



A holistic  
passenger  
ship  
evacuation  
and rescue  
ecosystem

# WP9 Raising Awareness, Standardisation and Exploitation Roadmap

Final Review Meeting  
Virtual Meeting



ENGINEERS  
FOR  
BUSINESS

think invent expand



# WP9 Overview of tasks and achievements

M19-M44

# Gantt



		Q1			Q2			Q3			Q4			Q1			Q2			Q3			Q4																	
		M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25	M26	M27	M28	M29	M30	M31	M32	M33	M34	M35	M36			
<b>WP1</b>	<b>Project Management, Quality Assurance and Reporting</b>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36			
Task 1.1	Overall Project Coordination, Administrative & Financial Management	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36			
Task 1.2	Quality Assurance, Risks Management & Contingency Plans	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36			
Task 1.3	Management of Data, Knowledge & IPR issues	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36			
Task 1.4	Ethical Watch and Pilot Coordination	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36			
<b>WP2</b>	<b>Use Case Driven Requirements Engineering and Architecture</b>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24															
Task 2.1	Passenger Ship Evacuation Trend Analysis & Basis of Legal and Ethical Requirements	1	2	3	4	5	6	7	8	9	10	11	12																											
Task 2.2	Stakeholders' Requirements				3	4	5	6	7	8	9	10	11	12					18	19	20	21	22	23	24															
Task 2.3	Reference Scenarios and Pilot Operations Specifications and KPIs				3	4	5	6	7	8	9	10	11	12					18	19	20	21	22	23	24															
Task 2.4	Architecture and Detailed Technical Specifications				3	4	5	6	7	8	9	10	11	12					18	19	20	21	22	23	24															
<b>WP3</b>	<b>PALAEMON Intelligence Framework- AI Services and Algorithms</b>				3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30								
Task 3.1	Evacuation Methodologies & Models Analysis				3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				22	23	24	25	26	27	28	29	30								
Task 3.2	Ship Stability Toolkit				3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				22	23	24	25	26	27	28	29	30								
Task 3.3	Weather Forecasting toolkit				3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				22	23	24	25	26	27	28	29	30								
Task 3.4	Safety Procedures				3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				22	23	24	25	26	27	28	29	30								
Task 3.5	Risk Assessment Platform Development				3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				22	23	24	25	26	27	28	29	30								
Task 3.6	PALAEMON Academy				3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				22	23	24	25	26	27	28	29	30								
<b>WP4</b>	<b>PALAEMON Mass Evacuation Vessel</b>						6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30									
Task 4.1	MEV TYPE-I A Composite Floating Structure						6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28											
Task 4.2	MEV TYPE-II Part of Ship Superstructure						6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28											
Task 4.3	Design and Implementation of Inflatable structure						6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28											
Task 4.4	MEV Interior Design Methodologies						9	10	11	12	13	14	15	16	17	18							22	23	24	25	26	27	28	29	30									
<b>WP5</b>	<b>PALAEMON On-board mustering tools and services</b>						6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30									
Task 5.1	Smart Bracelets						6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30									
Task 5.2	Augmented Reality Glasses for Ship Crew						6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30									
Task 5.3	UAV Inspection Module						6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30									
Task 5.4	CCme						6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30									
Task 5.5	Smart Cameras						6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30									
<b>WP6</b>	<b>PALAEMON Back-End Infrastructure</b>				4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32							
Task 6.1	Ship Structural Monitoring Ecosystem				4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20				24	25	26	27	28	29	30	31	32							
Task 6.2	PALAEMON Data Fusion Middleware				4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20				24	25	26	27	28	29	30	31	32							
Task 6.3	Design and development of interfaces and HMIs				4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20				24	25	26	27	28	29	30	31	32							
Task 6.4	Development of PALAEMON On-Board Decision Support System				4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20				24	25	26	27	28	29	30	31	32							
Task 6.5	PALAEMON Incident Management Module (FIMM)				4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20				24	25	26	27	28	29	30	31	32							
<b>WP7</b>	<b>PALAEMON Integrated System and Technology Validation Trials</b>												13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32								
Task 7.1	PALAEMON Communication Platform												13	14	15	16	17	18	19	20				23	24	25	26	27	28	29	30	31	32							
Task 7.2	Encryption and Authentication Mechanisms												13	14	15	16	17	18	19	20				23	24	25	26	27	28	29	30	31	32							
Task 7.3	Uniform Data Exchange Modules - Interoperability Layer												13	14	15	16	17	18	19	20				23	24	25	26	27	28	29	30	31	32							
Task 7.4	VDES Deployment												13	14	15	16	17	18	19	20				23	24	25	26	27	28	29	30	31	32							
Task 7.5	Integration of PALAEMON Prototype System																	18	19	20	21	22	23	24		26	27	28	29	30	31	32								
Task 7.6	PALAEMON Ecosystem Testing																																							
<b>WP8</b>	<b>PALAEMON Application Field Trials, Evaluation and Outcomes</b>																					20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36		
Task 8.1	Pilot Organization Set-up and Preparation																					20	21	22	23	24	25	26												
Task 8.2	PALAEMON Ecosystem Setup and Deployment																												28	29	30	31	32	33	34					
Task 8.3	MEV prototypes validation demo																																		32	33	34	35	36	
Task 8.4	Passengers Evacuation Demo																																			32	33	34	35	36
Task 8.5	Mustering Demo																																			32	33	34	35	36
Task 8.6	Pilot evaluation, Lessons Learnt, Recommendations and Best Practices																																			32	33	34	35	36
<b>WP9</b>	<b>Raising Awareness, Standardisation and Exploitation Roadmap</b>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36			
Task 9.1	PALAEMON Communication & Dissemination Activities, Material & Publication Policy	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30									

# Objectives



- ▶ Disseminate the PALAEMON achievements and findings to all key actors in the field, and integrate their feedback to the specification, design, development and evaluation work
- ▶ Develop a market-oriented dissemination and communication strategy
- ▶ Execute a consistent set of activities to ensure the success of the communication strategy
- ▶ Organize and / or publish results in international journals, conferences, and workshops to inform the scientific community about PALAEMON, its goals, activities and results and to gather valuable information on related issues
- ▶ Definition of the PALAEMON's business delivery model both in terms of business and technology
- ▶ Issue concrete exploitation plans for key project results and oversee IPR management within the project and beyond

# Tasks and Achievements



- ▶ T9.1 PALAEMON Communication & Dissemination Activities, Material & Publication Policy (M01 – M44)
- ▶ T9.2 Exploitation Strategy & PALAEMON Business Plan (M12 - M44)
- ▶ T9.3 Assessment of equivalence of PALAEMON solutions with existing standards and potential barriers (M18 - M44)
- ▶ T9.4 Project solutions LCA and LCC analysis (M12 - M44)
- ▶ T9.5 Specialized Curriculum Development Training Activities (M12 - M44)
- ▶ Dissemination of results
- ▶ Market analysis
- ▶ Exploitation Plan
- ▶ Palaemon LCA
- ▶ Assessment of Equivalence
- ▶ Palaemon Training and eLearning

# Deliverables



- ▶ D9.1 : PALAEMON Dissemination Plan and activities report M19 - EFB
- ▶ D9.2 : Activities report M44 – EFB pending! To be submitted by end of March '23.
- ▶ D9.3 Market analysis M18 - ATOS
- ▶ D9.4 Exploitation, Sustainability & Business Plans & Exploitation activities M18 – ATOS
- ▶ D9.5 Exploitation, Sustainability & Business Plans - Life cycle cost & performance assessment
- ▶ D9.6 Report on PALAEMON training activities

# T9.1 PALAEMON Communication & Dissemination Activities, Material & Publication Policy (M01 – M44)

EFB

ADS | KT | ESI | ITML | JOAFG | NTUA | ADV | SIMAVI | DSB | ESI | RNA |  
AST | DNVGL | ADMES | THALIT | UAH | UAEG | WIS | ANEK | OELSR

# Objectives



- ▶ Disseminate the PALAEMON achievements and findings to all key actors in the field, and integrate their feedback to the specification, design, development and evaluation work
- ▶ Develop a market-oriented dissemination and communication strategy
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- ▶ Organize and / or publish results in international journals, conferences, and workshops to inform the scientific community about PALAEMON, its goals, activities and results and to gather valuable information on related issues
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- ▶ Issue concrete exploitation plans for key project results and oversee IPR management within the project and beyond



# T9.1 PALAEMON Communication & Dissemination Activities, Material & Publication Policy



6550 users 10394 views (total  
7937 visitors 13195 views)



114 tweets by several partners 83 followers



48 LinkedIn posts by several partners 117 followers



38 Facebook posts by several partners 62 followers

# T9.1 PALAEMON Communication & Dissemination Activities, Material & Publication Policy



15 Scientific Publications



Participated in 15 Conferences/Workshops/Events



14 Workshops hosted



10 Press Releases

# T9.1 PALAEMON Communication & Dissemination Activities, Material & Publication Policy



3 Videos produced (2 are released after the reporting period)

D9.2 : Activities report M44 - EFB pending! To be submitted by end of March '23.

# T9.2 Exploitation Strategy & PALAEMON Business Plan (M01 – M44)

ATOS

ADS | KT | JOAFG | NTUA | ADV | SIMAVI | ESI | RNA | DANAOS | EFB | AST  
| DNVGL | ADMES | THALIT | WIS | ANEK | OELSR

# T9.2 Objectives



- ▶ Coordination of the exploitation and commercialization strategy
- ▶ Phases:
  - ▶ Product identification
  - ▶ Market analysis
  - ▶ Preparation of product launch
  - ▶ Joint Exploitation Decisions
- ▶ Define
  - ▶ Values proposition
  - ▶ Market and competition analysis
  - ▶ Characterization of the configuration of the value creation (partners, value change, customer relationship, etc.)
- ▶ Economic analysis
  - ▶ Profitability of the revenue model
  - ▶ Understand future cash flow and highlight the need for additional funding or external investment to reach the first stage

## Achievements Task 9.2

### ▶ D9.3 : Market analysis

- ▶ Market Trends
- ▶ Environmental Analysis (PESTEL)
- ▶ Stakeholders Analysis
- ▶ SWOT
- ▶ Shipping Market Analysis
- ▶ IT market data

Moved to M18 from M36. Due to consortium decision

### ▶ D9.4 : Exploitation, Sustainability & Business Plans & Exploitation activities (1)

- ▶ List of Assets & Results
- ▶ Palaemon Unique Selling Point
- ▶ Individual Exploitation Plans
- ▶ PALAEMON Value Proposition and Business Model Canvas
- ▶ Joint Exploitation Plan
- ▶ Intellectual Property Rights

Moved to M18 Due to error in the DoA. Task 9.2 started in M12

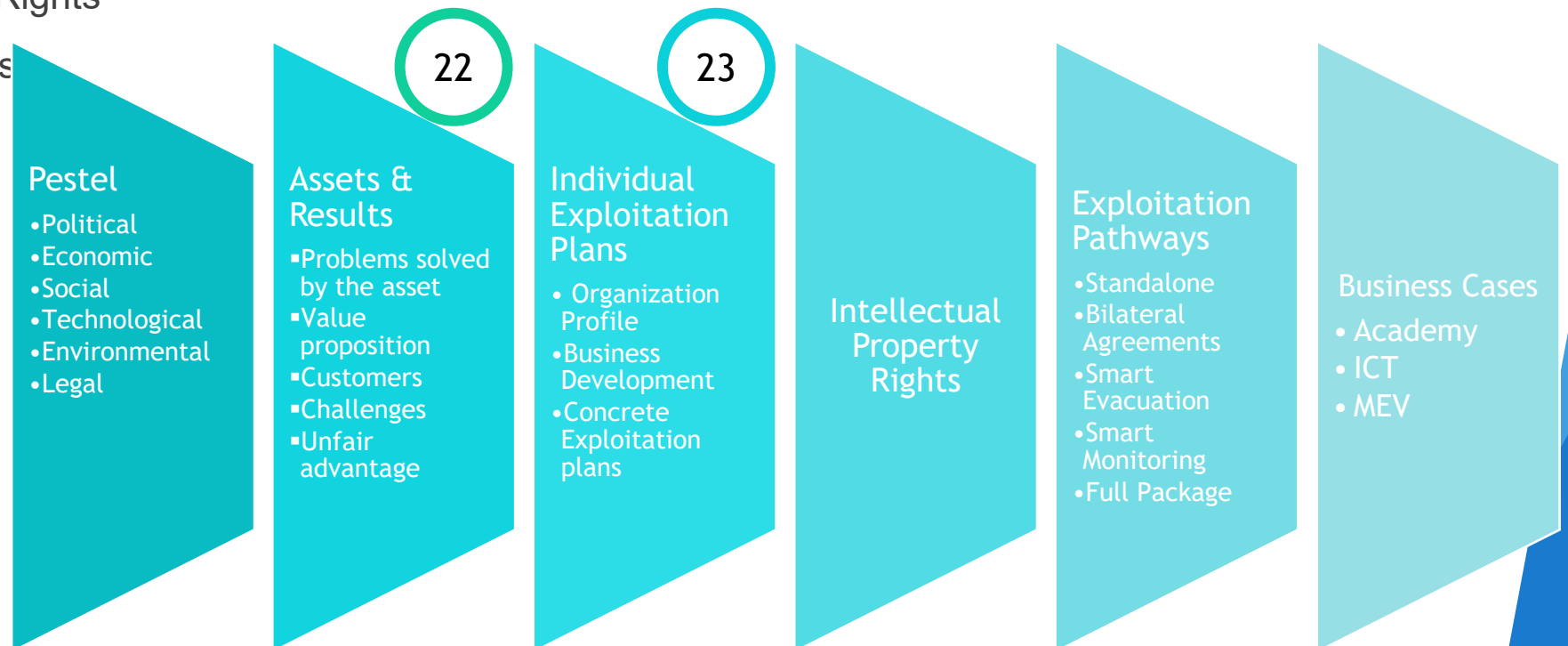
### ▶ D9.5 : Exploitation, Sustainability & Business Plans - Life cycle cost & performance assessment (2)

- ▶ Assessment of equivalence
- ▶ Life cycle assessment
- ▶ PESTEL Analysis update
- ▶ List of Assets and results
- ▶ Individual Exploitation Plans
- ▶ Intellectual Property Rights
- ▶ Exploitation Pathways
- ▶ Business Cases

T9.2 + T9.3 + T9.4

## D9.5 : Exploitation, Sustainability & Business Plans - Life cycle cost & performance assessment List of Assets & Results

- ▶ PESTEL Analysis update ( To fulfill recommendation from previous review)
- ▶ List of Assets and results
- ▶ Individual Exploitation Plans
- ▶ Intellectual Property Rights
- ▶ Exploitation Pathways
- ▶ Business Cases





## List of Results

Id	Asset	Owner
1	Smart Bracelets	ADV
2	Smart Cameras	UAH
3	Ship Health Monitoring (Motion and acoustic sensors)	ESI
4	VHF Data Exchange System (VDES)	WISER / THALES
5	PaMEAS	UAGEAN
6	Data Fusion Bus (Access + Core)	ITML / ATOS
7	Safety Management System (Ship & Shore)	DANAOS
8	Evacuation coordinator	ATOS
9	Weather Forecast Toolkit (DSS)	KT
10	Smart Safety System	JU
11	Ship Stability Toolkit	JU
12	Voyage Report Generator	ATOS
13	Decision Support System (DSS)	KT
14	PALAEMON Incident Management Module (PIMM)	KT
15	Smart Risk Assessment Platform (SRAP)	NTUA
16	AR Glasses	SIMAVI
17	PALAEMON Academy (eLearning Platform)	JOAFG
18	PALAEMON Academy (VR OnSite Training)	JOAFG
19	MEV + Inflatables	ASTANDER + DSB + ESI
20	Inflatables	DSB
21	Training platform	SIMAVI
22	MEV-I Interior Design	EFB

## Results Description

Voyage Report Generator
Owner: ATOS

Legacy vessels have their own VDR (Voyage data report) with information of their own syst PALAEMON VRG complements with all the information coming from PALAEMON dev allowing a higher level of awareness. In addition, PALAEMON generates a .pdf report wher information is displayed in a friendly manner, thus the post incident analysis time might be red. Furthermore, multimedia information (videos, audios) is also available.

What problem/s is/are the asset solving?	Value Proposition
Legacy vessels have their own VDR (Voyage data report) with information of their own systems. PALAEMON VRG complements with all the information coming from PALAEMON devices, allowing a higher level of awareness. In addition, PALAEMON generates a .pdf report where the information is displayed in a friendly manner, thus the post incident analysis time might be reduced. Furthermore, multimedia information (videos, audios) is also available.	Trustworthy information from all PALAEMON non-PALAEMON (Shipboard legacy syst devices is compiled into a single report prot with password, only allowed persons (DPA), open the file.

Customers	Challenges
<ul style="list-style-type: none"> <li>Ships owners</li> <li>Port authorities</li> <li>Designated person ashore</li> </ul>	Integration of shipboard legacy systems components as part of the PALAEMON cluste GDPR restrictions when storing video and auc The report needs internet connection which cc be restricted during a real incident. Regulation issues derived from promoting VRi the evolution of VDR.

Unfair Advantage

Novelty Trustworthy Digital information stored during the incident.

## Software Licenses + Git

**PALAEMON Evacuation Coordinator Monitor**

Project ID: 1243

95 Commits 7 Branches 2 Tags 735 KB Project Storage

Ship evacuation status stream aggregator (only monitors Kafka events)

Forked from ARU / PALAEMON / PALAEMON Evacuation Coordinator

Star 0 Fork 0

chore(LICENSE): Change to Apache License 2.0

David Gomez Fernandez authored 2 months ago

66758ee3

master | palaemon-evacuation-coordinator-monitor | +

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[Add CHANGELOG](#)
[Add CONTRIBUTING](#)
[Add Kubernetes cluster](#)
[Set up CI/CD](#)

Configure integrations

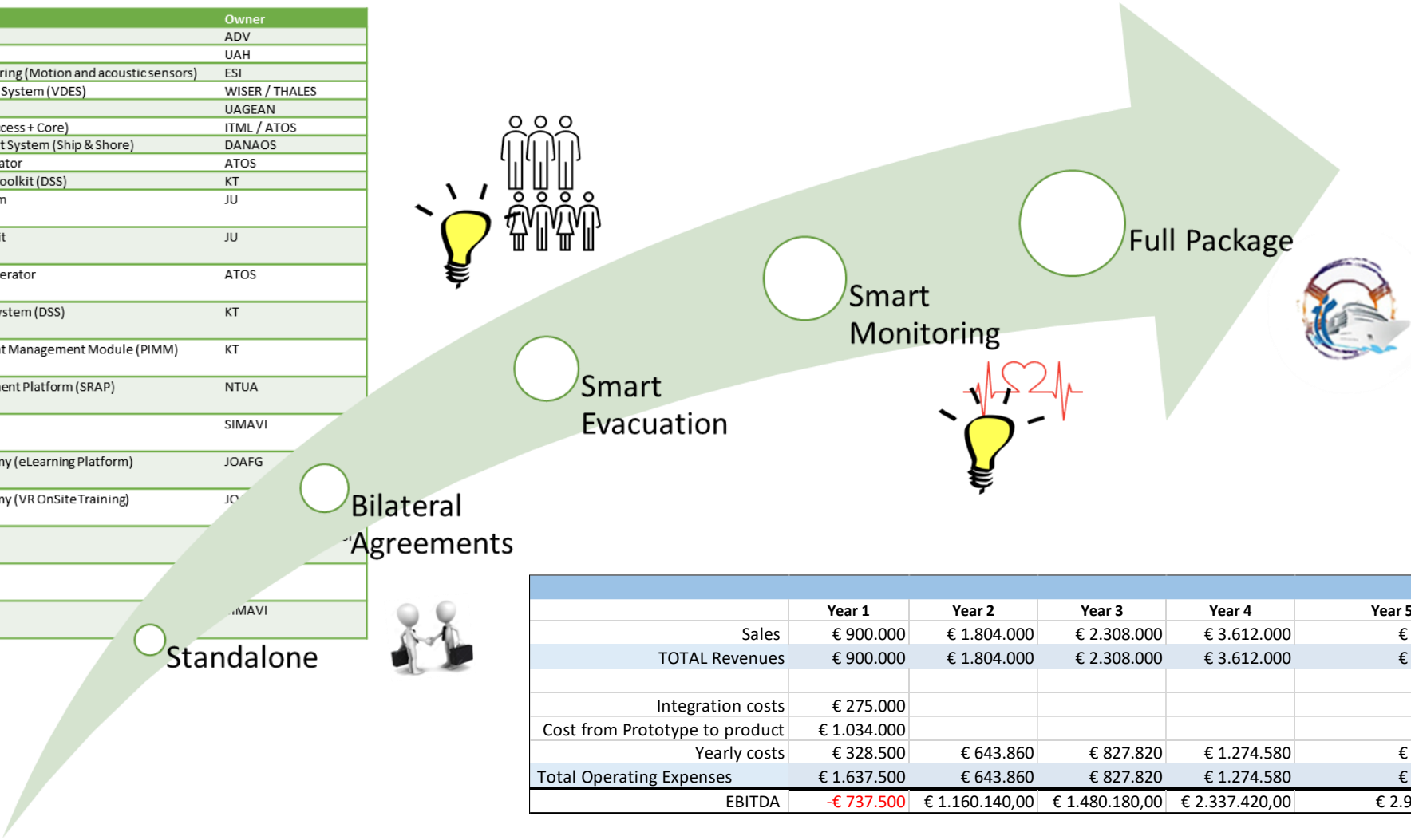
Name	Last commit	Last update
config	refactor(#9): Kafka and Uvicorn verbose logg...	9 months ago
docs/figures	chore(README): Readme updated (initial ver...	2 years ago
keys	feat: added keys folder	2 years ago



# Task 9.2 Exploitation Strategy & PALAEMON Business Plan



Id	Asset	Owner
1	Smart Bracelets	ADV
2	Smart Cameras	UAH
3	Ship Health Monitoring (Motion and acoustic sensors)	ESI
4	VHF Data Exchange System (VDES)	WISER / THALES
5	PaMEAS	UAGEAN
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7	Safety Management System (Ship & Shore)	DANAOS
8	Evacuation coordinator	ATOS
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1	Smart Safety System	JU
0		
1	Ship Stability Toolkit	JU
1	Voyage Report Generator	ATOS
2		
1	Decision Support System (DSS)	KT
3		
1	PALAEMON Incident Management Module (PIMM)	KT
4		
1	Smart Risk Assessment Platform (SRAP)	NTUA
5		
1	AR Glasses	SIMAVI
6		
1	PALAEMON Academy (eLearning Platform)	JOAFG
7		
1	PALAEMON Academy (VR OnSite Training)	JOAFG
8		
1	MEV + Inflatables	
9		
2	Inflatables	
0		
2	Training platform	SIMAVI
1		



Smart Evacuation



Standalone

Smart Monitoring

Full Package



	Year 1	Year 2	Year 3	Year 4	Year 5
Sales	€ 900.000	€ 1.804.000	€ 2.308.000	€ 3.612.000	€ 4.516.000
<b>TOTAL Revenues</b>	<b>€ 900.000</b>	<b>€ 1.804.000</b>	<b>€ 2.308.000</b>	<b>€ 3.612.000</b>	<b>€ 4.516.000</b>
Integration costs	€ 275.000				
Cost from Prototype to product	€ 1.034.000				
Yearly costs	€ 328.500	€ 643.860	€ 827.820	€ 1.274.580	€ 1.589.940
<b>Total Operating Expenses</b>	<b>€ 1.637.500</b>	<b>€ 643.860</b>	<b>€ 827.820</b>	<b>€ 1.274.580</b>	<b>€ 1.589.940</b>
<b>EBITDA</b>	<b>-€ 737.500</b>	<b>€ 1.160.140,00</b>	<b>€ 1.480.180,00</b>	<b>€ 2.337.420,00</b>	<b>€ 2.926.060,00</b>

# T9.3 Assessment of equivalence of PALAEMON solutions with existing standards and potential barriers (M18 – M44)

DNVGL

DSB | RNA | EFB

# T9.3: PALAEMON vs regulations

## ❑ List of technologies

- ✓ Documenting of technologies
- ✓ Review

## ❑ Gap Analysis

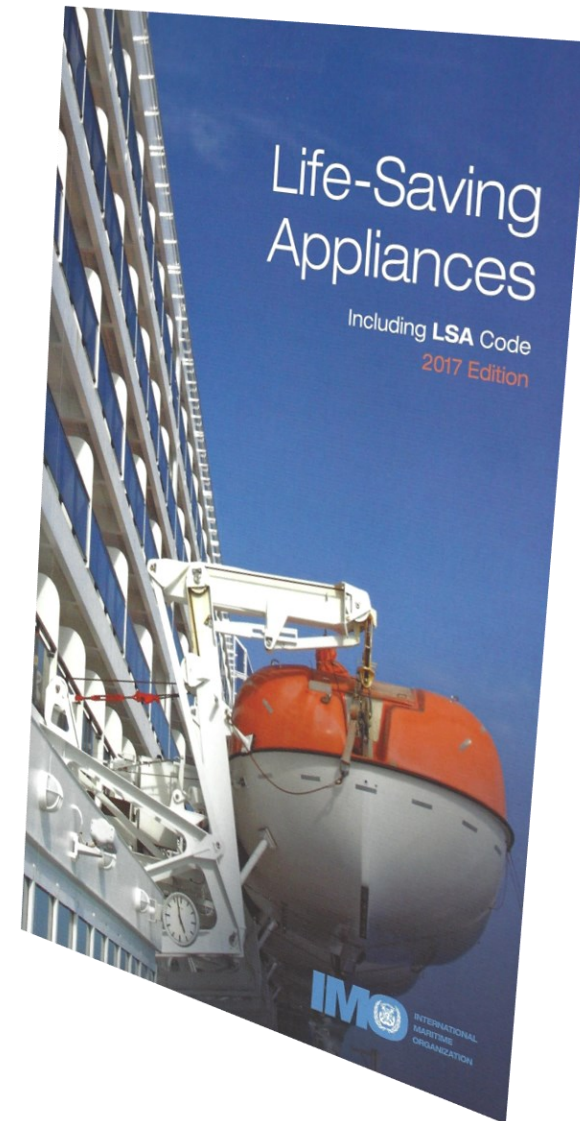
- ✓ What is covered in regulations?
- ✓ And what is not?

## ❑ Assessment

- ✓ Identify requirements
- ✓ Listing of further studies

## ❑ Equivalence

- ✓ Roadmap for compliance
- ✓ Barriers
- ✓ Report
- ✓ Feedback for next steps



# T9.3: Proof of equivalency - Alternative Design process

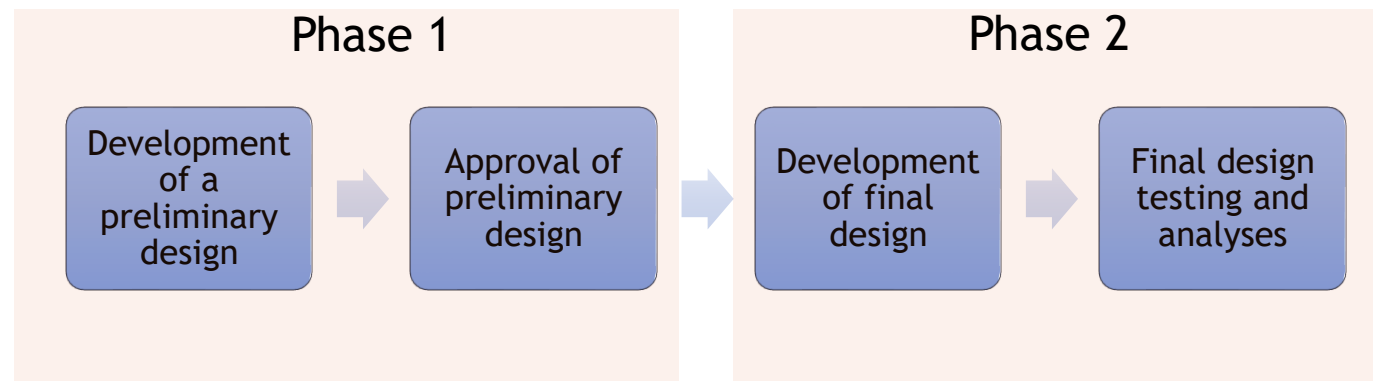
*LSA - Regulation 38 - Alternative design and arrangements:*

*1 The purpose of this regulation is to provide a methodology for **alternative** design and arrangements for life-saving appliances and arrangements.*

*2.1 Life-saving appliances and arrangements may **deviate** from the requirements set out in part B, provided that the alternative design and arrangements meet the **intent** of the requirements concerned and provide an **equivalent level of safety** to this chapter.*

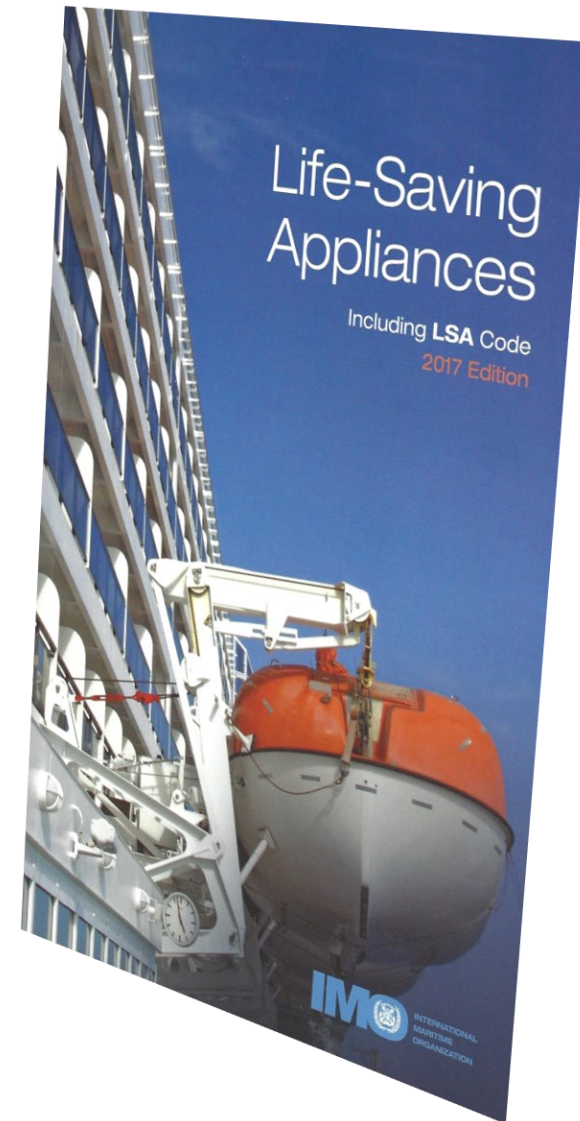
*2.2 When alternative design or arrangements deviate from the prescriptive requirements of part B, an **engineering analysis**, evaluation and approval of the design and arrangements shall be carried out in accordance with this regulation.*

A detailed guide for the evaluation is found in MSC.1/Circ.1212/Rev.1.



# T9.3: Conclusions

- ❑ Outcome of Gap Analysis
  - ✓ The PALAEMON Concept includes novel technologies and infrastructures posing new barriers in its integration in the maritime standard process.
- ❑ Main Barriers & Showstoppers
  - ✓ passenger capacity exceeding the SOLAS regulatory limits
  - ✓ novel, two-step hydraulic launching mechanism
- ❑ Alternative Design Process
  - ✓ novel and innovative features should follow the Alternative Design Process
  - ✓ usage of appropriate marine equipment
- ❑ Further Studies
  - ✓ feasibility analysis
  - ✓ hydrodynamic analysis
  - ✓ load-strength analysis
  - ✓ prototype tests



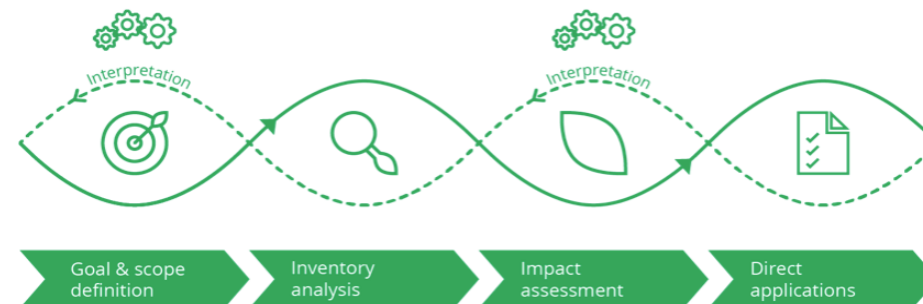
# T9.4 LCA PALAEMON ECOSYSTEM- (M12 – M44)

DANAOS

NTUA | ESI | EFB | AST

# T9.4- LCA PALAEMON Objectives

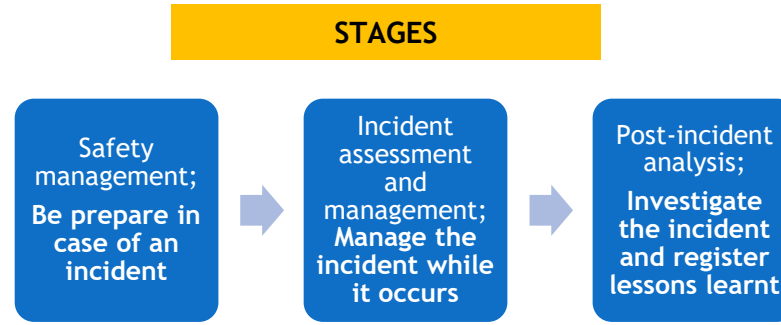
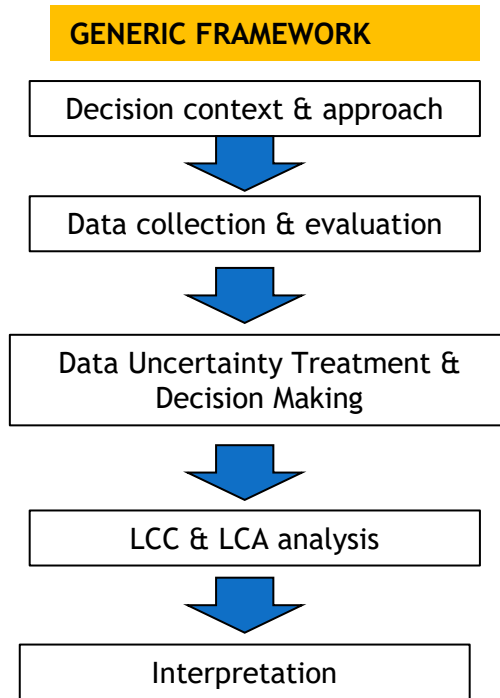
- ➔ Performance of PALAEMON evaluation system will be **evaluated against a diverse set of weighted attributes** namely cost factors, security, safety, environmental issues, health etc.
- ➔ It constitutes a dynamic framework of analysis where evaluation is associated with data integrity and adjusted to the readiness of the project ecosystem. **Progressive elaboration**: each instance of assessment analysis will suggest improvements and adjustments in overall approach of system development
- ➔ Offering the opportunity for different stakeholders influence to be systematically investigated in an integrated system of team thinking, transparency and **multi decision making**
- ➔ Reliability of evaluation and consistency in interpretation of conclusions is achieved by assigning weight factors to each evaluator associating his knowledge background with the nature of the criteria in evaluation (**expert judgment monitoring**)
- ➔ PALAEMON LCA tool deals with uncertainties and **quantification** of the evaluated criteria by **incorporating fuzzy set theory** represented by linguistic values or numbering. **Multi assessment computation methods** (TOPSIS, Cost Benefit, etc.)
- ➔ PALAEMON approach is treating the inevitable assumptions by providing a better understanding of the problem's complexity and the trade-offs involved via **prioritization of criteria** applying relative weighting of their importance.





# T9.4- LCA PALAEMON Process

## LCA ASSESSOR TOOL



- CRITERIA**
- **Cost;**
  - **Safety level;**
  - **Human factor;**
  - **Environment;**

**TOOLS AND TECHNIQUES**

- ➔ Subject Matter Experts
- ➔ Questionnaires (8 Seafarers)
- ➔ A specialized Multi Criteria-Multi Decision Making Life Cycle analysis tool (used by 4 DANAOS experts)

Alternatives	Experts	Attributes	Weights	Fuzzy weighted sum order
A1 practicality US	2	1	0.024	0.023
A2 Safety US	2	1	0.029	0.026
A3 Time of life US	2	1	0.062	0.022
A4 Cost of life US	2	1	0.146	0.122
A5 Compliance US	2	1	0.173	-0.141
A6 Risk to people US	2	1	0.062	-0.041
A7 Risk to environment US	2	1	0.107	-0.112
A8 Risk to ship US	2	1	0.136	-0.117

**Picture: PALAEMON LCA Specialized Tool**



## → Results Reported in D9.5

### General Statement / Conclusion

“PALAEMON ecosystem generates value to the safety system of a maritime company in an end-to-end perspective of the incident management (safety management, incident assessment and management, post incident analysis stages). The industry accepts the digital transformation of safety administration and innovation in the management of evacuation that PALAEMON ecosystem offers. The validity of the system will be further assessed in practice”





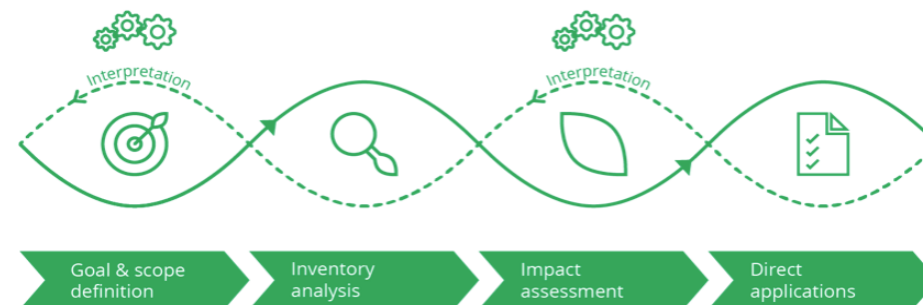
# T9.5 Specialized Curriculum Development Training Activities (M12 – M44)

JOAFG

ADV | RNA | DANAOS | EFB

# T9.5- PALAEMON Specialized Curriculum Development Training Activities

- ➔ Explanation of the training system and the “PALAEMON Academy” features.
- ➔ Explanation of the gaming application.
- ➔ Testing the system in one predefined scenario.
- ➔ Potential analysis of the system by the trainees (assessing in which situations the system would bring significant benefits).
- ➔ Building their own scenarios which will in turn be used to populate the “Scenario Database”.
- ➔ Testing various scenarios from the “Scenario Database”, populated also with real-world scenarios, using PALAEMON system.



# T9.5- PALAEMON Specialized Curriculum Development Training Activities

## Scenario Development and Documentation Template



ID	<input type="text" value="1"/>		
scenario title:	<input type="text" value="SMALL FIRE"/>	Define the preparation status for this scenario:	<input type="text" value="no previous information"/>
scenario description:	<input type="text" value="A small fire occurs near a trash can. A lot of smoke arise near the fire. There are no persons involved so far."/>	Define the time information status for this scenario:	<input type="text" value="alert training - unknown"/>
Identification of Stakeholder:	<input type="text" value="security officer, safety officer, crew"/>	Define the location of the crew area for this scenario:	<input type="text" value="cabine, TBD"/>
Responsible for Implementation:	<input type="text" value="security officer"/>	Define the location of the passenger area for this scenario:	<input type="text" value="cabine, TBD"/>
Define the training/ education level:	<input type="text" value="application level"/>	Define the location of the technical area for this scenario:	<input type="text" value="bridge, TBD"/>
Define the training intervall:	<input type="text" value="monthly"/>	Specify the kind of training of the scenario:	<input type="text" value="on site training"/>
		Which equipment is needed for preparation of the scenario:	<input type="text" value="exercise dummy, fog simulation, safety equipment"/>
Define which evaluation parameters are relevant on management level:	<input type="text" value="exploration, decision making process, mission briefing"/>		
Define which evaluation parameters are relevant for on site level:	<input type="text" value="personal protective equipment, equipment handling, scenario management"/>		

# Scenario Database

- ▶ Scenario development will be used for field exercises and training.
- ▶ Has become a storage for JOAFG training
- ▶ Is shared within the Johanniter community as best practice

# eLearning

> Courses > PALAEMON

Welcome to the PALAEMON elearning course!



Social forum

Announcements

## Introduction to the PALAEMON elearning course

The popularity of cruise-ships is on the rise and with it, is the responsibility to keep everybody on board safe. As cruise-ships tend to become larger in size and accommodate passengers from a diverse group of people, it becomes crucial to cater to equally diverse needs onboard of such vessels, especially in terms of safety procedures.

This eLearning Programme focuses explicitly on **first aid basics**, **evacuation procedures** and **handling people with disabilities** in such circumstances. It is intended to serve as a primer for passengers and crew members and tries to close this gap through the development of a tailored training concept focused on safe and inclusive evacuation procedures.

## Navigation

- ▼ Dashboard
- Site home
- > Site pages
- ▼ My courses
  - > klassifizierte Info
  - > FAB
- ▼ Courses
  - ▼ PALAEMON
    - > Participants
    - Badges
    - Competencies
    - Grades
      - > Welcome to the PALAEMON elearning course!
      - > Introduction to the PALAEMON elearning course
      - > First Aid onboard - Staff and Passenger Edition
      - > Evacuation: Roles, activities, actions and securit...
      - > Awareness for people with disabilities - Passenger...
      - > PALAEMON VR Evacuation Training: Registration for ...

## Administration

- ▼ Course administration
  - Edit settings

# eLearning

- ▶ Additional Content in D9.6 update
- ▶ First Aid Module available

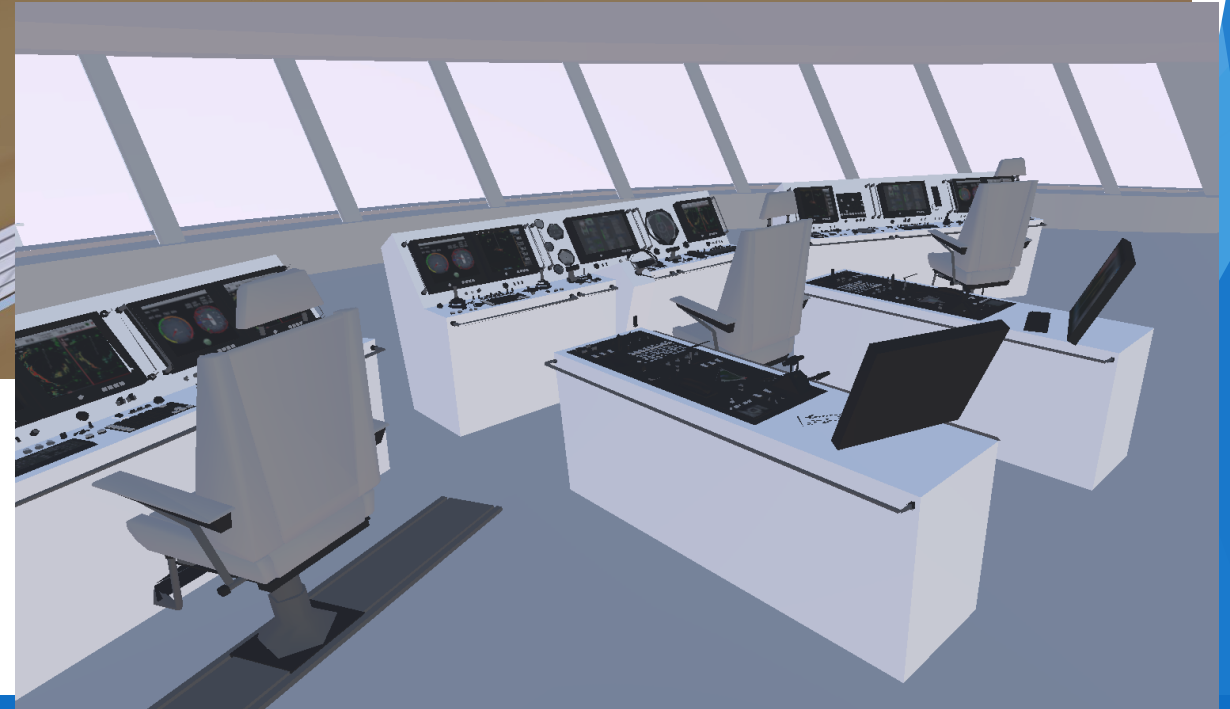
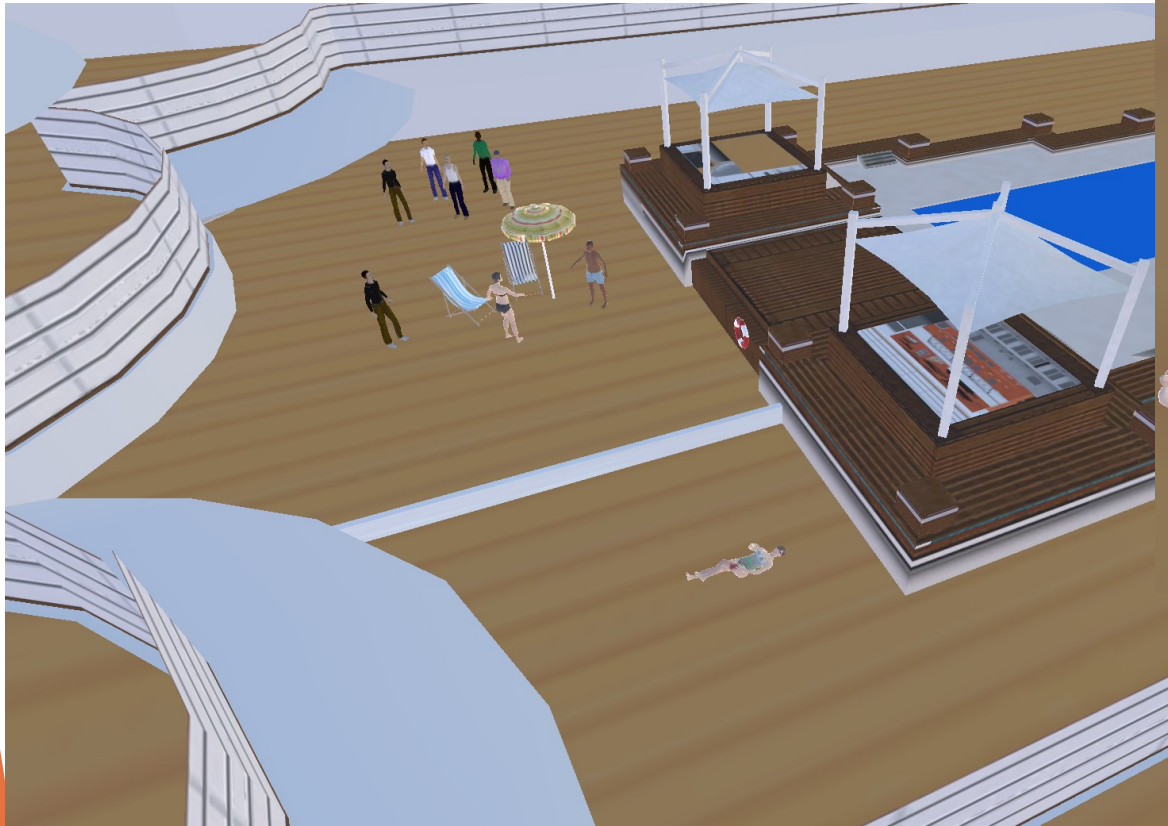
- ▶ Further use after the project:

Moodle is now the training platform for Johanniter. It was set up for PALAEMON. During COVID, we started to use it for EMT Training and Education.

We used it furthermore for GDPR education.

More online lectures to come

# VR Training





# VR Training

- ▶ Is integrated now in training concepts of JOAFG for EMTs
- ▶ Training of special environments
- ▶ Highly flexible
- ▶ Based on product VR Onsite (co-development of M2D and Johanniter), adapted for PALAEMON by JOAFG



# Deviations from DoA

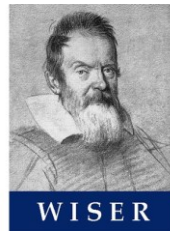
WP9 M1-M44

# Deviations from DOA



- ▶ D9.1 and D9.2 were merged as they overlapped in content
- ▶ D9.1 submitted on M20
- ▶ D9.3 has been submitted on M18 instead of M36 as agreed within the consortium
- ▶ D9.4 has been submitted on M18 instead of M12 as the task started on M12
- ▶ Due to COVID-19 situation, activities have been slowed down significantly, having an impact on performance indices
- ▶ D9.5 has merged the outputs of T9.3 and T9.4
- ▶ D9.2 final version is pending, to be submitted by end of March '23.
- ▶ Dissemination results were lower than planned.

# Partners





A holistic  
passenger  
ship  
evacuation  
and rescue  
ecosystem

# Thank you

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