JoiNT

Joint A**n**alysis and debriefing **T**oolsuite

Philip Kerbusch

JoiNT

› A flexible concept to enhance mission analysis and mission debriefing

 › Supporting monitoring and debriefing
  › By facilitating real-time and shared SA

 › Providing the right information, at the right time, in the right format

› At JPOW-2010, develop and experiment with new debriefing concepts

JPOW (Joint Project Optic Windmill)

› Integrated Air and Missile Defence (IAMD) exercise

  › >1000 participants, 6+ nations

  › Distributed, LVC (simulated) exercise environment

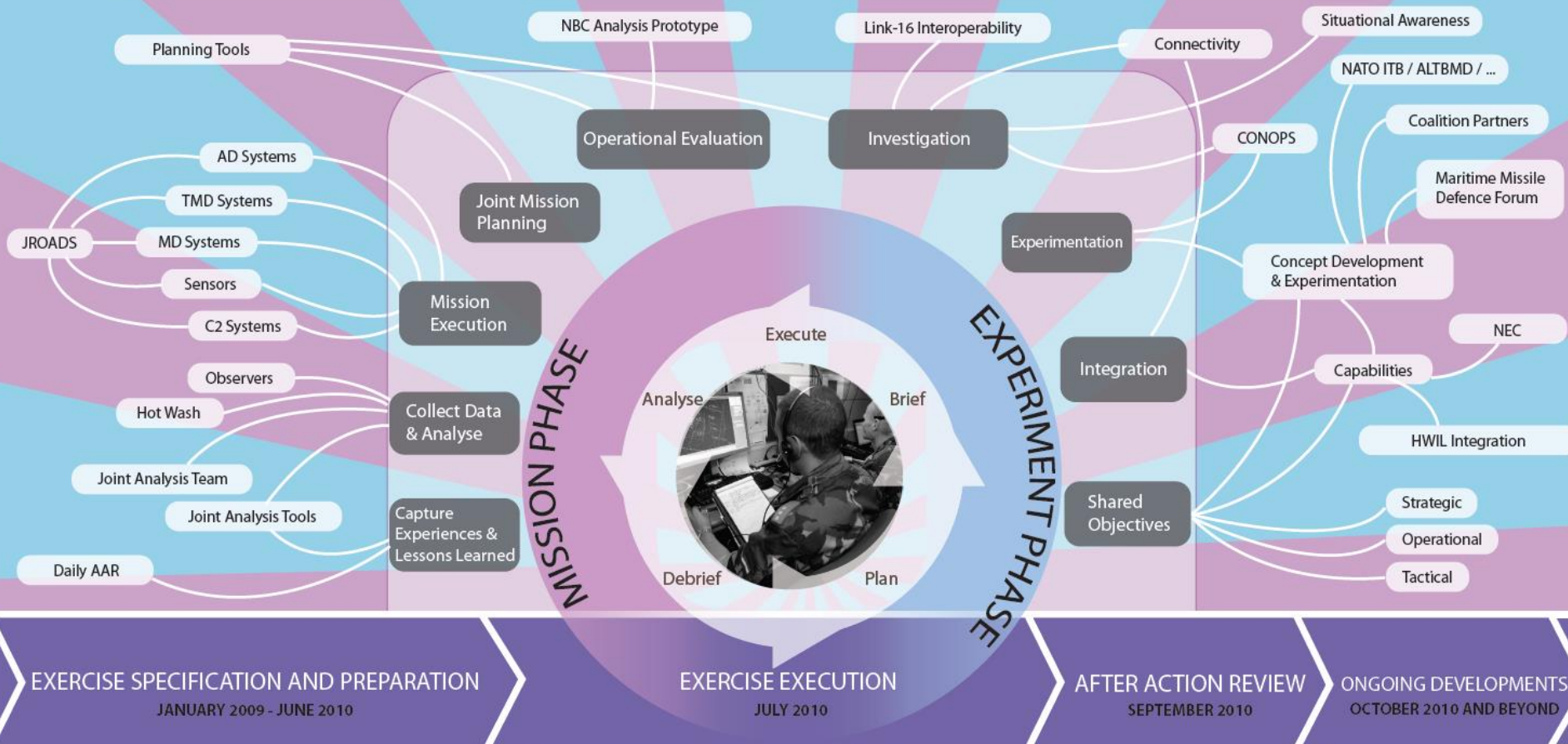 › Experiment and train current and future capabilities and concepts
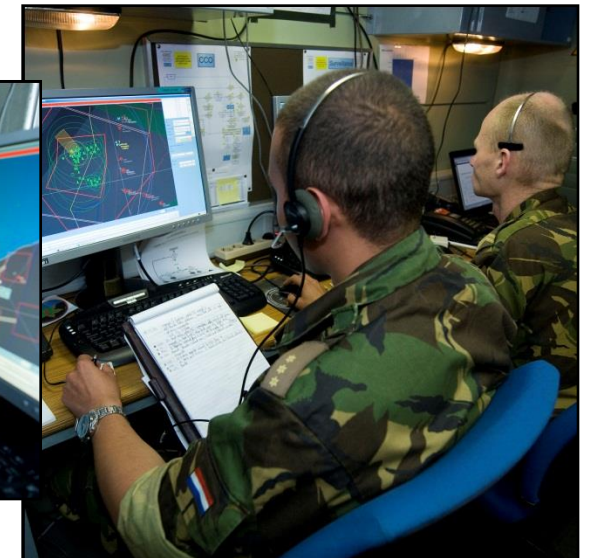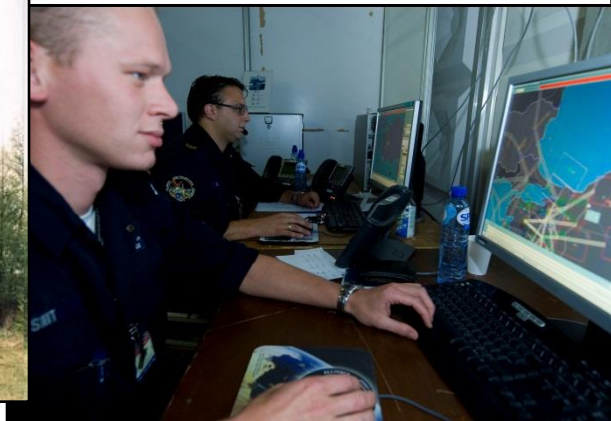
JPOW Challenges

JPOW 2010 - *Enhancing Mission Readiness in IAMD*

JOINT PROJECT OPTIC WINDMILL 2010 · ROYAL NETHERLANDS AIR FORCE

Concepts & Capabilities → Exercise → Improved Interoperability

NATO & Coalition Partners

Planning Tools

NBC Analysis Prototype

Link-16 Interoperability

Connectivity

Situational Awareness

NATO ITB / ALTBMD / ...

Operational Evaluation

Investigation

CONOPS

Coalition Partners

AD Systems

TMD Systems

Joint Mission Planning

Maritime Missile Defence Forum

JROADS

MD Systems

Experimentation

Concept Development & Experimentation

Sensors

C2 Systems

Mission Execution

NEC

Capabilities

Integration

Observers

Hot Wash

Collect Data & Analyse

HWIL Integration

Joint Analysis Team

Shared Objectives

Strategic

Joint Analysis Tools

Capture Experiences & Lessons Learned

Operational

Daily AAR

Tactical

MISSION PHASE

EXPERIMENT PHASE

Execute
Analyse
Brief
Debrief
Plan

EXERCISE SPECIFICATION AND PREPARATION
JANUARY 2009 - JUNE 2010

EXERCISE EXECUTION
JULY 2010

AFTER ACTION REVIEW
SEPTEMBER 2010

ONGOING DEVELOPMENTS
OCTOBER 2010 AND BEYOND

Specify, Design, Develop, and Test

- Senior Leadership Seminar, AOPG, TLPG
- Initial, Mid and Final Planning Conferences
- SME Working Groups
- Risk Reduction, Accreditation & Integration Tests

Live Virtual Constructive Assets Integration

From Lessons Identified to Lessons Learned

- Final AAR
- JPOW Handbook
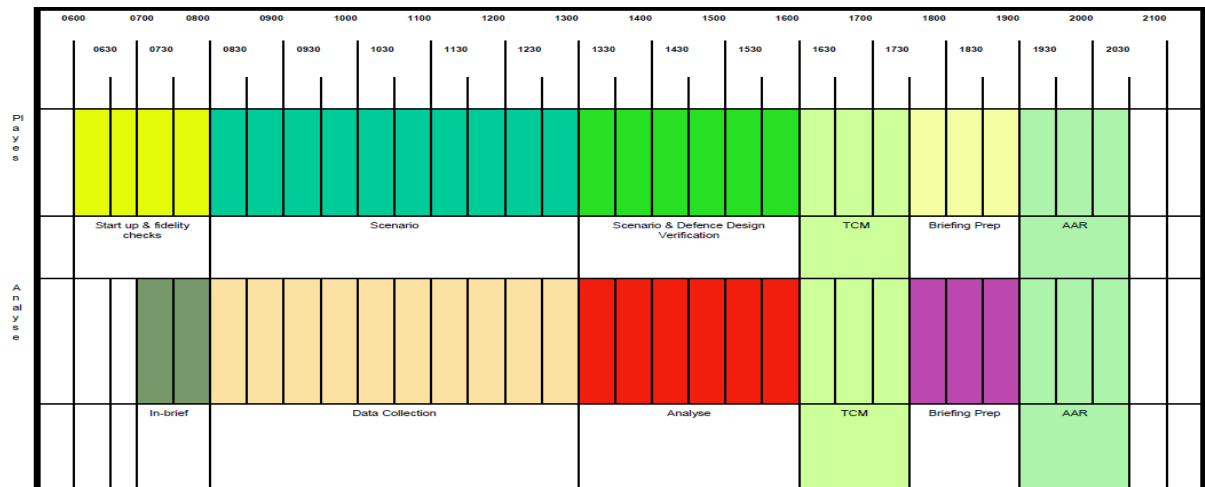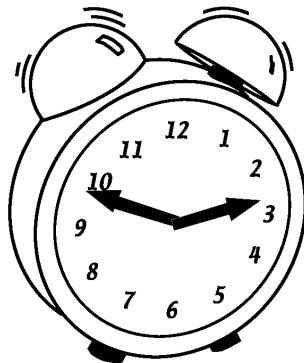- IAMD Roadmap

Exercises

- JPOW 2013
- Nimble Titan

Deployments

- NRF 18, ...

TNO Exercise Support at JPOW 2010

JPOW Challenges

› Large number of participants

  › Large number of different participant roles

› Distributed environment

  › Live, Virtual, Constructive

› Tight AAR and debriefing schedule

The JoiNT Concept

› Targeting

  › Different participant roles (user-centric)

  › Multiple exercises (mission-specific)

› Adaptive

› Flexible

› Easily Extendable

The JoiNT Concept
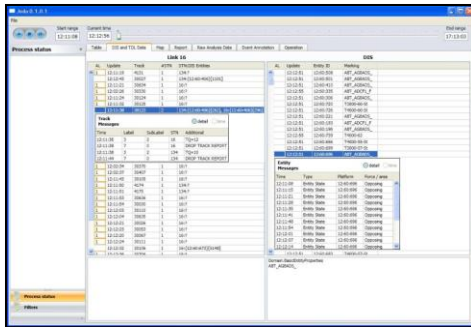
The JoiNT Concept
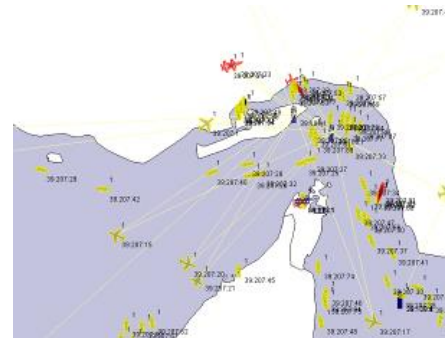
› Use already available, existing tools
  › COTS
  › Community-available

› Framework for integration of monitoring and debriefing capabilities
  › Logging & Replaying
  › Event Annotation
  › Information Sharing
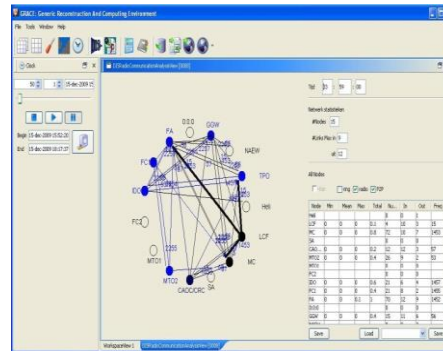 › (Automated) Analysis
  › Visualisation

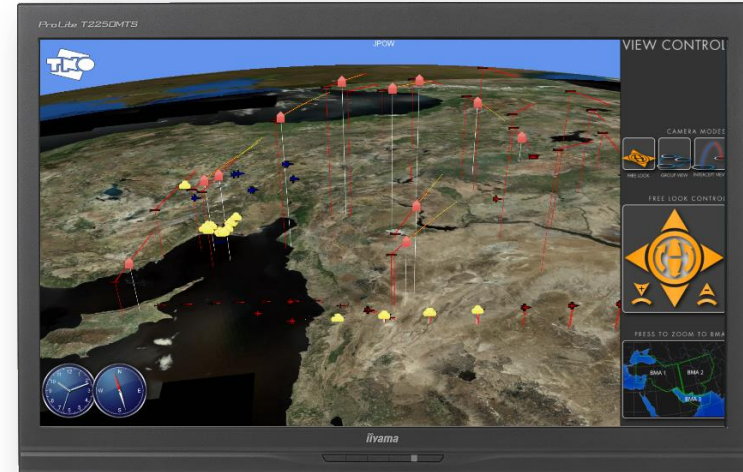# Setup

TDL Analysis

2D Viewer

Audio
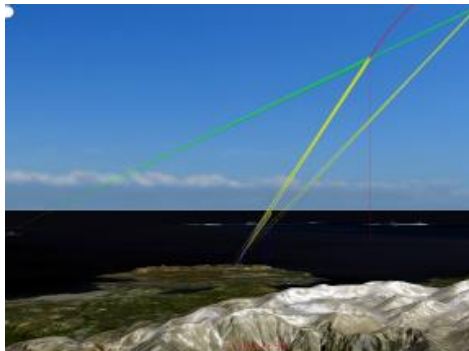
3D Viewer
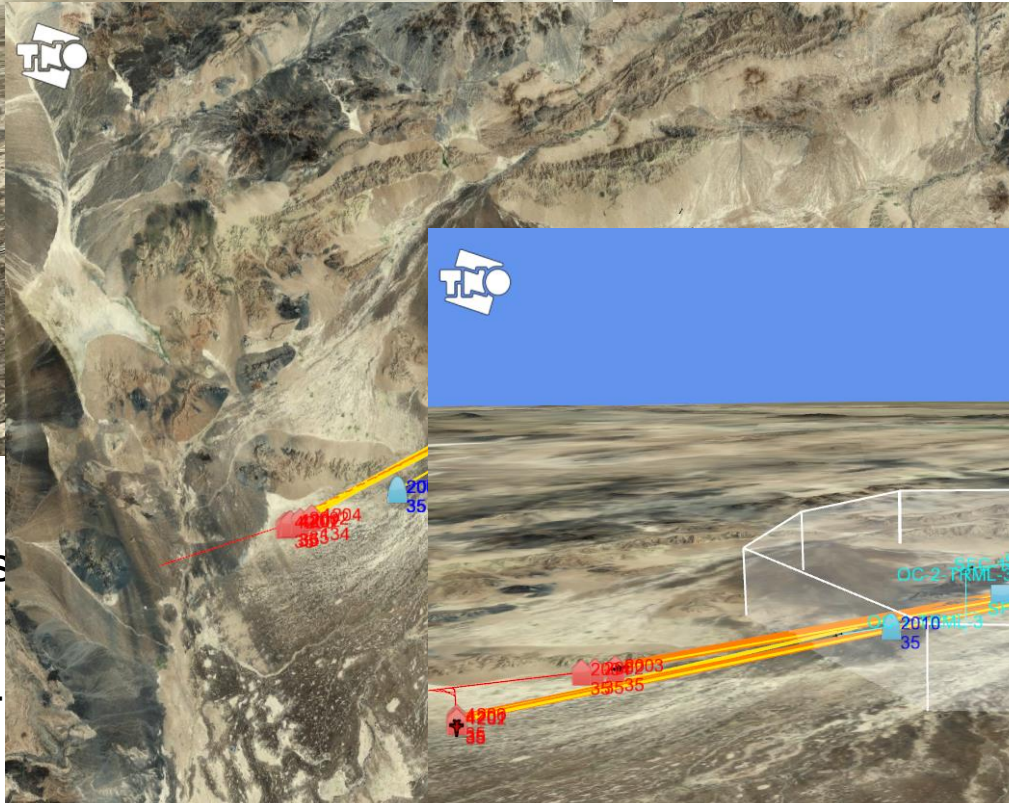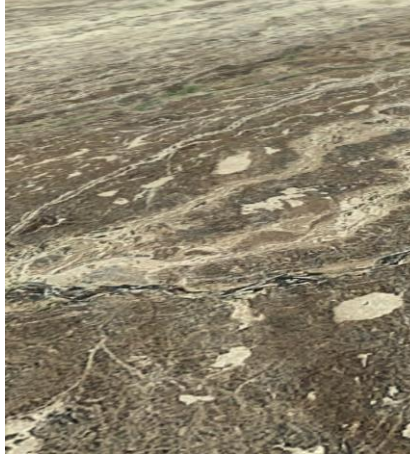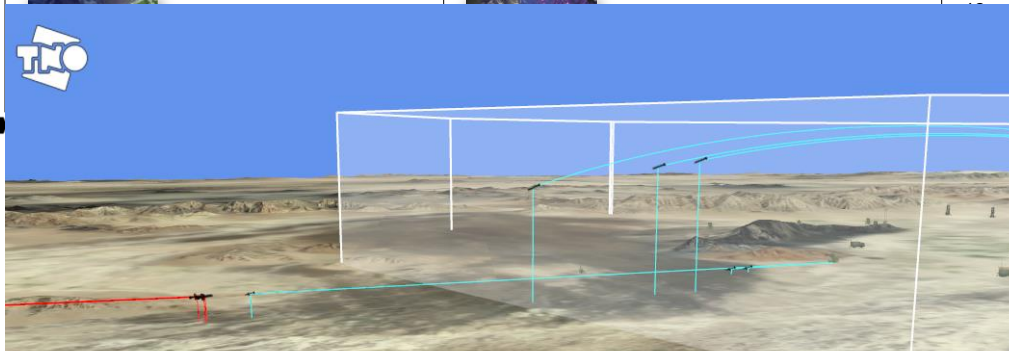

Replay and
Analysis

Event Marking
and Timeline

Setup

> For system operators only (Dutch AGBADS and ADCF)

> Two distributed AAR Stations

> Hot-washes: instant debrief with crew (operators) and JAT
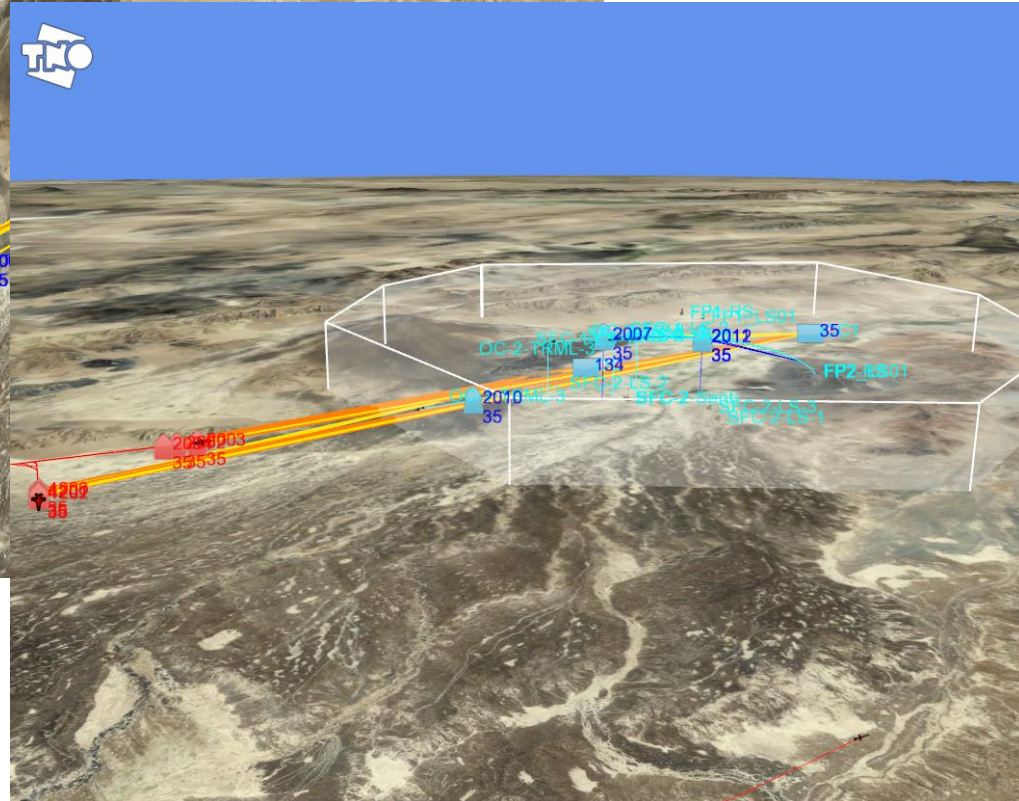> > Before overall debriefings
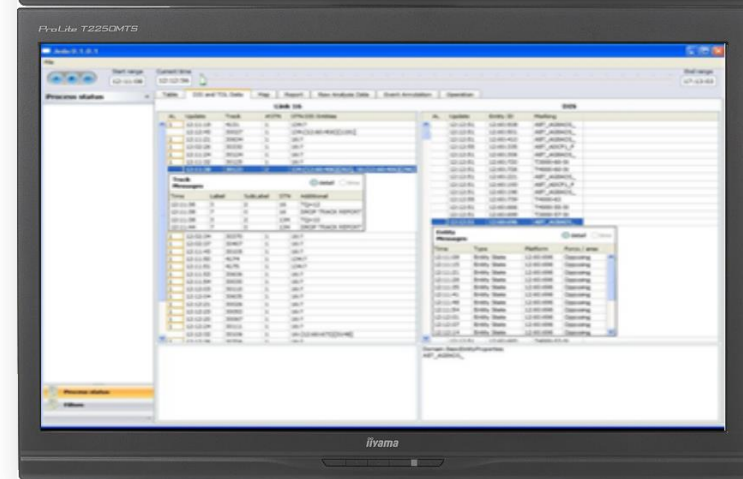
TNO innovation for life

tanding of the

› White

› Crews

› JoiNT

Conclusions

> JoiNT contributed to getting procedures sorted out quickly.

> Integration of COTS tools & agile development work together.

> JoiNT improves flexibility of mission debriefing.

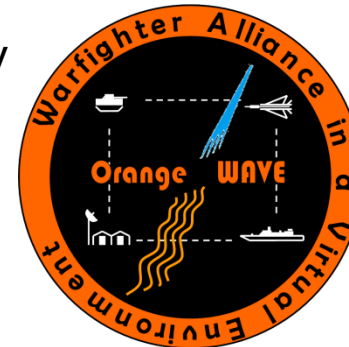# Way Ahead

› Further develop the integration framework

  › Standardisation

  › Incorporate more COTS and community tools

  › Develop towards a permanent capability

› Supporting other users/roles

  › Exercise staff

  › Debriefings

› Try-out the JoiNT concept in different settings

  › E.g. Land-domain exercise

Q?