



“Hyperloop Ambitions through the Mass Production of Large Diameter Hyperloop Tubes”

25 October 2023

Mehmet Örgen, Erciyas Hyperloop Leader



Steel Pipe



Railways & Logistics



Energy



Ventures

E-Mobility



E-com



Real Estate



Transportation



Waste Management



FinTech



600K Mtons/year Steel pipe production capacity

1000 wagon/year wagon maintenance & repair

186k MWh/year production
53 MW WPP
2 MW SPP
250 MW developed WPP & SPP projects

Founder's History

1972 **MANNESMANN**

A.K.Erciyas started working in Mannesmann PipeWerke as QC Engineer

1978 **Kalibre Boru**

A.K.Erciyas f.. Kalibre Boru with his two other partners.

High precision cold drawn tube manufacturing facility.

1985

A.K.Erciyas f. Sanmal Trading Co. For trading tubes and tubular products

1989

Erciyas Endüstri f. Later to be renamed into Erciyas Holding

ERCIYAS
Steel Pipe

1990
Erciyas Steel Pipe f.

1995 **Ozbal**
Steel Pipe f.

1996 **BIMAS** Bicycle f.



2009

Turkey's 25th biggest exporter
Turkey's 98th biggest company



2003 **RCENDÜSTRİ**
RC Industry f.

2000

İSKI Melen

«World's Largest Diameter Pipe»

Acquisition of: BIMAŞ Bicycle

1997

New pipe production facility of 120k Mtons/a.

2010

Fortune 500
«Second Largest Growing Company»



2008

300k Mtons/a. pipe prod. cap.
1,400 km Tamanrasset- In Salah
«World's Longest Pipeline single manufacturer undertook»



2011

450k Mtons/a.
pipe prod. cap.



2013

Briza Energy f.
«Project with largest turbines in Turkey»



2014

TANAP (540 kms)
Bimaş Bikes NV f.
Komet f.



2015

Acquisition of:
Özbal Steel Pipe
Combined pipe prod.
cap. 600k Mtons/a.
Glober Logistics f.
Övgün Real Estate f.



2016

Acquisition of:
RC Industry
prod. cap. 1000 wagon/a.
Maint. cap. 1800 wagon/a.
PIMRE Real Estate f.



2016

Erciyas-HyperloopTT
First contact. Work on
Toulouse project
HYPERLOOPTT

2018

Acquisition of:
100% stake Bimas Bikes
NV (Netherlands)

2020

Establishment
of Erciyas Rail



2021









Erciyas Steel
Pipe & Ozbal
Merger

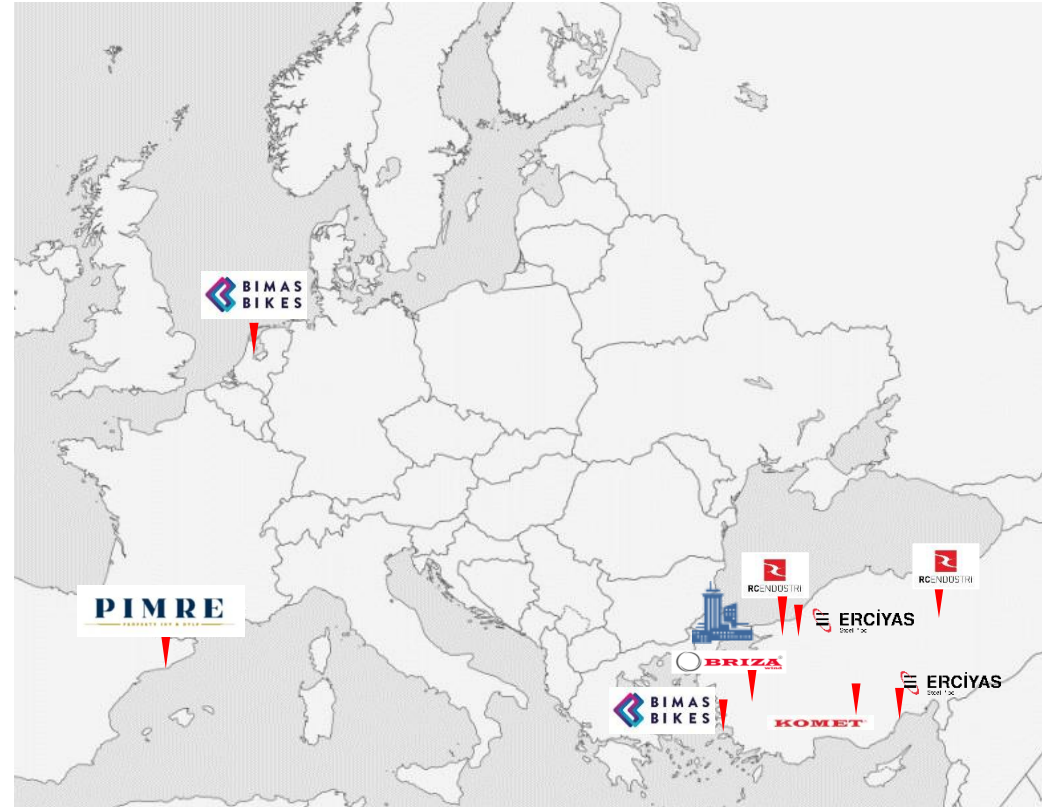


2022

HyperloopTT
investment
HYPERLOOPTT

f.: founded
a.: annum
prod.: production
maint.: maintenance
cap.: capacity

- **Steel pipe** production facilities in Düzce and Mersin 
- **Railway (rolling stock)** manufacturing and overhauling in Sakarya and Sivas 
- **Bicycle production** facility in İzmir 
- Benelux **bicycle sales and distribution** center in the Netherlands 
- **Wind Farm** in Balıkesir 
- **Hybrid Combined Cycle** Power Plant in Karaman 
- **Solar** power plants in Izmir and Balıkesir
- **Logistics** company in Istanbul 
- **Real estate** investment and development in Spain and Istanbul 



- Turkey's **leading** Steel Pipe company in HSAW **production** and **export**
- **Wide geographic reach**; production centers in Northwest and South of Turkey (Düzce and Mersin)
- Total annual spiral welded steel pipe production capacity of **600k Mton**
- **Largest operational HSAW production facility** in Europe



Düzce Production Facility



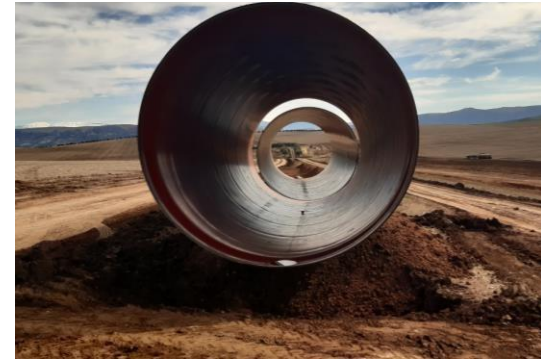
Mersin Production Facility



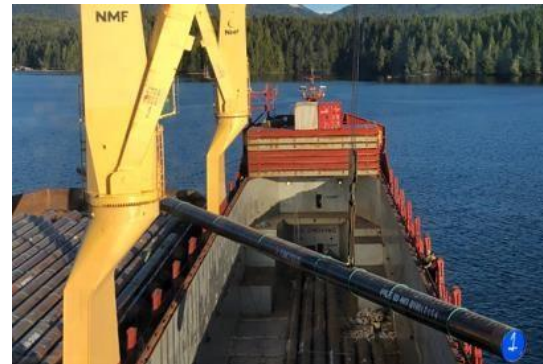
Oil & Natural Gas Line Pipes



Water Line Pipes



Piling / Structural Pipes



Oil & Natural Gas Line Pipes

API 5L PSL-2
ISO 3183
EN 10208-2
CSA Z245.1
...



Steel pipes produced by Erciyas are used globally including **Europe, NAFTA and CIS** countries in **high pressure oil & gas pipeline** projects. **Extensive global track record** in high strength oil & gas pipelines

External Coating:

Fusion Bonded Epoxy (FBE)
Polyethylene (PE)
Polypropylene (PP)

Internal Coating:

Flow Coat Epoxy

Water Line Pipes

API 5L PSL-1
API 5L PSL-2
EN-10217
EN-10224
DIN 1626
...



Erciyas provides **various pipe end connection types** such as plain, beveled, cylindrical, spherical and e-joint

External Coating:

Polyethylene (PE)
Reinforced Concrete Coating
Epoxy

Internal Coating:

Cement Mortar
Polyurethane (PU)
Solvent Free Epoxy

Piling / Structural Pipes

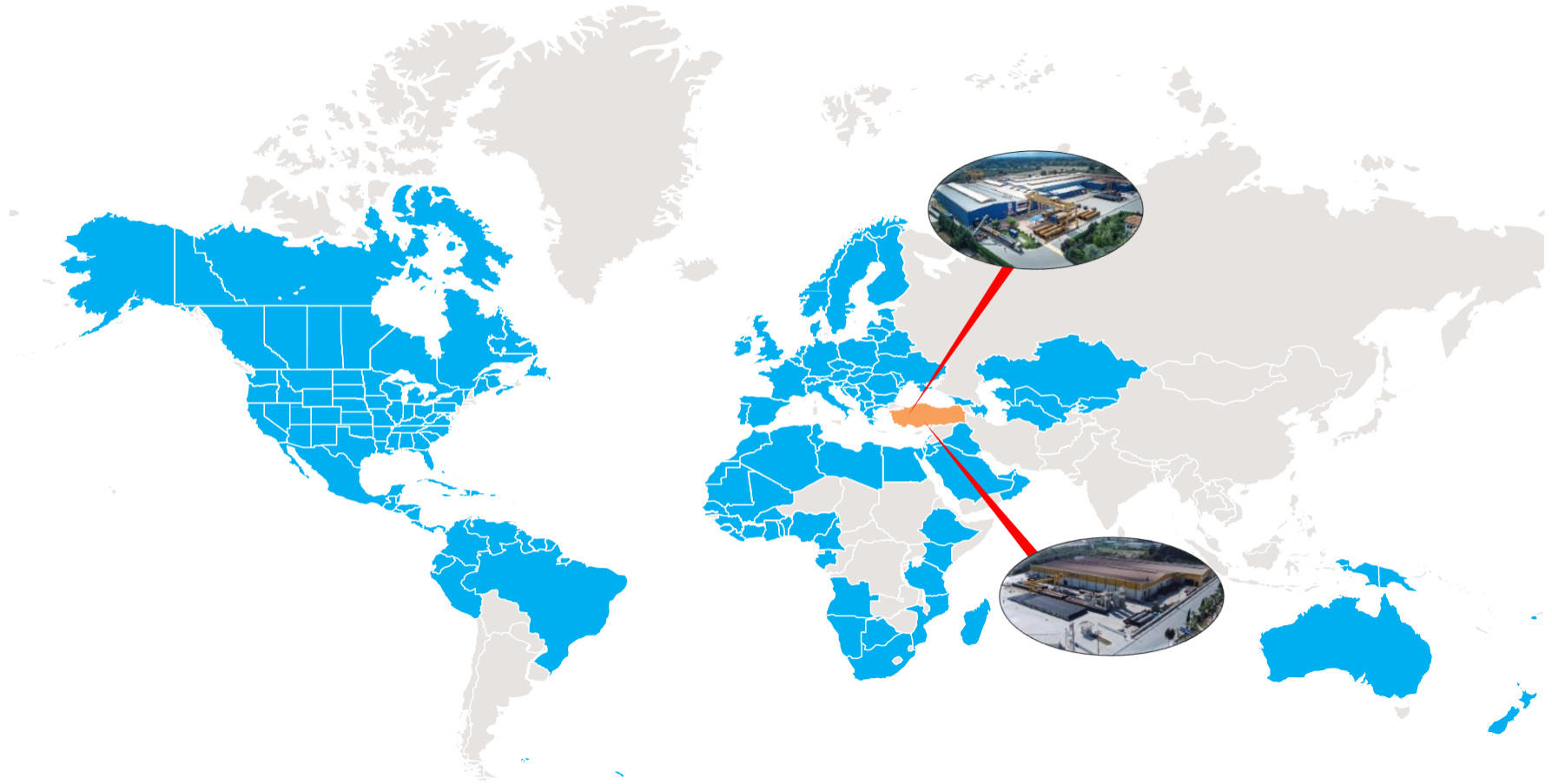
ASTIM A-252
ASTIM A-253
ASTIM A-53
EN 10219
...



Erciyas provides **corrosion coating for piles** as well as different attachment alternatives such as pile shoes, reinforcement rings, interlocks, stiffeners etc.

External Coating:

Epoxy
Glass Flake Epoxy

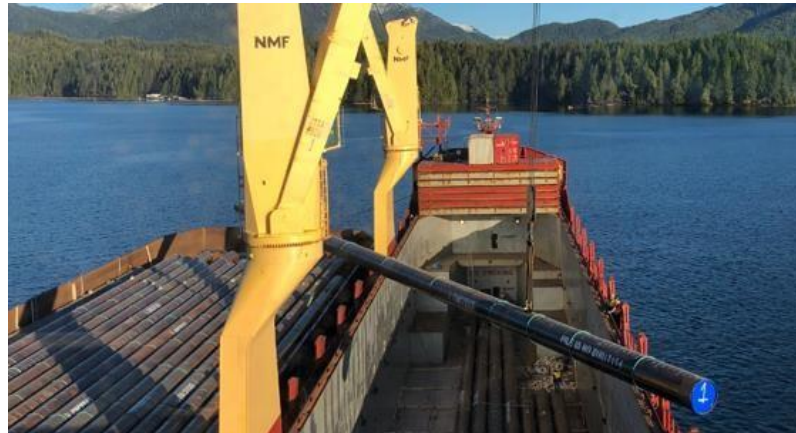




▪ Ağrı Mountain, Turkey (-20°C)



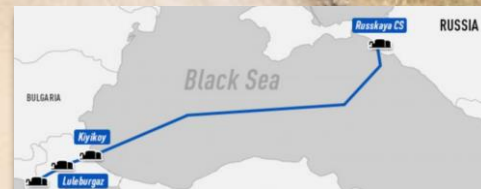
▪ Tamanrasset, Sahara Desert (+40°C)



▪ North Coast region of British Columbia, Canada

Strategic Pipeline from Russia to Europe

Client	Gazprom - BOTAS
Prod. St.	API 5L PSL2
Steel Gr.	X65 PSL2
Isolation	3L PE & BARE
O.D.	48" (1219,2 mm)
W.T.	22,2 mm, 14,3 mm, 17,5 mm
Quantity	23.150 meters – 10.000 tons



Strategic Pipeline from Caspian Sea to Europe

Client **BP – SOCAR - BOTAS**
Prod. St. **API 5L PSL2**
Steel Gr. **X70 PSL2**
Isolation **3L PE & Flow Coat Epoxy**
O.D. **56" (1422,4 mm), 48" (1219,2 mm)**
W.T. **19,45 mm, 16,67 mm**
Quantity **213.000 meters – 137.840 tons**



Client **ADE (Algeria)**

Prod. St. **API 5L PSL1**

Steel Gr. **X42 PSL1**

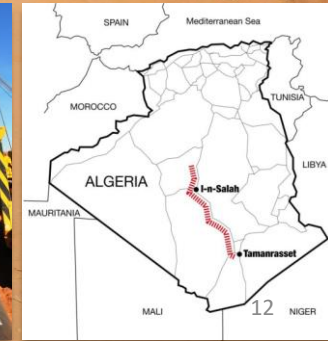
Isolation **3L PE & Epoxy**

O.D. **56" (1422,4 mm), 28" (711,2 mm)**

W.T. **14,3 mm, 8,7 mm**

Quantity **1.300.000 meters – 331.000 tons**

*Largest pipeline project
a single manufacturer undertook*



Steel Pipe | Greater Istanbul Water Supply Project

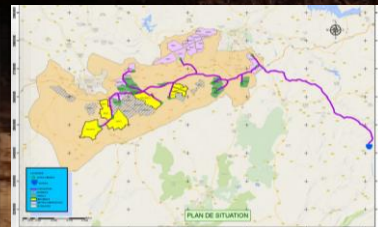


Client **ISKI – DSI (Turkey)**
Prod. St. **EN 10217-1**
Steel Gr. **S275 JR**
Isolation **3L PE & Cement Mortar**
O.D. **120'' (3048 mm)**
W.T. **25,4 mm**
Quantity **164.000 tons**

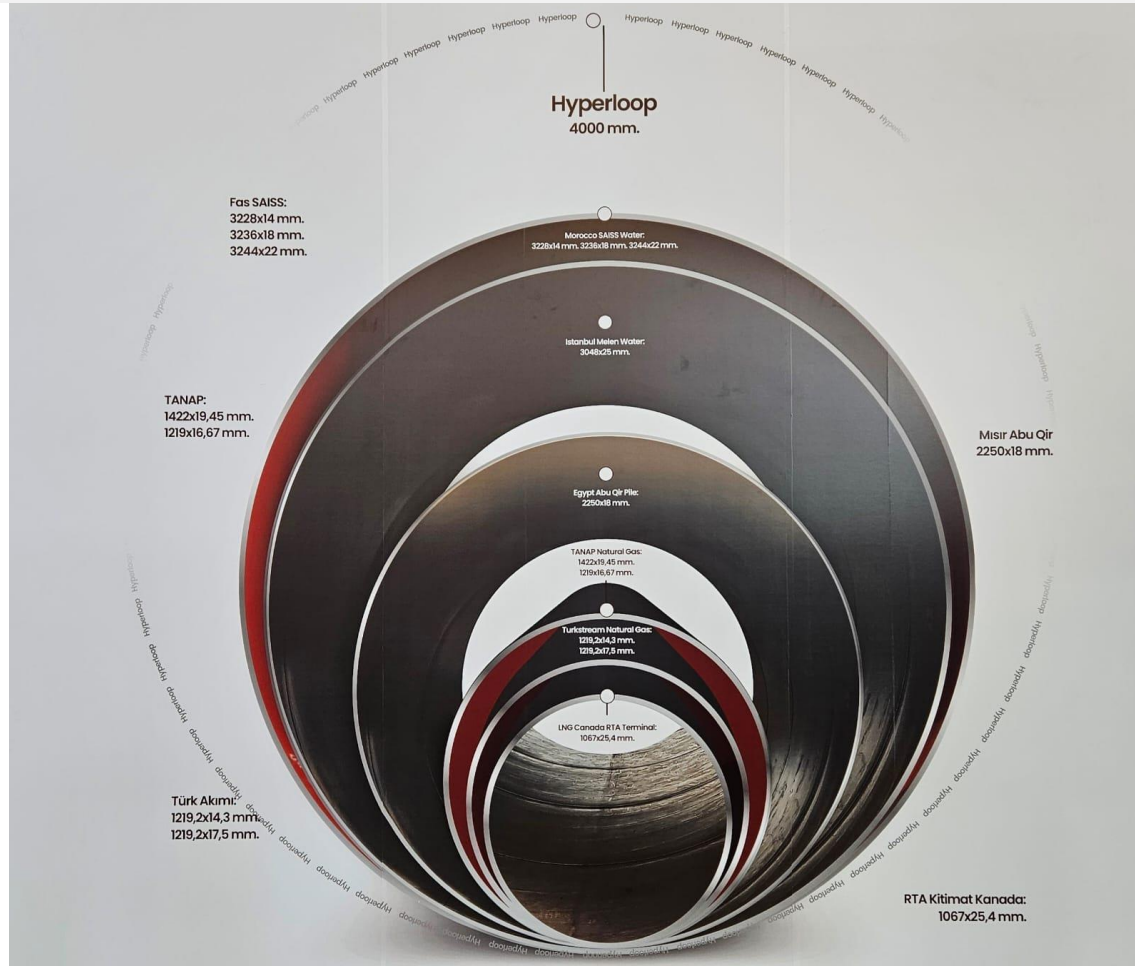
Largest Diameter Water pipeline project



Strategically important irrigation and potable water projects in Morocco



Client	Morocco / Multiple
Prod. St.	EN 10224
Steel Gr.	S355 JR
Isolation	3L PE & SFE
O.D.	127,4'' – 127'' (3236 - 3228,8 mm)
W.T.	18 mm – 14 mm
Quantity	80.846 tons





Steel Pipe | Pressure Tubes Underground Storage - SWITZERLAND



Production Standard: EN 10208-2
Steel Grade: L 485 MB (API 5L X70)
Lining: Flow Coat Epoxy
Coating: 3 Layer PE
Diameters: 56" (1422.4mm)
Wall Thicknesses: 1.004" (25.5mm)
Quantity: 4.100 meters – 3.650 tons
Test Pressure 159 bar
Operational Pressure 106 bar

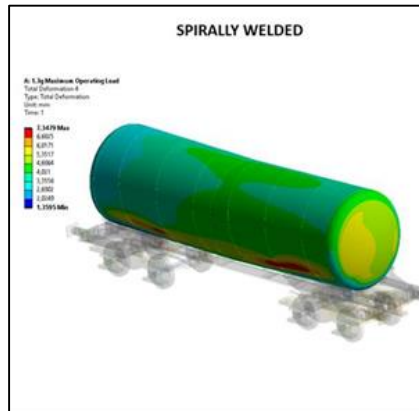




Production Standard:	EN10208-2
Steel Grade:	L 555 MB (API 5L X-80)
Lining:	Bare
Coating:	3 Layer PE
Diameters:	56" (1422.4mm)
Wall Thicknesses:	0.85" (21.6mm)
Quantity:	6.248 m – 4.670 tons
Test Pressure	152 bar
Operational Pressure	102 bar

- **New innovative areas** are opened in which steel pipe finds usage area
- Erciyas continues its **R&D** studies and global contacts in order to be a pioneer in these fields
- Developing **hydrogen steel** and **spiral pipes** for **hydrogen pipelines**
 - Hydrogen production reached **130 billion USD** in 2020 and is expected to grow at an annualized rate of **9%** through 2025
- **Global supplier** of Large Diameter Hyperloop Tubes







Steel Pipe



Railways & Logistics



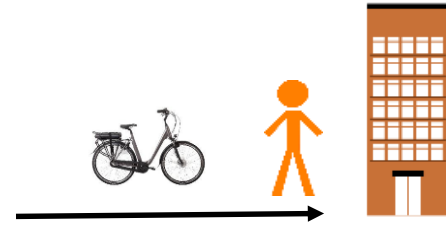
Energy

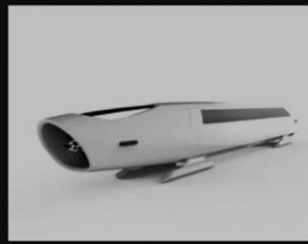
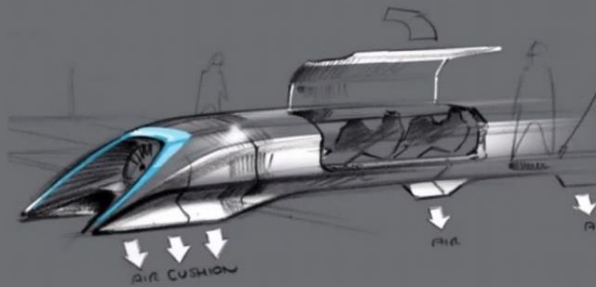


E-Mobility



Hyperloop





National



National



HYPERLOOP
TRANSPORTATION TECHNOLOGIES



Virgin
hyperloop one



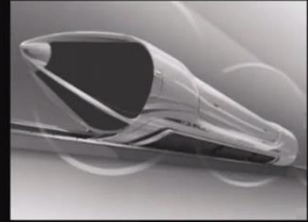
TRANSPOD



ZELEROS
HYPERLOOP



HARDT



NEVOMO





Erciyas Steel Pipe-Çıntaş Çelik İmalat Montaj ve Tesisat A.Ş. HyperloopTT

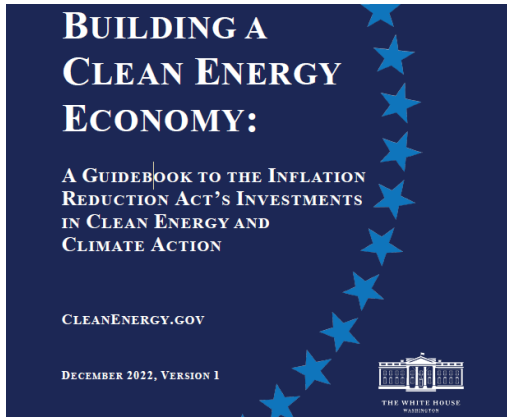
The production of specially equipped and high-tech steel pipes required by HypeloopTT's **fully functional real-size 5 km. prototype line.**







- According to a news release from the North University of China. “Yanggao county of Datong, North China's Shanxi province”



Advanced Technology Vehicle Manufacturing Loan Program

Federal Agency: Department of Energy
Bureau or Office: Loan Programs Office

Three programs to grow the domestic supply chain for clean vehicles. The Inflation Reduction Act includes billions of dollars to support vehicle manufacturers looking to expand their domestic production of clean vehicles. The Inflation Reduction Act provides \$3 billion to the Department of Energy's **Advanced Technology Vehicle Manufacturing Loan Program** for loans to manufacture clean vehicles and their components in the United States, including newly authorized uses from the Bipartisan Infrastructure Law, such as medium- and heavy-duty vehicles, locomotives, maritime vessels, aviation, and hyperloop. The Inflation Reduction Act also provides \$2 billion to

- At the heart of Africa, spanning the two Congos, **Republic of Congo (RC), Congo-Brazzaville**, and the Democratic Republic of Congo (DRC), **Congo-Kinshasa**, Transafrikha Congo High-Speed Railway system (Transafrikha Congo HSR) is the backbone of the Transafrikha Hyperloop system.
- Transafrikha Hyperloop Congo has investment requirement of 220 billion USD.
- 20.000 km Hyperloop



WELCOME TO THE
**2023 CANADIAN
HYPERLOOP
CONFERENCE**

-25-29 May 23

Waterloo

- 12 Teams from CAN, USA, UK, IND
- 7 Teams competed with their pods



POLYLOOP
Polytechnique Montreal
Montreal, Canada

**QUEEN'S
HYPERLOOP**
Queen's University
Kingston, Canada

ALBERTALOOP
University of Alberta
Edmonton, Canada

WATERLOO
University of Waterloo
Waterloo, Canada



TEKNOFEST #MILLİ TEKNOLOJİ HARLESİ

TÜBİTAK RUTE HYPERLOOP DEVELOPMENT COMPETITION

APPLICATION DEADLINE 7 March 2022
COMPETITION 15-19 AUG. 2022

T.C. SANAYİ VE TEKNOLOJİ BAKANLIĞI TÜBİTAK RUTE TÜRKİYE TEKNOLOJİ SAKLI

ERCIYAS TÜBİTAK RUTE TDDO

Test Tunnel
Lifting Platform
Entrance
Pre-Race Control Area

■ 20 Teams from,
■ 37 TUR universities



COMPETITIONS

MODEL SATELLITE COMPETITION	ROCKET COMPETITION	ROCKET COMPETITION	UNMANNED AERIAL VEHICLE COMPETITION
FLYING CAR COMPETITION	TURKISH NATURAL LANGUAGE PROCESSING COMPETITION	HELICOPTER DESIGN COMPETITION	SWARM ROBOTS COMPETITION
ENVIRONMENT AND ENERGY TECHNOLOGIES COMPETITION	CAREERS IN RESEARCH AND INNOVATION COMPETITION	JET ENGINE DESIGN COMPETITION	FIGHTER UAV COMPETITION
BIOTECHNOLOGY INNOVATION COMPETITION	TOURISM TECHNOLOGIES COMPETITION	EDUCATIONAL TECHNOLOGIES COMPETITION	TECHNOLOGY EDUCATION COMPETITION
SMART TRANSPORTATION COMPETITION	EFFICIENCY CHALLENGE ELECTRIC VEHICLE COMPETITION	SMART FULL-SCALE DEVELOPMENT COMPETITION	AGRICULTURAL TECHNOLOGIES COMPETITION
AGRICULTURAL UNMANNED AERIAL VEHICLE COMPETITION	UNIVERSITY STUDENTS RESEARCH PROJECTS COMPETITION	TRAVEL HACKATHON	ARTIFICIAL INTELLIGENCE IN TRANSPORTATION COMPETITION
HIGH SCHOOL STUDENTS POLYMER RESEARCH PROJECTS COMPETITION	ROBOTICS COMPETITION	HACK BLACK SEA	UNMANNED AERIAL VEHICLE SYSTEMS COMPETITION
ISTANBUL INTERNATIONAL INVENTIONS FAIR	ROBOTICS COMPETITION IN INDUSTRY	TAKE OFF INTERNATIONAL STARTUP SUMMIT	ARTIFICIAL INTELLIGENCE IN HEALTHCARE COMPETITION
HYPERLOOP DEVELOPMENT COMPETITION	HIGH SCHOOL STUDENTS CLIMATE CHANGE RESEARCH PROJECTS COMPETITION	TUBA-TEKNOFEST PHD SCIENCE AWARDS	TURKEY POLYMER COOPERATION WORLD DRONE CUP

APPLICATION DEADLINE FEBRUARY 28'22



**17 Teams,
26 TUR universities**



HYPERLOOP DEVELOPMENTS (2022-2023)





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