



DEUTSCHLAND e.V. 



Easy data interchange of product changes with smartPCN[®]

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smartPCN is a trademark registered by COG Component Obsolescence Group Deutschland e.V

Overview

- The situation with PCN
- What PCN recipients really want
- The smartPCN concept
 - Structure / XML / Options / Coverage
 - Stacking / Nesting / Forwarding
- Automatic processing with smartPCN
- The „eco system“ for smartPCN
- Summary of benefits
- Outlook



Product Change Notifications (PCN) - Situation

- Dramatic rise of PCN* numbers
(EOL PCN: 2014/40,000; 2015/80,000 ;2016/expected 120,000)**
- Countless formats, each PCN quite unique
- Duplicates: one source, many forwarding copies
- Important information not instantly available or does not allow automatic processing
- High manual effort needed for PCN processing
- Product changes and terminations are spreading:
Products, machinery, software, materials, services

* Product Change Notifications including Termination

** Tyler Moore, Director Arrow Supply Assurance, FOM 2016, Amsterdam



What PCN recipients really need

- Simplicity
- Work load reduction and time saving
- Fast evaluation of PCN relevance
- Fast and easy access to important information
- Machine readable
- Automatic processing using company specific rules
- Forwarding to customers with low effort

Solutions based on smartPCN

- Standardised data format for PCN communication
- Easy to use and easy to implement
- Immediate access to all relevant information
- Enabling of automatic processing
- Stacking/nesting of smartPCN allows for:
 - Visibility of dependencies between PCN
 - Visibility of modification dependencies in the supply chain

smartPCN concept

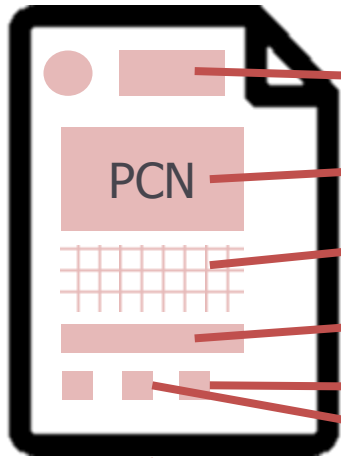
- smartPCN = standardisation and automatisisation of the communication of product changes and terminations
- Establishment of a flexible and multi-purpose data format by the COG Germany based on:
 - Analysis of a high amount PCN
 - Requirements of the electronic industry.
- A smartPCN is a ZIP-Container composed of two XML files and any kind of attachment files.

smartPCN structure

Information extraction, categorisation, classification

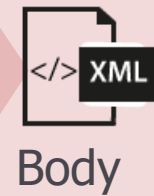
Proprietary format of a conventional PCN

Standardised format of the smartPCN XML body



XML high level structure

- Master data
- Difference description
- Partnumbers
- End of life information
- Causes of changes
- Classifications



Body



List



PDF



XLS



DOC

Attachments, Original PCN

Inclusion of original PCN documents

spcn .zip container

smartPCN XML files

- *XML-Body file* and *XML-List* structure are standardised.
- *XML-Body* consists of well defined data sections for
 - Master data (Title, manufacturer, address information)
 - Modifications (categories and free format text)
 - Part numbers (including customer part numbers and replacements)
 - End of life data (Last order, last shipment)
 - Modification category set (87 categorisation values)
 - Classification data (e@class, BMECat, others)
- *XML-List* is the directory of attached files

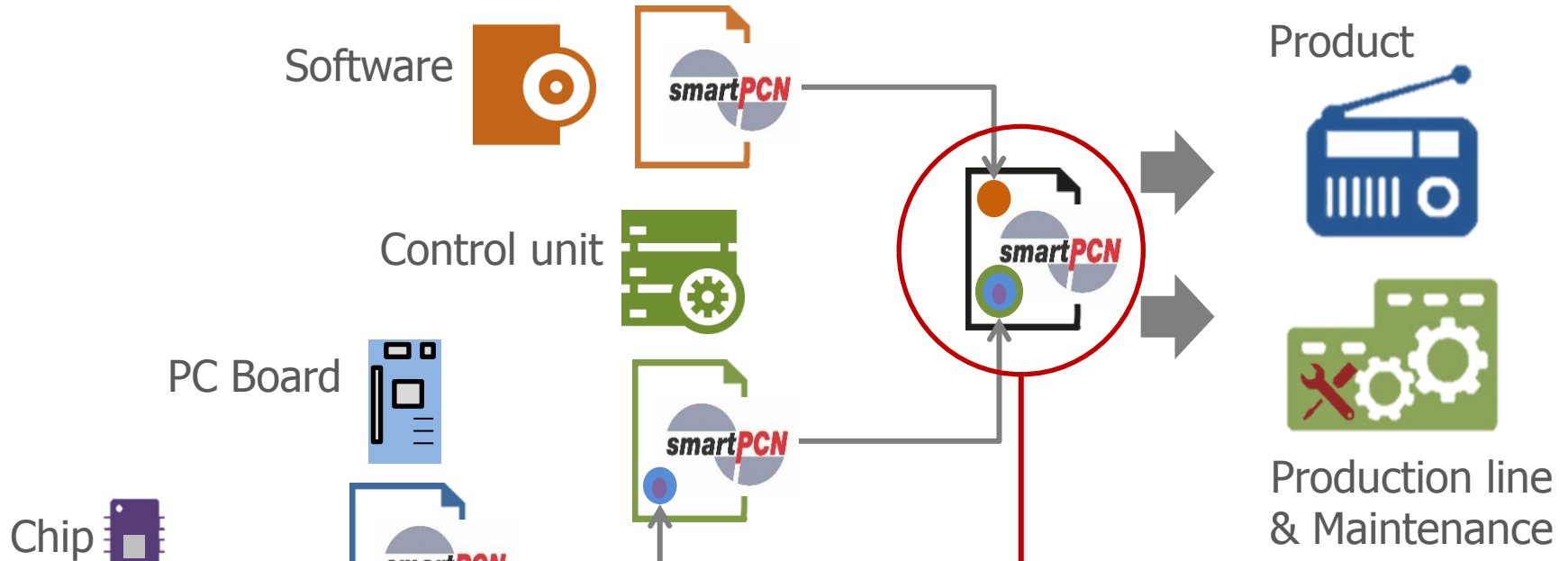
smartPCN options

- The XML-Body format defines various optional data sections for customisation and enhancement like:
 - Customer specific part numbers
 - Ordering information
 - Classification information
- smartPCN can be stacked/nested by including other smartPCN as attachments

smartPCN application areas

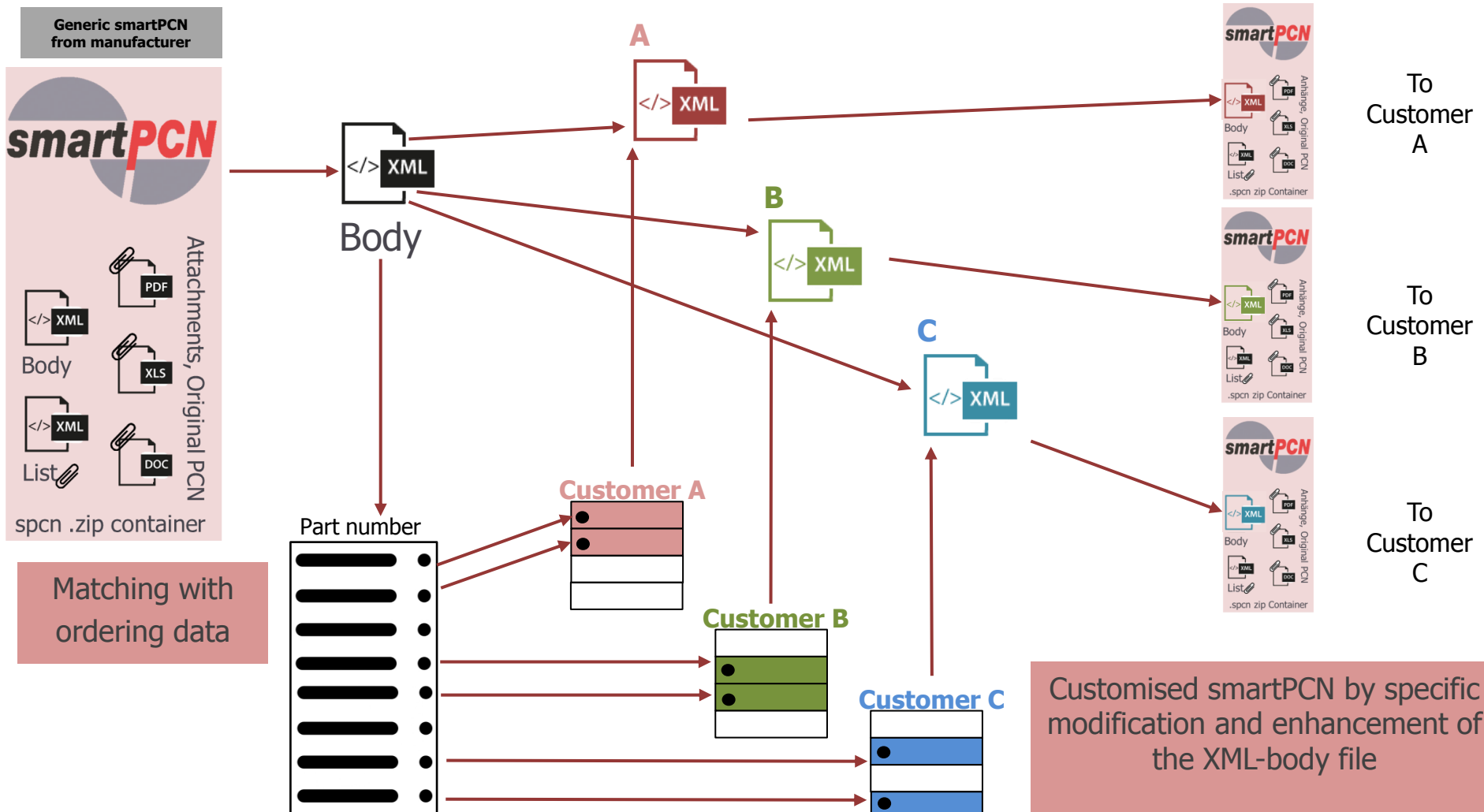
- smartPCN is not limited to electronic parts
- smartPCN is applicable for
 - Electrical and mechanical parts and products
 - Software
 - Modules, assemblies, equipment + machines of all kind
 - Materials and auxiliary materials/substances
 - Services
- Product manufactures as well as facility operators do benefit from smartPCN

smartPCN stacking and functional chain

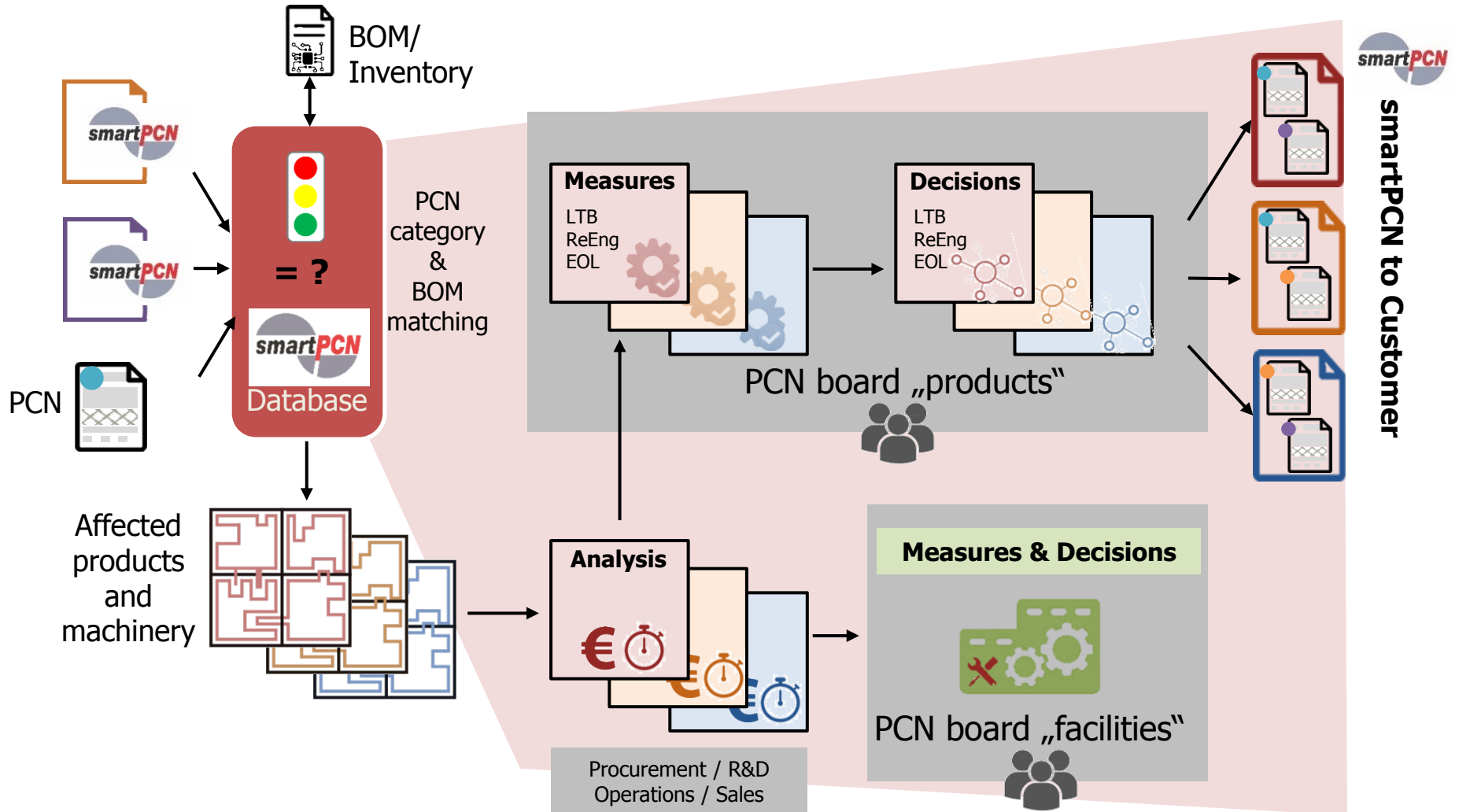


A modified or obsolete chip causes modifications on each supply chain level finally having impact on a product or a machinery. A single smartPCN reflects the complete functional chain.

Automatisation of PCN processes in distribution

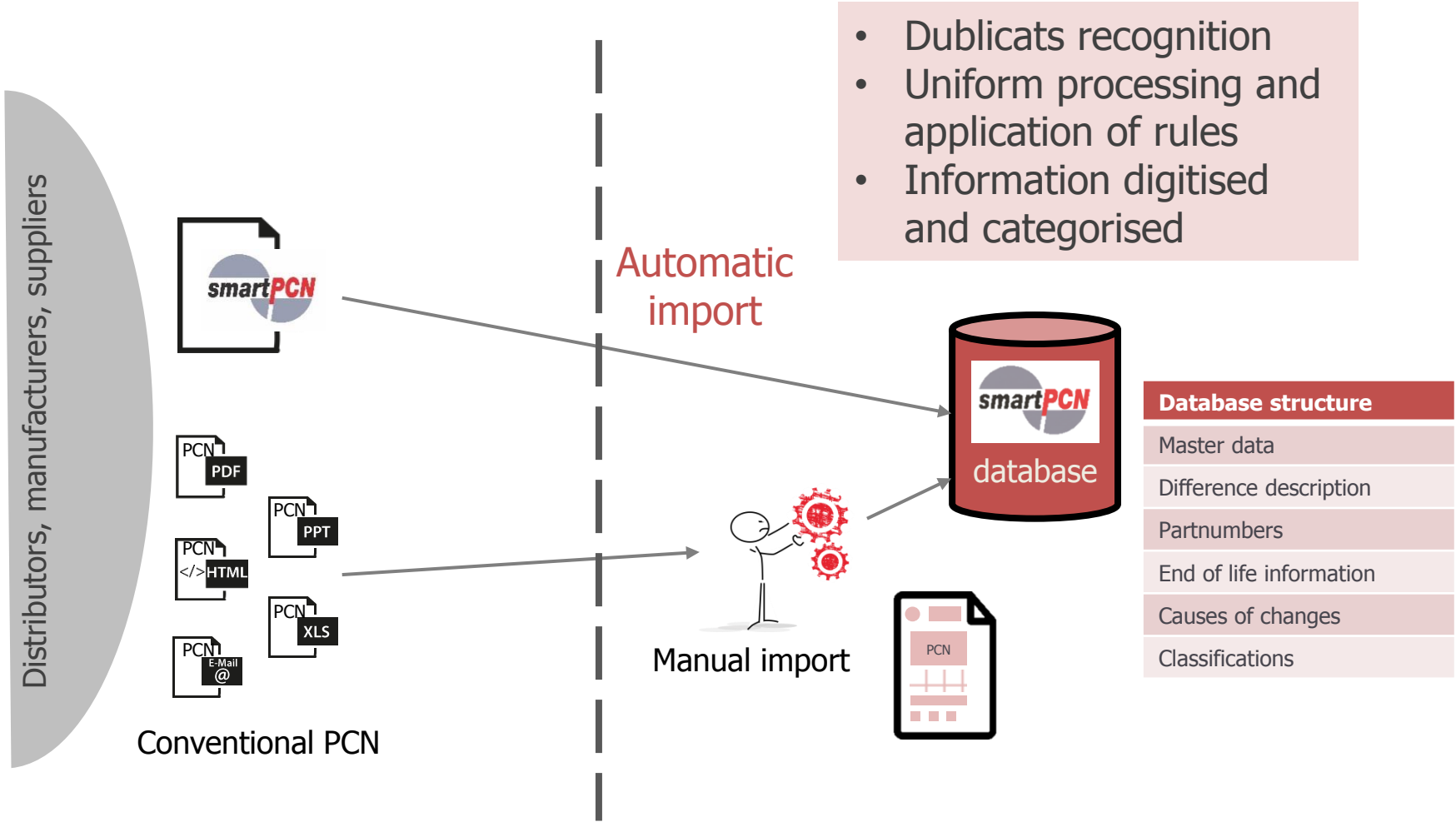


Automatic processing of smartPCN



PCN import benefits from smartPCN

- Duplicates recognition
- Uniform processing and application of rules
- Information digitised and categorised



„Eco system“ for smartPCN



Viewer/Manager

Free viewer from COG

Manager for editing
(from Q4/2016)

Free for COG members

50,00€ p.a. licence for
non members



Database

Pre-processed smartPCN
datasets from
conventional PCN starting
from 4,00€/smartPCN

Status by 10/2016:
4,500 smartPCN covering
226,000 componets
affected by PCN
Since January 2016



Management System for
administraion of PCN and
the resulting actions
based on the smartPCN-
structure

Connected with the
pcn.global

Strictly confidential BOM
handling

Benefits of smartPCN

- All important information of a PCN are stored machine readable within a XML structure
- Uniform handling independent from individual manufacturers format
- Costs of PCN recording and entry substantially reduced
- Easy customisation for customers
- Converted PCN available as smartPCN data sets
- Transparency through the complete supply chain
- Immediate enabling through existing eco system

Outlook

- Presentation at congresses and exhibitions (e.g. electronica 2016, Obsolescence Day 10.11.16)
- Activities for integration in other standards
 - German machinery industry (VDMA)
 - As part of Industry 4.0
- Start of pilot applications e.g. in cooperation with Fraunhofer Institutions
- First manufacturers start providing smartPCN



Contact & further information



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Video about smartPCN
Homepage smartPCN
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<https://youtu.be/6LKGv-x0GQ>
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