Nano 55

Current situation

Aleksandrs Stupans 2015 October

Born in

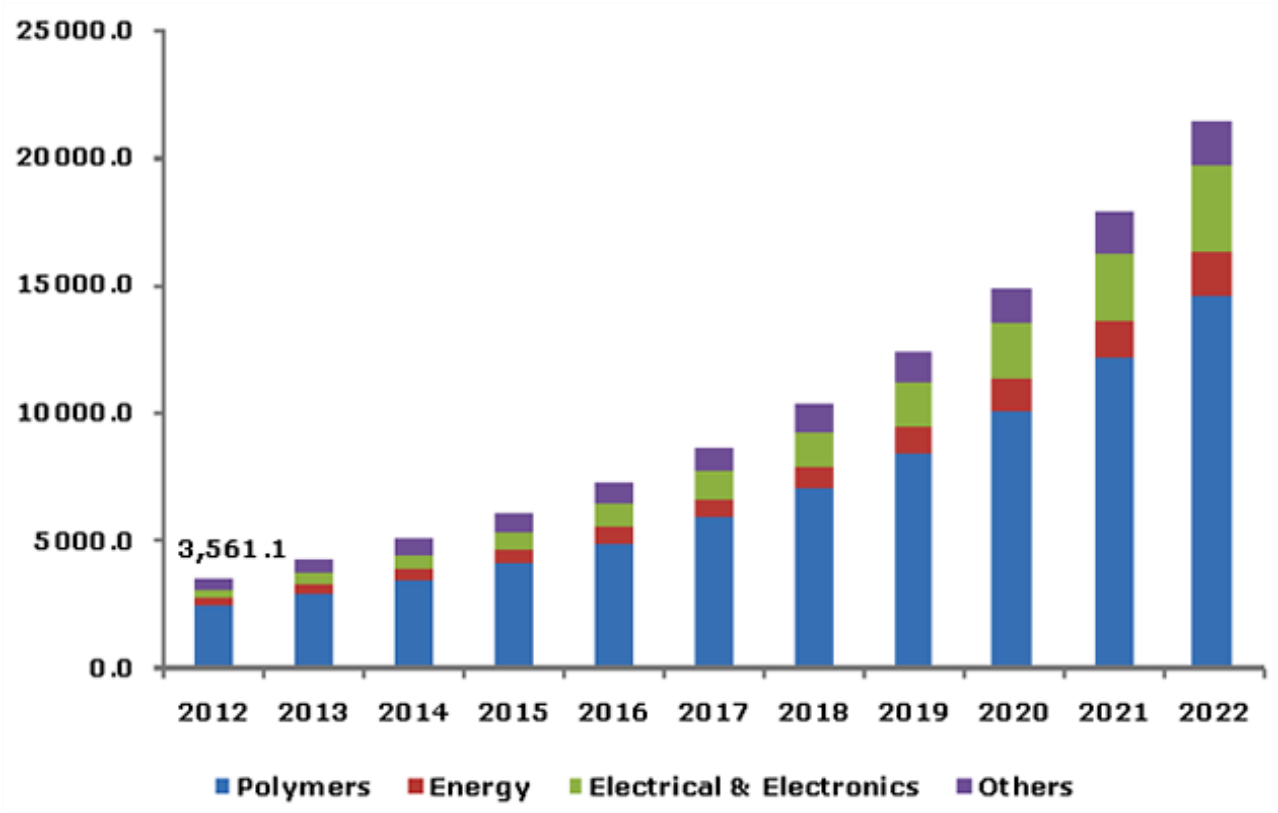
Commercialization Reactor™

Short History

- Project born in 2012 on Commercial Reactor 5
- Revolutionary simple, one-step nano carbon tubes production technology was presented
- Scientist A.Manykan and sales profesional A.Stupans became a team to develope project
- Company Nano55 was established (www.nano55.com)
- 5 businessmen became coowners of Nano55 with first investment
- Necessary laboratory equipment was delivered to Armenia to A.Manykan to find the most effective way of synthesis
- Team spent 2 years to finalize laboratory stage and to find furnace producer, who can create first production furnace according to our requirements
- 2015 – we are preparing next step with next stage budget and starting business model

Global Carbon Nanotubes Market Estimates and Forecast, by Application, 2012-22, (Tons)

Grand View Research, Published: April 2015



1,14 billion USD in 2014

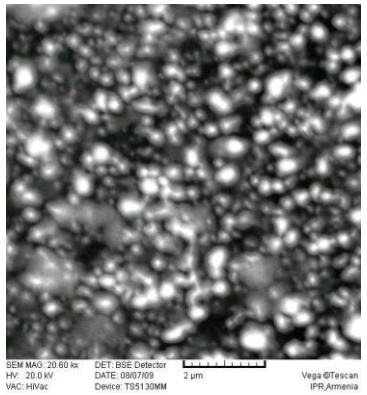
to

3,42 billion USD in 2022

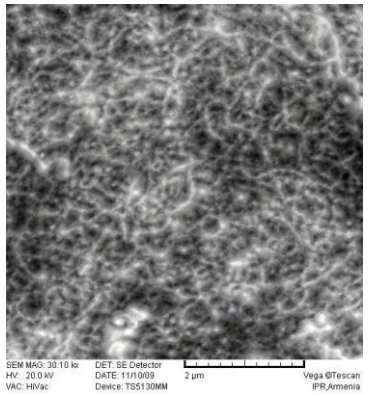
What we have

Simple, effective, one-step technology

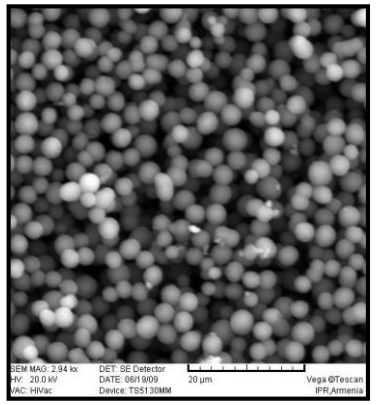
for carbon microspheres and metal-carbon nanocomposites production



Ni/C



Co/C



Carbon microspheres

Comparative charachteristics with other methods

Synthesis Method	Number of steps	Number of precursors	Catalisator	Ready product yield, %
Our technology	1	1	No	~80
Chemical vapor deposition	3	2 or 3	Yes	~20-40
Hydrothermal method	4	2	No	~60
Arc discharge	1	2	No	< 20

VERTICAL VACUUM FURNACE FOR SINTERING WITH HIGH PRESSURE PROCESS

- Productivity – not less, than 420 kg monthly
- One man operated
- Specialy designed according to our requirements by
- Universal for all types of SW/MW-CNT,
  carbon nano/micro-spheres, nanoparticles

One furnace CNT production estimated budget (first year)

Production

Location - Riga

120-150 sqm

1 engineer

8 hours working day

1 reseacher (our scientist)

420-500 kg of CNT monthly

First year budget in EUR

Furnace - 345 K

Installation, service – 30K

Premises with lab equipment – 19K

Salaries – 45K

Regular expences – 3K

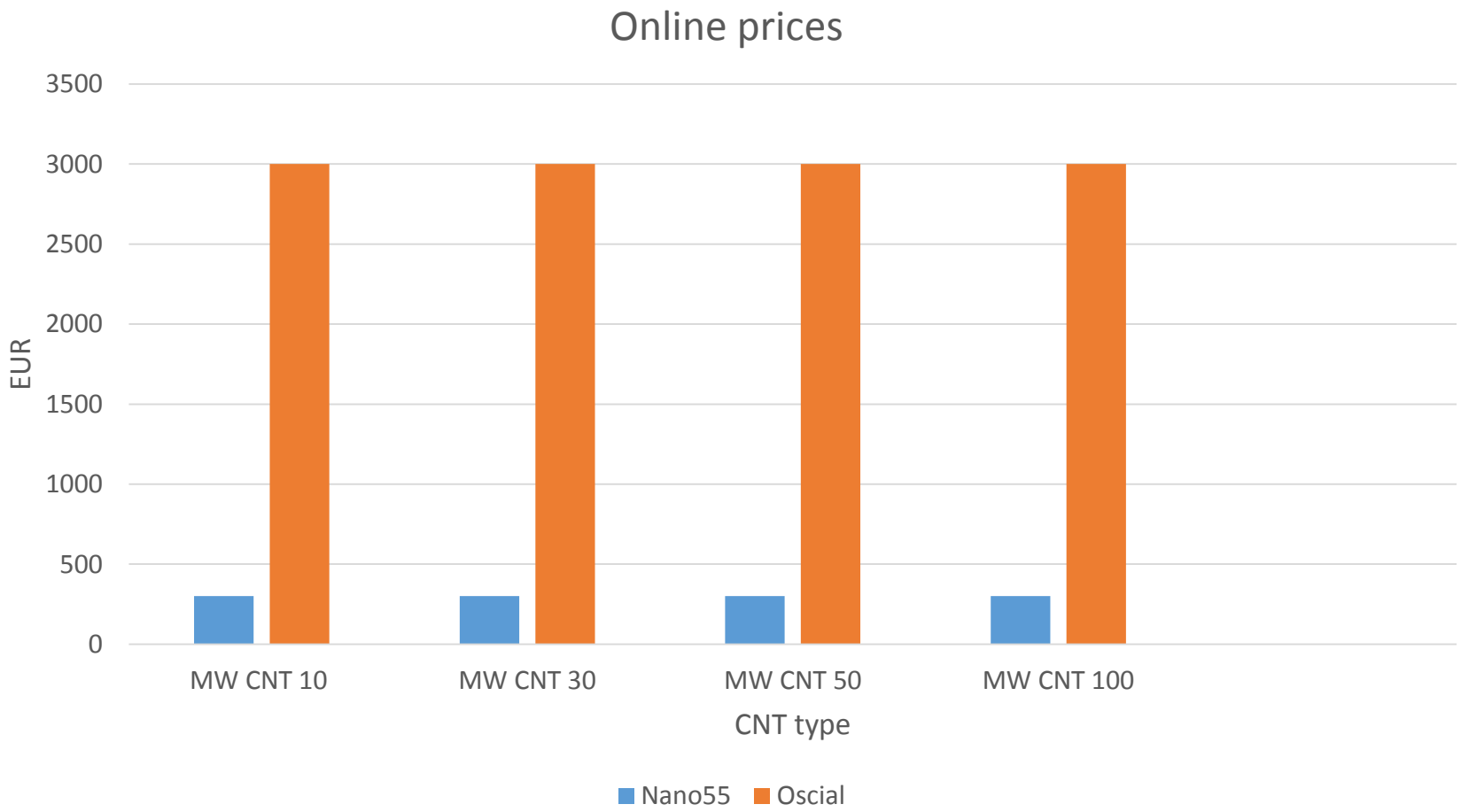
Components – 37K

Unexpected expencies budget – 15K

Common - 494K

As a possible result – 5-6T of MW CNT per year
(on full furnace capacity)

MW CNT aprxm price comprasion (per 1 kg) with the cheapest producer from known



Proposed business model

CNT production and sales

Direct/partners sales

Online web sales

Researches, patenting of ready applicatins on our CNT base in chosen areas

Patents sale

Ready application production and sales

Chosen to research possible use of our CNT in ready applications

- Construction materilas – features improve
- Filtrs (water, tabacco) – features improve
- Medicine – drug delivery
- Oil treatment– catalysator of process
- Accumulators - features improve

*after ready application detection, necessity in additional equipment for it’s production will appear

Milestones

- Start point – finalizing of research in one of chosen areas
- 1st month - Business model developing on ready application base
- 1st month – investment attraction
- 2nd month – equipment order
- 5th-6th month- equipment installation
- 7th month - launch of production and sales
- Constantly – researches in chosen areas for ready applications on our CNT base

We will take part in saving the Earth