



Nanotechnology – Turning Nanoscience into Business

Helsinki  **NANO**

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Nanotechnology – Turning Nanoscience into Business

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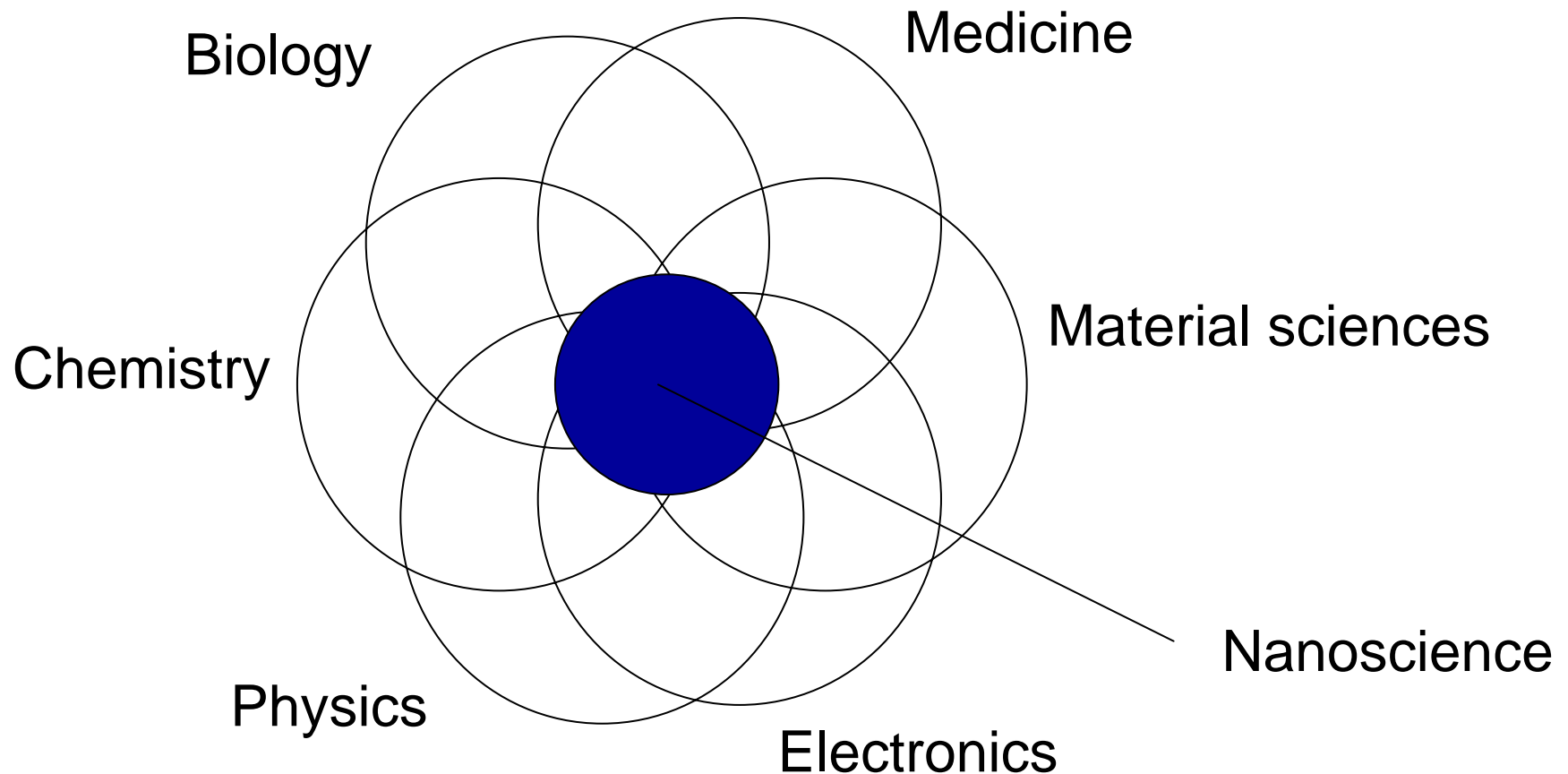
Centre of Expertise for Micro & Nanosystems
and Adaptive Materials



Background

- **Nanosciences in Finland, 27.5.2004**
 - Dr. Bruno Michel, IBM Zurich,
 - Prof. Kelly Velonia, University of Nijmegen
 - Prof. Lars Samuelson, University of Lund
 -
- **Nanotechnology – Turning Nanoscience into Business**
 - ✓ Nanotechnology is already here
 - ✓ Impact on key areas in Finnish industry
 - ✓ Time spans from innovation to commercialisation
 - ✓ Collaboration between industry and universities

Nanoscience at the intersection of other disciplines



Nanoscience

- Measured in terms of increased understanding (publications and PhD thesis)
- Crucial for creating:
 - international networks,
 - world class education and
 - attracting skilled students
- Necessary, but not sufficient to create nanotechnology



Nanotechnology

- Measured in terms of usefulness
- Based on nanoscience combined with other skills to fulfill a need
- Necessary, but not sufficient to create "nanobusiness"

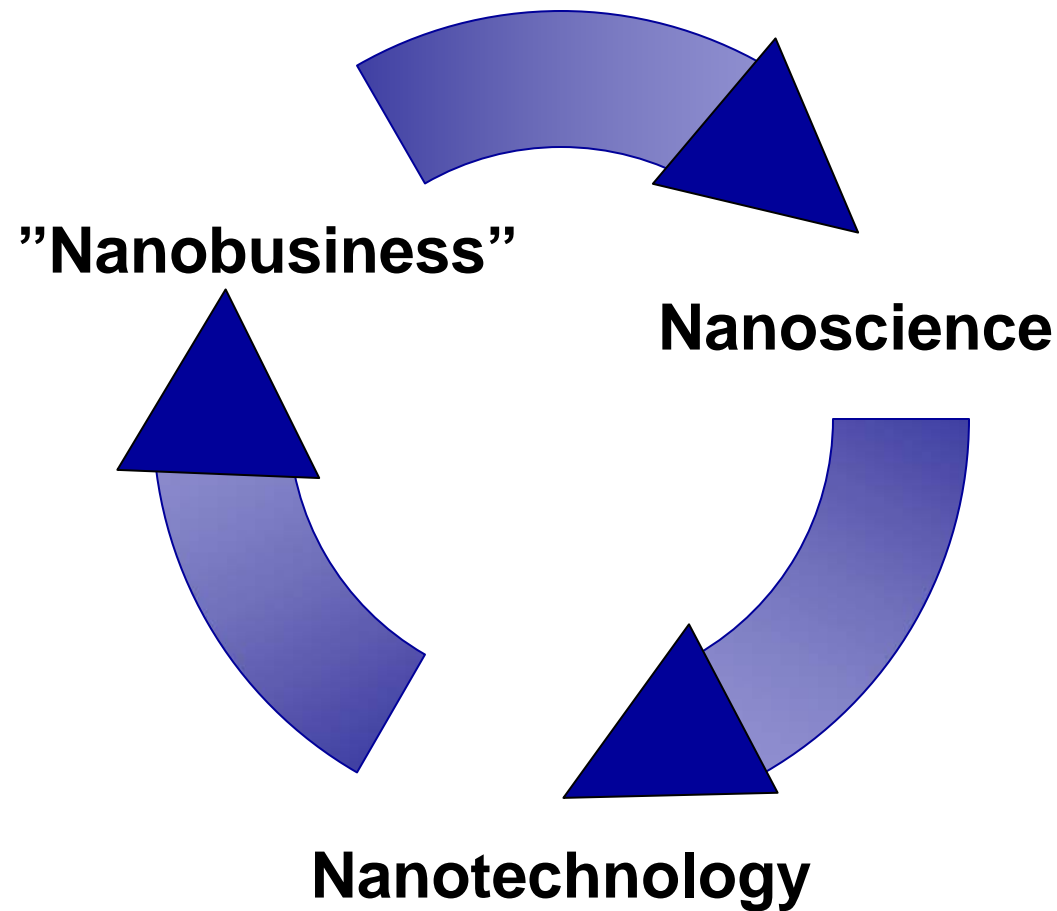


"Nanobusiness"

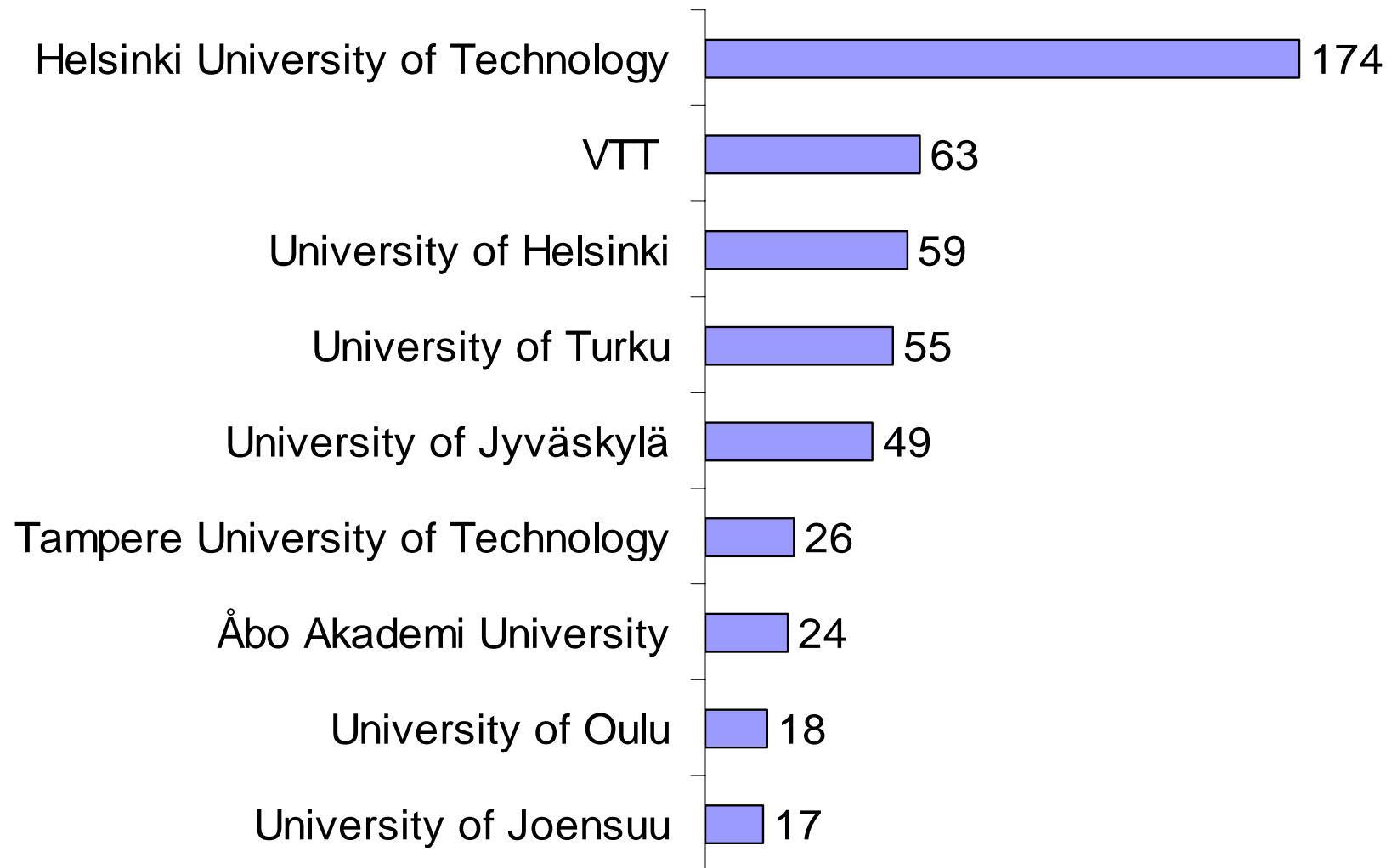
- Measured in terms of financial success
- Requires
 - business skills (market demand, funding, mgm, etc.)
 - nanotechnology



"Nanotechnology – Turning Nanoscience into Business"



Publications in "nanoscience" since 1990



Source: Riitta Metsäkoivu, VTT Information Service; haettu CPlus-tietokannasta (sis. kemian ja lähialat laajasti) nanotekniikkaa kuvailevilla hakusanoilla 4/2004

Uusimaa (Helsinki) Region and Creativity

Rank	Region	Creativity Index
1	Uusimaa, Finland	491.0
2	Ile de France, France	319.2
3	Berlin, Germany	319.0
4	Lazio, Italy	256.5
5	Bremen, Germany	243.5
6	Stockholm, Sweden	243.0
7	Hamburg, Germany	230.5
8	South East, UK	230.1
9	West-Nederland, Netherlands	225.4
10	Pohjois-Suomi, Finland	224.0

Source: *European Competitiveness Index*, Robert Huggins Associates



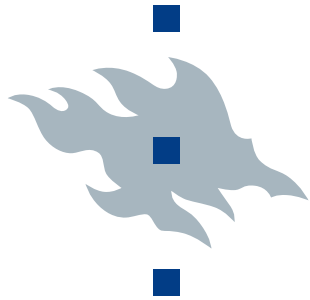
Our vision

*The Helsinki Region is known for
its ability to generate business
based on nanotechnology*

or

”How to turn Nanoscience into Business”

The *Helsinki-NANO* Initiative is supported by



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TEKES

Culminatum



*Uudenmaan liitto
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