

# EMBRACING INNOVATION:

## What makes the hospitality industry tech-savvy and innovative?



Due to the massive development of digitalisation, the face of tourism has changed dramatically, therefore reshaping the way we work, the way we connect and the way we select goods and services.

While tourism and hospitality represent the 3rd socio-economic activity in Europe, hospitality alone employs 10 million workers in 1.8 million small enterprises, therefore playing a key role for Europe as a tourism destination.

In a world of change driven by technology, in which tourist arrivals exceed 1 billion per year, hospitality has been operating as a beltway to innovation, not only in terms of service and product development, but also in technological terms, making the industry a change maker.

Please discover how HOTREC and the industry contribute to sustainable tourism thanks to technology and also develop an even greater experience for guests.



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### → A pioneer in digitalisation

Hospitality businesses have been at the forefront of the digital revolution, as they were the first enterprises to embrace digitalisation through the massive developments of online booking facilities integrated in hotel websites, and directly connected to their Property Management Systems. Moreover, more and more restaurants have their own websites, and/or Facebook pages and are increasingly connected to online booking sites and technologies.

The hospitality industry is already looking a step ahead, and starts to use new technologies to improve the efficiency and quality of the service not only at the booking stage, but also once the client is at their premises. For instance, many hotel groups are implementing systems of automatic check-in at the reception, in particular at business hotels, which is a real challenge given the legal requirements hotel face when registering guests, as part of the Schengen acquis. Moreover, other hotels are using digital technologies to change the way clients can order room-services. The Aloft hotel group has for instance introduced in some of its hotels the possibility to use Emoji and SMS to order drinks, lunch served in rooms, beauty kits, etc. Moreover, many hotels are now investing in a technology which allows clients to use their smartphones as door keys to open their rooms. Far beyond, Link@Sheraton is a touchscreen device that creates a new experience by interacting with guests and providing them with a new way to explore local tourist attractions and enhance their hotel experience.

Some restaurants are also starting to use digital devices inside the restaurant room. For instance, some restaurants install connected tablets to change the restaurant experience. This is the case in France of the restaurant [Fastcook](#) in Rennes, of the bar-restaurant [Touch'in Paris](#), or of the restaurant chain [Max à table](#), where clients can order or compose their menu through tablets. Similar concepts are also in use in other European countries, as digitalisation and the use of social media and mobile apps can not only help restaurants better connect with customers but also help deploying workforce management solutions to improve the use of employees' time and effort (e.g. using digital solutions to better manage stocks, or give clients the possibility to ask for a waiter without having to wait, etc.)



## → Bringing innovation through education and training

HOTREC, together with other European partners, developed a pilot Massive Open Online Course (MOOC) for the training of tourism professionals in the field of accessibility. The aim was to create an innovative online training tool aiming at sensitizing tourism professionals on the need to better assess and communicate their services to people with specific needs: a market of 168 million individuals in the EU!

This new form of online courses not only allows for of passive absorption of information, but rather for an interactive form of education especially tailored to the needs for the smallest enterprises in the sector. The basis of the course is an exhaustive information material available, accessible anytime. Information is backed by videos to further help acquiring new knowledge. Most importantly, the MOOC offers the possibility of active interaction among the participants via forums during the course. The trainees' progress is further supported by interactive webinars, as well as the assistance of professionals through the forums and chats during the course on the platform of the MOOC.

The MOOC bears several benefits for tourism entrepreneurs. It allows for flexibility, as the only condition for participation is having an internet connection. Depending on the trainees' availability, progress in the training can be done anytime. Thus, it saves the time and the costs of travelling to training centers, and allows to stay always with the business when need be. Through the interactive nature of the course, contacts and networks between professionals can be easily built-up, enhancing cooperation and exchange of best practices.

In addition to the MOOC, an online application was developed, where entrepreneurs can, when going through their facility, make the self-assessment of their establishment and publish in a simple way the relevant information to people in need of it. Visit [apptouryou.eu](http://apptouryou.eu)



## → Spreading of innovative ideas for an environmental friendly hospitality sector

Environmentally friendly policies and practices in the hospitality sector are key for a sustainable tourism sector. The industry uses for years new technological solutions in order to reduce its carbon footprint.

HOTREC has been supporting the UNWTO lead project on Nearly Zero Energy Hotels (neZEH), which aim is to propose concrete solutions to EU hotel owners willing to become a nearly Zero Energy Hotel. It has been providing technical advices for nearly Zero Energy Buildings (nZEB) renovations, demonstrating the sustainability of such projects and promoting front runners. neZEH sensitized more than 56.000 hotels across Europe, engaging them in the EU nZEB strategy.

The application of innovative technologies in the field of energy is picked up by more and more hotels in Europe. The use of geothermal energy, the production of electricity on site, the replacement of fossil fuel boilers by biomass boilers, the installation of water pressure regulators and many other practices help the industry and thus the European tourism sector to become more environmental friendly.



Other examples of using new technologies in improving sustainability include the use of electric cars for guest transfers, offering charging stations for guests' electric cars, in-house recycling of water for a second use and heat. Visit [NeZeH.eu](http://NeZeH.eu)



## → Investing in new types of hotels to meet new consumer demands and trends

With the growth of tourism in the 'millennial' travellers (18-35 year-olds) segment, hotels are now facing a profound change in customers' expectations in terms of services and infrastructures. The growth of this tourism segment, together with the importance of digitalisation and the abundance of the offer on "collaborative" economy platforms has led many hotel companies across Europe and worldwide to respond to this new demand by investing in new innovative types of hotels and services.

As studies have shown that younger customers are increasingly looking for modularity, co-working or collaborative spaces, most large hotel companies are now launching new specific brands, which come at a cheaper price, with a strong focus on lifestyle, locality and shared spaces.

For instance, the AccorHotels group is a shareholder of the Mama Shelter brand, where hotels have living and meeting spaces. Similarly, AccorHotels has developed the Joe&Joe brand where accommodation is conceived as an open house for travellers and neighbours with individual and shared rooms. Similarly, the brand "Generator" is operating a set of "posh hostels". Other large brands are also adapting their offer to this new trend e.g. Moxy of Marriott, Citizen M or 25Hours group. All these examples show that the hotel sector is already making massive investments to adapt the tourism accommodation offer to new types of clientele and demand, based on modularity and the sharing of experiences, therefore embracing innovation.

## → Using robots to support staff: the future of the industry?

The use of robots in hospitality services is another potential future trend. A hotel in Japan, Henna, uses robots for various positions such as the receptionists, the porter who brings the luggage and delivering room services. These developments, which have been experimented in the United States as well, will have major social, economic and business effects, being also apparently, very popular with the kids.

In order not to let the European hotel sector lag behind other parts of the world in what may soon become a new highly regarded trend, HOTREC played a role of match-maker between the [Asociacion Instituto Tecnológico Hotelero \(ITH\)](#) and other key-actors in technology (e.g. the aerospace and defense group [Thales](#), the retail company [Leroy Merlin](#), the Norwegian independent non-profit institute for applied R&D [Teknova](#)) which led to the creation of a consortium which applied to a European-funded project envisaging to experiment robots in the hotel sector.

If successful, the proposal, called Robots4all, will create a multi-purpose repository of robotic applications that users can adopt and adapt to their needs. The partners are committed to ensure that robots do not displace humans but, instead, support employees and citizens to better achieve their daily needs. To that end, the project supports seamless integration of several open ICT developments on a robot tailored by users to their needs, enabling them to self-design new robotic applications in a modular way by making use of robots, sensors and mobile platforms through

a Robotic Application Modules (RAM) store. The project will notably propose RAM for three technical areas -- computer vision, deep learning and mobile computing -- to respond to generic needs for machine vision, artificial intelligence and real-time operations. Apps will be created in these areas as examples of modules that end users could find in the repository. ROBOTS4ALL expects many more, third-party apps in the repository over time. Robotic applications will be evaluated in three use cases in retail, hotel and oil & gas sectors.



The hotel industry is a very heterogeneous sector providing customisable solutions that are easily adapted to particular needs and services of each hotel and clientele typology. Therefore, the creation of a generic open framework with modular components and apps to easy develop robotic and digital solutions will allow automation of processes and operations, which can improve services within the hotel industry.

Various applications are envisaged in the hotel sector – from welcoming guests, to transporting luggage to rooms, to generating receipts for payments received, to room services and cleaning. To take the latter example application, nowadays, it is common to find several vacuuming robots with a high grade of autonomy performing well in households. Cleaning services have a huge impact on hotel operations, not only in economic terms but also on day-to-day management. If we can enable the automation of vacuuming, it will benefit hotels by reducing time spent, liberating human resources to focus in more valuable tasks, guaranteeing much better service, and, therefore, offering a better guest experience.



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