

# Smart Motorways

## Alliance

### Descriptive document



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# Introduction

The Smart Motorways Programme is to increase lane capacity on Highways England's strategic road network through embedding roadside technology and converting hard shoulders to all-lane running.

1. This tender descriptive document provides a strategic overview of the Alliance Contract and tender procedure.
  2. Highways England is delivering the largest roads investment in a generation and have ambitious objectives to modernise, maintain and operate the strategic road network (SRN). Our work supports economic growth by connecting people and businesses across England, whilst making our roads safer for those using and working on them. Procuring the Smart Motorways Alliance (SMA) (the "Alliance") will enable a step-change in the performance of the Smart Motorways Programme (SMP) over the next 10 years and beyond.
  3. SMP is a national programme with the aim to have exemplar performance in terms of safety, cost, time and quality; and to drive standardisation in delivery.
- The SMP aspires to:
- Be fully aligned to Highways England's imperatives concerning **safety, customer and delivery.**
  - Be part of a principal national programme for delivery of road investment works across the network.
  - Lead the development of an integrated approach to deliver improved operational regimes on the network.
  - Develop technology and information products in a repeatable and value for money way.
  - Pilot technology and information related products which may be developed on the SRN in the future.
  - Focus on programmatic thinking to enable a step change in delivery efficiency and reliability of operational performance.
  - Package up the SMP's technical expertise in such a way that it can be accessed easily by others.
  - Work with the Operations Directorate (OD) to improve the knowledge the SMP has about its assets to enable better decision making in the future.
  - Support the implementation of autonomous and connected vehicles to the SRN.



4. Highways England intend to procure the SMP through an alliance model. The Alliance will comprise of Highways England (as the “Client”) together with:
    - Six partners (the “Partners”):
      - Three On-Site Assembly Partners
      - Two Digitally-Enabled Design Partners
      - One Production Management Partner
  5. The basis of the contract forming the Alliance will be the NEC4 Alliance Contract 2018 edition (the “Alliance Contract”).
  6. However, as Highways England requires potential Partners to tender for a place on individual lots and not as pre-formed consortia for the whole, this technically creates a ‘framework’ for the purpose of Regulation 33 of the Public Contracts Regulations 2015. Amendments are therefore required to the NEC4 Alliance Contract 2018 to ensure compliance with Regulation 33.
  7. Highways England will do this by introducing a more detailed work allocation process than currently exists under optional X26 of the NEC4 Alliance Contract. This bespoke drafting will avoid the need for mini-competitions between Partners while still complying with Regulation 33 and maintaining the ethos of a pure Alliance model.
  8. In summary, the work allocation process shall be based upon the location of the works and services (having regard to the regions described below) and as far as reasonable, an equitable division of the works and services by value for each lot. There will also be a limited amount of optimisation of this allocation by the Alliance Board. Optimisation proposals are submitted to Highways England for approval. Further details of the work allocation process are set out in Section 4 and shall be set out in the Invitation to Negotiate (ITN).
  9. The form of contract for SMA is referred to as the “Alliance Contract” hereafter. The Alliance Contract will be a single contract document to which each Partner and the Client shall be a party.
- ## Who are we looking for
10. Highways England is not looking for traditional thinking or experience to deliver the SMA. Rather we are seeking companies that can demonstrate their capability to be:
    - **Infrastructure leaders** – with a track record of delivering major infrastructure projects through maximising productivity, innovative thinking, project controls and embedding efficiencies.
    - **Business leaders** – with an ability to harness new technology and methods to transform how road schemes are delivered, exploiting digital design and off-site construction to standardise our product delivery and apply a manufacturing culture to road building.

- **Safety leaders** – leading the necessary behavioural, policy and industry change required to deliver zero harm to all our employee and road users.
- **Collaborative leaders** – willing to break down traditional design and build silo to create an integrated, collaborative environment that is ideas not resource led.
- **Capacity and strategic focus** – companies that have the leadership and resource capacity to meet the needs of a 10 year demanding programme and provide the ongoing focus and leadership needed to drive change.

11. The bullets within paragraph 10 are not intended to be selection or evaluation criteria but represent a high-level summary of those criteria. Please refer to the Selection Questionnaire for the selection criteria. The detailed tender evaluation criteria and methodology will be set out in the ITN. They will fully seek to test your capability to deliver the leadership and business capacity described above to meet the Alliance aspirations.

12. The Alliance aims for (see [Diagram 1](#) below):

Diagram 1: **The Alliance aims**



13. The Alliance will be procured under the Competitive Procedure with Negotiation (CPN) following the indicative **Timeline 1** below:

Timeline 1

November 2018	OJEU and Selection Questionnaire published
December 2018 - January 2019	Interested parties express interest in tendering by submitting a completed Selection Questionnaire that will demonstrate their ability to meet Highways England's minimum requirements
February - March 2019	Highways England confirms tender shortlist for each lot and tenderers invited to submit initial tenders
May - June 2019	Evaluation and assessment of initial tenders
August - October 2019	Highways England confirms tender shortlist for negotiation and tenderers invited to negotiation and final tender
November - December 2019	Preferred tenderers identified and award

14. This SMA descriptive document has been produced to inform tenderers of the opportunity and to inform expression of interest decision making. It provides the overall key features of the new contract, commercial strategy and performance framework as well as the overview of the procurement selection procedure.

# Key features of the model

## 15. Key features of the Alliance model are set out as follows:

- The Alliance will develop, design and construct the SMP and associated works that supports delivery of Highways England's wider construction and maintenance programme.
- The Alliance Contract will be based on the NEC4 Alliance Contract using clause X26 with a bespoke work allocation process attached to allocate work and services.
- An Implementation Plan will form part of the Alliance Contract and within it templates for packages and scheme orders for works and services for individual partners that will form contracts for all works called off from the frameworks.
- The Alliance members comprises of Highways England and six Partners as detailed in [Diagram 2](#) (page 8).
- The Alliance is being formed to deliver part of Road Investment Strategy (RIS) 1 and RIS2 and RIS3 work. There is to be a mobilisation period followed by a core 10 year period where work can be instructed, with a subsequent run-off period to complete any work instructed during the core period which may include propriety work for RIS4.
- Over the 10 year core period Highways England will release funded packages of work to deliver key programme outcomes. It is envisaged that packages will contain one to five road schemes or specific resource requirements to delivery programme.
- An individual scope for each of the lots is identified in the contract.
- The Production Management Partner will be allocated work via packages on a national basis, the Digitally-Enabled Design Partners will be allocated work based on two regions (north and south) and the On-Site Assembly Partners will be allocated to one of three regions (north, Midlands and south).
- The Partners will be assigned their road region at Contract Award based upon their final ranking and their tender preference in the tender assessment.
- A central Production Hub will be created in which all members participate to manage, control and deliver the programme.
- Partners will be collectively responsible and rewarded based upon delivering efficiencies to the Alliance budget (across all lots).
- Commercial relationship that enables common goals and aligned incentives rewarding out performance.
- A single Alliance communication strategy.



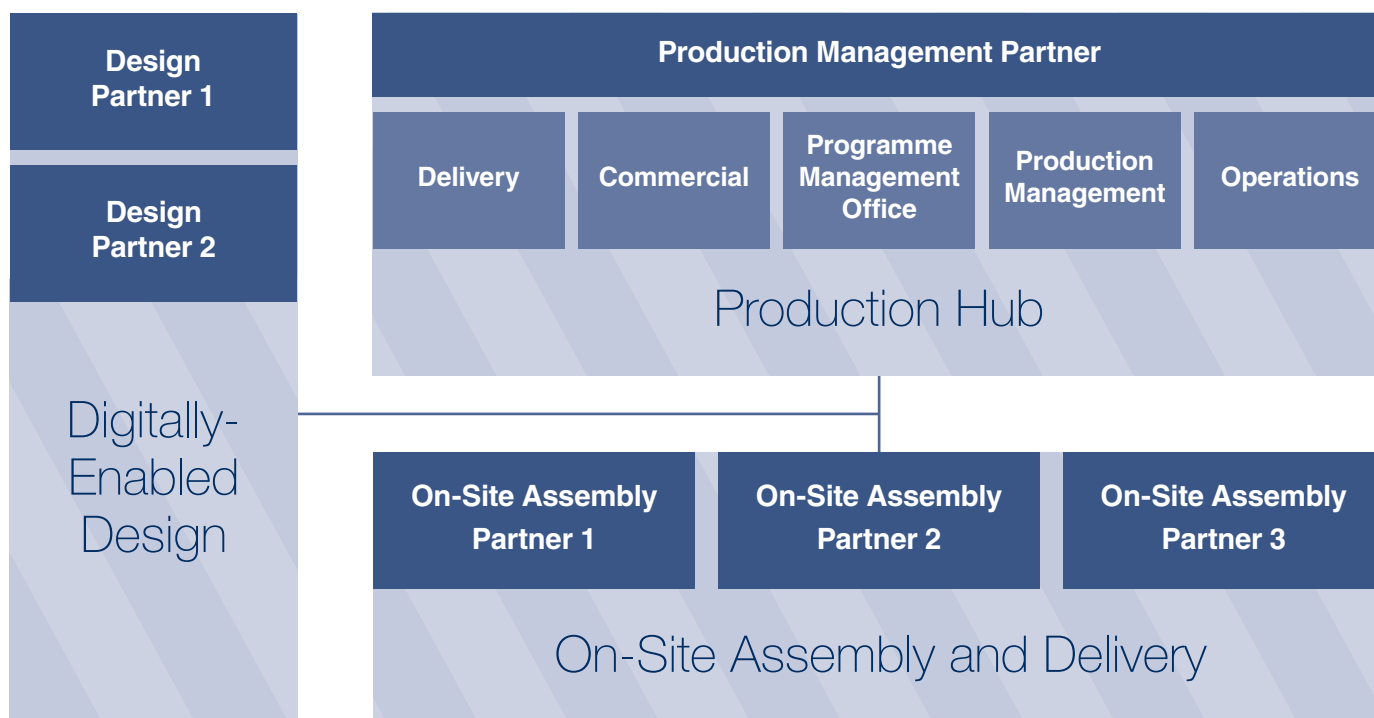


Diagram 2: **Alliance Delivery Model**

# Contract term

16. The Alliance Contract will have a total term of 10.5 years (including a mobilisation period) subject to completion of final schemes which may be allocated up to the expiry of the term.
17. The extended term, beyond the traditional four year framework, is necessary due to:
  - **Programme uncertainty:** political and budgetary changes will require flexibility over the term to achieve programme outcomes. Schemes have an average life span of three years and businesses have a five year funding cycle. Ten year term thus enables maximum flexibility to manage scheme and budget adjustments.
  - **Upfront investment:** contract model requires initial Partner and Highways England investment in resources and capital to enable medium to long term efficiencies targets. A 10 year period will enable efficiencies and returns to be realised and consequently provides supply chain confidence to invest.
  - **Cultural alignment:** sophisticated alliance models require embedded cultural and people alignment that can only be achieved over a longer period through relationship management and coaching.



- **Market capability:** the market does not have existing capability to fully realise ambitious Alliance objectives. An increased term enables Highways England to embed step change in maturity with Alliance Partners to achieve outcomes.
- **Standardisation:** a longer term contract is essential to realise primary benefit of design standardisation, requiring investment in time, resource and lessons learned.
- **Skills shortage:** infrastructure spend in the UK is forecasted to increase in the next 10 years. In parallel the industry is seeing skills and resource shortages. A longer term contract provides the confidence to support investment in apprenticeships and resources to mitigate this.

# Delivery model

## 18. The Alliance will contain the following key functions:

### Production Management

- The Production Management function will lead and co-ordinate a programmatic approach to delivering and optimising the achievement of the Alliance's objectives, through integrating all seven Alliance members efforts (including Highways England) within the Production Hub, to deliver an integrated, efficient, standardised business solution.

### Digitally-Enabled Design

- The Digitally-Enabled Design function is responsible for scheme design from initial concept through to delivery and closeout, seeking early involvement from the On-Site Assembly Partners and wider supply chain to support innovation and 'right first time' design.

### On-Site Assembly

- The On-Site Assembly function is responsible for the on-site aspects of construction works assembly and delivery, interfacing with other members to support efficient and safe design and delivery with predictable cost and schedule outcomes. The On-Site Assembly title has been deliberately selected to emphasise the role of the Partner in developing off-site construction methods and opportunities.

19. The wider supply chain required to deliver activities will be managed from within the Alliance by an integrated Production Hub, deploying resources either directly appointed by Highways England or by the Alliance Partners. A core function of the Production Hub is to implement a category management approach to all supply chain appointments, ensuring collective sourcing and contract management as part of the Alliance.

## Behavioural change

20. The Alliance is designed to allow changes to be made to behaviours through a collaborative, value-based delivery model achieved through Partners and supply chain working with Highways England as a single integrated organisation.

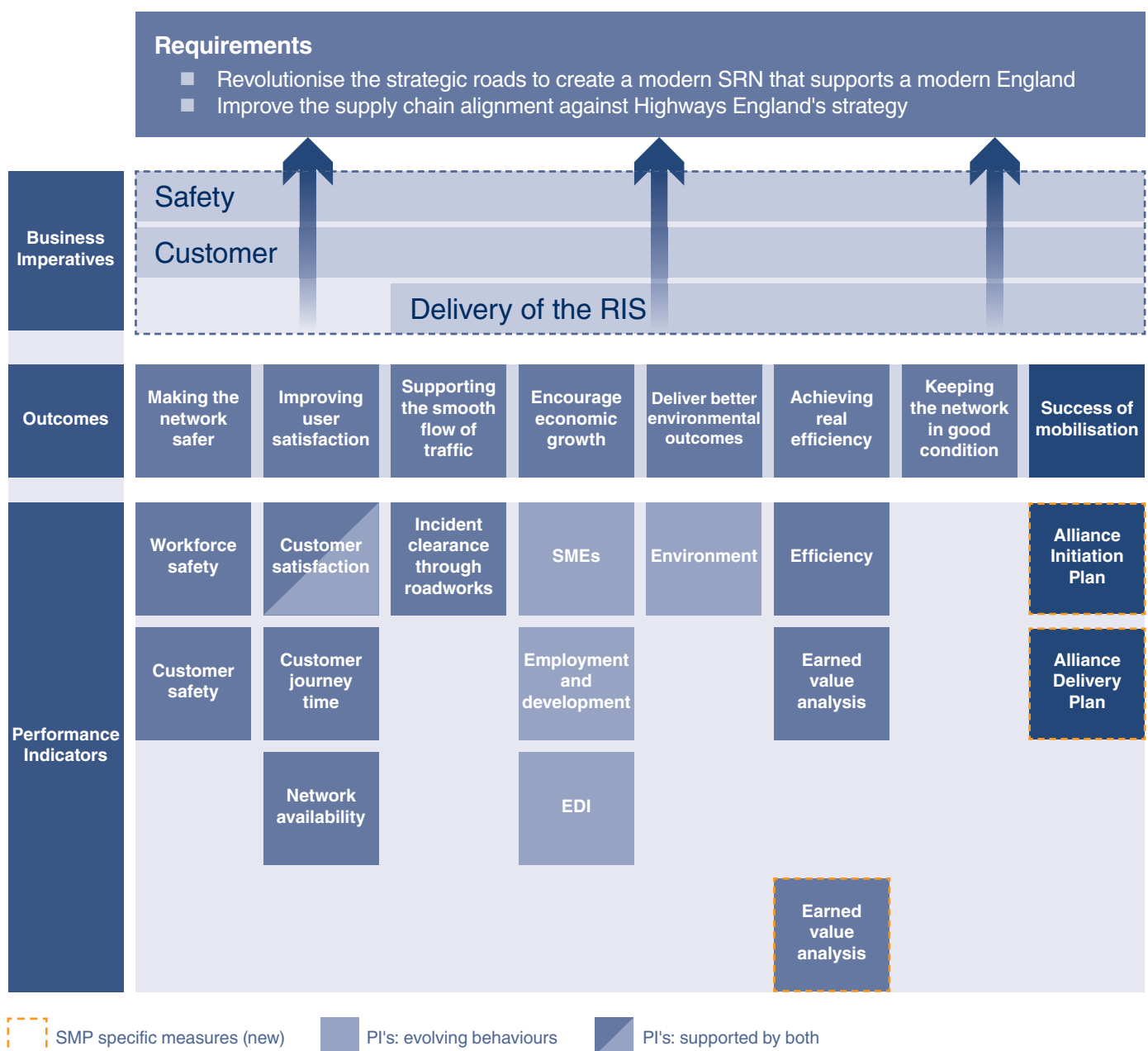
- Increasing transparency of performance and delivery
- Building more mature relationships with suppliers at all levels
- Developing our future delivery capability
- Enabling a step change in performance
- Aligning goals



# Performance management

21. Highways England will create a minimal client function to provide strategic client leadership to the Alliance. The Client will become a member of the Alliance Board, which will lead and deliver Alliance strategic outcomes.
22. The Alliance Board will manage the performance of the Alliance. Performance of the Alliance will be assessed against a suite of performance indicators aligned to outcomes and the three Highways England strategic imperatives (see [Diagram 3](#)):

Diagram 3: **Balanced scorecard and Highways England's targets overview**





- 23. Performance data is reported to Highways England on a quarterly basis.
- 24. The minimum performance expectations for the Alliance are defined in the Balanced Scorecard. When the Alliance under performs, at scheme or Alliance level, formal performance improvement processes will commence.

# Scope

## Introduction

- 25. The Alliance's primary scope is to increase lane capacity in the SRN (both motorway and carriageway) through embedding technology and converting hard shoulders to all-lane running; creating a smart road network that can be operated to maximum capacity. As part of converting lanes to all-lane running, the Alliance will be expected to undertake structural, carriageway and drainage re-alignment to ensure scheme can operate safely and effectively.
- 26. The Alliance is also intended to support the future implementation of autonomous and connected vehicles by working with Highways England's wider technology partners to provide the necessary civil upgrades to the SRN to enable implementation.
- 27. The overall scope will include the full life-cycle of a smart motorways scheme from programme development, design and construction. The programme will be managed via a centralised Production Hub, with the Alliance accountable for all aspects of scheme/package delivery.
- 28. The initial Alliance Delivery Plan (to be published as part of the ITN), focuses on capacity improvements to the motorway network, however, future funding may enable the programme to be expanded to the wider SRN, including carriageways etc.
- 29. Where required, the Alliance will also deliver associated construction works to support the wider Highways England programme delivery and collaborative objectives. This may include knowledge transfer or delivering critical road maintenance/ renewals as part of the SMP. Associated works will only be delivered where works are adjacent or within the main SMP work area.
- 30. Over the 10 year period the specific development (supporting programme agreement), design, and build scope will vary depending upon the RIS period (see **Table 1**, page 13).

Table 1: **Alliance Scope**

Alliance Scope	Programme Enabling Work	Design	Construction
Residual RIS1 and RIS2 SMP (2020-2025)	Limited	Subject to Scheme Transition Plan	All
RIS3 SMP (2025-2030)	All	All	All
RIS4 SMP (2030+)	Support Development of RIS4 business case and programme	None	None



# Section 1 : Challenging the traditional approach to design and delivery

31. The types of products required to deliver the Alliance outputs are not inherently different to those required in a traditional contract. However, the way that the Alliance members must work to create the products, and by extension the outputs, is expected to be significantly different and evolving.
32. The Alliance model supports a programmatic approach to delivery of SMP, whereby services such as scheduling, logistics planning, category and supply chain management are managed at a programme-level within the Production Hub enabling efficiencies that are not made possible when applying a scheme by scheme approach to design and delivery. A further benefit expected from the new way of working within the Alliance model is the ability to centralise and develop the production management capability across the programme to increase the proportion of construction carried out off-site and minimise time spent on-site.
33. At a day-to-day management level, Highways England will hold the Alliance Board accountable for Alliance objectives. The Alliance Board will then be responsible for enforcing the collective individual performance and delivery of the Partners to Highways England.
34. The Alliance will deliver unique workflows from Highways England's traditional approach to design and delivery of schemes. In the ITN, Highways England will confirm how the programme budget will be set and how the Alliance will plan, design and deliver the programme.



# Section 2: Partner scope

35. Resources are required from each Partner to deliver the core scope.

## Production Management Partner

36. The Production Management Partner is accountable for the programme-wide management activities within the Production Hub over the term of the Alliance Contract. They will integrate all seven Alliance members within the Production Hub to achieve the Alliance objectives. The outcomes of the Production Hub function include the following, as a minimum:

- Effective day-to-day delivery management of schemes across the programme in accordance with the Alliance policies, strategic plan and delivery plan, such that schemes are delivered safely to time, cost and quality.
- Timely integration, planning and goal alignment of tier 2 and 3 suppliers within the Alliance programme of work to improve the quality, cost and timeliness of services, supplies and works delivered to the Alliance.
- Centralised project controls to create a single source of the truth and programme-wide management that enables greater transparency and the ability to leverage economies of scale in commercial arrangements.
- Integrated resource management and scheduling to maximise the value of time spent on-site and maximise effective resource utilisation across the programme.
- Collaborative management of risks across the programme that supports early identification of risks, early mitigation and tracking and sharing of mitigation strategies across the programme.
- Common IT strategy adopted across the Alliance to maximise value of technology used across the programme and enable a single source of the truth.
- Consistent management and application of change across schemes to enable greater awareness and control of the impact of change.
- Centralised management of logistics (planning, sequencing) across on-site and off-site project delivery to maximise efficiency through effective inventory movement, plant availability and improved safety by minimising manual handling requirements.
- Effective management of people and process change and associated communications to enable an integrated and high performing team that makes the Alliance an attractive opportunity for current and future talent across Highways England, Alliance Partner organisations and the supply chain.

- Continuous improvement, innovation and best practice identified at the scheme level and shared across the programme to support consistently high performing and continuously improving teams in both design areas and in all three On-Site Assembly areas.
37. The Production Management Partner acts as a catalyst for integration and collaboration between all seven Alliance members while providing capability in the service areas specifically related to delivery control and coordination and investing in the capability and competence development of Highways England to enable a programmatic approach that supports realisation of the intended benefits of an Alliance model.
38. As such, the Production Management Partner is required to demonstrate proven capability in each of the following, as a minimum:
- Managing and integrating resources from multiple companies to create and sustain effective and efficient programme delivery.
  - Delivering services within the Production Hub in a leadership or supporting role as required.
  - Investing and enhancing the capability and competence of Highways England to manage SMP as an integrated programme.

## The Production Hub

39. The Alliance Partners will form a centralised hub to deliver the strategic programme
40. Services within the Production Hub will be resourced by a combination of all Partners and Highways England, include the following as a minimum (see **Table 2** below):

Table 2: **Services within the Production Hub**

<ul style="list-style-type: none"> <li>■ <b>Production management</b> <ul style="list-style-type: none"> <li>■ Continuous improvement and innovation</li> <li>■ People change</li> <li>■ Process change</li> <li>■ Communications</li> <li>■ Inventory management and consolidation</li> <li>■ Production planning and sequencing</li> <li>■ Transport logistics</li> <li>■ Plant management</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>■ <b>Programme Management Office</b> <ul style="list-style-type: none"> <li>■ Master scheduling</li> <li>■ Resource utilisation</li> <li>■ Resource levelling and smoothing</li> <li>■ Programme reporting</li> <li>■ Risk management</li> <li>■ Change management</li> <li>■ Quality management and assurance</li> <li>■ Information management and analytics</li> <li>■ Technology strategy and architecture</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>■ <b>Commercial</b> <ul style="list-style-type: none"> <li>■ Cost management</li> <li>■ Commercial management</li> <li>■ Contract management</li> <li>■ Estimating</li> <li>■ Financial management</li> <li>■ Supply chain management</li> <li>■ Category management</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>■ <b>Delivery</b> <ul style="list-style-type: none"> <li>■ Project and programme management</li> </ul> </li> </ul>







## Highways England within Production Hub

41. Highways England as an Alliance Member will fulfil key roles in the Production Hub, for example managing the interface with the wider Highways England business. Highways England staff delivering the SMP will become integrated members of the Production Hub or part of the wider SMP management.

## Digitally-Enabled Design

42. The Digitally-Enabled Design Partner is responsible for taking design from initial concept through to delivery and closeout, seeking early involvement from the On-Site Assembly Partners and the wider supply chain to support innovation and 'right first time' design. Digitally-Enabled Design will see Partners re-examining how Highways England deliver the end-to-end solution and realising new, innovative ways of working, which can be incorporated into designs.

43. The role of the Digitally-Enabled Design Partner is to:

- Be accountable for the delivery of the design aspects of the Project Control Framework stages 1-7 including feasibility, outline design, detailed design and close out documentation.

- Manage and promote the use of the Highways England's Rapid Engineering Model (REM) system to better inform our designs and standardise our methods. Running digital rehearsals to test processes and capabilities to deliver 'right first time' and optimised on-site assembly. The supply chain is critical to developing the flexibility, efficiency, and speed to deliver the right product efficiently.
- The REM is a digital approach to automated design. REM is digitally driven and collaboratively enabled in order to accelerate the design of SMP schemes. Through interactions with the parametric tools that generate the REM, the designer can adjust each one of the components in order to create the optimum layout.
- Leverage the capability of the REM and accelerated design thinking to develop standardise designs that minimise repeat design activities and increase 'right first time' design work.
- Develop and apply a consistent approach to design whereby standardised SMP designs are developed for use across all on-site Alliance/construction areas to drive efficiencies across the value chain.

## On-Site Assembly Partner

- Being digital is about using data to make better and faster decisions, devolving decision making to smaller teams, and developing much more iterative and rapid ways of doing things. The Alliance's Building Information Modelling (BIM) suite will enable this improvement in terms of speed and accuracy of decision making. All Alliance members will utilise a core BIM suite provided by Highways England.
- 44. The digitally-enabled design function is resourced by two Design Partners. Each Design Partner is responsible for delivery of the following services, as a minimum:
  - Principal designer for their allocated schemes
  - Design knowledge management
  - Surveys (supported by the supply chain and On-Site Assembly Partner)
  - Environmental assessment and design
  - Asbestos surveys
  - Development of standard products
  - Design quality management
  - Statutory and consent management
  - BIM
  - Design Integration
- 45. The On-Site Assembly Partner is responsible for the on-site aspects of construction works, assembly and delivery, interfacing with other members to support efficient and safe design and delivery with predictable cost and schedule outcomes.
- 46. The On-Site Assembly function is resourced by three On-Site Assembly Partners. Each On-Site Assembly Partner is responsible for delivery of the following works and services in respect of their schemes, as a minimum:
  - Principal contractor
  - Site mobilisation and logistics and safety;
  - Site surveys
  - Environmental assessment and design
  - Temporary traffic management
  - Co-ordinating works with technology partners
  - Management and delivery of construction activities
  - Site performance control
  - Site level engineering
  - Installation and technology commissioning
  - Commission and handover management

## Supply chain

47. The supply chain will be managed from within the Alliance Production Hub by an integrated supply chain team along the following principles:

- **Value creation** – extended supply chain categorisation will be based on the value they create and the strategic impact they can bring to the Alliance.
- **Collaboration** – the model will create relationships with suppliers to drive efficiency, collaboration, innovation and productivity, early supplier engagement and joint risk and interface management.
- **Strategic sourcing and category management** – a category plan will be created for both services and goods suppliers to forecast demand and unlock value through an integrated Alliance supply chain.
- **Enhanced capability** – the Alliance will seek to grow supply chain capability and capacity by creating a deep understanding of the supply chain, building resilience, and engaging in long term high performance relationships.
- **Standardisation and innovation** – joint investment with key suppliers to challenge standards, drive innovation and product development.





# Section 3: Regional allocation of lots and total lot value

48. Schemes allocated within regional boundaries using regions (see **Table 3** below):

Table 3: **Allocated schemes**

Production Management Partner	Digitally-Enabled Design Partner	On-Site Assembly Partner
National coverage of the Alliance programme	<ul style="list-style-type: none"> <li>■ North region</li> <li>■ South region</li> </ul>	<ul style="list-style-type: none"> <li>■ North region</li> <li>■ Midlands region</li> <li>■ South region</li> </ul>
Lot range value: £100 - £350 million	Lot range value: £450 - £700 million	Lot range value: £3.8 - £5.95 billion

49. The estimated overall project value set out in the OJEU Notice projects an upper value of £7 billion. This will apply if the SMP is fully funded over the term and thus provides maximum flexibility to the Alliance if future funding is approved.
50. However, applicants should note that the current funding forecast is indicated to be closer to £4.5 billion and this value should be used for applicant forecasting and bid assumptions.
51. Within the ITN shortlisted applicants will be provided with the indicative programme of schemes.
52. Applicants should also be aware of the following key Delivery Plan assumptions concerning the £4.5 billion spend profile (which are not being guaranteed):
- The Delivery Plan has the working assumption of 20 to 25 schemes over the term.
  - Where possible Highways England will seek to create equal package sizes by equally splitting work between the two Design Partners (50%) and the three On-Site Assembly Partners (33%) (subject to the work allocation process described next).
  - Highways England is seeking to provide an even forecast spend over the period of £450 million per annum.

# Section 4: Work allocation

53. The summary of the intended work allocation process in this Section 4 is indicative and Highways England reserves the right to amend the process; such amendments shall be notified to tenderers in the ITN.

54. Once fully mobilised Highways England will agree funding for SMP schemes with the Department for Transport (DfT) and issue as funded packages to Alliance Partners.

## Production Management Partner

55. Within the ITN, Highways England will confirm the estimated resource outputs required for the initial period, including mobilisation and first year of Alliance operation.

56. During mobilisation, the Alliance will create a business case for approval by Highways England. Highways England will then issue a package order. The package order will be subject to periodic review and approval. Future package orders will be issued periodically.

## Digitally-Enabled Design Partner

57. Design schemes will be allocated to Design Partners in a series of packages. At the conclusion of the tender process, Highways England shall confirm the allocation of the first package of schemes to the two successful Partners (such round of allocation being “Package 1”).

58. The second allocation of packages is anticipated to be allocated in 2020 for schemes confirmed in the RIS2 agreement between DfT and Highways England (“Package 2”).

59. The third round of package allocation (“Package 3”) is anticipated to be in 2025. Each package will have three to five schemes and the packages will be initially allocated according the Designer Partners allocated region:

- North region
- South region

60. Where required, Highways England may issue additional work packages outside of the three planned package orders above, to reflect programme need.

61. Tenderers will provide their lot and region preferences at Selection Questionnaire stage. These preferences will be used at Contract Award to determine how the road regions will be allocated.

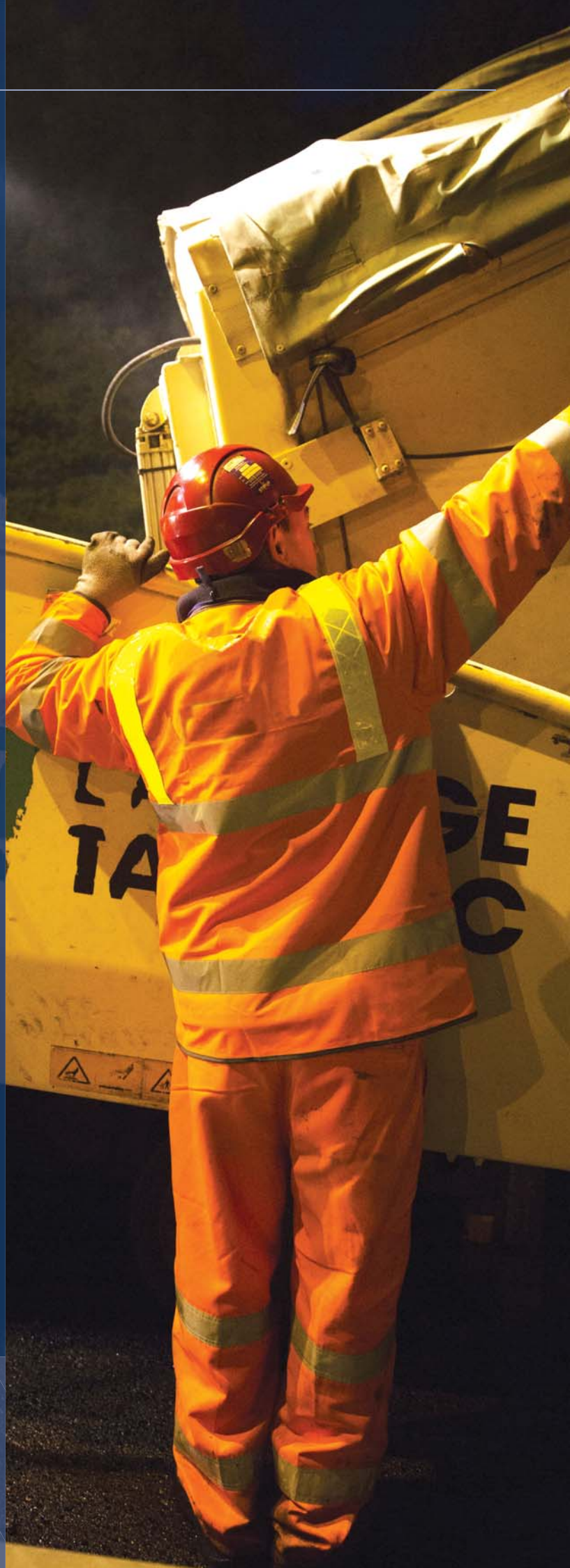
62. At Contract Award the tenderer with the highest ranked qualifying total tender score will be awarded their preferred regional package. The remaining region will be allocated to the second ranked qualifying tender. In the event the tender is highest ranked first in two lots, they will be awarded the lot where they have achieved the highest ranked score.
63. The intention is for the volume of work per region to be split equally subject to a tolerance of 40%-60%.
64. Following the initial allocation of packages (by region) to each Design Partner, the Alliance Board will have the opportunity to redistribute schemes or elements of schemes across the packages. This may be to reflect an Alliance Partner core strengths by moving scheme components to the best Partner, or to optimise programme efficiency or capacity. If the Alliance Board wishes to re-allocate a scheme, the Alliance Board shall produce a business case for the optimised scheme package plans for approval by Highways England.
65. In the event that either the Alliance Board does not wish to re-allocate schemes, or agreement to the business cases for the optimised scheme package plans cannot be achieved with unanimous agreement by all of the Alliance members, the schemes will be awarded on the basis of the initial allocation by Highways England.

## On-Site Assembly Partner

66. Schemes will be allocated to lot Partners in a series of packages. At the conclusion of the tender process, Highways England shall confirm the allocation of the first packages of schemes ("Package 1").
67. The second round of package allocation ("Package 2") is anticipated to be in 2020 for schemes included in the RIS2 agreement between the DfT and Highways England.
68. The third round of package allocation is anticipated to be in 2025 ("Package 3"). Each package will have between one to five schemes. Packages will initially be allocated based upon defined road regions:
  - North region
  - Midlands region
  - South region
69. Where required, Highways England may issue additional work packages outside of the three planned package orders above, to reflect programme need.
70. Tenderers will provide their lot and road region preferences at Selection Questionnaire stage. These preferences will be considered at Contract Award to determine how the road regions will be allocated.



71. At Contract Award the tenderer with the highest qualifying tender score will be awarded its preferred road region. The remaining road regions will be allocated to the second and third ranked qualifying tenderers. In the event the tenderer is highest ranked first in two lots, they will be awarded the lot where they have achieved the highest ranked score.
72. The intention is for the volume of work per region to be split equally subject to a tolerance of 25%-40%.
73. Following the initial allocation of packages (by region) the Alliance Board will have the opportunity to redistribute schemes across packages. This may be to reflect Alliance Partner core strength's by moving scheme components to the best Partner, or to optimise programme efficiency or capacity. The Alliance Board produce Business Cases for the optimised scheme package plans for approval by Highways England.
74. In the event that either the Alliance Board does not wish to re-allocate schemes OR unanimous agreement to the business cases for the optimised scheme package plans cannot be reached by all of the Alliance members, the schemes will be awarded on the basis of the initial allocation by Highways England.



# Commercial strategy

## Commercial drivers and objectives

75. The main objective of the commercial model is to create a delivery environment with a shared programme budget and risk profile which links fee (overhead and profit) to collaborative and efficient performance and delivery of Highways England's key programme objectives.
76. A programmatic approach will encourage standardisation of the smart motorway product and improve the economic and efficient delivery of each scheme and RIS programme. Providing suppliers with greater visibility of future work will increase incentive to invest in innovative production techniques and building capability.
77. The key objectives of the commercial model are therefore to:
  - Break the traditional link between turnover and fee.
  - Align the Partners commercial incentives to Highways England's outcomes.
  - Drive collaboration through shared objectives.

- Improve Partner returns by delivering solutions that drive down cost below the Alliance budget.
- Incentivise the Partners to collaborate effectively with Highways England and each other to mitigate underperformance by sharing knowledge and resources in an open-book environment.
- Provide the Partners confidence in the contractual budget and create sustainable risk and reward profile.
- Improve cost certainty and collective ownership of outcomes.

## Alliance budget

78. The Partners will be incentivised against the Alliance budget for the delivery of the programme. The Alliance budget will include an estimate of all Alliance costs, (utilising cost intelligence and industry benchmarking) resources and Partner's fee.
79. All foreseeable delivery risks will be included within the Alliance budget. Adjustment to the Alliance budget is only envisaged with changes to high level Highways England requirements.
80. Highways England will provide details of the quantum, pricing methodology and estimating assumptions on which the Alliance budget is based during ITN procurement stage.

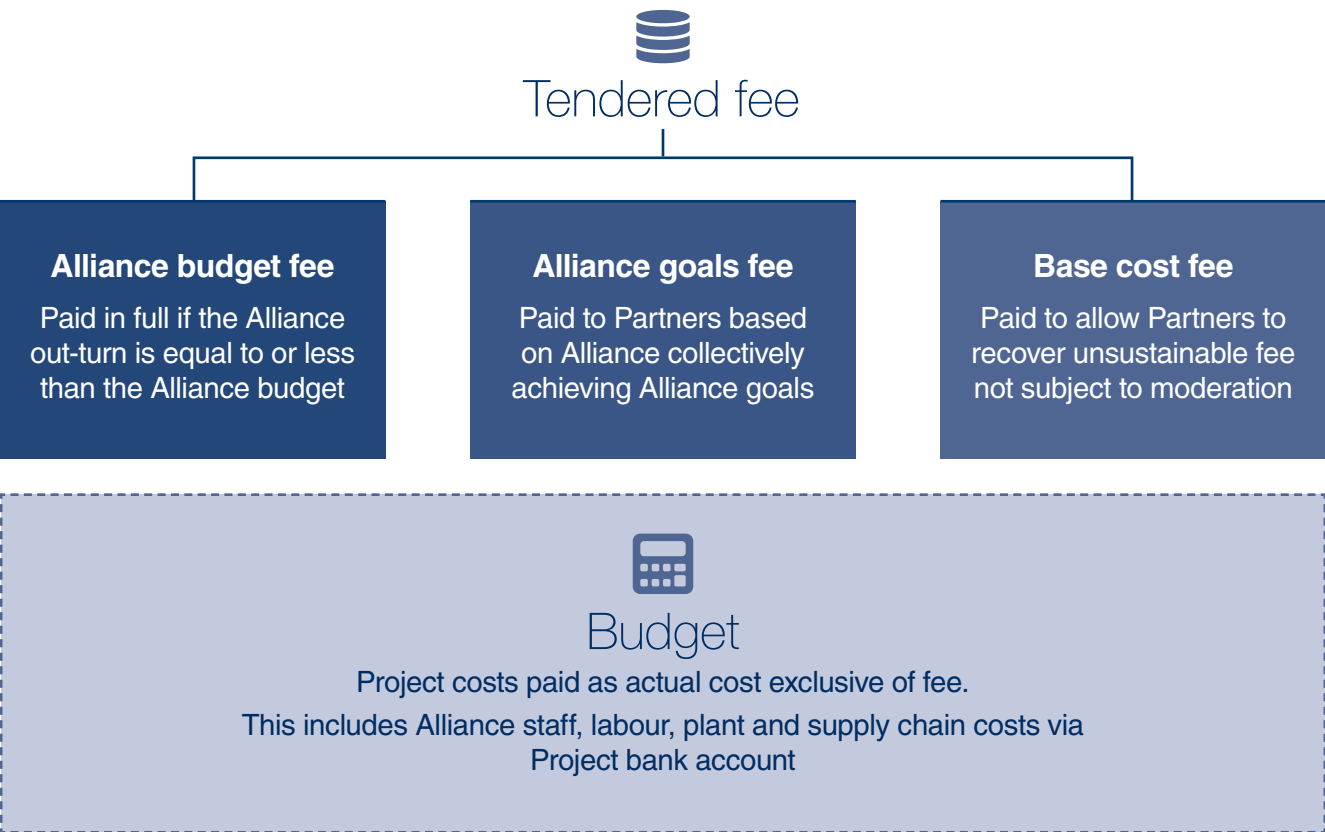
# Incentive model and fee

81. The key objectives are:
- Incentivisation at Alliance level only with a positive reward model to encourage outperformance.
  - Regular recovery of return to the Partners.
  - Portion of return subjected to performance criteria.
  - Sustainable risk profile with financial liability capped for the Partners.

82. The Alliance commercial model is set up to allow the Partners to recover a guaranteed proportion of their fee and attain remaining proportions based upon their ability to perform in accordance to the Alliance budget and other defined objectives, (see **Diagram 4** below).
83. The Partners will be able to earn an additional return through a capped proportion of gain share against the Alliance budget, in circumstances of budget outperformance (underspend).
84. The distribution of all portions of the fee payments to each Alliance Partner will be in proportion to the earned value achieved.

Diagram 4: **Commercial model showing how fee is recovered**

Suppliers single fee percentage based upon initial expectations of workload, aggregated to an Alliance lump sum and will comprise of three sections:





# Procurement selection and award criteria

85. All procurement documents will be issued and received via Highways England's electronic tendering portal Bravo. All selection stage questions relating to the tender must be made direct via the Bravo site, and any direct approaches to Highways England's staff will be seen as a breach of protocol and may result in the tender being excluded.
86. If tenderers require any assistance in registering for Bravo or accessing the system please contact the procurement officer (Mick Howell) by emailing: [smpprocurement@highwaysengland.co.uk](mailto:smpprocurement@highwaysengland.co.uk). Other queries should be raised by following the steps set out in the Selection Questionnaire guidance.
87. All tenders will be evaluated against Highways England's imperatives (see **Table 4** below) and the six key Alliance enablers. Tenderers will need to demonstrate how they will deliver these imperatives enablers.

Table 4: **Highways England's imperatives**

Highways England's imperatives	
Safety	
Customer service	
Delivery	Evaluation criteria <ul style="list-style-type: none"> <li>■ Technical leadership</li> <li>■ Collaboration leadership</li> <li>■ Commercial leadership</li> <li>■ Corporate and leadership capacity</li> </ul>

88. These imperatives and evaluation criteria will be tested at the ITN stage of the procurement process using different methods to ensure that Highways England is able to select the right Partners, who demonstrate the right behaviours at the right cost.
89. Tenderers will be required to tender individually for their roles in the Alliance through separate lots. Highways England will evaluate each potential Alliance Partner separately in order to select “best for task” Partners for each Alliance role.
90. The commercial outcome of the procurement exercise will be one Alliance Contract under which the Alliance Partner will be required to operate as a single integrated team, including the flexibility to re-allocate work between them in circumstances of poor performance or inability to deliver. Procuring Partners in separate lots will also allow Highways England to retain the ability replace or suspend Partners for poor performance as necessary.
91. **Table 5** confirms the shortlisting procedure that will be applied for this procurement:
92. Tenderers will be permitted to express an interest in all lots but will only be permitted to submit initial tenders for a maximum of two lots.
93. The maximum lots a tender can win is one.
94. Tenderers should refer to Selection Questionnaire guidance for rules regarding competing in more than one lot or bid team.
95. To maximise tendering efficiency the following procurement procedure has been developed:

## Stage 1: Qualification

96. Tenderers will submit a completed Selection Questionnaire as their expression of interest in tendering. A shortlist will be developed for each lot.
97. The Selection Questionnaire follows the PAS 91 standard approach with a limited number of Highways England specific additional questions. It focuses on a tender’s corporate governance, financial capacity and technical capability to meet Highways England’s required technical standards and experience.

Table 5: **Shortlisting procedure**

	Stage 2: Outline tender (min to max)	Stage 3 and 4: Final tender (min)
Lot 1	3 - 5	2
Lot 2	6 - 8	4
Lot 3	6 - 12	6

Suppliers will be invited to tender only in a maximum of two of the lots for which they have been shortlisted.

98. For Lot 2 and 3 Highways England will make full use of the Constructionline system for those suppliers that are registered on it.
99. Highways England seeks responses to three specific requirements questions in Part 4 of the Selection Questionnaire will cover health and safety, customer and technical and professional ability.
100. Tenderers will be required to submit a total of **six case studies for each lot**. These questions will be scored against criteria outlined in the Selection Questionnaire guidance document and tenderers will be ranked according to these scores, providing they have passed all mandatory questions in Part 3.

## Stage 2: Initial tender

101. Shortlisted tenderers in each lot will be invited to submit an initial tender composed of three distinct elements:

- Quality submission – scored
- Policy submission – not scored
- Price submission – compliance only at this stage but see below

102. The successful tenderers shall be awarded a place in the Alliance on the basis of the most economically advantageous tender on an overall **70% quality and 30% price** ratio.

103. However, the returned initial tenders will only be scored in respect of the quality submission. Initial pricing submissions will be required but not scored at this stage. The initial tender and subsequent shortlisting will act as a minimum quality threshold. The initial tender (Stage 2) will also confirm tender's compliance with contract conditions and commercial assumptions.

104. The detailed price assessment criteria include assessment of fee, resources and works costs will not be scored until after submission of final tenders (see below).

105. Further details of the evaluation weighting will be provided in the ITN.

106. The policy statement will include Highways England's policies which the tenderers will be required to agree to; the policies will be assessed for compliance only.

107. Stage 2 will focus on assessing the tender's ability to offer a quality solution that will deliver and exceed contract objectives which will be divided into four distinct parts:

- **Part 1 – Technical leadership**  
Assessing the tender's technical leadership to deliver their defined scope.
- **Part 2 – Collaborative leadership**  
Assessing the tender's proposals to work in the Alliance collaborative environment to deliver Alliance objectives.



■ **Part 3 – Commercial leadership**

Assessing the tender's commercial proposals, risks, resilience and efficiency programme.

■ **Part 4 – Capacity management**

Assessing the tender's proposals in terms of ability to meet the resource and leadership needs of the Alliance over the contract period.

108. Part 3 of the quality solution will also include an evaluation of the collaborative leadership of the tender through a number of structured interviews of the tenderers leadership, delivery and supplier teams to test for cultural and business alignment to Alliance objectives. The interviews will be led by independent behavioural psychologists working alongside suitably qualified Highways England personnel.

109. The combined results of the final written and collaborative assessment will result in the final quality score, producing a ranking of tenderers for each lot. Full details of the written and collaborative assessment procedure will be confirmed in the ITN tender documentation.

## Stage 3: Negotiation

110. Details of the areas for negotiation, together with the areas which will not be subject to negotiation, will be set out in the ITN tender documentation.

111. Following initial tender submission, Highways England will invite the further shortlisted tenderers to participate in this stage.

112. During negotiations, Highways England will not change its underlying minimum requirements or the evaluation criteria for final tenders as set out in the ITN.

113. All Partners will be required to sign up to the same contract terms although they will have separate scopes for each lot.

114. Highways England reserves the right not to negotiate and progress directly to Stage 4, subject to commercial assessment.

## Stage 4: Final tender

115. Negotiations shall conclude at the point determined by Highways England when it is satisfied that it will have a sufficient number of proposals capable of acceptance for each lot.

116. Following negotiations Highways England will invite final tenders from all tenderers who participated in Stage 3. Final tenders will be submitted based on outcomes of the negotiation stage and the evaluation criteria will be reapplied to the final tenders.

117. The final tender assessment will primarily focus on the price and sustainability assessment, with price models fully tested and analysed.

118. Following assessment the preferred tenderers will be identified in accordance with the rules below.

- Tenderers will be ranked in each lot from highest to lowest based on the total tender score.
- If tenderers are tied on the same score then the tender with the highest quality score will initially take precedence in the ranking for that lot. If tenderers are still tied then the tender with the highest marks for the cultural assessment will take precedence in the ranking.
- Where a tender achieves the top score in two lots they will be awarded the lot in which they achieved the highest score. Only if they achieve the same score for both lots will their lot preferences be used to determine which lot the tender shall be appointed preferred tenderer for.

119. The contracts shall be awarded following any conclusion of any final drafting clarifications.

# Contract specification and terms

## 120. The key features of the Alliance Contract are:

- An Implementation Plan will include template forms for package and scheme orders for works and services for individual Partners and no work will be awarded to the Alliance (which is not a legal entity). All the various orders will need to be delivered to an Alliance budget which will be updated for (Package 2) and (Package 3) and potentially for any associated schemes.
- Post-contract, Highways England will use Option X26 to introduce new packages into the Alliance according to the Partners defined region and scope. The Alliance Board can optimise the package allocation in accordance with the allocation procedure and unanimous Alliance Board approval. Subsequently Highways England will award the package including the agreed contract data to relevant Partners.

## 121. NEC4 Alliance Contract data

- The contract data will be populated as far as possible when the Alliance Contract is awarded. It will then be updated to include the agreed details if and when services and works are instructed.
- It is proposed to include a single “Contract Data Part 1” and six separate “Contract Data Part 2”. Each Contract Data Part 2 will be completed by one of the individual Partners relevant to the different lot it has been appointed for.

## 122. Lot Scope

- The “Scope” document in the Alliance Contract will specify and describe the work procured under each lot and will include Highways England’s technical and performance requirements in respect of this work. Each lot will have a defined scope of works and services, The “Scope” also sets out the practical and other “constraints” within which the work is to be carried out. Work may be re-allocated within a lot but only in the circumstances summarised under work allocation above.

### 123. Implementation Plan

- The Alliance Contract anticipates that the operation and management of the Alliance will be set out in an “Implementation Plan” forming part of the Alliance Contract. This will include detailed provisions and guidance on: the governance of the Alliance; decision making within the Alliance; management of the Alliance, the Alliance supply chain; insurance; performance and quality management; common systems and processes; mobilisation plan; transition plan; allocation of work and changes to membership of the Alliance. Under the Alliance Contract the Alliance Board is able to amend and supplement the Implementation plan during the life of the Alliance.

124. The intention in drafting is to preserve as much of the core principles of the NEC4 Alliance Contract as feasible in light of Highways England’s requirements. Some amendments to the contract will be required to reflect:

- Highways England’s particular requirements for its Smart Motorways Programme, reflected in amendments to the roles, responsibilities and management of the contract to reflect Highways England’s governance for a new Alliance model.
- Highways England’s standard processes reflected in amendments in relation to eg conflict of interest.
- Highways England’s status as a public sector procurer, reflected in amendments in relation to eg the Freedom of Information act and other.

125. The impact of such changes is set out in summary form (see [Table 6](#), page 34) and the detail will be provided within the ITN.



Table 6: **SMA proposed treatment**

Alliance Contract	Smart Motorways Alliance proposed treatment
1. General	Some amendments to reflect Highways England's requirements, in particular updating definitions used throughout that are specific to SMA.
2. The Alliance's main responsibilities	Some amendments to reflect the three lot procurement structure and Highways England's governance. There will also need to be changes to the Alliance Board's decision-making powers to reflect Highways England's obligations to manage and control public funds.
3. Time	There will be some minor amendments to reflect the three lot procurement structure.
4. Quality management	Amendments for control of the way defects will be managed and to be aligned with Highways England's standard supply chain requirements of all suppliers.
5. Payment	Significant amendment will be required to reflect the detailed commercial model and Highways England's approach to managing commercial tension across the programme.
6. Compensation events	It is anticipated that there may be significant change to this section of the contract to reflect the governance commitment to the DfT that the Alliance budget, once set, will only be altered in specific and restricted circumstances. This will need to be reviewed and balanced by market responses.
7. Title	Significant amendments are not anticipated.
8. Liabilities and insurances	Significant amendment to the NEC4 base position is required to reflect Highways England's public sector accountability eg the reintroduction of responsibility for latent defects by individual Partners. Highways England's intention is to confirm Partners ability to provide insurances at the required levels that are stated in the Selection Questionnaire.

Alliance Contract	Smart Motorways Alliance proposed treatment
9. Termination, resolving and avoiding disputes	<p>Highways England will include a right to terminate at will as is standard. A clause will be included that Highways England may activate at the end of the RIS2 period to end the Partners' involvement with RIS3 while requiring them to deliver RIS2 schemes until complete.</p> <p>The dispute resolution mechanic will follow the standard NEC4 contract with amendments in respect of the independent expert and Highways England retaining a veto on references to the independent expert.</p>
Option X	Will be confirmed in ITN.
Option Y	<p>Y(UK)1 – Project Bank Account – will be used.</p> <p>Y(UK)2 – Housing Grants, Construction and Regeneration Act 1996 – will apply.</p> <p>Y(UK)3 – Contracts (Rights of Third Parties) Act 1999 – not applicable to the Alliance.</p>
Option Z	<p>Highways England's mandatory Z clauses have been reviewed for applicability to an Alliance Contract and will be used with adaptations where relevant.</p> <p>Other Z clauses may be introduced to address Highways England's requirements of the smart motorways programme.</p>

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