



To FAS group members

27 November 2018

UK Airspace Modernisation: Proposed Delivery Groups in Governance Structure

1. As co-sponsor organisations of airspace modernisation in the UK, the Civil Aviation Authority and Department for Transport are writing to relevant industry participants to set out our proposal for the 'client delivery' groups within the airspace modernisation governance structure. We are also wanting to obtain further feedback on these delivery groups where there are choices to be made.

Context:

2. In July 2018 the CAA published its draft Airspace Modernisation Strategy (AMS) and invited feedback through a stakeholder engagement exercise. The AMS included a governance structure for all the parties and groups with a role to play in modernising airspace. This governance structure was developed by the CAA and DfT with NATS and the Infrastructure and Projects Authority (a Cabinet Office team that helps with programme assurance for infrastructure projects). This governance structure has been developed further taking into account feedback received through the CAA's engagement exercise.
3. An updated version of the overall governance structure is included below.
4. In order to address feedback, we will be including more detail on specific roles, including the DfT and CAA's shared co-sponsorship role and a new CAA Delivery Monitoring and Oversight (DMO) role. This detail will be published as part of the CAA's AMS and the DfT's Aviation Strategy Green Paper.
5. At the highest leadership level, a new UK Airspace Strategy Board has now been set up, and the first meeting was chaired by Baroness Sugg at the end of October 2018.
6. As set out in the draft AMS, the delivery level of the governance structure will be comprised of a series of industry organisations, specifically those involved in the delivery of the initiatives set out in Chapter 4 of the strategy. Those organisations delivering the initiatives will be brought together into coordinated groups that are chaired by an appropriate member of the group.

7. The DfT and CAA as co-sponsors will ask those delivery groups to prepare Terms of References setting out how that group will operate, and a plan for the initiatives it is delivering with clear milestones that can be tracked by the Delivery Monitoring and Oversight (DMO) team being set up in the CAA. The interactions between delivery groups and the co-sponsors are illustrated in the diagram below.
8. The co-sponsors and DMO team will need to agree interaction points with industry delivery groups. We have suggested which industry delivery groups are necessary for delivering the AMS initiatives below within the overall governance structure. The table provides further details as to how these suggested groups relate to delivery for each of the 15 initiatives that will be included in the updated AMS.
9. As set out in the co-sponsors' letter to NERL of 2 November 2018, we think NERL is best placed to be responsible for drawing together a UK-wide coordinated implementation plan for airspace changes (or airspace change masterplan) out to 2040. In developing this plan, NERL shall engage effectively with relevant stakeholders and organisations, such the airports using the airspace in question. In addition to developing this masterplan, we expect NERL to sponsor a number of individual airspace design changes set out in the plan. The CAA proposes to enshrine this new strategic airspace role for NERL, in its economic licence.
10. As part of this role, we expect NERL at the earliest possible opportunity to create an Airspace Modernisation Oversight Group (AMOG) that will, as a matter of urgency, lead the FASI South Programme to create a single coordinated implementation plan for airspace changes in Southern England by end June 2019 (a south east airspace change masterplan, or masterplan for short). AMOG will undertake programme management that coordinates the delivery of specific initiatives (i.e. the FASI South Programme) and will report into the CAA's Delivery Monitoring and Oversight team.
11. NERL has proposed a Terms of Reference for AMOG and we are content that, in broad terms, it deals with AMOG's independence, governance and skills. We will provide feedback to NERL on the detail separately. The Terms of Reference document has been shared with the FAS Facilitation Fund Investment Board.
12. AMOG would be one delivery group; others are necessary to ensure all the initiatives in the AMS have a credible and trackable plan for their delivery.
13. Every delivery group will be required to draw up terms of reference as to how it will operate and how it will engage the stakeholders set out in the airspace modernisation governance structure. It will also be required to set out a coordinated delivery plan and report on progress against this plan. Minutes from delivery meeting should be published online at a location agreed with the co-sponsors, for the sake of transparency.

Delivery Groups

14. **We would like your views on the full set of delivery groups that need to be set up to deliver airspace modernisation.** Some of the delivery groups

suggested below are existing groups, some are proposed new groups, and some will need to be developed in the future.

15. Some of the initiatives may require the tracking of effectiveness, in terms of their efficient use after implementation. This may be for example encouraging use or sharing knowledge to improve resilience. We feel that this could be overseen by either:
- a) individual airlines;
 - b) the existing Operations Director Leadership Group (with the potential to include additional airlines if/when required); or
 - c) a new airline group which may cover more airline representatives and require adequate resourcing commitment.

We would welcome your views on these alternatives which are suggested for Initiatives 1 and 3.

16. Some of the initiatives require a form of airline readiness co-ordination, where users may need, for example, new equipment or procedures in place before an initiative is implemented. These could be overseen by either:
- a) AMOG setting out an airline engagement plan;
 - b) the existing Operations Director Leadership Group (with the potential to include additional airlines if/when required); or
 - c) a new airline group which may cover more airline representatives and require adequate resourcing commitment.

We would welcome your views on these alternatives which are suggested for Initiatives 2, 4 and 5.

17. For initiatives 11 to 15 we are suggesting a new formal airspace technology delivery group is set up, likely to be led by the CAA, involving a wide range of stakeholders to co-ordinate supporting infrastructure activities.

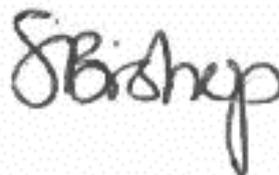
We would welcome your views on this proposed group which is suggested for Initiatives 11 to 15.

18. If you have any other suggestions as to how the industry organisations should be arranged to deliver modernisation, we would be interested to hear them. In order to finalise the governance structure in time for publication alongside the final AMS and Aviation Strategy Green Paper (both of which are due to be published in mid-December), we would be grateful for your views by Tuesday 4 December 2018. Following publication, the governance structure will be kept under review and we expect that it will evolve over time.

19. We would like to take this opportunity to thank you for your continued engagement and commitment to delivering airspace modernisation.

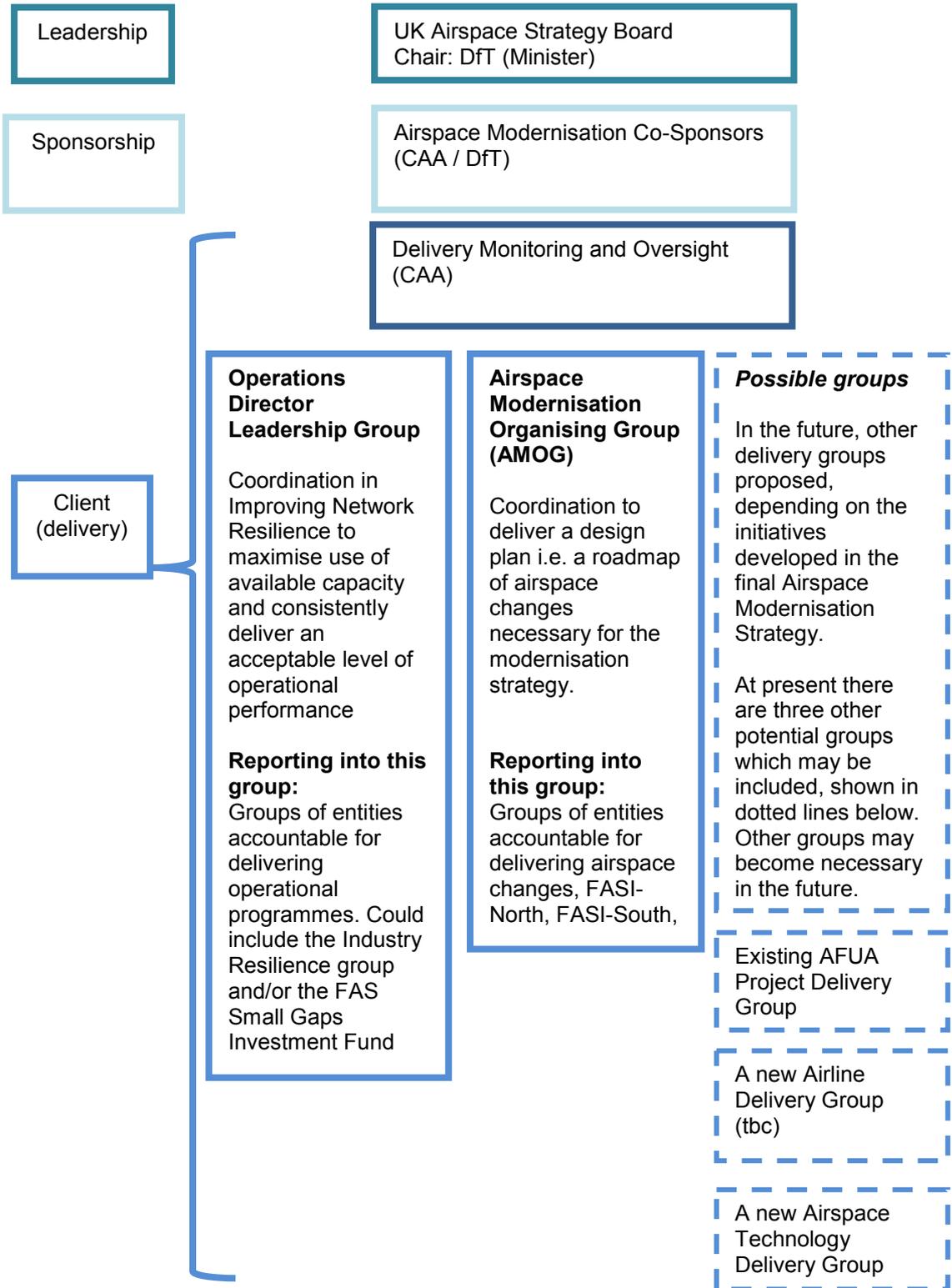


Tim Johnson
CAA Director of Policy



Sarah Bishop
DfT Deputy Director

Governance structure for the Airspace Modernisation Strategy



Airspace Modernisation Engagement

All groups listed below will be able to feed thoughts, papers, suggestions into the appropriate bodies. The CAA, Department for Transport and NATS commit to working with them to define what their engagement opportunity looks like.

- Airspace4All: a group coordinating General Aviation roles and information (Formerly FASVIG)
- ANEG: Airspace and Noise Engagement Group run and chaired by the DfT
- AEF: Aviation community membership body
- Airlines UK: airline trade association
- AOA: Airports trade association
- ARPAS UK: drone industry trade association
- CDF: Community Discussion Forum run by the CAA
- A potential communications planning group to include the sponsors and delivery groups
- FASIIG: Future Airspace Strategy Industry Information Group chaired by NATS and BAW (noting this group has new ToRs under discussion).
- Ministry of Defence
- NATMAC: National Air Traffic Management Advisory Committee, run by the CAA
- Sustainable Aviation: industry coalition
- UK Space Agency

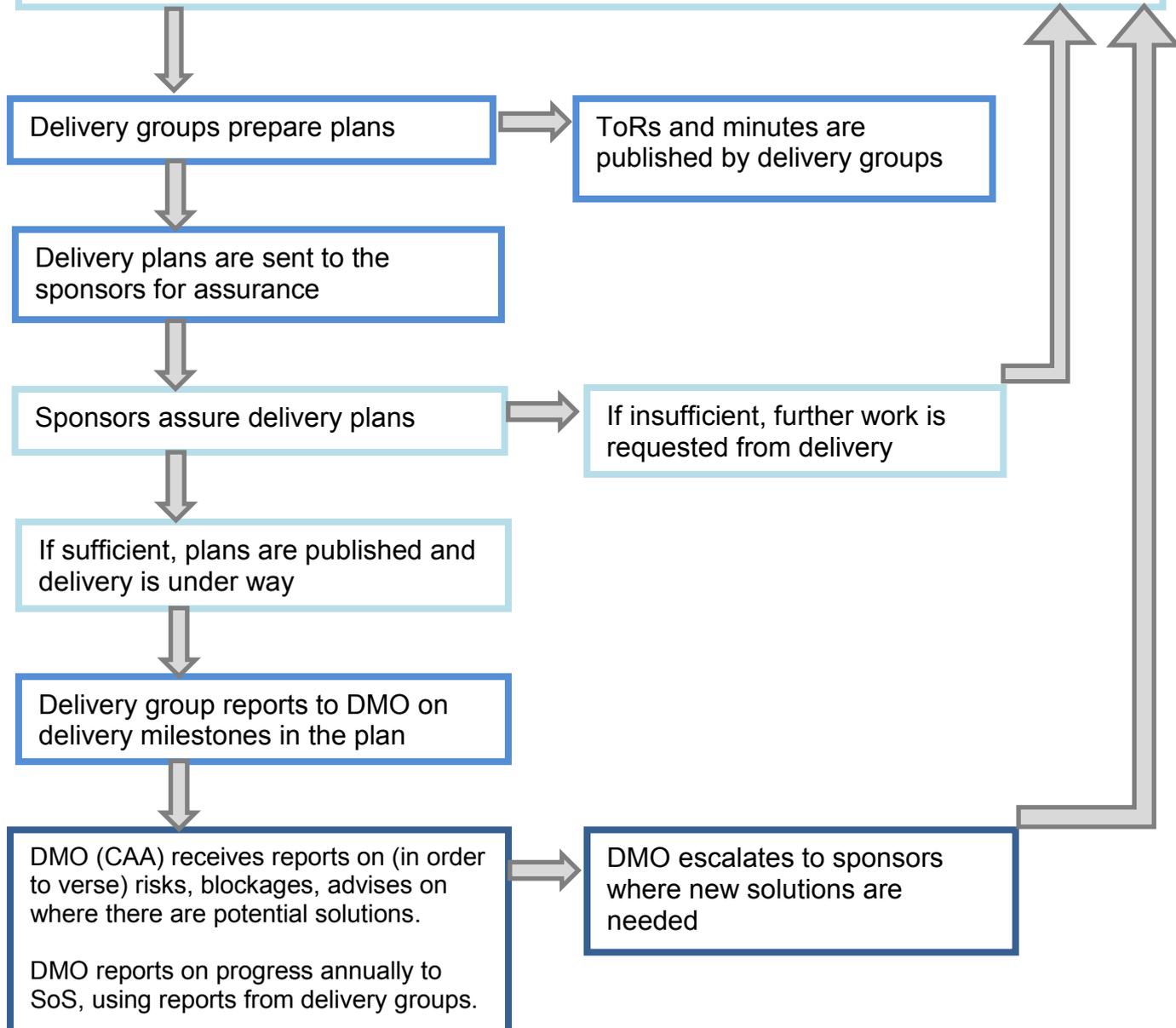
Flow diagram: roles for delivering the initiatives in the AMS

The sponsors:

- Develop the legislative and policy framework for airspace modernisation (DfT)
- Develop the strategy for airspace modernisation including initiatives to deliver it (CAA)

To deliver the airspace modernisation initiatives:

- Sponsors publish a governance structure setting out the groups that will deliver each initiative, and their membership
- Sponsors commission work from delivery groups, including a delivery plan for each initiative the group is delivering (one example being the Southern masterplan that AMOG is asked to prepare to deliver FASI-S)
- Sponsors ask delivery groups to prepare ToRs and publish them. ToRs must include how the group will engage all the groups listed under the engagement column in the governance structure.
- Sponsors ask delivery groups to publish minutes for their meetings.



Delivery for each of the AMS Initiatives

<u>No.</u>	<u>Initiative</u>	<u>Expected deliverable</u>	<u>Who leads delivery?</u>	<u>Who else is involved in delivery?</u>	<u>Delivery Group</u>	<u>What plan(s) exists for delivery?</u>	<u>How will initiative be funded?</u>
1	Direct Route Airspace (EU requirement)	Implement PCP IR requirements (2022 but by end of RP2)	NERL	Complete Aircraft equipage required to use	Change Implemented. Effectiveness tracking via either ODLG (extended?) or new airline group.	NERL capex plan	NERL core costs
2	Free Route Airspace (EU requirement)	Implement PCP IR requirements By 2022	NERL within BOREALIS	n/a	AMOG Airline <u>readiness</u> tracking via either AMOG, ODLG (extended?) or new airline group.	NERL capex plan	NERL core costs
3	Advanced Flexible Use of Airspace	Implement PCP IR requirements By 2022	NERL	MoD CAA	Existing AFUA Project Effectiveness tracking via either ODLG (extended?) or new airline group.	NERL capex plan, in IBP as core	NERL core costs MoD expenditure also required
4	FASI-S (Redesign of SE terminal airspace)	Airspace changes to support delivery of FASI-S component of airspace modernisation	Programme management: NERL (AMOG)	Upper Airspace ACP: NERL	AMOG Airline <u>readiness</u> tracking via either via AMOG,	Upper airspace: NERL capex plan, in IBP as LAMP2 <hr/> Lower airspace:	Upper airspace: NERL cost base <hr/> Lower airspace:

		BY 2024		Lower airspace ACPs: Airports: Biggin Hill Birmingham Bournemouth Bristol Cardiff East Midlands Farnborough Gatwick Heathrow London City Luton Northolt Southampton Southend Stansted	ODLG (extended?) or new airline group.	Airports to submit ACPs <hr/> Programme management: NERL to include proposal in RBP	Airports <hr/> Programme management: NERL application made to FFF for remainder of RP2 and thereafter NERL cost base
5	FASI-N (Redesign of terminal network in northern England)	Airspace changes to support delivery of FASI-N component of airspace modernisation By 2021	Programme management: NERL (AMOG)	Upper Airspace ACP: NERL <hr/> Lower airspace ACPs: Airports: Edinburgh Glasgow, Prestwick Newcastle Leeds Bradford Liverpool Birmingham Manchester East Midlands Hawarden Doncaster	AMOG Airline <u>readiness</u> tracking via either AMOG, ODLG (extended?) or new airline group.	Upper airspace: NERL capex plan, in IBP <hr/> Lower airspace: Airports to submit ACPs <hr/> Programme management: NERL to include proposal in RBP	Upper airspace: NERL cost base <hr/> Lower airspace: Airports <hr/> Programme management: NERL application made to FFF for remainder of RP2 and thereafter NERL cost base

6	Queue Management Solutions	Implement PCP IR requirements by 2024	NERL Manchester airport	Airports: Heathrow Gatwick Stansted (Others may be impacted by implementation. Co-ordination with other States required.) Manchester airport	AMOG	NERL capex plan, in IBP	NERL cost base
7	Replication of existing arrival and departure routes with satellite navigation upgrades	ICAO GANP EU PBN implementing rule By 2024	NERL (arrival routes - STARs) Airports (departure routes and Approach Procedures)	Airports: All airports with an instrument runway Airspace users: aircraft equipage for those operating into the above airports.	AMOG CAA via individual airport co-ordination (for airports outside FAS-S/FASI-N)	FASI-S & N already covers some airports and STARs (arrival routes) by NERL.	NERL cost base Airports
8	Satellite navigation route redesign	SESAR PCP By 2024 PBN IR	NERL (arrival routes - STARs) Airports (departure routes and Approach Procedures)	Airports Heathrow Gatwick Stansted Manchester (Others may be impacted by implementation.) Airspace users: aircraft equipage for	AMOG CAA via individual airport co-ordination (for airports outside FAS-S/FASI-N)		Upper airspace: NERL core costs Lower airspace: Airports Avionics upgrades will be funded by airlines.

				those operating into the above airports.			
9	Review provision of UK FIS	EU Part-ATS From 2022	CAA	MoD NERL All aerodromes with an Air Traffic Service Unit (thus capturing Air Traffic Control (ATC) and Aerodrome Flight Information Service (AFIS) aerodromes, military and civil) and all piloted airspace users.	TBC – CAA Work programme to be developed in 2019.	CAA BAU (implementation plan to be developed)	CAA cost base
10	Review airspace classifications and structures	EU Part-ATS From 2022	CAA	All aerodromes with an Air Traffic Service provider.	TBC – CAA Work programme to be developed in 2019.	CAA BAU (implementation plan to be developed)	CAA cost base
11	Deploy electronic surveillance solutions to aircraft and airports to aid integration of traffic	EU surveillance implementing rule EU Part-ATS 2022 - 25	CAA	NERL Airports & ANSPs (tbc) aircraft equipage for those operating into the above airports.	New airspace technology delivery group	Some elements to be included in RBP May be addressed in part in NERL's RBP and RP3 costs	Not yet identified

12	Cross-industry plan for the efficient use of radio-frequency spectrum	EU surveillance implementing rule EU Part-ATS ongoing	CAA	OFCOM MoD All military and regional airfields outside controlled airspace. aircraft equipage for those operating to above airfields	New airspace technology delivery group	CAA BAU	CAA cost base (out of scope for RP3)
13	Cross-industry plan for the full adoption of datalink communications	EU datalink implementing rule By 2019	NERL	ARINC SITA aircraft equipage for those operating in UK FIR above FL285	New airspace technology delivery group		NERL cost base
14	Satellite-navigation implementation plan	EU PBN implementing rule 2020 - 24	CAA [leads PBN strategy]	The requirement is on airports to have a plan of deployment. NERL [leads / co-ordinates with airports if high level routes required]. Airports: All airports with an instrument runway [lead their own changes / co-ordinate with NERL where required]. Airspace users: aircraft equipage for those operating into the above airports.	New airspace technology delivery group	CAA BAU (implementation plan to be developed) NERL RBP	CAA cost base (out of scope for RP3)

15	Air Traffic Management	<p>EU ATM Masterplan: Pilot Common Project (PCP) functionalities by 2024:</p> <ul style="list-style-type: none"> - Network collaborative management - Initial SWIM (which includes the following PCP essential operational changes: <ul style="list-style-type: none"> • common infrastructure components; SWIM infrastructure and profiles; aeronautical information exchange; • meteorological information exchange; • cooperative network information exchange; • flight information exchange - Initial trajectory information sharing 	NERL and other ANSPs	All ATM and aviation information systems.	New airspace technology delivery group	NERL RBP Individual ATM system providers	NERL cost base
----	------------------------	---	----------------------	---	--	--	----------------