

<b>STN</b>	<b>Dopravné služby hyperloop</b>	<b>STN EN 17929</b>  28 8002
------------	----------------------------------	--

Hyperloop Transport Services

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 06/24

Obsahuje: EN 17929:2024

**138720**



EUROPEAN STANDARD

EN 17929

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2024

ICS 03.220.99; 45.020; 55.020

English version

## Hyperloop Transport Services

Services de transport Hyperloop

Hyperloop-Transportdienstleistungen

This European Standard was approved by CEN on 29 January 2024.

CEN and CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN and CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN and CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN and CENELEC members are the national standards bodies and national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and United Kingdom.



**CEN-CENELEC Management Centre:  
Rue de la Science 23, B-1040 Brussels**

## EN 17929:2024 (E)

<b>Contents</b>	<b>Page</b>
<b>European foreword</b> .....	<b>4</b>
<b>Introduction</b> .....	<b>5</b>
<b>1 Scope</b> .....	<b>6</b>
<b>2 Normative references</b> .....	<b>6</b>
<b>3 Terms and definitions</b> .....	<b>6</b>
<b>4 Hyperloop System</b> .....	<b>8</b>
<b>5 System Goals and Objectives</b> .....	<b>8</b>
5.1 <b>General</b> .....	<b>8</b>
5.2 <b>Passenger transport</b> .....	<b>8</b>
5.3 <b>Cargo transport</b> .....	<b>9</b>
<b>6 System boundaries and interfaces</b> .....	<b>9</b>
<b>7 System Stakeholders</b> .....	<b>10</b>
7.1 <b>General</b> .....	<b>10</b>
7.2 <b>Hyperloop Transport System Users</b> .....	<b>11</b>
7.2.1 <b>General</b> .....	<b>11</b>
7.2.2 <b>Passenger Transport System Users</b> .....	<b>11</b>
<b>Figure 1 — Passenger Transport System User</b> .....	<b>12</b>
7.2.3 <b>Cargo Transport System Users</b> .....	<b>12</b>
<b>Figure 2 — Cargo Transport System User</b> .....	<b>13</b>
7.3 <b>Passenger Transport System Users Expectations</b> .....	<b>13</b>
<b>Table 1 — Passenger transport system users and their priorities</b> .....	<b>15</b>
7.4 <b>Cargo Transport System Users Expectations</b> .....	<b>15</b>
<b>Table 2 — Cargo transport system users and their priorities</b> .....	<b>17</b>
<b>8 Transport Services</b> .....	<b>17</b>
8.1 <b>General hyperloop service characteristics</b> .....	<b>17</b>
<b>Table 3 — Generic hyperloop service characteristics and service requirement</b> .....	<b>18</b>
8.2 <b>Passenger Transport Service Characteristics</b> .....	<b>18</b>
<b>Table 4 — Passenger transport service characteristics, service requirements and corresponding user expectation</b> .....	<b>19</b>
<b>Table 5 — Summary of the passenger transport service characteristics and service requirements</b> .....	<b>21</b>
8.3 <b>Cargo Transport Service Characteristics</b> .....	<b>23</b>
<b>Table 6 — Summary cargo transport service characteristics and service requirements</b> .....	<b>23</b>
8.4 <b>Service Characteristics and System Aspects</b> .....	<b>24</b>
<b>Figure 3 — Example of the passenger service characteristics, related system aspect and system requirements</b> .....	<b>25</b>
<b>Figure 4 — Example of the cargo service characteristics, related system aspect and system requirements</b> .....	<b>25</b>

<b>Table 7 — Example of Passenger transport service characteristics and related example of relevant system aspect .....</b>	<b>26</b>
<b>Table 8 — Example of cargo transport service characteristics and related example of relevant system aspect .....</b>	<b>27</b>
<b>8.5 Service Characteristics and Concept of Operations.....</b>	<b>28</b>
<b>Figure 5 — Example of a concept of operations .....</b>	<b>29</b>
<b>Figure 6 — Passenger journey.....</b>	<b>29</b>
<b>Table 9 — Overview of passenger touchpoints and possible implementation .....</b>	<b>29</b>
<b>8.6 Other services provided .....</b>	<b>30</b>
<b>Annex A (Informative) Mobility matrix .....</b>	<b>31</b>
<b>Table A.1 — Mobility matrix .....</b>	<b>31</b>
<b>Table A.2 — Example: Comparison of travel times by rail, plane and hyperloop.....</b>	<b>32</b>
<b>Bibliography .....</b>	<b>33</b>

**EN 17929:2024 (E)****European foreword**

This document (EN 17929:2024) has been prepared by Technical Committee CEN/CLC/JTC 20 “Hyperloop systems”, the secretariat of which is held by NEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 2024, and conflicting national standards shall be withdrawn at the latest by October 2024.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom

## Introduction

The purpose of this document is to describe and define the transport services provided by the hyperloop system. The hyperloop is a new mode of transportation for passengers and cargo. As such there are two main types of hyperloop transport services: one for transporting passengers and the other one for transporting cargo. These services are having fundamentally different characteristics from each other. These characteristics impose different requirements on the hyperloop system. Different aspects of each service in relation to the hyperloop system are analysed and specified. A standardized method to clearly distinguish between those by specifying the attributes that characterize each of these services is used for the concept of operation of the hyperloop system.

**EN 17929:2024 (E)****1 Scope**

Hyperloop transport services are designed to support passenger transport and cargo transport. For each of the transport service passengers/cargo requirements and expectations are different. This document specifies the hyperloop transport services supported by a hyperloop system and provides means for characterization and description of these services. The characterization considers the technical as well as operational/commercial features of each transport service. This document provides a framework for defining the transport services of the hyperloop system and its operational concept(s).

The following are within the scope of this document:

1. the high level description of the hyperloop system and its operating principles for both passenger and cargo transport;
2. system boundaries and interfaces;
3. the classification of the key stakeholders and users of the hyperloop system for hyperloop transport services;
4. the definition of the key service characteristics and requirements of the hyperloop transport services;
5. the identification of related services and their characteristics;
6. common high-level scenarios for different hyperloop transport services from the passenger/ cargo transport point of view.

**2 Normative references**

There are no normative references in this document.

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**