SESSION 7. PASSENGER DATA EXCHANGE SYSTEMS

Mr. DAHERU MAMMAN

President, Airlines Operators Committee (AOC)

OUTLINE

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1. INTRODUCTION:

PASSENGER DATA – WHAT IS IT?

Electronic data concerning passengers' identity (API) or travel reservations (PNR) which is used by public authorities for border control.

1. INTRODUCTION:

Importance of API (Advanced Passenger Information) and PNR (Passenger Name Record) systems

I. INTRODUCTION:

WHERE TO FIND THE LIST OF DATA ELEMENTS

Standards and Recommended Practices for API, iAPI and PNR
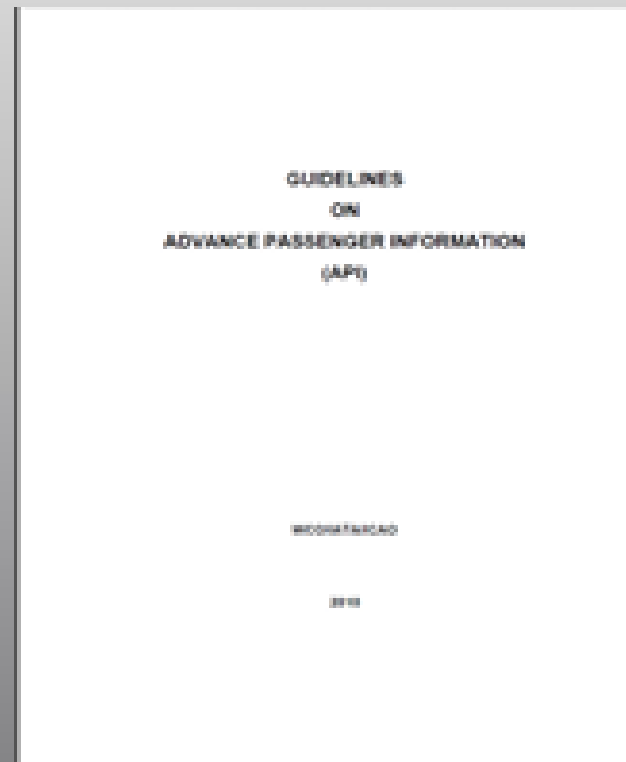
API and iAPI data elements are listed in the WCO-IATA-ICAO Guidelines on API

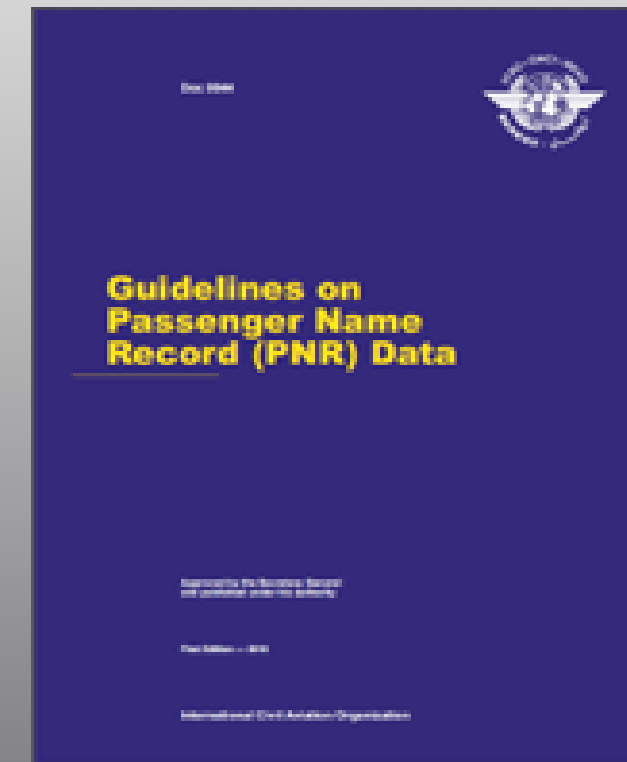PNR data elements are listed in the ICAO Guidelines on PNR Data (Doc. 9944)

2. ICAO Annex 9 Requirements

The Advanced Passenger Information (API) and Passenger Name Record (PNR) systems are critical tools mandated by international aviation regulations, particularly under ICAO Annex 9. These systems require airlines to transmit passenger data to governmental authorities before departure or upon arrival, enhancing border security and streamlining passenger screening processes.

- ➢ Mandate for States to Implement API and PNR Systems
- ▪ ICAO Annex 9 requires member states to establish Advanced Passenger Information (API) and Passenger Name Record (PNR) systems.
- ▪ These systems enhance border security and support risk-based passenger screening.

- ➢ Transfer of Data from Carriers to Governmental Authorities
- ▪ Airlines must electronically transmit passenger data before departure or upon arrival.
- ▪ Data includes personal information, travel itineraries, and ticketing details.

- ➢ Compliance and Regulatory Framework
- ▪ States must comply with international standards set by ICAO and national regulations.
- ▪ API/PNR data usage must align with data protection and privacy laws.

3. Importance of Data Quality

- ➢ Ensuring Accuracy and Reliability of Passenger Data
  - ▪ High-quality data reduces false positives in security screenings.
  - ▪ Ensures seamless passenger processing at borders.

- ➢ Use of Verification Tools such as ICAO Public Key Directory (PKD)
  - ▪ PKD enables real-time authentication of electronic passports and travel documents.
  - ▪ Reduces identity fraud and improves trust in data exchange.

- ➢ Impact on Security and Border Management
  - ▪ Helps authorities detect high-risk travellers before arrival.
  - ▪ Enhances coordination between airlines and government agencies.

4. Digitalization and Innovation Technologies

- ➢ Role of Technology in Improving Data Exchange Systems
  - ▪ Cloud-based solutions and blockchain for secure data sharing.
  - ▪ Biometric verification for seamless passenger identification.

- ➢ Enhancing Passenger Experience through Digital Solutions
  - ▪ Smart gates and self-service kiosks for expedited border clearance.
  - ▪ Mobile apps for pre-travel document verification.

- ➢ Automation and AI-Driven Data Processing
- ➢ AI-powered analytics to detect suspicious travel patterns.
- ➢ Machine learning models to enhance risk assessment.
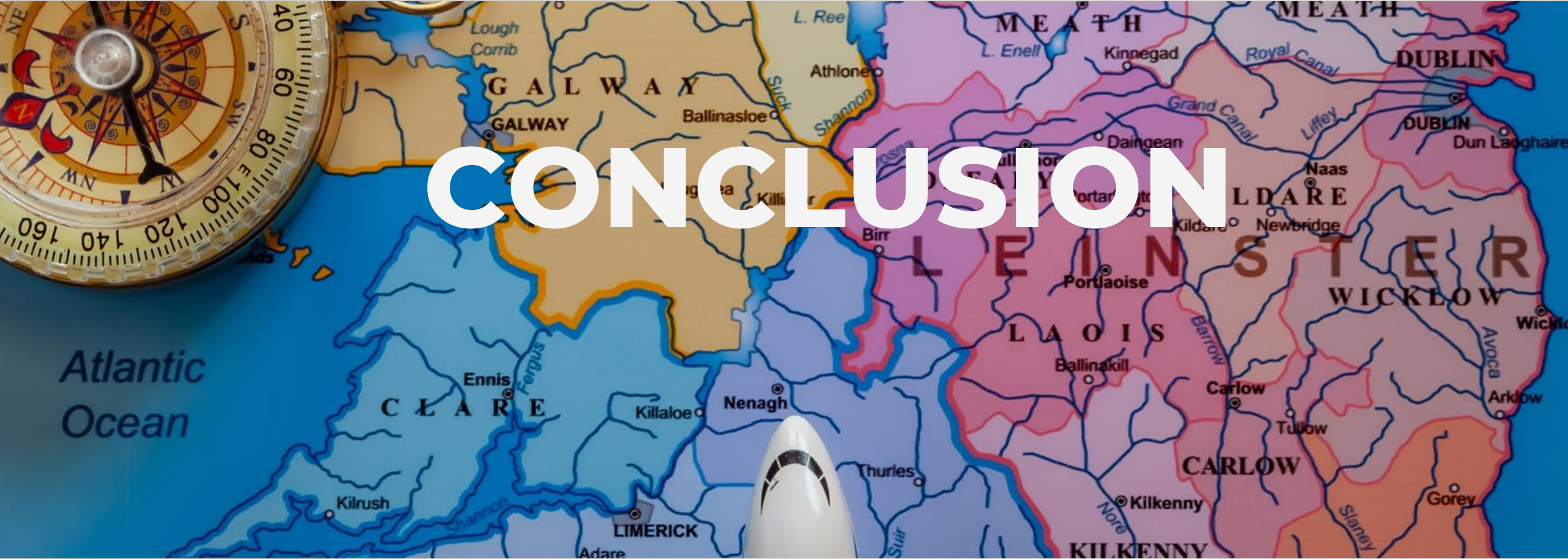
5. Best Practices for Effective Implementation

➢ Case Studies of Successful API/PNR Implementation
- Examples from leading Airline Company such as SN Brussels.
- Demonstrated benefits in security enhancement and operational efficiency.

➢ Lessons Learned from Leading Airline Companies
- Importance of interoperability between systems.
- Strategies for ensuring compliance with data protection laws.

➢ Collaborative Efforts Between Stakeholders
- Airlines, immigration authorities, and security agencies must work together.
- Public-private partnerships to enhance data management and sharing.
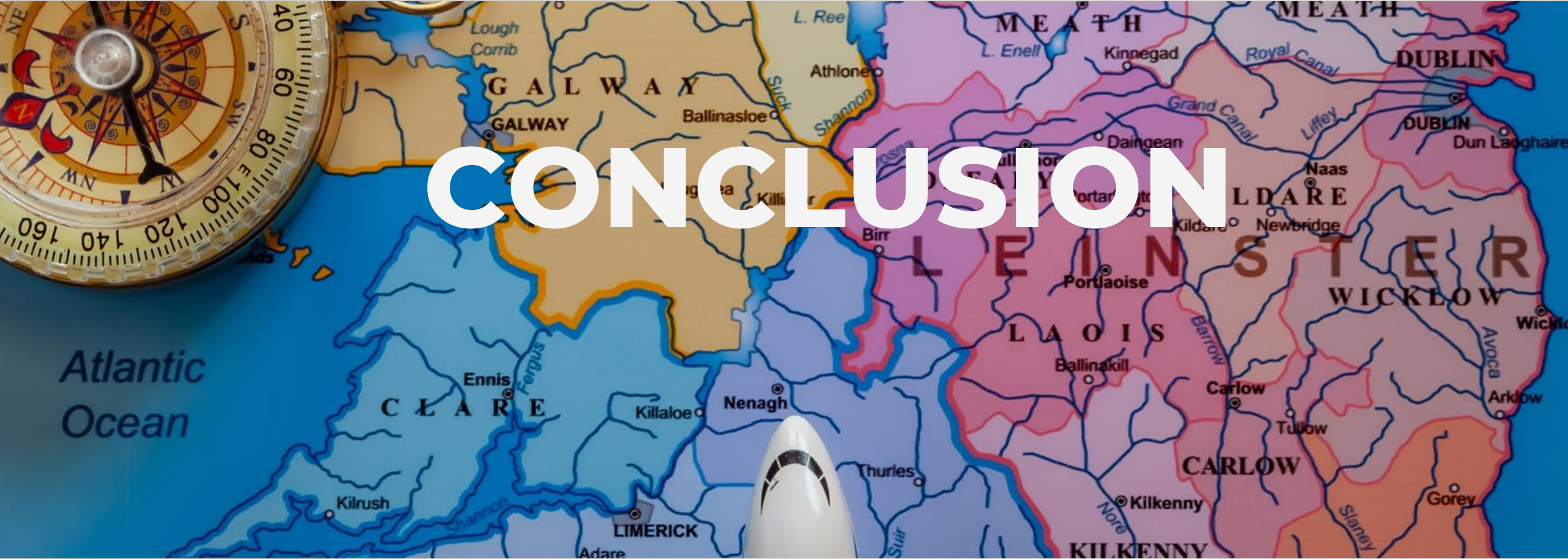
6. Enhancing the Fight Against Cross-Border Crime

➢ How Passenger Data Assists in Identifying Threats
▪ Early detection of individuals linked to organized crime and terrorism.
▪ Tracking of travel patterns to uncover criminal networks.

➢ Strengthening Cooperation Between States and Organizations
▪ International collaboration through INTERPOL and regional security frameworks.
▪ Standardized data-sharing protocols to enhance efficiency.

➢ Future Trends in Passenger Data Analysis
▪ Predictive analytics for proactive threat identification.
▪ Expanding use of AI and machine learning for real-time risk assessment.

CONCLUSION

➢ Implementing API and PNR systems is crucial for aviation security and border management.

➢ Data quality and verification tools, such as PKD, enhance reliability and security.

➢ Digitalization and AI-driven technologies improve efficiency and passenger experience.

➢ Best practices and international collaboration are essential for effective implementation.

➢ Future trends include predictive analytics and enhanced AI-driven risk assessment.

CONCLUSION

Final Thought:

Ensuring secure and seamless passenger data exchange is a collective responsibility.

Stakeholders must work together to achieve a safer and more efficient global aviation system.

Thank You

Merci

Question & Answer