



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Federal Office of Civil Aviation FOCA
Safety Infrastructure
Aerodromes and Air Navigation Obstacles

EASA Annual Safety Conference

De-Icing Oversight in Switzerland

16 October 2013, Hotel Maritim Cologne



Agenda

1. Introduction

- Framework Switzerland, Legal Context
- Aerodrome Certification

2. Oversight Activities

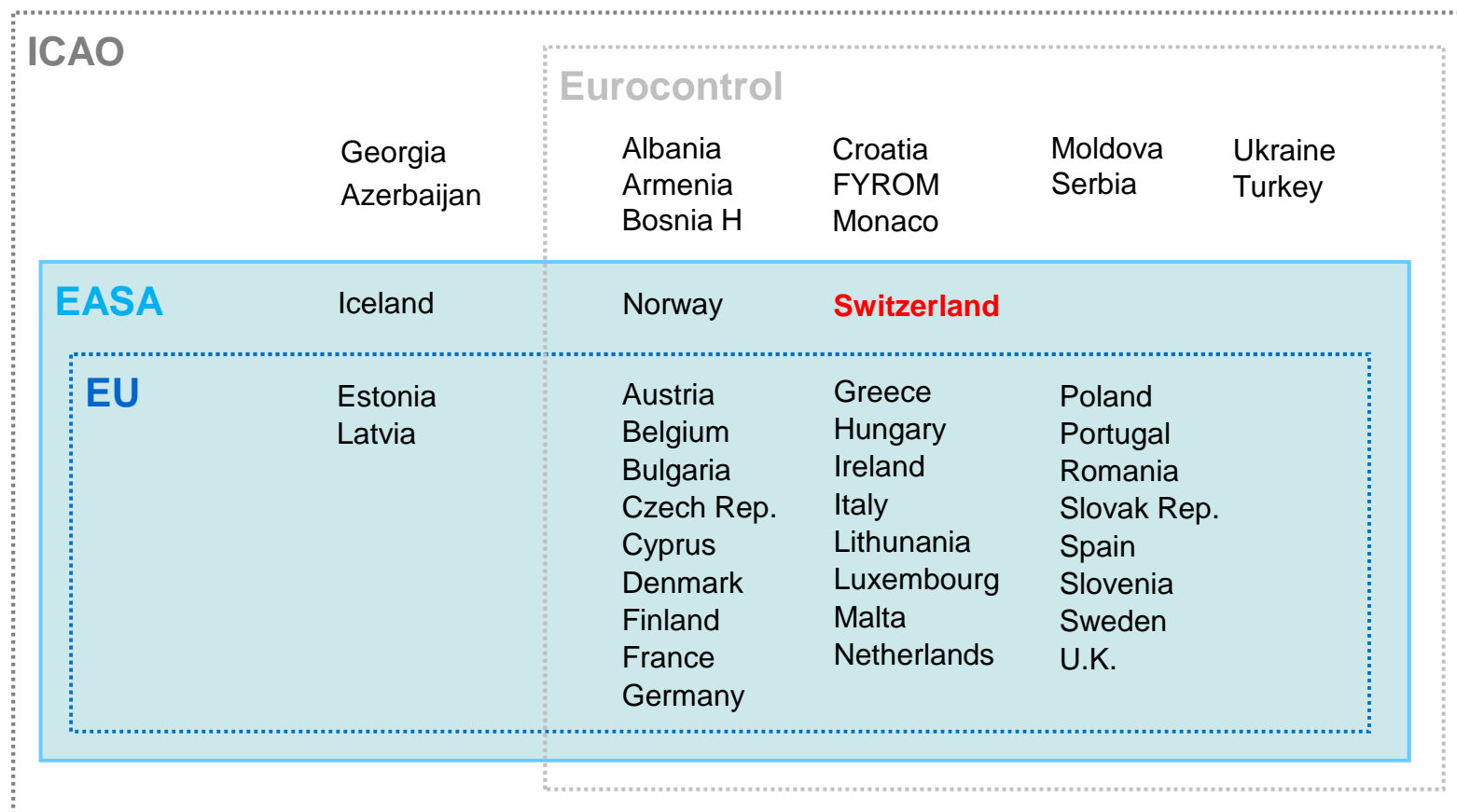
- Task Force
- Scope and Organization
- Audits / On-site Inspections
- Occurrence Management

3. Actual Challenges, Outlook



Switzerland

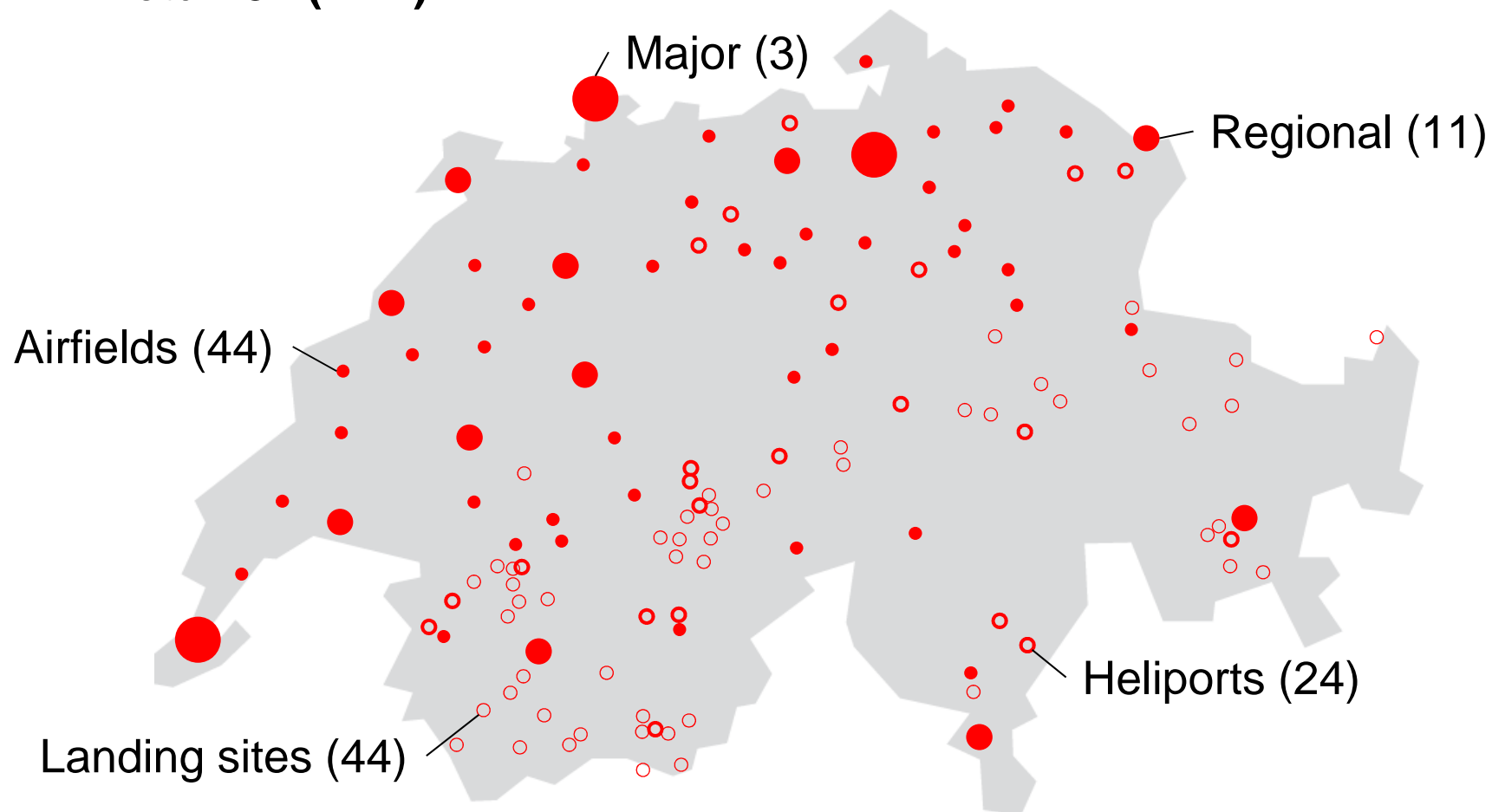
Regulatory Framework / Memberships





Swiss Aerodromes

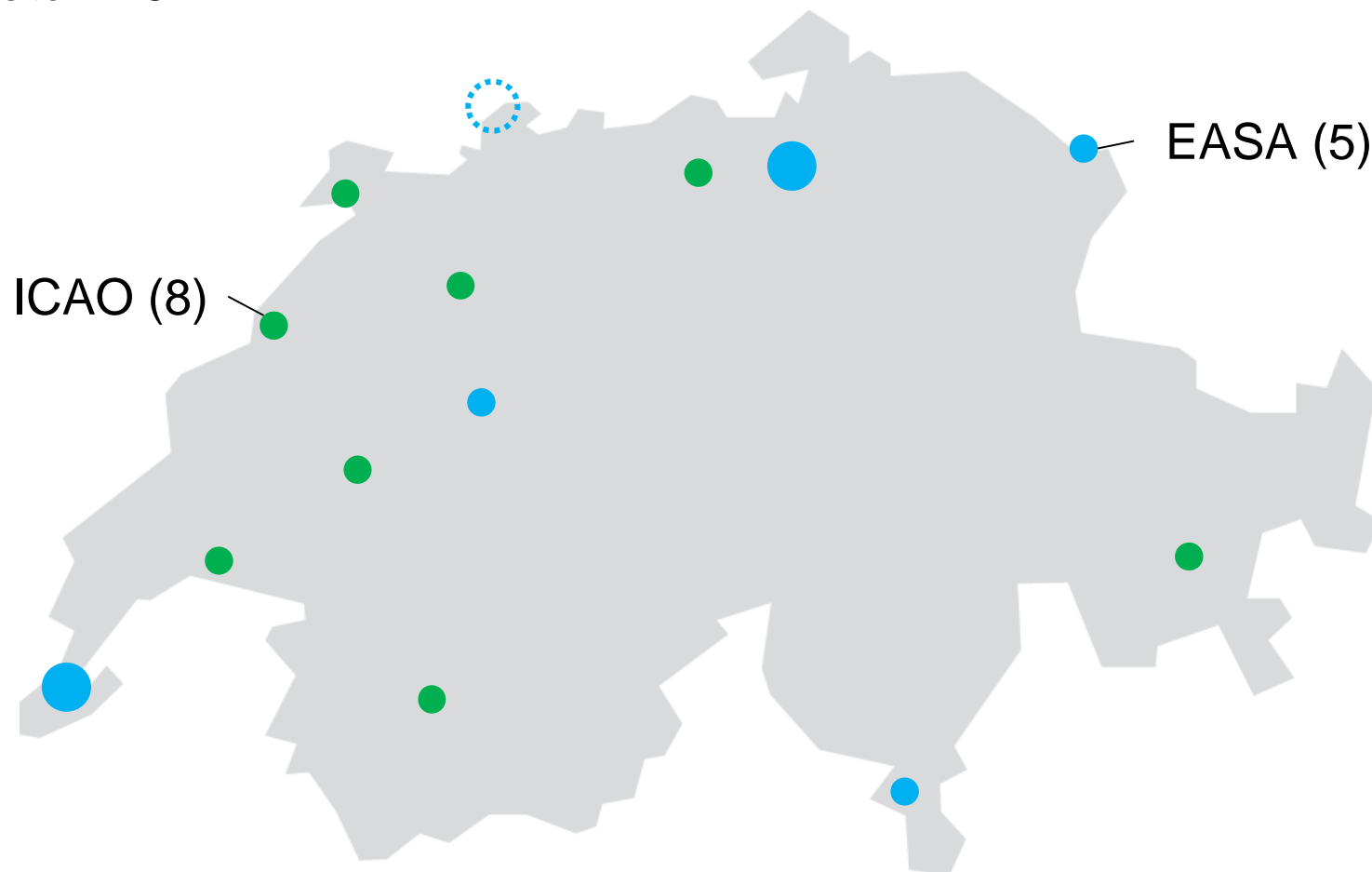
Total: 82 (+ 44)





Aerodrome Certification

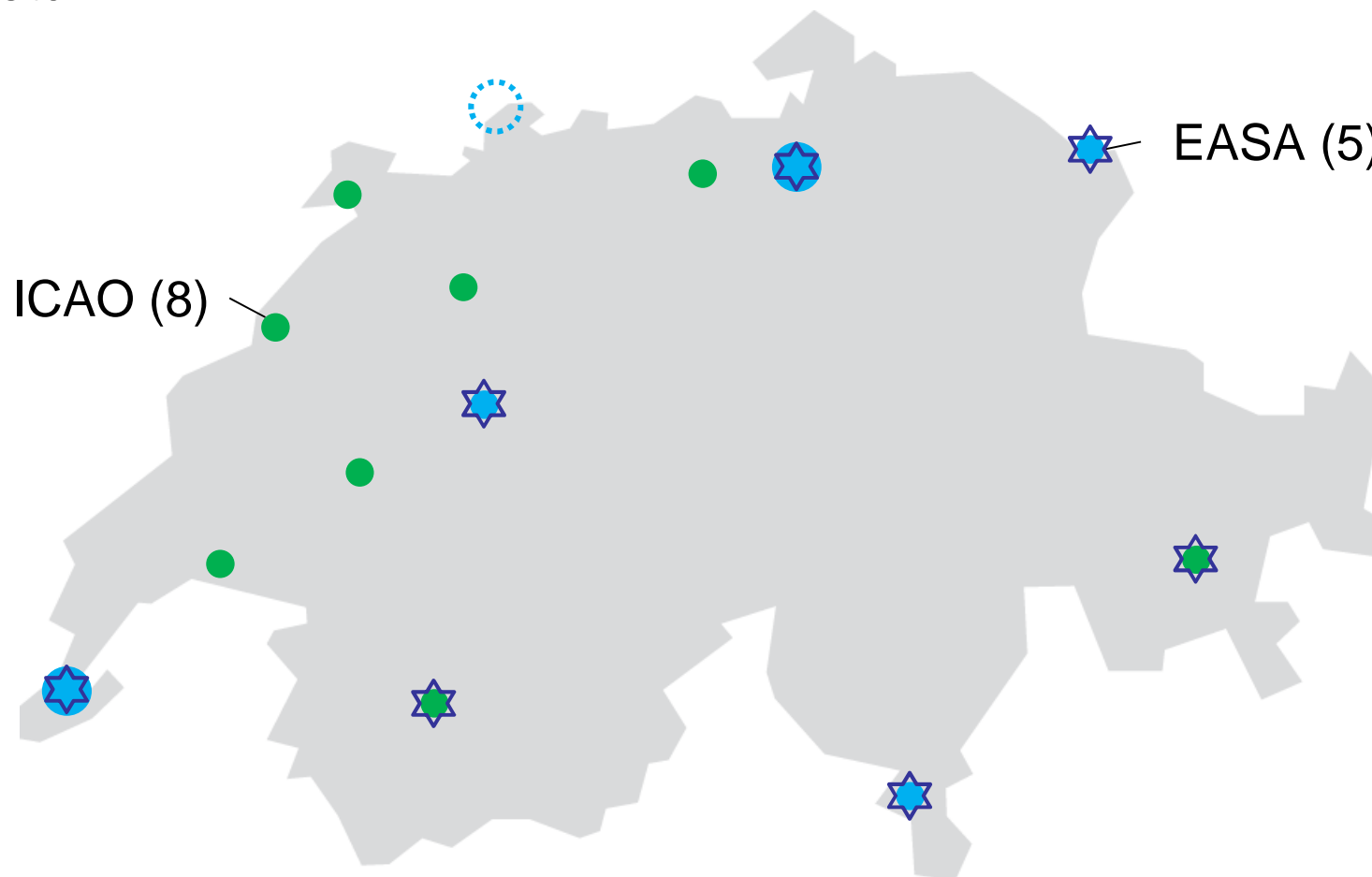
Total: 13





Aerodromes with De-Icing Operations

Total: 7





Current Legal Base

National Law

The Aerodrome Operator is responsible for a safe and well ordered Operation. (*VIL Art. 3*)



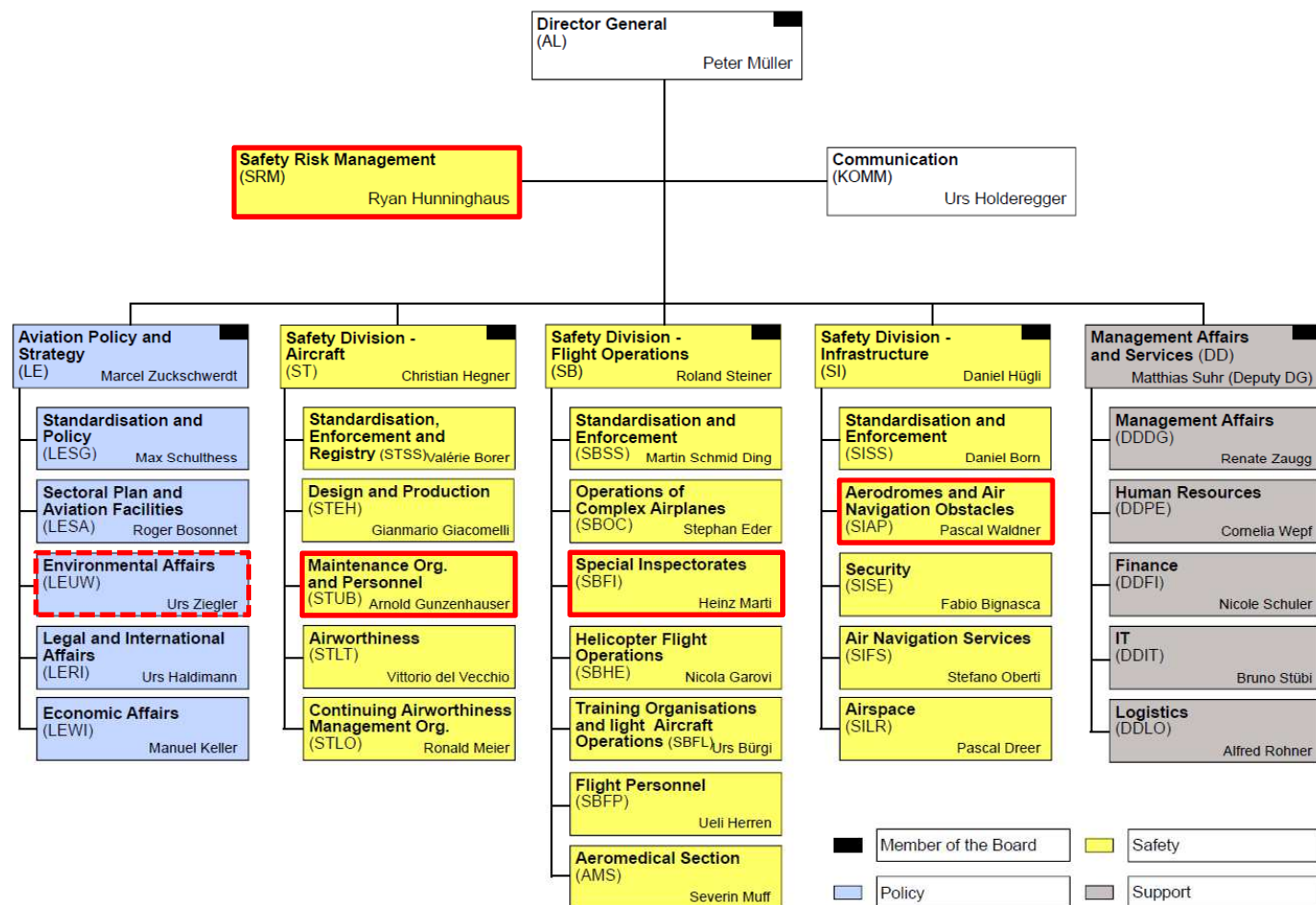
Oversight Activities

- 1. Certification Audits (ICAO and EASA)**
- 2. On-site Inspections**
- 3. Occurrence Management**

→ Coordination: De-/Anti-Icing Taskforce



Oversight Activities – Task Force





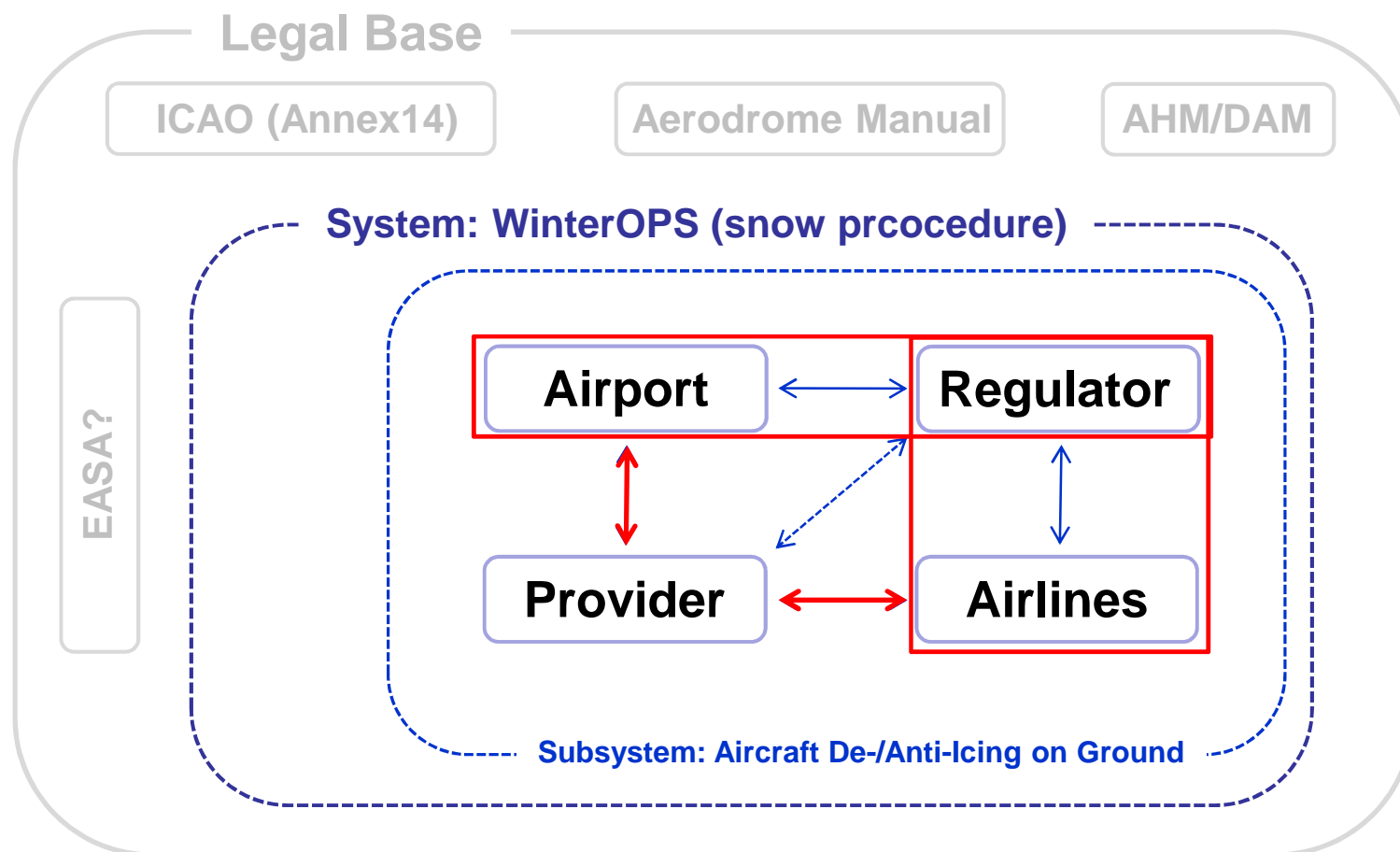
Oversight Activities – Task Force

Expert Pool

- **Aerodrome Safety Inspectors** (*lead*)
- **Inspector Ground Facilities**
- **Safety Analyst**
- **Airworthiness Inspector**
- **Environmental Consultant** (*on request*)

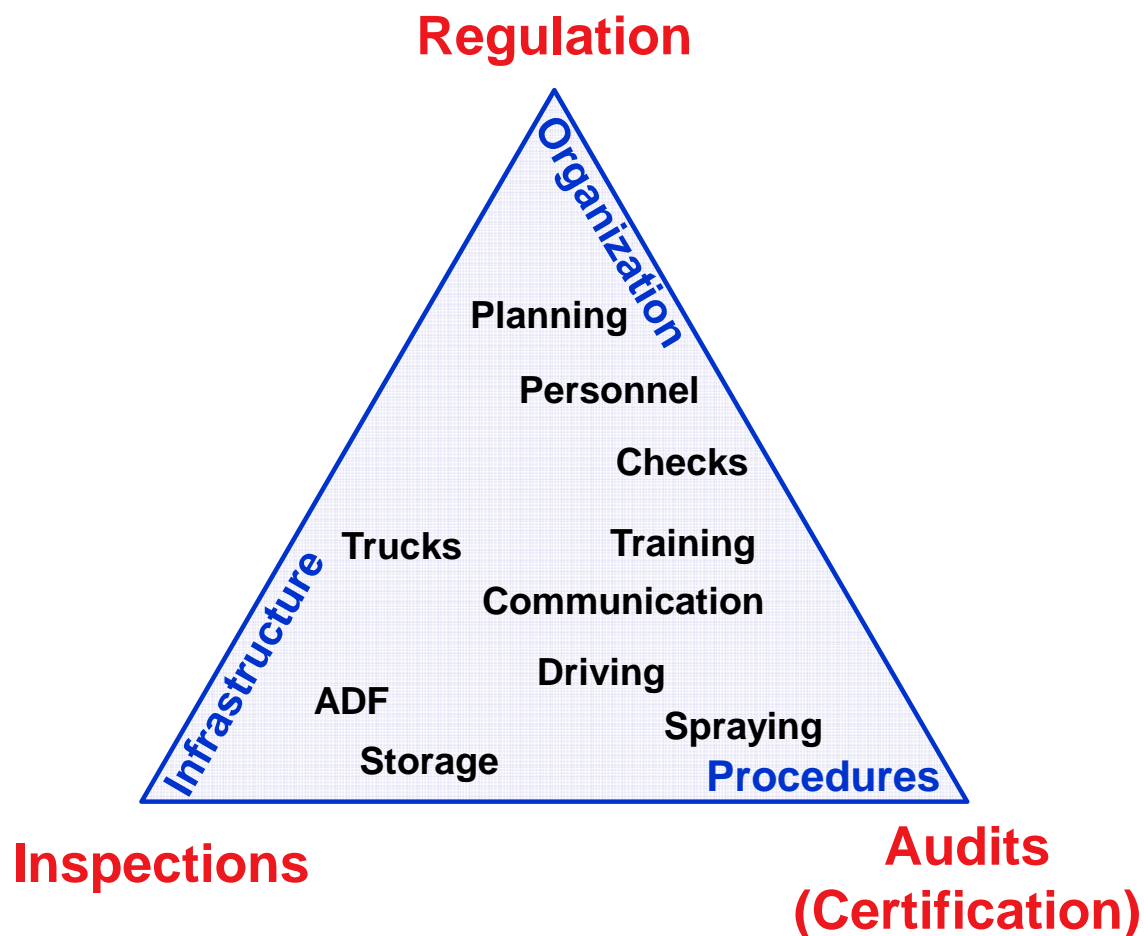


Oversight Activities – Scope (legal)





Oversight Activities – Scope (thematic)





Oversight Activities – Certification Audits

**ICAO: Procedures in Aerodrome Manual (Chapter 4.16.4)
De-/Anti-Icing Manual, Winter OPS Manual, Ramp Safety
Manual (Provider or Aerodrome Operator)**

**EASA: Decision 2010/006/R (Maintenance)
ADR Regulation (Aerodrome Design only, CS)
RMT for ADR.OPS and Flight OPS?**

Best Practice:

**AEA Recommendations for
De-/Anti-Icing Aeroplanes on Ground**





Oversight Activities – On-site Inspections

- **Cooperation with an external Specialist**
→ **Lack of specific technical Know-how within FOCA**
- **Risk-/Performance-based Inspection planning**
→ **Linked with Occurrence Management**
- **Coordination within Taskforce**
- **Standardized Checklist**
- **Result: Inspection Report with Findings (Level 1/2), Opportunities for Improvement and Remarks**

→ **Action Plan / Tracking**



Oversight Activities – On-site Inspections





Occurrence Management

- **Data Management (ECCAIRS Database)**
- **Specific Analyse for Task Force Meetings**
→ **Base for upcoming Inspections**
- **Analysis of major Incidents and Accidents at local Runway Safety Team Meetings or specific Winter OPS Meetings (ZRH/GVA)**
- → **Exchange with Industry (e.g. Swissport GVA/ZRH/GVA)**



Actual Challenges

Top Hazards

- **Lack of regulatory Framework**
 - ICAO: **Annex 14, Chapter 3.15 (Facilities)**
Doc. 9640 Ground De-Icing Manual
 - **AEA Recommendations**
 - **SAE Standards**
 - **EASA?**
- **Lack of Knowledge (e.g. Flow-off Characteristics > Low rotation Speed Aircraft, Forced Air Technology,...)**
- **Lack of Control (Fluid Quality)**



Outlook

- **New Technologies**
 - Aircraft Engineering: Nano Technology
 - De-Icing: Forced Air
- **Aerodrome Certification (ICAO and EASA)**

Roadmap FOCA

- **Implementation of EASA Regulations:** **2014-2018**
- **Transformation of AEA Recommendations into Swiss Law (binding):** **As of 2014**



Thank you



reto.rieder@bazl.admin.ch