

# All about UNSPSC that Procurement Consultants Must Know



## Applies to:

SAP SRM 5.0, SAP SRM 7.0, SAP Sourcing, SAP Contract Life Cycle Management, SAP Spend Performance Management, SRM MDM Catalog.

For more information, visit the [SAP Sourcing homepage](#).

## Summary

Most procurement consultants deal with the term UNSPSC in the day to day support projects, or green-field implementations and sometimes upgrades. Sometimes it becomes extremely important for the Procurement Consultant to know some key facts about UNSPSC that would help intelligent Catalog implementations. Helping the customer doing it “Right the First time” and in a Rationalized approach, would a go a long way for the customer to help get the best upstream in Spend Analytics and downstream in Operational Procurement.

## Why?

Alignment with Procurement standards and following best practices helps realize bottom-line benefits and why not use something that’s an Open Standard and used by the most successful businesses. The bottom line is to exploit the most out of the electronic commerce capability that’s out there.

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## Author Bio



Tridip has worked on multiple SAP SRM projects spanning across implementation and Upgrades, he has worked on various products in the SAP-SRM suite offering, he has configured the Supplier Self Services component (SUS), SRM-MDM catalog and SAP E-Sourcing applications to handle the procurement process from Purchase Requisition to payment to supplier collaboration to Spend Analytics worked on many areas in the Supply Chain that include Order Management Cycle, MRP, Scheduling, Planning and Distribution, Value Engineering, Warehouse Management, Inventory optimization. He was also responsible for the Supplier Relationship Management function in DaimlerChrysler (RT India) for Sourcing, indirect procurement, contract management and supplier management

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## UNSPSC 101

### The Basics...Introduction

The United Nations Standard Products and Services Code® (UNSPSC®) provides an open, global multi-sector standard for efficient, accurate classification of products and services. The UNSPSC was jointly developed by the United Nations Development Programme (UNDP) and Dun & Bradstreet Corporation in 1998 and is currently managed by GS1 US, which is responsible for overseeing code change requests, revising the codes and issuing regularly scheduled updates to the code, as well as managing special projects and initiatives.

The UNSPSC offers a single global classification system that can be used for:

- Company-wide visibility of spend analysis
- Cost-effective procurement optimization
- Full exploitation of electronic commerce capabilities

The current version consists of more than 18000 terms. The code set is available in English, French, German, Spanish, Italian, Japanese, Korean, Dutch, Mandarin Chinese, Portuguese, Danish, Norwegian, Swedish, and Hungarian. PDF versions of the code set are available for free download. A version in Microsoft Excel format is available to members, who can also request changes and suggest additions to the code.

The UNSPSC for a given item is composed of five two-digit identifiers, which together categorize the item into a five-level hierarchy. The five levels of the classification are "Segment", "Family", "Class", "Commodity", and "Business Function".

Some of the other standards available are eCI@ss, ETIM, eOTD, RosettaNet etc.

**SRM and Procurement consultants in most projects** hear this term on and off, most business folks on the other side in the implementation are quite aware of the standards and expect that they get the most from the availability of standards that are already available in the marketplace.

In a challenging Punch-out implementation, we went the extra mile with the Vendor with the UNSPSC related mapping guidelines.

Customers often ask questions like

- How much do we Spend
- On which products
- From which suppliers

....Questions can be many

Answer is adoption to a Standard.....an Open Standard

### What is an Open Standard?

An Open standard is a standard that's open to the public to solve certain pressing business challenges

There is no IP violation as its ready for on-boarding, with no royalty or charges or fees and most importantly, it does not have restrictions to sharing the codes with the trading partners.

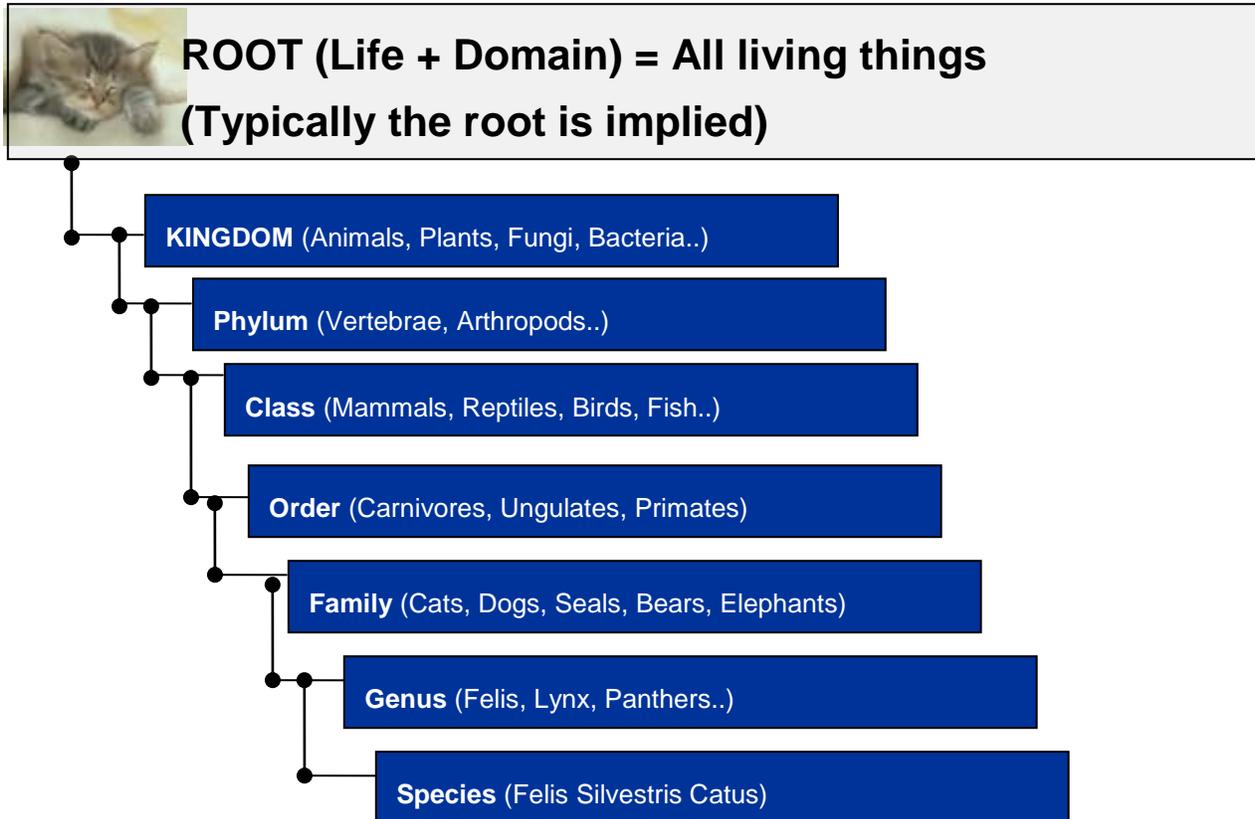
Since it is managed by a community, there is no favoritism and the community is open to changes to the development of new code additions and decisions to get the codes into the standards are made on a consensus basis. The most important benefit to the Sourcing, Procurement and Spend community is helping avoid the expense of developing your own classification system.

....Lets understand next what's Taxonomy, as the entire concept of UNSPSC's are based on Taxonomy and Hierarchy. **Before we go ahead and get into the details of the design of UNSPSC and how Procurement can effectively use it**, let's understand these terms more closely.

## What is Taxonomy?

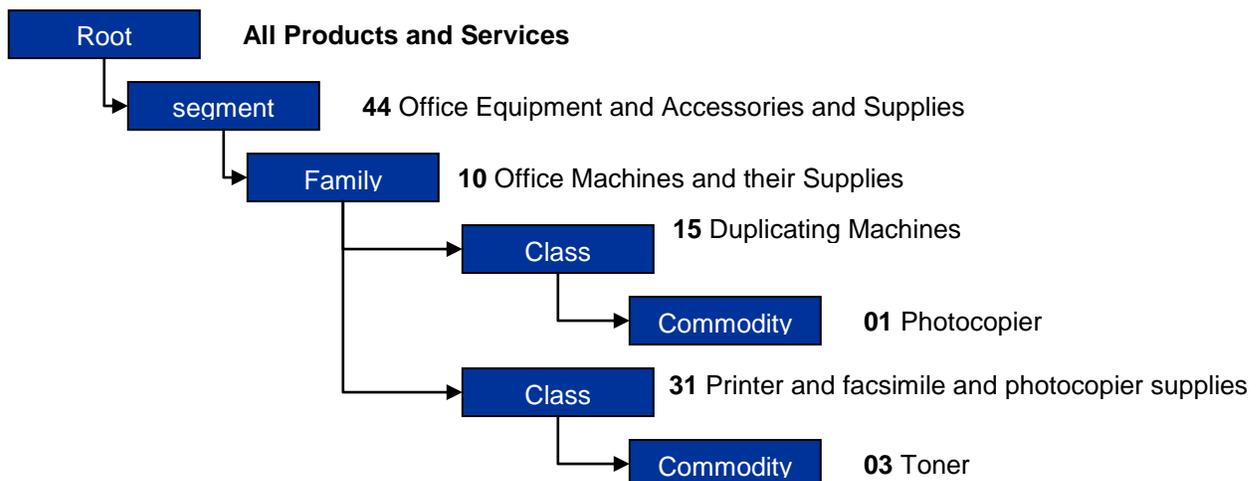
- It is a System of classification of Products and Categories that are procured and sold.
- It is a hierarchical tree structure which helps “Drill Down” and “Roll-up” analysis.
- A very effective tool that is helps in Category Management, Sourcing, Procurement, Enterprise Resource Planning and Spend Management using Business Intelligence tools like SAP BI, SAP SPM

Let us take an example in Biology and understand what makes Taxonomy



Extending the same to **UNSPSC:**

## Design





**Photocopier 44101501**



**Toner 44103103**

### UNSPSC Design

As depicted in the hierarchical schematic above **UNSPSC Code: 8 digits, e.g. 44103103**

Hierarchical 4-level tree structure: **Segment, Family, Class and Commodity**

**Note:** "Commodity" is **not** defined as bulk materials but in the broader sense as any article of commerce including capital equipment, high-value products, and professional services.

- **Category titles** are unambiguous and mutually exclusive
- **Products** appear in only one category; categories each have only one parent and **Products** are grouped according to dominate usage in world market

Segment **44000000** Office Equipment and Accessories and Supplies

Family **44100000** Office machines and their supplies and accessories

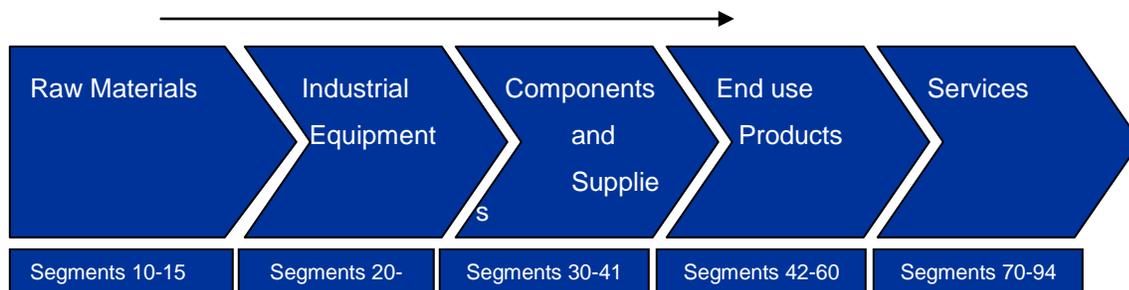
Class **44103100** Printer and facsimile and photocopier supplies

Commodity **44103103** Toner

### What are UNSPSC Segments?

To add the logical sequence to the segments, the 55 segments are arranged in such a way that from left to right in the schema below the Value addition happens to a Product.

Starting from Raw Materials which is the start point, all the way until value added services using these Raw Materials



Family, Class and Commodity codes are arbitrary and they don't reflect any logical sequence

## Benefits of UNSPSC

### Value of implementing UNSPSC

“A Dollar saved in Procurement and Sourcing is a dollar added to the bottom-line in terms of revenue” and that’s the reason, enterprises spend those dollars trying to negotiate at their best, cut maverick costs and being compliant at the same time with those Contract Call-offs.

UNSPSC adoption is a big reason acting as a foundation for all these initiatives e the bottom-line benefits downstream.

- Automate the gathering and analyzing of spend data
- Provide a uniform, enterprise-wide view of spend
- “Roll up” analysis identifies contractible groups, opportunities for strategic vendor relationships
- Centralize procurement function, leverage volume for better pricing
- Collaborate with Customers or Suppliers through use of a common classification system
- Control maverick spend: reduce off-contract spend at higher prices
- Reduce inventory through product standardization

## What it means to SAP Procurement applications

### Doing it the Right way

A Procurement consultant should always emphasize the usage and adoption to procurement standards such as UNSPSC, an SRM or an R/3 consultant must know all typical scenarios, these must be indicated to the customer up-front so that best practices could be adopted right at the start of any initiative.

Such typical cases would be

- Punch-out Catalog Implementations
- Regular MRO Catalog implementations using SRM MDM Internal Catalog
- Plan Driven procurement implementations that call for the Procurement Profiling in the V\_T160EX and V\_T160PR tables
- Category Management Projects creation in SAP Sourcing and CLM to be UNSPSC driven to ensure that any downstream Spend Analytics and Contract Compliance and measurement of Procurement and Sourcing KPI’s.

Let’s see some examples with the points discussed above in more detail

### Punch-out Catalog implementations

The typical steps in Punch-out catalog implementations comprise of

- a) Setting up the connection with the Service provider, HTTP, cXML etc
- b) Creating an intermediate table in the SRM system that maps the incoming UNSPSC Code to the Product Category or the Material Groups maintained in SRM or R/3
- c) Setting up the OCI parameters to ensure that the correct hand-shake happens between the SRM and the Punch-out provider.

Making it simple to understand, lets explain to you how we did it in our project and collaborated with the supplier, we created an excel template that has 4 columns and sent it to the supplier for population of values.

Lets the example of how we did it for Office Supplies

Product Category ID	Product Category Description	UNSPSC Code	UNSPSC Description
*OFICSUPPL	XXXX Office Supplies	14111502	Vellum Paper
*OFICSUPPL	XXXX Office Supplies	1411000	Paper Products
*OFICSUPPL	XXXX Office Supplies	14111507	Printer or Copier Papers

Check the description below from the UNSPSC website, but the category is under Office Supplies as you would have noticed in the Design section of UNSPSC

[UNSPSC HOME](#) | [FAQS](#) | [SEARCH THE CODE](#) | [MEMBERSHIP](#) | [UNSPSC RESOURCES](#) | [CASE STUDIES & PAPERS](#)  
[DOWNLOADS](#) | [PARTNER ORGANIZATIONS](#) | [WEB SEMINARS](#)

UNv130601

Search Code:

Search Title:

Return  Records (Maximum 800 Records)

#	ID	Name
1	14111502	Vellum paper

We had a program that did the following logic explained below and we used the Catalog Enrich BADI. How we effectively used the logic for the UNSPSC mapping and derivation is explained very clearly in the Program overview section below.

The logic of using the UNSPSC is explained in the Program Overview

**METHOD if\_ex\_bbp\_catalog\_transfer~enrich\_item\_data.**

\*\*\*\*\*

Author: XXXX

Created on: XXXX

Purpose: Convert UNSPSC codes (industry standard for grouping items) to the internal product category. Take the UNSPSC code passed back from the vendor's site and look up in table ZMAP\_UNSPSC to derive the appropriate product category.

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\*\*\*\*\*

**Program overview**

1. Check if material group passed back from vendor exists in table ZMAP\_UNSPSC as is. If found, use product category from table,

else:

2. Mapping is used only for External Catalogs, internal catalogs Don't use this logic

3. Application Log is generate in the case mapping is not found.

4. Check if first 10 digits of material group passed back from vendor exists in table ZMAP\_UNSPSC. If found, use product category from table, else:
5. Check if first 8 digits of material group passed back from vendor exists in table ZMAP\_UNSPSC. If found, use product category from table, else:
6. Check if first 6 digits of material group passed back from vendor exists in table ZMAP\_UNSPSC. If found, use product category from table, else:
7. Check if first 4 digits of material group passed back from vendor exists in table ZMAP\_UNSPSC. If found, use product category from table, else:
8. Check if first 2 digits of material group passed back from vendor exists in table ZMAP\_UNSPSC. If found, use product category from table, else:

\*\*\*\*\*

Typical Screen-shots of the ZMAP\_UNSPSC Table that maps the SRM Product Category to the UNSPSC Code

**Data Browser: Table ZMAP\_UNSPSC Select Entries 200**

Table: ZMAP\_UNSPSC  
 Displayed Fields: 3 of 3 Fixed Columns: 3 List Width 0250

Client	UN/SPSC	Category ID	
<input type="checkbox"/>	100	10121806	*OFFSUP
<input type="checkbox"/>	100	10191509	*OFFSUP
<input type="checkbox"/>	100	10191703	*OFFSUP
<input type="checkbox"/>	100	11101506	*OFFSUP
<input type="checkbox"/>	100	11101714	*OFFSUP
<input type="checkbox"/>	100	11121606	*OFFSUP
<input type="checkbox"/>	100	11131501	*OFFSUP
<input type="checkbox"/>	100	11151704	*OFFSUP
<input type="checkbox"/>	100	11151709	*OFFSUP
<input type="checkbox"/>	100	12131706	*OFFSUP
<input type="checkbox"/>	100	12181500	*OFFSUP
<input type="checkbox"/>	100	12191601	*OFFSUP
<input type="checkbox"/>	100	13111001	*OFFSUP
<input type="checkbox"/>	100	13111061	*OFFSUP
<input type="checkbox"/>	100	13111215	*OFFSUP
<input type="checkbox"/>	100	14	*OFFSUP
<input type="checkbox"/>	100	1411	*OFFSUP
<input type="checkbox"/>	100	14111502	*OFFSUP
<input type="checkbox"/>	100	14111503	*OFFSUP
<input type="checkbox"/>	100	14111504	*OFFSUP
<input type="checkbox"/>	100	14111505	*OFFSUP
<input type="checkbox"/>	100	14111506	*OFFSUP
<input type="checkbox"/>	100	14111507	*OFFSUP

Once the Vendor populated the spread-sheet with the relevant UNSPSC and sent it to us, we just uploaded it into this table, incase the mapping doesn't exist in the SRM table, it throws a series of errors.

The message to be communicated is that Punch-out catalogs and UNSPSC Code go hand-in hand, you have to mandatorily use it to get the best results downstream

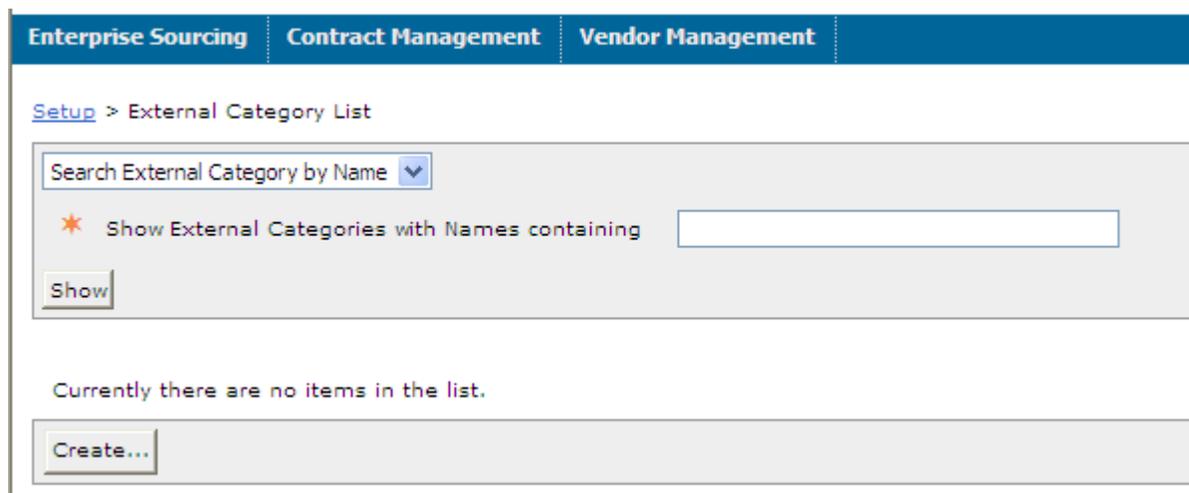
## Another example....SAP Sourcing Category Management

Let's take a typical business case in Procurement and try and understand, how UNSPSC Commodity adoption helps get the right metrics and get deeper visibility into spend and make life easier for a CPO (Chief Procurement Officer)

- 1) The CPO has a report in his hand that states that the Spend across top 10 commodities for last year is X dollars and they have to run Year on Year Cost reduction projects across these commodities and report 10-15 percent savings on these commodities for the Y1 and 5% additional to that so on for next 3 years.
- 2) When the report was provided to the CPO from a system that was driven by Finance and Accounting that gave commodity level spend from an Accounting perspective, it made it extremely difficult for the CPO to actually put the spend in correct buckets.
- 3) The CPO reached out to the metrics reporting team and asked them for a corresponding report from SAP BI and they too provided him with reports that had data that was leaning towards duplication in commodity spend, the source of truth from the BI system also did not provide efficient spend visibility downstream for them to have the right data that was required.
- 4) Upon further drill-down it was noticed that de-duplication in Commodity buckets was a recurring problem and data from up-stream applications lead to the jeopardy.
- 5) As an immediate corrective action, the CPO kicked-off an initiative to load all the UNSPSC codes into the Master Data set of SAP Sourcing "External Category", and then map it to the "Internal Category"
- 6) Once this was done, the Commodity Project was now linked to a UNSPSC Category and not an Internal or an External Category and all the events associated to this Project like the RFX, MSA, the contract and the ECC distributed contract and all the PO's and Schedule lines called off from this Contract were now available and the data that was reported, reported the Spend and the Saving Metrics by UNSPSC Commodity classification and helped report the procurement KPI's that were in perspective.
- 7) CPO was able to derive YoY (year on year) Cost reduction with these reports that were one click away and driven by UNSPSC Commodity Groups

Note: this is not the only way to do it, but following this approach, is definitely a best in class approach and being as close as possible with Best Practice. The example above is a hypothetical example derived from existing pain areas that most businesses face in day to day operations in the Sourcing and Procurement domain.

Let me show you how you can easily perform these few steps in the system and drive them downstream



The screenshot shows the SAP Sourcing interface for 'External Category List'. At the top, there are three tabs: 'Enterprise Sourcing', 'Contract Management', and 'Vendor Management'. Below the tabs, the breadcrumb path is 'Setup > External Category List'. The main area contains a search bar with the text 'Search External Category by Name' and a dropdown arrow. Below the search bar, there is a star icon followed by the text 'Show External Categories with Names containing' and an empty input field. A 'Show' button is located below the input field. At the bottom of the main area, it says 'Currently there are no items in the list.' Below this, there is a 'Create...' button.

Setup > External Category List > External Category: Untitled

✎ New External Category : Untitled
✕

Save Undo

External Category

Inactive

**Display Name:**

**\* Category ID:**

**Description:**

**Parent ID:**  ...

**Internal Category:**  ...

---

**Change History**

**Created By:** Tridip Chakraborty

**Last Modified By:**

Setup > External Category List

Search External Category by Name ▾

**\* Show External Categories with Names containing**

Show

Create... Find:  In: Name ▾ Go | Export PDF | Export Excel

Name <small>△</small>	ID <small>△</small>	Description <small>△</small>	Created By <small>△</small>	Last Modified <small>△</small>
<a href="#">Vellum Paper</a>	14111502	Vellum Paper	Tridip Chakraborty	

Create...

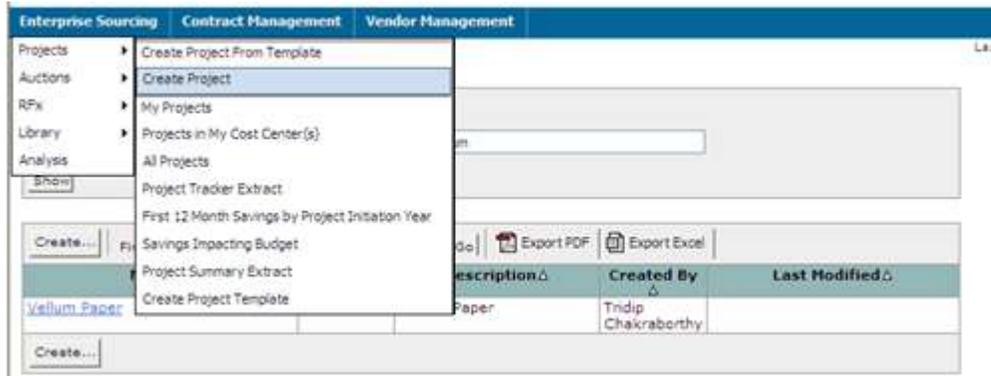
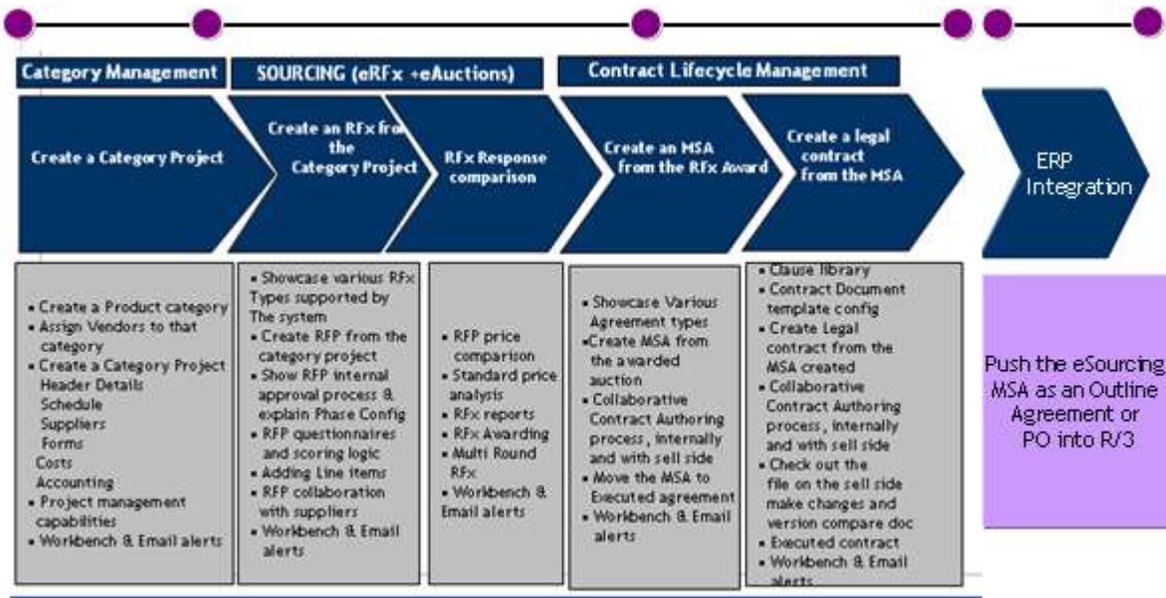
Copyright 1999-2007 Frictionless Commerce Incorporated

We have created an External SAP Sourcing Category called 14111502 UNSPSC Category for Vellum Paper, now we will go ahead and create a Sourcing Project with this UNSPSC code, Project type “Category Project”

In the Product Category field choose the UNSPSC Code that has been created as a Category and create the Project, completing the steps all the way from **Project -> Rfx -> Auction -> MSA -> ERP Backend Contract**, the Product Category will be the primary key that links all the business objects giving a clear Roll-up to the Spend Analytics downstream.

By this way we have ensured alignment for Category Projects to be UNSPSC driven

## The Process Flow



### Create

#### Create Project

Select a document type:

Name	Description
<input type="radio"/> From a template:	...
<input checked="" type="radio"/> Category Project	Use this project type to coordinate your sourcing events for a particular spend category.
<input type="radio"/> Example	

**Create** **Cancel**

Project: Untitled

New Project : Untitled

Save Undo Document Attachments Discussions Chat No Phase

Header Schedule Suppliers Forms Costs Accounting

Status: Planned

Priority: Medium

Risk Indicator: Green

Name:

Description:

Document Type: Category Project

Company: Cognizant Consulting

Organizational Unit:

Product Category: A411 Albumins

External Category:

Currency: USD

Estimated Value:  USD

Budgeted Value:  USD

Savings Target:  USD

BOM:

## Conclusion

Don't stop here, this is just a curtain raiser to the bigger chunk of ideas that you might just get, there's more you can reap out of UNSPSC adoption, you can read a lot of success stories from successful businesses. Please see the related content section to check for follow-on read-up and what you can do to formulate Sourcing, Procurement and Spend Strategies with UNSPSC Standards adoption.

## Related Content

### References

Most of the references for this article related to the UNSPSC design etc are taken from the official website of UNSPSC

[www.unspsc.org](http://www.unspsc.org)

For more documentation and Case studies, please visit <http://unspsc.org/documentation.asp>

If you want to search a specific UNSPSC code, please visit <http://unspsc.org/Search.asp>

Also read my blogs on interesting Punch-out scenarios <http://www.sdn.sap.com/irj/scn/weblogs?blog=/pub/wlg/21806>

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