

Innovation Quick Reaction S&T (QRST)

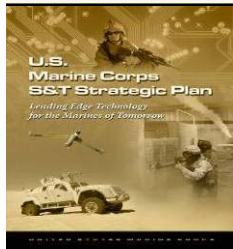
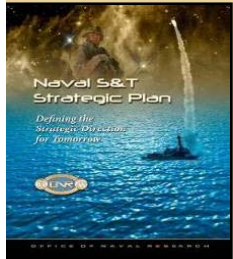
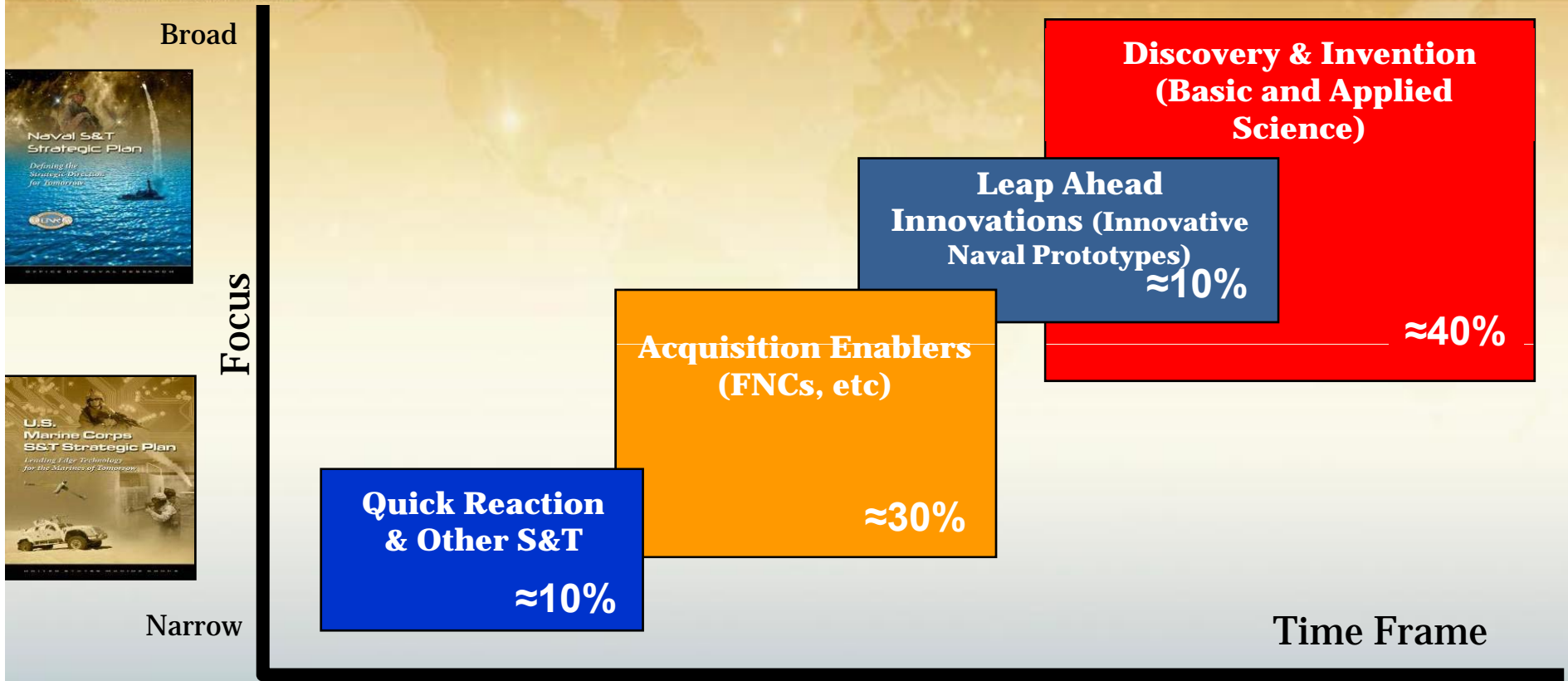
*Speeding technology to the
Fleet/Force*



Revolutionary Research . . . Relevant Results

O F F I C E O F N A V A L R E S E A R C H

S & T Strategic Plan



Broad

Focus

Narrow

Near

Mid

Long

Time Frame



QRST



FNCs



INPs



D&I

Rudder Orders...



“I never, ever, want to see a Sailor or a Marine in a fair fight! ... We have to get technology to the Fleet faster.”

- ADM (Ret.) Gary Roughead, Former Chief of Naval Operations

QRST Objective

I have a
Need!

REQUIREMENT

I have an
Idea!



CAPABILITY

QRST is about the Warfighter



It DOESN'T have to be this way...

Needs Driven Process

TechSolutions

- To rapidly develop and demonstrate prototype solutions to operational problems identified by deckplate-level Sailors and Marines.

SwampWorks

- To develop and demonstrate newly invented or recently discovered technologies that address emergent and enduring operational problems in an accelerated timeframe.

Experimentation

- To develop prototypes of recent technology breakthroughs for experimentation to satisfy war-fighter requirements.

QRST Guidelines

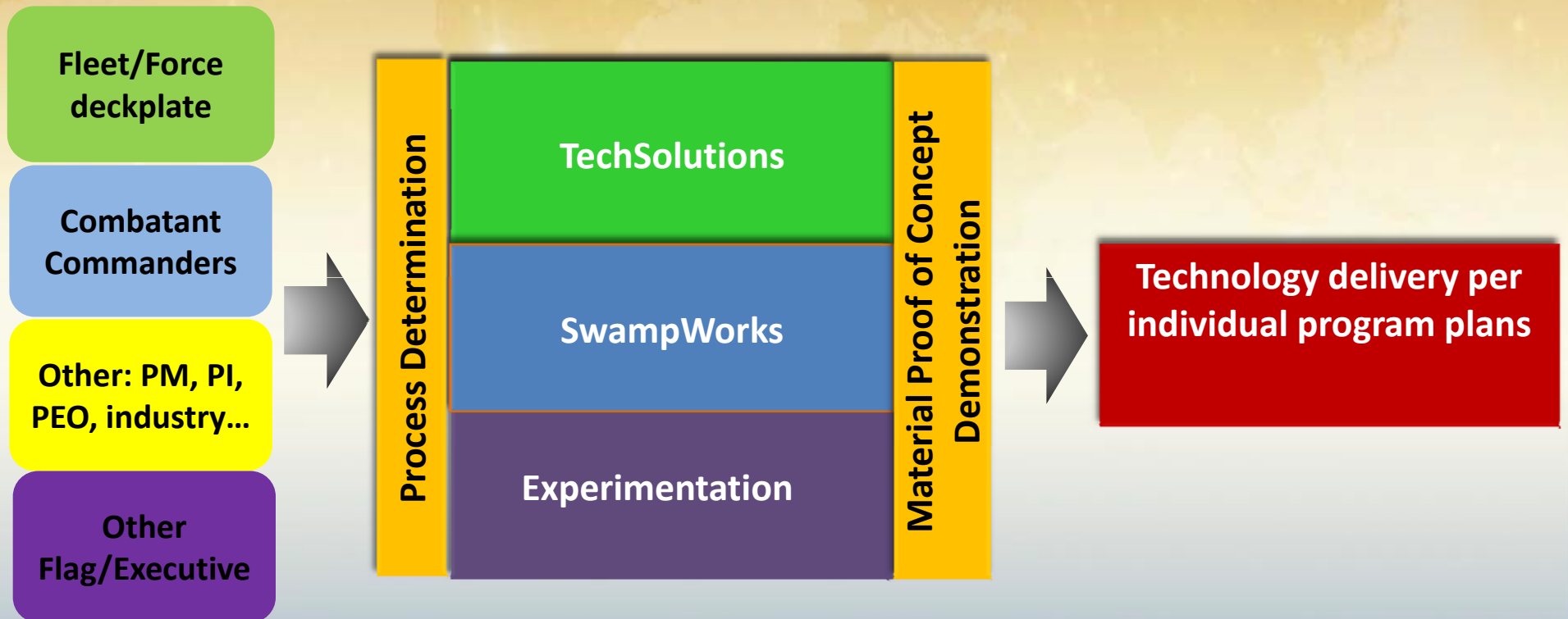
Funds S&T based technical efforts to:

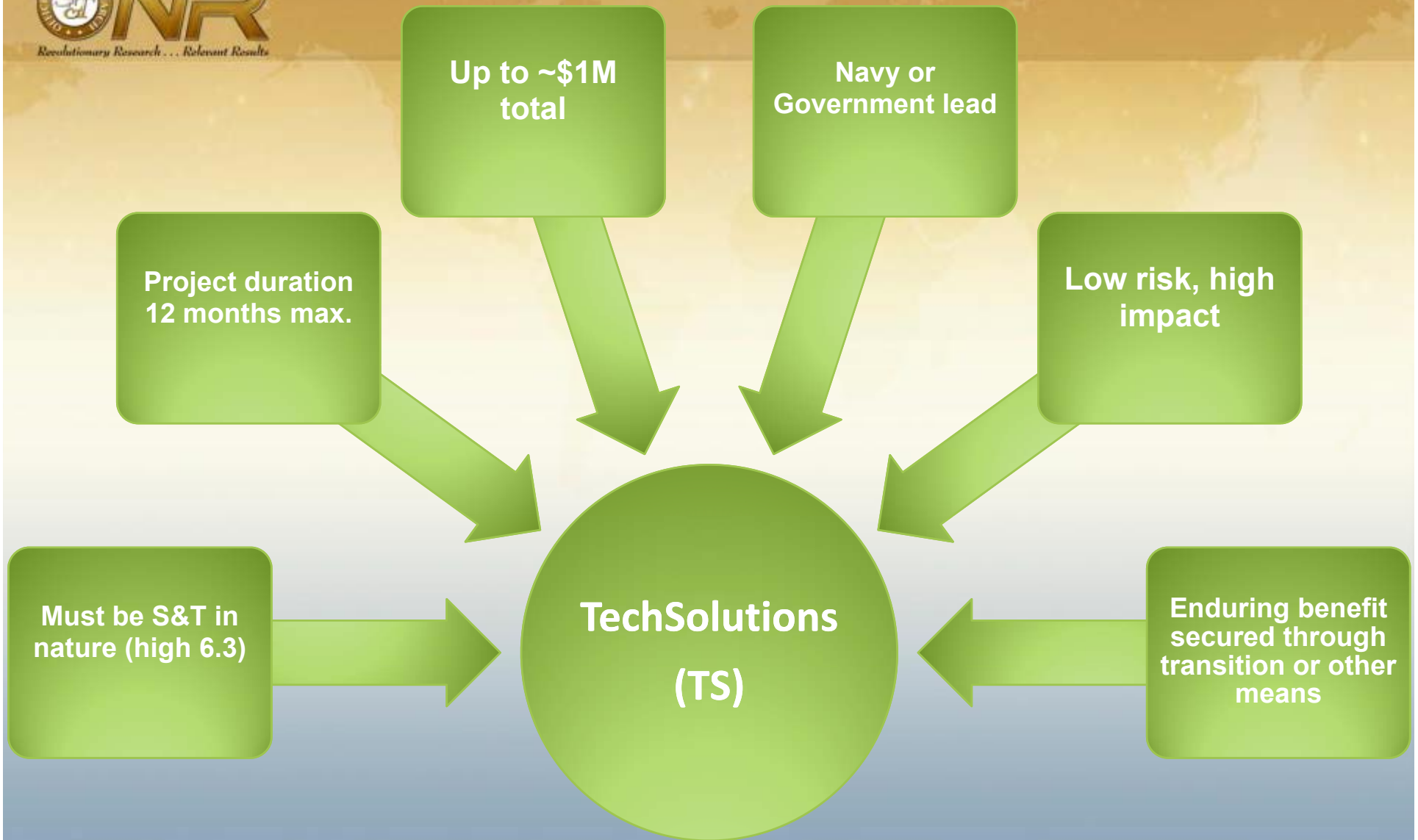
- Accelerate technical development
- Rapidly respond to Fleet issues
- Validate proof of concept
- Invalidate proof of concept
- Explore usefulness of an existing technology in a new application
- Satisfy Warfighter need
- Evaluate technology alternatives
- Significantly reduce risk



Does not represent an all inclusive list

Process





Techsolutions Example

Operational Need:

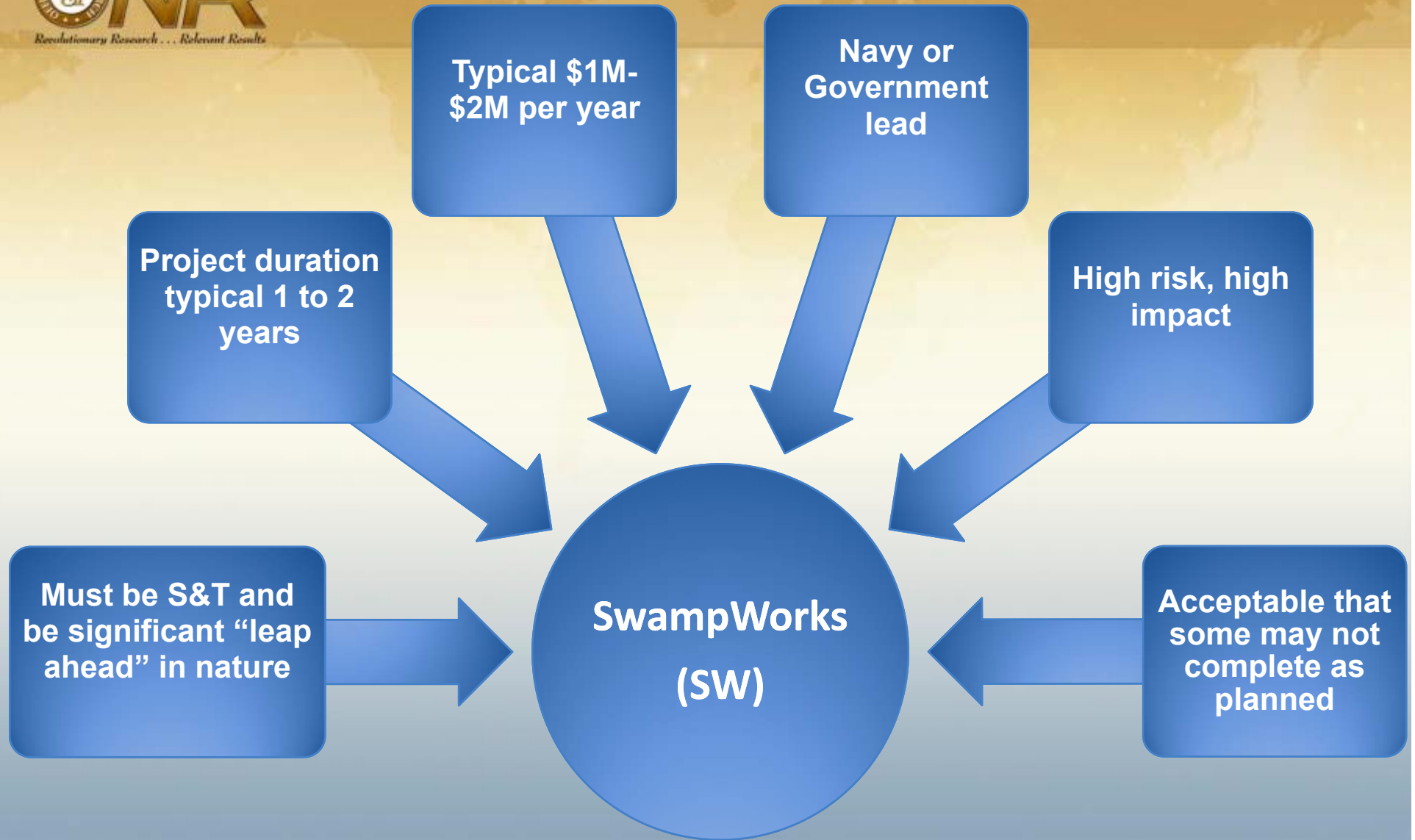
M-224 60mm Mortar requires update to allow accurate use during handheld deployment in both day and night conditions

M224 60MM Mortar Fire Control Enhancement



Solution:

A new Fire Control Unit loaded with M224 Ballistics Tables that can be used day/night & also incorporates an integrated heat shield



SwampWorks Example

Fleet Needs:

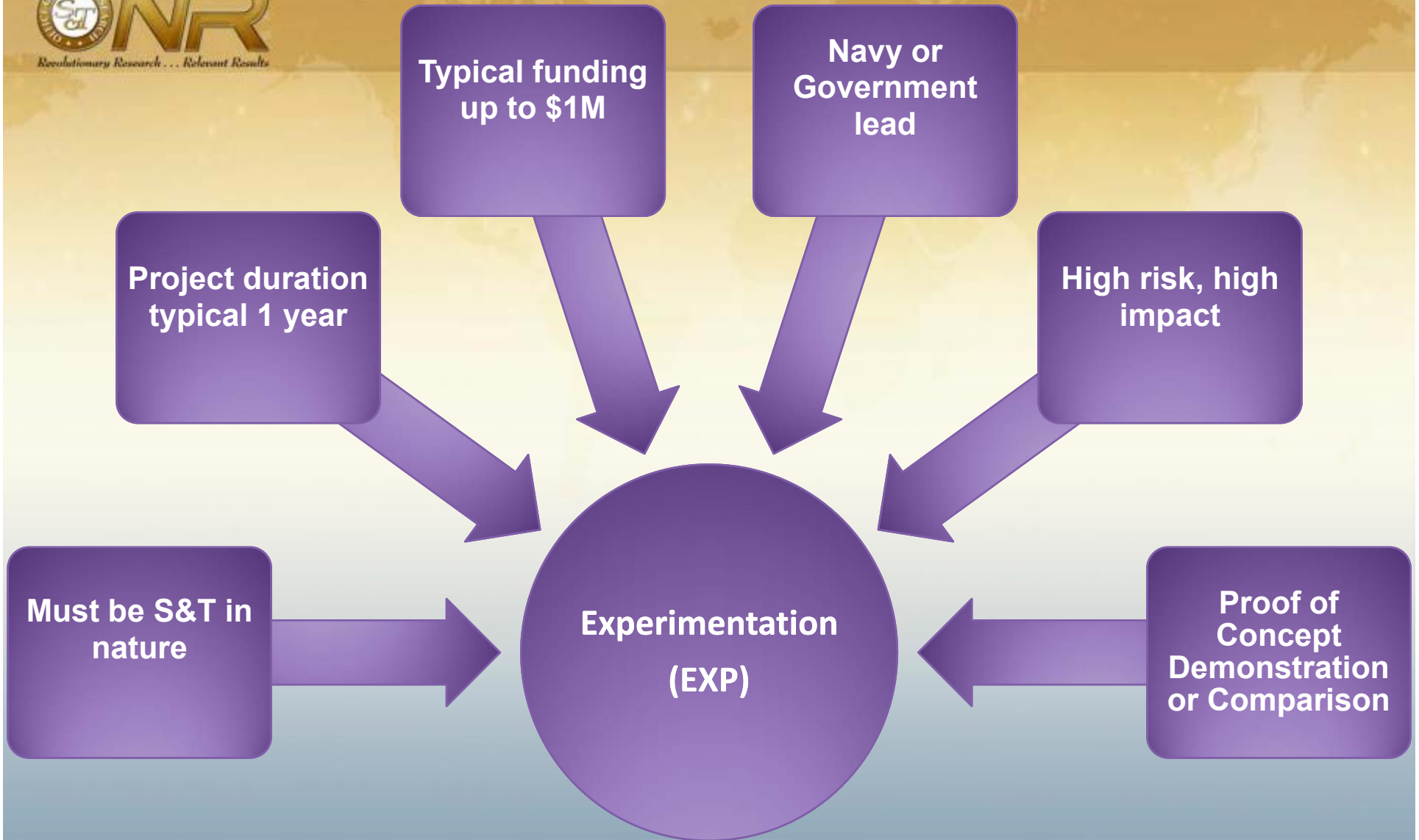
- Lower Cost, Reliable, Safe, and More Effective Submarine Control
- Safe Submarine Maneuvering in Shallow Water Environments
- Stand-alone Docking Options
- Precision Near-Surface Depth Keeping

Advanced Control Effectors



Solution:

New technology replacing complex hydraulic & mechanical hardware systems with a reliable two-moving component capability providing a 2-3X improvement in low speed maneuvering and allow full use of the submerged operating envelope at all speeds



Experimentation Example

GM fuel cell for use in undersea vehicles

Operational Need:

Long duration methods for powering UUV's

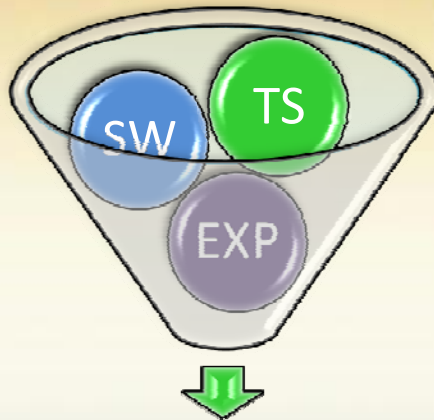


Solution:

Leverage \$2B industry investment in mobile fuel cell technology for potential use in UUV's

Disposition of ONR Programs

6.3 QRST



Proof of Concept
Demonstration

- Other S&T avenues for further use/development
- TTX for further development to transition

6.7 Technology Transition (TTX)



- Rapid Technology Transition (RTT)
- Technology Insertion Program for Savings (TIPS)
- Rapid Development & Deployment (RDD)
- Rapid Innovation Fund (RIF)

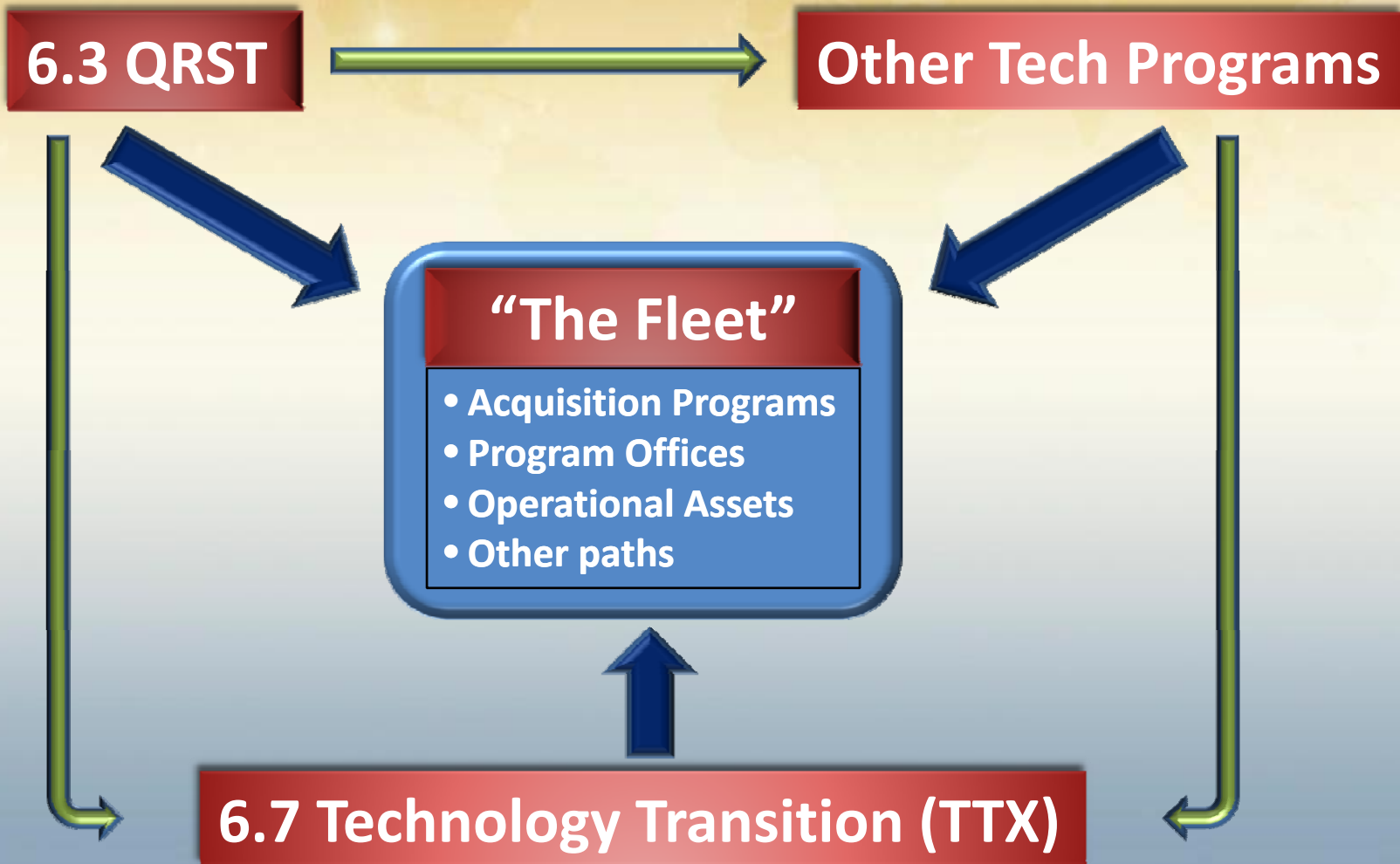
POR and Acquisition sponsor(s)

TRANSITION PROGRAM		PROGRAM GOAL	GOVERNANCE
SPEED TO WARFIGHTER	Speed to Fleet (S2F)	Rapidly transition prototype technology to the fleet	CNO
	JCTD	Exploits mature and maturing technologies and introduces operational concepts to solve important military problems and facilitates transition	ASD R&E
	RAPID FIELDING Directorate Programs	Identify and rapidly field-test prototypes that respond to immediate and emerging warfighter needs.	ASD R&E
	Rapid Development and Deployment (RDD) (Terminates in FY2014)	Rapidly develop and field prototype solutions to meet urgent operational Naval Needs.	Naval
	Swampworks	Explore innovative, high-risk and disruptive technologies and concepts	CNR
	TechSolutions	Transformational business process created by the chief of naval research to provide Sailors and Marines with a web-based tool for bringing technology needs to the Naval Research Enterprise for rapid response and delivery	CNR

SPEED TO ACQUISITION	Rapid Tech Transition (RTT)	Rapidly transition technology into Department of Navy (DoN) programs of record (PoRs)	Naval
	Technology Insertion for Program Savings (TIPS)	Rapidly transition technology from any source into DoN PoRs to significantly reduce operations and support costs.	Naval
	Defense Acquisition Challenge (DAC)	Identify, introduce, test, and procure innovative and cost-saving technology or products from within and outside DoD's science and technology community.	ASD R&E
	Foreign Comparative Testing (FCT)	Test and evaluate foreign non-development, or commercial off-the-shelf equipment with demonstrated potential to satisfy warfighter and/or warfighter support requirements.	ASD R&E
	Rapid Innovation Fund (RIF)	Transition Innovative Technology from Small Businesses to resolve operational challenges characterized by critical national security needs into Programs of Record.	Congress & OSD

Naval = Executive Decision Panel has membership to include OPNAV/HQMC/CFFC/MCCDC/RDA/ONR
 RDD efforts are initiated by RDA.

QRST Supports the Fleet



How to be involved...



Delivery to the Fleet/Force



Technology Solutions

Questions?



O F F I C E O F N A V A L R E S E A R C H



Thank You !