



Software Engineering Conference Russia **2018**

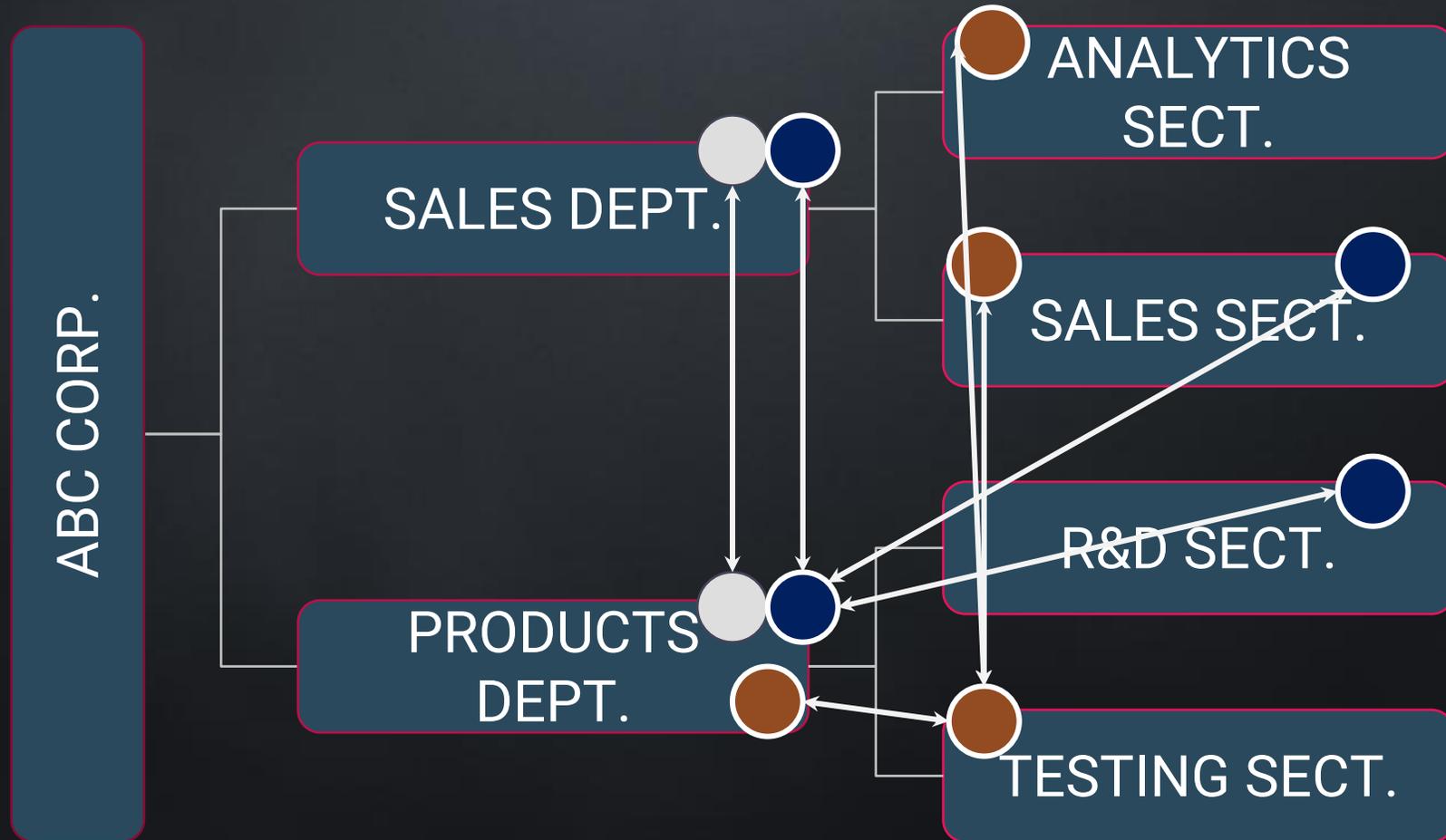
October 12-13  
Moscow

# DISTRIBUTED LEADERSHIP AND SYSARCHI

**ALEKSANDR TURKHANOV**

SCHOOL OF SYSTEMS MANAGEMENT

# BUSINESS ACTORS



# HISTORY

- ❑ US DOD AND ISRAELI SPECIAL TASK FORCES (1980-1990)
- ❑ JAPANESE CORPORATIONS - MATSUSHITA (1990s)
- ❑ EUROCONTROL (2000s)
- ❑ LARGE EU AND AMERICAN CORPORATIONS - BOEING (2010s)

# DISTRIBUTED LEADERSHIP RESOLVES 'MATRIX' PROBLEMS

CAPABILITY OF EVERY TEAM MEMBER TO  
FOCUS AND DIRECT TEAM'S WORK EFFORTS  
FOR ALL PLANNED  
LIFE CYCLE PRACTICES OF  
SYSTEM-OF-INTEREST (SOI)

YOU MAY NOT CONTROL  
BUDGET, SCHEDULE, TASKS  
EVEN, BUT YOU ALWAYS CAN  
CONTROL **TEAM'S ATTENTION**

TEAM'S ATTENTION IS THE HIDDEN  
RESOURCE OF EVERY PROJECT



# FOCUS AND FLOW IN TEAMS

- ❑ 4 OBJECTS CHUNK IN WORKING MEMORY
- ❑ KEY THING IS NOT TO LOSE THEM UNTIL REASONING IS COMPLETED AND YOU HAVE THE RESULT OF THINKING
- ❑ SWITCHING BETWEEN OBJECT CHUNKS, THAT'S A LOGIC
- ❑ SPEED IS EVERYTHING BECAUSE ATTENTION SPAN IS 20-40 SECONDS ONLY
- ❑ SYSTEMS THINKING SUPPORTED WITH SYSARCHI GIVES YOU FRAMEWORK TO CONTROL PERSONAL AND TEAM ATTENTION

# DISTRIBUTED LEADERSHIP ENABLERS

- ❑ THE SAME CONCEPTS FOR EACH TEAM MEMBER
- ❑ TEAM RESOURCE MANAGEMENT PRACTICES
- ❑ SAME SYSTEMS THINKING PATTERNS
- ❑ SEPARATION OF CONCERNS AND SYSTEM BREAKDOWNS  
SUPPORT OBJECTS CHUNKING
- ❑ SYSARCHI MODEL IN REPOSITORY GIVES TEAM MEMBERS IDEA  
HOW THE WHOLE SYSTEM AND PROJECT WORK AND WHAT IS  
IMPORTANT

IT'S ALL ABOUT PEOPLE!  
'STAKEHOLDERS'

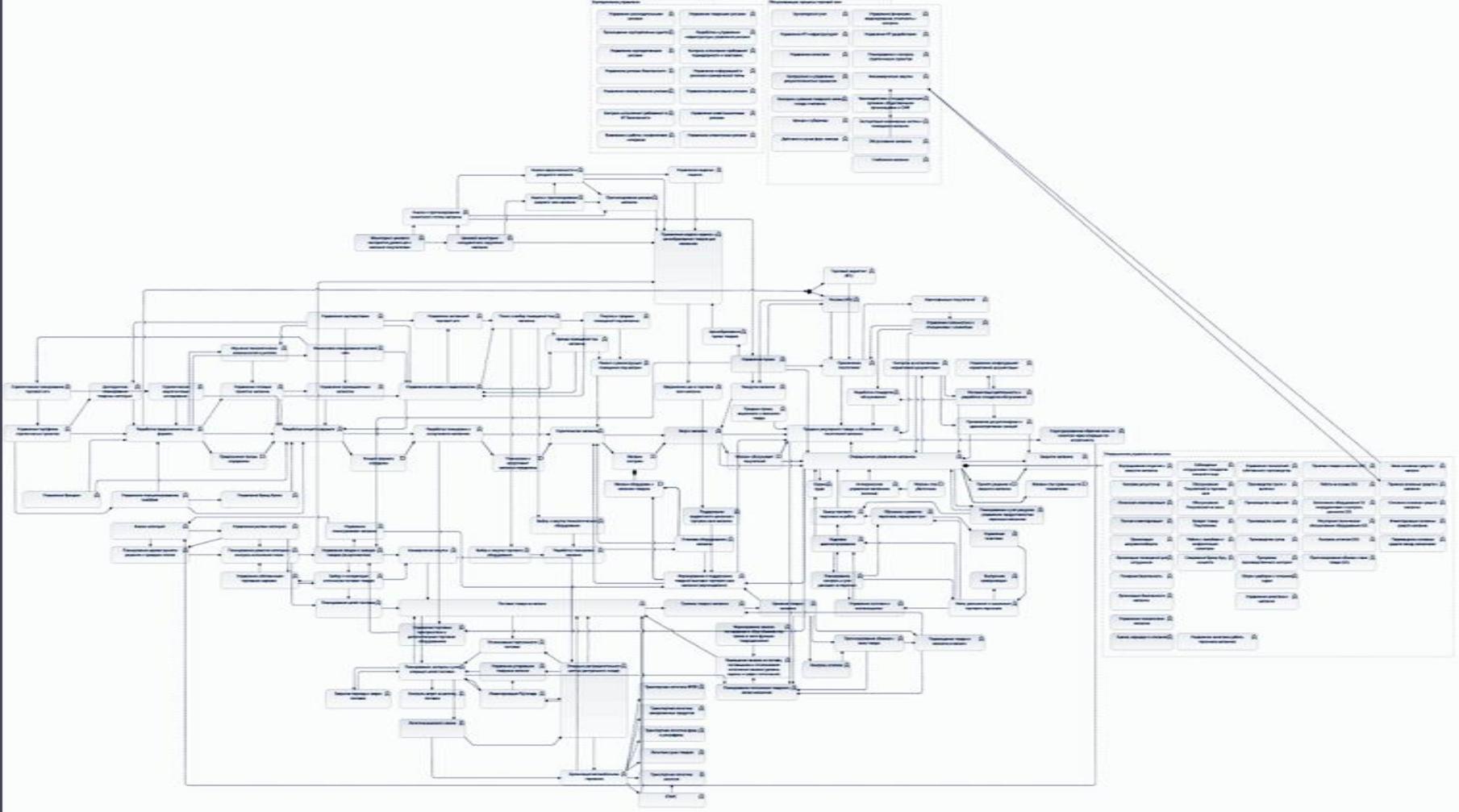
# NEW TERM'S MEANING

- ❑ 18 CENTURY IN GAMBLING ONLY
- ❑ 1968 ANSOFF DECLARES STAKEHOLDING PART OF CORPORATE STRATEGY
- ❑ 1984 FREEMAN PUBLISHES 'STRATEGIC MANAGEMENT: A STAKEHOLDER APPROACH'
- ❑ 1996 TONY BLAIR DESCRIBES STAKEHOLDER ECONOMY

# KEY OBJECT OF ATTENTION IN 'MATRIX'

200-300 STAKEHOLDER ROLES  
PER INDUSTRY.

LEARN THAT AND YOU CAN PREDICT  
PROFESSIONAL BEHAVIOR OF PEOPLE.



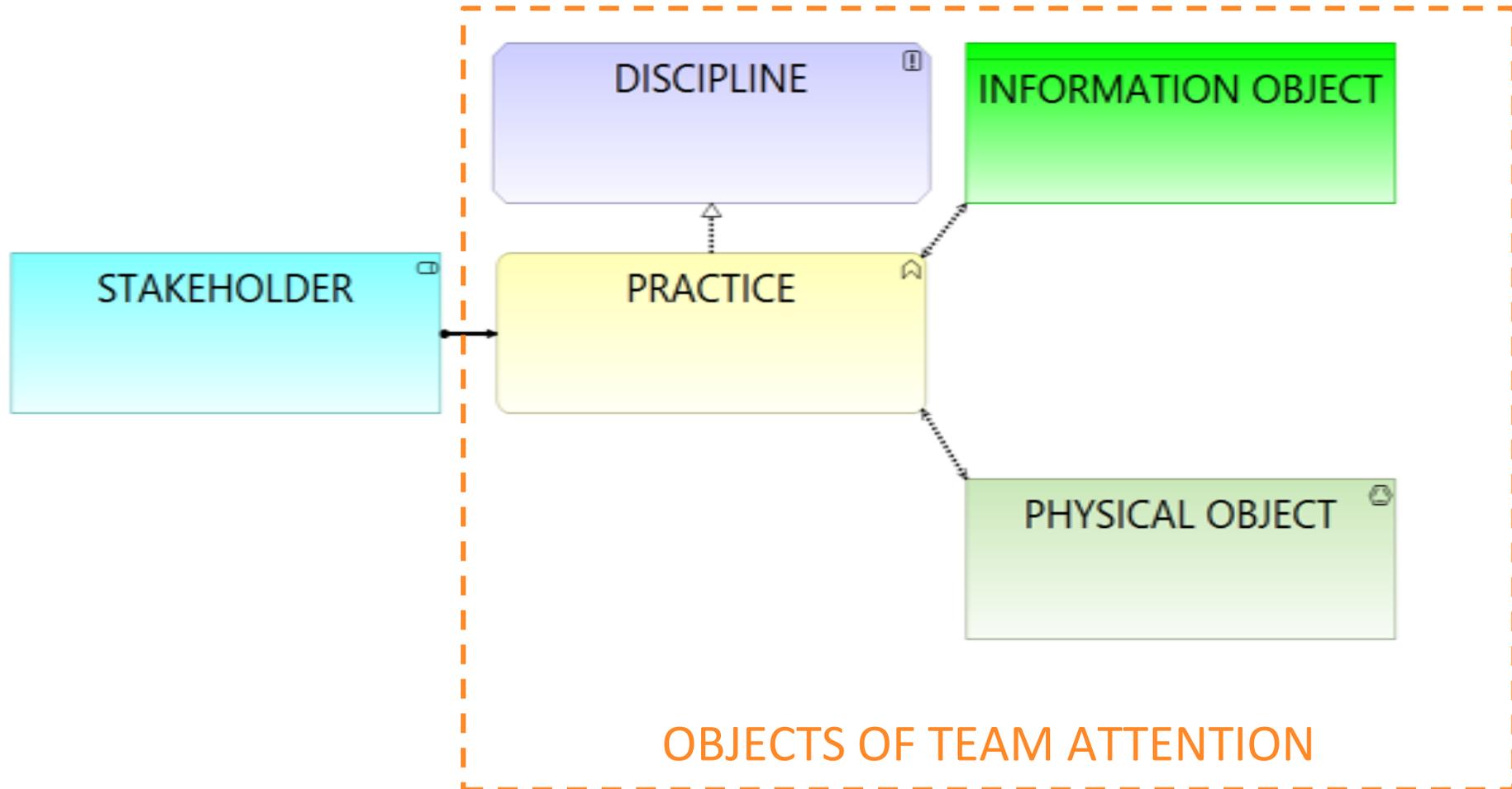
# SAO, SUBJECT-ACTION-OBJECT



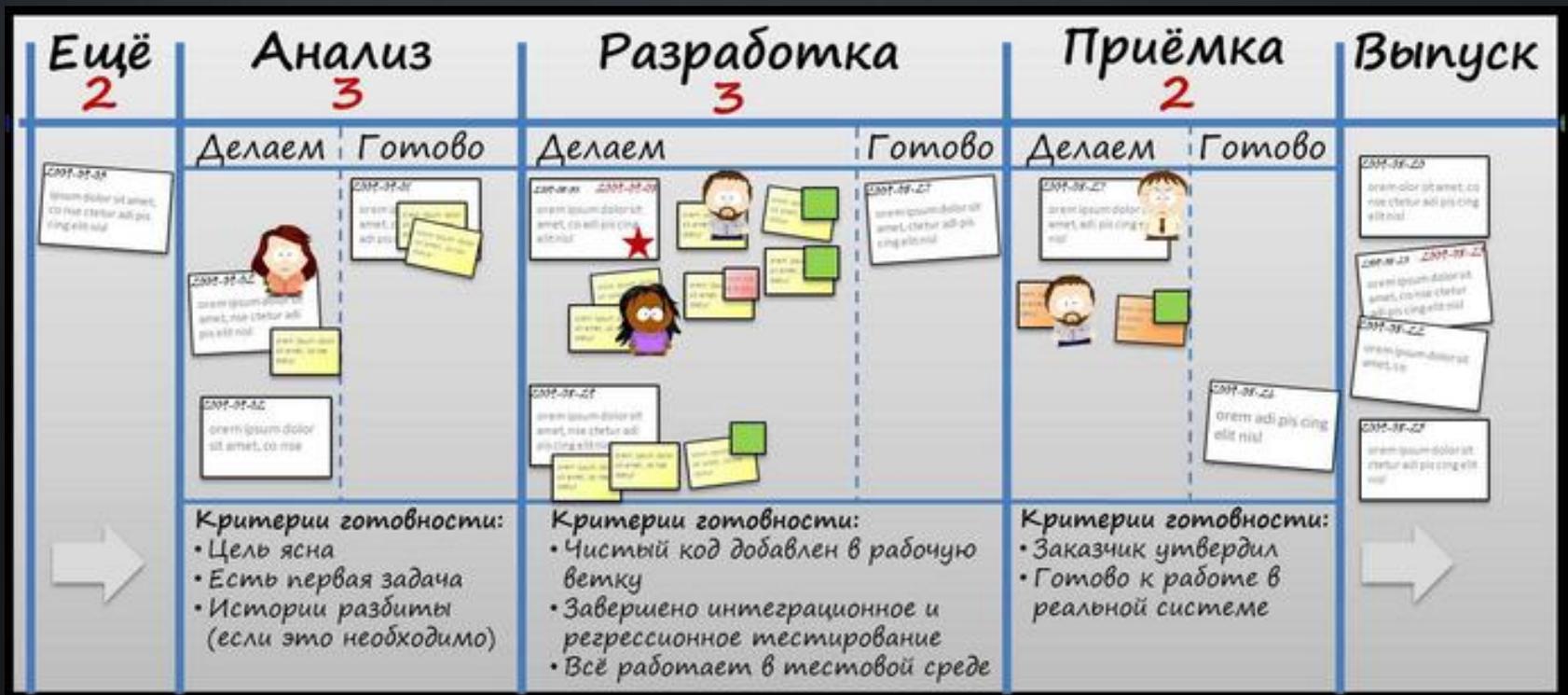
# PRACTICE DISCIPLINE EXPLAINS ACTIONS

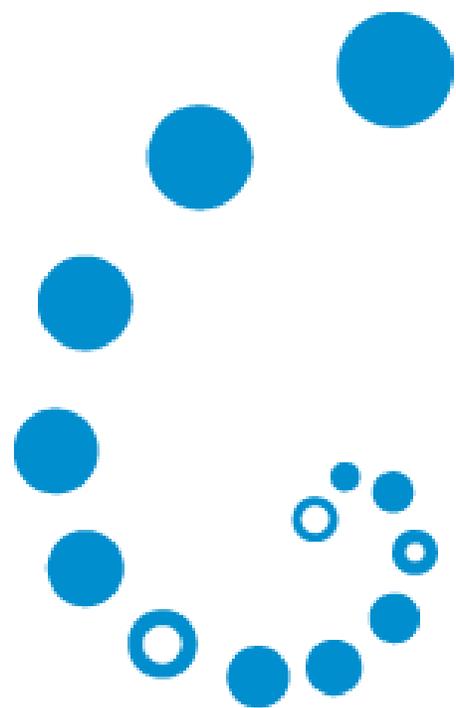


# ATTENTION AND STAKEHOLDER CONNECTION



# KANBAN BECAME COMMON BUT STILL HAS CONS

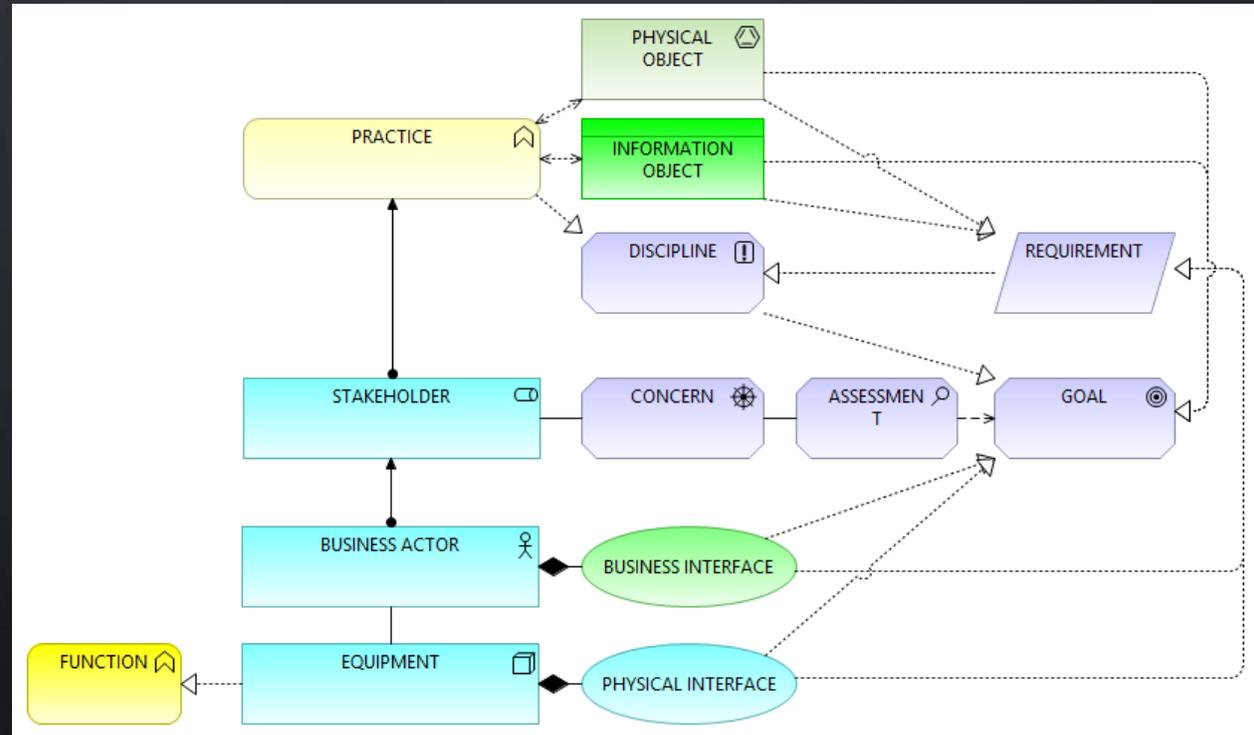




**NEYROKOD**

Fractal data organization system

# SYSARCHI BASED ON ARCHIMATE 3.0 STATES KEY OBJECTS OF ATTENTION



SMALL FONT IS INTENDED

# SYSARCHI VS. FRACTAL

- ❑ LICENSE
- ❑ MODELS COMPLEXITY
- ❑ MODELLING VELOCITY
- ❑ SOURCE CODE
- ❑ MODEL TO TEXT PARSING

# THREE-PART THEORY OF MIND MODEL

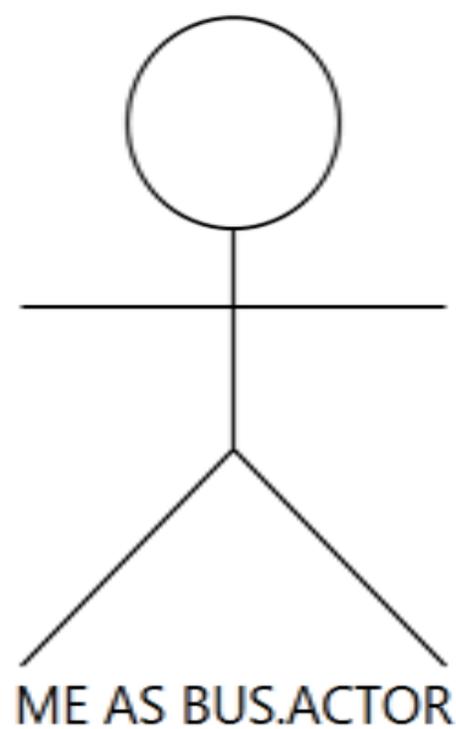


**Here I am as business actor  
and I have task list:**

- ❑ prepare presentation for SECR-2018
- ❑ discover architecture modelling tool requirements
- ❑ buy and change bulbs

<b>TASK</b>	<b>PRACTICE</b>
prepare presentation for SECR-2018	PRESENTING
discover architecture modelling tool requirements	REQUIREMENTS ENGINEERING
buy and change bulbs	HOUSEKEEPING

<b>TASK</b>	<b>PRACTICE</b>	<b>STAKEHOLDER</b>
prepare presentation for SECR-2018	PRESENTING	<i>SPEAKER</i>
discover architecture modelling tool requirements	REQUIREMENTS ENGINEERING	<i>BUSINESS ANALYST</i>
buy and change bulbs	HOUSEKEEPING	<i>HOUSEKEEPER</i>

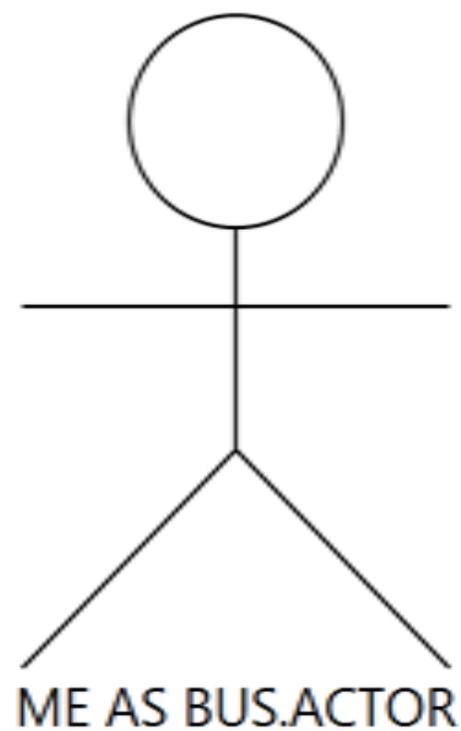


→  
ASSIGNED TO



→  
ASSIGNED TO

PREPARE  
PRESENTATION  
FOR SECR-2018



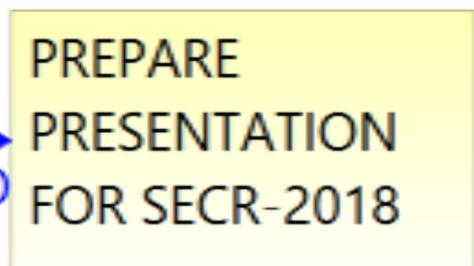
HAVE COMPETENCIES



ASSIGNED TO



ASSIGNED TO



## HOW TO KEEP PROMISES

ME AS PLAYER

PROMISE AND DELIVER

ANOTHER PLAYER

HAVE COMPETENCIES

ME AS BUS.ACTOR

ASSIGNED TO

ME AS SPEAKER

ASSIGNED TO

PREPARE  
PRESENTATION  
FOR SECR-2018

MAXIM DOROFEEV  
'JEDI TECHNIQUES OF AN EMPTY INBOX'



# SEPARATION OF CONCERNS

STAKEHOLDER

PRACTICE

PLAYER

ACTIVITY

BUSINESS ACTOR

CAPABILITY

TEAM

SOI LIFE CYCLE

WHAT IS NEED TO BE FIXED IN PERSONS AND IN TEAMS

# MULTIDISCIPLINARITY OF DISTRIBUTED LEADERSHIP

STAKEHOLDER

STAKEHOLDER STAGECRAFT AND LEADERSHIP

PLAYER

PLAYER STAGECRAFT AND LEADERSHIP

BUSINESS ACTOR

BUSINESS FUNCTION  
MANAGEMENT

TEAM

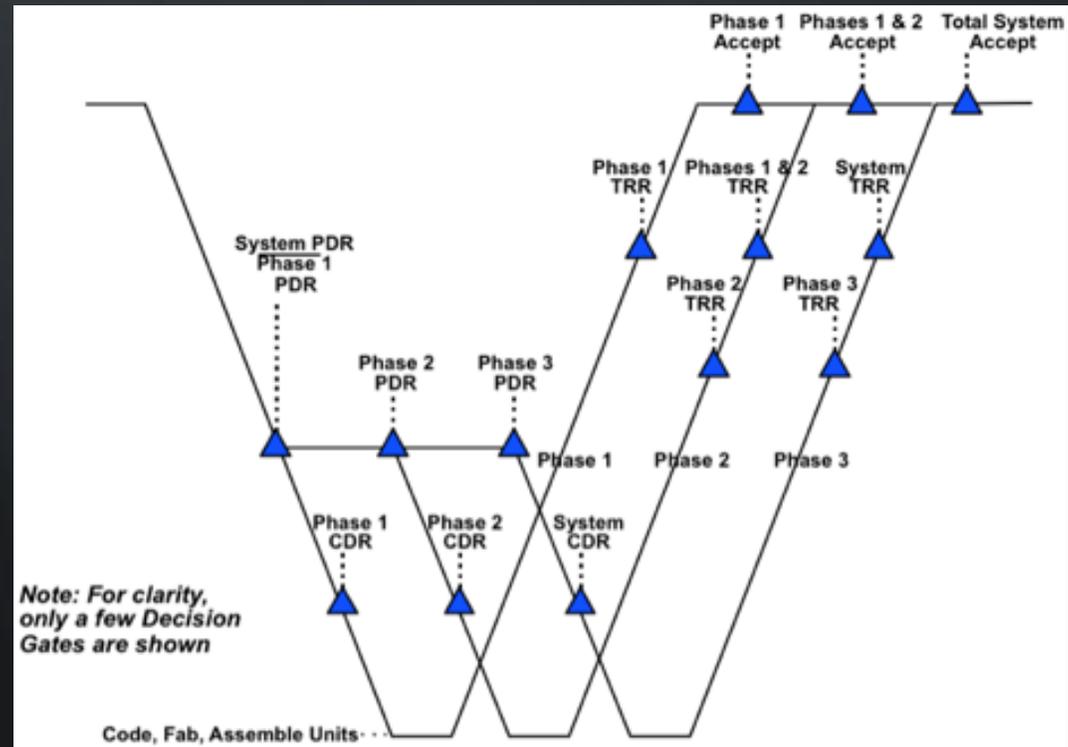
TEAMS MANAGEMENT

DIFFERENT SETS OF ORGANIZATIONAL AND TECHNICAL SOLUTIONS

# ENGINEERING OF TEAMS

GROUP OF PEOPLE WITH SET OF  
COMPLEMENTARY SKILLS ENOUGH TO  
DELIVER A TASK, JOB OR PROJECT

# BUT WHAT WITH THE EVOLUTIONARY LIFE CYCLE MODELS?



# TEAM AS A SYSTEM



‘JUST SPECIALISTS’

STAKEHOLDER IN REGARDS  
TO SOI

# FUNCTION AND CONSTRUCTION OF TEAM IN DISTRIBUTED LEADERSHIP

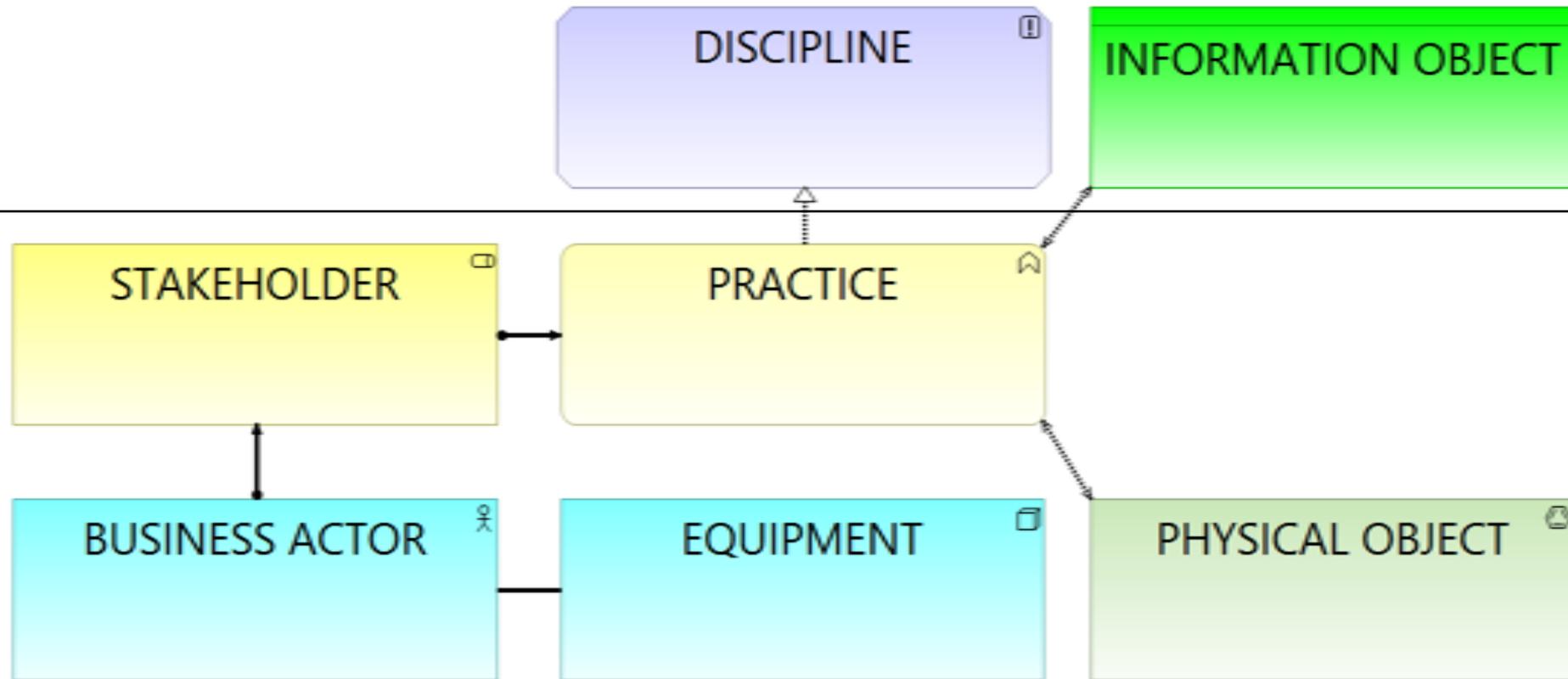
ALL STAKEHOLDERS REQUIRED TO  
PERFORM LIFE CYCLE OF SYSTEM-OF-  
INTEREST

+ BUSINESS ACTORS WITH NEEDED  
AUTHORITY TO APPLY RESOURCES

MIND READERS ARE ON VACATION!



# SYSARCHI RESOLVES COORDINATION PROBLEM





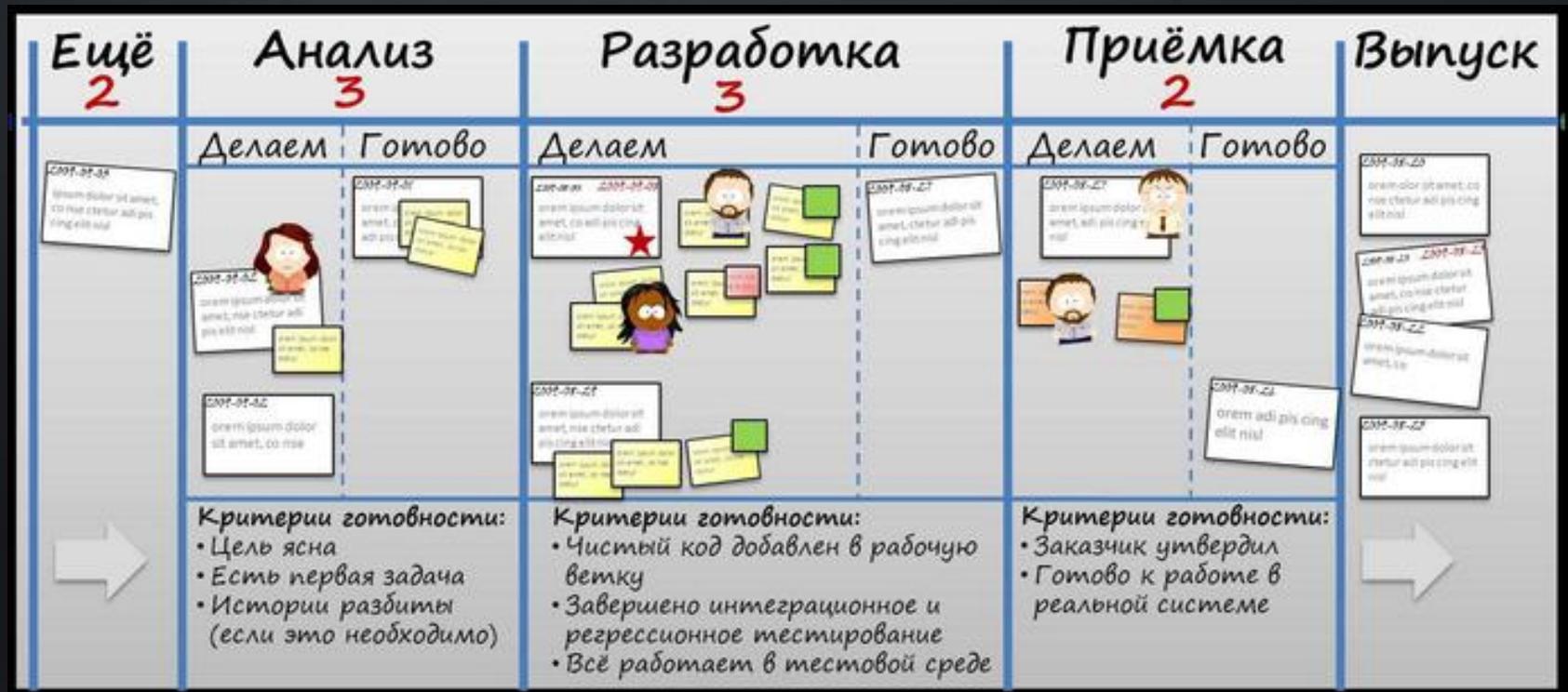
# ONTOLOGY EXCAVATION



RC **ABBYY**<sup>®</sup>

ROZETKA

# EXOCORTEX ALLOWS TO COORDINATE (SUBJECT-ACTION-OBJECT)

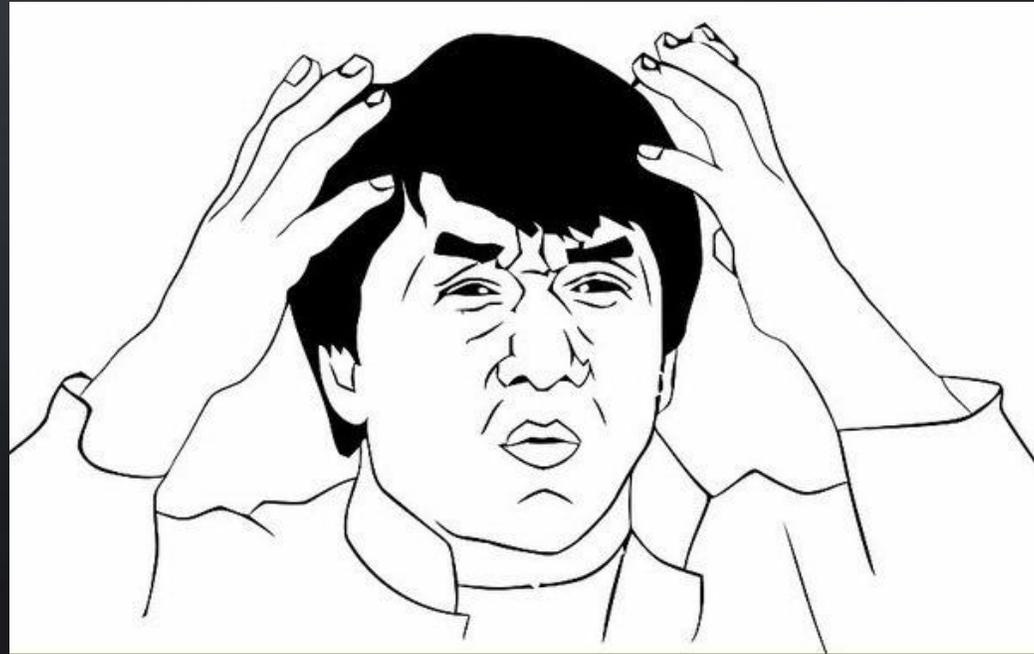




# UNIFIED MULTIMODEL OF SYSTEM-OF-INTEREST AND TASKS

BUT PEOPLE ARE NOT PERFECT SO EVEN  
WITH SUCH MODEL IT IS DIFFICULT FOR  
THEM TO PAY ATTENTION

I NEED STAKEHOLDER,  
WHY DO I GET A WHOLE PERSON



# ONE-TO-ONE MEETINGS



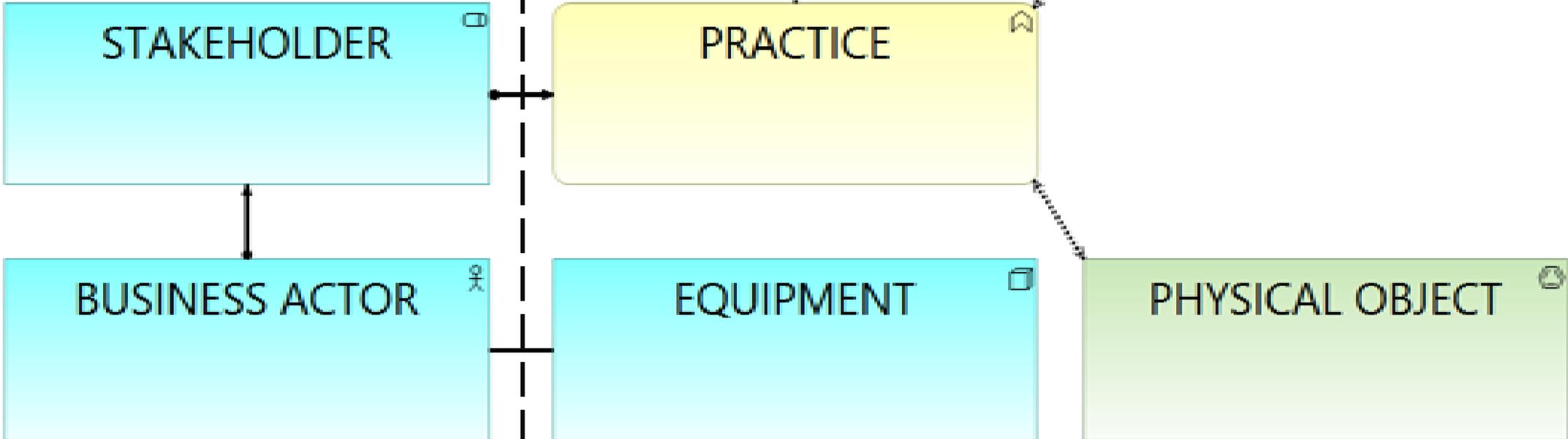
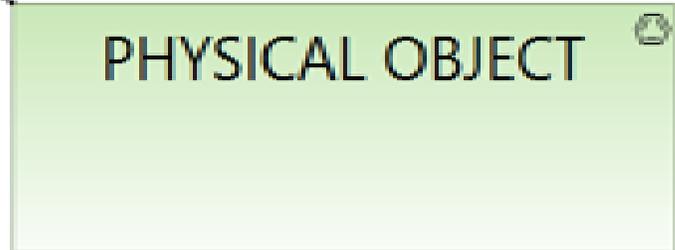
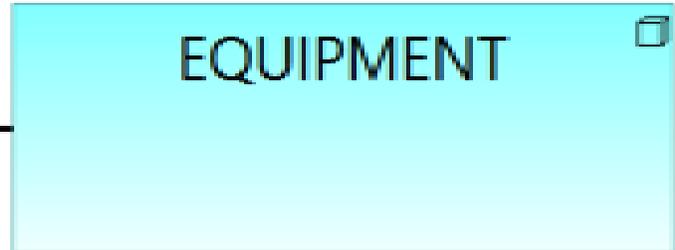
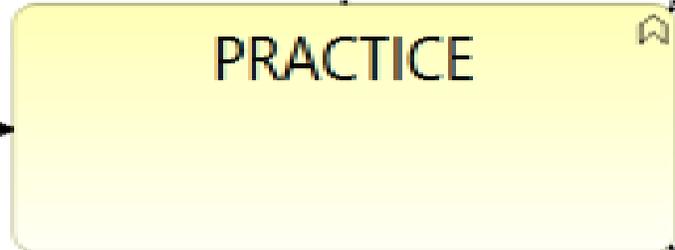
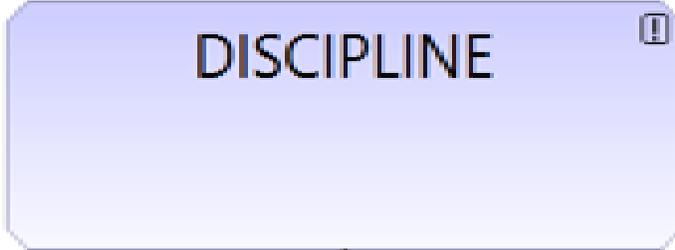
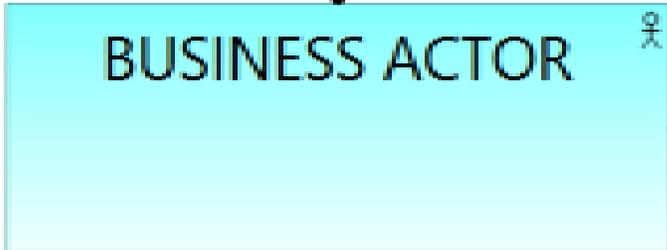
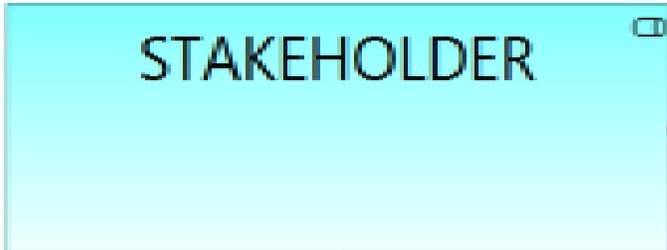
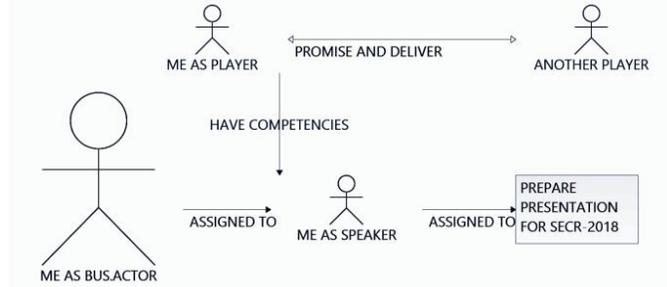
# BRUCE TULGAN



5 P.M. ALL MEETINGS ARE OVER,  
TIME TO WORK



# DISTRIBUTED LEADERSHIP





# TECHNOLOGY DESCRIPTION

- ❑ <https://www.archimatetool.com>
- ❑ <https://yadi.sk/i/DgjcXh3yPjQIA>



# LEADERSHIP

- ❑ YOU SHOULD FOLLOW ALL PRACTICES, SO IT IS DISTRIBUTED
- ❑ CAN AND SHOULD BE TRAINED, ELSE SOI LCM WILL NOT BE FULFILLED
- ❑ AGREEMENTS SHOULD BE DONE FORMALLY IN MBSE TOOL, BECAUSE SMART BECAME TOO MUCH COMPLICATED

# MY CONTACTS

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- [HTTP://SDU2020.BLOGSPOT.COM](http://sdu2020.blogspot.com)
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