



**The Future of Space  
Exploration is in our Hands**

**Quantum Propulsion  
Technologies Ltd**

**Investor Pitch Deck  
2024**

# About Quantum Propulsion Technologies Ltd

**We are a London-based aerospace start-up that is developing revolutionary quantum propulsion systems and new types of space vehicles that don't require any chemical or nuclear fuel and don't generate any exhaust or waste. 100% green technology.**

**To date the company has managed to develop the basic concept of the new propulsion system and is ready to develop it further into a fully operational flying prototype.**

**Our team includes experienced, skilled and highly motivated engineers and scientists determined to make quantum propulsion technology the mainstay of future space exploration.**

**Quantum space vehicles will travel much faster and further than the contemporary chemical fuel jet engine powered spaceships. They will have enormous lifting capacity and will provide space crews with 100% protection against harmful sun and space radiation, making deep space exploration viable and safe at last.**

**The first and the most obvious applications of the quantum propulsion systems are the commencement of space mining operation on the industrial scale and the commencement of regular interstellar flights aiming at exploration of deep space and colonisation of distant habitable planets in the future.**

**We are looking for £3.7M initial investment to build our first fully operational prototype. We aim to provide a 100x ROI in 5-10 years. Advent of quantum propulsion is comparable to invention of aeroplanes and spaceships in 20<sup>th</sup> century. It's a real gamechanger.**

# OUR TECHNICAL MANAGEMENT TEAM

Our entire team includes experienced, skilled and highly motivated engineers and scientists determined to make quantum propulsion technology a reality. The actual team consists of 10 people and is projected to grow to 20 after seed funding.



Alex Ioskevich is the founder, CEO and the main technical specialist. He is an electronics engineer who has got more than three decades of project management experience in the aerospace and IT industry. Skills include electronics engineering, software engineering, aerospace electronics engineering, radiocommunications electronics engineering, team management, project management, project budgeting and financial supervision.



Mushfiqul Alam is professor and lecturer in flight dynamics at Cranfield University, with a focus on flight control and flight simulations. Accredited with major qualifications from various universities including (a) a PhD in Philosophy, Flight Dynamics and Control, and Signal Processing, (b) a Masters in Space Automation and Control and (c) European Masters in Space Science and Technology.



Olena Molchanova has had an illustrious career as a media professional, photographer and image designer holding senior positions that span 20 years covering multiple industry sectors. She is responsible for creating and handling technical and graphical documentation. She presently holds the positions of director of sales & marketing and non-executive director. She has got extensive experience as business advisor, negotiator and communicator.



Lt. Col. (Ret) Nick "N.J." Joist is aviator, aerospace and defense professional, military and security advisor and international affairs specialist. He has a strong operational background, in-depth expertise and first-hand experience in all aspects of aerospace, maritime and defence, as well as geopolitics and international affairs. Nick has extensive experience as a US NAVY test pilot and in NASA astronauts' training.

# OUR MISSION

We are aiming to protect our planet with an ultimate rapid reaction system that will allow us to intercept and destroy asteroids that could represent any threat to our civilization's survival within minutes after their detection.

We are aiming to resolve the looming mineral resources crisis by arming humankind with ultimate tools that will allow us to commence practical exploration of abundant mineral resources located in space.

We are aiming to resolve the looming crisis of Earth overpopulation by arming humankind with means of interstellar transportation and colonization of habitable planets orbiting distant stars.

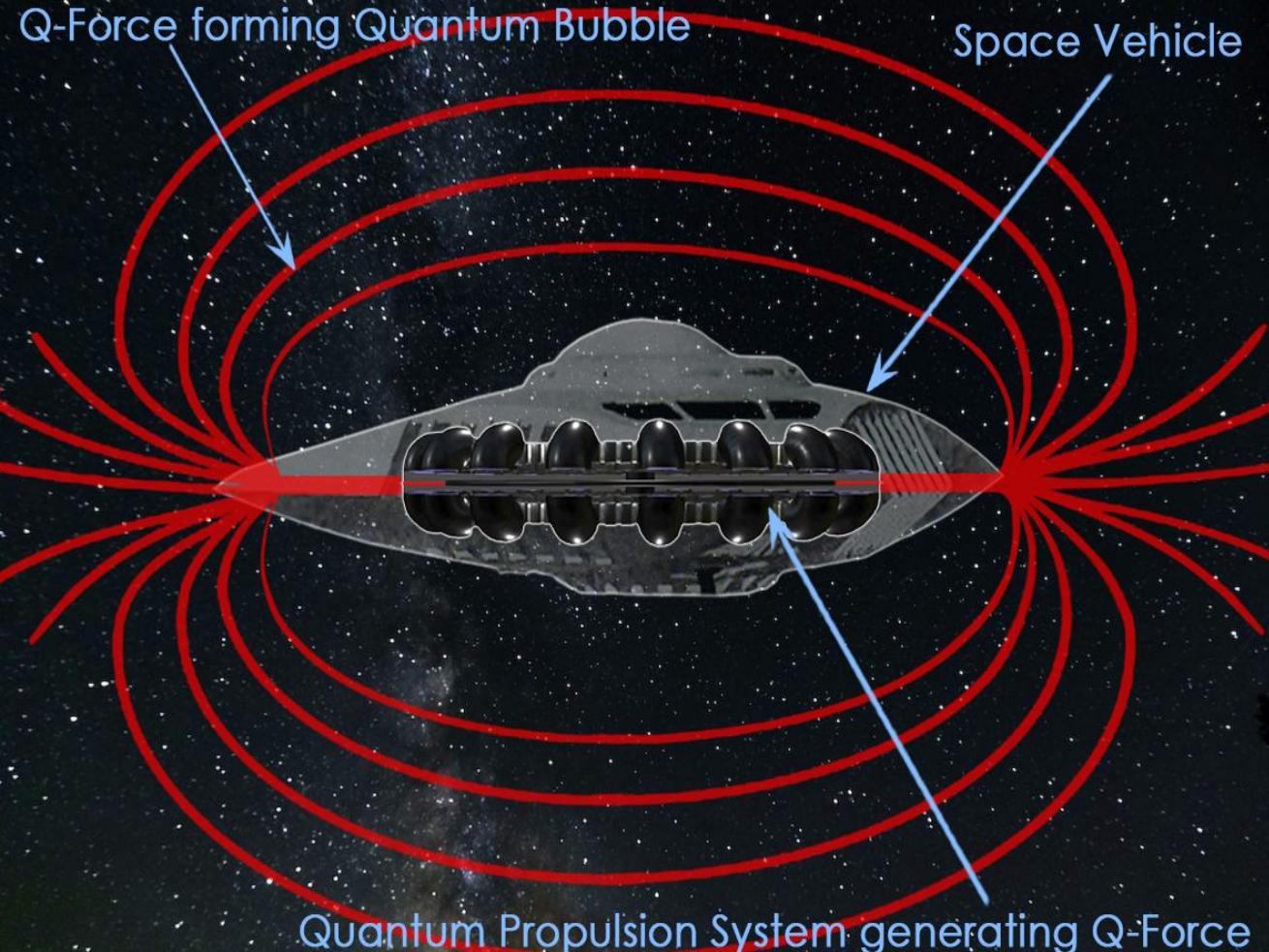


# SPACE EXPLORATION PROBLEMS TODAY



- Incredibly slow speed of contemporary spacecraft
- Extremely low lifting capacity of contemporary spacecraft
- Rocket and jet engines' exhaust and production of chemical fuels are one of the major contributors to atmospheric and environmental pollution.
- Enormous costs of space flight and space exploration in general
- Chemical fuel jet spacecraft will never become truly reusable
- Technical complexity of spacecraft that is greatly increasing launch preparations time and decreases safety of space flight in general
- Absence of any realistic way to protect space crews and onboard electronic equipment against harmful solar and space radiation
- Long space flights resulting in problems of prolonged exposure to weightlessness irreversibly affecting space crew members' health
- Unsuitability of contemporary space technology for exploration of reach space mineral resources located in our solar system and for interstellar travel

# ULTIMATE SOLUTION



Quantum propulsion system that we are currently developing is the ultimate solution to absolutely all existing and potential problems that space exploration and aviation are facing today. Capabilities:

- Flying with the speed of light and facilitating interstellar travel and colonization of habitable planets

Transporting hundreds of tones of cargo to any point of our solar system and beyond. Opening the possibility of commercial exploitation of limitless space metal and mineral resources

Providing 100% protection from solar and open space radiation for the crew and onboard equipment

No chemical or nuclear fuel and no exhaust or waste, 100% green

Cutting down space travel time to days and hours, thus making space travel a comfortable and safe journey

Reducing spacecraft production costs and making spacecraft no more mechanically complicated and no more expensive than today's passenger jetliner

Flying autonomously without the support of complex and expensive space launch facilities and numerous armies of flight control and ground support crews

# Traction to Date: Recognition by aerospace community and industry

Our business was selected to be the Top Space Tech Solution Provider 2023 by the Aerospace & Defense Review magazine:

<https://www.aerospacedefensereview.com/quantum-propulsion-technologies-ltd>

[https://www.aerospacedefensereview.com/magazines/December2023/Space\\_Tech/?digitalmagazine](https://www.aerospacedefensereview.com/magazines/December2023/Space_Tech/?digitalmagazine)

Our first scientific article presenting general principles of quantum propulsion was published in the European Journal of Applied Physics at the beginning of March 2024:

<http://www.ej-physics.org/index.php/ejphysics/article/view/294>

We are also in the process of publishing many more articles in scientific and technical magazines.



# Traction to Date: Recognition by scientific community

Our first scientific article presenting general principles of quantum propulsion and our new theory of quantum windage was published in the European Journal of Applied Physics at the beginning of March 2024. This theory was praised by scientific and engineering community as one of the greatest discoveries of this century that leads to fundamental changes the course of human history

<http://www.ej-physics.org/index.php/ejphysics/article/view/294>

European Journal of Applied Physics  
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CROSSMARK

RESEARCH ARTICLE

## Quantum Propulsion: Background and Practical Applications

Alex Ioskevich\*

**ABSTRACT**

This is the first introduction of new and revolutionary aerospace engines and propulsion methods. Our organization is currently developing quantum propulsion systems and space vehicles that will be capable of flying with enormous speed (potentially reaching and exceeding the speed of light) and will have never-before manoeuvrability and lifting capacity. They will provide 100% crew protection from deadly sun and space radiation which is essential for safe deep space travel and manned space exploration. They will also provide spacecraft with protection against space particles. This will revolutionize the main areas of space exploration, aerospace engine design and we are ready to develop it further into fully operational aerospace vehicles. Quantum propulsion systems are the only systems that can facilitate realistic prospects of space mining on the industrial scale and deep space colonisation, including colonisation of habitable planets in the future. The cost efficiency of this new technology is going to be enormous. Development and production costs of quantum aerospace vehicles compared to production costs of chemical fuel jet spacecraft allow to reduce price per kilo space launch many hundreds of times, making deep space exploration feasible and accessible to all countries around the world.

Manufacturing and maintenance of quantum-propelled flying machines that can reach the age of our solar system within hours will be no more expensive than manufacturing jet planes or helicopters of the same size. Quantum propulsion systems are going to replace outdated chemical fuel rocket and jet engines in the near future and will become the mainstay of air travel and space exploration.

**Keywords:** Interstellar Travel, Protection from Space Radiation, Quantum Propulsion Systems, Superluminal Speed of Space Travel.

### 1. INTRODUCTION

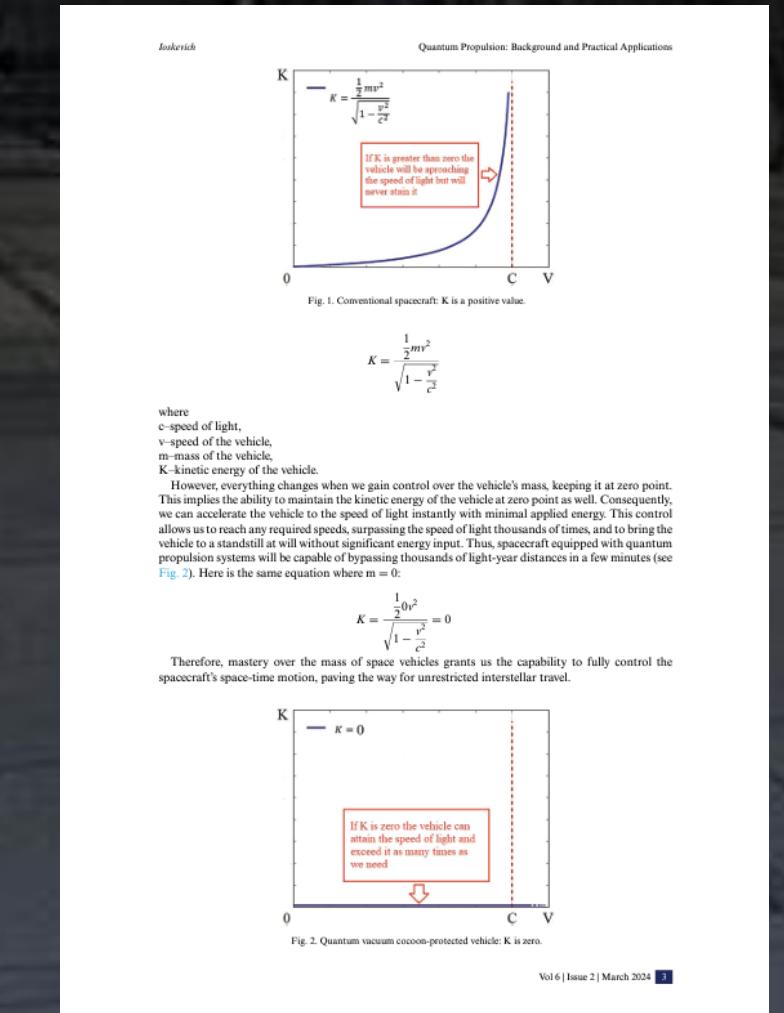
Present-day aerospace technology is in a deep crisis. The speed and lifting capacity of modern airplanes and spacecraft is notoriously limited with no prospects of improvement. The chemical fuel rocket and jet engines played their historical role well, but they have no prospects of improving. Quantum Propulsion Technologies Ltd. team is developing new types of propulsion systems and space vehicles that will revolutionize air travel and space exploration. They will act as the next stepping stone in the development of our civilization and will completely replace chemical fuel engines in 10–20 years. This new development is a result of a scientific discovery and a technical invention that we have made recently.

Both from a scientific point of view and as a need to discover new sources of essential resources, exploring beyond our own planet is one of the remaining great missions for humanity. However, this is not without challenges, and as we look beyond the Moon to larger, more distant bodies, those challenges have become roadblocks to progress.

Whether used in the atmosphere or space, the chemical fuel rocket propulsion that has taken us this far has reached its practical limits. In terms of the thrust that can be generated, the speeds possible and the fuel needed, existing technology is something that must be worked around, rather than a driving force.

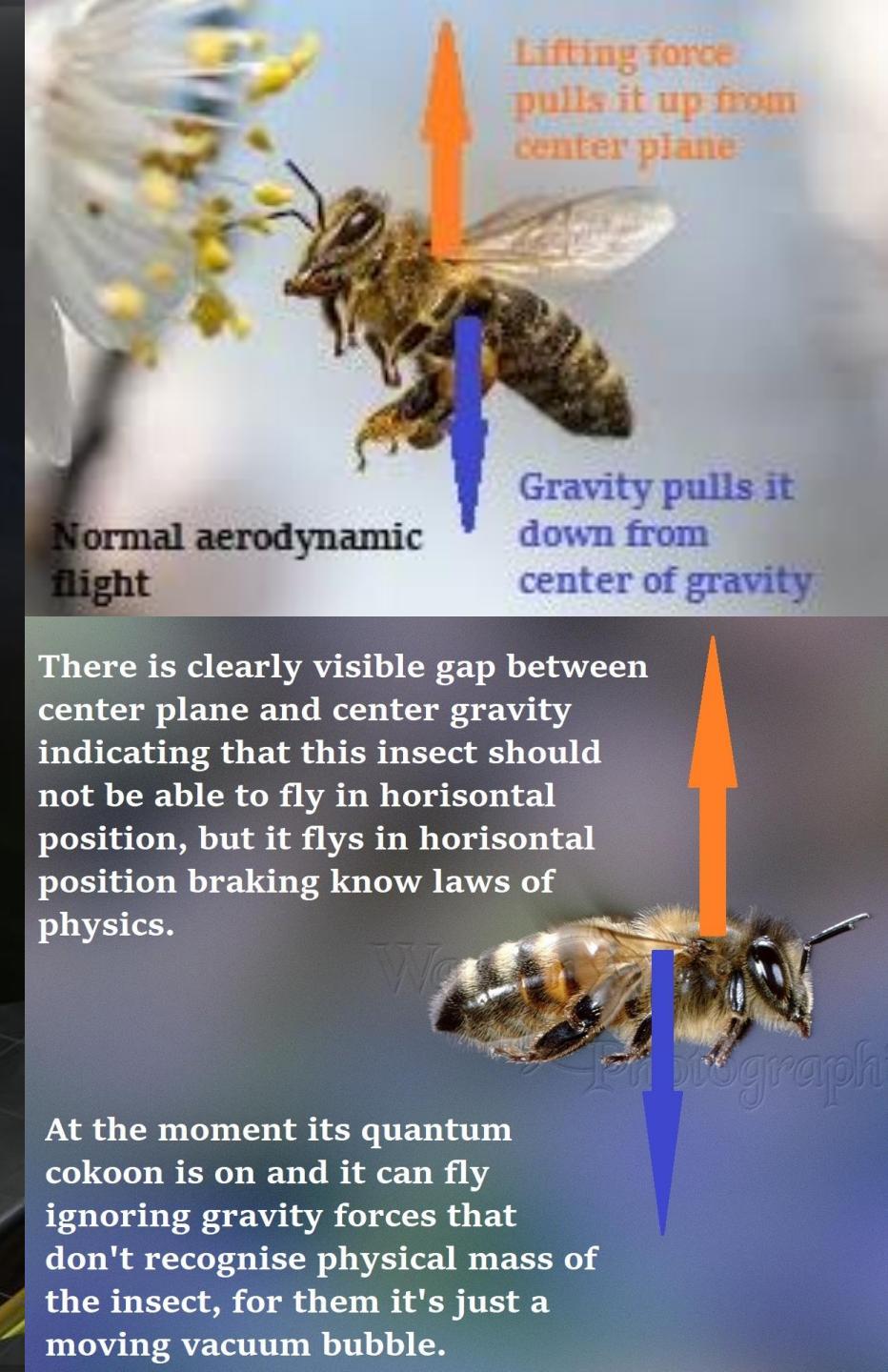
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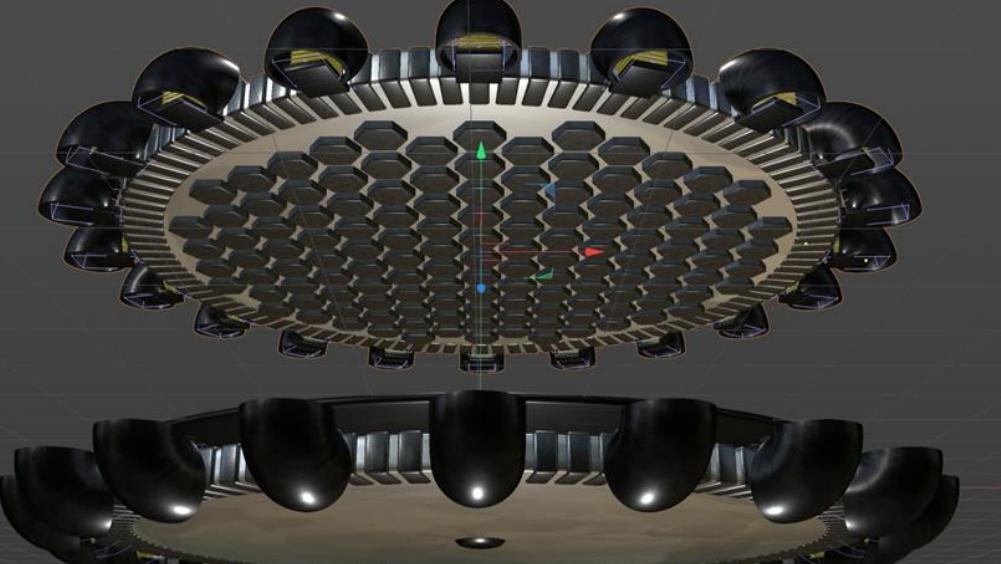
# REVOLUTIONARY TECHNOLOGY

- Quantum propulsion systems operating principle is based on generating a cocoon around spacecraft that distorts all physical or quantum connections of the spacecraft with outside environment giving it absolute freedom of speed and maneuver, and immunity from environment resistance and influence.
- This principle is not new. It appears to be that many flying insects are using it to propel and protect themselves for hundreds of millions of years. They are using combination of normal aerodynamic (or wings) and electromagnetic propulsion while food gathering and full electromagnetic power propulsion when they are facing danger or during high-speed cruising or preparing for such cruising.
- We are working on reverse-engineering this mechanism by creating electromechanical devices controlled by electronic signals that generate quantum vacuum cocoons around flying machines in the same way as inventors of the first airplanes mimicked birds' wings design and operations when they built the first aircraft.



# FINAL PRODUCT

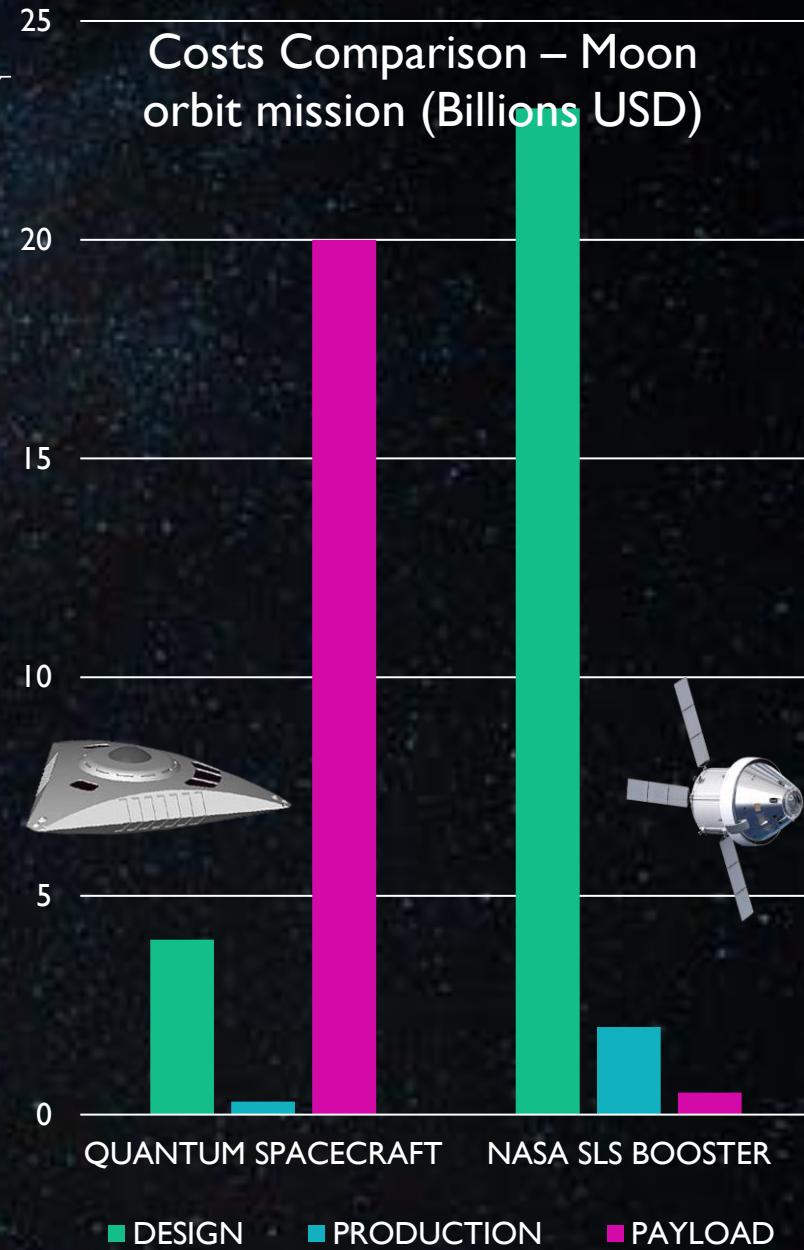
In 3-5 years, we will build our first flying prototype that we will provide a technical base for creating:



- Unmanned scouting vehicles that can be used as a space exploration automated probes within our solar system (in 5-10 years)
- Unmanned comet and asteroid interceptors with 100% probability of target destruction within hours after its detection and at any point of their trajectory, which will be capable of destroying any dangerous objects approaching our planet (in 10-15 years)
- Superfast and comfortable intercontinental passenger and cargo liners capable of flying from London to Sydney half an hour (in 5-10 years)
- Four-seater space vehicles that could be used for manned space exploration, space tourism, astrogeological survey and experimental small-scale asteroid mining operations that will be able to reach any planet of our solar system within hours (in 5-10 years)
- Large, high-capacity transport spaceships that will be capable to support industrial-scale commercial space mining operations and construction of planetary bases within our solar system (in 10-15 years)
- Large interstellar transport space vehicles that could be used for exploration of distant planetary systems and mass colonisation of habitable planets in the future (in 15-20 years)

# UNIQUE MARKET OPPORTUNITY

- Production and launch costs of newly designed and built NASA's Space Launch System (SLS) vehicle in combination with Orion interplanetary spaceship costs are about 4 billion USD, and this is the expendable launch vehicle. At its most powerful configuration it will be able to deliver about 46 tones of cargo to the low Moon orbit and it will take 3 days.
- Production costs of Quantum Space Vehicle are about half of billion USD or less. This machine is fully reusable and can fly to space hundreds of times before undertaking major refitting. Launch costs, which in fact are costs of some checks and adjustments, are going to be less than 100 thousand USD. This machine is much smaller than SLS, but it will be able to deliver 200-250 tones of cargo to any point of our solar system and it will take just a few hours.
- Tremendous commercial advantages and remarkable cost efficiency of quantum space vehicles are obvious. No existing aerospace corporation would be able to compete with us and we will have real opportunity to replace all existing chemical fuel jet air and space craft with our much more efficient and economical space vehicles. The world aerospace market certainly belongs to quantum technologies, it belongs to us.



# COMPETITION



There are no known players on the market offering our quantum propulsion system or concept for quantum aerospace vehicles. We will be the very first organisation in the world that holds the secret of a practically working quantum vacuum cocoon generator that allows aircraft to achieve sustained powered flight. Any air and space vehicles powered by quantum propulsion systems will greatly outperform any contemporary air and spacecraft. Which means that we will eclipse all existing aerospace corporations in about ten years and will become an unquestionable leader of the global aerospace industry.

# OUR BUSINESS MODEL

## OUR OWN ENTERPRISES:

- Launching satellites and other space vehicles to Earth and the other planetary orbits
- Cargo transportation to and from surfaces of our solar system celestial bodies
- Space mining operations including extraction and sales of metal ore and minerals
- Transportation and support of scientific, commercial and military space expeditions
- Creation and exploitation of our own civil aerospace transportation corporation

## DIRECT SALES:

- Selling our flying machines directly to our customers which will include crew training, ongoing systems support and maintenance
- Leasing our aerospace vehicles to air transportation corporations and space exploration companies and agencies
- Purpose designing and selling our propulsion systems to the large aerospace corporations that will design their own flying machines based on our quantum technology

# OUR POTENTIAL CUSTOMERS

Quantum propulsion systems are going to replace chemical fuel systems as soon as they are available, and it would be no exaggeration to say that the world aerospace industry and their major players are our future customers.



**NORTHROP GRUMMAN**

**LOCKHEED MARTIN**



**Rolls-Royce®**

 **Raytheon  
Technologies**



**Honeywell**

# REQUIRED FUNDING

We need £3.7 million investment that will allow us to build our first fully operational prototype that will demonstrate advantages of quantum propulsion systems to our future investors and customers. Currently we are looking for investors who would be able to contribute between £200k and £500k. That will let us to accomplish the initial phases of our prototype development.



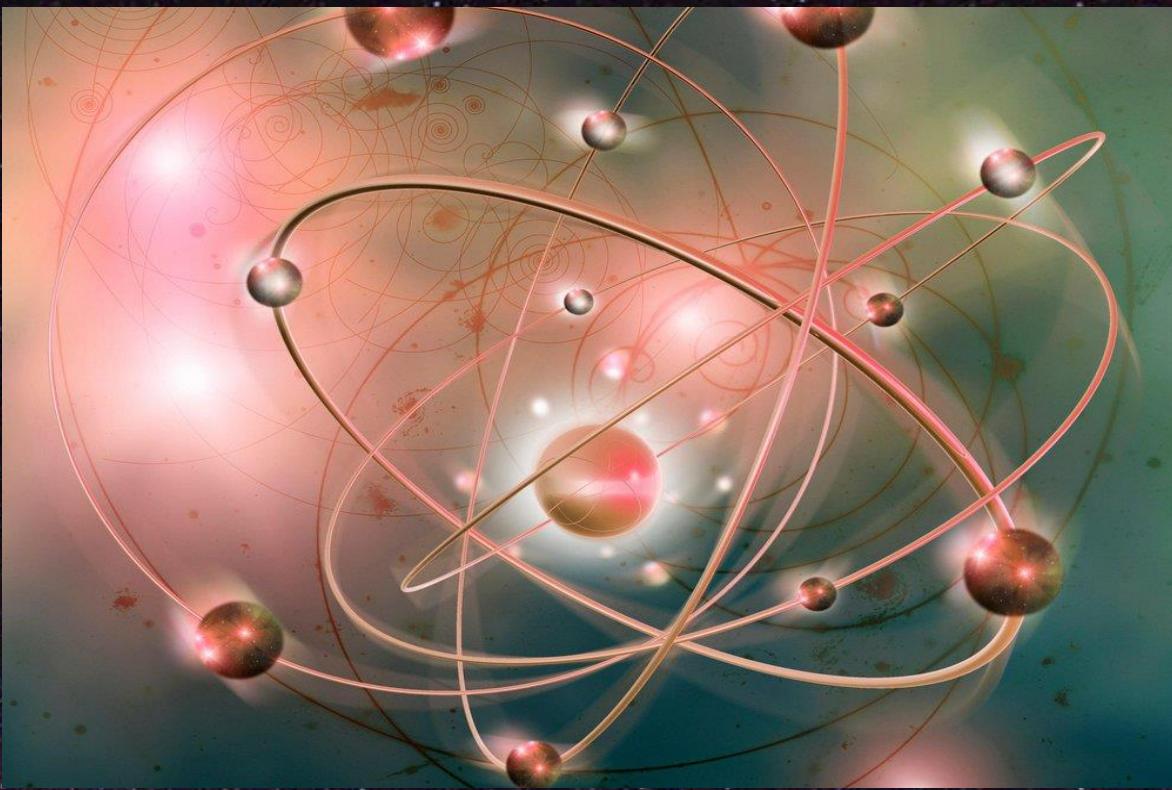
List of the expenses over the three-year period:

		<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>TOTALS</b>
<b>1</b>	<b>Labour</b>	467,000	675,000	328,000	<b>1,470,000</b>
<b>2</b>	<b>Overheads</b>	120,000	140,000	65,000	<b>325,000</b>
<b>3</b>	<b>Materials</b>	123,000	127,840	23,000	<b>273,840</b>
<b>4</b>	<b>Tools and Equipment</b>	521,000	30,650	12,670	<b>564,320</b>
<b>5</b>	<b>Subcontracting</b>	125,700	356,000	237,500	<b>719,200</b>
<b>6</b>	<b>Travel and Subsistence</b>	87,100	94,500	117,800	<b>299,400</b>
		<b>1,443,800</b>	<b>1,423,990</b>	<b>783,970</b>	<b>3,651,760</b>

# FINANCIALS

- No revenue for the first three years whilst the prototype is being developed.
- The expenses will be recorded as an asset under development (the Quantum Propulsion System prototype).

<b>Profit &amp; Loss Statement</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
<b>Revenue</b>	-	-	-
Less Cost of Sales	-	-	-
<b>Gross Profit</b>	-	-	-
Less Expenses			
Labour	467,000	675,000	328,000
Overheads	120,000	140,000	65,000
Materials	123,000	127,840	23,000
Tools and Equipment	521,000	30,650	12,670
Subcontracting	125,700	356,000	237,500
Travel and Subsistence	87,100	94,500	117,800
Transfer to Asset	- 1,443,800	- 1,423,990	- 783,970
Total Expenses	-	-	-
<b>Net Profit Before Tax</b>	-	-	-
Income Tax	-	-	-
<b>Net Profit After Tax</b>	-	-	-



- To date we invested more than £1.3 million into this venture
- In 5 years from now when we start trading for profit we are planning next investment rounds that will allow us to commence mass production of our quantum space vehicles.

# EXIT STRATEGY

This is a unique investment opportunity. Advent of quantum propulsion is a revolution that equals to the invention of the first aeroplanes at the beginning of 20th century or creation of the first spacecraft in the 50es and 60es. To invest into our venture today is the same as to invest into MICROSOFT or APPLE forty years ago. In five to ten years, our shareholders can potentially receive from £10 to £100 profit for each single £1 they are investing into our venture today. We aim to provide a 100x ROI in 5-10 years via trade sale.

In 5-10 years from now we can choose to go public (IPO) or/and bring on board powerful strategic partners: large international aerospace corporations that will be eager to start using this new revolutionary technology. Either option or combination of them will allow us to raise our shares' value even higher.

Let us start this revolution together  
Join us on our journey to the stars

Please contact us to discuss this opportunity

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