Bitnanotech

INITIAL COIN OFFERING

WHITE PAPER
2019

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Executive Summary

Bitnanotech (NAN) Bitnanotech aims to undertake a next-gen integrated project for Titanium nanoparticles industry in an state-of-the-art plant.

Nanoparticles are the basis for many applications currently being used on a large scale, and they have a great potential in the development of new materials. Titanium nanoparticles are strong, light in weight, and highly resistant to corrosion. Therefore, it can be used in aerospace, military applications, medicine, etc. In the Global Nanoparticles Market – Size, Outlook, Trends and Forecasts (2019 – 2025), Envision Intelligence points out that the nanoparticles market is likely growing with a CAGR of 23.21% during the forecast period 2019-2025.

Bitnanotech has an innovative and disruptive model to successfully tackle the major problems afflicting the Titanium nanoparticles market. We are creating a cost-effective and efficient Titanium nanoparticles production plant with robust infrastructure backbone. Bitnanotech factory is under intensive negotiation to be established in one of the Dubai's leading free economic zones.

To make this possible, we have created a cryptocurrency ourselves - Bitnanotech (NAN) token. Bitnanotech is creating an energy-efficient Titanium nanoparticles production plant and operations by utilizing the sophisticated techniques.

Bitnanotech intends to utilize the latest blockchain technologies and environment friendly practices for creating a sustainable organization. Bitnanotech has optimized vertical integration along the value chain to attain the best operational results and efficiency in the asset management and Titanium nanoparticles production and operations. Bitnanotech has a solid financial plan and competitive strategy. The Bitnanotech team comprises of highly experienced and qualified professionals.

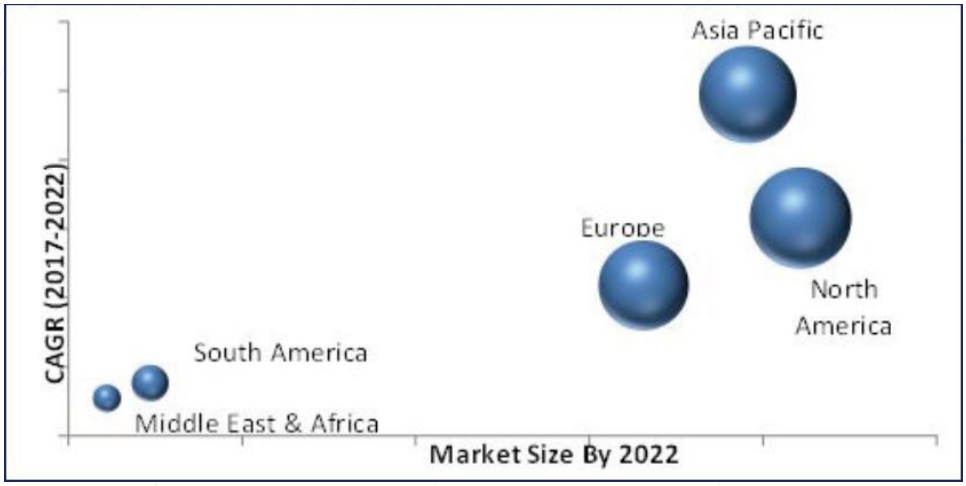
The Bitnanotech ICO Presale will start in the ICO crowd sale would start in the last quarter of 2019 and will continue until our goal is reached. We aim to raise €15. It is determined that 15 billion coins will be issued with a nominal price of €0.1 EUR. Awesome crowdsale bonus would be available during the ICO, especially Pre-ICO. Bitnanotech (NAN) token is a cryptocurrency token based on the blockchain technology. The Bitnanotech token is built on the Ethereum blockchain and ERC-20 standard.

Market Overview

Markets and Markets projects that the metal nanoparticles market will grow from USD 12.35 Billion in 2017 to USD 25.26 Billion by 2022, at an estimated CAGR of 15.4%. Increase in application areas of metal nanoparticles, rise in demand for gold nanoparticles in the pharmaceutical & healthcare industry, and supportive government initiatives & funding are boosting the growth of the metal nanoparticles market. The pharmaceutical & healthcare segment is projected to hold the largest share and dominate the market from 2017 to 2022. The growth in adoption of metal nanoparticles in electrical & electronics industry plays a key role in changing the market; this segment is projected to grow at the secondhighest rate during the forecast period.

North America dominated the market for metal nanoparticles in 2016, in terms of value. The US contributes a major share in the North American market. Continued investments in support of the National Nanotechnology Initiative and growth of the pharmaceutical & healthcare industry, make this market attractive for industry participants.

Metal Nanoparticles market, by Region, 2022 (USD Billion)



Source: Markets and Markets Analysis

In the Global Nanoparticles Market – Size, Outlook, Trends and Forecasts (2019 – 2025), Envision Intelligence points out that the nanoparticles market is likely growing with a CAGR of 23.21% during the forecast period 2019-2025. Increasing potential applications in drug delivery and adoption of nanotechnology in the healthcare industry are the factors bolstering the growth of the nanoparticles market. However, huge expenses on product development and R&D are hindering the growth of the global nanoparticles market. Emerging development of engineered nanomaterials tools for human health care is providing the abundant number of opportunities in the upcoming future.

Technavio has published a new market research report on the global titanium dioxide (TiO2) market from 2019-2023. Some of the main findings and projections are depicted in the following graphic:

Source: Markets and Markets Analysis

A key factor driving the growth of the global titanium dioxide (TiO2) market is the rising use of titanium dioxide in the various industries.

As per Technavio, the emergence of titanium dioxide nanoparticles will have a positive impact on the market and contribute to its growth significantly over the forecast period, i.e., 2019-2023.

TiO2 nanoparticles are gaining immense popularity and are being widely used in high-factor sun protection creams, wood preservatives, and textile fibers. They have the potential to use the energy in light to catalyze reactions with other molecules at reduced temperatures. TiO2 nanoparticles are also being used for new applications such as printed electronics. TiO2 has a novel property that has potential applications as a medium for room-temperature sensors of mechanical stress at the nanoscale. This property makes it useful in several sensing applications, ranging from biosciences to metrology. Therefore, the varied applications of TiO2 nanoparticles are expected to boost the growth of the market during the forecast period.

“The market will be influenced by the growing popularity of 3D printed titanium dioxide. 3D printed TiO2 helps give shape to complex diagrams created by designers and architects, which can be used as facades in all types of infrastructure. 3D printed TiO2 can be used as an implant material as well as it offers higher corrosion-resistance than other materials as it forms a protective oxide layer on the surface of the implant. Such applications are likely to fuel the demand for 3D printed TiO2 during the forecast period,” says a senior research analyst at Technavio.

The APAC region led the market in 2018, followed by Europe, Asia, and ROW respectively. The market growth in APAC can be attributed to the strong activity in the commercial and residential construction sector, the increasing investments in infrastructure development, and the growing demand for TiO2 in countries such as Japan, India, and Australia.

According to a new study Global Titanium Dioxide Nanomaterials Market 2019, the worldwide market for Titanium Dioxide Nanomaterials will reach US$ 350 million in 2023, from US$ 230 million in 2017.

The increasing applications of the titanium-dioxide nanomaterials is providing a major opportunity to the market. The Rutile nanoparticles segment accounts for the highest share in the market, by type, followed by the Anatase segment. The personal care products hold the highest share in the market, by application, followed by paints and coatings segment. The Americas dominated the market, accounting for approximately 40% of the total market share. The extensive use of nanomaterials as a pigment in the production of paints and coatings is expected to fuel the growth of the American market. The vendors will invest in researchers and manufacturers to innovate advanced products with titanium dioxide nanomaterials, which will, in turn, witness augmented demand from the shipbuilding industry.

With advent of nanotechnology, research on titanium dioxide nanomaterials gained significant push, which indicated that titanium dioxide nanomaterials manufacturing includes a low cost simple production process. Titanium dioxide nanomaterials are used in various industrial sectors. They are largely used in skin care applications and cosmetics, paints, photovoltaics and electrochromics.

Key players/top manufacturers/ in the Titanium Nanomaterials market competition are:
ACS Material, American Elements, DuPont, MKnano, Tronox, Xuancheng Jingrui New Material, Avanzare Innovacion Tecnologica, Ishihara Sangyo Kaisha, Kronos Worldwide, Louisiana Pigment and Nanoshel.

Global Healthcare Nanotechnology (Nanomedicine) Market"2019 analysis report observe that nanotechnology is becoming a crucial driving force behind innovation in medicine and healthcare, with a range of advances including nanoscale therapeutics, biosensors, implantable devices, drug delivery systems, and imaging technologies. The classification of healthcare nanotechnology includes nanomedicine, devices, nanodiagnosis and other product. And the sales proportion of nanomedicine in 2017 is about 86.5%, and the proportion is in increasing trend from 2013 to 2017.

In 2018, the global Healthcare Nanotechnology (Nanomedicine) market size was 160800 million US$ and it is expected to reach 306100 million US$ by the end of 2025, with a CAGR of 9.6% during 2019-2025.

Market of Titanium nanoparticles is a very high potential market. The potential of the Titanium nanoparticles market is underlined by the following facts:

- Currently on the market exists metal nanopowders with the size from 25 to 200 nm of various metals and their compounds.
- On the world market, there are about 120 companies that produce nanopowders.
- Manufacturers work under the preorder with 50-100% in advance payment.
- The annual growth of the market is 15-17%.

World production volumes of pure metal nanoparticles:

Metal	Total
Annual production in tons	9,350,00
Annual output in thousands of EUR	4,700,000,00
Average price in the world market EUR/kg	500,00
Average price of raw materials EUR/kg	11,00

In the structure of the prices of competitors, the bulk of the costs are for production.

Our technology allows producing up to 10 kg per hour of high-quality nanopowder of many metals with a producing cost of up to € 171 per kilogram.

Problem

The Titanium nanoparticles and nanomaterials market is one of the fastest growing markets in the world. But, in most of the countries, it is the market that has remained an untapped one, despite great technological advances.

The major problems afflicting the Titanium nanoparticles market are as follows:

Lack of finance: As the Titanium nanoparticles technology is a new industry. Consequently, the traditional financing companies and banks don't understand it very well. Therefore, there is a lack of financing. To achieve the projected growth, corporate bodies and individuals will have to invest huge sums. But the requisite investments or funds are drastically lacking.

In most of the countries, as a majority of them are developing or underdeveloped countries, the Titanium nanoparticles industry is not established due to lack of technical know-how.

As the Titanium nanoparticles technology is in a nascent stage, there is a lack of standardization in processing, products, packaging, etc.

Transparency is essential to ensure a climate of trust and confidence that fosters business and industrial development. Transparency gives investors, shareholders and stakeholders the tools they need for proper accountability from business. Lack of transparency and accountability discourage investors and VCs from financing even the great business opportunities.

Volatile prices of metals and growth in concerns about the toxicity of nanoparticles pose a challenge to the growth of the metal nanoparticles market. The global metal nanoparticles market is dominated by a few players such as American Elements (US), Nanoshel (US), Nanostructured & Amorphous Materials (US), EPRUI Nanoparticles & Microspheres, etc.

There are other problems and constraints that are proving to be impediments in achieving high growth and development of the Titanium nanoparticles industry, such as, lack of appropriate research facilities.

Solution: Our Model

Bitnanotech has an innovative and disruptive model to successfully tackle the problems related with the Titanium nanoparticles industry.

We have effective and efficient solutions to the different problems. Bitnanotech Titanium nanoparticles plant is designed by experienced and highly skilled experts to deliver great products.

Bitnanotech is going to be a player in the top bracket of the Titanium nanoparticles industry, based on our advanced technology, low costs, and sustainable practices. We aim to become one of the largest producers in the Titanium nanoparticles industry.

Our goal is to tap the vast potential of the Titanium nanoparticles market with the deployment of the state-of-the-art technology to satisfy the rapidly growing demand for Titanium nanoparticles and related products at a reasonable cost. This will help us in maintaining our lead in the market in the long term. We will also emphasize R&D and continuous improvement in the various technologies in order to keep our customers delighted and loyal as well as maintain our competitive edge. We will ensure that our plant run at the lowest cost and maximum capability.

With the aid of the innovative blockchain technology and the financial resources generated from the NAN token sales, the project aims to increase Titanium nanoparticles production globally. We aim to create a brand that will be a benchmark in the Titanium nanoparticles industry, bring about transparency with the aid of blockchain, and create a vehicle for people to invest in Titanium nanoparticles industry and earn reward on their investments.

Bitnanotech offers a secure stream of cash flows and profits to the investors from its low-cost and sustainable Titanium nanoparticles operations. With efficient processes and technologies, Bitnanotech is poised to provide a strong return on capital.

We will adopt a flexible approach in the business model. Bitnanotech would offer different types of Titanium nanoparticles and related products to the customers. Our offerings would provide the best value for money and would be greatly attractive to the industrial and business clients.

Gonna change the world!
We at Bitnanotech believe in the idea of changing the world in a better way. This is what became our central idea, from which we started creating this project. After many years of scientific research, development and evaluation, the following assets were created:

1) Based on the present-day development in electron accelerators a new technology for creating nanostructured materials was developed.
2) The patent for the first MWC material was received.
3) A prototype of an industrial installation using an ELU electron beam accelerator was constructed at INP SB RAS.
4) For the successful implementation of the project an Expert Council consisting of scientists, designers and engineers was created.
5) A contract for the production and supply of an ELU installation was concluded with INP SB RAS.
6) Assets that will be created in the process of creating the production of metal nanoparticles.
7) Unique, automated equipment for obtaining nanoparticles of various metals and their compounds.
8) Applications for inventions of unique processes are applied in the equipment that has been created.

How do we want to change the world?

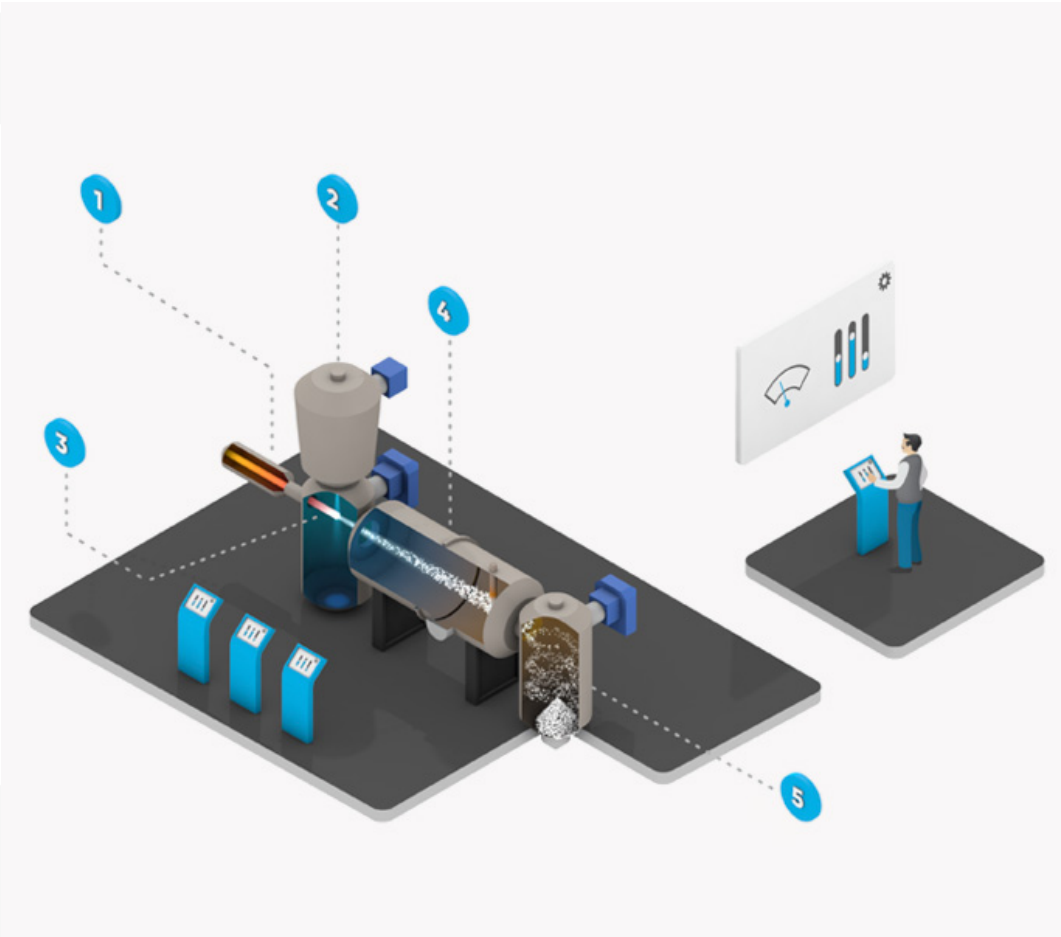
Every day we come across millions of different things. We sit at home or walk down the street. We fly by plane or sail on the ship. Everything that surrounds us consists of materials. Everything.

Each material has its own properties and characteristics. There are positive and negative. There are unique ones. The change in these properties of substances in the nanodispersed state (lower: the melting start temperature, the evaporation heat, the ionization energy, the work function of the electrons, etc.) opens up the broadest possibilities in the field of creating the newest materials and technologies, fundamentally new devices and devices.

Think global solutions

We love innovation. Even more – we are an innovation. In the near future titanium nanoparticles will be used mainly in manufacturing, construction materials, electronics and several other areas, by 2020, they will be increasingly used in environmental and medical applications.

Nanotechnology is rapidly evolving and number of its application constantly increase. Therefore, in-depth market analysis is essential in order to provide even more sales and utilization channels.



In the near future nanopowders will be used mainly in manufacturing, construction materials, electronics and several other areas, by 2020, they will be increasingly used in environmental and medical applications.

Universality of technology

The developed Universal Technology makes it possible to obtain the final products from metals belonging to Groups I to VIII of the Periodic.

Highly environmentally friendly technology

We have developed a highly environmentally friendly technology, minimizing the flow of pollutants into the biosphere.

Advantages of the controlled electron beam evaporation method:

- Controlled purity
- The possibility of using high-purity waste of an arbitrary shape (chips, filings, debris, etc.)
- A one-step production cycle with the ability to control the size of nanoparticles
- A unique opportunity for the industry to create complex composite nanostructures
- Easy production and low cost
- High productivity

Comparative table of methods and technologies for obtaining nanomaterials at the same costs for the organization of production:

Method/ technology	Particle size, nm	Stability in obtaining particles of a given size	Obtaining materials of ultra-high purity	Particle shape control	Productivity (kg/h)
Our technology	5-150	✓	✓	✓	<10
Plasma - chemical	>10	✗	✗	✗	<0,1
Sol-gel	>10	✓	✗	✗	
SHS or combustion synthesis	>5	✗	✓	✗	>5
Depositions from solutions	>10	✗	✗	✗	
Mechanical synthesis	>5	✗	✗	✗	<0,5

Bitnanotech factory is under intensive negotiation to be established in one of the Dubai's leading free economic zones.

Dubai FEZ

Dubai FEZ is the invariable choice of leading global corporations. It is the location where 83% of companies have exceeded their initial plans within TWO years. Your growth guaranteed!

FEZ incentives:

- Corporate tax: 0% - 10 years / 75% - 6 years
- Real estate tax - 0% up to 2045
- An easy reach of all global locations. Regular services to Dubai port available from all major global marine destinations.
- MSC Container Hub - 4 km
- DFDS Ferry terminal - 3 km
- Hundreds of acres of industrial land,
- Free CUSTOMS TERRITORY status available,
- More than 4000 companies from 14 countries, 4000 + employees.

Dubai FEZ has secured a position of:

- No. 1 in the world in PET granules production
- No. 1 in the world in wire harnesses production
- No. 1 in the world in aggregates production
- No. 1 in the world in high technologies

Nanotechnology and Nanomaterials

Nanotechnology involves the study and control of phenomena and materials at length scales below 100 nm. Unusual physical, chemical, and biological properties can emerge in materials at the nanoscale. These properties may differ in important ways from the properties of bulk materials and single atoms or molecules.

The nanoscale is defined to be from 100nm down to the size of atoms (approximately 0.2nm) – because it is at this scale that the properties of materials can be very different from those at a larger scale. A nanometer (nm) is one thousand millionth of a meter. For comparison, a human hair, which is about 80,000 nm wide and a red blood cell is approximately 7,000 nm wide.

Nanotechnology is the design, characterization, production and application of structures, devices and systems by controlling shape and size at the nanometer scale. Nanoscience is the study of phenomena and manipulation of materials at atomic, molecular and macromolecular scales, where properties differ significantly from those at a larger scale.

According to the U.S. National Nanotechnology Initiative (NNI), Nanotechnology deals with the understanding and control of matter at dimensions between approximately 1 and 100 nanometers, where unique phenomena enable novel nanotechnology applications. Encompassing nanoscale science, engineering, and technology, nanotechnology involves imaging, measuring, modeling, and manipulating matter at this length scale.

Nanotechnology is defined as the design, characterization, production, and application of structures, devices, and systems by controlled manipulation of size and shape at the nanometer scale (atomic, molecular, and macromolecular scale) that produces structures, devices, and systems with at least one novel/superior characteristic or property.

The properties of materials often change dramatically with nanoingredients. Composites made from particles of nanosize ceramics or metals smaller than 100 nanometers can are much stronger.

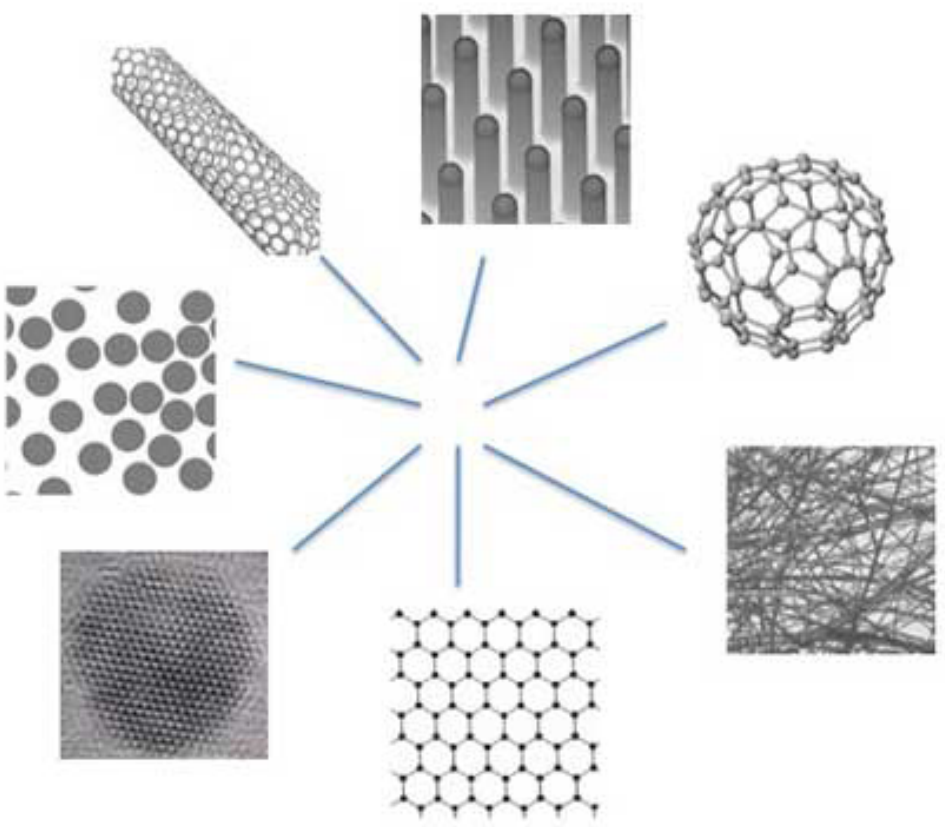
The nanostructure is man-made, i.e. a synthetically produced nanoparticle or nanomaterial. The nanostructure has special properties that are exclusively due to its nanoscale proportions Materials can be produced that are nanoscale in one dimension (for example, nanowires, nanorods and nanotubes), in two dimensions (plate-like shapes like nanocoatings, nanolayers, and graphene) or in all three dimensions (for example, nanoparticles).

“Nanotech” products that are on the market today are mostly gradually improved products (using evolutionary nanotechnology) where some form of nanoenabled material (such as carbon nanotubes, nanocomposite structures or nanoparticles of a particular substance) or nanotech process (e.g. nanopatterning or quantum dots for medical imaging) is used in the manufacturing process.

Nanomaterials

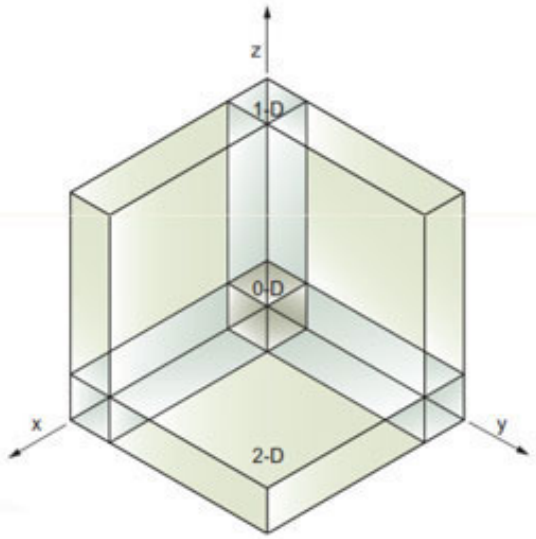
Much of nanoscience and many nanotechnologies are concerned with producing new or enhanced materials. If 50% or more of the constituent particles of a material in the number size distribution have one or more external dimensions in the size range 1 nm to 100 nm, then the material is a nanomaterial.

The major types of nanomaterials are nanotubes, fullerene, graphene, nanoparticles, quantum dot, nanofibers, and nanowires as depicted below:



The classification of nanomaterials is based on the number of dimensions of a material, which are outside the nanoscale (<100 nm) range.

Accordingly, in zero-dimensional (0D) nanomaterials all the dimensions are measured within the nanoscale (no dimensions are larger than 100 nm). Most commonly, 0D nanomaterials are nanoparticles.



0-D: All dimensions at the nanoscale

1-D: Two dimensions at the nanoscale, one dimension at the macroscale

2-D: One dimension at the nanoscale, two dimensions at the macroscale

3-D: No dimensions at the nanoscale, all dimensions at the macroscale

In one-dimensional nanomaterials (1D), one dimension is outside the nanoscale. This class includes nanotubes, nanorods, and nanowires. In two-dimensional nanomaterials (2D), two dimensions are outside the nanoscale. This class exhibits plate-like shapes and includes graphene, nanofilms, nanolayers, and nanocoatings. Three-dimensional nanomaterials (3D) are materials that are not confined to the nanoscale in any dimension. This class can contain bulk powders, dispersions of nanoparticles, bundles of nanowires, and nanotubes as well as multinanolayers.

Nanomaterials can be constructed by top down techniques, producing very small structures from larger pieces of material, for example by etching to create circuits on the surface of a silicon microchip. They may also be constructed by bottom up techniques, atom by atom or molecule by molecule. One way of doing this is self-assembly, in which the atoms or molecules arrange themselves into a structure due to their natural properties. Crystals grown for the semiconductor industry provide an example of self assembly, as does chemical synthesis of large molecules.

A second way is to use tools to move each atom or molecule individually. Although this 'positional assembly' offers greater control over construction, it is currently very laborious and not suitable for industrial applications.

The Key Differences between Nanomaterials and Bulk Materials

Two principal factors cause the properties of nanomaterials to differ significantly from other materials: increased relative surface area, and quantum effects. These factors can change or enhance properties such as reactivity, strength and electrical characteristics.

Thus nanoparticles have a much greater surface area per unit mass compared with larger particles. As growth and catalytic chemical reactions occur at surfaces, this means that a given mass of material in nanoparticulate form will be much more reactive than the same mass of material made up of larger particles.

Applications

Current applications of nanoscale materials include very thin coatings used, for example, in electronics and active surfaces (for example, self-cleaning windows). In most applications the nanoscale components will be fixed or embedded but in some, such as those used in cosmetics and in some pilot environmental remediation applications, free nanoparticles are used.

Our Niche: Titanium Nanoparticles

Those objects that extend in two dimensions from 1 to several 100 nm are designated as nanoparticles. Synthetically produced nanoparticles play an important role in nanotechnology. They are the basis for many applications currently being used on a large scale, and they have a great potential in the development of new materials.

The diversity of synthetic nanoparticles is considerable. They are distinct in their properties and applications. In addition to their size, synthetic nanoparticles vary in chemical composition, shape, surface characteristics and mode of production.

Synthetic nanoparticles find use in many applications. This includes dispersions in gases (e.g. as aerosols), as ultrafine powder, for films, distributed in fluids (dispersed, for example ferrofluids) or embedded in a solid body (nanocomposites).

Characteristics of Nanoparticles

A decisive feature that makes nanoparticles technically interesting is their surface-to-volume ratio. This ratio increases with decreasing particle diameter.

A nanoparticle is composed of a few to several thousand atoms. This means that a significant portion of the atoms are located on the particle surface. These are responsible for the higher reactivity of the particle surface. Increased reactivity is the basis for numerous applications.

Finally, the magnetic characteristics of nanoparticles are relatively insensitive to temperature fluctuations.

Forms of Nanoparticles

Nanoparticles can have different chemical compositions. They can be composed of metals, semiconductor materials, compounds such a metal oxides (inorganic nanoparticles) or of carbon or carbon-containing compounds such as polymers (organic nanoparticles).

In the research and commercial sectors, synthetic nanoparticles are often grouped into the following categories based on their chemical and physical characteristics: carbonic, metal oxides, semiconductors or metals.

Carbon-based nanoparticles can be produced in the form of spherical nanoparticles (fullerenes) or cylindrical nanotubes. Carbon Black is used to describe industrial soot, which is purposefully synthesized under controlled conditions and is physically and chemically precisely defined.

This contrasts with chimney and diesel soot, which are not clearly defined combustion byproducts of coal or hydrocarbons. The degree of the organic and inorganic contamination is therefore very high in these types of soot, in contrast to Carbon Black, in which the carbon content typically exceeds 96%.

Nanoparticles can be single particles, aggregates or agglomerates. Aggregates are loose, reversible particle attachments formed by strong attractive interactions of the individual particles. In solutions, such aggregates can be dissolved into individual nanoparticles. Agglomerates, in contrast, are irreversible accumulations of particle elements; they cannot be dispersed into individual particles.

Depending on the production method and manufacturing conditions, nanoparticulate materials exhibit different forms and structures: spheres, needles or tubes, pellets and fibers.

Isolated, individual nanoparticles can be produced by specifically modifying their surfaces. This can for example involve a chemical treatment such as a spacer (ligand) between the particles, which prevents their clustering.

Untreated metallic nanoparticles are usually chemically highly reactive and quickly oxidize in air. In many applications this calls for appropriate protective strategies to prevent the untreated nanoparticles from decomposing during or after synthesis. These stabilizing methods involve coating the nanoparticles, typically with organic compounds such as surfactants, carbon and polymers. One form of stabilization uses an inorganic shell consisting of silicate.

In many cases these protective shells do more than merely stabilize the nanoparticles: depending on the field of application, they can be used for a further fictionalization, for example with other nanoparticles or with ligands. The surface chemistry of the nanoparticles can determine their stabilization, dispersal and fictionalization.

Use of Nanoparticles

Nanoparticles find use, beyond in the loose form, also in nanocomposites. Nanocomposites refer to composite materials in which at least one component is present in the form of nanoparticles, nanopellets or nanotubes. The second component, the matrix, often consists of polymers. Composites are the best materials to combine the often unique features of nanoparticles with those of the composite matrix.

There are a multitude of different ways that nanoparticles can be helpful. Nanosilver is already being used in medicine and food packaging. It helps to eliminate bacteria, so obviously it has already shown promise in preserving foods and medications. However, it also offers benefits for textiles and clothing. Nanonickel has been shown to improve combustion, and it is currently being utilized to increase combustion heat, enhance combustion stability, and improve overall combustion efficiency. Nanoparticles continue to be researched, and their full range of uses has yet to be discovered.

Titanium (Ti) Nanoparticles

Nanoparticles possess not only excellent structural features but also very good functional features. The potential for nanoparticles in industrial applications, disease diagnoses, medical imaging and other fields is immense with scientists continually exploring new uses.

In its elemental form, titanium has a silvery grey-white metallic appearance. Titanium is found in igneous rocks and the sediments derived from them. It is named after the word Titanos, which is Greek for Titans.

In its metallic form, titanium is not only strong and light in weight, but also highly resistant to corrosion. Therefore, it can be used in aerospace and military applications. Titanium nanoparticles have improved strength and radiation resistance. They have high transparency to visible light and high UV absorption.

Titanium (atomic symbol: Ti, atomic number: 22) is a Block D, Group 4, Period 4 element with an atomic weight of 47.867. The number of electrons in each of Titanium's shells is [2, 8, 10, 2] and its electron configuration is [Ar] $3d^2$ $4s^2$. The titanium atom has a radius of 147 pm and a Van der Waals radius of 187 pm. Titanium was discovered by William Gregor in 1791 and first isolated by Jöns Jakob Berzelius in 1825. Titanium has five naturally occurring isotopes: ^{46}Ti through ^{50}Ti, with ^{48}Ti being the most abundant (73.8%).

Titanium (Ti) Nanoparticles, nanodots or nanopowder are spherical or faceted high surface area metal particles. Nanoscale Titanium Particles are typically 10 - 80 nanometers (nm) with specific surface area (SSA) in the 15 - 20 m^2/g range and also available with an average particle size of 300 - 700 nm range with a specific surface area of approximately 1 - 5 m^2/g. Nano Titanium Particles are also available in Ultra high purity and high purity and coated and dispersed forms. They are also available as a dispersion through the AE Nanofluid production group.

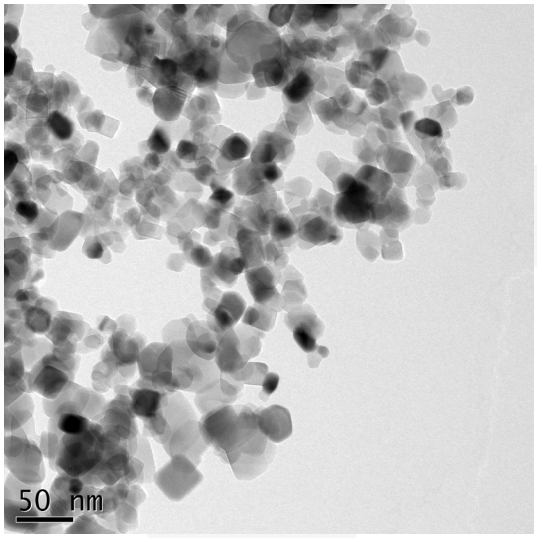
Titanium Nanoparticles Properties

Chemical Symbol	Ti
Appearance	Black
Melting Point	1660 °C
Boiling Point	3287 °C
Density	4.5 g/mL at 25 °C (lit.)
True Density	4.506 g/cm³
Morphology	spherical
Average Particle Size	30-50 nm
Specific Surface Area	50 m²/g
CAS No.	7440-32-6
Group	4
Electronic configuration	[Ar] 3d² 4s²
Molecular Weight/Mass	47.86 g/mol
Poisson's Ratio	0.32
Thermal Expansion	(25 °C) 8.6 µm·m-1·K-1
Vicker's Hardness	970 MPa
Young's Modulus	116 GPa

Manufacturing Process

Titanium nanoparticles can be synthesized by a wet chemical method that employs imidazolium-based ionic liquids under reducing conditions.

Different Types of Titanium Particles



Titanium Dioxide (TiO_2)

Preparation Method

TiCl4 Hydroxy-oxygen Flame Hydrolysis Method

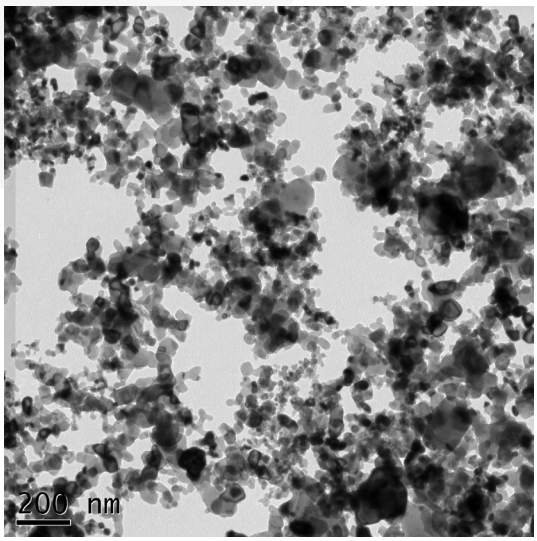
Characterizations

Product Name : Titanium Dioxide (TiO2)

Diameter : 10-40nm

Application Fields

1) Photocatalyst
2) Semiconductor porous membrane
3) Metal Coating
4) Ceramic Additive



Titanium Nitride (TiN)

Preparation Method

Reduction Nitriding Method

Characterizations

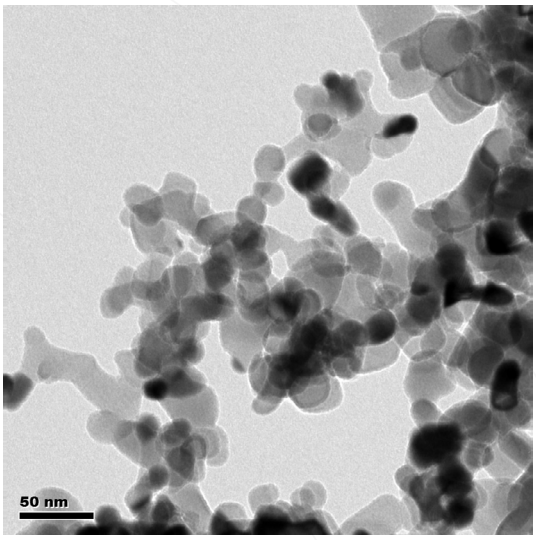
Product Name: Titanium Carbide (TiN)

Particle Size: ~14nm

Specific Surface Area: 80 m^2/g

Application Fields

1) Paint
2) Titanium nitride sputtering target
3) Titanium nitride refractory spray
4) Medical apparatus and instruments
5) Microelectronics
6) Bioelectronic electrode



Titanium Carbide (TiC)

Preparation Method

Metal Titanium Direct Carbonization Method

Gas Phase Reaction Method

Characterizations

Product Name: Titanium Carbide (TiC)

Appearance: Black Powder

Particle Size: 10~100nm

Density: 4.93 g/cm3

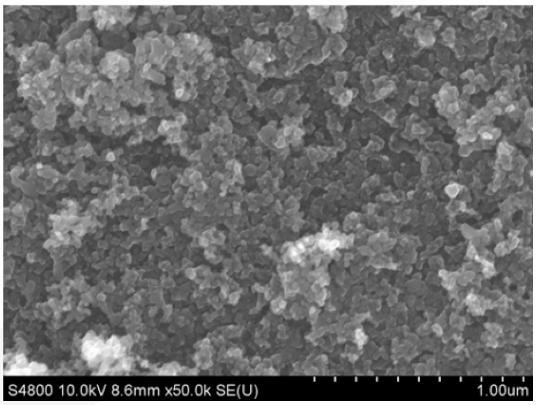
Purity: ~99%

Application Fields

1) Metal melting crucible

2) The semiconductor wear-resistant film

3) The large-capacity memory device



Titanium Carbide (TiC)

Preparation Method

Sodium Borohydride Reduction Method

Characterizations

Product Name : Black Titanium Dioxide (Black TiO2-x)

Diameter : 10-40 nm

Application Fields

1) Supercapacitor
2) High-performance photocatalyst
3) Lithium ion battery
4) Energy battery
5) Photothermal treatment of cancer
6) Microwave absorption

Applications

The fields of application for nanoparticles are wide ranging. They play a major role in materials development. In nanoparticle containing materials, the different material properties such as conductivity, weight, stability, flexibility, heat resistance etc. can be specified independently from one another.

Numerous nanotechnology products have been on the market for some time now. In the chemical sector this includes Carbon Black (soot particles), for example in printing black; in the automobile sector this includes scratchresistant paints, filler in tires and anti-reflective layers.

In the Life Sciences, nanoparticles are used for biochips as well as for socalled markers. They are also used in sunscreens and cosmetic products. In medical diagnostics, nanoparticles are increasingly being used as contrast media; they are also a tool in cancer therapy.

Nanoparticle applications also have been introduced on the market in paints, polymernanocompsoites and nanopigments.

Concepts and prototypes exist for regenerative medicine (for example in tissue cultures), highly efficient hydrogen storage systems, self-healing materials, and coatings that switch their color using sensor technology.

Moreover, current efforts are being devoted to developing products to treat diseases and to affect a controlled release of medications.

The key applications of titanium nanoparticles are:

- Anti-microbials, anti-biotics and anti-fungal agents,
- Plastics and soaps,
- Aerospace materials,
- Optical filters,
- Microsensors,
- Coatings, nanofibers, bandages, nanowires and textiles.

Initial Coin Offering (ICO)

We aim to raise $18 million. The objective for raising the funds is to start an integrated Titanium nanoparticles plant. Bitnanotech has a strong business model backed by efficient operations with steady and visible future cash flows and profits.

It is determined that 1.9B coins will be issued with a nominal price of $0.125. The token distribution is pre-dominantly in favor of the common investors who are allocated maximum proportion of the NAN tokens through the crowd-sale.

The funds allocation is as under:

Lock term days		%	Tokens
0	Crowdsale Tokens	80	1,520,000,000
0	Team and founders	8	152,000,000
0	Airdrop/referall/ affiliate	0	0
0		0	0
0	Company reserves	12	228,000,000
	Total	100	1,900,000,000

Each token holder would be expected to receive a share in the future profit of the company proportionately. The individual share of net profit depends on the number of tokens held by the individual investors. So, in addition to the appreciation in the value of the NAN token due to the rising price of the token, the token holder can also expect to receive net profit from the operations of the company.

ICO Timetable

ICO crowd sale would start in the last quarter of 2019.

Token type	ERC-20		
Token name	**NAN**	**ETH**	**USD**
Token price	1	0.00007	0.0125
Total supply	1,900,000,000	133000	23,674,000
Soft cap	500,000,000	35000	6,230,000

The details of the token sale are as under:

From	Till	Round name	Discount, %	Hard cap	Time
2019.10.06	2019.10.14	Private Sale	45	1,900,000,000	10.00 AM UTC (+0)
2019.10.14	2019.10.25	Public Sale	10		10.00 AM UTC (+0)
			Total:	1,900,000,000	

We would provide a generous crowdsale bonus to the common investors and users. It would encourage the investors to buy the maximum amount of the NAN tokens they can afford.

ICO structure with token exchange

Our initial coin offering is designed to attract top scientific individual and corporate leaders. Creating synergy between industries will start at our initial phase of business development through blockchain community.

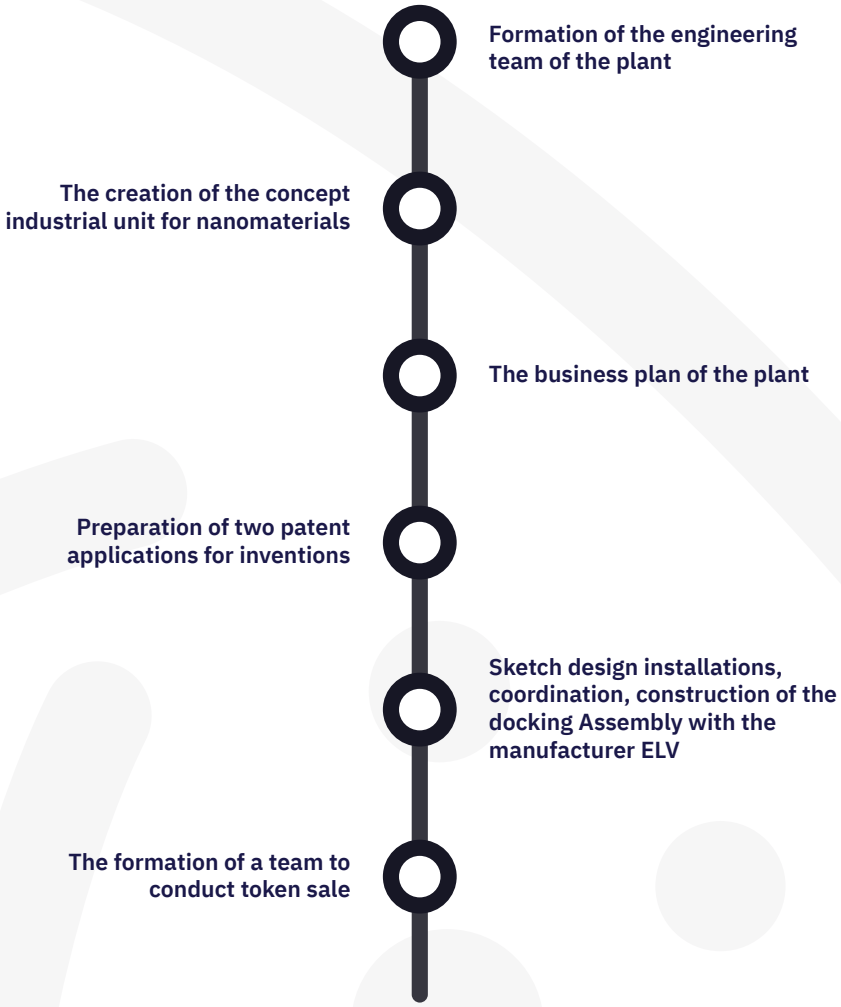
Tokenomics

Bitnanotech (NAN) token is a cryptocurrency token based on the blockchain technology. The Bitnanotech token is built on the Ethereum blockchain. Bitnanotech allows people to invest profitably and earn returns securely. With the value of the Bitnanotech token being based on the steady income of the Bitnanotech plant; the investors who purchase Bitnanotech tokens will be protected with a more stable price. Bitnanotech would be listed on the leading cryptocurrency exchanges giving NAN tokens high liquidity, and thus, benefiting token holders with a wide range of uses. NAN token holders can also invest in the farms.

Decentralized token exchange facilitates trading and exchange of the financial instruments and currencies on the blockchain. The Ethereum platform will facilitate the launch of our currency for use as a common standard. The ERC-20 standard allows Bitnanotech to immediately work with all the apps that conform to the standard, which means that any digital currency wallet can hold NAN. It also means that NAN is easily exchangeable with other cryptocurrencies that comply with the ERC-20 rules. Bitnanotech will be exchangeable with other currencies on various cryptocurrency exchanges.

Road Map

Bitnanotech has the following roadmap for the future:



The management team of Bitnanotech would strive to achieve these milestones in a time bound manner.

The implementation of some of these milestones depends on the total funds available.

Marketing Plan

Bitnanotech will implement a comprehensive plan for marketing. We have well thought out marketing plan for Bitnanotech operations and plant. There would be full-fledged marketing campaigns to ensure an exceptional response to Bitnanotech.

We will list the Bitnanotech coins on the major cryptocurrency exchanges. We will also place ads on the various popular and relevant digital platforms. We also plan to offer a generous incentive for the referrals. The referral rewards will be paid in NAN tokens.

This will help us in attracting the desirable number of investors for our ICO. Bitnanotech will constantly review the exchanges and partner with them to increase the marketability of Bitnanotech coins worldwide.

For Bitnanotech, the marketing Campaigns will be mainly focused on the online advertising like Google Ads, YouTube, etc. Our publicity plan is focused on the social media influencers and cryptocurrency miners and enthusiasts. Bitnanotech executives have solid reputation and excellent relationships with a number of influential people. They would act as a source of word of mouth publicity.

Bitnanotech has a number of competitive advantages for attracting customers. We will implement all the necessary marketing strategies to attract customers by highlighting the various advantages like fairness, transparency, etc. to attract users to Bitnanotech.

Once the public sale is over, the NAN tokens will be listed and traded in a number of cryptocurrency exchanges allowing anyone who hasn't bought NAN tokens, the possibility of acquiring them.

Our compelling proposition and technology will attract the people from various countries across the world. As more and more people earn NAN tokens and use them in various ways, the value of the NAN tokens will sustainably rise. This will lead to the enhanced marketability of NAN.

Financial Plan

Bitnanotech has a solid financial plan as a part of the overall strategy. We will focus on the bottom-line from the very beginning to achieve profitable growth and sustainability. The pricing strategy of Bitnanotech is fine-tuned to capitalize on the marketplace reality and competitiveness.

We are based in a tax-efficient and friendly jurisdiction. We have prepared a detailed strategic plan with regard to the future operations of our company. We are raising the resources through the Bitnanotech ICO and
would implement our strategy depending on the amount of the funds raised through the ICO. Our strategy has a built-in flexibility. This would help us in case of the less funds being raised through the ICO. We will deploy each dollar of the funds raised in the productive and profitable use.

The deployment of the financial resources raised through ICO is mainly for the following:

- Operations
- Advertising, Marketing and Promotions
- Infrastructure and Technical Support
- Staffing
- Business Development
- Listing on Other Exchanges

Bitnanotech financial model:

Discount rate:	10%
The current value of return of investment (PV ROI)	63%
Net present value (NPV)	EUR 60,432,893,00
Internal rate of return (IRR)	79%
Payback period from the beginning of production	60 months
Need for investments	EUR 40,000,000,00

Team

The Bitnanotech and Bitnanotech team comprises of highly experienced and qualified professionals.

The management has a great depth and breadth of exposure and experience across various domains in Titanium nanoparticles industry, network technology, cryptocurrency/digital currency space, latest blockchain technologies, etc.

Bitnanotech team comprises of top nanotechnology scientists as well as industry leading companies former executives.

Bitnanotech and Bitnanotech team is capable of handling the Titanium nanoparticles production plant effectively and efficiently with the financial resources obtained from the ICO.

The manpower would be increased further taking into account the evolving needs with the expansion of the operations and mining. This will help us in keeping the overall costs under control and achieve profitability at an early date.

Legal Disclaimer

This white paper has been issued by Bitnanotech. It should be read in conjunction with the terms and conditions of the company.

Main Purpose of this Whitepaper is to offer potential purchasers with the information on the company's project to let the purchaser make their own decision regarding whether he/she wishes to proceed to purchase Bitnanotech or not. Above whitepaper does not establish an offer or call or any other type of sale or purchase of shares, securities or assets of the company.

The purpose of this Whitepaper is to present Bitnanotech, its technology, business model and the NAN token to the potential token holders in connection with the proposed ICO.

The information given may not be exhaustive and does not imply any elements of a contractual relationship. Its sole purpose is to provide relevant and reasonable information to potential token holders in order for them to determine whether to undertake a thorough analysis of the company with the intent of acquiring NAN tokens.

Certain statements, estimates and financial information contained herein constitute forward-looking statements or information. Such forward-looking statements or information concern known and unknown risks and uncertainties, which may cause actual events or results to differ materially from the estimates or the results implied or expressed in such forward looking statements.

This English-language whitepaper is the primary official source of information about the Bitnanotech ICO and NAN token. The information contained herein may be translated into other languages from time to time or may be used in the course of written or verbal communications with existing and prospective community members, partners, etc.

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