



# MARION

## Mission Analysis and Risk Impact on Operations Network-tool

Economic of T&E Conference 3 Nov 99

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AFOTEC/CNR  
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# Purpose of MARION

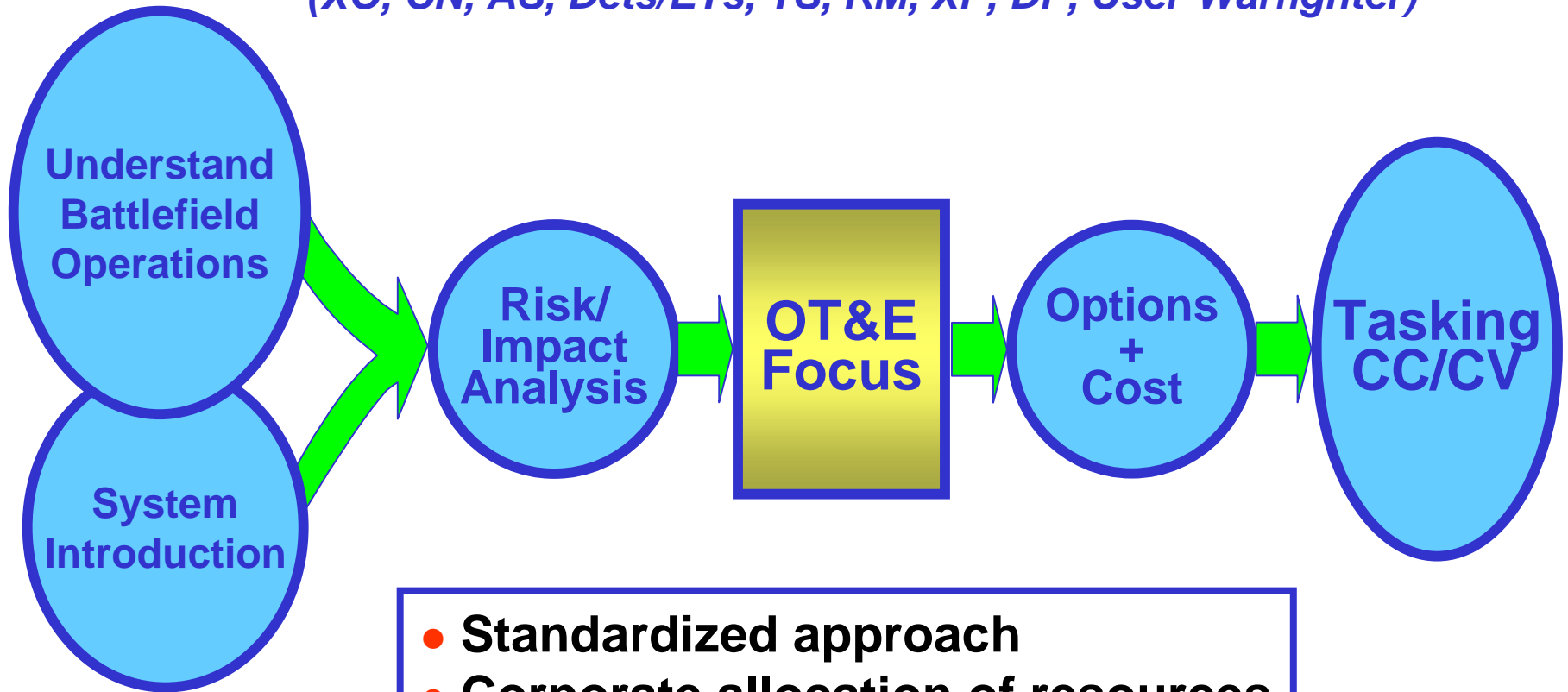
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- Support AFOTEC Scope/Cost Process
  - Standardize Approach
  - Corporate Allocation of Resources *based on* Value of OT&E Information to the Warfighter
- Web-based Browser
  - SQL Database
  - JAVA Interface
  - Compatible with AFOTEC MIN (intranet)
- Connectivity to Other AFOTEC Databases
  - TRPs
  - POM
  - Test Assets



# AFOTEC Scope/Cost Process

*AFOTEC Scope/Cost Team  
(XO, CN, AS, Dets/ETs, TS, RM, XP, DP, User-Warfighter)*

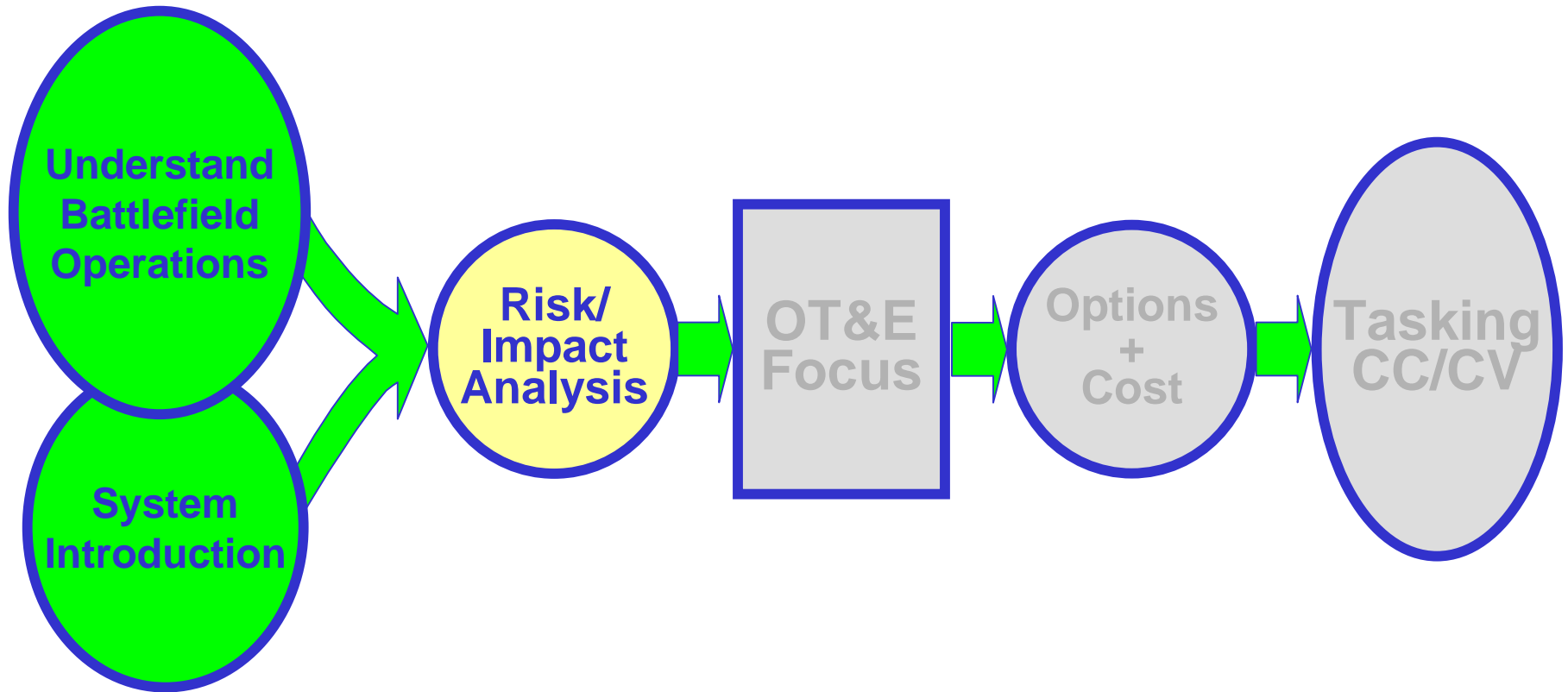


- **Standardized approach**
- **Corporate allocation of resources**  
*based on*  
**Value of OT&E information**




# MARION Development

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Demo

[Click Here to Begin](#)

 Demo

Project Search Show Dendritic Launch

New...

Open...

Save As...

Exit

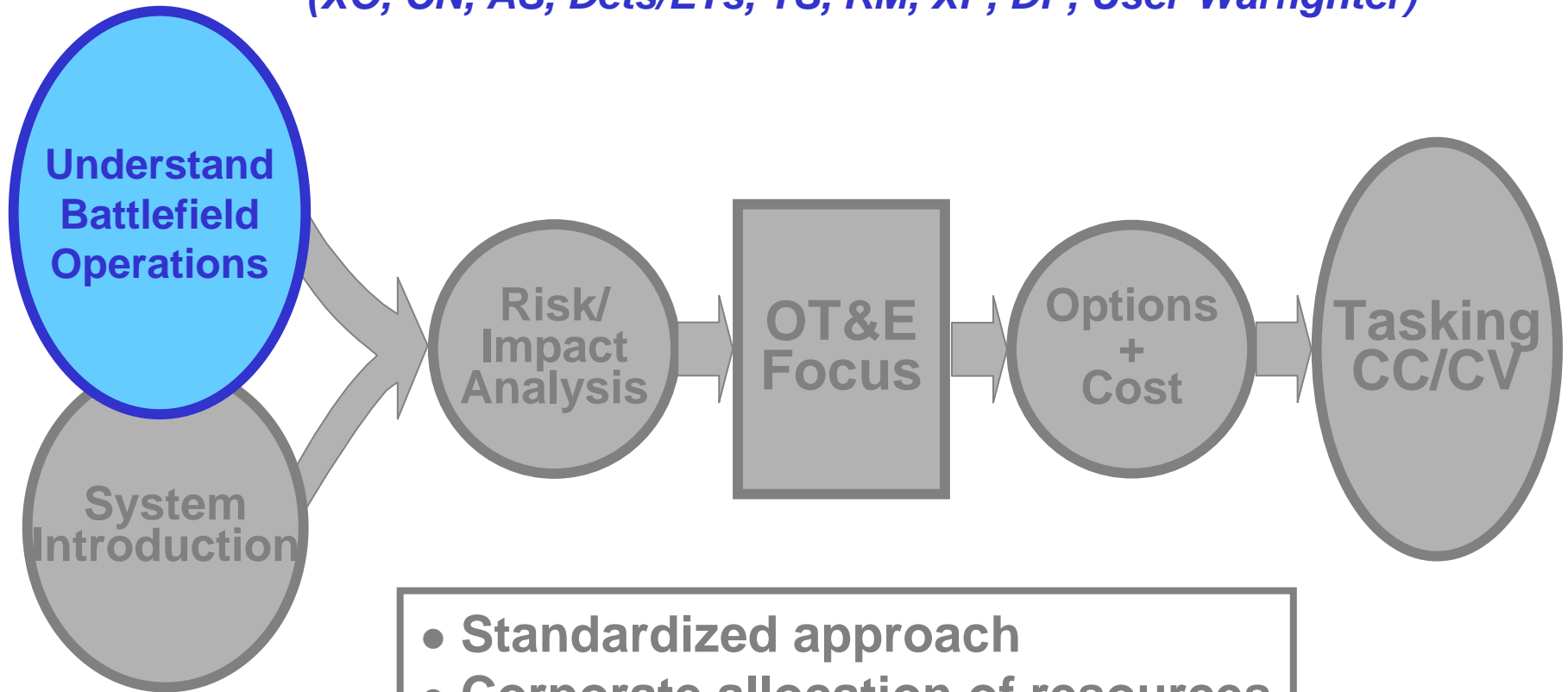
Dendritic Impact Analysis Cause/Effect Evaluation Areas COIs Test Components Test Strategies

[Click Here to Begin](#)



# AFOTEC Scope/Cost Process

**AFOTEC Scope/Cost Team**  
(XO, CN, AS, Dets/ETs, TS, RM, XP, DP, User-Warfighter)



- Standardized approach
- Corporate allocation of resources
- based on
- Value of OT&E information



# Patient Movement

## Mission Decomposition - Rapid Evacuation of Patients out of Theater

*Have patient movement demand requirements been met?*

### Operational Objective

**Provide patient movement to support an MTW**

- Battlefield medical casualty rate vs theater exit rate
- Battlefield medical casualty rate vs move to theater staging locations (Theater CINC)
- Theater exit rate (TRANSCOM)
- Percent of patients moved within theater policy guidelines

*How well are patients handled medically?*

### Operational Task

**Move individual patients to meet medical needs**

- Percent of patients moved within requirements established by treating facilities
- Time from decision to move to out of Theater

### Execution Elements

Medical Treatment

Transport Patient

Execution C2

### Support Elements

Global/Theater C<sup>2</sup>

Generate Lift Acft

Comm

PMI Support

Patient/Resource Status

Deploy

Sustain

Training



TRAC2ES

Project Search Show Dendritic Launch

Working Dendritic Impact Analysis Cause/Effect Evaluation Areas COIs Test Components Test Strategies Outputs References

TRAC2ES Medical Treatment New

- Peace Operations
- Crisis & Operations Other than War
- Low-Intensity Conflict
- Conventional Theater Campaign
- Theater Nuclear Campaign
- Strategic Nuclear Campaign
- De-Escalation of Hostilities & Cease Fire
- Armistice & Treaty Negotiations
- Treaty Monitoring & Enforcement

OK Cancel

TRAC2ES

Project Search Show Dendritic Launch

Impact Analysis Cause/Effect Evaluation Areas COIs Test Components Test Strategies Outputs References

TRAC2ES Medical Treatment New NEW 2

- Peace Operations
- Crisis & Operations Other than War
- Low-Intensity Conflict
- Conventional Theater Campaign
- Deter aggression.
- Prepare to conduct combat operations.
- Conduct defensive and retrograde operations.
- Conduct offensive operations.
- Theater Nuclear Campaign
- Strategic Nuclear Campaign
- De-Escalation of Hostilities & Cease Fire
- Armistice & Treaty Negotiations
- Treaty Monitoring & Enforcement

OK Cancel

TRAC2ES

Project Search Show Dendritic Launch

Working Dendritic Impact Analysis Cause/Effect Evaluation Areas COIs Test Components Test Strategies Outputs References

TRAC2ES Medical Treatment New

A screenshot of a TRAC2ES dialog box. The dialog box has a title bar with a close button (X) in the top right corner. The main area contains a list of operations, each preceded by a red star icon and a circular arrow icon. The third item in the list, "Evacuate wounded personnel and noncombatants to ware medical facilities or out of the theater.", is highlighted with a blue selection bar. At the bottom of the dialog box, there are two buttons: "OK" and "Cancel".

- Conduct defensive and retrograde operations.
- Gather timely and accurate intelligence of enemy activities and disposition of forces.
- Maintain effective C31 to direct military operations.
- Evacuate wounded personnel and noncombatants to ware medical facilities or out of the theater.
- Provide air refueling support for strategic and theater air forces.
- Reduce the damage of enemy attacks through hardening, redundancy, dispersal camouflage, concealment and deception.
- Rapidly restore facilities and units to operational ready following an attack .
- Destroy weapons of mass destruction.
- Defeat enemy aircraft attack.
- Defeat enemy ballistic or air-breathing missile attacks.
- Degrade command and control of air and air defense forces.
- Disrupt or destroy military C3 and other high value, fixed, often hardened targets.
- Destroy, degrade or disrupt enemy C3 for ground, air and naval forces, including airborne, mobile, and hardened assets.

Evacuate wounded personnel and noncombatants to ware medical facilities or out

Coordinate effective evacuation operations



Evacuate wounded personnel and noncombatants to ware medical facilities or out

Coordinate effective evacuation operations

- Add Child Element
- Edit Element
- Cut
- Copy
- Paste
- Delete
- View ▶
- Where Else

**Edit Element**

Element: Evacuate wounded personnel and noncombatants to ware medical facilit

Parent:

Element Type:  Execution  Support  Generic

Free Text:

**Questions** Measures Other Attributes

Pose a Question

Add New Question

Update Question

Questions for: Evacuate wounded personnel and noncombatants to ...

Edit Question

Delete Question

Close

**Edit Element**

Element: Provide Patient Movement to Support an MTW

Parent:

Element Type:  Execution  Support  Generic

Free Text: Operational Objective

Questions Measures Other Attributes

Pose a Question

Have patient movement demand requirements been met?

Add New Question  
Update Question

Questions for: Evacuate wounded personnel and noncombatants to ...

Edit Question Delete Question

Close

## Edit Element

Element: Provide Patient Movement to Support an MTW

Parent:

Element Type:  Execution  Support  Generic

Free Text: Operational Objective

## Questions Measures Other Attributes

## Propose a Measure

Percent of patients moved within theater policy guidelines

Add New Measure

Update Measure

Browse...

## Measures for: Evacuate wounded personnel and noncombatants to ware medical facili...

Battlefield medical casualty rate vs theater exit rate  
Battlefield medical casualty rate vs move to theater staging locations (Theater CINC)  
Theater exit rate (TRANSCOM)

Edit Measure

Delete Measure

Close



**Provide Patient Movement to Support an MDM**

Operational Objective

**Move Individual Patients to Meet Medical M**

Operational Task

Add Child Element

Edit Element

Cut

Copy

Paste

Delete

View

Free Text

Questions

Measures

Where Else

**Provide Patient Movement to Support an MTW**

Operational Objective

Questions:

- Have patient movement demand requirements been met?

**Move Individual Patients to Meet Medical Needs**

Operational Task

Questions:

- How well are patients handled medically?

**Provide Patient Movement to Support an MTW**

Operational Objective

Questions:

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**Move Individual Patients to Meet Medical Needs**

Operational Task

## Questions:

- How well are patients handled medically?

## Measures:

- Percent of patients moved within requirements established by treating facilities
- Time from decision to move until out of Theater

**Provide Patient Movement to Support an MTW**

Operational Objective

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·Percent of patients moved within requirements established by treating facilities  
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**Move individual patients to meet medical needs**

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Execution Elements

Medical Treatment

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Execution C2

Support Elements

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**Provide patient movement to support an MTW**

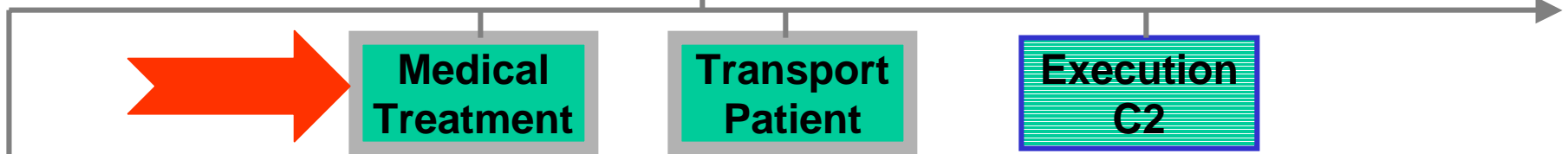
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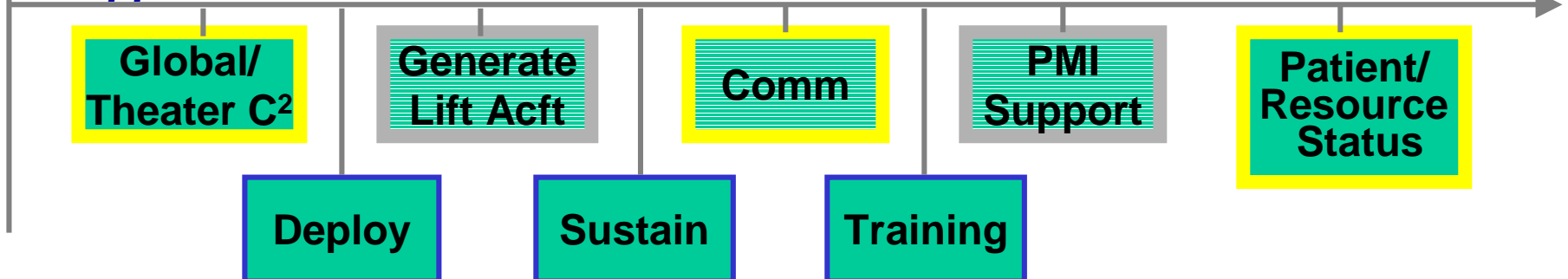
Operational Task

**Move individual patients to meet medical needs**

Execution Elements



Support Elements





# Medical Treatment

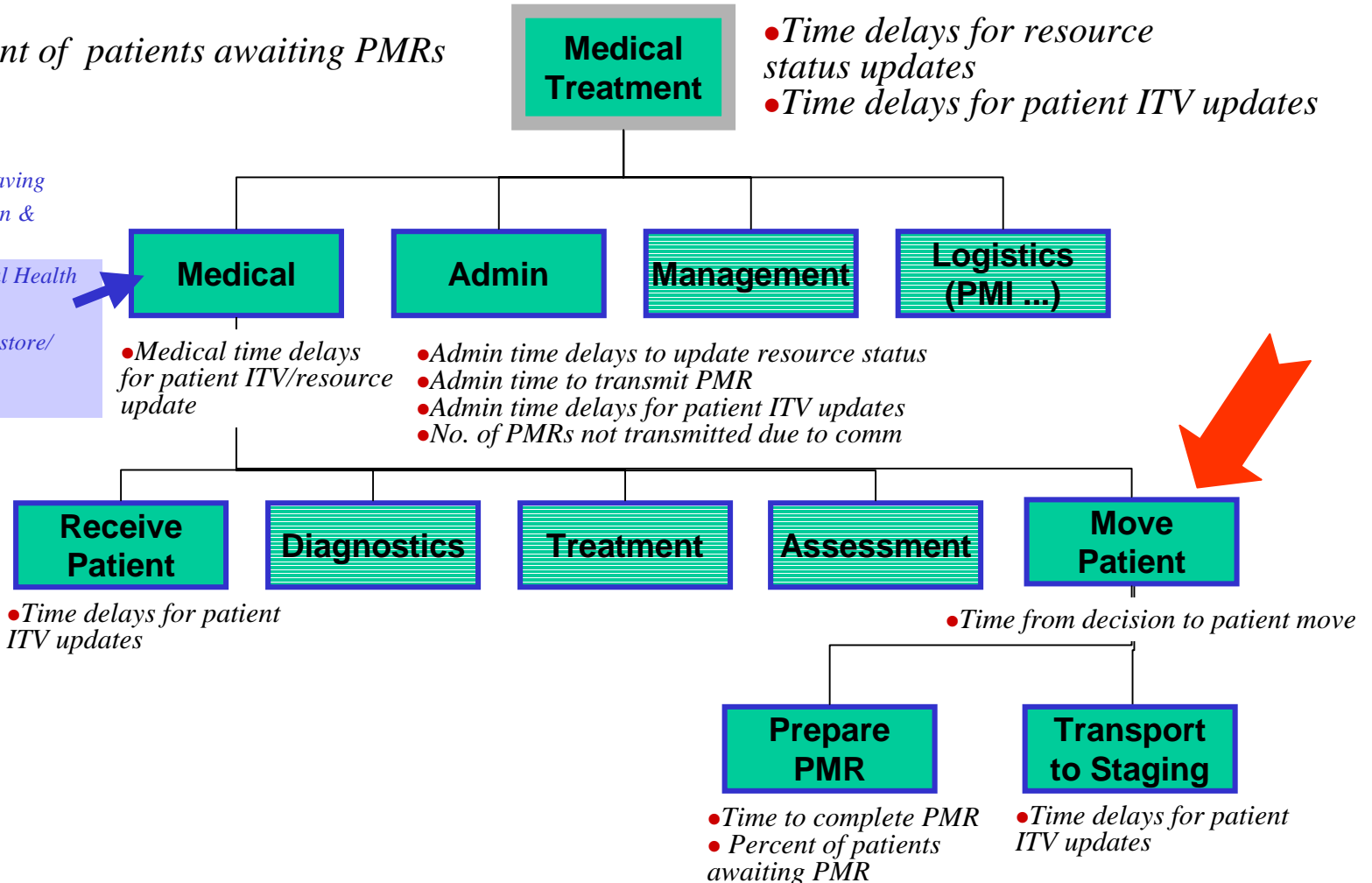
## Mission Decomposition

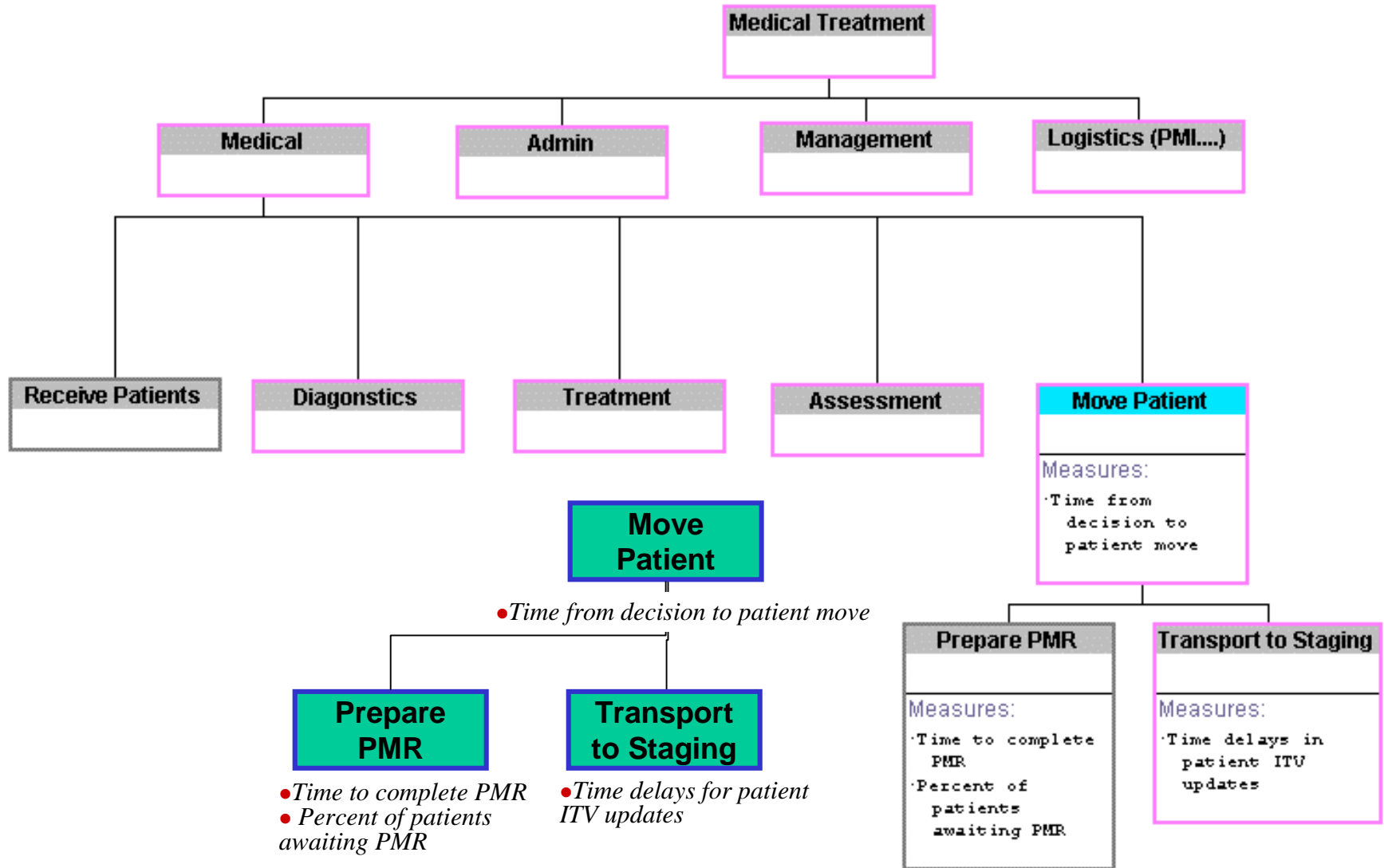
*Are PMRs being submitted in a timely manner?*  
*How good a job is being done to support ITV/resource statusing?*  
*How efficiently are comm resources being utilized?*

• *Percent of patients awaiting PMRs*

Medical Echelons

- 1: Emergency/Life Saving
- 2: Basic Resuscitation & Stabilization
- 3: Restore Functional Health
- 4: Definitive Care
- 5: Convalescence/ Restore/ Rehabilitate





- Time to complete PMR
- Percent of patients awaiting PMR

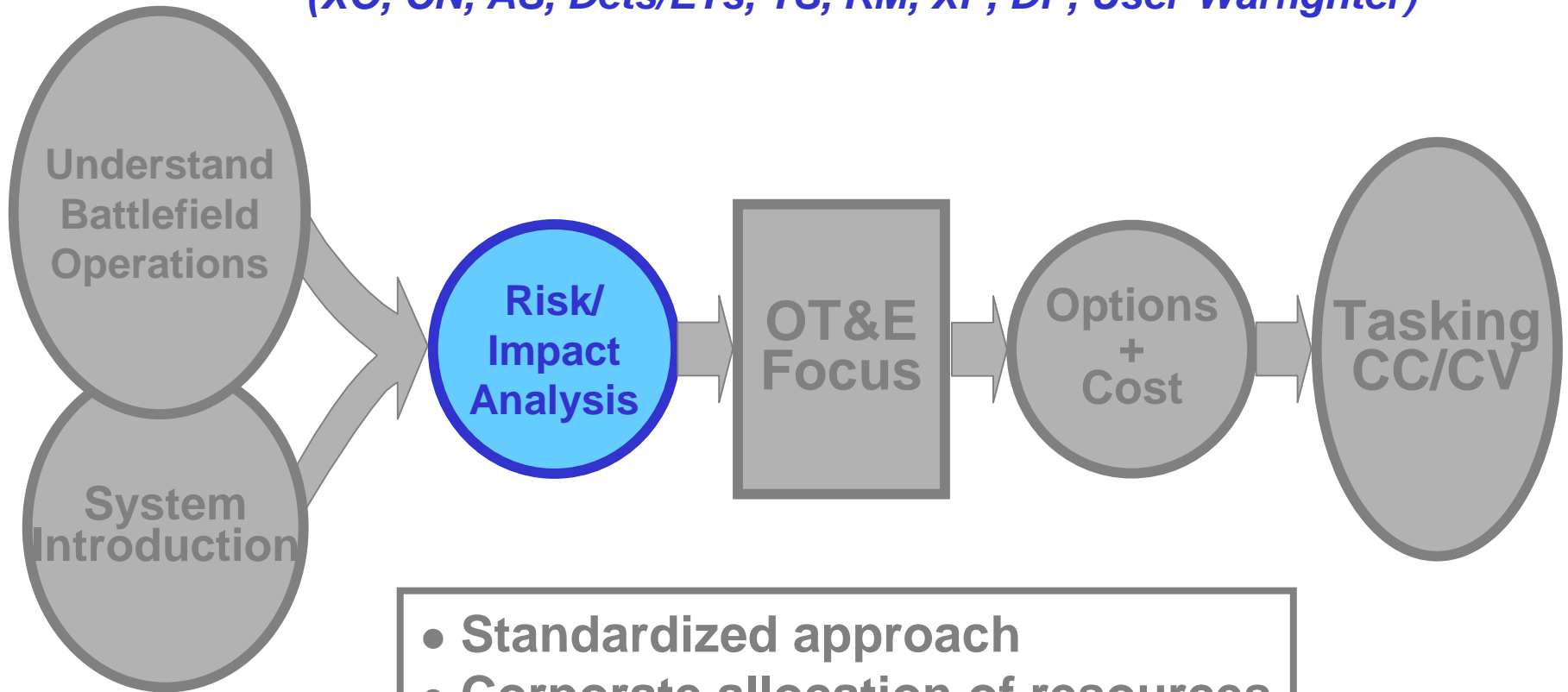
- Time delays for patient ITV updates

- Time from decision to patient move



# AFOTEC Scope/Cost Process

*AFOTEC Scope/Cost Team  
(XO, CN, AS, Dets/ETs, TS, RM, XP, DP, User-Warfighter)*



- Standardized approach
- Corporate allocation of resources
- *based on*
- Value of OT&E information



# Medical Treatment

## Impact Analysis

*Are PMRs being submitted in a timely manner?*  
*How good a job is being done to support ITV/resource statusing?*  
*How efficiently are comm resources being utilized?*

• *Percent of patients awaiting PMRs*

**Medical  
Treatment**

• *Time delays for resource status updates*  
• *Time delays for patient ITV updates*

**TRAC<sup>2</sup>ES  
on Element**

- Time to deal with inputs & outputs from TRAC<sup>2</sup>ES
- Who is coming & condition
- Movement - Where (treatment), When, Handling
- Manning, Training, Equipping, Sustainment

**Element  
on TRAC<sup>2</sup>ES**

- MTF inputs for patient tracking
- MTF inputs for PMI tracking
- Loading on TRAC<sup>2</sup>ES
- Resource status input

**Element  
on Mission**

- Delays in moving patients (not related to TRAC<sup>2</sup>ES)
- Lack of beds/capabilities to treat





**Provide Patient Movement to Support an MTW**  
Operational Objective

**Move Individual Patients to Meet Medical Needs**

**Medical Treatment**

Impacts:

- Time to deal with inputs & outputs from TRAC2ES
- Who is coming & condition
- Movement - Where (treatment), When, Handling
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**Transport Patients**

**Execution C2**

**TRAC<sup>2</sup>ES on Element**

- Time to deal with inputs & outputs from TRAC<sup>2</sup>ES
- Who is coming & condition
- Movement - Where (treatment), When, Handling
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**Patient / Resource Status**

**PMI Support**

**Comm**

**Generate Lift Aircraft**

**Global / Theater C2**



**Provide Patient Movement to Support an MTW**  
Operational Objective

**Move Individual Patients to Meet Medical Needs**

**Medical Treatment**

- Impacts:
- MTF inputs for patient tracking
  - MTF inputs for PMI tracking
  - Loading on TRAC2ES
  - Resource status input

**Transport Patients**

**Execution C2**

*Element on TRAC<sup>2</sup>ES*

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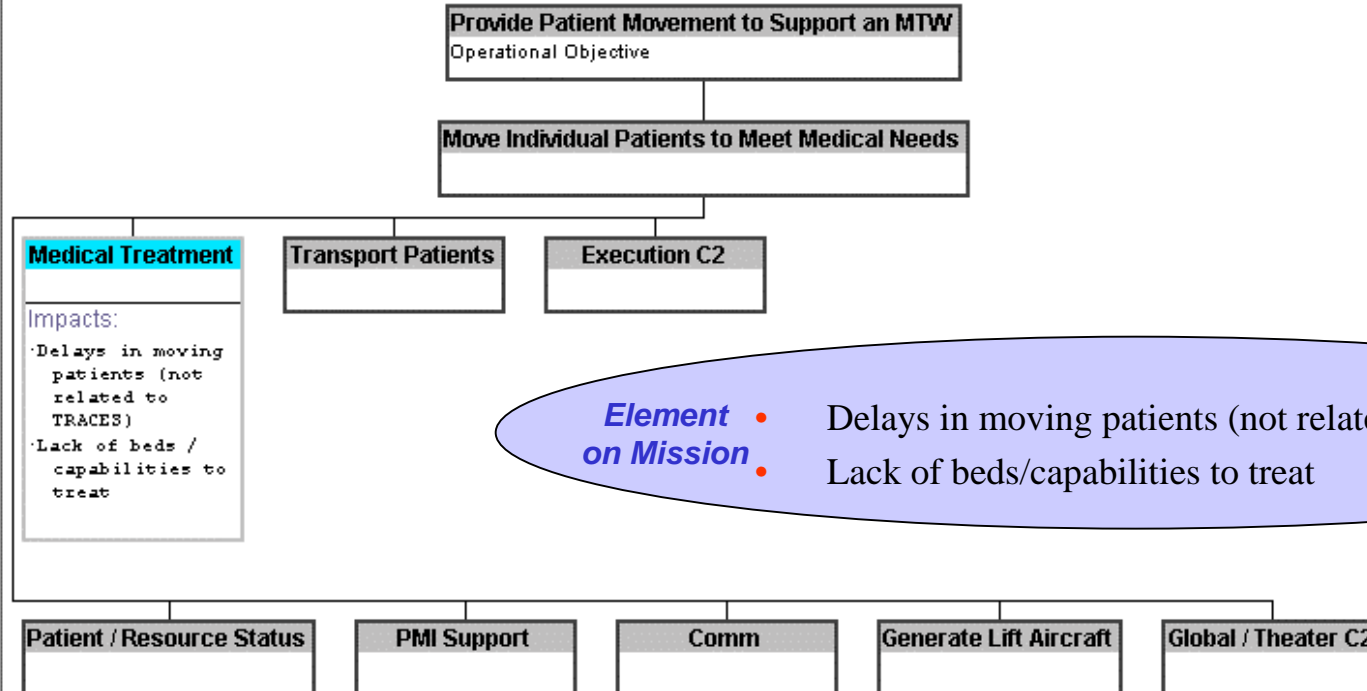
**Patient / Resource Status**

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**Medical Treatment**

Impacts:

- Delays in moving patients (not related to TRAC2ES)
- Lack of beds / capabilities to treat

*Element on Mission*

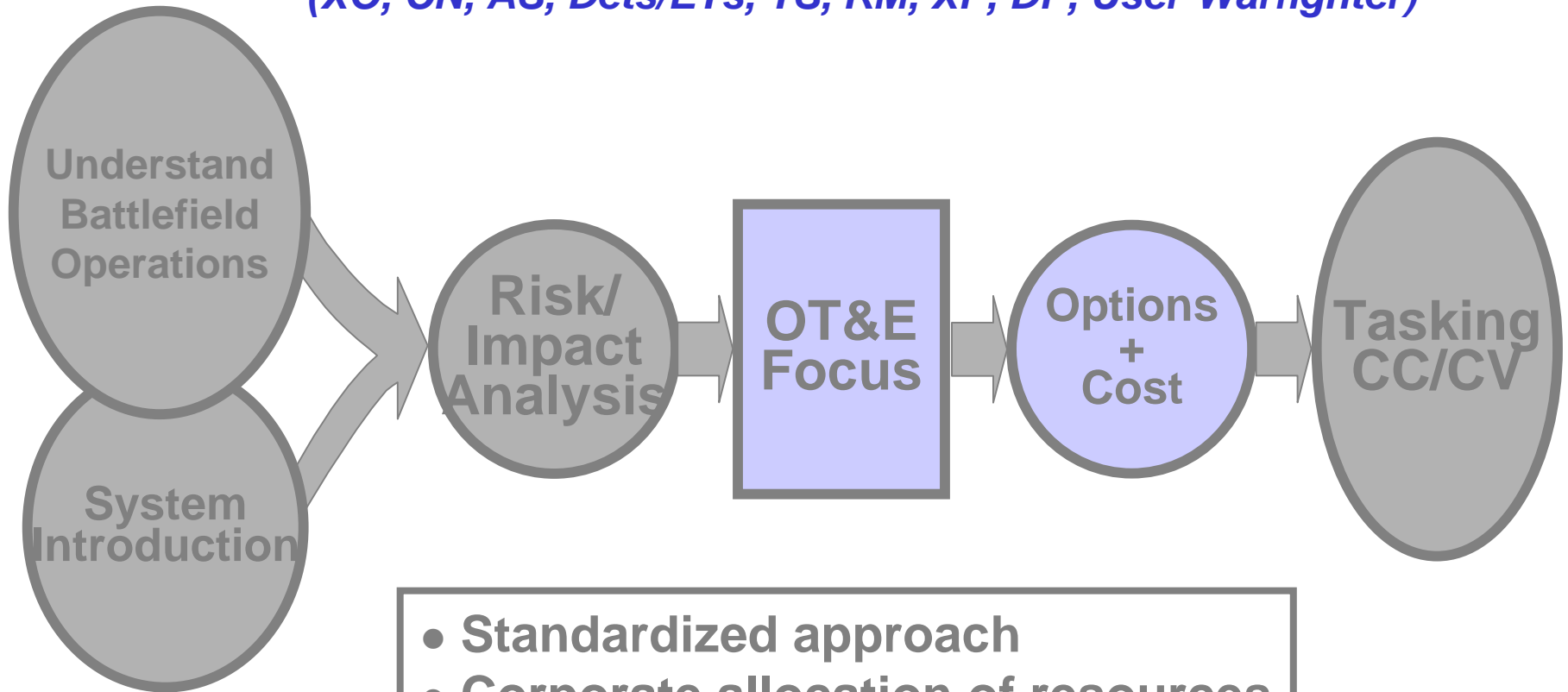
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# AFOTEC Scope/Cost Process

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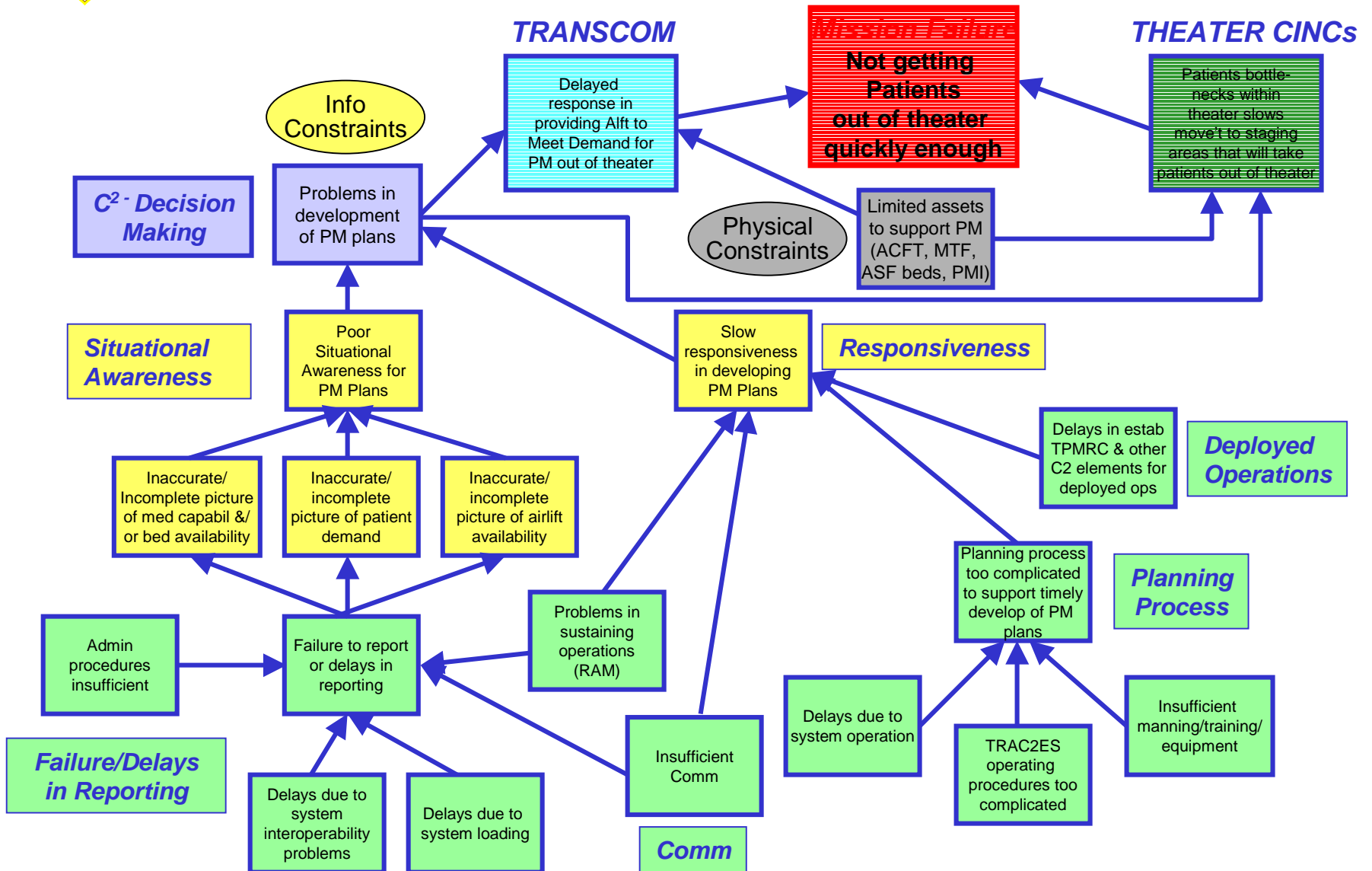


- Standardized approach
- Corporate allocation of resources
- *based on*
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# Rapid Evacuation from Theater

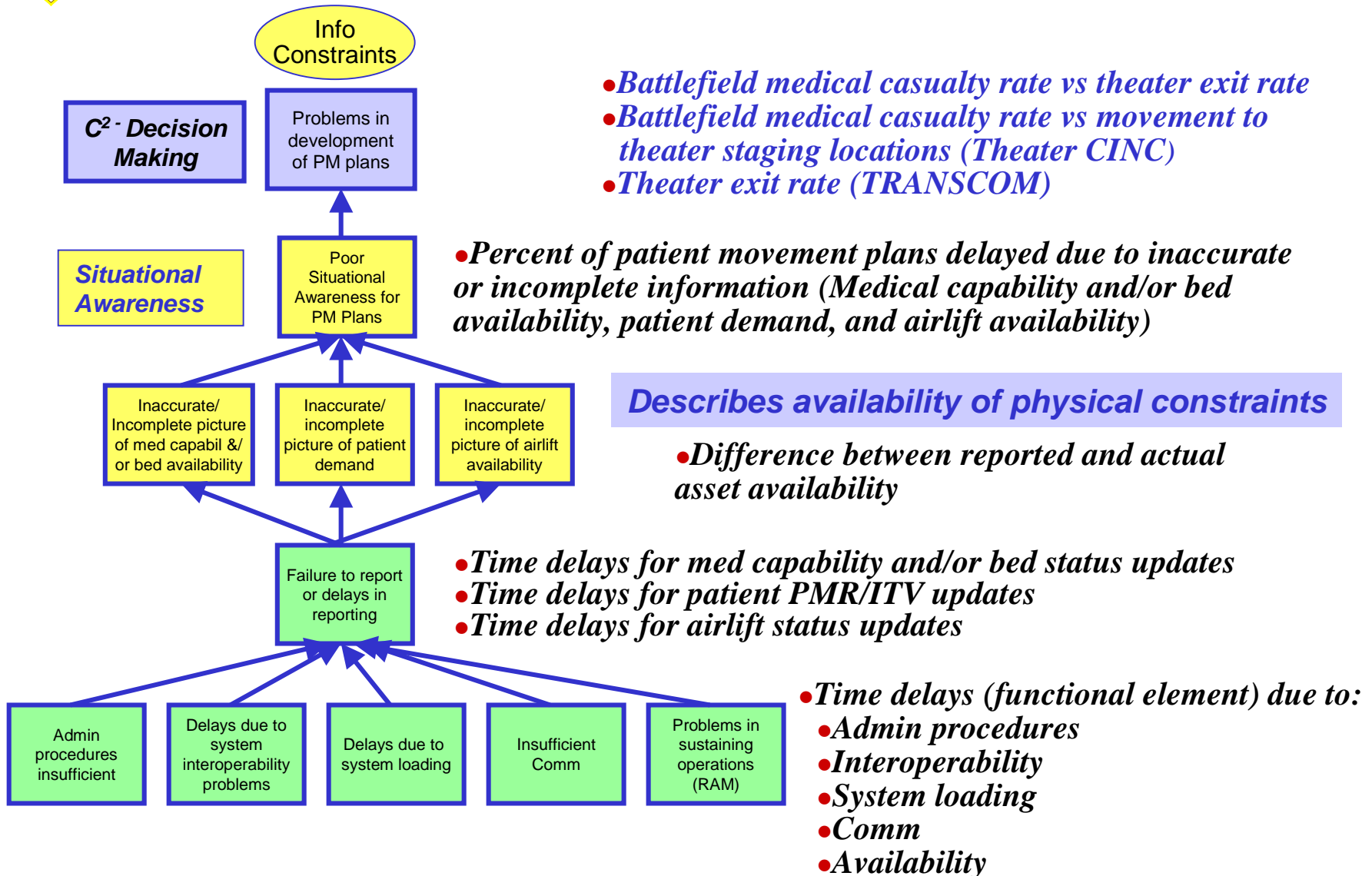
## Cause-Effect Analysis - Major Conflict w/Heavy Casualties





# Situational Awareness Evaluation Structure

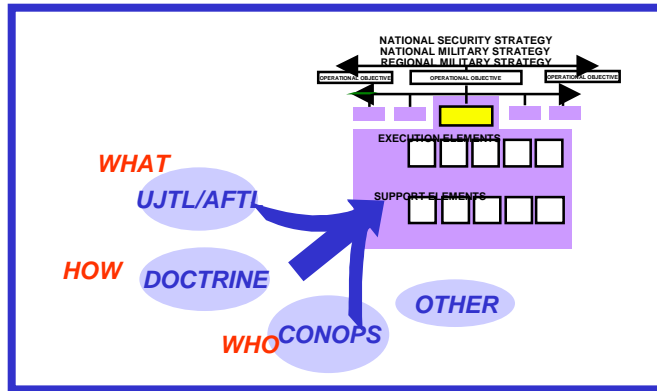
## Major Conflict w/Heavy Casualties



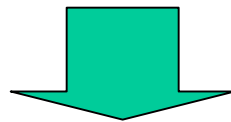
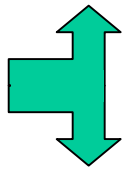


# OT&E Scope/Cost Process

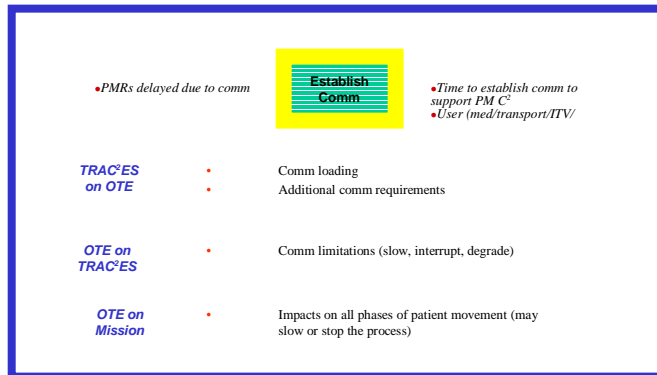
## Battlefield Ops



System



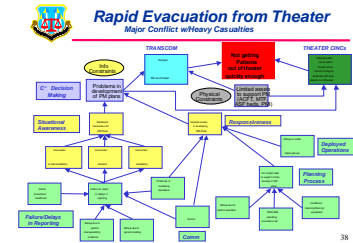
Risk/Impact



## OT&E Focus

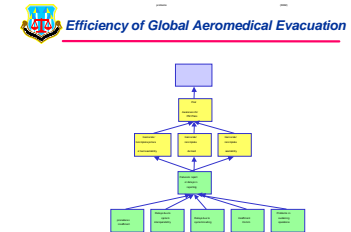
### Evaluation Area 1

1



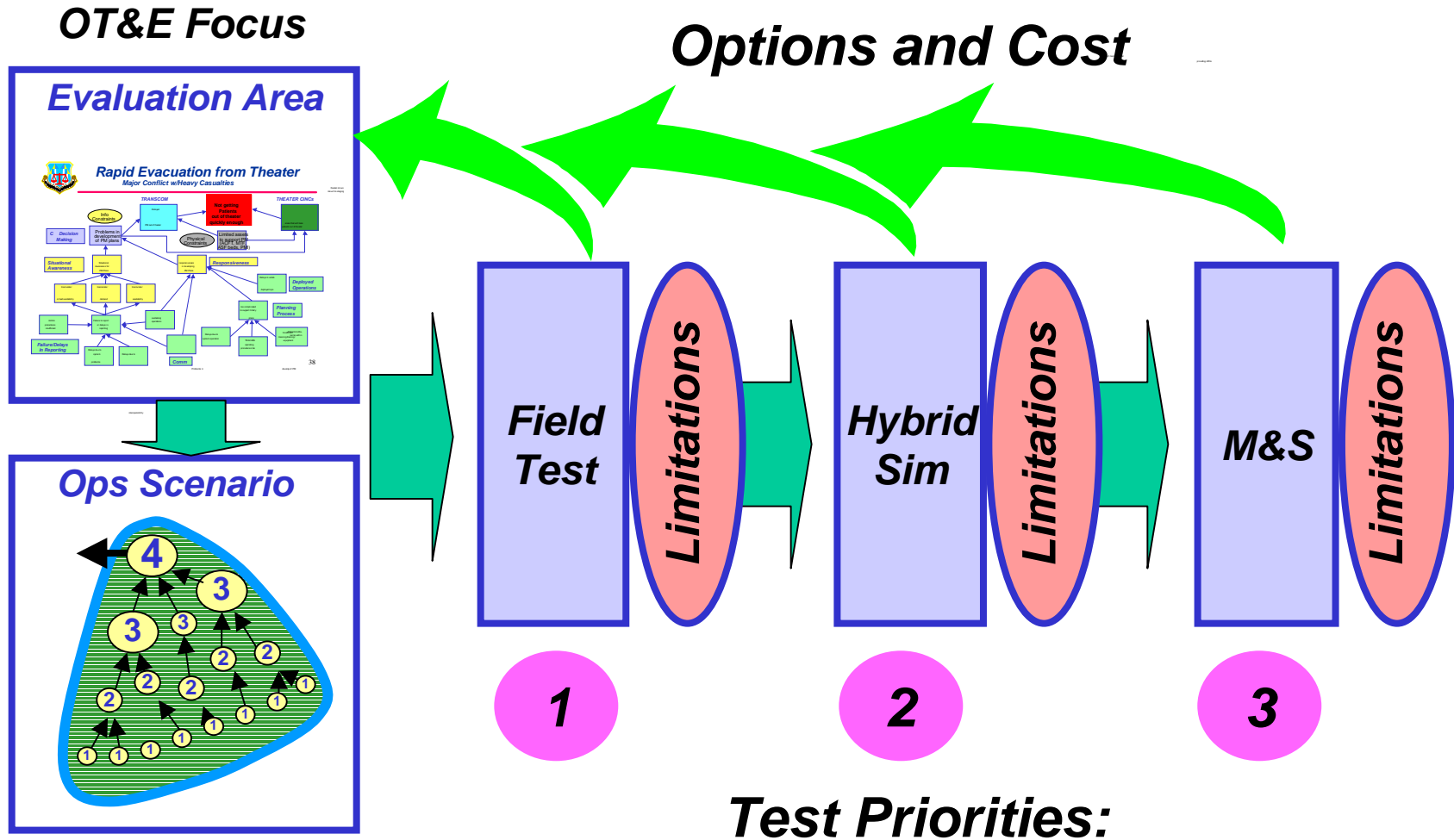
### Evaluation Area 2

2





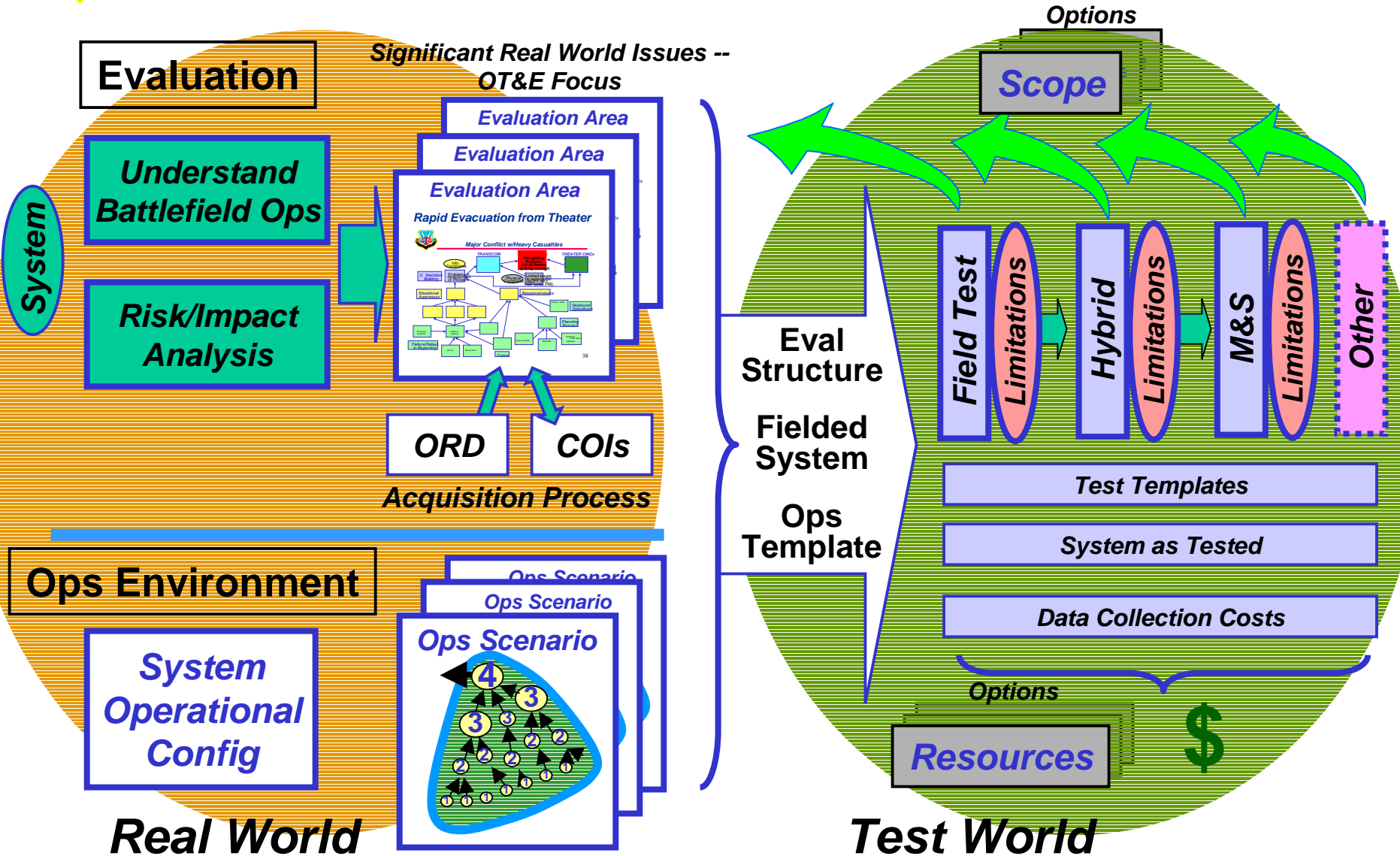
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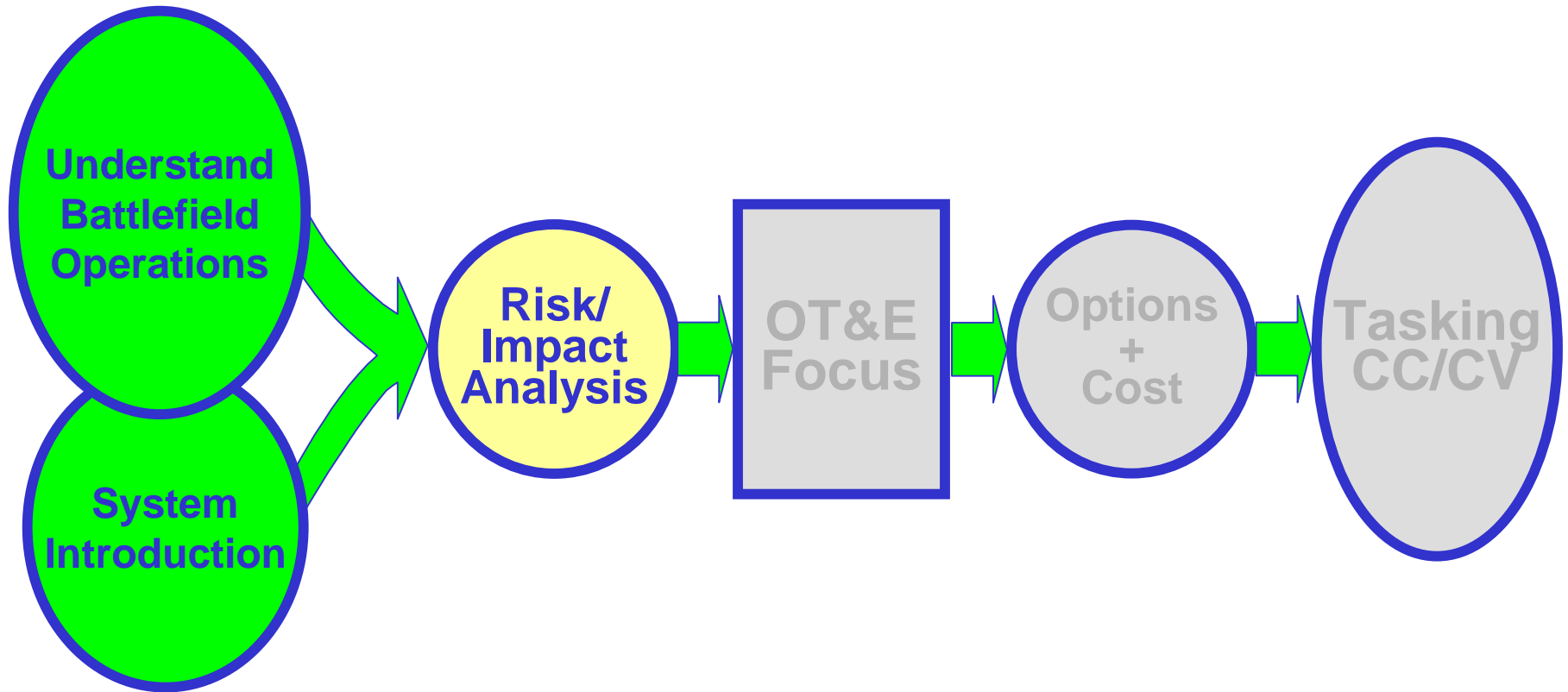
# OT&E Scope/Cost Process





# MARION Development

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