## **KATARZYNA GDOWSKA**

Akademia Górniczo-Hutnicza im. Stanisława Staszica w Krakowie, Poland

# **OLENA OLENA STRYHUNIVSKA**

AGH University of Science and Technology, Poland

#### **RAFAŁ RUMIN**

AGH University of Science ad Technology, Poland

### **EWA PRYMON-RYŚ**

AGH University of Science and Technology, Poland

# HOW CAN HYPERLOOP CHANGE PEOPLE MOBILITY AND WHAT ARE PASSENGERS AFRAID OF?

#### Abstract:

Hyperloop technology is no longer science fiction and becomes a means of transportation which will bring a new revolution in people mobility. Vactrains fans are enthusiastic about travelling through vacuum tubes. However, other groups of potential passengers are more skeptical. This paper studies people's attitude towards the low-pressure high-speed trains and their fears of both the Hyperloop technology in general, as well as of their potential travel with this means of transportation. The research was conducted in Poland, in two cities - Krakow and Warsaw. The research was organized as follows. Firstly, the subjects participating in the research were provided with information on the Hyperloop technology and its potential implementation in Poland, and then they were asked to fill in a questionnaire form containing questions on their opinions. In the next step the participants had a possibility to experience how it would be like to travel in a Hyperloop pod. In the experiment Virtual Reality headsets and a mechanic simulator were used. The third step consisted of filling in another questionnaire form on the participants' opinions, feelings, and fears. the analysis of the potential passengers' opinions shows that some fears are groundless and results from insufficient knowledge about Hyperloop technology, while other group of concerns is well grounded and refer to issues of safety management. The main contribution of this paper is the analysis of the results of the abovementioned experiment from the perspective of the social processes accompanying past transport revolutions.

#### **Keywords:**

vacuum tube high-speed train; vactrain; Hyperloop; Hyperloop station building; low-pressure high-speed train; innovation in transport; people mobility; safety management;

JEL Classification: L91, R41, O32