National Piloting Experience Report

« Italy »

Authoring partner: Dataninja

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Introduction

- **Background:** *A brief summary of the context for your pilots (in relation to Digital Data and Artificial Intelligence competences in the context of SMEs/VET providers in your country)*

In Italy, small and medium-sized enterprises (SMEs) are increasingly aware of the importance of digital data and artificial intelligence (AI) competences for innovation and competitiveness. At Dataninja, we continuously strive to remain at the forefront of structured training in these areas, particularly within our internal team, which designs and delivers educational programs on data and AI literacy to a wide range of audiences. As a company operating in the field of digital competences since 2016, Dataninja is well-positioned to pilot the SMERALD approach, bringing both sectoral expertise and a learner-centered perspective to the experience.

- **The Purpose and Objectives of the Pilots:** *why you did it – the reasons for piloting and what you set out to test*

The main purpose of the pilot was to test the adaptability and effectiveness of the SMERALD methodology within the context of a digitally competent SME. The pilot aimed to: Explore how modular, micro-credential-based training could support targeted upskilling in digital data and AI competences; Use self-assessment tools to personalize learning pathways for participants with diverse roles and prior knowledge; Collect feedback to refine both the pedagogical and operational aspects

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of the SMERALD resources and implementation strategy;

Validate learning outcomes through the LEVEL5 competence development framework.

Through this experience, Dataninja contributed to shaping a sustainable and transferable SMERALD model for SME upskilling.

- **The Target Groups: Pilot Participants and Beneficiaries**: *who was involved in the piloting - information about them: how many, their occupation, gender, age range, SMEs managers/employees or VET professionals etc)*

The pilot involved nine participants from Dataninja's internal team, all actively engaged in the design, management, or delivery of digital competence programs. The participants included:

1 SME manager

Project managers

Education specialists

Administrative staff

The age range of participants was between 25 and 45 years, with a gender distribution of 7 women and 2 men.

Participants represented key functional roles within the company and contributed diverse perspectives on learning needs and application contexts. Given Dataninja's work across Data Literacy, Media Literacy, Artificial Intelligence Literacy, Data Journalism, Data Analysis, and

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Visualization, the pilot also offered insights into how micro-modular training could enhance internal capacities to deliver innovative, scalable learning programs for external partners.

Section 1: Methodology of the pilot(s)

Describe how the piloting was carried out, what the format was and what activities it involved. How many pilots did you organise and why did you do it this way?

Pilot 1

The SMERALD pilot conducted by Dataninja took place remotely between April and May 2025. It was facilitated by members of the Dataninja team who had previously participated in the SMERALD Continuous Professional Development (CPD) session in Palermo. These individuals acted as both facilitators and multipliers of the SMERALD approach within the organization.

As a fully remote company, Dataninja adopted a flexible format for piloting the methodology. The pilot involved 9 internal participants, including the SME manager, project managers, education specialists, and admin staff. Each participant represented a different function within the company, allowing for diverse reflections on how the SMERALD content could be adapted to real-life training scenarios.

Process / Methods Used

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The piloting process followed a blended, self-paced model with collaborative elements:

1. Each participant began with the Competence Spider self-assessment, which provided individual insights into their digital data and AI competence levels.

2. Based on this, participants accessed the modular self-paced courses available on the SMERALD platform, selecting the most relevant learning content for their profile.

3. Following this individual exploration phase, Dataninja organized a series of live online reflection meetings. These sessions served multiple purposes:

    - Sharing individual learning experiences
    - Discussing how the SMERALD approach could be integrated into Dataninja's external training offer
    - Identifying potential improvements or adaptations of the content
    - Reinforcing the collaborative learning culture within the team

This process allowed for both personalized learning and collective knowledge-building, reflecting the core values of the SMERALD project.

Micro-Credentials in the Pilot

How were participants evaluated and guided through Micro-Credentials? Explain how learners were evaluated with technologies such as Competence Spider and LEVEL5. What strategies were implemented to monitor progress and validate competencies? How does tailoring the learning experience and dividing the course into micro-modules affect learners' progress and engagement?

How did breaking down the entire course into micro-modules and tailoring teaching to individual requirements affect the overall learning experience?

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As part of the pilot, Dataninja integrated the Micro-Credentials approach promoted by the SMERALD methodology. This was implemented through a three-step process involving self-assessment, modular learning, and competence validation.

1. Self-Assessment using the Competence Spider
   Each participant began the pilot by completing the Competence Spider tool, which allowed them to assess their starting level of competence in digital data and AI-related skills. This helped create individual awareness of learning needs and guided each learner toward the most relevant content available on the SMERALD platform.

2. Tailored Learning through Micro-Modules
   Participants independently explored selected micro-modules on the SMERALD self-paced platform, choosing content aligned with their roles (e.g. project management, education, communication). The modular design allowed learners to focus on specific competence areas, ensuring a high degree of personalization. This flexibility was particularly effective in a 100% remote organization like Dataninja, where participants could engage with content asynchronously.

3. Reflection and Collaborative Integration
   After the self-paced phase, participants took part in live reflection meetings, where they discussed both the content and its potential integration into Dataninja's external training services. These sessions not only reinforced learning but also encouraged co-design of future educational offerings using SMERALD-inspired modules.

4. Competence Validation using LEVEL5
   Participants were introduced to the LEVEL5 system as a framework for validating their learning outcomes. Although not all learners opted to complete the full LEVEL5 validation process, the tool was presented as a reference standard for future use in assessing learning outcomes and designing micro-credentials within Dataninja's programs.

Overall, breaking the learning experience into micro-modules and aligning content with learners' self-identified needs significantly increased engagement

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and relevance. Participants appreciated the flexibility of the modular approach and the opportunity to reflect collectively on how such a system could be scaled and applied in real training scenarios with clients and partners.

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Section 2: Results of the pilot(s)

Describe the outcomes/results achieved (quantitative and qualitatitve)

2.1 Pilot 1 – Dataninja Internal Team

Achievements and Successes

The pilot produced several positive outcomes:

- *High engagement: All nine participants completed the Competence Spider self-assessment and explored relevant content on the SMERALD platform.*
- *Effective self-assessment: The Competence Spider was perceived as a useful tool to raise awareness of individual competences and tailor the learning journey accordingly.*
- *Flexibility of the micro-modular format: The structure of the course enabled participants to select content that matched their specific roles and interests, which was particularly appreciated in a remote and highly specialized team like Dataninja.*
- *Valuable internal reflection: The follow-up live meetings fostered a productive exchange of ideas on how to integrate SMERALD content into Dataninja's external training offers, reinforcing both internal collaboration and strategic alignment.*
- *Pedagogical inspiration: The SMERALD approach provided useful insights that will help shape future learning experiences designed by Dataninja for external clients in the fields of data and AI literacy.*

Challenges

- *Time constraints: As the pilot took place alongside ongoing project activities, some participants reported difficulties in dedicating sufficient*

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time to explore the platform more deeply.

- *Limited interactivity in self-paced modules: While the content was solid, some participants found that a few modules could benefit from increased interactivity or richer multimedia formats to sustain attention and engagement.*

- *Clarity of progression: A few users noted that the navigation and sequencing of modules on the SMERALD platform could be made more intuitive, especially for learners who are unfamiliar with micro-modular systems.*

Identification of Refinements/Improvements Needed in the SMERALD Methodology

Based on this pilot, the following areas could be considered for refinement:

- *Enhanced user guidance: Include clearer onboarding instructions or learning path suggestions within the platform to help users better navigate the modular offer.*

- *Greater interactivity and practical application: Integrating more interactive elements (quizzes, exercises, real-life scenarios) could increase the value of self-paced learning.*

- *Optional advanced content: For teams with high digital literac, adding optional advanced modules would offer additional depth and challenge.*

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Section 3: Conclusions

What key findings/conclusions can you draw from the the piloting process? Please identify the highlights with regard to the SMERALD approach.

The Dataninja pilot confirmed the relevance, adaptability, and pedagogical strength of the SMERALD approach, even within a digitally mature and education-focused SME. Several key findings emerged:

- *The Competence Spider proved to be an effective entry point, enabling learners to reflect on their skill levels and choose appropriate micro-modules. This facilitated a learner-centered experience that respected individual time and focus areas.*
- *The modular, self-paced structure of the SMERALD platform aligned well with the needs of a remote and multidisciplinary team, allowing participants to engage flexibly with content that suited their professional role and availability.*
- *Live reflection meetings amplified the value of the pilot, enabling participants to move beyond individual learning and collectively explore how the SMERALD content could be integrated into their external-facing training and consultancy services. This also created a shared understanding of the broader applicability of the SMERALD framework.*
- *While the pilot revealed some minor usability and engagement challenges, it overall demonstrated that the SMERALD methodology can serve not only as a learning tool, but also as an inspirational model for designing future training interventions — especially those aimed at SMEs and professionals working on data and AI literacy.*

In conclusion, the pilot validated the SMERALD model as a versatile and scalable framework for fostering digital data competences, and highlighted its potential to be customized for diverse training contexts, including internal professional development and external client engagement.

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Section 4: Recommendations

Taking into account your conclusions, what needs to be done to improve/adapt the SMERALD methodology and approach.

Based on the pilot experience, we propose the following recommendations to further improve and adapt the SMERALD methodology:

1. *Enhance onboarding and navigation guidance*
   While the modular format offers valuable flexibility, some users would benefit from clearer learning path suggestions or onboarding support when accessing the platform. A short introductory video or a visual map of the modules could improve orientation, especially for users new to micro-learning environments.

2. *Increase interactivity in self-paced content*
   To better sustain attention and reinforce learning, especially for experienced or time-constrained learners, the platform could include more interactive elements (e.g., quizzes, drag-and-drop activities, self-check tasks, or gamified components). These enhancements would boost engagement and help consolidate key concepts.

3. *Offer optional advanced content for high-competence learners*
   For teams or individuals with strong existing digital or pedagogical competences, integrating optional "deep-dive" modules or expert-level challenges would provide additional value. This would make the platform more attractive to a wider range of learners across different expertise levels.

4. *Promote peer reflection as a structured component*
   The live reflection meetings were one of the most appreciated aspects of the pilot. Embedding structured peer exchange moments or offering a discussion guide could encourage other pilot implementers to adopt similar reflective practices — even in hybrid or asynchronous settings.

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5. *Clarify and simplify micro-credential validation workflows*
   Introducing more concrete examples or templates for using the LEVEL5 system, and explaining how to issue or recognize micro-credentials in practical terms, would help partners and learners fully benefit from the validation tools.

6. *Develop resources for trainers to integrate SMERALD into their existing offers*
   Toolkits, use cases, or storytelling materials showing how SMERALD can be incorporated into real training programs would empower more VET providers and SME-based educators to reuse and adapt the resources effectively.

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Section 5: Pilot snapshots

What is your biggest highlight from the piloting phase? It can be a good practice, interesting case study, positive success story or a touching quote/feedback you received from your learners. It can be in the form of a text or video or photo collage etc. Be creative, so we can use it for a post in the project social media.

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