ICEducation©

Innovation Curriculum for Entrepreneurship ©

ICEducation© Schools

INSME

Webinar 17th June 2014

innovabia
We help you discover your Innovation Potential

Welcoming the knowledge economy!

OBAMA!

August 2009

EXECUTIVE OFFICE OF THE PRESIDENT
NATIONAL ECONOMIC COUNCIL
OFFICE OF SCIENCE AND TECHNOLOGY POLICY

A STRATEGY FOR AMERICAN INNOVATION:
DRIVING TOWARDS SUSTAINABLE GROWTH AND QUALITY JOBS

History should be our guide. The United States led the world's economies in the 20th century because we led the world in innovation. Today, the competition is keener; the challenge is tougher; and that is why innovation is more important than ever. It is the key to good, new jobs for the 21st century. That's how we will ensure a high quality of life for this generation and future generations. With these investments, we're planting the seeds of progress for our country, and good-paying, private-sector jobs for the American people."

-President Barack Obama, August 5, 2009

SEPTEMBER 2009

OBAMA in 25th Jan 2011: Obama's answer to the US-crisis

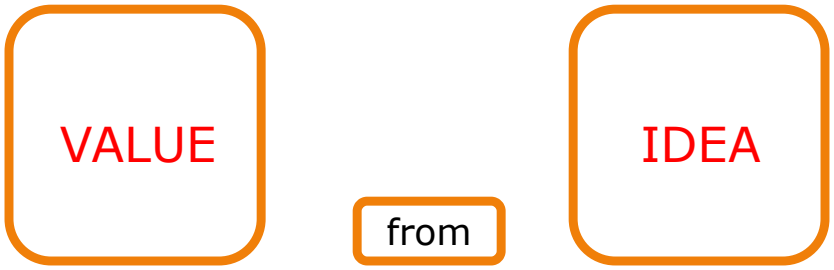
"Go all in for innovation" and

"out-innovate the rest of the world"

Innovation ≠ Creativity ≠ Entrepreneurship

What is Innovation?

Innovation in two words only?



"innovation is value from idea" Osama Ghanim

* In the coming book Dec 2014 "Innovation: value from idea"

Why Innovation?

The world exhausted all ceilings of science / technology and discoveries utilization and everybody have access to all above.

The only differentiator for the competitiveness is new things

"i.e. INNOVATION"

Why Creativity?

Innovation needs new unprecedented ideas ….

The cheapest resource we have in this earth is the human mind … all you need is to switch it ON to create new ideas ….

"i.e. CREATIVITE THINKING"

Why Entrepreneurship?

SME's makes strong economies (more employability & more diversification).

Start-ups are the seeds for SMEs.

Entrepreneurship (Practices, Ecosystem, Skills, etc ..) brings better Start-ups.

The world needs

INNOVATIVE Entrepreneurship

Do we need to get educated on

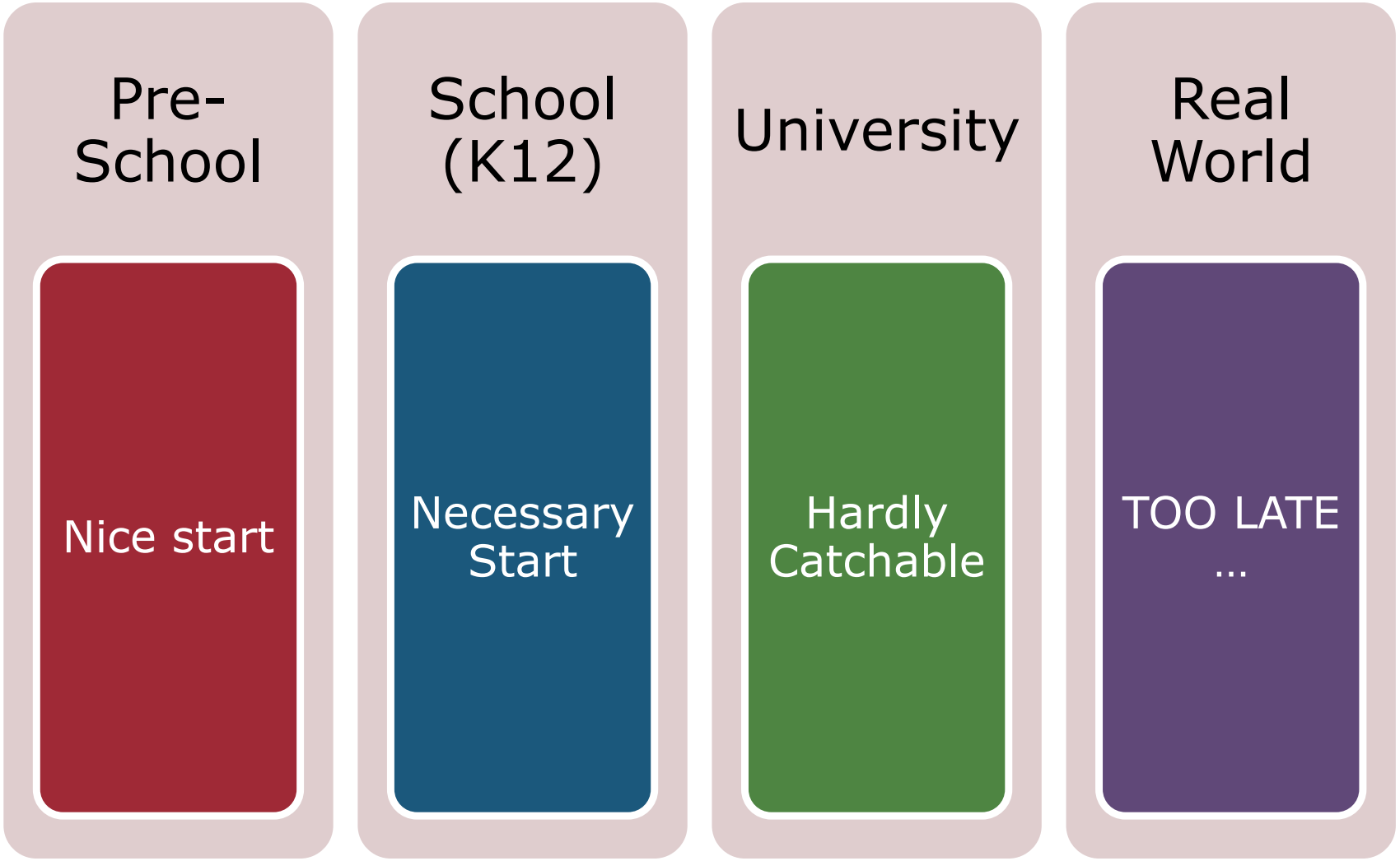
CREATVIITY , INNOVATION and ENTREPRENERSHIP?

What is the current status?

We need to educate everybody at all levels ….

CREATVIITY , INNOVATION and ENTREPRENERSHIP?

Is it too late?



Why educating Creativity & Innovation & Entrepreneurship?

Leaving it to luck is not enough

Why "NEXT" practices?

#1

Because "BEST" practices are already outdated

#2

if 20+ years or so didn't work should we expect few more years will bring what best practices promised?

Educating Innovation

≠

Innovation in Education

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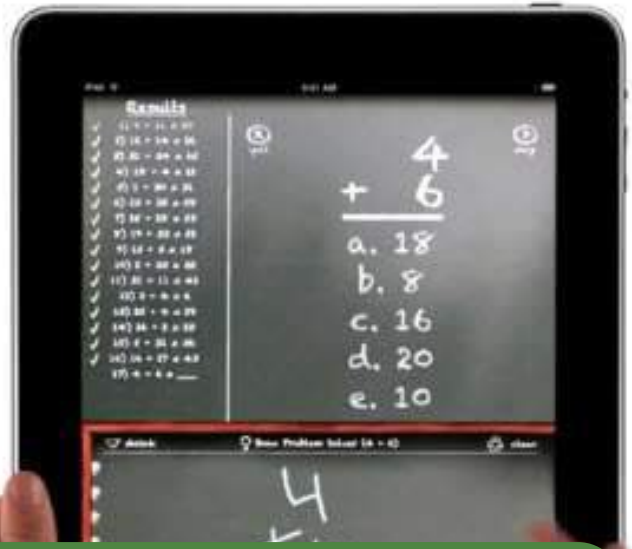


Educating Innovation

Innovation in Education

The Challenge (Countries)

Countries are under more challenges to bring more competitive economy based on more knowledgeable and more creative citizens ….

What experts say about world future

Future work force in this world must be equipped (in addition to core education & experience)

….. with Creativity, Innovation and Entrepreneurship skills.

Human Evolution

Zero to 5: Kids ask “WHY?”

5 to 12: Kids ask “Why not?”

AFTER 12: Excuses & Justification & Denial ....

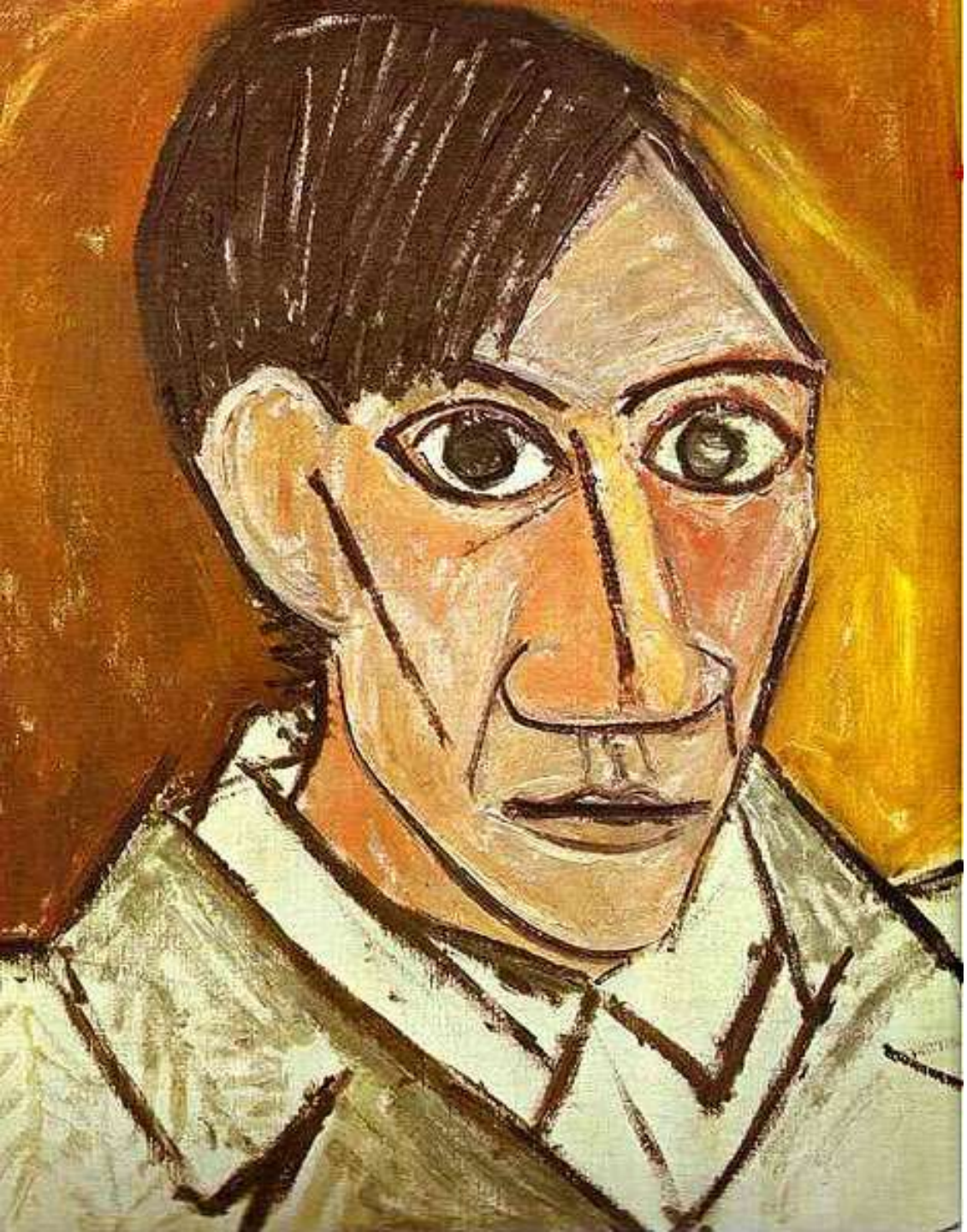
THEY SAY …

- It doesn’t work
- Not logical
- Doesn’t adhere to…
- No-Body have done It before
- Not written in the book
- The Teacher/boss/Parents didn’t say so …
- Etc……..

Creativity

Creativity is about conceiving new Ideas ,

……. genuine & unprecedented ideas



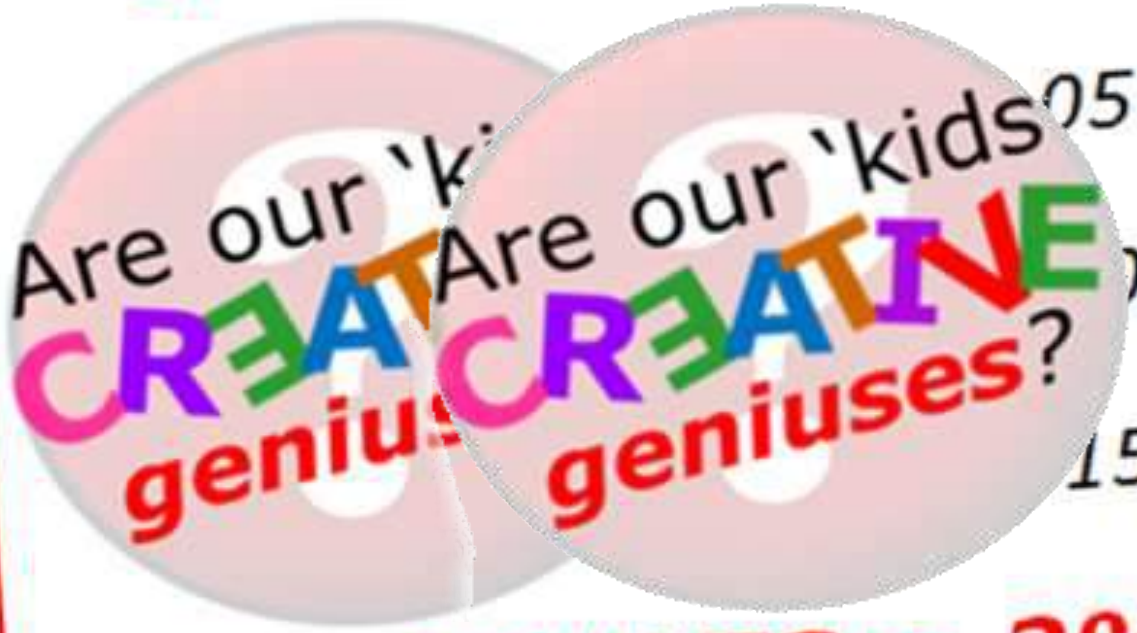
Every child is an artist.

The problem is how to remain an artist once he grows up.

Pablo Picasso *(1881 - 1973)*


Are our 'kids
CREATIVE
geniuses?

Longitudinal study of 1,600 kindergarten children



05 = 98%

= 32%

15 = 10%

ADULTS = 2%

SOURCE: George Land & Beth Jarman (1998) – *Breakpoint and Beyond*

Schools KILL creativity!

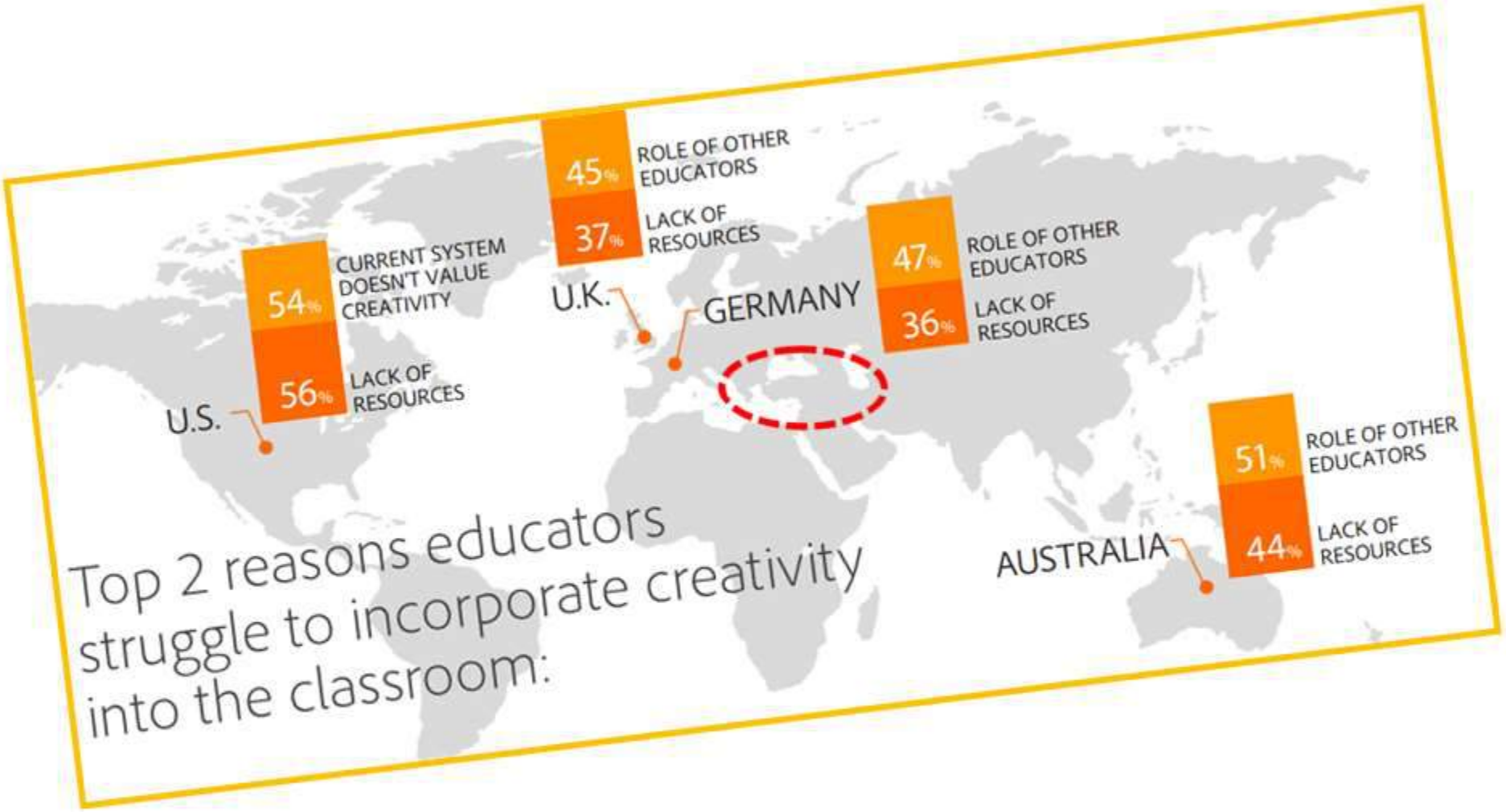
We don't grow into creativity, we grow out of it.

We are educating people out of their creative capacities.

TED Video (2006) - http://www.ted.com/talks/ken_robinson_says_schools_kill_creativity.html


THE CREATIVE
ADULT
IS THE
CHILD
WHO SURVIVED

Source: Adobe (2013) "Barriers to Creativity in Education: Educators and Parents Grade the System" Study. Study based on interviews with 4,000 adults, including 2,000 educators of students in K through higher education and 2,000 parents of children in K through higher education, including 1,000 each in the US, UK, Germany and Australia.



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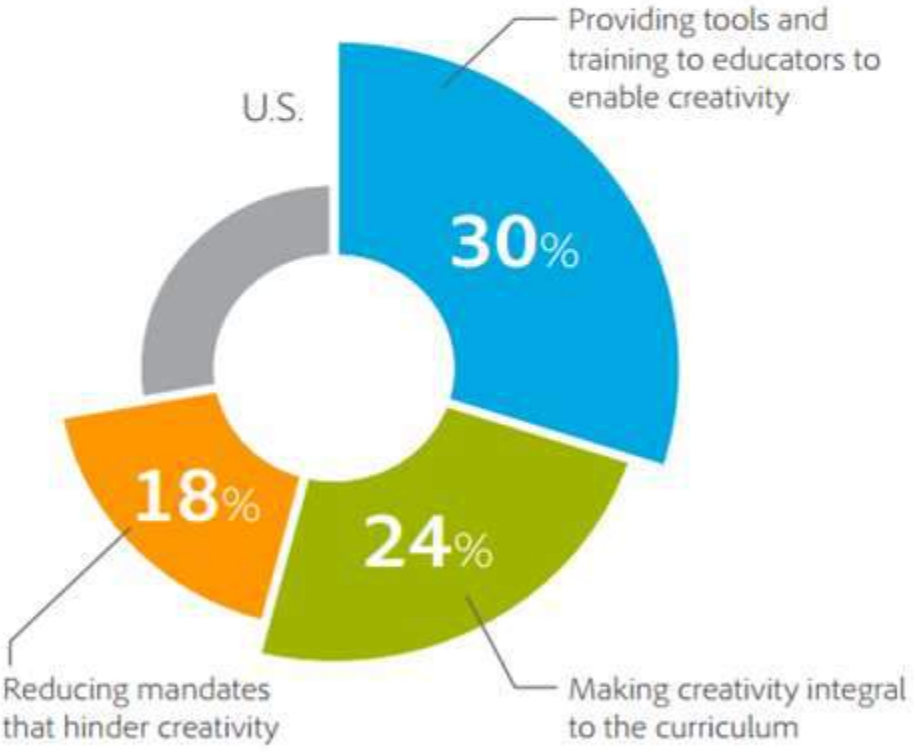
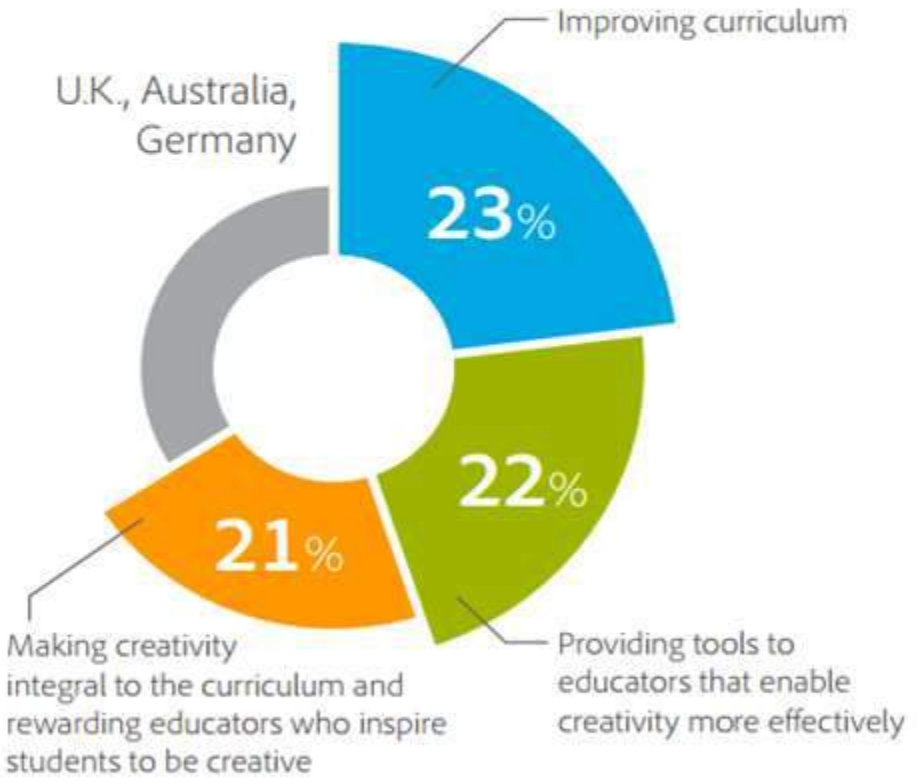
Top 3 Most Important Steps to Promote & Foster Creativity in Education





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The world must answer where are

… the future Innovative and Entrepreneurial schools of the world

One humble solution …

Revolutionary …
Unprecedented …
Promises a lot …

ICE ducation ©

GESS

5th Mar 2014

Award Winning

ICE ducation ©

Innovation Curriculum for Entrepreneurship

for schools Grade 1 to Grade 12

Challenges facing Schools

Schools are under more pressure to prepare students more than just what text books provide ….

Are we preparing them to the real world?

School challenges in finding solution …

Curriculum changes is a long process …

School time is limited …

Teachers busy in their basic educational mandates

Students & parents can't give time after school …

ICE Innovation Curriculum for Entrepreneurship ©

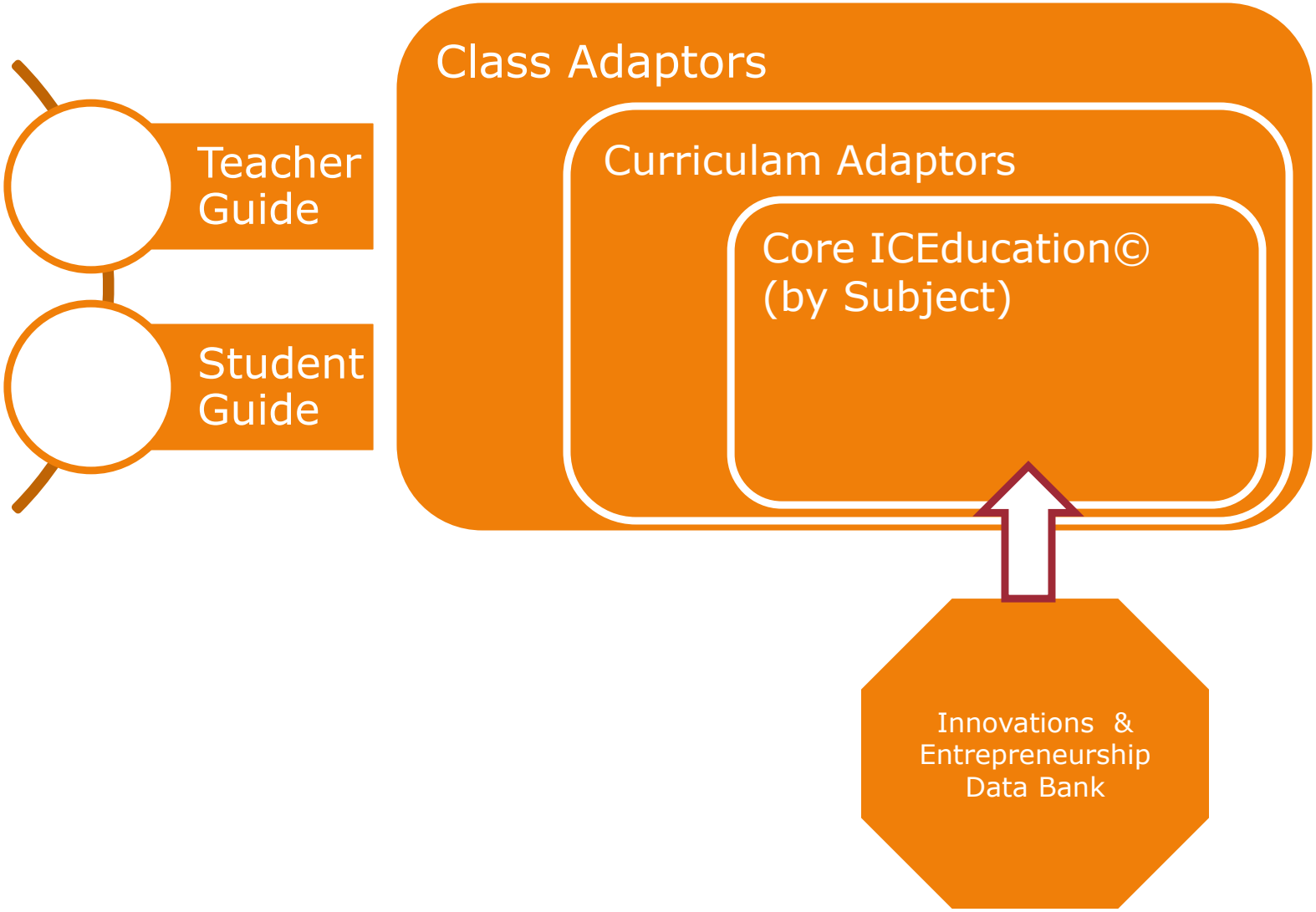
An innovative solution to manage challenges for countries and schools

Impact promised by ICEducation©

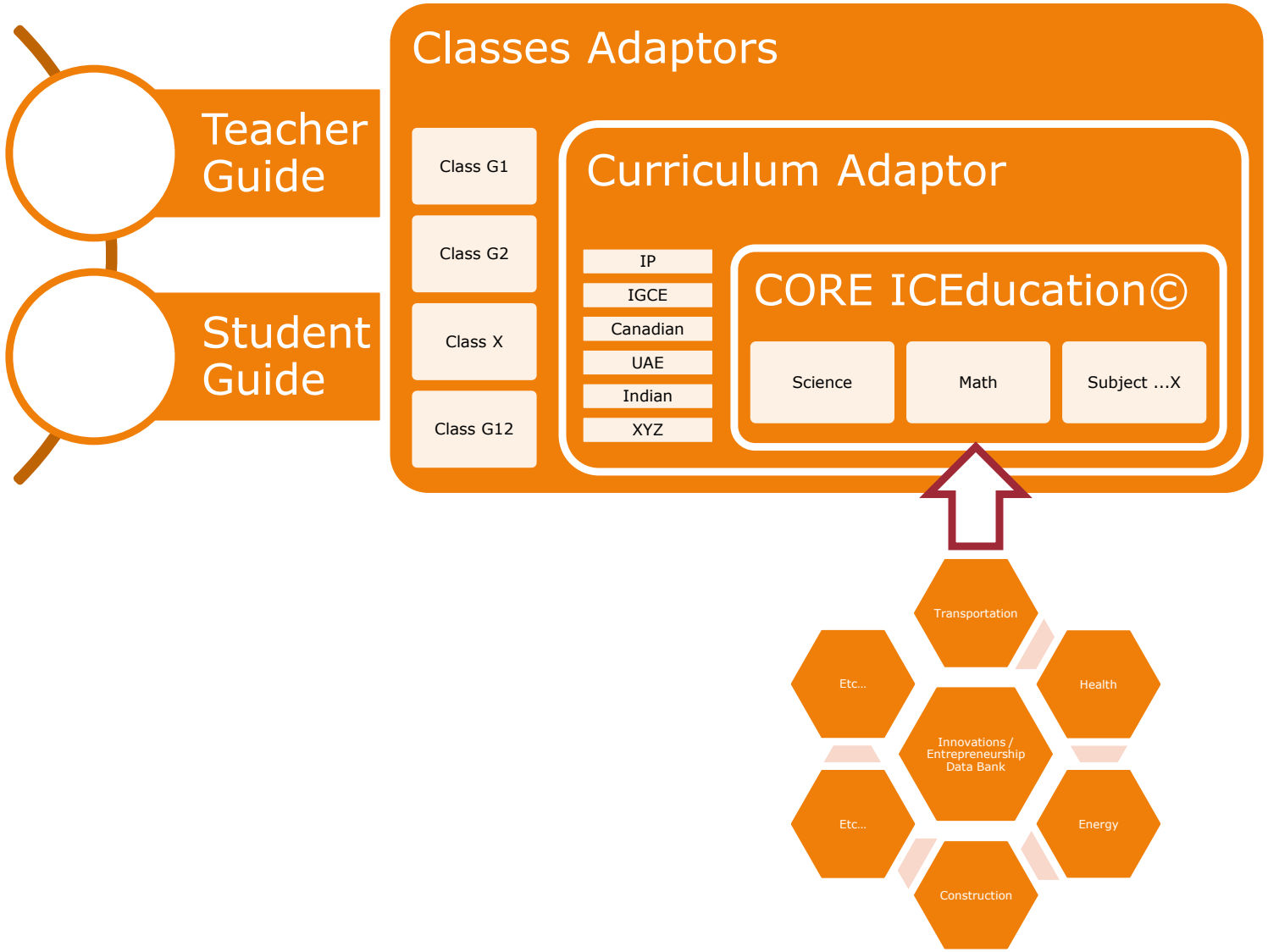
create
innovators
and
entrepreneurs

to the market
out of the schooling
system

ICEducation © model



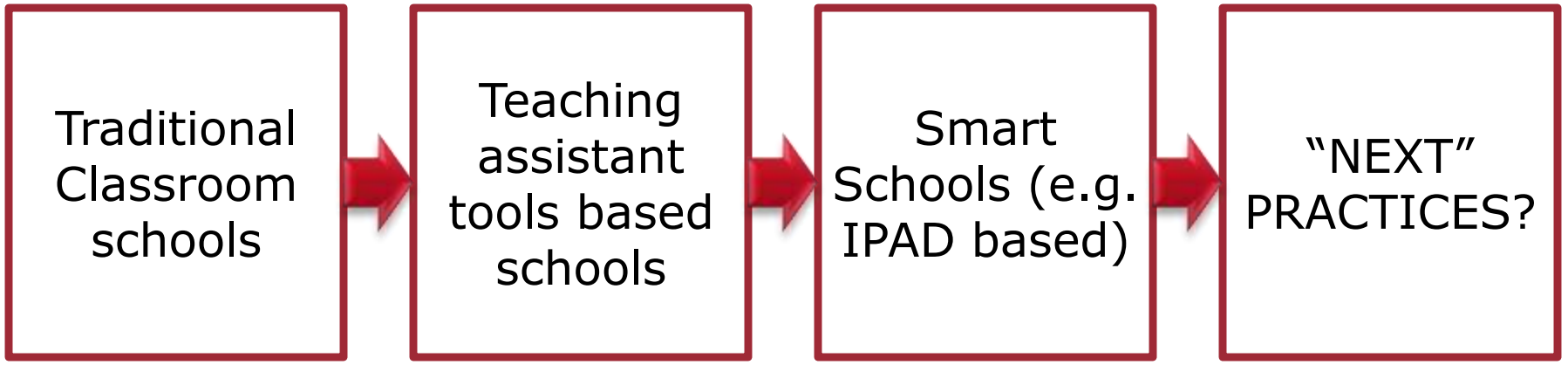
ICEducation © model



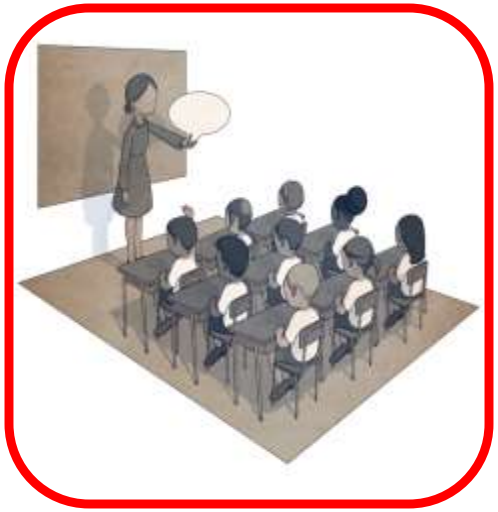
ICEducation© in one slide …

- Approach to educate students the real life Innovation & Entrepreneurship principles & practices …
- While keeping existing curriculum …
- During same school time …
- Organically injected in same class rooms…
- Fun & in the language of the age …
- Just enough dosage for the grade …
- Practical …

The schools evolution!



Traditional Classroom → External Tools Based → Smart Classrooms



"NEXT" practices ICEducation ©

Lectures
Homework
Quizzes
Exams

Interesting external tools based

Same information but a lot of modern tools like IPAD

More chances for a creativity (No Guarantees)

Boring
Memory based

Good visualization & hands-on

Any knowledge is easily accessible

Guaranteed outcomes for the economy & mankind welfare.

Options for beyond curriculum

After School education

During School time

Pros & Cons

	After School	Classes during school time
PROS	• Isolated from core education • Allocates more time • Parents Involvement • Feeling out of school	• Little logistics • Leaves more time for life
CONS	• Tak from rsonal me • Log ics is a ncer	• Mor urde n sch time • Kee boring nosp ere

Teaching Innovation & Entrepreneurship in schools K12 ….

- same curriculum
- same school time
- same school classes
- same school subjects
- same teachers

Unique ….

- specific to every subject
- teachers guided system
- fun
- real life matters
- culture tailored
- culture independent

ICEducation© explained in ..

Two examples in real school class…

#1 In science class for Viscosity Subject in Grade 5

#2 In science class for Viscosity Subject in Grade 11

Example: Chemistry Grade 5

Subject: Viscosity

TEFAL (coated with TEFLON)

DUPONT was looking for new GAS similar to FREON to be used in refrigerators.

GAS under testing saved in tank & cooled to avoid explosion resulted in something weird. White flakes as waxy coating.

RAW material called TEFLON

French Engineer Marc Gregoire obtained a small amount of Teflon, intending to coat his fishing gear with it. His wife asked him to coat her frying pans. The result was so successful that he patented non-stick cookware in 1954 and set up a factory in 1956 namely TEFAL.

Lessons discussed in Grade 5

- Importance of scientific research
- Value of observation in the unknown
- Thinking differently in using the existing
- Taking opportunities to do business

Example: Chemistry Grade 11

TEFLON= CF2 CF2

GM owned FREON as the GAS used in their famous Frigidaire refrigerators. In early 1930s both started Kinetic venture. Result was FREON 114. DUPONT didn't get anything from this venture & started their own research. One of the scientists assigned to this task was a 27-year-old Ohio State chemistry Ph.D. named Roy J. Plunkett.

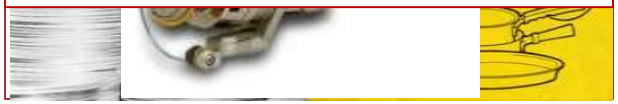
GAS under testing saved in tank & cooled to avoid explosion resulted in something weird. White flakes as waxy coating.

Plunkett applied for a patent on July 1, 1939 in the name of Kinetic Chemicals. In 1941, patent 2230654 was granted.

Teflon's first use was in gasket seals for the Manhattan project. Teflon also found a home as the nosecone material on proximity bombs

French Engineer Marc Gregoire obtained some Teflon, intending to coat his fishing gear with it.

His wife asked him to coat her frying pans. The result was so successful …..



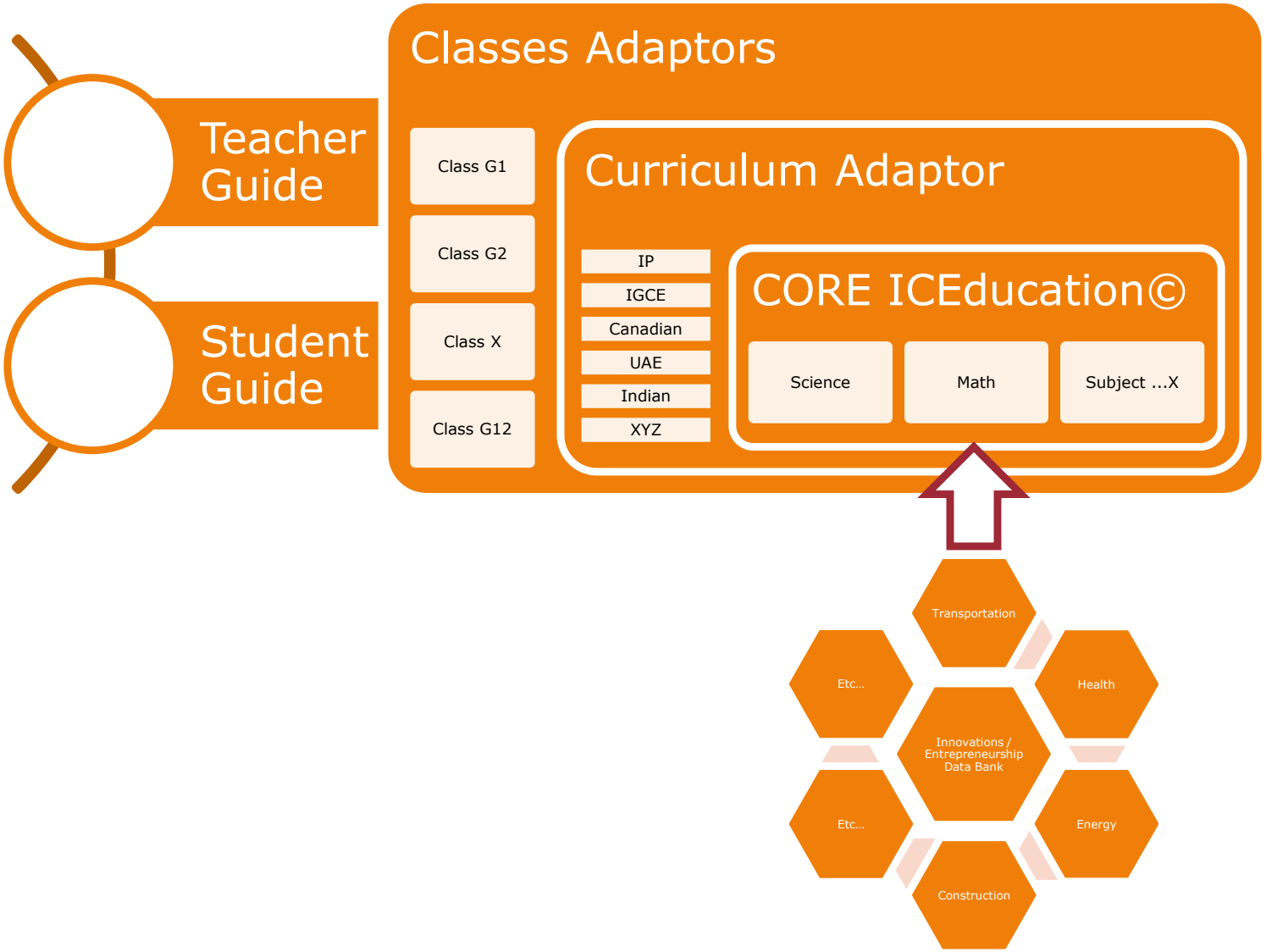
Marc Gregoire patented non-stick cookware in 1954 and set up a factory in 1956 namely TEFAL..

TEFAL®

Lessons discussed in Grade 11

- Importance of scientific research
- Thinking differently in using the existing
- Value of Patents & Intellectual Property
- Taking opportunities for Entrepreneurship
- Innovation is not only R&D & Discoveries
- Capitalizing on the accidental outcomes

ICEducation © model



If last 20-40 years of various efforts didn't bring the desired outcomes we must give a chance for new BOLD approaches.

One humble contribution is …

Innovation Curriculum
for Entrepreneurship
ICEducation ©

Osama Ghanim

Founder
Chief Innovation Director (CID)

إنوفيبيا
نساعدك في إكتشاف قدراتك الكامنة على الابتكار

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