Will we take the opportunity?
Slovenia is setting ground for developing future tourism

Content thematic pillars:

1. Measuring impact in tourism
2. Artificial Intelligence in tourism
3. Blockchain
4. Creating personified experience
5. Digital innovation of cultural heritage
6. Tourism – builder of SMART cities and communities

Tourism 4.0 organised an important event on a national level with the participation of key ministries and other institutions from Slovenia and also from abroad.

The times when the pandemic is slightly stopping and we are getting used to living and working in the new reality, we have to plan the development of tourism, that will be based on the collaboration between numerous stakeholders and on using technological, digital innovation. The state secretary from the Ministry of education, science and sport, Mitja Slavinec, PhD, agreed that the Tourism 40. TRL 3-6 project was a game-changer as it contributed importantly to the fast response in the new reality with its technological approaches. Tomi Ilijaš, Arctur’s CEO, shared information that the trend in Europe is that R&D activities are trusted to Hi-Tech companies and supercomputer centres (e.g. Great Britain) as they are able to fulfil the gap between local, national tourist stakeholders and global corporations that usually own and manage data.

“We have to start our development activities today,” said state secretary of the Ministry of Economic Development and Technology, Mr Simon Zajc. Upon that is based if we will be the frontrunners or the followers if we will sustainably manage our own data or we will depend on the interests of bigger and faster and will define the content that will follow our values and our common vision of the development of sustainable tourism. Tourism 4.0 is a game-changer as it puts the local residents, the community, nature and cultural heritage in the centre.

Tourism 4.0 is the largest R&D partnership in the tourism sector in Slovenia that has resulted in many innovations that were presented at the conference. The mayor of the Municipality of Nova Gorica, Klemen Miklavič, PhD, said that with the preparation of
hosting European Capital of Culture in 2025 when the city expects large visits of tourists, they will use all available knowledge and innovation from Tourism 4.0 to assure the positive impacts on the local community. That puts the municipality in the company of the modern, advanced global tourist destinations.

If Slovenia is average in the digitalisation among the EU member countries, we are among the lead ones in the area of digital innovation of cultural heritage. Ksenija Kovačec from the Ministry of culture outlined that technologies, if used properly, significantly contribute to the development of cultural heritage. Under the Ministry of Economic Development and Technology, the largest project of the digitisation of the cultural heritage is just being realised in Slovenia.

Some of the Tourism 4.0 innovations, e.g. Tourism Impact Model, have already been internationally awarded. Especially a prestigious award for TIM as the best AI and big data analytics on the Tourism Innovation Summit, November 2020 in Sevilla, Spain. This award shows the leap of thinking and of the perception of tourism as Tourism 4.0 is putting the quality of life of local residents in the centre and is building the whole ecosystem around it. The conference has shown a big change in the perception of data, which is strategic good and an opportunity for Slovenia to offer a European answer towards the global corporations. This was also expressed by Patrick Torrent Queralt, executive manager of the Catalonian Tourist board and the president of the NECSTouR network. He sees Slovenia as a good example that created the platform of big data through Tourism 4.0. With the cooperation of the public and private sectors, it will gather valuable data that will be used for sustainable and responsible tourism. Arctur is one of the lead partners that build the Tomorrow Lav with NECSTour where this data will be available. Regions, that are members in NECSTour follow this model.

Slovenian promotion of the industry and knowledge was presented by Tomaž Kostanjevec, the director of national agency SPIRIT, that is leading the international campaign I feel Slovenia. Green. Creative. Smart. The campaign includes companies that have high global potential and include sustainable management that enables entrance on the global markets. Among 41 ambassadors, respected Slovenian companies are also Arctur for its high innovation in Tourism 4.0.

Slovenia has already published the first public calls, among them the public call from the Ministry of governance that is addressing the opening of data and supporting municipalities with seeking digital solutions. Aleš Veršič from the Ministry of Public Administration said that the public call is coming together with the third weave of opening the data on a global level. Also, Slovenia is searching for solutions that would enable digital transformation on a local level and would include all key stakeholders. Tourism is a sector, that is cross-sectorally connected with other sectors – transport, energy, circular economy, etc.). For the fall of 2021, the National Recovery and Resilience Plan will include some public calls for the companies. Monika Kirbiš Rojs, state secretary of the Government Office for Development and European Cohesion Policy shared information that Slovenia is one of the few countries that oriented on tourism as it has suffered the most due to the pandemic; 43 % of the RRF sources will be dedicated to the green goals and 22% for the digital goals.
The conference resulted in creating 10 key points of Tourism development. The first one outlines collaboration. Other key points included establishing the national body/point for enabling the R&D spirit, establishing managers of the digital processes and data, strategic planning based on real data, establishing permanent mechanisms for systematic data gathering at national and public institutions and transforming this data into accessible and useful information for the tourist destinations, local communities and providers, development of new knowledge, respecting privacy in the European way, advanced storage and use of the digital content, to the last point – the pioneer spirit – not to follow changes, but to co-create them.

Urška Starc Peceny, PhD, Tourism 4.0 Dept. lead at Arctur, concluded the conference with the words: “In the last years, with the Partnership for the Tourism 4.0, we pioneered the use of the advanced technologies in places and areas where usually were not used. We are proud that today at our event we can green 5 state secretaries, all large Slovenian universities, SPIRIT, Association of the Slovenian Municipalities, UNESCO and other stakeholders, which shows how important the development of tourism is and on how many aspects of the society it impacts. We see that R&D is important and necessary for solving the challenges in tourism. We are fortunate that we can implement the innovative results from Tourism 4.0 through national and international projects. With the 10 key points for the development of Tourism, we offer concrete suggestions that will support Slovenia to become one of the lead, sustainable countries in the future. Accept this challenge!«

The conference is available in Slovene language on: https://www.youtube.com/watch?v=ipCy1xwtB7c&t=2s
Key messages of the speakers

**Tomi Ilijaš (Arctur)**

Three years ago, when we were thinking about how to transfer technologies in the tourism sector, we did not imagine that because of the total closure of tourism, we will actually have the opportunity to measure the null point, what in the scientific research is one of the goals, used for setting up the system and that calibrates the starting point.

**Mitja Slavinec, PhD (Ministry of Education, Science and Sport)**

Slovenian knowledge was used for R&D, which has global potential. Added-value of the Tourism 4.0 is collaboration the municipality management with the lead research institutions, the academia and best technological experts. The result is many cross-sector innovations and solutions.

**Simon Zajc (Ministry of Economic Development and Technology)**

During the pandemic, we have realized how many opportunities the digital world is giving us. Digitalisation is becoming everything, from marketing, offer to plan in tourism, measuring impacts and efficient managing of tourist flows. The question is how fast and with which activities we will start this process. Will we be the frontrunners or will we be the followers, will the sustainable data be managed by ourselves or will we depend on the interests of bigger and faster? That sort of game-changing development is ensured through Tourism 4.0 by Arctur.

**Monika Kirbiš Rojs (Government Office for Development and European Cohesion Policy)**

The National Recovery and Resilience Plan is a reform document, that was approved by the European Commission and the European Council. First, open calls will be published in fall 2021. 22% will be dedicated to achieving digital goals and 43% for the green goals. Special attention will be given to tourism and culture as Slovenia is among the few countries that put a focus on these sectors.

**Patrick Torrent Queralt (executive director of Catalon Tourist Board and the president of the NECSTour network)**

Necstour, in partnership with private and public partners, develops the Tourism of Tomorrow Lab. With the goal of creating a platform of big data, that will support our regions. We are developing a professional and scientific approach to managing tourism. Slovenian is a perfect role example in a sense of sustainable management of natural, cultural and societal heritage. Slovenia has built a good and strong model that enables sustainable and responsible tourism. Slovenia is developing quality with the balance of quantity and keeping the good experience of the visitors. In that case, Slovenia is something that needs to be followed.
Tomaž Kostanjevec, PhD (director of SPIRIT Slovenia - Public Agency for Entrepreneurship, Internationalization, Foreign Investments and Technology)

Only solutions that are cross-sectoral connected are game-changing. The international campaign that aims to reach the international recognition of the Slovenian economy abroad - I feel Slovenia. Green. Creative. Smart, includes companies that have high global potential and include the sustainable management aspect. Among 41 ambassadors of respected companies that offer unique products with high added value, is also the company Arctur.

Mamuka Berdzenishvili (executive director of the Tourism institute Georgia)

The advantage of using the Tourism Impact Model is in showing clear points and ways, where the local community lacks data. We see that the government and the decision-makers on a local level are not using data in strategic planning, which is a clear starting point for TIM to support them to find sustainable ways for developing tourism. In Georgia, we hope that TIM becomes an important tool for local decision-makers and in future also on a governmental level with the goal to become the main tool for assessing sustainable development.

Aleš Veršič (Ministry of Public Administration)

The Ministry has published an open call for developing smart cities and communities to open data, which is in line with the third weave of opening data on a global level. We are searching for solutions to support local communities with the digital transformation that connects all key stakeholders. Data are the basic elements of each society.

Neil Forbes, PhD (Coventry University)

All innovators have to have in mind the holistic idea of trust, how to build this trust between our work and people that use our products – tourists, visitors, public in general. This can be achieved with co-creation, participatory methods that are key elements. An important role has ICT innovations. Especially important is the aspect of respecting the privacy of the web providers.

Klemen Miklavič, PhD (mayor of the Municipality of Nova Gorica)

During the European Capital of Culture in 2025, we want to be part of the modern global tourist destinations. We are expecting to welcome many tourists, therefore we will use the existing knowledge of Tourism 4.0 to manage this increase.

Ksenija Kovačec Naglič (Ministry of Culture)

In the 2019 research, 68 % of the Europeans and 59 % of Slovenians said that the cultural offer of a certain tourist location impacts their decision for visiting. Technologies can, if being correctly used, importantly add to the development of the cultural heritage.
Peter Misja (president of Association of Municipalities and Towns of Slovenia)
The Ministry of Public Administration published an open call for establishing smart cities and communities. Almost 75% of the Slovenian municipalities participated in this open call for altogether 8 million eur resources, which shows the great interest of the municipalities for the digitalisation and implementing the technical solutions. In the times of the recovery of tourism, that has suffered great loss, digital solutions will be a significant part of the recovery.

Tomaž Curk (the University of Ljubljana, Faculty of Computer and Information Science)
People use Artificial Intelligence on a daily basis (Booking, Google). While using it, we are also freely giving our data that these gigantics are making huge profits, so that exchange is not fair. Collaboration platform Tourism 4.0 presents a European answer, where small providers will develop their own systems and solutions and will fairly share data.

Boštjan Brumen, PhD (Faculty for Tourism, University of Maribor)
In the educational institutions, we see that students understand digitisation as today’s generation is practically born with it. As we see, that while entering the labour market young people often do not receive understanding as the digital readiness is lower there. In the digitisation and the data management area in Slovenia, we hold a treasure, that to date remains locked. The goal of the Tourism 4.0 is to unlock it.

Dejan Križaj, PhD (the University of Primorska, Faculty of Tourism Studies - Turistica)
Students have motivation, knowledge and skills for participation in the development of digital activities in tourism. A very good example is Tourism from Zero where we developed an idea of podcasts that will show the state of mind in a certain time period. Today, we have over 30 podcasts, that are the true treasure of knowledge and also modern, digital tools in the educational process.

Marko Hren (Government Office for Development and European Cohesion Policy)
Slovenia is an ice-breaker in the field of digital innovation at the European level. With the Strategy of Smart Specialization, we have ensured the cohesion resources to develop pilots. This was we support cross-sector R&D collaboration. Tourism is a sector that integrates all others. European Capital of Culture will be a huge test, where we will use all available innovations from Tourism 4.0 to achieve a positive impact.

Nataša Hočevar (Slovenian Tourist Board)
Slovenia aims to be the protagonist of changes at the European level. We are achieving this by cooperation, also in the digitalisation area. Tourism is not a low technology sector, which shows in the use of digital solutions in the real sector. Slovenian tourism has a huge challenge in the field of efficiency where innovations of Tourism 4.0 build an interoperable system and are key for the realisation of these strategies.