

NANOTECHNOLOGY; everybody talks about it; I-COATS offers it.
New technology for some; known experience to us.

What is Nanotechnology?

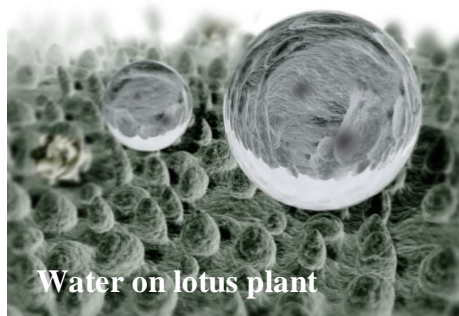
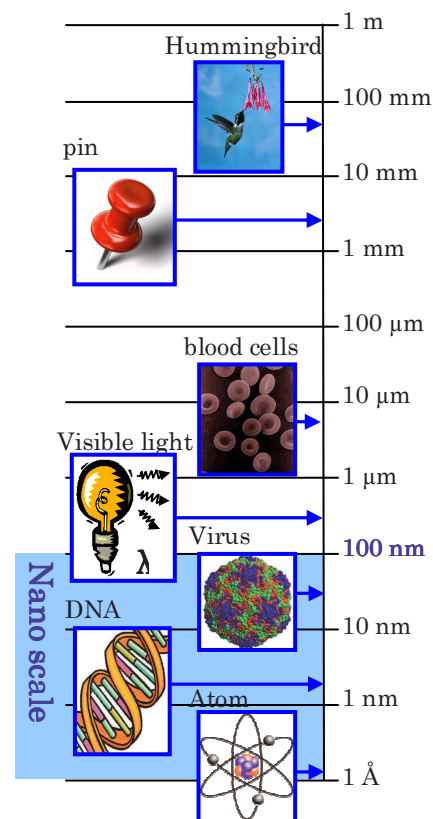
Nanotechnology aims at the design and creation of functional materials, structures, devices and systems through direct control of matter on the nanometre length scale and exploitation of novel phenomena and properties on this length scale. The length scale is usually defined as being smaller than 100 nm, depending on the physical and chemical characteristics of the particular system that undergoes quantitative and qualitative changes when the length scale boundary is crossed.

Essential in nanotechnology is to have a direct control of matter either between two Nano-objects, or between a micro (or macro) object and a Nano-object.

How does Nanotechnology works in coatings?

The Lotus effect is the self-cleaning property found with lotus plants. Although lotuses prefer to grow in muddy rivers and lakes, the leaves remain clean, they have a natural cleaning mechanism. Their microscopic structure and surface chemistry mean that the leaves never get wet. Rather, water droplets roll off a leaf's surface like mercury, taking mud, tiny insects, and contaminants with them.

I-Coats NV has developed coatings that have such a fine particle size (less than 100nm) that the textile can stay dry for a longer period and clean itself in the same way as the lotus leaf. The new ICO-THANE 10 and 20 use nanotechnology, see www.i-coats.be.



Prefix	Symbol	Factor
yotta	Y	10 ²⁴
zetta	Z	10 ²¹
exa	E	10 ¹⁸
peta	P	10 ¹⁵
tera	T	10 ¹²
giga	G	10 ⁹
mega	M	10 ⁶
kilo	k	10 ³
hecto	h	10 ²
deca	da	10 ¹
deci	d	10 ⁻¹
centi	c	10 ⁻²
milli	m	10 ⁻³
micro	µ	10 ⁻⁶
nano	n	10⁻⁹
pico	p	10 ⁻¹²
femto	f	10 ⁻¹⁵
atto	a	10 ⁻¹⁸
zepto	z	10 ⁻²¹
yocto	y	10 ⁻²⁴