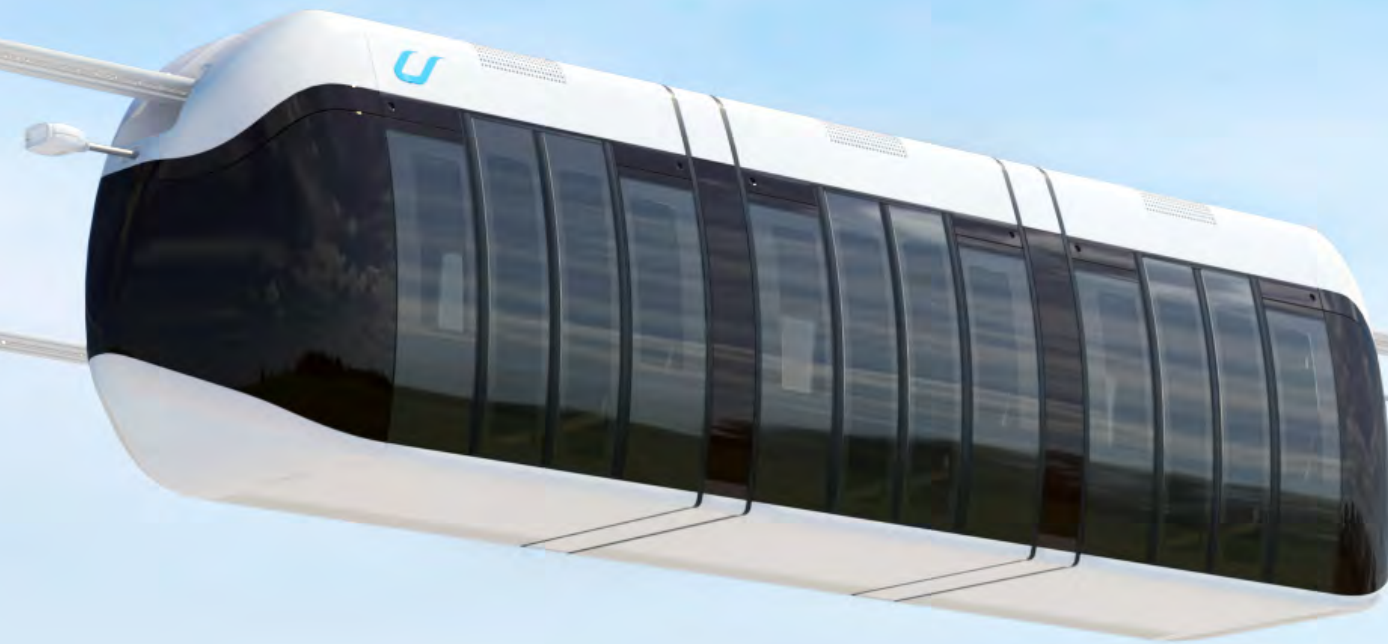




Unitsky
String
Technologies



FAST TRANSPORT AND INFRASTRUCTURE SOLUTIONS

UNITSKY STRING TECHNOLOGIES INC. • 2024

UnitSky String Technologies Inc. proposes for consideration unique projects to construct automated passenger and cargo uST transport and infrastructure complexes.

uST complex is an infrastructure facility utilising patented technologies of string rail, prestressed string rail overpass, and electric rail vehicles.



uST COMPLEX STRUCTURE



String Rail Overpass
(track structure, intermediate supports and anchoring structures)



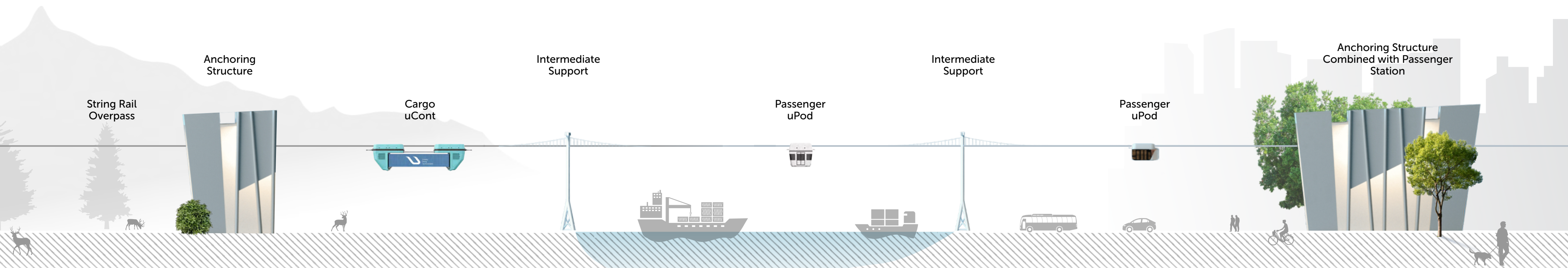
Infrastructure Facilities
(passenger stations, loading and unloading terminals, service centres, track crossings, power supply facilities, etc.)



Electric Rolling Stock
(uPods — unmanned rail electric vehicles on steel wheels)



Automated Control System
(a set of hardware and software to ensure the functioning of the complex)



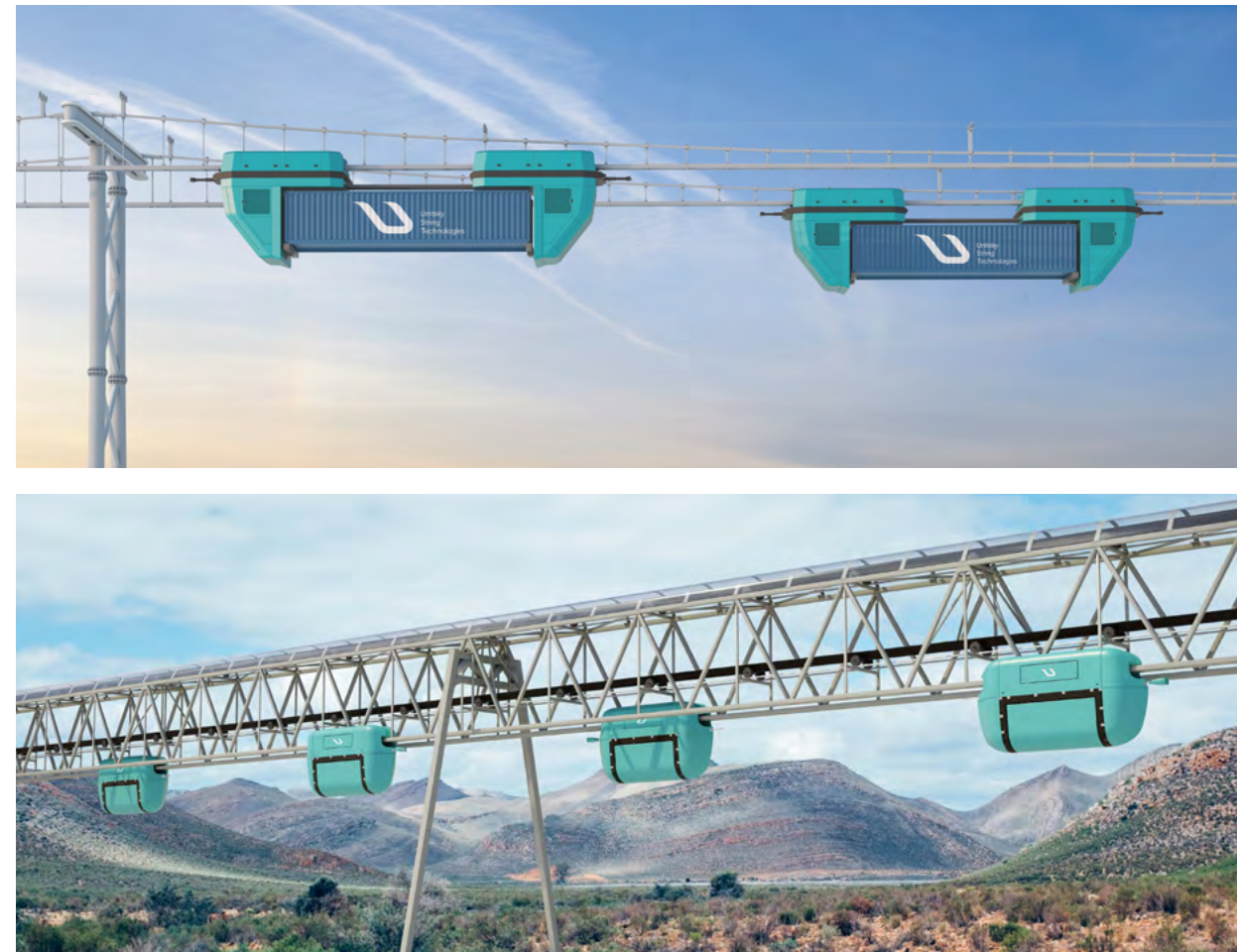
PASSENGER COMPLEXES



Maximum speed: 150 km/h
Capacity: up to 50 million t/year
Cost per km: from \$ 8 mln

CARGO COMPLEXES

FOR TRANSPORTATION
OF PIECES AND CONTAINER CARGO



Maximum speed: 100 km/h
Capacity: up to 100 million t/year
Cost per km: from \$ 10 mln

FOR TRANSPORTATION
OF BULK CARGO



Maximum speed: 36 km/h
Capacity: up to 100 million t/year
Cost per km: from \$ 3 mln

APPLICATION OF THE uST PASSENGER COMPLEXES



Overcoming
Water Barriers

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uST TRANSPORT
AND INFRASTRUCTURE
SOLUTIONS



APPLICATION OF THE uST PASSENGER COMPLEXES



In Conditions
of Dense Urban
Development

06

uST TRANSPORT
AND INFRASTRUCTURE
SOLUTIONS



APPLICATION OF THE uST PASSENGER COMPLEXES



Above the Facilities
of Transport, Industrial
and Residential
Infrastructure

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uST TRANSPORT
AND INFRASTRUCTURE
SOLUTIONS



APPLICATION OF THE uST PASSENGER COMPLEXES



Between the Airport
and Urban Transport
Interchange Hubs



APPLICATION OF THE uST PASSENGER COMPLEXES



Within the Recreational
and Protected Areas

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uST TRANSPORT
AND INFRASTRUCTURE
SOLUTIONS



APPLICATION OF THE uST PASSENGER COMPLEXES



As Part of Infrastructure
Development Projects

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uST TRANSPORT
AND INFRASTRUCTURE
SOLUTIONS



THE RANGE OF PASSENGER uPods

uPod: Unmanned
Rail Electric Vehicle
on Steel Wheels

uPods are available in a range of capacities, from 8 to 300 people. They can be manufactured in a basic configuration or equipped with additional features such as extra seats, multimedia systems, air conditioning, climate control, luggage compartments, and more.



uCar
U4-430



uLite
U4-830



uBus
U4-430-T3



uBus
U4-210



uBus
U4-543



uBus
U4-210-T2



uBus
U4-212



uBus
U4-210-T3



APPLICATION OF THE uST CARGO COMPLEXES



Between
Industrial Enterprises,
Logistics Centers,
Transport Hubs,
and Port Infrastructure
Facilities



APPLICATION OF THE uST CARGO COMPLEXES



From mineral extraction
sites to their processing
plants



APPLICATION OF THE uST CARGO COMPLEXES



On the territory of industrial enterprises between remote production areas, workshops, sections, and warehouses



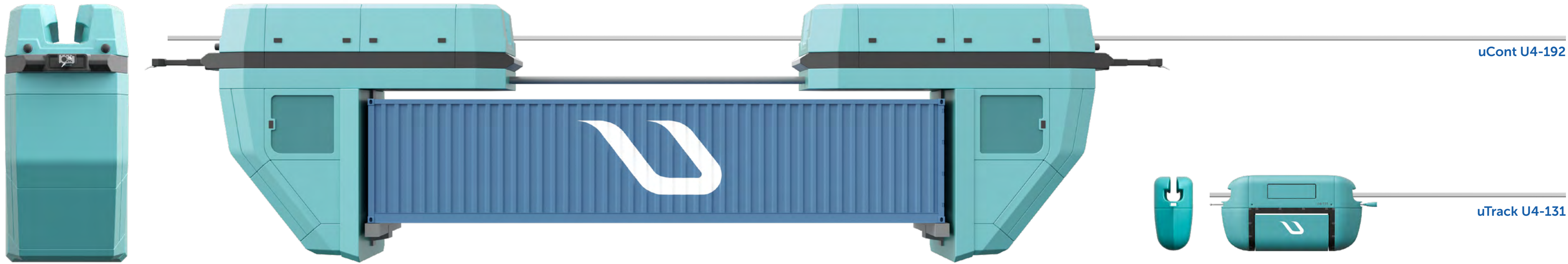
THE RANGE
OF CARGO
uPods



uLite U5

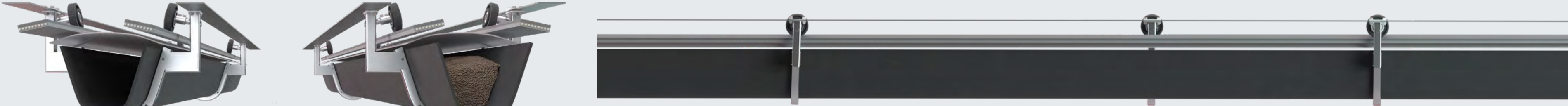


Electric rail
vehicle 212
(container
vehicle)



uCont U4-192

uTrack U4-131



uTrans U5

COMPETITIVE ADVANTAGES OF THE uST COMPLEXES



Cost-effectiveness

- Low consumption of construction materials for the transport overpass due to the pre-tensioning of string rails, a continuous track structure along the length, and large unsupported spans.
- Low consumption of construction materials for rolling stock results from the simplicity of the design, the absence of massive drives, powerful frames, heavy bogies and wheel sets
- Savings on land acquisition costs due to minimal land allocation required specifically for supports.
- Elimination of earth embankments, cuttings, bridges, interchanges, and culverts.
- Savings on the number of required rolling stock units due to the high speed and minimal intervals of movement of electric vehicles.
- Low labor costs due to the absence of drivers for operating unmanned electric vehicles.
- Low maintenance and repair costs due to routine servicing and preventive repairs that do not require shutting down the complex, allowing for a long service life of the track structure (up to 50 years) and rolling stock (up to 25 years).
- Electric vehicles on steel wheels equipped with their own motors consume less energy when moving along the string rail. Additionally, energy recovery during braking and the reduced aerodynamic resistance of string transport contribute to a further reduction in electricity consumption.

Multipurpose

- Ability to travel over any difficult terrain in extreme climatic conditions.
- Unlimited track length.
- Wide range of payload and passenger capacity of electric rail vehicles.
- Wide range of standard speeds of passenger and cargo rolling stock.
- Ability to pass over existing utilities and developments.
- Adaptability to current cargo and passenger flows — regulation of the number of rolling stock units based on the congestion and traffic intervals.

Safety

- Accident prevention by raising the track structure above the ground.
- No human factor due to the use of an automated control system.
- Inclusion of anti-derailment system.
- Resistance to natural disasters, terrorist attacks, and vandalism.

Ecology

- No harmful emissions or impacts.
- Low noise level (inside and outside the cabin).
- Low specific power consumption.
- Minimal land use (specifically for supports).
- No need to clean the track structure from snow, ice, sand, dust and other natural contaminants.



PROJECT IMPLEMENTATION STAGES

Unitsky String Technologies Inc. is interested in partnership on mutually beneficial terms at various stages of the project, except for areas within the exclusive competence and requiring special knowledge and rights to the uST technology.



- Project stages, the implementation of which is within the exclusive competence of Unitsky String Technologies Inc.
- Project stages where partnership cooperation is possible (cooperation terms are negotiated separately).

IMPLEMENTED PROJECT

THE DEMONSTRATION & TESTING CENTER ECOTECHNOPARK

Maryina Gorka, Republic of Belarus

36 ha

of engineering networks
and landscaped areas

~4 km

the length
of uST lines

up to 400 m

the distance between
supports



- 2 passenger stations with service workshops
- 6 boarding platforms
- A control center
- 5 types of string rail overpasses with 2 U-turns, emergency brakes and switches
- 12 types of passenger and cargo uPods with a capacity from 2 to 48 persons and a payload of up to 2.8 tonnes



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uST TRANSPORT
AND INFRASTRUCTURE
SOLUTIONS

IMPLEMENTED PROJECT

uSky INNOVATION & TECHNOLOGY RESEARCH PARK

Sharjah, United Arab Emirates

28 ha

of engineering networks
and landscaped areas

~3 km

the length
of uST lines

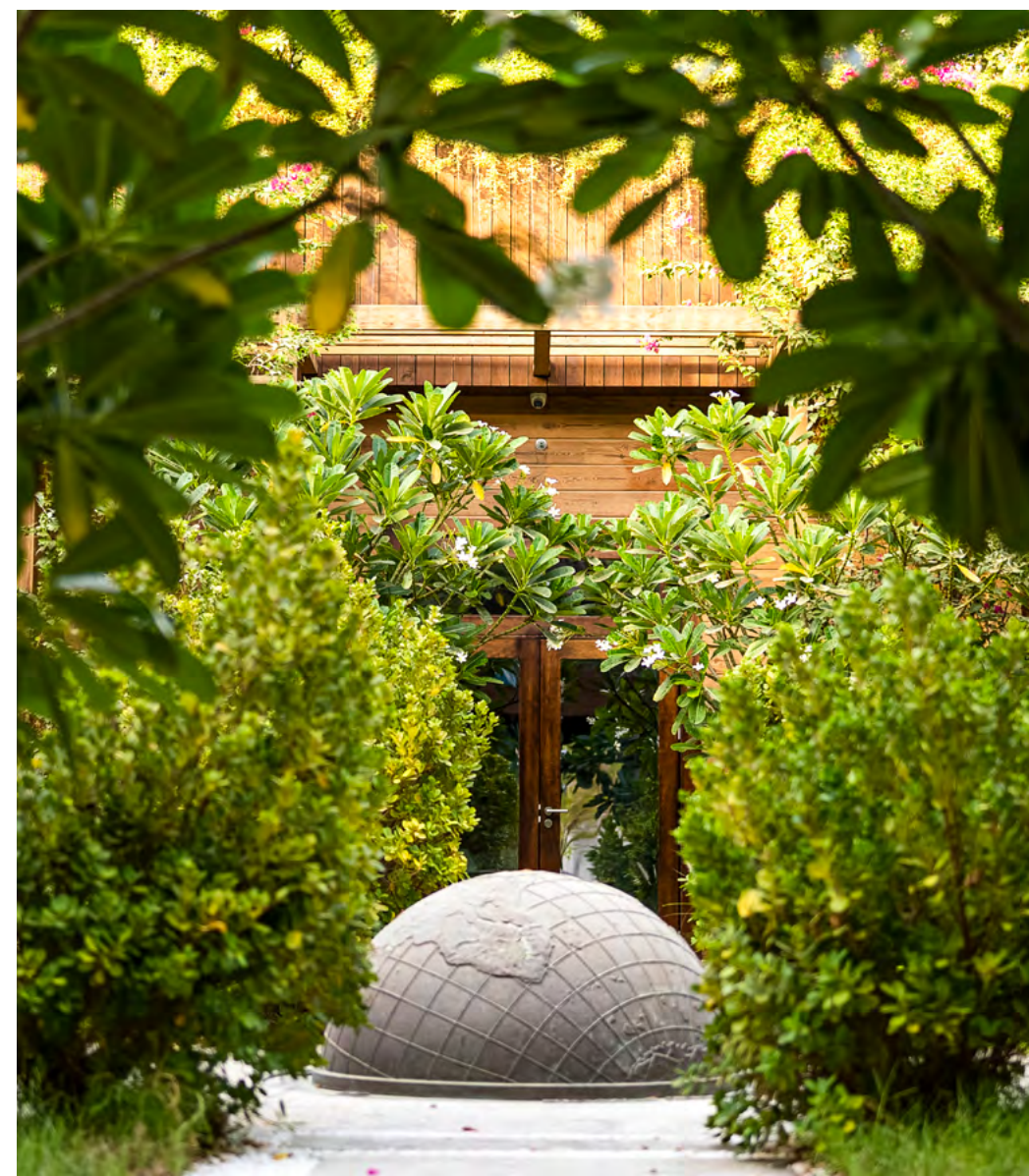
up to 288 m

the distance between
supports



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uST TRANSPORT
AND INFRASTRUCTURE
SOLUTIONS



- 2 passenger stations with service workshops.
- A control center
- 2 types of string rail overpasses with emergency braking devices and a ground level exit
- 3 types of passenger and cargo uPods with a capacity from 4 to 25 people and a payload of up to 35 tonnes



IMPLEMENTED PROJECT

uLite TRANSPORT & INFRASTRUCTURE COMPLEX

Aquarelle Ecopark, Maryina Gorka, Republic of Belarus

The vehicle has been designed with the purpose of delivering cargo and transporting passengers to lakeshores and other recreational areas.

- 1,100 metres of track
- 2 passenger stations
- A control center
- 8-seater uPod with the load capacity up to 1.5 tonnes



UNITSKY STRING TECHNOLOGIES INC.



An international engineering company offering solutions in passenger and cargo transportation as well as the second-level logistics infrastructure.

Project organisation

- More than 60 design bureaus, departments and laboratories.
- More than 800 specialists of various profiles — engineers, constructors, planners, designers, technologists, logisticians, builders, economists, etc.

Production facility

- More than 3000 m² of production space.
- More than 200 employees.
- Modern high-precision equipment.



COMPLIANCE WITH INTERNATIONAL AND NATIONAL STANDARDS

All components of the UST transport infrastructure complex are developed in accordance with international and local regulatory frameworks.

Certificates:

- certificate of conformity of the transport and infrastructure complex UST in the emirate of Sharjah (UAE), issued by the independent international organization TUV SW, № CR/SD-13940/05;
- certificates of conformity of vehicles, issued by the Scientific Research Institute of GorElectroTransport, No. ДСАТ RU.MT.770C050, № ДСАТ RU.MT.770C050;
- certificates of conformity of the quality management system to the requirements of ISO 9001:2015 (СТБ ISO 9001–2015) No. BY/112 05.01. 105.01 000436
- certificates of conformity of the environmental management system with the requirements of ISO 14001:2015 (СТБ ISO 14001–2017) No. BY/112 05.10. 003.01 00852;
- certificates of conformity of the occupational health and safety management system with the requirements of ISO 45001:2018 (СТБ ISO 45001–2020) No. BY/112 05.04. 003.01 00853.

Attestations:

- certificate of compliance issued by the Ministry of Architecture and Construction of the Republic of Belarus, No. 0001998-ГП;
- certificate of conformity issued by the Ministry of Architecture and Construction of the Republic of Belarus, No. 0003787-ПР;
- certificate of conformity issued by the Ministry of Architecture and Construction of the Republic of Belarus, No. 0003080-ИН.

In 2022, Unitsky String Technologies Inc. received the status of a scientific organization



The company has been accredited by the National Academy of Sciences of Belarus and the State Committee on Science and Technology of the Republic of Belarus.



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