

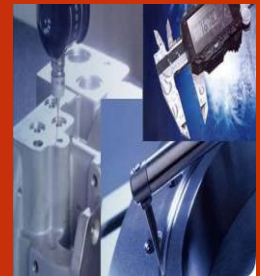
ANACOM-ENISA WORKSHOP ON RISK AND INNOVATION

(Managing the risk of) Research to support innovation



Eurico Neves

INOVA+ | INOVAMMAIS S.A.

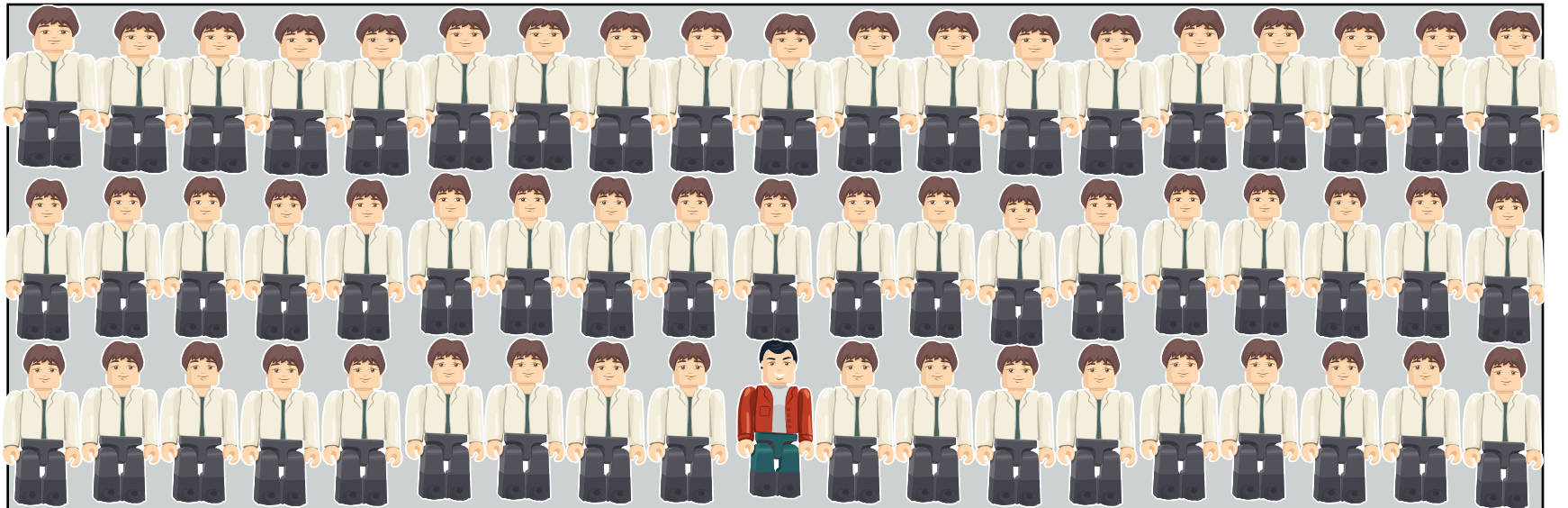


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In case you haven't noted yet: yes, it is a fast evolving, innovative, risky world.



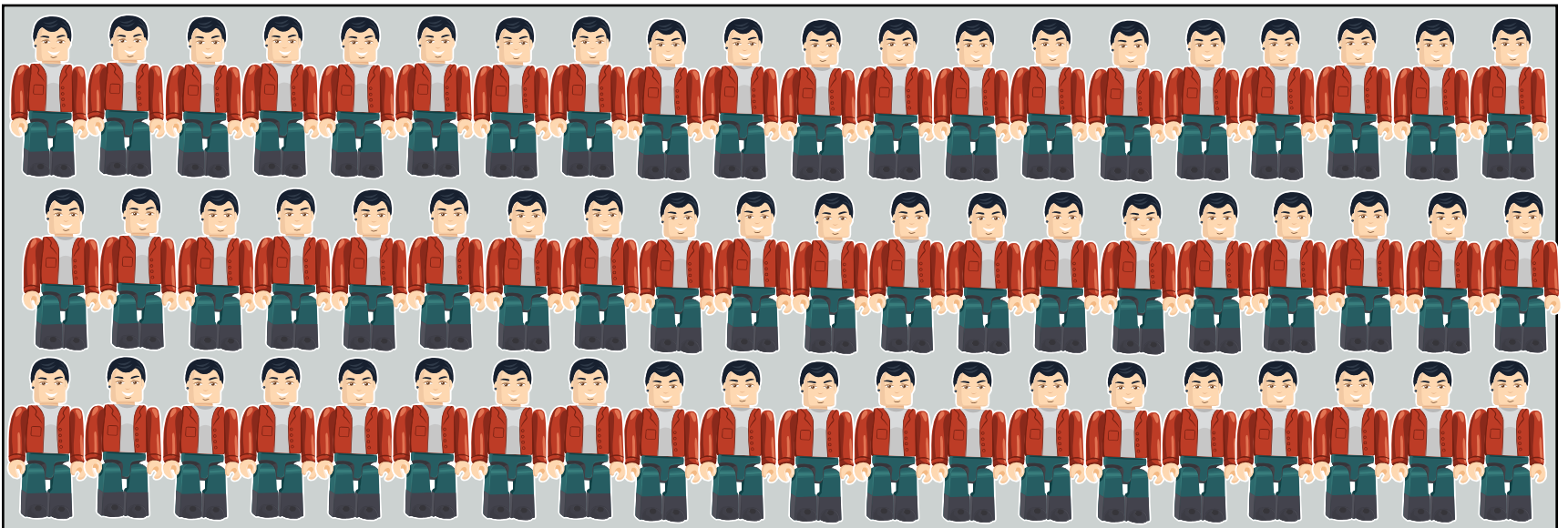
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If you happen to be 1 in a million ...



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... in china alone are 1.300 people just like you



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... The 10
most demanded
jobs
in 2010

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Presently you have over 200 million users registered in something like **MySpace**



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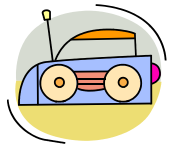


Should MySpace be a country, it would be the **5th** largest in the world, in between Indonesia and Brazil



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It takes less and less time to reach large audiences of consumers (say 50M):



38 years



13 years



4 years



3 years



2 years...

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A week of a normal daily newspaper brings more information than the one a 18th Century normal person would come across during his entire life

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This year alone **4 exabytes** (4.0×10^{19}) of new information will be generated – i.e more than in the last **5,000** years

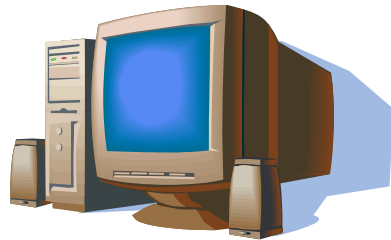
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As the amount of new information doubles every year... :

...this means that for someone who is just about to start a 5 years university course...

...half of what has been learnt in the first year is totally out of date by the time 3rd year is reached .

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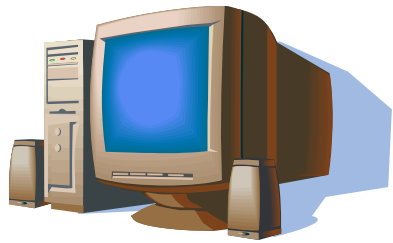


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By **2013** a supercomputer that surpasses the computational capacities of the human brain should be built.

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More impressing, by **2049** a 1,000 \$ normal computer should exceed the computational capacities of the whole human species.

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So yes, it is an exciting, innovative but risky world – and there is not much we can do about it, except keep on.

So, how to be innovative and manage risk?

a) With Intelligence

b) With Method

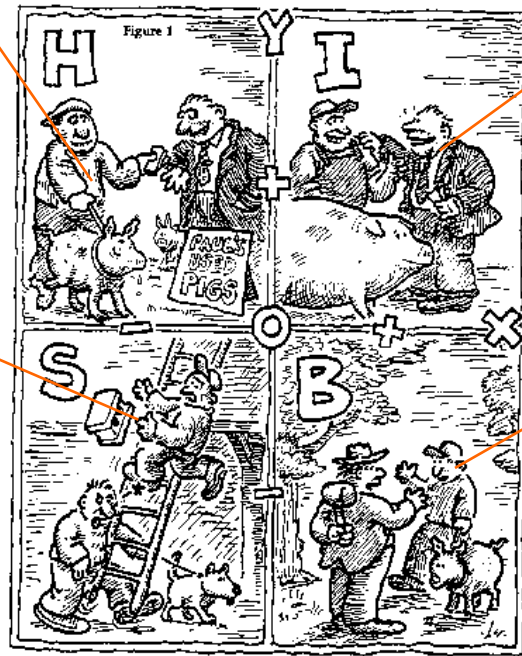
c) With Audacity

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a) “intelligence”

If by our action, we cause a gain to other without taking any gain for ourselves (or even suffering a loss), we're helpless

And finally if our actions result in a loss for others with no gain (or even a loss) on our side, we're definitely stupid



If our actions results in gains for others as well as for ourselves, we're intelligent

If our actions result in our gain but at expenses of a loss to others, we're bandits

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b) “method”

Problem solving: remove the water without touching the glass

“Instictive” solution:

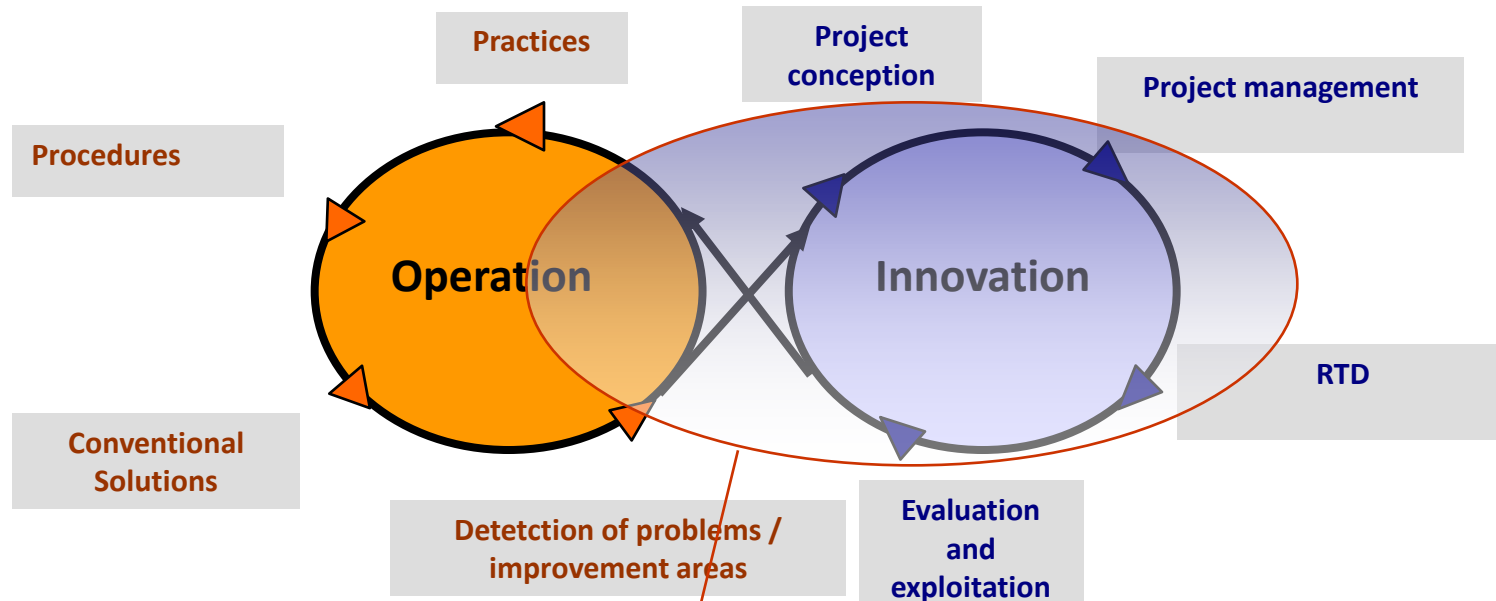


“Methodic” solution: actually there are no less than 44 documented processes to move a liquid ready to being used:

Acoustic Cavitation, Acoustic Vibrations, **Archimedes’ Principle**, Bernoulli’s Theorem, **Boiling**, Brush Constructions, **Capillary Condensation**, Capillary Evaporation, **Capillary Pressure**, Coanda Effect, **Condensation**, Coulomb’s Law, Deformation, Electrocapillary Effect, **Electroosmosis**, Electrophoresis, **Electrostatic Induction**, Ellipse, **Evaporation**, Ferromagnetism, **Forced Oscillations**, Funnel Effect, **Gravity**, Inertia, **Ionic Exchange**, Jet Flow, **Lorentz Force**, Magnetostriction, **Mechanocaloric Effect**, Osmosis, **Pascal Law**, Resonance, **Shock Wave**, Spiral, **Super Thermal Conductivity**, Superfluidity, **Surface Tension**, Thermal Expansion, **Thermocapillary Effect**, Thermomechanical Effect, **Ultrasonic Capillary Effect**, Ultrasonic Vibrations, **Use of foam**, **Wetting**.

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b) “method”

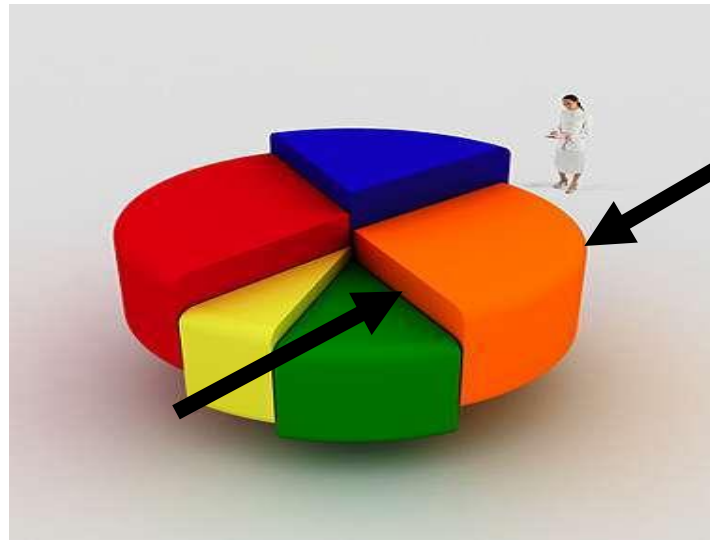


“Methodical”
research scope

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b) “method”

Research is risky...

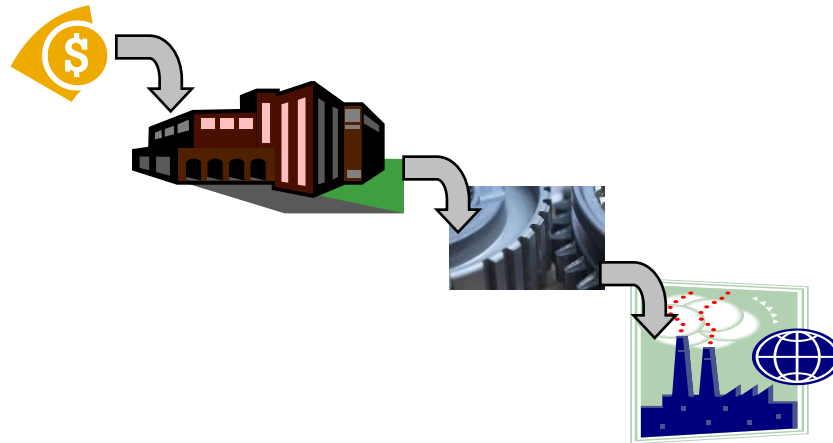


... divide and minimize!

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b) “method”

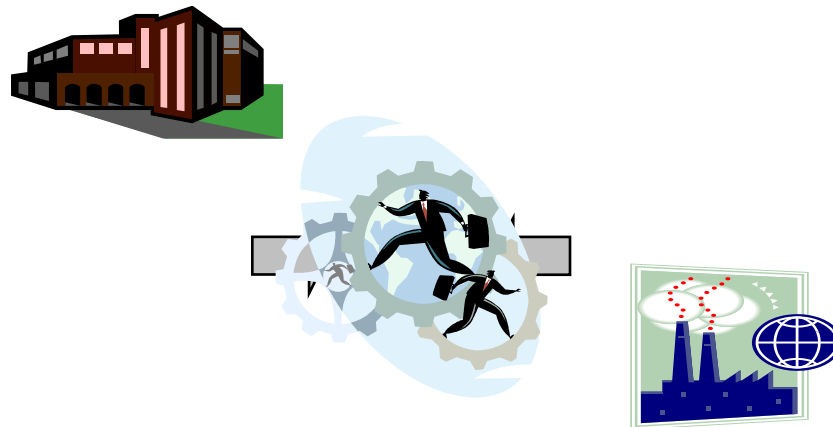
The “old” division of risk method was based simply on gravity...



The end of the “cold war”, that of flagship projects and the “it’s the economy, stupid” syndrome, changed the “status-quo”.

b) “method”

Today, science & research and economy & competitiveness are clearly at the same level ...

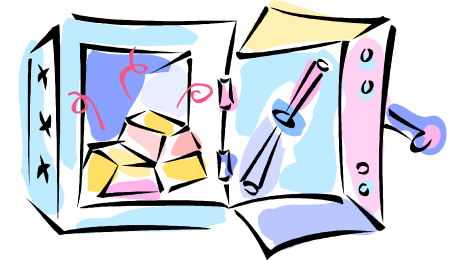


... and it's not so much about bridging the gap, but occupying it!

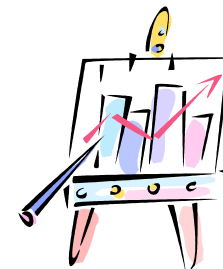
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b) “method”

“Closed”:



“Open”:



from IP..to VC

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b) “method”

The new golden rules of risk management in “open” research / innovation:

- a) Divide as much as you can: fund and get funded**
- b) Think about how to share, and not about how to protect**
- c) Minimize your risks by taking innovation and research seriously: plan, monitor, evaluate.**

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c) “audacity”

The “intangible” element



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Thanks for your attention !