



String Transport Yunitskiy LLC

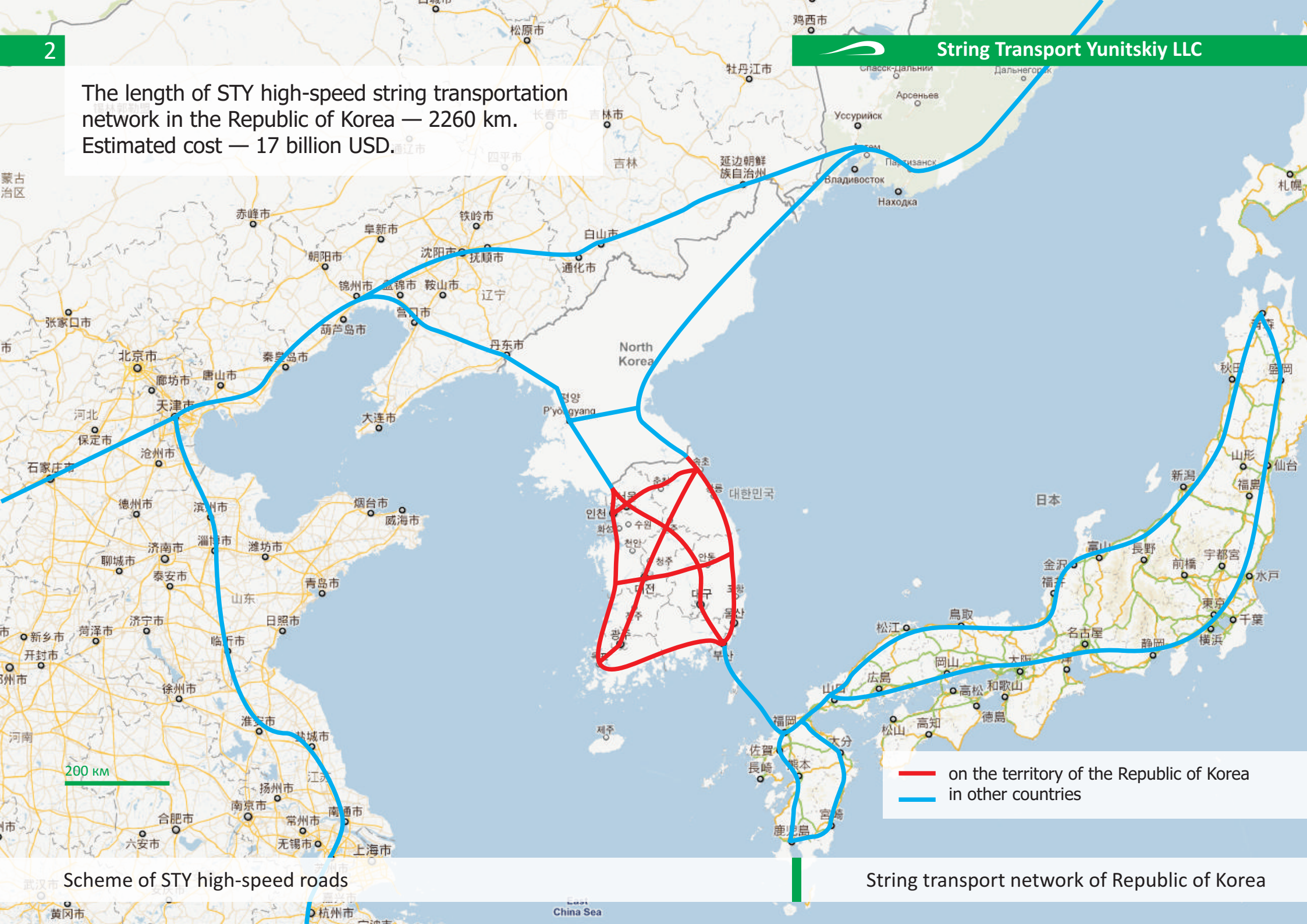
tel. +7-495-979-11-57, a.yunitskiy@gmail.com, www.yunitskiy.com



String transport network of Republic of Korea

Moscow, 2011

The length of STY high-speed string transportation network in the Republic of Korea — 2260 km.
Estimated cost — 17 billion USD.



- on the territory of the Republic of Korea
- in other countries

Scheme of STY high-speed roads

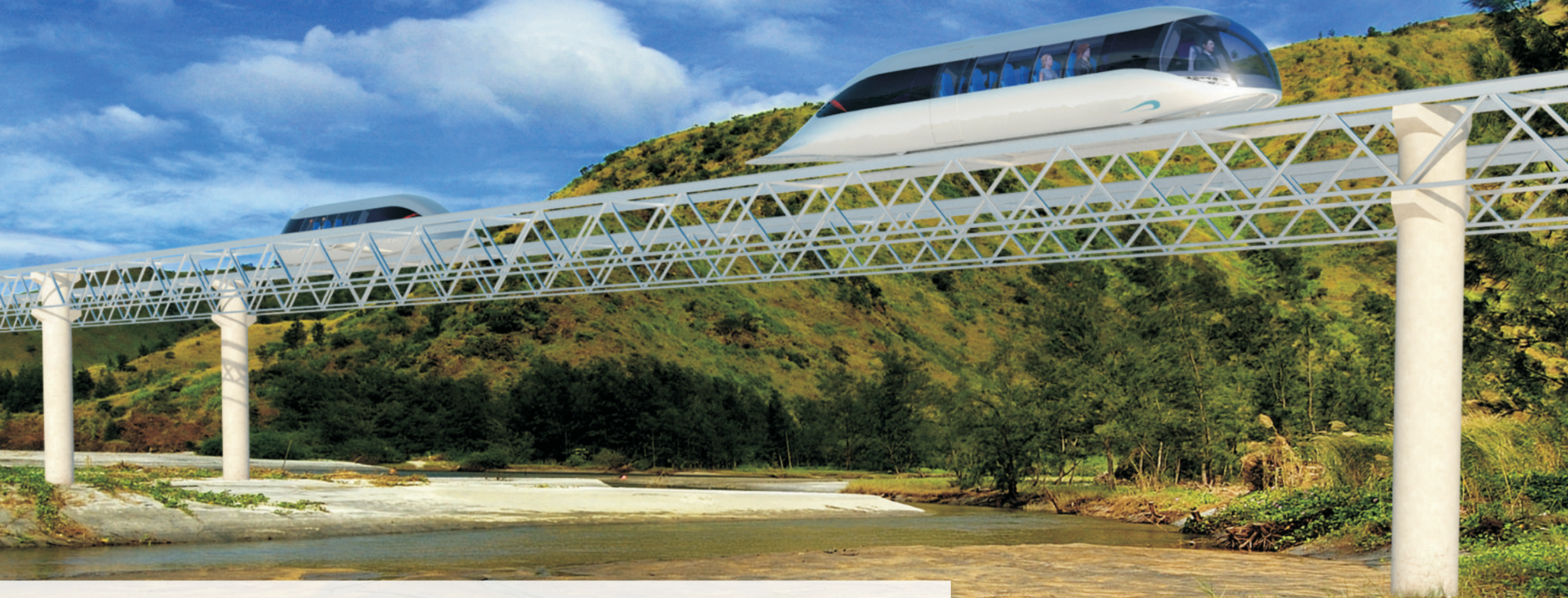
String transport network of Republic of Korea

Specific power of a drive at a speed of 360 km/hour: 8-12 kW/pass.
Specific fuel consumption at 360 km/hour: 0.6-0.9 liter/100 pass.-km



High-speed unibus (eventually up to 500 km / hour)

String transport network of Republic of Korea



Averaged double-track high-speed highway STY cost is

6.0—8.5 million USD/km

including:

- track structure and supports
- stations, depots, terminals
- high-speed unibus
- security, control and communications
- other

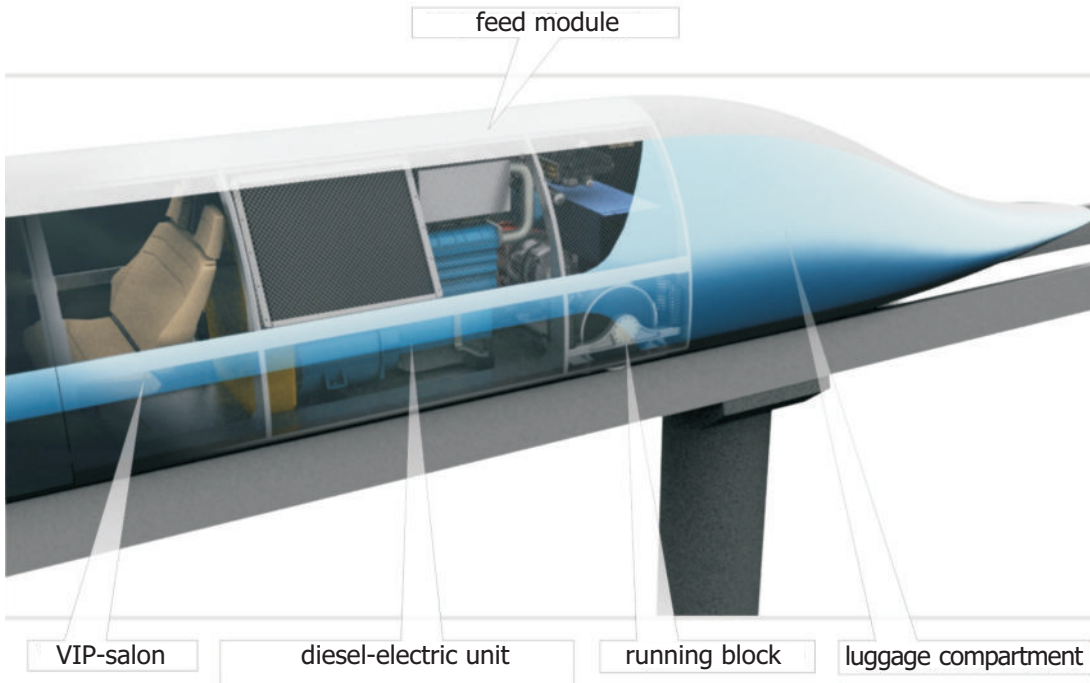
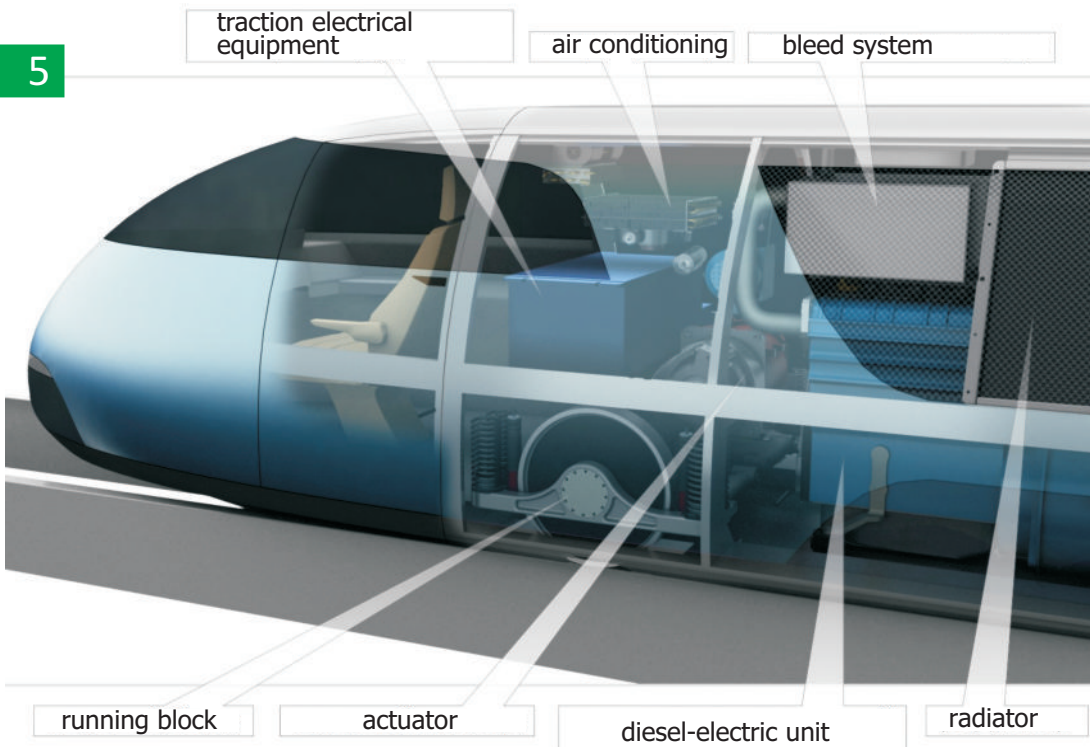
3.5—4.5 million USD/km

0.5—1.0 million USD/km

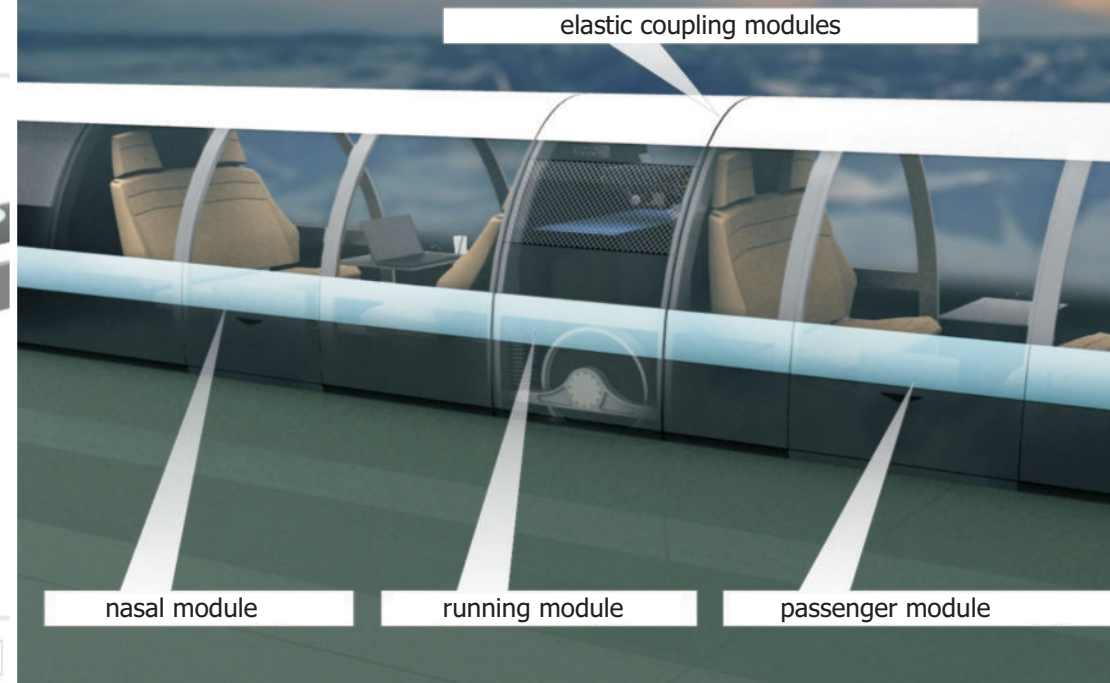
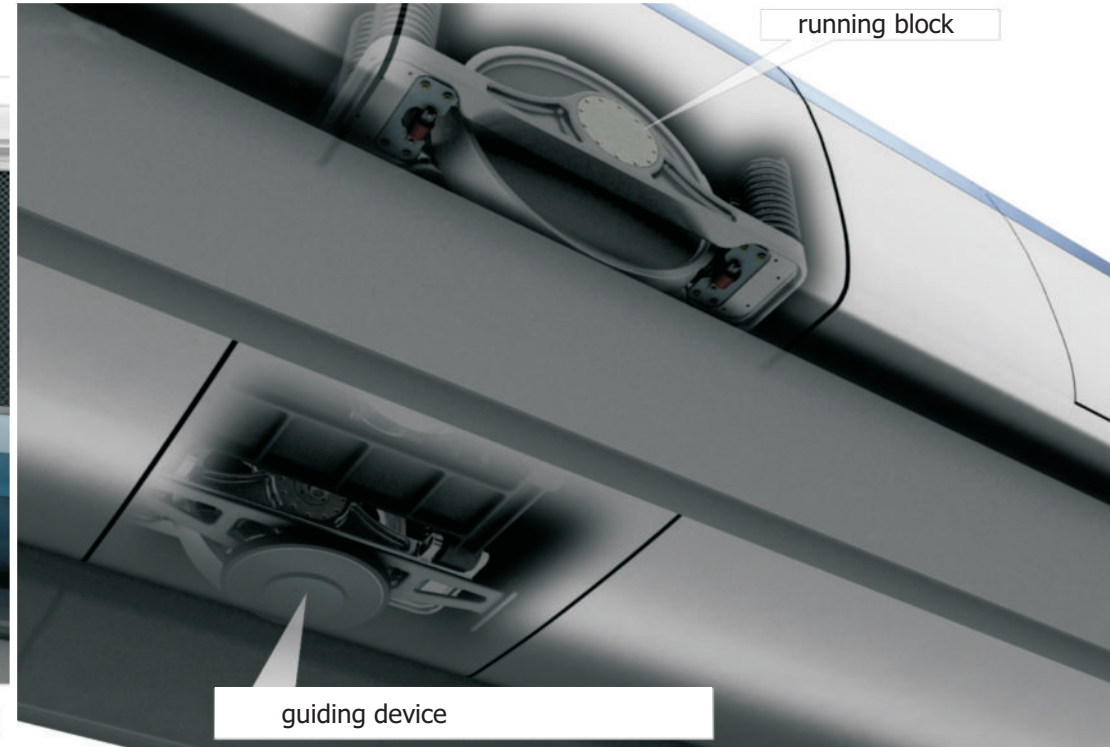
0.5—1.0 million USD/km

1.0—1.5 million USD/km

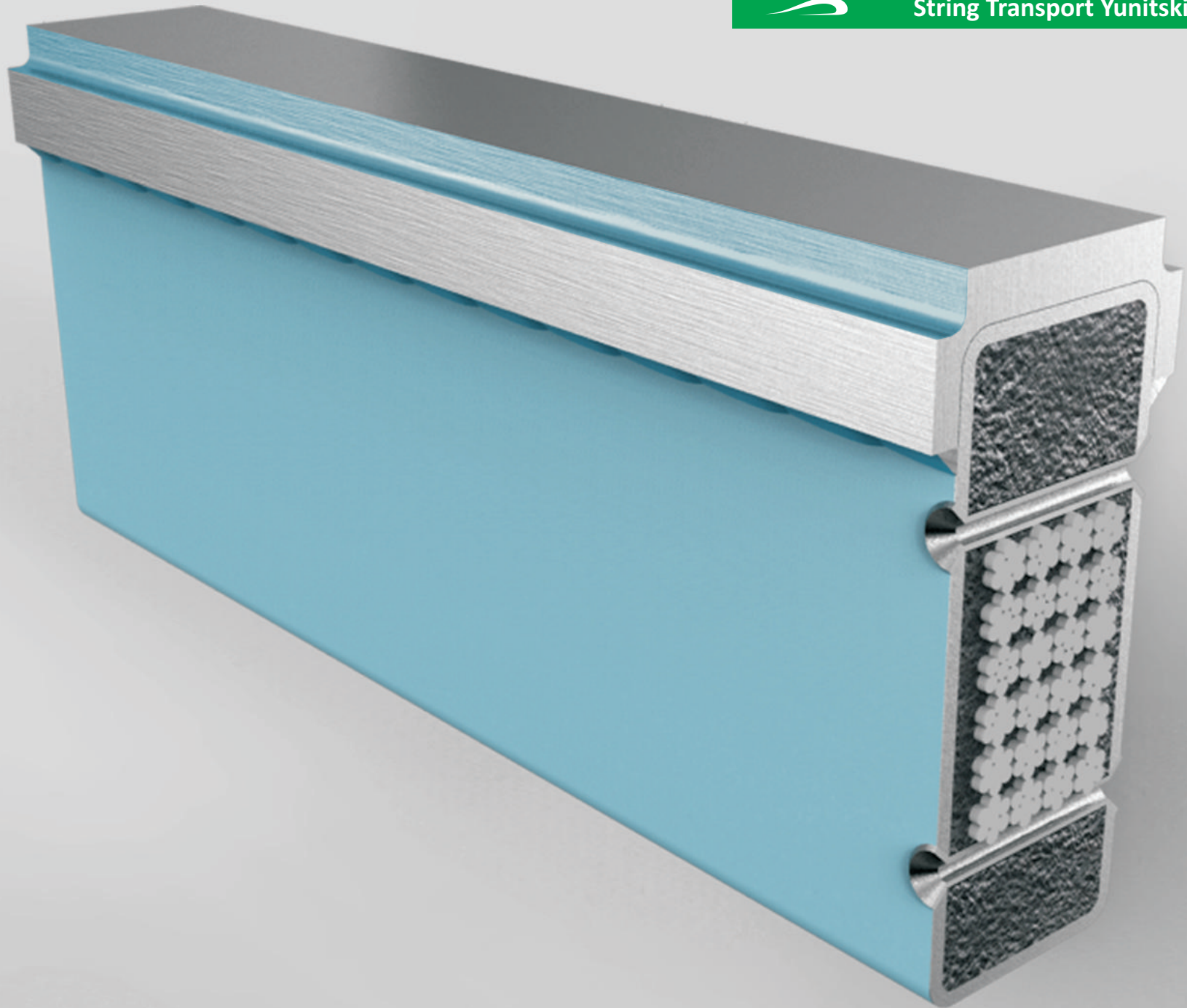
0.5—1.0 million USD/km



Design features of high-speed unibus



String transport network of Republic of Korea



String Transport Yunitskiy (STY) — "second tier" rail transport in which the elevated track structure is supported on the height of 5—10 meters forming spans of 40—50 meters or more. The basis of STY track structure are specially constructed string rails (or farm-string), which pre-tension — string — provides the necessary strength, smoothness and durability. The design of STY track structure is a type of vehicle overpass, hanging and cable-stayed bridges with minimized material consumption and thus — value.

STY rolling stock is a rail car with steel wheels, also called unibus. This unibus — is the most effective vehicle of all currently known (car, airplane, helicopter, high-speed railway train, Transrapid).

STY tracks are clean, all-weather and natural disasters resistant (floods, earthquakes, hurricanes, tsunamis, extreme cold and heat, etc.) and also for the cases of vandalism and terrorism.

The length of the high-speed string transport network of the Republic of Korea — 2 260 km. The estimated cost of such STY highway — 17 billion USD. For comparison, a track, made by the best world technologies and traditional high-speed railway would cost the customer about 70—120 billion USD (depending on: the scheme of laying (embankment or trestle), country-developer of technology and other factors).

The averaged value of STY high-speed (in the long term — up to 500 km/hour) double-track trail in Republic of Korea is including:

	6.0—8.5 million USD/km
- track structure and support	3.5—4.0 million USD/km
- stations, terminals, depots, terminals	0.5—1.0 million USD/km
- high-speed units	0.5—1.0 million USD/km
- security, governance, energy and communications	1.0—1.5 million USD/km
- other (design & construction work, certification, commissioning, etc.)	0.5—1.0 million USD/km

The cost of STY high-speed highway depends on:

- terrain (supports height and length of spans depends on it);
- climatic factors (seasonal temperature variations, calculated wind speed, strength of underlying soil, likelihood of frost, floods, earthquakes, etc.);
- taken from STY draft (rated speed, capacity of units, estimated passenger and cargo traffic, slopes and radii of curvature of track structures, etc.);
- the optimization of design decisions at the design stage (bench tests and certification testing of site in real climatic conditions of the Project).

Specific high-capacity drive of a high-speed unit at a speed of 360 km/hour (or 100 m/sec): 8—12 kW/pass. For comparison, a similar rate in high-speed railway — 40—60 kW/pass., sport car has a top speed of 360 km/hour — 200 kW/pass.



Specific fuel consumption (calculation of electrical energy into fuel) of high-speed unit at 360 km/hour (or 100 m/sec): 0.6—0.9 litres/100 pass.-km. For comparison, a similar rate in high-speed railway — 3—5 litres/100 pass.-km.

STY high-speed roads in Republic of Korea will be built with the same standards as an urban STY. Therefore, Republic of Korea will have a single communication network designed for movement, not only multi-passenger (20—50 pass. and more), but also in the future — personal (1—2 pers.) and "family" (3—6 pers.) high-speed unibus developing speed to 500 km/hour on the main roads. In urban areas this rate can be limited to 120 km/hour. This infrastructure will make a revolution of the 21st century in any economy, comparable in scale (and even exceeding) revolution, which made the car in the 20th century.

"Second tier" roads network created in Korea will be connected to similar networks that are created in other countries, and will be integrated into the global network TRANSNET, created by the same standards. Then any user on his personal yunibus will be able to travel to any city in the world on any of the continents.

Carrying capacity of STY high-speed double-track trail (total in opposite directions) is — 1 million people per day. On sections of the route where number of passengers will be higher, more ways can be arranged. STY track structure will be combined with communication lines and power lines (they will be "protected" in string rail), supports — with wind and solar power stations. Such a communication system will pay for itself in 3—5 years.

