



# A structure for the ESCO skills pillar

*9th MSWG meeting  
7 February 2019*

# Canadian National Skill Classification

- *2 level hierarchical classification of 84 skill and knowledge groups at its second level;*
- *the categories are clearly designed to be independent of particular branches of economic activity or occupation.*

## Handling Goods and Materials

### Sorting

Handling, sorting, weighing, packaging, separating or arranging materials, according to established patterns or procedures.

Examples include: 1. Sorting mail 2. Categorizing recyclable materials 3. Selecting items to fill orders 4. Choosing harvest crops 5. Trimming and weighing products 6. Packaging stock 7. Displaying merchandise.

### Loading and Unloading

Moving goods or materials, by hand or with the aid of equipment.

Examples include: 1. Stocking products on store shelves and in warehouses 2. Carrying stock from warehouse inventory to shipping desks to fulfil orders 3. Placing furniture onto vehicles for moving 4. Transporting raw materials such as iron ore 5. Using cranes to load shipping containers into ships' cargo holds.

# Development methodology

1. Compile background information and carry out methodological groundwork
2. Define principles for creating the distinct groups of the hierarchy
3. Create groups and enrich each of the groups with scope notes
4. Test suitability of groups for allocating skills
5. Define guidelines for allocation
6. Test usability in ESCO use cases

## Role of MAI

- MAI to review and comment on draft hierarchy
- Usability feedback to be reported to MAI

## Experts' profile

1. Professional expertise in the knowledge areas of  
i) qualifications and curricula design and development, ii) design and development of career guidance services and applications and iii) labour market statistics;
2. Track record of working with data modelling, classification systems, etc.;
3. Knowledge of the skill terminology used on the labour market and in educational institutions;
4. Knowledge of assessment criteria and performance evaluation.

# Transversal skill groups

- Application of knowledge
- Attitudes and values
- Social interaction
- Thinking

# Use case: validation of non-formal and informal learning

Skill/competence to be assessed	Skills and knowledge making up the skill to be assessed
<b>Detect malfunctions in engines (skill)</b>	Engine components (knowledge)
	Disassemble engines (skill)
	Principles of combustion engines (knowledge)
	Types of vehicle engines (knowledge)
	Read motor analyser (skill)
	Electrical safety regulations (knowledge)

# Use cases: curricula development & lifelong learning

Skill/competence	Skills and knowledge making up the skill/competence
<b>Compose music (skill)</b>	Musical notation (knowledge)
	Musical theory (knowledge)
	Musical instruments (knowledge)
	Think creatively (skill)



# Use case: e-portfolios and self-assessment

Life experience	Skill category	Skills
President of the student union	<ul style="list-style-type: none"> <li>➤ Management               <ul style="list-style-type: none"> <li>○ Coordinating and organizing</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Plan events</li> <li>• Manage schedule of tasks</li> </ul>
	<ul style="list-style-type: none"> <li>➤ Social interaction               <ul style="list-style-type: none"> <li>○ Persuade others</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Promote education programmes</li> </ul>
Apprenticeship in agriculture	<ul style="list-style-type: none"> <li>➤ Manufacturing and production               <ul style="list-style-type: none"> <li>○ Food production and agriculture</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Market farm products</li> </ul>
	<ul style="list-style-type: none"> <li>➤ Operating and repairing equipment, machinery and vehicles               <ul style="list-style-type: none"> <li>○ Operating mobile equipment</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Operate farm equipment</li> </ul>

# Use case: skill-based job-matching

Skill/competence in demand	Skill/competence on offer	Knowledge common to both skills
Forecast economic trends	Analyse economic trends	<ul style="list-style-type: none"><li>• Macroeconomics</li><li>• Econometric models</li></ul>

# Use case: mapping skill classifications to ESCO

Skill in national classification	Mapping relation	Skill in ESCO
<ul style="list-style-type: none"> <li>➤ <b>Construction</b></li> </ul>		<ul style="list-style-type: none"> <li>➤ Building</li> </ul>
<ul style="list-style-type: none"> <li>○ <b>Pipe fitting</b></li> </ul>	More specific than	<ul style="list-style-type: none"> <li>○ Installing building interior infrastructure</li> </ul>
	More general than	<ul style="list-style-type: none"> <li>▪ Install PVC piping</li> </ul>

# Use case: improve data visualisation on the ESCO Service Portal

Occupation	Skill category/ies	Skill category/group (lowest level)	Skills
Plumber	➤ Building	○ Installing building interior infrastructure	<ul style="list-style-type: none"> <li>• Install PVC piping</li> <li>• Install metal gas piping</li> <li>• Install plumbing systems</li> </ul>
		○ Constructing	<ul style="list-style-type: none"> <li>• Set up temporary construction site infrastructure</li> </ul>
		○ Finishing building interior/exterior	<ul style="list-style-type: none"> <li>• Use sander</li> <li>• Apply proofing membranes</li> </ul>

# Questions?