



Supreme
Allied
Commander
Transformation



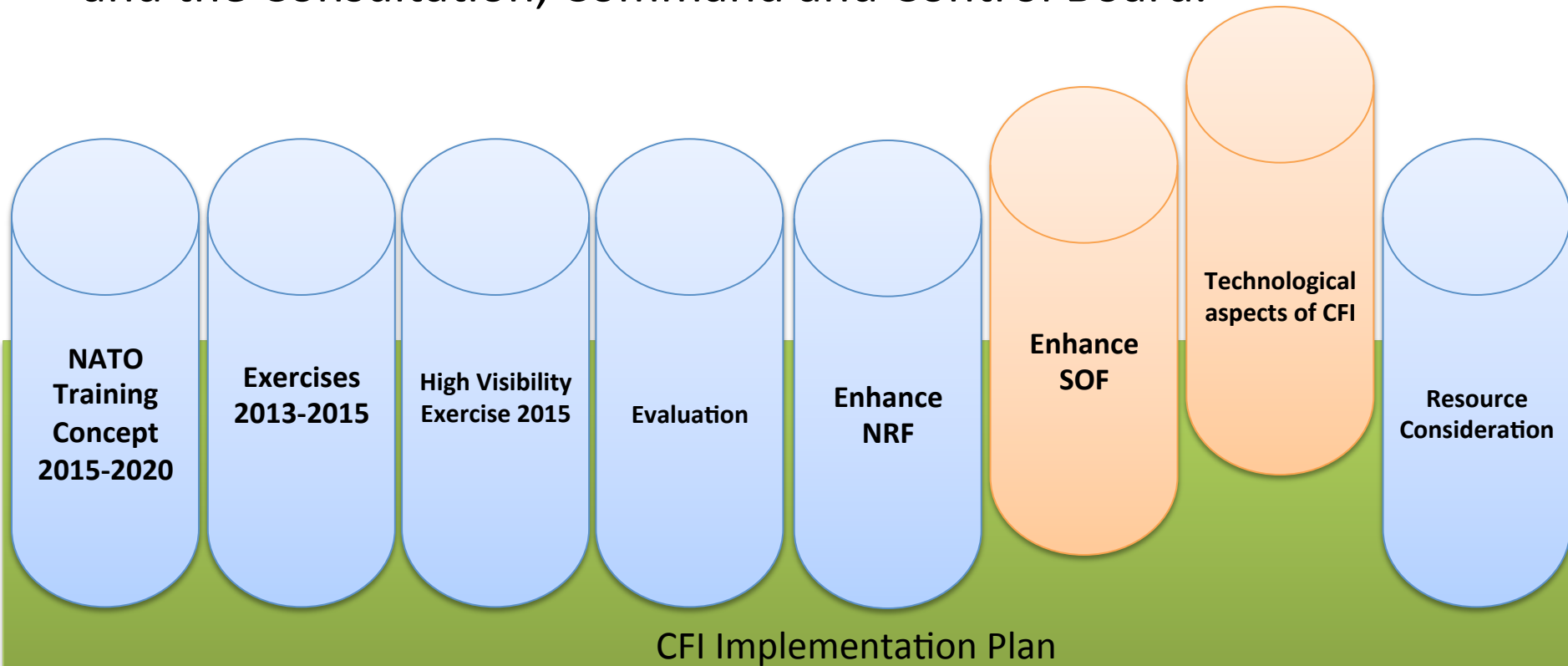
Technological Aspects of CFI

Capability Engineering and Innovation Division

October 2013

Technology Aspects to CFI Implementation Plan

The Military Committee tasked the Strategic Commands (with ACT in the lead), to take forward the technological aspects of CFI identified by the Conference of National Armaments Directors and the Consultation, Command and Control Board.



Intent



- Provide NATO and Allies with enhanced military capabilities and contribute to meet the goals of NATO 2020.
- CFI Technological development are in five subject areas set out by the MC.
 - **MC task 1:** Further development of distributed education, training, and exercise to improve e-learning and enhance the use of simulation and simulators
 - **MC task 2:** Possibilities of better connecting NATO and national training centres
 - **MC task 3:** Improve exercise through better use of modern technology
 - **MC task 4:** Implementation of the Future Mission Network concept
 - **MC task 5:** Examination of modalities to improve the process by which interoperable capabilities are demonstrated and validated in particular by making use of NATO exercises and trials
- The use of the high visibility exercise 2015 as a waypoint to demonstrate accomplishment.

MC Task Details



MC task 1

- Provide high quality training based on the use of simulation
- Mitigate emerging language issues
- Mitigate cultural issues
- Improve training through the use of media
- Industrialize current prototypes
- Improve connectivity and bandwidth for training
- Enhance NATO e-learning
- Provide better joint intelligence surveillance and reconnaissance training
- information assurance requirements to ensure cyber protection

Core Sim 2020

Training Tools

E- learning

MC task 2

- A networked, federated training management service
- Perform distributed multinational exercises of the NFS

Connection of NATO and training Capabilities

MC task 3

- Ability to exercise anytime from anywhere
- Data analysis methods

Data Farming

MC task 4

- FMN Implementation Plan
 - Management of FMN
- Guidance to enable nations to join a mission network
 - A standing capability to field a mission network
 - Verification process for the mission network
 - Trained personnel
- FMN for use as part of the High Visibility Exercise 2015

FMN

MC task 5

- Gap analysis to assess shortfalls for validation of operational interoperability
- Leverage existing NATO and national networks
- Identifying new functional requirements for command and control; auditing doctrine, policies and operational processes; and identifying training and manpower deficiencies
- Enhancing data link interoperability between Link 11, 16 and 22
- Demonstration of autonomous detection, classification and identification of sea mines
- Demonstration of autonomous detection and tracking of a submarine
- Identify ways in which joint intelligence surveillance and reconnaissance trials and demonstrations can be made coherent
- Conduct joint sea-based operations
- Top ten NRF capability gaps addressed

To Meet Success



- Sustain momentum and capabilities
- Harmonize and integrate all military components
- Realize CFI in a most inclusive and transparent way
- Make CFI smart



***Future Exercise using
Technology Advancements***

Other Activities



- Counter improvised explosive device
- Development of enhanced operational planning tools
- Information Exchange Gateway
- Land Command and Control
- Air Command and Control
- Core enterprise information services
- NATO communication services
- Interoperability standardization
- Ballistic Missile Defense
- Maritime command and control
- Cyber defense
- Intelligence Surveillance and Reconnaissance
- Space
- Operational Logistic Change Management
- NATO expeditionary medical support
- Logistic Stockpile Planning
- NATO command and control interoperability verification
- SOF

C2 Systems

Function
enhancements

Standardization

Planning Tools