

A Global Survey on Nanotechnology Products and Applications

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Overview

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- Objectives, Necessity, Audiences
- Definitions and Classifications
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- Sample Statistics and Results
- Nanotechnology Product Database

Introduction

Survey on more than 7200 nanotechnology products available on the global market

- Objectives
 - Monitoring the commercialization and industrialization of nanotechnology in various industries
 - Introducing diverse nanotechnology applications in various fields
 - Demonstration of nanomaterials with certain applications frequently used in industrial sections
- Necessity
 - Lack of comprehensive and reliable information on nanotech products currently used in a broad range of industrial applications

Target Audiences

Investors

- To monitor and receive a proper vision of the process of nanotechnology commercialization

Producers

- To be informed of the current status of the market for nanotechnology products and competitors

Researchers

- To obtain a deeper understanding of applications and characteristics which various nanomaterials create in products to formulate their future studies

Decision makers

- To pursue effective policies and programs by being informed of nanotechnology applications in various industrial subdivisions

Survey Characteristics

- In this survey only the **consumer nanotechnology products** have been investigated
- The main classification of products is base on **industrial sectors**
- We demonstrate the **diversity of product types** in each industry
- Number of products is **NOT necessarily equivalent** to having a large share in the market
- The survey does not deal with **technologies**
- Having an **English website** is a requirement for a product to be investigated
- Survey period: 2015-2017

❑ Information about nanotech products reviewed in the survey

- Industrial division and subdivision
- Product type according to international standards
- General information including product name, brand, product number, manufacturer, country
- Properties and applications enhanced/enabled by nanotechnology
- Nanomaterials utilized in nanotech products
- Certificates and approvals obtained by the manufacturer or the product

Definitions and Classifications

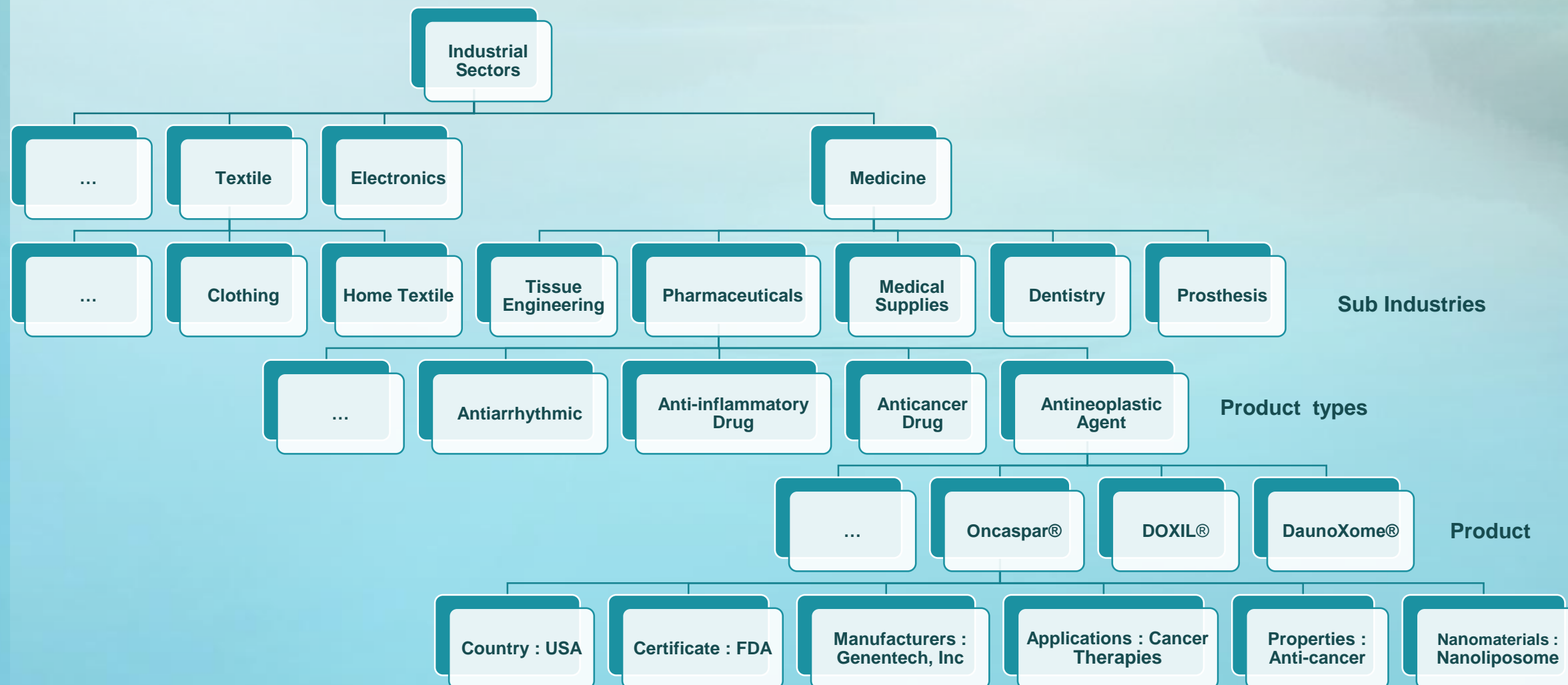
- Nanotechnology products are defined by:
 - **ISO/TS 80004-1:2015** and **ISO/TS 18110:2015**
- Industrial sections are classified based on
 - **SITC** ([Standard International Trade Classification](#))
- Products types based on
 - **CPC** ([Central Product Classification](#))
- Properties based on
 - **ISO/TR 11360:2010**
- Nanomaterials Used in Nanotechnology Products:
 - Definition and classification based on **ISO/TS 80004-1:2015**

Methodology

- a. Categorization of nanotech product applications based on industrial sections
- b. Searching products using specific identifying keywords in websites
- c. Gathering information about certificates, standards, and documents

Methodology Chart

Medicine as an example has been shown in detail:



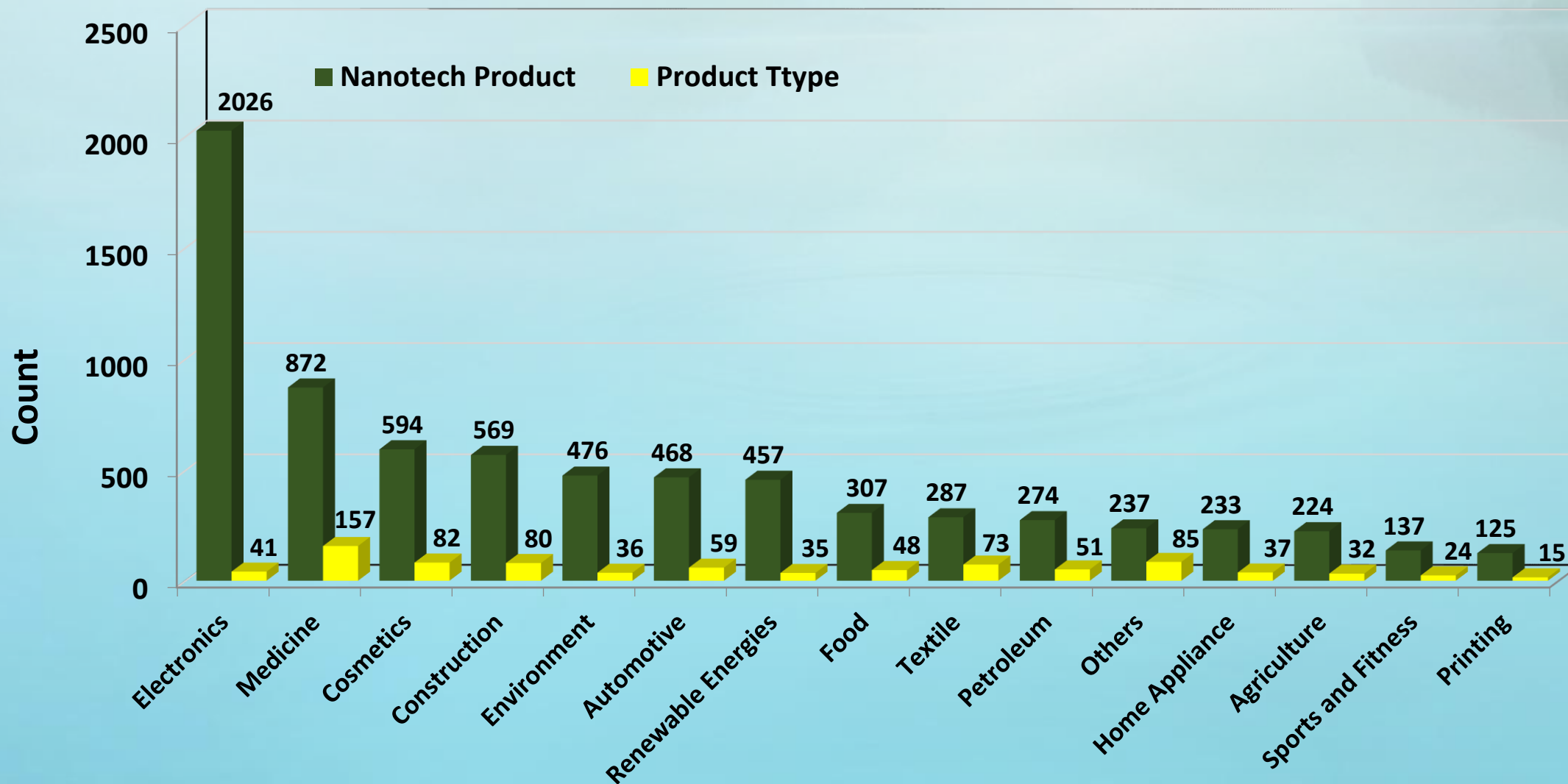
Source of Information

- Searching on various websites
- Responsible organizations in different countries
- Industrial and market reports
- Booklet of nanotechnology related exhibitions

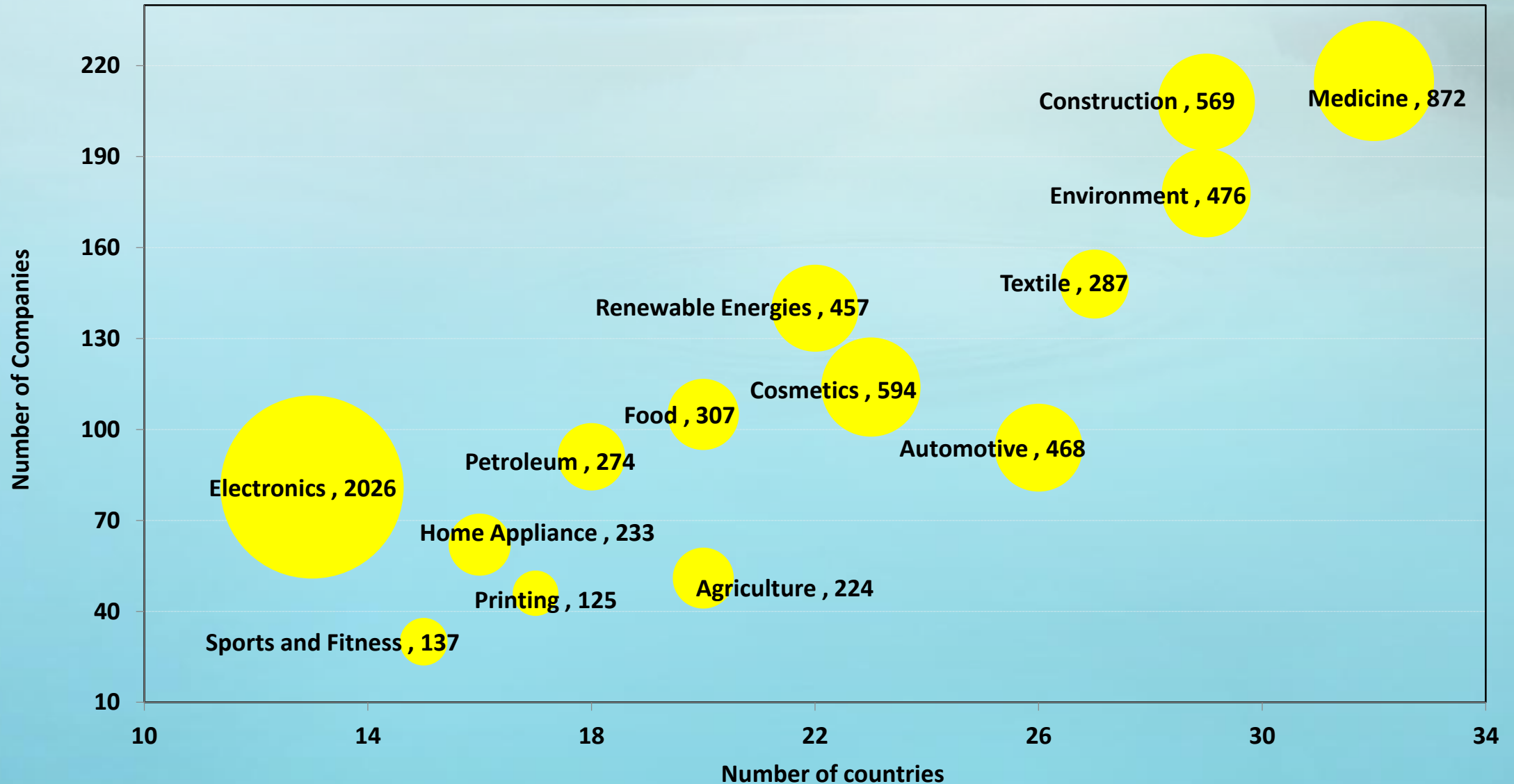
Sample Statistics and Results (Up to Oct. 2017)



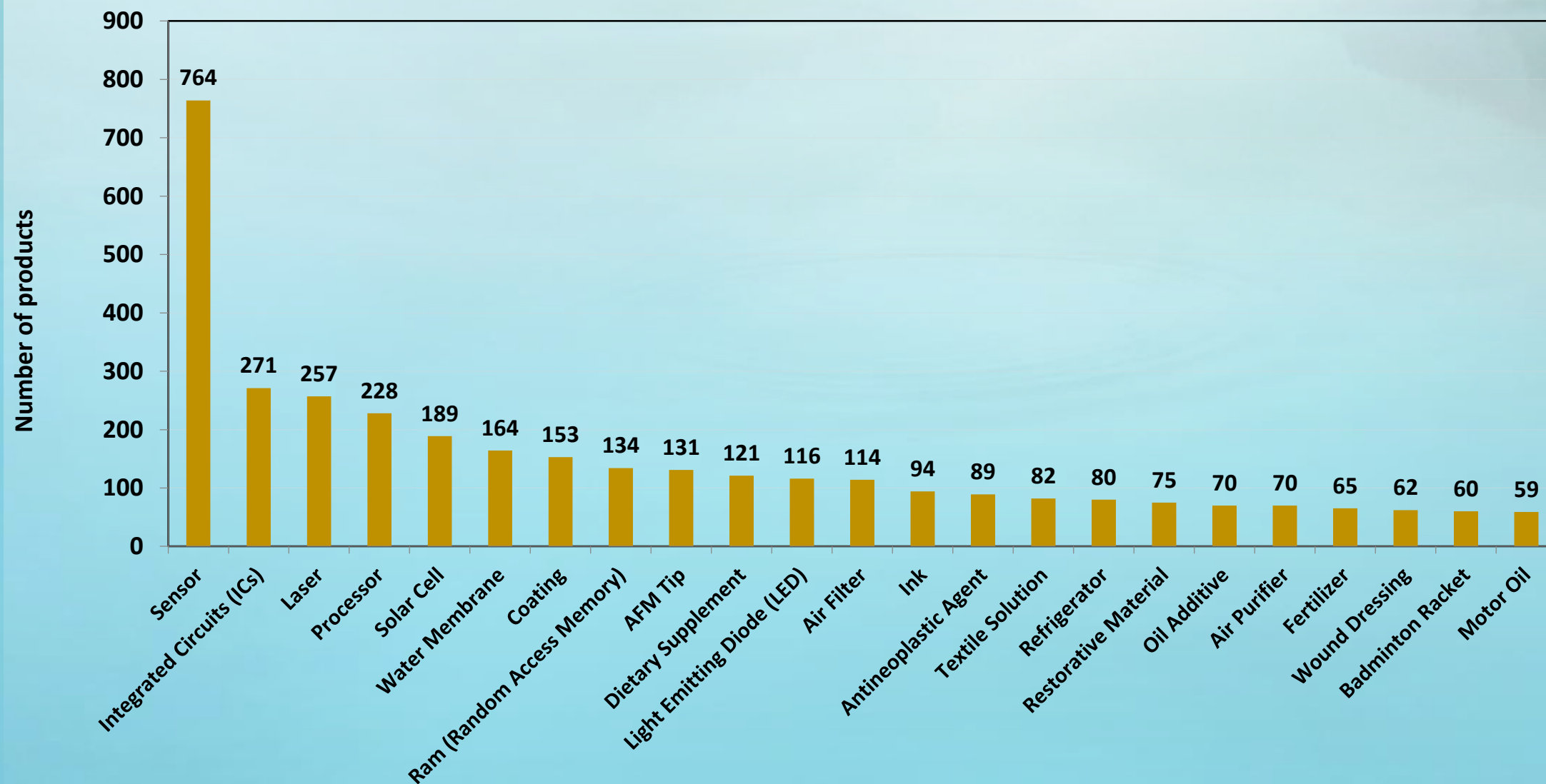
Nanotechnology products in Different Industrial Sectors



Industrial Sectors by Number of Countries, Companies and Products



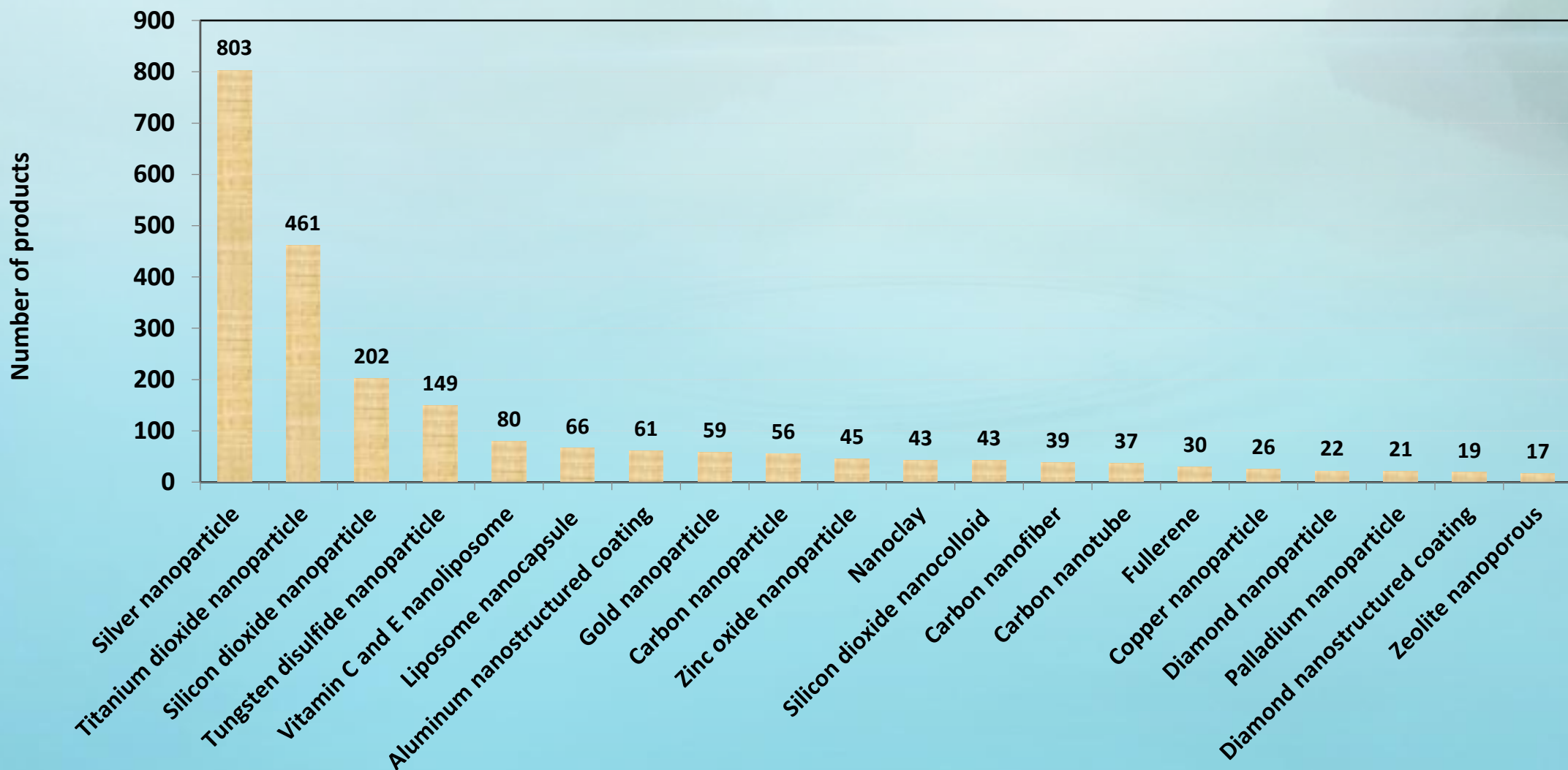
Product Types with the Highest Number of Nanotech Products



Highest Number of Nanotech Products in each Industrial Sector

Industrial Sectors	Sub-industry	Product types	Number of Nanotech Products	Number of Companies
Agriculture	Fertilizers	Fertilizer	65	16
	Plant Breeding	Plant Growth Regulator	16	3
	Plant Protection	Pesticide	15	4
Automotive	Filters	Air Filter	114	6
	Oil Additives	Oil Additive	70	27
	Car Wash Materials	Car Wash Concentrate	47	10
	Car Wash Materials	Paint Sealant	33	11
	Fuel Additives	Fuel Additive	31	15
Construction	Coating	Coating	153	45
	Coating	Suspension	104	34
	Paint	Paint	42	26
	Coating	Self-cleaning Coating	32	15
Cosmetics	Skin Care	Cream	107	39
	Skin Care	Skin serum	37	18
	Personal Care	Dryer	34	8
	Personal Care	Brush	32	8

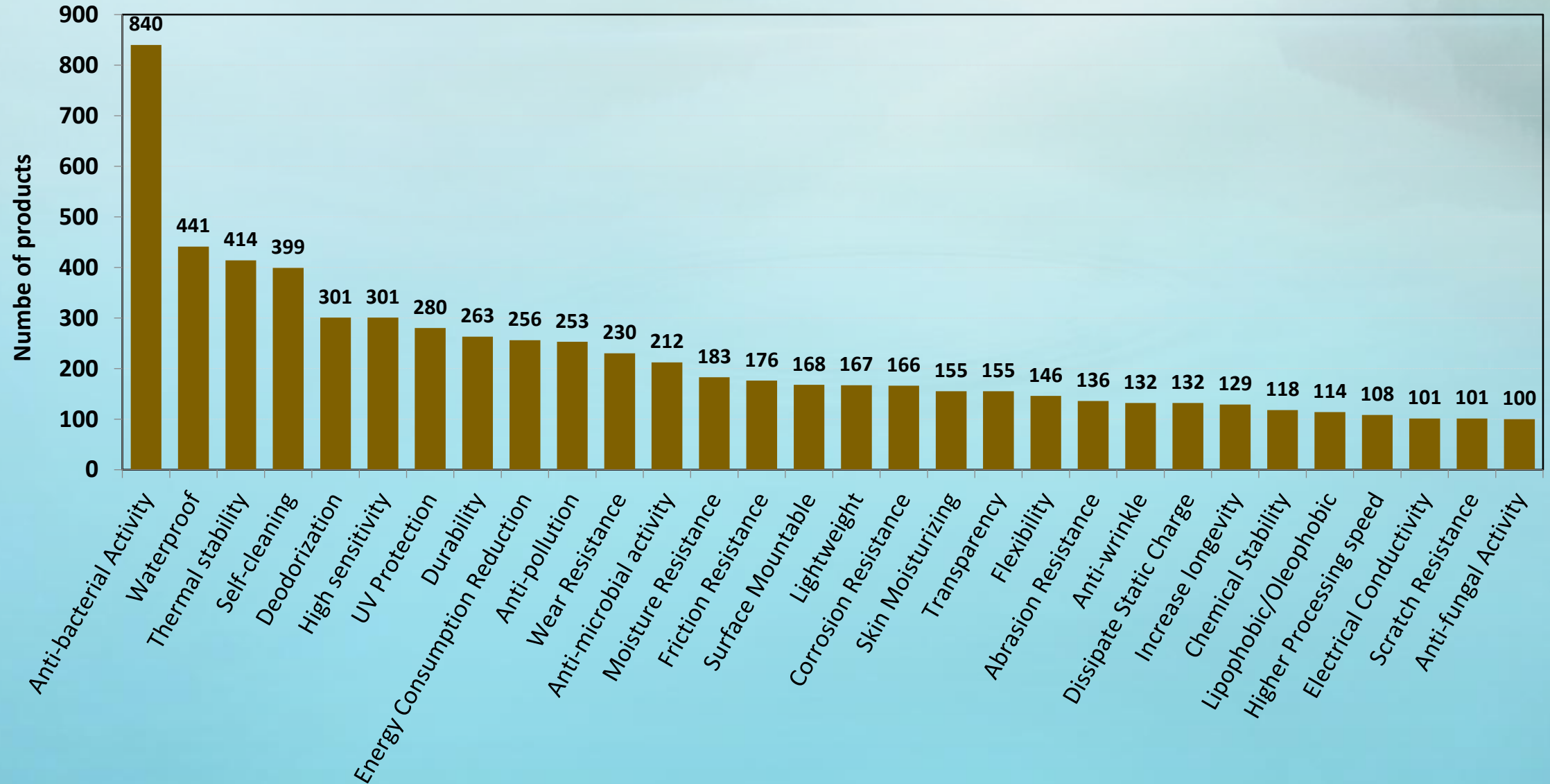
Nanomaterials Utilized in Different Products



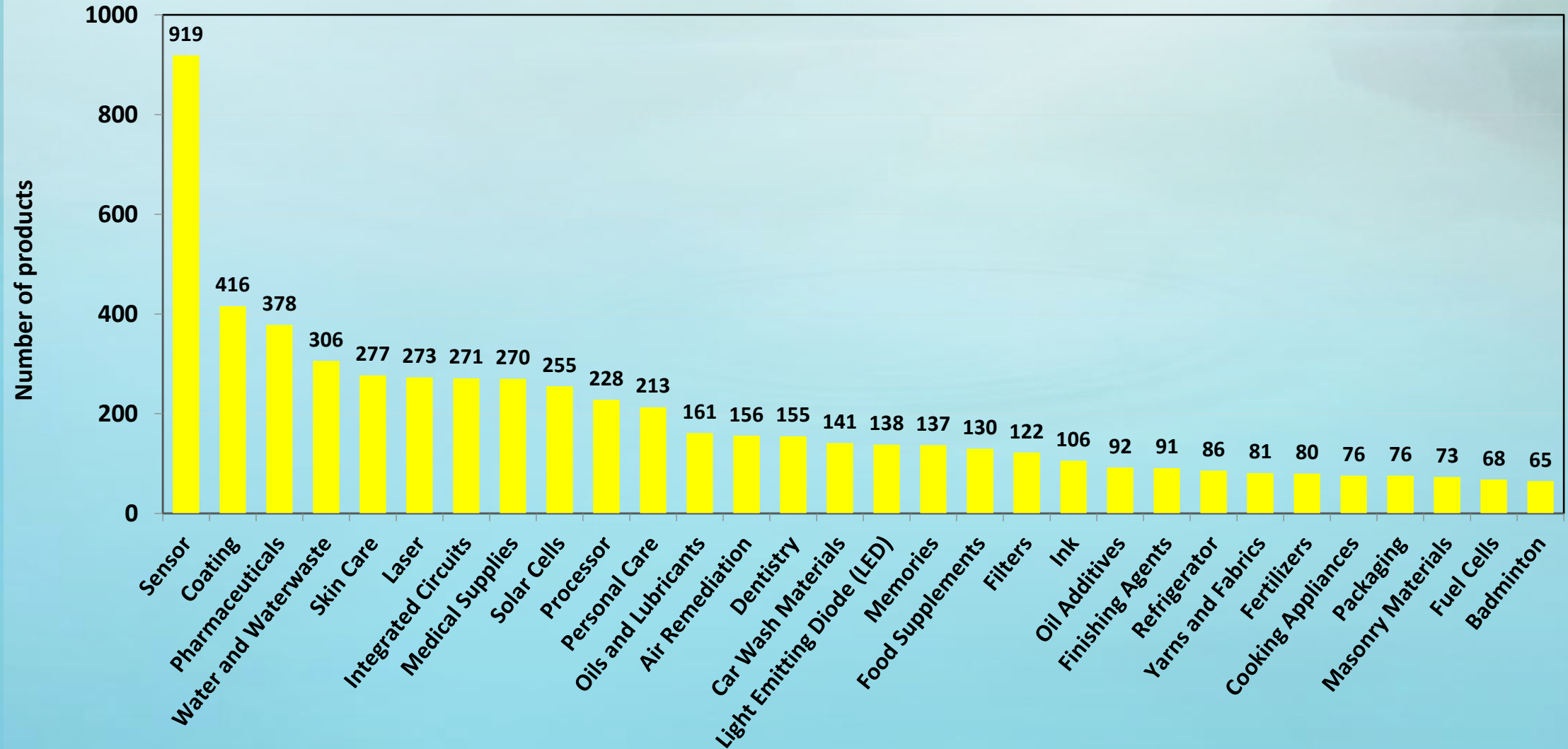
Nanomaterials with the Highest Number of Products in each Industrial Sector

Industrial Sector	Nanomaterials	Nanotech products	Product types	Companies
Agriculture	Silver Nanoparticle	15	8	11
	Silicon dioxide Nanoparticle	6	2	2
	Zinc Nanoparticle	3	2	2
Automotive	Tungsten disulfide Nanoparticle	59	4	19
	Titanium dioxide Nanoparticle	19	9	8
	Fullerene	18	8	1
	Silicon dioxide Nanoparticle	15	8	6
Construction	Titanium dioxide Nanoparticle	124	19	55
	Silicon dioxide Nanoparticle	79	13	37
	Silver Nanoparticle	41	10	22
	Graphene	12	6	1
Cosmetics	Silver Nanoparticle	136	42	36
	Titanium dioxide Nanoparticle	101	17	14
	Vitamin C and E liposome Nanocapsule	75	19	15
	Gold Nanoparticle	35	10	13
	Carbon Nanoparticle	28	4	3
Electronics	Aluminum Nanostructured Coating	61	2	1
	Chromium Nanostructured Coating	12	2	1
	Diamond Nanostructured Coating	9	1	1

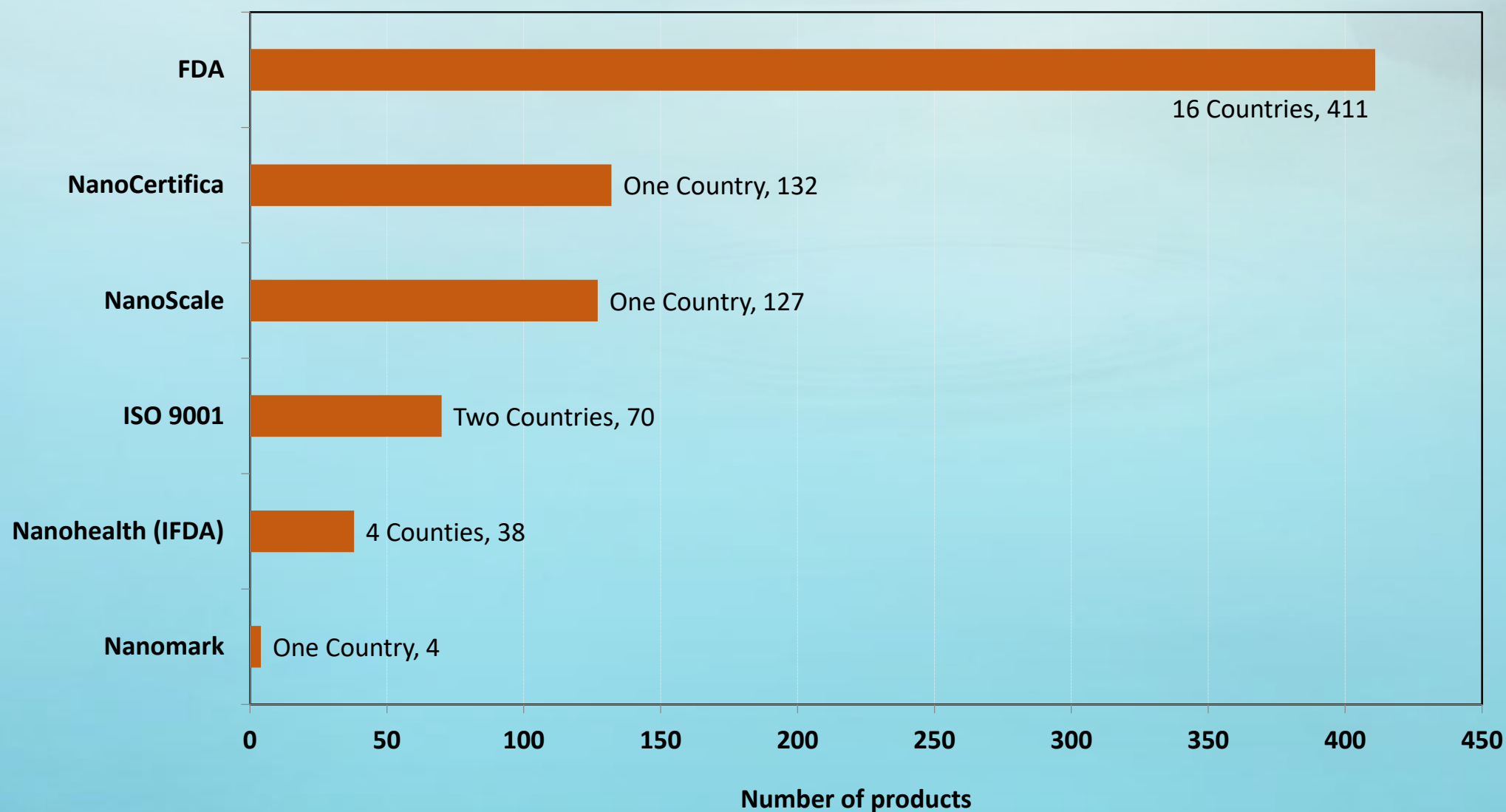
Properties with the Highest Applications in the Nanotech Products



Applications with the Highest Number of Nanotech Products



Nanotech Products with Certificates/Licenses



Nanotechnology Products Database (NPD)



Nanotechnology
Products Database

LOGIN | CREATE NEW ACCOUNT

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Contact us

Product Submission

INTRODUCTION

Nanotechnology Products Database (NPD) provides a reliable source of information about nanotechnology products, currently used in a broad range of industrial applications. ...

7286 PRODUCTS 1438 COMPANIES 52 COUNTRIES

Search in Products, Companies, Nanomaterials, Countries, Industries, Properties and ... **GO**

ADVANCED SEARCH

Agriculture



Products	224
Companies	51
Countries	20

Automotive



Products	468
Companies	94
Countries	26

Construction



Products	569
Companies	208
Countries	29

[Medicine](#)[GO](#)[ADVANCED SEARCH](#)

MEDICINE



872 PRODUCTS

157 TYPES

215 COMPANIES

32 COUNTRIES

Nanotechnology is rapidly flourishing in a wide spectrum of fields in general and medicine in particular. Nanotechnology provides a new wave of therapies on the horizon, giving rise to changing the world of medicine.

...

Dentistry

Products	155
Companies	45
Countries	18

Medical Supplies

Products	270
Companies	83
Countries	19

Pharmaceuticals

Products	378
Companies	65
Countries	16

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Product Type **853**

- ☐ Sensor 764
- ☐ Integrated Circuits (ICs) 271
- ☐ Laser 257
- ☐ Processor 228
- ☐ Solar Cell 189

[More](#) ▾Industries **15**

- ☐ Electronics 2026
 - ☐ Sensor 907
 - ☐ Laser 273
 - ☐ Integrated Circuits 271
 - ☐ Processor 228
 - ☐ Light Emitting Diode (LED) 138
 - ☐ Memories 137
 - ☐ Electrical Accessories 38
 - ☐ Display 20
 - ☐ Reflector 13
 - ☐ Others 1
- ☐ Medicine 872

7,286 Result



CONSTRUCTION - COATING | ANTI-POLLUTION SOLUTION

TitanProtect®

TiO₂[Claeris Oy Ltd.](#)

Finland +

Properties : Anti-bacterial Activity,Compatibility,Mould Resistance

Application : Coatings,Food industry,Gastronomy



CONSTRUCTION - COATING | ANTI-POLLUTION SOLUTION

TitanProtect®

TiO₂[Claeris Oy Ltd.](#)

Finland +

Properties : Self-cleaning,Mould Resistance,Deodorization,Air Purification

Application : Filters,Vehicle trims



CONSTRUCTION - COATING | ANTI-POLLUTION SOLUTION

TitanProtect®

TiO₂[Claeris Oy Ltd.](#)

Finland +

Properties : Self-cleaning,UV Protection,Oxidation Resistance

Application : Primer



CONSTRUCTION - COATING | ANTI-POLLUTION SOLUTION

StoneColor

Denmark +

[StoneColor](#)

Properties : Durability,Environmentally Friendly,Renewable,Algae Resistance

Application : Cement,Concrete,Sandstone,Lime

Thank you For Your Attention