



European Air Group

Improving Capability through Interoperability

Fuel Support to Agile Combat Employment: Issues with Tactical Level Fuel Delivery



Squadron Leader Michael Neaves

- 29 years' service in the Royal Air Force as a Logistics Officer.
- Served on fast-jet, multi-engine and rotary bases.
- Deployments to South Atlantic, Iraq and Afghanistan.
- 2 years in UK Permanent Joint Headquarters (PJHQ).
- 5 years in UK F-35 Combat Force Headquarters.
- 6 years in the European Air Group.
- A speaker at this prestigious conference for the last 4 years.



europeanairgroup
groupeaérien européen



The EAG



1995

2 Member Nations

Franco-British European Air Group



1998

3 Member Nations (EAG)



1999

7 Member Nations





Our Network



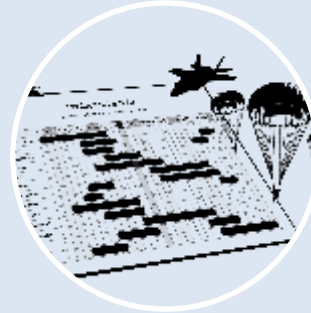
Main Effort - Interoperability

...improve capabilities
at operational and tactical level.



Human

(e.g. trust, language, terminology,
training)
(EAG: training, exercises,
workshops, seminars, courses)



Procedural

(e.g. doctrine, procedures)
(EAG: manuals, handbooks,
SOPs, technical arrangements)



Technical

(e.g. hardware, software, equipment,
armaments, systems)

Interoperability Dimensions

'The ability to act together coherently, effectively and efficiently to achieve Allied tactical, operational and strategic objectives.'



What is the EAG doing with ACE?

Working hand-in-hand NATO to achieve –

A ‘European Solution’ to –

Logistics Support and Infrastructure challenges

Investigations with nations and NATO have lead to –

The development of –

Agile Basing Project (ABP) – Logs Spt and Infrastructure pillar.



Why is the EAG perfect for this?

Smaller more agile organisation with a vast network of links.

Experience and track record of success in developing projects and attaining 'quick wins'.

Working at the tactical and sub-tactical level.

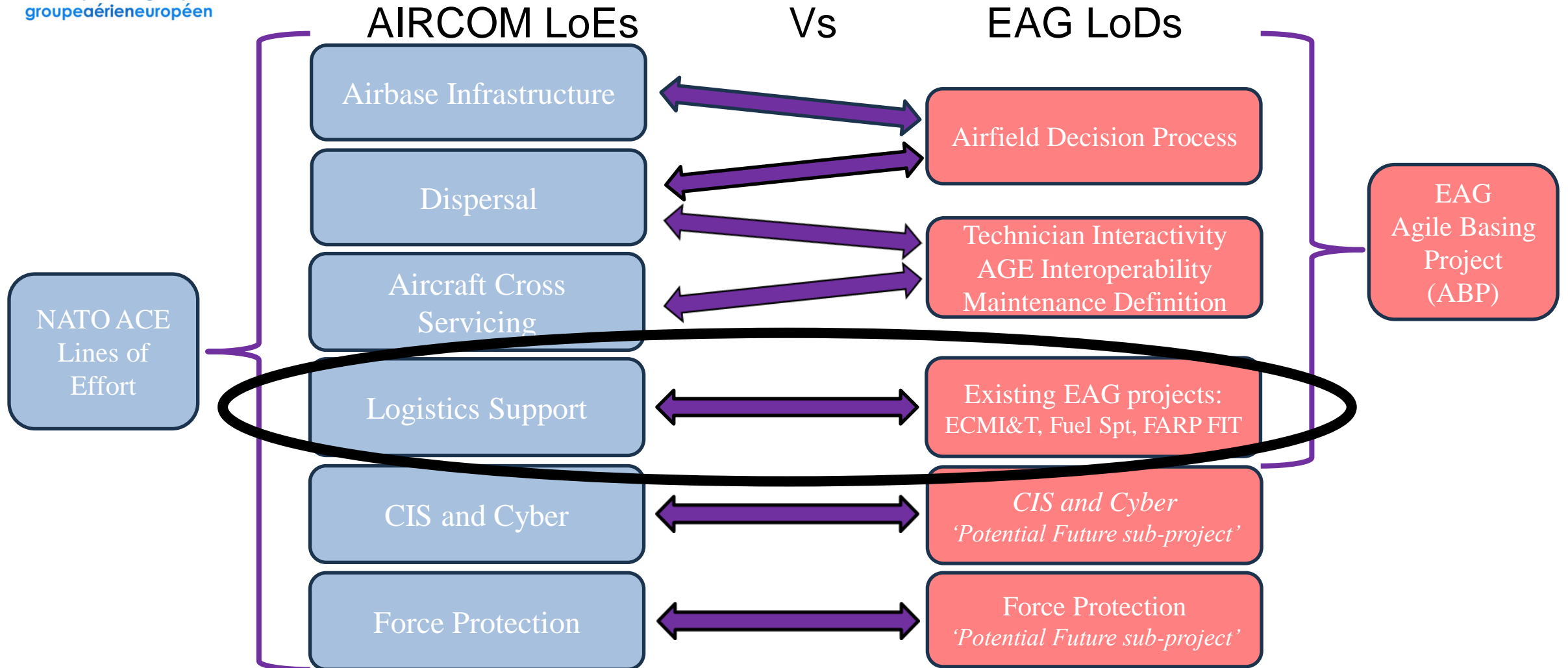
Tacticalising NATO's strategic plans into enabling activity.

A portfolio of ongoing projects that compliment this work.

- F-35, Typhoon, Cargo Helicopter, Multinational Basing, FARP, Rapid Air Power Projection and more.



Agile Combat Employment





Project Analysis

Logistics Support and Infrastructure sustaining Agile Combat Employment in a post article 5 scenario

Interoperability of Combat Service Support Units

Logistics Support to Operations

Infrastructure projects required to support air operations

Fuel support across the spectrum of conflict

Types of Aviation Fuel

F-34

F-35

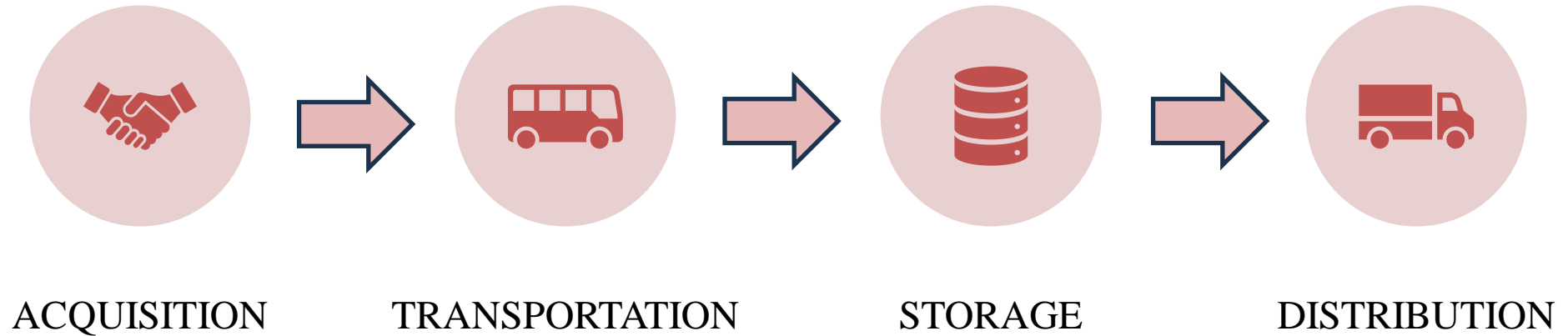
F-44

F-34 +
FSSI

embarked



The Fuel Delivery Network





Fuel Delivery in Crisis

4th & 3rd line to 2nd line – NATO
JLSG - JLSN

2nd line to 1st line to AC
(last tactical mile) - Nations



Is this a harmonious relationship?

NATO has no organic capability

Nations own the fuel,
not NATO



Issues

Lack of fuel

- General shortfall post article 5
- Regional shortages - nation by nation

Pipeline Systems

- 9 major pipeline networks in Western Europe, none in East
- No all connected, not all supplying aviation fuel

Infrastructure

- Old Soviet era fuel storage infra was not updated
- Leaks, needs huge refurbishment programme

Equipment

- Major shortfall in tactical level fuel storage and delivery capability across NATO nations



Solutions

NATO SHAPE is working on every aspect up to last tactical mile

Nations are working together on the 'Modular Combined Petroleum Capability Committee – MCPUs

- Multinational units combining scarce capabilities

EAG work will focus on solving the tactical level issues

- Increasing storage and delivery options



How?



Expanding the scope of the current EAG Fuel Support Project



Bringing together the Fuel CCS modules and MCPU



Leveraging industry expertise and support to fill capability gaps

Other Issues



Build a fuel supply chain network capable of delivering fuel anywhere within 300km



Disperse fuel as a valuable asset – treat it the same as aircraft



Look into other classes of supply – Food, Water, Munitions



Forward Arming and Refuelling



Forward Arming and Refuelling – FARP



Practice - train as you fight



Prepare for the worst



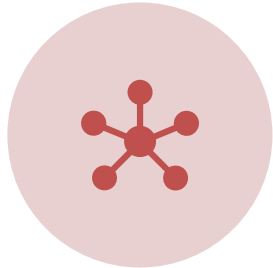
Exercises where the sortie generation is secondary



Be prepared to fail – lose a sortie



Key Takeaways



INTEROPERABILITY



**COMMERCIAL
INVOLVEMENT**



TRAINING



INVESTMENT



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Questions?