

SKILLS CARDS

The Upskilling Lab 4.0 skills cards provide description in the form of individual cards with the necessary level of expertise, qualifications, skills, knowledge, responsibilities within the collaboration management and open innovation process.

Skills cards background: the skills cards are developed with the use of the conclusion provided in the elaborated Collaboration Management Framework. Within the Framework, as a result of explored case studies, important competences were identified.

Based on this and the studied cases, the Collaboration Management Framework identified the 15 important skills areas.

STRUCTURE OF THE SKILLS CARDS

The 15 identified areas are translated into eight skills cards as follows:

- Data analysis (incorporating skills area 1)
- Value-based selling/value-creating activities (incorporating skills 2, 8, 10, 11, 13 and 14)
- Mobile expertise/Multi-platform UX design (incorporating skills 3 and 4)
- Network and information security (incorporating skills area 5)
- Creative thinking (incorporating skills area 6)
- Monitoring and evaluation processes (incorporating skills area 15)
- Collaboration (incorporating skills areas 7 and 9)
- Netiquette (necessary for all 15 identified skills areas).

Recognizing the fact that a variety of skills are necessary for collaboration management for open innovation in Industry 4.0, the skills cards, thus, cover the different aspects of the project: technical, innovative and managerial. They include examples for topic specific skills (such as network and information security, mobile expertise/multi-platform UX design and value-based selling) and horizontal/transversal skills (data analysis, creative thinking, collaboration, monitoring and evaluation, netiquette).

The skills cards cover for each of these skills areas the following skills aspects:

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| 1) Technical skills – technology + legislation (IPR) – hard skills; | } soft skills |
| 2) Social-emotional skills | |
| 3) Culturally responsive skills | |
| 4) Creative skills | |

These are elaborated for the following expert levels:

- 1. Beginners'/basic level, trainee;**
- 2. Fair/intermediate;**
- 3. Proficient;**
- 4. Expert.**

The fact that start-ups quite often will count on external expertise, advisors, mentors and consultants till they build their teams at the proficient and expert level for some of the fields, for established companies this expertise is often present inside the company and needs to be maintained and expanded through continuous learning. Thus, the following methods for continuous learning are identified for each of the levels.

Methods of continuous learning:

- 1) **Basic;**
- 2) **Intermediate;**
- 3) **Proficient;**
- 4) **Expert.**

USE OF THE SKILLS CARDS

The skills cards are designed in a way that could be user-friendly for different sets of stakeholders.

1. **Policy makers** – as a quick reference to identify specific soft skills gaps and foster development of continuous learning programmes and policies;
2. **Teachers, trainers** – as a checklist when elaborating specific content, exercises and testing to ensure the progress of their students;
3. **Start-ups** – as a checklist that will guide them through necessary skills and competences needed in building their star teams;
4. **HR specialists in companies** – a quick reference list when recruiting new staff and a helpful checklist to facilitate internal gaps to address these with development of their specific internal corporate tailor-made trainings and team building exercises.
5. **Innovation specialists/managers** – as a fast track for detection of gaps and update in skills needed for successful open innovation projects.

The skills cards development takes into account and is based on standard CEN/TS 16555.