Resource 1-2. Virginia DOT KM Strategy Document

KM, Defined

KM provides applied Business Research and Analysis for VDOT.

An institution is a formal organization of people who know how to provide a specific service or function. For example, VDOT's primary functions are to build, maintain, and operate the roadway system, and it has a rich tradition where people develop deep expertise to do so over decades. To support this primary mission, VDOT has also developed ways to

- Train people both formally and informally,
- Provide logistical support,
- Manage finances,
- Negotiate with the public,
- Work with outside contractors,
- Partner with other agencies,
- Comply with local, state, and federal regulations,
- Conduct research, and more.

Each of these activities also requires a specialized knowledge discipline, and, in an organization that is divided into both divisions and regional areas of responsibility, the manner in which those diverse knowledge disciplines interact grows exceedingly complex, even conflicted.

Handling this complexity and minimizing conflict requires the institution to manage two things simultaneously, information and knowledge. These are often treated as the same thing because of the way they interact, but it is important to understand that they are different things, with specific properties, and therefore present different challenges and require different support structures and management strategies.

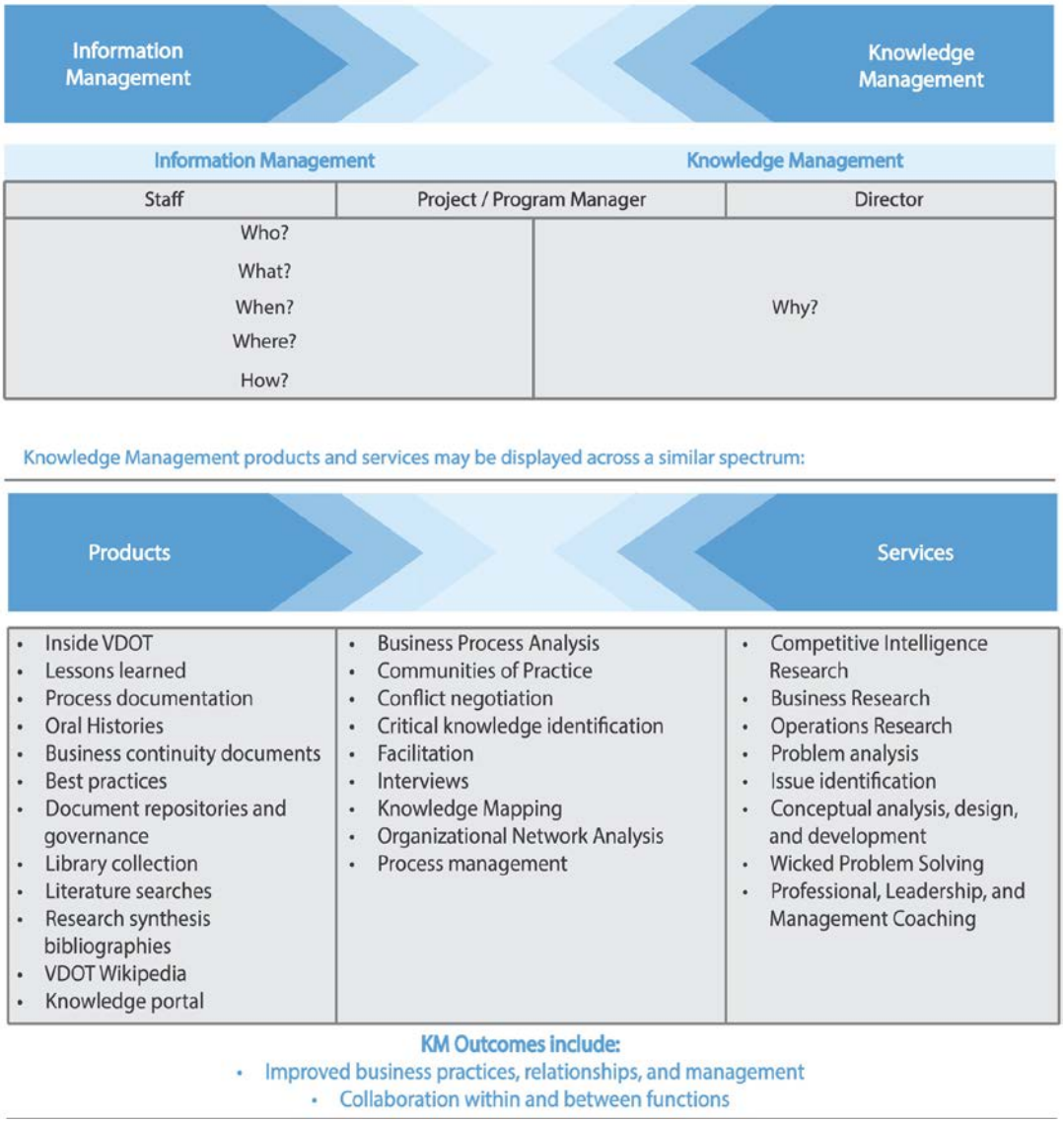
Information is captured in documentation and stored in all manner of media, from sticky notes to libraries and databases. Information Management (IM) emphasizes findability, accessibility and accuracy.

Knowing resides only within the person. KM is supported by technology, but focuses on people and emphasizes understanding, collaboration, and choice.

If we only needed information to get things done, then institutions would just need manuals and procedures, but it takes more than information to perform a function, particularly one as complex as VDOTs; it takes people who not only know what to do and how to do it, but why to do it a particular way. Understanding, negotiating, and

fostering these ways of knowing to improve institutional effectiveness and efficiency may be described as KM.

Ultimately, KM may be defined as an effort to develop self-awareness in a corporate context, and on an institutional scale. The benefit of developing a KM program along these lines is that once self-awareness is institutionalized it becomes part of the way people know their work. Together, IM and KM may be seen as an interactive spectrum of activities. IM deals primarily with questions like who, what, when, where, and how? KM deals primarily with why?



Of course, we need all the informational details to do our jobs, but people work best when they know that what they are doing and how

they are doing it matters, and that means they need to know *why*. Why are we doing this? Why are we doing it this way?

VDOT KM Techniques

Communities of Practice (CoPs)

CoPs support the transfer of tacit knowledge from one employee to another through project teams for increased efficiency and effectiveness. They work to create intra-agency networks and share best practices that have resulted in new tools and changes in processes – for engineers, they can create an atmosphere that fosters the solving of similar problems.

VDOT has been employing the use of CoPs since December of 2003. Since that time there have been approximately 70, with some having a finite beginning and end and some extending over a long amount of time. There are CoPs managed directly by the KM while others can self-manage, keeping KM informed. CoPs span geographic regions, use dialogue and learning to ensure agency consistency, and foster innovation through the discovery of new ways to perform functions and obtain results. The intention of an exercise such as a CoP is to better the agency as a whole through employee communication.

Knowledge Mapping

Knowledge mapping is used to help identify areas of need for succession planning and to build networks. This tool is used on a case-by-case basis and can take different forms, such as a network analysis map or a matrix. KM employs this method at the request of executives and it is used in reference to specific knowledge areas

Lessons Learned Initiatives

The Lessons Learned Initiative was formalized with VDOT's Construction Quality Managers in 2007. A CoP was established specifically to encourage a culture of sharing knowledge by construction field staff. Its purpose was to capture lessons from previous experiences that are shared across VDOT; moving tacit knowledge to documented explicit knowledge for future use. The CoP reviewed the lessons for best practices that resulted in changes in processes, procedures, and contract language. At this time, 176 physical Lessons Learned documents have been produced from these learning sessions, spanning a wide array of topics. Of these documents, 100 were written and distributed by a single unit of engineers. These are now archived and were created prior to the formalization of the Lessons Learned Initiative and therefore were not peer reviewed. The remaining 76 documents were peer-reviewed by

multiple functions throughout the agency to ensure accuracy prior to publishing. Fifty-eight are current and 18 archived.

Process Mapping

KM uses a standard process that brings together experts to help map out processes and provides supporting documentation for the map that clearly outlines steps and accountability. The maps attach processes across separate functions, providing a clearer picture of how VDOT operates and documents methods for sharing knowledge.

Electronic Access

The VDOT Research Library provides access to resources with a focus on electronic access. VDOT has a state-of-the-art library catalog and access to several transportation- and business-related databases (such as the National Technical Reports Library with more than 500,000 articles and Books24x7 with more than 18,000 books).

Related links

KM Strategy (full version):

http://polaris.umuc.edu/de/csi/2010_JayLiebowitz/ppt_syn/KMStrategy/KMStrategy_full_version.html