



Valencia Pilot

Cybermar - Architecture and technical modules

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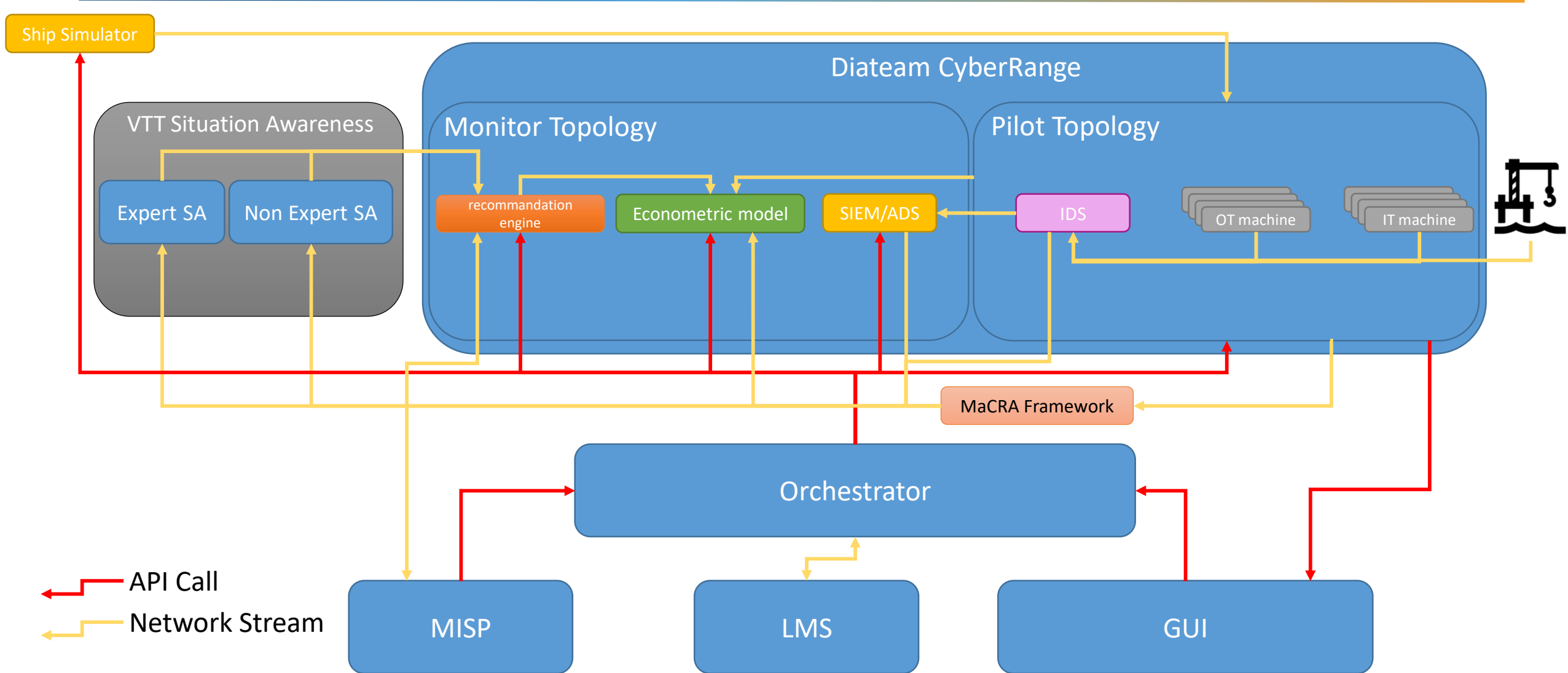
3 December 2020

Summary

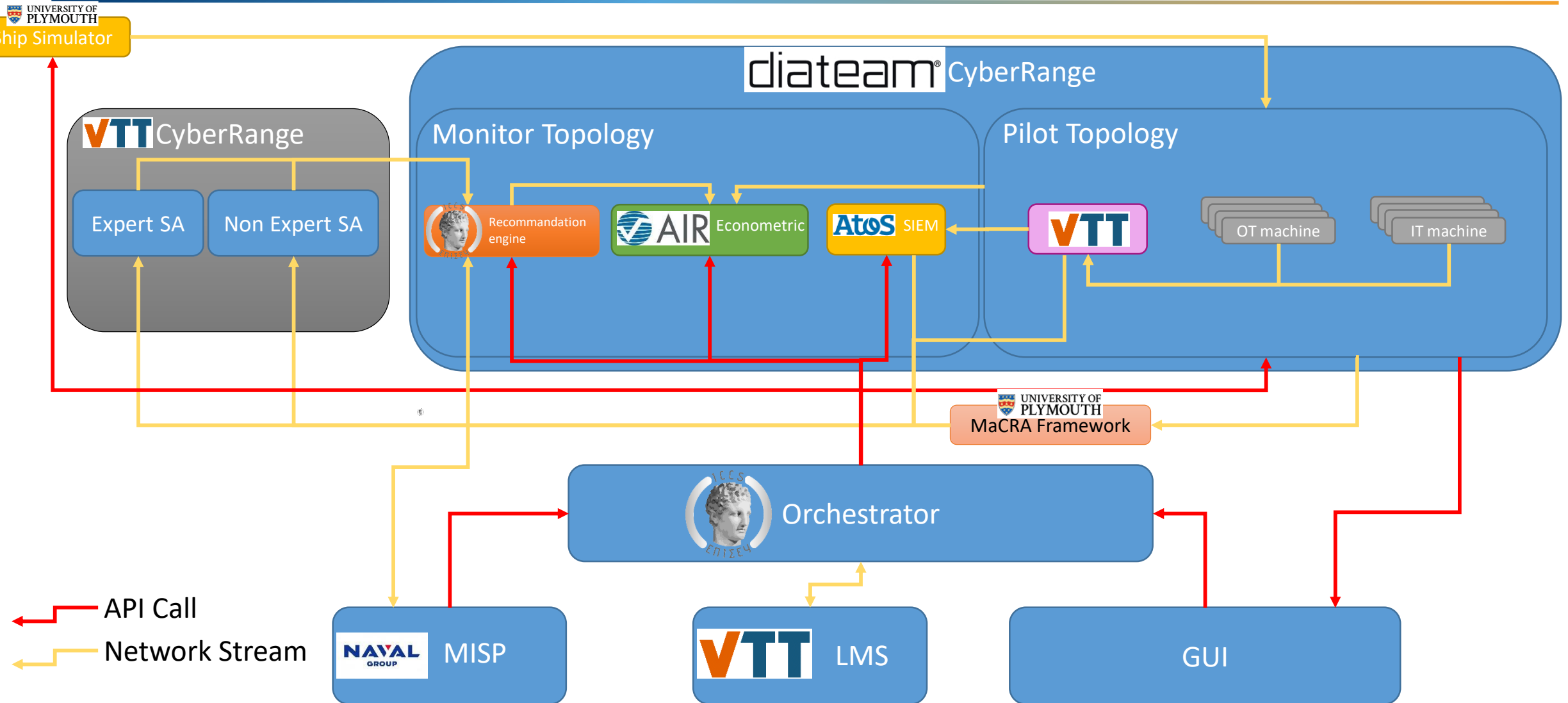
1. Global architecture
 2. Main components :
 1. Orchestrator
 2. Diateam CyberRange
 3. VTT Tools
 4. Recommendation engine
 5. Economic model
 6. SIEM/ADS
 7. MISP
 8. Macra
-

Global architecture

Global architecture



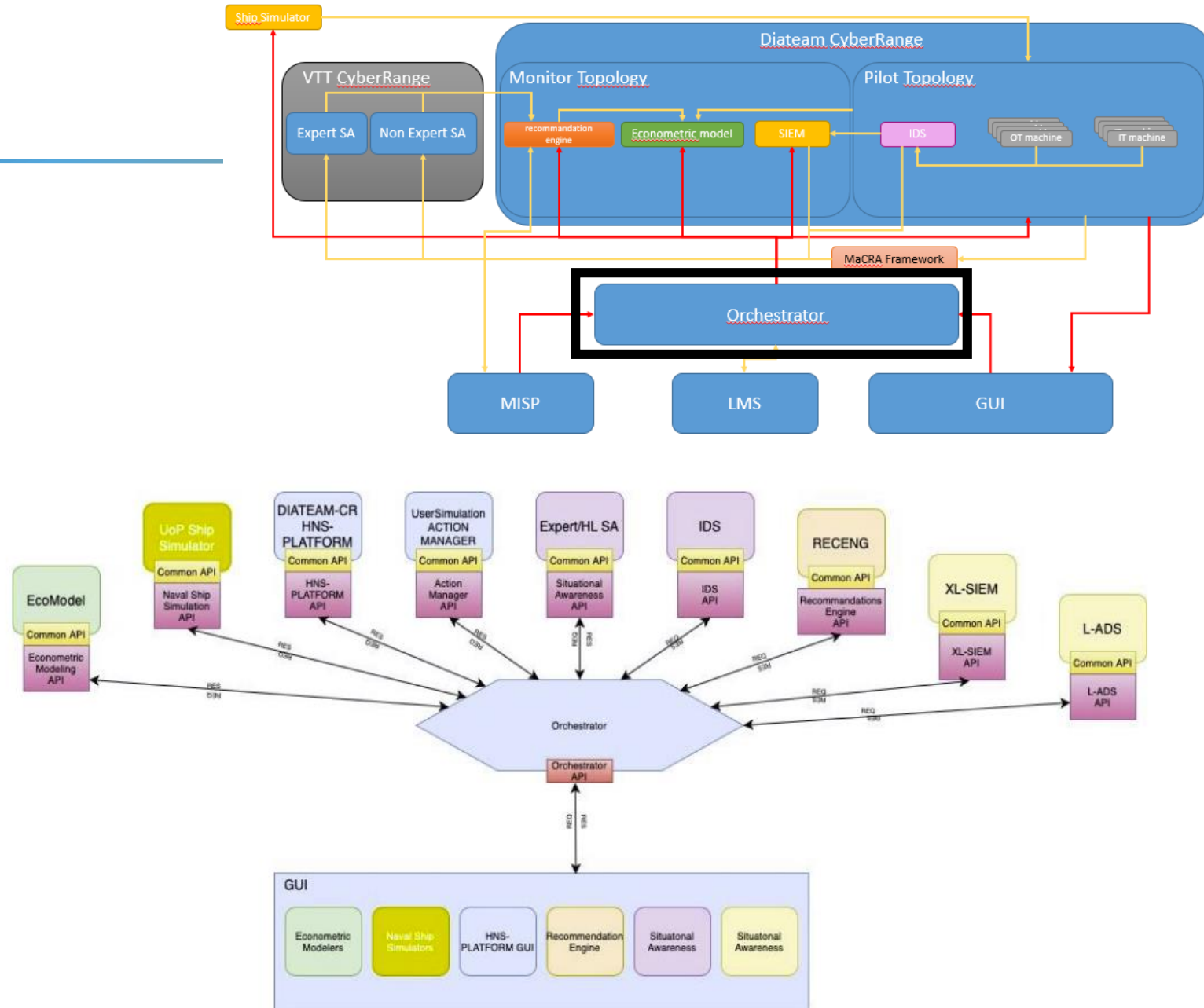
Global architecture - Partners



Technical modules

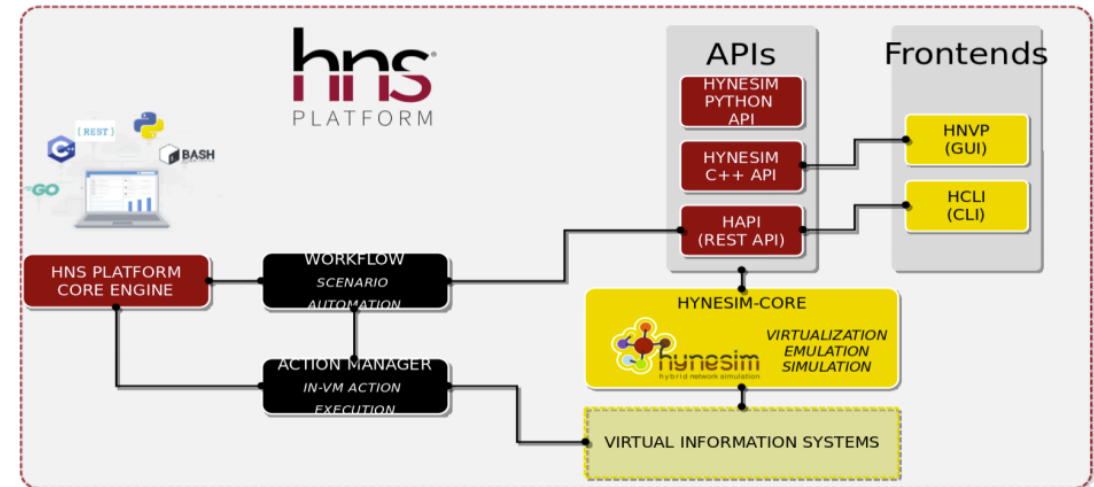
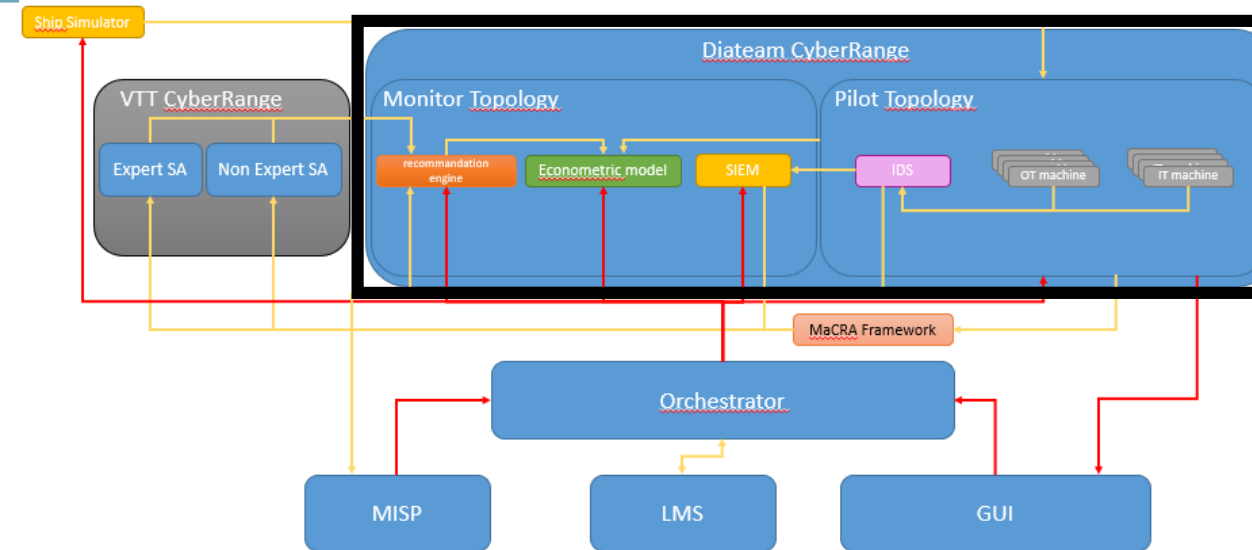
Orchestrator

- Main controller
- Synchronise all components
- Create any topology
- Drive any scenario
- Common API



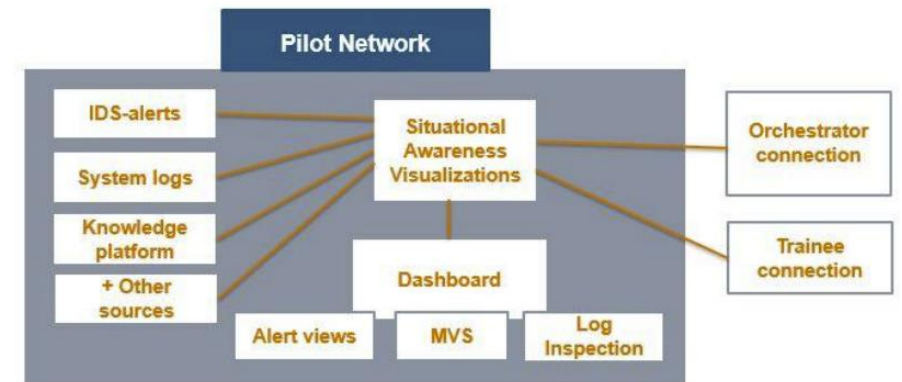
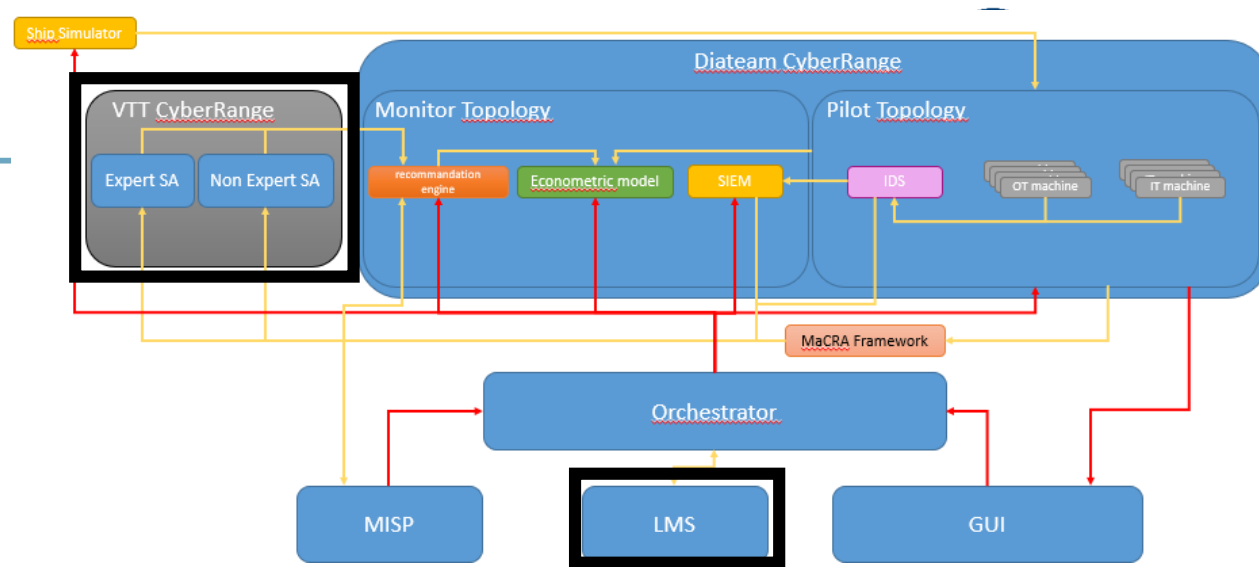
Technical Modules –Diateam CyberRange

- Main cyber range:
 - Produce and manage virtual environment
 - Inter-connection with real IT or OT equipment
 - Create any virtual environment
 - View and interact with all virtual machine



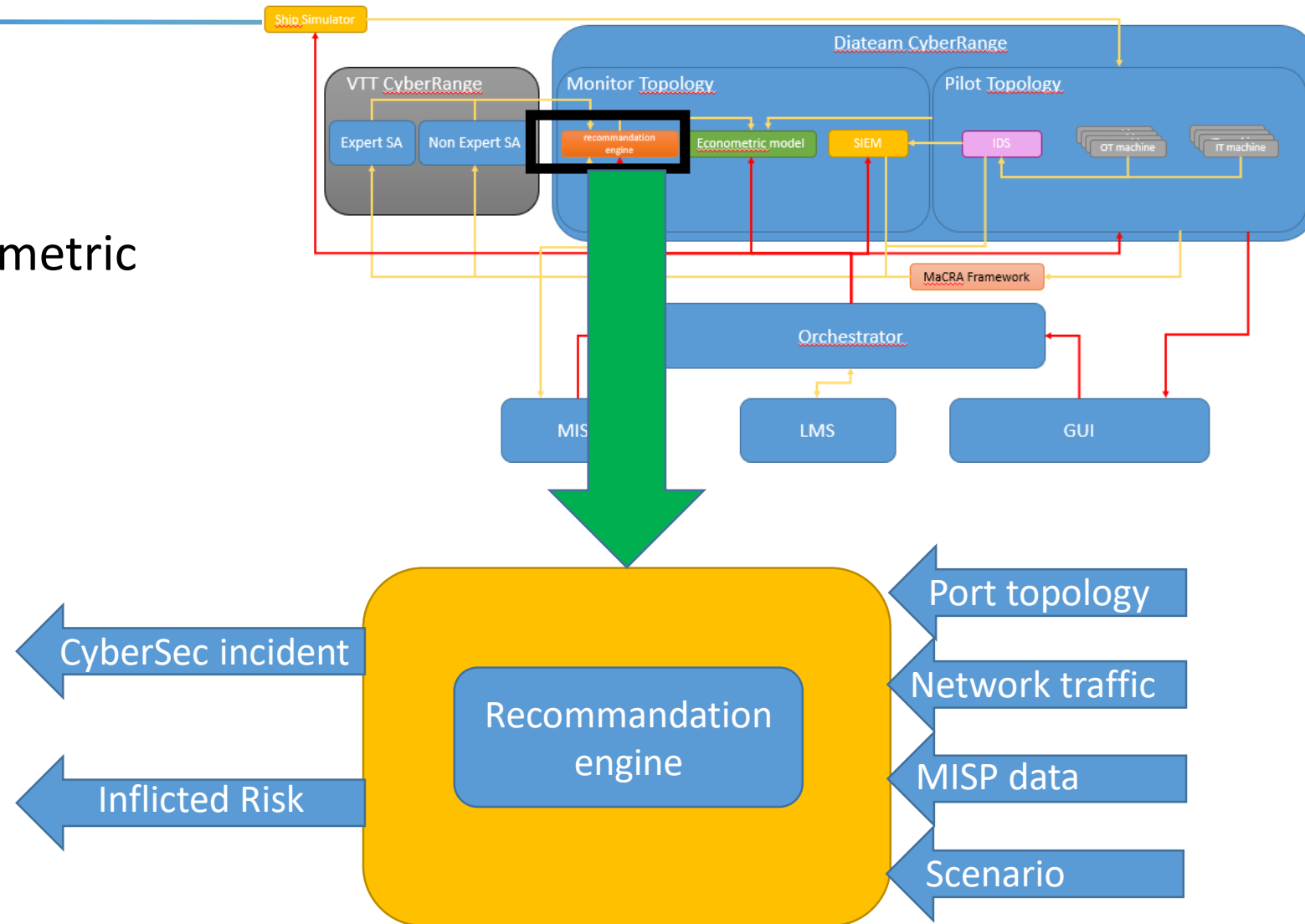
VTT tools

- Provide a collection of open source network monitoring tool and the LMS
- Take all security alert from all security component and give a clear dash board of the situation.
- Detect and capture evidence of cyberattack for situational awareness
- 2 modules : 1 for technical expert and 1 for high-level profiles



Technical Modules – Recommendation engine

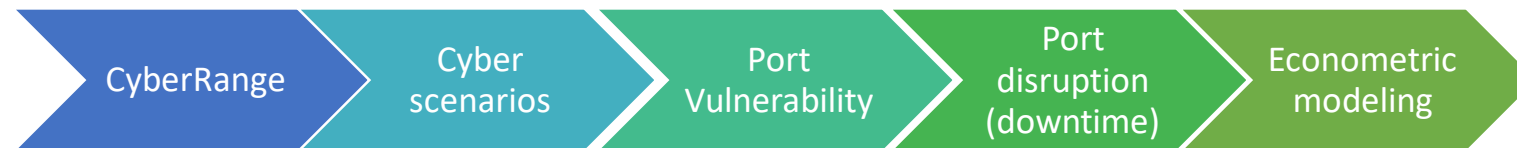
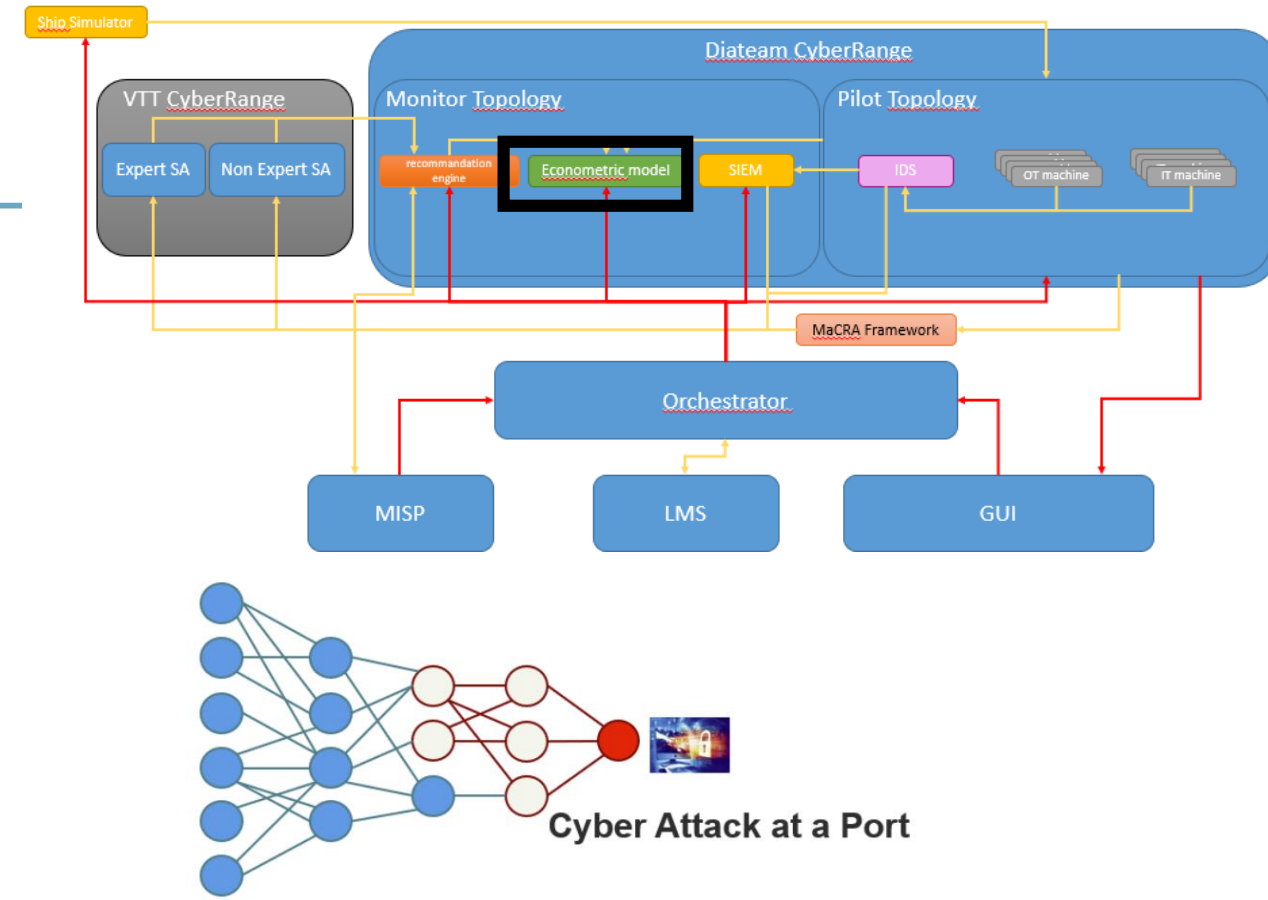
- Concentrate lot of data
- Evaluate Inflicted Risk and econometric
- Non realtime evaluation



Econometric Model

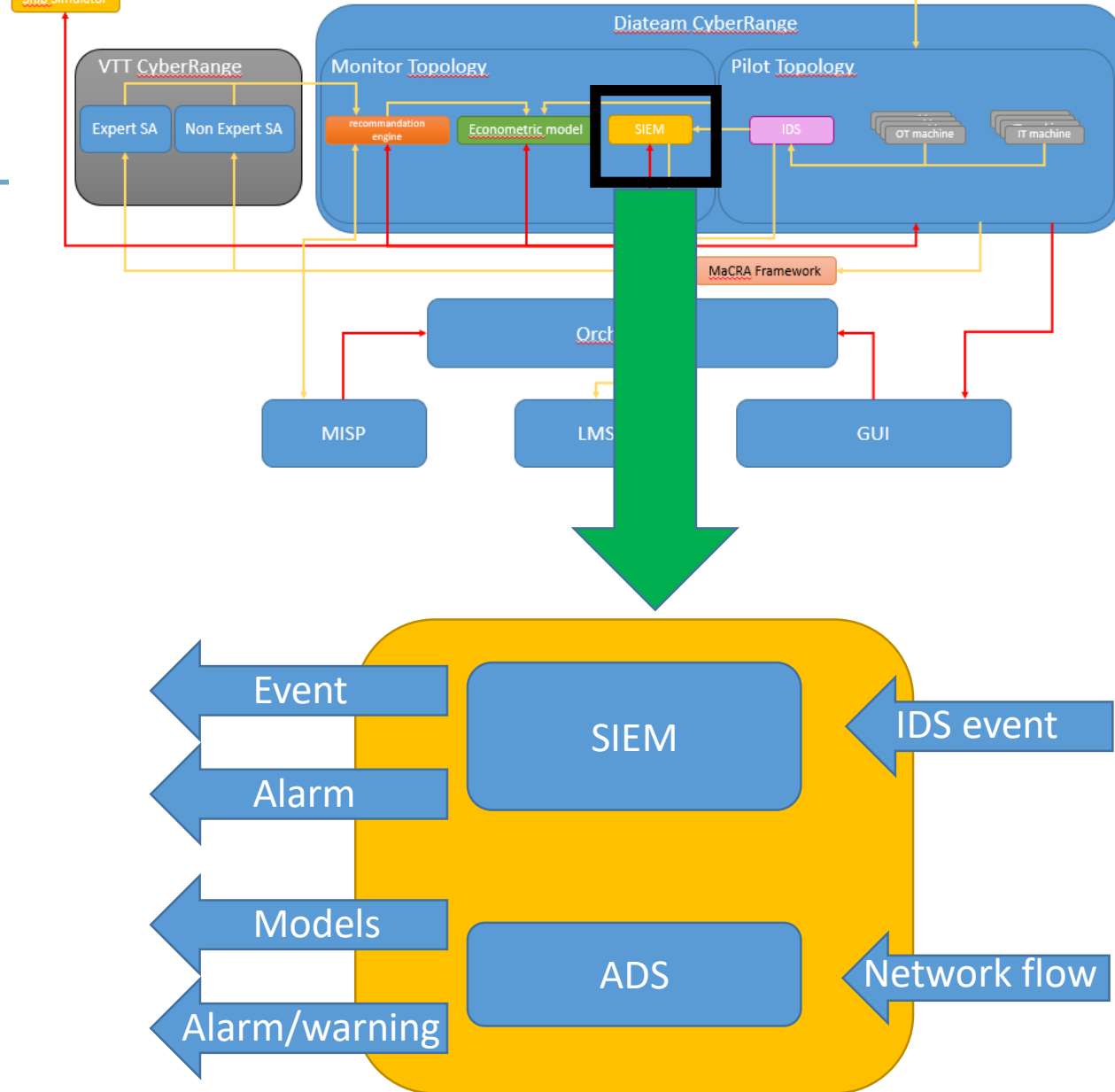
Main econometric component

- Create Econometric
- Evaluate economical impact of an attack scenario
- Awareness of students



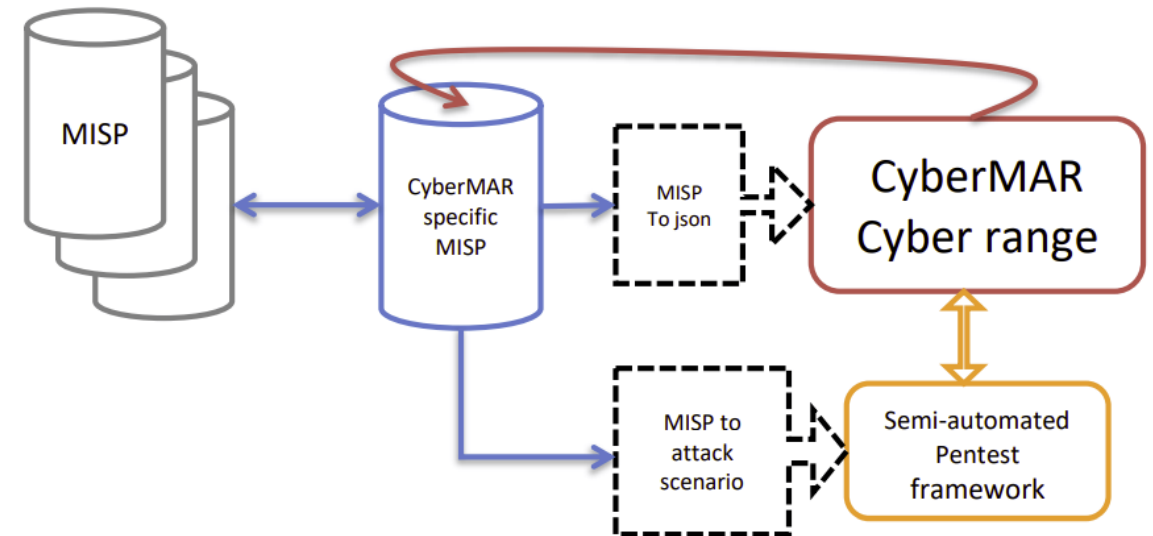
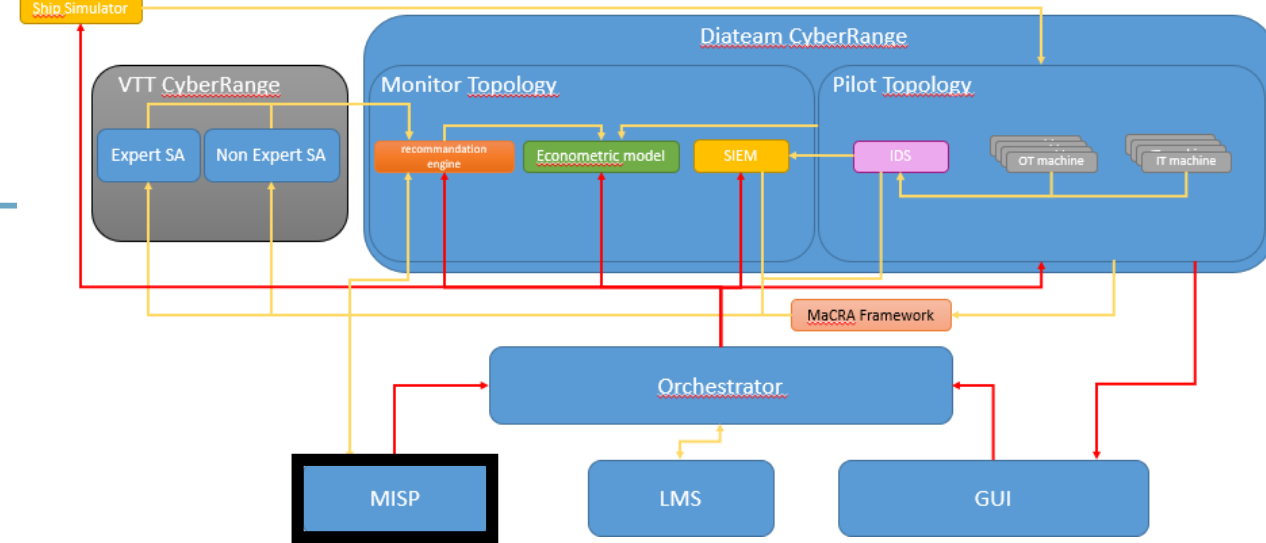
Technical Modules – SIEM/ADS

- Security monitoring platform:
 - Corelation of security event
 - Give status of the machine and the scenario
- Behavioural Analysis:
 - Check in real time network flow
 - Component identify where to update the system's configuration.



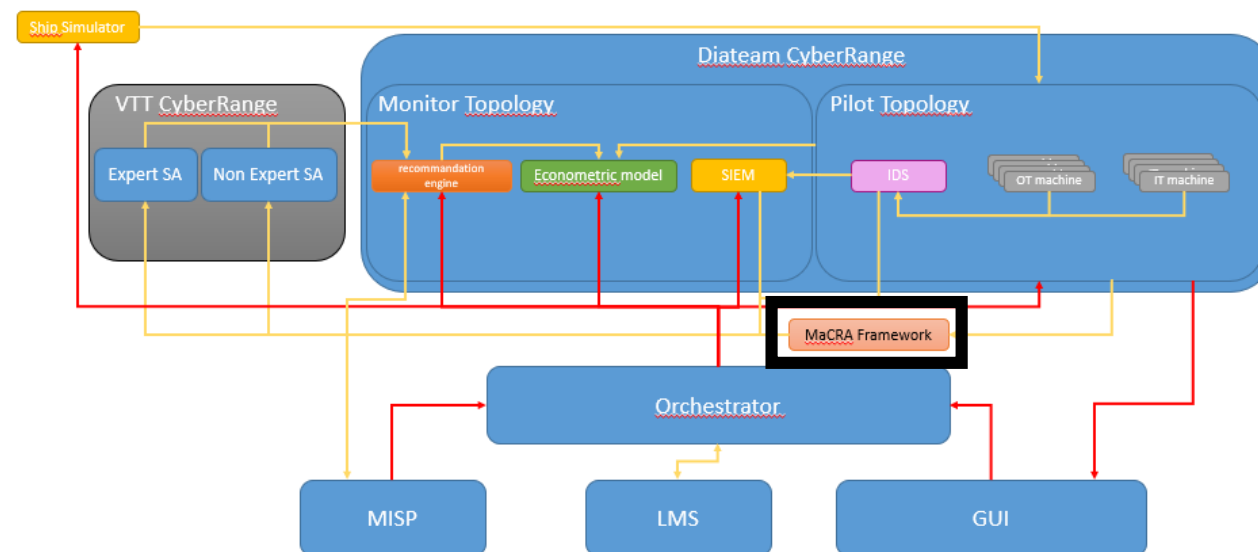
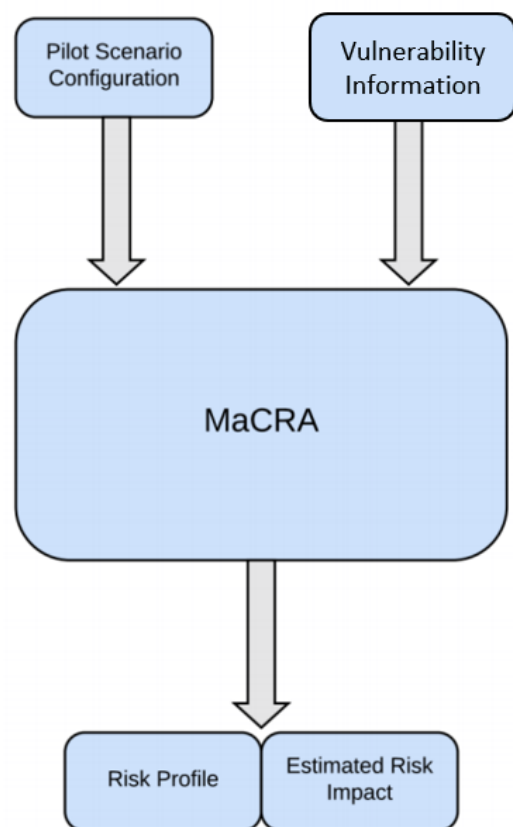
Technical Modules – MISP

- Malware Information Sharing Platform:
 - Based on real technical and operational data
 - Record and replay any kind of attack
 - Give a real cyber-attack scenario of maritime sector
 - Interconnect any CERT of MISP community



Technical Modules – MaCRA

- Framework of cyber-risk exposure:



List of pilots

- Valencia port: Energy sources
- Piraeus port : SCADA Container terminal
- University of plymouth : Ship simulator





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THANK YOU FOR YOUR ATTENTION



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