



# TRANSPOND

**Media Brief**

## OVERVIEW

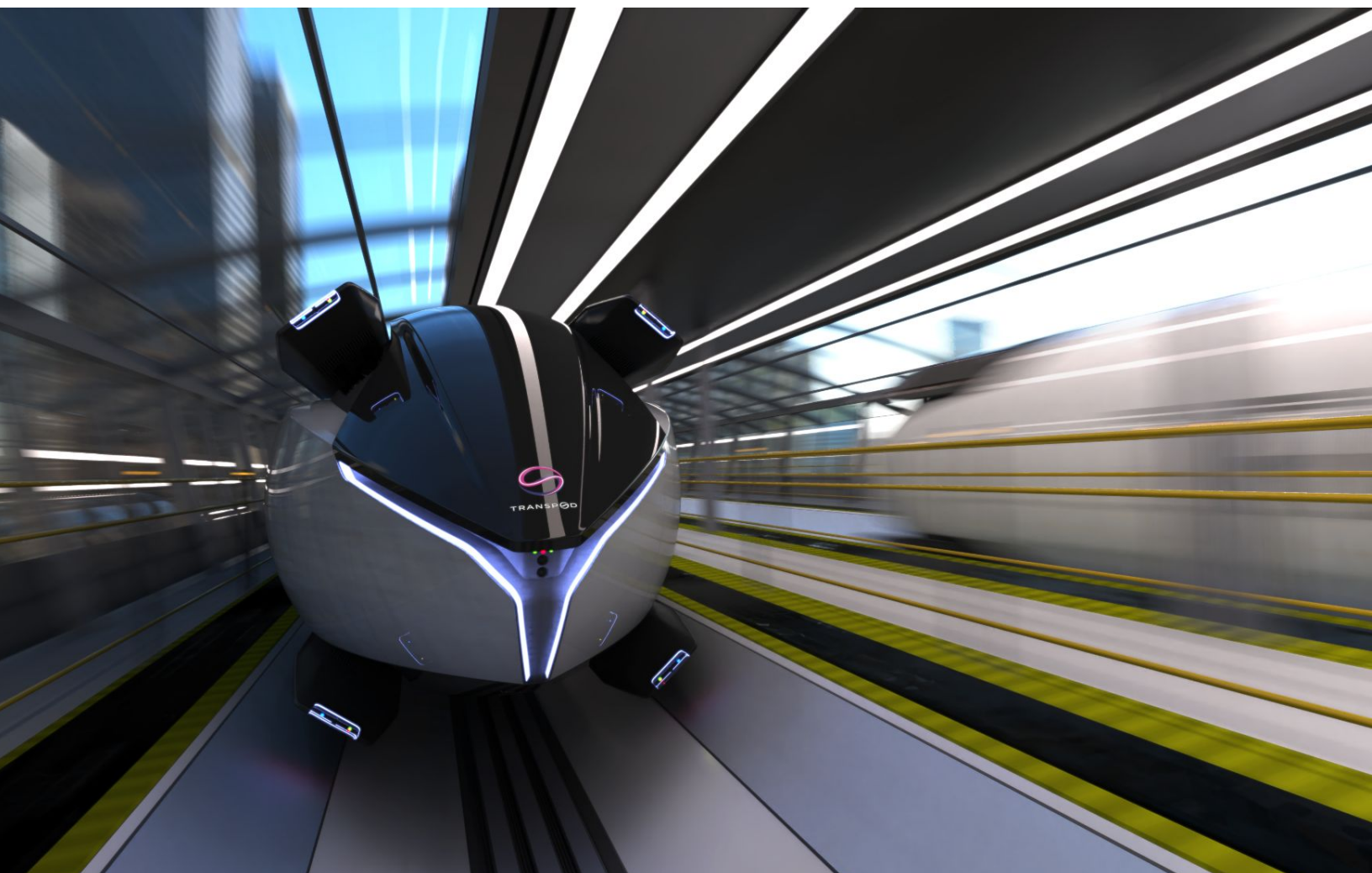
Founded in 2015, TransPod is a new generation of ultra-high-speed ground transportation. The TransPod system, comprised of the “FluxJet” vehicle and linear tube infrastructure, are being designed to carry passengers and cargo between cities at over 1000 km/h. Fossil-fuel-free and fully electric, the TransPod line is being developed for application in regions around the world. Aerospace engineering allows the FluxJet vehicles to travel faster than a jet, at ground level in a protected guideway which is immune to weather. With the convenience of a subway, TransPod will avoid airline flight diversions, travel faster than a jet, and move three times as fast as the current fastest train.

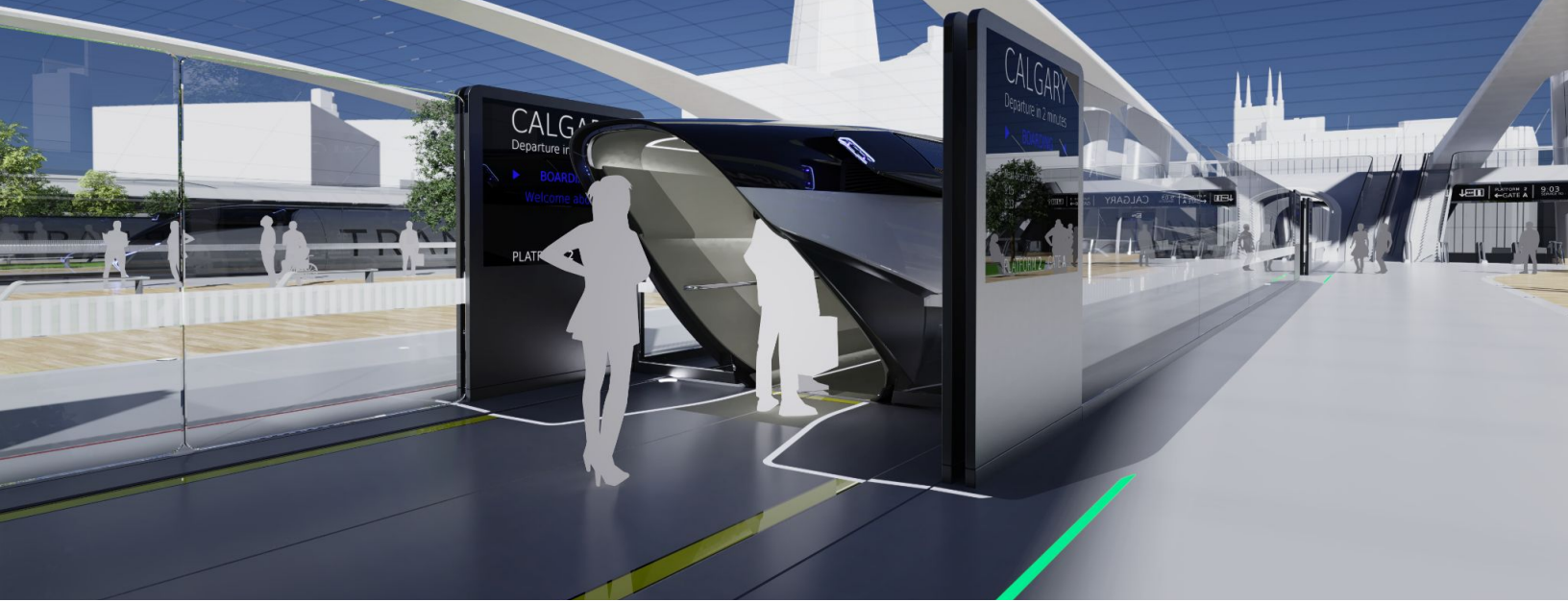
## MARKETS AND APPLICATIONS

The TransPod system will serve both the passenger and cargo transportation markets, with a focus on countries challenged by aging infrastructure, high-density populations, and a need for transportation innovation.

## GLOBAL EXPERTISE

TransPod Inc. has offices in Canada, UAE, and France, and works with a global partner network of industrial leaders in the aeronautics, space, rail, and infrastructure industries. Collaborating with this expertise, TransPod is re-inventing tube transportation from the ground up.





## EXECUTIVE LEADERSHIP

### Sébastien Gendron, CEO



Sébastien co-founded TransPod in 2015 to build low pressure tube transportation as an alternative to the relatively expensive, slow, and environmentally harmful means of travel we have today; with the mission of building a technology leader based in Canada.

Sébastien brings more than 15 years of experience in managing engineering teams at global transportation manufacturers such as Bombardier, Safran S.A. and Airbus Group.

At Airbus, Sébastien led the engineers producing and manufacturing the Airbus A320 and A380. While at Bombardier, he led groups of engineers producing the CSeries and Q400 Turboprop aircraft. He holds a master's degree in aerospace engineering from ISAE-SUPAERO and Aix Marseille University in France.

**AIRBUS**

**BOMBARDIER**

**SAFRAN**

### Dr. Ryan Janzen, CTO



Ryan co-founded TransPod and is the creator/inventor of the TransPod ultra-high-speed system. His concept gave TransPod key competitive advantages, including low infrastructure cost and fundamental safety.

Ryan has been featured on the Discovery Channel, Wired Magazine, and Through the Wormhole, with his innovations featured in 110+ international lectures, media interviews, and scientific publications.

As a global innovator, he is the founder of completely new fields of research, including veilance flux and swarm modulation. He introduced the world's first aircraft Power Line Communication. He has directed teams of 400+ people in realizing his innovations, in Silicon Valley, Europe, and Canada. Ryan holds a Ph.D. from the University of Toronto.

**UNIVERSITY OF  
TORONTO**

**IEEE**

**Innovation  
of the Year  
Award**

**STARTUP  
CANADA**



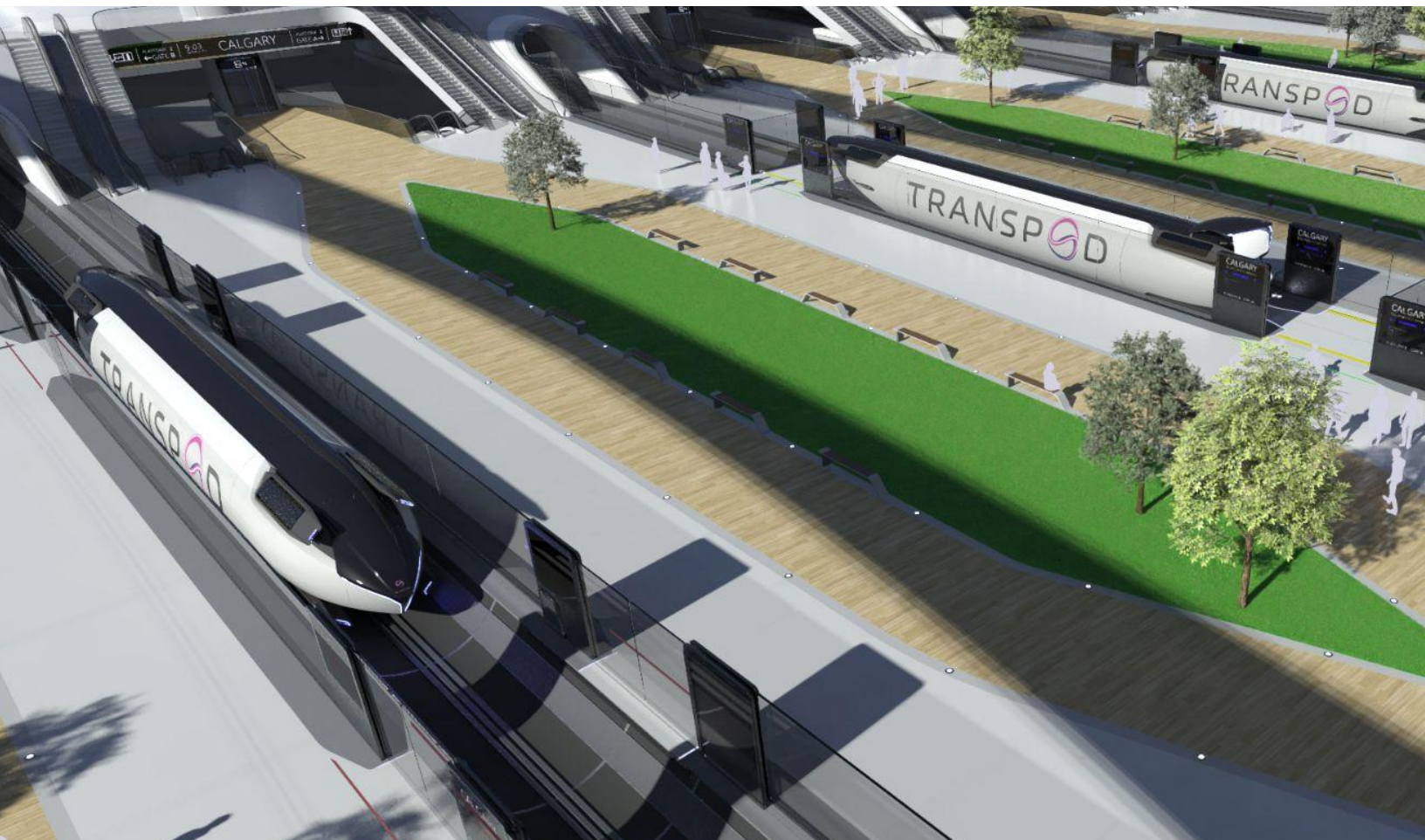
## KEY DIFFERENTIATORS

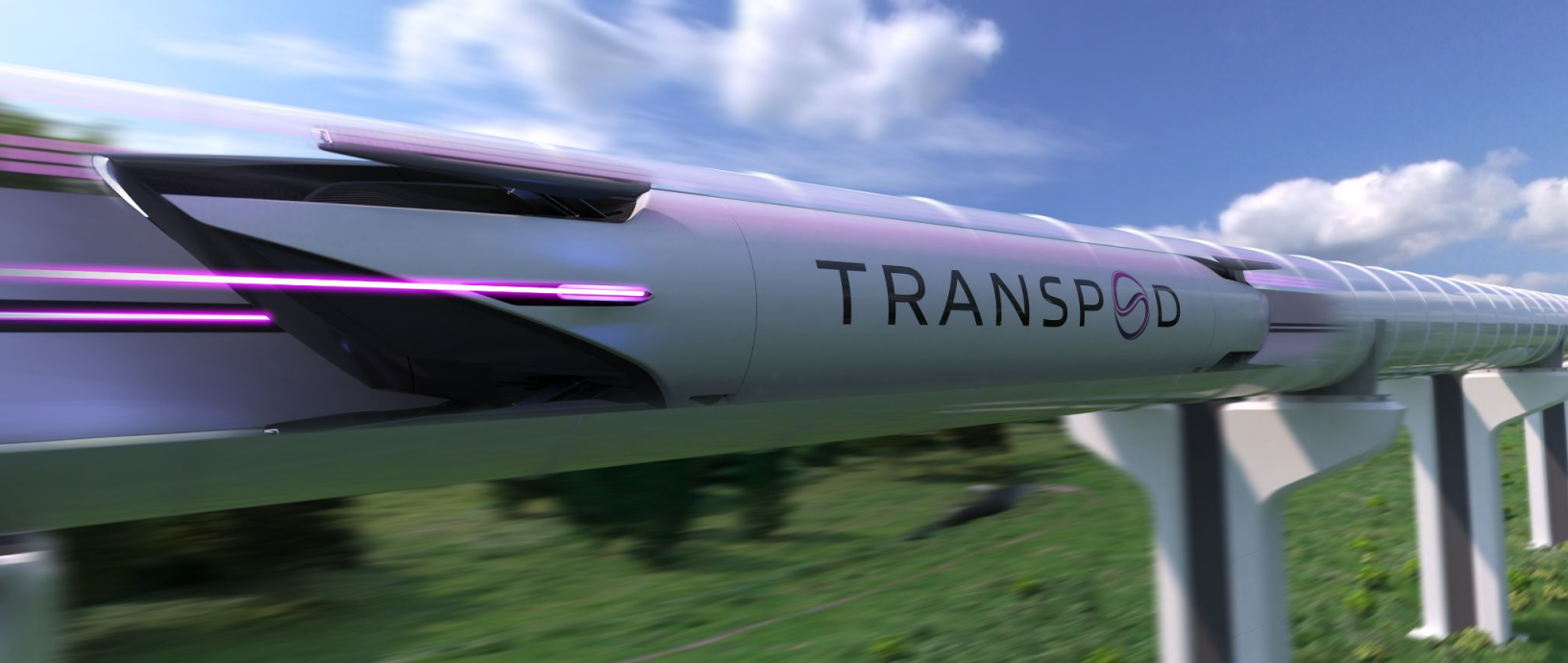
TransPod takes a physics-first and engineering-first approach to our design. The company is not using pre-existing concepts of “hyperloop”, and it is not crowdsourcing or harvesting ideas and trying to make them fit with each other. It’s developing every aspect of a new tube-transportation system, from design to systems engineering, all in-house and with it’s global partners. With a focus on first-in-the-world designs and technological breakthroughs, all aspects of the vehicle, infrastructure, and passenger experience are designed to work together seamlessly, with high reliability, safety, and efficiency.

## FUNDING

- Seed round of US\$15mm from the Angel Group in 2016
- C\$500k funding from the Government of Canada to develop a new generation of power converter
- €2mm from the European Union for R&D activities in France
- US\$550mm funding proposal in hand for first TransPod infrastructure project (Alberta, Canada), backed by US\$250mm financial guarantee

TransPod continues to invest in research, product development, and global expansion. The company has secured patents for it’s innovative designs, and is expanding it’s growing network of global industry partners. Over the next few years, TransPod will continue working with governments, partners, and investors to bring the TransPod system to life.



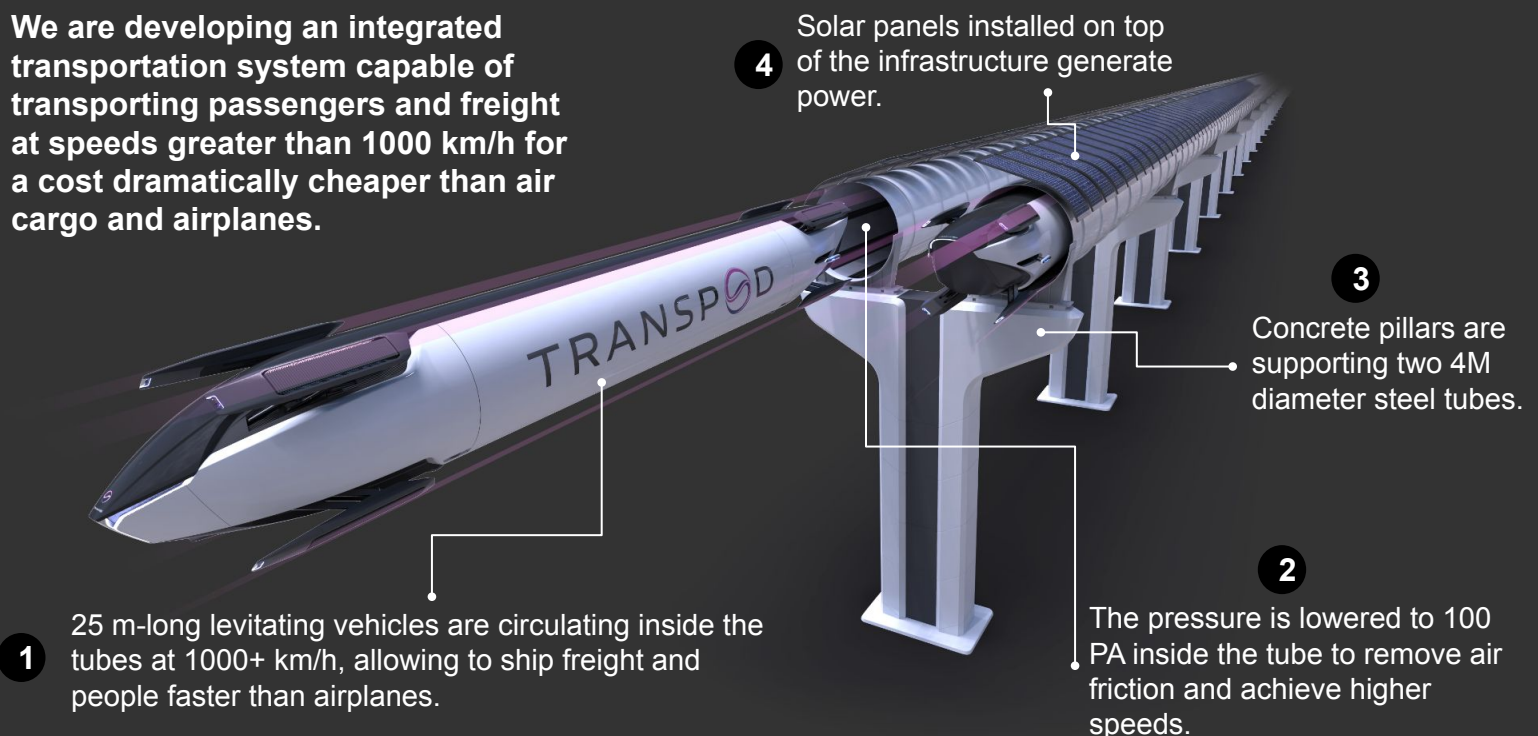


## THE TRANSPOD NETWORK

TransPod is developing a cutting-edge design for a next-generation transportation system to reach velocities faster than airline travel. This ground-based mass transportation system is based on low-pressure tubes carrying FluxJet vehicles for reduced air resistance, and less friction. TransPod's system is designed to give passengers and goods an affordable, frequent-departure transportation service without the need for jet fuel, at speeds exceeding 1000 km/h.

Powered by environmentally sustainable solar/electric energy in a system that is unaffected by weather conditions, TransPod's system enables passenger and cargo travel that is faster than airline travel, creating an attractive choice for consumers, a high-potential investment opportunity for infrastructure investors, and a reliable mass transportation system.

**We are developing an integrated transportation system capable of transporting passengers and freight at speeds greater than 1000 km/h for a cost dramatically cheaper than air cargo and airplanes.**





## TECHNOLOGY

TransPod's new research and technologies are combined with concepts and designs from the aerospace industry. Many subsystems, such as the vehicle structure, control systems, and vehicle dynamics, are very similar to what we can find on an aircraft. Railway technologies are also being adapted, including communication, signaling, and energy management. Much of the work we're doing integrates these existing technologies with our own proprietary designs to create this new high-speed transportation system;

### The FluxJet

**In July 2022, TransPod unveiled the FluxJet, its ultra-high-speed vehicle which will operate within TransPod's infrastructure**

- The FluxJet operates without making contact with the infrastructure, via a series of key innovations that make the system work in an affordable and reliable manner:
  - **Contactless power transmission "Quantum Power™":** TransPod uses a plasma arc to transfer power from rails within the infrastructure to a power pickup on the vehicle, similar to a third rail shoe system in traditional rail but without touching.
  - **Levitation:** a series of electromagnets along the top of the vehicle enable active (controlled) levitation, via their attraction to the steel tube infrastructure which lifts the vehicle
  - **Propulsion:** a series of linear induction motors along the bottom of the vehicle enable propulsion for acceleration and deceleration, via electromagnetic waves which push against the steel tube infrastructure to create force.
- **The first fully-functional prototype of the FluxJet was unveiled in July, showing that TransPod has the knowledge needed to make this system work.**





## BENEFITS

### Environmental Benefits

#### Reduced greenhouse gas emissions

TransPod's fully-electric system is designed to be linked to the regional electrical grid. Rather than burning fossil fuels on the vehicles, power from substations is delivered to the TransPod vehicles inside the tube infrastructure. This takes advantage of high efficiency power plants (and solar/wind as locally generated), rather than individual inefficient engines as in cars and airplanes.

#### Replace short and medium-haul flights, absorb the increase in air traffic

Air traffic is increasing worldwide. Trends indicate that the number of passengers doubles every 15 years, with negative effects such as sound pollution and greenhouse gas emissions.

The benefits to the aviation industry would be exemplified by connecting several regional airports with the TransPod system to create a super-hub. Airports roughly 200 km away would take only 30 minutes to travel to, which would require less expansion and enable higher efficiency of the connected airports.

#### Fossil-fuel free

TransPod's system eliminates fuel waste of an airline jet ascending to altitude. Most of a jet's fuel is burned at the start of a flight; hence the high airline ticket prices. TransPod vehicles will run nearly horizontally, thus avoiding this major inefficiency and operating cost of jets.



**Smaller land impact** than existing modes of transportation due to construction on pillars rather than at ground level



**Carbon neutral suppliers** of resources such as carbon-free steel and concrete that acts as a carbon sink are becoming more widely available and will likely be used for the TransPod system



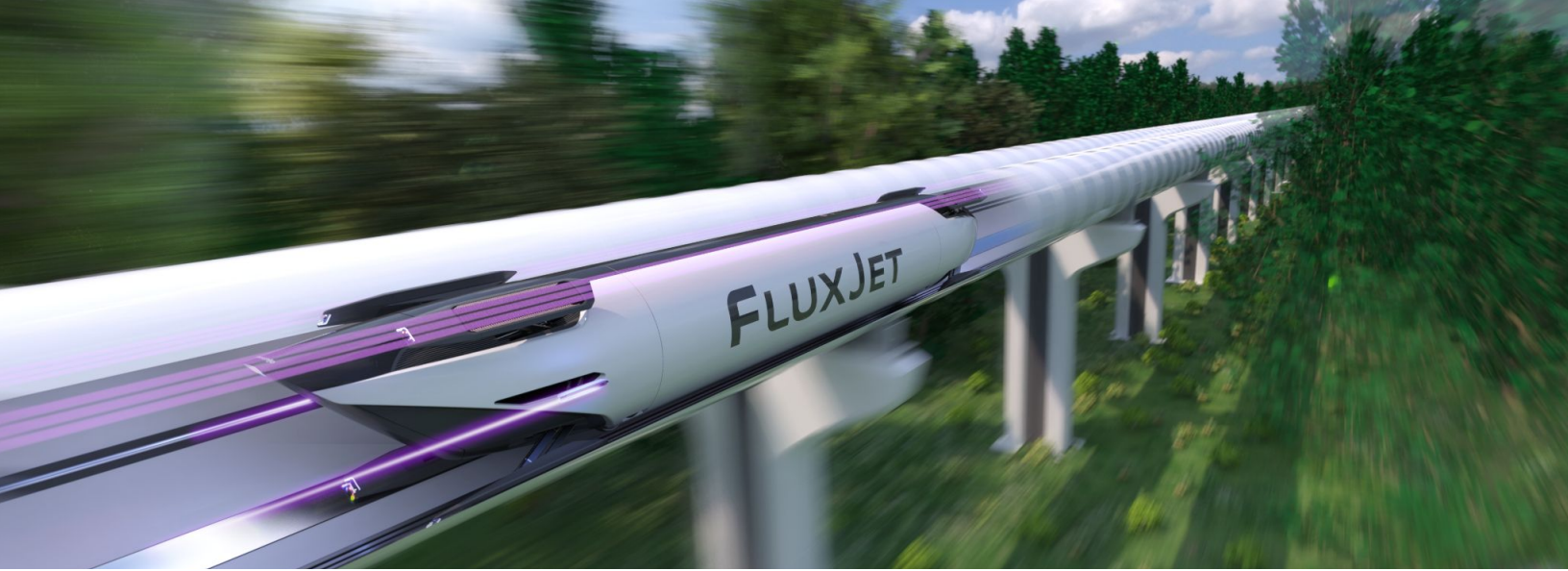
**Reduced warehouse footprints** by reducing storage requirements of logistics companies, allowing them to reduce warehouse expansion plans



**Reduced-pressure environment** resulting in lower energy needs to reduce drag on the vehicle at high operating speeds







## BENEFITS

### Additional Benefits

**Merges distant cities** into one super-connected region via an ultra-high-speed connection

**Reduces car accidents** by reducing the number of cars in operations and putting passengers instead into a safer, protected tube transportation environment

**Multi-billion dollar economic output** during the construction period, driving economic growth

**Lower cost per kilometer** than competing hyperloop systems; superior speed and cost performance compared to high-speed-rail

**Tens of thousands of jobs** created throughout the construction period in engineering, skilled trades, etc.

**Faster delivery** of goods to sustain the increased demand for eCommerce, delivery of perishable goods, and just-in-time delivery

**Travel time savings** due to faster intercity transportation for passengers, allowing people to spend more time being productive or relaxing

**Increased productivity** due to increased accessibility between the cities and regional integration, resulting in increased economic productivity

**Tax revenues** will increase with the increase in jobs. This enables the local government to provide more public services to improve the quality of life in their communities

**Real estate value appreciation** in regions that have a TransPod station nearby, resulting in financial benefits for the local community

**Create new industry**; developing an export opportunity for the local economy

**Tourism** can be expected in the region of the ultra-high-speed transportation system. The US\$18 billion dollar infrastructure will be first-of-a-kind in Canada and the rest of the world

**Affordable ticket prices** due to TransPod's efficient technology and significantly lower cost than competing hyperloop companies and airlines

**Weather resistance**; FluxJet vehicles are unaffected by weather conditions such as rain, snow, fog, turbulence, sand, and storms thanks to the protected tube environment of the infrastructure



A line art illustration of a Transpod vehicle, a sleek, aerodynamic, pod-like car, shown from a side profile. The vehicle is white with dark accents on the wheels and windows. It is positioned in the upper half of the image, facing right. The background is a solid dark blue.

# TRANSPOD

Website: [www.transpod.com](http://www.transpod.com)  
Contact: [info@transpod.com](mailto:info@transpod.com)

