

## "Effectiveness of Federal Agency Participation In Standardization in Select Technology Sectors." A public Request for Information on behalf of the Sub-Committee on Standards of the National Science and Technology Council

This paper is in response to the National Institute of Standards and Technology (NIST) Request For Information (RFI) for "Effectiveness of Federal Agency Participation In Standardization in Select Technology Sectors."

Submitted by
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The Electronic Commerce Code Management Association (ECCMA) is a not for profit membership association founded in 1999 with for mission to enable faster, better and lower cost access to authoritative data.

The association has worked with the Defense Logistics Agency (DLA) in the development of a faster, better and lower cost method for acquiring data required under the Cataloging and Standardization Act, Public Law 82-436 as codified by United States Code, Title 10, Chapter 145 – Cataloging and Standardization Sec. 2451.

- (a) The Secretary of Defense shall develop a single catalog system and related program of standardizing supplies for the Department of Defense.
- (b) In cataloging, the Secretary shall name, describe, classify, and number each item recurrently used, bought, stocked, or distributed by the Department of Defense, so that only one distinctive combination of letters or numerals, or both, identifies the same item throughout the Department of Defense. Only one identification may be used for each item for all supply functions from purchase to final disposal in the field or other area.

DLA funded the development of ISO 8000, the international standard for data quality, and ISO 22745, the international standard for the exchange of quality data, as a means of encouraging industry to provide faster, better and lower cost access to the data required to describe items of supply.

## A 2010 NATO funded report concluded:

"Supplier sourced codification allows industry data to be collated from diverse local systems to provide a more detailed item representation. In this project using ISO 22745, an average of 17 property pairs per item were collected in comparison with the national average of 6 made available through a current codification process. This has logistical significance because it facilitates the identification of duplicates and increases the opportunity for finding the correct item via a characteristics search. The project results also show a threefold increase in the number of items, fully described in accordance with the FIIG, from a UK average of 17%, to 58% for newly codified items."

ASD Specification 2000M (S2000M), a standard based on a business model agreed between military customers and industry suppliers, specifies the information exchange requirements for most material management functions commonly performed in supporting international projects. S2000M Chapter 1B section 3.1 is being amended in March 2011, to include the following requirement:

The Contractor shall supply identification and characteristic data in accordance with ISO 8000-110:2009 on any of the selected items covered in his contract. Following an initial codification request as specified in section 3.2, the home NCB shall present a list of the required properties in accordance with the US Federal Item Identification Guides.

ISO 8000 and ISO 22745 are being widely implemented by industry and are a driving force behind improving the quality of the data that unambiguously identifies and describes individuals, organizations, locations, goods and services. Use of the standards does not require the payment of any license fees or the use of specialized software; it is within the technical ability of all suppliers regardless of their size.

Commercial contracts are being amended to include the following requirement:

The contractor, sub-contractor or supplier shall, as and when requested to do so, supply technical data in electronic format on any of the items covered in this contract as follows:

The data shall be ISO 8000-110:2009 compliant. The data shall comply with registered ISO 22745-30 compliant data requirements, shall be encoded using concept identifiers from an ISO 22745 compliant open technical dictionary that supports free resolution to concept definitions and shall be provided in ISO 22745-40 compliant Extensible Markup Language (xml).

ISO 8000 and ISO 22745 are being implemented in the banking and mortgage industries to improve the quality of the "forms" used to collect data.

An initiative has been started to encourage adding compliance with ISO 8000 as a recommendation under the Paperwork Reduction Act of 1995 (Chapter 35 of title 44, United States Code) in support of the goal of the act to "maximize the utility of information created, collected, maintained, used, shared and disseminated by or for the Federal Government."

This is a good example of "the effectiveness of Federal agencies' participation in standards-setting efforts led by the private sector." ISO 8000 and ISO 22745 are the result of a minimal investment by DLA and are effectively driving transparency in the data supply chain by creating a standard method across industry sectors for identifying and describing individuals, organizations, locations, assets, goods, services, processes, rules and regulations in a multilingual environment.

ECCMA is also the ANSI appointed administrator of the U.S. Technical Advisors Group (U.S. TAG) to ISO Technical Committee 184 (TC 184) subcommittees 4 (SC 4) and 5 (SC 5), as well as, the international secretariat for ISO Technical Committee 184 subcommittee 5 (ISO TC 184 SC 5).

ISO TC 184 has for scope the "Standardization in the field of automation systems and their integration for design, sourcing, manufacturing and delivery, support, maintenance and disposal of products and their associated services. Areas of standardization include information systems, robotics for fixed and mobile robots in industrial and specific non-industrial environments, automation and control software and integration technologies."

The international standards developed and maintained by ISO TC 184 and its subcommittees are at the heart of all industrial and medical automation systems yet the members of the U.S. TAG to ISO TC 184 and its subcommittees 4 and 5 total only nine companies.

With the exception of token participation in the maintenance of ISO 8000 and ISO 22745, there is, to my personal knowledge, no active participation or funding provided by any United States Federal Agency for the development or maintenance of any international standards for industrial automation systems. A very small investment by the Federal sector in stimulating participation in the development of international standards for industrial automation would act as a catalyst for the manufacturing sector, increasing awareness of the role of international standards and encouraging US companies and Federal Agencies to work together as do their international competitors.

Respectfully submitted;

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Peter R. Benson

Mr. Peter R. Benson is a founding Director of the Electronic Commerce Code Management Association (ECCMA) where he currently holds the volunteer positions of Executive Director and Chief Technical Officer.

Mr. Benson is an expert in distributed information systems, content encoding and master data management. He designed one of the very first commercial electronic mail software applications, WordStar Messenger and was granted a British patent in 1992, covering the use of electronic mail systems to maintain distributed databases.

Mr. Benson designed and oversaw the development of distributed database management systems used extensively in the U.K. and U.S. by the Public Relations, Media and Securities industries. From 1994 to 1998, Peter served as the elected chair of the American National Standards Institute Accredited Standards Committee X12E (ANSI ASC X12E), the standards committee is responsible for the development and maintenance of Electronic Data Interchange (EDI) standards for product data.

Mr. Benson is responsible for the design and development of the United Nations Standards Product and Services Code (UNSPSC), an internationally recognized spend analysis classification. He designed the ECCMA Open Technical Dictionary (eOTD), an internationally recognized concept dictionary based on the NATO codification system. He is a member of ISO Technical Committee 184 Subcommittee 4 (ISO TC 184 SC 4) where he is the project leader for ISO 22745 (open technical dictionaries) and ISO 8000 (data quality).