

# Like Peanut Butter and Jelly

## 4 Tips for Making KM a Natural Fit for Your Organization

*The Brass Tacks of Knowledge Management for Transportation Organizations*

*Alex Linthicum, US DOT Volpe Center*



# 4 Tips

1. Understand your organization!
2. Identify your knowledge assets!
3. Decide what to do with your knowledge assets!
4. Communicate often!

# I. Understand your organization!

# Questions about your organization

- ❑ What is the mission of your organization?
- ❑ What is your organizational culture?
- ❑ What is your organizational structure?
- ❑ What jobs do people do?
- ❑ What knowledge do people need to do their jobs?
- ❑ What KM activities/programs already exist by another name?

*Tip: Visit other organizations, learn how and why they operate the way they do, and consider the organizational differences*

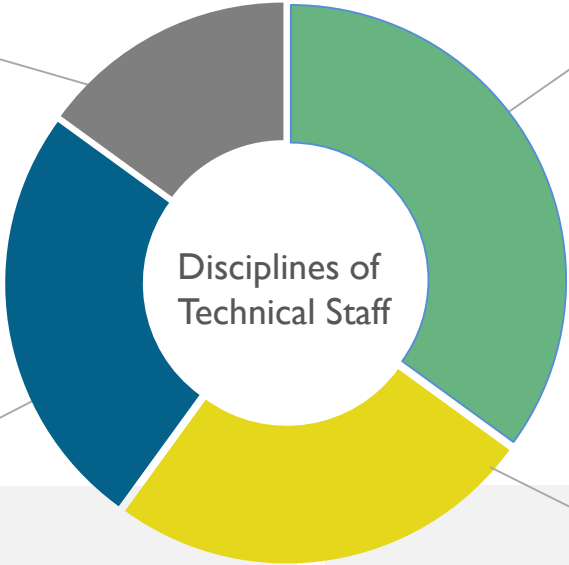
# About the U.S. DOT Volpe Center

- ❑ Advancing transportation innovation for the public good
- ❑ Part of U.S. DOT Office of the Secretary (OST)
- ❑ 550+ Federal Employees, 400+ Onsite Contractors
- ❑ Fee-for-service
- ❑ Currently supporting
  - 25 federal agencies on 1600+ projects
  - Foreign, state, and local governments, and non-profits on 40+ projects



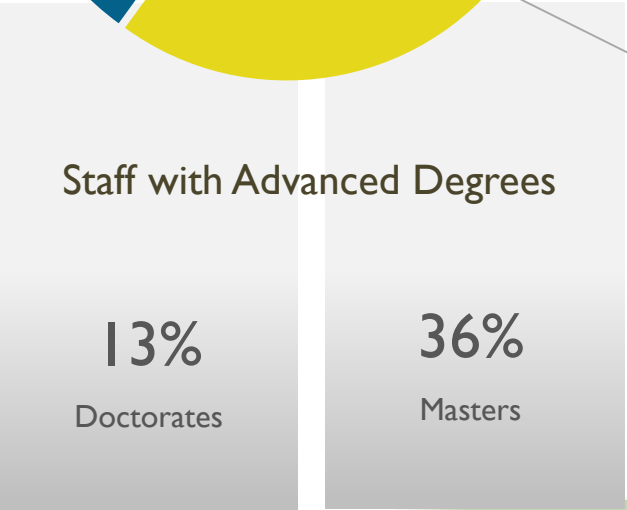
# Disciplines at Volpe

15%  
IT Specialists



35%  
**Engineers**  
Aerospace  
Chemical  
Civil  
Computer  
Electrical  
Electronics  
Environmental  
Fire Protection  
Industrial  
Marine  
Mechanical

25%  
**Planners/Scientists**  
Economists  
Environmental Scientists  
Human Factors Specialists  
Psychologists  
Transportation and Urban Planners



25%  
**Analysts**  
Geographic Information System Specialists  
Operations Research Analysts  
Organizational Development Specialists  
Program Analysts  
Security Specialists  
Transportation Analysts

# Volpe is

- ❑ Project based
- ❑ Customer focused
- ❑ Diverse (business units, technical offerings, customers)
- ❑ Implicit roles and responsibilities

**Knowledge Management at Volpe is**

**Helping people find  
who or what they  
are looking for**



# Volpe KM Guiding Principles

- ❑ ‘Daylight’ or ‘democratize’ data, information, knowledge
  - All bugs are shallow!
  - Enable staff to experiment!
- ❑ Get as much value as we can from existing assets
- ❑ Minimize burden on staff
- ❑ Make information easy to find
- ❑ Anything to do with “storing” “cataloging” or “finding” involves KM
- ❑ Anything related to “internal communications” is KM

## **2. Identify your Knowledge Assets!**

# Questions about your knowledge assets

- ❑ What jobs do people do?
- ❑ What knowledge do people need to do their jobs?
- ❑ What comprises that knowledge?
- ❑ What is the current state of that knowledge?
  - Where is it? Is it complete? What are the gaps?
- ❑ What is the desired state of that knowledge?
- ❑ What can you do to get from current to desired?

*Tip: Knowledge Assets vary dramatically among organizations*

# What “knowledge” will you “manage”?



*“...few companies think explicitly about what knowledge they possess, which parts of it are key to future success, how critical knowledge assets should be managed...”*

# 6 Knowledge Assets



**Staff Skills & Experiences**



**Sponsor Contacts**



**Sponsor Organizations**



**Projects**



**Internal Processes & Resources**



**Transportation Industry Trends**

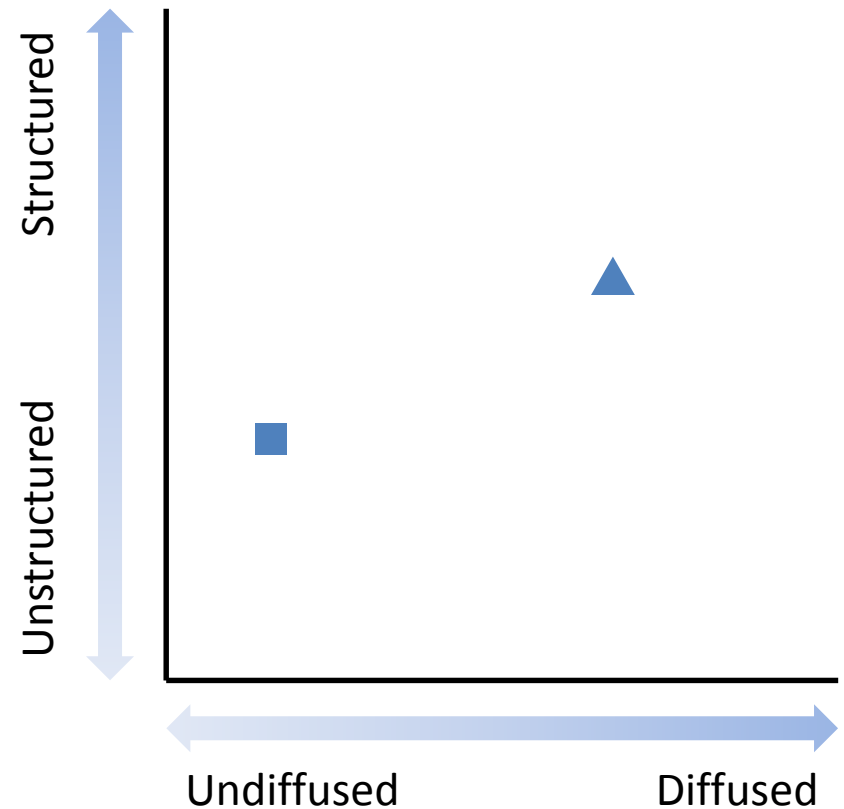
# 3. Decide What To Do with Your Knowledge Assets!

# Questions to help you decide what to do with your knowledge assets

- ❑ Who needs what knowledge?
- ❑ How often?
- ❑ What knowledge needs to be structured/dispersed?
- ❑ How will staff find/use knowledge?
- ❑ What is the current state of your knowledge assets?
  - Where is it? Is it complete? What are the gaps?
- ❑ What is the desired state of your knowledge assets?
- ❑ What can you do to get from current to desired?

# Identifying Knowledge Assets

- ❑ For each asset, where is it today? ■
- ❑ For each asset, where does your organization need it to go? ▲
- ❑ What will you do to transform it?





# As-Is, To-Be, and Roadmap

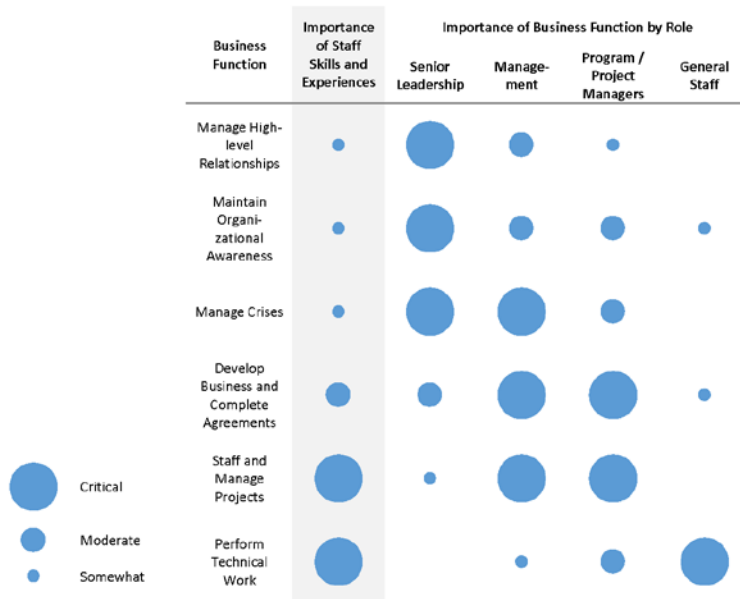
## Knowledge Asset: Staff Skills and Experiences

### Comprises

Staff names, proficiency with methods, processes, tools, programs, and skills, experiences with sponsors, modes, etc.

### Supports Business

Staff skills and experiences is the most sought-after knowledge asset by project managers and staff. Quickly pairing the right person with the right task helps us provide high quality, time-effective responses to our sponsors and minimizes frustration and wasted time among Volpe staff.



### Baseline Conditions

Knowledge of staff skills and experience is currently not managed or maintained. It is often difficult and time consuming to track down. Staff rely on first- or second-order relationships to identify people with particular skills or experiences. Staff sometimes rely on division chiefs and their networks to identify resources.

We also rely on chance encounters to match business needs with staff skills. Chance encounters include informal conversations in the halls, reading internal communications collateral, or attending Volpe Day or Community of Practice (CoP) meetings. Chance encounters are essential networking tools for dynamic organizations, but Volpe staff have expressed that this knowledge asset is too important to leave up to chance alone.

### Desired Conditions

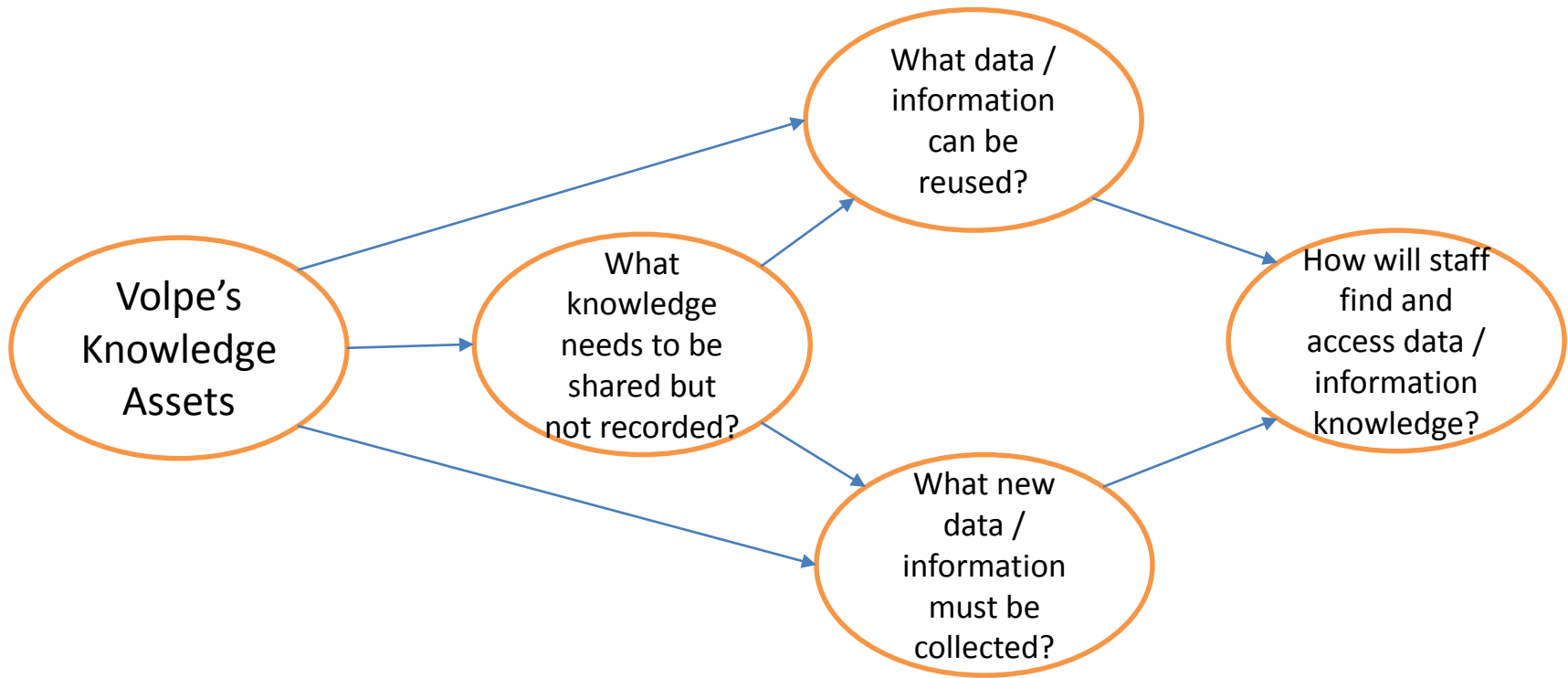
Staff will continue to leverage their personal networks, which will be augmented by CoPs, Volpe Day, communications articles, and other internal collateral.

Staff will also have the option to search and browse the Dashboards to quickly identify relevant skills and experiences of their peers.

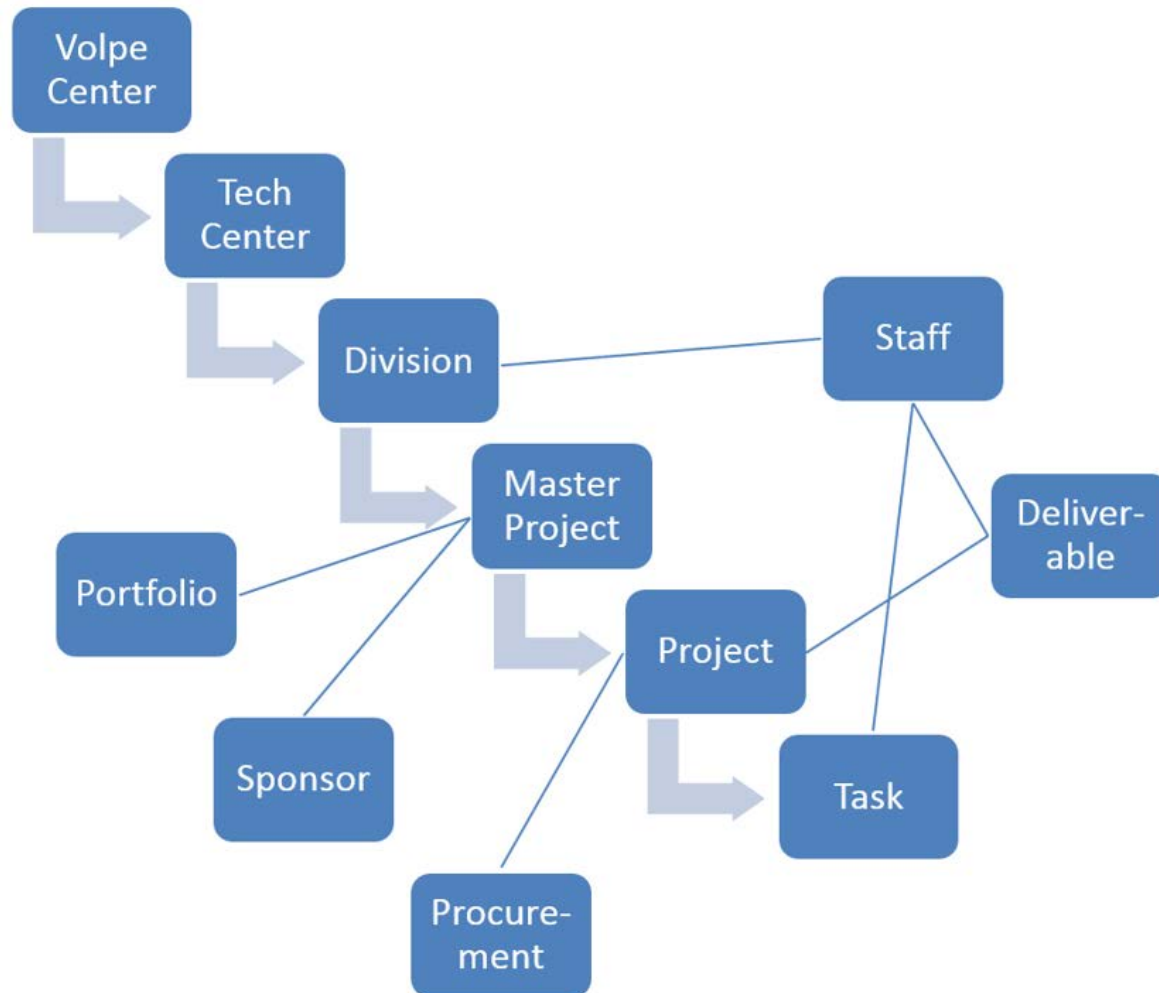
### Tactics (Refer to page 21)

- Foster culture of knowledge sharing
- Enable use of profile pictures in Outlook
- Leverage profile information from LinkedIn
- Develop software tool to track TRB committee membership
- Continue Volpe Voice, CoPs, Volpe Day, ROVER, technical presentations, and newsletters
- Improve organization and functionality of CoP webpages
- Create two-way links between communications collateral and the organizational taxonomy
- Develop a structured business process for collecting highlights
- Develop a knowledge capture interview program
- Integrate knowledge management requirements into key processes
- Integrate appropriate business-related information into Data Warehouse and Dashboards

# Volpe's current approach: Provide data and information that suggest who has what knowledge



# Volpe's data and information is being tied to an organizational taxonomy



# Volpe's internal KM system is based on its organizational taxonomy

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Volpe Center Technical Center Oklahoma Missouri Region Region Tulsa Spokane Washington

Recent Sites  
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Submit comments on Contentless

Current FY 2017  
Last Update Center Bro Date: 2016-10-12  
Last 2016 Report: 2016-10-07

### DIVISION V-323 - TRANSITION & PLANNING

Technical Center	Chief	Internal Site
V-323	Reidy, Brian	Internal

#### V-323 5-Year Financial Summary

Fiscal Year	FY00	NDA	TDA	FY Commitments	FY Uncommitted
2017	\$17,000,000	\$0	\$17,000,000	\$2,000,000	\$15,000,000
2018	\$2,000,000	\$12,000,000	\$14,000,000	\$17,000,000	\$17,000,000
2019	\$1,000,000	\$7,000,000	\$8,000,000	\$3,000,000	\$5,000,000
2020	\$1,000,000	\$3,000,000	\$4,000,000	\$1,000,000	\$3,000,000
2021	\$1,000,000	\$3,000,000	\$4,000,000	\$1,000,000	\$3,000,000

#### V-323 Description

Volpe Transportation Planning Division develops and executes transportation planning projects and programs at the local, state, and national levels. It performs research, analysis, communications, evaluation, and engineering work.

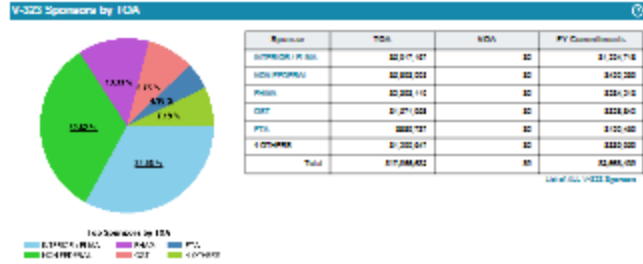
#### V-323 10 Most Recent New Agreements / Modifications

Agreement Date	Reversion	Project #	Type	NDA	P&P Fund	Class.	Project Title	Project Manager
2016-11-02	INTERIOR / FULL	USP21-02	New	\$15,000,000	2016-09-10		GAPE CDD ITS PLANNING PILOT PHASE II	Van DeWalle
2016-11-02	INTERIOR / FULL	USP11-02	New	\$20,000,000	2016-09-10		VEHICLE PROCUREMENT AND BUSINESS MODEL ANALYSIS	Van DeWalle
2016-11-02	INTERIOR / FULL	USP21-02	New	\$8,000,000	2016-09-10		ANALYZING TRANSPORTATION ISSUES IN LIGHT OF CLIMATE CHANGE	Van DeWalle
2016-10-02	INTERIOR / FULL	USP11-02	New	\$100,000,000	2016-09-10		TECHNICAL ASSISTANCE SUPPORT	Reidman, Heather
2016-10-02	NTL	USP21-02	New	\$100,000,000	2016-07-01		VOICE SURVIVAL AND ECONOMIC CLASSIFICATION SUPPORT	Bevan, Gary
2016-10-02	PTL	TR-18-020	New	\$170,000,000	2016-09-10		TRUST ASSET MANAGEMENT TRAINING SUPPORT 2	Phon, Phanas
2016-10-02	INTERIOR / FULL	USP20-02	New	\$10,000,000	2016-09-10		USP20 - INTERIOR TRANSPORTATION PLANNING TECH SUPPORT	Reidman, Heather
2016-10-02	INTERIOR / FULL	USP20-02	New	\$20,000,000	2016-09-10		USP PLANNING WEST REGION TRANSPORTATION PLANNING TECHNICAL ASSISTANCE	Reidman, Heather
2016-10-02	INTERIOR / FULL	USP18-02	New	\$10,000,000	2016-09-10		USP EASTWEST REGION (EWR) TRANSPORTATION PLANNING TECHNICAL SUPPORT	Deakin, David
2016-10-02	PTL	USP21-02	New	\$107,000,000	2016-07-01		WESTERN LANDS HOV3 DIVISION TECHNICAL SUPPORT	Reidman, Heather

#### V-323 Recent Reports/Deliverables

Date	Reversion	Project #	Title	Author(s)
2016-10-02	INTERIOR / FULL	USP20-02	White River National Forest Hazing Joint-Deputy Study	Reidman, Benjamin; Deakin, Lauren
2016-10-02	INTERIOR / FULL	USP11-02	Ignite Tech, Texas National Forest: Observations, Considerations, and Recommendations from the Integrating Transportation Guidelines Study (ITIG)	Reidman, Benjamin; Van Lagen
2016-10-02	INTERIOR / FULL	USP10-02	USP National Travel Inventory and Performance Report 2014	Deakin, David; Deakin, Lauren; Bevan, Jessica; Burkin, Bob; Reidman, Heather; Thoma, Chris; Van Saal, Lighthouse; Van Lagen
2016-07-07	PTL	HOV3-020	Integration Plan for the US Region Council of Governments Central Van (Utah) Cross-Change Benefits Planning Project	Andrew, James; Simms, Brian; Reidman, Benjamin
2016-06-02	INTERIOR / FULL	USP10-02	Baltimore/Washington Parkway (BWP) Initial Study plan	Simmons, Susan; Hines, Marilee; Havel, Ryan
2016-06-02	PTL	HOV3-020	Integrating climate change in transportation and land use assessment planning: an example from central Van (Utah)	Reidman, Benjamin; Andrew, James; Simms, Brian; Reppert, Glenora; Galan, Peggy; Deakin, David
2016-06-01	DBT	DB231-02	Beyond the 2012: Trends and analysis - final	Julia, Garen; Gay, Marlene; Reidy, Brian
2016-04-11	INTERIOR / FULL	USP20-02	National Park Service Primer on the installation of ferry boats and ferry terminal facilities program (FEP)	Upperman, Carol; McDay, Gail; Lighthouse, Gail
2016-03-16	INTERIOR / FULL	USP10-02	Primer on the Highway Safety Improvement Program (HSIP)	McDay, Gail; Deakin, Lauren; Lighthouse, Gail
2016-03-01	INTERIOR / FULL	USP10-02	USP National Inventory, 2014	Bevan, Gary; Deakin, David; Deakin, Lauren; Havel, Ryan; Van Saal, Lighthouse, Gail

Submit a Deliverable to the Library | List of All V-323 Agreements/Deliverables



### V-323 Active Projects

Project #	Title	Project Manager	Reversion	Request Authority	FY Uncommitted	# Remaining Months	Start Month	End Month	Months Remaining to P&P
USP21-02	FEDERAL HIGHWAY ADMINISTRATION TRANSPORTATION PERFORMANCE MANAGEMENT (TPM)	James, David	PTL	\$1,000,000	\$1,000,000	12	01/16	01/17	12
TR-18-02	TRUST ASSET LOSS LEB	Andrew, James	PTL	\$200,000	\$10,000	12	01/16	12/16	12
USP21-02	DOT INNOVATION CHALLENGE	Reidy, Brian	PTL	\$20,000	\$20,000	12	01/16	12/16	12
USP10-02	WESTERN NATIONAL HOV3/ETP TRANSPORTATION ACCESS PLAN GUIDANCE	McDay, Gail	PTL/USDA	\$20,000	\$1,000	12	01/16	12/16	12
USP10-02	CRUISE TRAVEL NATIONAL GUIDANCE POLICY BURDENMENTS	Reidman, Heather	PTL	\$20,000	\$1,000	12	01/16	12/16	12
DB231-02	20-BUR PLAN SUPPORT	Julia, Garen	DBT	\$200,000	\$100,000	12	01/16	12/16	12
USP10-02	VEHICLE PROGRAM MANAGEMENT	Deakin, David	INTERIOR / FULL	\$100,000	\$10,000	12	01/16	12/16	12
USP20-02	WEST TRANSPORTATION TECHNICAL ASSISTANCE	Deakin, David	INTERIOR / FULL	\$100,000	\$10,000	12	01/16	12/16	12
USP20-02	WEST SERVICE LITE SCALE, DELIVERABLES AND PERFORMANCE INDICATORS	Deakin, David	INTERIOR / FULL	\$70,000	\$10,000	12	01/16	12/16	12
USP20-02	WEST POLICY/STATE NATIONAL ETP STRATEGY	Deakin, David	INTERIOR / FULL	\$20,000	\$0	12	01/16	12/16	12
USP20-02	WEST DEVELOP A DATA MODEL TO SUPPORT ETP PERFORMANCE INDICATORS	Deakin, David	INTERIOR / FULL	\$20,000	\$10,000	12	01/16	12/16	12
USP20-02	WEST COLLECT DATA SUBGRANTS TO SUPPORT ETP PERFORMANCE INDICATORS	Deakin, David	INTERIOR / FULL	\$20,000	\$10,000	12	01/16	12/16	12
USP20-02	WEST BURDENMENTS ETP AND ETP PERFORMANCE INDICATORS IN THE LOW ANNUAL PERFORMANCE RPT	Deakin, David	INTERIOR / FULL	\$20,000	\$10,000	12	01/16	12/16	12
USP20-02	WEST CONDUCTORS ETP STRATEGIC POLICIES, STATUS AND COSTS SUBGRANTS	Deakin, David	INTERIOR / FULL	\$20,000	\$10,000	12	01/16	12/16	12
USP20-02	WEST STRATEGIC POLICY GUIDANCE SUPPORT	Deakin, David	INTERIOR / FULL	\$20,000	\$10,000	12	01/16	12/16	12
USP10-02	WEST TRAVEL INVENTORY SUPPORT	Deakin, David	INTERIOR / FULL	\$100,000	\$20,000	12	01/16	12/16	12
USP10-02	WEST TRAVEL CONNECTORS ANALYSIS	Lighthouse, Gail	INTERIOR / FULL	\$100,000	\$0	12	01/16	12/16	12
USP10-02	WEST PLANNING AND CRUIT PROGRAM GUIDANCE	Deakin, David	INTERIOR / FULL	\$20,000	\$0	12	01/16	12/16	12
USP20-02	BOX EXTEND US/STATE NATIONAL HISTORICAL PARK	Van Lagen	INTERIOR / FULL	\$20,000	\$10,000	12	01/16	12/16	12
TR-18-02	TRUST ASSET MANAGEMENT	Phon, Phanas	PTL	\$20,000	\$10,000	12	01/16	12/16	12
USP10-02	WEST NATIONAL ETP PROJECT IDENTIFY AND SUBMITTATION	McDay, Gail	INTERIOR / FULL	\$20,000	\$10,000	12	01/16	12/16	12
USP10-02	PHILIP TRAIL TRANSPORTATION SUPPORT	Bevan, Gary	PTL	\$10,000	\$7,000	12	01/16	12/16	12
USP10-02	USP NATIONAL CURTIS REGION TRANSPORTATION TECHNICAL SUPPORT	Deakin, David	INTERIOR / FULL	\$20,000	\$7,000	12	01/16	12/16	12
USP10-02	USP PLANNING WEST REGION TRANSPORTATION PLANNING TECHNICAL ASSISTANCE	Reidman, Heather	INTERIOR / FULL	\$20,000	\$10,000	12	01/16	12/16	12
USP10-02	NATIONAL CAPITAL PLANNING COORDINATED PLANNING GUIDANCE	Deakin, David	OTHER OTHER	\$10,000	\$10,000	12	01/16	12/16	12
DB231-02	NATIONAL PERFORMANCE IMPACT - CTR OUTPROJECT	Phon, Phanas	DBT	\$10,000	\$10,000	12	01/16	12/16	12
DB231-02	SUPPORT OF THE UP/DOWN	Reidy, Brian	DBT	\$20,000	\$20,000	12	01/16	12/16	12

# 4. Communicate often!

# Questions about communications

- ❑ What are 3 things you accomplished last year?
- ❑ What are the 3 priorities you're working on right now?
- ❑ What are the 3 things you will start next?
  
- ❑ When is the last time you told anyone all this?

# “Knowledge Management” is opaque!

- ❑ Devise a simple message: “Connect people with people” or “Empower staff to find what they need”
- ❑ Lead by example, share to the greatest extent possible
- ❑ Tell people what you’re doing and how it is helping them
- ❑ Make friends with your internal communications team (make friends with everyone, actually!)

**Knowledge Management at Volpe is**

**Helping people find  
who or what they  
are looking for**



# (Knowledge Management at Volpe is also)

KM Strategic Plan

KM Staff

Communities of Practice

KM Annual Work Plan

Internal Volpe Blog

Formal Mentoring

6 Knowledge Assets

Internal Volpe Newsletter

Speaker Series

Organizational Taxonomy

Volpe Library

Data Warehouse

Guiding Principles

Intranet

Dashboards

KM Website

Volpe Day

ROVER

Budget

Innovation Challenge

Shared File System

# Thank you!

Alex Linthicum

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Office of Communication and Knowledge Management

U.S. DOT Volpe National Transportation Systems Center