

Europe builds a Time Machine – Big Data of the Past is becoming a reality

The European Commission has decided: The “Time Machine” project is one of six excellent proposals which have been chosen for the next developing phase and have been granted generous fast-start funding. And ICARUS is in the front seat!

It all started in Venice. In 2012, the millenary history of the city on water and its archives with more than 80 kilometres of shelves full of historical documents motivated Frédéric Kaplan, Professor of Digital Humanities at EPFL Lausanne, to start a large-scale digitisation and research project. Right from the beginning, Kaplan wanted to do more than just scan the existing archival treasures as comprehensively as possible. He also wanted to analyse them with the help of newly developed forms of artificial intelligence. This should lead to the creation of a social network of the past.

From a network of cities and institutions to a major EU project

Kaplan’s research initiative hit the scene like a bomb. Other European cities soon followed and built their own regional “Time Machines”, for example Amsterdam, Paris, Budapest and many more. In Austria, research initiatives for regional Time Machines were launched in Lower Austria and for St. Stephen’s Cathedral in Vienna. In 2017, successful networking then led to the idea of building a pan-European “Time Machine” out of these individual projects. Thanks to generous fast-start funding by the EU with an amount of approximately one million euros this idea may now become a reality. “The Time Machine will likely be-

come one of the most advanced Artificial Intelligence systems. It will go beyond what today’s systems can achieve in terms of the data streams of the present – the Time Machine will cover data from wider geographical and temporal horizons,” says the project’s leader Frédéric Kaplan. This new source of knowledge will become a driving factor in economy where it will lead to the creation of new jobs, services and products in areas such as education, creative industries, policy making, smart tourism, smart cities and environmental design.

Austria at the centre of the Time Machine

“Austria is taking a prominent role in the Time Machine project,” says Thomas Aigner, President of ICARUS. On the one hand, approximately 35 out of 233 participating institutions are headquartered in Austria, among them the Vienna University of Technology or the Austrian National Library. On the other hand, Aigner, an expert from Austria, is on the management board. The president of ICARUS is convinced that the major EU project will lead to fundamental changes in the way we deal with historical data, and that these changes require a sustainable organisational structure which is about to be established: “In the course of this project, the Time Machine Organisation will

The Time Machine project unites globally outstanding academic institutions, private companies and cultural heritage institutions in a **revolutionary alliance**.



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be founded as an international association for collaboration in the areas of technology, science and cultural heritage. It will be the largest organisation of that kind worldwide – and it will be headquartered in Vienna.” ■

Keep up to date with the developments of the Time Machine project:

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Thomas Aigner has been President of ICARUS since 2008. He is a pioneer in the digitisation of archival material. With his expert know-how he is part of the management board of the Time Machine project.

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