Report of the
High Level Group
for the future
European Aviation
Regulatory Framework

European Aviation
A framework for driving performance improvement

July
2007

FOREWORD

Seven years ago my predecessor, **Loyola de Palacio**, launched the "Single European Sky" initiative. At that time, the European air traffic system faced an unacceptable level of delays. So she called upon all expertise available to develop an efficient Community approach to air traffic management. Member States, Eurocontrol, airlines, general aviation, air navigation service providers, staff representative organisations and the military were all involved. This work laid down solid legal foundations for the "Single European Sky".

The adoption of the first Single European Sky legislation in 2004 was a real **breakthrough.** Air traffic management had far too long been isolated from mainstream Community policy. A global industry was being served by a patchwork of twenty seven fragmented air traffic management systems.

The rigorous and binding Community framework now in place has achieved much **progress** in harmonising air navigation service provision. We have witnessed the establishment of new players such as corporatised air navigation service providers and national supervisory authorities. Some teething troubles notwithstanding, these and all the other players in the industry have gradually assumed their responsibilities. Service provision in the Community has become subject to a process of certification and since 20 June 2007 all existing service providers have been certified.

However, a **truly single sky** has not yet been achieved. The system remains fragmented. The regional initiatives of service integration are diverse in scope and in ambition. Safety levels can never be taken for granted. Lack of capacity is looming in view of regional discrepancies in traffic growth and preparation for that growth. Little progress has been achieved in improving cost efficiency. A highly competitive aviation industry requires the best possible infrastructure with the highest level of safety and at the best possible cost efficiency.

Meanwhile climate change has put **environmental** issues to the top of the political agenda. While aviation is only a modest contributor to greenhouse gases, with around 2% of global emissions, flying is one of the fastest-growing emittors. And the impact of aviation is aggravated by emission of nitrogen oxides, soot and water vapour at high altitude. Air traffic management delays and inefficiencies mean unnecessary emissions.

Aviation must be enabled to play its role in achieving the Lisbon strategy objectives: economic growth, employment and respect for the environment. Therefore, the **genuine needs** of aviation stakeholders, including military and general aviation, must be put at the core of the system. It is the users who should determine when and where to fly, unconstrained by inefficiencies in ATM service provision.

It is about time to overcome the patchwork structure and go for a consolidated air traffic control system offering seamless services. The central goal is **performance**. Performance can only achieved by replacing the overlapping regulatory structures, heritage of the past, by one single Community framework. Solutions of the past no longer match the needs of today.

The **Community** is better placed than ever to reach these goals. In recent years, it has developed considerably its relations with third Countries. The Community has become a recognised partner in the World. The European Aviation Safety Agency (EASA) is now well

established and will be able to drive safety performance levels in aviation, from reliable reporting systems to oversight support. Whilst initially its scope focused on the airworthiness of aeronautical products, EASA will be able to cover the entire aviation safety chain in a total system perspective. Finally, SESAR will provide the future technology needed to increase safety levels by ten. With SESAR, the system will be capable of handling a threefold increase in traffic at half of today's cost.

In order to deal with all the regulatory, performance and environmental challenges, the existing Single European Sky framework needs to become **more focused** and detailed. In September 2006, I decided to create a high level group to provide me with strategic guidance on how to reach these objectives. The group was composed of personalities representing different aviation stakeholders. It has worked under the diligent chairmanship of Jacqueline Tammenoms Bakker, who has led this group in a period of intense work. She has set out to understand the concerns of the aviation community and to make the best use possible of the formidable expertise of the ten members with their different backgrounds. I believe she has produced a rich and challenging report which sets a high level of ambition. Ambition is what we need as we work towards the **second and decisive phase** in the construction of the Single European Sky. I am delighted with the work of the group and to present you this report.

JACQUES BARROT
BRUSSELS, JULY 2007

EXECUTIVE SUMMARY

Vice President Barrot appointed the High Level Group for the Future European Aviation Regulatory Framework in November 2006 in response to strong demand from industry, EU member states and other stakeholders to simplify and increase the effectiveness of the regulatory framework for aviation in Europe. Vice President Barrot asked the High Level Group to present a vision for the development of the aviation regulatory framework - with a particular focus on Air Traffic Management - and to provide a roadmap with practical next steps.

The High Level Group underlines the need for, and indeed urgency of, change in the regulatory framework for aviation in Europe. This is necessary to ensure alignment across the aviation system towards achieving shared objectives.

The High Level Group has faced a set of complex and occasionally conflicting objectives when considering the performance improvement objectives:

§   Aviation has a key role to play in achieving the objectives of the Lisbon agenda, in terms of reducing the internal and external cost of mobility within Europe and between Europe and the rest of the world. Like other transport modes, aviation is an important enabler of economic growth. The aviation sector itself is also a significant source of employment and technological innovation.

§   At the same time capacity in the air and on the ground is increasingly scarce, the environmental impact a growing source of concern at the local and international levels, while improving safety becomes ever more challenging with increasing traffic levels.

§   Additionally, aviation in Europe faces growing competition from other parts of the world for the market in Europe and the global aviation market. This emphasises the importance of finding cost-effective solutions.

To determine the priorities for change, the High Level Group has reviewed ongoing initiatives to improve the European aviation system such as the Single European Sky (SES) initiative, the inclusion of aviation in the emissions trading scheme, and the Clean Sky programme. It has concluded that **the challenge for Europe is not to embark on new system changes but to focus on accelerating the effective delivery of the existing initiatives and to strengthen the capabilities of the key players to deliver them**. The High Level Group has focused on the **SES initiative in particular**. Improved ATM can play a vital role in increasing capacity and reducing the environmental impact of aviation.

The High Level Group has therefore concentrated on two main themes: **performance** and **governance**. This leads to proposals for clear roles for the European Commission, the member states and the Eurocontrol and EASA organisations, and proposals for concrete actions to address the current and expected bottlenecks in performance. It also leads to proposals to rebalance the governance of the aviation system in Europe to enable industry (airlines, air navigation services providers (ANSPs), airports and manufacturers) to play an appropriate role in influencing decisions that affect them. This focus has been validated by a process of stakeholder (industry, the military, professional staff associations and non-EU member states) consultation.

The High Level Group has followed the European Commission in taking 2020 as the target date for completing the major changes already initiated within Europe, in particular the Single European Sky. However, the High Level Group has targeted 2014 as the date by which its proposals must be implemented to ensure that the European aviation system remains safe, competitive and environmentally responsible. 2013 is the date when the SESAR deployment phase is due to start.

To facilitate the next steps, the High Level Group has outlined a roadmap for change. The roadmap provides for actions that can be started immediately and for putting in place a process of continuous change to respond to market developments. Because 2013 is a critical date, the High Level Group proposes a timely evaluation of its recommendations in 2011 to ensure that the necessary additional actions are taken.

The High Level Group recognises that its proposals represent a major change process challenge. This challenge can only be met if it fully involves the people working in the organisations involved in the change process. The High Level Group therefore urges the European Commission to continue the process of extensive consultation with stakeholders during the decision-making process following on from the High Level Group work. In particular, the High Level Group points to the valuable contribution that can be made by representatives from professional staff organisations and the need for inclusive social dialogue.

The proposals of the High Level Group can be summarised in the following 10 recommendations:

1. **EU as driving force in aviation regulation in Europe:** Fragmentation is a major bottleneck in improving the performance of the European aviation system. As this can only be addressed at the European level, strengthen the role of the European Community and the Community method as the sole vehicle to set the regulation agenda for European aviation by eliminating overlaps between EU and other regulatory processes, ensuring independent structures for regulation and service provision, and ensuring that safety regulatory activities are conducted independently from other forms of regulation. Drive change forward at the strategic level through regular meetings of the European Directors General of Civil Aviation working together with the European Commission, coordinating across the governing bodies of Eurocontrol, EASA and ECAC and creating a more structured dialogue between the EU and non-EU member states. Appoint a senior figure as an 'Aviation System Coordinator' to drive forward the necessary actions.

2. **Greater responsibilities for industry**. Give more responsibility to industry in line with the liberalisation of the internal market. Involve industry more systematically in the rulemaking process for the aviation system. Realign the governance of service provision functions to give industry greater responsibilities within a harmonised regulatory framework. Make possible competition for contestable activities which can be executed by industry.

3. **Better regulation**: Apply the principles of Better Regulation, avoiding over-regulation, and undertaking full impact assessments and consultation. Apply consistent definitions and rationalise existing legislation.

4. **Drive improved performance:** Every regulatory intervention should target improving performance within overriding safety objectives. As general principles, set performance improvement objectives, maximise the use of performance

incentives and require independent performance reporting. For ATM, adapt the regulatory framework and governance structures to stimulate management to deliver improved performance. Where possible, facilitate the application of market principles by the unbundling and liberalisation of ANSP services. Introduce economic regulation to drive performance improvement in the monopoly elements of ANSP activities.

5. **Deliver the Single European Sky:** Accelerate the delivery of the Single European Sky (SES) and SESAR through proactive management and annual progress monitoring and reporting by the European Commission. Translate the SES ambitions into an implementation strategy and plan. Introduce economic regulation for ATM services to ensure that ANSPs are incentivised to achieve converging objectives in Europe and to regulate the monopoly elements of ANSP activities. Address the hurdles to implementing FABs and task the Aviation System Coordinator to facilitate their progress. Strengthen the orientation of the SESAR programme on results, including quick wins, and develop proposals for the pan-European ATM governance structure post the SESAR JU in 2013. Increase the political support for SES and SESAR, including the military stakeholders in European ATM.

6. **Empower and focus Eurocontrol.** Empower Eurocontrol to play a key role in delivering the Single European Sky and SESAR objectives within the strategic and regulatory framework set by the EU. Focus its activities on excellent pan European functions and ATM network design, and support to regulation as requested by the European Commission and member states. Transfer the responsibility for safety regulatory activities to EASA. Invite the Eurocontrol governing bodies to give industry an appropriate role in the governance of the pan-European functions and facilitate the unbundling of activities through corporate structures or undertakings where appropriate to allow the Eurocontrol organisation to evolve in line with industry developments while ensuring that the interests of employees are considered. Prepare for the appropriate pan-European ATM governance and operational structures for the post 2013 SESAR deployment phase.

7. **Address airport capacity.** Address the forthcoming airport capacity crunch by asking the European Commission to raise the profile of this emerging bottleneck in the European aviation system and point the way forward in terms of reconciling growth and environment goals. Request member states to provide strategies for addressing the airport capacity issue while demanding that airports themselves take greater responsibility for securing the local 'licence to grow.' Enable the European Commission to facilitate progress through the 'Aviation System Coordinator.' Integrate airports more systematically into the total system approach.

8. **Deliver continuously improving safety:** Require states to apply safety management principles consistently and, in particular, facilitate the uniform application of 'just culture' principles. Empower EASA as the single EU instrument for aviation safety regulation including airports and ATM, and ensure that EASA is funded and resourced accordingly. Prepare for the SESAR challenge by timely certification processes. Ensure that states' safety oversight is harmonised and that cooperation between national authorities is stimulated to achieve overall higher levels of performance.

9. **Deliver environmental benefits:** Building on the three pillars of improved gate-to-gate ATM, cleaner and quieter aircraft, and market oriented solutions, ask the European Commission to develop an integrated environment strategy. Incorporate ambitions from the transport and environment perspectives, enabling Europe to play a leading role in balancing economic, environmental, safety and social impacts.

10. **Commit member states to deliver:** Require more systematic implementation of existing commitments by EU member states, in particular the defragmentation targeted by the Single European Sky initiative. States should address inconsistent guidelines for ANSPs, performance shortfalls in oversight, bottlenecks in airport capacity and safety management, and the new challenges of mitigating and adapting to climate change. Encourage regulatory authorities to exchange best practices and develop common approaches.

The High Level Group thanks Vice President Barrot for the opportunity to develop these recommendations and hopes that they will be acted upon without delay.

The High Level Group commends its report to the Vice President, to the European Parliament, to Eurocontrol's Provisional Council and to the member states.

TABLE OF CONTENTS

1

1.1   Mandate

Vice President Barrot installed the High Level Group in November 2006 to advise the European Commission on the future of the European aviation regulatory framework, as a follow-up to the conclusions of the Brussels conference on aviation regulation on 20 September 2006.

The High Level Group consisted of four Directors General from EU states (also representing ECAC and EASA), a Director General from a non-EU member state, the Director General of Eurocontrol, and four senior representatives of industry associations. The participants were selected based on their individual qualifications and not as representatives or delegates of their particular organisations. The European Commission provided the secretariat and facilities for the High Level Group, and had observer status during the High Level Group discussions.

Vice President Barrot asked the High Level Group to develop proposals to simplify the regulatory framework while ensuring that the Community method should be the driving force in regulation. Additionally he asked the High Level Group to advise him on the future evolution of the EASA and Eurocontrol organisations and how the role of industry should develop within the ATM system. Finally he asked for a roadmap for reform and proposals to ensure successful stakeholder involvement.

Vice President Barrot stressed that the High Level Group was free to add other issues that it deemed relevant. The High Level Group has appreciated the confidence that this open mandate has expressed, and has indeed broadened the mandate to propose overall design principles and address the environmental and airport capacity issues.

The mandate and the membership of the High Level Group are detailed in Annexes A and B respectively.

1.2   Process

In addition to the members leading discussions and providing discussion papers reflecting their areas of expertise, consultation with stakeholders was a critical part of the process through which the High Level Group reached its conclusions. The High Level Group conducted the following types of consultation:

§   Hearings: These were held with the professional staff associations, the military (including EURAMID), non-EU states, the general aviation community and manufacturing industry.

§   Presentations: These were made by the Eurocontrol Performance Review and Safety Regulation Commissions, the European Aviation Safety Agency (EASA) and the SESAR project.

§   Individual briefings: The High Level Group consulted the aviation community through individual briefings. These briefings were generally conducted by the Chair and one other Member and were given to the Single Sky Committee; the Industry Consultation Body; board meetings of the Association of European Airlines, the Civil Air Navigation Services Organisation and Airports Council International Europe; the airspace users
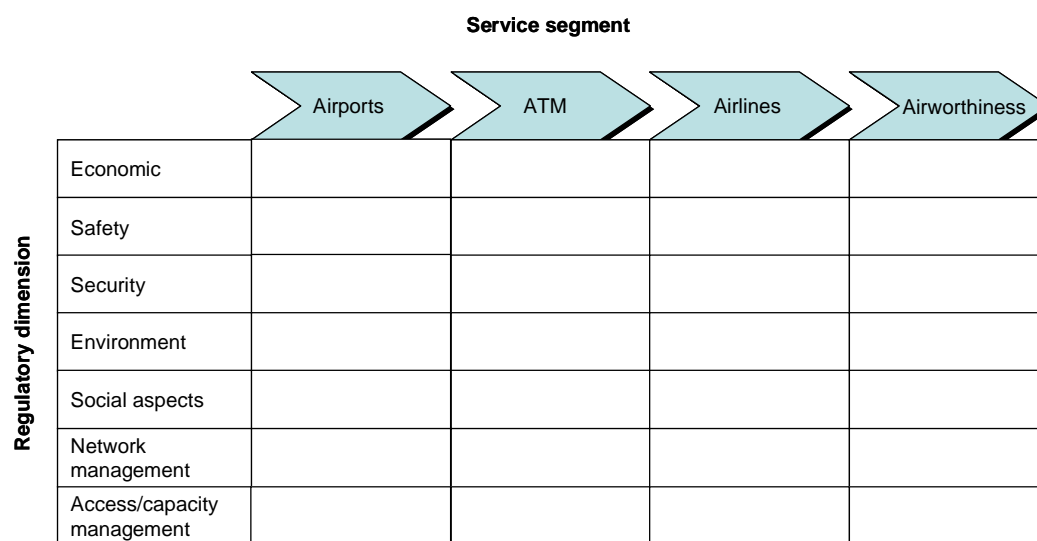
associations; the European Civil Aviation Conference, the Eurocontrol Provisional Council and the EASA Management Board.

A list of the hearings, presentations and briefings is included in Annex C.

1.3 Total system approach

The aviation system behaves as a network with most parts having an impact on most other parts. Fragmentation at any level, be it service provision, regulation or policy, is a significant impediment to the efficient functioning of the overall network.

The High Level Group has therefore adopted the total system perspective as the cornerstone of its work. The total system approach means creating a system that gets all of the different parts to work together in a complementary way to improve system efficiency and avoid overlaps. The elements that make up the total system are illustrated in the following figure.

Service segment

Regulatory dimension	Airports	ATM	Airlines	Airworthiness
Economic				
Safety				
Security				
Environment				
Social aspects				
Network management				
Access/capacity management				

As a result of this approach, the High Level Group has added the issues of airport capacity and minimising the environmental impact of aviation to the questions asked by Vice President Barrot in his mandate. These are essential complements to achieving the benefits from delivering the promise of the Single European Sky which is the main focus of the report.

1.4 Report

This report is the result of the work carried out by the High Level Group in the period December 2006-June 2007. The report is divided into three main sections describing:

(1)   the context of and main challenges for the European aviation system

(2)   the ten recommendations with the supporting rationale and actions needed for their delivery

(3)   the roadmap for change.

The High Level Group started its work by identifying the dimensions of the aviation system which require change, either because of market developments – resulting from past and ongoing liberalisation initiatives – or because the current organisation of the system does not enable the different actors to be as effective as possible.

The High Level Group has identified the following requirements for change:

§   Align growth, environment, safety and cost objectives.

§   Address patchwork of responsibilities and regulatory structures.

§   Give industry greater responsibilities.

§   Better engage non-EU states.

§   Better engage key stakeholders.

2.1   Align growth, environment, safety and cost objectives

Aviation has a key role to play in achieving the objectives of the Lisbon agenda, in terms of reducing the internal and external costs of mobility within Europe and between Europe and the rest of the world. Aviation is an important enabler of economic growth and is also a significant generator of jobs and technological innovation.

The challenge for Europe is to facilitate the growth of aviation in balance with environmental and safety objectives, against the background of increased competition for the global aviation market from other parts of the world.

a)   **Enable growth:** Performance must be improved to accommodate the projected growth of 75% more aircraft movements and a total of around 0.5 billion more passenger departures in Europe by 2020. If demand is not met, congestion and delays will become unmanageable. This will require increasing capacity across the entire network (airports, ATM). The main challenge is how to accelerate the Single European Sky and associated SESAR programme as well as putting in place measures to address the expected capacity crunch at Europe's major airports.

b)   **Reduce environmental impact:** Concerns about the effect of aviation on climate change have been added to longstanding concerns about the impact of aviation on the quality of life in local communities. Although measures are being taken – both technology-driven and market led – to address these concerns, an enhanced approach is needed to accommodate the projected growth in traffic whilst decreasing aviation's overall environmental footprint.

c)   **Continue improvement of safety:** Safety is the overriding objective of the aviation system. On the whole, the safety record of aviation in Europe is good but safety processes vary widely. The challenge is to create an integrated and highly transparent safety chain across the total aviation system, cost effectively delivering a common and high level of safety across Europe, generating continuous safety improvement and leading enhancement of aviation safety throughout the world.

d)   **Improve cost efficiency:** Competition for the global aviation market is increasing from other regions and the Lisbon agenda itself requires low cost of mobility throughout Europe. The fragmented nature of the European aviation system results in high costs, both for the users and at the regulatory level. This has also been

highlighted by the Eurocontrol Performance Review Commission (PRC)[1]. Together with improvement on the safety and the environment dimensions, European aviation must therefore also improve its cost efficiency performance.

2.2 Address patchwork of responsibilities and regulatory structures

European aviation is currently governed by a patchwork of responsibilities and regulatory structures. Streamlining the roles and responsibilities is a precondition for delivering improved performance.

Historically aviation was organised along the ICAO framework. This was formulated when sovereign states governed, operated and funded air transport in a vertically integrated manner including policy-making, international relations, regulation, infrastructure (ATM and airport) ownership and operation as well as ownership of airlines, mainly flag-carriers.

With a range of legislative packages, most notably providing for the Internal Market for Air Transport in 1992 and the Single European Sky initiative in 2004, the EU has taken on many of the competences formerly vested in the state. The EU now plays a major role in policy-making, international relations and regulation. With the establishment of the European Safety Agency (EASA) in 2003, the EU has also been mandated to execute responsibilities for aviation safety at the EU level. This complements the traditional national responsibilities for aviation safety.

The new regulatory context in Europe has also resulted in changes in the role of airlines, airports and air navigation service providers (ANSPs). The state-owned flag carrier concept has all but disappeared and most airlines are operated on a purely commercial basis in a highly competitive market. More recently, states have started to devolve operations and ownership of airports and ANSPs to corporatised and privatised organisations. Regulators have been established to ensure that airlines, ANSPs and airports operate in line with public policy objectives, most notably regarding safety and non-discriminatory access to services and infrastructure.

The Aviation Conferences held in Edinburgh on 22 November 2005 and in Brussels on 20 September 2006 generated a broad based appeal for clear roles and responsibilities of the different actors in the European aviation system, to position the EU as the single regulator, to implement more rigorously the separation of regulation from service provision, and to provide for an appropriate role for industry.

2.3 Give industry greater responsibility

As outlined above, industry plays an increasingly important and independent role in European aviation, as an investor, developer, supplier, service provider and user. Industry is also a key source of skills, competences and resources. However, at present, industry's influence as a decision maker is limited due to the legacy of diverse governance mechanisms.

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[1] Eurocontrol PRC presentation to the High Level Group, 26 January 2007. See also, "*Evaluation of the impact of the Single European Sky initiative on ATM performance*", Eurocontrol Performance Review Commission, 21 December 2006

A third priority is therefore the need to strike the right balance between the needs and requirements of industry to operate the European aviation system and the responsibilities of states to ensure safety and security, limit the environmental impact and manage the monopoly characteristics of the industry where appropriate.

The positions of the key industry players are:

a) **Airspace users:** users include airlines, general aviation and the military. All users require equitable and non-discriminatory access to infrastructure and services. Because the services are often delivered by monopoly service providers (ANSPs and airports), the airlines - as prime funders - seek greater influence on the costs and quality standards (safety, security, environment) to which the services are delivered. They are looking to a variety of mechanisms to meet their needs, such as increased competition, explicit regulation of monopoly services and participation in the governance of service provision.

b) **ANSPs:** the providers that deliver air navigation services to the users. The ANSPs are transforming themselves into performance-based service providers. The ANSPs wish to increase their responsibility for the development of the European ATM network in line with the investment they are making, the risks they are bearing, their access to resources and their competence in delivering services. They also wish to improve system performance by strengthening their role in the governance of pan-European functions provided by Eurocontrol.

c) **Airports:** an essential element in the performance of the overall system. National authorities are disengaging from the management of airports. Many airports are developing into fully-fledged businesses offering a range of services. To date airport policy has largely been a matter of national competence. However, the time has come to acknowledge the issue of airport capacity at the European level as European airports face increasing difficulties in securing their licence to grow at the national level.

2.4 Better engage non-EU states in the system

A fourth priority is to find ways to engage non-EU member states that are members of Eurocontrol or ECAC as effectively as possible in the further development of the European aviation system.

Some non-EU member states are concerned that the integrated nature of the global aviation system, particularly regarding safety, will be damaged by actions to increase the competence of the EU. All want a more systematic dialogue between EU organisations (European Commission and EASA) and the non-EU members of the European aviation system, particularly in the early phases of developing new regulation.

The High Level Group has therefore specifically identified the challenge of engaging non-EU member states in the further development of the EU aviation system, making best use of existing structures and mechanisms – Eurocontrol, ECAC, the European Aviation Safety Agency (EASA), the European Common Aviation Area (ECAA) and bilateral agreements between the EU and third states.

2.5 Better engage key stakeholders

A fifth priority is to engage the manufacturing industry, the military and the professional staff associations fully in the development of the European aviation system. All have expressed a strong desire to contribute more actively.

Particularly in the area of CNS/ATM, the **manufacturing industry** has a key role to play in achieving the ambitions of the SES and SESAR. In the future, network systems and technology will play a greater role than at present. These systems will facilitate a much higher level of integration across the total system, particularly between ground and air components. Success requires the capability of manufacturers to manage and deliver large programmes and competitiveness on the global scale.

The **military** is an instrument of the state to execute national requirements. Hence sovereignty issues are a primary concern and military tasks, such as air policing, must take absolute priority over any other activities. Training is the day-to-day military activity that has most impact on civil ATM. Measures are in place to minimise this impact, such as flexible use of airspace (FUA) and out-of-area and simulator training. Further reduction of this impact, for example through moving airbases and training areas, is difficult for a range of political and economic reasons.

Although the existing frameworks for civil-civil and civil-military cooperation work well from an operational perspective, there is no equivalent pan-European mechanism for military-military cooperation and there is limited engagement of the military at the strategic, Defence Minister, level. The military has therefore indicated that more political support for strategic engagement of the military at the pan-European level in the development of the European aviation system would be welcome.

The **professional staff associations** emphasised the positive contribution that they can make to the change programmes already in place in SES and SESAR as well as to any future changes proposed by the High Level Group. To support this, the professional staff associations expressed their ambition to be an integral part of the process rather than play a purely consultative role. The professional staff associations also emphasised the dominant role that safety considerations must play in any changes. The High Level Group underlines that the people working in the industry are vital to the success of European aviation and should be included in the change processes.

The High Level Group has defined ten recommendations to address the questions raised by Vice President Barrot.

The first four recommendations set the framework for change in terms of the following design principles: position the EU as the driving force in aviation regulation in Europe, give greater responsibilities to industry, apply the Better Regulation agenda and drive improved performance.

The last six recommendations identify the actions that should be taken to: Deliver the Single European Sky, empower and focus Eurocontrol, address airport capacity, deliver continuously improving safety, deliver environmental benefits and commit the member states to deliver.

3.1 EU as driving force in aviation regulation in Europe

Fragmentation is a major bottleneck in improving the performance of the European aviation system. As this can only be addressed at the European level, strengthen the role of the European Community and the Community method as the sole vehicle to set the regulation agenda for European aviation by eliminating overlaps between EU and other regulatory processes, ensuring independent structures for regulation and service provision, and ensuring that safety regulatory activities are conducted independently from other forms of regulation. Drive change forward at the strategic level through regular meetings of the European Directors General of Civil Aviation working together with the European Commission, coordinating across the governing bodies of Eurocontrol, EASA and ECAC and creating a more structured dialogue between the EU and non-EU member states. Appoint a senior figure as an 'Aviation System Coordinator' to drive forward the necessary actions

1

The overarching objective of the High Level Group is to strengthen the framework of responsibilities to drive improved performance across the aviation system. At present, performance is impeded by fragmentation across borders and across the component parts of the aviation system. The High Level Group recommends strengthening the position of the EU to counteract this fragmentation, subject to the subsidiarity principle.

This recommendation focuses on positioning the EU as the sole vehicle to set the regulation agenda for European aviation, increasing the EU's capability to drive through change, reconfirming the importance of separating regulatory from other functions, and strengthening the relationship between the EU and non-EU member states within the European aviation system. The implications of this recommendation for the roles of Eurocontrol, EASA and member states are covered in separate recommendations (3.6, 3.8 and 3.10).

The changes proposed are:

a) **position the EU as sole vehicle to set the regulation agenda for European aviation.** As fragmentation can only be addressed at the European level, this is a key principle for the High Level Group and will enable the discipline of the Community method to be applied to the development of new regional regulation. It will also ensure that policy objectives are coherent and increase the capabilities of the EU to monitor and enforce progress.

The EU should continue to develop a set of common legislation – the aviation acquis – to deliver a single European legal and regulatory framework to govern aviation. Subject to the subsidiarity principle, the EU - through the European Commission, its Agencies and processes - should continue to act as the regulator for the functions that are best dealt with at the regional level.

b) **increase the EU's capability to drive through change.** The High Level Group proposes that, to assist the EU in the delivery of its policy, the European Commission creates the role of the **Aviation System Coordinator (ASC)** and appoints a high level personality to the role, following the successful model of appointing a Coordinator to support the development of the Trans-European Networks (TENs), The Coordinator would be responsible for stimulating progress on the SES and airport capacity issues.

Additionally, the High Level Group recommends following the model used in the telecommunications sector whereby the Commission has **regular meetings with the European Directors General**. These meetings would serve to set policy objectives at the strategic level and ensure regulatory coherence and follow up on agreed changes. The Aviation System Coordinator would be asked to initiate these meetings, which should be coordinated with similar level meetings within ECAC, Eurocontrol and EASA. This would both simplify and strengthen the links between these bodies and the Community.

c) **reconfirm the importance of separating regulatory from other functions.** Separation between regulation and service provision is acknowledged as best practice; it is enshrined in the Single European Sky legislation[2] and is identified by the Eurocontrol Performance Review Commission as a "*fundamental step in ensuring effective regulation and avoiding conflicts of interest[3]*". This separation is

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[2] Framework Regulation, Article 4

[3] Evaluation of the impact of the Single European Sky Initiative on ATM performance. Produced by the Eurocontrol Performance Review Commission upon the invitation of the European Commission DG TREN, 21 December 2006

essential to ensure the clear positioning of regulatory activities at the EU and state levels.

The High Level Group emphasises that the **service provision and regulation functions should have separate management and governance structures** with the management of service provision being focused on performance. This can be achieved by organisational separation, i.e. different organisations being responsible for service provision and regulation, or by functional separation within the same organisation but with differentiated governance.

As well as separation of regulation from service provision, the High Level Group also recommends that **safety regulation should be conducted independently from other forms of regulation** to avoid regulatory conflict of interest, e.g. between safety objectives and the drive for improved economic or environmental performance. It is the role of the regulator to determine precedence and undertake trade-offs when conflicts occur between regulatory objectives.

d)   **strengthen the relationship with non-EU member states.** Clearly the process of developing such legislation should allow for proper involvement of non-EU member states within the ICAO and ECAC contexts. The EU should continue to apply the relevant instruments, such as the European Common Aviation Area (ECAA), bilateral Open Aviation Area (OAA) and other bilateral agreements through which it can extend the aviation acquis beyond its boundaries and create a harmonised European aviation regulatory environment. The EU should increase its proactive communication with non-EU members of ECAC and Eurocontrol.

3.2 Greater responsibilities for industry

Give more responsibility to industry in line with the liberalisation of the internal market. Involve industry more systematically in the rulemaking process for the aviation system. Realign the governance of service provision functions to give industry greater responsibilities within a harmonised regulatory framework. Make possible competition for contestable activities which can be executed by industry

2

Over the past thirty years the nature of the aviation industry has changed fundamentally. States have stepped back from direct involvement in many aspects of service delivery and infrastructure operations. A consumer (passenger) driven focus has replaced the traditional producer-driven focus. These changes have brought benefits to the consumer and the European economy.

Industry is the key deliverer of the European aviation system - as an investor, developer, service provider and airspace user. However, at present, industry's influence as a decision maker is limited due to the historical governance mechanisms that are in place.

The High Level Group therefore recommends that industry is involved more systematically in the rule making process, governance structures are realigned to give industry a greater voice in the European aviation system, and that activities that can be best executed by industry should be unbundled from existing organisations as appropriate.

a)   **Ensure more systematic involvement.** The EU increasingly consults industry on new legislation. However, the High Level Group recommends that the procedures for involving industry in the rulemaking process are enhanced in line with the intentions of the Better Regulation agenda (see Recommendation 3). This also applies to the consultation process of EASA.

b)   **Realign governance structures to give industry a greater voice.** Realignment is particularly relevant where industry pays the cost of the services provided, such as ATM service provision and new system changes such as SESAR. The High Level Group has therefore developed specific recommendations to increase the role of industry in the governance of ANSPs (Recommendation 5), SESAR (Recommendation 5) and Eurocontrol (Recommendation 6). The increased responsibilities should fit with a harmonised framework to ensure alignment towards shared objectives at the European level, avoiding conflicts of interest.

c)   **Unbundle activities where appropriate.** The High Level Group recommends applying market principles, especially where it would improve performance. In particular, the High Level Group sees opportunities to unbundle services that are

currently frequently attached to ATM services provision. Services such as meteorology, aeronautical information and communications, navigation and surveillance infrastructure could all be opened to competition.

3.3   Better regulation

Apply the principles of Better Regulation, avoiding over-regulation, and undertaking full impact assessments and consultation. Apply consistent definitions and rationalise existing legislation
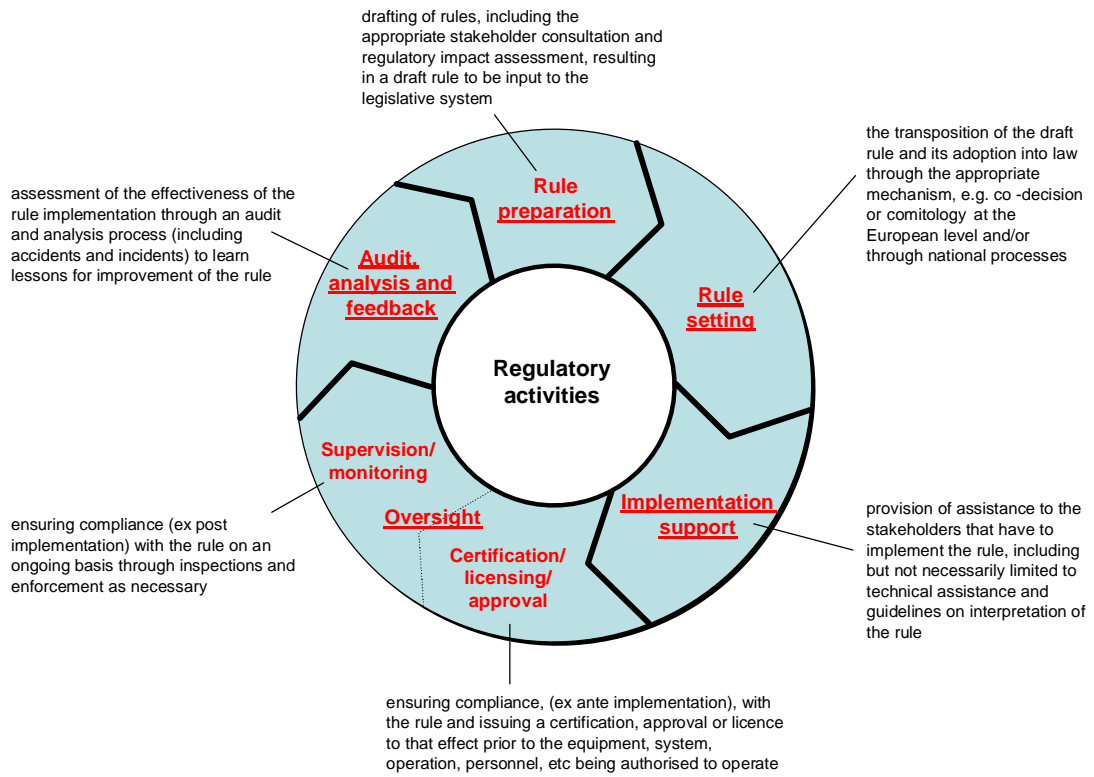
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The High Level Group recommends the application of the Better Regulation agenda[4] and the rationalisation of existing regulation. Additionally, the High Level Group emphasises the importance of working with a set of standard definitions.

a)   **Apply principles of Better Regulation.** The High Level Group supports the Better Regulation agenda communicated by the Commission. In particular for aviation, the High Level Group recommends following the seven steps identified at the Brussels Conference[5]. These should be applied in the development of new aviation regulation and in the rationalization of existing legislation:

- o   identify the problem and outline the current consequences
- o   assess the significance of the problem
- o   identify the affected parties
- o   outline the objective to be achieved
- o   establish whether regulatory action is necessary
- o   identify the minimum legislative action necessary
- o   conduct impact assessments.

b)   **Work with standard definitions.** To support the development of Better Regulation, the High Level group recommends applying a set of standard definitions to the different aspects of regulation. Currently the same terms are used with subtly different meanings. This can lead to confusion and overlapping activities. The High Level Group proposes the following definitions for the different regulatory activities that interact in a feedback loop as shown in the figure overleaf.

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[4]   A strategic review of better regulation in the European Union, COM(2006) 690, 14 November 2006

[5]   *Better regulation,* a presentation by Mike Ambrose, Director General of European Regional Airlines Association, Brussels Aviation Regulation Conference, 20 September 2006

Standard definitions

drafting of rules, including the appropriate stakeholder consultation and regulatory impact assessment, resulting in a draft rule to be input to the legislative system

the transposition of the draft rule and its adoption into law through the appropriate mechanism, e.g. co -decision or comitology at the European level and/or through national processes

assessment of the effectiveness of the rule implementation through an audit and analysis process (including accidents and incidents) to learn lessons for improvement of the rule

Rule preparation

Rule setting

Audit, analysis and feedback

Regulatory activities

Supervision/ monitoring

Oversight

Implementation support

Certification/ licensing/ approval

ensuring compliance (ex post implementation) with the rule on an ongoing basis through inspections and enforcement as necessary

provision of assistance to the stakeholders that have to implement the rule, including but not necessarily limited to technical assistance and guidelines on interpretation of the rule

ensuring compliance, (ex ante implementation), with the rule and issuing a certification, approval or licence to that effect prior to the equipment, system, operation, personnel, etc being authorised to operate

3.4 Drive improved performance

> **Every regulatory intervention should target improving performance within overriding safety objectives. As general principles, set performance improvement objectives, maximise the use of performance incentives and require independent performance reporting. For ATM, adapt the regulatory framework and governance structures to stimulate management to deliver improved performance. Where possible, facilitate the application of market principles by the unbundling and liberalisation of ANSP services. Introduce economic regulation to drive performance improvement in the monopoly elements of ANSP activities**

4

Improving performance has been the main theme of the High Level Group work. Performance management – within overriding safety objectives – should be applied to the safety, economic, environmental and social aspects of the aviation system, and should in principle not be different for public and for private activities.

The High Level Group sees that a range of levers can be applied more effectively to improve the performance of the aviation system. These are: setting and following up performance targets; using market mechanisms as the best drivers of economic efficiency where they can be applied; and, where market mechanisms are not appropriate, the tailored and proportionate application of economic regulation.

As general principles, the High Level Group urges the Commission for every regulatory intervention to define performance improvement objectives, identify how the key players can be incentivised to deliver the improvement objectives, and require the appropriate performance reporting through independent reporting structures.

Specifically for ATM, the High Level Group recommends the following actions to drive improved performance:

a) **Setting and following up performance targets.** At present, ATM performance targets are not set or enforced in a consistent way. The High Level Group recommends that the European Commission reviews the current approach and proposes a consistent framework for ATM performance target setting, incentives and follow-up.

b) **Using market mechanisms.** In principle, market mechanisms mean that there are a number of competing alternative suppliers; barriers to entry and exit are minimal and non-discriminatory; the consumer is free to select the supplier that best meets its need; and that the supplier and consumer negotiate and agree prices.

The High Level Group notes that some CNS/ATM activities are natural monopolies and not suitable for a market-based approach. However, other activities could fit into a market model. One of the main impediments to applying market principles is that services are bundled together into an integrated package and provided on a monopoly basis under the umbrella of the natural monopoly service.

In order for market principles to be applied where appropriate, these **integrated packages of services must be unbundled**. Natural monopoly services would remain as such but the other services could then be operated in a more competitive environment. Thus, in addition to empowering industry, unbundling is an important mechanism to stimulate improved performance.

c) **Develop and implement economic regulation.** Clearly, some CNS/ATM services cannot be delivered following market principles, particularly when it is only physically or technically feasible for services to be delivered by a single supplier. In this case, the High Level Group recommends applying economic regulation to meet a variety of objectives. These include protecting the reasonable interests of current and future consumers; boosting economic efficiency; and ensuring that the supplier behaves in a way consistent with public policy objectives. The principles for economic regulation should be defined at the European level but the regulation should be applied at the national level.

3.5 Deliver the Single European Sky

Accelerate the delivery of the Single European Sky (SES) and SESAR through proactive management and annual progress monitoring and reporting by the European Commission. Translate the SES ambitions into an implementation strategy and plan. Introduce economic regulation for ATM services to ensure that ANSPs are incentivised to achieve converging objectives in Europe and to regulate the monopoly elements of ANSP activities. Address the hurdles to implementing FABs and task the Aviation System Coordinator to facilitate their progress. Strengthen the orientation of the SESAR programme on results, including quick wins, and develop proposals for the pan European ATM governance structure post the SESAR JU in 2013. Increase the political support for SES and SESAR, including the military stakeholders in European ATM

5

Delivering a step change in ATM performance is currently seen by many stakeholders as the key area for performance improvement, particularly because of the environmental benefits (reduced emissions) that improved ATM can deliver both quickly and over the longer-term. The Single European Sky (SES) Regulations approved in 2004 provide a widely supported framework for the required improvements.

The Eurocontrol Performance Review Commission (PRC)[6] has pointed to high costs driven by fragmentation and suboptimal routing resulting from poor network coordination as well as poor utilisation of military airspace. The PRC estimates that the overall impact of these inefficiencies is in the order of €3.3 billion per annum.

However, progress with the SES has been slow. This lack of progress is increasingly being criticised because of the cost impact and the key contribution that ATM can play in reducing emissions.

The High Level Group has therefore spent most of its efforts in determining how SES implementation, and the associated benefits, can be accelerated. The key levers to this are:

§   develop a SES implementation strategy and plan

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[6]   PRC presentation to the High Level Group, 26 January 2007. See also, "*Evaluation of the impact of the Single European Sky initiative on ATM performance*", Eurocontrol Performance Review Commission, 21 December 2006

§ incentivise ANSP performance within new EU regulatory framework

§ accelerate the progress of functional airspace block (FABs)

§ facilitate the success of SESAR

§ engage the military more effectively

§ develop proposals for the post SESAR JU ATM governance structure.

3.5.1 Develop an SES implementation strategy and plan

The first priority for the delivery of the SES is to define a SES implementation strategy and plan. Although the SES objectives for ATM are clear – improved safety, capacity and efficiency – the SES does not provide a vision for how the ATM network should work nor does it provide an implementation strategy and plan for realising its objectives. Gaps in the current arrangements relating to network design, network coordination and network services need to be addressed and milestones defined.

Therefore the High Level Group recommends that a clearly-defined strategy and plan for the implementation of the SES be developed and applied: This should:

§ incorporate the SESAR objectives and include the 'ATM master plan' resulting from the SESAR definition phase

§ include the definition of the necessary regulatory, service provision and programme management functions following the principle of subsidiarity, and define which functions should be carried out at the European, sub-regional (FAB) and national levels

§ provide a framework to reduce fragmentation and stimulate the consolidation of ANSPs

§ develop legislation to support the development and implementation of Functional Airspace Blocks (FABs)

§ provide a set of performance targets and convergence criteria against which annual progress can be measured.

The High Level Group proposes that the European Commission takes overall responsibility for developing this strategy and plan, supported by Eurocontrol and the appropriate bodies including the Single Sky Committee (SSC) and the Industry Consultation Body (ICB). The European Commission should also develop the necessary instruments for making application of the plan mandatory.

3.5.2 Incentivise ANSP performance within new EU regulatory framework

To ensure alignment towards achieving the SES objectives, it is important to develop a consistent set of expectations for the performance of ANSPs across Europe. The High Level Group recommends addressing this issue from two perspectives: harmonising governance structures and addressing the monopoly elements of ANSP activities.

At present ANSPs have divergent governance structures and corporate objectives. As a result, they operate to different incentives and have different priorities for performance improvement. This clearly impedes progress towards SES objectives. The High Level

Group has not identified ownership as a key issue and therefore the recommendations for the performance framework are independent of ownership structures.

At the same time ATM has been designed as a 'non-economic activity' in the Single European Sky legislation and service provision activities are not subject to normal competition regulation. The airlines have expressed a strong wish that the monopolistic aspects of ANSPs should be subject to the appropriate economic regulation.

The High Level Group recommends that the European Commission should draw up a regulatory framework within which ANSPs operate. A new form of economic regulation is required which should be applied at the national level. This economic regulation should be proportionate and geared to incentivise the ANSPs to optimise their performance, while not detracting from the overriding safety objectives. It should also aim to ensure that states across Europe supervise the ANSPs in a consistent way.

The new economic regulation should achieve the following objectives:

a) **Framework to ensure consistent governance of service provision:** The governance of service provision should be harmonised and aligned so that service providers are working in the same direction to improve performance to a common set of expectations. The governance structures for service provision should promote proactive performance improvement, provide service providers with clear objectives and enable them to react flexibly and positively to incentives. The key elements of this framework should be:

   o **Empowered management:** The High Level Group has noted the strong wish from many ANSPs to be run as 'normal businesses' in the sense of performance management. The enhanced regulatory framework should stimulate this development, and provide mechanisms and safeguards to protect the interests of airspace users and other stakeholders, such as the professional staff, e.g. formal consultation requirements and a Supervisory Board. The management of the ANSP should be accountable for delivering services to pre-agreed targets.

   o **Improved oversight by states:** States play a crucial role in ensuring that the regulatory framework provided by the European Commission is applied in a consistent manner. The High Level Group has noted widespread concerns that the national supervisory authorities (NSAs) do not currently operate in a consistent way across Europe. This complicates the achievement of the SES objectives, particularly in relation to the creation of Functional Airspace Blocks. The new regulatory framework should enable the NSAs to work in a more consistent way and facilitate the cross border cooperation of NSAs over time in line with the cross border cooperation by ANSPs targeted by the SES.

b) **Framework to address monopoly characteristics of service provision.** The performance required from ANSPs should be made more transparent and customers given a greater role in charging mechanisms:

   o **Performance measurement:** Existing SES Regulations and the draft Implementing Rule on performance will require ANSPs to record data to enable performance measurement. The data should be harmonised and consistent

across Europe and allow the assessment of actual performance against targets and benchmarking between ANSPs.

Environmental performance should be specifically added to the target-setting and performance reporting process. The data should support enhanced and more uniform customer consultation processes across Europe. Member states and NSAs should oversee and enforce the performance reporting process.

o **Transparency and unbundling:** Member states and NSAs should ensure that ANSPs are structured to facilitate transparency of costs and cost allocation. Transparency of cost allocation will also facilitate the unbundling of the different services today attached to the core ATC provision.

The High Level Group sees that infrastructure and services such as communication, navigation and surveillance infrastructure, aeronautical information, meteorology and tower control services could be open to competition in the future, facilitating the creation of large trans-European network infrastructures and the consolidation of services at the European level within the appropriate regulatory frameworks.

o **Customer-oriented charging:** Provisions within the Common Charging Scheme allow for the application of incentives and risk sharing. However, at present unit rates are mostly derived from a cost recovery perspective, correcting for previous over- or under-recovery. There are currently few incentives to improve performance. Subject to oversight by NSAs and within a framework set by the European Commission, ANSPs should agree service levels, charges and financial incentives/penalties with their customers on a non-discriminatory basis.

In addition, subject to agreements with customers, it should be possible for ANSPs to fix prices for longer than the one-year period usually applied in the current practice. Ultimately, common charges should be applied in large blocks of airspace. The charging scheme should not encourage inefficient or environmentally unfriendly routings.

The High Level Group also recommends that the European Commission undertakes research into the possibilities for more uniform charging principles such as limits on return on equity or price caps which serve the interests of the customer and meet long-term investment requirements.

3.5.3   Accelerate progress of FABs

Functional Airspace Blocks (FABs) are a key mechanism of the SES to support the creation of a defragmented airspace unhindered by national boundaries. The creation of FABs is mandatory in the SES legislation and to date six are in various stages of development across Europe. However, progress with FABs is slow and consequently airlines have expressed frustration that the opportunities to reduce costs and emissions are not quickly captured.

The High Level Group has identified the following hurdles that must be overcome:

§ **Definitions:** there is no consensus on the definition of the FAB concept resulting in a diverse set of interpretations. All actors are therefore not working to common objectives.

§ **Political and legal:** SES requires states to align their national ANS arrangements with SES Regulations. Many states struggle with the perceived impairment of their sovereignty associated with devolving responsibilities for ATM. Also, there is no harmonised framework for dealing with liabilities in cross border ATM arrangements.

§ **Governance:** As indicated under 3.5.2, ANSPs throughout Europe have very different governance structures which do not support a uniform approach to cross-border cooperation.

§ **Airspace & operational:** The development of new air-routes across FABs is a cumbersome process requiring close coordination with the military to obtain a harmonised approach across participating member states.

§ **Financial and technical:** The business case for change needs to be strengthened and models developed for infrastructure ownership within FABs.

§ **Human resources:** Staff involvement in the development of FABs is essential. The process of creating FABs highlights variances in salaries, working conditions and practices, for instance the application of the 'just culture' concepts.

These barriers are under the direct influence of the states rather than the ANSPs and hence their removal relies on action by the states. The High Level Group notes that many of the practical issues such as liability have been overcome successfully in the past when arranging for the delegation of services in border areas, for instance through the Eurocontrol Model-Agreement for the Delegation of Air Traffic Services. The High Level Group has not identified any 'show stoppers' from the sovereignty perspective.

Clearly, progress with FABs starts with consistent guidelines to states and ANSPs. The new regulatory framework proposed under section 3.5.2 provides the basis to address this issue. Additionally the High Level Group proposes the following measures to accelerate the progress of FABs:

a) **proactively remove real and perceived barriers:** the European Commission should review the existing and perceived barriers to FAB implementation. In particular, the High Level Group recommends that the European Commission takes action to:

   o clarify the existing legal framework highlighting where perceived impediments can be overcome using currently available mechanisms, and propose a legal framework to overcome any real barriers. This action should also address the liability issue.

   o urgently provide a clear definition of the FAB concept, recognising that *one size does not fit all,* and providing for different implementation modalities to achieve the SES objectives.

o issue guidance material based on the experience of the FAB projects that are in progress.

b) **drive forward the current initiatives:** The timely and successful conclusion of FAB initiatives is essential. The European Commission should support these initiatives and stimulate initiatives in those parts of Europe where FAB projects have not yet been started. The European Commission should:

o mandate an annual review of progress on FABs by the Eurocontrol Performance Review Commission, and include progress monitoring in the performance targets set by the SES implementation strategy.

o undertake the planned formal European Commission assessments in 2008 and 2010. Based on the results of the 2008 review, the European Commission should intervene more strongly if a high degree of confidence of success in each FAB does not result.

c) **direct the Aviation System Coordinator to increase political engagement and address bottlenecks:** Stimulating progress with FABs will be a key objective of the Aviation System Coordinator. In addition to support by the European Commission, he or she should also be supported by the Eurocontrol organisation. The main tasks are to:

o promote increased political commitment to FABs by states. At present the High Level Group notes that the FABs are largely driven by bottom up initiatives from ANSPs and the aviation authorities. A higher level of political engagement is necessary to overcome the concerns related to sovereignty.

o urgently review the current FAB projects, identifying where there is progress and where not. This would enable resources to be deployed to overcome blockages and impediments.

o work with and encourage the member states to develop a harmonised approach to addressing the blocks and impediments and providing best practice frameworks for developing the business cases.

o facilitate information exchange and knowledge transfer between FAB projects so that common lessons can be shared.

3.5.4 Facilitate success of SESAR

SESAR plays a key role in supporting a step change in the performance of European ATM. It provides the basis for harmonised and more cost-effective air navigation infrastructure across Europe. It also provides an important impulse to improve the competitive position of equipment manufacturers in terms of innovation and global economies of scale. The High Level Group endorses the importance of SESAR noting in particular the significant opportunities that it offers to reduce the environmental burden, both in terms of emissions and noise.

SESAR comprises three phases. The Definition Phase will deliver a European ATM Master Plan by March 2008. The Development Phase (2008-2013) provides for executing the research and development part of this Master Plan. The SESAR Joint Undertaking

(JU) created through EC regulation, and recently made operational by the Council, will manage the Development Phase. The subsequent Deployment Phase (2014-2020) provides for the large scale production and implementation of the new ATM infrastructure.

At present, SESAR is well on schedule. However, the High Level Group considers it essential that each phase is completed successfully before moving on to the next phase. In addition, the High Level Group sees the following challenges that should be addressed to ensure success:

§ The SESAR arrangements defined so far only cover definition, planning and research. The governance structure is not yet sufficiently robust to deliver the full programme. This results in a lack of industry confidence and uncertainties concerning access to private sector funding.

§ SESAR is a major project, requiring preparation from the technical, regulatory, institutional, financial and industrial perspectives. The transition process from current to future systems needs to ensure continuity of services. Also the level of safety of the new system must be guaranteed. To do this, the JU will need to apply state-of-the-art management techniques and processes for large projects.

§ Effective transition will require a strategy for addressing financial issues, for example financing new infrastructure while legacy systems are not yet written-off, and delivering benefits to early investors. Convincing business cases need to be constructed.

§ Finally, interoperability with the military systems, in particular ACCS, and international developments such as the US Next Generation Air Traffic System (NexGen) needs to be assured.

Bearing these considerations in mind, the High Level Group makes the following recommendations to help ensure the success of the SESAR programme:

a) **improve the understanding of, and commitment to, SESAR:** The High Level Group sees two requirements to build commitment to SESAR in the short term:

 o **communications package:** The European Commission should ensure that SESAR produces a wide-ranging communications package to the aviation community to generate a common understanding and acceptance of the programme. This should be available no later than the moment of the phase transition from Definition to Development in 2008.

 o **comprehensive business case**: The SESAR Definition Phase is tasked to develop and report on a comprehensive cost benefit analysis for SESAR, including mechanisms for funding the transition to SESAR and assessment of project risks. This is an essential step to secure the commitment of private partners. The SESAR JU should be mandated to maintain and refine this analysis throughout the Development Phase.

b) **strengthen SESAR project management in the Development Phase:** The European Commission should ensure that the SESAR JU becomes the benchmark for a successful PPP during the Development Phase, when the research programme has to be delivered. The JU should establish the system engineering

and project management functions and processes needed to deliver a programme of such scale and complexity. In particular, the programme should provide for results in the short and medium term and provide for a systematic safety certification process. The experience of industry and Eurocontrol must be fully utilised. This will result in increased confidence of stakeholders and facilitate access to finance.

c) **define the governance structure for the Deployment Phase:** Effective and timely deployment will require strong pan-European regulation backed up by a strong technical agency. This clearly raises issues regarding the future governance of ATM in Europe. The European Commission should develop proposals for the governance of the post SESAR JU Deployment Phase.

From a technical and a regulatory point of view, preparations for the Deployment Phase will have to start at the onset of the Development Phase.

d) **ensure interoperability:** The SESAR development work programme should specifically address the definition of interoperable procedures, systems and information exchanges within Europe and with the rest of the world. In particular, this should include the appropriate involvement of the military in SESAR and coordination with ACCS, as well as the development of relevant standards and the identification of new implementing rules or community specifications in the context of the SES. The European Commission and Eurocontrol should ensure that interoperability is assured at the global level.

3.5.5 Engage the military more effectively

As identified in the report of the High Level Group on the Single European Sky in 2000, the military plays a key role in delivering SES benefits to the civil community. There needs to be a mechanism in place to ensure that the military derives benefits from cooperation with the SES and that the SES meets military requirements.

Military cooperation at the operational level in the SES context is enabled through the Single Sky Committee and the Eurocontrol Civil Military Interface Committee (CMIC), both of which are acknowledged to be working well. Additionally, the High Level Group has noted that the military representatives in these bodies are keen to increase cooperation to achieve the SES objectives.

However, the more strategic role that the military has in achieving the objectives of the SES is currently not properly enabled. The military has no mechanism for establishing a common European view to the extent that civil aviation does. This is impeded by the different alignments of states, e.g. NATO member or not, neutral or not. Where formal agreements are in place, they have been developed on a bilateral or multilateral basis between a limited number of states. Also, within countries, the organisation of the military role in ATM varies greatly from close integration with civil aviation air traffic management to completely parallel structures.

At the operational level, although significant progress has been made with enabling the flexible use of airspace (FUA), recent Eurocontrol PRC analysis has identified that the actual civilian usage of FUA is limited, missing potential gains in flight efficiency.

Problems are also emerging with the requirements that interoperability places on military air navigation equipment.

The High Level Group considers that closer engagement of the military in the SES objectives is essential. The High Level Group therefore proposes the following recommendations:

a)   **Engage Defence Ministers in SES objectives:** The European Commission in conjunction with member states should create a mechanism to ensure that Defence Ministers are involved in the SES process. Particular objectives are to:

   o   develop joint targets for the streamlined use of airspace

   o   identify and overcome bottlenecks to progress, e.g. the need to equip military aircraft with civil equipment for them to use civilian-controlled airspace

   o   address and accelerate military-military coordination and harmonisation of procedures. This activity could be launched through Eurocontrol mechanisms building on achievements to date.

b)   **monitor progress:** The High Level Group recommends that the targets agreed with the military form part of the SES implementation strategy and that the Eurocontrol Performance Review Commission is asked to report annually on the actual usage of the FUA.

3.6   Empower and focus Eurocontrol

Empower Eurocontrol to play a key role in delivering the Single European Sky and SESAR objectives within the strategic and regulatory framework set by the EU. Focus its activities on excellent pan European functions and ATM network design, and support to regulation as requested by the European Commission and member states. Transfer the responsibility for safety regulatory activities to EASA. Invite the Eurocontrol governing bodies to give industry an appropriate role in the governance of the pan-European functions and facilitate the unbundling of activities through corporate structures or undertakings where appropriate to allow the Eurocontrol organisation to evolve in line with industry developments while ensuring that the interests of employees are considered. Prepare for the appropriate pan European ATM governance and operational structures for the post 2013 SESAR deployment phase

6

Eurocontrol has a key role to play in achieving the ambitions of the Single European Sky and SESAR. The Eurocontrol organisation currently provides wide ranging functions and expertise to support safe and efficient cross border ATM. It has played a crucial role in achieving significant improvements across the European ATM system.

Eurocontrol now includes 38 states and the European Commission represents the Community in the Provisional Council. Eurocontrol can therefore be a very useful platform for enabling the adoption of EU performance improvement ambitions at the pan-European level. Additionally, through the Civil-Military Interface Standing Committee (CMIC) and the Directorate for Civil Military Coordination, Eurocontrol provides a forum for addressing civil-military and military-military issues.

As acknowledged by the Eurocontrol Provisional Council when it adopted the "*Roadmap towards the future European ATM system*" in November 2006, the Eurocontrol organisation needs to evolve to respond to important ATM-related regulatory and governance developments in the EU, member states and industry. The key drivers for change are:

§   the increasing competence of the Community as the sole vehicle to set the European aviation agenda, and the creation of EASA with the objective of including all aviation safety regulation in its competence. At the Edinburgh and Brussels conferences,

industry called for alignment of the evolution of Eurocontrol in line with developments in the EU regulatory framework.

§ states have increasingly entrusted parts of the national service provision obligation to corporatised or privatised ANSPS. This raises the question of aligning the governance by states of service provision at the national and international levels.

§ the trend towards managing ANSPs as performance oriented businesses and the High Level Group recommendation to unbundle activities where appropriate to ensure optimal performance management. This raises questions about the possibility of establishing differentiated governance for different functions also at the international level.

§ and last, but certainly not least, the requirements of the Deployment phase of SESAR. At the end of the Development phase in 2013, a new ATM governance structure must be in place to handle the significant systems engineering and human resources challenge associated with the SESAR Deployment phase.

Against this background, the High Level Group strongly recommends that the Commission engages in a dialogue with the Eurocontrol Director General to (1) implement the changes proposed in the Eurocontrol Roadmap as rapidly as possible and (2) prepare for the next phase in the evolution of the Eurocontrol organisation.

This next phase should focus the Eurocontrol organisation on efficient and cost-effective pan-European functions and ATM network design, and provide for enhanced responsibilities for industry in the governance of selected functions avoiding conflicts of interest. It should also facilitate the unbundling of activities or devolution of functions as appropriate through corporate structures or undertakings[7] for specific functions. Finally this phase should enable the positioning of Eurocontrol to play a key role in the SESAR Deployment phase by 2013.

The High Level Group clearly acknowledges that the Eurocontrol governing bodies are responsible for driving forward change in Eurocontrol. The High Level Group also emphasises that it is essential that the possible concerns of non-EU member states are considered in any change programme. These concerns are likely to include the need to specifically acknowledge the ICAO framework and respect existing competences, the wish to strengthen the pan-European nature of the European aviation system, and the requirement for the clear cost-benefit analysis of any changes.

The High Level Group recognises that the proposed changes of the Eurocontrol organisation are significant and require careful risk and change management. In particular careful attention should be paid to the interests of the staff responsible for delivering and operating the system. This is particularly important when considering the possible devolution of functions. The plan must also bear in mind the value of the synergies that exist within the current Eurocontrol organisation and ensure that any changes are supported by positive results arising from a cost-benefit analysis.

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[7] Undertaking: Enterprise, business of company. A separate legal entity which controls its own performance and has a boundary separating it from its environment

Bearing these considerations in mind, the High Level Group proposes the following path for the future evolution of the Eurocontrol organisation:

a) **enable the necessary convergence between Eurocontrol and the EU:** The High Level Group considers it essential that overlaps or diverging agendas between the EU and Eurocontrol are eliminated. The EU agenda to improve the effectiveness of ATM in Europe should set the overall strategic context for Eurocontrol. Additionally, the responsibility for safety regulation should be transferred to EASA as soon as possible (see recommendation 8) provided EASA is given the funds and resources to take on these additional responsibilities. The remaining activities to support or develop non-safety related ATM regulation should be undertaken at the initiative of the European Commission or at the request of member states. To facilitate convergence between the agendas of EU and non-EU member states, the High Level Group recommends that Eurocontrol continues its current policy of not extending membership beyond the current membership of ECAC.

b) **strengthen performance management:** Just as for ANSPs and EASA (see Recommendations 5 and 7) the High Level Group considers that the overall performance management of the individual Eurocontrol functions should be strengthened. Transparency of financing mechanisms, budgets, and cost control measures at the level of individual functions is essential. Independent performance review of each Eurocontrol function should be used to lever efficiencies throughout the organisation and can be requested by the European Commission.

c) **enable further separation and possible unbundling of selected functions:** The High Level Group distinguishes between four categories of function in Eurocontrol: (1) *support to regulation*, (2) network planning (*cooperative network design*), (3) network optimisation (*pan-European functions*) and (4) *regional ATC service provision.*

The High Level Group recommends that the mix of Eurocontrol's functions is examined to allow the appropriate evolution of individual functions in line with industry developments. As a first step the High Level Group proposes that the Eurocontrol governing bodies explore the possibilities for corporate structures or undertakings to execute certain functions (in the categories of pan European functions and cooperative network design), while ensuring that conflicts of interest are avoided and non-discriminatory access preserved.

The High Level Group supports the integration of the operations of the Maastricht Upper Area Control Centre (MUAC) into the relevant FAB under governance arrangements as defined by the states responsible. These states should strive to have the new arrangements in place as soon as possible and no later than 2012, and ensure that the proposed solution is cost-effective and gives due consideration to the staff involved.

d) **increase industry responsibility:** The most urgent change proposed by the High Level Group is to enhance the role of service providers and users in the governance of the pan-European functions. Specifically the High Level Group recommends that a process is put in place to achieve the following:

o Increase the authority of the Eurocontrol ANS Board and reconfigure it appropriately, e.g. by reducing membership. The ANS Board should be given decision making powers for pan European functions, provided the risk of conflicts of interest is avoided. These functions could include network optimisation functions and cooperative network design functions. The Eurocontrol governing bodies should define the functions and clearly retain the ultimate authority.

o Ask the ANS Board, in conjunction with Eurocontrol's governing bodies, to advise which activities should be executed by corporate structures or undertakings.

e) **prepare for post-SESAR JU situation:** The implementation phase of SESAR will require the experience and competence of a widely recognised technical agency to support the necessary developments in regulation and to monitor and coordinate and monitor the various steps in the transition towards the new system. Given Eurocontrol's expertise, the High Level Group recommends that the European Commission and Eurocontrol's governing bodies work closely together in cooperation with industry to design a single governance and operational structure for the pan European ATM system.

3.7 Address airport capacity

Address the forthcoming airport capacity crunch by asking the European Commission to raise the profile of this emerging bottleneck in the European aviation system and point the way forward in terms of reconciling growth and environment goals. Request member states to provide strategies for addressing the airport capacity issue while demanding that airports themselves take greater responsibility for securing the local 'licence to grow.' Enable the European Commission to facilitate progress through the 'Aviation System Coordinator.' Integrate airports more systematically into the total system approach

7

As a logical complement to the actions required to achieve a step change in ATM performance, the High Level Group recommends addressing the coming airport capacity crunch. The High Level Group has been struck by the mismatch in the attention given at the European level to eliminating capacity bottlenecks in the sky versus bottlenecks on the ground. This clearly reflects the fact that airport policy, planning and development are state competences. However, the High Level Group believes that the ambitions of the Lisbon agenda require action at the EU level.

The High Level Group has identified the following key issues:

§ the coming capacity crunch is real. Current SESAR analysis indicates that in the short- (2010) to medium-term (2015) capacity at Europe's major airports will be the limiting factor on the capacity of the overall air transport network and that efforts to create capacity elsewhere, e.g. through the SES will be negated.

  The Eurocontrol 2004 *Challenges to Growth* Report shows that in the longer term, by 2025, more than 60 airports will be congested and the top 20 airports will be saturated almost all day long. This will result in nearly four million flights being un-accommodated affecting some 260 million potential passengers. Conversely, there will be a capacity imbalance with spare capacity being available at some airports.

§ there is a lack of recognition that optimisation of current capacity will not be sufficient to redress this forthcoming capacity crunch.

§ at the same time, environmental issues are a significant and increasing constraint on the capacity of the airport system and there is often significant local resistance to airport development. This concern tends to override the positive economic benefits.

§ airport planning processes are extremely complex resulting in uncertainty and long lead times for the delivery of new infrastructure.

Recognising this situation, the European Commission has recently adopted a Communication entitled "*An Action plan for airport capacity, efficiency and safety in Europe*". The High Level Group proposes the following actions to strengthen commitment to addressing the problem and to integrate airports more effectively into the total system.

a) **raise the profile of airport capacity on the EU agenda:** The European Commission should raise the profile of the airport capacity issue and stimulate member states to address capacity constraints. The High Level Group proposes that the Commission maintains a policy on airport capacity which should clarify that optimising existing capacity is not a sufficient response longer term. Furthermore, the European Commission should request that member states develop and provide strategies for addressing their own airport capacity issues.

The Commission's policy should also demonstrate the positive economic impacts of airports including their key role in achieving the objectives of the Lisbon agenda, maintaining Europe's competitive position on a global scale, and point the way forward in terms of reconciling these objectives with goals to improve the environment.

b) **task the Aviation System Coordinator to address airport issues:** In addition to his or her role regarding FABs, the European Commission should mandate the Aviation System Coordinator to:

o stimulate airports to play their role in securing the 'licence to grow', including improving relationships with local communities and promoting understanding of the economic benefits to these communities.

o develop best practices guidelines on airport planning and land use.

o identify where Community legislation adds to the complexity of planning processes and possibly acts as a disincentive to investment.

c) **Integrate airports more effectively into the total system:** Finally, the High Level Group strongly recommends that airports are integrated more closely into the overall aviation system in the spirit of the total system approach, including safety. Also, innovation at airports should be coordinated with SESAR and SES, viewing the network as a whole and maximising capacity across the chain.

3.8   Deliver continuously improving safety

Require states to apply safety management principles consistently and, in particular, facilitate the uniform application of 'just culture' principles. Empower EASA as the single EU instrument for aviation safety regulation including airports and ATM, and ensure that EASA is funded and resourced accordingly. Prepare for the SESAR challenge by timely certification processes. Ensure that states' safety oversight is harmonised and that cooperation between national authorities is stimulated to achieve overall higher levels of performance

8

Continuous safety improvement is an overriding objective of the international aviation system. The High Level Group has concluded that the building blocks for the European safety system are mostly in place, and its recommendations for safety are therefore less far reaching than for ATM. However, the High Level Group's analysis indicates that there are several important safety performance improvement requirements which must be addressed to ensure that safety continues to improve in absolute terms despite increased traffic levels:

§   The level of incident reporting, analysis and transparency of the safety system varies widely across Europe. As a result, in some places, it is difficult to assess the overall safety performance achieved and to propose actions to improve safety. One impediment is that that the judicial codes of some states discourage or inhibit open reporting of incidents.

§   The responsibility for safety across the aviation value chain is scattered across different regulators (e.g. the EASA Committee, the Single Sky Committee and the member states) with the following risks:

   o   elements of the safety chain may not be covered as they fall between the responsibilities of individual regulators, or overlap may result.

   o   regulations can be interpreted or applied in different ways and best practice is not always recommended and consistently applied, e.g. the compliance-based approach has not always been replaced by a risk-based approach.

§   Within national administrations there is a wide range of maturity and resources for safety regulation and safety management. Within the European Safety Programme, Eurocontrol has identified insufficient maturity in 16 out of 32 European ATM regulatory authorities and 11 ANSPs that are insufficiently mature from a safety perspective.

§ Market changes outpace regulatory developments, and new initiatives like SESAR represent major safety challenges:

- o The opening of the internal market has changed the dynamic of safety regulation and air transport operations. For example, carriers are being granted their air operator's certificates (AOCs) in states different to those where they have the majority of operations or are registered. Also the volume of general aviation is expected to increase. Both developments raise new oversight issues.

- o The Deployment Phase of SESAR represents a major safety challenge, as outlined in 3.5.3. The safety of the new equipment and processes need to be certified. New interactions between users and the system require particular attention.

The High Level Group proposes three sets of recommendations:

§ improve safety management processes

§ develop EASA into the single EU instrument for aviation safety regulation

§ reinforce the oversight capabilities of national administrations.

3.8.1 Improve safety management processes

The High Level Group considers that improving safety management[8] processes and strengthening the learning capability within the European safety system is vital. The High Level Group therefore recommends that the European Commission takes action to:

a) **facilitate the uniform adoption of just culture:** Eurocontrol defines just culture as '*a culture in which front line operators or others are not punished for actions, omissions or decisions taken by them that are commensurate with their experience and training, but where gross negligence, wilful violations and destructive acts are not tolerated.*' Such a 'just culture' stimulates the reporting of incidents by creating an environment that gives appropriate protection to those involved in incidents.

The High Level Group recommends that the European Commission should promote the opening of dialogue between aviation and judicial authorities – at Minister of Transport and Minister of Justice level – to facilitate the creation and application of just culture across Europe. This dialogue should define the conditions for the application of just culture which should be enshrined as appropriate in European law and implemented by all states.

b) **mandate safety monitoring and reporting:** At present, ATM incident reporting and safety information processes vary significantly in terms of quality and quantity across Europe. Often the information that is collected is not available in a timely manner and varies in terms of reporting rates and severity classification[9]. The

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[8] Safety management is understood according to the ICAO definition

[9] Eurocontrol Permanent Commission, Decision 80

Eurocontrol Performance Review Commission[10] reports that only 15 out of 35 Eurocontrol member states provided good quality data in 2005.

The High Level Group recommends that the European Commission should develop, implement and enforce a uniform, pan-European safety-monitoring, incident reporting and analysis mechanism, building on ICAO principles and guidance.

3.8.2 Develop EASA into the single EU instrument for aviation safety regulation

In line with its objective to simplify the regulatory structure and reflecting the importance of adopting the total system approach in managing aviation safety, the High Level Group recommends that EASA becomes the single European level body dealing with aviation safety regulation.

However, the High Level Group stresses that it is important that EASA performs its current functions effectively before being given new responsibilities. The High Level Group also expresses its concern about the current lack of resources and funding within EASA. Any increased responsibilities for EASA must be preceded by a clear plan to scale up its resources as appropriate.

Subject to such increased resources being made available on a structural basis, the High Level Group recommends:

a) **bring together responsibility for safety regulation under EASA umbrella:** Firstly, as indicated in 3.6, EASA should take on Eurocontrol's safety regulatory responsibilities no later than 2012, which means that the Commission should start preparations in early 2008. Secondly, EASA should take airports under its umbrella to create a uniform safety regulatory framework but allowing sufficient flexibility to tailor solutions to specific local situations and needs**.**

   The High Level Group stresses that the needs of those non-EU states which are members of Eurocontrol are accommodated to the maximum extent possible when planning the transition of activities from Eurocontrol to EASA.

b) **reinforce the EASA committee:** Following on from the concentration of responsibilities for safety regulation within EASA, the High Level Group recommends combining the responsibilities of the comitology committees dealing with aviation safety. This would lead to transferring safety responsibilities from the Single Sky Committee to the EASA Committee. It would also require the EASA Committee to be expanded to include military representation for SES related matters.

   As a new task, this Committee should develop a market monitoring programme to advise proactively on new developments such as the oversight issue of carriers which mainly operate outside of the country where they got their operating licence or where they were established, or the impact of increasing numbers of small jets.

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[10] *Legal and cultural issues in relation to ATM safety occurrence reporting in European*, Eurocontrol Performance Review Commission, December 2006

3.8.3 Prepare for the SESAR challenge

 SESAR will result in major changes in operational concept and practices, for example by enabling a step-change in the degree of automation and changing the roles and responsibilities of the human-in-the-loop both on the ground and in the air. In addition, SESAR will result in a step-change in the degree of interconnectedness of the European ATM system, as the result of the network centric approach and functional integration of air-ground systems.

The High Level Group recommends that current safety processes are reviewed in the light of these changes as quickly as possible, and that interoperability is maximised across the new system in order to facilitate safety.

3.8.4 Reinforce oversight capabilities of national administrations

The High Level Group is concerned that the oversight of the safety system in Europe is not at a uniformly high level. Eurocontrol's Safety Regulation Commission reports that there is insufficient maturity in 24 out of 37 (2006) national administrations. Funding and access to and retention of the appropriate skills are cited as being major obstacles to uniform and adequate oversight.

As a first step, the High Level Group recommends that the EASA Management Board should draw up a list of Agency and member state responsibilities in the field of safety regulation. It appears that the respective responsibilities are not equally clear to all stakeholders.

Secondly, while the High Level Group recommends that safety rules should continue to be implemented and enforced by nationally appointed competent bodies (NAAs or NSAs), the High Level Group strongly supports increased cooperation – between national organisations and between these organisations and EASA. Where appropriate states should cooperate to provide joint oversight, or delegate the function (but not the legal responsibility) to another state or body. The European Commission should put in place formal mechanisms to stimulate this type of cooperation, information and knowledge exchange between NAAs.

The responsibility for monitoring and assuring proper NSA and NAA implementation of European rules should be undertaken by EASA. EASA is responsible for implementing common rules in the areas specifically allowed for in legislation adopted at the level of Council and Parliament.

3.9 Deliver environmental benefits

Building on the three pillars of improved gate-to-gate ATM, cleaner and quieter aircraft, and market oriented solutions, ask the European Commission to develop an integrated environment strategy. Incorporate ambitions from the transport and environment perspectives, enabling Europe to play a leading role in balancing economic, environmental, safety and social impacts

9

Aviation's impact on the environment is increasing. Regulators and industry face a major challenge to secure the 'license to grow' for the aviation sector. To enable the further growth of aviation, the High Level Group believes that the environment must be raised to the same level of importance as safety and efficiency in the aviation system, and that industry and regulators should work closely together to achieve the possible improvements.

The High Level Group proposes three sets of actions to bring urgency, coherence and a pan-European dimension to aviation's activities to reduce its environmental impact: maximise the contribution from improved ATM, further enabled by SESAR; cleaner and quieter aircraft, enabled by the Clean Sky programme; and market mechanisms.

3.9.1 Maximise the contribution from a step change in ATM performance

In the short-term, improved ATM has the greatest potential of the currently available measures for delivering significant environmental benefits by reducing fuel burn through optimised flight paths. Airlines repeatedly stress the benefits that improved ATM can have for the environment. The Eurocontrol PRC has calculated that current en route emissions per flight could be reduced by 6% by optimising flight efficiency.

However, the environment is only briefly mentioned in the SES Regulations, reflecting the much lower profile that it had at the time the Regulations were executed. It has a higher profile within SESAR, but this too can be strengthened.

To maximise the positive contribution that improved ATM performance can make, the High Level Group recommends that the European Commission should increase the profile of actions focused on improving the environment in both SES and SESAR:

a) **include environmental performance as a regulatory dimension:** Currently the SES does not address the environment in depth. The High Level Group recommends that this dimension is included in the second package of SES Regulations. This will require the development of environmental performance indicators and the mandatory collection and analysis of environmental performance

data, in the same way that the other performance dimensions are already being addressed. The European Commission should produce guidance material, building on that available from ICAO.

Additionally, regulatory initiatives should aim to address all dimensions of environmental impact, not only climate change but also air quality and noise emissions in the vicinity of airports. This could be achieved through a mandatory requirement to adopt environmental management systems in line with existing requirements for safety and security management systems.

b)   **develop environmental 'cases':** The European Commission should extend the provisions in SES Regulations to mandate the development of environmental 'cases' in the same way that the development of safety and business cases is already mandated in FABs. The environmental case should be risk-based and identify, evaluate and mitigate environmental impacts. Internal and external environmental costs and benefits of all proposals should be included in any change proposals. The European Commission should mandate the development of harmonising methodologies for such evaluations, including interdependencies and trade-offs.

c)   **strengthen the environmental dimension within SESAR:** SESAR has targeted 10% reduction in emissions per flight and a number of short term and longer term actions towards that goal. Particular attention should be paid during the next phases of SESAR to the validation and pro-active implementation planning of these actions. The European Commission should also ensure that other EU aeronautical research projects are closely coordinated with SESAR to avoid duplication.

3.9.2   Apply R&D resources to stimulate cleaner and quieter flying

Technology can clearly play an important role in reducing the environmental impact of aviation. The recently announced Clean Sky Joint Technology initiative is an important step forward. The Advisory Council for Aeronautics Research in Europe (ACARE) has recently set goals for 2020 which include a 50 per cent reduction of CO_2 emissions, an 80 per cent reduction of NO_x emissions and a 50 per cent reduction of external noise.

The High Level Group recommends that the European Commission should work closely with industry to develop technology to reduce the noise and emissions associated with air transport. This approach should include the setting of feasible but challenging goals for future technology performance, and should be based on a thorough understanding of both the current state-of-the art and what is possible in terms of future developments.

3.9.3   Apply market mechanisms

The High Level Group recommends that the European Commission continues to explore the application of market mechanisms - such as emissions trading and environmental charges - to promote improved environmental performance in the aviation sector. The European Commission should ensure that these mechanisms are equitable and balanced, and that the impact of the measures (both environmental and economic) is well understood. There are a number of specific actions:

a)   **include aviation in the ETS:** The European Commission should continue to support the inclusion of aviation in the European ETS. The High Level Group recommends paying particular attention to the Better Regulation principles, including more detailed impact assessments and analysis to ensure non-discrimination.

b)   **include partner countries in the ETS:** the European Commission should work, through its negotiations mandates and other appropriate instruments, to secure the participation of partner countries in the aviation elements of ETS schemes. In a global industry like aviation, a global approach is clearly the best way forward.

3.10   Commit member states to deliver

> **Require more systematic implementation of existing commitments by EU member states, in particular the defragmentation targeted by the Single European Sky initiative. States should address inconsistent guidelines for ANSPs, performance shortfalls in oversight, bottlenecks in airport capacity and safety management, and the new challenges of mitigating and adapting to climate change. Encourage regulatory authorities to exchange best practices and develop common approaches**

10

Most of the recommendations made by the High Level Group are focused on delivering existing initiatives to improve the European aviation system, rather than on new systems changes. The states play a vital role in delivering these initiatives.

The High Level Group has identified that member states have to increase their commitment to playing their role in the different initiatives. At present states execute their roles and responsibilities in very different ways across the European Union. This is reflected in differing governance structures and economic drivers for ANSPs, differing views on how to implement the Single European Sky, in particular FABs, and differing oversight mechanisms for safety and ATM.

This divergence is a significant bottleneck to improving the overall performance of the European aviation system. The High Level Group therefore recommends that the European Commission ensures the consistent exercise of responsibilities by states across the European system.

In particular, understanding needs to improve regarding the possibilities for states to delegate responsibilities. The responsibilities and obligations of states are defined by the Chicago Convention with some competences being exercised at Community level through various Regulations, inter alia the Single European Sky and the EASA Regulation. However, states also have the freedom to delegate activities, authority and accountabilities (including funding and financing) to the institutions and organisations that are best placed to undertake them efficiently and effectively (as long as there is no conflict of interest in this delegation).

The recommendations for accelerating the delivery of the SES, addressing airport capacity and continuously improving safety include many actions for the member states as authorities to implement the EU regulation. The High Level Group recommends that member states explicitly commit to the performance review processes foreseen in these recommendations and engage fully in the process of addressing the performance bottlenecks.

The High Level Group is clear that the ultimate responsibility for many of the aspects of the European aviation system covered in this report rests with states. The ideas in this report should assist them in the discharge of these responsibilities. However, the High Level Group sees that there may also be a need for regular engagement between state regulatory authorities to exchange best practice and develop common approaches.

4.1 Managing the change programme

The changes highlighted by the High Level Group are significant, wide-ranging and complex. To ensure success, a well-managed and structured change management programme must be put in place to oversee and drive forward the necessary developments. The basic principles that should be applied to managing the change are:

1) **openness and communication:** The results of the High Level Group should be communicated widely and openly to all stakeholders, also including general aviation, the manufacturing sector and the military. A follow up conference to the Brussels conference of September 2006 should be considered. Stakeholders should be encouraged to provide feedback to guide the more detailed definition of the change programme. Effective dialogue with the personnel involved is an integral part of the change programme.

2) **inclusivity and empowerment:** Commitment to and ownership of the change process by all stakeholders is key to its success. The stakeholders, especially those that are front-end users of the system, should be embedded in the change process, taking responsibility for the delivery of the appropriate parts. All stakeholders, and in particular the professional staff, should be fully engaged.

3) **risk focused planning:** a detailed plan for the change programme should be defined. This plan should break down the work into manageable, realistic work packages with well-defined resource allocation. The plan should include a careful risk analysis to ensure that the changes proposed do not effect the operational integrity of the European aviation system as well as identifying and mitigating the risks of late/non-implementation of SES and SESAR. Responsibility for the delivery of the work packages must be defined. The definition of challenging but realistic milestones against which progress can be measured is critical to the success of the programme.

4) **scaled-up resources:** The change management programme must be adequately resourced both in terms of stable funding and the availability of the required skills and knowledge.

5) **progress monitoring:** In order to drive through the changes, the European Commission should take overall responsibility for delivery of the change programme. The High Level Group proposes that six-monthly reviews of progress against milestones should be undertaken. Whenever necessary, the European Commission should be empowered to take the necessary corrective actions to drive the programme forward.

4.2 Roadmap of actions

A number of explicit actions arise from the High Level Group's recommendations. These actions, which are described in detail in the main text of this document, are summarised below. The actions are classified into three groups: actions associated with setting the strategic direction for European aviation; actions needed operationally to generate performance improvement; and the structural changes necessary to facilitate the required strategic and operational actions. As well as a summary description of each action, the

body that should take responsibility and the target timeframe for each action are identified. The number associated with each action does not imply a priority.

The European Commission is invited to develop this roadmap into a firm plan for the delivery of the High Level Group's recommendations.

4.2.1 Strategic direction

		Responsible	Date
1.	**Develop a SES implementation strategy and plan with the support of Eurocontrol using the EC advisory bodies, SSC and ICB**	EC	mid- 2008
2.	**Develop proposals for the ATM governance structure in Europe post-SESAR JU**	EC	mid- 2008
3.	**Address the coming airport capacity crunch**		
	- Raise profile of airports capacity issue on the policy agenda	EC	2008à
	- Integrate airports more closely into SES and SESAR	EC	2009
4.	**Engage professional staff in the change programme**	EC & Eurocontrol	2007à
5.	**Engage non-EU states through appropriate mechanisms**	EC and Eurocontrol	2007à
6.	**Deepen the military's involvement**		
	- Develop mechanisms for the involvement of Defence Ministers in SES	EC & MSs	2008à
	- Encourage mechanisms for military-military coordination with support of Eurocontrol	Eurocontrol & MSs	2007à

4.2.2 Operational improvements

		Responsible	Date
7.	**Drive forward ATM performance improvements**		
	- Modify charging schemes particularly the cost recovery principle/basis	EC	2008
	- Implement performance management: target setting, monitoring, and enforcement	MSs & ANSPs	2008à
	- Monitor flexible use of airspace	EC, MSs & Eurocontrol	2008à
8.	**Develop and implement ATM economic regulation**		
	- Design the overall economic regulatory framework at the EU level	EC	2009
	- Implement economic regulation at national level	MSs	2009à

		Responsible	Date
9.	**Strengthen the SESAR programme in cooperation with industry**		
-	Implement SESAR communications programme	SESAR	2007à
-	Mandate the development of a SESAR business case	EC	2007
-	Drive the delivery of quick wins, including environmental aspects	EC	2007à
-	Strengthen SESAR JU project management/governance	JU members	2007
-	Ensure SESAR interoperability with external systems	EC&Eurocontrol	2007à
10.	**Drive FABs forward**		
-	Define best practice guide	EC&Eurocontrol	2007
-	Provide a FAB concept definition	EC	2007
-	Define the legal basis for FABs	EC	2007
-	States & ANSPs to clear domestic hurdles	MSs & ANSPs	2008
-	States & ANSPs to raise FAB development efforts	MSs & ANSPs	2007à
-	Review FAB progress annually through the Eurocontrol PRC mechanism	EC	2008à
11.	**Improve environmental performance**		
-	Include environmental performance explicitly in the SES	EC	2009
-	Implement SESAR's quick-wins with support of Eurocontrol	EC	2008-2012
-	Coordinate and focus aviation R&D on cleaner flying	EC & industry	2007à
-	Progress aviation's inclusion in the ETS, including the participation of partner countries	EC	2007-2012
12.	**Improve safety performance**		
-	Develop proposals for a harmonised framework for 'just culture'	EC	2008
-	Mandate a minimum safety monitoring and reporting system and undertake safety performance analysis	EC	2009à
13.	**Address variability in member states' oversight performance**		
-	Clarify roles of EASA and member states	EASA	2008
-	Review MS's oversight performance	EC	2008
-	Provide support for institutional strengthening of NSAs/NAAs	EC	2009
-	Mandate cooperation between NSAs/NAAs and with EASA and define the respective roles	EC	2010

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4.2.3 Structural changes

		Responsible	Date
14.	**Create the function and nominate an Aviation System Coordinator (ASC)**		
-	Define terms of reference and appoint the ASC	EC	2007
-	Identify improvement requirements for FABs with support of Eurocontrol	ASC	end 2007
-	Produce best practice guide for airport capacity growth	ASC	2008
-	Organise and drive forward the DG's meetings	ASC	2007à

		Responsible	Date
15.	**Develop EASA into the single EU instrument for aviation safety regulation**		
-	Enable EASA to take-on additional responsibilities including resources and considerations of non-EU states	EC	2008à
-	Transfer responsibilities for safety regulation from Eurocontrol to EASA	Eurocontrol & EASA	2008à
-	Move SSC safety responsibilities to EASA Committee	EC & EASA	2012
16.	**Invite the Eurocontrol governing bodies to expand change programme**		
-	Produce definitions of Eurocontrol functions	Eurocontrol	2007
-	Increase the ANS Board authority and decision making power and adjust industry's representation in the ANS Board	Eurocontrol	2008
-	Integrate MUAC operations into a FAB	MSs	2012
-	Investigate scope for corporatised structures and undertakings and then implement	Eurocontrol, ANS Board & MSs	2008à

A.1   Terms of reference

Following the Brussels Conference of 20 September 2006 on the future of aviation regulation in Europe, VP Jacques Barrot has decided to create a High Level Group. The Group shall work on further developing the main outcomes of the Conference:

1. How can we ensure the simplification of the current regulatory framework?

2. What should be the roadmap towards reforming the regulatory framework?

3. How can the Community method be the driving force in regulation?

4. How should we ensure successful stakeholder involvement?

5. What is the optimal way for the Community - in partnership with the member states - to develop EASA as the Community safety authority to guarantee a total system approach?

6. What should be Eurocontrol's new role in supporting EC and states under the Community umbrella?

7. How can we develop the industrial dimension of ATM (Public-Private partnership approach and SESAR initiative)?

A.2   Objective

The group shall provide input to the European Commission. The European Commission intends to present the Single European Sky mid-term review by mid-2007, as requested by the European Parliament and Council.

The High Level Group was composed of representatives from the aviation community who produced a report to VP Barrot outlining proposals for future of ATM regulation.

§   Ms Jacqueline Tammenoms Bakker (Director General Civil Aviation and Freight Transport, NL)

§   Mr Thilo Schmidt (Chairman of Management Board European Aviation Safety Agency – EASA and Director General Civil Aviation, D)

§   Mr David McMillan (Director General Civil Aviation, UK)

§   Mr Raymond Cron (Director General Federal Office of Civil Aviation CH)

§   Mr Michel Wachenheim (President of European Civil Aviation Conference – ECAC)

§   Mr Victor Aguado (Director General Eurocontrol)

§   Mr Fritz Feitl (Chairman Industry Consultation Body)

§   Mr Alexander Ter Kuile (Secretary General Civil Air Navigation Services Organisation – CANSO)

§   Mr Jeff Poole (Director International Air Transport Association – IATA)

§   Mr Olivier Jankovec (Director General Airports Council International Europe – ACI - Europe)

DG TREN Air Transport Directorate provided the secretariat under the leadership of Mr Luc Tytgat.

ANNEX **C**   **HEARINGS AND PRESENTATIONS**

C.1   Hearings

Date	Subject	Participants
26 Jan 2007	Safety	Mr Patrick Goudou, Executive Director EASA
		Mr Ron Elder, Chair, Eurocontrol Safety Regulatory Commission
	ATM performance	Mr Keith Williams, Chair, Eurocontrol Performance Review Commission
	SESAR	Mr Olaf Dlugi, Chair SESAR consortium executive committee
		Mr Bo Redeborn, Director DAS, Eurocontrol
23 Feb 2007	Military	EURAMID: General Major Antonio Pilotto Colonel Ian Logan General Major Peter Vorderman Lieutenant-Colonel Olivier Mrovicki
20 Mar 2007	General Aviation	Mr Martin Robinson, Deputy Vice-President Europe, IAOPA
	Professional staff associations	Mr Marc Baumgartner, President and Chief Executive Officer IFATCA Mr Dany Van Der Biest, Executive Secretary IFATSEA Mr Joe Magee, Adviser ATM, ETF Mr François Burgues, Secretary ATCEUC Captain Heinz Frühwirth, Technical Director ECA
	ATM equipment industry	Mr Bertrand de l'Epinois, President of the Air Traffic Alliance
25 May 2007	Non-EU states	Turkey, delegation headed by Mr Ali Ariduru, Acting Director General, Directorate General of Civil Aviation, Ministry of Transport and Communications Ukraine, delegation headed by Mr Anatoliy Kolisnik, Deputy Minster of Transport and Communication, Chairman of the State Aviation Administration Norway, delegation headed by Mr Heine Richardsen, Director General, The Civil Aviation Authority Norway

C.2   Presentations

Presentations and briefing sessions, by the High Level Group chair accompanied by another High Level Group member were held with the following bodies:

§   Single Sky Committee: January and April 2007
§   Industry Consultation Body: January 2007
§   European Civil Aviation Conference: May 2007
§   Association of European Airlines board meeting: April 2007
§   Airport Council International board meeting: April 2007
§   Civil Air Navigation Services Organisation EC3 meeting: April 2007
§   Airspace Users Associations: April 2007
§   Eurocontrol Provisional Council: May 2007
§   EASA Management Board: June 2007.

ANNEX D

ACARE	Advisory Council for Aeronautics Research in Europe
ACCS	Air Command and Control System
ACI	Airports Council International
ANS	Air Navigation Services
ANSP	Air Navigation Service Provider
AOC	Air Operator's Certificate
ASC	Aviation System Coordinator
ATC	Air Traffic Control
ATM	Air Traffic Management
CANSO	Civil Air Navigation Service Organisation
CMIC	Eurocontrol Civil Military Interface Committee
DG	Director General
DG TREN	Directorate General for Energy and Transport
EASA	European Aviation Safety Agency
EC	European Commission
ECAA	European Common Aviation Area
ECAC	European Civil Aviation Conference
ETS	Emissions Trading Scheme
EU	European Union
EURAMID	European ATM Military Directors Conference
FAB	Functional Airspace Block
FUA	Flexible Use of Airspace
IATA	International air Transport Association
ICAO	International Civil Aviation Organisation
ICB	Industry Consultation Body
JPDO	US Joint Programme Development Office
JU	Joint Undertaking
MS	Member State
MUAC	Maastricht Upper Area Control Centre
NAA	National Aviation Authority
NexGen	US Next Generation Air Traffic System
NSA	National Supervisory Authority
OAA	Open Aviation Area
PRC	Eurocontrol Performance Review Commission
SES	Single European Sky
SSC	Single Sky Committee
TENs	Trans-European Networks