

is its high price: for example, to build the tube from LA to San Francisco will cost about 6 billion dollars.

The future of Hyperloop is still debatable, as it would be extremely difficult to cover the expenses (considering the fact that the project was introduced as a cheap alternative to long-distance trips by already existing means of transportation). That is why the system was proclaimed an open-source design, and now basically anyone could use it for further developing.

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CURRICULUM HARMONIZATION OF THE TRANSPORTATION ENGINEERING BETWEEN EUROPEAN UNION AND UKRAINE

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The development of cooperation in the field of education of the European Union and Ukraine in most cases is carried out within the framework of Erasmus + projects. A large number of projects have already been implemented at different levels in various areas. At the same time, there are more and more educational projects related to the training of transport specialists are implemented. Thus, one of the crucial projects is the implementation of the Master program in Smart Transport and Logistics for Cities in four higher educational institutions of Ukraine and two universities in Georgia. In addition to developing a master's program, the project provides for the development of the fundamentals of PhD in Smart Transport and Logistics for Cities. The general objective is to contribute to the harmonization of the Higher Education Systems between the European Union and the Partner Countries Ukraine and Georgia, by introducing a PhD program on Smart Transport and Logistics in Ukrainian and Georgian Universities and providing methodological and technological support of the theoretical fundamentals.

There is created a conceptual framework for the implementation of PhD content. The overall approach of the PhD program development is to combine best practices of PhD programs from leading universities in the world with the current PhD courses delivered in European Union and Ukrainian universities. To develop an overarching PhD course several steps are foreseen to be undertaken:

- perform a comprehensive analysis of existing PhD program in the leading universities in the world within the transport and logistics topics and related ones;
- perform an analysis of existing of the current regulation of PhD courses in Ukrainian universities;
- define research needs for the developing program (e.g., entry requirements, possible research areas, industry and society needs, scholarship possibilities, etc.);
- develop a synoptic table of modules for the PhD program;
- define the program resources: soft and equipment that will be needed, to enhance program cohesiveness and align facilities with specific programmatic needs;
- develop a Curriculum;
- define the final output that students must provide to complete the course, including the requirements for PhD thesis.

Thus, the implementation of this program will provide an opportunity to train professionals in the field of smart transport and logistics, which will be in demand in the labor market in Ukraine and will contribute to the sustainable development of transport in cities.

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ANALYSIS OF THE THEORETICAL BASIS OF ECOLOGICAL SETTLEMENTS IN THE DYNAMICS OF THEIR HISTORICAL DEVELOPMENT

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In recent years, there has been a sharp increase in the proportion of urban population worldwide. According to UN-Habitat research [1], about half of the world's population will live in urban areas, and by 2050 this share is projected to increase by 66%. High levels of urbanization have a negative impact on the environment, creating the preconditions for man-made disasters, destruction of the biosphere, depletion of natural resources, which in turn leads to serious irreversible environmental disasters, such as climate change.

One of the clearest examples of how to solve acute environmental problems associated with a high level of urbanization and not to threaten the future of the planet is the creation of energy-efficient ecological settlements that will provide favorable and comfortable living conditions for the population.

Energy-efficient ecological settlements are fully integrated into the natural environment on basis of on the rational use of resources and alternative energy sources, solid waste sorting, reuse of building materials, the use of ecological transport and the cultivation and consumption of organic products.

The world's first ecological settlements appeared in the 1970s in the Western countries. It was then that the so-called "communities", "communities", "permaculture centers", "tribal estates", "spiritual settlements" and "communes" were born. It is known that in the United States were created about two thousand ecological settlements. The crisis processes in the economic, social, cultural and spiritual spheres of life were created the impetus for the abrupt transition of people to the "community" [2].

Examining the history of ecological settlements in the world, identified three main stages of development, are identified presented in table 1 [3].