overall fleet and a higher percentage of owned vehicles.

4.11 The option appraisal to assess the optimum scale of investment in the fleet strategy therefore needs to take account of the following factors:

- total number of vehicles
- workload and performance targets
- age profile
- previous underinvestment
- optimum level of spare capacity
- percentage of owned vehicles

5 Option Appraisal and Benefits Assessment

5.1 Section 4 has highlighted the case for investment in our fleet based on responding to the need to address a range of challenges summarised at section 4.10 and 4.11 above. Creating the right fleet can support operational delivery and operational performance and the Trust Board in approving the fleet strategy recognised the twin aims of investment and improvement in fleet availability and fleet management. Together they form the basis of the concept for the fleet strategy over the next few years.

5.2 This chapter of the business case therefore examines in more detail the options for investing in a significant fleet replacement programme within the current strategic timeframe, the benefits we require from such a fleet replacement programme, and identifies a preferred option based on a benefits assessment process.

5.3 *Five options were initially identified;*

- do nothing/do minimum
- invest £19m based on financial affordability in line with the Trust's current five year capital programme model
- move to a fleet profile where the Trust has a maximum five year age profile for FRVs and a seven year profile for DCAs
- move to a fleet profile where the Trust has a maximum five year age profile for FRVs and a seven year profile for DCAs, and also increase the overall fleet size
- move to a fleet profile where the trust has a maximum five year age profile for both FRVs and DCAs

5.4 In each case it is assumed that the following profile is maintained for other vehicles;

PTS-in line with business cases for new and existing PTS contracts, with a basic assumption that PTS vehicles will be leased over the same time frame as the associated contract

HART-in line with national procurement and funding arrangements

Other –replaced over a reasonable time frame but likely to be 7-10 years dependant on vehicle usage and mileage.

5.5 The do nothing option was rejected based on the commitment given by the Board as part of the approval of the Fleet Services Strategy and also as part of its response to the CQC report in early 2014.

5.6 It is also assumed that the current model of DCAs and FRVs remains clinically appropriate over the five year strategic planning period. The balance between the number of DCAs and FRVs will be kept under review over the strategic planning period to respond to changes in workload between Hear and Treat, See and Treat, and Conveyance, but the model included in this business case is based on the current workload assumptions in the Integrated Business Plan.

5.7 The options for further evaluation therefore are:

Option	Maximum Age -DCA	Maximum Age - FRV	Cost(£m)
Affordability	>7	>7	19
5 Year FRV model	7	5	24
5 Year FRV model plus increase fleet size	7	5	26
5 Year FRV and DCA model	5	5	30

5.8 The project team for the development of the business case agreed the benefits required from the fleet replacement programme as:

1. Support divisions to deliver performance targets
2. Improved vehicle availability to support operational performance
3. Improved ability to handle growing levels of see and treat calls
4. Provision of appropriate fleet size to support improved capacity size and age profile
5. Maximise SMR cost efficiencies and minimise Critical Failure Rates (CFR)
6. Increase in percentage of owned vehicles to reduce reliance on expensive and inflexible leased vehicles
7. Improve resilience to manage surges and pressures in workload, and reduce reliance on VAS/PAS

5.9 The weighting assigned to each of the above options by the project team was

1. 20%
2. 20%
3. 15%

4. 15%
5. 15%
6. 5%
7. 10%

5.10 The scoring of the options and benefits by the project team is shown at Appendix 2:

5.11 The preferred option on the basis of lowest capital cost per benefit point is option 3.

	Option 1	Option 2	Option 3	Option 4
Benefit Points	545	720	810	780
Capital Cost	£19m	£24m	£26m	£30m
Cost per benefit point	34.9	33.3	32.1	37.2

6 Fleet Services Management

6.1 The Trust Board want to ensure that investing £26m in a newer larger fleet is matched by the ability of the Fleet Services Department to provide a fleet management service that improves the overall availability of vehicles and transforms the way in which fleet services are planned, provided and delivered. This business case is therefore a key component of the overall fleet services strategy combining investment and improvement.

6.2 The Board have therefore reviewed and approved a Fleet Services Strategy, which sets out how the combination of greater investment in fleet replacement and transforming the management and delivery of fleet services will create real organisational, operational and performance benefits. The Fleet Services Strategy sets out the nine core key components for service improvement and transformation which are summarised at section 3.3 of this business case.

6.3 The fleet services management team will develop an annual plan on the basis of implementing and delivering the strategy on a year by year basis commencing from 1 April 2015. Governance and management arrangements have been established to oversee change and delivery. Appropriate arrangements for monitoring of the annual plan will be put in place, and the associated individual core work streams will have a programme/project management infrastructure attached to them as required. Implementation of the strategy will be facilitated by the production of business cases for each relevant work stream, and overall fleet strategy /annual plan delivery reporting will be managed through the Trust's Better Patient Care Board.

6.4 Directors will ensure that the fleet services management team are organised and resourced to deliver the implementation of the fleet services strategy, and the organisation and management of a significantly increased fleet replacement programme. In particular it is proposed to provide workshop team leaders, which will both enhance the fleet service supervision and also

free up management resources to support strategy implementation and fleet replacement management implementation and commissioning ,and that specific proposal is reflected in the revenue costs and funding arrangements at section 7.

6.5 One of the keys to the successful delivery of the fleet replacement programme will be an appropriate procurement plan. A procurement plan has been agreed with the Head of Procurement .The procurement team will work with the Fleet Services Strategy Implementation Group to establish the procurement route to market. Where there are national collaborative frameworks available these will be reviewed to determine potential benefits and returns. Where no national collaborative exists, then new local or regional collaboration will be considered. Also a Trust led EU tender will be considered for the best route forward as this could give the marketplace a key opportunity and which therefore could exert competition.

6.6 A strategy for communication with a range of audiences will be put in place. Clear concise and easy to understand communication will be crucial to ensuring the benefits of this investment programme are achieved. The communication programme will cover internal staff, patients and public ,and key stakeholders including the TDA, commissioners and Health and Well Being Boards.

7 Financial Analysis and Implications

7.1 This section includes the detailed financial analysis and implications of the proposal covering the capital investment proposed, I and E analysis, and sources of funding.

7.2 Chapter 5 highlighted the total capital costs of each option and a more detailed analysis of those capital costs are included at Appendix 3 .The costs are based on the most recent procurement and tendering process undertaken by the trust, and are therefore based on current capital costs. The Full Business Case will incorporate actual costs for the period 2015-16 onwards following the implementation of the procurement process. The total capital investment proposed is £26m,and Appendix 3 also sets out how that level of investment would be funded through a combination of £19m of internally generated resources (depreciation £16m and reinvestment of lease costs £3m) and a loan of £7m.

7.3 The revenue costs of the investment have been calculated on the basis of the additional capital charges of the replacement programme, less the impact of reduced lease costs and reduced capital charges on existing vehicles. In addition the costs of servicing, maintaining and repairing vehicles under the new fleet model have been compared to existing costs. In summary, the revenue impact of this business case over the strategic planning period will be an increase in costs of £0.3m in 2015-16 rising to £1.4m at the end of the strategic planning period in 2019-20. Funding of these additional costs will be

from a combination of commissioner investment and internal funding. It is envisaged that the funding would be considered as part of the overall contract quantum of cost and contract funding negotiations beginning in December 2014.

7.4 In terms of the Trust's overall SOCI, the Trust's current five year financial model produced as part of the Integrated Business Plan in June 2014 outlined a plan to deliver year on year surpluses based on an assumption around commissioner income, Cost Improvement Programme delivery and a small development programme. The investment proposed in this business case is higher than that assumed in the IBP. It has been assumed that the additional revenue costs in this business case will be funded by commissioners through a combination of additional income linked to increased workload, coupled with specific funding as a contribution to securing an appropriate fleet model and profile. Based on this commissioner funding package it is not envisaged that this investment will have a negative impact on the trust's overall planned surplus over the strategic planning period.

7.5 Appendix 3 also includes a statement of cash movements, highlighting the net cash inflow available from this proposal to provide the cash needed to meet the overall capital and revenue implications of the business case.

7.6 There are two key risks and assumptions that underpin this business case. Firstly the Trust intends to proceed with this business case on the basis that it maintains financial balance in the current financial year and develops a plan to maintain financial balance in 2015-16. Secondly as highlighted earlier in the case, the capital costs are based on 2014-15 costs, and are based on the current vehicle and equipment specifications used in the 2014-15 fleet replacement programme. The FBC will review any changes in capital requirements related to costs, tendering and specifications.

8 Risk Analysis

8.1 A risk management framework has been established to ensure actions are put in place to manage and mitigate risks. Risks and risk management will be reviewed monthly based on the risk assurance framework described below.

8.2 A risk assessment framework has been developed for the proposed fleet replacement programme. The framework is attached at Appendix 2. The risks can be summarised as:

- **Strategic** impact of strategic change on the proposed investment programme.
- **Governance** impact of programme and project management arrangements
- **Finance and Procurement** impact of financial performance, and procurement and legal services on the investment programme
- **Operational** impact of operational and workload changes on the programme

- **Workforce** impact of availability of appropriate workforce and staff resources
- **Communication** impact of communication process on investment programme

8.3 The risks have been described in the risk assessment framework and mitigating actions have been scored using the Trust's standard risk scoring system based on likelihood and impact. The residual scores have then been reviewed by the Fleet Services Strategy Implementation Group. The Group believe that the residual risk can be managed through a combination of the mitigation actions coupled with effective programme management by the Group through the development and implementation process for the business case. The Group have therefore agreed that the risk levels are manageable.

8.4 Following approval of the business case the group will establish on-going processes for risk assessment and risk management using appropriate programme management arrangements including the risk log process.

9 Project Management

9.1 In reviewing and approving the Trust's overall Fleet Services Strategy, the Board also reviewed the programme management arrangements which would be introduced and implemented to facilitate the delivery of the Fleet Services Strategy.

9.2 A Fleet Services Strategy Implementation Group has been established to oversee and manage the implementation of this strategy. Their membership includes representation from operational management, fleet management, finance, business development and the programme office. The Programme Office support will ensure that good practice programme management arrangements will be put in place and maintained throughout the programme's life.

9.3 The Strategy Implementation Group's role includes responsibility for the production of business cases to support implementation of the Strategy, and to put in place project management arrangements to successfully implement approved business cases. Managerially the group are accountable to the Director of Operations. The overall implementation of the fleet strategy will be overseen by the Better Patient Care Board, who will also be responsible for the agreement of objectives for the annual fleet services plan.

9.4 The Fleet Replacement Programme outlined in this business case is the biggest single element of the overall Fleet Services Strategy. Once the business case has been approved, a Project Implementation Document will be prepared along with a project plan and a risk and issues log. Given that the level of investment and procurement via this programme over the next three years is materially greater than the previous three years then it is important that the Fleet Services Manager has appropriate support to deliver this major change programme so the financial section of this OBC includes a proposal to appoint workshop team leaders to free

up fleet managers mainly to support the commissioning of the Fleet Replacement Programme but also to support overall strategy implementation.

9.5 The Trust overall procurement programme for this fleet replacement programme has been considered. In early 2014 we undertook a major procurement and tendering project, and therefore we now have in place the ability to use the preferred supplier from that process to provide our fleet replacement requirements for DCAs over the next four years. We will undertake a new tendering process for our other vehicle requirements. Before tendering we will assess and ensure that the most up to date requirements and options for our vehicles are included in the tender specification, and ensure that as far as possible the views of our staff and patients have been taken account of in those specifications. In summary the procurement process will be:

- **DCA** existing four year tender approved by our Board
- **FRVs** new tender process to be instigated based on updated specification and for a four year period from early 2015-2016
- **HART** national tender being run by NARU at present
- **Other** specific tender for specific requirements
- 9.6 The overall time table for implementation of the fleet replacement programme over the next two years can be summarised as:
 - **December 2014** Completion of OBC and consideration by Trust Finance and Performance Committee and Trust Board
 - **December 2014 to January 2015** Consideration of business case by TDA and commissioners, and refinement of business case
 - **March 2015** Full approval of OBC by Board and TDA
 - **April 2015** Tendering and procurement process implemented
 - **June 2015** Tenders approved
 - **June 2015** Finalisation of business case (FBC) based on tenders received
 - **June 2015 -2015-16** Vehicle Purchase and Commissioning process begins
 - **December 2015 -2016-17** Vehicle Purchase and Commissioning process begins

10 Post Project Implementation Review

10.1 A post project implementation review process (PPIR) has been designed for this programme of investment. The purpose of the PPIR will be to determine whether the implementation of the fleet replacement programme was successful and will identify any lessons learned. The review will also look at whether the project produced the required deliverables within the agreed timeframe, and will use the benefits section of the option appraisal chapter to assess deliverables and success.

10.2 The PPIR will be carried out on an annual basis following the implementation of that year's fleet replacement programme, three months after the completion of the programme. By then the benefits of the programme should be clear. The PPIR will:

- -measure the benefits and objectives
- -decide whether the project was in scope
- -assess the final deliverables produced

- -review the project against schedule
- -compare expenditure against budget
- -determine the satisfaction of stakeholders (staff and patients)
- -identify lessons learned
- -state the final outcome of the programme

10.3 Responsibility for the PPIR will sit with the Assistant Director of Operations, as the programme owner and lead.

11 Conclusions and Recommendations

11.1 This business case proposes that East Midlands Ambulance Service spends £26m over the next four years on its replacement vehicle programme. Investment at this level will enable the Trust to materially improve its existing fleet profile, and address existing concerns about age, size, availability, downtime and funding of the current fleet. In particular this will facilitate a maximum age profile for DCAs of seven years and five years for FRV.

11.2 The key benefits from this investment will be to facilitate optimum vehicle availability to support front line staff and thereby enhance operational delivery, and to improve and sustain achievement against national performance targets

11.3 This investment will be supported by and complimented by a range of transformational and service improvements in the way we plan, manage and deliver fleet services in accordance with the Fleet Services Strategy.

11.4 The capital investment of £26m would be funded by £19m of internally generated resources, together with a loan of £7m from the Trust Development Authority to enable the fleet replacement programme to be implemented on a going further faster basis than is possible from internally generated funds only.

11.5 It is proposed that the loan is taken out in two equal instalments in 2015-16 and 2016-17. This is to help overall planning for what would be a major programme of procurement in those two years, and facilitate a reasonably balanced further replacement programme in 5 to 7 years when those vehicles will subsequently require replacement.

11.6 The revenue implications and funding sources are included at section 8, and therefore demonstrate the revenue affordability of this level of capital investment over the next four years.

11.7 The Trust Board are therefore RECOMMENDED to approve this business case for submission to the Trust Development Authority to seek their approval both to the overall business case and to the provision of a loan of £7m to maximise the pace at which we can replace our vehicles and improve the overall age and size profile of our fleet.

APPENDICES

Appendix

- 1 Option Appraisal : Detailed Benefits Assessment and Scoring
- 2 Risk Assessment Framework
- 3 Financial Analysis and Assessment

Appendix 1

Option Appraisal: Detailed Benefits Assessment and Scoring

1 Options

Five options were identified for investing in the fleet replacement programme and after discounting the “do nothing” option the following four options were shortlisted:

Option 1: Affordability option, based on the level of internally generated resources available for investment in fleet replacement. This creates a fleet profile where the maximum age profile is over 7 years for both DCAs and FRVs.

Option 2: Lowering the age profile so that the Fleet has a maximum age profile for FRVs of 5 years and for DCAs of 7 years.

Option 3: Lowering the age profile so that the fleet has a maximum age profile for FRVs of 5 years and for DCAs of 7 years, but also increasing the overall fleet size to create greater resilience.

Option 4: Lowering the age profile so that the Fleet has a maximum age profile for both FRVs and DCAs of 5 years.

2 Benefits

The project team agreed the following seven benefits to be secured from the fleet replacement programme:

- 1 Performance –support divisions to deliver performance targets
- 2 Availability- improved vehicle availability to support operational performance
- 3 Workload- improved ability to handle growing levels of See and Treat calls
- 4 Fleet profile-provision of appropriate fleet size to support improved capacity size and age profile
- 5 SMR/CFR-maximise SMR cost efficiencies and minimise CFR (critical failure rates)
- 6 Ownership-increase in percentage of owned vehicles to reduce reliance on expensive and inflexible leased vehicles
- 7 Resilience- improve resilience to manage surges and pressures in workload and reduce reliance on VAS/PAS

3 Key Performance Indicators

The benefits will be subject to measurable key performance indicators to ensure that the PPIR process can assess accurately whether the benefits have been achieved.

4 Weightings

The project team agreed the following weightings for each of the benefits detailed at section 2 above:

- 1 20%
- 2 20%
- 3 15%
- 4 15%
- 5 15%
- 6 5%
- 7 10%

The higher weightings reflect the benefits which most closely support the Trusts strategic objectives (20%). Medium weighting has been assigned to those which support improved performance and resilience, and lower weighting was assigned to the benefits related to efficiency and reduced leasing costs.

5 Scoring of Options

The scoring of options was undertaken on a team basis by the Fleet Services Strategy Implementation Group. The following indicators were used

Score	Indicator
1	No progress
4	Fails
6	Meets
10	Significantly exceeds

The scoring reflected the overall four year strategic period and is based on DCAs and FRVs only. The raw scores for each option were:

Benefit	Option 1	Option 2	Option 3	Option 4
1 performance	5	6	8	6
2 availability	5	8	8	9
3 workload	6	8	9	9
4 fleet profile	5	7	9	9
5 SMR/CFR	6	7	6	6
6 ownership	6	6	6	6
7 resilience	6	8	10	9

The weighted scores for each option therefore were:

	Option 1	Option 2	Option 3	Option 4
Weighted score	545	720	810	780

5 Preferred Option

Based on the weighted scores and the capital cost of each option, a cost per benefit point can be calculated. The preferred option will be the option with the lowest cost per benefit point.

The summary position is;

	Option 1	Option 2	Option 3	Option 4
Weighted score	545	720	810	780
Capital cost	£19m	£24m	£26m	£30m
Cost per benefit point	34.9	33.3	32.1	37.2

The preferred option on the basis of weighted benefit points mapped against the capital cost of the option is option 3 ,which provides for a fleet replacement programme of £26m to deliver a maximum age profile for FRVs of 5 years ,a maximum age profile for DCAs of 7 years ,and an increase in the overall fleet size.

Appendix 2

Risk Assessment Framework

Risk Area	Description	Mitigating Actions	Score(likelihood x impact)
Strategic change	Change in national targets Operating model is not appropriate Assessment of resources needed Service expansion and contract growth	OBC based on current IBP June 2014 Strategic risks are subject to formal review by 31-3-15 Include any impact in FBC, or separate corporate business case on service resources	3x4 =12
Governance	Ensure fleet strategy implementation is subject to appropriate governance Managing scale of purchase and commissioning	FSS Implementation group established with wide professional representation Programme resource agreed in principle Oversight by BPCB Business case approval process via board and sub committee	2X3=6
Financial performance	Financial performance deteriorates External support for case not achieved	FIP Commissioner support via Director level discussions and contract negotiations	3x4=12
Procurement	Procurement processes not effective Tender costs higher than planned	Procurement plan and support in place Existing contract framework available for DCAs Access to professional procurement and legal advice	2x3=6
Operational performance	Operational performance deteriorates Assessment of operating model changes assumptions	PIP	3x3=9
Activity growth	Workload faced by trust changes from plan	Assumptions in business case based on IBP and commissioner review and outline support	3x3=9
Workforce	Programme support resources not available	Programme support approved in principle Management resource	2x2=4

		included in OBC	
Communication	Fleet replacement programme and benefits communicated poorly	Workshop planned for managers Work with communications team on plan Existing arrangements for patient and staff involvement to be used and improved	2x3=6

Appendix 3

Financial Assessment and Analysis

1 Fleet Replacement

The capital costs of this investment programme total £26m as highlighted at section 7. This investment will facilitate the purchase of 294 vehicles over the next four financial years, and enable the overall fleet size to increase to 550. The number of vehicles to be purchased and disposed of during the planning period are :

Vehicle Replacement	2015-16	2016-17	2017-18	2018-19	2019-20
Additions					
DCA	43	55	31	32	161
FRV	62	61	5	5	133
Total	105	116	36	37	294
Disposals					
DCA	38	39	31	32	140
FRV	59	61	5	5	130
Total	97	100	36	37	270
Change					
DCA	5	16	0	0	21
FRV	3	0	0	0	3
Total	8	16	0	0	24

2 Capital Costs and Funding

The total capital cost of this investment will be £26m over the four year period, as shown below:

Capital Cost (£000)	2015-16	2016-17	2017-18	2018-19	Total
DCA	5,362	6,859	3,866	3,991	20,078
FRV	2,295	2,257	185	185	4,922
Other	1,000	0	0	0	1,000
Total	8,657	9,116	4,051	4,176	26,000

This overall programme will be funded from a combination of internally generated funds and a loan from the TDA:

Capital Funding(£000)	2015-16	2016-17	2017-18	2018-19	Total
Internal-depreciation	5,000	5,000	3,000	3,000	16,000
Internal-reinvest lease savings	157	616	1,051	1,176	3,000
External -loan	3,500	3,500	0	0	7,000
Total	8,657	9,116	4,051	4,176	26,000

Use of lease savings to reinvest in new vehicles facilitates a higher replacement programme but could cause revenue challenges and funding concerns. This policy will be reviewed based on discussion with commissioners and development of a refreshed LTFM , and confirmed as part of the Full Business Case process. This is highlighted further in the revenue analysis below.

3 Revenue Implications

The revenue costs of this investment will be £0.3m in 2015-16 rising to £1.4m at the end of the investment programme and the current strategic planning period (2019-20). The additional revenue costs and impact on the SOCI can be summarised as:

Impact on SOCI (£000)	2015-16	2016-17	2017-18	2018-19	2019-20
Additions					
Maintenance and insurance	160	294	294	294	294
Management	50	50	50	50	50
Depreciation	436	1,629	2,017	2,893	3,950
Interest and PDC	28	85	127	153	245
Total	674	2,058	2,488	3,390	4,539
Savings					
Lease costs	162	660	1,025	1,490	2,517
Fuel	29	72	127	158	266
Maintenance	150	225	335	335	335
Total	341	957	1,487	1,983	3,118
Net increase	333	1,101	1,001	1,407	1,421

4 Cash Management

The statement below shows the cash movements as a result of this programme of investment and highlights the cash inflow which will support the overall affordability of the business case:

Cash movement (£000)	2015-16	2016-17	2017-18	2018-19
Additional costs	(59)	(132)	(9)	(4)
Lease costs	162	660	1,025	1,490
Additional capital spend from lease savings	(157)	(616)	(1,051)	(1,176)
Revenue funding	495	1,761	2,026	2,897
Loan repayment	0	0	(1400)	(1400)
Net cash inflow	441	1673	591	1807