



Contemporary Scenario for CAX

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01st October 2013

Aim

To explain the structural complexity of the Scenario for CAX, and its influence on CAX process.

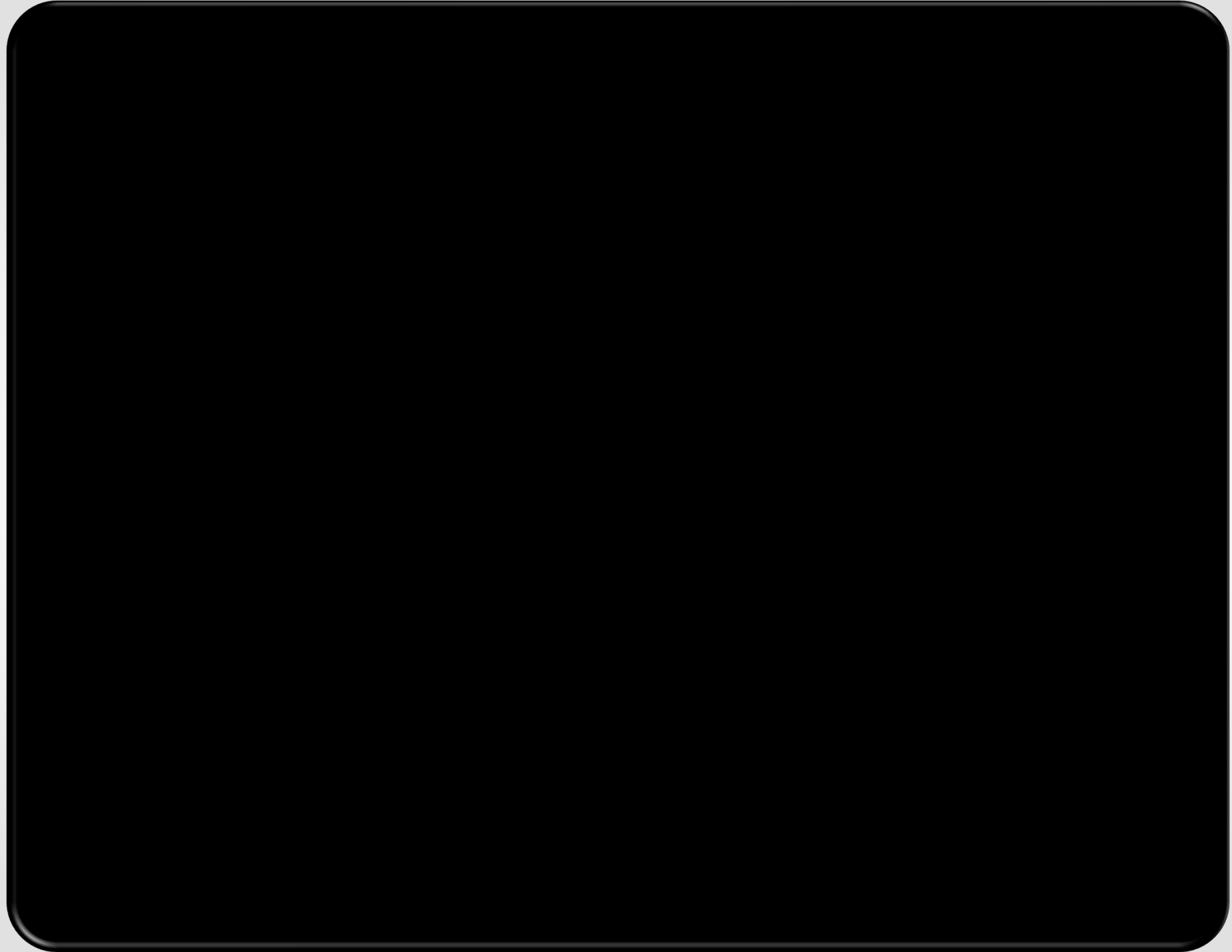


Outline

- ❑ Introduction.
- ❑ CAX Purpose.
- ❑ Global Security Environment.
- ❑ Scenario foundations.
- ❑ CAX Methodology.
- ❑ Conclusions.

Introduction

- At the beginning of 21st century the global international community is dominated by the democratization of information, technologies and finances (Friedman, "The World is Flat", 2005).
- The threats to contemporary society are not only military but also political, economical, social, demographical, environmental and others.
- CAX is **indispensable training methodology** which could ensure to the International Community a **suitable and timely reaction** to security deviations.



CAX Purpose

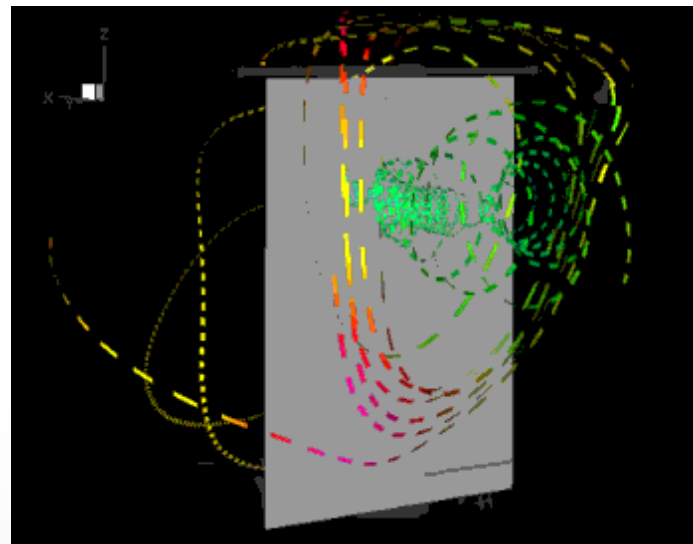
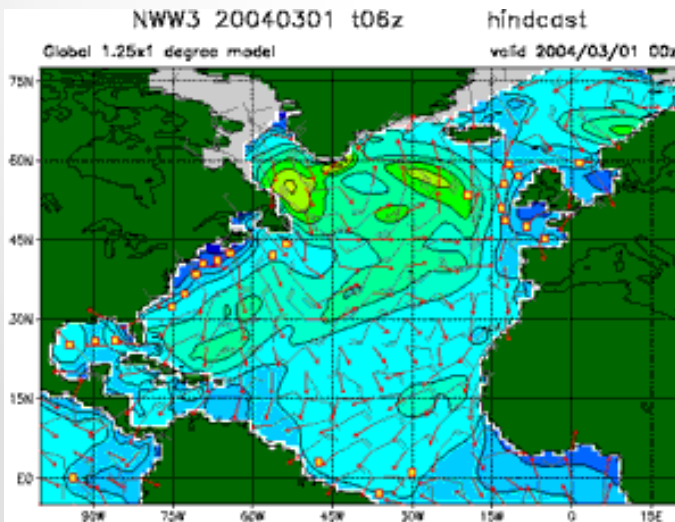
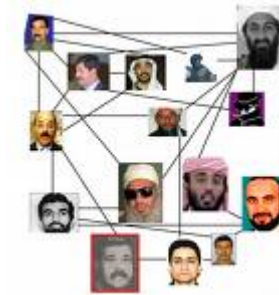
Byrne (1997) wrote basic orientation with record: "It is not the question "What happen?", ... or even "What might happen?", but rather „What are the necessary and sufficient conditions for a given result to be obtained?"

Represent all activities and procedures, which are directed toward imitation of processes or entities from the real world.



Global Security Environment

- Global stakeholders
- Power projection
- Asymmetric threats
- Bio-terrorism
- Non-traditional security threats
- Fast pace of a crisis

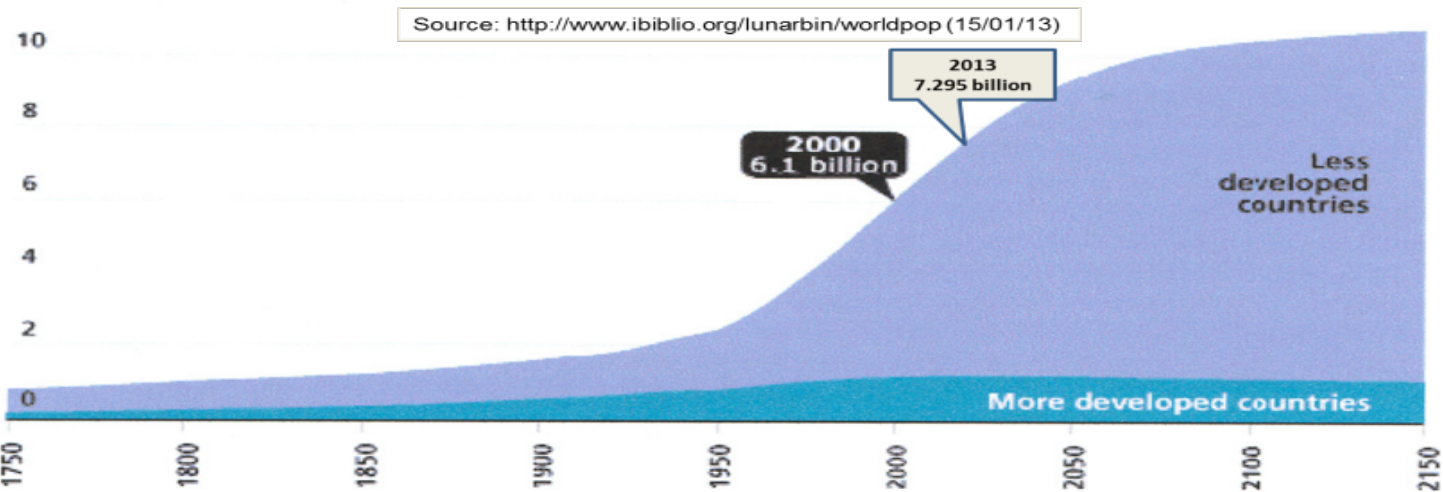


Complex Security Threats to Society



World Population Growth, 1750–2150

Population (in billions)



Source: United Nations, *World Population Prospects, The 1998 Revision*; and estimates by the Population Reference Bureau.



Dhaka

400,000

10 million

19 million

Los Angeles
4.9 million
12.9 million
14.2 million

Mexico City
3 million
17.6 million
19 million

New York
12 million
16.5 million
17 million

São Paulo
2.3 million
17.3 million
19 million

Buenos Aires
5.25 million
12.2 million
13.9 million

Lagos
1 million
12.2 million
24.4 million

Cairo
2.1 million
10.5 million
14 million

Karachi
1.1 million
11 million
20.6 million

Mumbai
2.8 million
16.9 million
27.4 million

Shanghai
4.3 million
13.9 million
23 million

Jakarta
2.8 million
9.5 million
22.2 million

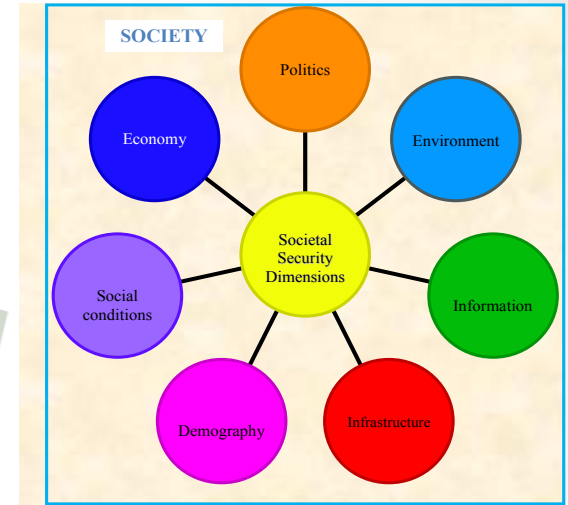
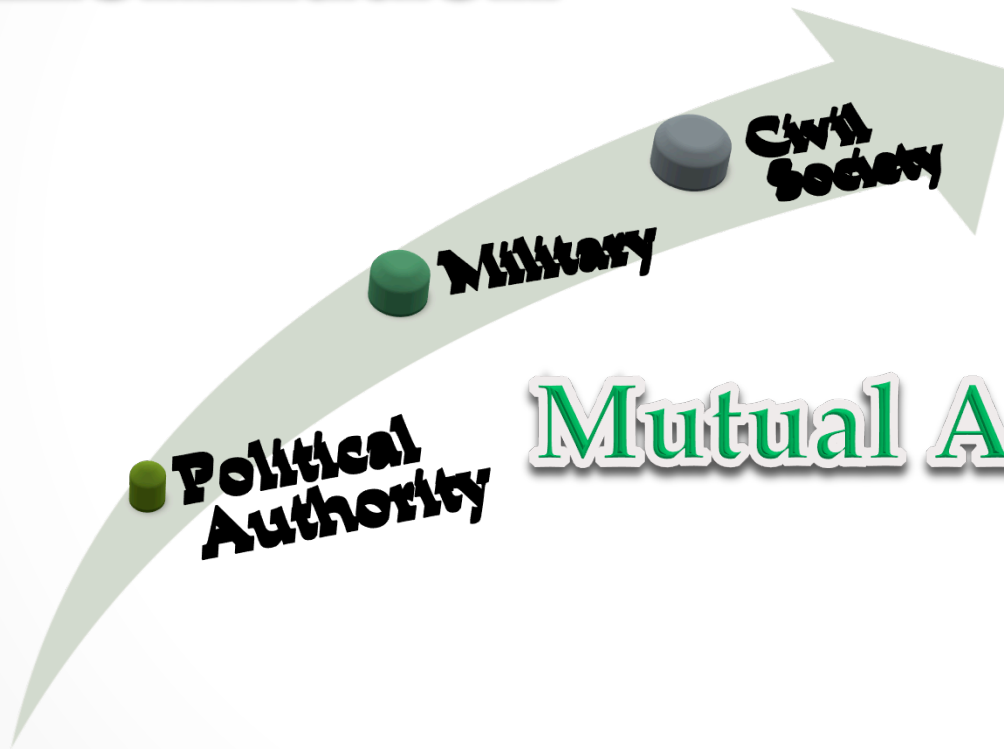
Tokyo
6.2 million
27.7 million
28.7 million

- Population New York
- 1950
 - 2000 (estimate)
 - 2015 (projection)

In terms of equivalent growth rates to Dhaka, Bangladesh, New York's population in 2015 would be 570 million . . . twice the population of the United States in 2000

Comprehensive Approach to Societal Security

Harmonization



Common Understanding

Scenario foundations

Demography

Geography

Country

Municipality /
Region or
Province

Tribe

SOCIETAL DIMENSIONS

Family

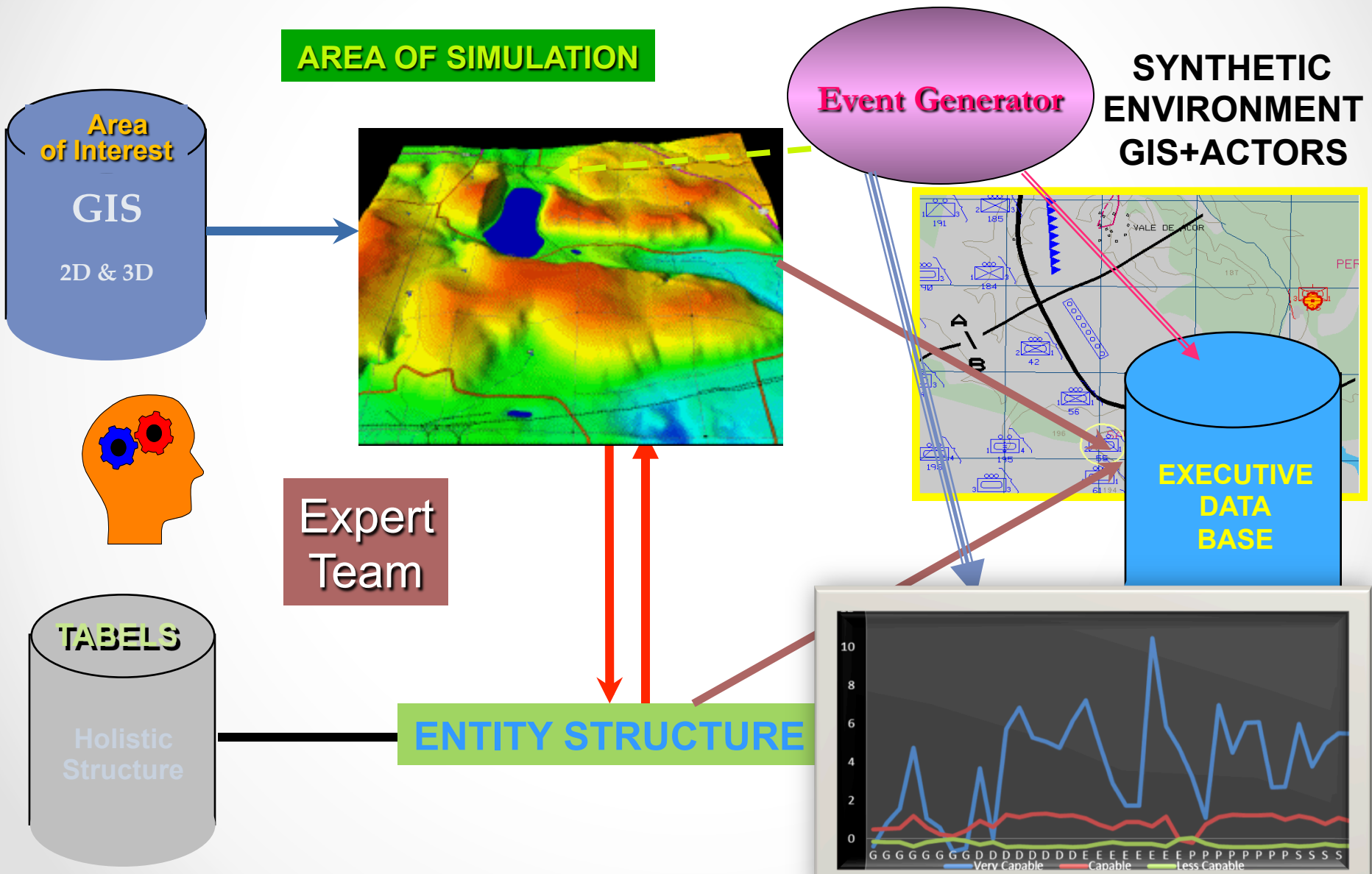
Individual perception

Religion

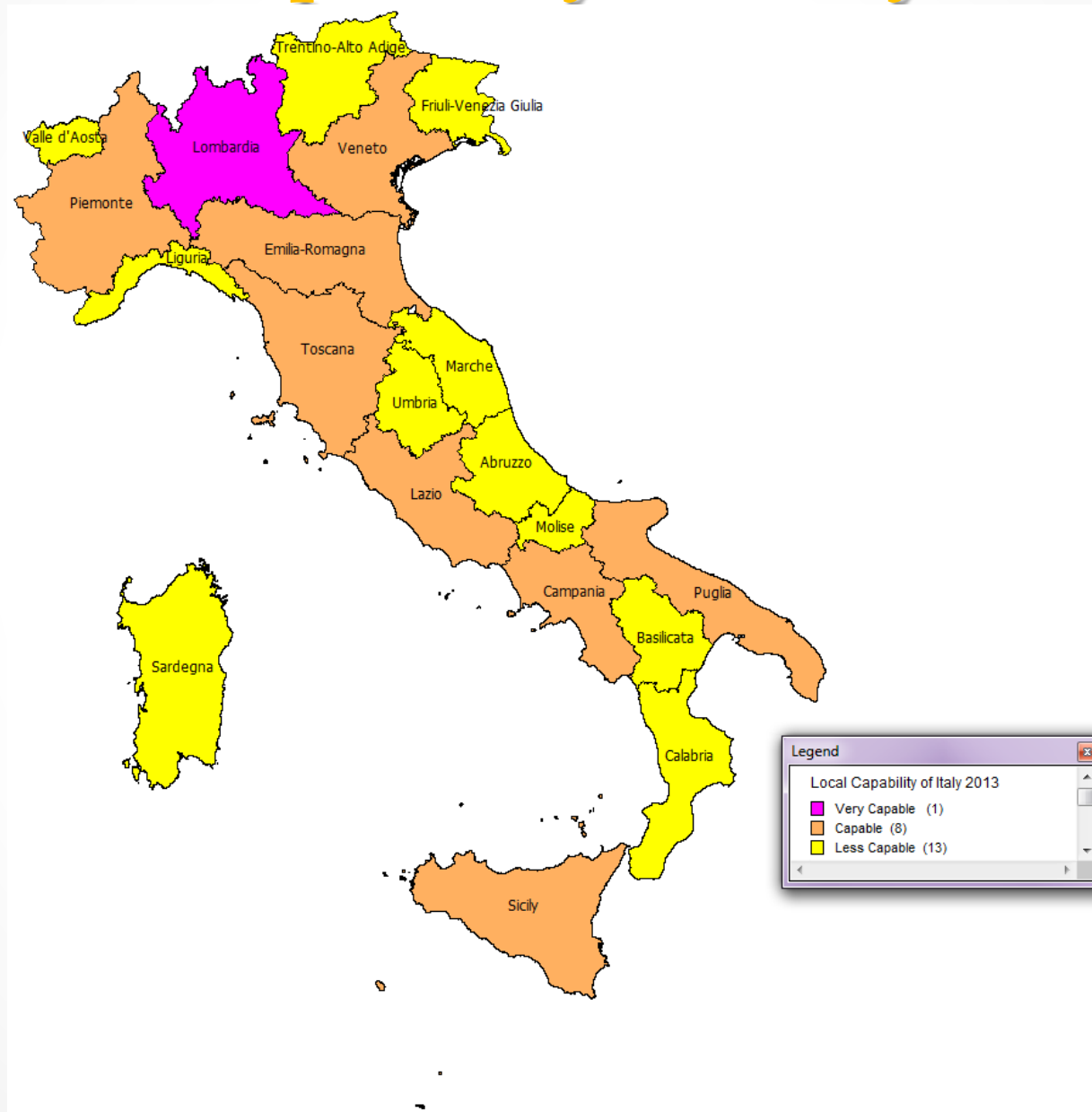
Economy

Social conditions

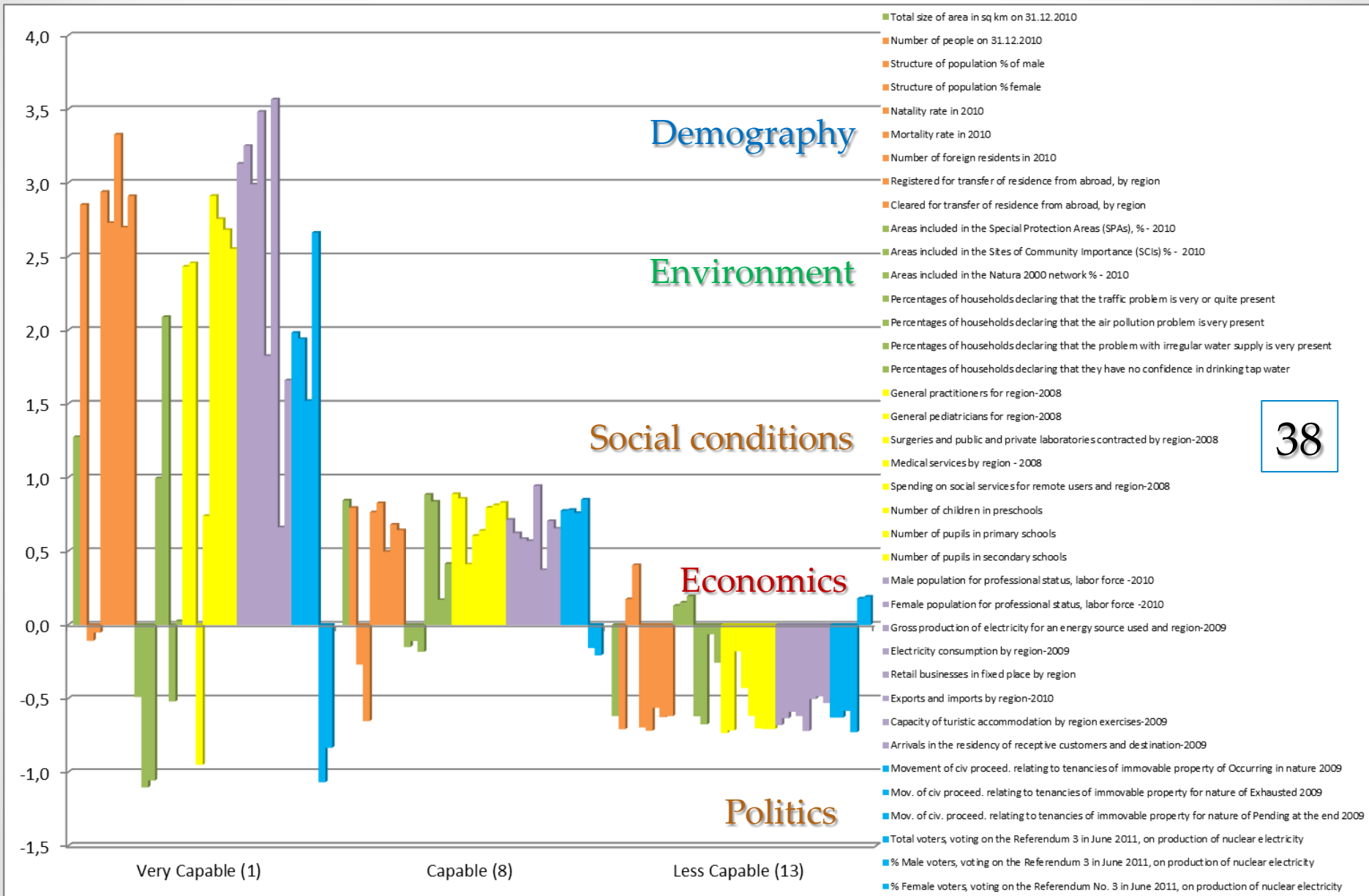
Structural elements of CAX



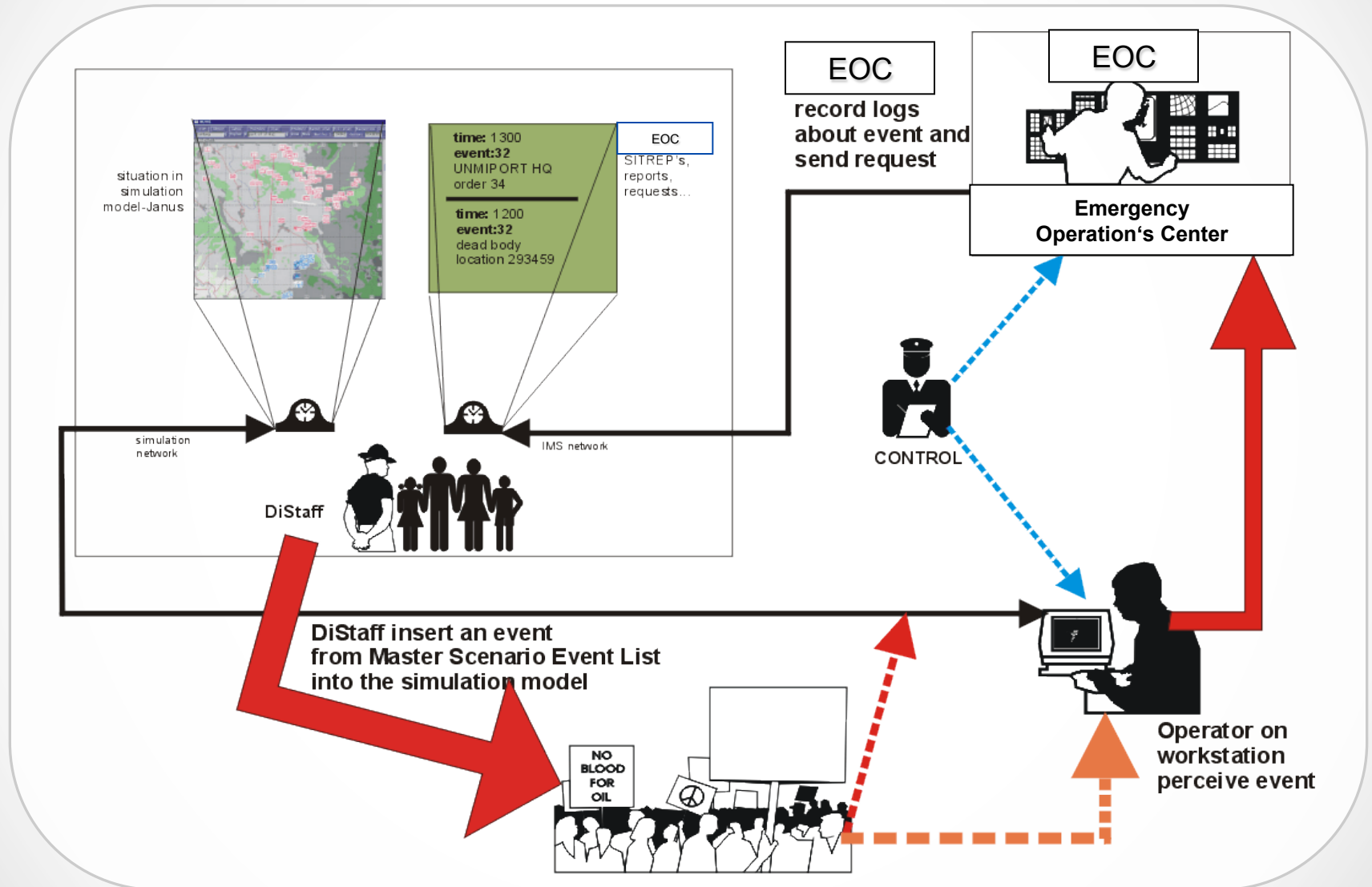
Local Capability of Italy 2013



Multivariate Analitical Model



CAX Execution



MEL/MIL Examples



Fire in the Nuclear Power Plant



Demonstrations



Traffic accident in the road tunnel



Collapse of the river dam

Incident Capability Index

Municipalities

State: Bogoland
Subcriterion: capable

Record: 1 of 1

Record: 1 of 10

Entry of basic

Evaluation of Incidents

Incident Title: test
Exercise: VIKING 05
Incident Description: accident with POL truck
Area: Point
Probability: 0.001

Calculation

Components	Landscape factors
Civil police	Social
Local authorities	Spatial
Military	Economic

Record: 1 of 3

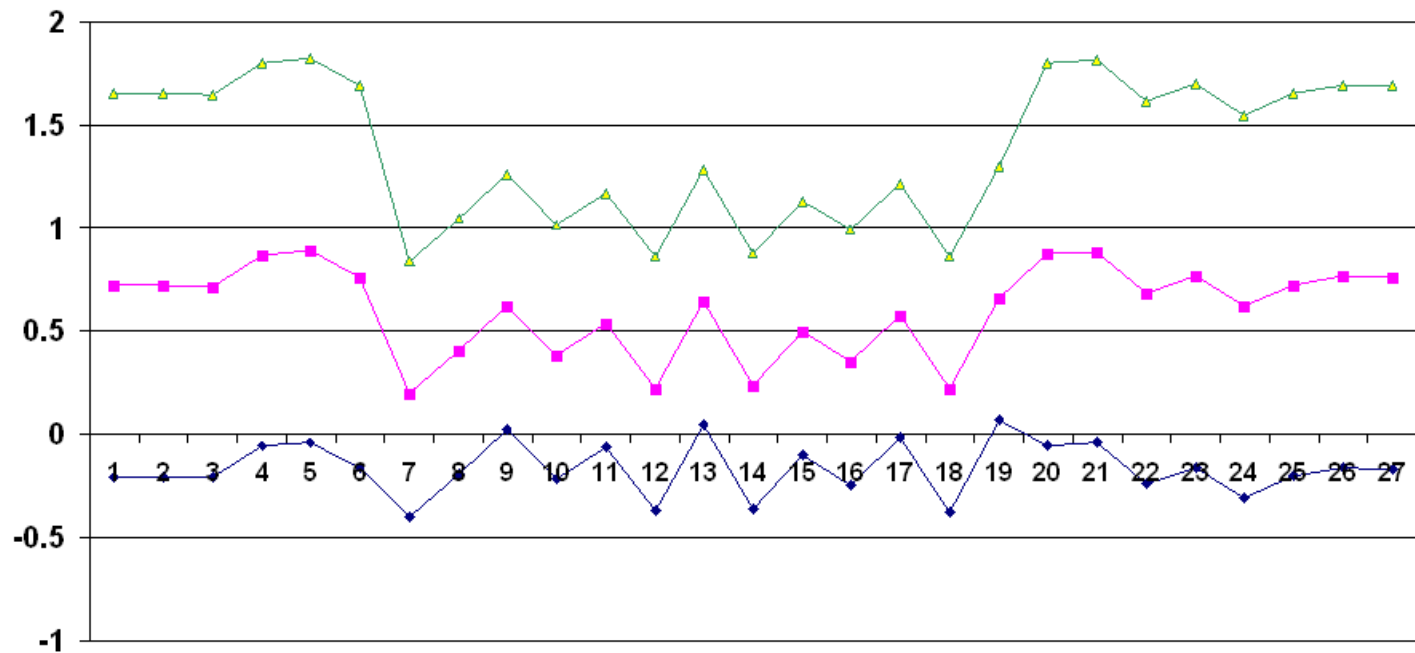
Record: 1 of 2

Table Data:

Landscape Factors	Variable Description	Variable Value
Graphic	Share of population commonly in %	0.469
Graphic	Share of Kasurians in %	0.404
Graphic	Share of Midians in %	-0.032
Graphic	Share of Others in %	1.036
Graphic	Number of agricultural housekeepings	0.509
Technical	Production of winter wheat 2001	-0.005
Technical	Production of maize 2001	-0.047
Technical	Number of cattle on farms commonly	0.709
Economical	Number of registered companies	0.726
Economical	Number of employees in companies	0.72
	ed businessmen	0.849
	ies with foreign capital	1.226
	of companies	0.983
	l income 03	1.03
	municipalities in year 03	0.804
	dgetary means in municipalities03	1.107
	eschool education	-0.049
	s in preschool education	0.449
	s in elementary schools	1.158
	s in elementary schools	1.126
	s in secondary schools	0.491
	s in secondary schools	0.417
	inhabitant	-0.381
	nt	0.019
	rust	0.552

CAX Analysis

Comparison of initial, reached and possible level of local capability

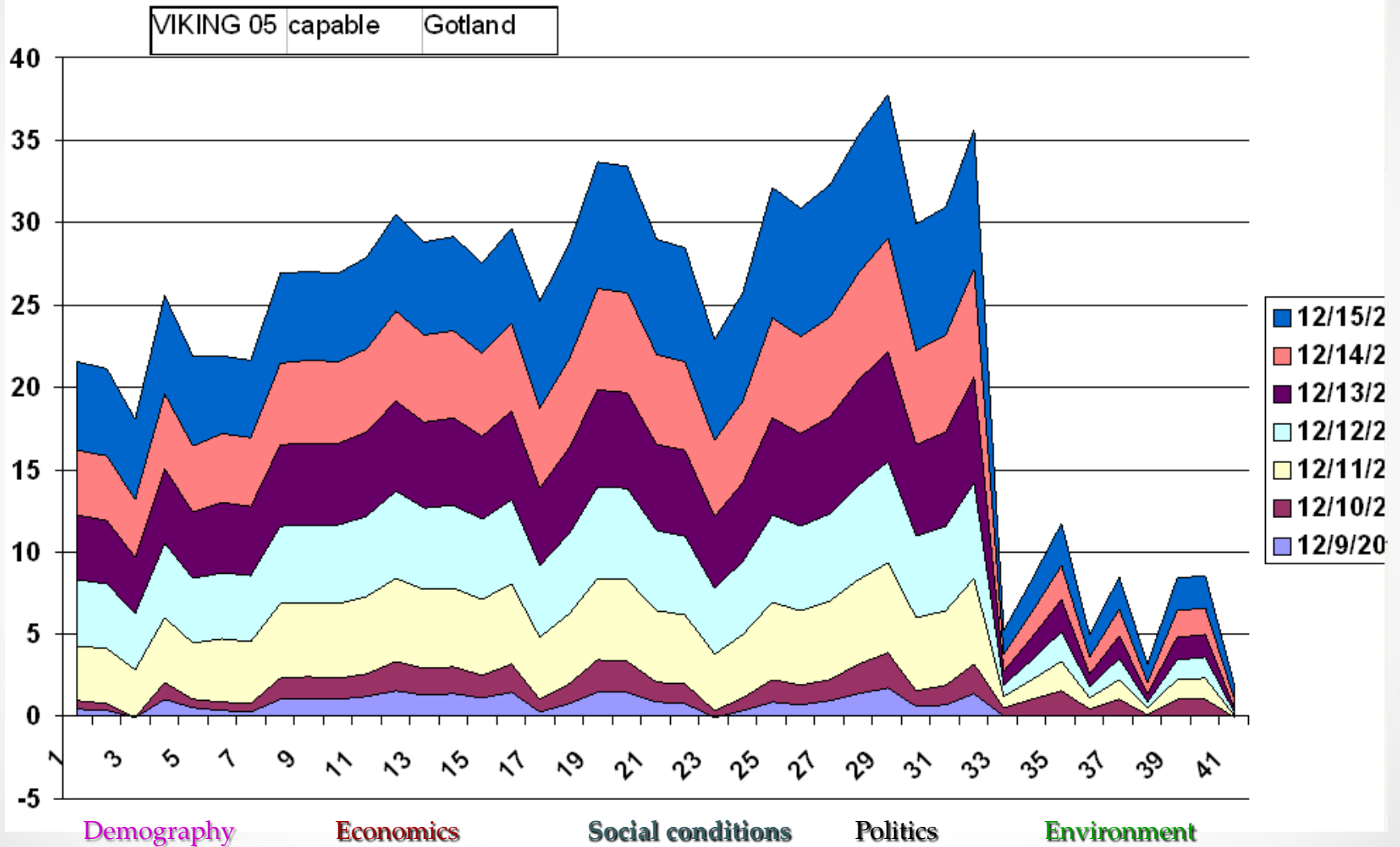


Ime vaje	Ime podkriterija	Datum
Perun 2005	manj zmogljiv	3/3/2005

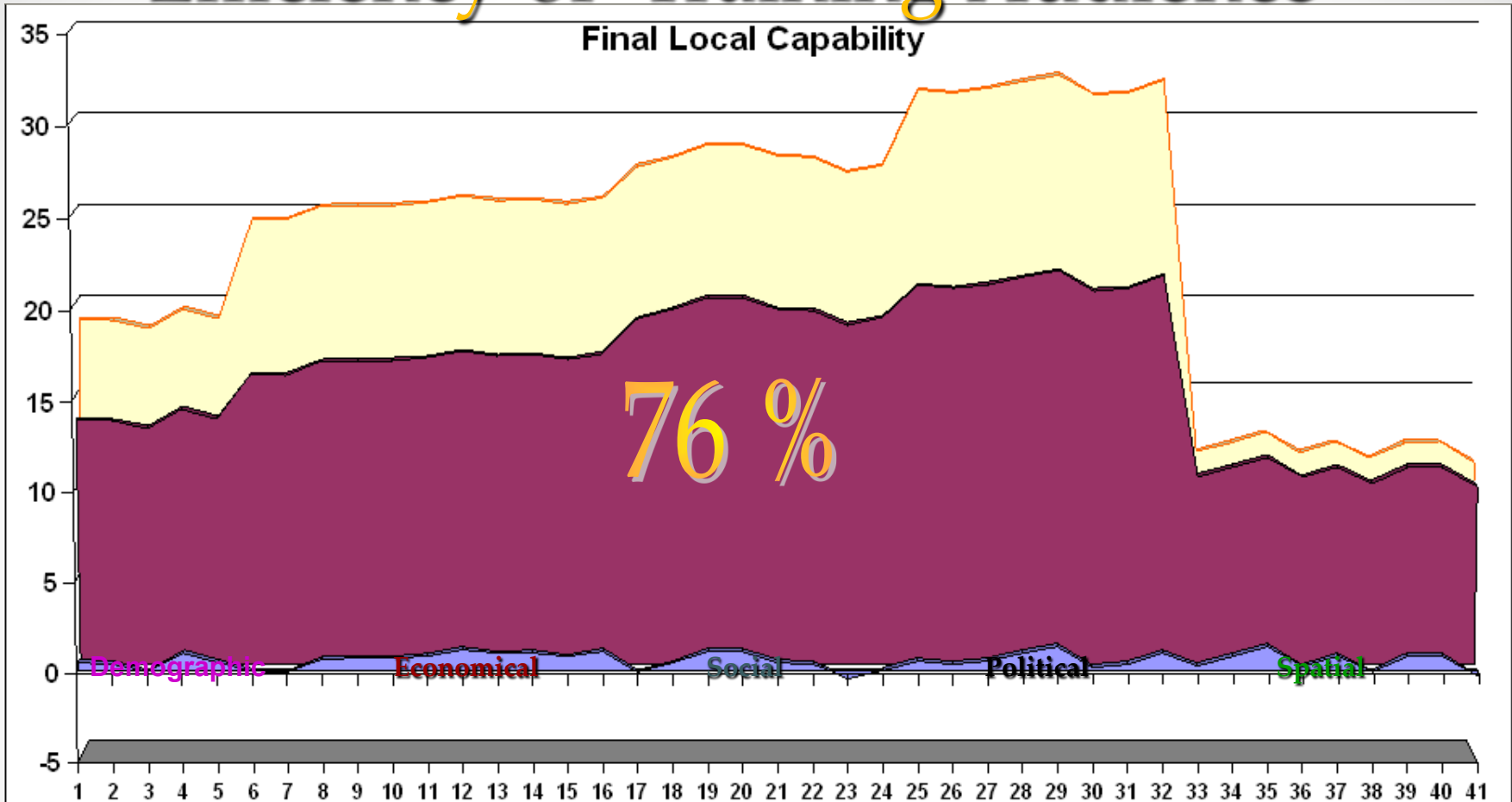
◆ Initial capability ■ Reached capability ▲ Possible capability

Daily progress of Training Audience

Reached Local Capability for selected Province



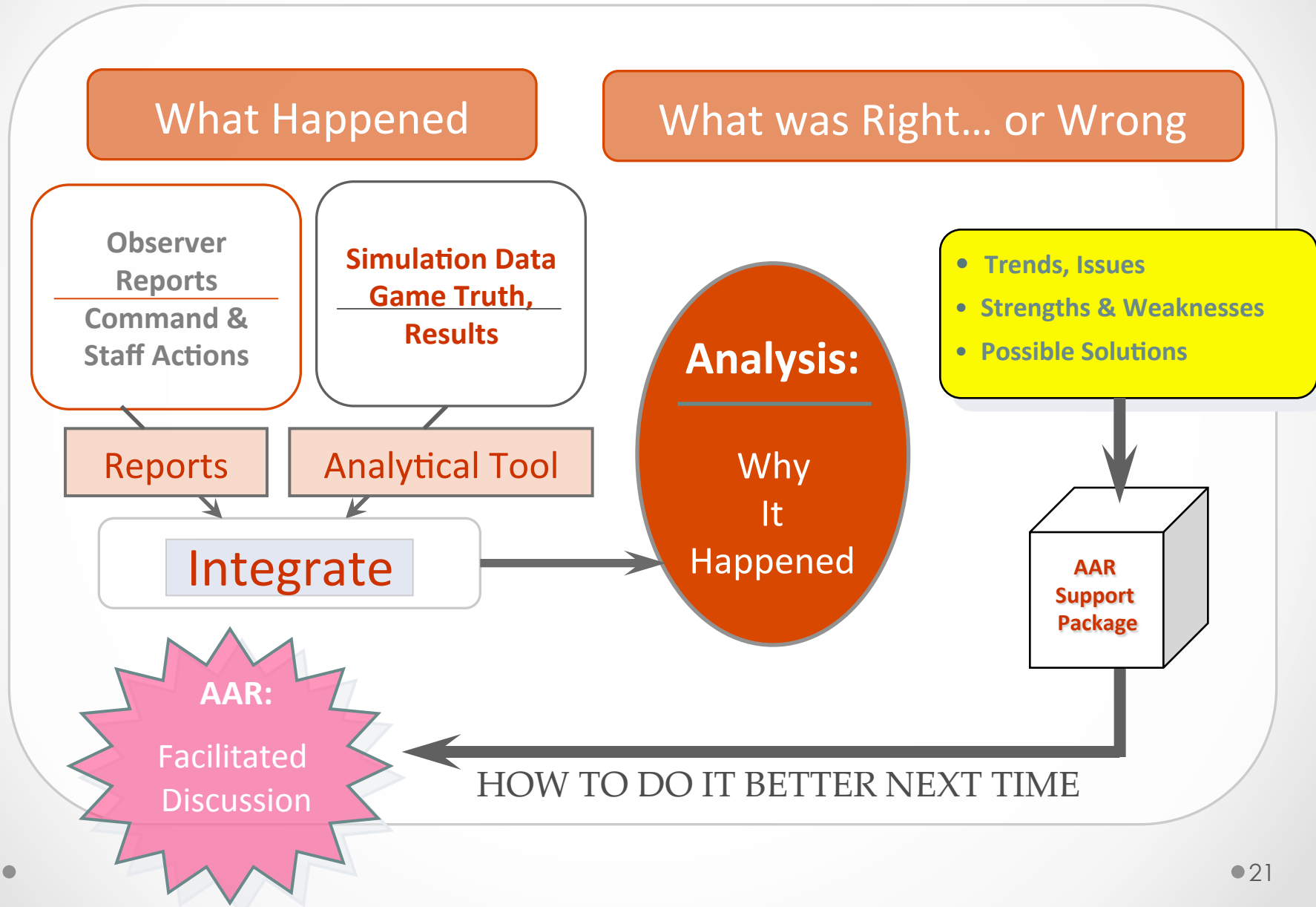
Efficiency of Training Audience



■ startex ■ result ■ possible

Exercise	Subcriterion	Date
VIKING 05	capable	12/9/2005
VIKING 05	capable	12/10/2005
VIKING 05	capable	12/11/2005
VIKING 05	capable	12/12/2005
VIKING 05	capable	12/13/2005

Analysis Process

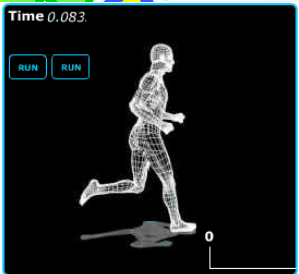


Scientist	Scientist	Scientist Com.engineer	Scientist Com.engineer	Scientist Com.engineer
I. PHASE	ANALYSIS	MODELING	SIMULATION	EXERCISE

FEED - BACK



**Fielded
Mission
Capability
Package**



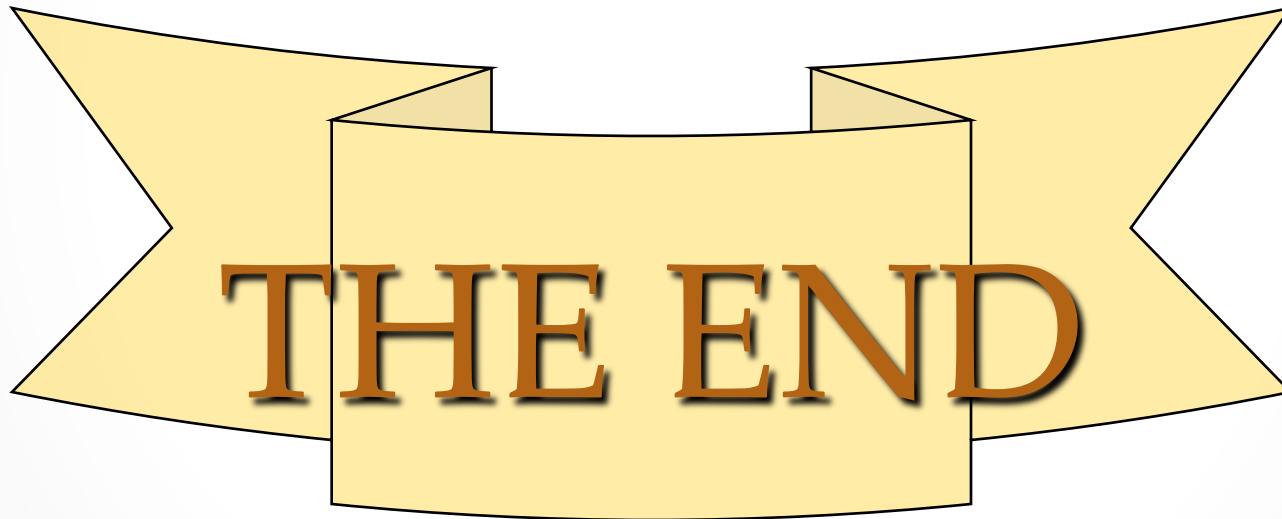
CO-EVOLUTION

- Organization
- Systems
- Doctrine
- Logistics
- Personnel
- Command Arrangements
- Training/Education
- C4I Systems

Conclusions

- Scenario foundations should describe a potential of societal security dimensions and further develop their interactions in CAX time and space.
- A proper development of CAX scenario is providing consistency throughout the entire CAX process.
- Simultaneous development of CAX scenarios and simulation models will provide better conditions for decision-making process of International and National security elements in the future.

QUESTIONS



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