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Analogies and Differences between Railway System and Hyperloop.

Application to the Transportation Corridor Boston – New York – Philadelphia – Washington D.C.

Today we are witnessing the development of a new technology unknown to most until recently: Hyperloop. As a response to this reality, common-working groups have been created between the railway industry and Hyperloop, especially inside official bodies, such as the International Union for Railways (UIC). The aim of these groups is to find analogies, synergies, and differences between railway as transportation means and Hyperloop as a transportation means. This project starts with a state-of-the-art review. The aim of this review is not only to introduce the Hyperloop technology, but also to describe its current state of development, in addition to the strategic investment that Hyperloop is receiving from enterprises and official bodies. The second part consists of a comparative analysis between the railway system and Hyperloop. The analysis will cover two essential aspects of the life cycle of any transportation system: planning and operation of both transportation systems. Based on the analogies and differences pointed out throughout the practical application, fields for future synergies between both transportation systems will be detailed. Finally, the main conclusions of the project are drawn. Tentative conclusions of the project are oriented mainly, but not only, towards the following questions: what improvements can railways include in Hyperloop? What aspects of Hyperloop can the railways consider? This project will contribute towards future common working fields that will result in an increased competitiveness, allowing Europe to stay in the vanguard of sustainable transportation.

