New Committee Proposal
Committee on Information and Knowledge Management
(Final – 07/16/2020)

<u>Proposed name</u>: Committee on Information and Knowledge Management (AJE45)

<u>Sponsoring Group</u>: Policy and Organization Group (AJ000), Executive Management Issues Section (AJE00)

<u>Scope Statement</u>: The committee is concerned with advancing and disseminating practices that improve knowledge and information creation, access, sharing, preservation and retention within and among transportation organizations. The committee identifies critical research needs in these areas, promotes understanding of these topics throughout the transportation community, and fosters the use of library and information science and knowledge management practices through education, training, collaboration, outreach and research.

<u>Committees with related scopes</u>: This committee relates to several other committees in the Executive Management Issues Section, and the Data and Data Science Section.

Within the Executive Management Issues Section, the committees with titles and scopes related to AJE45, and associated common interests are:

- Transportation Workforce Management (AJE15) – sustaining and improving agency productivity through capture, retention and application of institutional knowledge – through techniques including mentoring, succession planning, and communities of practice;
- Strategic Management Committee (AJE100) – adapting transportation organizations to best leverage available information and knowledge sources and support continuous learning and innovation;
- Research and Innovation Management (AJE35) – improving identifying research needs, management, preservation, dissemination and transfer of research results and innovative practices; and
- Data for Decision Making (AJE70) – capturing and delivering information on strategy effectiveness to agency leaders through connecting peer agencies, after action reviews and storytelling; identifying information necessary for decision making; capturing information about why certain decisions were made (i.e. contributing factors) to inform future related decision making.

Within the Data and Data Science Section, the committees with titles and scopes related to AJE45, and associated common interests are:

- Statewide Transportation Data and Information Systems (AED10) – data and information organization, management and governance within state DOTs;
- Urban Transportation Data and Information Systems (AED20) – data and information organization, management and governance within local transportation agencies and MPOs; knowledge dissemination across agencies about effective practices and technology applications (including those related to smart cities);

- Information Systems and Technology (AED30) – information architecture, development of common semantics, data and metadata standards for transportation; technology solutions for information and knowledge sharing;
- Geographic Information Science (AED40) – applications of geospatial technology for information and knowledge sharing; and
- Artificial Intelligence and Advanced Computing Applications (AED50) – AI techniques supporting information search and discovery and knowledge extraction including natural language processing (NLP), semantic search, and machine learning.
- Visualization (AED80) – visualization techniques supporting information and knowledge discovery, information and knowledge organization, knowledge representation, and social network analysis.

How this committee complements work of related committees: We complement existing committees by pursuing a holistic, multi-disciplinary approach to aligning knowledge and information resources to address transportation business needs and to advance transportation research and practice. This approach brings together elements of organizational management, learning and innovation, library and information science, data and computer science, and cognitive science.

Why a subcommittee would not be sufficient: Information and knowledge management is too broad a topic for a subcommittee. This committee will form subcommittees to focus on specific topics. Some of these may be joint subcommittees with the committees listed above.

Contributions to TRBs research and innovation mission: There are significant opportunities for improvements to how transportation agencies create, access, retain and share knowledge and information. Such improvements – based on established (and continually advancing) techniques in other industries (e.g. medicine), are essential for realizing the value of TRB research – and for contributing to research and guidance on effective practices.

Demand: This committee is being formed from two active existing TRB groups – the Library and Information Sciences for Transportation (LIST) Committee and the KM Task Force. Both groups have a strong track record of organizing well-attended meetings, sessions and workshops and identifying and advancing research needs.

The organizations outside of TRB with the strongest overlap of interests with AJE45 are:

- the American Association of State Highway and Transportation Officials (AASHTO) Knowledge Management Committee
- the AASHTO Data Management and Analytics Committee
- the AASHTO Human Resources Committee
- the AASHTO Special Committee on Research and Innovation, and
- the AASHTO Performance-Based Management Committee's Subcommittee on Organizational Management.

These AASHTO groups represent the target audience for research and dissemination activities to be conducted by AJE45.

Other external groups of note include the National Transportation Library, the National Transportation Knowledge Network (NTKN), and the Special Libraries Association – Transportation Division.

We intend to involve members of these external groups as members and friends of AJE45, and pursue collaborative efforts. Two such efforts are already underway: a joint research subcommittee with the AASHTO Committee on Knowledge Management, and work with the NTKN on a KM LibGuide for sharing resources of common interest.

In addition to TRB Committees and external groups, AJE45 intends to maintain liaisons with the TRB Information Services staff, the TRB Information Services Committee (E0006) and the Transportation Research Thesaurus (TRT) subcommittee. AJE45 will continue its efforts to promote the Transportation Research International Documentation (TRID) as an effective transportation research tool to the broader community.