Products & Services Classification System Training

Procurement – Process and Performance Management

LafargeHolcim

Products & Services Classification System (PSCS)
Why implementing PSCS?

Needs and Benefits

- Improve the granularity of existing products & services classification system
  - combining PCC, PCS v7.1, PCS v15.0 and inputs from other functions and entities
- Must-have basis for accurate spend analysis (supplier base rationalization, maverick spend reduction, identification of sourcing/saving opportunities)
- Increase alignment of the classification system with Procurement category teams
  - PSCS → Procurement Category → Category Cluster → Category Managers
- Support savings target setting & performance assessment processes
- Support spend analysis for proper allocation of resources to categories
- Link between internal classification and external standard classifications (UNSPSC & eCl@ss)
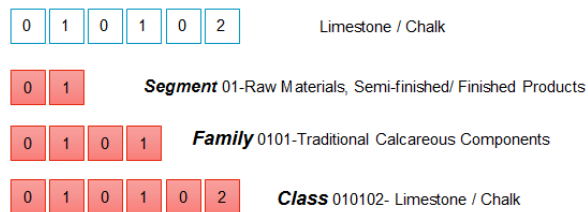

PSCS Project
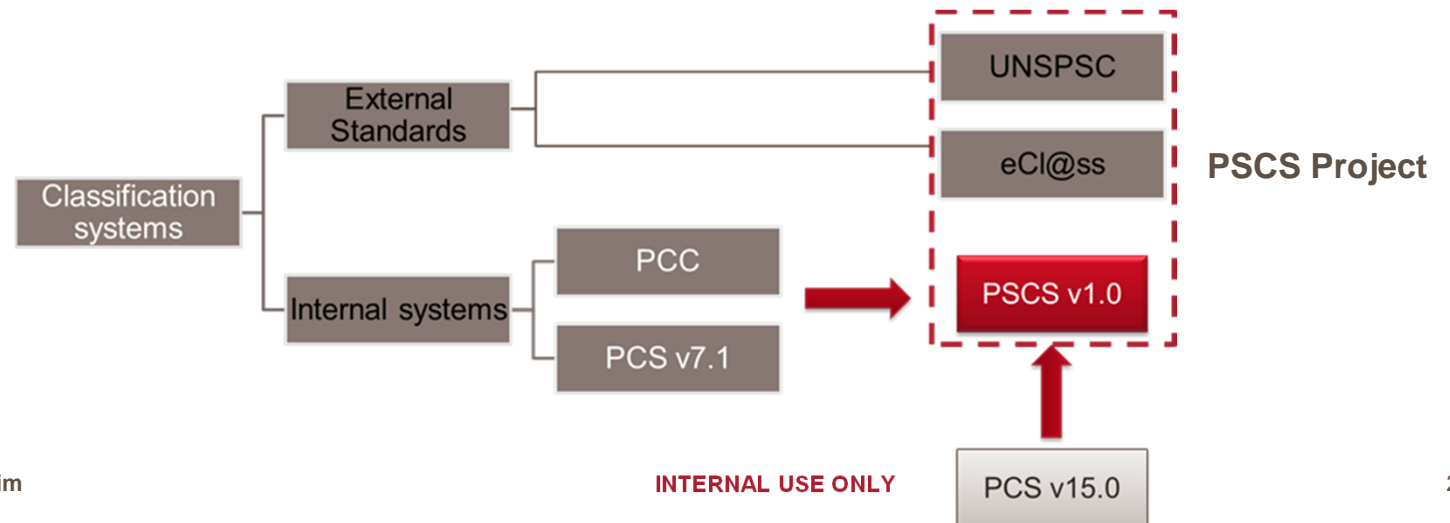
What is PSCS

- Products and Services Classification System

- An internal classification system defined by Procurement combining inputs from Procurement Category Management team and all relevant stakeholders

- Owned by Procurement, managed by Procurement Process and Performance Management team

- A taxonomy of products and services in a hierarchical 3-level tree structure, Segment, Family and Class, which enables "drill down" and "roll up" analysis

- Indicates the relationship between items and groups similar items into same class, family or segment
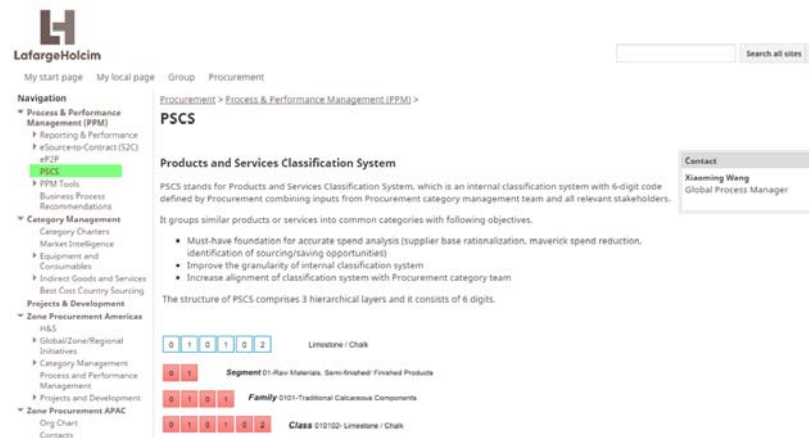
PSCS v1.0 Structure

- The structure of PSCS comprises 3 hierarchical layers and is represented by 6-digit code

- **747** 6-digit codes (e.g. 010102 – Limestone / Chalk) with following structure

| 0 | 1 | 0 | 1 | 0 | 2 | Limestone / Chalk

| 0 | 1 | ***Segment*** 01-Raw Materials, Semi-finished/ Finished Products

| 0 | 1 | 0 | 1 | ***Family*** 0101-Traditional Calcareous Components

| 0 | 1 | 0 | 1 | 0 | 2 | ***Class*** 010102- Limestone / Chalk

- Link to access PSCS definition and relevant documents

https://sites.google.com/a/lafargeholcimgroup.com/procurement/home/process-performance-management/pscs

PSCS v1.0 Structure - Segment

- Segment (2 digits)

Segments are logical groupings of products/services at the top level for all relevant type of spending showing below.

01 - Raw Materials, Semi-finished/ Finished Products
02 - Energy / Fuels
03 - Maintenance Spare Parts
04 - Wearing Parts, Consumable Material
05 - Administrative and other Tools and supplies
06 - Services
07 - Packaging
08 - Plant, Equipment And Infrastructure

| 0 | 1 | 0 | 1 | 0 | 2 | Limestone / Chalk |

| 0 | 1 | | | | | **Segment** 01-Raw Materials, Semi-finished/ Finished Products |

| 0 | 1 | 0 | 1 | | | **Family** 0101-Traditional Calcareous Components |

| 0 | 1 | 0 | 1 | 0 | 2 | **Class** 010102- Limestone / Chalk |

PSCS v1.0 Structure - Family

- Family (4 digits)

  - Each segment is subdivided into families, namely the first 4 digits.

  - A family is a logical grouping of classes sharing similar properties or characteristics. It is the second highest classification level in the PSCS code set.

  - Its definition includes what classes it contains and what types of classes it does not contain, thus creating a subject boundary differentiating it from other families.

  - A family is subordinate to and logically related to the segment of which it is a part. Likewise, its place in the segment hierarchy also defines its relationship to other families in the segment.

| 0 | 1 | 0 | 1 | 0 | 2 | Limestone / Chalk |

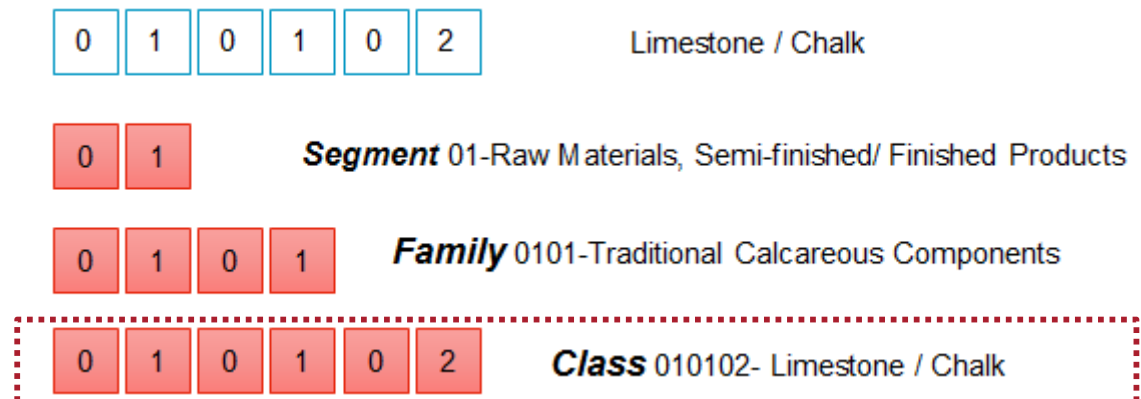| 0 | 1 | **Segment** 01-Raw Materials, Semi-finished/ Finished Products |

| 0 | 1 | 0 | 1 | **Family** 0101-Traditional Calcareous Components |

| 0 | 1 | 0 | 1 | 0 | 2 | **Class** 010102- Limestone / Chalk |
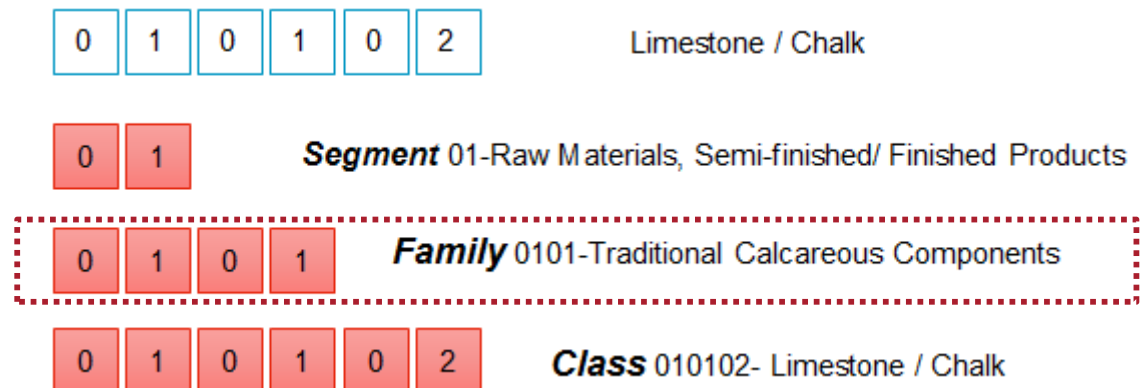
PSCS v1.0 Structure - Class

- Class (6 digits)

  - A Class is a logical grouping for products or services sharing similar essential properties or characteristics. It is the lowest level in the PSCS classification structure, namely the full 6 digits code.

  - It provides a critical link between identifiers (product/service items) that specify individual products or services and the PSCS classes that classify them into similar products/services. A class is subordinate to and logically related to the family of which it is a part. Likewise, its place in the family-segment hierarchy also defines its relationship to other classes in the family.

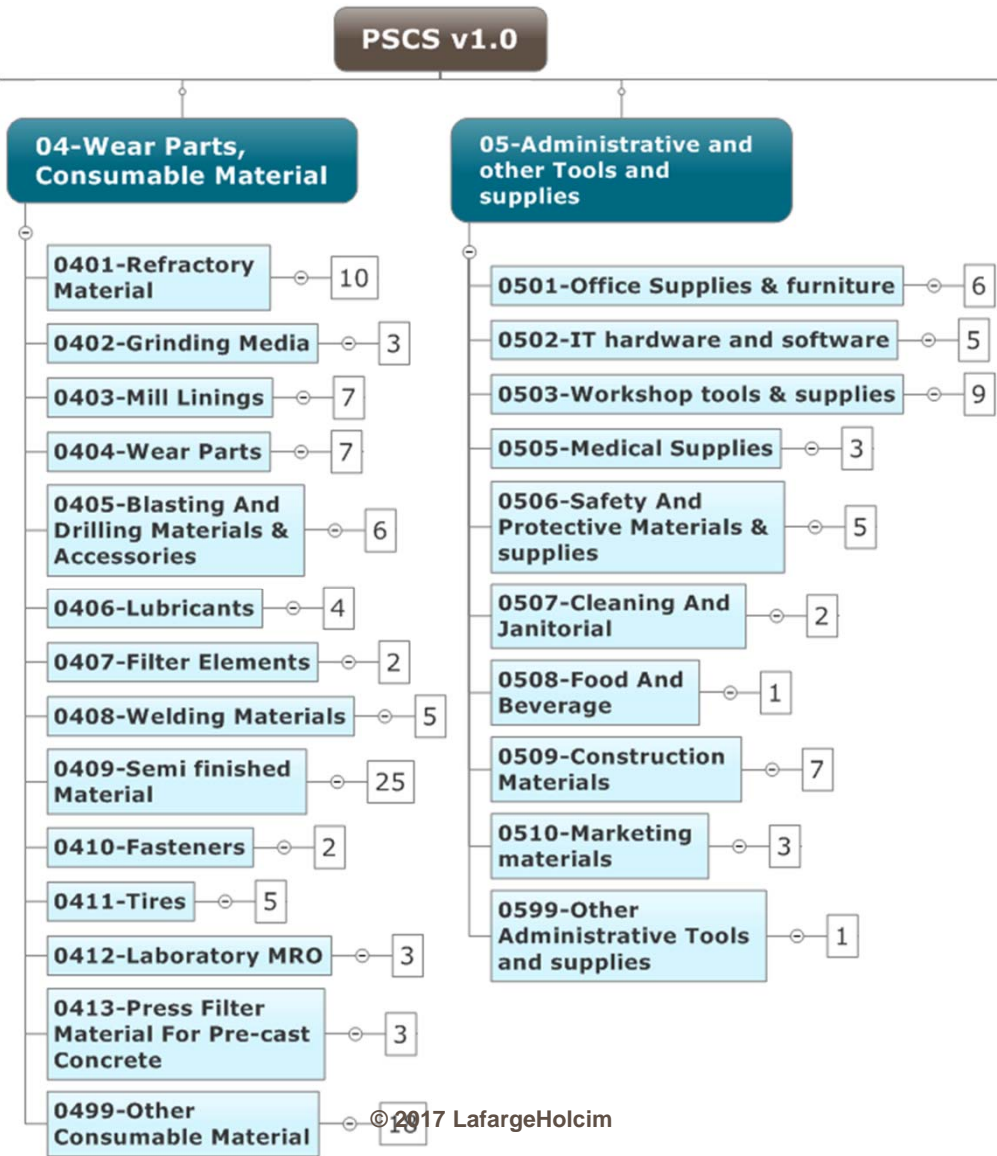| 0 | 1 | 0 | 1 | 0 | 2 | Limestone / Chalk |

| 0 | 1 | **Segment** 01-Raw Materials, Semi-finished/ Finished Products |

| 0 | 1 | 0 | 1 | **Family** 0101-Traditional Calcareous Components |

| 0 | 1 | 0 | 1 | 0 | 2 | **Class** 010102- Limestone / Chalk |

Visualized PSCS Structure

Sample of PSCS Structure

PSCS v1.0

04-Wear Parts, Consumable Material
- 0401-Refractory Material — 10
- 0402-Grinding Media — 3
- 0403-Mill Linings — 7
- 0404-Wear Parts — 7
- 0405-Blasting And Drilling Materials & Accessories — 6
- 0406-Lubricants — 4
- 0407-Filter Elements — 2
- 0408-Welding Materials — 5
- 0409-Semi finished Material — 25
- 0410-Fasteners — 2
- 0411-Tires — 5
- 0412-Laboratory MRO — 3
- 0413-Press Filter Material For Pre-cast Concrete — 3
- 0499-Other Consumable Material — 10

05-Administrative and other Tools and supplies
- 0501-Office Supplies & furniture — 6
- 0502-IT hardware and software — 5
- 0503-Workshop tools & supplies — 9
- 0505-Medical Supplies — 3
- 0506-Safety And Protective Materials & supplies — 5
- 0507-Cleaning And Janitorial — 2
- 0508-Food And Beverage — 1
- 0509-Construction Materials — 7
- 0510-Marketing materials — 3
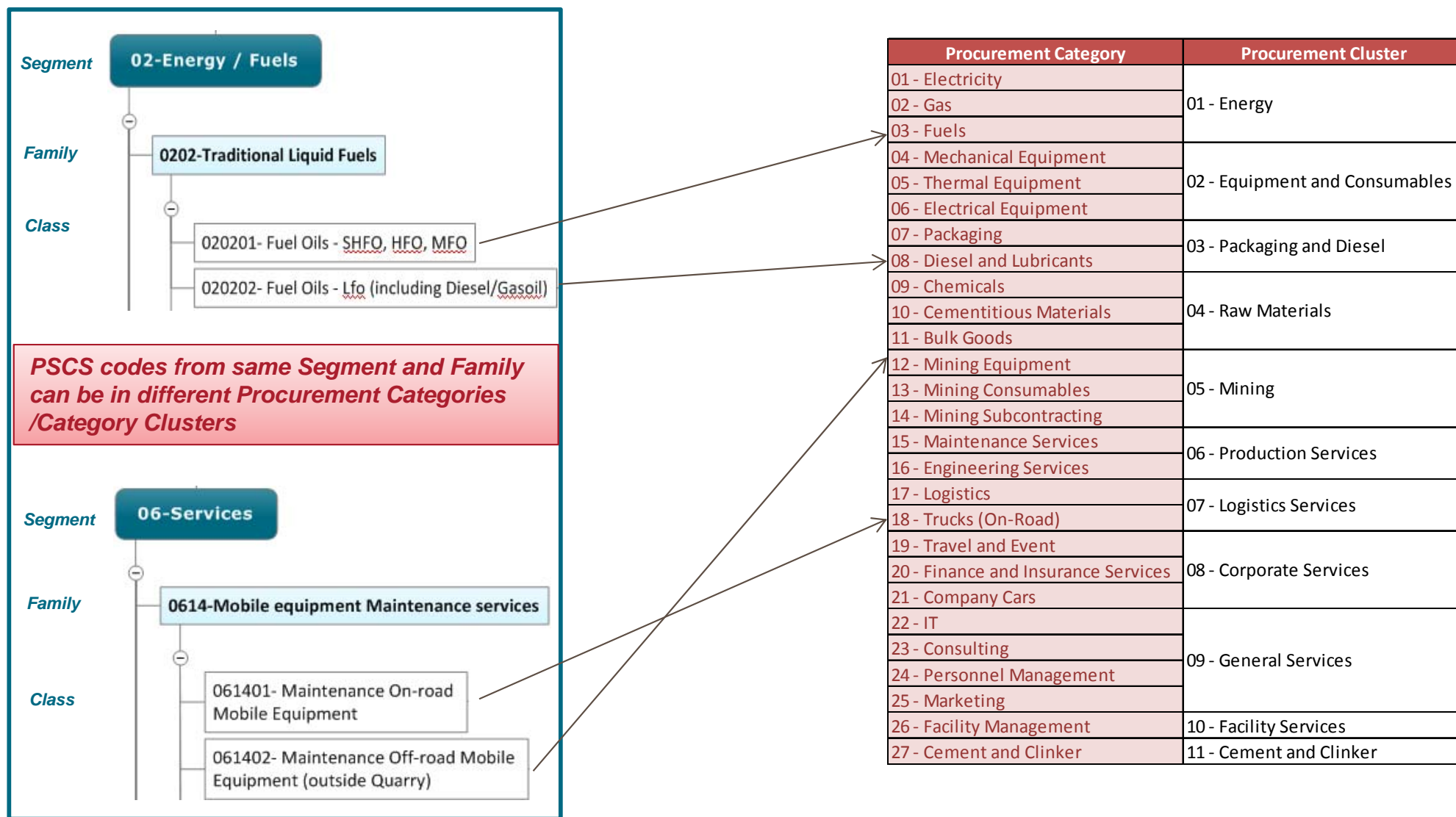- 0599-Other Administrative Tools and supplies — 1

The PSCS v1.0 structure tree help you to understand the structure of PSCS and allocate PSCS properly to all relevant identifiers in products/services master data, catalogs, mapping tables, etc.

Differences Between PSCS and Procurement Category/Category Cluster

- PSCS comprises 3 hierarchical layers and it consists of 6 digits, used to group similar products/services based on the nature of items. PSCS is part of attributes of products/service master data (Data field: Material Group) in SAP.

- The 27 Procurement categories and 11 category clusters are designed to group products/services from the perspective of a buying organization (Category Management team). Therefore, it combines through a mapping between Procurement categories and PSCS classes that are:

  - considered to be similar in terms of supplier type

  - needed by the same internal customers inside LafargeHolcim

  - sourced and managed by Procurement with similar expertise

  - subject to the same type of procurement processes, or any combination of those.

- PSCS definition and structure are independent from Procurement Category/Category Cluster, but can be mapped to each other.

- The mapping between Procurement categories and PSCS is flexible and allows to assign individual PSCS class to different Procurement categories even if they are in the same PSCS segment and family.

Mapping between PSCS and Procurement Category/Cluster

PSCS codes from same Segment and Family can be in different Procurement Categories /Category Clusters

Procurement Category	Procurement Cluster
01 - Electricity	01 - Energy
02 - Gas	
03 - Fuels	
04 - Mechanical Equipment	02 - Equipment and Consumables
05 - Thermal Equipment	
06 - Electrical Equipment	
07 - Packaging	03 - Packaging and Diesel
08 - Diesel and Lubricants	
09 - Chemicals	04 - Raw Materials
10 - Cementitious Materials	
11 - Bulk Goods	
12 - Mining Equipment	05 - Mining
13 - Mining Consumables	
14 - Mining Subcontracting	
15 - Maintenance Services	06 - Production Services
16 - Engineering Services	
17 - Logistics	07 - Logistics Services
18 - Trucks (On-Road)	
19 - Travel and Event	08 - Corporate Services
20 - Finance and Insurance Services	
21 - Company Cars	
22 - IT	09 - General Services
23 - Consulting	
24 - Personnel Management	
25 - Marketing	
26 - Facility Management	10 - Facility Services
27 - Cement and Clinker	11 - Cement and Clinker

Use of PSCS in Different Situations

Products & services master data

Product ID: 308000042712
Description: FUSE;GLASS;100MA;20MM

03-Maintenance Spare Parts

0309-Electrical and electronic components

030905- Fuses

Choice of PSCS is based on the product nature to select the most appropriate PSCS segment-family-class

Catalog

Artikel-Nr.:
B3153-6204472
Hersteller:
Schneider Electric
Herst.-Nr.:
LG1K065Q704
EAN/GTIN:
3389110655469
Kunden-ID:
STANDARDSORTIMENT: Holcim-Standard
unspsc13: 39121521

03-Maintenance Spare Parts

0308-Electrical Materials & Equipment

030835- Electric motors starters

Choice of PSCS is based on the product nature to select the most appropriate PSCS segment-family-class

Free text line item in PR/PO

Choice of PSCS is based on the nature of free text description to select the most appropriate PSCS Segment-Family-Class

Operational Procurement/ BSC (if POs are managed by BSC) have to ensure the correctness of PSCS in PO

Master Data

Free Text Line Item in PR/PO

Mapping PO Condition -PSCS

External Catalog

Mapping G/L-PSCS

PSCS

Mapping Vendor-PSCS

Usage of PSCS in Procurement Reporting

Samples of data from ERPs

LH Entities	Currency	Unit of Measure
Vendors	Amount	Product/Service ID
Period	Payment terms	PSCS

Mapping G/L-PSCS

Mapping Vendor-PSCS

Mapping PO condition-PSCS

Free Text Line Item

External Catalog

Master data
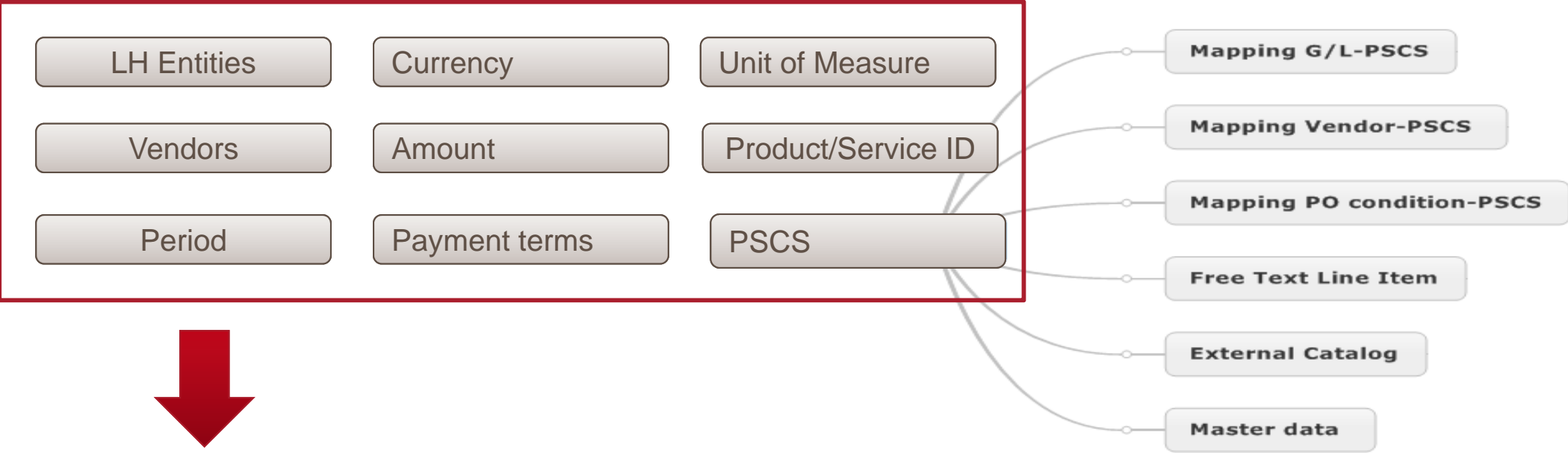
Data aggregation on PSCS

TSA with spend and savings by PSCS

Mapping between PSCS and Procurement categories
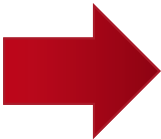
Reporting on Procurement categories

Performance Management (i.e. total spend by category, net savings by category – achieved vs. targets)

How to Select a PSCS Code For a Product or Service

- Is the predominant characteristic that of a product or of a service?

That is, if a code to the Class or Commodity level is selected, does the item naturally fit within the higher level family and segment?

- The choice of PSCS codes should be made by the nature of the products/services.

Items are classified based on what they are, so if you buy maintenance service for mobile equipment, you should select a PSCS code under family 0614- mobile equipment maintenance services, regardless whether it is for on-road or off-road equipment.

Classification Guideline

- Step 1: Determine the PSCS segment

  - Identify the segment (PSCS code: first 2 digits) in which the item resides, e.g. is it a raw material (segment 01), is it a service (segment 06), or is it an asset or other infrastructure (segment 08)?

- Step 2: Determine the family

  - Identify the family (PSCS code: first 4 digits) that the item resides in.

- Step 3: Determine the class

  - Determine the class (PSCS code: full 6 digits) that the item belongs to by classifying it in terms of the classification guidelines or nearest fit.

Do NOT use a class "other…" (PSCS codes end with "*99") unless it is clearly impossible to classify the item under a specific class, especially not in product/service master data.

Samples on how to classify Products

You need to buy new tires for a large wheel loader. Which PSCS code is applicable for buying this item?

☐ 020811- whole Tires

☐ 041101- tires for off-road (not mining) mobile equipment

☐ 041102- tires for on-road mobile equipment

☑ 041103- tires for mining mobile equipment

Based on PSCS definition showing below, 041103 is the correct answer.

- Segment 0208 is alternative fossil fuels solid, so 020811 is out.

- 041101 is for i.e. forklifts etc.

- 041102 is for i.e. tires for delivery trucks, company cars etc.

- 041103 is for i.e. tires for quarry trucks, wheeled loaders and ancillary equipment, which is correct

Samples on How to Classify Services

You are renting a parking lost for new office. Which PSCS code is applicable for buying this line item?

- ☐ 050102 - office furniture

- ☐ 060206 - environmental services

- ☑ 060802 - leased or rented buildings or facilities

- ☐ 082201 - land and surroundings

Based on PSCS definition, the correct PSCS should be under family 0608 - space leasing and rental.

- 050102 is under family 0501-office supplies & furniture. Not correct.

- 060206 is under 0602 - plant maintenance and production services. Not correct.

- 060802 is under family 0608 - space leasing and rental. Then check the description of 060802, which is correct based on the service to be purchased.

- 082201 is under family 0822 – Infrastructure, which is not a service. Not correct.

Samples on How to Classify Services

You are buying packing service at terminals. Which PSCS code is applicable for buying this line item?

☐ 060220- outsourced maintenance

☐ 060222- outsourced full operation

☐ 080601- packing and loading equipment

☑ 060226- packing & loading services

0	2					Services
0	6	0	2			Plant Maintenance and Production Services
0	6	0	2	2	6	Packing & Loading Services

Based on PSCS definition showing below, 060226 is the correct answer.

- 060220- outsourced maintenance is not correct by definition.

- 060222- outsourced full operation is too generic

- 080601- packing and loading equipment is under Segment Plant, Equipment And Infrastructure, which is not service.

- 060226- packing & loading services is correct

Usages in Systems

Currently, PCS is being used in the following systems and processes.

1. SAP

   1) products /service master data

   2) purchase requisition

   3) purchase order (Including contracts, frame orders)

   4) mapping between G/L accounts and PSCS

   5) mapping between vendor master data and PSCS

   6) mapping between external catalog items and PSCS

   7) mapping between purchasing group and PSCS

   8) mapping between release strategy and PSCS

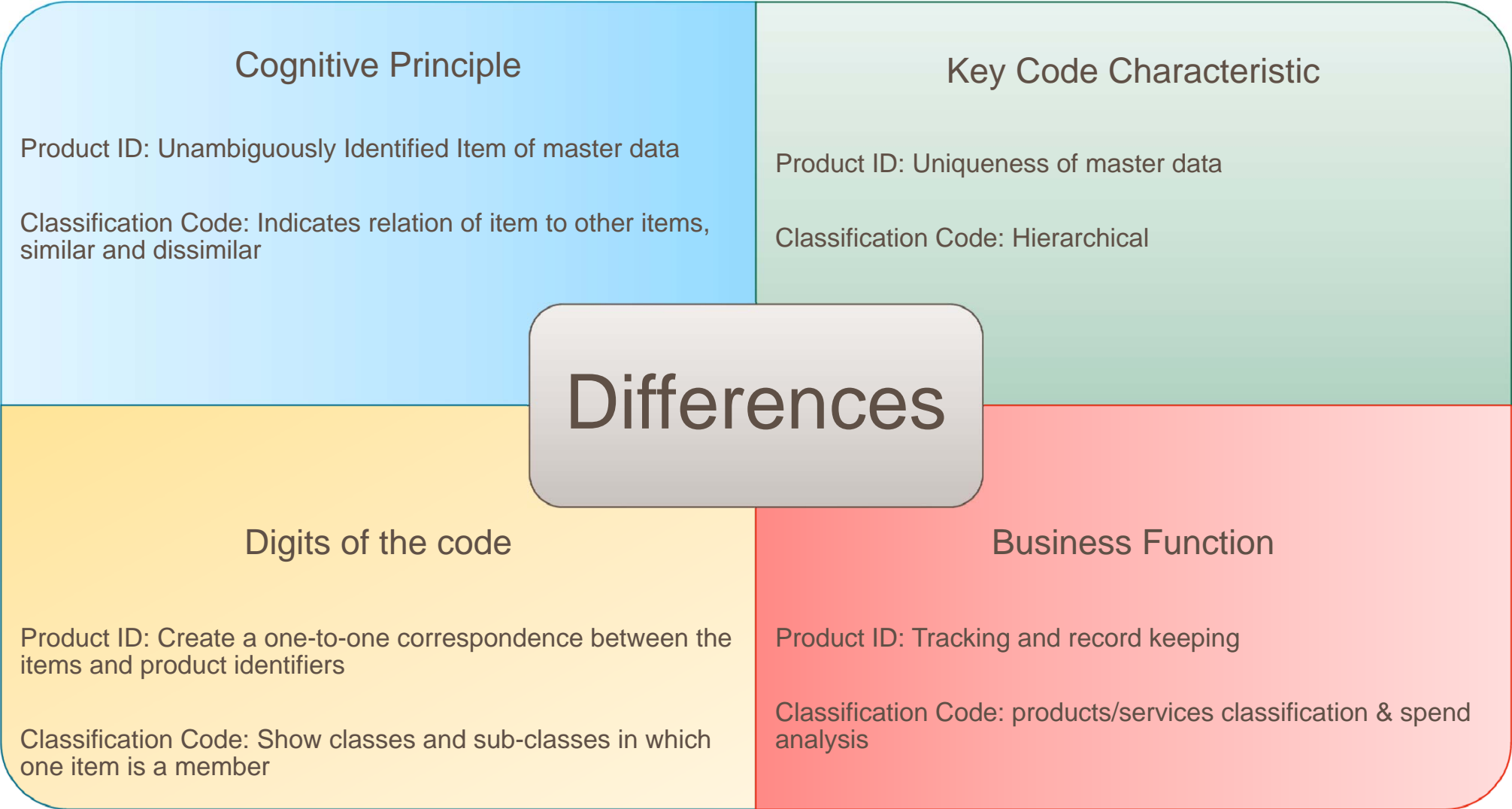   9) mapping between PO condition/transaction key and PSCS to distinguish between different expense types

2. TrackIT!

3. GloBI

4. GBW

5. MDG

Differences Between Classification & Product ID

Cognitive Principle

Product ID: Unambiguously Identified Item of master data

Classification Code: Indicates relation of item to other items, similar and dissimilar

Key Code Characteristic

Product ID: Uniqueness of master data

Classification Code: Hierarchical

Differences

Digits of the code

Product ID: Create a one-to-one correspondence between the items and product identifiers

Classification Code: Show classes and sub-classes in which one item is a member

Business Function

Product ID: Tracking and record keeping

Classification Code: products/services classification & spend analysis

Difference Between G/L, LHARP and PSCS

- A general ledger (G/L) is a chronological accounting record a business uses to keep track of financial transactions. Transactions are categorized and summarized into general ledger accounts. An account is a unique record for each type of asset, liability, equity, revenue and expense.

- LHARP (LafargeHolcim Accounting and Reporting Principles) is an internal standard on the current and future financial position, performance and changes in financial position of Group companies in order to enable all levels of management to plan, manage and control

- The content in LHARP has no direct link to PSCS even there are some similarity to the definitions of cost or incomes in LHARP to PSCS

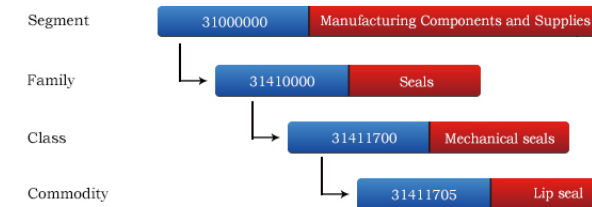- PSCS allows for increased granularity in spend analysis compared to G/L classification

Overview of Classification Systems

PSCS Project

Classification systems

External Standards

Internal systems

UNSPSC

eCl@ss

PCC

PCS v7.1
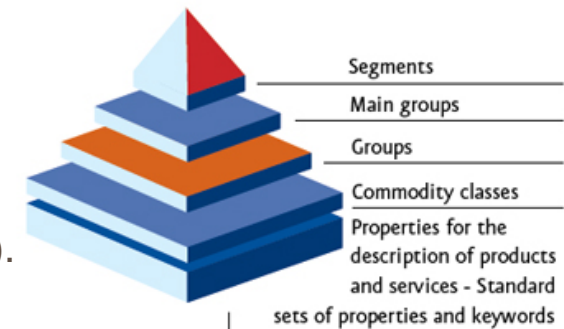
PSCS v1.0

PCS v15.0
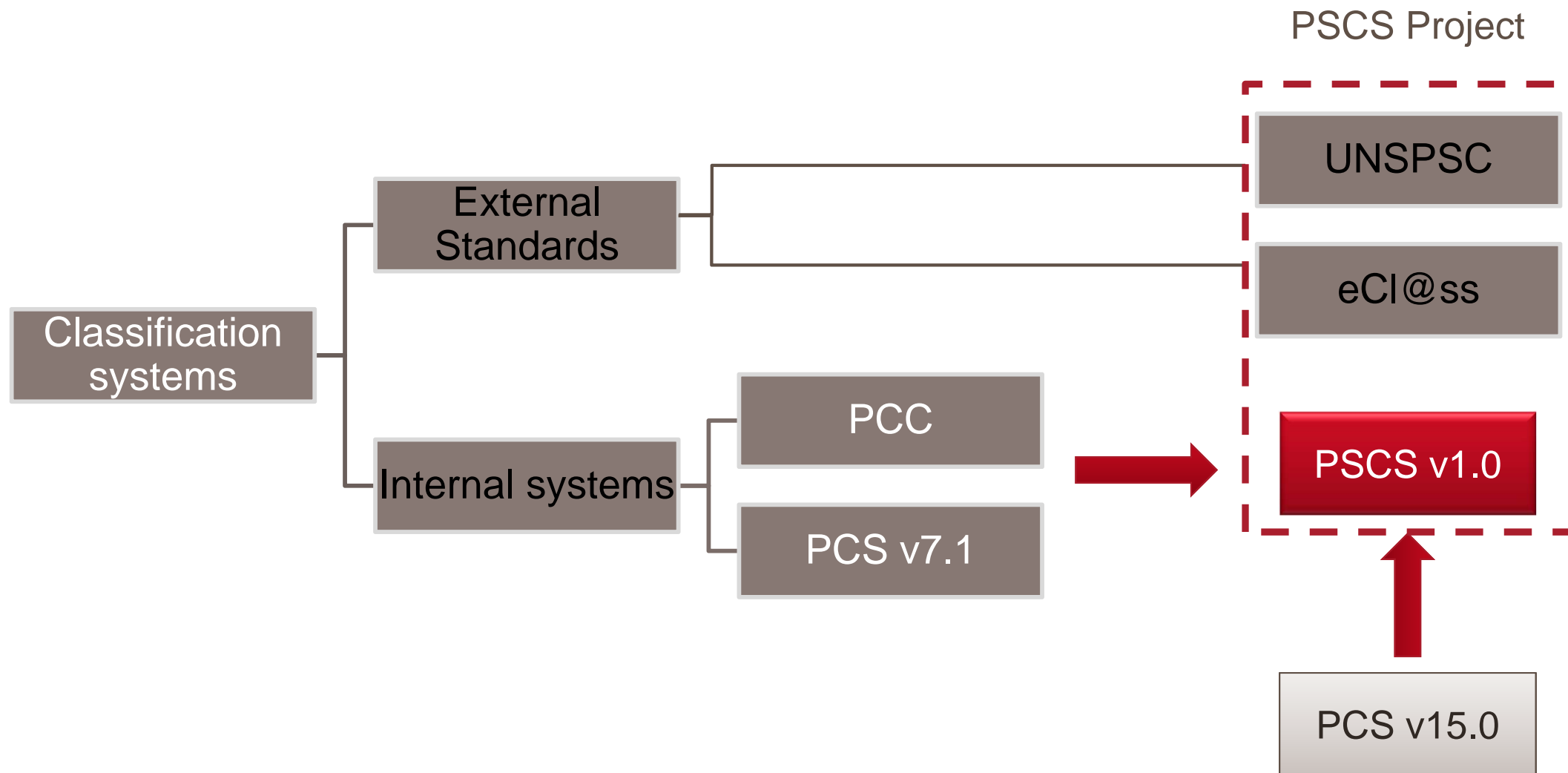
Other Classification Systems

- External classification systems

  - UNSPSC: The United Nations Standard Products and Services Code (UNSPSC) is a taxonomy of products and services for use in e-commerce. It is a four-level hierarchy coded as an eight-digit number, with an optional fifth level adding two more digits.

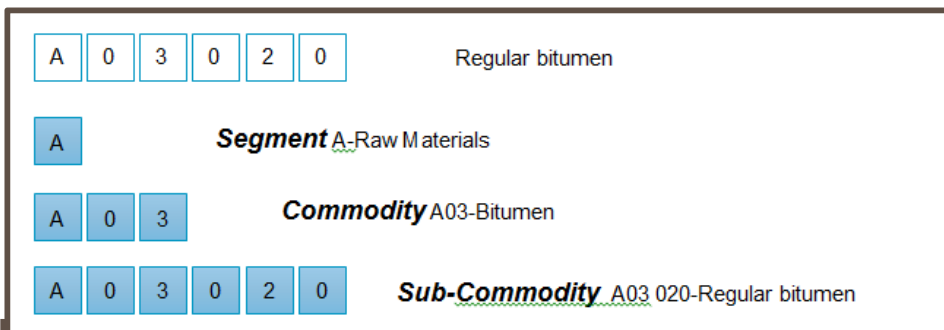 | | | |
  |---|---|---|
  | Segment | 31000000 | Manufacturing Components and Supplies |
  | Family | 31410000 | Seals |
  | Class | 31411700 | Mechanical seals |
  | Commodity | 31411705 | Lip seal |

  - eCl@ss: It is a cross-industry product data standard for the classification and description of products and services with the aim of simplifying the electronic trading of classified products. It consists of four hierarchical levels (classes): Subject (level 1), the main group (level 2), group (level 3) and subgroup (Level 4).
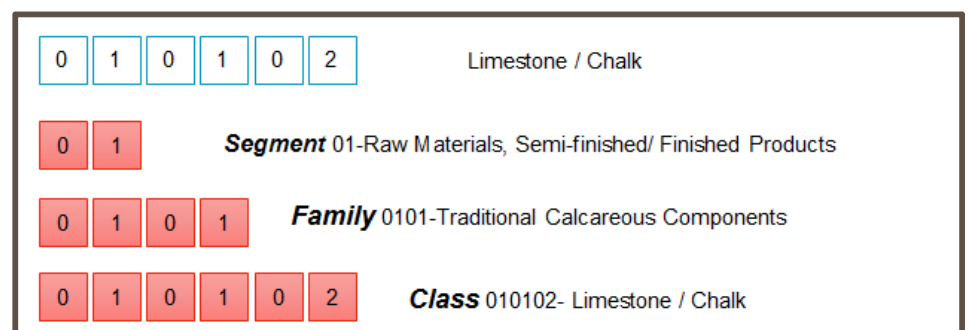
    - Segments
    - Main groups
    - Groups
    - Commodity classes
    - Properties for the description of products and services - Standard sets of properties and keywords

- Internal classification systems

PCC: product classification systems in ex-Lafarge

| A | 0 | 3 | 0 | 2 | 0 | Regular bitumen |

Segment A-Raw Materials

Commodity A03-Bitumen

Sub-Commodity A03 020-Regular bitumen

PCS: product classification systems in ex-Holcim.

| 0 | 1 | 0 | 1 | 0 | 2 | Limestone / Chalk |

Segment 01-Raw Materials, Semi-finished/ Finished Products

Family 0101-Traditional Calcareous Components

Class 010102- Limestone / Chalk

Appendix 1: PSCS Definition and Relevant Documents

#	Document Name	Type	Description	Purpose	Completion	Status
1	PCS v7.1 Definition	Definition	Detailed definition of PCS coding with Segment, Family and Class	To help understand the meaning of each code and support MDM team assigning PCS to material /service master data	Yes	From ex Holcim
2	PCC Definition	Definition	Detailed definition of PCC coding with Segment, Family and Class	To help understand the meaning of each code and support MDM team assigning PCC to material /service master data	Yes	From ex Lafarge
3	PSCS v1.0 Definition	Definition	One unified and standard classification combing PCC & PCS v7.1	To help understand the meaning of each code and support MDM team assigning PSCS to material /service master data	Yes	Released
4	Mapping from PCS v7.1 to Category/Cluster	Mapping	To allocate each PCS code to a specific category and cluster	Reporting/Category Management	Yes	Released
5	Mapping from PCC to Category/Cluster	Mapping	To allocate each PCC code to a specific category and cluster	Reporting/Category Management	Yes	Released
6	Mapping from PSCS v1.0 to Category/Cluster	Mapping	To allocate each PSCS code to a specific category and cluster	Reporting/Category Management	Yes	Released
7	Mapping from PCC to PCS v7.1	Mapping	A mapping from PCC to PCS v7.1 to bridge 2 classifications	Facilitate the classification transition from PCC to PCS (mainly on material/ service master) and usage of TrackIT!	Yes	Released
8	Mapping from PCC to PSCS v1.0	Mapping	A mapping from PCC to PSCS to bridge 2 classifications	Facilitate the classification transition from PCC to PSCS (mainly on material/ service master)	Yes	Released
9	Mapping from PCS v7.1 to PSCS v1.0	Mapping	A mapping from PCS v7.1 to PSCS to bridge 2 classifications	Facilitate the classification transition from PCS v7.1 to PSCS (mainly on material/ service master)	Yes	Released
10	Mapping from PSCS v1.0 to eCl@ss	Mapping	A mapping from PSCS to eCl@ss to bridge 2 classifications	Reporting purpose	No	Work in Progress
11	Mapping from PSCS v1.0 to UNSPSC	Mapping	A mapping from PSCS to UNSPSC to bridge 2 classifications	Reporting purpose	No	Work in Progress
12	Mapping from eCl@ss to PSCS v1.0	Mapping	A mapping from Cl@ss to PSCS to bridge 2 classifications	Facilitate the external catalog implementation	No	Work in Progress
13	Mapping from UNSPSC to PSCS v1.0	Mapping	A mapping from UNSPSC to PSCS bridge 2 classifications	Facilitate the external catalog implementation	No	Work in Progress
14	PSCS v1.0 Guidance	Document	A detailed explanation and guidance of PSCS	Supporting document for users to better understand PSCS	Yes	Released
15	PSCS v1.0 Structure Tree	Document	A structured diagram to show the hierarchies of PSCS	Supporting document for master data administrator to assign PSCS to material	Yes	Released

Appendix 2: Visualized PSCS Structure

Full PSCS Structure Tree

The PSCS v1.0 structure tree help you to understand the structure of PSCS and allocate PSCS properly to all relevant identifiers in products/services master data, catalogs, mapping tables, etc.