

# STEP 2 – Scenario**s**

Taking FATE\* on the road

\* FATE – Futures Assessed alongside **socio**-Technical Evolutions

NATO SAS-RTC-176

# The *FATE* Method

A problem – scoped as a Socio-Technical System (STS)

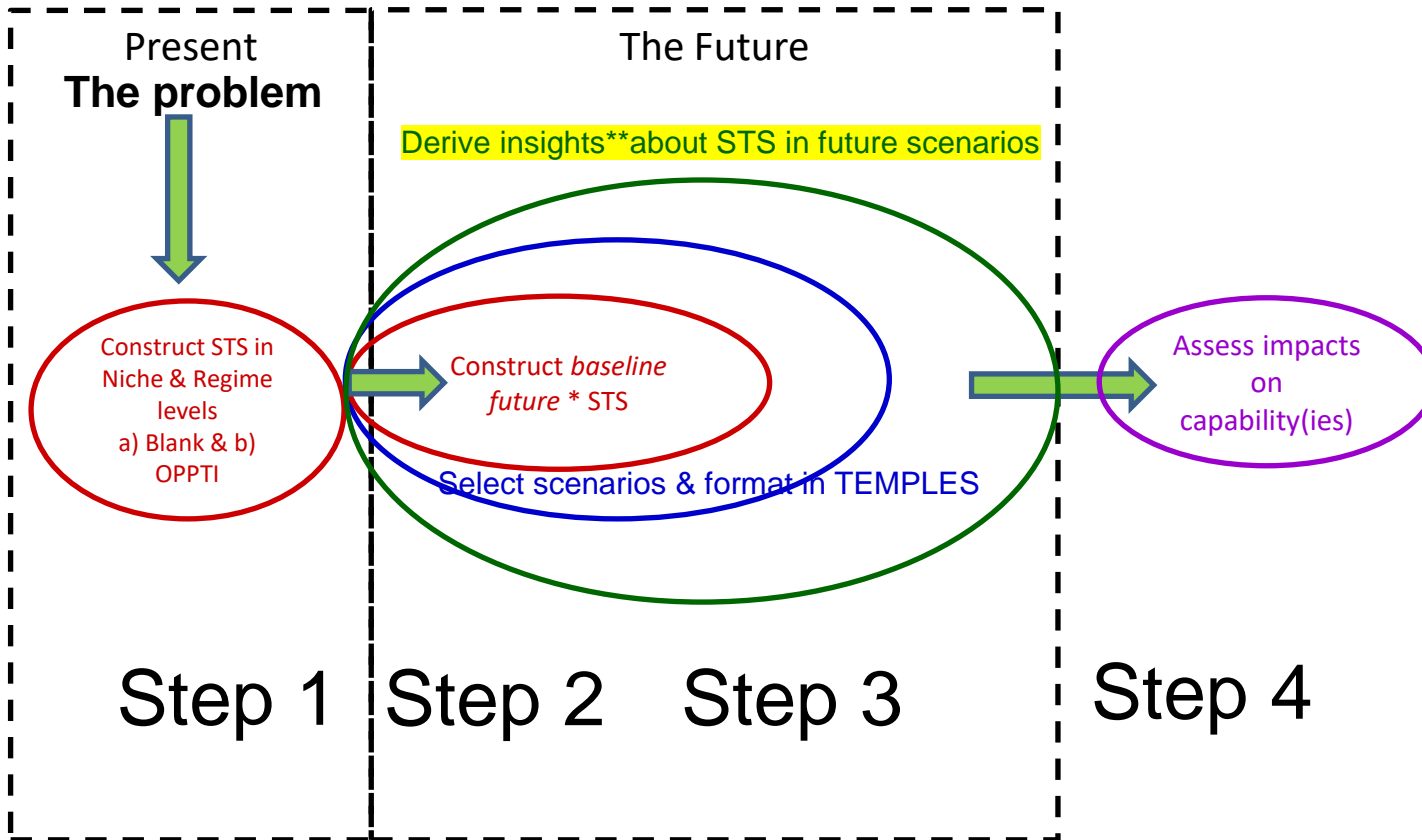
- Step 2 – Future scenario

Adapt a scenario into *TEMPLES*<sup>#</sup> if required

<sup>#</sup> *TEMPLES* – Technological, Economical, Military, Political, Legal, Environmental and Social

<sup>\*</sup> *OPPPTI* – Organization, People, Processes, Policies, Technology, Infrastructure

# The *FATE* Method



\* *Baseline future* is an idealised *extrapolation* of what is emerging today, \*\*Insights from analysis, changes in STS, drivers and resistors of change in future scenarios and/or STS

# *FATE* – in action with examples

## Step 2

Enter the Future

You are in year 2040

## Step 2 - Future scenarios

- *FATE* uses pre-described states of the world (“scenarios”)
- Scenario characteristics are explored using the TEMPLES scheme
- What is the TEMPLES scheme?
  - Technological, Economical, Military, Political, Legal, Environmental and Social
  - Another similar known scheme – PESTLE

# The reasoning behind the use of more than 1 scenario

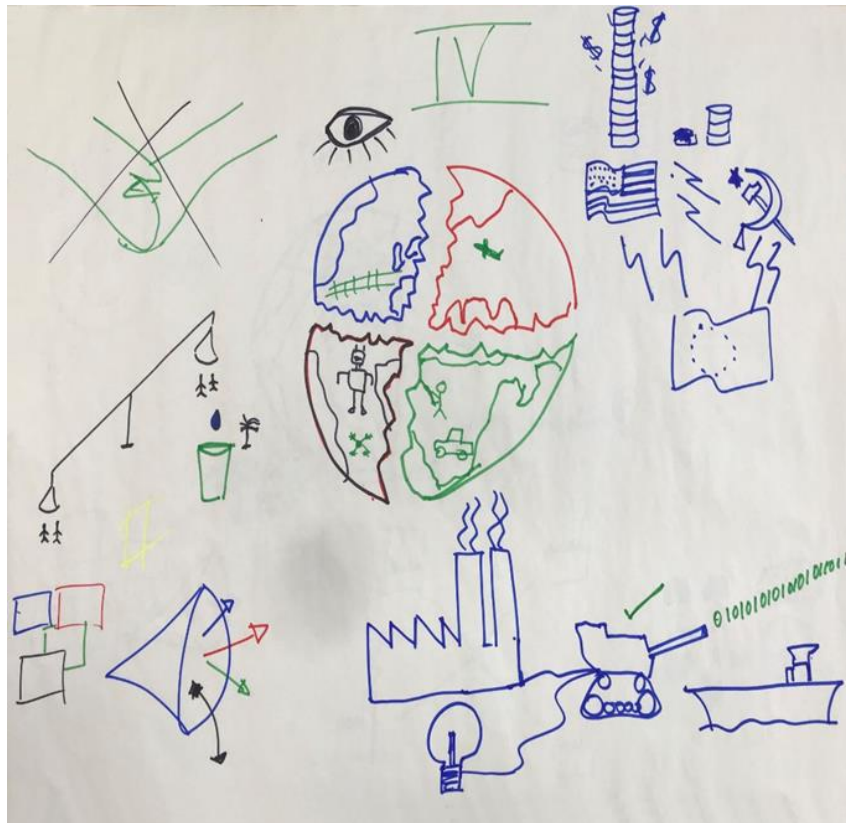
- We do not know what the future holds
- A 10-15 year look ahead important to influence the defence procurement cycle
- Imagined scenarios this far out into the future also allows conversation to flow freely without classification issues
- More than 1 scenario gives decision-makers options on how to steer under different circumstances
- Opportunity to see whether STS are coupled in different scenarios and merit additional attention

## Step 2 - Future scenarios

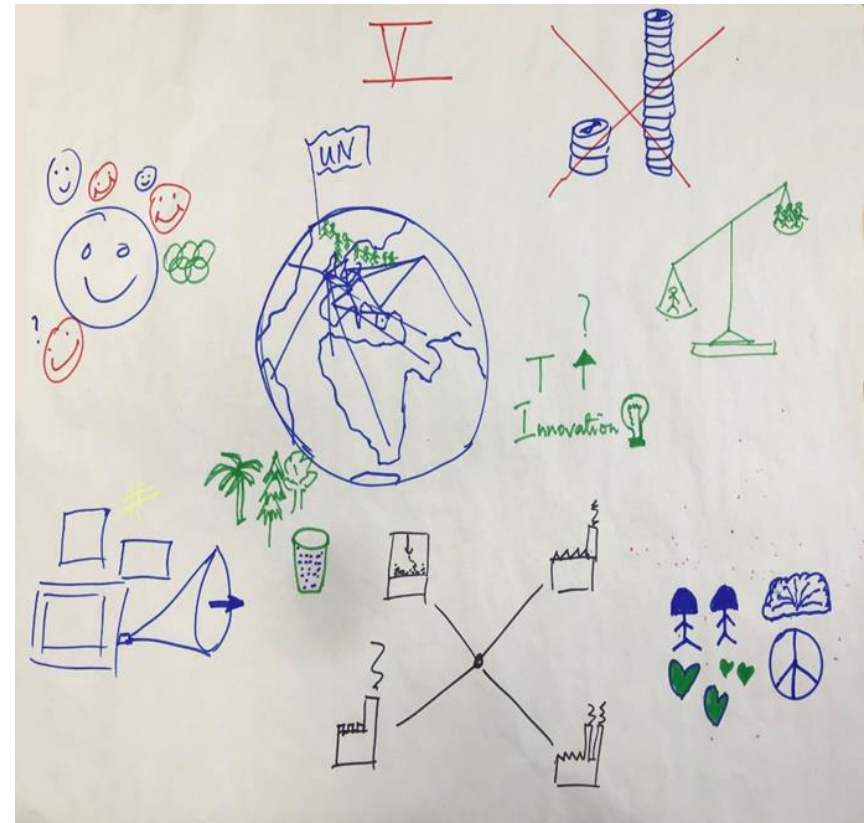
- Future worlds<sup>TM</sup> (FW) were the scenarios used in e.g.,
  - FW differentiated along 3 axes:
    - Global power dynamics
    - State control
    - Resource sustainment
  - FW4\* and FW5\* are an example of a pair of future worlds with pronounced differences for each of the 3 axes

\*Reference 3

## Future World (FW\*) 4



## Future World (FW\*) 5



\*Reference 3



# Step 2 – TEMPLE Characteristics of FW4 and FW5

<i>TEMPLES</i>	Future World 4*	Future World 5*
<i>Technological</i>	- <b>Innovation is driven by the military sector.</b> Positive drivers for technological growth pervasive presence in main aspects of life (transport, work, networking...)	- <b>Technology is flourishing</b> and is favoured by <b>deep innovation</b>
<i>Economical</i>	- <b>Large industry prevails</b> , with strong push from military requirements. It is able to mass-produce anything but without the agility to respond to quick changes	- <b>Industry is mainly small, agile and distributed.</b> It cannot flood the market as an organised, large-scale industry can but can capture and respond to the rapid changes of the landscape
<i>Military</i>	-Called to <b>operate in multiple contested domain</b> with multipurpose assets	-Armed forces are present mainly for <b>resolving small-scale sub-regional hot spots</b> without the need for global intervention
<i>Political</i>	- <b>Fragmented world</b> , strong regionalism. -Strong control through <b>extensive global intelligence.</b> -Large <b>regional powers</b> in contrast	-Strong <b>global cohesion.</b> -The <b>UN is the main governing</b> body for resolving disputes and procuring funds. -Numerous <b>lobbyist entities</b> with contrasting interests
<i>Legal</i>	- <b>Lack of standards</b>	- <b>Standards</b> that are well supported
<i>Environmental</i>	-Resources are <b>scarce</b>	-Resources are <b>abundant</b>
<i>Social</i>	-Sharp <b>inequalities in income and satisfaction</b> , strongly dependent on the social group of belonging. There is <b>no peaceful coexistence</b> across mixed societies. - <b>Media outlets are varied</b> and heterogeneous.	-Income is satisfactory for everyone and there are <b>no sharp inequalities</b> ranging across social groups. <b>Societies are cohesive</b> and supportive. - <b>Media outlets are homogeneous.</b>

\*Reference 3

# Scenarios – year 2040

Two scenarios situation in 2040 are provided

1. Read each scenario individually
2. Mark each letter of TEMPLES on stickies
3. As a group discuss placement of stickies on the big posters

# Pre-worked out Step

# Step 2 – TEMPLE Characteristics of ScenarioS

<i>TEMPLES</i>	<b>A World Adrift*</b>	<b>Tragedy and Mobilization*</b>
<i>Technological</i>		
<i>Economical</i>		
<i>Military</i>		
<i>Political</i>		
<i>Legal</i>	<b>Lack of regulations</b>	<b>Strong regulatory system</b>
<i>Environmental</i>		
<i>Social</i>	People frightened about sharing data	People willing to share data

\*Reference 4

# References

1. Adlakha-Hutcheon, G. et al (2021) Futures Assessed alongside socio-Technical Evolutions (FATE), DOI: 10.14339/STO-TR-SAS-123, ISBN 978-92-837-2322-6.
2. Adlakha-Hutcheon, G., Bown, K., Lindberg, A. Nielsen, T. G. Roemer, S. Maltby, J.F.J. (2020) The Use of FATE for Illuminating Disruptions, Proceedings of The 14th Annual NATO Operations Research and Analysis Conference, 2020.
3. Maltby, J.F., Di-Placito, J., Strong, P. and Kirlew, M. (2014). FutureWorlds™ Narratives: Global scenarios for evidence-based long-term analysis. Dstl Policy and Capability Studies, Portsmouth West.
4. Global Trends 2040 as scenarios (2021) [Office of the Director of National Intelligence - Global Trends \(dni.gov\)](https://www.dni.gov/GlobalTrends)

# Backup

# Step 2 – TEMPLE Characteristics of ScenarioS

<i>TEMPLES</i>	<b>A World Adrift*</b>	<b>Tragedy and Mobilization*</b>
<i>Technological</i>	Not able to keep pace – hampered by poor policy and administration.	Top-down channeled efforts. Standards are set. But progress is lessened by lack of incentives.
<i>Economical</i>	Strained by climate and other disasters, conflict. China GDP continues to grow.	Transitioned away from capitalist incentives to social cooperation. Probably in disarray.
<i>Military</i>	China is predominant in Asia but not strong enough in other places. Brittle equilibrium.	Cooperative. In service of international norms. Move away from nationalism.
<i>Political</i>	China fails to transition from disrupter to leader. Global leadership vacuum.	Bottom-up movements, reordering, high trust in institutions, highly cooperative.
<i>Legal</i>	<b>Lack of regulations</b>	<b>Strong regulatory system</b>
<i>Environmental</i>	Uncontained and worsening. Many unresolved issues. Localized mitigation efforts.	Solutions derived from cooperation and implemented thanks to cooperation mitigate most problems.
<i>Social</i>	People frightened about sharing data	People willing to share data

\*Reference 4