

Internationale Entwicklungen mit Bw- Relevanz

10. Workshop

„Perspektiven der Modellbildung und Simulation“

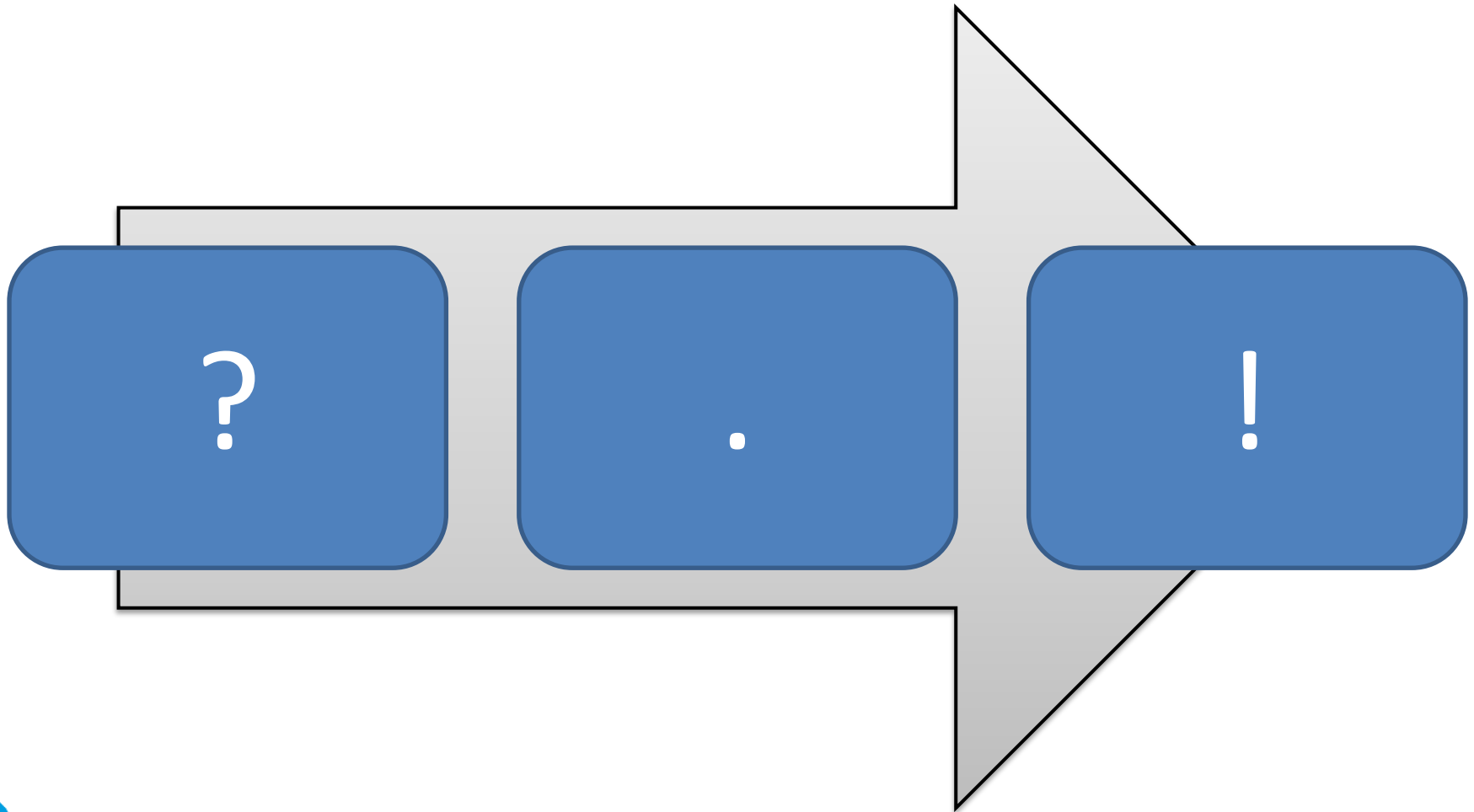


Dr. Robert Siegfried

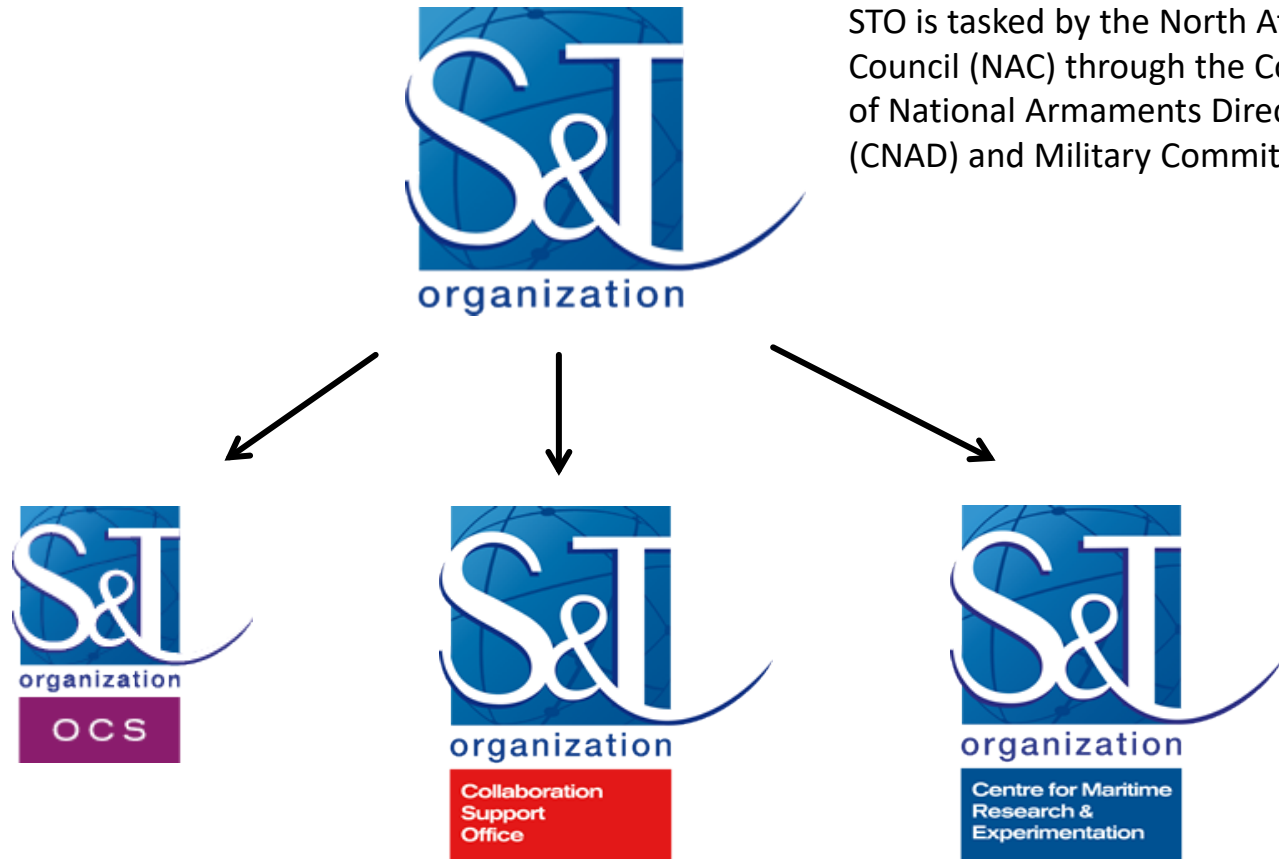
Neubiberg, 24.01.2017

www.aditerna.de

Die nächsten 15 Minuten



F&T in der NATO



F&T in der NATO

<https://sto.nato.int>

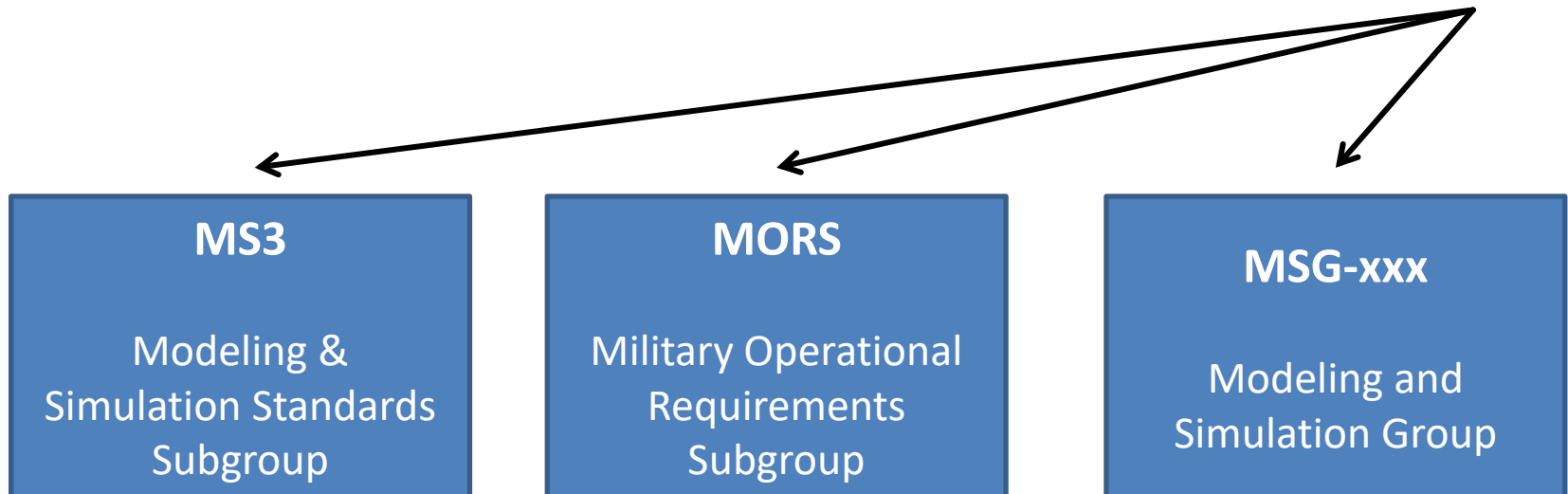


Technical Activities

AVT	HFM	IST	SAS	SCI	SET	NMSG
Applied Vehicle Technology Panel	Human Factors and Medicine Panel	Information Systems Technology Panel	System Analysis and Studies Panel	Systems Concepts and Integration Panel	Sensors and Electronics Technology Panel	NATO Modeling and Simulation Group

Organisation der NMSG

AVT	HFM	IST	SAS	SCI	SET	NMSG
Applied Vehicle Technology Panel	Human Factors and Medicine Panel	Information Systems Technology Panel	System Analysis and Studies Panel	Systems Concepts and Integration Panel	Sensors and Electronics Technology Panel	NATO Modeling and Simulation Group



Collaborative Business Model

- F&T in der NATO stützt sich weitgehend auf freiwillige nationale Beteiligung ab
 - NATO STO bietet Rahmen und Koordination
 - Finanzierung i.d.R. nationale Zuständigkeit
- BAAINBw/Bundeswehr sehr präsent in der NMSG, u.a.
 - MSG-073 „Generic Methodology for V&V“
 - MSG-086 „Simulation Interoperability“
 - MSG-088 „Data Farming“
 - MSG-131/136 „M&S as a Service“

Simulation Interoperability Standards Organization

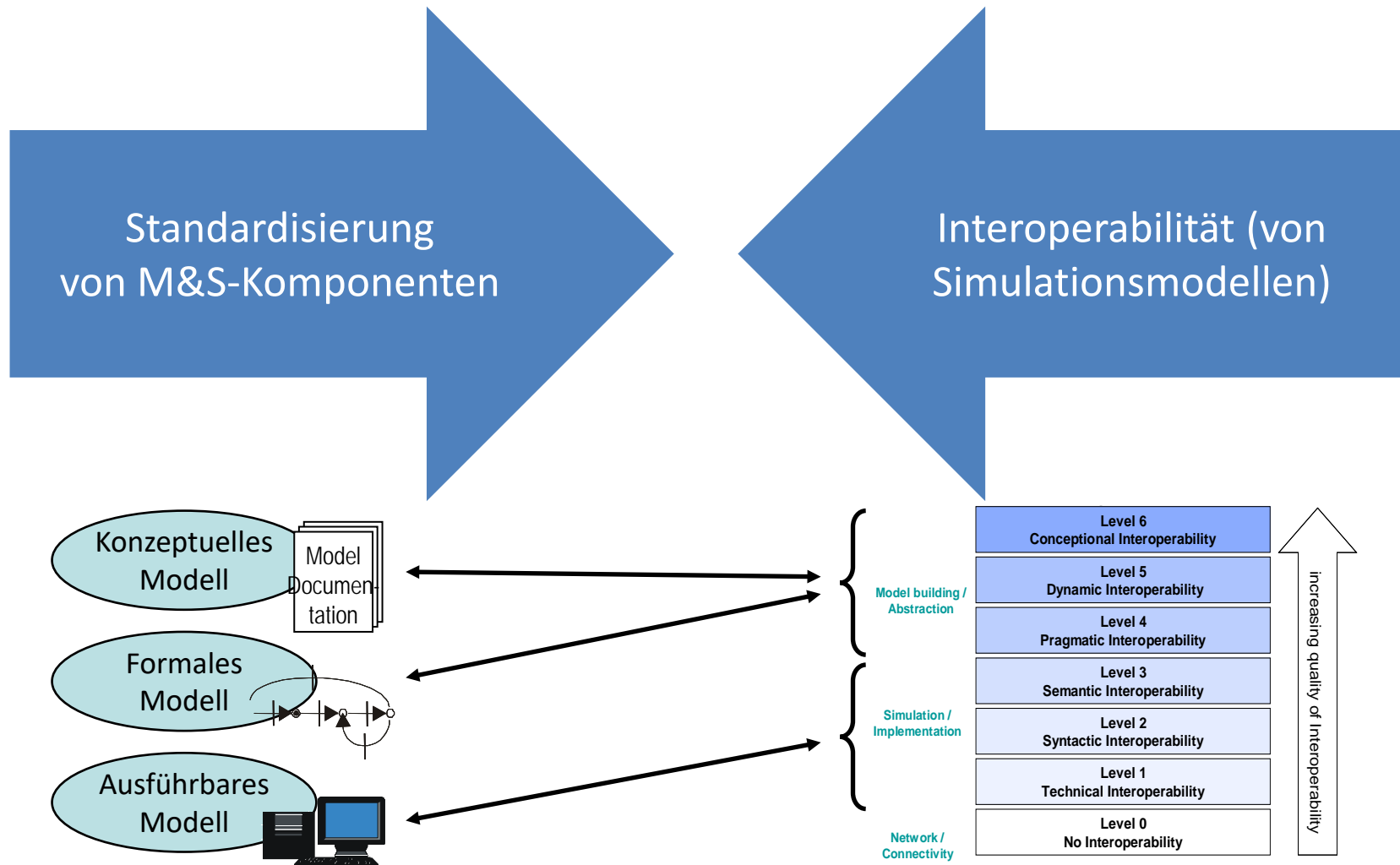


<http://www.sisostds.org>

- Entwickelt und pflegt wichtige M&S-Standards, u.a.
 - High-Level Architecture (HLA)
 - Distributed Interactive Simulation (DIS)
 - Real-Time Platform Reference FOM (RPR FOM)
 - Military Scenario Definition Language (MSDL)
 - Coalition Battle Management Language (C-BML)



Zwei Seiten einer Medaille

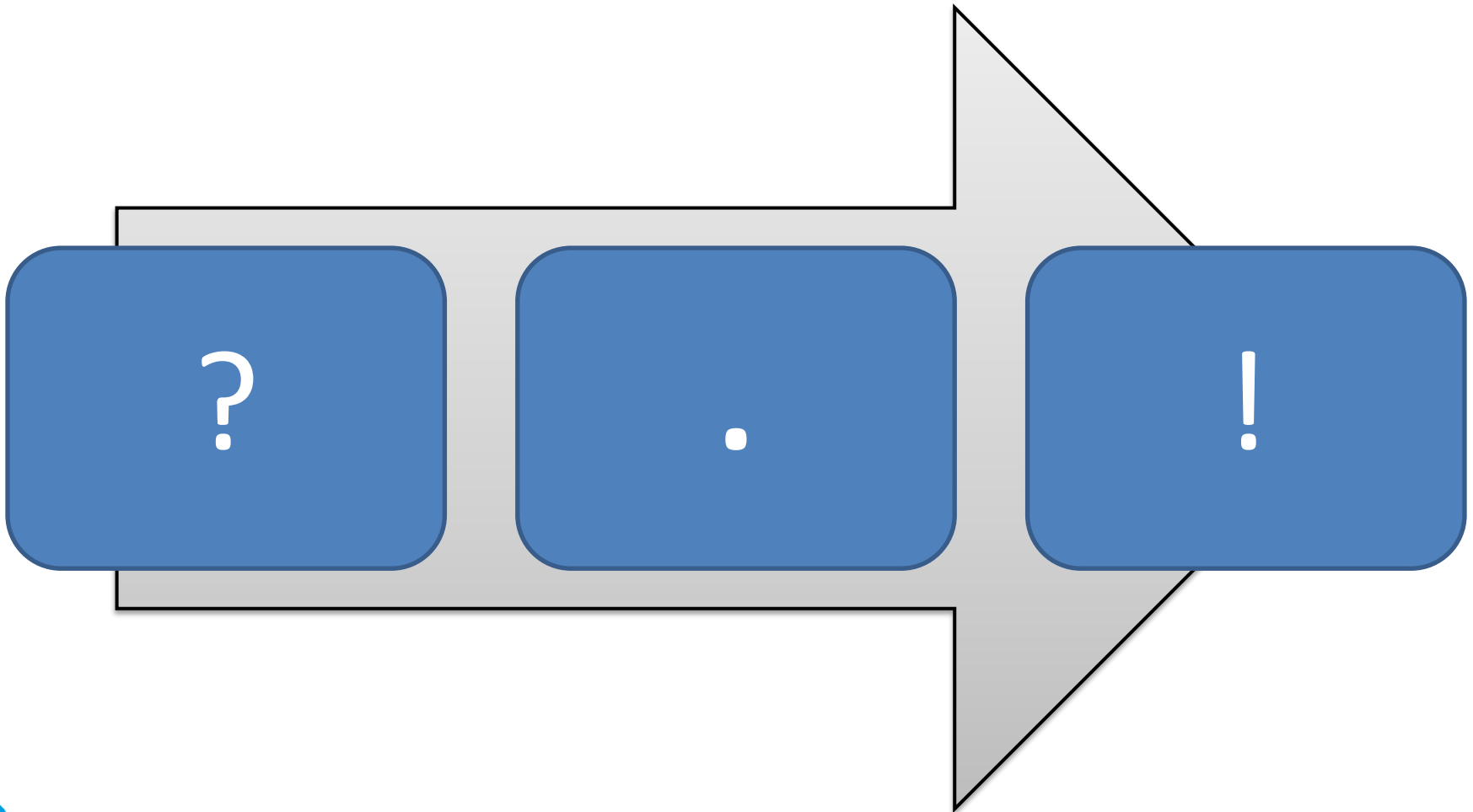


[Tolk2006]

Wer standardisiert?

- Nationale Organisationen
 - Deutsches Institut für Normung e.V. (DIN)
 - Verein Deutscher Ingenieure e.V. (VDI), z.B. VDI 3633
 - Bundeswehr, z.B. VEVA, KEuN M&SBw
- Internationale Organisationen
 - International Organization for Standardization (ISO)
 - Simulation Interoperability Standards Organization (SISO)
 - z.B. HLA, DIS, ...
 - North Atlantic Treaty Organization (NATO), z.B. AMSP-01, STANAG 4603
- NEIN! Nutzer und Anwender standardisieren!
 - „Standards fallen nicht vom Himmel“
 - Standards können mitgestaltet und beeinflusst werden

Agenda

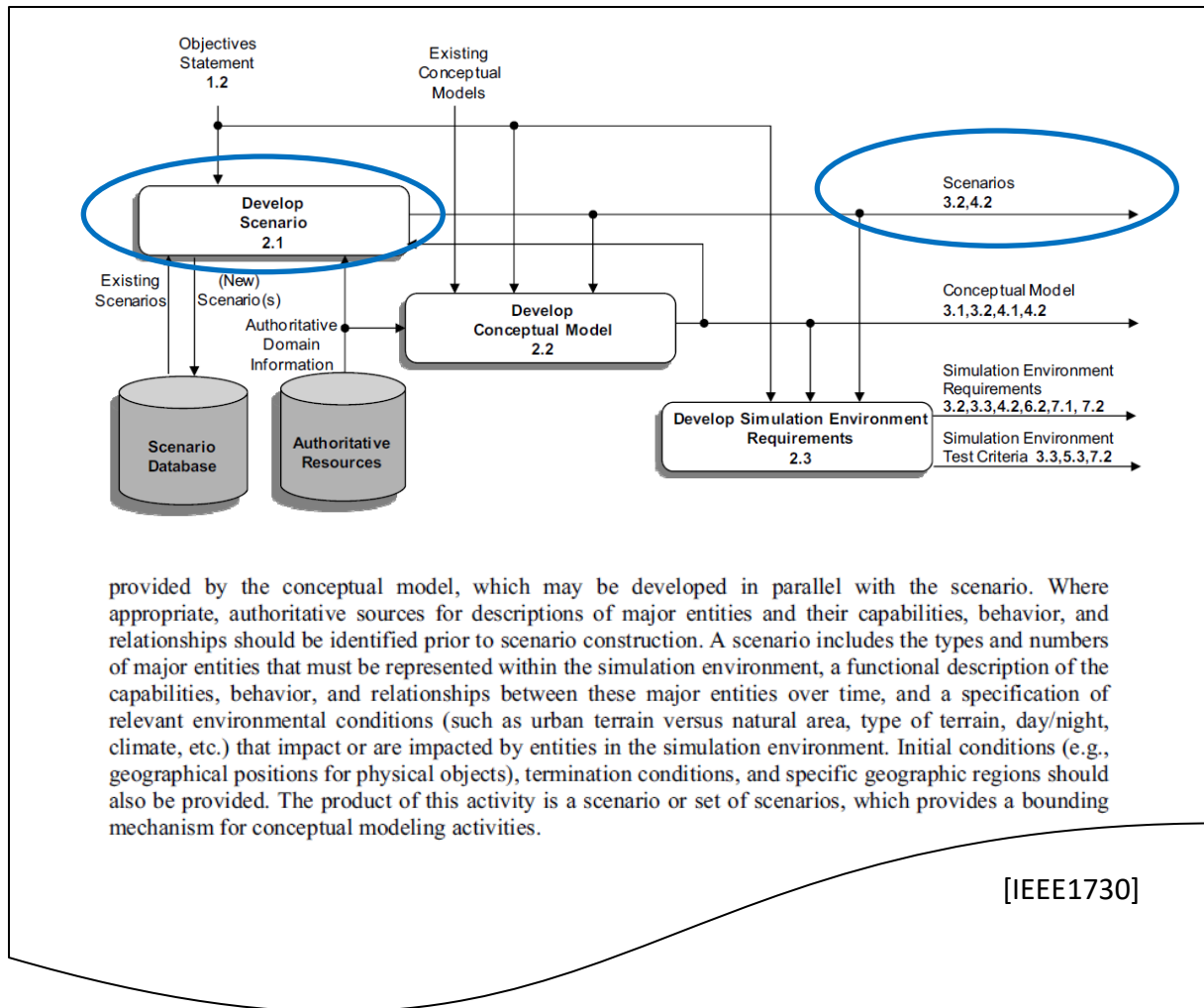


Drei (ausgewählte) Aktivitäten

- Guideline for Scenario Development
 - NATO/SISO Kollaboration
- M&S as a Service (MSaaS)
 - NATO F&T
- M&S Resource Management
 - NATO F&T



Das Szenario ist Kernbestandteil einer (verteilten) Simulation



[IEEE1730]

MSG-086 hat eine Richtlinie für Beschreibung von Szenarios erarbeitet

“Guideline on Scenario Development for (Military) Simulation Environments”

1 Introduction

- 1.1 Motivation
- 1.2 Purpose
- 1.3 Scope
- 1.4 Intended audience
- 1.5 Document outline

2 References

3 Acronyms and Abbreviations

4 Scenarios in distributed SEs

- 4.1 Definition “Scenario”
- 4.2 Scenario development process
 - 4.2.1 Operational scenario
 - 4.2.2 Conceptual scenario
 - 4.2.3 Executable scenario
- 4.3 Auxiliary terms
 - 4.3.1 Vignettes
 - 4.3.2 Scenario variants
 - 4.3.3 MEL/MIL

5 Content of a scenario

- 5.1 Preliminary remarks
- 5.2 Initial state
- 5.3 Course of events
- 5.4 Termination conditions
- 5.5 Reuse in the scenario development process

6 Maturity levels of scenario specification

- 6.1 Level 0 – No written scenario specification
- 6.2 Level 1 – Non-standardized scenario specification
- 6.3 Level 2 – Standardized scenario specification
- 6.4 Level 3 – Formal scenario specification
- 6.5 Relation of maturity levels to scenario types

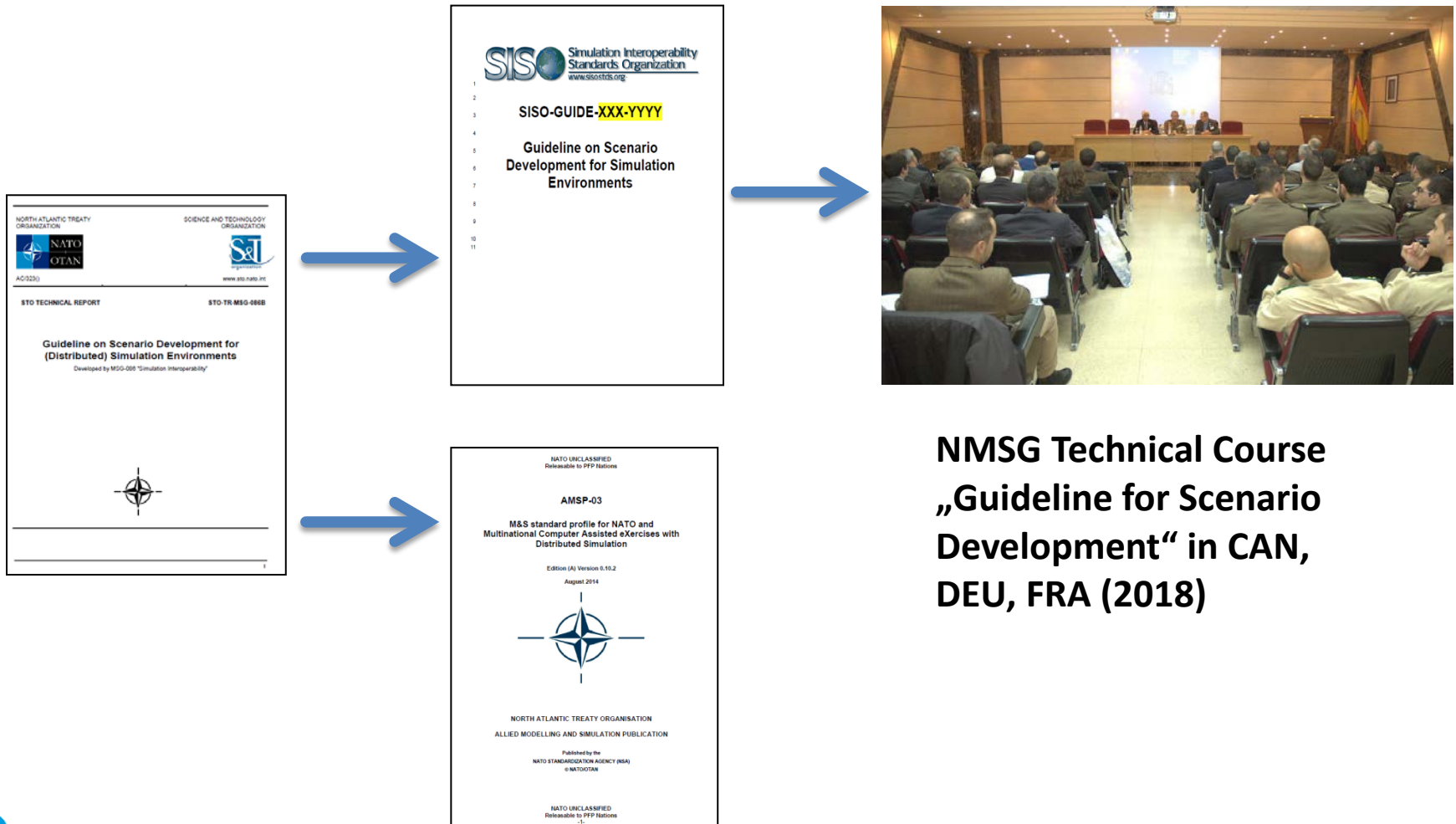
7 Standards and tools for scenario specification

- 7.1 Standards for operational scenarios
- 7.2 Standards for conceptual scenarios
- 7.3 Standards for executable scenarios

Annex A-D:

Integration with NAF, Use of BOMs, Examples

Enge Kooperation zwischen NMSG und SISO



Drei (ausgewählte) Aktivitäten

- Guideline for Scenario Development
 - NATO/SISO Kollaboration
- **M&S as a Service (MSaaS)**
 - NATO F&T
- M&S Resource Management
 - NATO F&T



NMSG MSaaS Activities

Exploratory Team (ET)

Very short activity,
may be established adhoc

ET

Specialist Team (ST)

Usually 1-year activity,
only approval by CSO director required

ST

MSG-131

August 2013 – August 2014



Research Task Group (RTG)

Usually 3-year activity, allows more
substantial work.
Produces final report/draft standard/
reference architecture/...

RTG

MSG-136

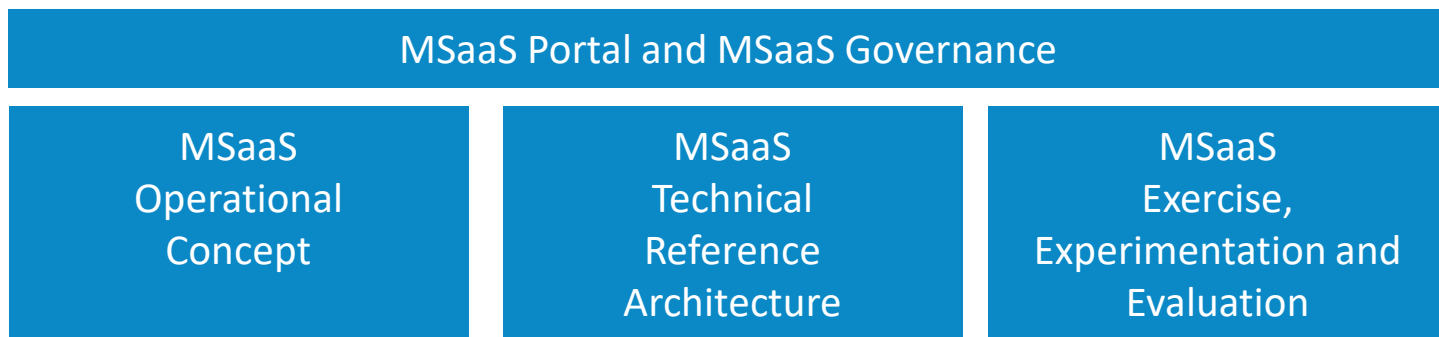
September 2014 – September 2017

MSaaS Vision Statement

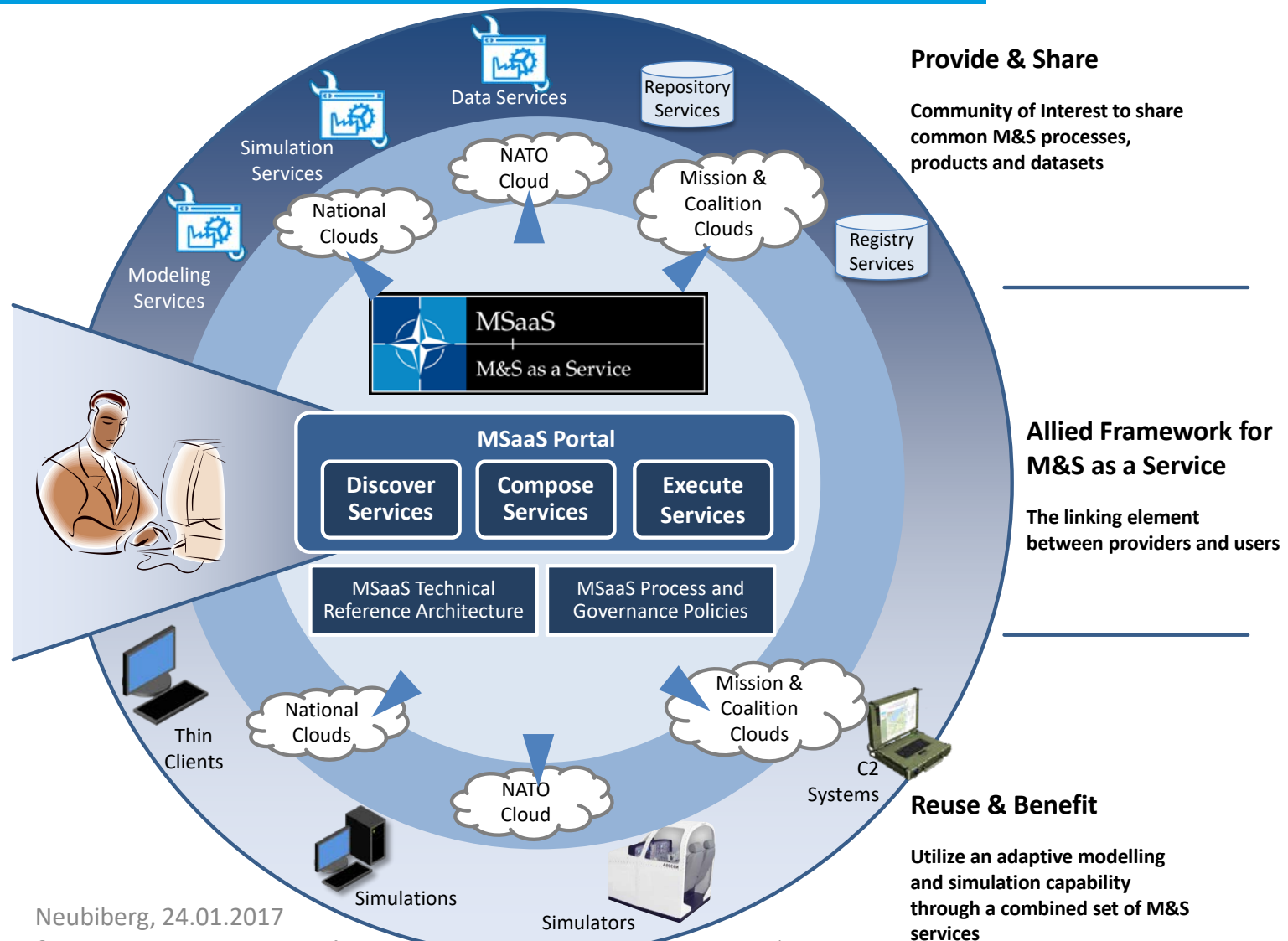


M&S products, data and processes are conveniently accessible and available on-demand to all users in order to enhance operational effectiveness.

MSaaS Key Components



MSaaS Operational Concept (NOV-1)



Large community interest – “MSaaS is real”

- Nations



AUS



CAN



DEU



DNK



ESP



FRA



GBR



ITA



NLD



NOR



POL



PRT



ROU



SWE



TUR



USA

- NATO Organizations



ACT



JFTC



JWC



M&S
CoE

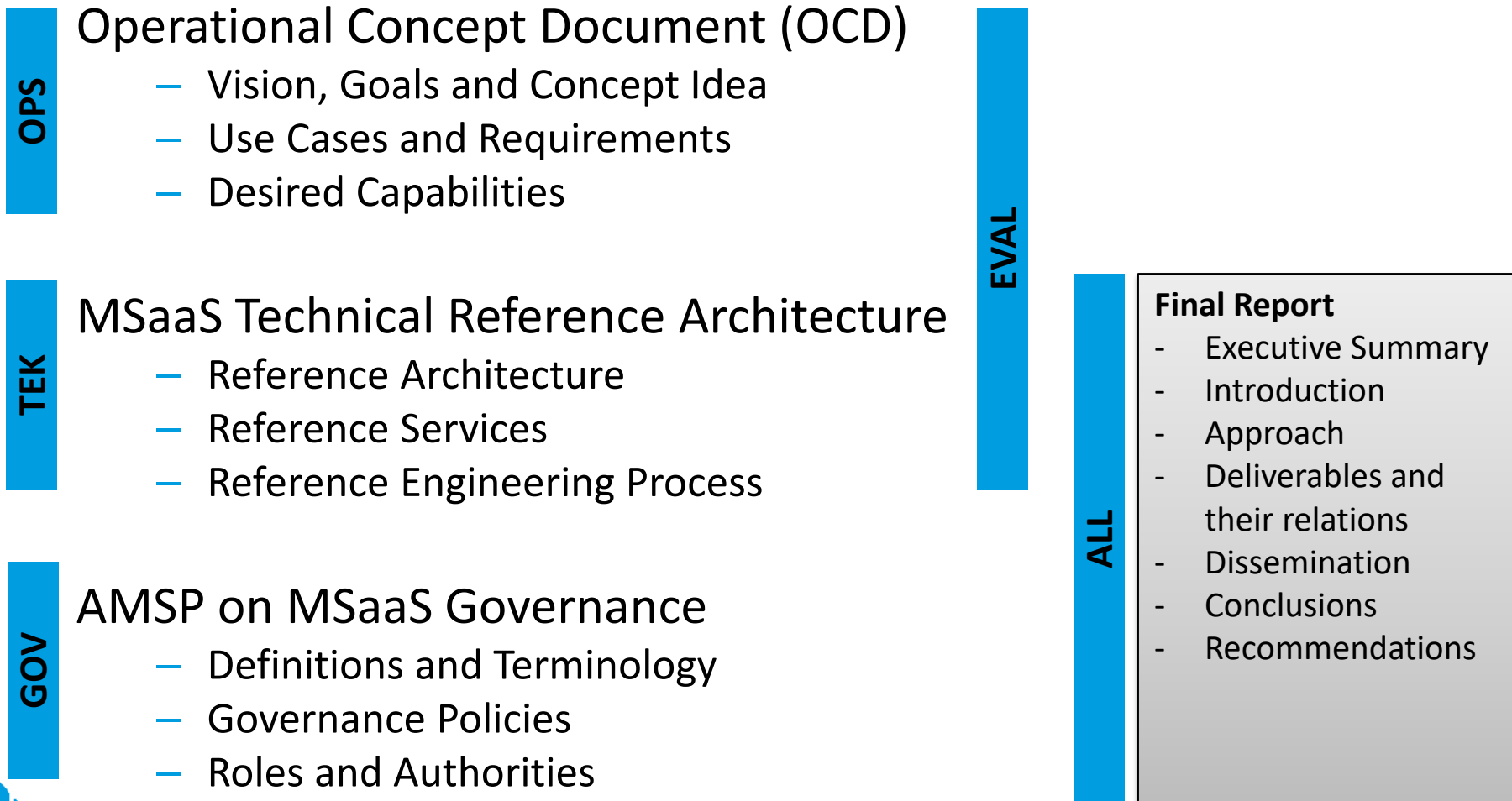


NCIA



JCBRN
CoE

Deliverables of MSG-136



Drei (ausgewählte) Aktivitäten

- Guideline for Scenario Development
 - NATO/SISO Kollaboration
- M&S as a Service (MSaaS)
 - NATO F&T
- **M&S Resource Management**
 - NATO F&T



M&S Resource Management

Topics to be investigated

- Use Cases
- Existing Solutions
- Federated Information
- Business Model(s)

Deliverable

- Option Brief with recommendations for NMSG

Feb 2017



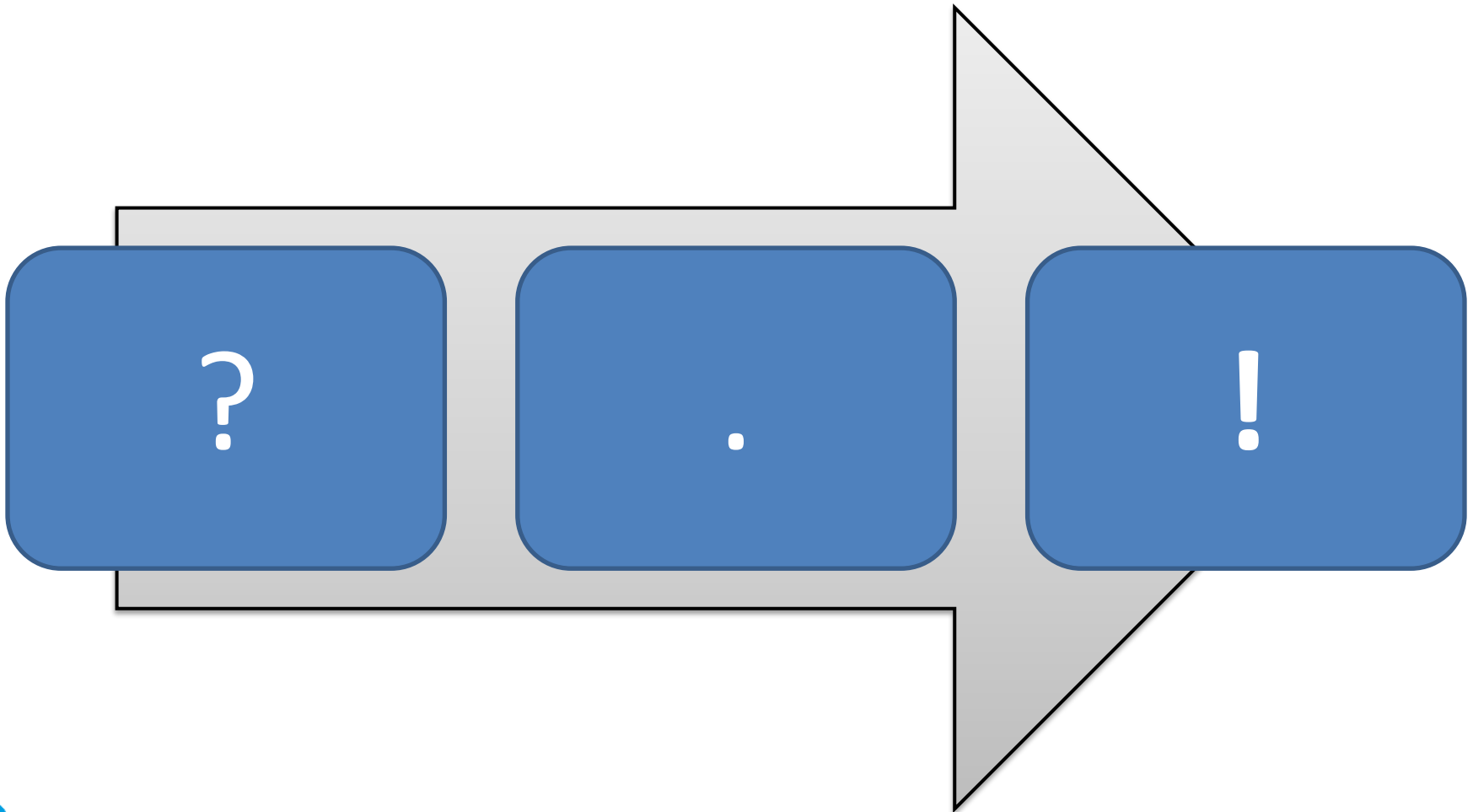
Oct 2017

*NATO Simulation Resource Library (NSRL)
MSaaS Portal*

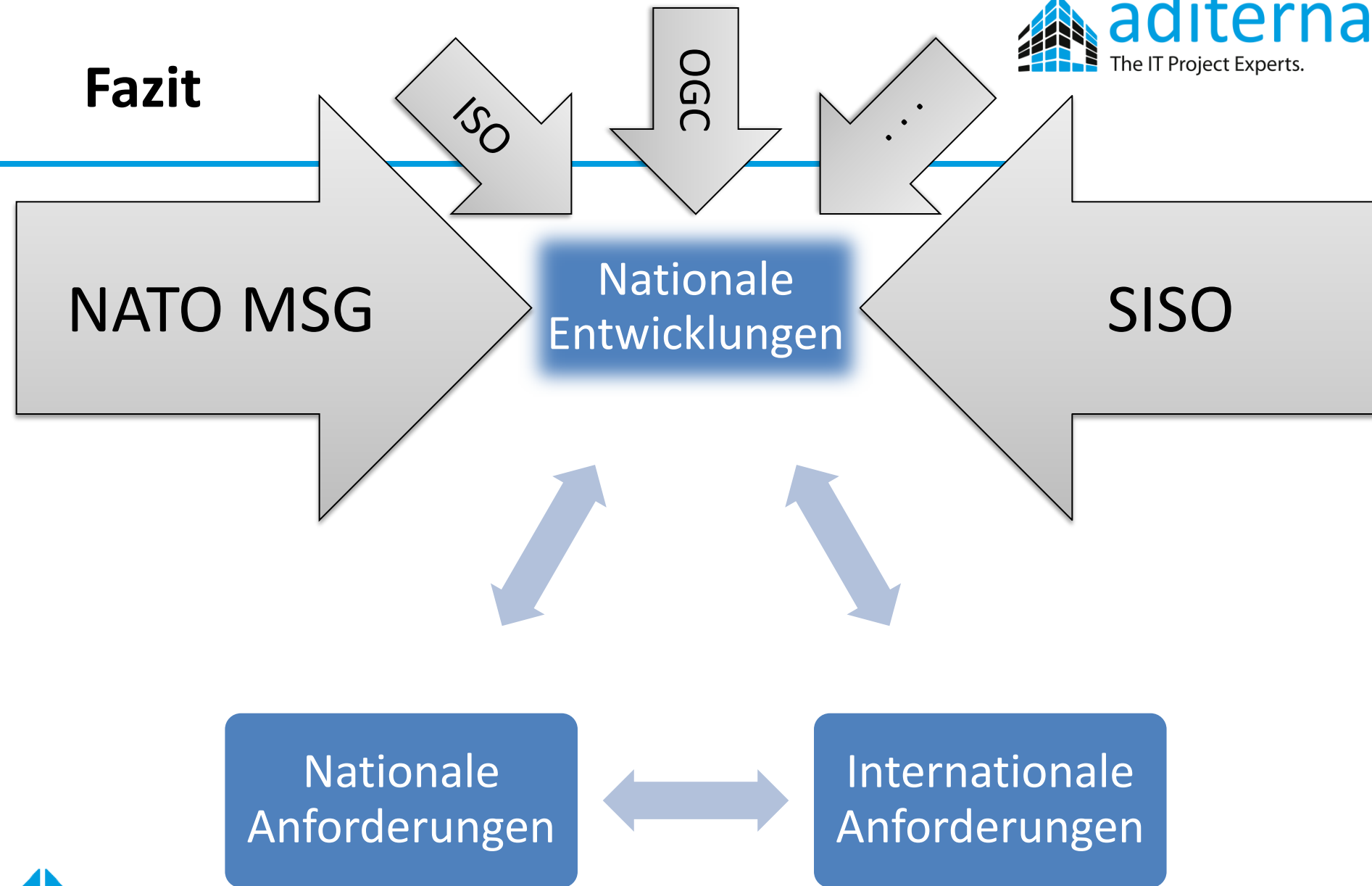
Connections

- MSaaS Portal (MSG-136)
- Federated Registries (MSG-136)
- MTDS Management (MSG-128, NIAG SG-215)

Agenda



Fazit



Nationale Anknüpfungspunkte

- Guideline for Scenario Development
 - Technical Course 2018 in Deutschland!
- M&S as a Service
 - Beteiligung an Evaluation/Exercise 2018
 - MSaaS Operational Concept
 - Ideen für Weiterentwicklung SuTBw und M&S-Landschaft der Bw
- M&S Resource Management
 - Einbringen nationaler Anforderungen und Erkenntnisse
- M&S COE als Partner für internationale M&S-Aktivitäten





aditerna GmbH
Otto-Hahn-Str. 13 B
85521 Riemerling

Dr. Robert Siegfried
Geschäftsführer, Leiter M&S
robert.siegfried@aditerna.de
+49 160 736 73 29