

**Specification of Competency Standards**  
**for the Retail Industry**  
**Unit of Competency**

Functional Area - Multi-channel Promotion of Communication

Title	Implement the barcode production steps
Code	107163L4
Description	According to industry guidelines, implement the barcode production steps.
Level	4
Credit	6 ( For Reference Only )
Competency	<p>Performance Requirements</p> <ol style="list-style-type: none"> <li>1. Select the appropriate partner (e.g. GS1) for barcode system production</li> <li>2. According to industry guidelines, implement the barcode production steps (total ten steps) <ul style="list-style-type: none"> <li>• Step 1: set and obtain the Corporate Prefix <ul style="list-style-type: none"> <li>○ Understand the corporate prefix as the corporate trade project identification keys including logistics units, locations, assets, coupons and other information</li> </ul> </li> <li>• Step 2: Assign identification number <ul style="list-style-type: none"> <li>○ After obtaining Corporate prefix, assign the identification number to the corporate product items including corporate herself (as a legal entity), location, logistic unit, corporate assets and/or recyclable assets etc.</li> </ul> </li> <li>• Step 3: Select barcode printing method <ul style="list-style-type: none"> <li>○ Understand barcode printing method including: <ul style="list-style-type: none"> <li>▪ Traditional printing <ul style="list-style-type: none"> <li>▪ Flexgraphy</li> <li>▪ Offset</li> </ul> </li> <li>▪ Digital printing <ul style="list-style-type: none"> <li>▪ Thermal</li> <li>▪ laser</li> </ul> </li> </ul> </li> <li>○ select the printing method based on static or dynamic information <ul style="list-style-type: none"> <li>▪ static information (no change for long time) <ul style="list-style-type: none"> <li>▪ select traditional printing method to print the information on the product package or label</li> </ul> </li> <li>▪ dynamic information (regular change of information) <ul style="list-style-type: none"> <li>▪ select digital printing or integrate the traditional printing method</li> </ul> </li> </ul> </li> <li>• Step 4: Select the printing environment <ul style="list-style-type: none"> <li>○ Select the printing environment based on the type, size, location and quality of barcode, including: <ul style="list-style-type: none"> <li>▪ Point-of-sale POS <ul style="list-style-type: none"> <li>▪ Omni-directional scanning</li> </ul> </li> <li>▪ General distribution and logistics <ul style="list-style-type: none"> <li>▪ Larger barcode is preferred for warehouse application</li> </ul> </li> <li>▪ Healthcare items <ul style="list-style-type: none"> <li>▪ Could not adopt omni-directional scanning</li> </ul> </li> </ul> </li> <li>• Step 5: Select the appropriate barcode system <ul style="list-style-type: none"> <li>○ Select EAN/UPC symbolic system for omni-directional scanning</li> <li>○ Select GS1-128/GSI DataBar / GS1 2D symbolic system for variable barcode information</li> <li>○ Select GS1 2D symbolic system for barcode containing website information</li> <li>○ Select ITF-14 symbolic system for direct barcode printing on carton box</li> </ul> </li> <li>• Step 6: Select the appropriate size of barcode <ul style="list-style-type: none"> <li>○ Recognize the factors in considering the barcode size including:</li> </ul> </li> </ul> </li> </ul></li></ul></li></ol>

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	<ul style="list-style-type: none"> <li>▪ The choice of barcode system</li> <li>▪ The application areas of barcode</li> <li>▪ The method of printing</li> <li>• Step 7: Format the barcode texts <ul style="list-style-type: none"> <li>○ Recognize the factors in selecting barcode human-readable text including: <ul style="list-style-type: none"> <li>▪ The readable text is in similar size with barcode</li> <li>▪ Text is positioned under the barcode as an combination</li> <li>▪ Ensure 12 digits for UPC-A symbolic barcode printing</li> <li>▪ Ensure 12 digits for EAN-13 symbolic barcode printing</li> <li>▪ Ensure 8 digits for UPC-E and EAN-8 symbolic barcode printing</li> </ul> </li> </ul> </li> <li>• Step 8: Select the color of barcode <ul style="list-style-type: none"> <li>○ Recognize the factors in selecting the color of barcode including: <ul style="list-style-type: none"> <li>▪ Barcode requires dark color</li> <li>▪ Barcode requires single color</li> <li>▪ Barcode requires light color background</li> </ul> </li> </ul> </li> <li>• Step 9: Select the appropriate position of barcode <ul style="list-style-type: none"> <li>○ Select the appropriate position of barcode based on the shape of products in order to avoid damage or hiding (e.g. at the edge of carton box, below the fold of carton box, under the wrapper flag of carton box and through another wrapper etc.)</li> </ul> </li> <li>• Step 10: Develop a barcode quality plan <ul style="list-style-type: none"> <li>○ Apply the ISO/IEC 15416 system to assess the quality of barcode production</li> </ul> </li> </ul> <p>3. Exhibit professionalism</p> <ul style="list-style-type: none"> <li>• Ensure that the application of barcode production comply with the policies and legal requirements from the authorities.</li> </ul>
Assessment Criteria	<p>The integrated outcome requirement of this UoC is the ability to:</p> <ul style="list-style-type: none"> <li>• Produce effective barcode for products.</li> </ul>
Remark	