

Executive Summary

Chapter 1

- Report Scope
- Thematic Scope
- Scope of Data Analysis
- Temporal Scope of Analysis
- Geographical Scope
- Report objective
- Methodology
- Calculation of CAGR
- The Nanoscale

Chapter 2

- Overview of nanotechnology
- What are the Key Drivers for Adoption of Nanotechnology in Medicine and Biomedicine?
- The Key Applications of Nanotechnology in Medicine and Biomedicine
- How Nanotechnology Can Benefit Drug Delivery
- How Nanotechnology Is Already Having An Impact On The Drug Delivery Sector

Chapter 3

- Three Key Barriers to The Adoption of Nanotechnology in Medicine and Biomedicine
- Five Current & Future Challenges in The Adoption of Nanotechnology in Medicine and Biomedicine

Chapter 4

- Global Market Analysis: 2000-2010 (Without Segmentation)
- Global Market Forecast: 2011-2021 (Without Segmentation)
- Market Analysis Countries and Regions: 2000-2010 (With Segmentation)
- Market Forecast Countries and Regions: 2011-2021 (With Segmentation)
- Appendix
- Publishing activity by organization (2000-2010)
- Table of Exhibits
- Table of Contents

Chapter One

Exhibit 1.1

Formula for the calculation of the Compound Annual Growth Rate (CAGR), (top).
Formula for the calculation of the Compound Annual Growth Rate (CAGR) in this report, for the 2011-2021 period, (bottom) [2].

Exhibit 1.2

Formula for the verification of the calculated values of the Compound Annual Growth Rate (CAGR), (top).
Formula for the verification of the calculated values of the Compound Annual Growth Rate (CAGR) in this report, for the 2011-2021 period, (bottom) [2].

Exhibit 1.3

Nanometres in a meter (top). Meters in a nanometre (bottom).

Chapter Two

Exhibit 2.1

The periodic table of elements, as we know it (at meter scale) is governed by classic Newtonian laws of physics. However, when perceived at nanoscale, those elements are governed by the laws of quantum physics.

Exhibit 2.2

Proportion of the population aged over 65 and over 80 [7].

Exhibit 2.3

Illustration of a diagram of each property of nanocarriers (size, shape, surface chemistry and mechanical properties) and their parameters subjected to optimization in order to improve their efficiency [10].

Chapter Three

Exhibit 3.1

Specified expected barriers in the development of particular types of nanoparticles (Courtesy of CienNanoroadmap Synthesis Report), [6].

Exhibit 3.2

Illustration of the measures adoption roadmap to combat/attenuate the key barriers to the adoption of nanotechnology in medicine and biomedicine (Source: Cientifica, Ltd.).

Exhibit 3.3

Table representing the Total Addressable Market, TAM (2000-2010), for nanotechnology in drug delivery, without segmentation, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 3.4

Line chart representing Total Addressable Market, TAM (2000-2010), for nanotechnology in drug delivery, without segmentation, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 3.5

Bar chart representing Total Addressable Market, TAM (2000-2010), for nanotechnology in drug delivery, without segmentation, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 3.6

Table representing the Total Addressable Market, TAM forecast by 2021 (for the 2011-2021 period), for nanotechnology in drug delivery, without segmentation, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 3.7

Line chart representing the Total Addressable Market, TAM forecast by 2021 (for the 2011-2021 period), for nanotechnology in drug delivery, without segmentation, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 3.8

Bar chart representing the Total Addressable Market, TAM forecast by 2021 (for the 2011-2021 period), for nanotechnology in drug delivery, without segmentation, source: Cientifica (all figures US\$ Million Dollars).

Chapter Four:

Exhibit 4.8

Table representing the Total Addressable Market, TAM (2000-2010), for nanotechnology in drug delivery, all countries studied, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 4.9

3-D pie chart representing the Total Addressable Market, TAM in 2010, for nanotechnology in drug delivery, by world regions and countries, source: Cientifica (all figures in percentage).

Exhibit 4.10

Horizontal bar graph representing the Total Addressable Market, TAM in 2010, for nanotechnology in drug delivery, by world regions and countries, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 4.11

Line chart representing the Total Addressable Market, TAM (2000-2010), for nanotechnology in drug delivery, by world regions and countries, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 4.12

3-D stacked vertical bar graph representing the Total Addressable Market, TAM (2000-2010), for nanotechnology in drug delivery, by world regions and countries, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 4.13

3-D stacked area chart representing the Total Addressable Market, TAM (2000-2010), for nanotechnology in drug delivery, by world regions and countries, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 4.14

3-D pie chart representing the Total Addressable Market, TAM in 2010, for nanotechnology in drug delivery, all world regions and countries studied, source: Cientifica (all figures in percentage).

Exhibit 4.15

Horizontal bar graph representing the Total Addressable Market, TAM in 2010, for nanotechnology in drug delivery, all world regions and countries studied, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 4.16

3-D pie chart representing the Total Addressable Market, TAM in 2010, for nanotechnology in drug delivery, European Union countries studied, source: Cientifica (all figures in percentage)

Exhibit 4.17

Horizontal bar graph representing the Total Addressable Market, TAM in 2010, for nanotechnology in drug delivery, European Union countries studied, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 4.18

Line chart representing the Total Addressable Market, TAM (2000-2010), for nanotechnology in drug delivery, European Union countries studied, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 4.19

3-D stacked vertical bar graph representing the Total Addressable Market, TAM (2000-2010), for nanotechnology in drug delivery, European Union countries studied, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 4.20

3-D stacked area chart representing the Total Addressable Market, TAM (2000-2010), for nanotechnology in drug delivery, European Union countries studied, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 4.21

3-D pie chart representing the Total Addressable Market, TAM in 2010, for nanotechnology in drug delivery, Asian countries studied, source: Cientifica (all figures in percentage).

Exhibit 4.22

Horizontal bar graph representing the Total Addressable Market, TAM In 2010, for nanotechnology in drug delivery, Asian countries studied, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 4.23

Line chart representing the Total Addressable Market, TAM (2000-2010), for nanotechnology in drug delivery, Asian countries studied, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 4.24

3-D stacked vertical bar graph representing the Total Addressable Market, TAM (2000-2010), for nanotechnology in drug delivery, Asian countries studied, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 4.25

3-D stacked area chart representing the Total Addressable Market, TAM (2000-2010), for nanotechnology in drug delivery, Asian countries studied, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 4.46

Table representing the Total Addressable Market, TAM forecast by 2021 (for the 2011-2021 period), for nanotechnology in drug delivery, by world regions / countries, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 4.47

3-D pie chart representing the Total Addressable Market, TAM forecast in 2021, for nanotechnology in drug delivery, by world regions, source: Cientifica (all figures in percentage).

Exhibit 4.48

Horizontal bar graph representing the Total Addressable Market, TAM forecast in 2021, for nanotechnology in drug delivery, by world regions, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 4.49

Line chart representing the Total Addressable Market, TAM forecast by 2021 (for the 2011-2021 period), for nanotechnology in drug delivery, by world regions, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 4.50

3-D stacked vertical bar graph representing the Total Addressable Market, TAM forecast by 2021 (for the 2011-2021 period), for nanotechnology in drug delivery, by world regions, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 4.51

3-D stacked area chart representing the Total Addressable Market, TAM forecast by 2021 (for the 2011-2021 period), for nanotechnology in drug delivery, by world regions, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 4.52

3-D pie chart representing the Total Addressable Market, TAM forecast in 2021, for nanotechnology in drug delivery, by all world regions / countries studied, source: Cientifica (all figures in percentage).

Exhibit 4.53

Horizontal bar graph representing the Total Addressable Market, TAM forecast in 2021, for nanotechnology in drug delivery, by all world regions / countries studied, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 4.54

Line chart representing the Total Addressable Market, TAM forecast by 2021 (for the 2011-2021 period), for nanotechnology in drug delivery, by all world regions / countries studied, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 4.55

3-D stacked vertical bar graph representing the Total Addressable Market, TAM forecast by 2021 (for the 2011-2021 period), for nanotechnology in drug delivery, by all world regions / countries studied, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 4.56

3-D stacked area chart representing the Total Addressable Market, TAM forecast by 2021 (for the 2011-2021 period), for nanotechnology in drug delivery, by all world regions / countries studied, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 4.57

3-D pie chart representing the Total Addressable Market, TAM forecast in 2021, for nanotechnology in drug delivery, European Union countries studied, source: Cientifica (all figures in percentage).

Exhibit 4.58

Horizontal bar graph representing the Total Addressable Market, TAM forecast in 2021, for nanotechnology in drug delivery, European Union countries studied, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 4.59

Line chart representing the Total Addressable Market, TAM forecast by 2021 (for the 2011-2021 period), for nanotechnology in drug delivery, European Union countries studied, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 4.60

3-D stacked vertical bar graph representing the Total Addressable Market, TAM forecast by 2021 (for the 2011-2021 period), for nanotechnology in drug delivery, European Union countries studied, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 4.61

3-D stacked area chart representing the Total Addressable Market, TAM forecast by 2021 (for the 2011-2021 period), for nanotechnology in drug delivery, European Union countries studied, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 4.62

3-D pie chart representing the Total Addressable Market, TAM forecast in 2021, for nanotechnology in drug delivery, Asian countries studied, source: Cientifica (all figures in percentage).

Exhibit 4.63

Horizontal bar graph representing the Total Addressable Market, TAM forecast in 2021, for nanotechnology in drug delivery, Asian countries studied, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 4.64

Line chart representing the Total Addressable Market, TAM forecast by 2021 (for the 2011-2021 period), for nanotechnology in drug delivery, Asian countries studied, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 4.65

3-D stacked vertical bar graph representing the Total Addressable Market, TAM forecast by 2021 (for the 2011-2021 period), for nanotechnology in drug delivery, Asian countries studied, source: Cientifica (all figures US\$ Million Dollars).

Exhibit 4.66

3-D stacked area chart representing the Total Addressable Market, TAM forecast by 2021 (for the 2011-2021 period), for nanotechnology in drug delivery, Asian countries studied, source: Cientifica (all figures US\$ Million Dollars).

Appendix

Exhibit A.1

Table of the top 20 organizations showing the highest publishing activity in PubMed periodicals (2000-2010), based on PubMed, for Nanotechnology in Drug Delivery. World Region: North America; country: USA.

Organizations are ordered first by descending order of total articles published and then ordered alphabetically (increasing order), if applicable.

Exhibit A.2

Table of the top 20 organizations showing the highest publishing activity in PubMed periodicals (2000-2010), based on PubMed, for Nanotechnology in Drug Delivery. World Region: European Union; country: Germany.

Organizations are ordered first by descending order of total articles published and then ordered alphabetically (increasing order), if applicable.

Exhibit A.3

Table of the top 20 organizations showing the highest publishing activity in PubMed periodicals (2000-2010), based on PubMed, for Nanotechnology in Drug Delivery. World Region: European Union; country: France.

Organizations are ordered first by descending order of total articles published and then ordered alphabetically (increasing order), if applicable.

Exhibit A.4

Table of the top 20 organizations showing the highest publishing activity in PubMed periodicals (2000-2010), based on PubMed, for Nanotechnology in Drug Delivery. World Region: European Union; country: UK.

Organizations are ordered first by descending order of total articles published and then ordered alphabetically (increasing order), if applicable.

Exhibit A.5

Table of publishing activity in PubMed periodicals (2000-2010), based on PubMed, for Nanotechnology in Drug Delivery. Country: Russian Federation. Organizations are ordered alphabetically (increasing order).

Exhibit A.6

Table of the top 20 organizations showing the highest publishing activity in PubMed periodicals (2000-2010), based on PubMed, for Nanotechnology in Drug Delivery. World Region: Asia; country: India. Organizations are ordered first by descending order of total articles published and then ordered alphabetically (increasing order), if applicable.

Exhibit A.7

Table of the top 20 organizations showing the highest publishing activity in PubMed periodicals (2000-2010), based on PubMed, for Nanotechnology in Drug Delivery. World Region: Asia; country: India. Organizations are ordered first by descending order of total articles published and then ordered alphabetically (increasing order), if applicable.

Exhibit A.8

Table of the top 20 organizations showing the highest publishing activity in PubMed periodicals (2000-2010), based on PubMed, for Nanotechnology in Drug Delivery. World Region: Asia; country: Japan. Organizations are ordered first by descending order of total articles published and then ordered alphabetically (increasing order), if applicable.

Exhibit A.9

Table of the top 20 organizations showing the highest publishing activity in PubMed periodicals (2000-2010), based on PubMed, for Nanotechnology in Drug Delivery. World Region: Asia; country: P R China. Organizations are ordered first by descending order of total articles published and then ordered alphabetically (increasing order), if applicable.

Exhibit A.10

Table of the top 20 organizations showing the highest publishing activity in PubMed periodicals (2000-2010), based on PubMed, for Nanotechnology in Drug Delivery. World Region: Asia; country: South Korea (Republic of Korea). Organizations are ordered first by descending order of total articles published and then ordered alphabetically (increasing order), if applicable.

Exhibit A.11

Table of publishing activity in PubMed periodicals (2000-2010), based on PubMed, for Nanotechnology in Drug Delivery. Asia; country: Taiwan. Organizations are ordered first by descending order of total articles published and then ordered alphabetically (increasing order), if applicable.