



Good Practices Handbook

Tourism Resilience Education in Digital Security



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The rapid digitalization of the tourism and hospitality sector brings significant opportunities alongside escalating cyber risks. Building resilience against these digital threats requires an updated skills mix for VET trainers, students, SMEs, and tourism professionals. The TREADS project responds by selecting and promoting practices that strengthen digital awareness, cybersecurity, and quality in vocational education and training (VET), directly aligned with market and sectoral needs.

This handbook distills and analyses the most effective good practices in terms of A) The organization of events and activities, at country level aiming to raise awareness of VET, B) The implementation of the European Quality Assurance Reference Framework for Vocational Education and Training (EQAVET) and C) Tools, including digital ones, and other practices for the professional development of teachers/trainers identified through WP2/A2 and WP2/A3, focusing on their relevance, applicability, and transferability across partner countries (Greece, Spain, Italy, Slovenia). Its purpose is to provide a practical and insightful resource for VET providers, teachers and stakeholders focused on strengthening vocational education and training in the tourism sector. By sharing proven strategies to promote VET, the handbook supports efforts to boost enrollment, enhance curriculum relevance, and build stronger links between education and the industry. As the tourism sector increasingly depends on digital technologies, equipping future professionals with skills to recognize and manage digital risks is essential. This combined approach ensures that the workforce is not only skilled in tourism but also prepared to contribute to a resilient and secure digital environment.

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METHODOLOGY

The methodology applied in WP2/A2 and WP2/A3 comprised:

Partner-driven **identification of national good practices for VET** digital transformation, awareness-raising, and professional development.

Validation of approaches as effective and transferable, with special attention to the **European Quality Assurance Reference Framework for VET (EQAVET)**.

Emphasis on **digital tools, hands-on events, and strategies for supporting** both trainers and trainees.

Selection of practices based on their alignment with TREADS goals: **building digitally upskilled, resilient tourism experts who are conscious of digital risks and capable of adopting mitigation measures**.

1. Awareness Events & Sectoral Involvement

- VET centers run outreach events (open days, digital skills competitions, job fairs) in partnership with local tourism industry and professional associations.
- Involvement in national and European sector digitalization campaigns and projects.

•Transferability

- *Cross-promotion with industry and regular sector-themed competitions attract new talent sector-wide.*

2. Quality Assurance and EQAVET

- Systematic adoption of EQAVET indicators to assess, benchmark, and improve VET program quality.
- Collaboration with regional training agencies and regular use of alumni and employer feedback.

•Transferability

- *Standardized indicators and employer/stakeholder feedback loops ensure continuous improvement everywhere.*

3. Digital Tools and Professional Development

- Active use of e-learning platforms for both trainers and trainees.
- Workshops and blended learning modules promoting digital skills, with a growing trend towards incorporating digitalization in teaching practice.

•Transferability

- *All centers can offer digital skills workshops and blended learning, regardless of physical resources.*

4. Cybersecurity and digital resilience

- Cybersecurity e-learning modules are compulsory for trainers and are actively promoted among students to raise awareness and competence in digital security.
- Data protection, the use of digital tools, and cybersecurity content are integrated into VET curricula to ensure learners develop essential skills for managing digital risks in the tourism sector.

•Transferability

- *Work-based modules can be integrated into most VET curricula.*

1. Awareness-Raising and Engagement

- Organization of national and regional VET fairs, Career Days, Open Days and workshops, often in collaboration with sectoral chambers (e.g. Hellenic Chamber of Hotels).
- Promotion through media (traditional and social), including alumni success stories and sharing project outcomes.
- Participation in European and national skills competitions, and Erasmus+ multiplier events.

•Transferability

- *All partners can replicate fairs, open days, and competitions to boost VET attractiveness and generate sectoral engagement.*

2. Quality Assurance and Continuous Improvement

- Implementation of EQAVET, with clear quality indicators, self-assessment, and regular program reviews.
- Stakeholder (employers, students, policymakers) involvement in curriculum updates and feedback cycles.

•Transferability

- *Annual self-assessment reports and stakeholder consultation are low-cost, high-impact approaches for all VET centers.*

3. Digital Tools for Trainer Development

- Widespread use of LMS platforms (Open eClass, Moodle, Google Classroom) and digital course management.
- Participation in digital marketing training, webinars, and online communities.
- Use of online collaboration tools (Teams, Slack) and VR/AR for immersive hands-on experiences.

•Transferability

- *Asynchronous online courses and virtual training are scalable with minimal resources.*

4. Cybersecurity Awareness

- Annual Cybersecurity Awareness Days for trainers and students, featuring peer-led simulations, talks by experts, and interactive sessions.
- Encouragement for trainers and students to complete cybersecurity e-learning modules from international sources (TryHackMe, IBM SkillsBuild).

•Transferability

- *Awareness days and curated e-learning are quick wins for any VET or training environment.*

1. Industry Collaboration and Awareness

- Strong tradition of collaboration between VET centers, regional employment agencies, and tourism businesses for real-world experiential learning.
- Promotion of VET programs through media campaigns, open days, guided company visits, and public events

•Transferability

- *Joint events and guided tours easily encourage practical sector knowledge in all contexts.*

2. EQAVET Implementation

- VET centers use EQAVET-based quality indicators, tracking student outcomes and satisfaction.
- Regular updates to curricula based on feedback from businesses, labor market, and graduates.

•Transferability

- *Standardized monitoring and graduate tracking accelerate quality improvement everywhere.*

3. Professional Development and Digital Upskilling Tools

- Institutional use of e-learning and microlearning platforms (Moodle, virtual labs), especially for cybersecurity, digital literacy, and pedagogical innovation.
- Active online networks for VET trainers for sharing resources and professional support.

•Transferability

- *Peer educator communities and modular digital content are adaptable across countries.*

4. Cybersecurity and Digitalization Practices

- Organization of regional innovation fairs, technology hackathons and VET competitions, including the Basque Country's Tknika innovation center involvement.
- Integration of digital risk and cybersecurity content into practical modules (e.g., data handling for tourism administration).

•Transferability

- *Modular, event-based digital learning can be easily replicated for other subject areas.*

1. Awareness Raising and Promotion

- Robust participation in national education fairs (e.g., “Informativa”) and joint promotion events with labor market and tourism bodies.
- Career counseling and open-house activities at VET centers for students and parents.

• *Transferability*

- *Regular self-assessment and digital benchmarking can be adapted to all partner settings.*

2. EQAVET-based Self-Assessment

- Widespread use of the national self-evaluation system (EPoS) and alignment with EQAVET.

• *Transferability*

- *Standardized indicators and employer/stakeholder feedback loops ensure continuous improvement everywhere.*

3. Trainer Upskilling via Digital Means

- National support for Moodle and Arnes Uč ilnice online training, webinars, and digital microcourses.
- Trainer internships and placements in tourism companies for first-hand digital implementation.

• *Transferability*

- *Digital micro-courses and in-company placements are feasible everywhere.*

4. Cybersecurity and Digital Integration

- Integration of data protection, digital tools, and cybersecurity content into updated VET curricula, often delivered in collaboration with national experts.

• *Transferability*

- *Curriculum-integrated cybersecurity can be tailored in every partner country.*

3.1 Synthesis: Most Relevant and Transferable Practices

After comparing the national approaches, the following good practices emerge as the most suitable for widespread adoption among partner countries:

1

Annual Digital/Cybersecurity Awareness Events

Interactive, easily organized, and impactful for raising awareness across all stakeholders.

2

Integration of Cybersecurity & Digital Skills into Core Curricula

Embedding digital risk in everyday modules ensures sector-wide upskilling and resilience.

3

EQAVET-aligned Quality Assurance with Feedback Loops

Structured self-assessment, regular review, and employer/graduate involvement for curriculum relevance and increased employability.

4

Use of Blended and Online Learning Platforms

Leveraging LMS (e.g., Moodle) for delivering up-to-date, interactive cyber/digital modules.

5

Professional Development Communities & Digital Microlearning for Trainers

Fostering up-to-date pedagogical skills, peer support, and ongoing adaptation to digital innovation.

6

Work-based Learning Partnerships with Industry

Real workplace problems, digital risk scenarios, and internships/apprenticeships make training immediately relevant.

3.2 Cross-Country Synthesis: Core Good Practices in TREADS per Country

Country	a) Organization of Events & Activities for VET Awareness	b) EQAVET Implementation	c) Tools, Digital and Other Professional Development Practices for Teachers/Trainers
Greece	- National/regional VET fairs (EOPPEP, Ministry) - Participation in European/National competitions - Career & Open Days, workshops - Collaboration with chambers (e.g. Hellenic Chamber of Hotels) - Erasmus+ dissemination events - Active use of media/social platforms	- National Reference Point (EOPPEP); national QA framework aligned with EQAVET - Accreditation & certification matched to EQAVET/EQF - Performance monitored via indicators - Annual self-assessment reports - Integration of work-based learning (WBL) - Stakeholder feedback loops	- Digital marketing tools training - "Reimagine Distance Learning" (Erasmus+) - ReGeneration initiative (peer mentoring, upskilling) - LMS: Open eClass, Moodle, Google Classroom - Webinars (EOPPEP), online communities - Microlearning, gamification, AR/VR, online tools (Teams, Slack), TryHackMe, IBM SkillsBuild, SEV Hub, Coursera/Udemy - Erasmus+ teacher development programs
Spain	- Open days, guided company tours - Regional innovation fairs - Media events, public VET campaigns - Collaboration with employment agencies, tourism employers - Erasmus+ multiplier events	- EQAVET-based indicators in VET centers - Curriculum updated via employer/graduate feedback - Strong work-based learning integration - Systematic monitoring & graduate tracking - Alignment with EQF for transparency	- E-learning platforms: Moodle, FP a Distancia - Online professional communities for resource sharing - Regional "train-the-trainer" in digital/cyber (e.g., Tknika, Basque Country) - Innovation/PD through virtual labs, hackathons, short upskilling modules - Experience in project-based/micro-credentialing approaches

Italy	- Open days, digital skills competitions - Job fairs in partnership with industry/professional associations - Sector campaigns & Erasmus+ events - Collaboration with regional training agencies & businesses	- Widespread EQAVET adoption with indicators (employability, satisfaction, outcomes) - Alumni/employer feedback integration - Work-based learning (internships/apprenticeships) - Benchmarking & continuous improvement cycles	- Workshops/blended learning on digital topics - Use of e-learning platforms for trainers and trainees - Digital resource pools, webinars, peer-led PD - IT/cyber modules in VET pathways - Professional communities for teacher exchange - Participation in European projects for innovative PD
Slovenia	- National fairs (e.g. Informativa), career counseling - Joint events with industry/tourism bodies - Open house/parent-student activities - National/regional cooperation for VET visibility	- National self-evaluation (EPoS) - Alignment with EQAVET and EQF - Annual QA/self-assessment & benchmarking - Stakeholder involvement via CPI guidance - Data-driven curriculum updates	- Nationally supported Moodle, Arnes Uč ilnice - Trainer internships, company placements - Digital microlearning, webinars, virtual meet-ups - Ongoing upskilling on digital/cyber skills - Erasmus+ and agency-supported PD sessions

3.3 Recommendations for Implementation

To effectively enhance digital security and cybersecurity competencies within the tourism VET sector, the following strategic recommendations are proposed. These steps aim to foster awareness, improve curriculum relevance, support continuous professional development, and strengthen collaboration between education providers and digital-savvy industry partners.

- ✓ Organize or participate in annual cybersecurity or digital innovation events; involve both students and local businesses.
- ✓ Update every major curriculum to explicitly cover digital risk and data protection—using case studies relevant for the tourism sector.
- ✓ Adopt or strengthen the EQAVET framework; incorporate regular student and employer feedback.
- ✓ Invest in or make better use of e-learning platforms for modular cyber/digital skills training.
- ✓ Develop a network or community-of-practice for trainers, including digital microlearning and sharing sessions.
- ✓ Secure internships, placements, and collaboration opportunities with digital-savvy tourism enterprises.

4

COUNTRY-BY-COUNTRY CYBERSECURITY VET PRACTICES**4.1 Slovenia****Curriculum-Integrated Cybersecurity and Digital Resilience**

Slovenia implemented a substantial update to its national Tourism and Hospitality VET curriculum in 2023/2024, coordinated by the Institute of the Republic of Slovenia for Vocational Education and Training (CPI).

- **Applied Informatics & Statistics (120 hours):**
 - Students learn modern ICT use, emphasizing data protection and information system security.
 - Develop both knowledge (understanding security principles) and competence (identifying security threats on real devices/systems).

Content on cybersecurity and digital resilience has been integrated primarily into "Applied Informatics and Statistics" and other related subjects, mainly focusing on digital resilience aspects. However, there is currently no standalone course devoted exclusively to cybersecurity. This integration introduces the topic clearly while recognizing that a future development step could be to establish a dedicated standalone course or subject to deepen cybersecurity expertise within the curriculum. Regarding target VET levels, the contribution focuses specifically on EQF level 5 programs.

- **Business Economics (90 hours):**
 - Focus on digital tools for business operations and optimization.
- **Marketing in Hospitality & Tourism (120 hours):**
 - Emphasis on integrating ICT, automation, digitalization, AI, and CRM into marketing processes.
 - Learners acquire practical skills for digital marketing and customer interaction management.

Note: The depth of coverage in each domain depends on teacher expertise and focus on emerging themes—but the national curriculum framework ensures digital risk and resilience are mainstreamed throughout all key subjects.

Transferable Practice:

This model demonstrates how to embed cybersecurity and digital resilience directly into core VET courses, adaptable for any partner seeking to mainstream these skills.

4.2 Greece

Multi-Path Cybersecurity Awareness and Upskilling

Although no dedicated “cybersecurity for tourism” VET course exists in Greece, the sector adopts a spectrum of approaches combining awareness, certification, and industry collaboration:

- General Cybersecurity VET Offerings:
 - *Advanced Professional Diploma Cyber Security*: Focuses on technical/managerial skills, risk management, network assurance; open to both VET and non-VET backgrounds.
 - *Cybercrime and Cybersecurity* (University of Athens e-learning): Covers networks, threats, secure data practices, device management, basic cryptography, and VPNs.
- VET Center Engagement & Awareness:
 - *Cybersecurity Awareness Days*: Annual or biannual hands-on events bringing in sector experts and live demonstrations.
 - *Certification Tracks*: Trainers and trainees are encouraged to pursue industry-relevant certifications (e.g. CISSP).
 - *Collaborations*: Formal ties to national (NCSA) and European (ENISA) cybersecurity agencies provide official materials, support, and up-to-date guidance.
- Professional Development:

- Active use of LMS (Open eClass, Moodle, Google Classroom).
- Rich ecosystem of webinars, communities, and online platforms for trainer development.
- Hands-on platforms for practical cybersecurity skill-building (e.g., TryHackMe, IBM SkillsBuild).

Transferable Practice:

Organizing cybersecurity awareness events, incentivizing certifications, and partnering with national agencies are effective, immediately actionable, and low-barrier practices adaptable across all partner VET contexts.

4.3 Spain

Advanced, Modular Cybersecurity VET Ecosystem

Spain offers one of the most diverse and mature VET ecosystems for cybersecurity, with both sector-agnostic and sector-focused foundations:

1. Higher VET Degree in Cybersecurity (Ciberseguridad en Entornos de las Tecnologías de la Información)
 - Modular, nationally regulated, and includes cyber threat analysis, GDPR compliance, and ethical hacking.
 - Offered in 50+ public/private VET centers (Madrid, Basque Country, Catalonia, Andalusia).
 - Content is adaptable to the tourism sector's specific digital risk profile.
2. Tknika – Basque VET Applied Research Centre
 - Applied R&D and “train the trainer” courses in cybersecurity, developing teaching resources and piloting solutions with local tourism businesses.
 - Key actor in capacity building and dissemination of cutting-edge digital skills regionally.
3. Moodle-Based Cybersecurity Training

- Widely used for both formal degree programs and continuing professional education (“FP a Distancia”), offering flexible, scalable solutions with interactive modules and live instructor support.
4. INCIBE FP Emprende Programme
- National initiative promoting cybersecurity entrepreneurship and innovation among VET students and teachers via hackathons, competitions, and mentorship.
5. Short Course Offerings (FPE)
- Publicly funded training for upskilling adult workforce in cybersecurity fundamentals (offered by SEPE, Lanbide, and regional labor agencies); especially recommended for tourism SME staff.

Transferable Practice:

Spain’s system demonstrates the value of modular, stackable programs, innovation center partnerships, and integrating cybersecurity in both formal VET and upskilling pathways.

4.4 Italy

Digital Transition with Emerging Cybersecurity Modules

No exclusive “cybersecurity for tourism” VET programs exist in Italy, but the digital transition is accelerating sector-wide:

- Basic ICT and Digital Literacy:
 - All VET pathways for tourism now contain digital and data protection elements as baseline competencies.
- Integrated Cybersecurity Units (EQF 3/4):
 - ICT Operator, IT Technician–Systems/Networks: Introductory to intermediate cybersecurity and network/data protection content.
- Specialist (Higher) Courses – IFTS/ITS (EQF 4/5):

- Networking and Security (ITSIncom Academy)
 - Cybersecurity Expert (Agenzia Formativa Formatica)
 - Technician for Network and Cloud Services Security (Fondazione Aldini Valeriani)
 - AI Cybersecurity Specialist (ITS Academy Adriano Olivetti)
 - All are characterized by strong company collaboration (internships, trainers from industry), and adaptable course content.
- Emerging Practice:
 - Growing trend of tailored Erasmus+ projects and industry-led curricular upgrades to reflect sector risk and market digitalization.

Transferable Practice:

Apply a modular, industry-driven approach, integrating cybersecurity modules into generalized VET programs and supplementing with targeted short courses.

Table 1: Most relevant Good Practices for Implementation

Practice Category	Good Practices	Impact / Benefits	Transferability	Example countries
A) Events & Awareness Activities	National/regional fairs, Hackathons, Cybersecurity Awareness Days, Erasmus+ multiplier events	Enhances VET attractiveness; boosts sectoral awareness; ensures wide understanding of digital and cybersecurity priorities among students, trainers and employers.	High (can be implemented by all partners, tailored to local sector needs)	All partner countries
B) EQAVET Quality Assurance	Use of EQAVET indicators for outcomes and satisfaction;	Guarantees high quality, relevance, and ongoing adaptation of VET to the evolving	Very High (already national standard)	All partner countries

	continuous curriculum updates; stakeholder engagement	digital and cybersecurity landscape.	or growing in all partners)	
C) Tools & Teacher Professional Development	LMS platforms (Moodle, Open eClass), digital microlearning, webinars, teacher networks, VR/AR, gamification, national agency collaboration	Ensures trainers are equipped to teach latest digital and cyber topics, nurturing a culture of continuous improvement and preparedness.	High (low-cost, scalable, adaptable across education systems)	All partner countries

Recommendations for Implementation

- For VET providers/trainers:
 - Audit curricula for digital content; revise to embed cybersecurity and digital resilience throughout.
 - Schedule at least one annual Cybersecurity Awareness Day, and enable student participation in national/international competitions.
 - Seek partnerships with regional innovation centers/industry, pilot joint modules or trainer exchanges.
 - Use LMS and e-learning platforms for all new and continuing digital upskilling.
 - Support trainers in pursuing additional certifications and joining peer support communities.
- For Policy Stakeholders:
 - Foster frameworks (EQAVET, EQF) for continuous monitoring, feedback integration, and best-practice dissemination.
 - Incentivize cross-sector collaboration and public-private VET partnerships.

The TREADS Good Practices Handbook demonstrates that building digital resilience and cybersecurity capacity in tourism VET is both essential and achievable across diverse European contexts. By examining and synthesizing practices from Greece, Spain, Italy, and Slovenia, the handbook provides a clear roadmap for partners to develop digitally upskilled, security-aware professionals who can respond to the evolving challenges of a digitized tourism sector.

The practices are proven, transferable models suitable for broad adoption. Through coordinated implementation of these good practices, all partner countries can substantially advance project goals: equipping VET systems and professionals to thrive securely and sustainably in a digital-first tourism economy.



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