SMERALD

*SMEs – Raising Awareness and Learning on Digital data,
data analysis and artificial intelligence*

The

CPD Concept

Prepared by

Smart Revolution

SMERALD: The Learning Design

Developed under the SMERALD Project (Erasmus+ 2023–2025)

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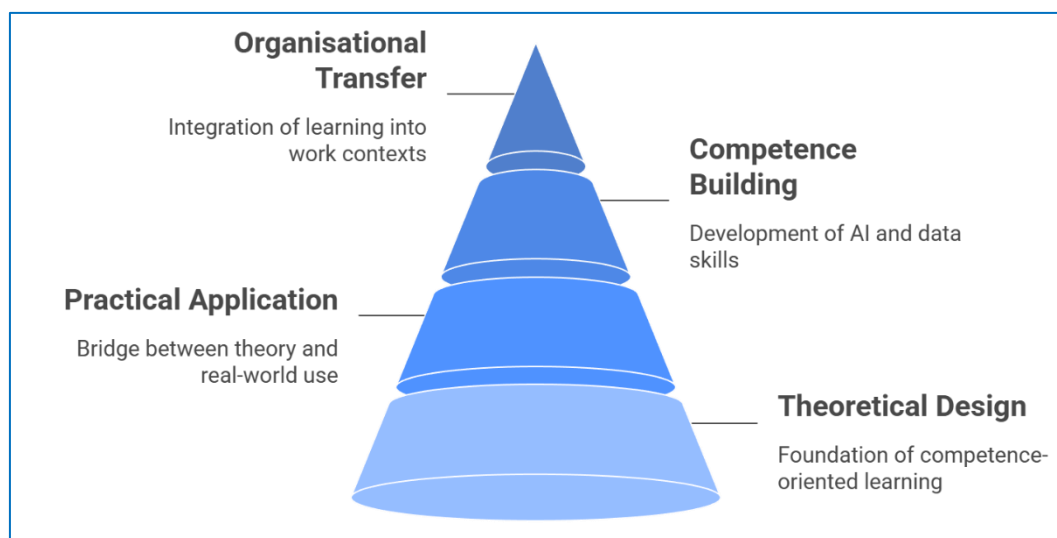# Enabling Digital Confidence

This chapter introduces the overall purpose, function, and strategic positioning of the SMERALD Continuous Professional Development (CPD) format. It explains why the CPD is a central pillar within the SMERALD ecosystem and how it operationalises the Learning Design, Learning Suite, and Blueprint. The section provides detailed conceptual background, key elements, and a concluding synthesis.

Purpose and Rationale

The SMERALD CPD is designed as the primary implementation format through which the competence-oriented learning approach of the project becomes tangible for participants. It functions as the bridge between theoretical design and practical application, ensuring that SME professionals and VET trainers can build meaningful competences in the fields of AI, Data Analysis, and Digital Data. The CPD follows a structured yet flexible logic that aligns with the SMERALD Learning Design, integrates platform-based learning, and prepares participants for the transfer of learning outcomes into their organisational contexts.

The CPD format addresses the specific needs of SMEs, acknowledging constraints such as time, resources, and varying levels of digital readiness. Through a combination of exposure, practice, application, and reflection, the CPD creates an environment where participants can gradually build understanding, experiment with tools, and translate insights into actionable

prototypes or pilot ideas. The design ensures that competences are built holistically—across knowledge, skills, and attitudes—and through authentic tasks grounded in SMEs' daily workflows.

The role of the CPD is therefore not only educational but also strategic: it supports organisational development, fosters collaboration across institutions and countries, and provides a structured entry point into the SMERALD ecosystem.

Core Functions

- Provides a structured learning experience aligned with the SMERALD competence model

- Integrates AI, Data Analysis, Design Thinking, and competence validation in one learning cycle

- Ensures practical, task-based learning rooted in SME workflows

- Facilitates personal reflection and competence development through LEVEL5

- Combines platform-based and live learning into a coherent experience

- Supports awareness, experimentation, and pilot planning for post-training impact

Concluding Perspective

The SMERALD CPD serves as the operationalisation of the project's learning philosophy. It transforms the SMERALD Learning Design into a structured programme that guides participants through awareness-building, skill development, applied experimentation, and reflective consolidation. The CPD thus forms the foundation upon which sustainable competence development and organisational readiness for AI-supported transformation are built.
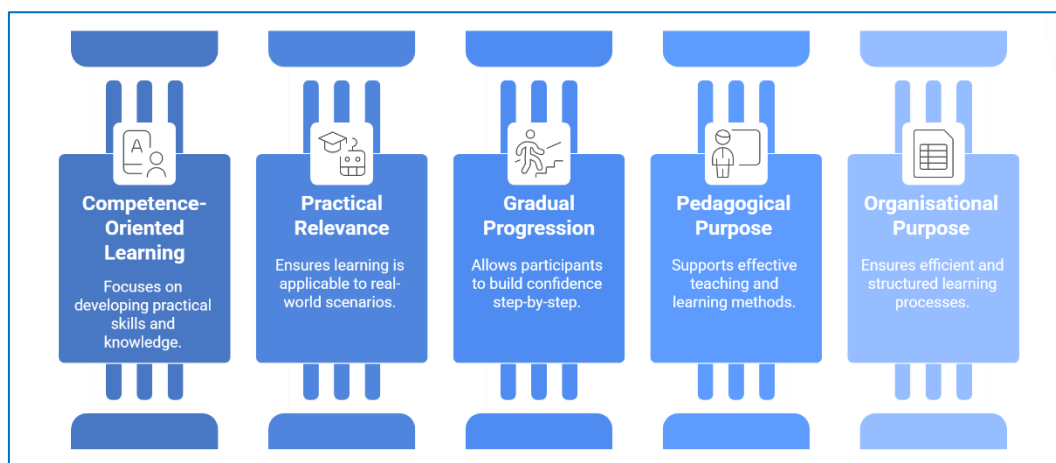
Structural Foundations

This chapter provides an in-depth explanation of the role and relevance of the SMERALD CPD within the overall project framework. As SMEs increasingly face challenges related to digitalisation, AI adoption, and data-based decision-making, the CPD serves as the central training mechanism to strengthen the competences needed to navigate these transformations. The objective is not only to raise awareness but to enable practical, meaningful application of AI, Digital Data, and Data Analysis in everyday SME environments.

The CPD directly supports two primary target groups: **SME professionals** who need to integrate digital tools into business processes, and **VET trainers** who require the expertise to design and deliver future-oriented training offers. The CPD provides a structured, competence-driven intervention that ensures participants experience a combination of theoretical inputs, practical hands-on exploration, group-based innovation, and reflective consolidation.

By embedding the CPD within the broader SMERALD Learning Design and linking it closely to the Learning Suite, the format becomes a cornerstone of a coherent learning ecosystem. It establishes a clear progression from introductory awareness to prototype development and organisational planning, setting the stage for subsequent pilot implementation.

Structure and Design of the CPD Format

The CPD is built as a multi-layered training format that reflects the principles of competence-oriented learning and practical relevance. Its structure ensures that participants can build confidence in AI and data tools while gradually progressing from exploration to application. Each design decision supports a pedagogical and organisational purpose, ensuring that learning remains efficient, engaging, and directly transferable to workplace contexts.

Detailed Structural Elements

Competence Orientation

The entire CPD aligns with the SMERALD competence framework. Each activity fosters the development of knowledge (conceptual understanding), skills (tool use, analysis, prototyping), and attitudes (confidence, openness, responsibility). The LEVEL5 system is integrated throughout the programme to support competence growth and reflection.

Learning Fields as Thematic Anchor

Every CPD day is tied to specific Learning Fields, ensuring a systematic progression:

- Day 1: AI Fundamentals & Awareness

- Day 2: Data Literacy & Prompting

- Day 3: Design Thinking & Applied Innovation

- Day 4: Responsible Use & Documentation This provides thematic clarity and logical development.

Action Fields for Real-World Application

Activities simulate or directly involve SME tasks such as:

- creating internal guidelines,

- improving customer communication,

- designing automated workflows,

- enhancing documentation quality. This ensures learning is not abstract but grounded in real operational challenges.

Activity-Based Learning

Participants engage in tool rotations, pair-based exploration, facilitated group sessions, collaborative prototyping, and short expert impulses. These activities create repetition, variation, and practical mastery.

Blended and Loop-Based Design
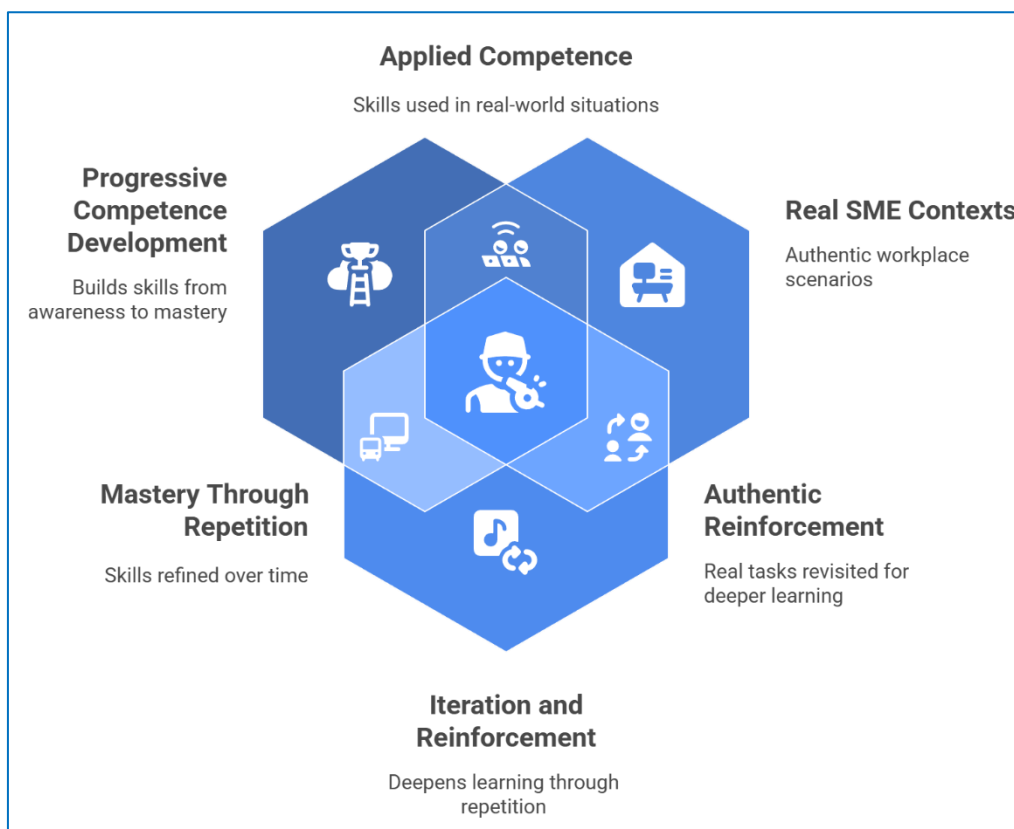
Each day follows a structured loop:

- Exposure: expert impulses, demonstrations

- Practice: tool exploration and hands-on tasks

- Application: group-based design and prototyping

- Reflection: feedback rounds, competence ratings, and LEVEL5 mapping This loop strengthens retention and deepens competence development.

Agenda Logic and CPD Flow

The agenda of the SMERALD CPD is designed to translate structural principles into an experience-based progression that builds competence step by step. Each agenda element has a defined pedagogical purpose and contributes to a coordinated learning flow that gradually deepens awareness, understanding, application, and reflection. The agenda is not a sequence of isolated activities; rather, it is an interconnected process in which each phase prepares the ground for the next and reinforces the competence model underpinning the SMERALD approach.

The logic of the CPD agenda follows three core intentions:

- **Progressive competence development**, moving from awareness to practical creation.

- **Integration of real SME contexts**, ensuring that tasks resemble authentic workplace scenarios.

- **Iteration and reinforcement**, allowing participants to revisit and deepen competences through different modalities.

The steps below provide a more detailed explanation of why each phase exists and how it contributes to the overall learning process.

Online Preparation (Baseline building & orientation)

This step establishes the foundation for later competence development. Participants complete a SPIDER self-assessment to generate a baseline reflection of their understanding of AI, data literacy, and digital readiness. The short online introduction session familiarises learners with the SMERALD terminology, expectations, and platform navigation.

Purpose and reasoning:

- Creates cognitive and emotional readiness for the CPD.

- Aligns participants' expectations and ensures a shared language.

- Identifies initial competence levels to support later reflection.

- Reduces onboarding time during the live sessions.

Day 1 – Empathise (Context exploration & relevance building)

This day focuses on understanding the broader context of AI in SMEs. Participants engage with stocktaking results, discuss challenges common among SMEs, experiment with simple tools, and explore practical examples.

Purpose and reasoning:

- Builds shared understanding and psychological safety.

- Anchors AI learning in participants' own SME contexts.

- Encourages curiosity and reduces apprehension toward AI.

- Provides early low-threshold tool experiences to demystify AI.

Day 2 – Define (Problem framing & tool experimentation)

Participants deepen their understanding through hands-on tool rotations, targeted prompting exercises, and short expert inputs. They learn how to translate abstract AI possibilities into concrete SME challenges.

Purpose and reasoning:

- Strengthens analytical competences through structured problem framing.

- Expands practical familiarity with AI tools.

- Helps participants recognise which AI functions match which SME needs.

- Begins the transition from learning to creating.

Day 3 – Ideate & Prototype (Solution creation & group innovation)

Mixed groups develop ideas for AI-supported improvements in real SME workflows. Through Design Thinking facilitation, participants generate concepts and build initial prototypes of workflows, documents, guides, or AI-supported solutions.

Purpose and reasoning:

- Enables practical application of competences built on previous days.

- Encourages collaboration across roles, sectors, and countries.

- Demonstrates the value of diverse perspectives in innovation.

- Translates learning into tangible outputs that mirror workplace needs.

Day 4 – Test & Reflect (Output presentation & competence consolidation)

Participants present their prototypes, receive structured feedback, and engage in competence reflection using the LEVEL5 framework. They outline next steps for transferring their ideas into pilots.

Purpose and reasoning:

- Reinforces competence development through articulation and feedback.

- Supports metacognition through structured reflection.

- Highlights realistic implementation pathways for SMEs.

- Connects CPD learning to upcoming pilot activities.

Post-CPD Follow-Up (Sustained learning & consolidation)

After the CPD week, participants complete an online reflection, receive follow-up materials, and may submit a LEVEL5 validation.

Purpose and reasoning:

- Encourages long-term internalisation of learning.

- Generates evidence of competence growth.

- Maintains engagement beyond the live event.

- Provides data for improving the CPD and supporting pilots.

Connection to the Learning Design Document

The CPD directly reflects the principles and structures described in the SMERALD Learning Design. It operationalises:

- Learning Fields through daily thematic focus,

- Action Fields through practical SME tasks,

- Didactic Patterns through structured activities,

- Learning Pathways through progressive development over four days.

The CPD therefore functions as a practical demonstration of the Learning Design in action, providing a real-world context for applying the conceptual model.

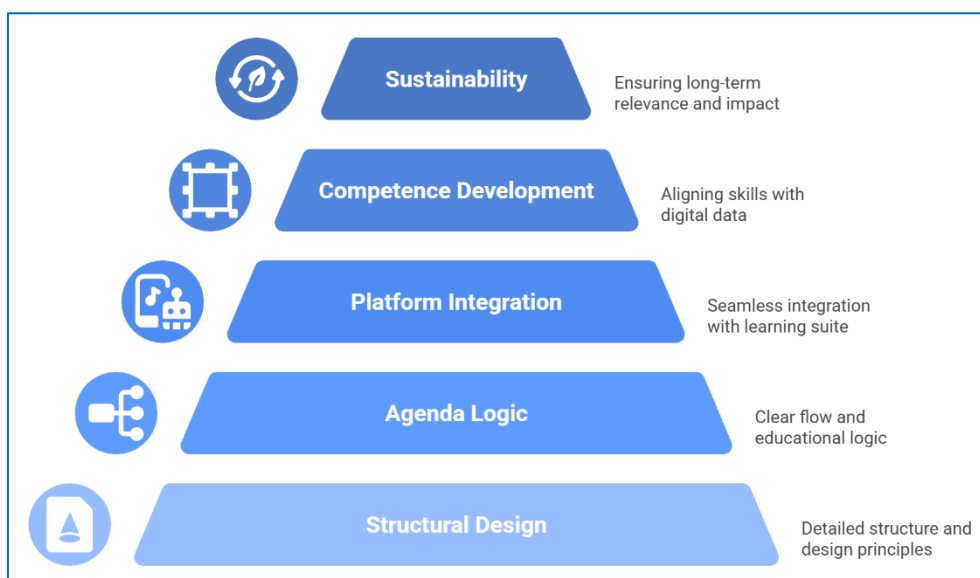## Interconnection With the Learning Suite

The Learning Suite is fully integrated into the CPD logic. Specific connections include:

- mandatory SPIDER self-assessment before training,

- reinforcement of concepts through online modules (AI, Data, DT, COL&V),

- use of platform materials for group activities,

- post-training reflection and evaluation via shared online tools.

This ensures continuity and coherence across all learning environments.

Concluding Perspective

This chapter has outlined the detailed structure, purpose, and educational logic of the SMERALD CPD. By aligning competence development, structural design principles, a clear agenda logic, and platform integration, the CPD achieves coherence, relevance, and sustainability. The resulting training model provides SMEs and VET trainers with the skills and confidence needed to integrate AI and digital data competences into daily practice, serving as a central pillar within the overall SMERALD ecosystem.

Insights and Experiences Gained Through the SMERALD CPD

Overview

This chapter synthesises the key insights, reflections, and developmental outcomes that emerged from the final day of the SMERALD CPD. The presentations delivered by the participant groups demonstrate how the SMERALD learning philosophy, competence approach, and activity design translated into practical outcomes. These insights reflect the collective learning journey of SME professionals and VET trainers who applied AI, Data Literacy, and Design Thinking concepts to real challenges in their organisational contexts.

Emerging Competences and Reflections

Participants demonstrated a wide range of strengthened competences across the Learning Fields, including AI Fundamentals, Data Literacy, Prompting, Responsible AI Use, and Documentation Quality. Their outputs and reflections indicate tangible development in:

- **Contextualising AI for SMEs:** Recognising concrete opportunities where AI tools can support operational workflows, training systems, and user engagement.

- **User-Centred Thinking:** Applying Design Thinking principles to identify user needs and design appropriate AI-enabled solutions.

- **Prototype Development:** Creating early-stage concepts such as chatbots, personalised learning pathways, or inclusive communication tools.

- **Ethical Reflection:** Addressing concerns related to fairness, transparency, and inclusion in AI-supported processes.

- **Cross-Cultural and Cross-Functional Collaboration:** Working across roles, organisations, and countries to build shared understanding.

These developments demonstrate that the CPD successfully fostered not just theoretical knowledge but also applied skills and reflective attitudes.

Highlights From the Group Presentations

Based on the final-day presentations, several strong themes emerged that illustrate the impact and depth of participant learning:

Supporting Neurodiversity Through AI

One group developed a concept demonstrating how AI could support neurodiverse learners and employees. They explored adaptive communication tools, personalised resource recommendations, and AI-assisted guidance systems.

AI-Enhanced Personalised Learning

Another group proposed a system enabling learners to create personalised pathways using AI-supported content structuring and visual identity design. This included mock-ups of user interfaces and workflow diagrams.

Workflow Optimisation and Internal Communication

A team focused on strengthening documentation processes using AI-assisted summarisation, classification, and template generation.

Responsible and Transparent AI Use

Several groups highlighted responsible AI considerations, including clear communication of AI limitations and supporting user autonomy.

These prototypes reflect the diversity of organisational needs and the versatility of AI applications across SME environments.

Added Value for SMEs and VET Providers

The CPD experience generated multiple transferable insights relevant to both SMEs and educational organisations:

- **Practical transferability:** Ideas produced during the CPD can be adapted for real-world pilots.

- **Structured innovation:** The Design Thinking process enabled participants to structure creativity effectively.

- **Strengthened confidence:** Many participants reported increased confidence in exploring and testing AI tools.

- **Capacity for collaboration:** The international and cross-functional group setup was perceived as enriching and motivating.

These elements reinforce the CPD's function as a catalyst for ongoing digital transformation.

Concluding Reflection

The insights from the CPD underline its role as a comprehensive and practice-oriented learning experience. Participants not only gained knowledge but also demonstrated the ability to apply AI and data tools in meaningful ways. The outcomes point towards strong potential for subsequent pilot implementation and continuous professional development.

The CPD thus stands as a significant component of the SMERALD ecosystem, fostering innovation, competence development, and sustainable digital evolution in SMEs and VET environments.