Strategic Foresight Analysis
2015 Update Workshop

Mr. Mehmet Kinaci & LTC Aaron Bazin
Strategic Analysis Branch, Strategic Plans and Policy

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Aim of the Workshop

- Review existing and emergent trends - to conduct an in-depth analysis of the Vienna WS results
- Identify any possible new trends that should be included in the SFA 2017 Report
- Outreach to Nations, COEs, Academia and Industry

“Prediction is very difficult, especially if it's about the future.”
- Niels Bohr
Strategic Foresight Analysis

- First iteration was published in September 2013
- Based on national and international studies and a series of workshops
- Identifies trends that will shape the future strategic context
- Derives defence and security implications for the Alliance out to 2030 and beyond
- Promotes a common understanding of the future
Future Security Environment

- Interconnected World
- Complexity
- Polycentrism
- Adaptability
- Period of Transition
- Globalisation
- Uncertainty
- Rapid Rate of Change

Future Security Environment Elements:

- Future Security Environment
- Interconnected World
- Complexity
- Polycentrism
- Adaptability
- Period of Transition
- Globalisation
- Uncertainty
- Rapid Rate of Change

Future Security Environment Concepts:
- Globalisation
- Uncertainty
- Rapid Rate of Change
- Complexity
- Polycentrism
- Adaptability
- Period of Transition

Future Security Environment Characteristics:
- Globalisation
- Uncertainty
- Rapid Rate of Change
- Complexity
- Polycentrism
- Adaptability
- Period of Transition

Future Security Environment Descriptions:
- Globalisation
- Uncertainty
- Rapid Rate of Change
- Complexity
- Polycentrism
- Adaptability
- Period of Transition

Future Security Environment Diagram:
- Globalisation
- Uncertainty
- Rapid Rate of Change
- Complexity
- Polycentrism
- Adaptability
- Period of Transition

Future Security Environment Diagram Elements:
- Globalisation
- Uncertainty
- Rapid Rate of Change
- Complexity
- Polycentrism
- Adaptability
- Period of Transition

Future Security Environment Diagram Features:
- Globalisation
- Uncertainty
- Rapid Rate of Change
- Complexity
- Polycentrism
- Adaptability
- Period of Transition

Future Security Environment Diagram Highlights:
- Globalisation
- Uncertainty
- Rapid Rate of Change
- Complexity
- Polycentrism
- Adaptability
- Period of Transition

Future Security Environment Diagram Insights:
- Globalisation
- Uncertainty
- Rapid Rate of Change
- Complexity
- Polycentrism
- Adaptability
- Period of Transition

Future Security Environment Diagram Outcomes:
- Globalisation
- Uncertainty
- Rapid Rate of Change
- Complexity
- Polycentrism
- Adaptability
- Period of Transition

Future Security Environment Diagram Recommendations:
- Globalisation
- Uncertainty
- Rapid Rate of Change
- Complexity
- Polycentrism
- Adaptability
- Period of Transition
Strategic Foresight Analysis

**Political**
- Shifts of Global Power
- Shifting Political Structures
- Polycentric World
- Role of Non-State Actors
- Power Politics
- Democratic Discontent

**Human**
- Changing Demographics
- Urbanization
- Human Network
- Fractured Identities
- Transparency
- Ideological Polarization

**Environment**
- Natural Disasters
- Environmental/Climate Change

**Science and Technology**
- Technology Accelerates Change
- Increased Access to Technology
- Centrality of Dynamic Networks
- Evolution of Robotics
- Breakthrough Energy Technology

**Economics/Resources**
- Globalization of Financial Resources
- Increased Resource Scarcity
- Decreasing Defence Expenditures
- Global Inequality

*Note: Blue equals change from SFA 2013 Report*

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Political Theme

Shift of Global Power

Shifting Political Structures

Polycentric World
Emergent Trends (Draft) - Political

Return of Power Politics & Challenges to the Liberal World Order

Increasing Role of Non-state Actors

Increasing Democratic Discontent
Human Theme

Changing Demographics

Human Networks / Transparency

Fractured Identity

Urbanization
Emergent Trends (Draft) - Human

Ideological Polarization & Radicalisation

Transparency
Technology Theme

Technology Accelerates Change

Increased Access to Technology

Centrality of Computer Networks
Emergent Trends (Draft) – Science & Technology

**Evolution of Autonomous Systems**

**Breakthrough in Energy Technologies**

[https://www.youtube.com/watch?v=arlJm2IAfR8](https://www.youtube.com/watch?v=arlJm2IAfR8)
Economics/Resources Theme

Globalisation of Financial Resources

Increased Resource Scarcity

Decreasing Defence Expenditures
Emergent Trend (Draft) – Economics/Resources

Global Inequality

GDP (PPP) Per Capita

IMF 2008 estimates
(International dollars)

- 50,000+
- 30,000
- 10,000
- 1,000
Environment Theme

- Environmental / Climate Change
- Natural Disasters
Key Developments – Environmental

Intergovernmental Panel on Climate Change – Key Messages

Global Risks

Potential Impacts of Climate Change

- Food and water shortages
- Increased displacement of people
- Increased poverty
- Coastal flooding
Globalization

Cyber
Pre-Conference Survey Results

- Purpose: To gain an initial view of the participants’ perspectives on the trends to be discussed at the conference
- 55 total responses
- Survey open for two weeks
Question #1 and #2: …to what degree you feel these trends are valid?

- Technology has increased the acceleration of change
- Access to technology has increased
- Density of human networks has increased
- The world has become more urbanized
- Role of non-state actors has increased
- Evolution of robotics has increased
- Globalization of financial resources
- The world has become more polycentric
- Global power shifts have increased
- Environmental / climate change has increased
- Demand for transparency has increased
- Use of power politics has increased
- Ideological polarization has increased
- Demographics are changing at an increased rate
- Shifts in political structures have increased
- Centrality of dynamic networks has increased
- Global inequality has increased
- Identities are increasingly becoming fractured
- Increase in democratic discontent
- The likelihood of natural disasters has increased
- Likelihood of a breakthrough energy technology increased
- Resource scarcity has increased
- Defence expenditures have decreased
Question #3: In the next 30 years, which FIVE of these trends have the greatest potential to POSITIVELY impact NATO?

- Technology increasing the acceleration of change
- The evolution of robotics
- The demand for transparency
- Access to technology
- The centrality of dynamic networks
- Growth in human networks
- The use of power politics
- The likelihood of a breakthrough in energy...
- Shifts in political structures
- The world becoming more polycentric
- Global power shifts
- Defence expenditures
- The role of non-state actors
- Demographic change
- Urbanization
- Globalization of financial resources
- Individual identities becoming fractured
- Environmental / climate change
- Global inequality
- The likelihood of natural disasters
- Resource scarcity
- Ideological polarization
- Democratic discontent
Question #4: In the next 30 years, which FIVE of these trends have the greatest potential to **NEGATIVELY** impact NATO?

- The role of non-state actors
- Defence expenditures
- Ideological polarization
- Global power shifts
- Democratic discontent
- Demographic change
- Individual identities becoming fractured
- The use of power politics
- Access to technology
- The world becoming more polycentric
- Shifts in political structures
- Global inequality
- Resource scarcity
- Urbanization
- Environmental / climate change
- Globalization of financial resources
- Technology increasing the acceleration of change
- The likelihood of natural disasters
- The evolution of robotics
- The demand for transparency
- Growth in human networks
- The centrality of dynamic networks
- The likelihood of a breakthrough in energy technology
Question #5: Are there any other trends not discussed above that NATO should consider as it looks to the next 30 years?

- Erosion of trust both inside societies and among NATO countries
- The increasing change in religious composition of Europe
- Growth of perpetual and uncontrollable migration
- The concentration of global integrated circuit manufacturing in Asia
- The increased willingness of non-NATO states to use military force
- The growing high dependency to technology and energy
- The rise of nationalism as a source for state action
- Increased complexity of conflicts
- Increasing evolution of cyber and artificial intelligence
- Increase in hybrid warfare (unconventional methods, economic warfare, information warfare, cyber warfare, lawfare)
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