

# Carbon Nanotubes (CNT) - Global Market Outlook (2020-2028)

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## Abstracts

According to Statistics MRC, the Global Carbon Nanotubes (CNT) Market is accounted for \$765.73 million in 2020 and is expected to reach \$2,580.49 million by 2028 growing at a CAGR of 16.4% during the forecast period. The increasing demand for lightweight and low carbon-emitting vehicles, technological advancements and decreasing production cost, and high growth of end-use industries, such as electrical & electronics and automotive are driving the market growth. However, environmental concern and health & safety issue is hampering the growth of the market.

Carbon nanotubes (CNTs) are cylindrically shaped structures with a diameter of one billionth of a meter, which is a hundred times tougher and just one-sixth as heavy as steel. The most noteworthy property of carbon nanotubes is the high strength and low weight joint with physical flexibility. Carbon nanotubes are increasingly being used as an efficient tool in transporting drug molecules, while it shows a foremost part in body implants, dental filling, and medical device components. Carbon nanotubes display higher thermal and electrical conductivity than conventional copper tubes. CNTs are functionalized with nucleic acids, proteins, bioactive peptides, and drugs for targeted drug delivery to the cells and organs. Carbon nanotubes assure low toxicity and are not immunogenic, owing to which it has potential application in the field of nanomedicine and nanobiotechnology, among others.

Based on the type, the Multi-Walled Carbon Nanotubes (MWCNT) segment is going to have lucrative growth during the forecast period. MWCNT has good electrical conductivity and is used in conductive heating films, transparent electrodes, conductive nano inks, nano devices, displays, super batteries, chemical sensors, super capacitors energy storages, thermal interface material, solar power cells, and other applications. MWCNT can be certainly spread on plastic materials and expand the mechanical

properties of the components and reduce their weight without affecting their performance. Using MWCNT in automotive and aircraft applications is profitable as it enables fuel-saving and lowers carbon dioxide (CO<sub>2</sub>) emissions.

By geography, Asia Pacific is going to have high growth during the forecast period. In India, government initiatives, low-cost labour, such as Make in India, and the proposed scheme on entrepreneurship development may expose opportunities in the infrastructure and industrial segments. China is a promptly emerging nation with many emerging applications such as, superconductors, filters, hydrogen storage and capacitors. It offers numerous opportunities for industry players who are eager to invest in the growing application areas. The country also offers inexpensive raw materials, a low cost of production, and the ability to cater to the local emerging markets. It is witnessing amplified demand for carbon nanotubes from the electronics & semiconductors end-use industry.

Some of the key players profiled in the Carbon Nanotubes (CNT) Market include Arkema SA, Canatu, Cnano, Continental Carbon Nanotechnologies, Foxconn, Hanao Co Ltd, Hyperion Catalysis International Inc, Klean Commodities, Nanocyl, Nanointegris, Nanothinx S.A, Shenzhen Nanotech Port Co. Ltd, SouthWest NanoTechnologies and TorayUnidym.

#### Types Covered:

Multi-Walled Carbon Nanotubes (MWCNT)

Single-Walled Carbon Nanotubes (SWCNT)

#### Methods Covered:

Catalytic Chemical Vapor Deposition (Ccvd)

Chemical Process

Chemical Vapor Deposition (CVD)

High-Pressure Carbon Monoxide Disproportionation (HiPCO) 52

Miscellaneous Processes

Physical Process

Other Methods

Applications Covered:

Conductive Adhesives

Conductive Polymer Composites

Fire Retardant Plastics

Li-ion Battery Electrodes

Metal Matrix Composites

Polymers

Structural Polymer Composites

Other Applications

End Users Covered:

Electronic & Semiconductors

Energy & Storage

Chemical Material & Polymers

Medical

Structural Composites Applications

Advanced Materials

Batteries & Capacitors

Automotive

Industrial

Biomedicine

Plastics

Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

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Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

##### Competitive Benchmarking

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