PEO DIGITAL

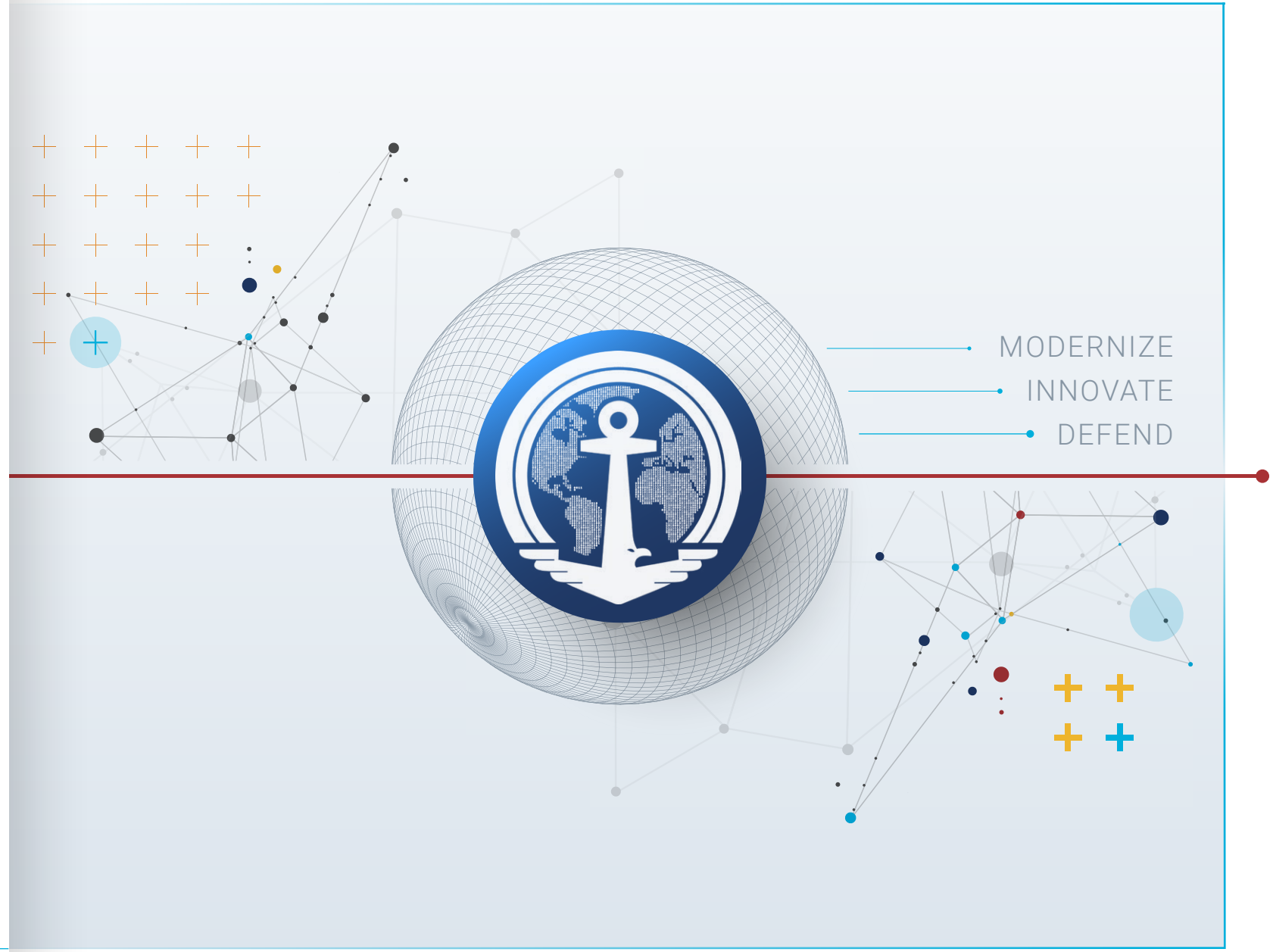
PROGRAM EXECUTIVE OFFICE DIGITAL & ENTERPRISE SERVICES

# INNOVATION

## ADOPTION KIT

"We have found that the United States does not have an innovation problem, but rather an innovation adoption problem… the DoD struggles to identify, adopt, integrate, and field these technologies into military applications."

*Atlantic Council Commission on Defense Innovation Adoption*

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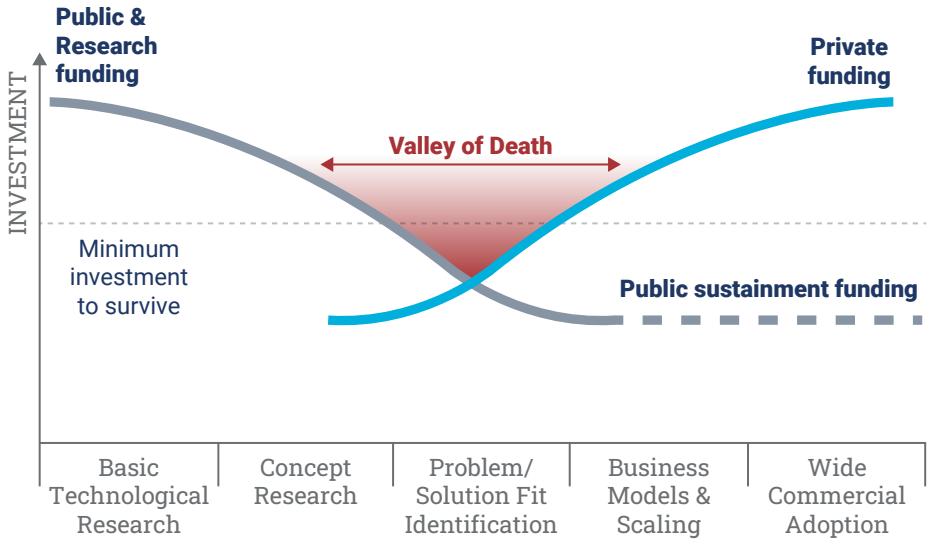
# INTRODUCTION & KEY ENABLERS

## DEATH TO THE VALLEY OF DEATH

Program Executive Offices (PEOs) in the Navy have historically focused most of their energy on sustainment, while very incrementally evolving the industrial base. The Key Enablers in this kit (right) are methods, approaches, and processes to aid PEO Digital in adopting more cutting-edge technology into the organization to improve mission outcomes. **These tactics can be employed and customized across the DOD for a variety of missions—all in service of delivering high-impact solutions to our Warfighters.**

### Key Enablers are how we solve for the Valley of Death




## KEY ENABLERS

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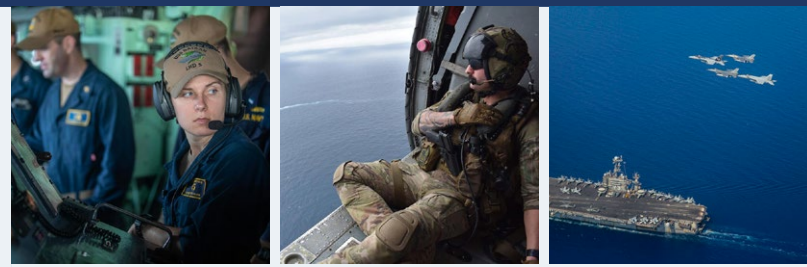
# PEO DIGITAL VISION & MISSION



## VISION

Delivering a **world-class digital experience** at the speed of mission.

## MISSION

Provide the Marine Corps and Navy with a **decisive information advantage** through a modern, innovative, and secure digital experience - **any data, any time, anywhere.**

### Organizational Goals:

- Continuously improve the **digital workplace** experience to enable user collaboration and access to any data, any time, anywhere
- Champion industry-leading **cybersecurity and IT lifecycle** practices to rapidly design, deliver and sustain world-class mission solutions
- Empower the data workforce, software developers, and application owners through a robust and effective **IT platform** portfolio
- Modernize **IT infrastructure** to create lean and diverse transport that brings the power of cloud to the point of mission
- Foster a **culture of excellence** through continuous learning and an empowered workforce

# TOP 10 BEHAVIORS

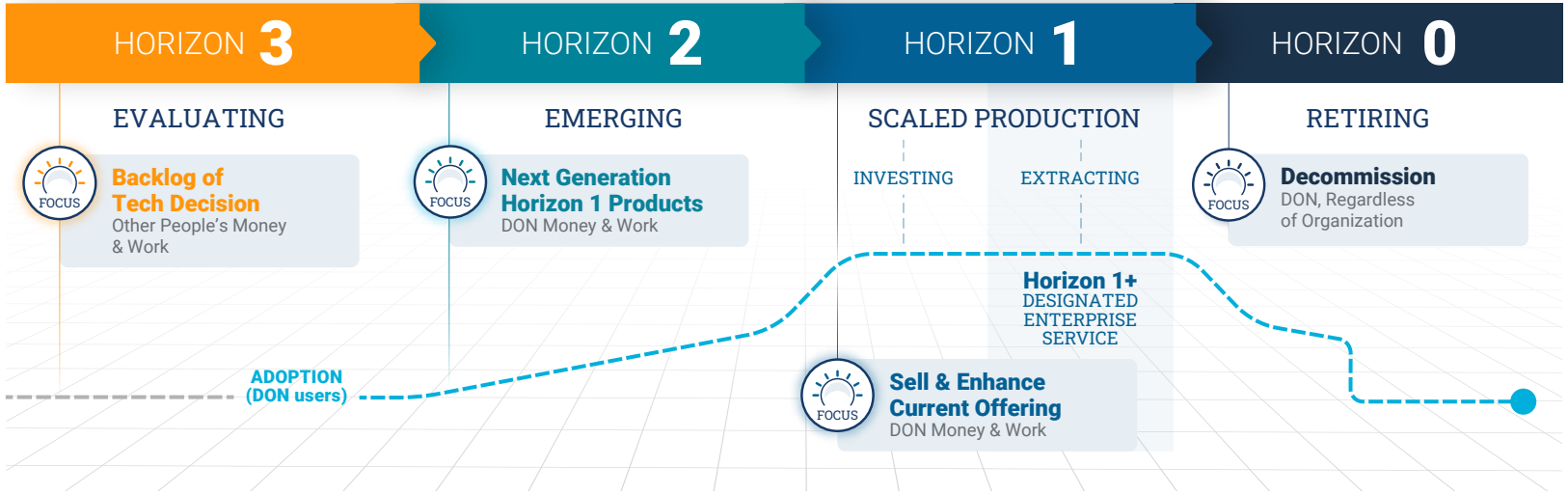
- Disrupt ourselves with **experiments**
- **Use before rent;** rent before buy; buy before build
- **Beta earlier;** a 10% solution is better than no solution
- **Partner** bolder and as often as possible; leverage the success of others
- Move with urgency and exercise a **bias toward speed**
- Seek **simplicity** for scalability
- Seamlessly deliver **customer-centric** technologies
- Never duplicate, **always automate**
- **Reward innovation;** make government IT cool to do and boring to maintain
- **Weaponize data** to make better decisions at the speed of relevance

# INVESTMENT HORIZONS

In a saturated and quickly evolving landscape, it is challenging to know where to spend your time and money. We need to innovate, but we must make divestments to do so. All while "keeping the lights on" and effectively sustaining the services that are working for our end users.

Investment Horizons help us assess and strategize where we spend our time and money. They ensure we evaluate new technologies, sustain those that are effective, and divest of those that no longer propel us forward.

This framework will help you to assess the lifecycle of your technology, drive innovation, and encourage divestment. And once you use it to assess your tech, you'll realize it can be used as a framework to assess other areas of your organization as well.




## ADAPTIVE ROADMAPS

### How do Investment Horizons fit into the bigger picture?

From S&T to field planning, these three products together provide all of the relevant "roadmap" information needed to move teams in a common direction with a common goal.

**TECH HORIZONS**

Provides the full landscape of technology, from emerging to divestments; is the forcing function for what comes next.

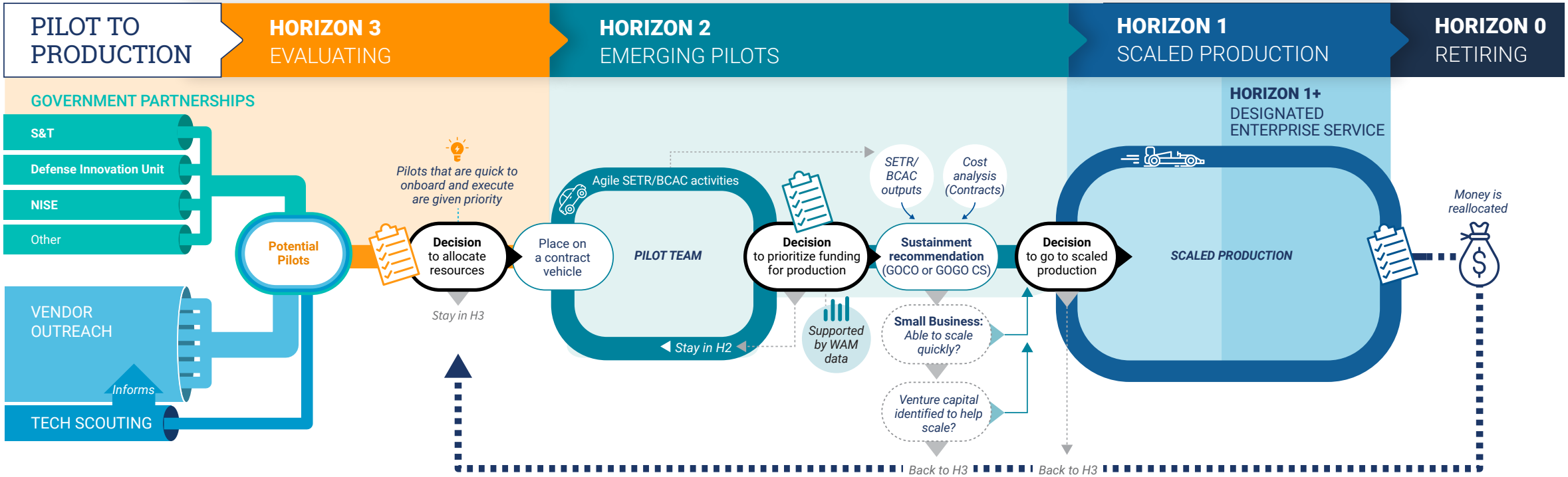
**EXECUTION SCHEDULE**

A timeline and user/site based view of a technical implementation.

**DOTMLPF-P CAMPAIGN PLAN**

Not every project will require a campaign plan but for those with tricky governance and urgency, this can be leveraged to get faster buy in and earlier visibility.

# INVESTMENT HORIZONS | STRUCTURED PILOTING




## CRITERIA TO ADVANCE

- Understand MSD design concepts
- Identify functional champion
- Align with a portfolio, initiative, and TD, ACE, & DCE priorities
- Prioritize pilot investments considering World-class Alignment Metrics (WAM)
- Outline Enterprise Service cost model (optional)

## CRITERIA TO ADVANCE

- Compliance with MSD design concepts
- Support at least 10% of the user base (in any context)
- Map to Technology Business Management solutions
- Support product delivery strategy
- Sequence to optimize on scale and/or values
- Solution is not already available as a potential DON enterprise service

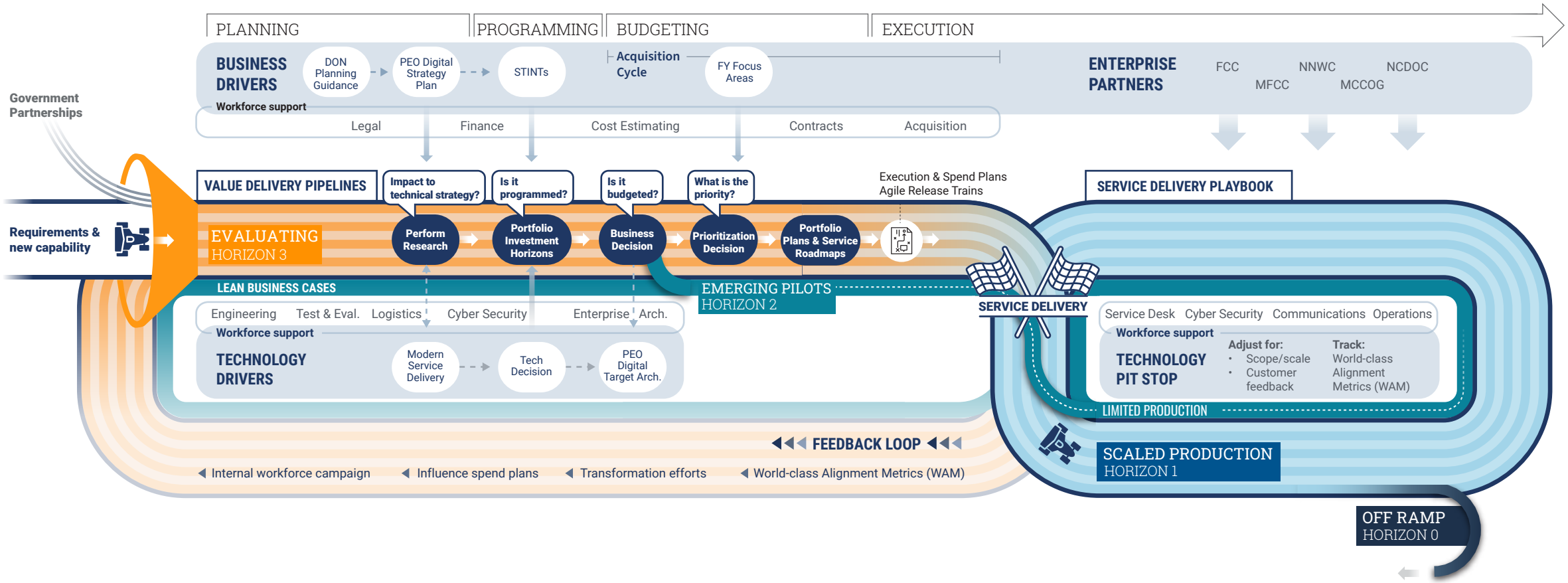
## CRITERIA TO ADVANCE

To H1+
- Perform Enterprise Service self-assessment

To H0
- Replaced by a Modern Service Delivery compliant technology

# INVESTMENT HORIZONS | STRATEGY THROUGH EXECUTION

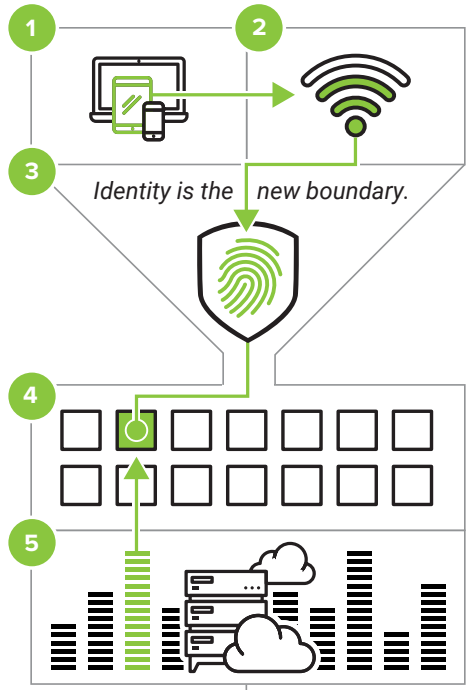
PEO Digital moves with tenacity, speed, and agility to generate and deliver premier enterprise technologies in response to the urgent technology needs of Sailors and Marines. The Strategy through Execution diagram below outlines the process new capabilities and requirements follow through the Planning, Programming, Budgeting, Execution (PPBE) cycle and beyond to be effectively researched, prioritized, delivered, sustained, and beyond.



# MODERN SERVICE DELIVERY (MSD)

The Department of the Navy (DON) is implementing shared Information Technology services as a fundamental shift in how the organization designs, consumes and delivers services to support mission objectives and the DON Information Superiority Vision.

The DON is also transforming services to better align with industry standards for service delivery. Accordingly, the design concepts (see next page) for the DON portfolio of services are called Modern Service Delivery, which are generally universal decision-making guidelines aligning efforts related to a scope of work.




## 1 DEVICES

Services and data are equally accessible across all devices (device agnostic).

## 2 NETWORK

Multiple connectivity methods for managed and unmanaged devices.

## 3 USER

Device, access and user combinations are verified.

## 4 APPLICATION

User centric services designed for ubiquitous access.

## 5 DATA

Seamless data synchronization across all devices.

Access to the services and data is seamless to the user at home, at work and on the go.

## FOUNDATIONAL ELEMENTS

**VISIBILITY & ANALYTICS**

**AUTOMATION & ORCHESTRATION**

# MODERN SERVICE DELIVERY (MSD)

**All Digital Enterprise Services adhere to the MSD design concepts:**

- Buy instead of build commodity technologies (as-a-service preferred)
- Maximize use of commercial cloud services
- Create an Application Program Interface (API) economy; design for integration, data sharing, and reusable interfaces
- Use Representational State Transfer (RESTful) architecture standards focused on caching and layering for disconnected uses
- Ensure RESTful APIs support service calls from Integrated Navy Operations Command and Control System (INOCCS) manager of managers, ensuring the ability to provision, operate, protect, and defend the service at scale
- Design to enable the National Institute of Standards and Technology (NIST) attributes of cloud for both on- and off-premise consumers
- Design loosely coupled services to operate across network and security boundaries (build once, use often)
- Adopt Zero Trust principles as the basis for security and user experience
- Acquire integrated suites of capabilities instead of integrating many best of breed products
- Enable self-service provisioning in development and production environments
- Design for mobile access
- Ruthlessly automate everything
- Design for resiliency

# WORLD-CLASS ALIGNMENT METRICS (WAMs)

PEO Digital has adopted World-class Alignment Metrics (WAM) to better evaluate our Information Technology (IT) investment and performance by connecting data to mission outcomes. The intent is to increase effectiveness across the Navy and Marine Corps through a clear, data-driven approach to evaluating success.

## MISSION OUTCOMES

**Overall goal: Drastically improved IT experience with increased resilience by end of CY2024 (25%)**

Five metrics inform decisions on future technology investments:

### USER TIME LOST

All computing transaction times

### OPERATIONAL RESILIENCY

Cyber, Uptime, Fighting hurt

### ADAPTABILITY / MOBILITY

Time to change (e.g. infrastructure, contracts, people)

### CUSTOMER SATISFACTION

All subjective input (e.g. Net Promoter Scores)

### COST PER USER

All costs (e.g. seats, sites, licenses)

# WORLD-CLASS ALIGNMENT METRICS (WAMs)

Information technology and timely access to data is the foundation for force generation in the Navy. World-class Alignment Metrics (WAMs) use industry-validated best practices to drive and articulate PEO Digital's impact to mission outcomes.

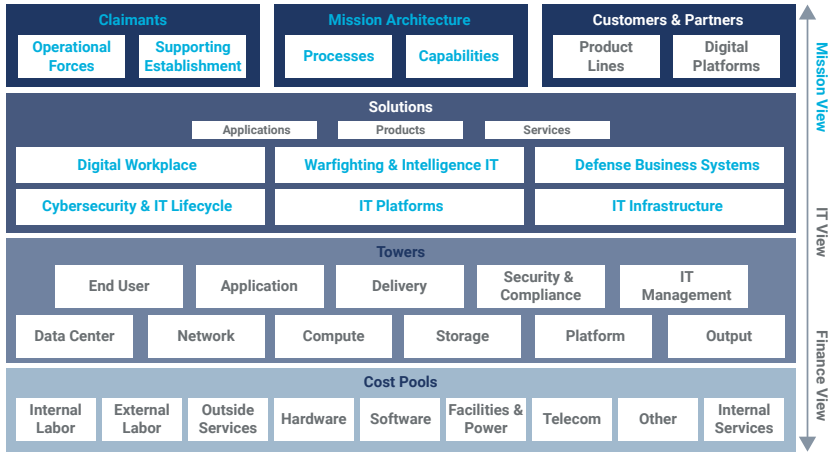
An outcome-driven metric framework translates technical and business metrics into mission outcomes to improve investment decisions and IT service delivery. These specific TODMs were selected by PEO Digital to represent the most important ways they are improving mission outcomes.

**Instrumentation undergirding** enables measurement and availability of operational metrics.

# TECHNOLOGY BUSINESS MANAGEMENT (TBM)

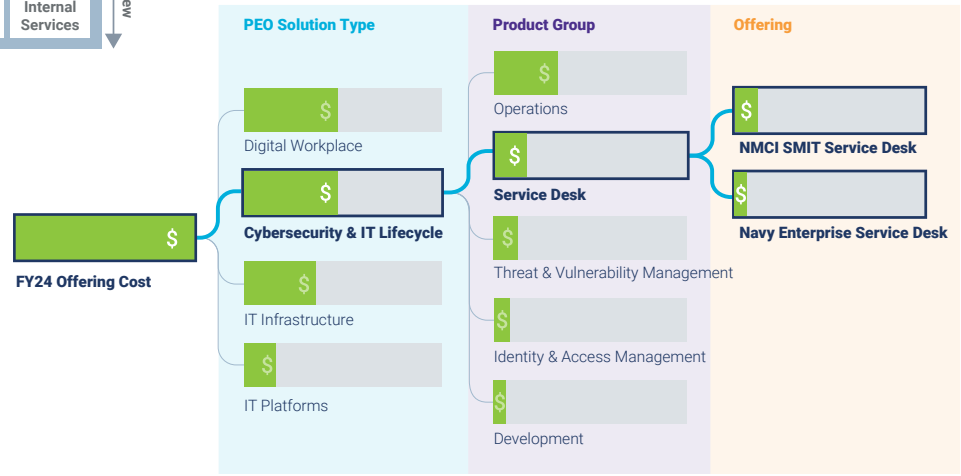
## A STANDARDIZE TAXONOMY

In 2019 the Office of Management and Budget introduced guidance for all DOD components to transfer IT budget reporting into the TBM Framework cost pools and towers. In addition to just finance, TBM provides a standardized taxonomy for binning capability inventories and identifying duplication. TBM enables the DON to react quickly to changing market dynamics and make data-driven decisions to manage the business of technology.




**Bright blue** text identifies where PEO Digital has modified the TBM naming structure to better reflect our mission and organizational goals.

Our "TBM Thrill Ride" offers an ability to interact with the PEO Digital service catalog through the TBM taxonomy.




## MODERN SERVICE MANAGEMENT

**A centralized, digital tool suite to provide transparency into portfolio activities.**

PEO Digital is embracing a single, digital point of entry to provide both access to and transparency into program control data and activities. PEO and Portfolio leadership gain insight into the key cost, schedule, and performance progress. The tool suite is not just for PEO Digital, but will enable greater transparency with other DON stakeholders as well.

A shift from manual data collection and PowerPoint presentations to automated visualization reporting ultimately means:

- Real-time, data-driven decision making
- Increased transparency
- More robust leadership reporting
- Optimized efficiency and data fidelity

# ENTERPRISE SERVICES

## ENTERPRISE SERVICES REDUCE DUPLICATIVE IT

DON IT Enterprise Services are those services that the DON Technical Authorities and Senior IT Leadership have reviewed from a capability, availability, cyber security, and resourcing standpoint and have been designated as either a) the mandatory and only service or set of services that may be used for a unique set of mission requirements, or b) the preferred single service or set of services that must be considered for use first before considering any other alternative solutions. In either case, if a command has a valid unique or emerging mission requirement that cannot be met by using a DON IT Enterprise Service, then alternative, non-enterprise solutions may be used by exception on a case-by-case basis. This Enterprise IT Services approach focuses on identifying secure IT services and consuming these services broadly across the DON.

### The Enterprise Service Lifecycle

**Inputs**

The landscape of existing services is considered when collecting data for a self-assessment

**Self-Assessment**

**Technology Business Management (TBM)** provides the common taxonomy by which we inventory services

A **Market Survey** identifies redundancies and identifies the most mature services and capabilities

**Designation**

All stakeholders have an appropriate voice in determining designation vice alternate paths

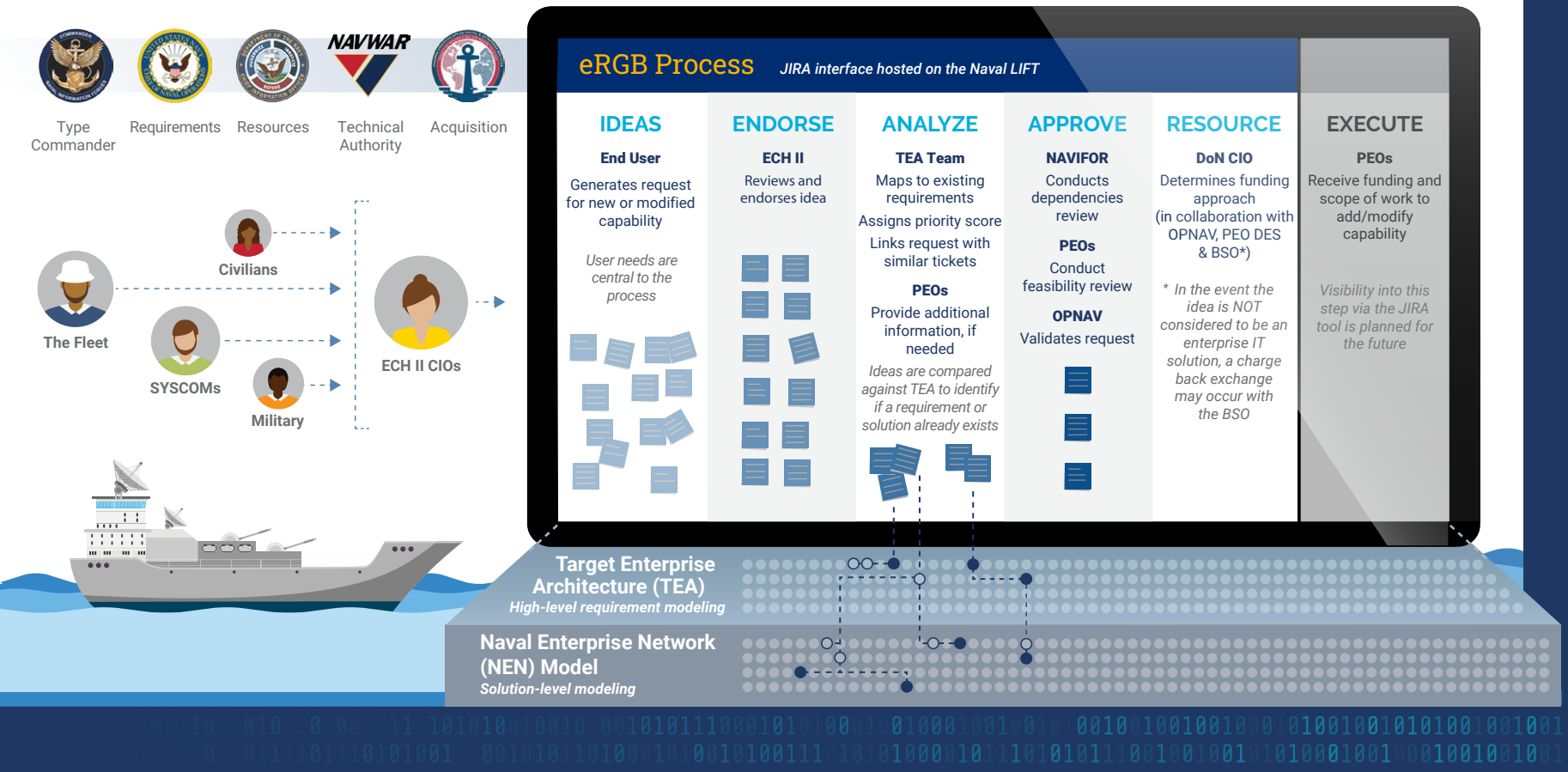
**Continuous Monitoring**

Constant evaluation ensures a services impact to mission outcomes remains best in class

**Increased agility** and speed in the development & delivery of consistent capability to the warfighter.

# ELECTRONIC REQUIREMENTS GOVERNANCE BOARD (eRGB)

The electronic Requirements Governance Board (eRGB) is expediting the Department of the Navy's ability to implement warfighter network needs. The eRGB maintains a dynamic repository that (1) serves as a single source of truth for requirements; (2) supports faster, data-driven decisions; and (3) creates a shared understanding of the future of Navy networks. The workflow uses a ticket-based system with dashboarding that allows stakeholders and end users visibility into the process. It facilitates strategic decision making at operationally relevant speeds, with better insight into tradeoffs.




## TOP LEVEL REQUIREMENTS

### High-level non-prescriptive requirements for agile industry-driven delivery

The Next Generation Enterprise Network (NGEN) Top Level Requirements (TLRs) are the high-level requirements for the procurement and agile delivery of NGEN capabilities and infrastructure upgrades enabling the rapid design, development, delivery, and sustainment of capabilities while taking advantage of future technology advances.

— **3 years** to make a standard requirements document (100+ pages)

— **3 months** to do Top Level Requirements (10 pages)

NGEN TLRs allow us to adapt

**12 TIMES FASTER**

which is necessary to retain our technical superiority and ensure the Navy continues to overmatch our adversaries.

# RESILIENT CONTRACTING

**A resilient contracting posture includes:**

- Map existing requirements to new capabilities.
- Multiple vendors should operate in a loosely coupled fashion to support Modern Service Delivery
- Use a diversified contracting approach. The vendor and contracting ecosystem should mirror the target state of the technology. A loosely coupled configuration of vendors with diversified contracts provides operational resilience. Diversify the risk of under performance from one contracting shop with partnerships.
- Overcome constraints in budgets and skill levels with partnerships. Expand the use of partnerships. Establish pilots with DIU, DTIC, SBIR, and other contracting offices that offer efficiencies and innovative contracting practices.
- Expand use of contracting authorities and other transactions for pilot acceleration and transitions into sustainment. Sustainment transitions can happen via Production OTs or FAR Contracts. Competing for a pilot with an OT may satisfy the competition requirement to transition into production.
- Redirect funds from legacy investments to modern service delivery design concept-compliant technologies in their transition to enterprise services based upon the WAMs of each pilot in comparison with legacy technology.
- Maintain negotiating power with competing capabilities. Piloting a competing capability ensures the government's ability to rapidly respond to under performance and increase cost efficiency to deliver the greatest yield to Warfighters. SBIRs are a great tool for negotiating power and risk reduction, and may also offer innovative services to scale value generation.
- Incentivize value generation measured with the World-class Alignment Metrics. In software this is achieved when capability is deployed into production.

## AGILE CONTRACT STRUCTURES

**A Statement of Objectives (SOO) should be written to align with product visions with a focus on the intended outcome. It should not specify the exact system features.**

- Define the team APPLICATION of the agile process will be used to achieve the Product Vision
- A Quality Assurance Surveillance Plan (QASP) ensures continuous product enhancement
- Measure outcome impacts with WAM

### Incentives

- Measurable WAM benefits
- Production deployment frequency

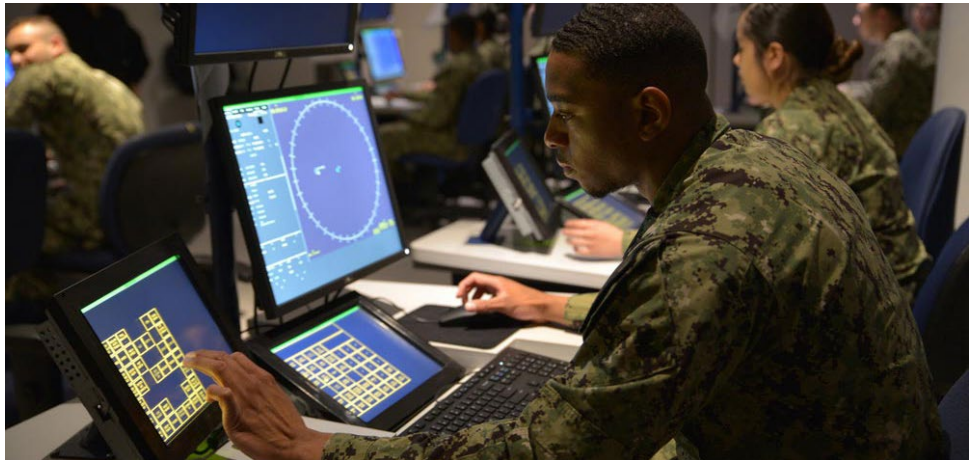
### Deterrents

- Cost of delay with neutral or negative changes in WAM

# DRIVER TREES

## OPTIMIZATION OPPORTUNITIES

Performance-based management tools like driver trees drive team collaboration and improved outcomes--they serve as an execution management optimization and bottleneck removal tool. Driver trees should assign clear ownership, conduct data driven analyses, and leverage a teams' strengths to hunt for optimization opportunities on existing projects.

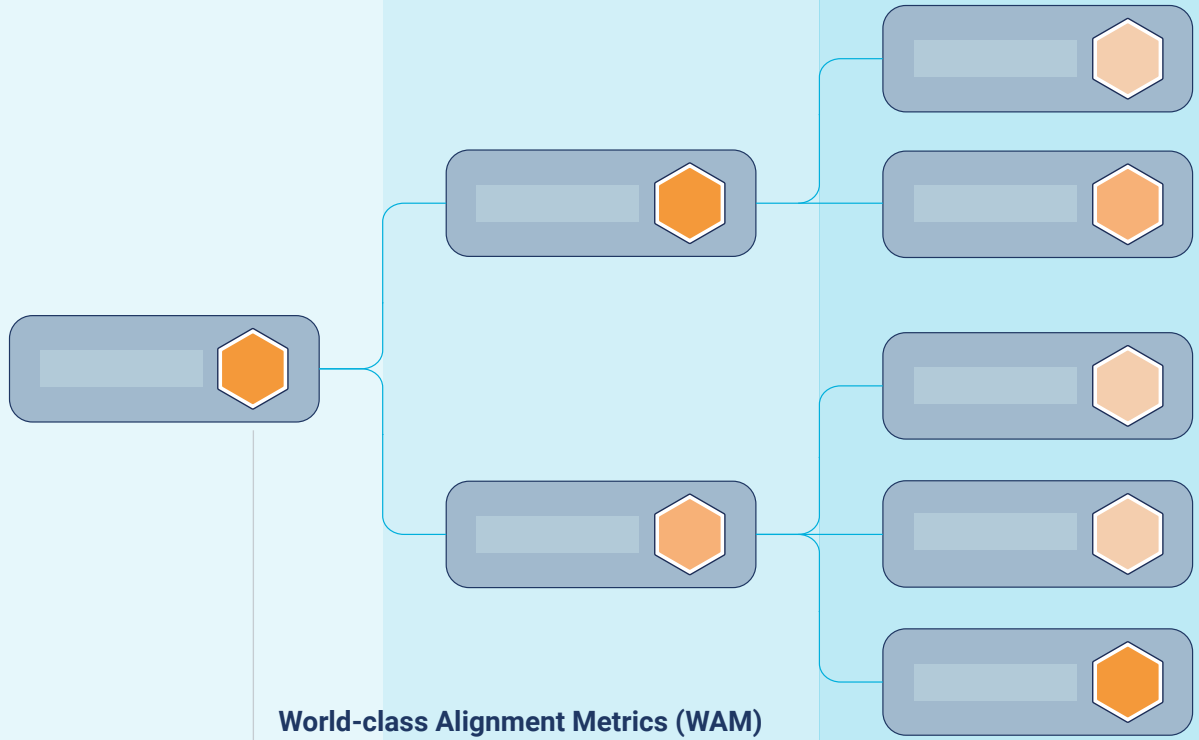


**Driver Trees** highlight key areas of impact.

**North Stars**
define program goals and provide high-level context to senior leadership and project stakeholders

**Outcomes**
provide tangible goals that contribute to the North Star and can be objectively reviewed with clear ownership

**Drivers**
expand on outcomes by outlining the processes and deliverables needed to achieve them, with clear ownership



**World-class Alignment Metrics (WAM)**
measure technology capability and performance of the drivers

# STRUCTURED CHALLENGES

## CREATIVE CROWD SOURCING

The DON's workforce has ideas to increase the outputs, outcomes, and improve the work environment. Challenges focus the innovation and creativity of the workforce to generate solutions. The diversity of thought, perspective, and new ideas power the innovation we seek through a structured challenge approach.

A structured challenge begins with identification of the outcome a sponsor desires to achieve. Two primary areas for challenges are accelerating a technology implementation or optimizing an existing capability. The use of horizon charts, WAMs, and customer/workforce engagement all help focus a challenge to achieve the intended outcome.

The DON employs several best practices within its structured challenges approach to optimize the adoption and management of new technologies.

- Identify areas for challenges to focus upon through reviews of Horizon Charts or organizational feedback.
- Create challenges that accelerate achievement of organizational goals or needs.
- Strategic redirection of savings from divestments to fund new technologies, ensuring investments are made in areas with the highest potential for impact.
- Collaborating with the science and technology communities is essential to stay ahead of technological advancements and replace outdated systems.
- Involving relevant stakeholders, including DON Deputy CIOs and key commands such as the U.S. Fleet Cyber Command, in the development and review of technology strategies.
- Maintaining detailed records and centralizing documentation in a designated DON CIO location facilitates easy access to information and supports knowledge sharing across the organization.
- Create prize challenges where possible. The idea of a prize, of any form, will increase the motivation for participation.
- Using established metrics like World Class Alignment Metrics (WAM) consistently across all projects ensures that evaluation and progression decisions are transparent and based on objective criteria.

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