

Abstract: Hyperloop Transportation Technologies Risk Report

Expanding together the boundaries of transportation and insurability



Munich Re Hyperloop Team

Christian Höft

Corporate Insurance Partner
Special Enterprise Risks
Client Manager and
Hyperloop Project Leader
choeft@munichre.com

Peter Armstrong

Corporate Insurance Partner
Special Enterprise Risks
The Cyber Subject Matter Expert
parmstrong@munichre.com

Dr. Michael Berger

Corporate Insurance Partner
Special Enterprise Risks
Business Development Manager
mberger@munichre.com

Jeffrey Sirr

Corporate Insurance Partner
Head of North America
jsirr@munichre.com

Abstract:

Hyperloop Transportation Technologies Risk Report

Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft in München (Munich Re) is pleased to submit an abstract of its Risk Report in support of identification of Hyperloop Transportation Technologies (HTT) risks and to form a basis of the development of a Hyperloop Insurance Concept.

HTT and Munich Re are partnering since 2016 and agreed on a project with the following objectives: First, to understand the HTT business model and the outline functionality of its Hyperloop technology; second, to develop risk landscapes and third, to write a report capturing HTT and Hyperloop technology risks.

In summary the Hyperloop Transportation Technologies Risk Report has five key observations:

1. It is Munich Re's belief that bringing to fruition the Hyperloop proposition is one of the few genuine activities at the edge of human endeavor. Furthermore, although as yet unproven in full-scale testing, the Hyperloop technology is likely to be viable, and represents a realizable integrated system.
2. Munich Re believes that the Hyperloop proposition represents an insurable prospect that will embrace traditional risk transfer and yet-to-be-developed innovative responses to the HTT operating and capital model.
3. The nature of the challenge is extreme, and the global resources required to harness the Hyperloop ambition demand the HTT innovation implicit in the crowd-sourcing model. Munich Re recognizes this as genuine innovation on a global scale. It is likely to be an essential component of future large scale infrastructure projects originated in the digital era. We consider that traditional approaches to managing risks need to adapt to this innovation.
4. It will demand a rigorous and structured enterprise risk management framework to ensure meaningful management against the reduction of the risk portfolio value which will change in the different stages of the project's lifecycle. Munich Re is thus convinced that only by means of evolving risk management with a coherent safety concept that synthesizes safety and security, can HTT manage the risk that we believe lies at the edge of human endeavor.
5. It is well understood by both HTT and Munich Re that the HTT venture depends on funding as well as developing and satisfying challenging regulatory environments and establishing and sustaining the perception and trust of society. Assuming that HTT can successfully manage the risks identified in this report, we believe that the Hyperloop system is viable and realizable by HTT.

As a next step HTT and Munich Re are going to enter into a strategic partnership. This partnership is intended to provide HTT with risk transfer and risk-management-related services and solutions. It is anticipated that the services and solutions would include among other topics the development of a Hyperloop Insurance Concept.

It is anticipated that that the Hyperloop Insurance Concept will comprise not only traditional risk transfer for the relevant risk categories, but also risk-derived capital solutions to reflect the different stages of the HTT corporate development lifecycle and various challenges encountered in each phase of that lifecycle. It is envisaged this will be a key enabler of funding and capital flexibility as the HTT capital base evolves.

In delivering this, it is expected that HTT and Munich Re will expand the boundaries of transportation and insurability.

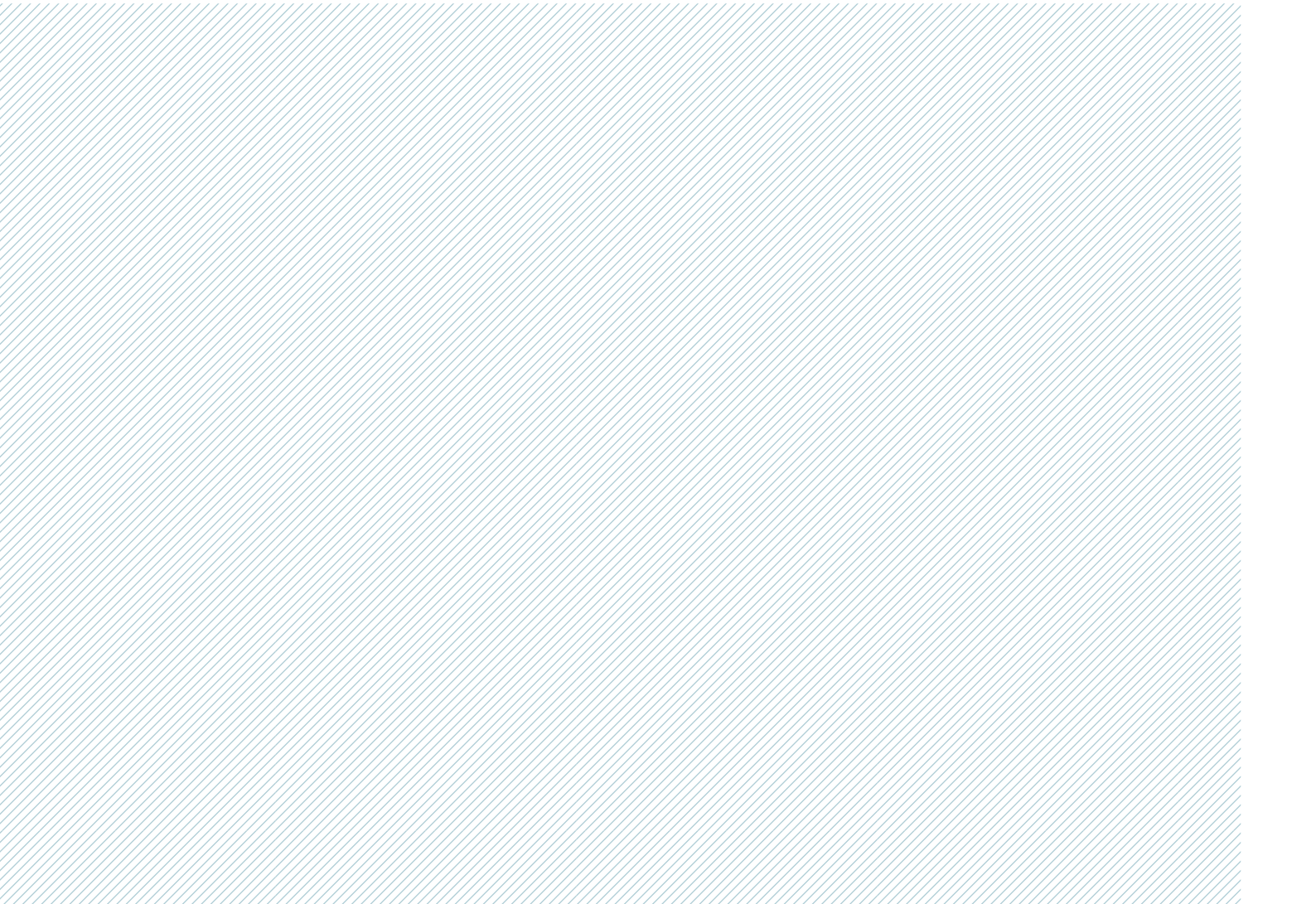
Disclaimer

This company news contains forward-looking statements that are based on current assumptions and forecasts of the management of Munich Re. Known and unknown risks, uncertainties and other factors could lead to material differences between the forward-looking statements given here and the actual development, in particular the results, financial situation and performance of our Company. The Company assumes no liability to update these forward-looking statements or to make them conform to future events or developments.

Munich Re hereby informs HTT that whilst the content of this document has been performed by Munich Re with the utmost care on the basis of information and data available at the time of preparation, calculation methods, risk analysis and management methodologies as well as risk models internally used by Munich Re, the content and the results as set forth in this document are subject to uncertainty. Furthermore, the content of this document is not intended to identify all risks that may exist, nor is it intended to be an exhaustive view of all possibilities or eventualities.

Considering this, Munich Re gives no guarantee as to the accuracy, completeness, timeliness and quality of the content of this document, any use of this document including the recommendations contained therein shall be at HTT's own risk. Therefore, Munich Re will not be liable, in any event, for any special, indirect or consequential loss or damage of any kind arising from any use of the information contained in this document. Any decision to rely upon any such recommendation or assessment will be solely at the risk of HTT, for Munich Re accepts no liability.

Munich Re reserves all rights to the content of this document. This document is provided exclusively for the use of HTT. This document shall be used and copies of this document may be made by HTT only for its own internal purposes, but no part of this document or any copies of it shall be made available to any third party without Munich Re's prior written consent. Therefore, Munich Re will accept no liability to any third party to whom this document or a copy of it is disclosed.



© 2017
Münchener Rückversicherungs-Gesellschaft
Königinstrasse 107, 80802 München, Germany

Münchener Rückversicherungs-Gesellschaft (Munich Reinsurance Company) is a reinsurance company organised under the laws of Germany. In some countries, including in the United States, Munich Reinsurance Company holds the status of an unauthorised reinsurer. Policies are underwritten by Munich Reinsurance Company or its affiliated insurance and reinsurance subsidiaries. Certain coverages are not available in all jurisdictions.

Any description in this document is for general information purposes only and does not constitute an offer to sell or a solicitation of an offer to buy any product.

NOT IF, BUT HOW