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Advisor Resources Package
competence area 8
innovation & digital transformation

developed by **CARDET**

Advisor Resource Package: **introduction**

Addressed to:
- Sustainable tourism advisors
- VET providers
- Small tourism providers

Offers a set of eight blended learning resources to support tourism and local development through the promotion of sustainable and efficiently use of natural, cultural and economic resources in watercourse regions.

sustainable tourism & SDGs

innovation & digital transformation

networking & local partnerships

ethics & social responsibility in tourism

branding & digital marketing

natural & cultural heritage

competitiveness & sustainable local business development

internationalisation strategy

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innovation & digital transformation:
about competence area 8

Innovation and digital transformation respond to the growing demand for a digital tourism business ecosystem model, especially post-COVID-19. The use of modern technologies in business operations contributes to the ability of businesses to build resilience, gain a competitive advantage over their peers and secure viability.

This competence area describes the knowledge, skills, and attitudes the sustainable tourism advisor must acquire and develop to guide small tourism providers in watercourse regions to adopt more sustainable practices in their local businesses through digitalisation.
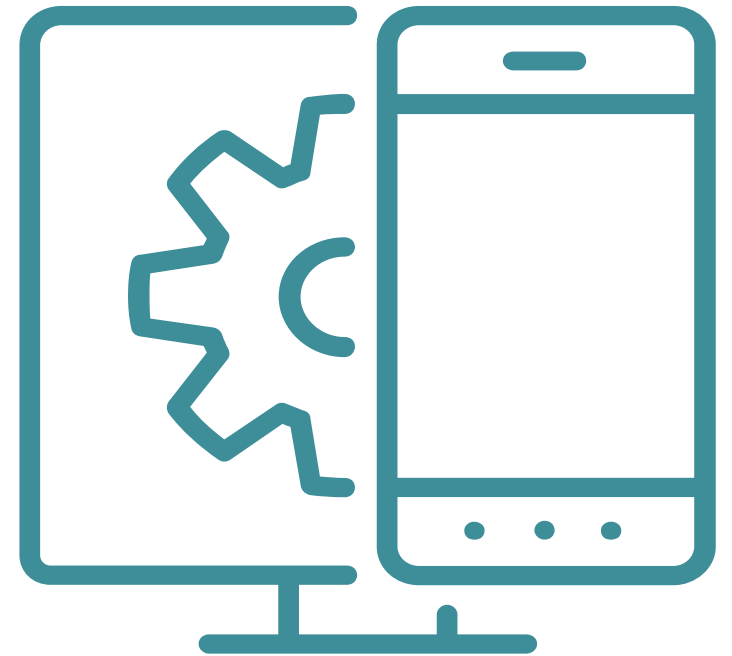
innovation & digital transformation:
in this competence area you will learn how to

- define innovation and digital transformation in the tourism industry and how digital presence impacts productivity and profits
- give examples of Information and Communication Technology (ICT) skills needed in the different tourism sectors (i.e., accommodation, food and beverage, recreation and entertainment, and travel services)
- provide examples of appropriate digital environments (VR, AR, etc.) in each tourism sectors
- select the most suitable digital transformation methods to improve business processes as well as customer experience
- apply the techniques and methods learnt to assist small tourism providers acquiring a digital skill set, at all seniority levels
- advise small tourism businesses on the use and management of communication technologies (ICTs) tools, including Virtual Reality (VR), to allow them to provide an excellent tourist experience to customers.
- monitor small tourism digitalisation process in the three areas of focus: business model and processes, staff skills development and customer experience

Competence area 8: **guidance**
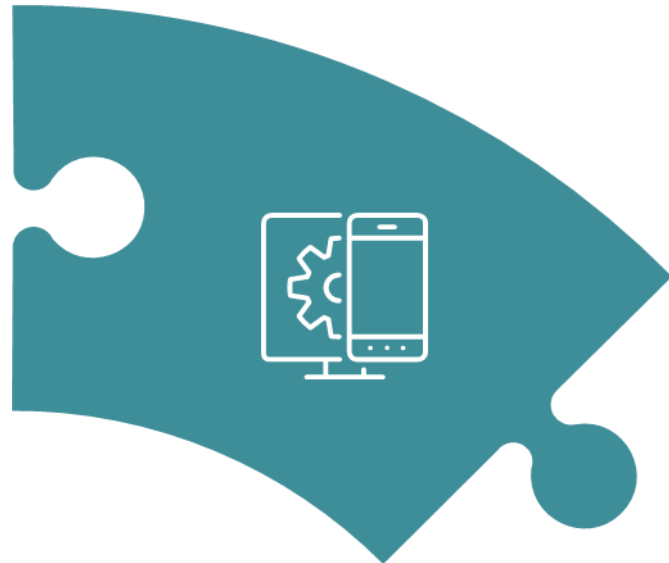
In this section you can find knowledge-based contents presenting key factual and conceptual information about the topics covered by the innovation & digital transformation competence area

*"Digital Transformation is about adopting **disruptive technologies** to increase **productivity**, **value creation** and the **social welfare"**.* Christof Ebert

It is the adoption of electronic tools, devices and systems such as social media, smartphones, cloud systems, blockchain and others. These digital technologies will add value to both the business processes (internal) and customer experience (external).

Innovation and digital transformation

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Digital transformation is about **re-shifting the way a business operates** making the whole tourism experience more **attractive**, more **efficient** and more **inclusive**. It also ensures that the offerings in the tourism industry are more **economically, socially and environmentally sustainable.** It is an **ongoing process** but in order to proceed with it, digital innovation has to precede it. Digital innovation comes with an inspiration to be ahead of the market. It applies to **every business, irrespective of size, industry and nature of operations**.

Innovation and digital transformation

The IoT describes the **network of devices**, which are **connected** with each other for the purpose of collecting, exchanging and acting on data acquired from an environment. **Sensors, software, and other technologies** are embedded within these devices. They are web-enabled and, although there can be human intervention, they can function without it. An example is the **Smart home security camera**, through which people can receive alerts and have a live camera feed.

IoT (Internet of things)

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Digital skills as defined by UNESCO is the ability to "*use digital devices, communication applications, and networks to access and manage information*". These skills **enhance communication and collaboration**, contribute to **problem-solving** ideas and **facilitate decision-making**. Some examples are computer skills, web-based communication and research, secure information processing, digital business analysis, programming, web, and app development and user experience design.

Digital skills

The tourism industry is **highly susceptible to security breaches** with **hackers stealing personal information,** which are collected by businesses during a customer's flight booking or hotel reservation. Cybersecurity focuses on **keeping computer networks secured** from **data breaches, theft, damage** to both software and hardware and others by applying measures such as network security and information security.

Cybersecurity

Cloud computing refers to a model of **enabling on-demand network access** to a **shared pool** of configurable **computing resources** (e.g. storage, servers, networks, applications, and services) over the Internet ("the cloud"). It has become a dominant platform as it **surpass the limitation of a physical device** (fast and flexible resources). Importantly, it **reduces operating costs** as businesses pay only for the cloud services they use.

Cloud computing

Contactless payments are **easy and straightforward** and no PIN is required for the processing of the transaction. They enable customers to eliminate the use of cash or the physical implementation of a debit/credit card. Importantly, they utilise an **advanced form of wireless encryption**, implying that any chance of data being lost or corrupted is virtually eliminated. Therefore, they provide a **faster**, **safer** and **greener** approach to payments.

Contactless payments

Recognition technology refers to technologies being capable of **identifying or verifying a subject through biometric identifiers**. It includes **facial recognition**, **fingerprint**, **retina scanning** and others. Digitally-advanced businesses have started using facial recognition for the **automatic authorisation of payments** and for the **check-in and check-out process** (hotels).

Recognition technologies

VR is considered as the **best tool** for achieving **high levels of customer experience**. An indicative example is the **virtual tour video**. Customers can see the layout of a destination/room via a **digital walkthrough with a 360-degree view**. The opportunity to experience something before booking it, creates **assurance** on what they are paying for and thus **attracts** more customers. Ultimately, this "try before you buy" marketing strategy leads to **more profits**.

Virtual Reality (VR)

AR **enhances the physical environment** by overlaying, in real-time, **digital components** in the customer's surroundings. It is **easily accessible through a smartphone**, and hence it is considered as a **cheaper** option compared to VR. Examples of AR relate to interactive environment for **entertainment purposes** as well as for **indoor navigation**.

Augmented Reality (AR)

AI refers to the **ability of a computer** or a **robot** controlled by a computer to **perform tasks** which traditionally require human intelligence and discernment. In the artificial intelligence world, **AI-powered online chatbots** are used to provide **fast and direct** information to customers via **live chats (24/7),** even in multiple languages. Robots can assist with the **heavy and repetitive tasks** and contribute to the **operational efficiency** of the business.

AI (Artificial intelligence) robots or chatbots

One of the greatest innovations of our time, blockchain, refers to a decentralised, anonymous information **sharing technology**. The information is safely **stored in records** called "blocks", with no central location, which makes it extremely **resistant to modification and security threats**. Examples may be the booking & baggage tracking, loyalty programs (customers reward schemes), and secured online payments (transparent and encrypted in the blockchain).

Blockchain

Competence area 8: **tutorials**
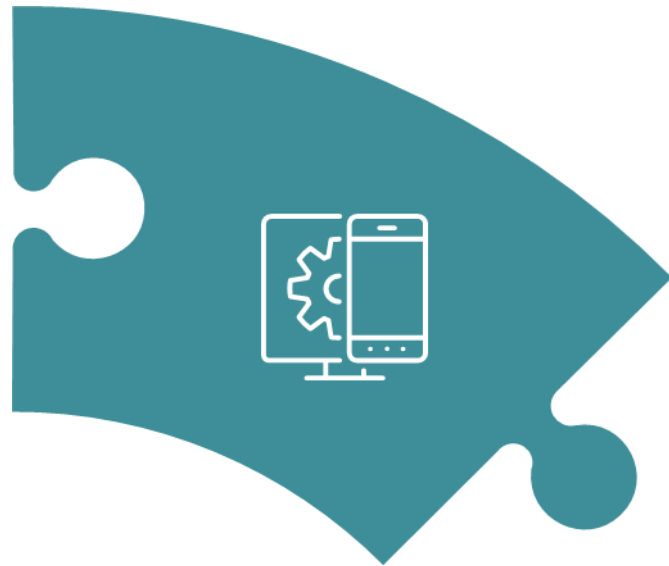
In this section you can find a set of self-explanatory task-cards, specifically designed to provide real-world challenge and supply the practical information to develop your competences on innovation & digital transformation

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Task card 1: **selecting digital transformation methods**

outline

Tourism is a competitive market and **digital transformation is a key strategic choice for enterprises** which actively focus on providing high customer experience and improved business operations.

This action card aims to support the **sustainable tourism advisor** in guiding the small tourism provider to work towards **digital transformation**. The sustainable tourism advisor will present a set of strategies and tools so that **small tourism providers,** interested in digital transformation, can identify and then select the **most suitable digital transformation methods** for their businesses.

Action 1: **research**

Step1: use research platforms such as Google to read about digital transformation

Step2: listen to digital transformation examples of other enterprises via YouTube and other local news platforms

Step3: ask key people in the respective industry to share local examples of digital transformation

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Action 2: **plan**

Step1: document the current business processes and how you add value to your customers.

Step2: identify gaps in the processes and opportunities for value creation.

Step3: set the business focus and priorities based on the gaps and opportunities

source: Whiteboard Writing Man - Free photo on Pixabay

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Action 2: **assess**

Step1: collect information about potential technological solutions.

Step 2: assess the solutions based on set criteria (budget, timeline, resources).

Step3: shortlist the most beneficial as well as feasible solution for the business based on those criteria

*source:*Analytics Graph Chart - Free photo on Pixabay

Throughout this action card, you have learned about **how a business can identify digital transformation methods** by conducting an initial research on possible technological solutions. The steps outlined supported you in mapping where your business stands and where it wants to go, through the identification of the current position, the processes, the gaps and the opportunities. This allowed your business to better **link the gaps and the opportunities with possible solutions**.

This **process is dynamic** and should be **conducted regularly** to ensure that your business **acts strategically towards new market opportunities** that will ensure the provision of excellent customer experience and efficiency in the internal processes.

summary

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Task card 2: **developing digital skill set**

outline

The COVID-19 pandemic **has accelerated the need for digital adoption** and for embracing digital transformation. Working from home, engaging into virtual collaboration, conducting all transactions and communication online require certain skills. Businesses and the workforce realised the **digital skills gap that exists**.

This action card aims to support the sustainable tourism advisor in guiding the small tourism provider to **acquire a digital skill set**. The sustainable tourism advisor will present the steps for the acquisition of digital skills based on the small tourism providers **current circumstances and strategic priorities.**

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Action 1: **identify**

Step1: research on current trends of the market on digital skills and list both core and more advanced digital skills.

Step 2: map the current staff's skills level and identify gaps.

Step3: shortlist the most important skills based on the industry and the market trends.

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Action 2: **train and support**

Step1: provide employees with relevant training seminars based on their digital literacy levels.
Step 2: assign a mentor to every employee.
Step3: monitor their progress; skills acquisition and improvement.

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Action 3: **practise**

Step1: apply this skill set in day-to-day life outside of work.

Step 2: be committed with the skills development process and provide 360-feedback.

Step3: be up-to-date with current trends and seek new skills acquisition opportunities.

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Throughout this action card, you have learned about the steps needed for the **acquisition of digital skill set**, whether core or advanced, which will allow your business to explore new opportunities as the **staff becomes more competent**. Examples may relate to social media management, cloud-based storage management, video development and editing, assessing web traffic analytics.

Your business should focus on **encouraging employees to use these skills** and also **feel supported** by their colleagues. **Monitoring and 360-feedback** are key to the successful introduction and adoption of any new skill set in a business.

summary

Competence area 8: **hands-on resources**
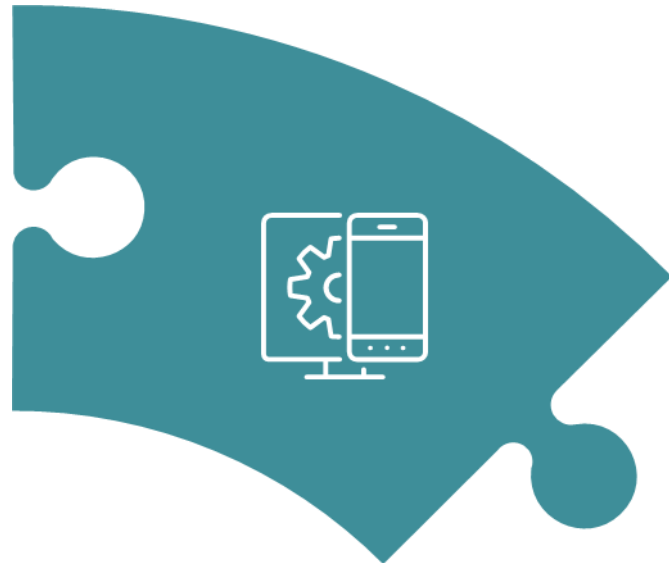
In this section you can find scenario-based situations designed specifically to illustrate how innovation & digital transformation competence area can be put in practice by small tourism providers

Scenario 1: Being closer to reality with digital technologies

A medium-sized hotel, as part of their **digital transformation strategy**, is considering the implementation of **"Hotel Tours"**; a VR 360-view of all open hotel areas and hotel guest rooms.

The management of the Hotel is eager to learn more **on the use and management of communication technologies**, that will lead to excellent customer experience.

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The medium-sized **hotel is located on the coastline but also close to the city centre**. It has outdoor and indoor swimming pool, spa, tennis court and kids playground as well as interesting archaeological sites nearby.

Within the digital transformation strategy, the hotel is looking to **use digital technologies** in order to increase its customer base, engage existing and new customers and **provide a warm experience to them before they even arrive**. The team is already aware of the many benefits of VR reality and other digital technologies and it is currently **discussing the potential uses both within their own hotel infrastructure and the surrounding areas**.

During their research on VR, the responsible team suggested that the Hotel should hire a specialist for the development of VR videos with the below outline and features:

- VR videos to **cover different sections of the hotel**; one that will follow the path from the hotel's entrance, to the reception, to the inside lounge and restaurant and then to the hotel's outside swimming pool and bar, another one for the facilities such as indoor swimming pool, gym and spa and another one for the hotel rooms.

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Additional features to be considered for the development of VR videos are to:

- Include a warm **welcome by the receptionist**, showcasing the **overall customer service** in the various spots and providing **stimulating and useful information** about the **events list or restaurant menu**.

- Be available in both the **national language and English** so as to capture the interest of both locals and foreign tourists.

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In addition to the VR "Hotel Tours", the Hotel is planning to introduce **VR tours for the surrounding areas** including the coastline and the archaeological sites, in order to **educate the visitors** about the place and its history, in **an interactive setting.**

Lastly, the Hotel – being interested in implementing more digital technologies – identified the potentials of **AR technology** especially **focusing on kids.** They became aware of an example of **AR implementation**, where, **through a mobile app**, kids could see themselves accompanied with Disney characters in different hotel spots therefore, whilst exploring the hotel sites.

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The Hotel proceeded with the implementation of the plan and the use of VR and AR technologies. These were **added to the hotel's existing website**, made available in all **Android** and **Apple devices** and every **VR headset in the market**. Six months later, the team was asked to provide feedback and metrics on the impact of this implementation, following the monitoring of website traffic, booking data and reviews. The results were **extremely positive** since **the visitor-to- customer convention rate** had risen dramatically, whilst **customer reviews** confirmed the **value creation** obtained from the use of such technologies.

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Scenario 1: Being closer to reality with digital technologies

- What examples of digital technologies has the hotel implemented in order to enhance customer experience?

- What potentials do these digital technologies have in terms of features?

- How could VR and AR technologies benefit the hotels?

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Scenario 1: Being closer to reality with digital technologies

TRY to

- Conduct a thorough research on the different providers offering the technologies you want to implement.

- Be flexible with your decision and listen to the feedback of the customers and the staff, whilst adopting new digital technologies.

- Be creative with digital technologies; incorporate features based on your customers needs.

AVOID

- Develop plans whose implementation could have a reputational and financial detriment.

- Implement a plan based on what primarily your competitor is doing.

- Proceed with any plan, without taking into account your customers and staff requirements.

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Source: https://www.freepik.com/premium-photo/young-business-man-doing-self-check-machine-airport_6854800.htm#query=self%20check-in&position=46&from_view=search&track=sph

Scenario 2: adapting a smarter approach

Hotel B is a small family-owned business. The **higher number of tech-savvy tourists** the Hotel receives, led to its decision to initiate the process of digital transformation. However, the Hotel being small, is **unaware of what kind of feasible measures** it can implement to achieve this.

Scenario 2

The small hotel's clientele includes **different types of tourists** from families to digital nomads. Although being a pioneer back in the days, currently the Hotel is concerned about the **value and experience** it can offer to its guests. The management understands that **tourists have become digitally-savvy**, whereas the **hotel processes and staff competencies are not developing** with the same pace. According to management, although the hotel has a lot of potential, the fact that it **has not yet "followed" the current technological trends** may contribute to the **loss in demand** and, eventually, market share.

Recently, an incident happened in the Hotel, which led to the initiation of its digital transformation process. During a busy afternoon in the Hotel, there were just two receptionists in the front desk. Guest B arrived, at exactly the check-in time indicated when making her reservation. There was a **long queue** with a big group of tourists **waiting to check-in**. Twenty-five (25) minutes after, she requested to speak to the Hotel Manager about her delayed check-in. The Hotel Manager is **not digitally-competent;** however he is aware of the importance of adopting digital tools and methods, and therefore he listened to Guest B's feedback.

Guest B suggested the introduction of **self-check in at the reception** to reduce visitors **waiting time** and give them the **flexibility** to check-in throughout the day, regardless of the time. The self check-in process is supported by a **Property Management System (PMS),** which is a software application focusing on hotel functions such as bookings. Although this suggestion sounded attractive, the Hotel Manager was skeptical about **the cost of this software** and its respective implementation. Guest B advised the Hotel Manager to look for **local grants on business digital transformation** as she was aware many countries have such open calls.

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The purpose of Guest's B stay was business-related. Her schedule was tight with meetings - in and out of the Hotel - and therefore any requests to the Hotel staff needed to be placed **remotely** and handled **quickly**.

One morning, in-between meetings, she decided to **order room service**. Due to some special dietary requirements, she always **prefers to speak with a member of the kitchen staff**, in order to share details about her meals' requirements. She called the front desk to ask for line redirection to the kitchen as this was the **only way to be connected**. Unfortunately, **no staff was available** at that time, due to the workload in the kitchen and dining room.

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Guest B suggested the introduction of either **chatbots** or **live chat with staff**, or both. The **instant answers** which guests are looking for will be facilitated through this software application. Live chats compliment the chatbots' functionality by **adding the human variable** in the equation and achieving this **customer-centric approach**. The Hotel Manager was aware of these digital technologies but had not explored these tools before. He knew that there were some **free chatbot builder platforms** as well as **good price deals for chatbot and live chat for SMEs**.

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A year later, Guest B returned to the Hotel for a conference. She immediately spotted the **two self check-in** devices. **Local funding**, which was indeed available, allowed the Hotel to purchase the devices as well as the PMS software. In addition, the Hotel purchased an AI package (**chatbots and Live chats**), who offered this at a discounted price. The **management secured training sessions for the staff** specifically on the new technological advancements of the Hotel. In addition, the Hotel **collaborated with other hotels** for the execution of training sessions on artificial intelligence technologies in the hospitality sectors.

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Scenario 2: **Adapting a smarter approach**

- What other measures related to digital transformation could the business owner adopt?

- How new technologies adoption can increase customer satisfaction?

- Have the measures taken provided digital upskilling to hotel management and staff?

Scenario 2: **Adapting a smarter approach**

TRY to

- Identify good practices already being implemented elsewhere.
- Be open to customers' feedback and involve staff in the business digitalisation process.
- Be transparent and keep your customers informed about your new technological implementations.
- Seek local funding and support during the digitalisation process.

AVOID

- Adopt digital transformation measures, which your current infrastructure cannot support.
- Make decisions without having in mind both your customers and staff.
- Omit informing customers about new implementations and ignore data privacy related matters.
- Do everything on your own, which may have a negative impact on your business financial viability.

Competence area 8: **practical tips**
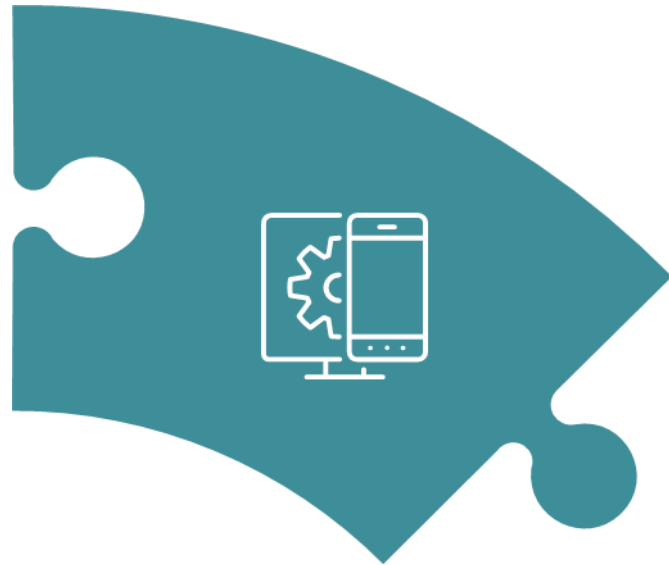
In this section you can find a checklist of points to adopt innovation & digital transformation practices in local tourism businesses

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Familiarise yourself with digital technologies as part of the digital transformation process and identify the benefits and the opportunities it carries in terms of building business resilience, gaining competitive advantage over peers and securing viability.

Practical tip 1

Explore different examples of digital technologies and assess their feasibility based on your business current status and strategic objectives.

Practical tip 2

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Involve employees in the process of digital transformation by seeking their opinion in relation to customer day-to-day feedbacks, challenges in operations and staff training and development needs.

Practical tip 3

Start small. Adopt digital transformation methods that are more easily attainable and assess the impact on your business. Measure results based on operational efficiencies and customer satisfaction using software analytics as well as brief questionnaires.

Practical tip 4

Promote your actions towards digital transformation and ensure to keep up to date with current market trends.

Practical tip 5

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Competence area 8: **useful reading**
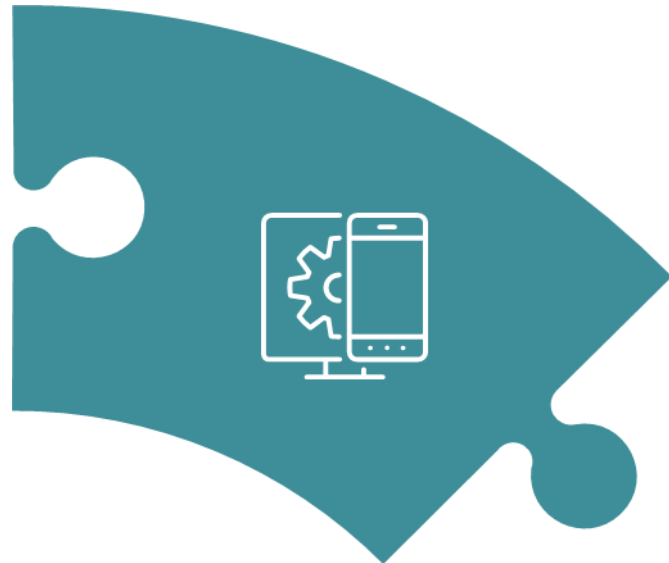
In this section you can find a list of relevant online resources to help you go further on innovation & digital transformation

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Innovation and digital transformation

www.medium.com/swlh/digital-transformation-and-innovation-2a4352e4e885

IoT (Internet of things)

www.leverege.com/blogpost/what-is-iot-simple-explanation

Digital skills

www.salesforce.com/news/stories/what-are-digital-skills/

Cybersecurity

www.phptravels.com/blog/the-importance-of-cybersecurity-in-the-tourism-industry

Cloud computing

www.researchgate.net/publication/338300787_Cloud_Computing_in_Tourism

Contactless payments

www.revfine.com/contactless-payments-travel-industry/

Recognition technologies

www.revfine.com/facial-recognition-travel-industry/

Virtual Reality (VR) and Augmented Reality (AR)

www.bu.edu/bhr/2021/10/04/digital-transformation-in-the-hospitality-industry/

AI (Artificial intelligence) robots or chatbots

www.mdpi.com/2071-1050/13/22/12691/htm

Blockchain

www.revfine.com/blockchain-technology-travel-industry/

You have completed competence area 8, well done!