



MARTIN RUSNER

# What does this mean for the Training Domain?

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# Input from Exonaut User Community



*“The next generation training management platform for military professionals, as required by the world’s leading armed forces”*



Configurable workflow solutions with role specific user interfaces



Increased benefits of integrating simulators, systems and sensors



Full D-DIL support



Storyboard design & configurable exercise levels



Improved exercise template editor



Bookmarks to users most used views



Automatic, semi-automatic and manual exercise planning, control & assessments



State of the art GIS engine, military symbols and tactical graphics



Improved exercise preparations with resource management & checklists



Configurable exercise complexity framework



Integrated dashboards to support desired workflows



Integrated training incident & risk management



Data streaming platform to power training with on demand data sources



Simplified access and use of actionable data



Improved information security framework

# “What is at the front of our mind?”

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## TRAINING MANAGEMENT MILITARY

### Customer Value in Focus

- ✓ What real world problems do we solve for our users? If we can't explain it, we shouldn't build it.

### Increased user base

- ✓ More people should benefit from Exonaut more often. As a training management platform Exonaut should aim to support all key stakeholders involved in military training.

### We don't compile data, we activate it

- ✓ Data compiled in Exonaut should have a higher purpose. Exonaut data should be activated and used to create multifactor value.

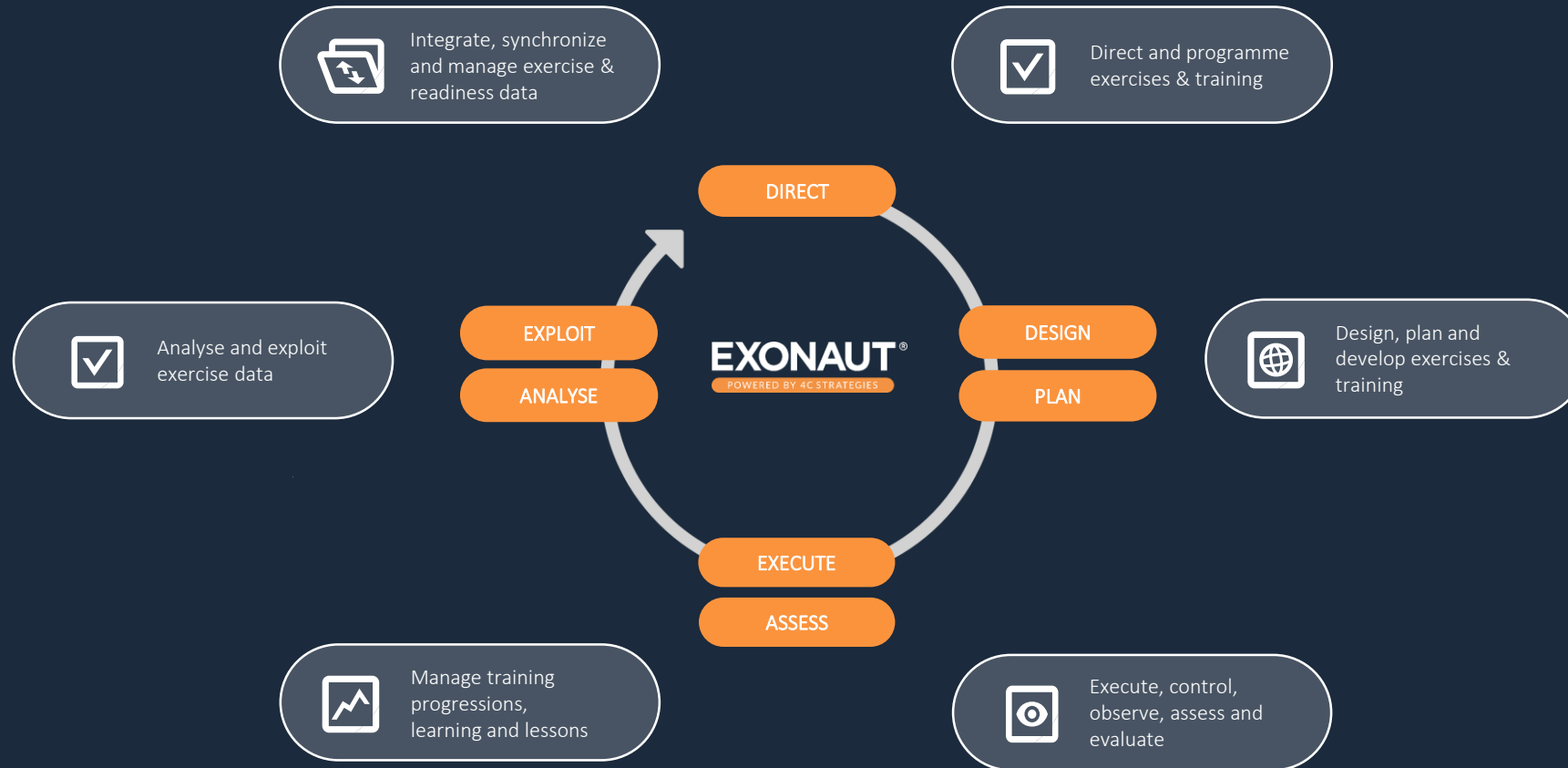
### Exonauting should be simple, fun and rewarding

- ✓ Happy users will result in increased usage, output quality and customer value.

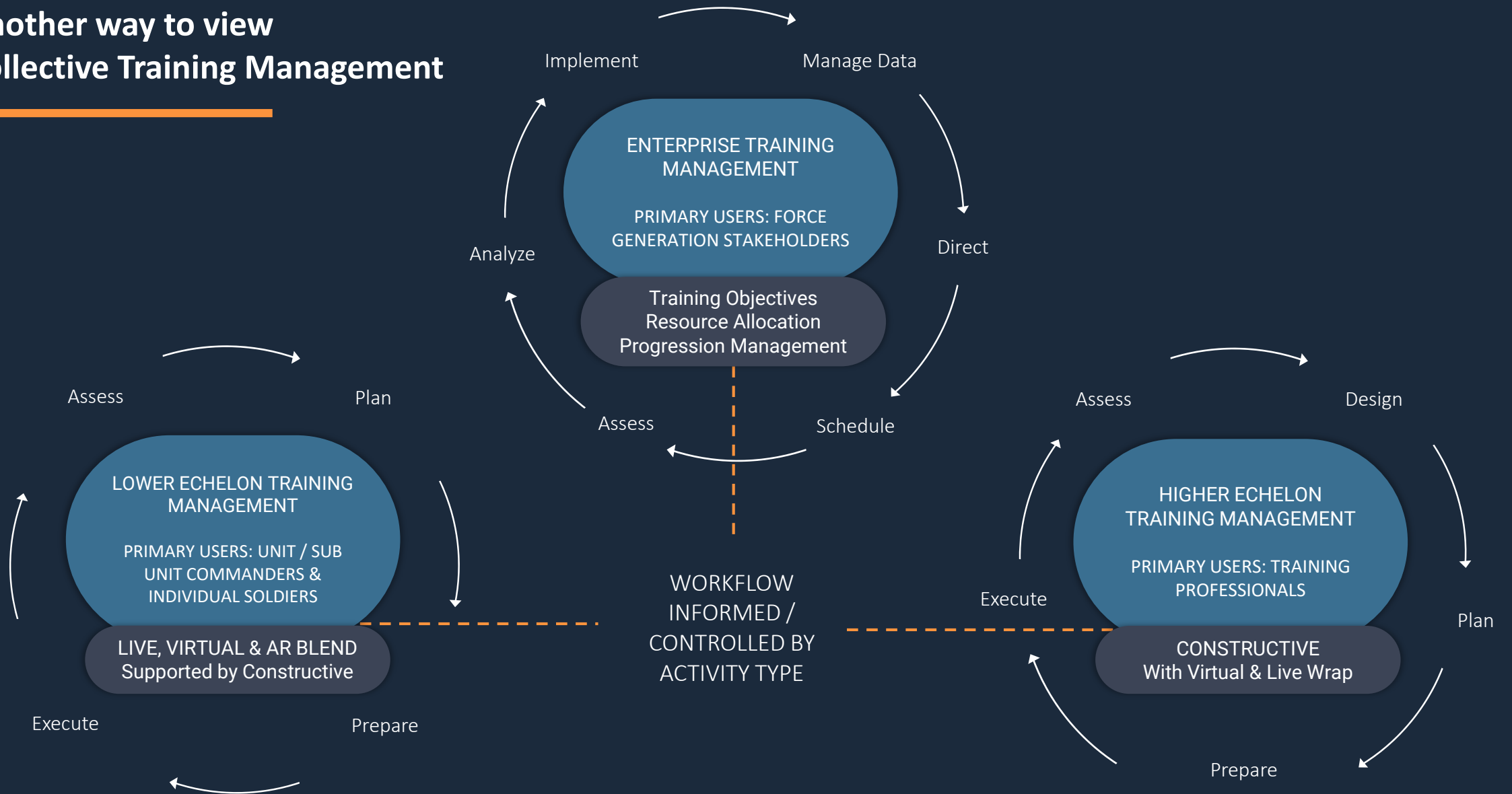
### In-the-loop automation

- ✓ We support the military art by providing some of the critical science behind it. We create semi and fully automated solutions to allow complex insights, while keeping commanders in the loop and critical decisions under human control.

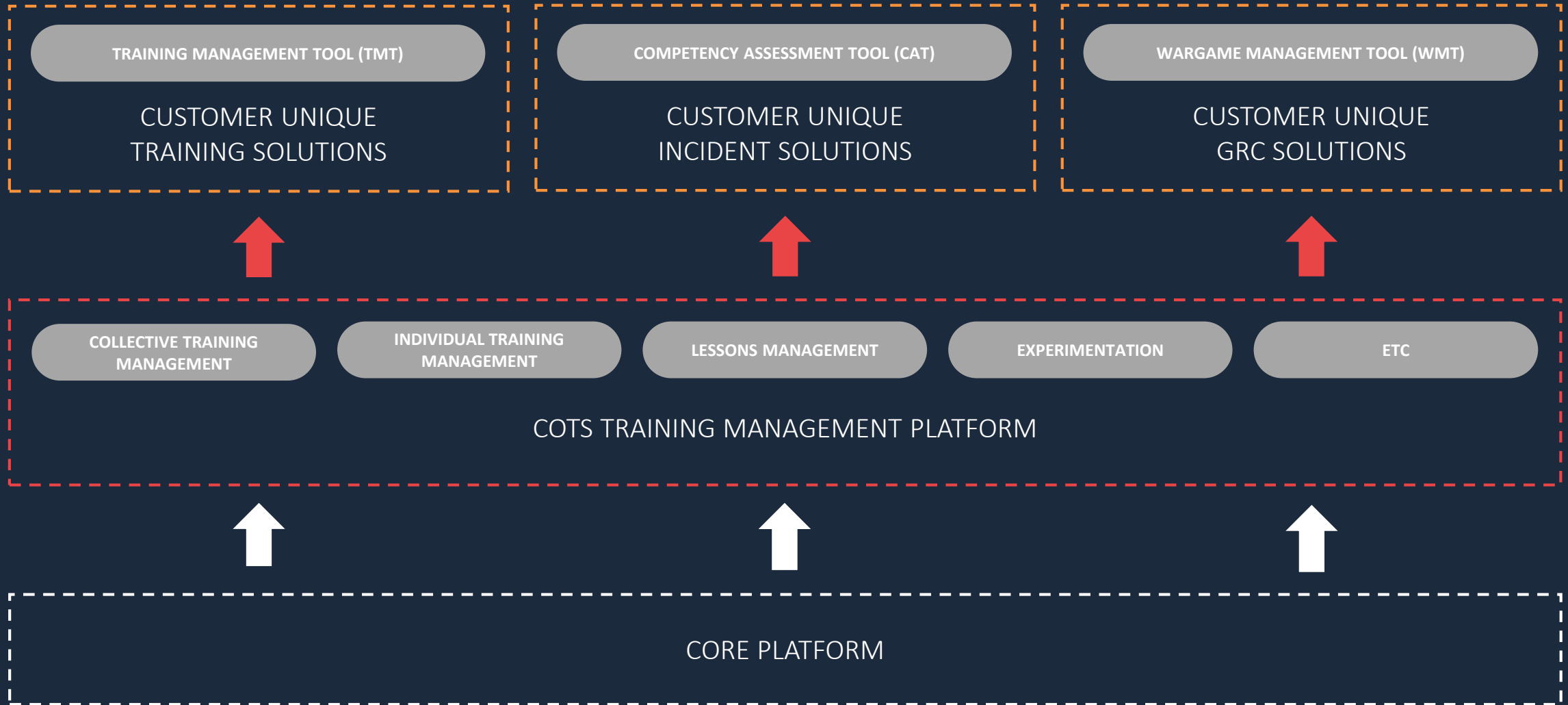
# Where do we come from?



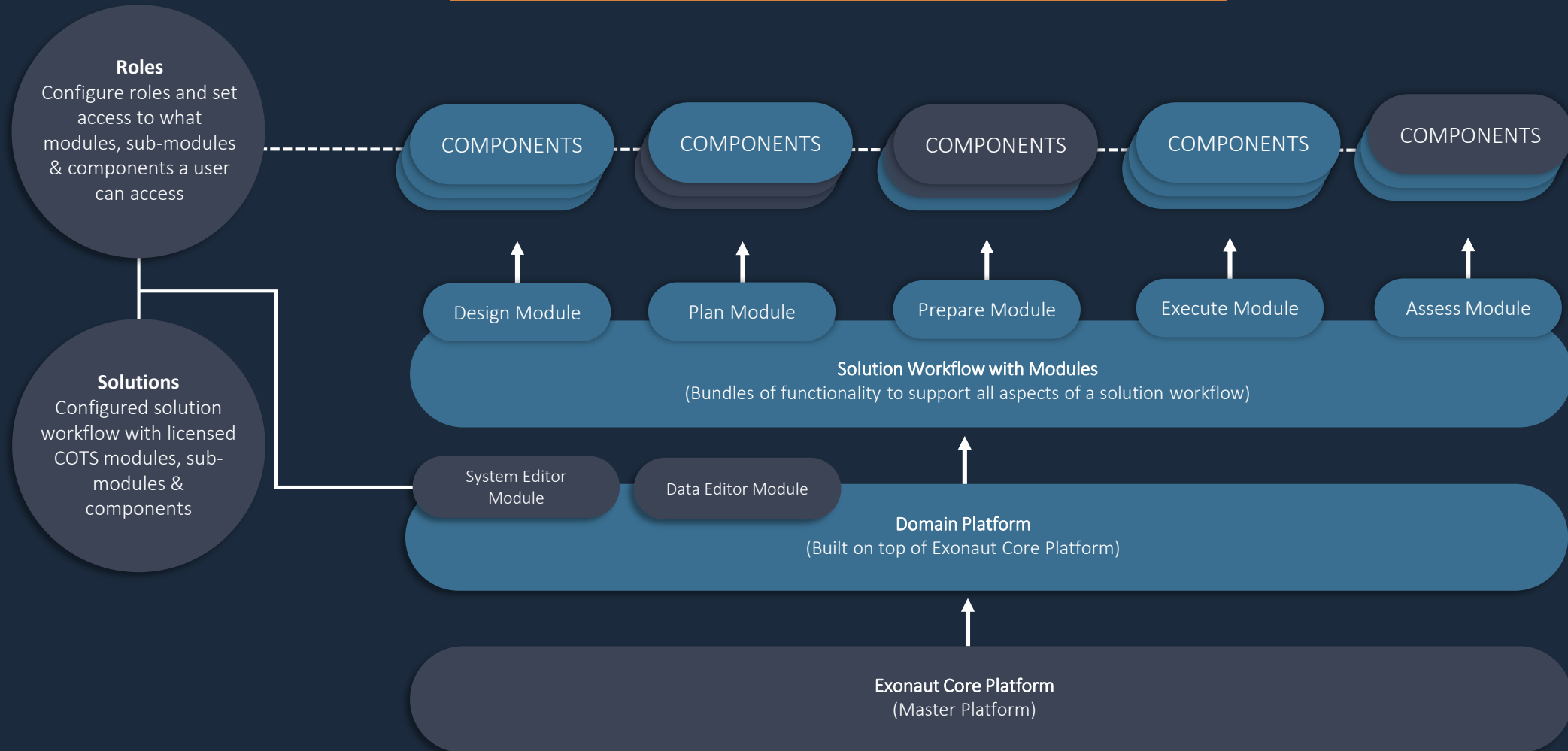
# Another way to view Collective Training Management



# Core, Domain & Custom



# COTS Domain Solution



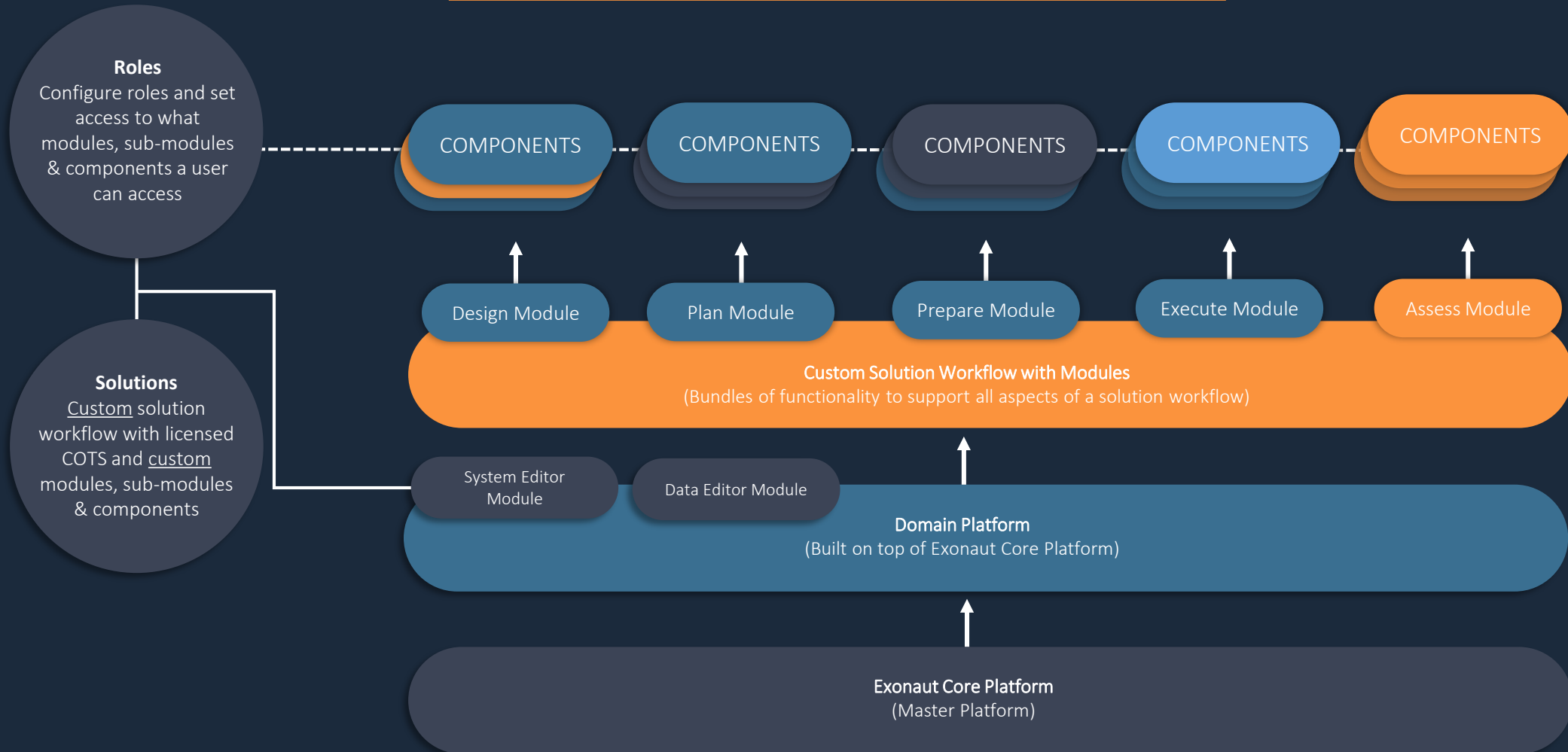
# Custom Domain Solution

Exonaut Core

Training Domain

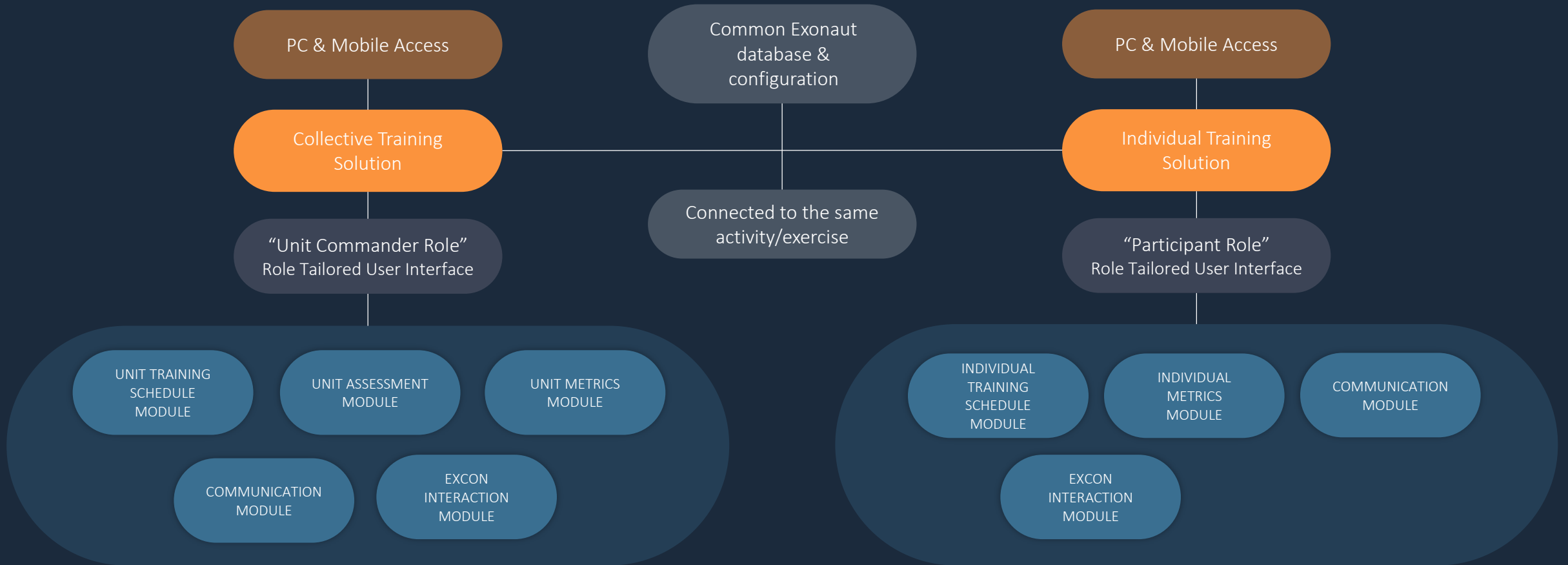
Customer Specific

3<sup>rd</sup> Party





# Interacting Solutions



# Exonaut Building Blocks

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# Training Domain Platform

## VISION

EXONAUT Enterprise Mode PRODUCTION SERVER 1 UNCLASSIFIED

Start Page Current Status Recommendations

# EXONAUT

Powered by 4C Strategies

## The World's #1 Training Management Platform

Exercise Name	Start Time	End Time	Administrator	Join	Open
Exercise A	09/07/2020 08:00 AM CEST	12/07/2020 08:00 AM CEST	John Doe	E	
Exercise B	09/07/2020 08:00 AM CEST	12/07/2020 08:00 AM CEST	John Doe	E	
Exercise C	09/07/2020 08:00 AM CEST	12/07/2020 08:00 AM CEST	John Doe		
Exercise D	09/07/2020 08:00 AM CEST	12/07/2020 08:00 AM CEST	John Doe	E	
Exercise E	09/07/2020 08:00 AM CEST	12/07/2020 08:00 AM CEST	John Doe		
Exercise B	09/07/2020 08:00 AM CEST	12/07/2020 08:00 AM CEST	John Doe		

### My feed

Include Sort by

JOHN DOE scheduled a MAIN PLANNING CONFERENCE  
05/07/2020 09:00  
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis  
3 2

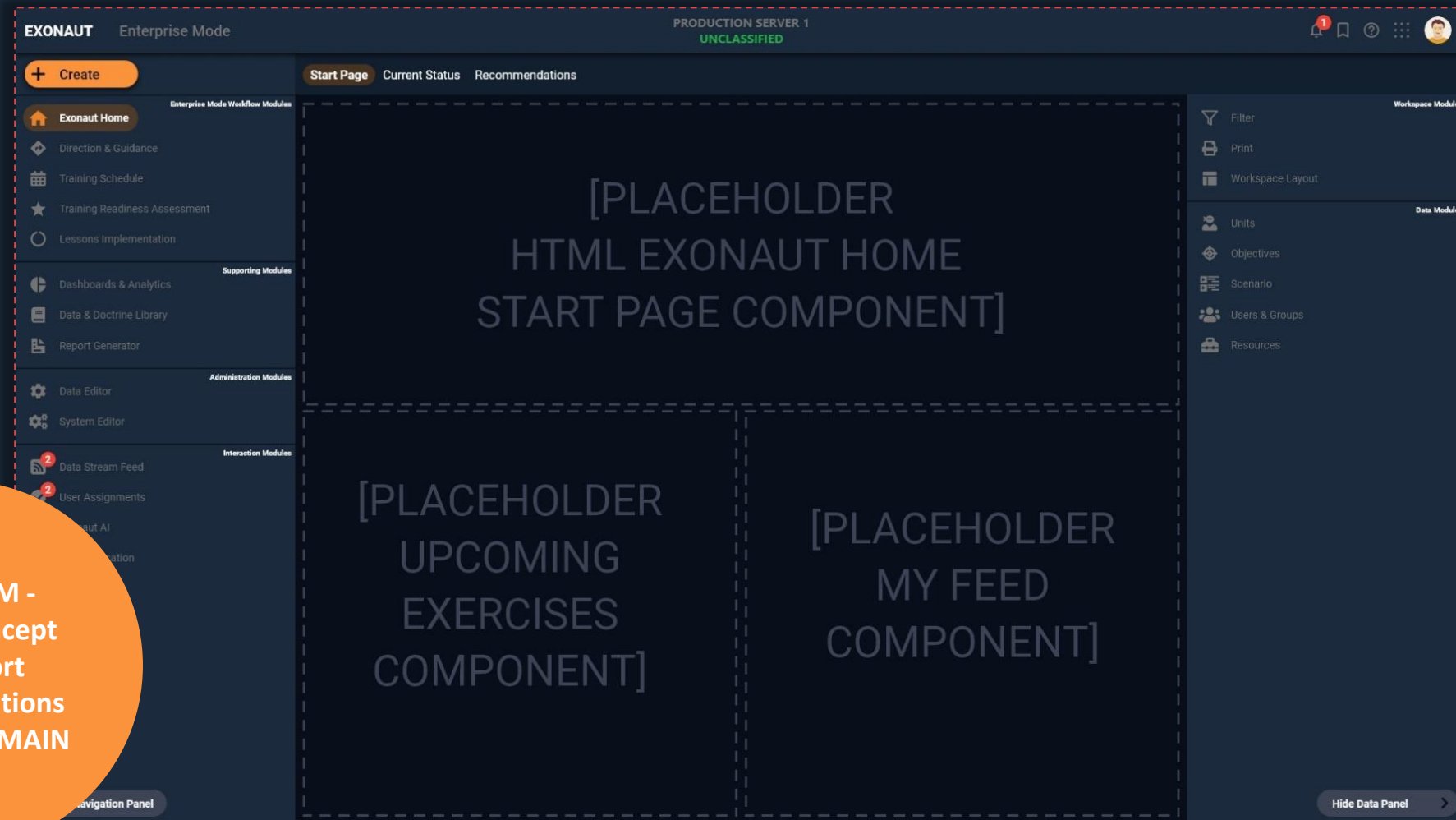
[EXONAUT AI] recommended an EXERCISE for YOUR UNIT  
05/07/2020 08:58  
G  
Beep Boppt It has been [5 MONTHS] since you last trained [OBJECTIVE X]. Based on [HIGHER COMMAND X] [DIRECTION X], [YOUR UNIT]  
3 2

JANE DOE implemented a LESSON  
05/07/2020 08:40  
✓

# Training Domain Platform

## PLATFORM FRAMEWORK

User Interface, Navigation, Communication, Notification, Data Access, Workspace, etc



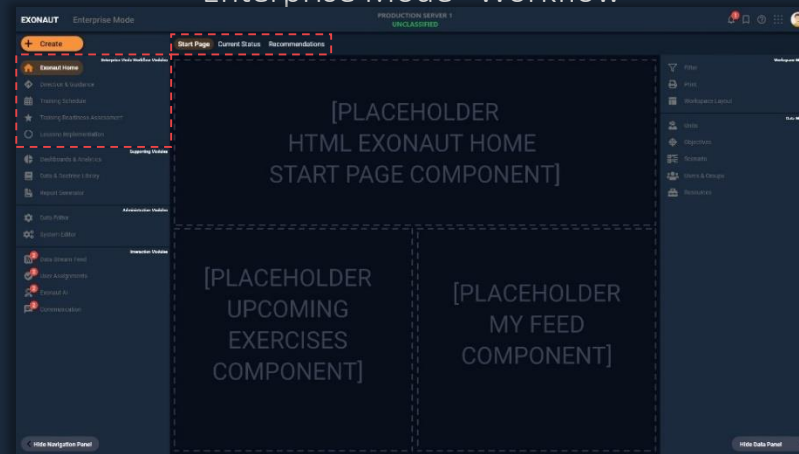
**PLATFORM -**  
Overall concept  
to support  
several solutions  
for each DOMAIN

# Training Domain Platform

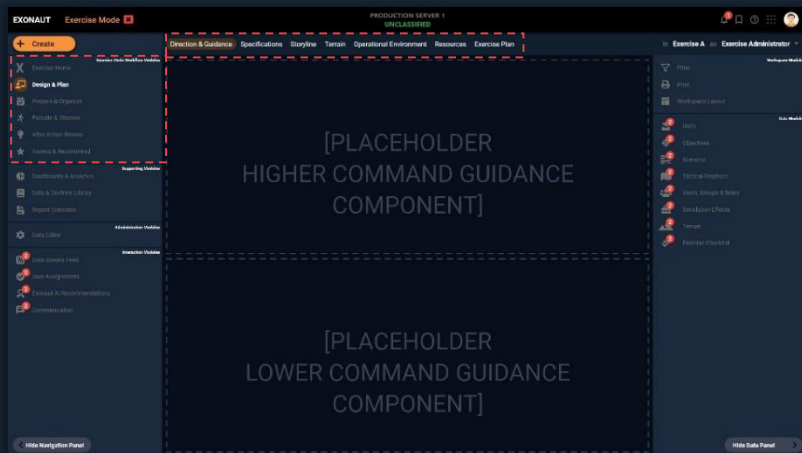
## EXAMPLE - COLLECTIVE TRAINING SOLUTION

**SOLUTION -  
Complete  
Workflow from  
A-Z for a  
solution**

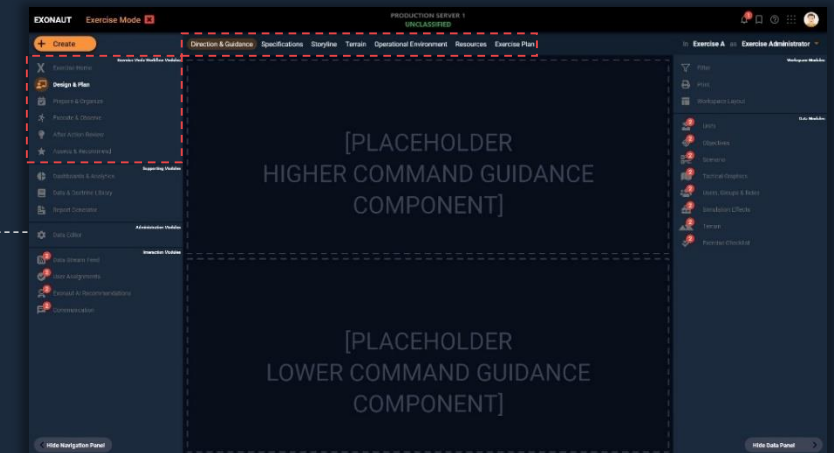
“Enterprise Mode” Workflow



Lower Echelon Training Workflow



Higher Echelon Training Workflow



“EXERCISE MODE”  
WORKFLOW  
CONTROLLED BY  
ACTIVITY TYPE

# Training Domain Platform

## MODULES

The screenshot displays the EXONAUT Training Domain Platform interface. At the top, it shows 'EXONAUT Exercise Mode' and 'PRODUCTION SERVER 1 UNCLASSIFIED'. The main navigation bar includes 'Create' and several tabs: 'Direction & Guidance', 'Specifications', 'Storyline', 'Terrain', 'Operational Environment', 'Resources', and 'Exercise Plan'. The user is logged in as 'Exercise Administrator' in 'Exercise A'.

The interface is divided into several sections:

- Exercise Mode Workflow Modules:** Includes 'Exercise Home', 'Design & Plan', 'Prepare & Organize', 'Execute & Observe', 'After Action Review', and 'Assess & Recommend'.
- Supporting Modules:** Includes 'Dashboards & Analytics', 'Data & Doctrine Library', and 'Report Generator'.
- Administration Modules:** Includes 'Data Editor'.
- Interaction Modules:** Includes 'Data Stream Feed', 'User Assignments', 'Exonaut AI Recommendations', and 'Communication'.
- Workspace Modules:** Includes 'Filter', 'Print', and 'Workspace Layout'.
- Data Modules:** Includes 'Units', 'Objectives', 'Scenario', 'Tactical Graphics', 'Users, Groups & Roles', 'Simulation Effects', 'Terrain', and 'Exercise Checklist'.

The central workspace contains two large placeholder boxes:

- The top placeholder is labeled '[PLACEHOLDER HIGHER COMMAND GUIDANCE COMPONENT]'.
- The bottom placeholder is labeled '[PLACEHOLDER LOWER COMMAND GUIDANCE COMPONENT]'.

A 'Hide Data Panel' button is located at the bottom right of the interface.

**MODULES -**  
Bundles of sub-  
modules to  
support a specific  
& larger  
workflow subset

# Training Domain Platform

## SUB-MODULE

The screenshot displays the EXONAUT Training Domain Platform interface. At the top, it shows 'EXONAUT Exercise Mode' and 'PRODUCTION SERVER 1 UNCLASSIFIED'. A navigation bar includes a 'Create' button and tabs for 'Direction & Guidance', 'Specifications', 'Storyline', 'Terrain', 'Operational Environment', 'Resources', and 'Exercise Plan'. The main workspace is divided into two large dashed boxes: the top one is labeled '[PLACEHOLDER HIGHER COMMAND GUIDANCE COMPONENT]' and the bottom one is labeled '[PLACEHOLDER LOWER COMMAND GUIDANCE COMPONENT]'. On the left, a sidebar lists modules under categories like 'Exercise Mode Workflow Modules', 'Supporting Modules', 'Administration Modules', and 'Interaction Modules'. On the right, a 'Data Modules' panel lists items such as Units, Objectives, Scenario, Tactical Graphics, Users, Groups & Roles, Simulation Effects, Terrain, and Exercise Checklist. A 'Hide Data Panel' button is at the bottom right of the interface.

**SUB-MODULES -**  
Bundles of  
components to  
support a specific  
& smaller  
workflow subset

# Training Domain Platform

## COMPONENTS

The screenshot displays the EXONAUT Training Domain Platform interface. At the top, it shows 'EXONAUT Exercise Mode' and 'PRODUCTION SERVER 1 UNCLASSIFIED'. The main interface is divided into several sections:

- Map:** A map of Orlando, Florida, with various locations marked and connected by lines.
- Object Details:** A section showing details for an object, including a 'Data Source Feed' and an 'Assessment Plan'.
- Event Feed:** A list of events with columns for 'EVENT', 'START TIME', 'END TIME', 'STATUS', and 'INCIDENT SUMMARY'. The events are: Event A (Running), Event B (Created), Event C (Running), and Event D (Created).
- Workspace Layout:** A sidebar on the right showing a list of components and features, including 'Map', 'Scenario Element Details', 'Data Source Feed', 'Manual Observations', 'Automated Observations', 'Manual Assessments', 'Automated Assessments', 'Simulation Bookmarks', 'Sensor X', and 'Assessment Plan'.

Red dashed boxes highlight the 'Map', 'Object Details', 'Data Source Feed', and 'Assessment Plan' sections.

**COMPONENTS -**  
Packaged  
functionality for a  
specific purpose  
to support a  
specific workflow  
item



# Training Domain Platform

## FEATURES

The screenshot displays the EXONAUT Training Domain Platform interface. At the top, it shows 'EXONAUT Exercise Mode' and 'PRODUCTION SERVER 1 UNCLASSIFIED'. The main interface is divided into several sections:

- Map:** A map of Orlando, Florida, with various locations marked and connected by lines.
- Object Details:** A panel showing details for a 'Data Source Feed' and 'Assessment Plan'. It includes a list of observations and a specific objective completion message: 'Objective completed. Open observation for evidence.'
- Events Table:** A table with columns for EVENT, START TIME, END TIME, STATUS, and INCIDENT SUMMARY. It lists four events (Event A, B, C, D) with their respective start and end times and statuses.
- Workspace Layout:** A sidebar on the right showing a list of components and features, including 'Map', 'Scenario Element Details', 'Data Source Feed', 'Manual Observations', 'Automated Observations', 'Manual Assessments', 'Automated Assessments', 'Simulation Bookmarks', 'Sensor X', and 'Assessment Plan'.

FEATURE – Single functionality in a component for a specific purpose to support a specific workflow item

# Exonaut Roadmap

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# The Exonaut Product Suite

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**READINESS  
MANAGEMENT  
PORTAL**

PLAN YOUR WORK



**COMPLIANCE  
AND PERFORMANCE  
MANAGER**

KNOW YOUR STRENGTHS



**RISK AND  
INCIDENT  
MANAGER**

TRACK YOUR EXPOSURE



**TRAINING  
AND EXERCISE  
MANAGER**

VERIFY YOUR CAPABILITIES



**BUSINESS  
CONTINUITY  
MANAGER**

PREPARE FOR DISRUPTION



**SCENARIO  
INFORMATION  
MANAGER**

HANDLE THE COMPLEXITY



**TACTICAL  
DATA  
EDITOR**

CONTROL THE SITUATION



**OBSERVER**

GO MOBILE

## KEY NEW FEATURES EXONAUT E18

Assessment Versions

Assessment Change History

Primary/Secondary Server  
Import/Export  
Improvements (multiple  
instances)

Improved task management

Data Sources for TEM objects

Improved map functionality

New "Stalled" Incident status

New System Roles –  
Activity Creator

## KEY NEW FEATURES EXONAUT E19

Bulk edit of activity attributes

Improved audit/edit log  
for activities

Hide non-relevant  
activity types

Introducing sub-activities

Permissions on objectives

Support same date across  
time zones

Tabular Attributes

Connect Exonaut tasks  
to observations

Primary/Secondary Server  
Improvements (Archive, permissions)

New TEM-Light release

Auto-play scenarios

Filterable map objects on  
exercise and injects

Improved inject print list

Change injects status in OBS

Scenario Timeline in OBS

# 2020 Training Domain Roadmap

Exonaut Release							E19.3					E20
Java Script (Web)	TDP Platform Framework - IOC											
							TDP System Editor & Data Editor (TDE) - IOC					
							TDP Plan & Execute (TEM) - IOC					
	Prioritized RMP Features						Prioritized RMP Features					
Mobile	Android Observer Update				Android & IOS Exonaut Mobile							
	IOS Observer Update				Java Script Observer - IOC							
	Windows Observer Update											
Java	Prioritized Java Features						Critical Java Features E19					
	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec

TDP = Training Domain Platform

CPM = Compliance & Performance Manager

OBS = Observer Application

IOC = Initial Operational Capability

TEM = Training & Exercise Manager

RMP = Readiness Management Portal

FOC = Full Operational Capability

# 2021 Training Domain Roadmap

Exonaut Release						E21						E22
Java Script (Web)	TDP Platform Framework - IOC						TDP Platform Framework - FOC					
	TDP System Editor & Data Editor (TDE) - FOC						TDP Design, Plan, Prepare & Execute (TEM) - FOC					
	TDP Direct, Schedule, Analyze, Implement & Prepare (RMP) - IOC						TDP Direct, Schedule, Analyze, Implement & Prepare (RMP) - FOC					
	TDP Execute & Assess (CPM) - IOC						TDP Execute & Assess (CPM) - FOC					
	Critical RMP Features E20 Service Release											
Mobile	Android & IOS Exonaut Mobile Update						Android & IOS Exonaut Mobile Update					
	Java Script Observer Application - FOC						Java Script Observer Application Update					
	Java Script Trainee Application - IOC						Java Script Trainee Application - FOC					
Java	Critical Java Features E19 Service Release											
	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec

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# Get involved in the Platform Transformation!

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TRAINING MANAGEMENT  
MILITARY

- ✓ It is our belief that we through closer cooperation can increase the value Exonaut can provide to military users
- ✓ Starting in 2021 we will invite representatives from our military user community to participate in design reviews of upcoming features
- ✓ If your organization is interested in participating, please reach out to your 4C contact



# Features to be introduced



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Configurable exercise complexity framework



Integrated dashboards to support desired workflows



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Data streaming platform to power training with on demand data sources



Simplified access and use of actionable data



Improved information security framework



4C STRATEGIES



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