State Safety Programme of Ireland

Irish Aviation Authority

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IAA

ÚDARÁS EITLÍOCHTA NA hÉIREANN
IRISH AVIATION AUTHORITY

Foreword

As Chief Executive of the Irish Aviation Authority I am pleased to present the latest version of the State Safety Programme for Ireland (SSP).

The first edition of the SSP for Ireland was issued in 2015. This 2023 updated edition reflects changes to the SSP in consequence of updates to Annex 19 at Amendment 1 and associated guidance in the fourth edition of ICAO Doc 9859 Safety Management Manual (SMM), as well as reflecting significant changes to the organisation and functions in safety management at state level since the last edition.

As an island nation, aviation is of major strategic importance to Ireland and as part of the SSP we in the IAA, in conjunction with government officials in the Department of Transport, are firmly focused on enabling civil aviation in Ireland to flourish safely. We actively engage with ICAO and EC/EASA to support the development of international aviation safety standards and aviation safety regulations and we implement and oversee the implementation of these standards and regulations in Ireland.

While compliance-based oversight remains the foundation for safety assurance, the IAA also seeks to continuously identify and mitigate safety risks. Using a risk-based approach the IAA aims to prioritise our regulatory actions to focus on areas of greater safety concern. We also monitor and measure the safety performance of our aviation system on an ongoing basis to provide assurance that the SSP is having the desired effect of improving the safety performance in civil aviation in Ireland.

We encourage all stakeholders to implement a positive safety culture, based on sound safety management principles. To this end we oversee and support industry in developing organisational Safety Management Systems (SMS), which includes the implementation of a robust occurrence reporting culture, supported by just culture provisions. We encourage a safety culture for organisations and persons, that actively seeks out opportunities for safety improvement and shares safety information with those who can benefit from this knowledge.

As part of the SSP, the IAA publishes an annual State Plan for Aviation Safety (SPAS) in Ireland to address the key safety risks affecting the Irish civil aviation system and the actions that are being taken at state level to address these risks. The SPAS serves to highlight the risks identified at state level for industry stakeholders and general aviation to consider as part of their own safety management processes. We also publish an Annual Safety Performance Review that provides safety information on a sector basis using aggregated performance data.

Aviation is continuously evolving with new operational concepts (e.g. integrated air mobility and use of artificial intelligence), emerging threats (e.g. cybersecurity) and public concerns outside of aviation safety (e.g. impact of aviation on climate change). The SSP provides the foundation for the government, the IAA and civil aviation stakeholders to work together to ensure aviation can safely navigate its way through these challenges and continue to grow in the years to come.

Declan Fitzpatrick
Chief Executive Officer
Irish Aviation Authority

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Definitions

Accident. An occurrence associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time as it comes to rest at the end of the flight and the primary propulsion system is shut down, in which:

a) a person is fatally or seriously injured as a result of being in the aircraft, or direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or direct exposure to jet blast, except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew; or

b) the aircraft sustains damage or structural failure which adversely affects the structural strength, performance or flight characteristics of the aircraft, and would normally require major repair or replacement of the affected component, except for engine failure or damage, when the damage is limited to a single engine, (including its cowlings or accessories), to propellers, wing tips, antennas, probes, vanes, tires, brakes, wheels, fairings, panels, landing gear doors, windscreens, the aircraft skin (such as small dents or puncture holes), or for minor damages to main rotor blades, tail rotor blades, landing gear, and those resulting from hail or bird strike (including holes in the radome); or

c) the aircraft is missing or is completely inaccessible.

Aeroplane. A power-driven heavier-than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces which remain fixed under given conditions of flight.

Aircraft. Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface.

Helicopter. A heavier-than-air aircraft supported in flight chiefly by the reactions of the air on one or more power-driven rotors on substantially vertical axes. Note.— Some states use the term "rotorcraft" as an alternative to "helicopter".

Incident. An occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation. Examples of incidents which are of interest for safety-related studies re provided in Annex 13, Attachment C.

Industry codes of practice. Guidance material developed by an industry body, for a particular sector of the aviation industry to comply with the requirements of the International Civil Aviation Organisation's Standards and Recommended Practices, other aviation safety requirements and the best practices deemed appropriate.

Operational personnel. Personnel involved in aviation activities who are in a position to report safety information. Such personnel include, but are not limited to: flight crews; air traffic controllers; aeronautical station operators; maintenance technicians; personnel of aircraft design and manufacturing organisations; cabin crews; flight dispatchers, apron personnel and ground handling personnel.

Safety intelligence. The ability of an organisation to apply knowledge and skills gained through safety data, safety information, experience and education.

Safety management system (SMS). A systematic approach to managing safety, including the necessary organisational structures, accountabilities, policies and procedures.

Safety performance indicator. A measurable result that demonstrates how effectively a state or a service provider is achieving a safety objective.

Safety performance target. The state or service provider's planned or intended target for a safety performance indicator over a given period that aligns with the safety objectives.

Safety performance. A state or a service provider's safety achievement as assessed through quantitative and/or qualitative means.

Safety objective. A statement of desired outcome to be accomplished by the state safety programme or service provider's safety management system.

Safety risk. The predicted probability and severity of the consequences or outcomes of a hazard.

Safety. The state in which risks associated with aviation activities, related to, or in direct support of the operation of aircraft, are reduced and controlled to an acceptable level.

Serious injury. An injury which is sustained by a person in an accident and which:

a) requires hospitalisation for more than 48 hours, commencing within seven days from the date the injury was received; or

b) results in a fracture of any bone (except simple fractures of fingers, toes or nose); or

c) involves lacerations which cause severe haemorrhage, nerve, muscle or tendon damage; or

d) involves injury to any internal organ; or

e) involves second or third degree burns, or any burns affecting more than 5 per cent of the body surface; or

f) involves verified exposure to infectious substances or injurious radiation.

State of Design. The state having jurisdiction over the organisation responsible for the type design.

State of Manufacture. The state having jurisdiction over the organisation responsible for the final assembly of the aircraft.

State of the Operator. The state in which the operator's principal place of business is located or, if there is no such place of business, the operator's permanent residence.

State safety programme (SSP). An integrated set of regulations and activities aimed at improving safety.

Credit: Barrow Coakley Photography

Chapter 1
Irelands safety policy, objectives and resources

1.1 Safety policy statement

As an island nation, aviation plays a crucial role in Ireland's economy. The Irish State Safety Programme was established to develop and maintain the high standards of safety management in Irish civil aviation and ensure continued public confidence in the safety of air travel.

Under the State Safety Programme Ireland is committed to:

- providing sufficient resources to ensure we achieve high safety standards and performance in meeting all our state level obligations in civil aviation;

- assuring the safety of Irish civil aviation through robust regulatory compliance and regulatory oversight activities;

- implementing effective risk-based and performance-based safety oversight processes;

- seeking continuous improvement in aviation safety performance in Ireland through effective hazard identification, risk management and performance monitoring processes, in collaboration with industry stakeholders;

- working with stakeholders in Irish aviation to promote a positive safety culture;

- encouraging the reporting of safety occurrences supported by the implementation and oversight of the "Just Culture" provisions of Regulation (EU) 376/2014;

- maintaining sufficient qualified and competent staff to fulfil all state level functions;

- supporting innovation in civil aviation in Ireland.

The Safety Policy Statement was endorsed by:

Ms Eithne Brogan, Director General for Civil Aviation, Department of Transport,

Mr Declan Fitzpatrick, Chief Executive Officer, Irish Aviation Authority.

1.2 Global context for safety management

The following image illustrates the main international interfaces for the Irish civil aviation system at state level.

Figure 1: International Interfaces

Ireland participates in multiple ways in these international organisations.

1.2.1 International Civil Aviation Organisation (ICAO)

ICAO is a specialised agency of the United Nations and includes 193 contracting states. The governing body is the ICAO Council, with 36 seats. Ireland participates in this organisation as a member of the Abis Group (which also includes Austria, Belgium, the Netherlands, Luxemburg, Switzerland, Portugal and Croatia). On the basis of the rotation principle, every three years another Abis state puts forward a candidate for election to the ICAO Council. The Abis Group is also represented in the Air Navigation Commission, which is a technical advisory body to ICAO.

ICAO Annex 19 (Safety Management) includes standards and recommended practices in respect of the State Safety Programmes (SSP) implemented at state level and Safety Management Systems (SMS) implemented by aviation organisations. The IAA is represented on a number of ICAO panels, including the ICAO Safety Management Panel, which has specific focus on the development of Annex 19.

ICAO produces the Global Aviation Safety Plan (GASP) that is updated every three years and adopted by the ICAO Assembly. The main purpose of the GASP is to guide the development of a harmonised aviation safety strategy and to support the development and implementation of regional and national aviation safety plans. The IAA produces the national State Plan for Aviation Safety (SPAS) for Ireland with due consideration of the safety enhancement initiatives included in the ICAO GASP and associated Global Aviation Safety Roadmap.

1.2.2 European Civil Aviation Conference (ECAC)

ECAC is an independent regional organisation and its mission is the promotion of the continued development of a safe, efficient and sustainable air transport system in the European Region. It currently has 44 Member States, including Ireland, that meet at Director General level at regular intervals, typically three times a year, to review, discuss and resolve topical issues in respect of European aviation policy and strategy. ECAC delivers the European Regional Aviation Safety Plan (EUR RASP) which is the regional safety plan that supports the implementation of the ICAO GASP in the European Region as well as supporting regional risk management processes. The IAA supports the development of the EUR RASP through participation in the European Region Aviation System Planning Group.

1.2.3 European Union Aviation Safety Agency (EASA)

The purpose of Regulation (EU) No 2018/1139 (commonly referred to as "EASA Basic Regulation") is to establish and maintain a high uniform level of civil aviation safety in Europe by implementing common rules in the field of civil aviation and establishing an independent European Union Aviation Safety Agency. European Union regulations have immediate effect in Ireland and therefore do not need to be transposed into national law.

Working in conjunction with the European Commission, EASA has responsibility for developing and monitoring the European civil aviation regulatory framework, including the regulations and standards, applicable to the 31 EASA Member States. Ireland participates in the EASA Management Board, EASA Management Advisory Board, EASA Safety Committee, EASA Advisory Bodies and rulemaking working groups to help develop the EU regulations and standards and associated implementation guidance material.

The European Aviation Safety Programme (EASP) describes aviation safety management at the European level and outlines the roles and accountabilities for EU Member States and EASA. Regulation (2018/1139) includes provisions for the development of the EASP and the European Plan for Aviation Safety (EPAS) at European level, as well as the development of State Safety Programmes (SSP) and State Plans for Aviation Safety (SPAS) at national level. The EPAS also considers the ICAO GASP and ECAC RASP and may also contain specific actions for EU Member States that must be considered by EU Member States in development of the SPAS.

The EPAS is produced as part of the safety risk management processes at EASA in conjunction with EASA Member States. The IAA has active participation in this area via the relevant EASA Advisory Bodies and Network of Safety Analysts. Industry stakeholders can also contribute to this area via industry Advisory Bodies to EASA.

1.2.4 EUROCAE

EUROCAE is a non-profit making organisation that provides aviation standardisation (Airborne and Ground Systems and Equipment) and related documents as required for use in the regulation of aviation equipment and systems. EUROCAE is an association composed of Equipment and Airframe Manufacturers, Regulators, European and International Civil Aviation Authorities, Air Navigation Service Provider (ANSP), Airlines, Airports and other users. The IAA is a member of EUROCAE and participates in the development of relevant standards.

1.3 Legislative framework

1.3.1 Primary National legislation

Ireland has a parliamentary democracy. National law is based on the Constitution, legislation and common law. The basic Law is 'Bunreacht na hÉireann' the Constitution of Ireland (1937). Article 6 of the Constitution declares that all powers of government derive from the people. The Constitution defines the powers and functions of the President (Head of State), both Houses of the Oireachtas (national parliament) and the Government. It also defines the structure and powers of the Courts.

No law can be passed that conflicts with the Constitution. Account has been taken of Ireland's membership of the European Union (EU) and article 29 (10) of the Constitution states that nothing in the Constitution invalidates laws necessitated by EU membership or prevents EU laws from applying in Ireland. The EU has produced a substantial body of aviation legislation. EU Regulations have direct effect in Ireland, albeit they may require national legislation to address administrative issues and penalties. EU Directives must be transposed into Irish law.

Aviation law in Ireland is wide ranging. Reference is made here only to the main acts and instruments dealing with air safety regulation. The Air Navigation and Transport Act 1936 gave effect to the Paris, Warsaw and Rome Conventions. The Air Navigation and Transport Act 1946 enables effect to be given to the Convention on International Civil Aviation (the Chicago Convention). Section 9 of that Act empowers the Minister to make Orders to give effect to the Convention.

The Air Navigation and Transport Act 1950 Section 9 clarified the scope of the 1946 Act and confirmed that it included any ICAO Annexes or future amendments to the ICAO Annexes. Subsequent Air Navigation and Transport Acts between 1959 and 1988 gave effect, inter alia, to the Protocol to the Warsaw Convention, Guadalajara Convention, Hague Convention, Tokyo Convention and the Montreal Convention.

Establishment of the Irish Aviation Authority

The Irish Aviation Authority Act 1993 provided for the establishment, funding and governance of the Irish Aviation Authority (IAA). It defined the functions of the IAA including, inter alia, to give effect to ICAO Annexes 1-2, 4-8, 10-11, 14-16 and 18 of the Chicago Convention. Subsequently, the IAA was assigned ICAO Annex 19 (Safety Management) and certain functions in Annex 12 (Search and Rescue) and Annex 17 (Security).

The 1993 Act was amended by the Air Navigation Transport Act 2022 ("the 2022 Act") which was enacted in December 2022.

The 2022 Act provides the statutory basis for the merging of the safety and security regulation functions of the IAA with the economic and the consumer protection regulation functions of the Commission for Aviation Regulation (CAR), creating a single regulator on 1 May 2023.

1.3.2 Primary EU legislation

Primary EU legislation (regulations) is directly applicable in Ireland. The Minister for Transport is responsible for appointing competent authorities in Ireland, as necessary, for the oversight and implementation of EU primary legislation. These appointments are affected through domestic secondary legislation such as Statutory Instruments (SIs).

Section 58 of the Irish Aviation Authority Act 1993 as amended by section 72 of the Air Navigation and Transport Act 2022 provides an updated Schedule that lists the 33 EU Regulations under which the IAA is the national competent authority for Ireland.

The IAA is designated as the competent authority in Ireland under SI No 469 of 2003 (as amended) in respect of Regulation (EC) No. 2018/1139 on common rules in the field of civil aviation and establishing the European Union Aviation Safety Agency.

The IAA is designated as the competent authority in Ireland under SI No. 195 of 2020 in respect of Regulation (EU) No. 376/2014 of the European Parliament and of the Council of 3 April 2014.

The Air Accident Investigation Unit of the Department of Transport is designated authority under SI No. 460 of 2009 in respect of Regulation (EC) No 996/2010 on the investigation and prevention of accidents and incidents in civil aviation.

Responsibility for Appropriate Authority functions relating to co-ordination and monitoring of the implementation of the National Civil Aviation Security Programme, in accordance with EU Regulation 300/2008, has been assigned to the Irish Aviation Authority under SI 226 of 2003 (as amended).

1.3.3 Operating regulations/requirements

The Minister for Transport may make certain Orders to promulgate operating regulations. In addition, the 1993 Act (as amended) also empowers the IAA to issue operating regulations. For example, under Section 58 of the Irish Aviation Authority Act, the Irish Aviation Authority has powers to make orders to give effect to the ICAO annexes as designated, in consultation with the Minister for Transport. Operating Regulations are promulgated as Orders (e.g. using Statutory Instruments) or Directions (e.g. using Aeronautical Notices).

EU operating regulations

Implementing rules issued under EU regulations are directly applicable in Ireland, and implementing rules issued under EU directives affecting civil aviation must be given effect in Irish law by order of the Minister for Transport.

The responsibility for implementation and oversight of the EU operating regulations relating to civil aviation lays with the designated competent authorities, and in Ireland these responsibilities are primarily undertaken by the Irish Aviation Authority.

1.3.4 Regulatory Changes

ICAO standards and recommended practices and EU regulations are subject to continuous change to reflect the ever-changing civil aviation landscape. These changes are reviewed and analysed for effect on the existing legislative framework, existing implementing procedures and guidance, as well as existing regulatory resources and training.

The on-going status of Ireland's compliance with and differences to ICAO SARPS and related ICAO protocols is regularly updated on the ICAO Continuous Monitoring Approach Online Framework (https://soa.icao.int/usoap/index.aspx). Ireland's ongoing adherence to EU legislation is subject to EASA Standardisation Inspections under Commission Implementing Regulation (EU) No 628/2013 of 28 June 2013.

The IAA participates in ICAO panels and EASA advisory bodies to assist in the development of the ICAO Standards and Recommended Practices and the associated EU regulatory framework and to develop appropriate guidance on their implementation. These bodies also address legislation for emerging risks such as Integrated Air Mobility, Cybersecurity and providing regulatory assistance to civil aviation stakeholders during times of crisis such as the COVID-19 pandemic.

The IAA seeks to promote and implement a risk and performance-based approach to safety oversight as much as possible. This includes the development of less prescriptive and more performance-based regulations and the implementation of risk and performance-based oversight methodologies.

1.3.5 Access to regulations and associated guidance

Regulations are readily available to all stakeholders through the internet.

- All Irish legislation, primary and secondary, is available on the Irish Statute Book and is available free of charge via the internet on www.irishstatutebook.ie. For pragmatic reasons copies of some of this legislation may also be found on the Irish Aviation Authority website (www.iaa.ie), however, the Irish Statute Book remains the formal source of legislation in place in Ireland.

- Directions issued by the Irish Aviation Authority, typically in the form of Aeronautical Notices may be found on the IAA website (www.iaa.ie).

- EU legislation is promulgated in the Official Journal of the European Union and is available on the EUR-LEX website https://eur-lex.europa.eu and specific EU legislation may also be found on the EASA website www.easa.europa.eu.

Regulatory guidance material includes acceptable means of compliance (AMC), implementation guidance material (GM) and administrative guidance. The aviation regulations are normally accompanied with formal AMC/GM that is subject to consultation processes and issued formally in conjunction with the related regulations. Additional guidance may be promulgated via less formal processes and including advisory memorandums and guidance leaflets.

The primary means of promulgating guidance material in Ireland is via the internet.

The main sources of guidance material are:

- www.iaa.ie
- https://www.gov.ie/en/organisation/department-of-transport/
- www.aaiu.ie
- www.met.ie
- https://www.easa.europa.eu

In addition, other means of communications, such as seminars, workshops and presentations are used to address specific issues relating to regulatory changes that impact different sectors/groups and regulated entities involved in civil aviation.

1.4 State system and functions

1.4.1 Primary State Organisations

The following image shows the primary organisations involved in the operation of the State Safety Programme in Ireland along with their primary responsibilities for implementation of ICAO Annexes.
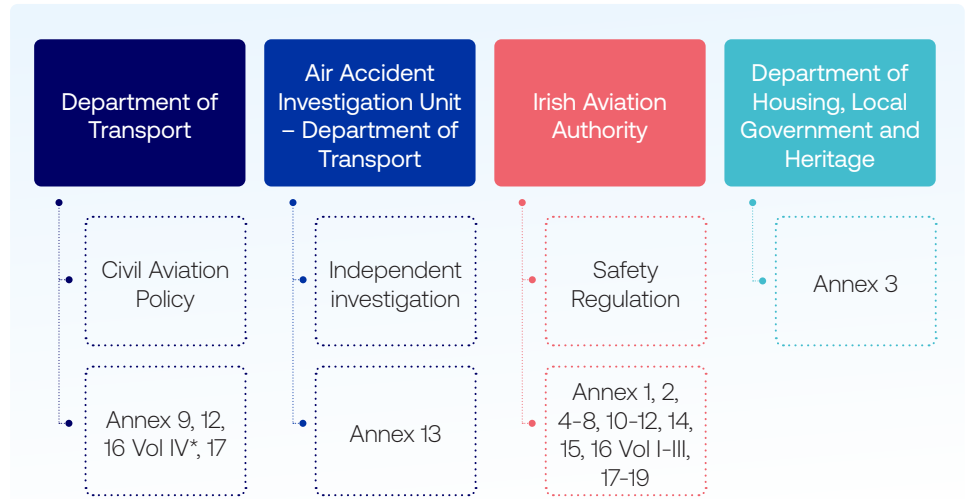
Figure 2: Primary State Organisations

Although not part of the State Safety Programme, it is noted that within the European Union, Annex 16 Vol IV (CORSIA) is integrated, legally and administratively, into the EU Emissions Trading System (EU ETS). The Environmental Protection Agency (EPA) is designated as the competent authority for administering the EU ETS scheme (including CORSIA) in respect of aircraft operators in Ireland.

Role of Department of Transport

The Department of Transport is responsible for overall national civil aviation policy matters in the state. This includes responsibility for Ireland's interests being represented internationally, as a contracting State to the International Civil Aviation Organisation (ICAO), through European Union (EU) membership, and as a member of the European Union Aviation Safety Agency (EASA) Management Board. The National Aviation Policy for Ireland (NAP) (2015) primary objective is to facilitate and enhance Ireland's air connectivity in a safe, competitive,

cost-effective and sustainable manner, in the wider context of supporting Ireland's economic and social goals. The NAP commits to maintain safety as the number one priority in Irish aviation and ensuring that safety regulation is robust, effective and efficient.

The Department forms the formal interface between the State and ICAO and EU. The Minister for Transport is responsible for designating responsibilities to state bodies in Ireland as necessary to implement EU and international law as it pertains to civil aviation. The Department co-ordinates the aviation roles of other bodies to provide an integrated organisation structure for civil aviation. The Department's Management Board member with responsibility for civil aviation is designated as the Director General for Civil Aviation (DGCA) in Ireland. The DGCA or his/her deputy participates in a number of EU and International Committees and represents Ireland at meetings of the EASA Management Board, ECAC and Abis.

The Department, through the DGCA also chairs the National Civil Aviation Security Committee (NCASC), which is mandated to coordinate the entities in the state who are responsible for implementing aviation security requirements as set out in the National Civil Aviation Security Programme (NCASP). The NCASP sets out aviation security requirements in the State in line with Annex 17 ICAO obligations. The IAA is the Appropriate Authority for ICAO Annex 17 while the Department remains the Contracting State.

In addition, the Department of Transport retains direct responsibility for a number of activities under Annexes 9, 12, 13 and 16 Vol IV.

Role of the Air Accident Investigation Unit

The Air Accident Investigation Unit (AAIU) is part of the Department of Transport, and is responsible for the investigation of aircraft accidents, serious incidents, and incidents (Occurrences) that occur within Ireland. In addition, the AAIU provides assistance to foreign safety investigation authorities who conduct investigations into occurrences involving Irish registered and/or operated aircraft abroad. Furthermore, in some cases foreign states may delegate investigations back to the AAIU.

The Air Accident and Investigation Unit is functionally independent of the IAA and any other aviation organisation in the state. The Chief Inspector of Air Accidents, AAIU, reports directly to the Minister for Transport.

The IAA is the designated authority for the national occurrence reporting system in Ireland, and as part of this responsibility, the IAA provides access to the AAIU to all occurrences reported to the IAA in accordance with Regulation (EU) 376/2014. As part of its responsibilities the IAA manages the system to collect, evaluate, process, analyse and store details of aviation safety occurrences in the National Occurrence Database. A small portion of these occurrences will also be subject to AAIU investigation but there is a clear distinction in the roles of the AAIU and the IAA in this regard.

The IAA has formal contacts with the AAIU, to provide the AAIU with access to all reports received in accordance with Regulation (EU) 376/2014 and to the National Occurrence Database and to assist the AAIU in their investigation if requested. In addition, safety recommendations arising from AAIU investigations or from any other Safety Investigation Authority, involving the IAA or any Irish regulated entities are actioned or monitored by the IAA, as applicable.

Role of the IAA

The Irish Aviation Authority is a commercial semi-state body responsible for the safety regulation of Irish civil aviation, the oversight of civil aviation security in Ireland, and for economic regulation and consumer protection. The IAA has been delegated responsibility for ICAO Annexes 1, 2, 4, 5, 6, 7, 8, 10, 11, 12 (specific functions), 14, 15, 16, 18 and 19. The IAA is also assigned as Appropriate Authority under Annex 17 and is responsible for safety oversight of Annex 3 functions (MET) under European Union legislation.

The IAA is also responsible for oversight of certain state operational functions outside the remit of ICAO Annexes (e.g. aviation search and rescue and aerial firefighting).

The IAA is the authority responsible for implementation of the State Safety Programme in Ireland. The IAA Organisation Chart is shown below.
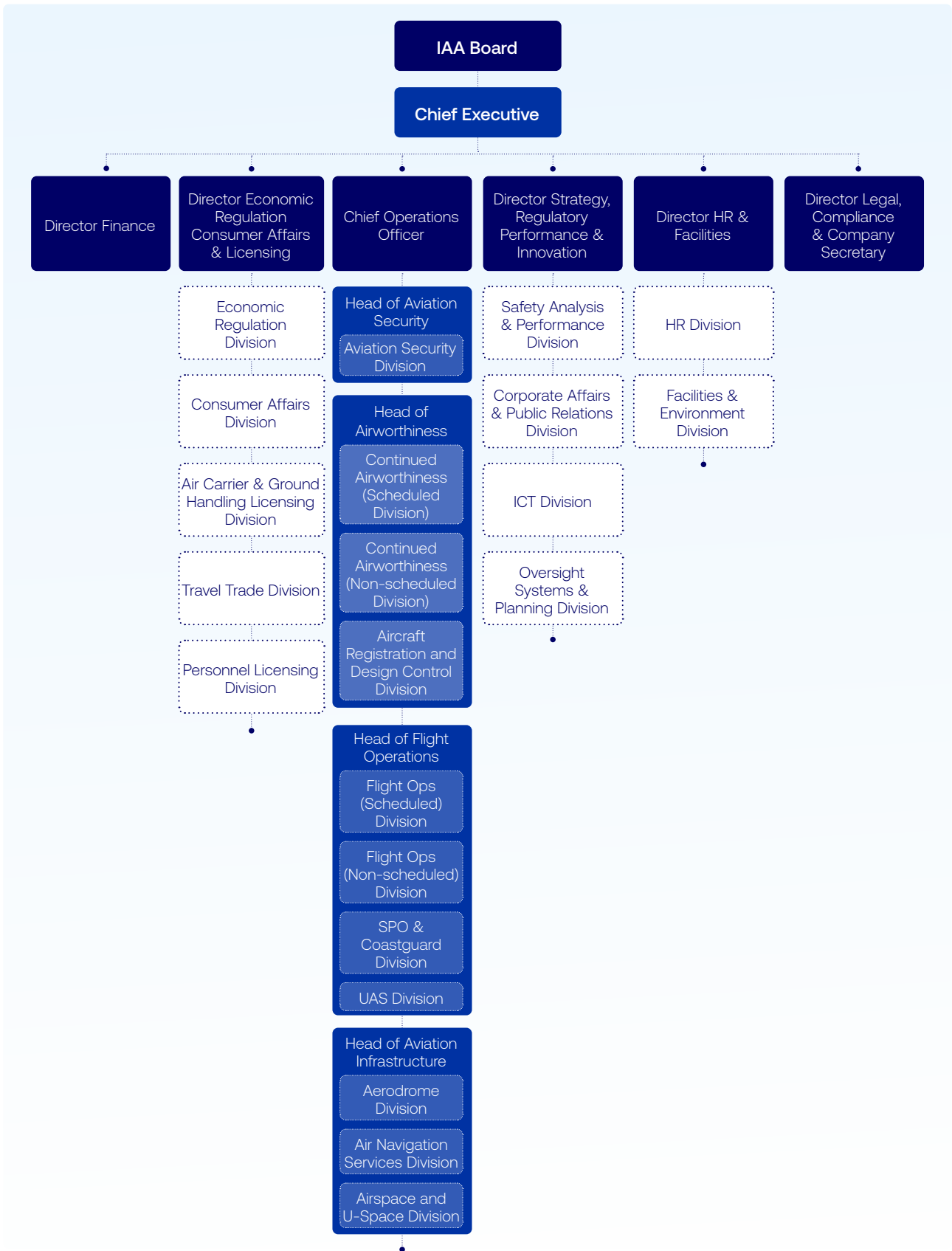

Figure 3: IAA Organisation Chart

The Chief Executive of the IAA is responsible for the implementation, operation and supervision of the State Safety Programme and for providing the associated resources. The Chief Executive is responsible for ensuring on-going review of the effectiveness of the State Safety Programme and ensuring its continuous improvement in order to meet the safety objectives of the state.

The Chief Executive delegates responsibility for the daily operation of the programme to senior managers in the IAA and the detailed tasks of implementing the State Safety Programme are assigned among the different functional departments of the IAA. For example, functional departments are responsible for review and action in respect of ICAO State Letters and proposed amendments to regulations impacting their areas of responsibility. Formal communications with ICAO/ECAC/EC are co-ordinated with Senior Management and Department of Transport as necessary.

SSP functions and responsibilities are fully documented in the IAA Policies and Procedures Management System which includes change control procedures to ensure that these policies and procedures are maintained up to date with changes affecting the state safety programme.

All records necessary to document and support the SSP activities are maintained in accordance with the record management systems of the IAA which include provisions for identification, legibility, storage, protection, archiving, retrieval, retention period and disposal of records.

Role of the Department of Housing, Local Government and Heritage

The Department of Housing, Local Government and Heritage in Ireland is responsible for ICAO Annex 3 - Meteorological Service for International Aviation. The Irish National Meteorological Aviation Services Division is tasked with providing a wide range of meteorological facilities to civil, military and general aviation to meet Irelands obligations in ICAO Annex 3. This division issues Terminal Area Forecasts (TAFs) and Local Area Forecasts (LAF) for the various airports and smaller airfields in the state, as well as local weather warnings (SIGMETS) for the Irish Flight Information Region (FIR), and enroute documentation and briefings. Regulatory oversight of the meteorological services for international air navigation is conducted by the Irish Aviation Authority.

1.4.2 Co-ordination in safety management

The IAA co-ordinates with the following state bodies and interested parties as part of its responsibilities for the State Safety Programme:
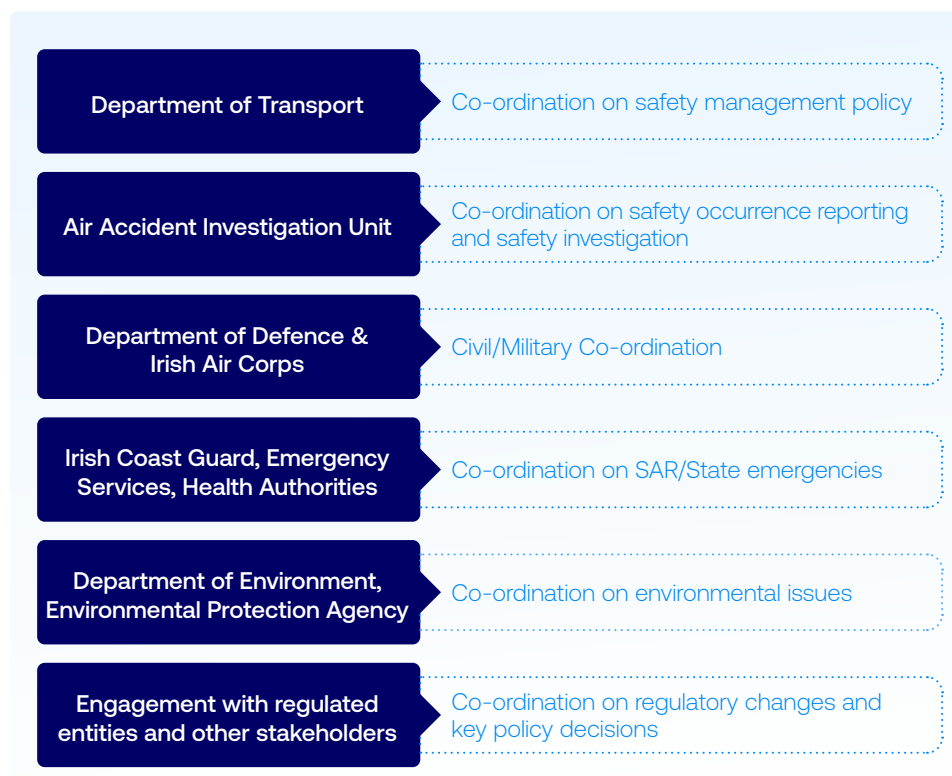
Department of Transport	Co-ordination on safety management policy
Air Accident Investigation Unit	Co-ordination on safety occurrence reporting and safety investigation
Department of Defence & Irish Air Corps	Civil/Military Co-ordination
Irish Coast Guard, Emergency Services, Health Authorities	Co-ordination on SAR/State emergencies
Department of Environment, Environmental Protection Agency	Co-ordination on environmental issues
Engagement with regulated entities and other stakeholders	Co-ordination on regulatory changes and key policy decisions

Figure 4: State level co-Ordination in Safety Management

Much of the co-ordination in this respect is accomplished via standing working groups normally attended by representatives of the IAA and/or Department of Transport.

1.4.3 National SSP Coordination Committee

A formal State Safety Programme Co-ordination Committee has been established in Ireland. The purpose of this committee is to ensure on-going co-ordination between the IAA, the AAIU and the Department of Transport on issues affecting the State Safety Programme.

The national SSP coordination committee is jointly chaired by Director Regulatory Performance and Innovation at the IAA and the Head of Aviation Safety and Security Division at the DoT. The Chief Inspector of Air Accidents is also represented on the committee with rights to withdraw from matters arising that could impact the independence of the role of the AAIU.

Terms of Reference for the conduct of the National SSP Co-ordination Committee are agreed. This committee meets on a quarterly basis where matters concerning the State Safety Programme and its implementation are tabled for discussion and decision. A standing agenda ensures that all components of the State Safety Programme are addressed. The relevant technical experts from the IAA, AAIU and DoT support the quarterly meeting as required based on the issues tabled for discussion and outcomes expected (e.g. policy decisions).

Representatives from the other state agencies and interested parties discussed in Chapter 1.4.2 may be requested to attend the Committee to address specific topics, as appropriate. The Committee will also consider suggestions for additional topics for its agenda from these bodies subject to review of relevance to its work and current workload. Such requests should be agreed at the relevant standing working groups and submitted to the Committee via the relevant IAA or DoT attendees at these groups.

1.4.4 Enforcement policy

The aviation legal framework provides the necessary powers to the state's agencies for enforcement of the regulations and the imposition of related fines and/or sanctions on offenders who breach these regulations.

Breaches of aviation regulations may occur for many different reasons, from a genuine misunderstanding of the regulations to blatant disregard for aviation safety. The range of enforcement actions available in the state include:

- discussion with the offender to outline the issues and to agree a resolution of the safety concern,
- written requirement to resolve the matter within a specified time period,
- variation, suspension and revocation of authorisations, certificates or licences,
- summary prosecution (criminal) through the District Circuit Court,
- instigation of indictment proceedings through the Office of the Director of Public Prosecutions (DPP).

The state's enforcement policy is based on the concept of a just culture. Regulation (EU) No 376/2014 of the European Parliament and of the Council of 3 April 2014, defines a "just culture" as a culture in which front-line operators or other persons are not punished for actions, omissions or decisions taken by them that are commensurate with their experience and training, but in which gross negligence, wilful violations and destructive acts are not tolerated.

Recognising that the safety of aviation is improved through safety management mechanisms, such as Safety Management Systems, Mandatory Occurrence Reporting and Voluntary Occurrence Reporting, and in an effort to encourage a strong reporting culture in Ireland, the enforcement policy reflects the need for organisations and persons involved in aviation activities to be confident that their reports will not be subject to inappropriate use, such as, the use of the information for disciplinary, civil, administrative and criminal proceedings against operational personnel, and/or disclosure of the information to the public. The enforcement policy includes the principles of exception such as cases of gross negligence, wilful violations and destructive acts. The policy outlines the obligations of the stakeholders, the enforcement actions to be used, the impartiality of enforcement actions, the proportionality of responses, natural justice and accountability.

See Appendix 1 –Enforcement Policy for further details.

1.4.5 Personnel qualifications and training

All staff involved in the implementation of the SSP must be suitably trained and competent to fulfil their respective roles as supported via robust recruitment and training policies in all state bodies impacted. This matter is subject to ongoing oversight by both ICAO and EASA (IAA). The SPAS includes actions to address specific training and competency requirements in respect of SSP implementation as identified during risk management and change management processes.

The majority of the SSP functions are with the IAA. The IAA uses a 3-year workforce plan and local manpower planning reviews to identify recruitment needs as they arise. The recruitment policy and remuneration packages on offer in the IAA, ensures that experienced aviation professionals with relevant qualifications can be recruited to fill necessary staff vacancies.

Each new entrant receives induction training and role specific training. The training requirements for each role in the IAA is identified in a related training programme, which identifies initial training requirements (including instruction, on-the-job training, mentoring), recurrent training and any specialised training needs pertinent to the role. Each individual IAA staff member has an individual training plan updated annually, which links to the relevant training programme for the role or roles to be performed.

Completed training records are signed off by assigned training officers and relevant managers after which the staff member receives an authorisation to perform the role.

1.4.6 Technical guidance and tools

SSP staff are provided with up-to-date guidance, tools, checklists etc as required to enable them to perform their work at home and in the field. Oversight management systems are primarily electronic and IAA staff are provided with state-of-the-art ICT equipment that allows them to access what they need from wherever they operate around the world, subject only to availability of internet connectivity.

The primary means of promulgating technical guidance material in Ireland is also electronic via the internet.

The main sources of guidance material are:

- www.gov.ie/transport
- www.iaa.ie
- www.aaiu.ie
- www.met.ie
- https://www.easa.europa.eu

Chapter 2
State safety risk management

2.1 Licencing, certification, authorisation and approval obligations

2.1.1 European Regulations

Operations conducted under the remit of Regulation (EU) 2018/1139 (EASA Basic Regulation) are subject to licencing, certification and authorisation provisions contained in the European Regulatory framework fully described at https://www.easa.europa.eu/regulations. This website contains the Implementing Rules and Certification Specifications (hard law) along with the associated acceptable means of compliance (soft law) and guidance material in easy access format. The official source for all EU legislation is https://eur-lex.europa.eu.

The IAA fully implements the European regulations in this area and is subject to ongoing EASA Standardisation inspection that ensures continued compliance of the IAA in this regard. The IAA also provides topical guidance on the IAA website (www.iaa.ie) and specific guidance via more formal Aeronautical Notices and Advisory Memoranda along with associated Application Forms (https://www.iaa.ie/publications), to assist applicants in meeting the regulatory requirements applicable to them to obtain the approvals requested.

The European regulatory framework addresses most of the licences, certificates and approvals issued by the Irish Aviation Authority, including flight operations, personnel licencing, aeromedical, air navigation services provision, aerodrome operations, airworthiness, drone operations and training. At the time of writing the IAA is actively engaged with EASA to develop EU regulations in this regard for ground handling operations and cybersecurity, as well as responding to technological advances in areas such as urban air mobility and use of artificial intelligence.

2.1.2 National Regulations

Operations not conducted under the remit of the EASA Basic Regulation are subject to a national system of licensing, certification and approvals. The IAA has published national regulations and related guidance material on the IAA website https://www.iaa.ie/publications This site contains the national legislation (Acts and Statutory Instruments) and Aeronautical Notices and Advisory Memoranda and application forms necessary to meet the national requirements. The IAA website (https://www.iaa.ie/general-aviation) provides additional guidance to those involved in these areas including helpful guidance on whether different categories of aircraft are governed by EU or national regulations.

The activities addressed in national regulations include aerodromes with commercial activities that are not within the scope of the EU regulatory framework and operations and training involving aircraft types that are described in Annex I to the EASA Basic Regulation, including light aircraft used in recreational aviation (e.g. microlight, amateur built aircraft, paramotors etc). The national regulations comply with ICAO standards and recommended practices when international general aviation operations are intended.

2.2 Safety Management System obligations

ICAO Annex 19 includes Standards and Recommended Practices for Safety Management Systems (SMS) applicable to organisations/service providers, the purpose of which is to ensure a systematic approach to managing safety. The European Regulatory framework includes provisions for the implementation of Safety Management Systems that meet the applicable ICAO Annex 19 SARPS.

The following paragraphs detail the current SMS requirements applicable for organisations in Ireland. It is noted that the EU regulations referred to below include provisions for organisations to implement "Management Systems", that include inter alia, requirements for Safety Management Systems (SMS) in accordance with the standards of Annex 19.

2.2.1 Aircraft operator

The requirements for SMS for aircraft operators in Ireland are contained in EU Regulation 965/2012 (Air Operations Regulation).

2.2.2 Airworthiness organisations

The requirement for SMS for continuing airworthiness management organisations (Part-CAMO) in Ireland are contained in Regulation (EU) 2019/1383.

The requirements for SMS for maintenance organisations (Part-145) are contained in Commission Implementing Regulation (EU) 2021/1963.

The requirements for SMS for Part 21 production organisations (POA) and design organisations (DOA) are contained in Commission Delegated Regulation (EU) 2022/201 and Commission Implementing Regulation (EU) 2022/203.

2.2.3 Aerodrome operators

The requirements for SMS for aerodrome operators in Ireland are contained in Regulation (EU) No 139/2014 of 12 February 2014 laying down requirements and administrative procedures related to aerodromes.

2.2.4 Air Traffic Services providers

The requirements for SMS for air traffic services providers in Ireland are contained in Regulation (EU) 2017/373 of 1 March 2017 - ATM/ANS Common Requirements

2.2.5 ATO SMS requirements

The requirements for SMS for Approved Training Organisations, FSTD Operators and Aeromedical Centres in Ireland are contained in Regulation (EU) No 1178/2011 (Aircrew Regulation) as amended by Regulation (EU) No 290/2012 of 30 March 2012.

The EU regulations include provisions for Declared Training Organisations for lower risk training activities and although these organisations are not required to implement full SMS, they are required to have some procedures for identifying and mitigating risks, and monitoring performance.

2.2.6 SMS for multiple certificate holders

Organisations with one or more certificates (e.g. AOC, Part 145, ATO) may develop a single SMS in order to benefit from a consistent SMS and better address the interfaces between domains. The organisation must demonstrate compliance with the requirements applicable to each certificate and demonstrate the suitability and effectiveness of common processes across each domain.

2.2.7 Safety risk assessment

In areas where formal SMS requirements are not established (e.g. Drone operations, ground handling), it is nevertheless required that any operation involving aircraft should be subject to appropriate risk assessment before operations commence. This may involve the preparation of formal safety cases or less formal safety risk reviews depending on the level of the assessed risk.

2.2.8 Acceptance of SMS

As part of the procedures described in Chapter 2.1 above the IAA ensures that the safety objectives and associated Safety Performance Indicators (SPIs) identified in the organisations SMS are suitable and appropriate, and where relevant, that they align with the states safety objectives and SPI's as outlined in the State Plan for Aviation Safety. The IAA recognises that during the initial approval process organisations may need some time to gain experience of the implementation of their own SMS in operation before mature safety objectives and SPIs can be developed.

2.3 The IAA Safety Risk Management System

2.3.1 System Overview

The IAA Safety Risk Management (SRM) System is depicted in Figure 5 below.
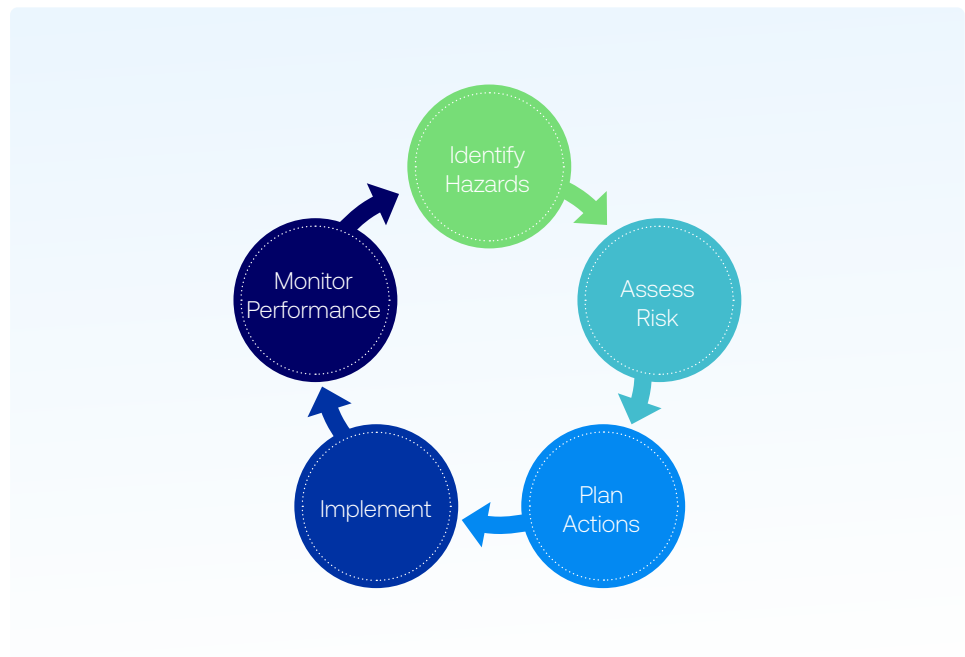
Figure 5: Safety Risk Management System

The IAA SRM system drives the state level actions, both internally (organisation, policies and procedures) and externally (policy, oversight and safety promotion) to ensure that the actions at the state level address the areas of greatest safety concern in the Irish civil aviation system.

The starting point is the development of a National Risk picture based on the extraction of safety intelligence from multiple sources as depicted in the following schematic (Figure 6):

Figure 6: National Risk Picture
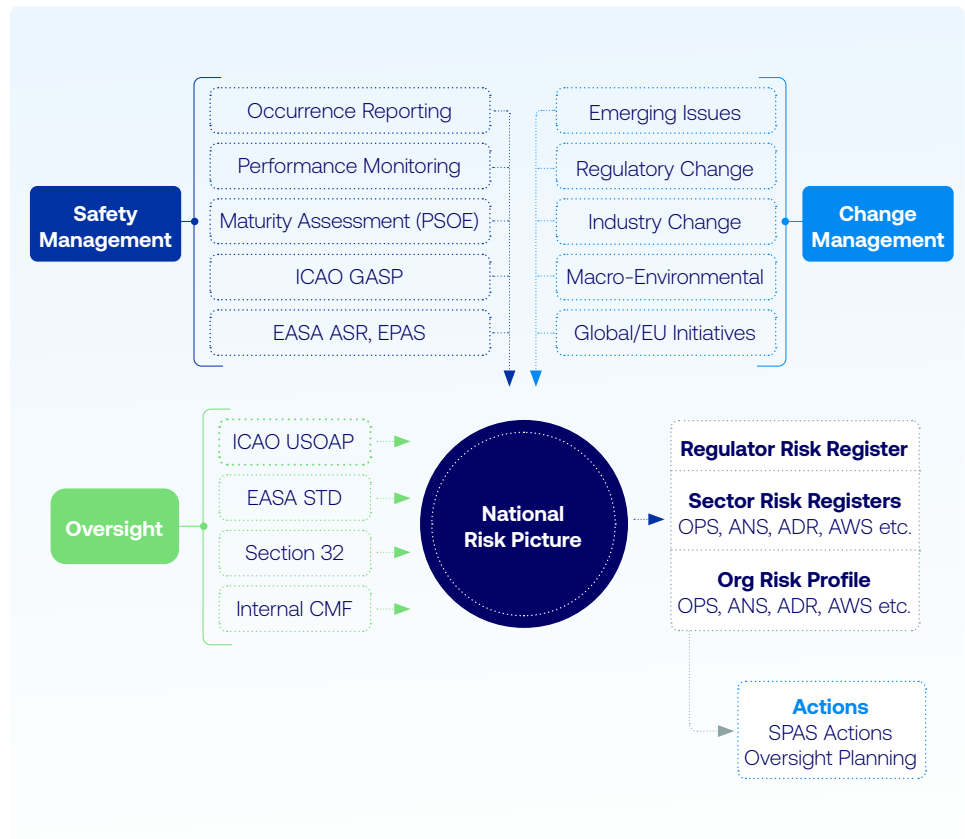
One of the main sources of safety information is the occurrence reporting system which in Ireland is subject to Regulation (EC) 374/2014, and provides for the establishment of mandatory and voluntary occurrence reporting systems. The associated obligations address collection, analysis, and follow-up of occurrence reports, and in addition contain provisions regarding sharing of safety information with due regard to confidentiality, appropriate use and just culture principles. The IAA is also designated as the body responsible for oversight and implementation of "just culture" provisions in Ireland under SI 195 of 2020 European Union (Reporting, Analysis and Follow-up of Occurrences in Civil Aviation) Regulations 2020).

The IAA enforcement policy (see Appendix 1) is based on just culture principles to encourage a positive safety culture and occurrence reporting culture in the state. See also https://www.iaa.ie/safety/safety-reporting for details on how to report aviation safety occurrences in Ireland.

The risk picture is also informed by the outcomes of safety assurance activities, including compliance and performance measures, emerging safety issues and change management processes, as well as learning from the outcomes of safety management processes in ICAO and EASA.

The assessment of the safety issues identified from analysis of the state risk picture is a complex process that is visualised through the establishment of risk registers and risk profiles as depicted below. Risk registers are used to address regulatory risks internal to the IAA and sector-based risks to which regulated organisations and persons are exposed. The risk mitigating actions associated with key risk areas are outlined in the State Plan for Aviation Safety. Risk profiles are used at individual organisational level to support oversight planning functions to determine frequency and scope of audits and inspections.

Figure 7: Risk Registers and Organisational Risk Profile

2.3.2 Safety Review Process

The IAA SRM system is built on a foundation of risk registers, action planning and performance monitoring centred by a safety review process, as depicted in Figure 8 below.

Figure 8: Safety Review Process

The Safety Review Process is a central part of the IAA SRM system. The structure is based on the development of a Safety Review Panel, supported by Safety Review Teams in each domain as shown in Figure 9.
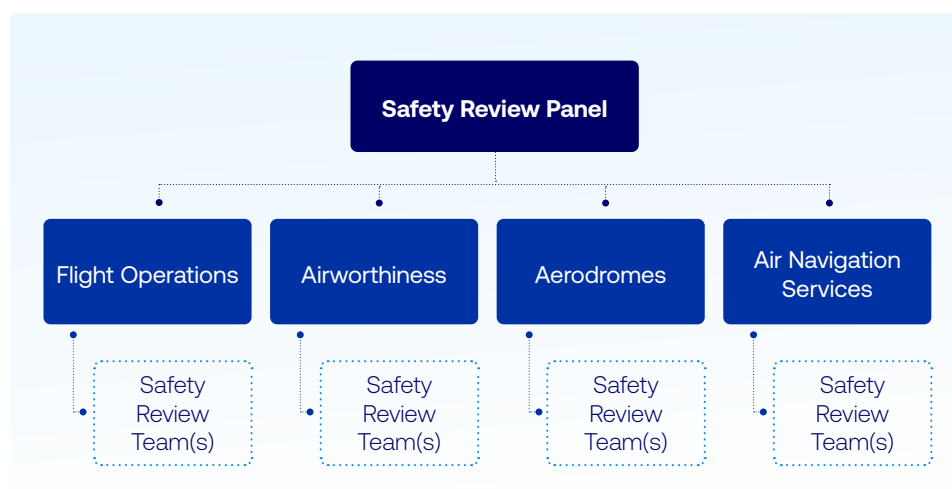
Figure 9: Safety Review Structure

The Safety Review Teams are sector focused (e.g. CAT Fixed wing, Helicopters operations, aerodromes, airworthiness management, air navigation services etc) and interface with each other as necessary to address cross-sector risks (e.g. COVID-19, runway safety). They provide the following functions:

- On-going review and update of the risk registers (IAA/Operational Sector), including safety issues, risk assessment, existing controls and mitigating actions;

- On-going review and update of actions in the State Plan for Aviation Safety (SPAS) and monitoring associated SPI's; and

- Continuously update Safety Review Panel and IAA inspectorate on the evolving risk picture.

The safety review panel consists of the IAA domain managers. The functions of the Safety Review Panel are as follows:

- Provide on-going assurance to the IAA Senior Management and SSP Co-ordination Committee (ref Ch 1.5 above) that the main safety risks in the state have been identified and are being addressed in a systematic manner; and

- Provide assurance that the safety performance achieved meets the safety objectives in the state and that poor performing areas have been identified and addressed in the safety priorities.

Stakeholder engagement in the Safety Review process is extremely important as it can provide vital safety information that may not otherwise be identified e.g. via occurrence reporting or compliance oversight activities. The IAA ensures the collection of safety information from regulated entities via:

- Engagement between individual organisations and the assigned inspectors;

- Sector-based industry consultation groups;

- Cross domain safety workshops;

- Aviation Stakeholder Forum.

2.3.3 SRM Process Overview

Figure 10: IAA Safety Risk Management Process

Step 1: Identify Hazards

The first step in the process is the identification of potential safety issues and the building of risk registers and risk profiles. The main processes include data warehousing (ie collection, storage, protection) and the extraction of safety intelligence (including event risk classification and visualisation) to support safety analysis. Safety issues may also emerge from the pan-EU safety analysis processes that the IAA fully supports through active participation in the relevant EASA advisory bodies and collaborative groups (e.g. MAB, TeB, NoA and CAGs).

The outputs of this step in the process are:

- IAA Risk register – looking at the internal risks to the IAA as the regulator;
- Sector-based safety risk registers where the key operational safety issues for individual domains (e.g. CAT fixed wing, Helicopter, GA, aerodromes) are listed; and
- Organisation risk profiles that are used to support risk-based oversight planning.

Step 2: Risk Assessment:

Once a safety issue is identified and captured it is subject to a risk assessment to prioritise subsequent actions. Risk assessments are primarily based on the "severity x probability" model, widely used in aviation and promoted in the ICAO SMM. This model is used to prioritise the safety issues for risk treatment. Risks are assessed using quantitative data, as much as possible, however subject matter expert input is also a vital part of the process. Detailed analysis of specific safety issues is also conducted to identify weakness in the operation under consideration (e.g. using bowtie or other analysis tools). Safety analysis and assessments of safety issues emerging from EASA NoA and CAGs (in which IAA actively participates) are also considered.

Step 3: Action Planning:

The outcome of the risk assessment process provides a prioritised list of safety issues. The safety issues are subject to detailed review to identify the most appropriate risk mitigation strategy and define the corresponding actions and associated implementation plans. In each case the risk is re-assessed to identify the residual risk based on the expected safety improvement following implementation of the risk mitigation strategy. The impact of potential safety actions on industry are also considered and more significant actions may also be consulted with stakeholders via relevant working groups or specific thematic workshops. Priority should be given to safety actions that give the best cost/benefit result based on safety considerations.

Safety actions may be addressed in the safety oversight programme (risk-based oversight planning), or more urgent safety actions may need to be addressed as an immediate safety concern using available tools in each domain (e.g. Airworthiness Directive, Operational Directive etc). The actions to address the key risk areas are published in the State Plan for Aviation Safety, which is a three-year Plan updated annually.

Step 4: Implementation and Follow Up:

The IAA uses oversight management systems to manage the certification and surveillance programmes in each sector. These systems facilitate control of findings of non-compliance and include business intelligence systems to assist in risk-based oversight planning. These systems are also used to implement and follow-up safety actions, such as, policy changes, safety promotion and safety analysis. Safety actions are tracked on a systemic basis and on-going progress reports on key safety actions are provided in the State Plan for Aviation Safety.

Step 5: Safety Performance Measurement and Reporting:

The final stage in the process is the measurement of safety performance and reporting of the results. The IAA has adopted and enhanced a globally accepted (ICAO/EASA) Safety Performance Framework that includes different tiers of Safety Performance Indicators and Targets (SPI/SPTs) including leading indicators (ie outcome based) and lagging indicators (ie process based). The primary use of safety performance measurement is to determine if the safety objectives identified (e.g. in SPAS) are being achieved. In addition, safety performance measurement feeds back to the hazard identification process (to identify new risks), feeds into organisational risk profiling (identify performance issues for individual organisations) and can support SMS oversight/maturity assessment. Further details on how safety performance monitoring is used to support safety assurance at State level is provided in Chapter 3 below.

The ultimate goal of the SRM process is to ensure continuous improvement in aviation safety management in Ireland.

Chapter 3
State Safety Assurance

3.1 Continued Surveillance

Just as for licencing and certification approvals discussed in Chapter 2.1 above, operations conducted under the remit of Regulation (EU) 2018/1139 (EASA Basic Regulation) are subject to continued surveillance provisions contained in the European Regulatory framework and operations conducted outside the remit of the EASA Basic Regulation are subject to a national system of surveillance. Details of associated regulations, acceptable means of compliance and guidance are found in the same website sources referenced in Chapter 2.1, including:

https://www.irishstatutebook.ie

https://eur-lex.europa.eu

https://www.easa.europa.eu/regulations

https://www.iaa.ie

https://www.iaa.ie/publications

https://www.iaa.ie/general-aviation

Continued surveillance of approved organisations is carried out through planned and unplanned audits and inspections designed to ensure that an adequate level of regulatory compliance is maintained by the regulated entity (organisations and persons) and that their respective aviation-related activities are performed safely. The IAA continued surveillance programme includes procedures to assess the compliance, maturity and effectiveness of an organisations SMS.

One of the main safety objectives of the State Plan for Aviation Safety is to implement risk and performance-based oversight across all sectors of the Irish civil aviation system. This means that the IAA will use the outputs from risk assessments, risk profiling and performance monitoring at organisational, sector and state level, to inform the oversight planning function to target oversight activities towards areas of greater safety concern.

3.2 Oversight of IAA regulatory functions

The IAA is also subject to continuous monitoring to ensure the regulatory functions it provides remain compliant and effective, including both internal and external audits and inspections as follows:

- Internal Compliance Monitoring in accordance with EU regulations
- Quality Management Audits in accordance with ISO 9001:2008 requirements
- EASA Standardisation Inspections under Commission Implementing Regulation (EU) No 628/2013
- ICAO Universal Safety Oversight Audit Programme (USAOP) - Continuous Monitoring programme
- Irish Department of Transport audit in accordance with Section 32 of the Irish Aviation Authority Act 1993.

The IAA internal compliance monitoring system is particularly important in ensuring that the IAA is continuously meeting the requirements pertaining to regulatory authorities, such as Authority Requirements (AR) contained in EU Implementing Regulations. The system is fully supported by IAA senior management and includes a full suite of detailed audit checklists

across all domains along with the necessary processes to ensure adverse findings are addressed in a timely and effective manner.

3.3 Risk-based oversight

3.3.1 Risk-based oversight approach

The IAA has adopted a risk-based approach to safety oversight. This means that regulatory and oversight policies are to the greatest extent possible based on risk assessment and the IAA actions are therefore prioritising and targeting areas of greater risk. It is also recognised that a risk-based oversight approach may not yet be supported in some areas (e.g. emerging risks) where safety data or safety information is insufficient to support risk-based decision making, and in these cases a more prescriptive/compliance based approach may be more appropriate, until a transition to a risk-based approach can be supported.

3.3.2 Oversight planning

The IAA uses a risk-based approach to oversight planning as part of certification and surveillance functions. Organisation risk profiles are developed, and each organisation is assessed using a common risk template to address

- Inherent risks (nature and complexity)
- Compliance record (results of past surveillance)
- Performance record (safety and operational)

For certification tasks the inherent risks profile informs the depth of review required before a certificate is issued with higher level of review required for higher risk activities. It is also noted that some lower risk activities (e.g. EASA Part-SPO) are supported in the EU regulatory framework via a "Declaration" process which prescribes an administrative review by the Authority as part of the initial application process.

Continued oversight planning in Europe is predicated on the implementation of an "oversight cycle" which is a specified period of time (years) within which the Authority must ensure all regulatory provisions for the relevant regulated entity have been checked. The regulations provide for extension or reduction of oversight cycle based on different criteria including assessment of risk and performance. Oversight planning in the IAA for approved or accepted (declared) organisations is based on the inherent risks and the compliance and performance record which naturally provides a greater depth of safety intelligence as both operational and oversight experience increases.

As part of normal process, the IAA updates the organisation risk profile for each organisation in each domain in advance of the next oversight cycle and adjusts the planned activity (e.g. scope/frequency of audits and inspections) based on the results. The organisation risk profile for an individual organisation may also be subject to update on an exceptional basis during the course of an oversight cycle (e.g. following significant change) and the oversight plan adjusted accordingly.

Formal adjustment of oversight cycles is also dependent on the maturity of an individual organisation's own management system, including its internal compliance monitoring system and its safety management system. The more mature these systems become the greater confidence the Authority will have in the organisation's own ability to manage safety which will inform the level of oversight needed by the Authority and ultimately support the case for variation of the oversight cycle.

3.4 Safety Performance Monitoring

ICAO Annex 19 includes provisions for the development of safety objectives as part of the State Safety Programme by states and as part of the Safety Management System for regulated organisations. The primary role of safety performance monitoring is to provide assurance that the actions taken to address the safety objectives are effective in meeting these objectives. The mechanism to do this is to develop and monitor Safety Performance Indicators, as appropriate. The safety objective may define specific targets (e.g. reduce runway incursion by x% within n years) or they may be more general objective (e.g. improving safety trends).

The safety objectives and associated level of safety performance to be achieved at national level is expressed in the State Plan for Aviation Safety. This document takes account of the safety objectives and level of safety performance for the European Union as outlined in the European Plan for Aviation Safety.

The interface between the SSP and the SMS in respect of the development of safety objectives and safety performance ensures a Top-Down and Bottom-Up approach for safety management. This interface works in two different ways:

- As part of SMS oversight, the IAA reviews the safety objectives and safety performance indicators to ensure that they are appropriate for the SMS and that they are being continuously monitored and effective. This process also allows the IAA to learn from individual organisations to inform the state level risk management processes.

- As part of their SMS processes the organisation must consider the safety objectives and safety performance indicators identified at state level (ie in SPAS) and as appropriate to their operations. This ensures that key risk areas and safety issues identified through the SSP safety risk management activities are shared with each organisation so that they can consider the relevance to their own operations.

Safety objectives and associated safety performance indicators are subject to ongoing review and update by the IAA and regulated organisations, on a periodic basis (e.g. annually) or in response to significant changes that impact the established safety objectives.

Organisations and states share a common goal which is the continuous improvement in safety performance. Through its SMS the organisations must assess whether their processes are effective in improving safety performance and similarly through the SSP/SPAS the IAA assesses whether the state level processes are achieving continuing safety improvement across the total system.

The level of safety performance cannot be expressed in simple numerical terms albeit quantitative indicators may be part of the overall performance monitoring scheme. Rather safety performance is a complex expression of the level of safety achieved, even as the risk picture continuously changes due to emerging risks arising from modern technological and operational concepts (e.g. drones, cybersecurity, electric propulsion, group operations etc).

The IAA monitors aggregated safety performance at domain and total system levels in order to assess the effectiveness of the SSP/SPAS. This assessment helps to identify weaker performing areas at sector level, so that appropriate IAA resources can be deployed to identify and address the underlying causes for the weaker performance.

3.5 Change Management at State Level

The safety oversight system in Ireland, as in every other state, is subject to continuous change. Proposed changes in regulations, impacting the IAA organisation, or impacting key state aviation infrastructure are reviewed for potential impact at the state level (ie the State Risk Picture) before these changes are implemented. The IAA analyses the impact of the change on the existing system and, using the SSP safety risk management processes, assesses the risks and develops appropriate mitigation actions to address any new or modified safety risks.

Only significant changes need to be assessed in accordance with the SSP safety risk management process. The IAA change management procedures include criteria in this respect to include for example:

- significant changes to the organisation or structure of the IAA
- significant changes in the SSP processes, including significant changes in risk management and safety assurance processes
- significant changes in the regulatory framework, such as introduction of new state policies, new Implementing Rules, or implementing rules in areas previously unregulated
- significant changes in safety oversight processes
- significant changes in the operational environment, such as introduction of new technologies, infrastructure etc
- significant changes in operating models

IAA change management processes also provide for stakeholder involvement to ensure effective communication of the impact and timing of the change for those affected.

Chapter 4
State Safety Promotion

4.1 Promoting a positive safety culture

One of the primary goals of safety promotion is to foster a positive safety culture in the state. From the state perspective a positive safety culture ensures that all stakeholders, both internal to the IAA, in the Department of Transport and in external regulated entities, are aware of, engaged in, and supportive of, the SSP processes for safety management and safety improvement.

Communication is key to fostering a positive safety culture and the IAA is keenly aware of the need to continuously communicate both internally and externally with relevant stakeholders as appropriate on the activities in all four components of the State Safety Programme. Through strategic communication planning the IAA ensures that relevant safety information is communicated with the target audience using communication methods best suited to that audience at that time.

Internal policies and procedures address the safety culture principles adopted by the IAA in all its activities and ensures relevant staff are trained accordingly. Some of these principles (e.g. Just Culture) are also addressed in the regulatory framework, such as Regulation (EU) 376/2014. The IAA policies and procedures in respect of safety culture are also subject to EASA standardisation inspection.

The IAA is also responsible for monitoring the implementation of safety culture in regulated organisations, which it does through oversight of related procedures in the regulatory framework (e.g. SMS oversight and monitoring of Just Culture provisions in organisations).

The IAA also conducts safety culture surveys to assess the implementation of safety culture principles among internal and external staff. The current actions planned in this regard are addressed in the latest version of the SPAS.

4.2 Internal communication and dissemination of safety information

With due regard to the requirement on confidentiality and data protection, the IAA ensures that safety information arising from all components of the SSP, including regulatory changes, occurrence reports, compliance oversight, risk assessments, SPAS actions, safety promotion etc, is communicated to IAA management and staff as appropriate to their needs. This is achieved through use of periodic performance reports (weekly/quarterly/annually), divisional staff communications meetings (typically weekly), all staff periodic communications meetings (typically bi-monthly), dedicated safety presentations, thematic workshops etc.

As part of the IAA risk management process the IAA Safety Review Teams have a role in communicating specific safety information to IAA inspectorate staff as part of risk-based oversight planning.

The IAA is notified by the AAIU when Annex 13 investigations have been initiated and can assist the AAIU during the investigation process through provision of expertise and review of draft reports etc. Safety Recommendations arising from Annex 13 are communicated to relevant staff for information and the actions taken to address safety recommendations directed to Irish regulated entities are monitored by assigned inspectors.

The IAA endeavours to provide cross–functional communication forums for personnel involved in SSP-related duties and SMS oversight activities, in so far as possible, in order to synergise the activities across the different IAA departments.

4.3 External communication and dissemination of safety information

4.3.1 External training

As part of the commitment to safety promotion the IAA provides external training courses that leverages the expertise and experience gained by the IAA for the benefit of regulated entities and other state's Aviation Authorities. Industry training is provided on specific regulatory issues such as implementation of SMS, and for Aviation Authorities training is provided in State Safety Programme Implementation and safety oversight practices across different domains.

The IAA is committed to expanding its scope in external training over the next few years and sees the potential in this area as a development opportunity for staff, an opportunity to enhance our standing and influence at EU/Global levels, and as an opportunity for additional revenue generation.

4.3.2 External safety promotion

At the European level the IAA is an active participant in the EASA Safety Promotion Network (SPN) which provides an EU forum for the promotion of safety through cooperation between EASA, the Member States and other aviation operators. The activities of the SPN are driven by the European Plan for Aviation Safety (ie EPAS SPT tasks) and the function of the SPN is to share safety information and best practices. The SPN facilitates the coordination of EU safety promotion activities, facilitates the sharing of useful safety promotion content, and coordinates on targeted safety promotion campaigns. This network therefore provides EU Member States (including Ireland) with a wealth of safety information on common risks, based on pan-EU risk assessment processes, that may otherwise not be available to each Member State acting alone. Conversely the IAA shares safety promotion material developed in Ireland with the EASA SPN for the benefit of other states.

Of course, each State will have its own state risk picture that identifies national safety issues which are not necessarily the same for other EU Member states and the IAA is responsible for identifying the safety promotion requirements, related safety promotion content and communication strategy in these cases.

The communication strategy for external safety promotion consists of different options, including:

- High level safety review meetings with main regulated entities
- Sector specific safety consultation forums with multiple organisations
- Safety workshops, including cross-domain safety workshops
- Direct link between IAA inspector with assigned organisation
- Mailshot to regulated persons
- Broadcast via website, social media etc

The content to support these communication events includes presentations, advisory documents, videos, infographics etc as best suited for the target audience.

Much of the national safety promotion demands arise from the general aviation sector and drones.

The IAA helped establish the General Aviation Safety Council of Ireland (GASCI) which seeks to identify flight safety risks and minimise them through education, training and shared experience amongst the general aviation community. GASCI safety promotion activities consist of organised safety evenings and wide use of social media. GASCI develops its own safety promotion content which is entertaining and informative and specifically tailored to the target audience. The IAA provides financial and logistical support for GASCI activities.

Appendix 1
Enforcement policy

A1.1 Background

The Irish Aviation Authority enforcement policy is aimed at promoting compliance with aviation safety regulations and requirements through enforcement functions in an equitable manner. Specifically, the implementation of safety management systems (SMS) requires the IAA to have an equitable and discretionary enforcement approach in order to support the State Safety Programme.

The IAA enforcement policy and procedures will also allow service providers to deal with, and resolve, certain events involving internal safety deviations within the context of the service provider's SMS, and to the satisfaction of the authority. The enforcement policy also seeks to encourage the reporting of safety events by persons or organisations, with the assurance that the information will only be used for the purposes of improving safety.

Intentional contraventions of the regulations will be investigated and may be subject to conventional enforcement action where appropriate. There are clear provisions in the enforcement framework in order to distinguish between intentional violations and unintentional errors or deviations.

A1.2 Legal Obligations

Chapter 1.3 of the State Safety Programme describes the legislative framework under which the IAA operates.

This legislation places responsibility on the IAA to conduct the safety regulation of the civil aviation aspects contained therein, to oversee compliance with the related safety standards and to perform the relevant enforcement actions, including the application of the appropriate sanctions or penalties in case of violations of the regulations.

The oversight tools which the IAA uses include;

- compliance monitoring through oversight audits, testing, or inspection of the activity, and,

- collection, monitoring and analysis of safety information obtained through oversight of Safety Management Systems and mandatory and voluntary safety occurrence reports.

A1.3 Enforcement actions

Some of the enforcement and sanctioning powers, provided by the legal framework, are delegated to the IAA which has the responsibility and authority to conduct investigations, depending on the nature and extent of such provisions in the legislation.

Breaches of aviation regulations may occur for many different reasons, from a genuine misunderstanding of the regulations to blatant disregard for aviation safety. The IAA has a range of enforcement actions it may use; these actions include non-punitive and punitive actions as follows:

● discussion with the certificate/licence holder to outline the issues and to agree a resolution of the safety concern;

● written requirement from the IAA to the certificate/licence holder to resolve the matter within a specified time period;

● variation, suspension and revocation of authorisations, certificates or licences;

● summary prosecution (criminal) through the District Circuit Court; and

● instigation of indictment proceedings through the Office of the Director of Public Prosecutions (DPP).

The IAA policy is to address breaches of aviation regulations through the non-punitive actions in the first instance; however, it may not always be appropriate to apply this policy in each individual case. The conditions relating to the IAA decision making in respect of enforcement action are specified in the following chapters.

A1.4 Enforcement and Safety Management

Specific regulations require persons or organisations to implement Safety Management mechanisms which include; collecting and analysing safety data, assessing their own safety performance and providing notification of deviations from safety standards to their oversight authorities. The mechanisms available to enable these regulations include:

● Safety Management Systems (SMS) as required for certain commercial entities;

● Mandatory reporting of certain occurrences where deviations from expected safety performance have been experienced; and

● Voluntary Reporting of other occurrences where deviations from expected safety performance have been experienced.

The IAA does not use or disclose this information for purposes other than safety improvement, unless compelled to do so under legal proceedings. Regulation (EU) No 376/2014 of the European Parliament and of the Council of 3 April 2014 became applicable on 15th November 2015 and this regulation includes confidentiality protections that are directly applicable in Ireland.

The IAA is fully supportive of these Safety Management mechanisms and understands their importance in contributing to the overall safety of the civil aviation system. In the context of a Just Culture* environment it is not intended that the IAA enforcement policy should be seen to discourage persons or organisations from fully embracing these mechanisms for improving safety or from reporting deviations when they occur, for fear of punitive enforcement actions by the IAA.

Consequently, the IAA enforcement approach in respect of information obtained through Safety Management mechanisms is based on the following principles:

a.   The IAA will not take punitive enforcement actions in a case where safety deviations are being resolved to the satisfaction of the IAA responsible inspector in the context of an approved Safety Management System.

b. Information derived from safety data collection and processing systems established under an approved SMS, and information reported to the IAA as a mandatory or voluntary report will not be used as the basis for punitive enforcement action against an individual or organisation.

These principles will not be applied if:

I. the IAA suspects that there is a deliberate effort to conceal non-compliance with safety regulations or standards, or

II. the IAA has found during oversight activities that an approved SMS no longer meets required standards, or

III. the certificate/licence holder/service provider is a recurrent violator.
A recurrent violator is a violator, who, in the past 24 months, has had the same or closely related violations and/or has failed to implement mitigating actions identified during previous investigations, or

IV. in case of dereliction of duty amounting to gross negligence**, wilful violations or destructive acts.

In these cases (I-IV above) the IAA will investigate the issues fully and pursue the available enforcement actions as deemed appropriate.

*Just Culture as defined in Regulation (EU) No 376/2014 of the European Parliament and of the Council of 3 April 2014, "means a culture in which front-line operators or other persons are not punished for actions, omissions or decisions taken by them that are commensurate with their experience and training, but in which gross negligence, wilful violations and destructive acts are not tolerated".

**The determination of "gross negligence" may ultimately be subject to legal interpretation in the Irish courts. For the purposes of this enforcement policy, the actions the IAA consider in application of paragraph IV above will be consistent with those actions referred to in Article 16 paragraph 10(b) of Regulation (EU) No 376/2014 of the European Parliament and of the Council of 3 April 2014, namely "where there has been a manifest, severe and serious disregard of an obvious risk and profound failure of professional responsibility to take such care as is evidently required in the circumstances, causing foreseeable damage to a person or property, or which seriously compromises the level of aviation safety".

IAA enforcement decision making will be conducted within a framework of a Just Culture using mechanisms such as Reasons 'Managing the Risks of Organisational Accidents' - A decision tree for determining the culpability of unsafe acts' p209, 1997, Ashgate Publications, is shown opposite.
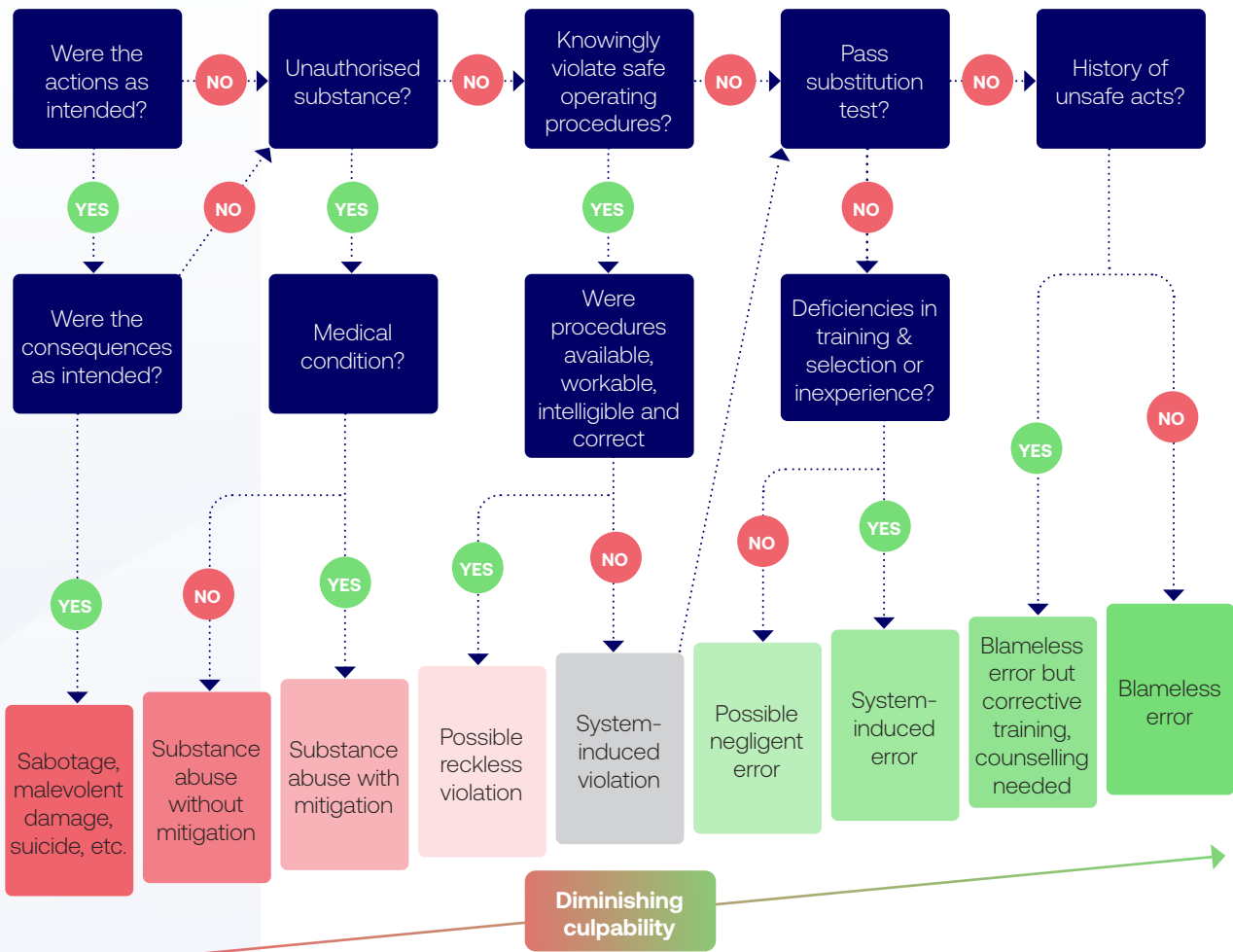
A1.5 Impartiality of enforcement actions

Enforcement decisions will not be influenced by:

- personal conflict;
- personal gain;
- considerations such as gender, race, religion, political views or affiliation; or
- personal, political or financial power of those involved.

A1.6 Proportionality of responses

Enforcement decisions will be proportionate to the identified breaches and the safety risks they underline, based on the following principles:

- the IAA will take firm enforcement action against those who consistently or deliberately contravene the safety rules and procedures; and
- the IAA will provide a measured response to less serious contraventions of the safety rules and procedures and will seek to provide guidance and promote training or supervision of those who show commitment to resolving these issues, rather than taking punitive actions; and
- the IAA will give due and equitable consideration to distinguish premeditated violations from unintentional errors or deviations.

A1.7 Natural Justice and accountability

Enforcement decisions will:

- be fair and follow due process;

- be transparent to those involved;

- take into account the circumstances of the case and the attitude/actions of the certificate/licence holder when considering action;

- take due consideration of precedent enforcement decisions for like/similar circumstances; and

- be subject to appropriate internal and external review in accordance with the relevant regulations.

A1.8 Rights of appeal

The IAA Enforcement Policy does not in any way affect the rights of any person or organisation to appeal decisions made by the IAA. The relevant appeals processes are specified in the regulations themselves in many instances. Any person or organisation that is subject to punitive enforcement action will be informed of their rights to appeal and of the relevant appeals process.

In addition, complaints against the IAA may be made by any person or organisation using on-line complaints form on https://www.iaa.ie/safety/safety-reporting.