
FDIA
FUNDACIÓN DEMOCRÁTICA ITALO AMERICANA,
FDIA -REPRESENTAÇÃO PERMANENTE
PROJECT DEVELOPER:
©
المهندس زين العروسي
PRESIDENT LAWYER VINCENZO CORTEGIANI
GENERAL DIRECTOR:DR.FABIO ROSATI

FUNDACIÓN DEMOCRÁTICA ITALO AMERICANA,
FDIA -REPRESENTAÇÃO PERMANENTE

FDIA MAGLEV TECHNOLOGY TRAIN & HIGHWAY

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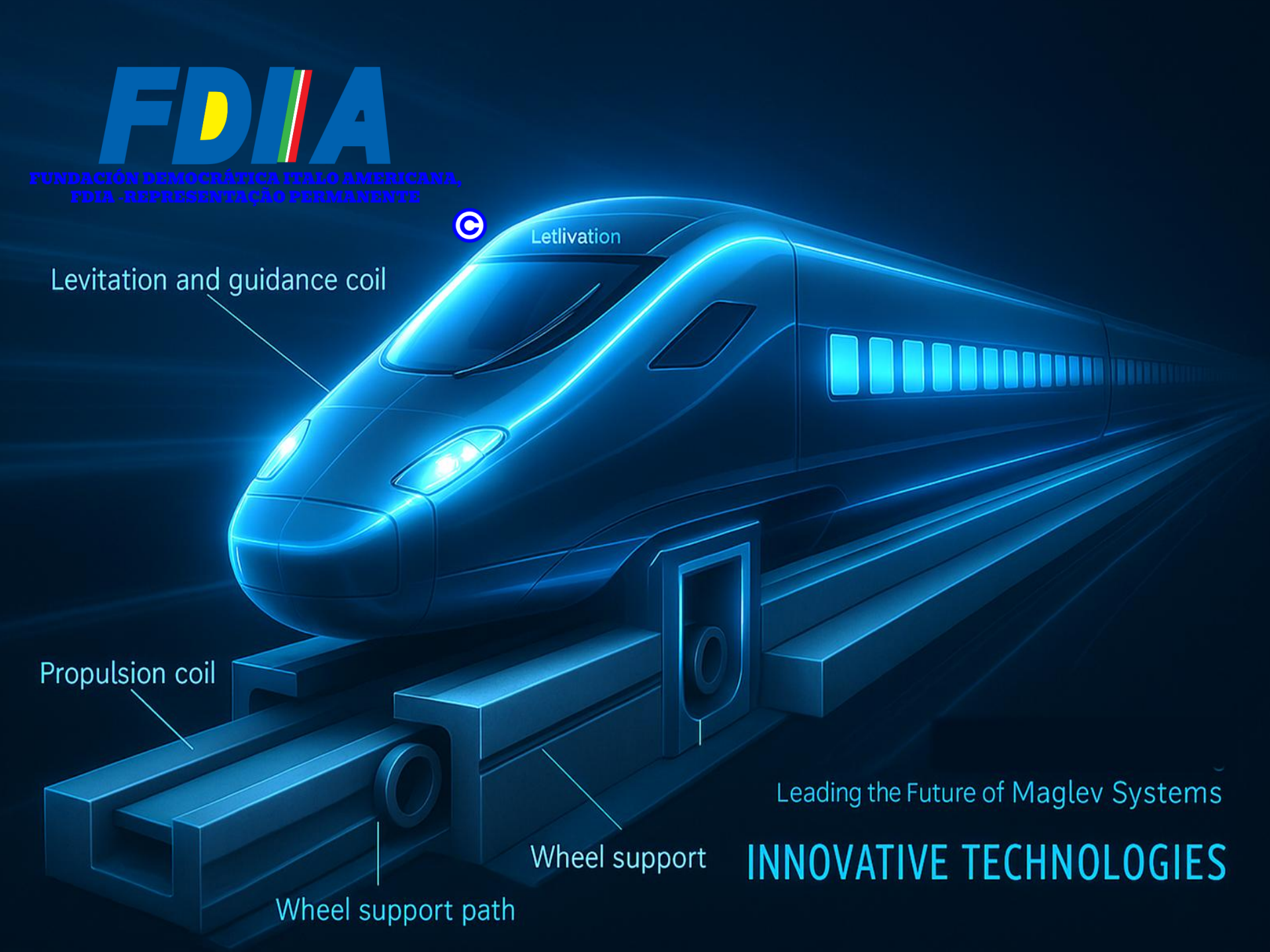

1: Phase One – North Africa To South Africa

- **Algeria → Niger → Chad → Central Africa → Congo RCD**
- **South Africa → Botswana → Zembabwe → Zambia**

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2: Phase One – East Africa To West Africa

- **North Sudan → Chad → Cameroon**

3: Phase Two

1. **Morocco → Algeria → Tunisia → Libya → Egypt**
2. **Djibouti → Ethiopia → South Sudan → North Sudan**
3. **Algeria → Mali → Senegal → Mauritania**
4. **Libya → Chad → Niger → Nigeria**
5. **Gabon → Congo → Congo RDC → Uganda → Kenya**
6. **Uganda → Tanzania**

4: Phase Three & Four

1. **Morocco → Western Sahara → Mauritania → Senegal**
2. **Sierra Leone → Guinea Conakry → Guinea Bissau → Gambia**
3. **Liberia → Ivory Coast → Ghana → Togo → Benin**
4. **Gabon → Guinea Equatorial → Cameroon → Nigeria**
5. **Rep. Of Congo → Congo RDC → Angola → Namibia**
6. **Mozambique → Lesotho → Swaziland → South Africa**
7. **Tanzania → Kenya → Somalia → Djibouti → Eritrea**
8. **Algeria → Tunisia → Libya → Egypt → North Sudan**
9. **Angola → Zambia → Burundi → Rwanda → Uganda**

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MAGLEV, SHORT FOR MAGNETIC LEVITATION, IS A TRAIN SYSTEM THAT USES A LARGE ARRAY OF MAGNETS TO CREATE LIFT AND PROPULSION, ALLOWING THE TRAIN TO HOVER ABOVE THE TRACK. KEY POINTS INCLUDE:

- **SUSPENSION & PROPULSION:** THE TRAIN IS HELD ABOVE THE TRACK BY MAGNETIC FORCES AND PROPELLED BY LINEAR MOTORS INSIDE THE VEHICLE.
- **ESSENTIAL TECHNOLOGIES:** SAFE OPERATION REQUIRES ADVANCED SYSTEMS FOR SUSPENSION, STEERING, BRAKING, AND FOR DETECTING AND CONTROLLING THE TRAIN'S POSITION AND SPEED. CORE TECHNOLOGIES INVOLVE SUPERCONDUCTING MAGNETS, LINEAR INDUCTION MOTORS, AND SPECIALIZED GUIDEWAYS. MAGLEV TRAINS CAN ACHIEVE VERY HIGH SPEEDS.REDUCED FRICTION AND CONTACT WITH RAILS ALLOW FOR QUIETER OPERATION, LOWER MAINTENANCE, AND POTENTIALLY SAFER TRAVEL.
- **FDIA'S ROLE:** OUR ENGINEERING TEAM ARE DEVELOPING NEW TECHNOLOGIES FOR THE DIAGNOSIS, ASSEMBLY, AND CONTROL OF MAGLEV TRAINS, ENHANCING OVERALL SAFETY AND EFFICIENCY.

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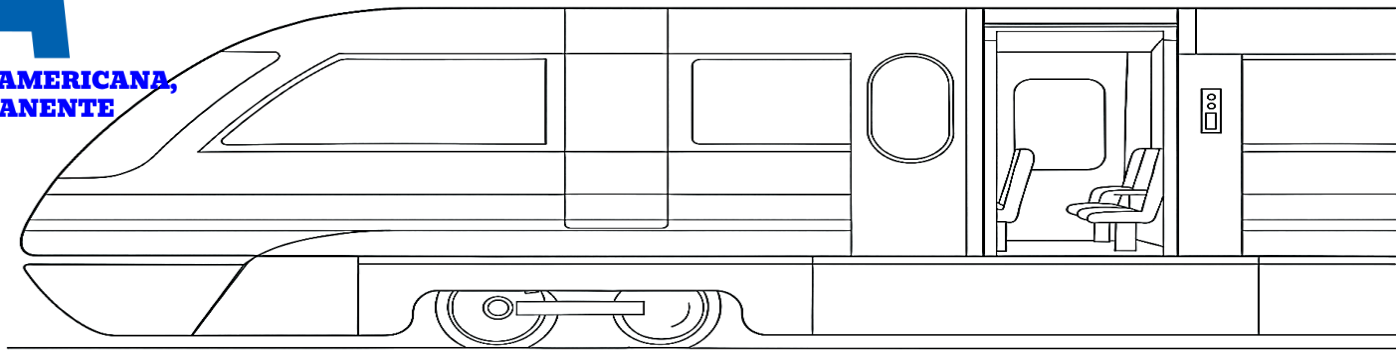
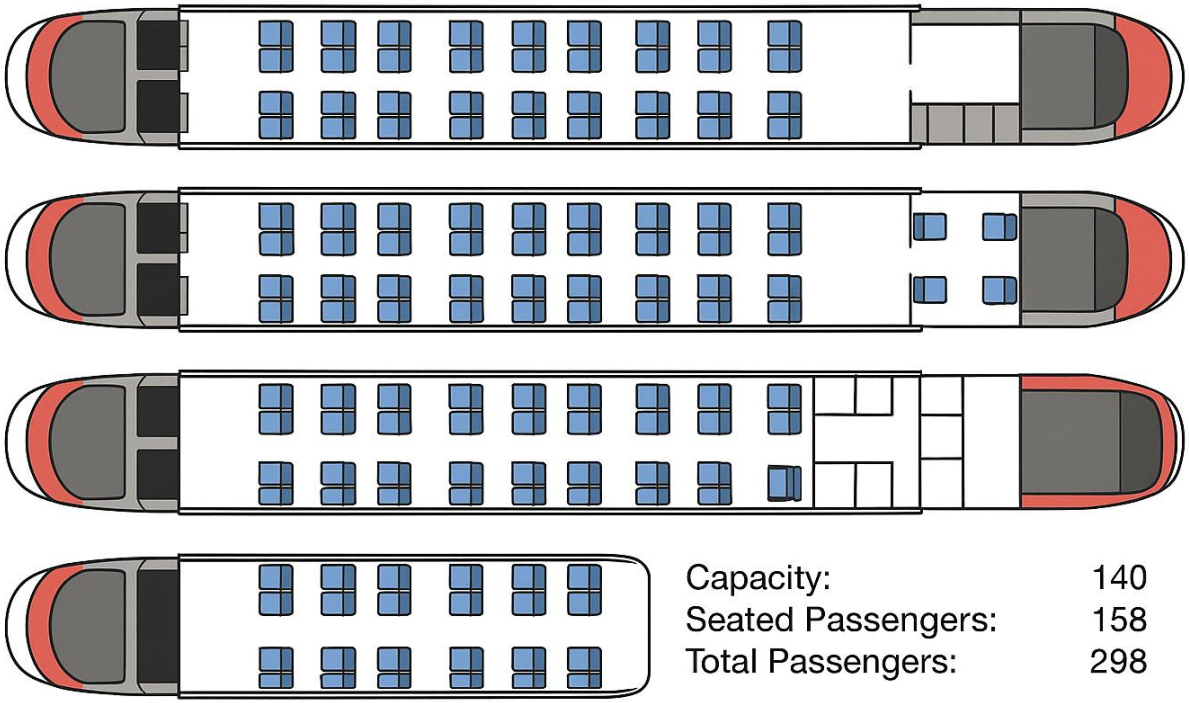


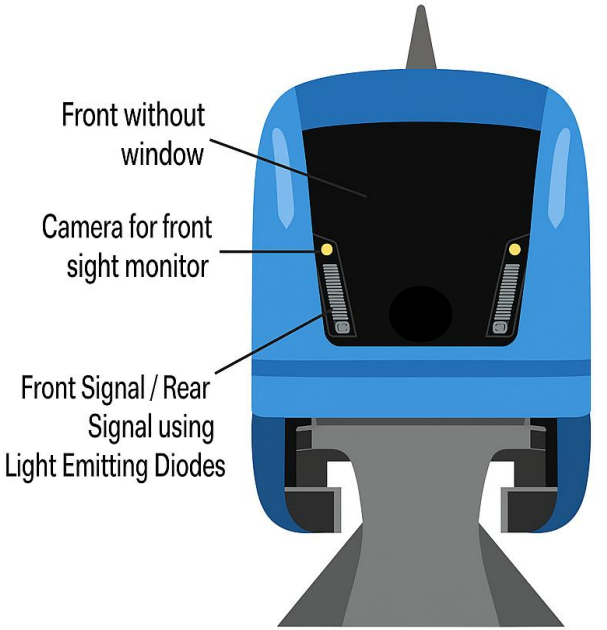
3 Sections, 2+2 Seats, Baggage Compartment



Baggage Container Compartment

Capacity:	140
Seated Passengers:	158
Total Passengers:	298

Standees calculated with 2 people per square meter.

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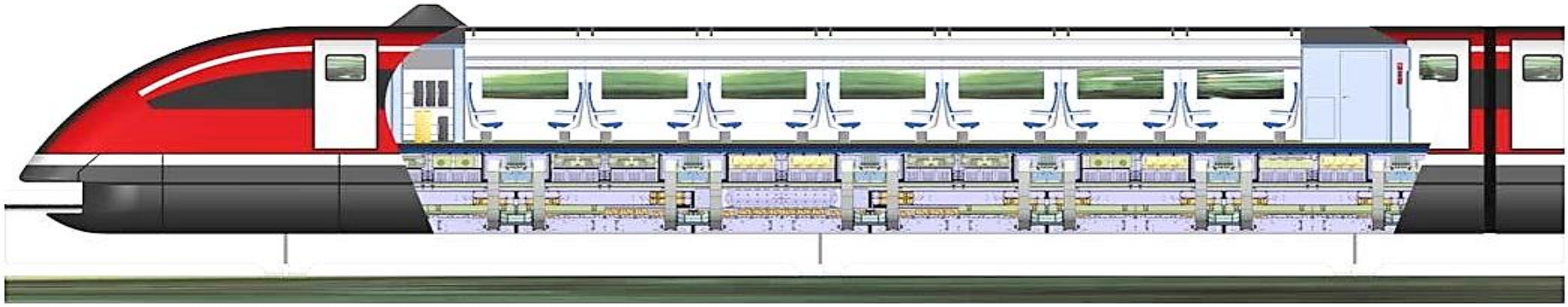
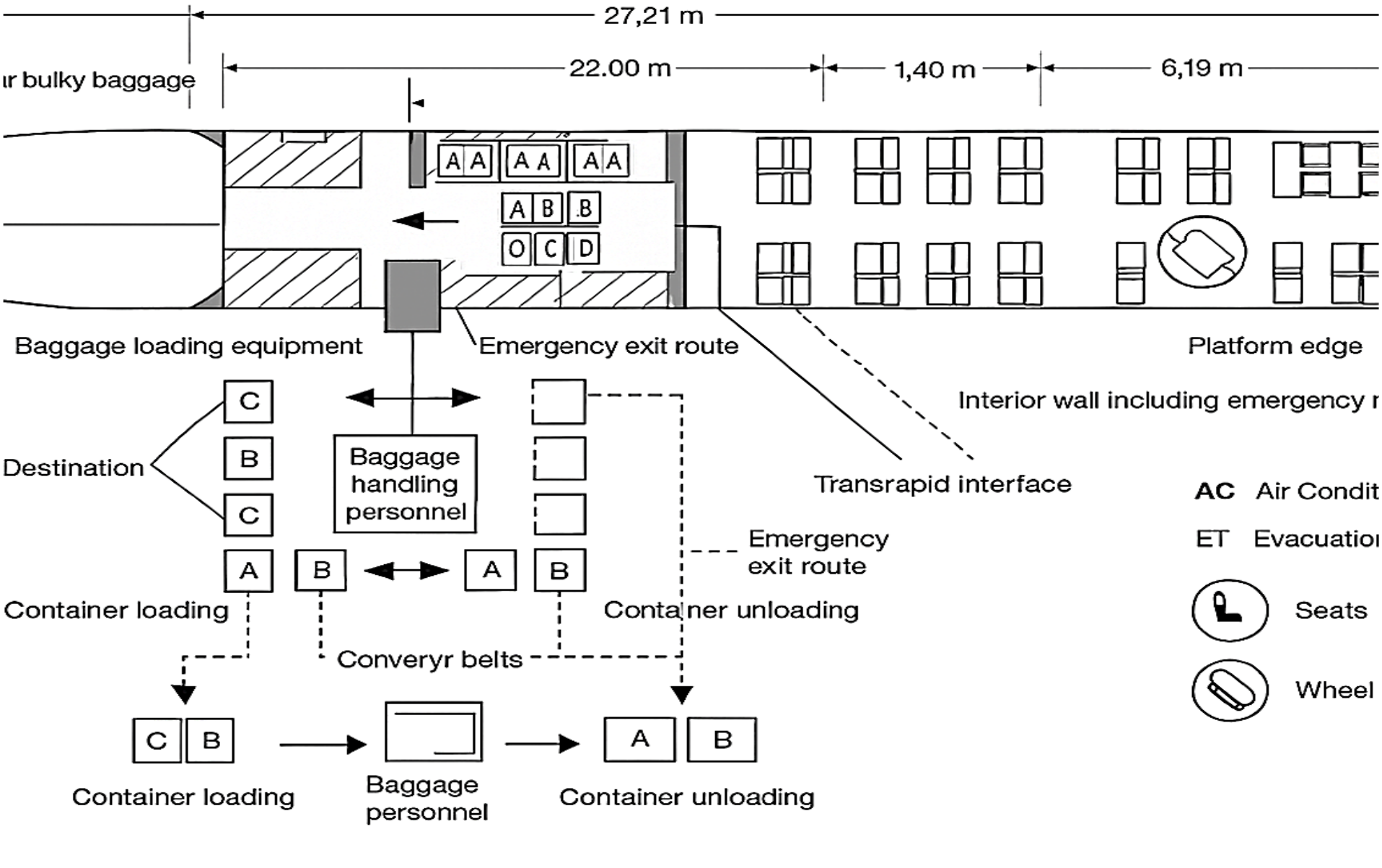


- **VISION & SCOPE:** THE GOAL IS TO CONNECT AFRICA—FROM NORTH TO SOUTH AND EAST TO WEST—USING HIGH-SPEED AND LIGHT RAIL NETWORKS ALONGSIDE HIGHWAYS AND LOCAL ROUTES, ULTIMATELY MAKING THE CONTINENT A TOP TRAVEL DESTINATION.
- **ROLE OF FDIA:** FUNDACIÓN DEMOCRÁTICA ITALO AMERICANA, FDIA -REPRESENTAÇÃO PERMANENTE POSITIONS ITSELF AS A PANEL OF EXPERTS AND THE BEST CONSULTANTS FOR THE PROJECT, NOT AS FINANCIER FOR THE CONSTRUCTION OF AFRICAN RAILWAYS. THE PROJECT REMAINS IN THE PRELIMINARY FEASIBILITY STUDY STAGE.
- **HIGH-SPEED RAIL INNOVATION:** INTERNATIONAL GENERAL CONTRACTORS ARE PROPOSING A CUTTING-EDGE MAGLEV TRAIN SYSTEM CAPABLE OF OPERATING AT SPEEDS BETWEEN 500 AND 600 KPH, WHICH COULD RANK AMONG THE FASTEST REVENUE-SERVICE TRAINS WORLDWIDE. THE PLAN INCLUDES OFFERING BOTH EXPRESS AND TRANSIT SERVICES TO CATER TO DIFFERENT MARKET NEEDS.THIS ENCAPSULATES THE PROJECT'S AMBITION TO BOOST AFRICA’S SOCIO-ECONOMIC DEVELOPMENT THROUGH MODERN TRANSPORT SOLUTIONS.

Vehicle Interior Examples
Baggage Compartment



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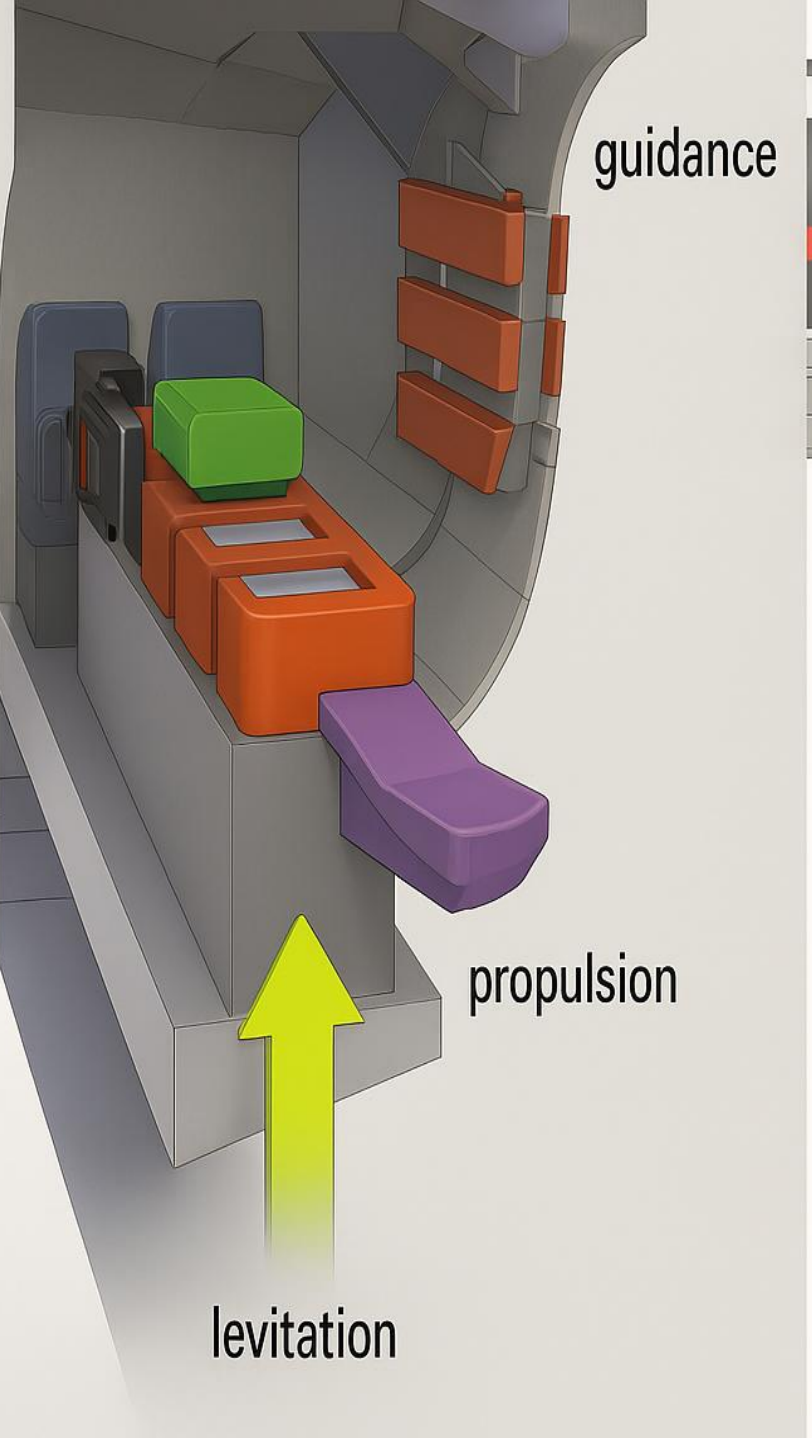
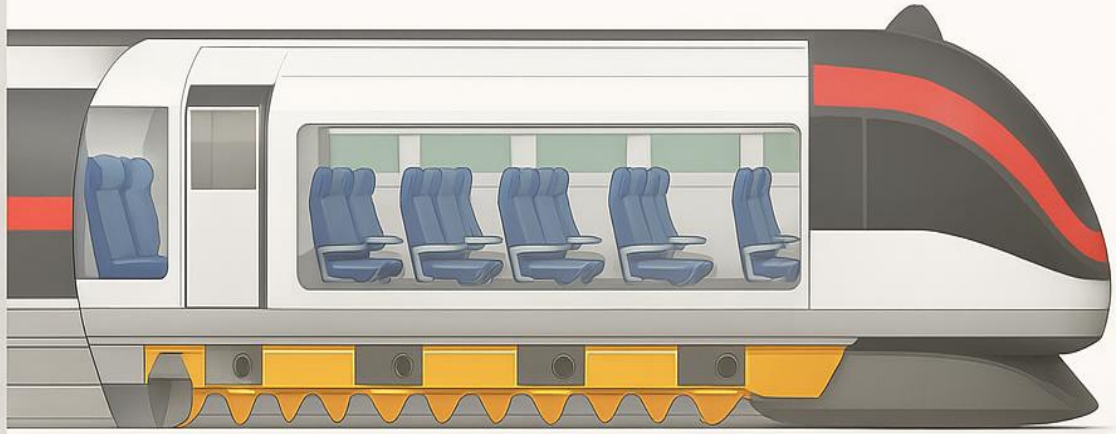
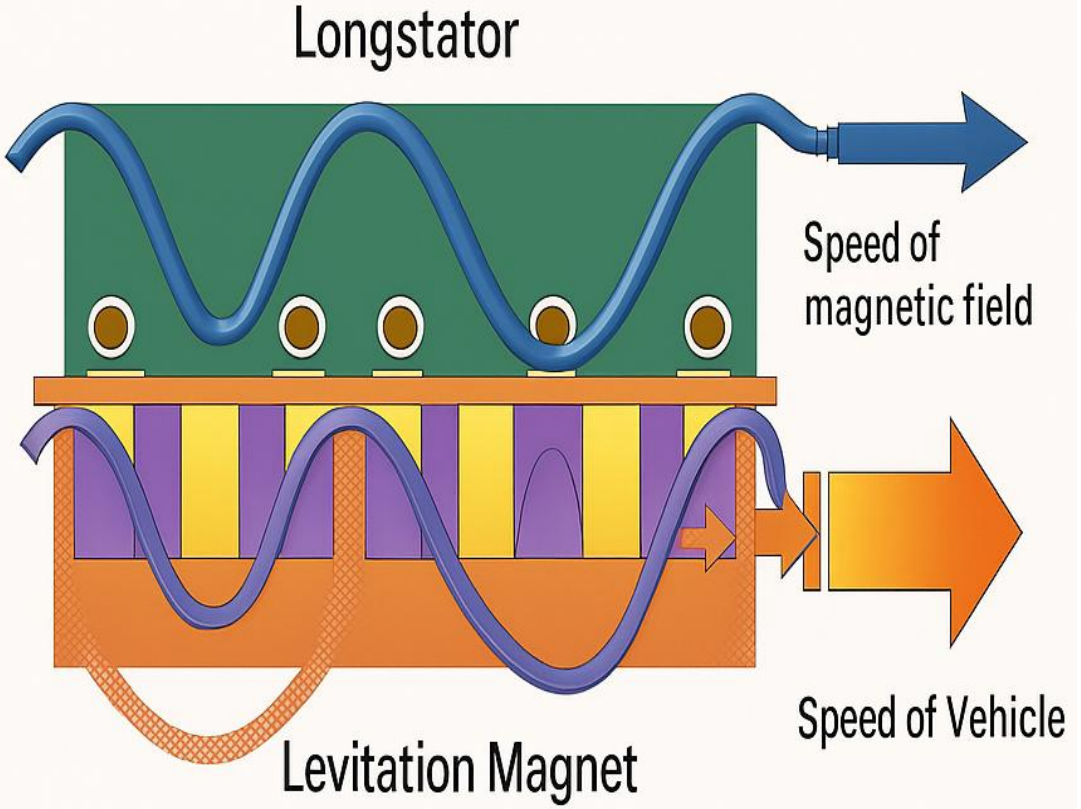

guidance
propulsion
levitation




Longstator
Speed of magnetic field
Speed of Vehicle
Levitation Magnet

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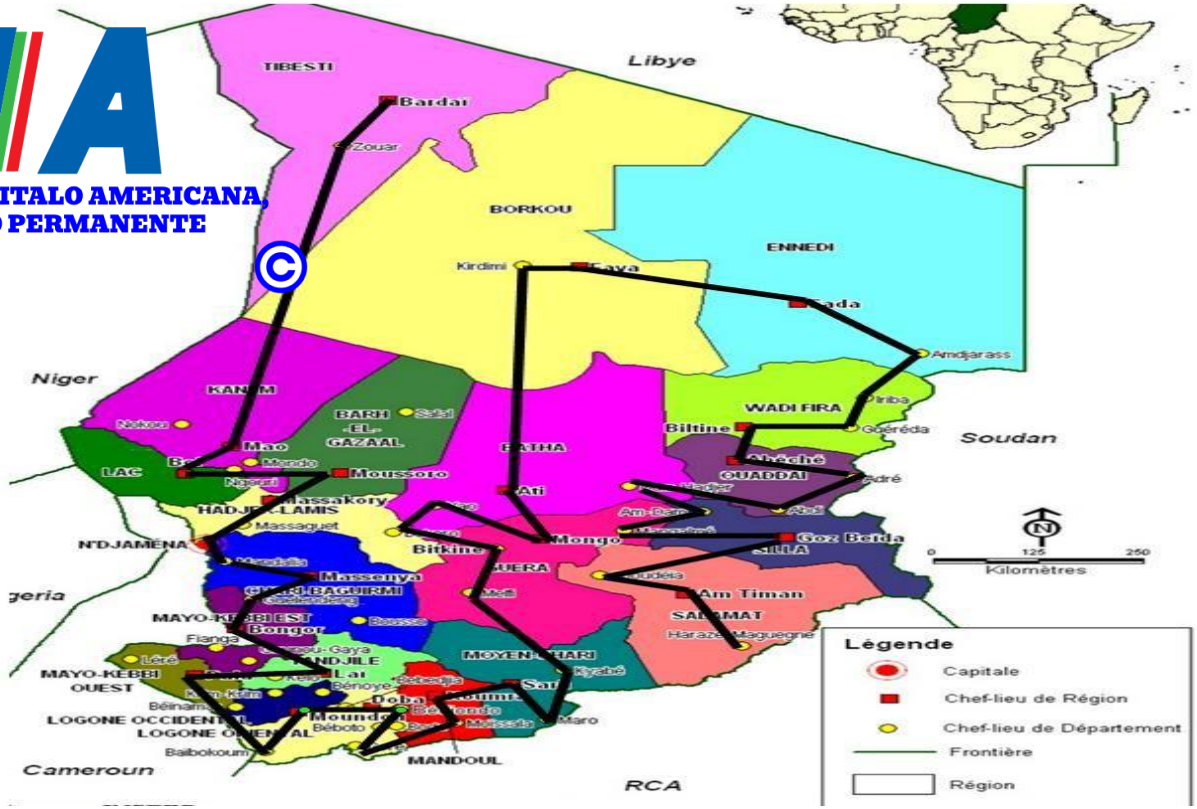

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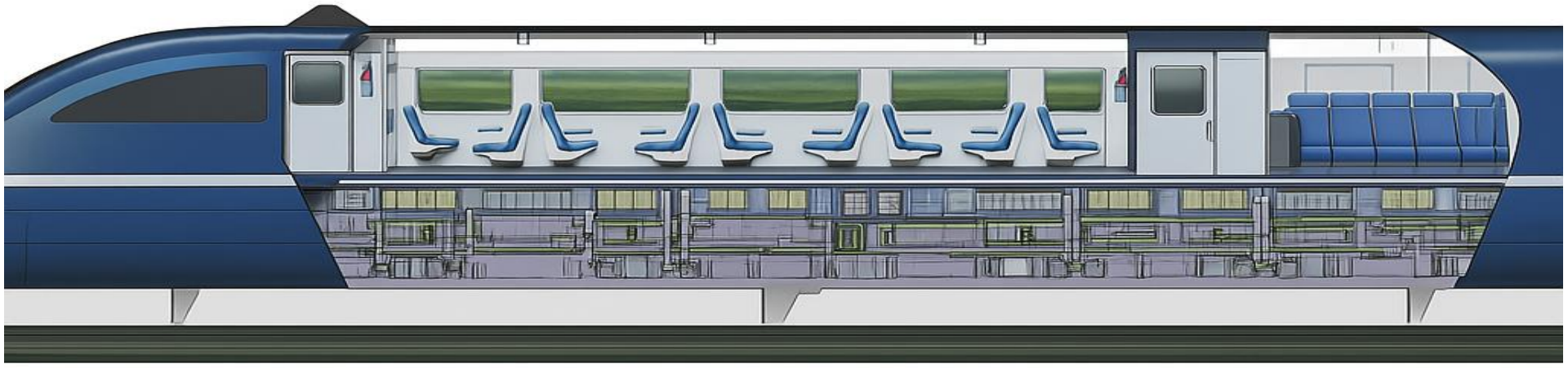

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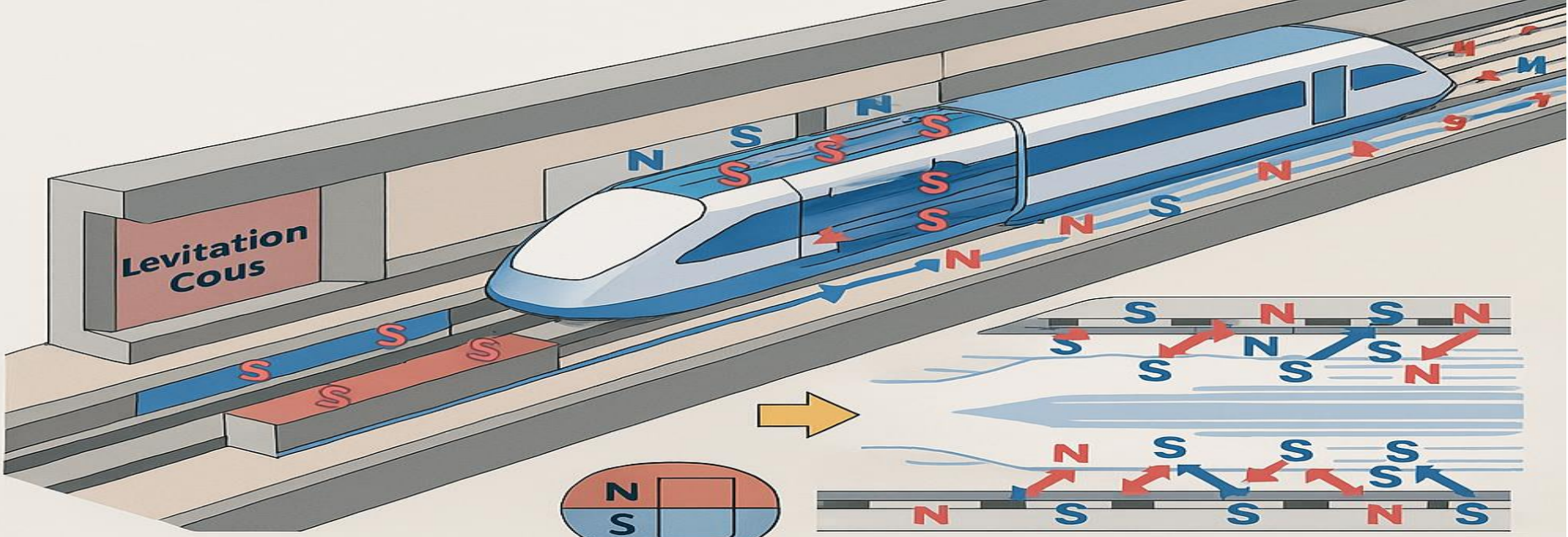
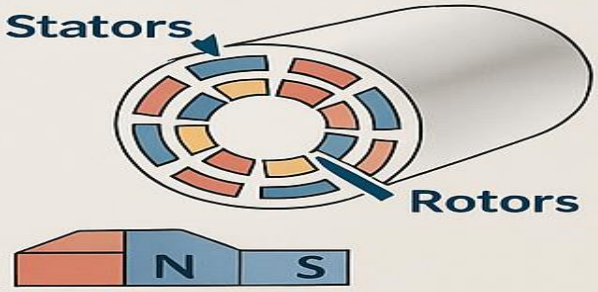
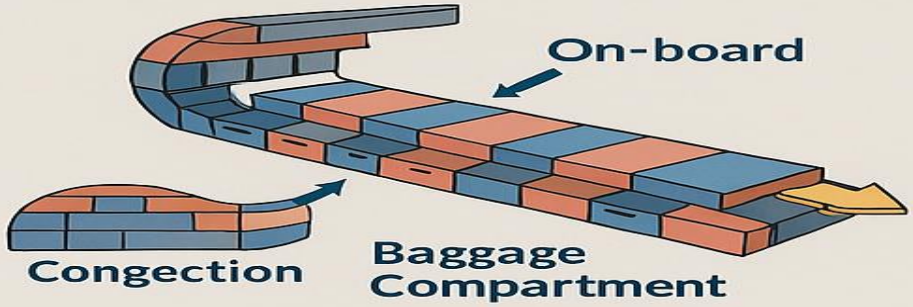
- **Speed** — Airport Connector 125 – 250 mph; Long Distance 250 – 310 mph
- **Acceleration** — from 0 to 185 mph within 120 sec and 3 miles
- **Capacity** — 449 Passengers in a 3 section venicle (76 m); 800 Passengers in a 8 section vehicle (200 m)
- **Environment** — Superior characteristics with regard to all relevant criteria (e.g. noise, vibration, EMF, energy consumption)
- **Spacious Interior** — Cabin width 11 feet, entrance area 65 sq ft
- **Safety** — Latest standards, active fire protecting system



CONVENTIONAL



LINEAR MOTOR



Capacity:

Seated Passengers:	140
Standees:	156
Total Passengers:	236

Standees calculated with
2 people per square mter: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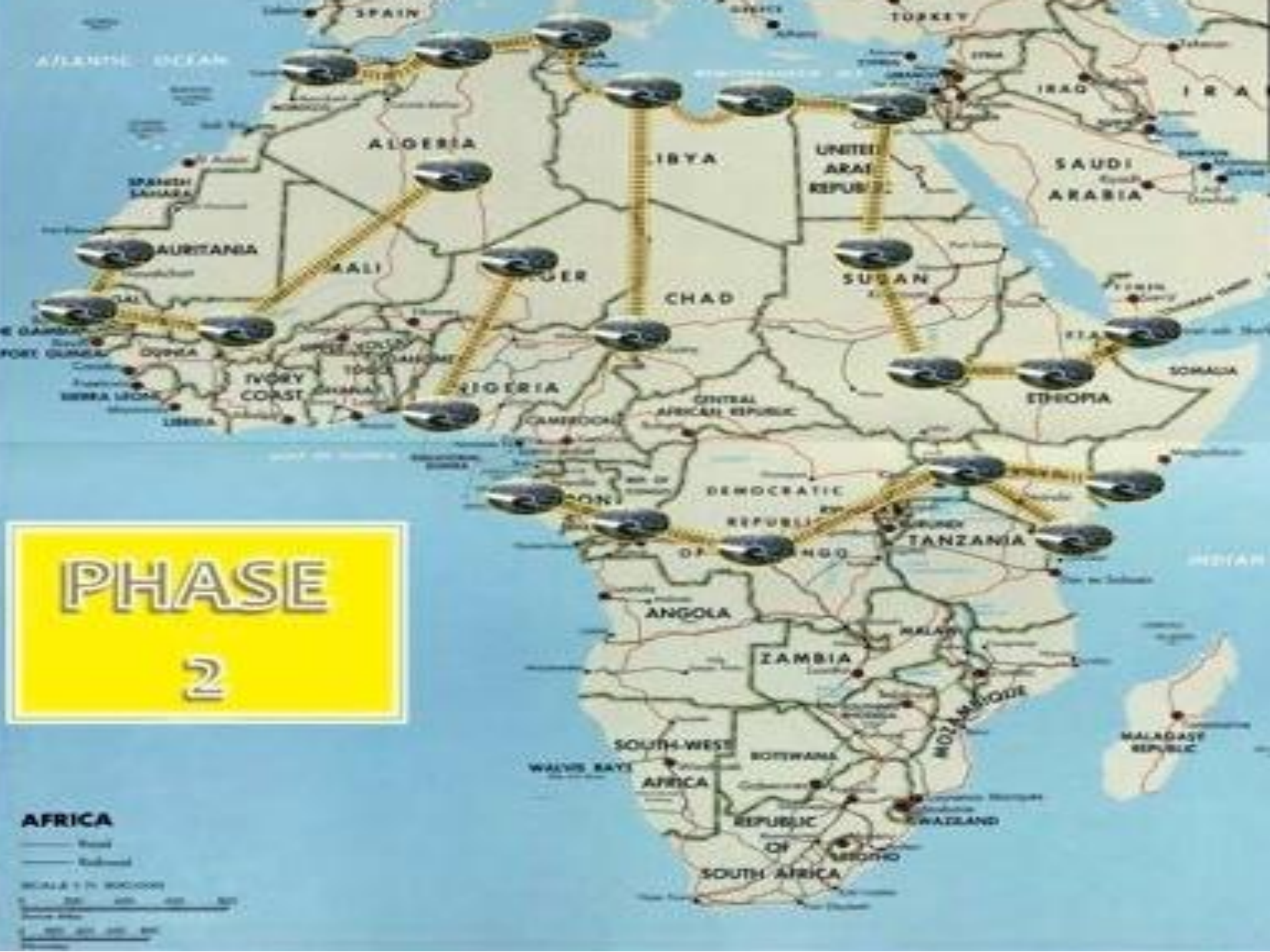
FUTURE PROJECT SCENARIO

PROPOSED BY FUNDACIÓN DEMOCRÁTICA ITALO AMERICANA, FDIA -REPRESENTAÇÃO PERMANENTE BOARD OF DIRECTOR. TCHAD MAGLEV TRAIN WILL USE MAGNET MOTION.


PHASE
1
AFRICA
ATLANTIC OCEAN
LIBYA
UNITED ARAB REPUBLIC
SAUDI ARABIA
IRAQ
MAURITANIA
MALI
NIGERIA
ETHIOPIA
KENYA
GABON
TANZANIA
ANGOLA
ZAMBIA
SOUTH-WEST AFRICA
SWAZILAND
SOMALIA


PHASE
2
AFRICA
SPAIN
GREECE
TURKEY
IRAQ
ALGERIA
LIBYA
SAUDI ARABIA
SPANISH SAHARA
MAURITANIA
MALI
CHAD
SUDAN
GUINEA
IVORY COAST
NIGERIA
CAMEROON
CENTRAL AFRICAN REPUBLIC
ETHIOPIA
SOMALIA
DEMOCRATIC REPUBLIC OF CONGO
TANZANIA
ANGOLA
ZAMBIA
MALAWI
MOZAMBIQUE
MADAGASY REPUBLIC
SOUTH-WEST AFRICA
WALVIS BAYE
BOTSWANA
SWAZILAND
REPUBLIC OF LESOTHO
SOUTH AFRICA


PHASE
3
SPAIN
TURKEY
ALGERIA
LIBYA
TUNISIA
IRAQ
UNITED ARAB REPUBLIC
SAUDI ARABIA
MAURITANIA
MALI
NIGER
CHAD
SUDAN
IVORY COAST
NIGERIA
CENTRAL AFRICAN REPUBLIC
ETHIOPIA
KENYA
ANGOLA
ZAMBIA
BOTSWANA
REPUBLIC OF
AFRICA

Phase One North Africa To South Africa

FUTURE ROADMAP FOR LONG PERIOD

PROJECT HYPOTHESIS SCENARIO

Algeria → Niger → Chad → Central Africa → Congo RCD → Zambia → Zembabwe → Botswana → South Africa

Phase One East Africa To West Africa

North Sudan → Chad → Cameroon

Phase Two

Morocco → Algeria → Tunisa → Libya → Egypt

Djibouti ← Ethiopia ← South Sudan. ← North Sudan

Algeria → Mali → Senegal → Mauritánia

Libya → Chad

Niger. → Nigera

Gabon → Congo → Congo RDC → Uganda → Kenya

Uganda → Tanzánia

Phase Three & Four

Morocco. → Western Sahara → Mauritánia. → Senegal

Sierra Leone ← Guinea Conakry. ← Guinea Bissau ← Gambia

Libera. → Ivory Cost → Ghana → Togo. → Benin

Gabon ← Guinea Equatorial ← Cameroon ← Nigeria

Rep. Of Congo. → Congo RDC → Angola → Namibia

Mozambique ← Lesotho ← Swaziland ← South Africa

Tanzania. → Kenya → Somalia → Djibouti → Eritrea

Algeria ← Tuni ← Libya ← Egypt ← North Sudan

Phase Three & Four

Angola → Zambia → Burundi → Rwanda → Uganda

Departure

Distination From To

Arrival

01 Phase One

02 Phase Two

03 Phase One

THE PROJECT IS STILL IN ITS CONCEPTUAL PHASE WITH NO ASSEMBLY WORK ON THE RAILWAY STATION STARTED YET.

- **STANDARD PAYMENT TERMS:** REGULAR CONTRACTUAL PAYMENTS TO THE APPOINTED INTERNATIONAL GENERAL CONTRACTORS.
- **BANK GUARANTEE:** IN SOME CASES, A 1ST CLASS GUARANTEE.
- **SOVEREIGN GUARANTEE:** TYPICALLY BASED ON STANDARD TERMS BUT ADAPTABLE TO PROJECT-SPECIFIC REQUIREMENTS AND FINANCIER NEEDS.
- **NON-HONORING RISK INSURANCE:** THIS INSURANCE BACKS STANDARD PAID CONTRACTS TO ENSURE FULL CONTRACT EXECUTION.

ALL THESE TERMS AND CONDITIONS WILL BE DETAILED IN A FUTURE DISCUSSION WITHIN THE HUMANITARIAN PROJECT SCENARIO.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FDIA
FDIA RAILWAYS STATION
MAGLEV TRAIN


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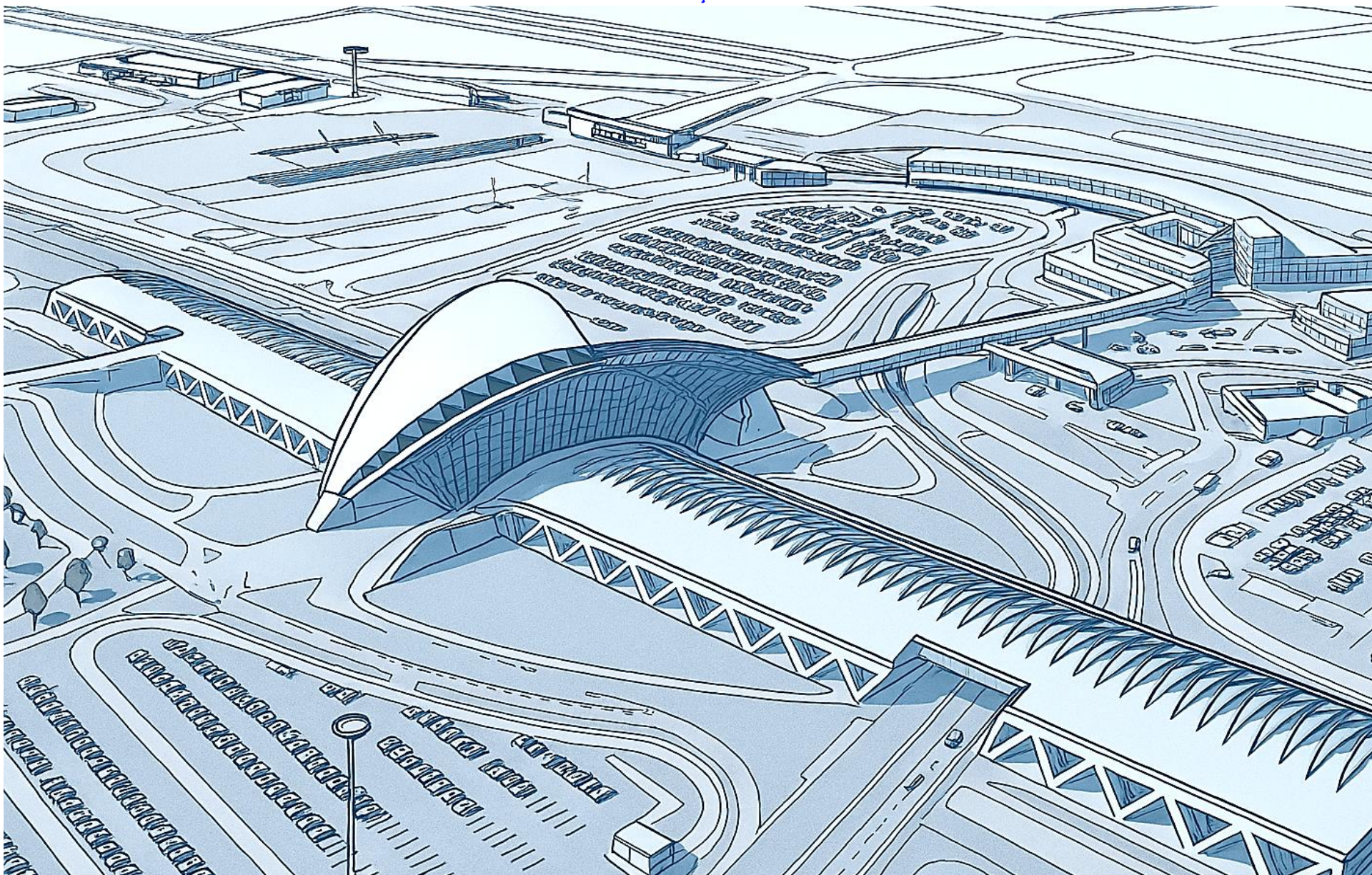


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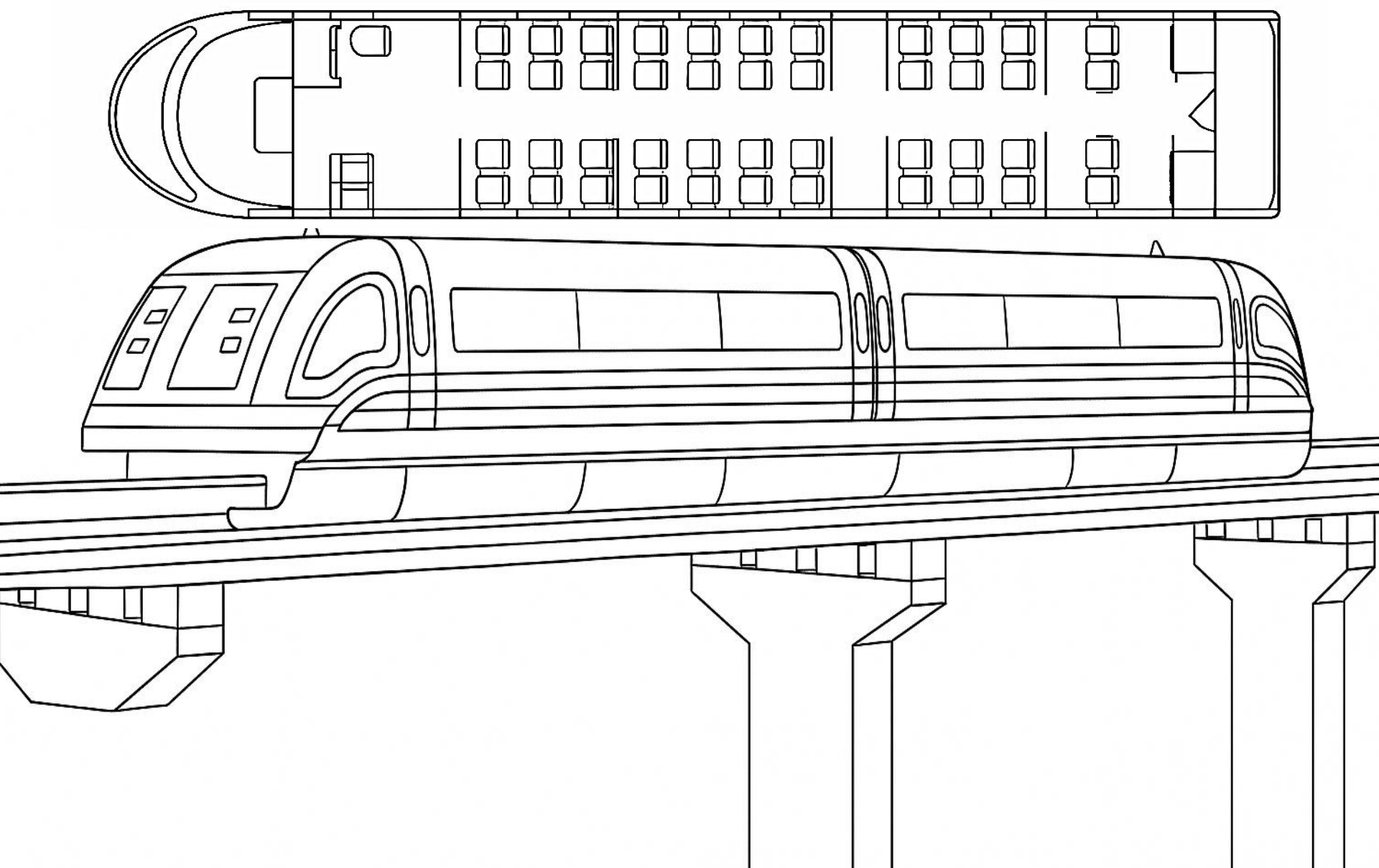

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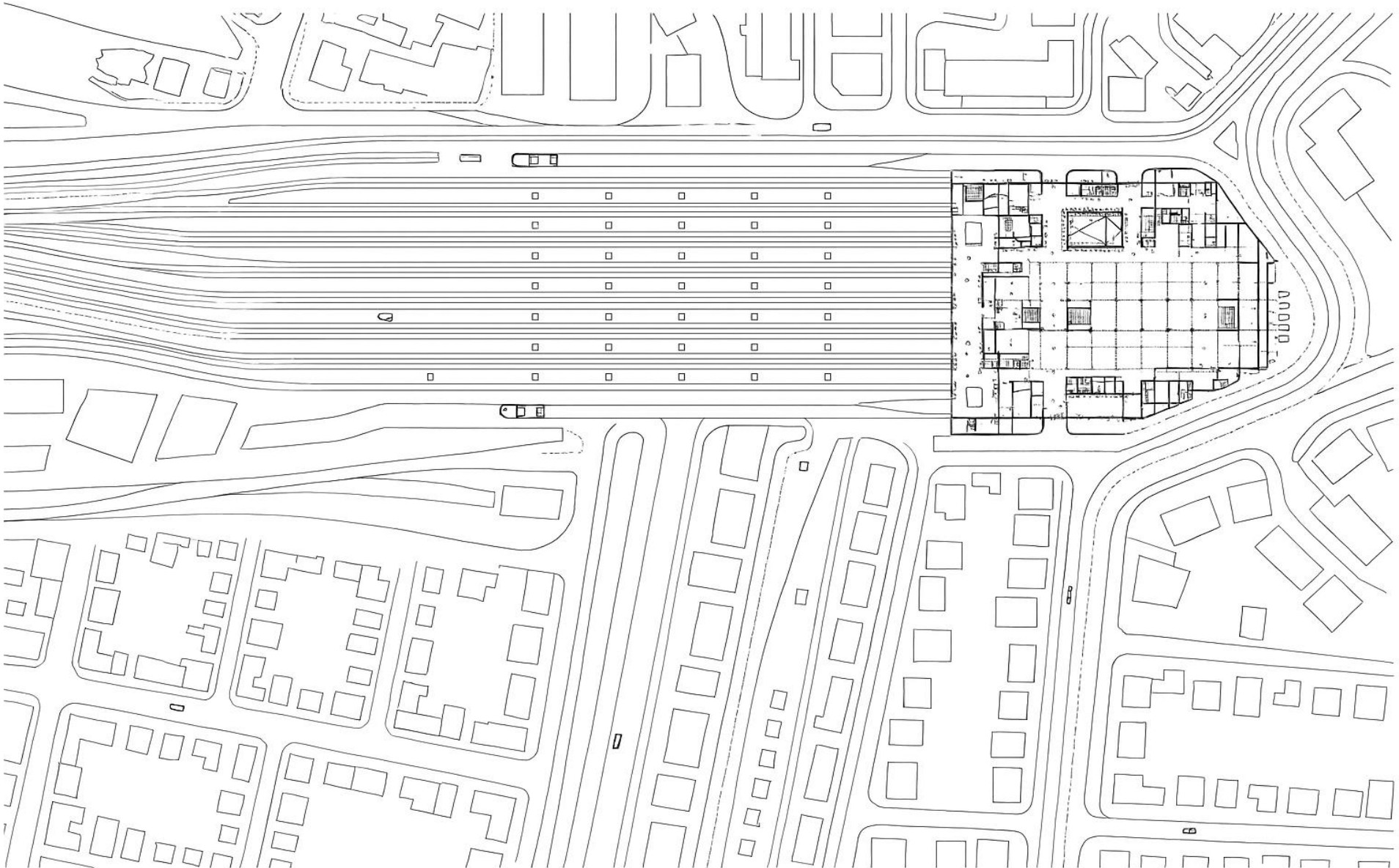

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LEVERAGES CUTTING-EDGE MAGNETIC LEVITATION TECHNOLOGY TO POSITION ITSELF AS OFFERING THE MOST ADVANCED HIGH-SPEED TRAIN SYSTEM GLOBALLY.

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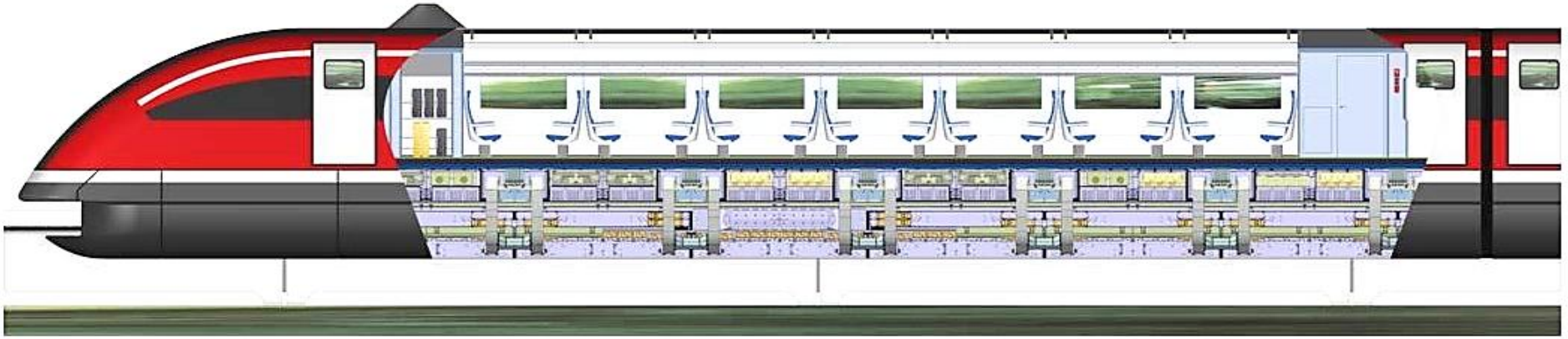
TRADITIONAL RAILWAYS

MAGLEV TECHNOLOGY TRAIN SYSTEM AND HIGHWAY



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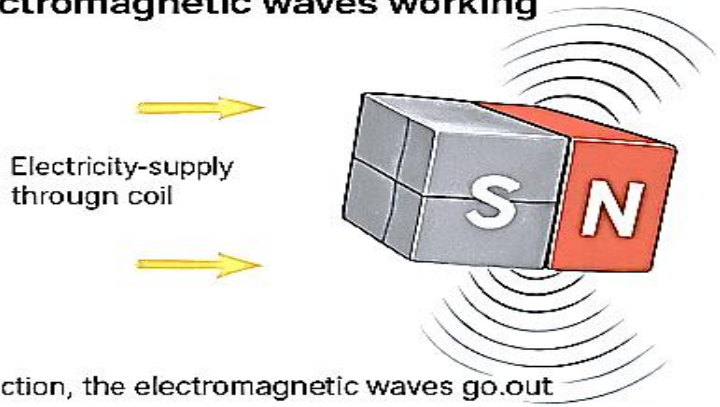
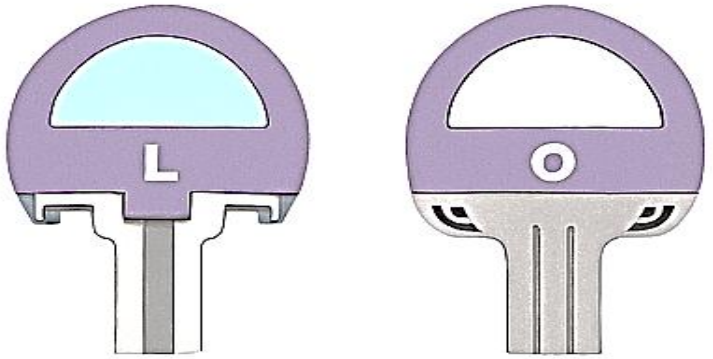
Maglev (means magnetic C levitation) is a method of propulsion that uses magnetic levitation to propel vehicles with magnets rather than with wheels, axles, and bearings. With the Maglev, a vehicle is levitated a short distance away from a guideway by using magnets to create both lift and thrust. In general, Maglev trains move more smoothly and somewhat more quietly than wheeled mass transit systems. Their non-reliance on traction and friction means that acceleration and deceleration can surpass that of wheeled transports and they will be protected from the weather. At very high speeds of the conventional wheeled trains, the wear and tear from friction along with the hammer effect from wheels on rails will accelerate equipment deterioration and prevent mechanically based train systems from routinely achieving higher speeds.

- The electromagnets on the underside of the train pull it up to the ferromagnetic stators on the track and levitate the train.
- The magnets on the side keep the train from moving from side to side.
- A computer changes the amount of current to keep the train 1 cm from the track.

Electromagnetic waves working



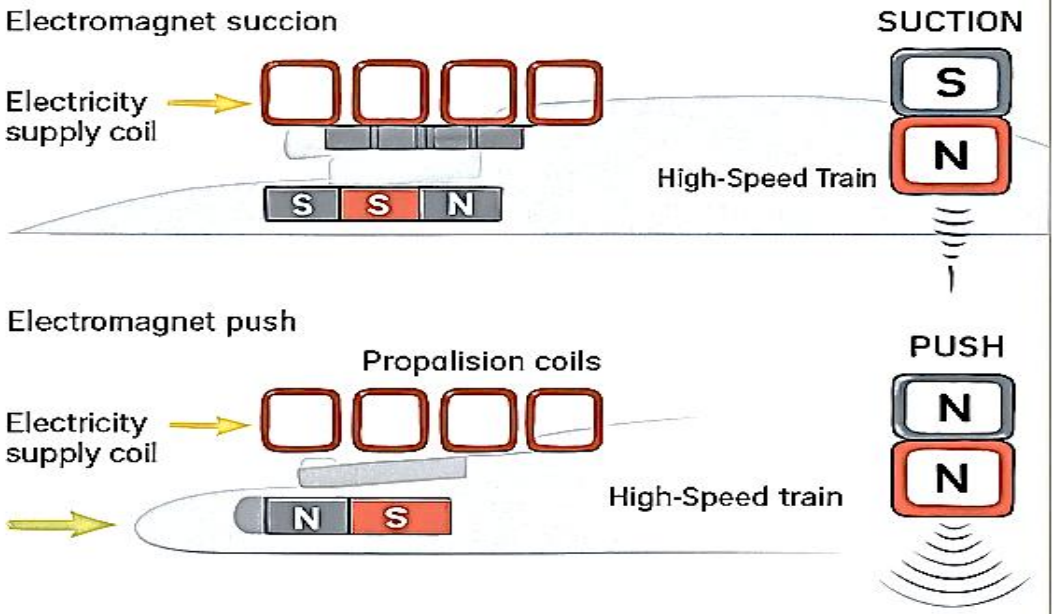
Induction, the electromagnetic waves go.out



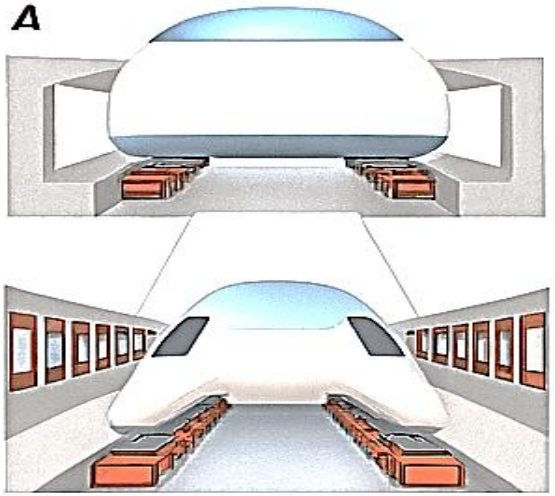
Electromagnet on
the triainal tip

Electromagnents
on train tip.

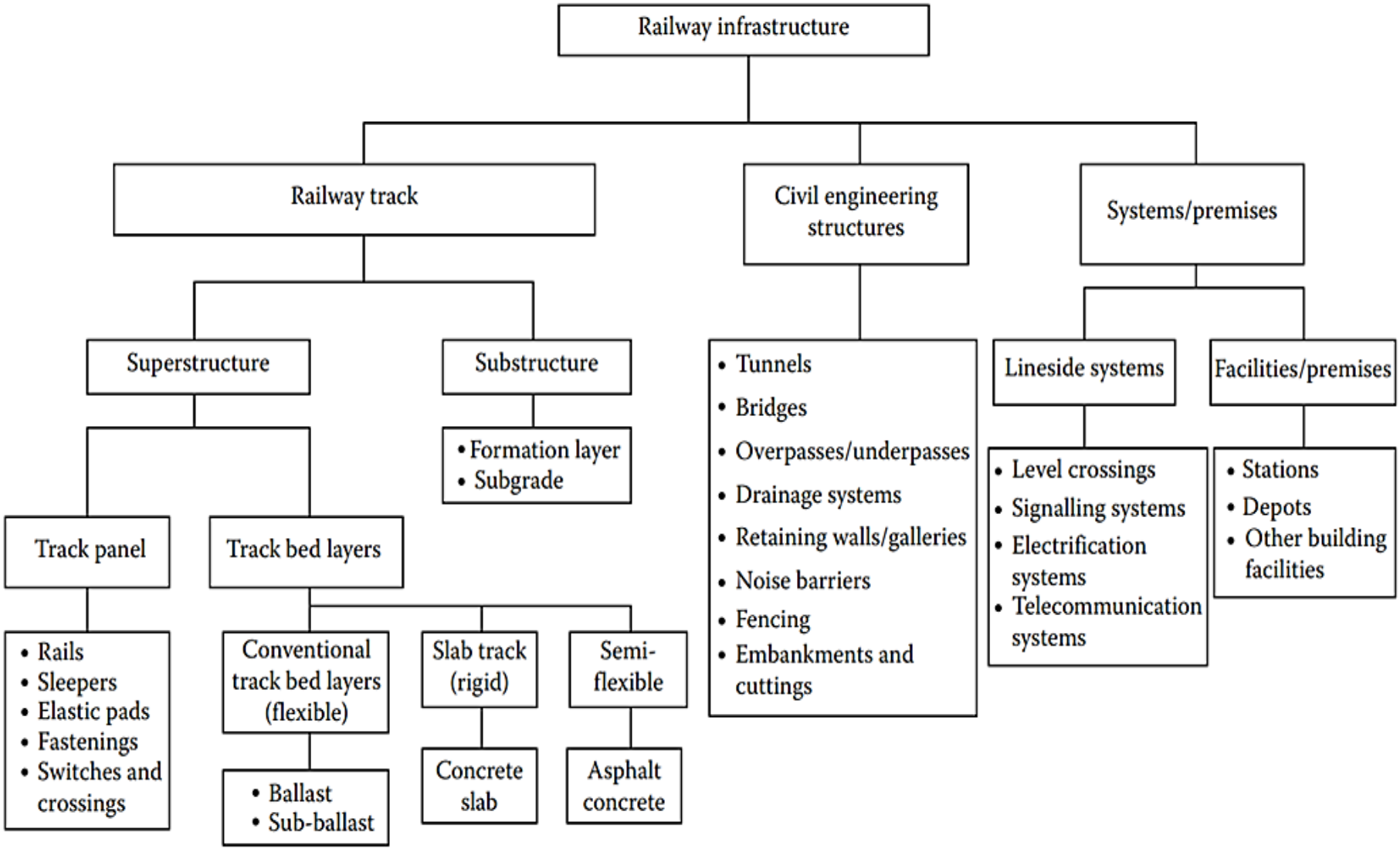
Electromagnets on the guideway levitate the train



Levitate system high-speed



(A) High-speed train
(B) Guideway
(3) Electromagneis on rail
(4) Levifation guide coils


Railway infrastructure
Railway track
Civil engineering structures
Systems/premises
Superstructure
Substructure
• Tunnels
• Bridges
• Overpasses/underpasses
• Drainage systems
• Retaining walls/galleries
• Noise barriers
• Fencing
• Embankments and cuttings
Lineside systems
Facilities/premises
• Formation layer
• Subgrade
Track panel
Track bed layers
• Level crossings
• Signalling systems
• Electrification systems
• Telecommunication systems
• Stations
• Depots
• Other building facilities
• Rails
• Sleepers
• Elastic pads
• Fastenings
• Switches and crossings
Conventional track bed layers (flexible)
Slab track (rigid)
Semi-flexible
• Ballast
• Sub-ballast
Concrete slab
Asphalt concrete

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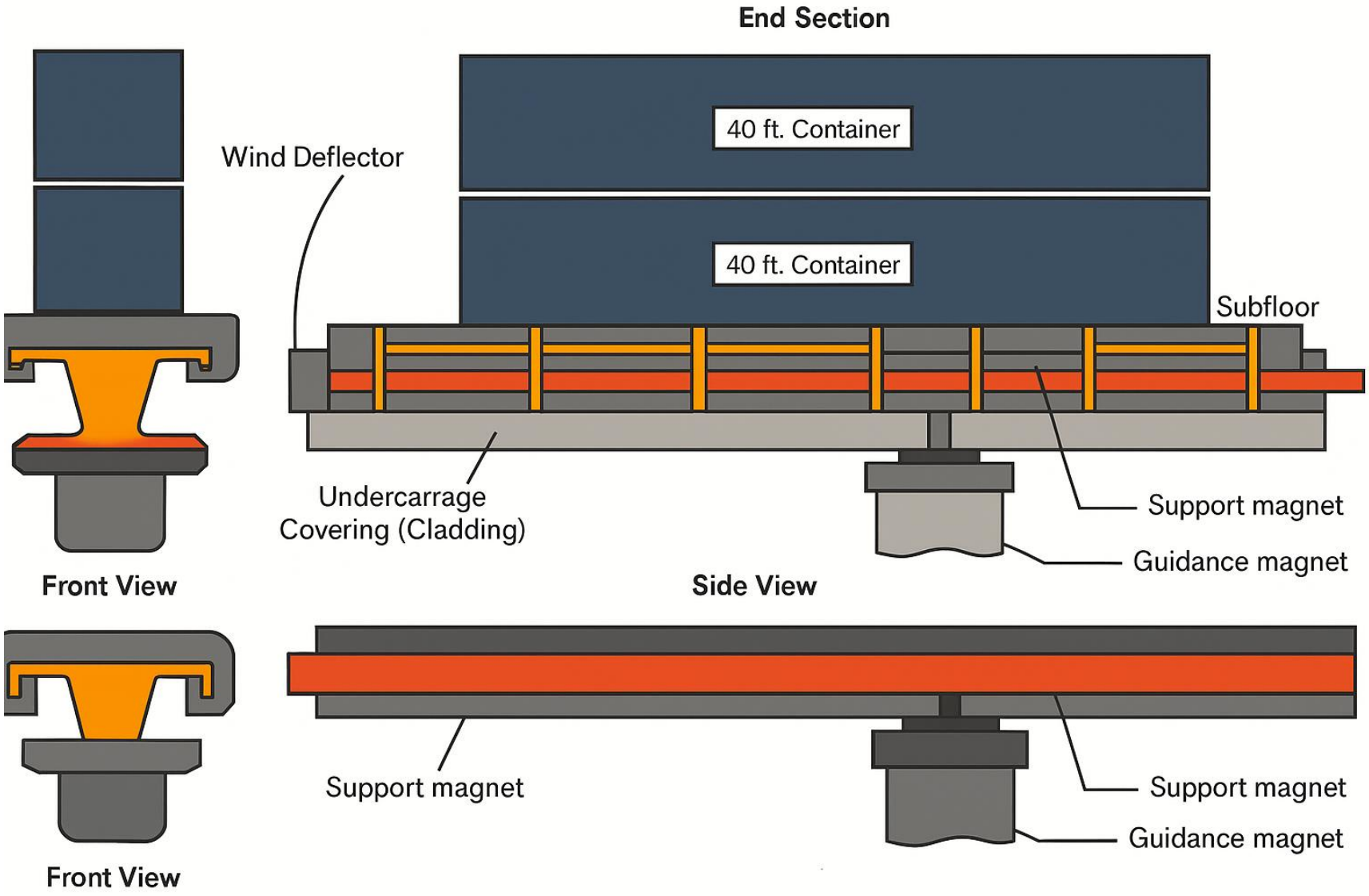
FUNDACIÓN DEMOCRÁTICA ITALO AMERICANA, WILL CHOOSE ONE COUNTRY IN FUTURE THAT WILL NEED HELP AND WELFARE DEVELOPMENT FOR RE-CONSTRUCTION THE RAILWAY TRANSPORT & INFRASTRUCTURE SYSTEM.

1

FDIA -NGO WILL DO THE WORK IN REFERENCE 1 COUNTRY IN AFRICAN CONTINENT WILL BE DEFINED,FOR CONSTRUCTION THE RAILWAY.


End Section
Wind Deflector
40 ft. Container
40 ft. Container
Subfloor
Undercarrage
Covering (Cladding)
Support magnet
Guidance magnet
Front View
Side View
Support magnet
Support magnet
Guidance magnet
Front View

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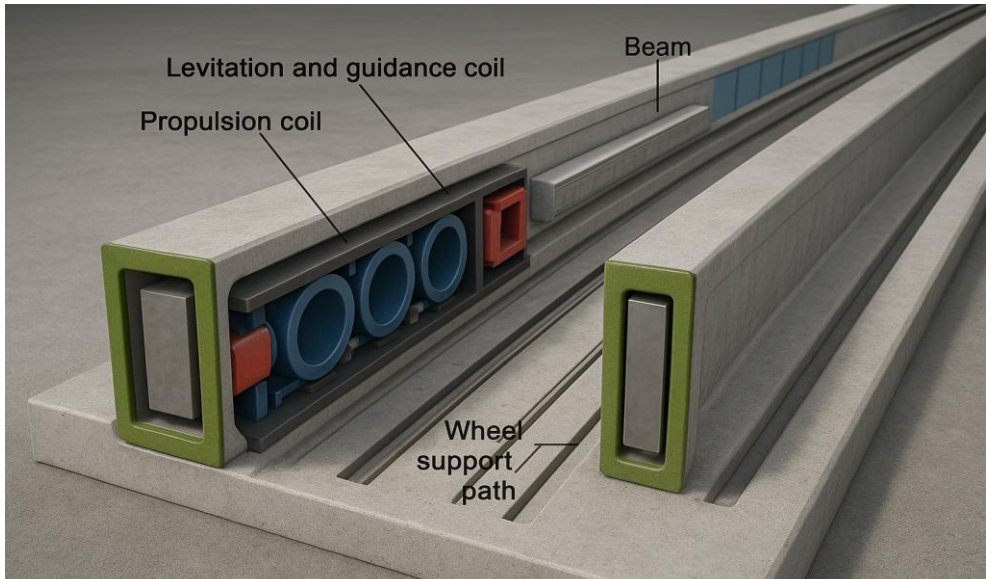
MAGLEV TRAIN WILL TRANSPORT PASSENGERS FREIGHT OVER LONG DISTANCES AT SPEEDS OF HUNDREDS OF MILES PER HOUR.



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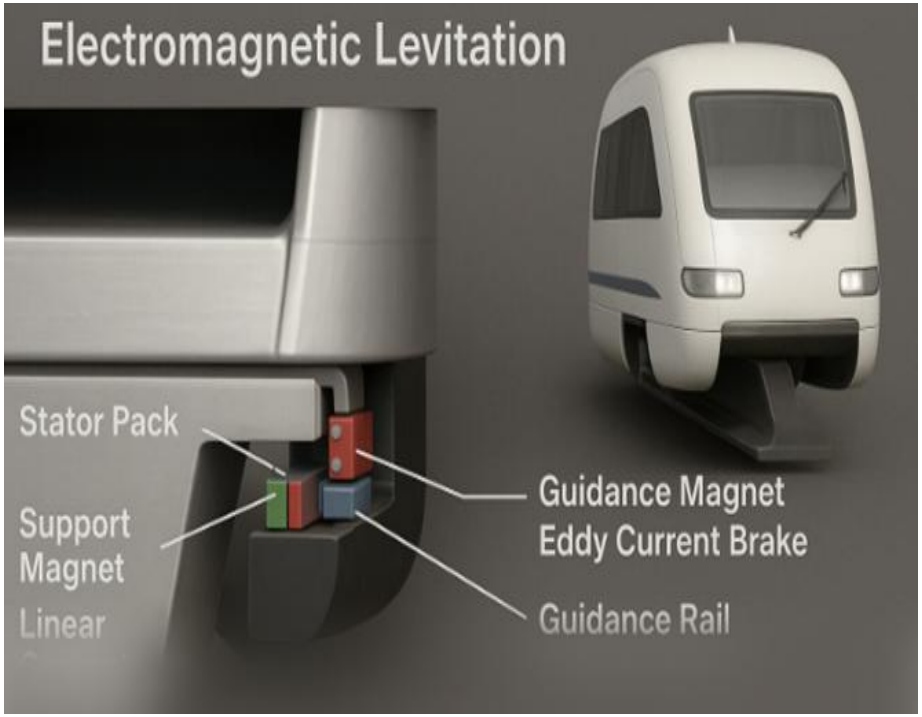
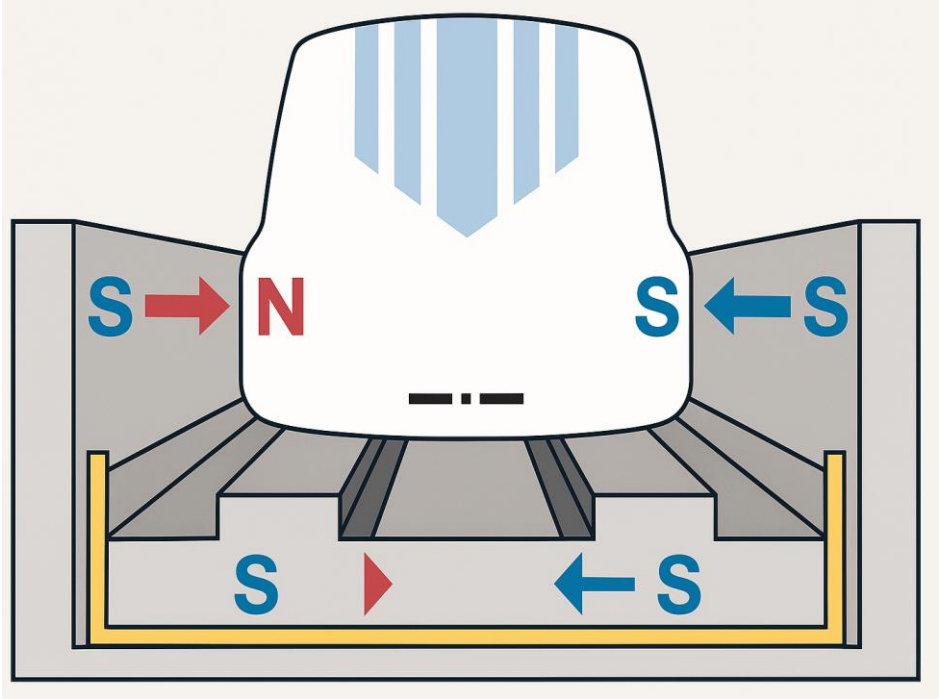
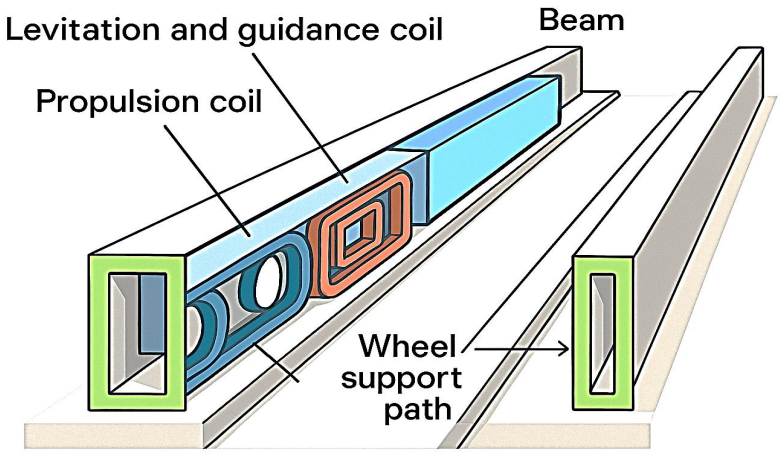
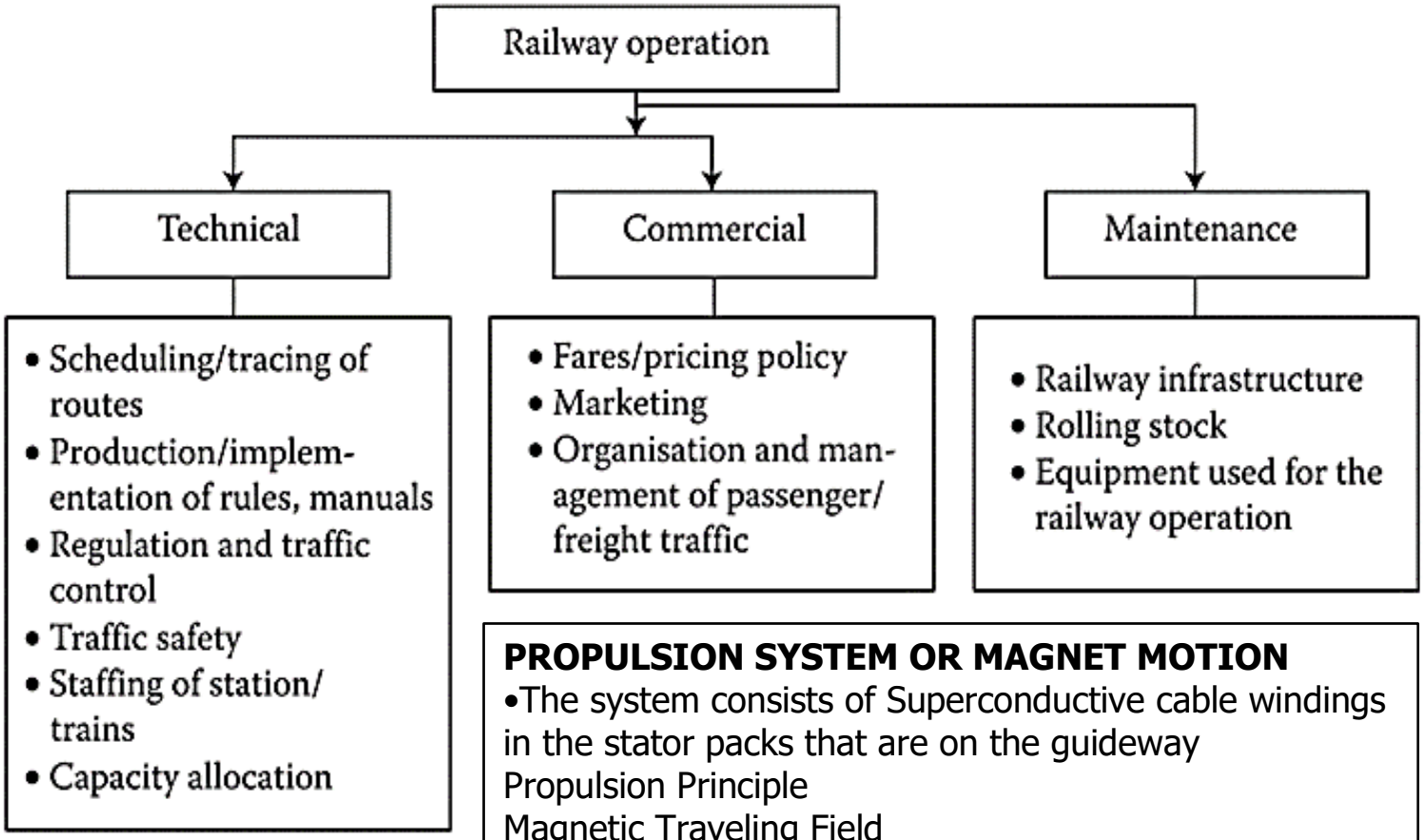






Type of Magnet that will use FDIA-NGO:

•This train uses superconducting electric magnets in the vehicle to levitate and propel the train. These magnets are cooled by liquid helium or liquid nitrogen. This means that once electrified these magnets do not require additional energy.



PROPULSION SYSTEM OR MAGNET MOTION

•The system consists of Superconductive cable windings in the stator packs that are on the guideway

Propulsion Principle

Magnetic Traveling Field

•When a current is supplied to the windings, it creates a traveling alternating current that propels the train forward by pushing and pulling.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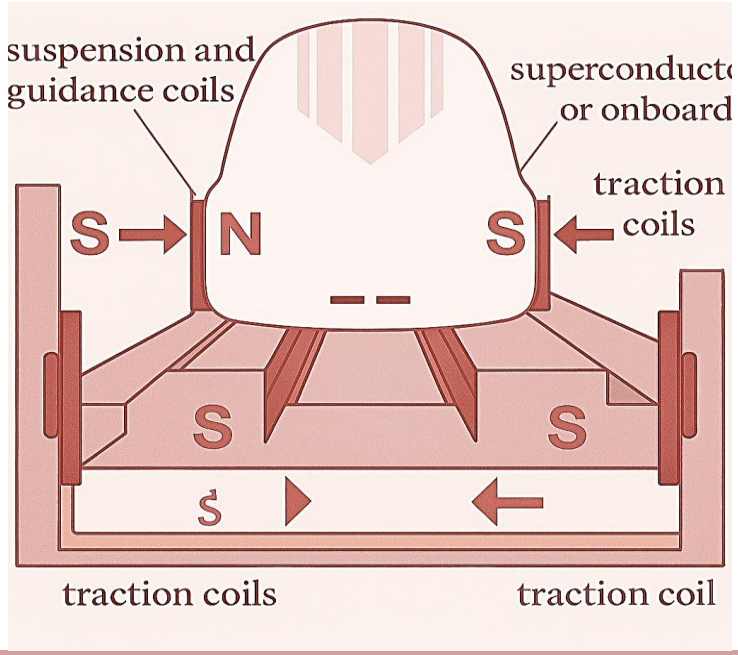
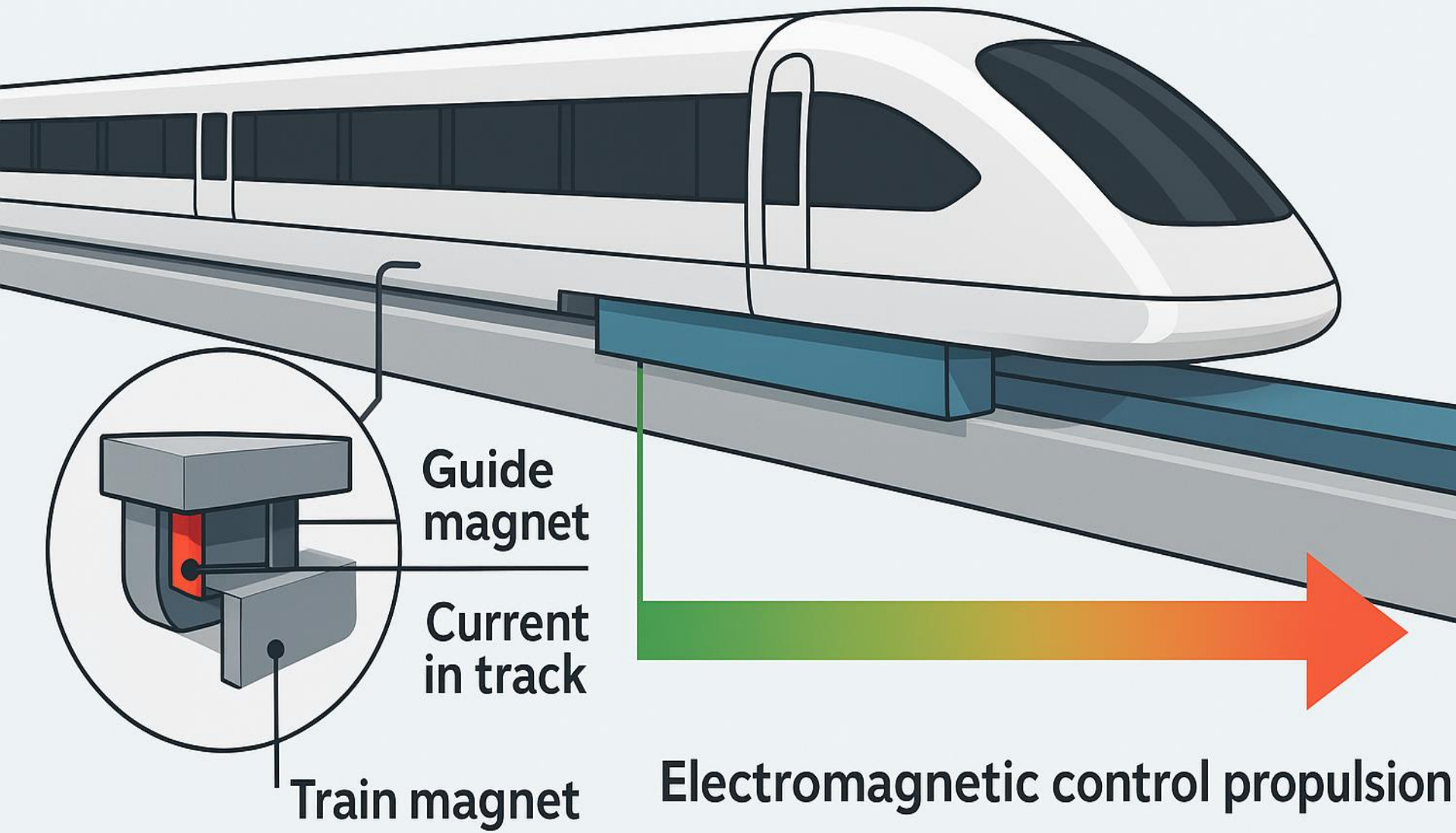
SPECIAL CONSULTATIVE STATUS -ONG-



How Maglev works:



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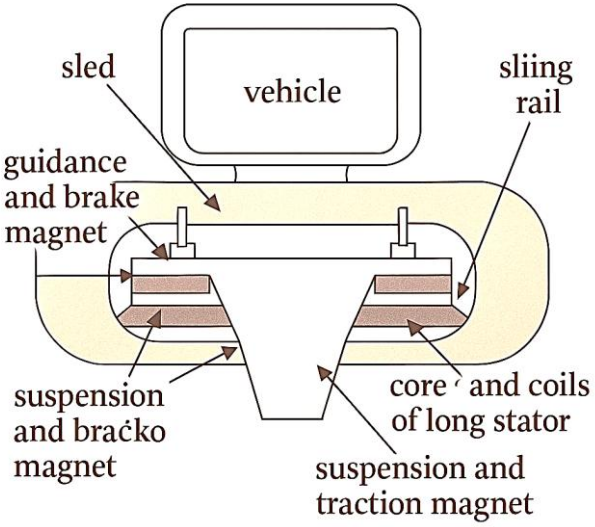
Propulsion

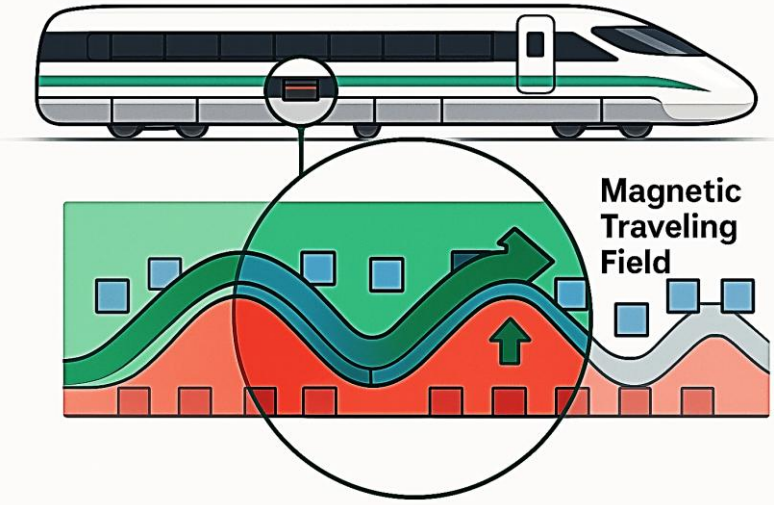
•An alternating current is ran through electromagnet coils on the guide walls of the guide way. This creates a magnetic field that attracts and repels the superconducting magnets on the train and propels the train forward.

•Braking is accomplished by sending an alternating current in the reverse direction so that it is slowed by attractive and repulsive forces.

Levitation

•The passing of the superconducting magnets by figure eight levitation coils on the side of the tract induces a current in the coils and creates a magnetic field. This pushes the train upward so that it can levitate 1 cm above the track





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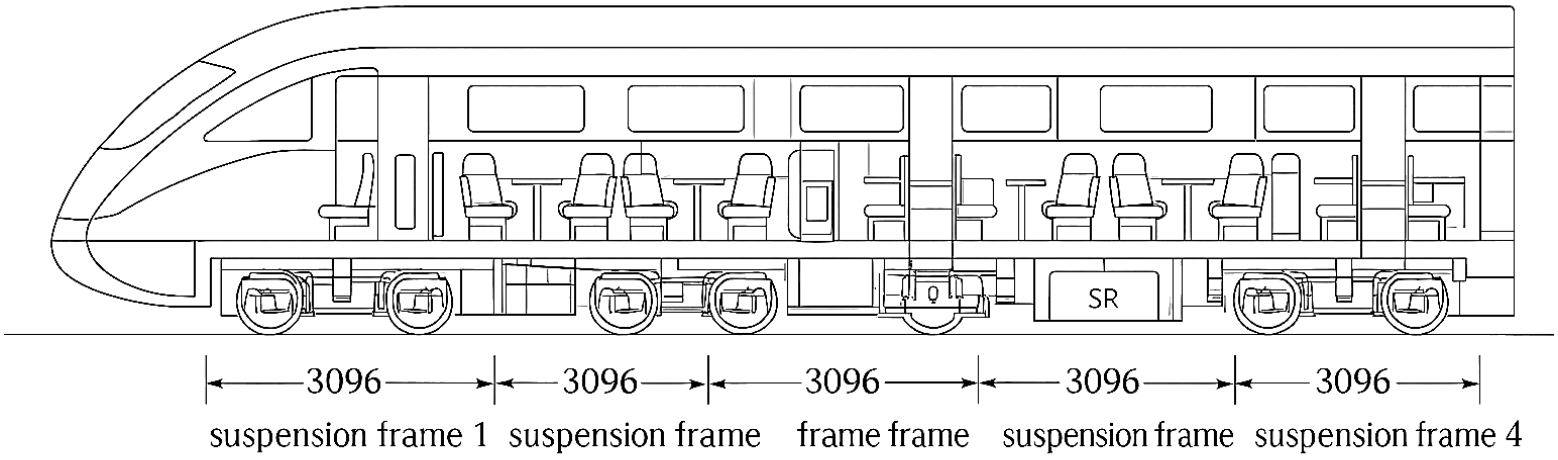

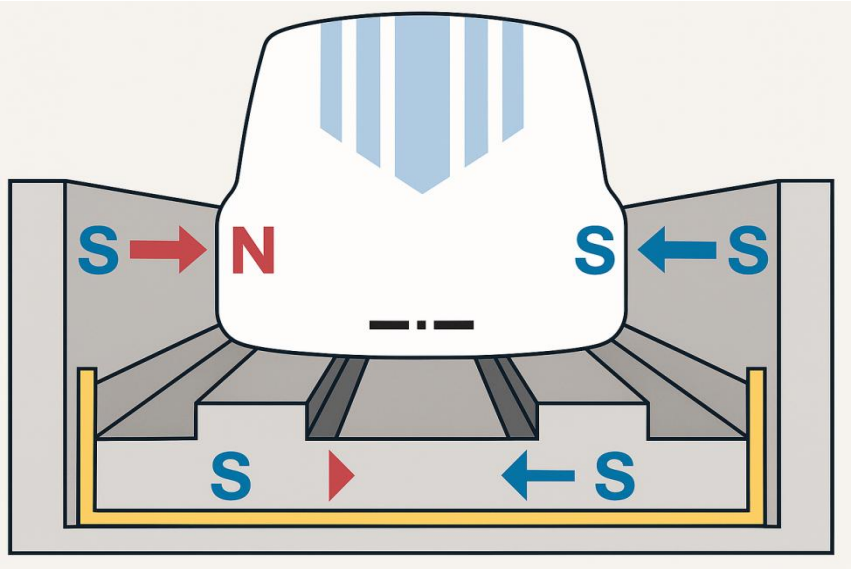

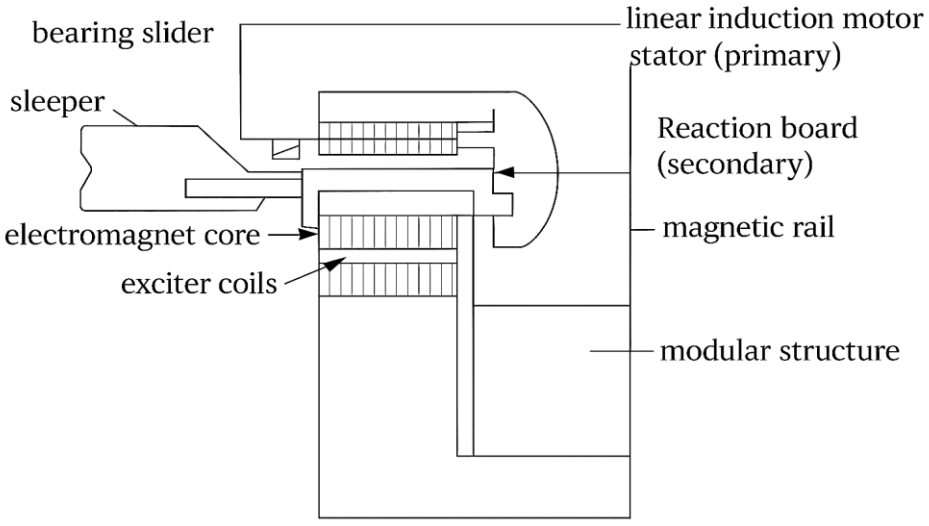


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IN FUTURE WE WILL USE WIND TURBINES
NEAR THE RAILWAY STATION


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FDIA
FDIA RAILWAYS STATION
MAGLEV TRAIN


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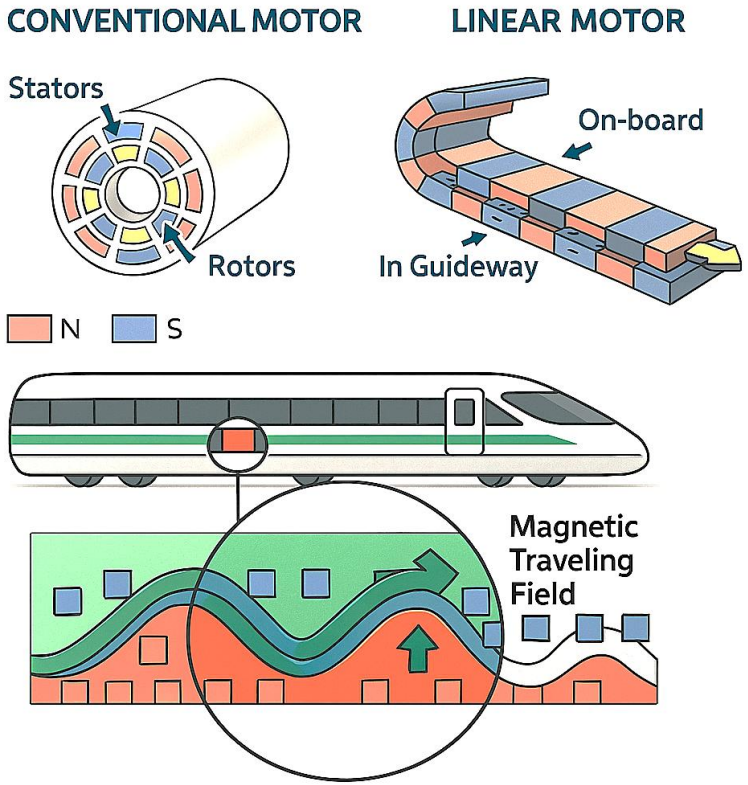
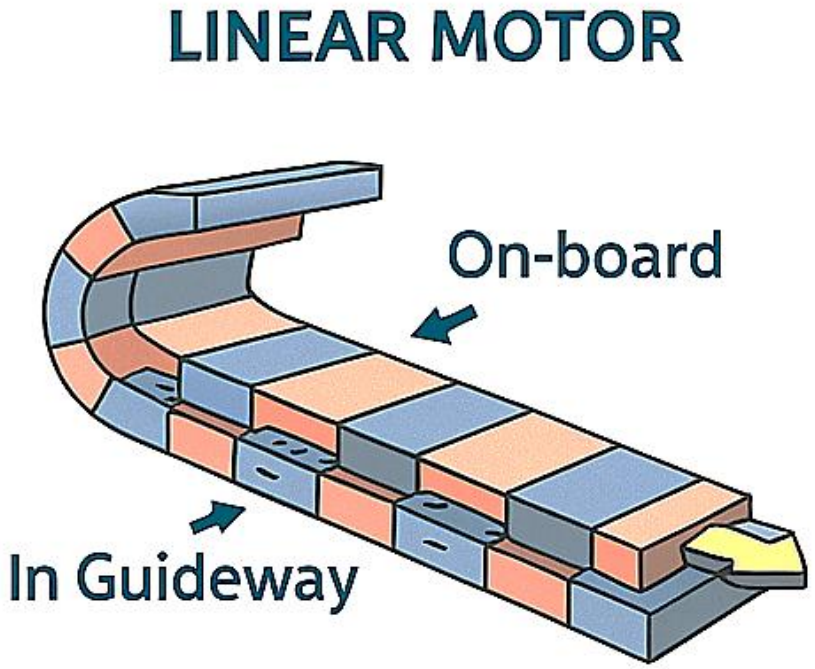
The maglev system it utilizes a linear motor, which resembles a conventional electric motor rolled out. In this example, the rotors inside a conventional motor correspond to the Superconducting Magnets on-board the vehicle, and the external stators correspond to the Propulsion Coils in the guide way. In a linear motor, though, the magnetic forces cause the magnets to move forward in a line, rather than rotating.





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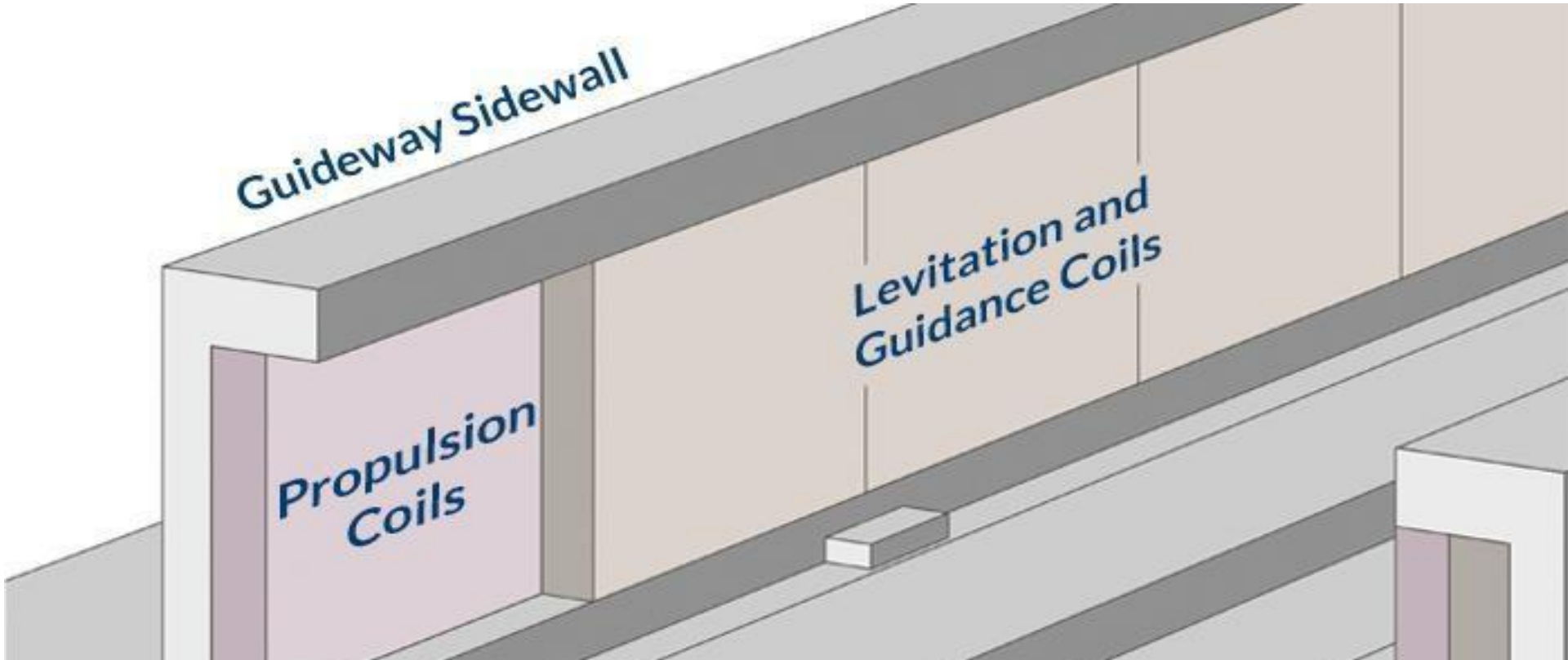
➢ LINEAR MOTOR

Instead of riding directly on rails like conventional trains, the maglev Transport levitates in a U-shaped concrete guide way. This guide way envelops the vehicles, preventing derailments. Installed into the sidewalls of the guide way are metal coils, which are key to the railways maglev propulsion, levitation and guidance.



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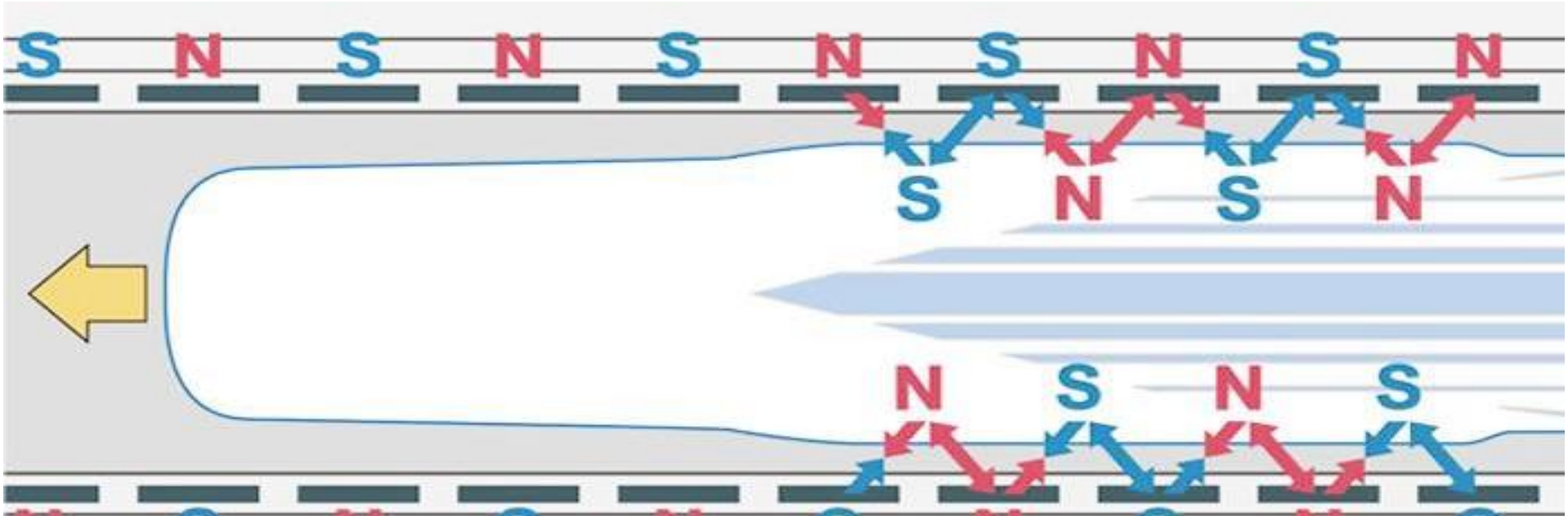
By passing an alternating electrical current through the Propulsion Coils installed on either side of the guide way, magnetic forces with alternating north and south poles are produced. The maglev power transport train is propelled by both the simultaneous attractive and repulsive magnetic forces created between the Propulsion Coils and the on-board Superconducting Magnets.



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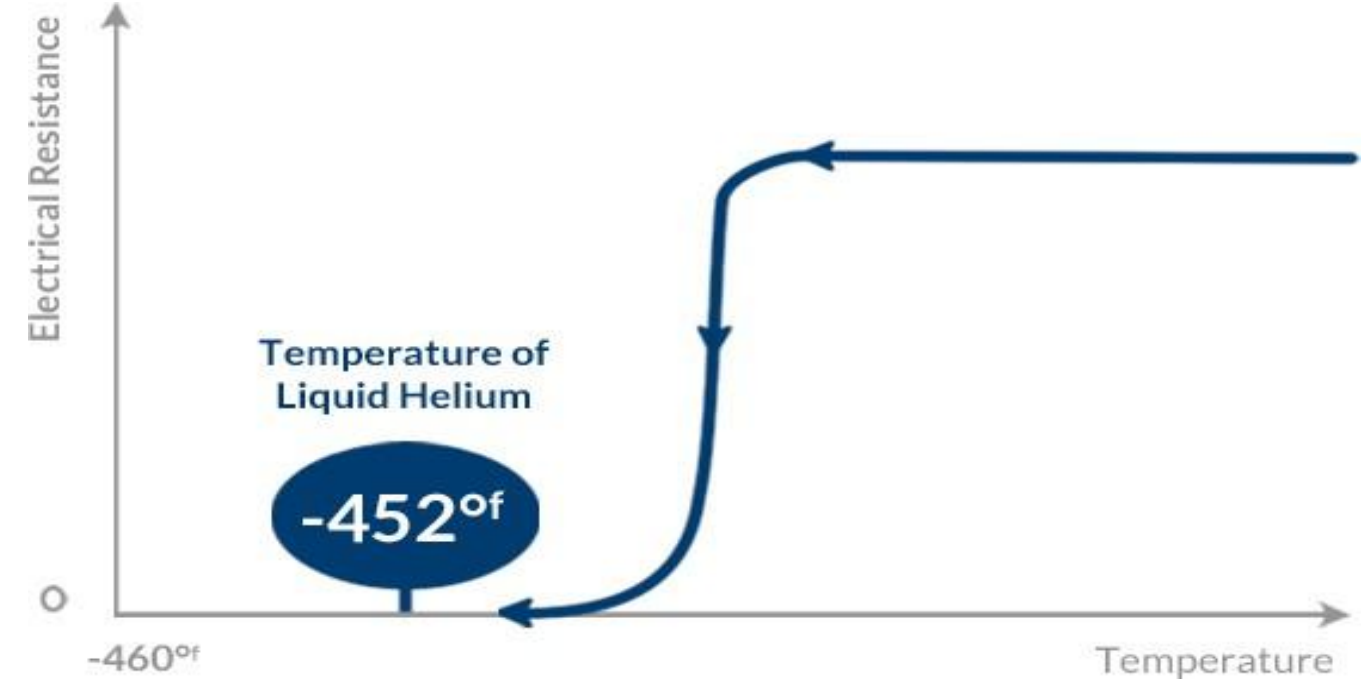
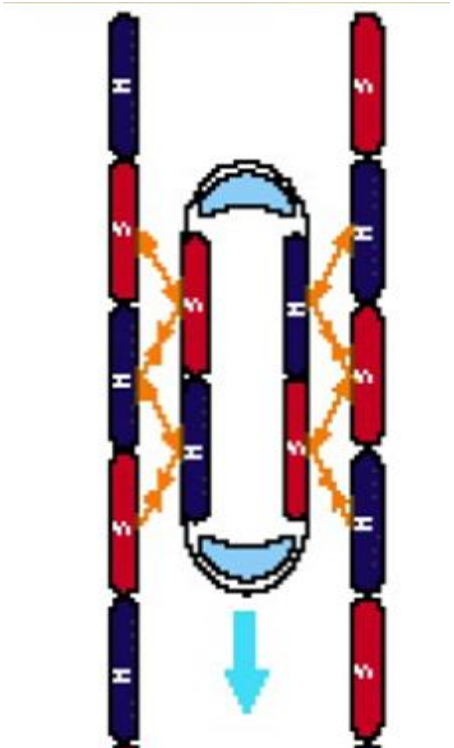
➢ PROPULSION SYSTEM

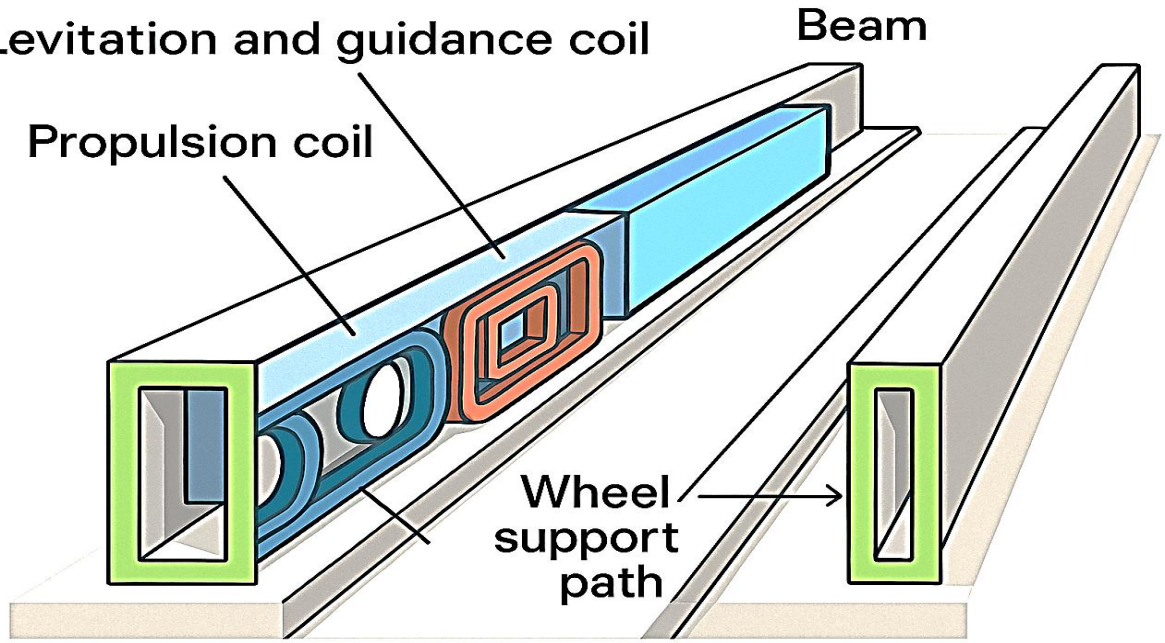
Superconductivity **is the phenomenon of zero electrical resistance** that occurs when the temperature of certain materials falls below a characteristic level. When an electric current is applied to a coil of such material in a superconductive state, it continues to flow permanently because of this zero resistance, resulting in the creation of a very powerful magnetic force.In the maglev Magnetic Levitation Propulsion & Mobility , magnets on-board the vehicles achieve a superconducting state by cooling a niobium-titanium alloy with liquid helium to a temperature of -452 degrees Fahrenheit (-269°c).





➢ PROPULSION SYSTEM

Levitation and Guidance Coils are also installed on either side of the guide way.When an maglev Magnetic Levitation Propulsion & Mobility train passes at high speed, its on-board superconducting magnets induce an electric current in the Levitation and Guidance Coils, causing them to become electromagnets. This generates pushing and pulling forces that lift the train and levitate it at a constant height.



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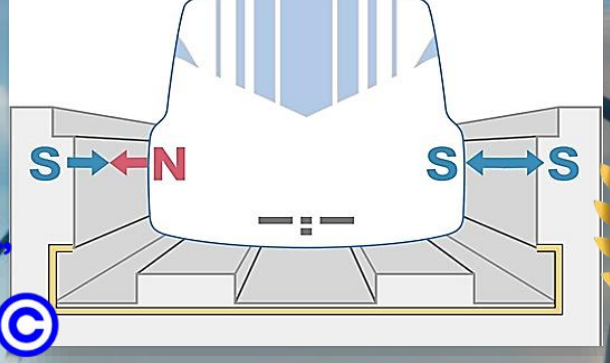
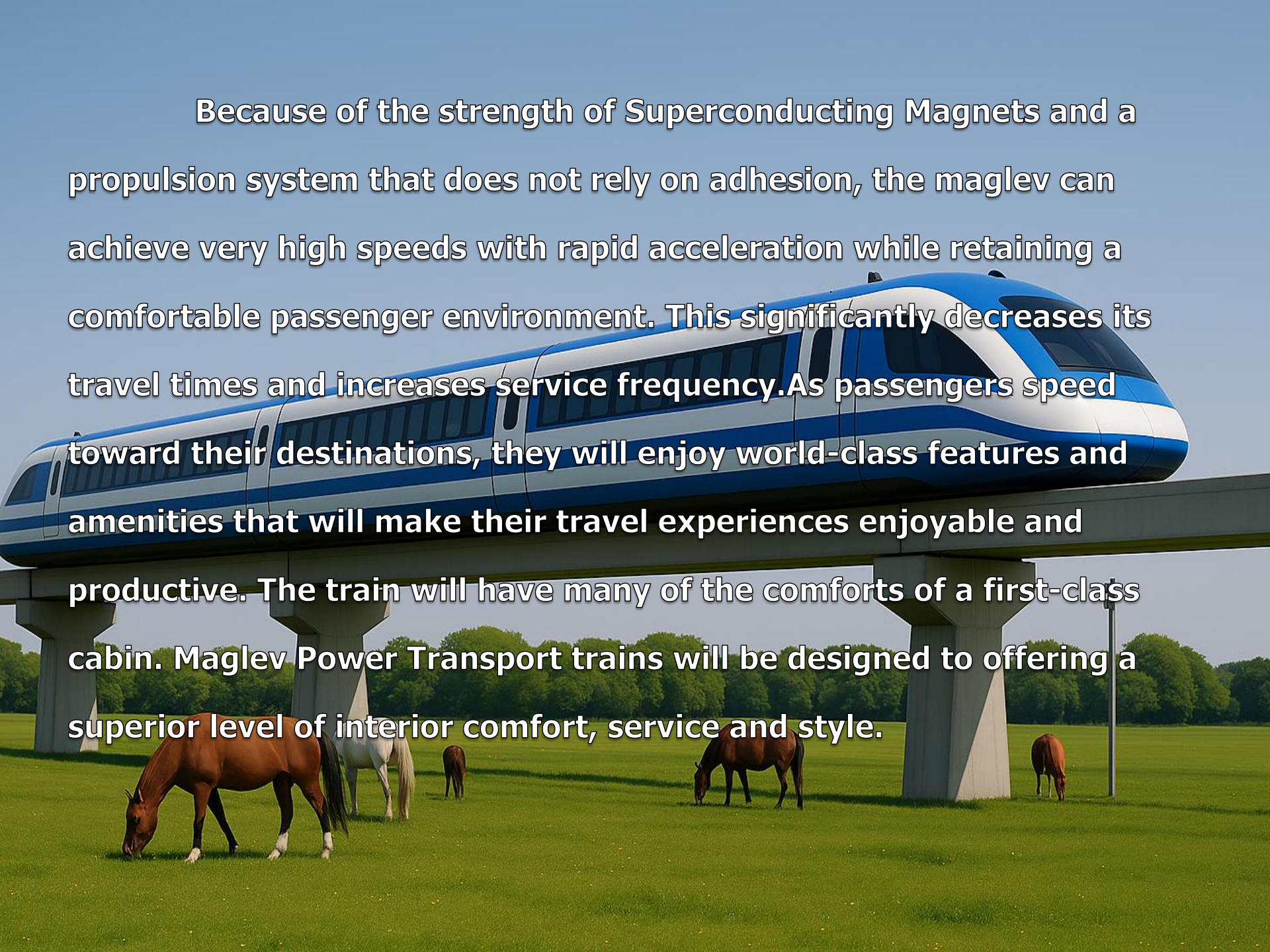
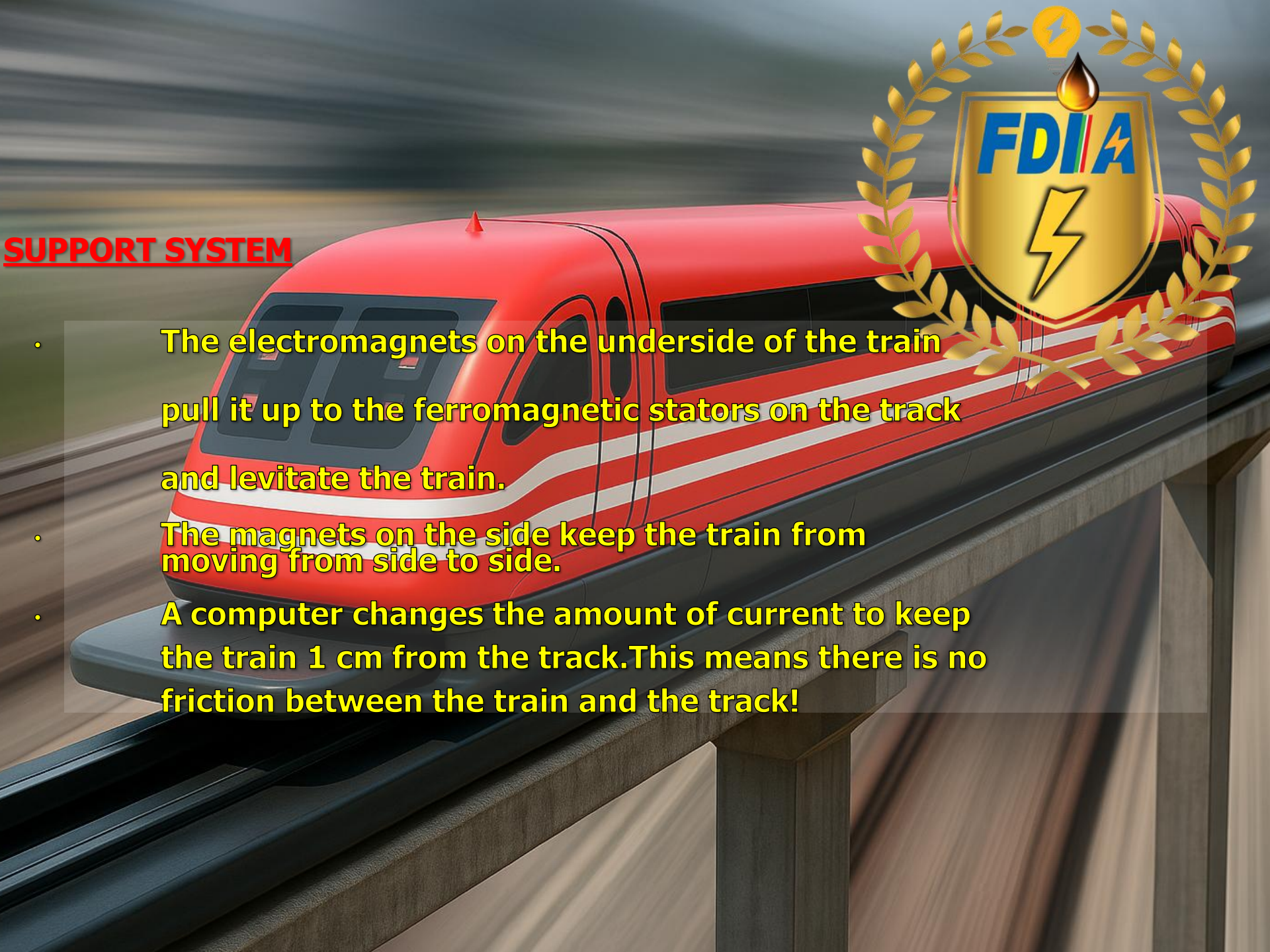


The-Levitation and

Guidance Coils on opposite sides of the guide way are connected together in a loop under the guide way and maintain the maglev horizontal positioning without any active control. When the train is pulled off-center to either side, a electric current is induced into the loop, generating an attractive force which is exerted on the further side combined with a repulsive force exerted on the nearer side. This automatically ensures that the train is kept securely in the center of the guide way at all times



Because of the strength of Superconducting Magnets and a propulsion system that does not rely on adhesion, the maglev can achieve very high speeds with rapid acceleration while retaining a comfortable passenger environment. This significantly decreases its travel times and increases service frequency.As passengers speed toward their destinations, they will enjoy world-class features and amenities that will make their travel experiences enjoyable and productive. The train will have many of the comforts of a first-class cabin. Maglev Power Transport trains will be designed to offering a superior level of interior comfort, service and style.



SUPPORT SYSTEM

- The electromagnets on the underside of the train pull it up to the ferromagnetic stators on the track and levitate the train.
- The magnets on the side keep the train from moving from side to side.
- A computer changes the amount of current to keep the train 1 cm from the track.This means there is no friction between the train and the track!

Maglev, which stands for magnetic levitation, is a propulsion technology that employs magnets instead of wheels, axles, and bearings to move vehicles forward. With the Maglev, lift and push are produced by magnets, allowing a vehicle to be levitated a short distance away from a guideway. Generally speaking, Maglev trains travel more silently and smoothly than mass transit systems using wheels. They won't be susceptible to weather conditions and can accelerate and decelerate faster than wheeled transporters because they don't rely on traction and friction.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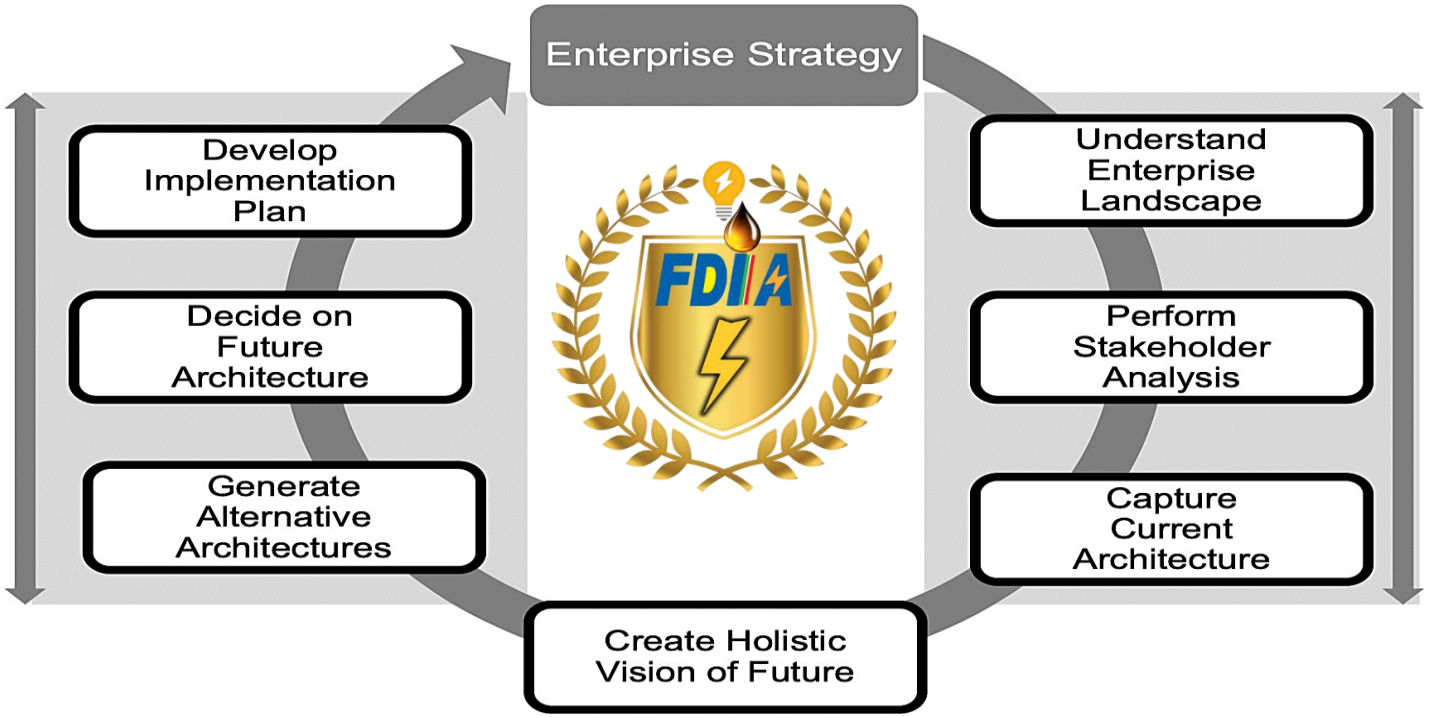
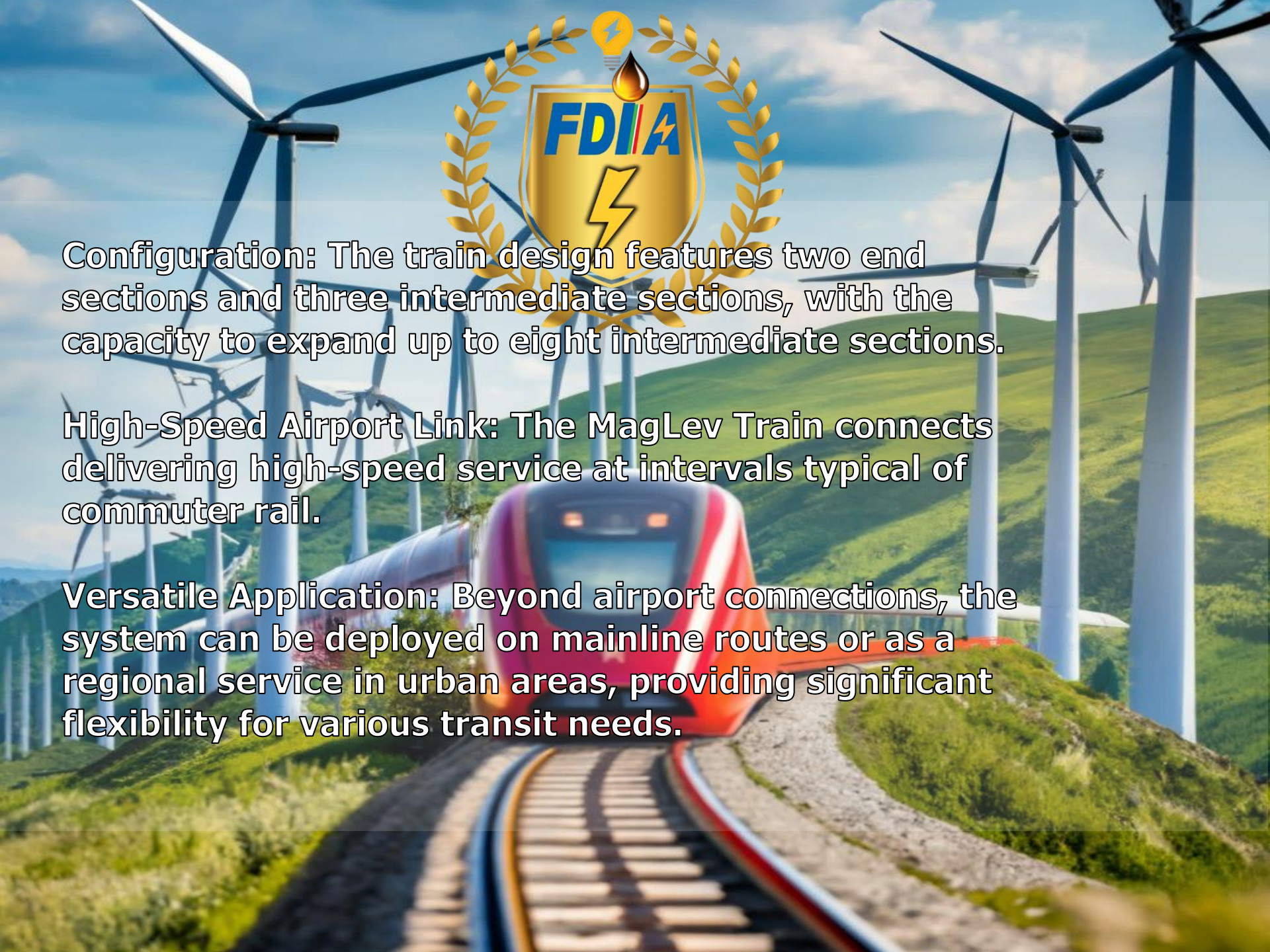
- **TRAIN LENGTH & CONFIGURATION**: 200 M TOTAL, COMPRISING 8 CARS (2 END CARS + 6 INTERMEDIATE CARS)
- **SEATING CAPACITY**: UP TO 458 PASSENGERS
- **POWER SUPPLY**: COMPATIBLE WITH MULTIPLE SYSTEMS (AC 15 KV/16.7 HZ, AC 25 KV/50 HZ, DC 1.5 KV, DC 3 KV)
- **MAXIMUM SPEED**: UP TO 300 KM/H
- **ACCELERATION**:
  - 0–200 KM/H IN 120 SECONDS (DISTANCE: 3,920 M)
  - 0–300 KM/H IN 318 SECONDS (DISTANCE: 17,900 M)
- **NOISE EMISSION**: 91 DB(A) AT 300 KM/H MEASURED 25 M AWAY (OPEN TRACK, NO NOISE BARRIER)
- **POWER CONSUMPTION**:
  - 24 WH PER PASSENGER-KILOMETER AT 200 KM/H
  - 34 WH PER PASSENGER-KILOMETER AT 250 KM/H (HVAC ON)
- **NETWORK INTEGRATION**: TESTED ON EXISTING RAILWAY INFRASTRUCTURES, NO ADDITIONAL MEASURES REQUIRED





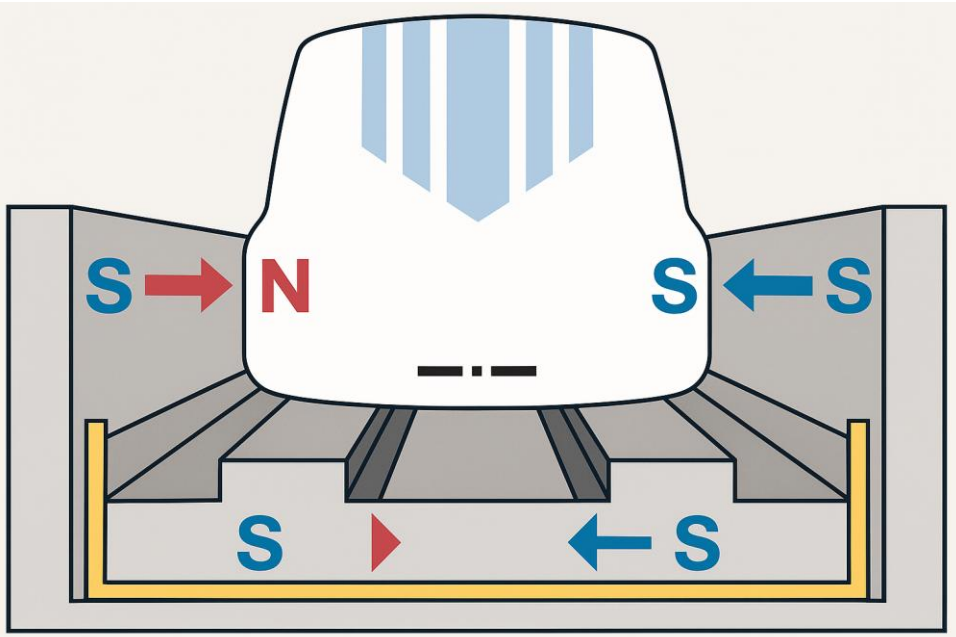
Configuration: The train design features two end sections and three intermediate sections, with the capacity to expand up to eight intermediate sections.

High-Speed Airport Link: The MagLev Train connects delivering high-speed service at intervals typical of commuter rail.

Versatile Application: Beyond airport connections, the system can be deployed on mainline routes or as a regional service in urban areas, providing significant flexibility for various transit needs.

- **Train Configuration**: A standard setup includes 5 sections (2 end sections + 3 intermediate sections), extendable with additional intermediate sections.
- **Length and Capacity**:
  - Overall length (5 sections): ~200 meters
  - Seating capacity: 453 seats
- **Power System**: Operates on a public power network (e.g., 110 kV/50–60 Hz).
- **Speed and Acceleration**:
  - Maximum speed: Up to 500 km/h
  - Acceleration benchmarks (fully loaded):
    - 0–100 km/h in 35 seconds, covering ~482 meters
    - 0–200 km/h in 69 seconds, covering ~1,930 meters
    - 0–300 km/h in 109 seconds, covering ~4,720 meters
    - 0–400 km/h in 176 seconds, covering ~11,300 meters
- **Noise Emission**:
  - At 400 km/h: ~91 dB(A) (measured at 25 m from the track, no protective wall)
- **Power Consumption** (per passenger-kilometer, with HVAC running):
  - ~22 Wh/pkm at 200 km/h
  - ~29 Wh/pkm at 250 km/h
  - ~34 Wh/pkm at 300 km/h
  - ~52 Wh/pkm at 400 km/h

Overall, these figures highlight the train's high-speed capabilities, energy requirements at various operating speeds, and potential noise levels.



Levitation System's Power Supply
- Batteries on the train power the system, and therefore it still functions without propulsion.
The batteries can levitate the train for 30 minutes without any additional energy.
-
Linear generators in the magnets on board the train use the motion of the train to recharge the batteries.
- Levitation system uses less power than the trains air conditioning.

a high-speed magnetic levitation (MagLev) train project renowned for its cutting-edge technology and impressive performance. In its current operational form, it can reach speeds around 430 km/h, with newer designs aiming for up to 600 km/h—positioning it among the fastest commercially available trains. The train's traction system layout provides excellent acceleration and climbing capability, while a redesigned interior offers about 20% more passenger space compared to conventional high-speed trains. Comfort and quality are emphasized through spacious interiors and premium materials.

From an operational standpoint, the train demonstrates high punctuality and reliability, having transported millions of passengers over its service life. Its modular design, combined with the ability to operate on multiple line voltages, offers railway operators worldwide a flexible solution adaptable to different network requirements. Overall, the train exemplifies a globally viable next-generation rail system focused on speed, comfort, and operational versatility.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Maglev withstands adverse
climate and weather conditions while maintaining high
degrees of punctuality not delivered by any rail
system in the world (> 99.9 %).
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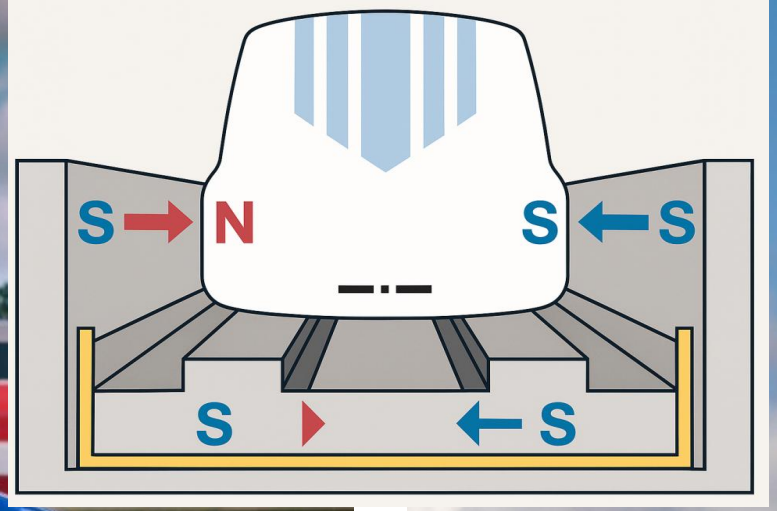
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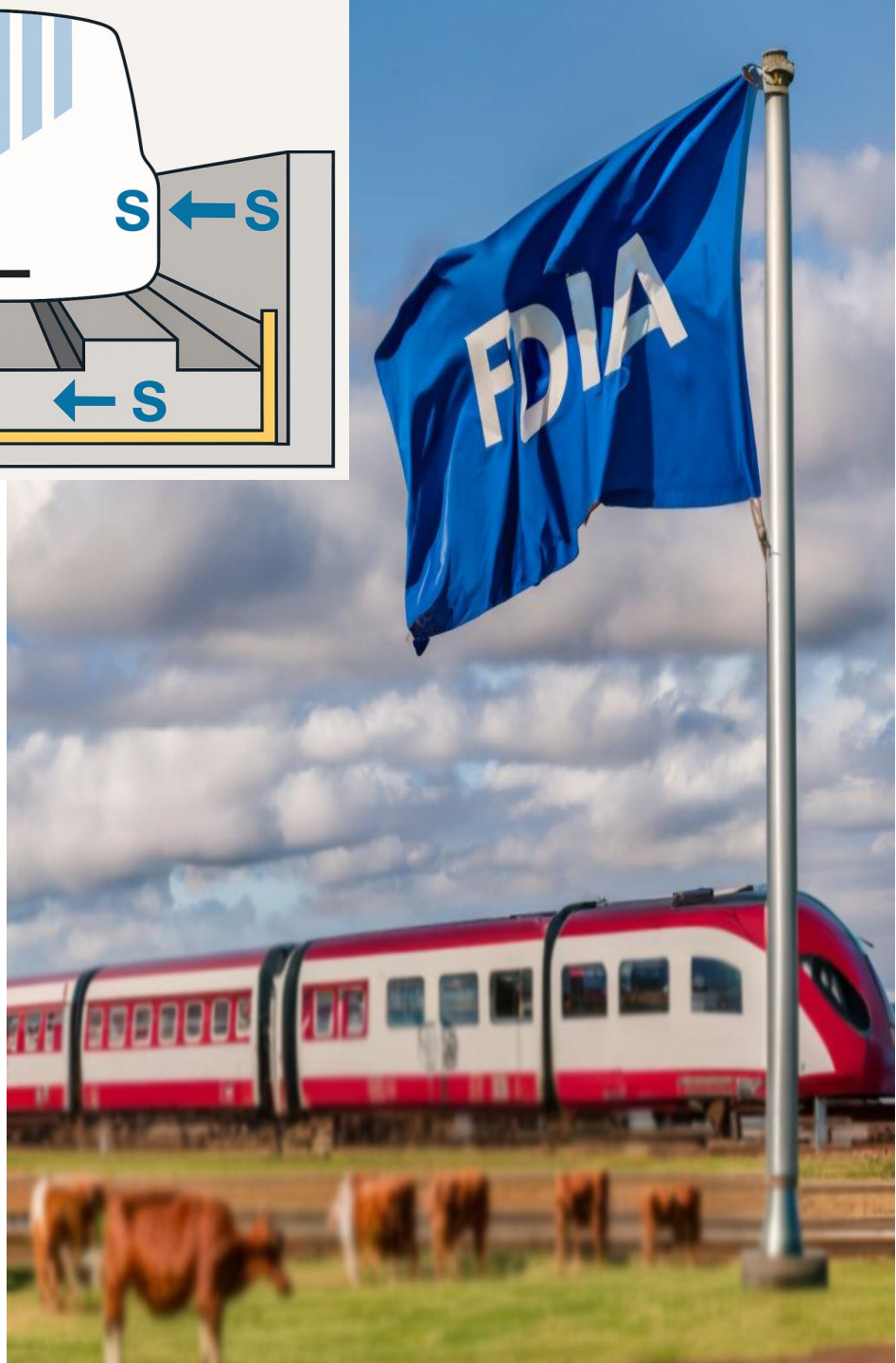
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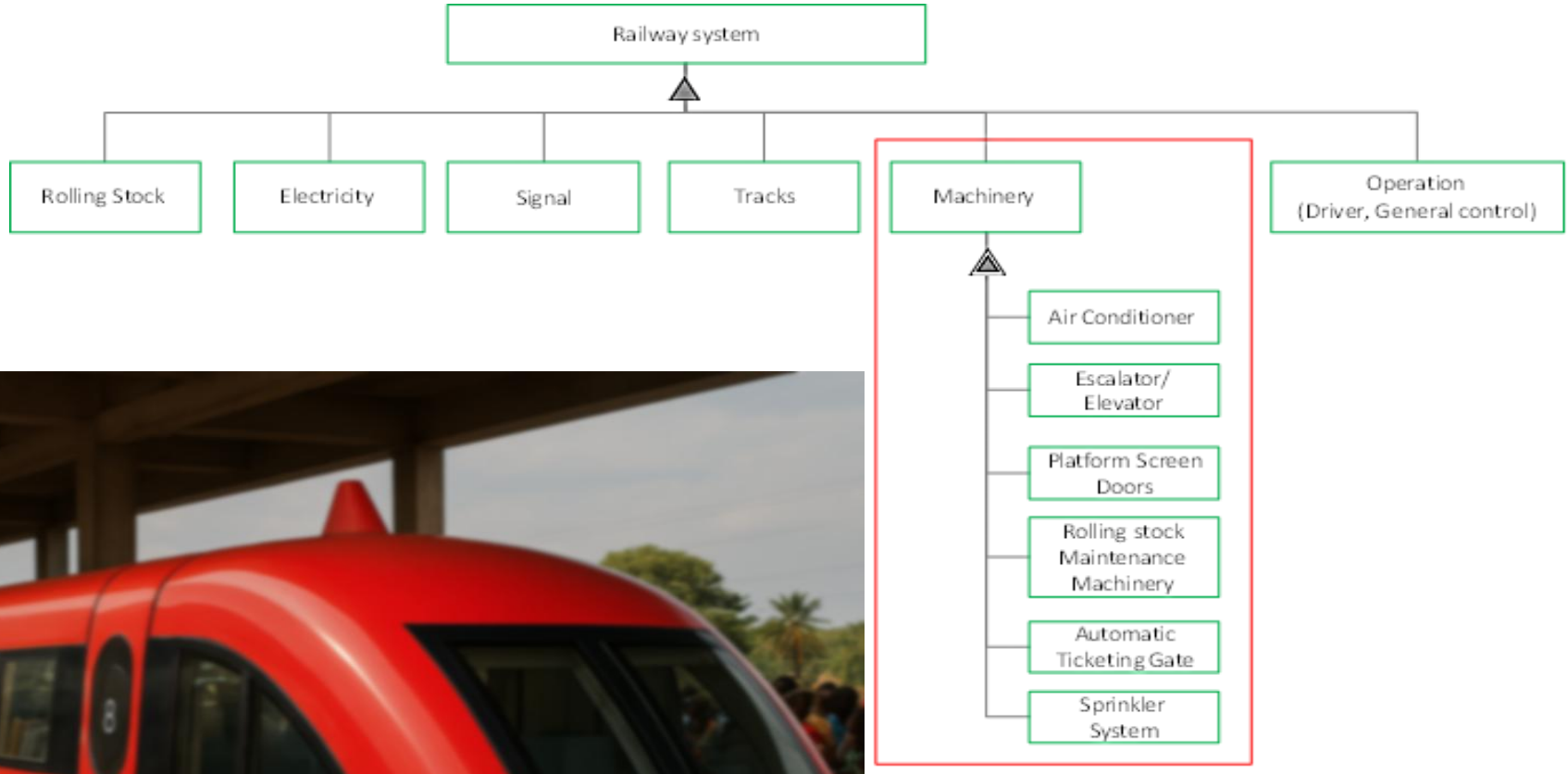
Railway system
Rolling Stock
Electricity
Signal
Tracks
Machinery
Operation
(Driver, General control)
Air Conditioner
Escalator/
Elevator
Platform Screen
Doors
Rolling stock
Maintenance
Machinery
Automatic
Ticketing Gate
Sprinkler
System

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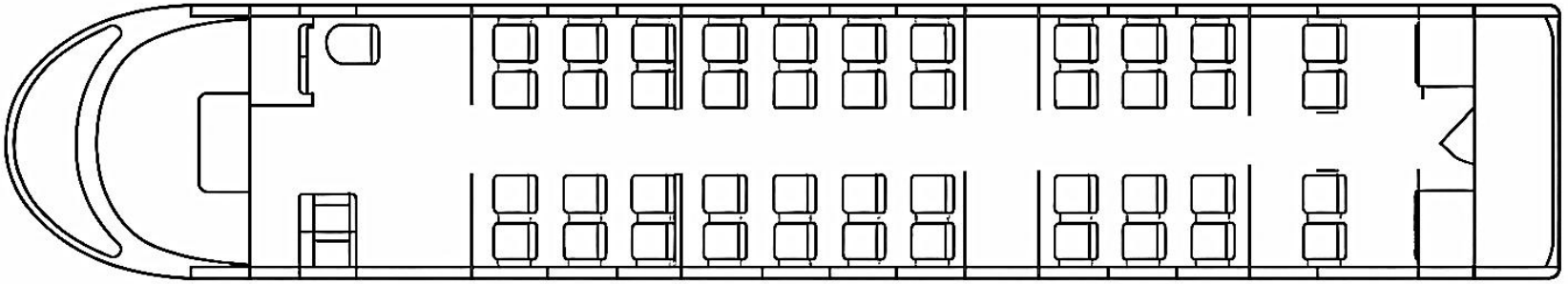
- **Track Design**: Allows tight curves and steep gradients (up to 10%), needing minimal land (2 m^2 per meter of track), reducing the need for tunnels and bridges.
- **Efficient Power Use**: Only the part of the guideway under the train is powered, cutting down on energy use and eliminating the need for an onboard motor.
- **Motor Design**: Instead of a conventional motor, the stator is embedded in the track edges, creating a magnetic field.
- **Levitation & Propulsion**: Train magnets act as the rotor, interacting with the stator's magnetic field to levitate and propel the train—enabling speeds over 500 km/h.



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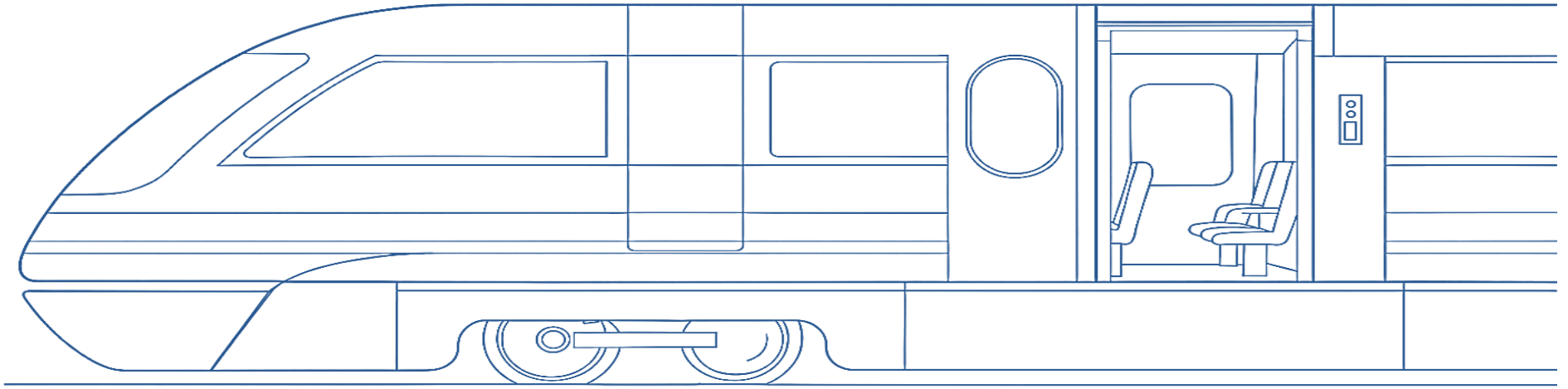
Electromagnetic levitation lifts and stabilizes the train on the guideway. The maglev Train project includes components like propulsion systems, vehicles, and system integration. The company offers both high-speed magnetic and wheel-on-rail trains, which complement each other and serve as efficient travel alternatives. Both technologies are cost-effective, and system selection depends on specific needs, supported by the company's expertise in both systems.



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High speed:

A segment where we feel at home – embedded in a total competence, from airport connections and regional transportation to 1,500-km distances, from propulsion to service. The document compares investments in transportation systems. Wheel-on-rail vehicles are more cost-effective due to economies of scale and long-term optimization. For tracks or guideways, costs are similar between systems in standard conditions, but magnetic levitation (Maglev) systems offer advantages in challenging terrains.The future general contractors presents itself as a global leader in rail-based transportation, offering a full range of solutions from components to turnkey projects, including financing. It emphasizes innovation, especially in IT for Maglev systems, modular design, and operational control systems. The company highlights its unmatched expertise and global reach, aiming to drive progress in efficient, cost-effective rail transport.

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Life cycle

With regard to life cycle costs, the magnetic levitation system offers advantages which are essentially due to the absence of mechanical wear (running gear, brakes).

The new high speed Magnetic Train

The maglev speed, high-frequency premium connection between the cities and is also a means of high speed mainline transportation for long distances and at top speeds of 500 km/h.

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Vehicle Section Capacities

- **End Section**:
  - 14.0 metric tons
  - 15.4 U.S. tons
  - 31,000 pounds
- **Middle Section**:
  - 17.5 metric tons
  - 19.3 U.S. tons
  - 39,000 pounds

Consist Capacities (Total Capacity per Train)

- **4-Section Consist**:
  - 63.0 metric tons
  - 69.4 U.S. tons
  - 139,000 pounds
- **8-Section Consist**:
  - 133.0 metric tons
  - 146.6 U.S. tons
  - 293,000 pounds

Possible Hourly Capacity *(assuming 5-minute operating headways, one direction)*

- **4-Section Consists**:
  - 756 metric tons
  - 833 U.S. tons
  - 1,667,000 pounds
- **8-Section Consists**:
  - 1,596 metric tons
  - 1,759 U.S. tons
  - 3,519,000 pounds

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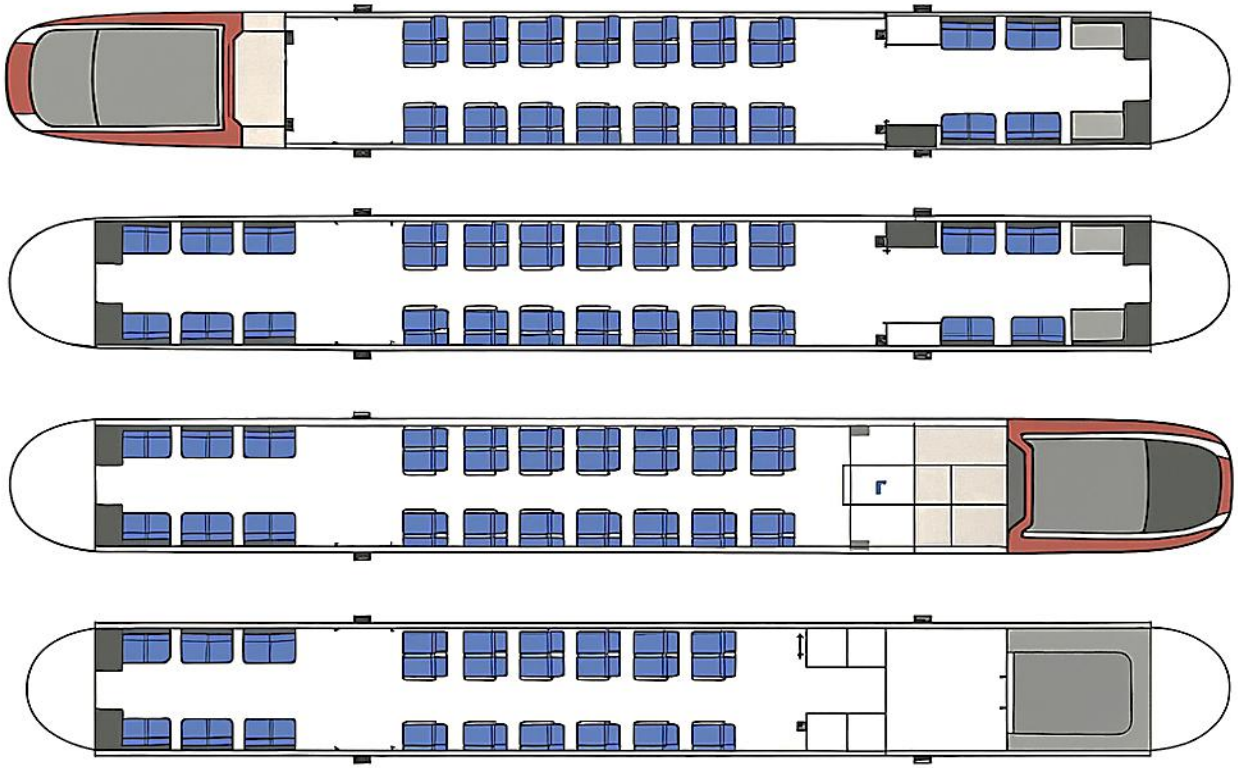
3 Sections, 2+2 Seats, Baggage Compartment



Baggage Container
Compartment

Capacity:

Seated Passengers:	140
Standees:	156
Total Passengers:	296

Standees calculated with
2 people per square meter.

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Table 1 – Standard Design Cargo Capacities
The following illustrations provide examples of cargo vehicle

configurations of the standard FUNDACIÓN DEMOCRÁTICA ITALO AMERICANA,future train design.

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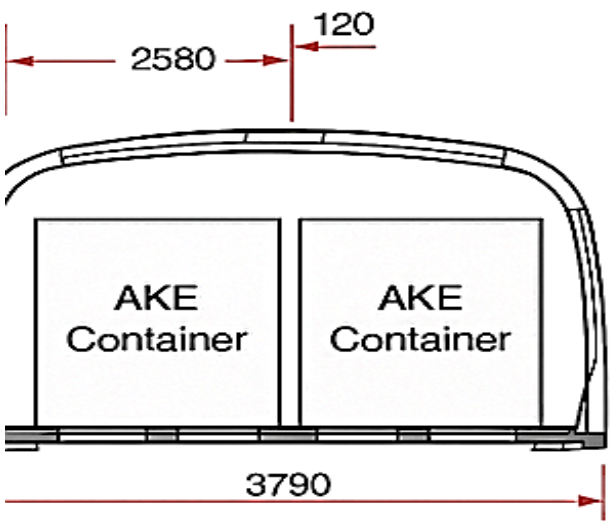
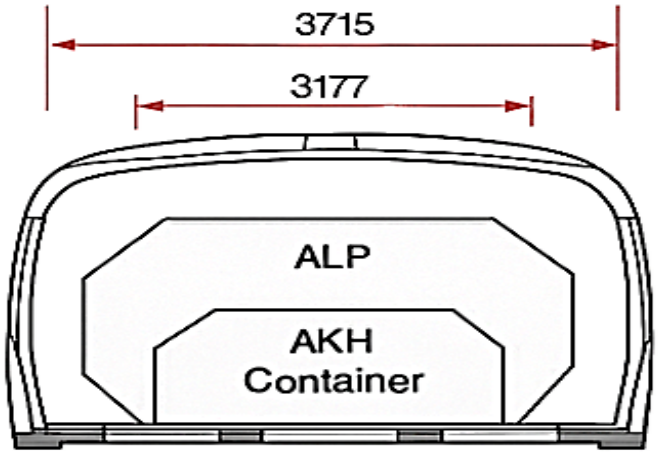
3 Sections, 2+2 Seats, Baggage Compartment

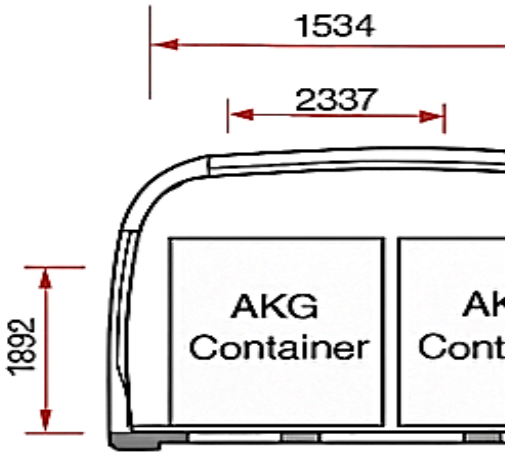
Baggage Container
Compartment

Capacity:	140
Seated Passengers:	158
Total Passengers:	298

Standees calculated with
2 people per square meter.







ISC 6517	l × b h [mm]
AKE	2007×1534×1625
AKC	3177×1534×1625
ALP	3177×1534×1625
AKG	2007×1534×1168
AKH	2438×1534×1168

l	l × b h [mm]
AKE	2007×1534×1625
ACC	2377×1534×1625
ALP	2418×1534×1625
AKH	2458×1534×1168

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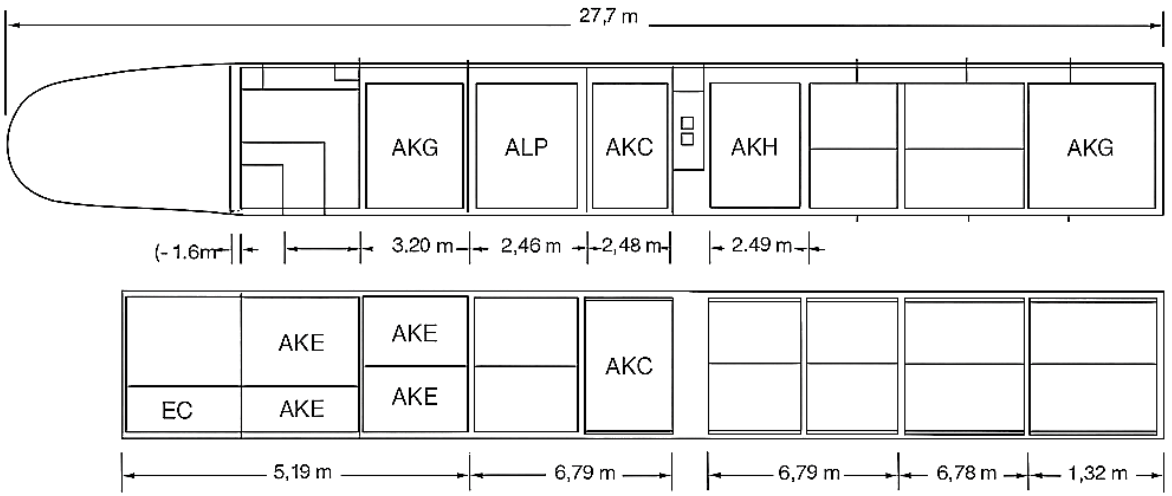
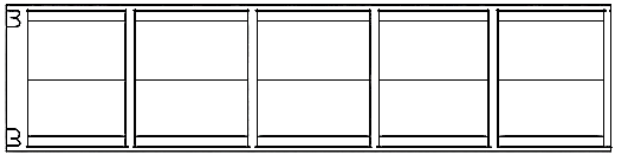
Container Cargo Section



Air cargo container

Place for container



Air carge container

Place for container

ISO 6517	l x b x h [mm]
AKG	2007x1534x1628
AKE	2337x1534x1628
ALP	3177x1534x1638
AKC	2007x1533x1168
AKH	2438x1534x1168

ET Evacuation Tubes

EC Electric Cabinet

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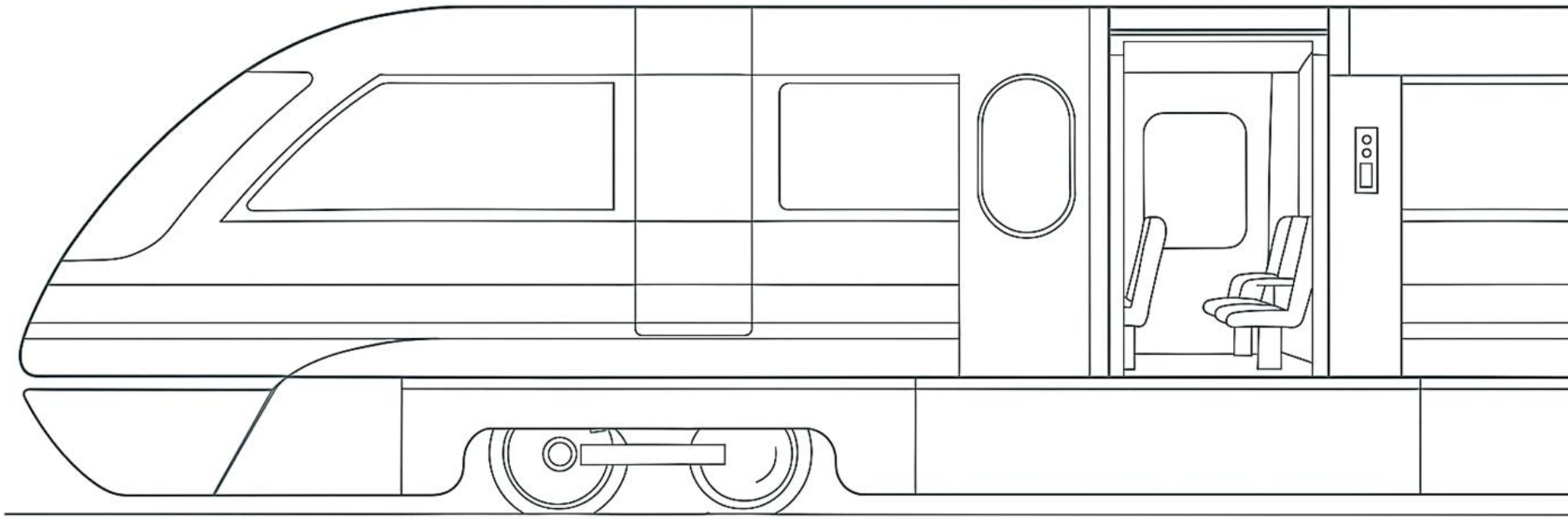

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A specialized freight version is proposed for container transport that exceeds the capacity of the standard design. This variant must be integrated from the outset to handle heavier loads, requiring project-specific planning and additional costs. Both vehicles and guideway would differ in dimensions from the passenger system but retain overall cross-section parameters. There is no fixed design, allowing customization for each specific application. Special-design container freight vehicles can carry up to 30.5 metric tons per section and travel at speeds up to 200 km/h (125 mph). Passenger and freight sections are not mixed. A maximum of 20 sections can form a consist, and due to lower speeds, operations can occur as frequently as every three minutes. These vehicles can transport standard containers, pallets, trailers, or custom loads, and may be enclosed or open, as aerodynamic concerns are minimal at lower speeds.

the payload capacities and example hourly transport capabilities of specially designed freight systems:

Per Section Payload

- **Metric Tons:** 30.5
- **U.S. Tons:** 33.6
- **U.S. Pounds:** 67,200

Total Payload by Consist Size

- **10-Section Consist:**
  - Metric Tons: 305
  - U.S. Tons: 336
  - U.S. Pounds: 672,000
- **20-Section Consist:**
  - Metric Tons: 610
  - U.S. Tons: 672
  - U.S. Pounds: 1,344,000

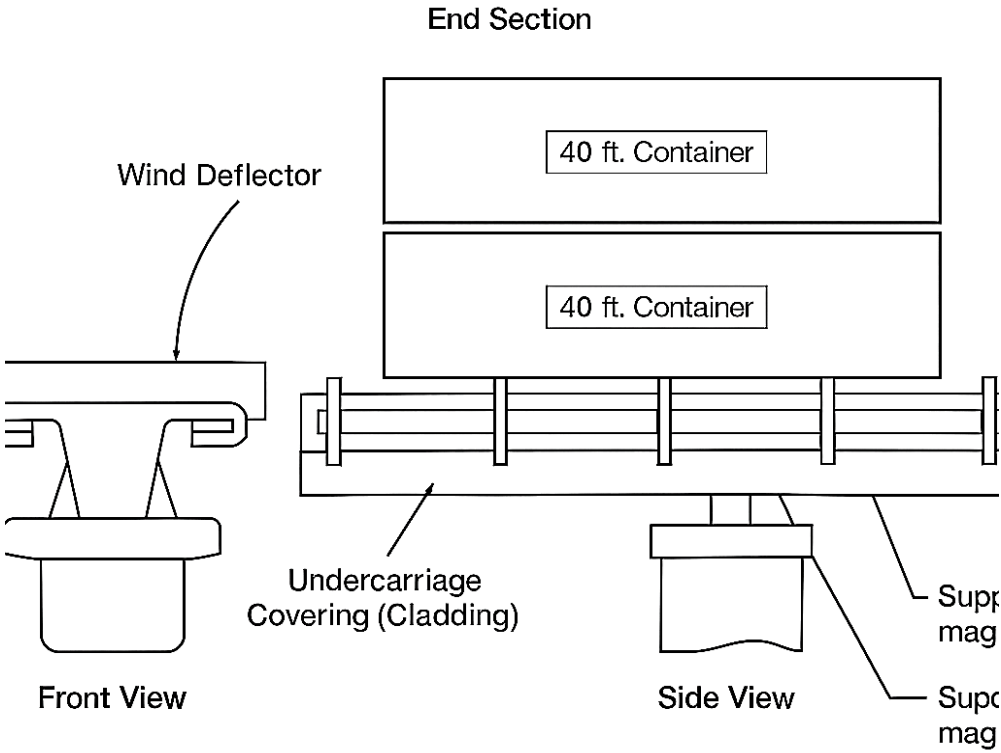
- **20-Section Consist:**
  - Metric Tons: 12,200
  - U.S. Tons: 13,440
  - U.S. Pounds: 26,880,000

Possible Hourly Capacity *(Assumes 3-minute headways, per direction)*

- **10-Section Consist:**
  - Metric Tons: 6,100
  - U.S. Tons: 6,720
  - U.S. Pounds: 13,440,000

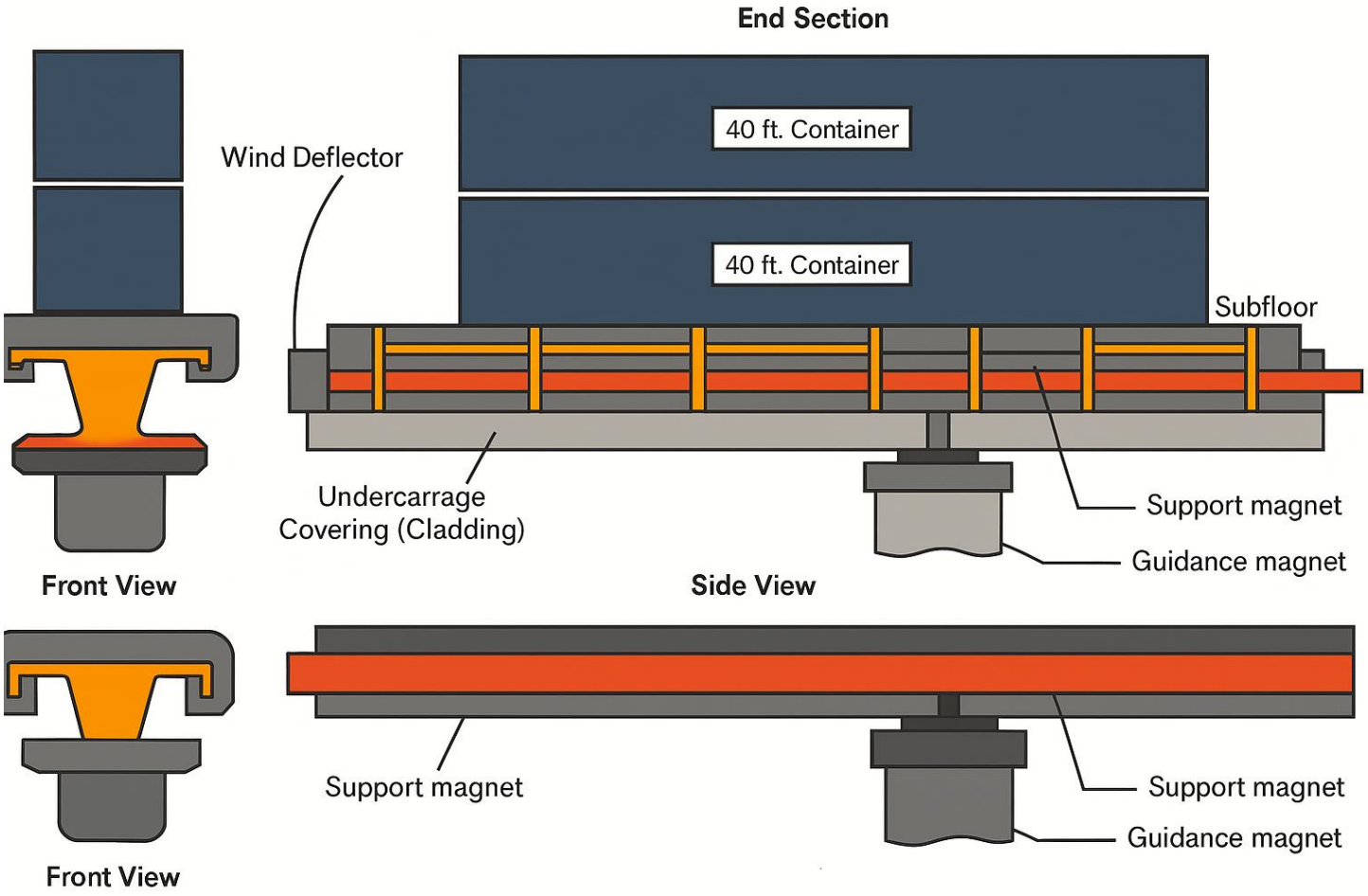
Operating Configurations:

- **Single-Stack (20 sections):**
  - **Per Consist:** 20 containers
  -
  - **Per Hour:** 400 containers
  - **Per Day:** 8,000 containers
  - **Per Year:** 2,920,000 containers
- **Double-Stack (20 sections):**
  - **Per Consist:** 40 containers
  - **Per Hour:** 800 containers
  - **Per Day:** 16,000 containers
  - **Per Year:** 5,840,000 containers



Assumes 3-minute frequency, bidirectional operation, and 20-hour daily service.

The graphics on the following page illustrate an example of the container vehicle concept. As mentioned previously, final vehicle design would be customized specifically for the application.

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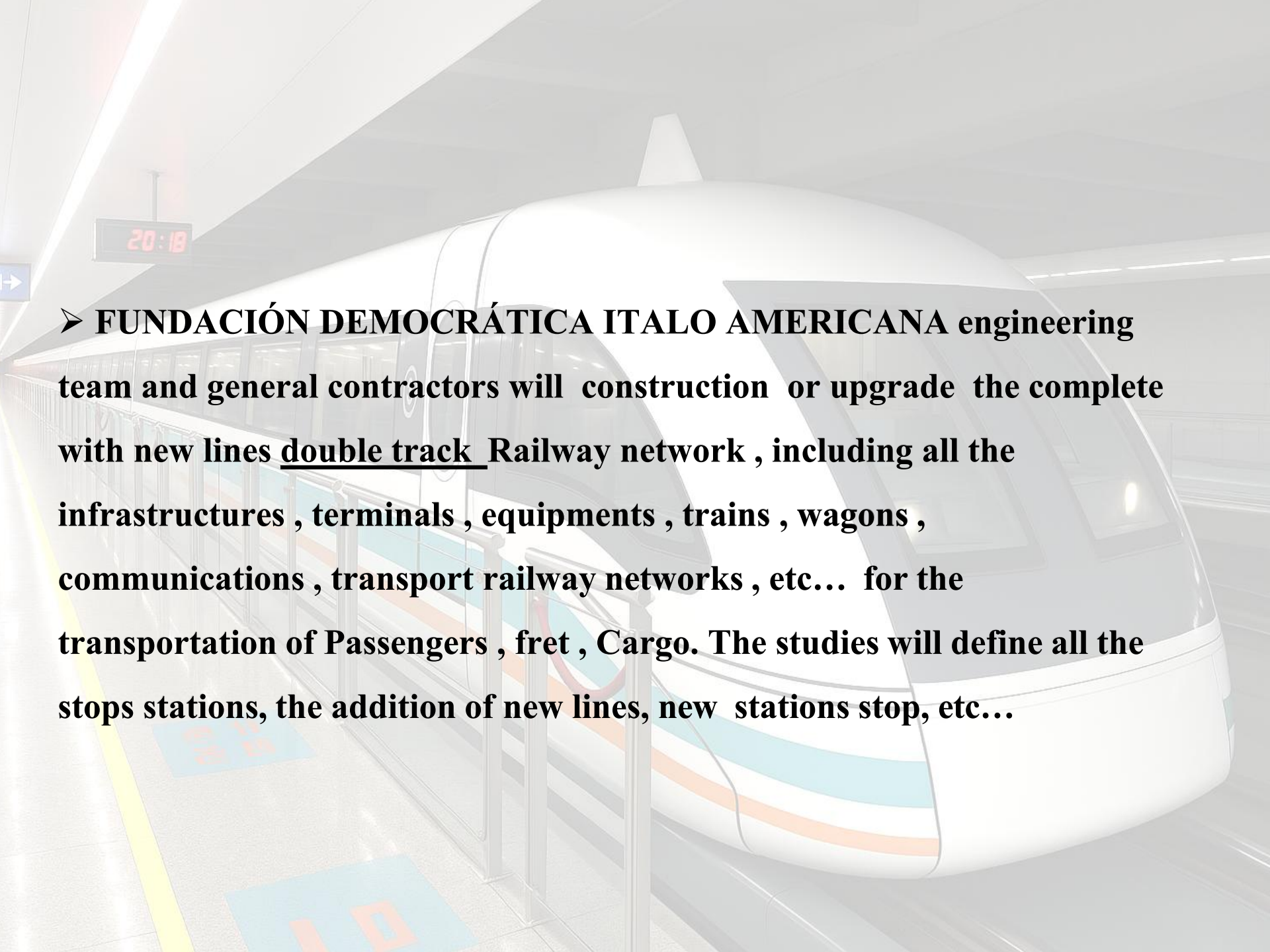
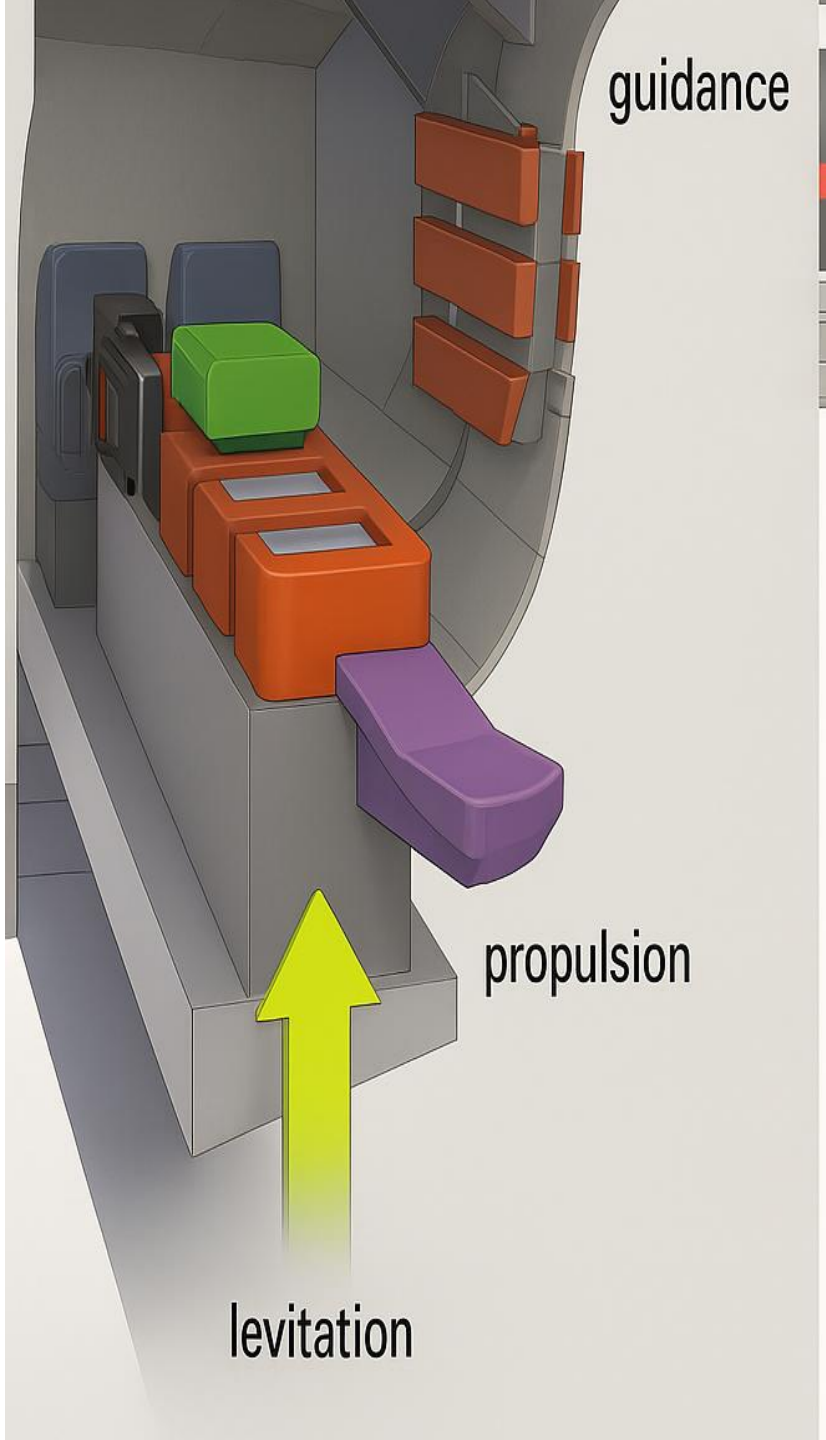
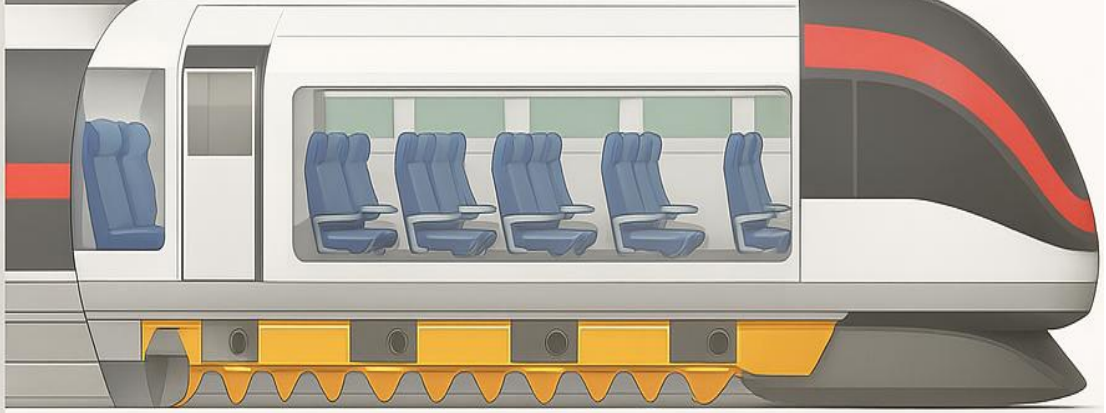
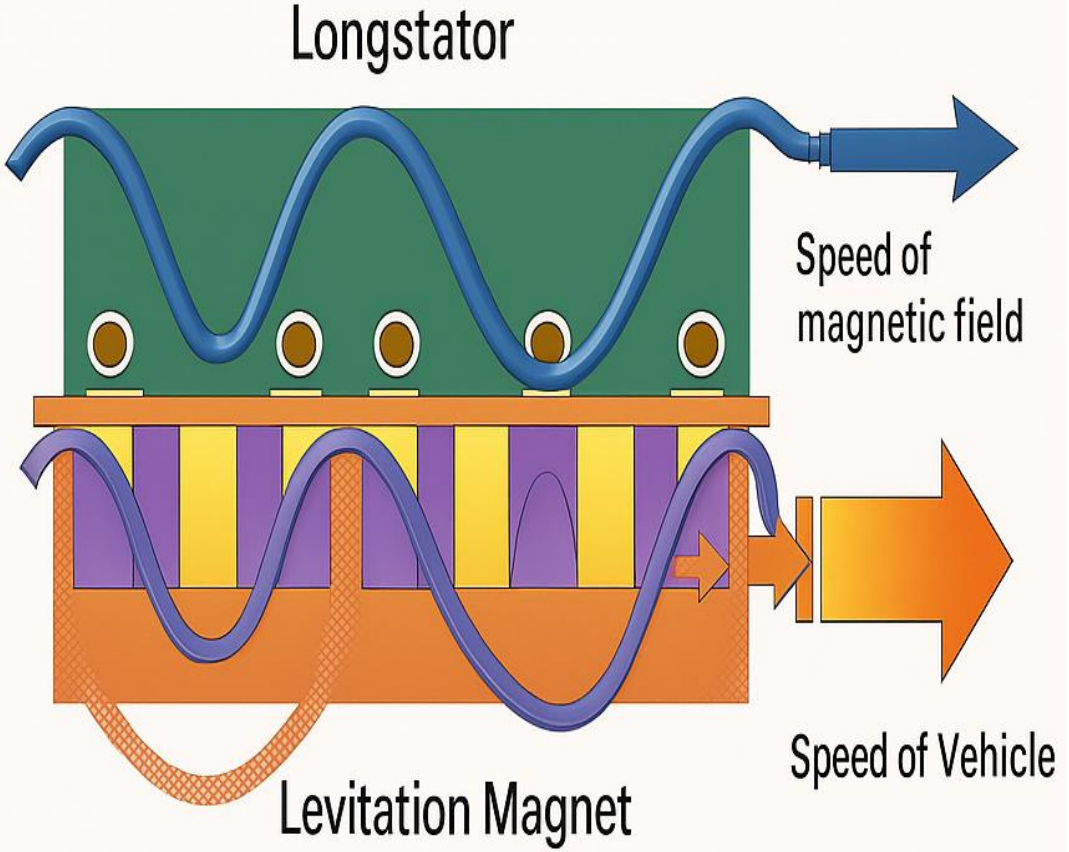


- **FUNDACIÓN DEMOCRÁTICA ITALO AMERICANA engineering team and general contractors will construction or upgrade the complete with new lines double track Railway network , including all the infrastructures , terminals , equipments , trains , wagons , communications , transport railway networks , etc… for the transportation of Passengers , fret , Cargo. The studies will define all the stops stations, the addition of new lines, new stations stop, etc…**


guidance
propulsion
levitation




Longstator
Speed of magnetic field
Speed of Vehicle
Levitation Magnet


00 Merrolink


001 Merrolink


001 Merrolink

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Express Freight / Cargo

This complete project could be construction maybe in future;for now we have not yet start the assemblation of railway station.The operation and exploitation can be paid with Standard payments terms and conditions or cover in some cases through a 1st class 'Bank Guarantee" and some others cases through a "Sovereign Guarantee".Basically, the terms and conditions of the "Sovereign Guarantee" are standard, but could be modified to the needs of the projects with the potential financiers.All the terms & conditions will be discussed in future humanitarian project scenario.Take note that Standard Paid Contracts can be covered by a "Non - Honoring Risk Insurance" that guarantees the full execution of the contract.


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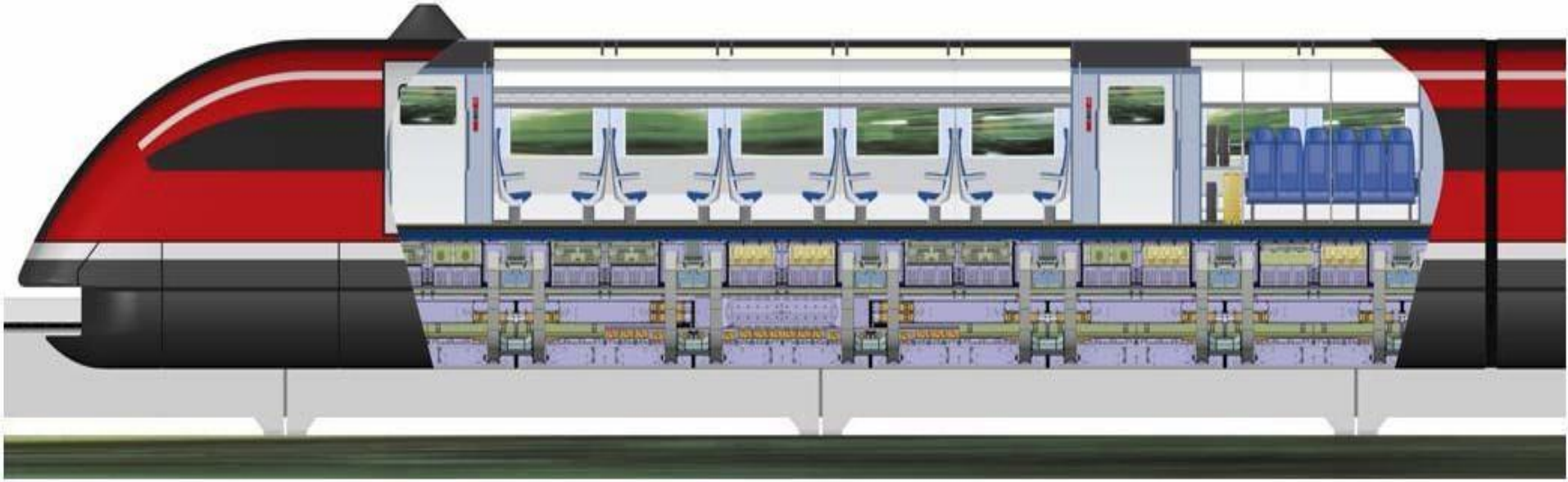
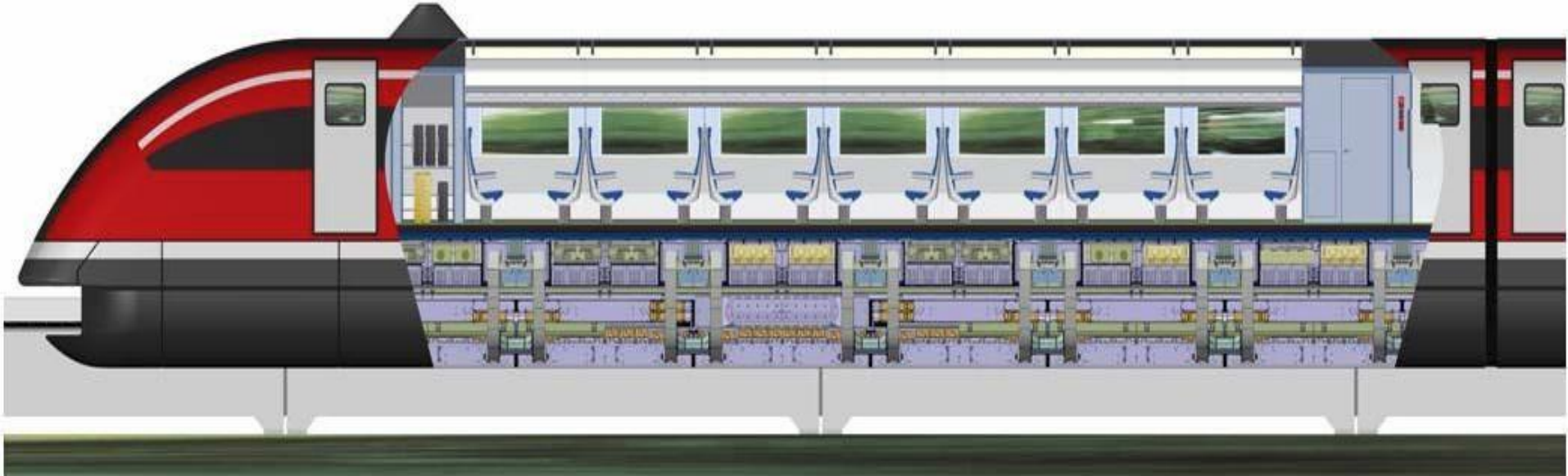
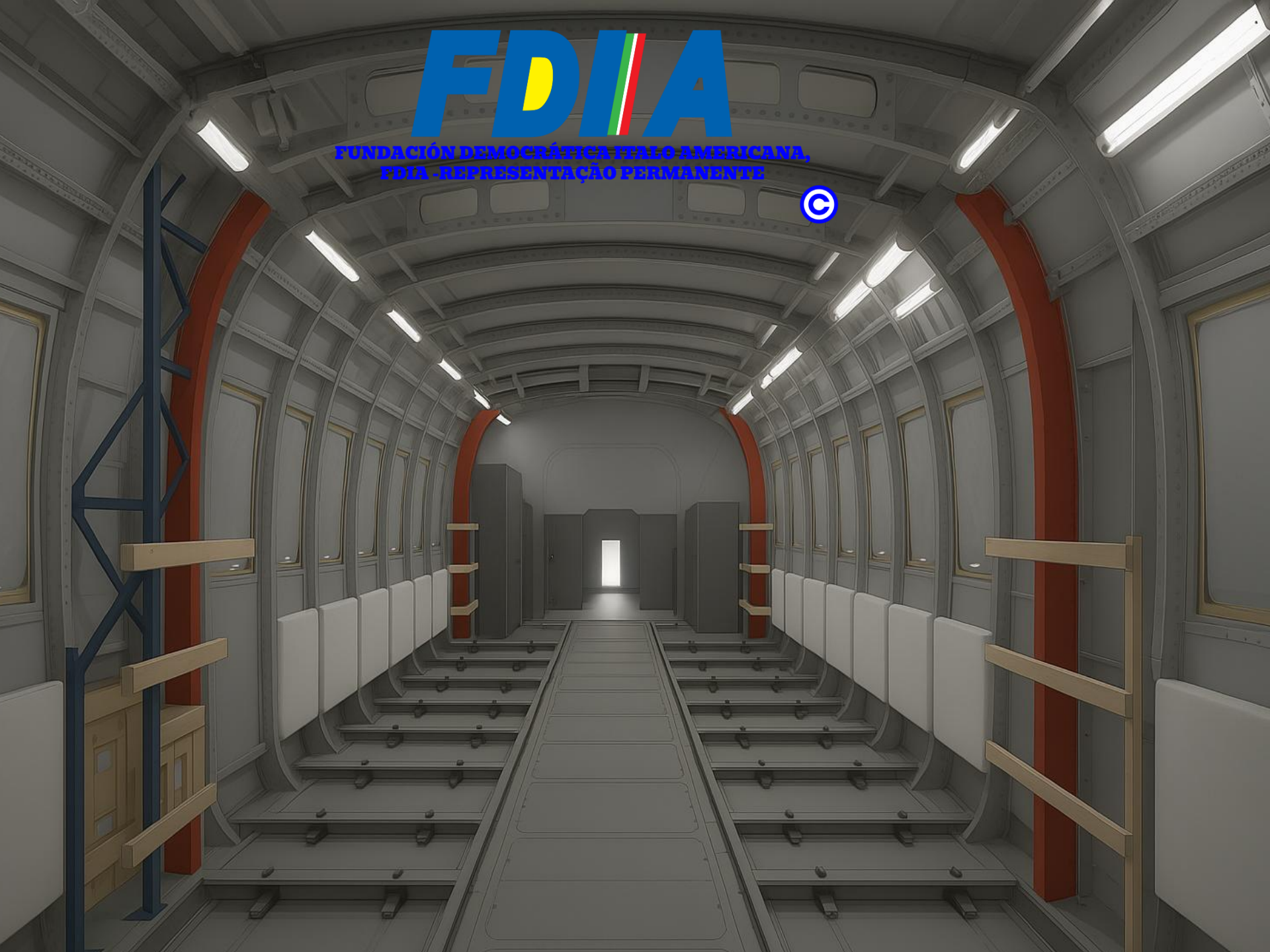




- **Speed** — Airport Connector 125 – 250 mph; Long Distance 250 – 310 mph
- **Acceleration** — from 0 to 185 mph within 120 sec and 3 miles
- **Capacity** — 449 Passengers in a 3 section venicle (76 m); 800 Passengers in a 8 section vehicle (200 m)
- **Environment** — Superior characteristics with regard to all relevant criteria (e.g. noise, vibration, EMF, energy consumption)
- **Spacious Interior** — Cabin width 11 feet, entrance area 65 sq ft
- **Safety** — Latest standards, active fire protecting system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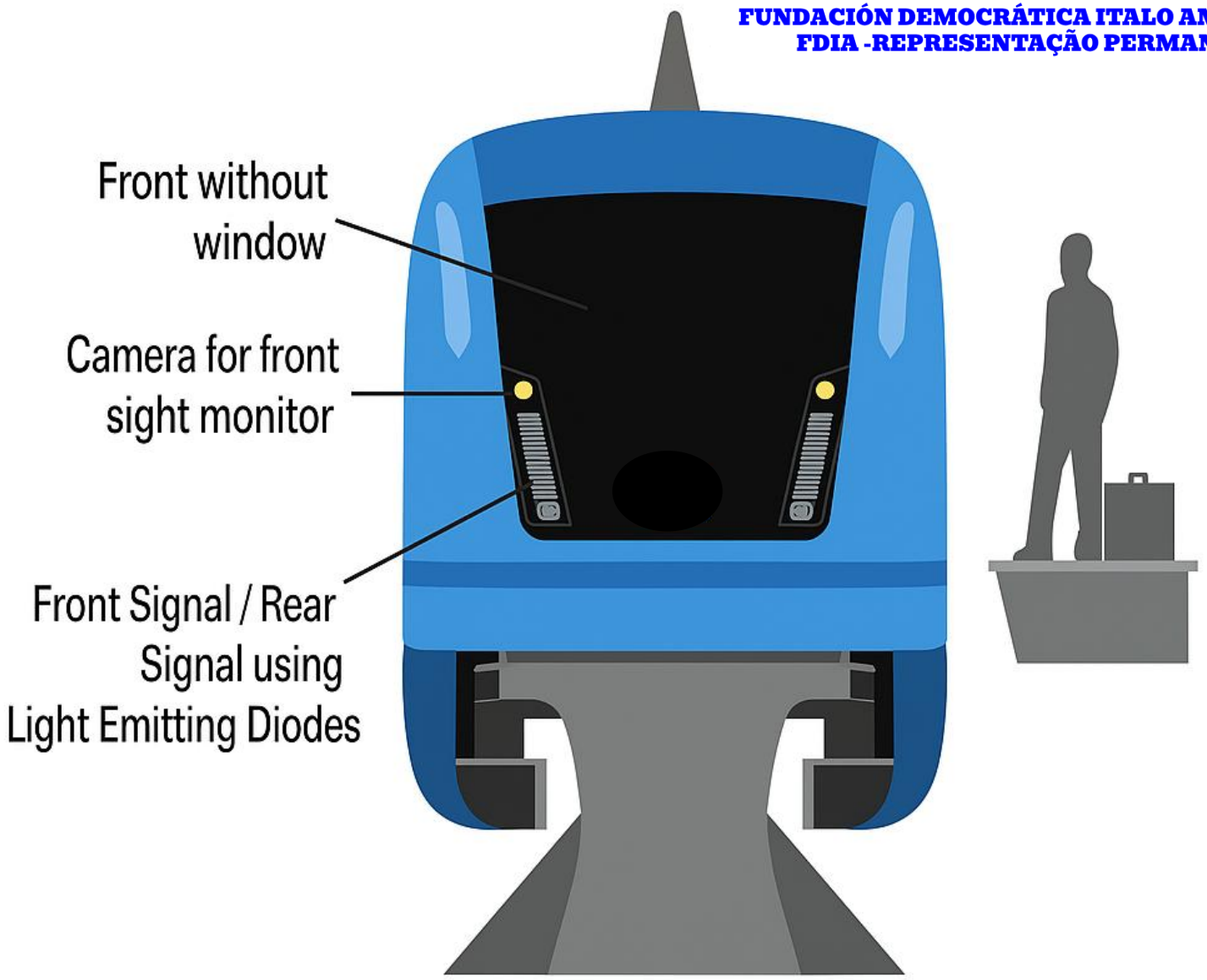

- **Renewable Energy Supply:** All electricity will be generated using a mix of renewable sources—wind, solar, hydro, and hybrid geothermal-solar power plants—all integrated with Maglev Superconducting Magnet Energy Storage (SMES) systems.
- **Rail Network Upgrades:** Existing rail networks will be upgraded and reconstructed using MAGLEV Magnet Motion technology where necessary.
- **Modernization of Equipment:** Traditional locomotives will be replaced with MAGLEV electrical locomotives, and all wagons, including freight wagons, will be updated to align with these advanced systems.

- ✓ *Inter-urban and local telecommunications will be of the optical fiber type and terminal equipment will be located in all stations.*
- ✓ *Latest generation automatic switches will be expected in large stations.*
- ✓ *The ground-train radio communication network will be carried out via optical fiber.*
- ✓ *Complete train regulation and monitoring equipment will be provided via optical fiber.*
- ✓ *A VHF and HF radio network will be installed to ensure communications in the event of a breakdown.*
- ✓ *Stations and passenger terminals will be built with their respective tracks and access to specific sidings if necessary.*
- ✓ *Construction of stations with their boarding platforms as well as the service routes*
- ✓ *concerned.*
- ✓ *All stations and their loading terminals (warehouses and stores) will be rebuilt.*
- ✓ *All locomotive maintenance workshops as well as their buildings and equipment will be rehabilitated or reconstructed and equipped with their necessary building & railway equipment. The same thing will be done for maintenance workshops for fixed installations.*
- ✓ *The railways material supply stores will be rehabilitated and/or (re)constructed.*

Rail logistics (locomotives, wagons, locomotives, rail/road cranes, etc.) and track maintenance equipment for the Train MagLev lines will be detailed and presented in the final study of the overall project.

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THE IDEA CONCEPT IS BASICALLY IN FUTURE TO DONATE A 50% GIFT CARD TO THE DOCTORS AND NURSES THAT WORK IN THE LOCAL HOSPITAL,FDIA MEDICAL HOTEL OF THE COUNTRY THAT WILL BE ASSEMBLATION THE RAILWAY.

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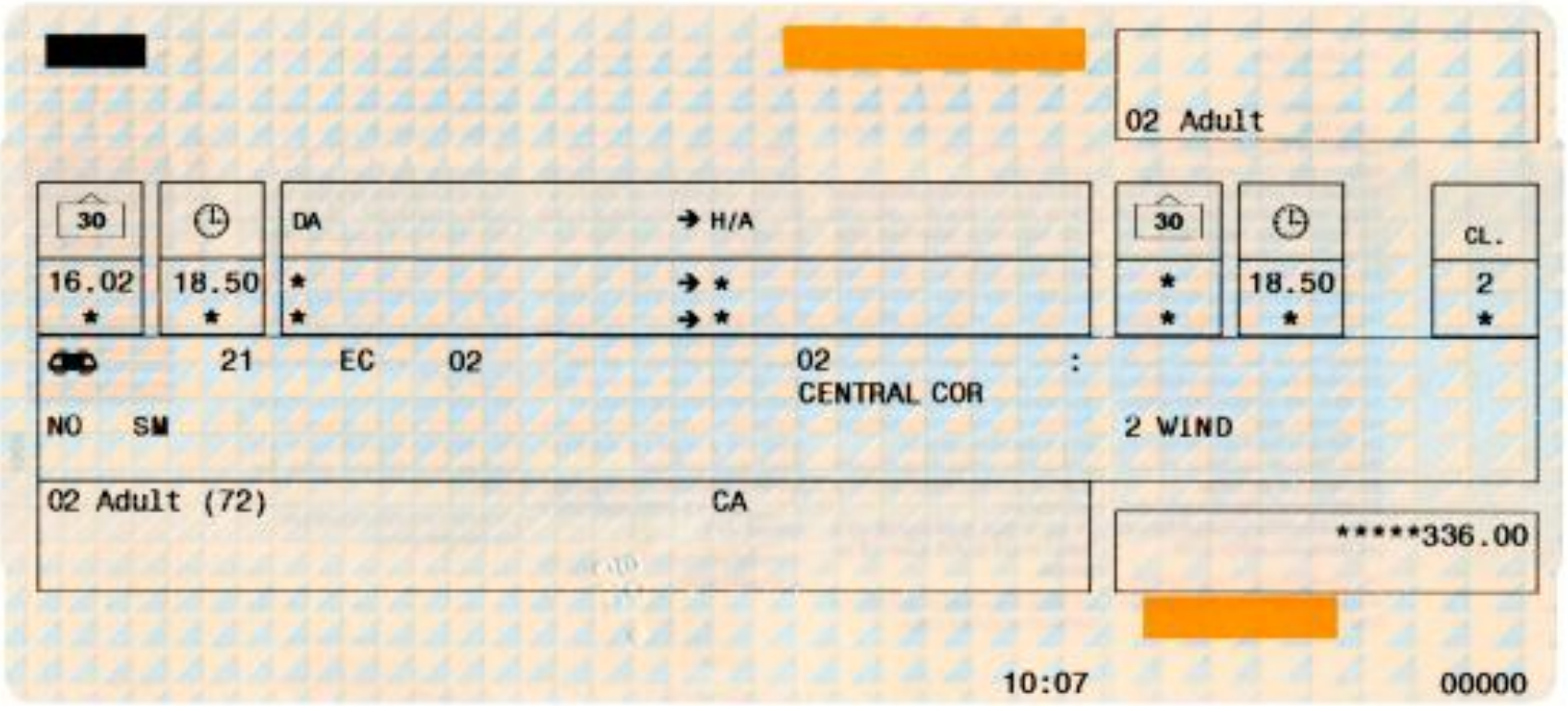

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FUNDACION DEMOCRATICA ITALO-AMERICANA

SPECIAL CONSULTATIVE STATUS -ONG-

RAILWAY


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PRESIDENT:
LAWYER
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GENERAL DIRECTOR:
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