

EMBEDDING ENTREPRENEURSHIP IN UNIVERSITY CURRICULA

Hanoi 21 23 July 2008

APEC HRD

An overview of issues in APEC Economies

The role of Higher Education and Entrepreneurship Training from the perspective of APEC member economies

Chris Hall
Macquarie Graduate School of Management
PECC SME Network Leader
Chris.Hall@bigpond.com



PACIFIC ECONOMIC COOPERATION COUNCIL



The main questions

What sort of business environment is suited to entrepreneurs?

What role do SMEs and entrepreneurs play in the APEC economy?

Are all entrepreneurs the same? Is there a curriculum for entrepreneurship?

Do entrepreneurs need education more than they used to as a result of globalisation and APEC?

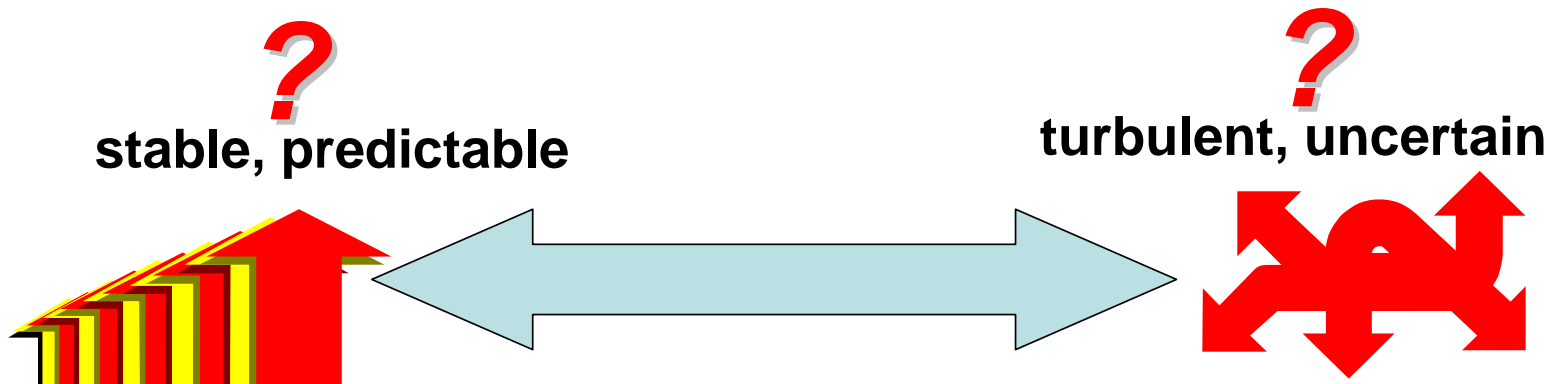
if APEC needs more and better entrepreneurs - how can education help meet those needs?

How can universities better help entrepreneurs?

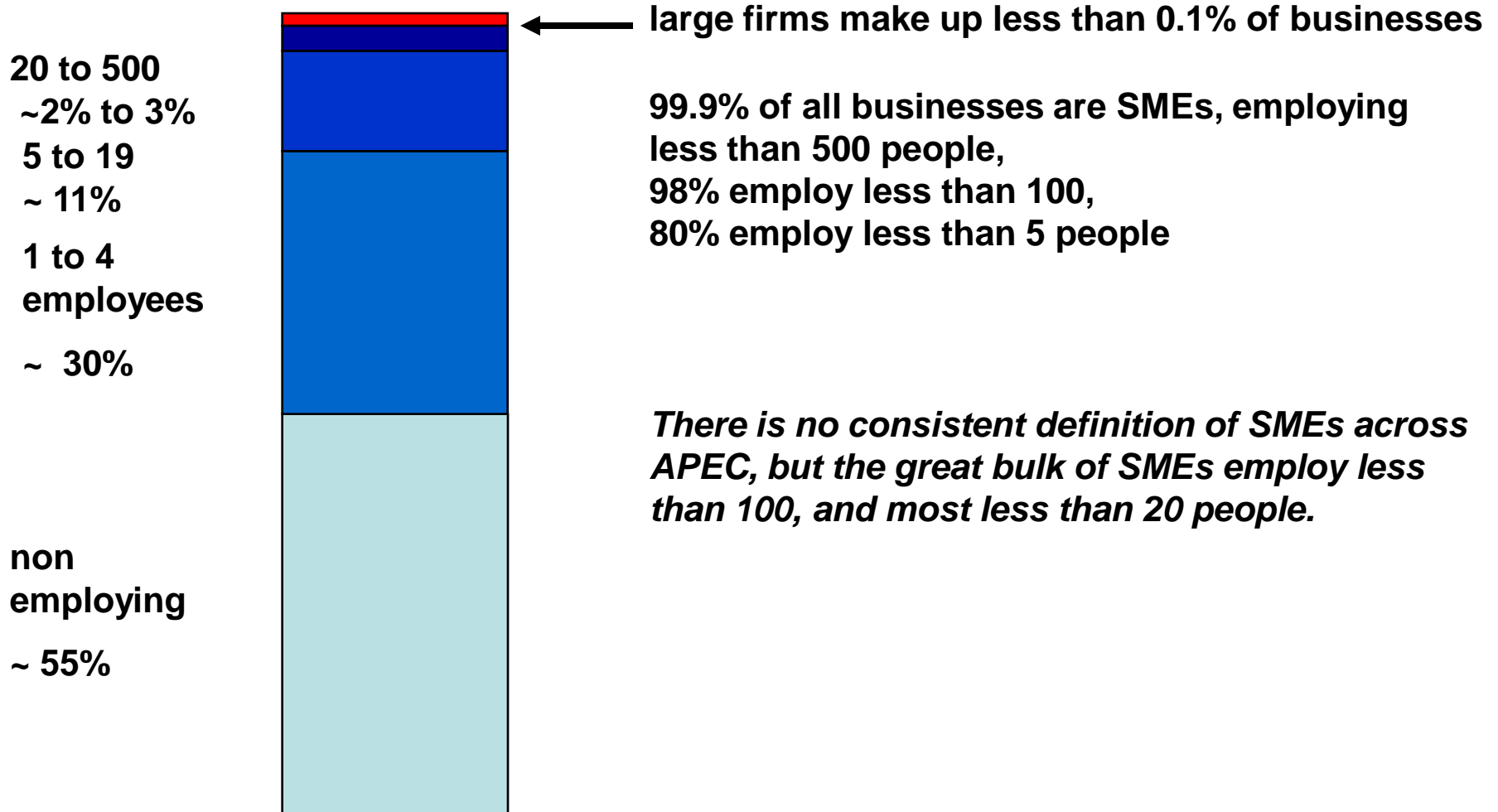
Key points to take away

1. Entrepreneurs, and the SMEs they manage, make a major contribution to economic growth and dynamism.
2. The entrepreneurial engine relies on a lot of entrepreneurs willing to try, and acceptance that some fail in doing so.
3. Most developing APEC economies need many more experienced and educated entrepreneurial managers able to compete in a much more globalised world.
4. Entrepreneurs are a minority. Not all entrepreneurs are the same. A single curriculum approach is not appropriate.
5. Learning by doing is important in entrepreneurship education. So is assistance and mentoring when it is needed.
6. Education is only one of the links need in a chain of factors affecting entrepreneurial success; if other links (like finance or infrastructure) are weak or missing, education will not help as much as it could.

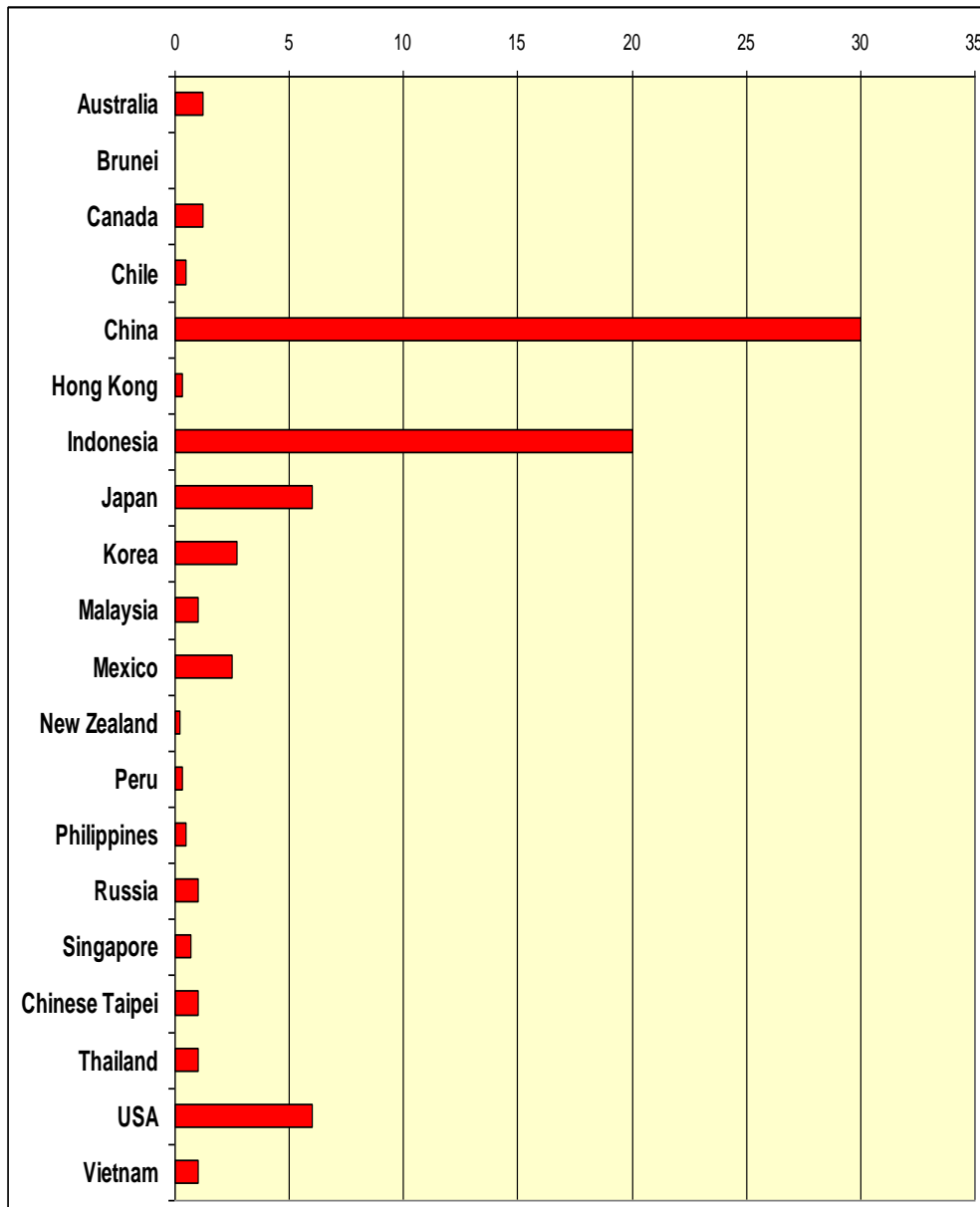
what sort of business environment is best for entrepreneurs and firm creation?



What is an SME? Most entrepreneurs manage an SME

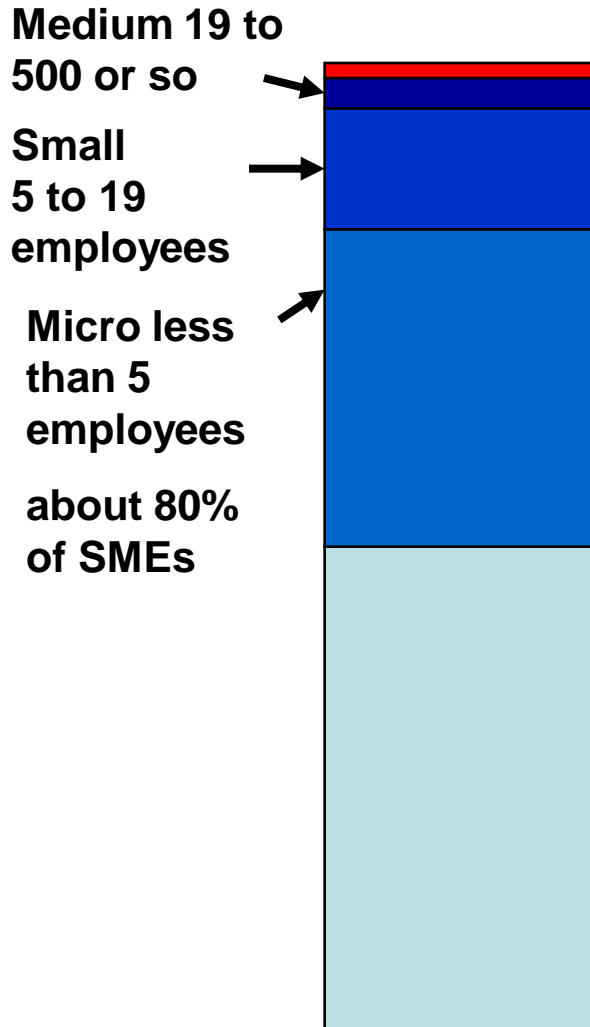


How many SMEs are there in APEC?



*There are now about 77 million SMEs in APEC, about 30 million of them in China, **but there should be about 100 to 120 million***

What do these SMEs contribute?



large firms make up less than 0.1% of businesses, contribute between 40% and 60% of employment, and about 50% of GDP.

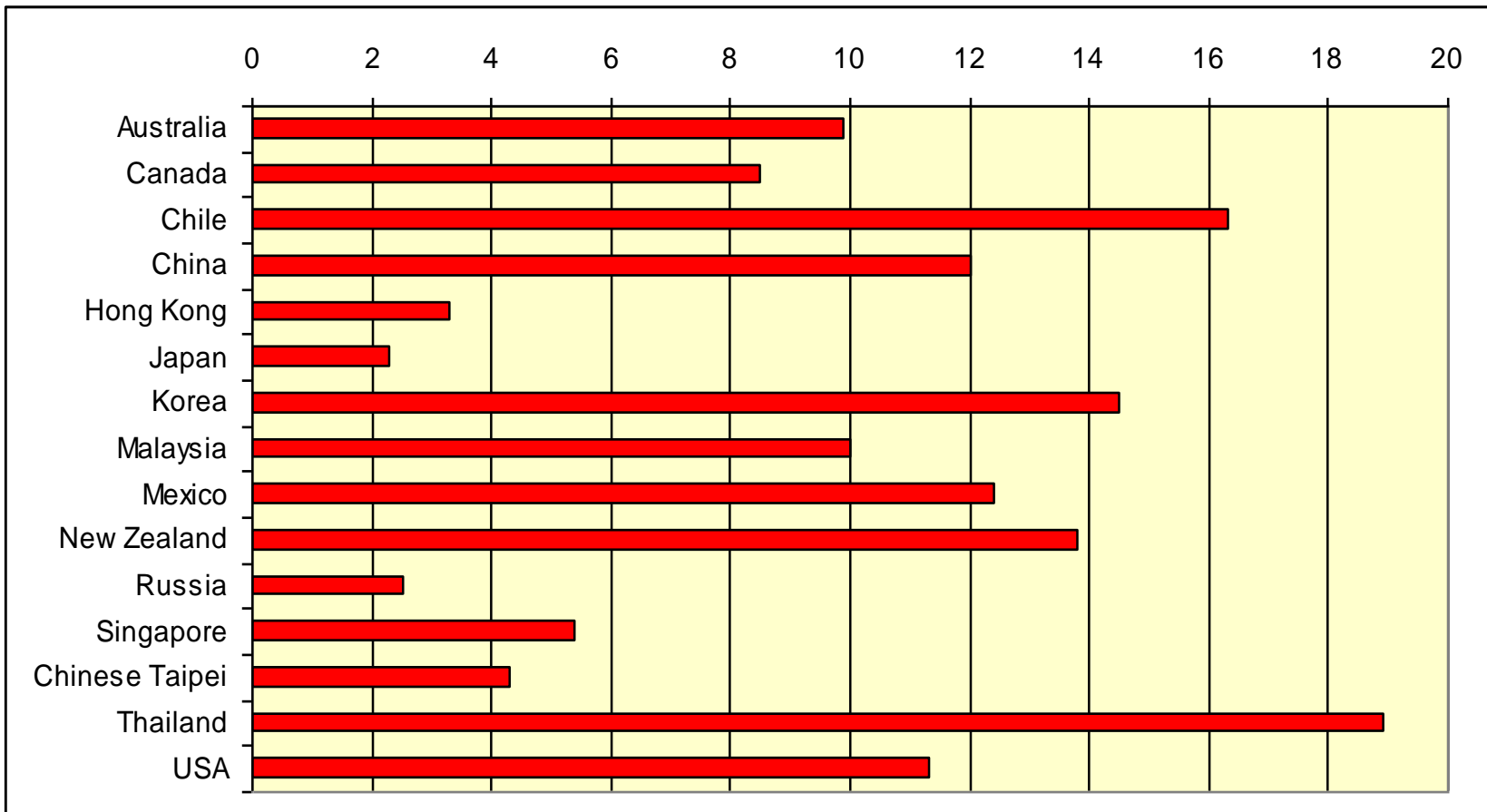
Large firms usually destroy jobs, ie are net job destroyers

SMEs contribute about half of GDP, and about half of all jobs. About 20% of jobs are from medium, 20% from small and 20% from micro

But SMEs, especially new micro and small enterprises create most of the growth and flexibility in the face of change .

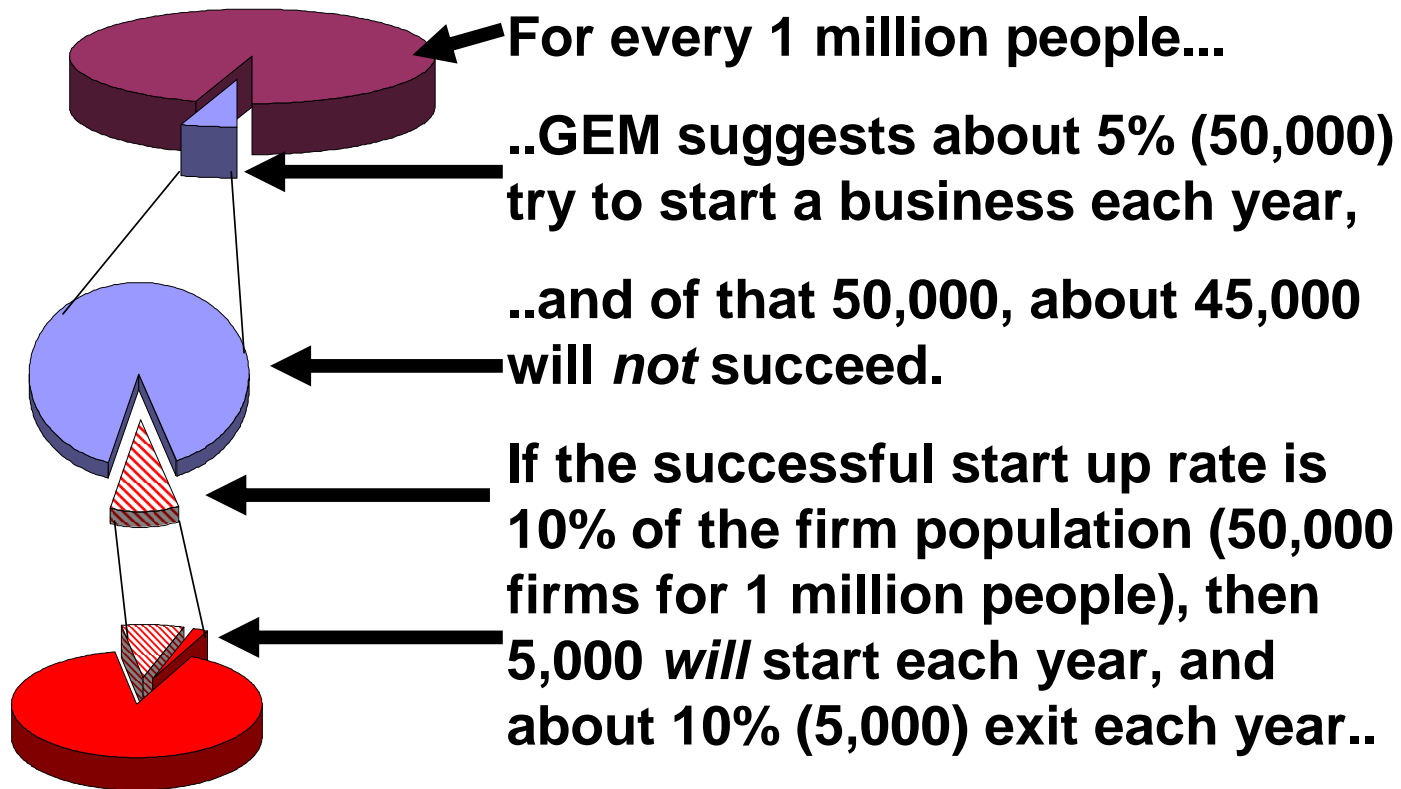
Most SMEs start with an entrepreneur, and entrepreneur rates differ

GEM TEA (Total Entrepreneur Activity) Rates for APEC Economies 2003 Percent of Adult population starting or running a business less than 42 months old



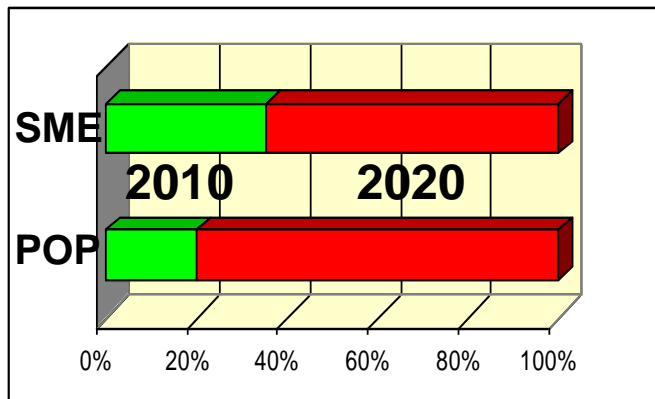
Not all entrepreneurs who think about it actually start an SME

**Entrepreneur densities suggest
5% of the population run an SME**

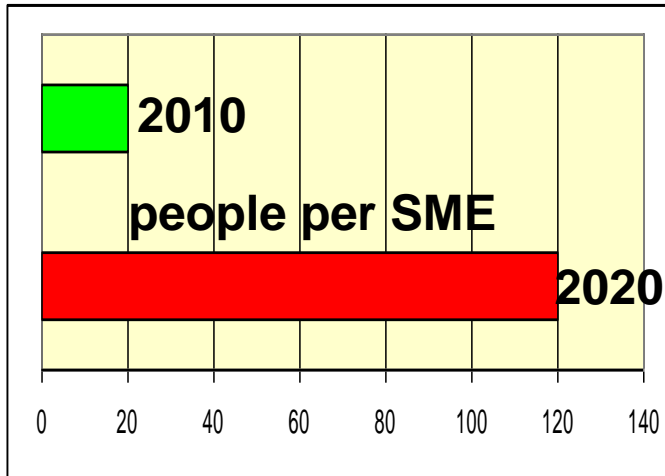


Developing APEC usually falls short of formal entrepreneurs

a 5% benchmark suggests that 1 in 20 persons should have experience in managing a formal SME, but ...



2010 economies have 19% of APEC's human population but have 35% of the SMEs. China has half of APEC's population but only 18% of APEC's SMEs.



2010 economies have about 20 people per SME, while 2020 economies have about 120 people per SME - there is a shortage of about 70m entrepreneurs in APEC!

How does the entrepreneurial Engine work?

about 1%
of firms

Large firms employ about half the workforce,
but add relatively few net jobs

about 5%
of firms

Fast growing firms
contribute around 70%
of net job growth

about 20%
seek growth

over 90%
of firms

Small firms churn, add and
destroy a lot of jobs, - net
addition varies with cycle and
economy

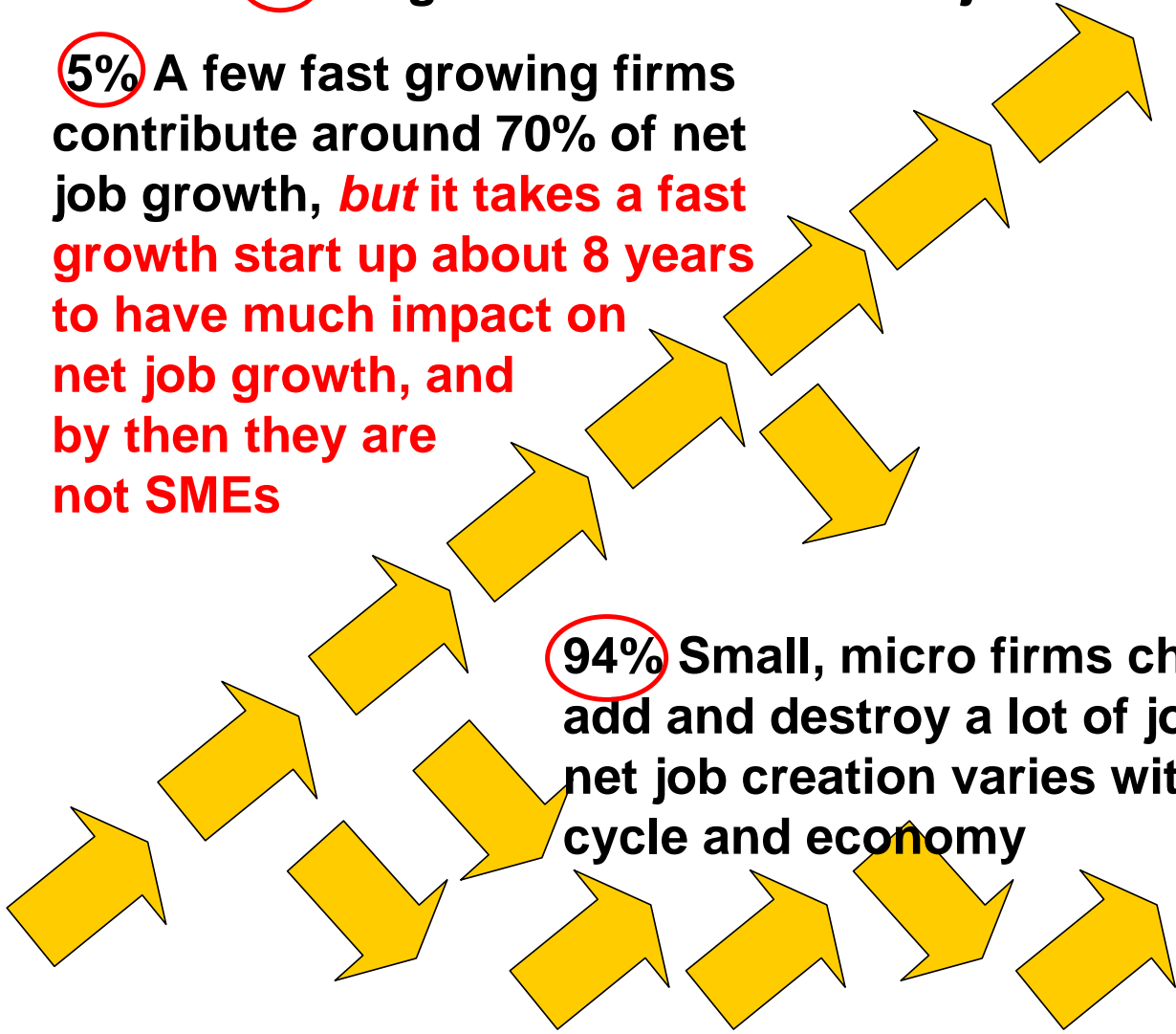


so the engine has a fairly long cycle of 8 years or more

1% Large firms tend to be net job destroyers

5% A few fast growing firms contribute around 70% of net job growth, *but it takes a fast growth start up about 8 years to have much impact on net job growth, and by then they are not SMEs*

94% Small, micro firms churn, add and destroy a lot of jobs, - net job creation varies with cycle and economy



and is underpowered in APEC

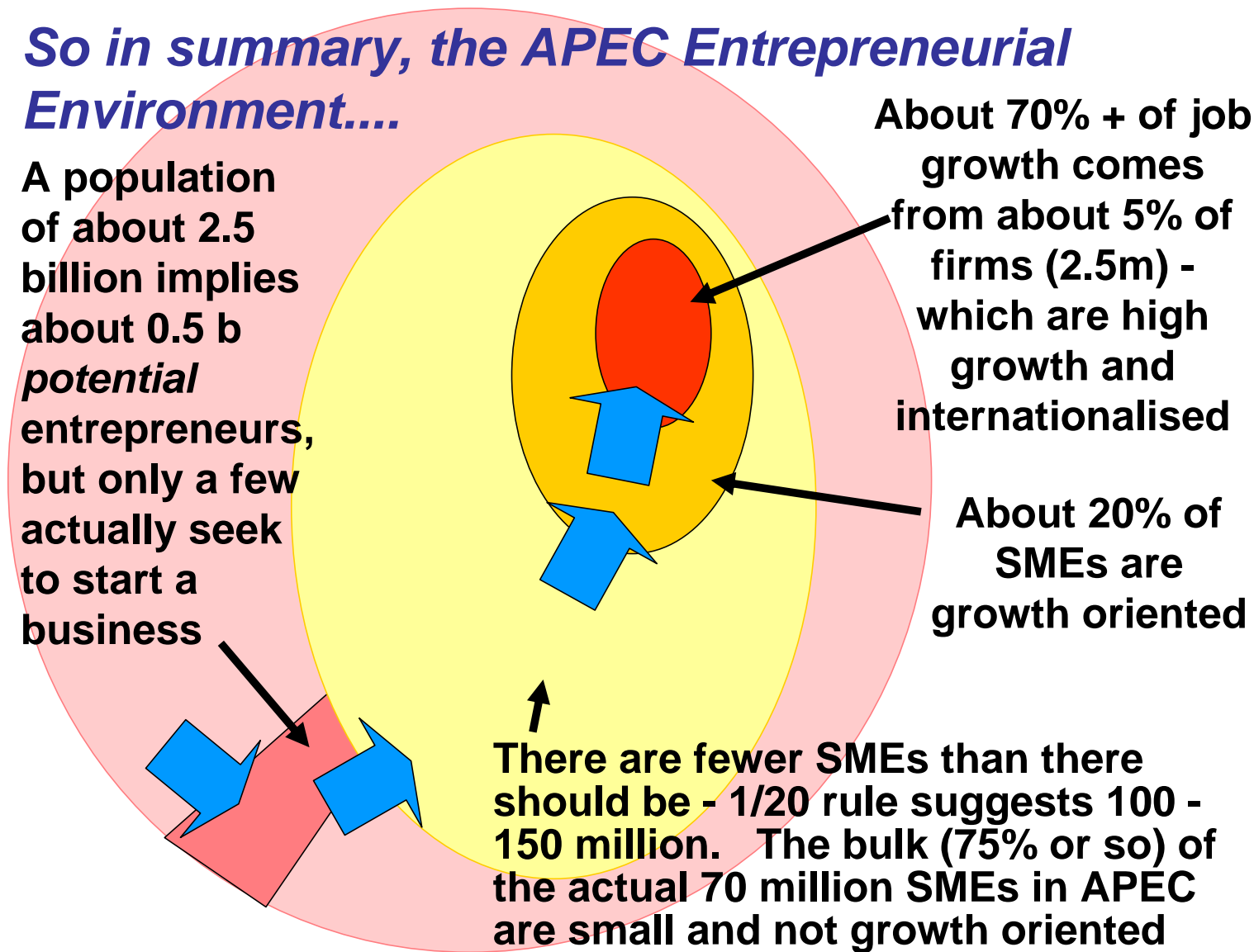
So in summary, the APEC Entrepreneurial Environment....

A population of about 2.5 billion implies about 0.5 b *potential* entrepreneurs, but only a few actually seek to start a business

About 70% + of job growth comes from about 5% of firms (2.5m) - which are high growth and internationalised

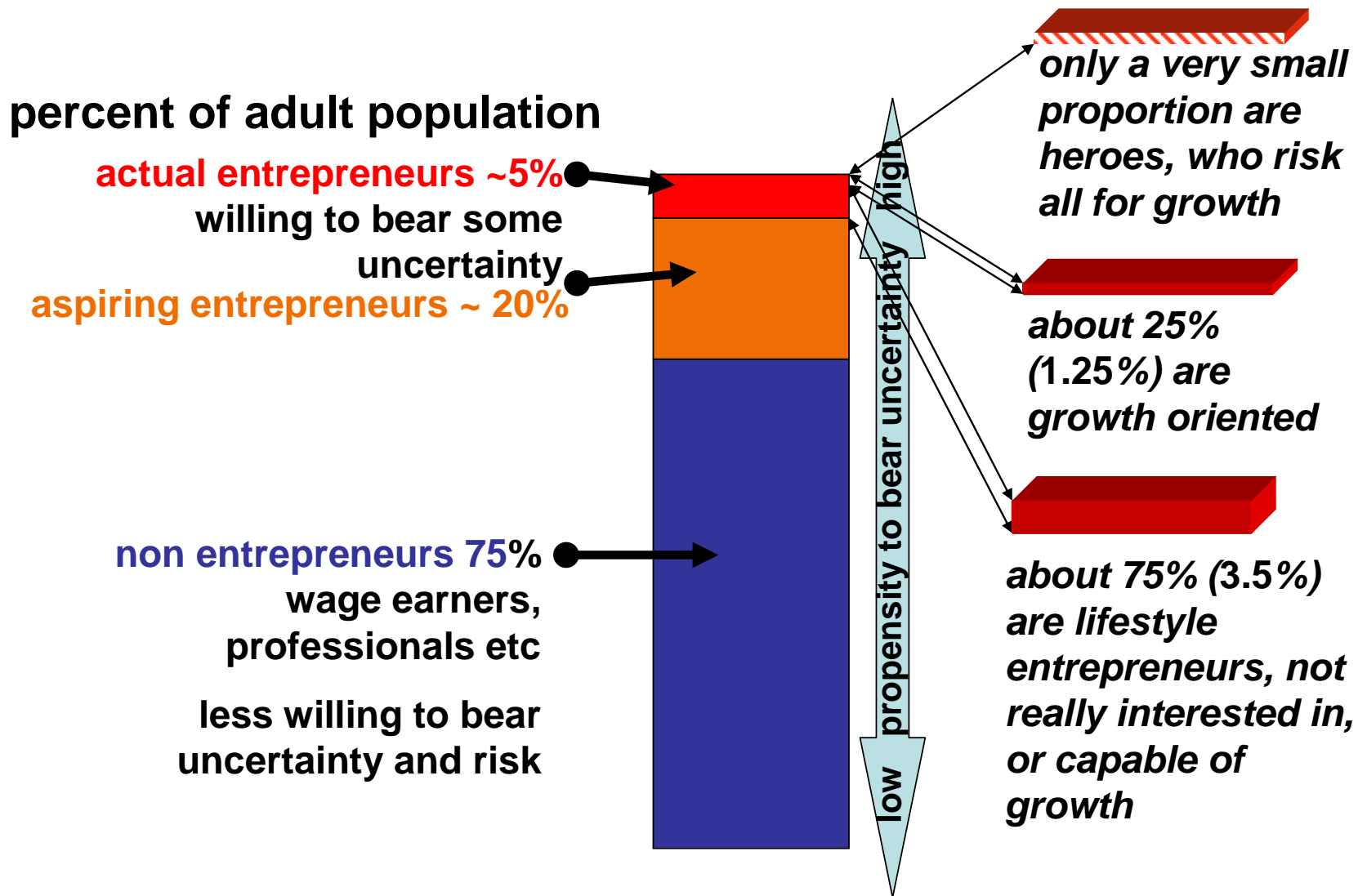
About 20% of SMEs are growth oriented

There are fewer SMEs than there should be - 1/20 rule suggests 100 - 150 million. The bulk (75% or so) of the actual 70 million SMEs in APEC are small and not growth oriented



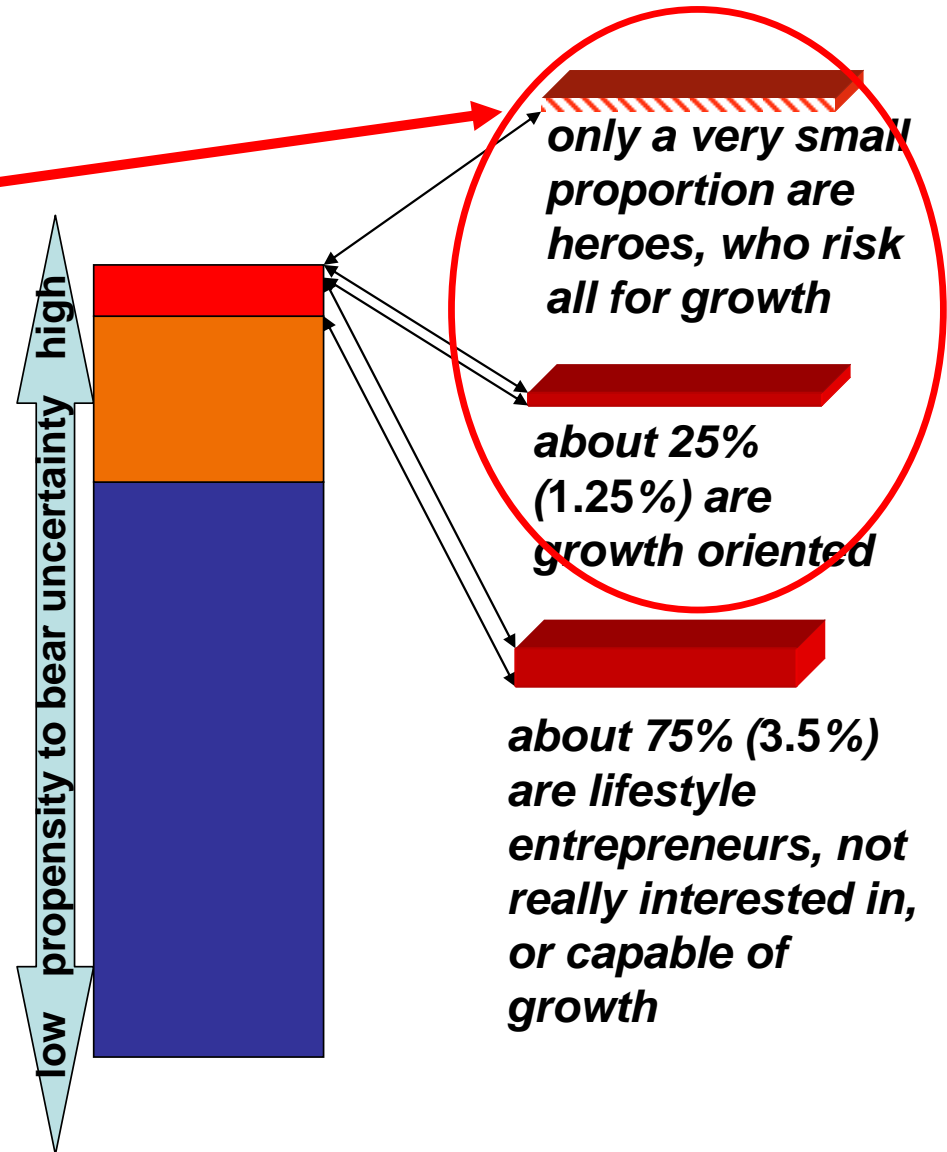
The Entrepreneurial Engine is what drives economies...

Not all Entrepreneurs are the same!



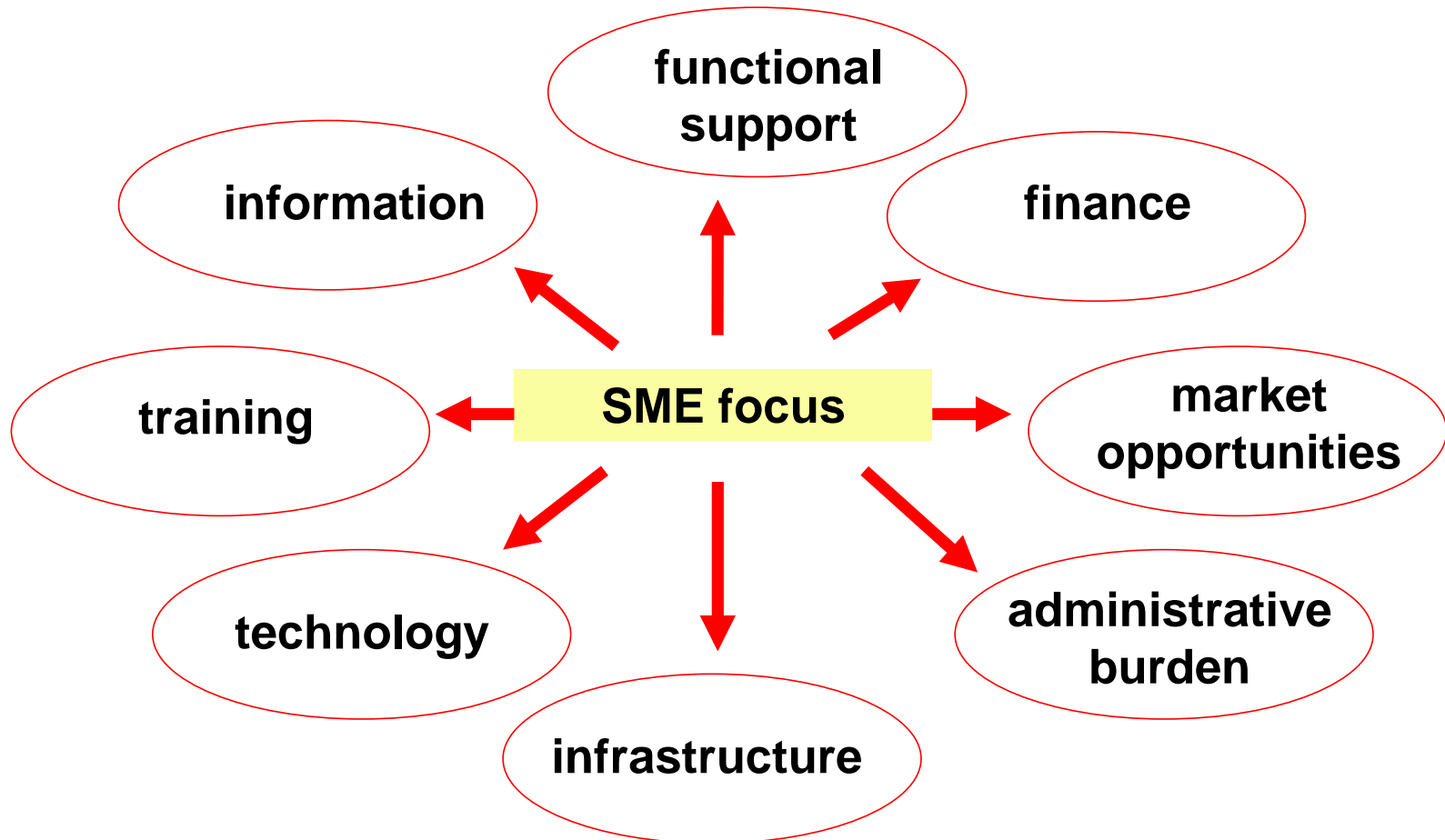
...and depends on less than 5% of the population...

But it is this small proportion of the adult population (about 1% or less) and less than about 5% of SME population that drive international success, provide much of the resilience, and create around 70% of net jobs!!



..who need appropriate government and private sector support

SMEs can benefit from government support in...



..but needs differ by enterprise, and a chain is as strong as its weakest link.

entrepreneurs need a better education now than before to cope with increased internationalisation

Activity

1980s

years

2000s

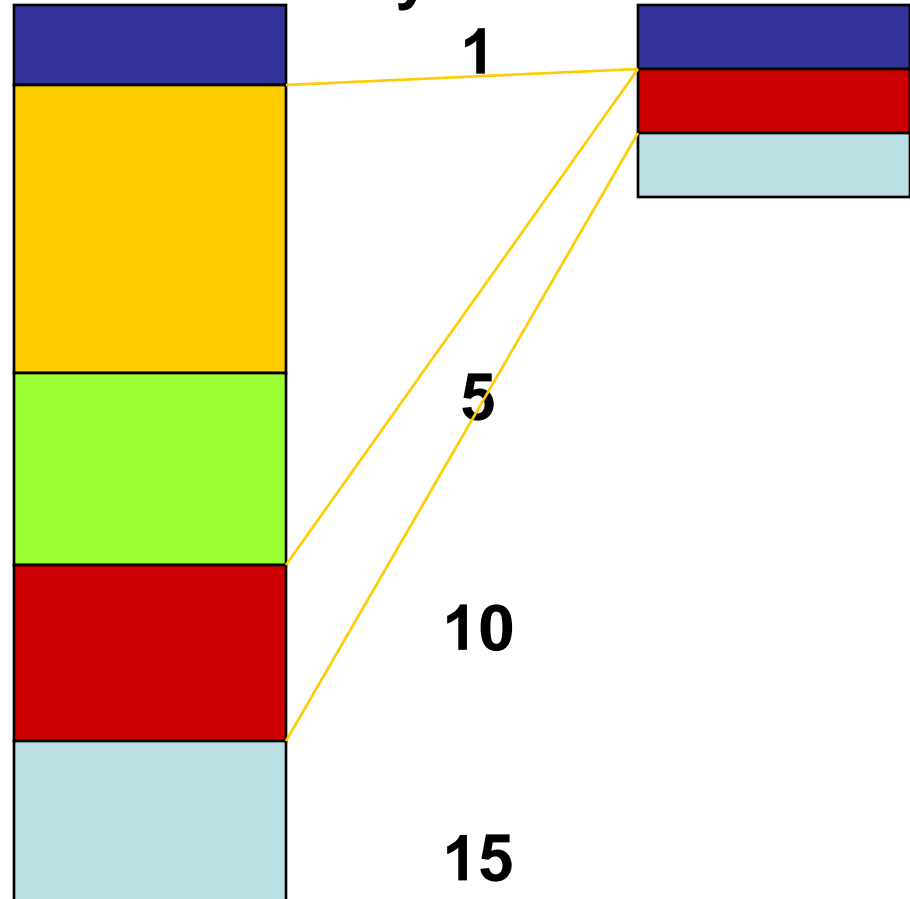
Start up

Home market growth,
need for bigger market

Use agents to test
international market

Establish corporate
existence abroad

Develop global network of
offices or alliances



what sort of business environment suits entrepreneurs?

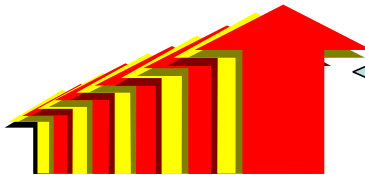
The political challenge facing APEC in designing the business environment best for entrepreneurs and firm creation

suited to lifestyle,
large businesses,
wage earners

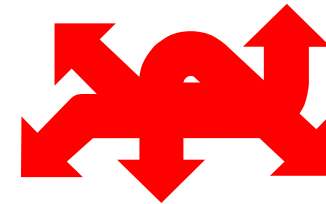
stable, predictable

suited to fast
growing international
opportunists

turbulent, uncertain



environment suited
to electoral
popularity and most
micro enterprises
and start ups



environment suited
to creating new
jobs, innovation
and international
competitive
advantage

How can universities help entrepreneurs?

1. Entrepreneurship programs - courses and degrees in how to start and run successful businesses
2. Incubators and hatcheries - access to office facilities, IT support, etc
3. Mentoring - advice given by expert staff and alumni
4. Networking opportunities - SME can use alumni and student networks for advice, marketing etc
5. IP licensing - ie university licenses its own technology or sublicenses technology from MNCs to SMEs
6. Research - university provides R&D facilities and testing
7. Credentialling - university runs competitions for SMEs good ideas etc, and then prize winners have better access to major businesses, banks etc
8. Whole of life education - giving people the ability to see new trends, opportunities and the knowledge to capture them

Key points to take away

1. Entrepreneurs, and the SMEs they manage, make a major contribution to economic growth and dynamism.
2. The entrepreneurial engine relies on a lot of entrepreneurs willing to try, and acceptance that some fail in doing so.
3. Most developing APEC economies need many more experienced and educated entrepreneurial managers able to compete in a much more globalised world.
4. Entrepreneurs are a minority. Not all entrepreneurs are the same. A single curriculum approach is not appropriate.
5. Learning by doing is important in entrepreneurship education. So is assistance and mentoring when it is needed.
6. Education is only one of the links need in a chain of factors affecting entrepreneurial success; if other links (like finance or infrastructure) are weak or missing, education will not help as much as it could.

Thank you!

The Role of Higher Education in Entrepreneurship Training: A UK Perspective

Natalie Campbell

Enterprise Consultant

Natalie Campbell

- Student run events company
- Franchise operator for Morgan De Toi
- Campaign Manager for Further and Higher Education
- Lecturer in Entrepreneurship at Kingston University, Surrey UK
- Enterprise and Entrepreneurship Consultant

Overview

Entrepreneurship policy in the UK
Entrepreneurship delivery
Attitudes and characteristics



+venture

Enterprise and Entrepreneurship in the UK

- ‘Can-do’ People: Development of enterprise skills and qualities will result in confident, empowered, motivated students and innovative employees.
- Boost the Economy: Enterprising organisations will see the benefits, drive the economy and help motivate individuals to have ideas and make them happen.
- Stronger Communities: Releasing untapped potential in geographic areas and amongst women and ethnic groups will benefit individuals and communities.

Competitiveness-a core driver

	I expect to start a business in the next 3 years	I know someone who has started a business in the last 2 years	There are good start-up opportunities where I live in the next 6 months	I have the skills, knowledge and experience to start a business	Fear of failure would prevent me starting a business
G7					
UK	7.4	25.7	39.0	48.5	35.8
France	16.5	48.7	23.3	33.5	48.6
Italy	12.9	38.1	39.5	50.5	42.1
Japan	5.5	22.7	8.9	15.2	36.6
US	14.4	32.5	25.2	48.3	23.1
G7 average	11.3	33.5	27.2	39.2	37.2
BRIC					
Brazil	25.1	34.4	39.1	53.7	33.5
Russia	5.0	16.9	10.6	8.7	28.4
India	49.9	77.4	71.0	73.0	46.9
China	37.2	64.5	39.2	38.9	29.5

Attitude and Capability

	2006	2007	2006	2006	2007	2007
	All	All	male	female	male	female
I expect to start a business in the next three years	8.0	7.4	10.7	5.4	9.6	5.3
I have closed a business in the 12 months (the business has not continued in another form)	-	1.2	-	-	1.6	0.9
I personally know someone who has started a business in the last two years	27.3	25.7	31.9	22.6	29.6	21.6
There will be good start-up opportunities where I live in the next six months	36.9	39.0	41.3	32.3	44.0	33.9
I have the skills, knowledge and experience to start a business	49.3	48.5	58.7	39.8	57.1	39.5
Fear of failure would prevent me from starting a business	35.8	35.8	32.5	39.1	34.0	37.6
Most people consider that starting a business is a good career choice	54.2	54.8	55.3	53.1	54.1	55.5
Those successful at starting a business have a high level of status and respect in society	72.8	73.6	74.1	71.3	73.9	73.4
You will often see stories about people starting successful new businesses in the media	54.8	56.9	57.2	52.3	57.7	56.0

National and Regional Programmes

make **YOUR** mark



- England-Enterprise Insight (The Make Your Mark Campaign)
- The National Council for Graduate Entrepreneurship
- Enterprise Educators Network
- Scottish Institute for Enterprise (SiE)
- Wales-Dynamo

Enterprise Policy and Education

- Schools have 5 days compulsory enterprise education
- £30 million to extend provision from secondary to primary and FE to create a continuous enterprise journey (14-19)
- AoC Northern Way Programme
- CoVE's for Enterprise
- NESTA/SEEDA partnership



shifthappens

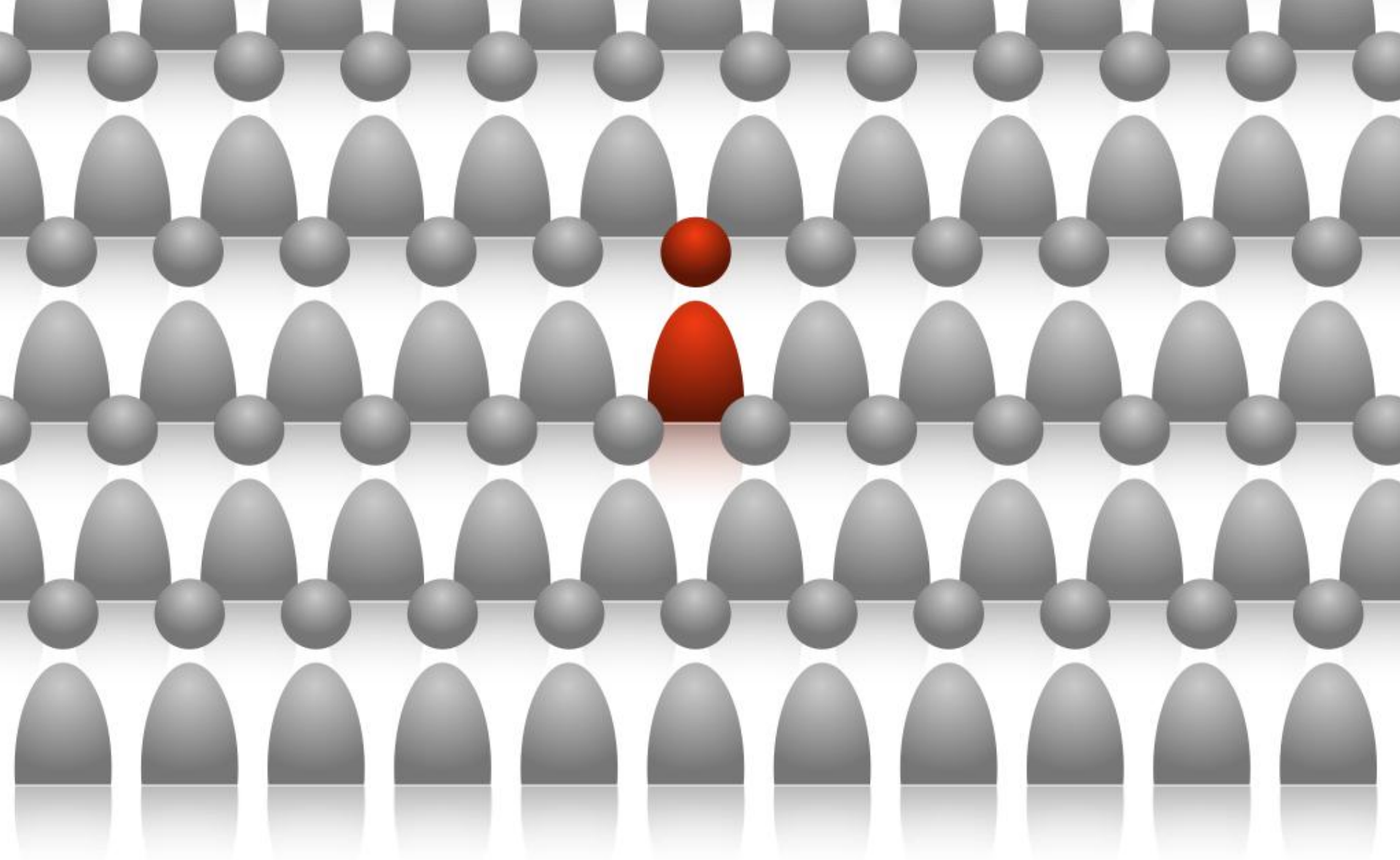


DID YOU
KNOW

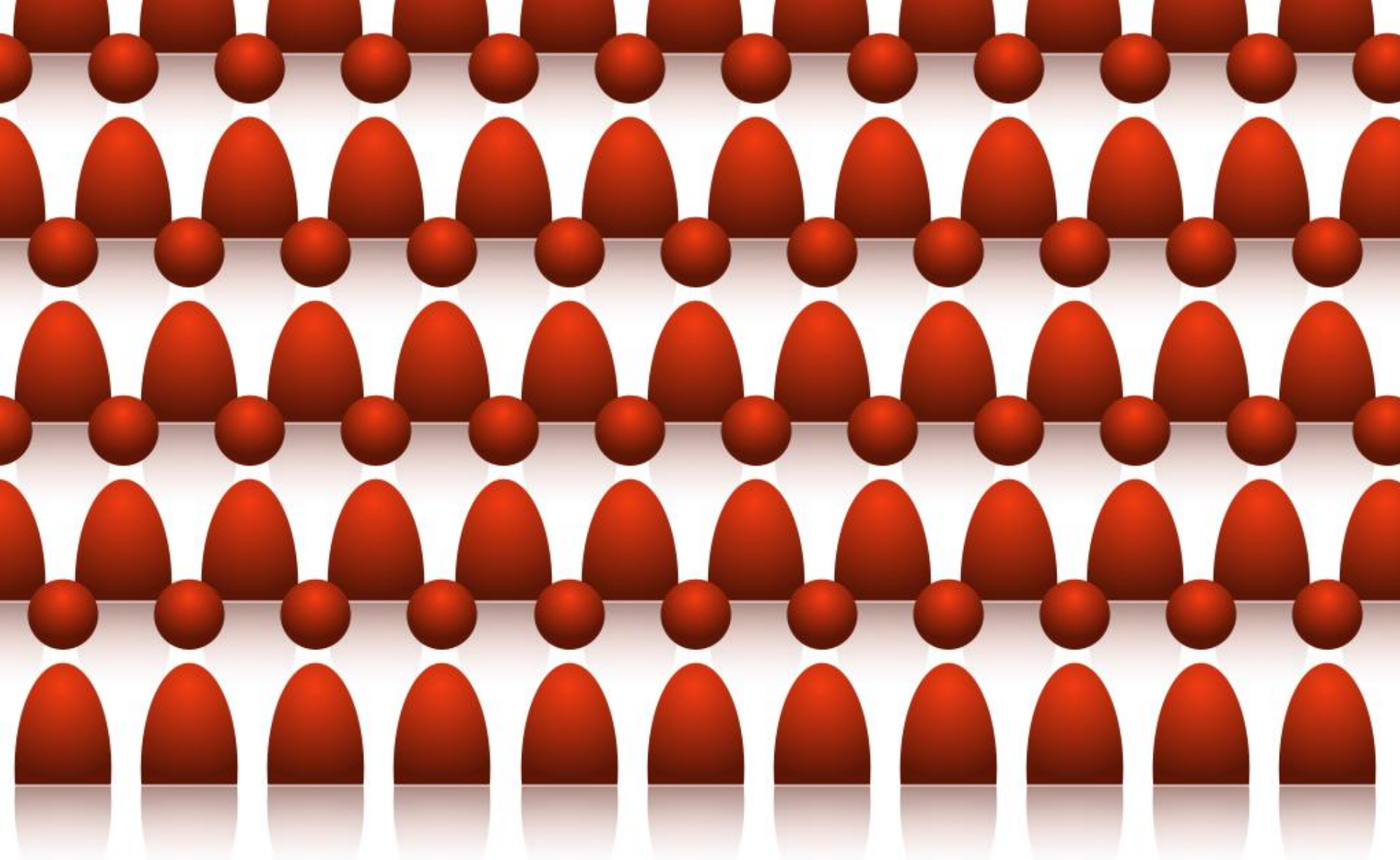


**Sometimes size
does matter**





If you're one in a million in China...

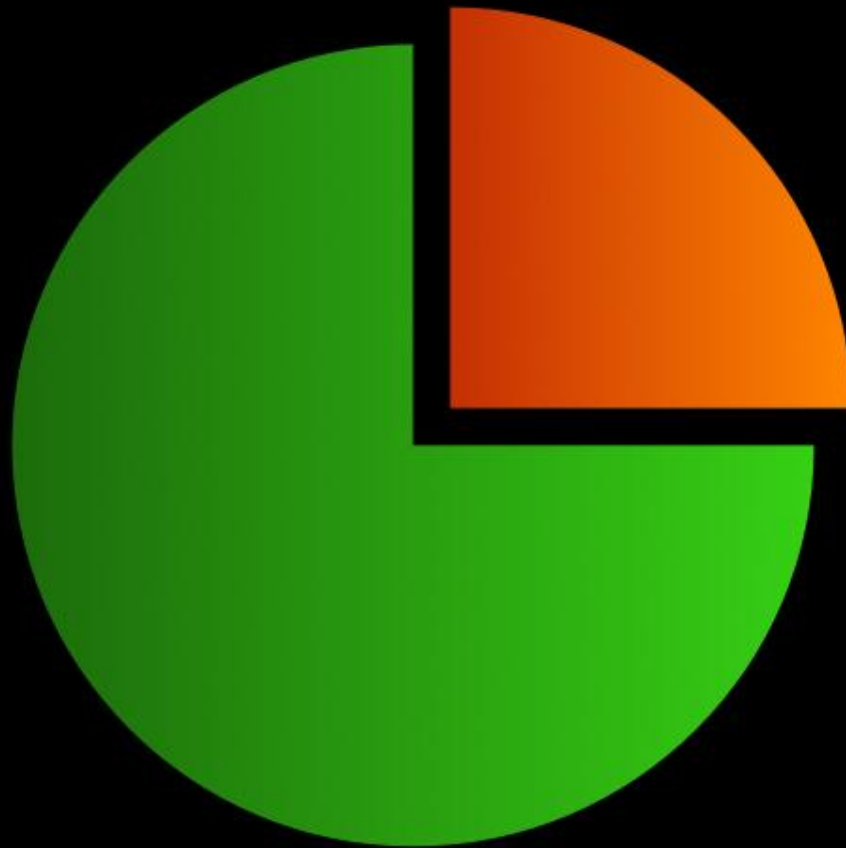


...there are 1,300 people just like you

In India there are 1,100 people
just like you



The 5% of the population in China
with the highest IQ's...



...is greater than the total population
of the UK

In India, it's the top 7%

Translation:

They have more gifted & talented students, than we have students



DID YOU
KNOW



China will soon become the **number one**
English speaking country in the world



**During the course
of this presentation...**



15 babies
will be born in the UK

244 babies
will be born in China

351 babies
will be born in India





It is estimated that
today's learner will have 10-14 jobs...

...by the age of

38

1 out of 4 workers today
is working for a company they have been
employed by for less than one year

more than 1 out of 2
are working for a company they have
worked for for less than five years.



According to former US
Secretary of Education
Richard Riley...

**...the top 10 in-demand jobs in 2010
did not exist in 2004**

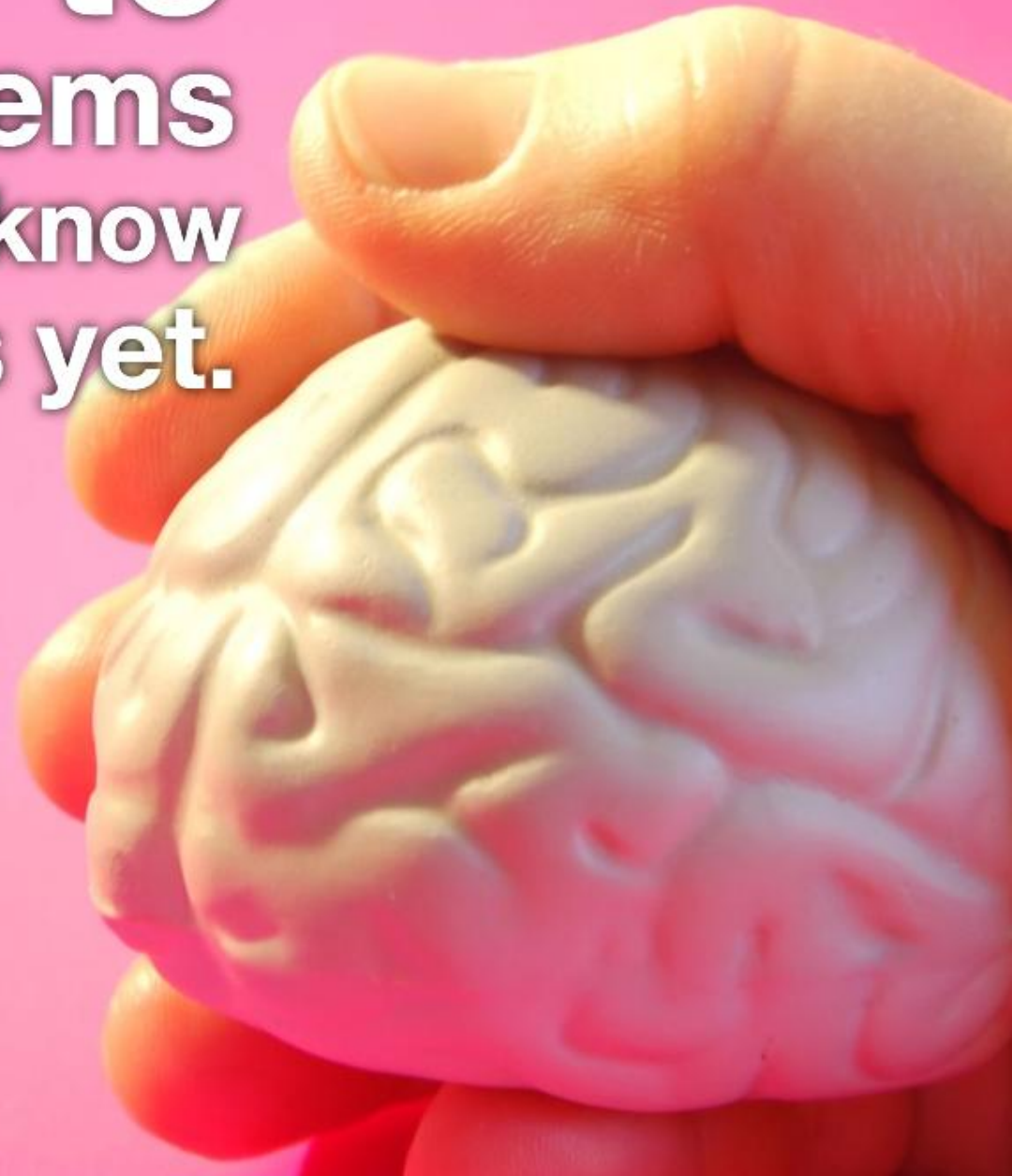
The image shows a classroom or lecture hall. In the foreground, two red chairs with black metal frames are visible. The background is a solid green wall. In the upper left corner, a portion of a whiteboard is visible. The text is overlaid on the green wall in a large, white, sans-serif font.

**We are currently
preparing students
for jobs that
don't yet exist...**

using technologies
that haven't
been invented...



**in order to
solve problems
we don't even know
are problems yet.**



POP QUIZ

Name this country....

- ✓ **Richest in the world**
- ✓ **Largest military**
- ✓ **Center of world business and finance**
- ✓ **Strongest education system**
- ✓ **World center of innovation and invention**
- ✓ **Currency the world standard of value**
- ✓ **Highest standard of living**

England... in 1900



DID YOU
KNOW



According to BBC News, a new blog is created every second.



There are over **106 million** registered users of MySpace (as of September 2006)

The screenshot shows the MySpace website interface in a browser window. The browser's address bar displays "http://www.myspace.com/". The website's header features the MySpace logo with the tagline "a place for friends" and a search bar powered by Google. A navigation menu includes links for Home, Browse, Search, Invite, Film, Mail, Blog, Favorites, Forum, Groups, Events, Videos, Music, Comedy, and Classifieds. The main content area is divided into several sections:

- Cool New Videos:** A section with the sub-header "45,192 uploaded today!" featuring four video thumbnails: "Household Injuries" by Patrick, "Community Service" by David Spade, "Telephone Game" by Tenderloins, and "Your Kitty Safe?" by Brian.
- myspace movies:** A yellow banner with a "showtimes" link and a "Check Out Movies Now" button, with the URL "movies.myspace.com" below.
- Member Login:** A section with input fields for "E-Mail" and "Password", a "Remember Me" checkbox, and "LOGIN" and "SIGN UP!" buttons.
- Footer:** A grid of links including Books, Downloads, Horoscopes, Music Videos, Blogs, Events, Impact NEW!, MySpaceIM, ChatRooms, Filmmakers, Jobs, Schools, Classifieds, Games, Movies, TV On Demand, Comedy, Groups, Music, and Videos.

**If MySpace were a country,
it would be the **11th-largest in the world****

(between Japan and Mexico)

The average
MySpace page
is visited
30 times
per day



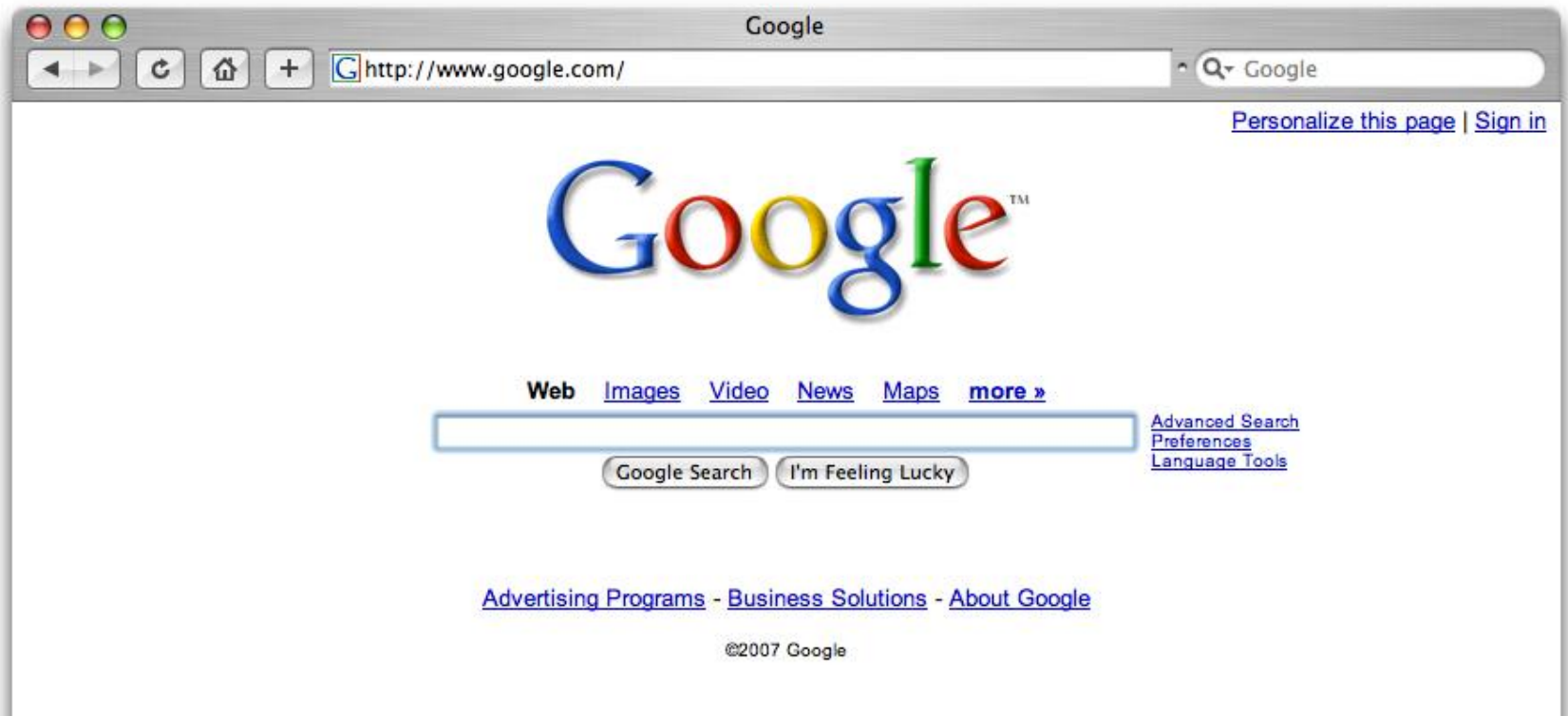
**DID YOU
KNOW**



**We are living in
exponential times**

The image features a black background with a vibrant pink, wavy shape at the bottom. The text "We are living in exponential times" is prominently displayed in the center. "We are living in" is in white, and "exponential times" is in orange. The text is slanted upwards from left to right.

There are over 2.7 billion searches performed on Google each month



To whom were these questions addressed
before Google?

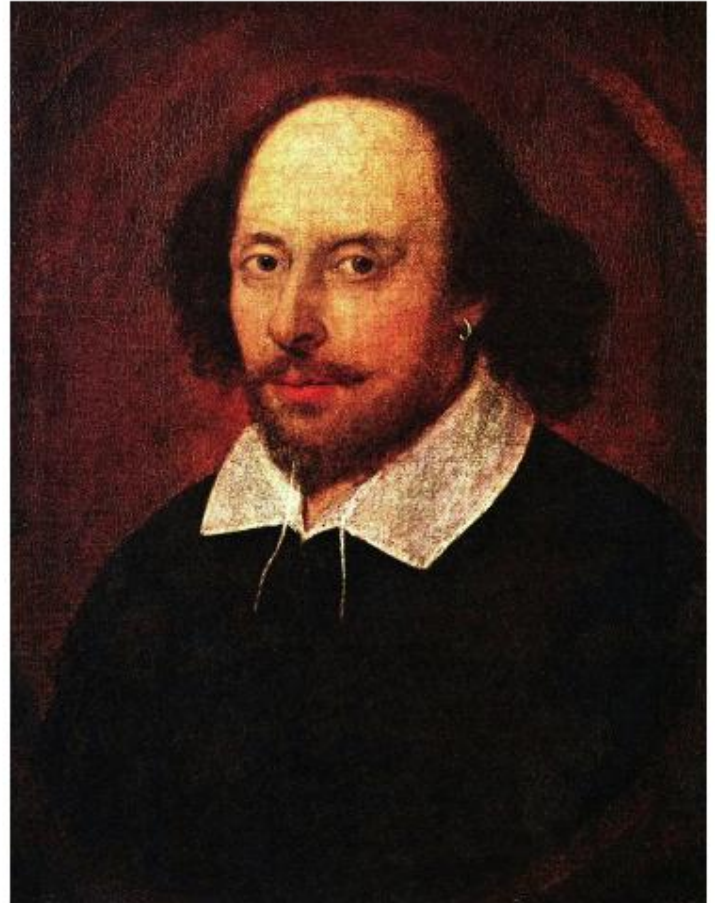


The number of text messages sent and received every day **exceeds the total population of the planet**



**There are about 540,000 words
in the English language...**

about 5X as many as
during Shakespeare's time.



More than **3,000** new books
are published every day



It is estimated that a week's worth of The Times...



...contains more information
than a person was likely to come across
in a lifetime in the 18th century.

It is estimated that 40 exabytes (4.0×10^{19})
of unique new information
will be generated worldwide this year.



**That is more than in the
previous 5,000 years.**

**The amount of new technical information is
doubling every 2 years**

2X

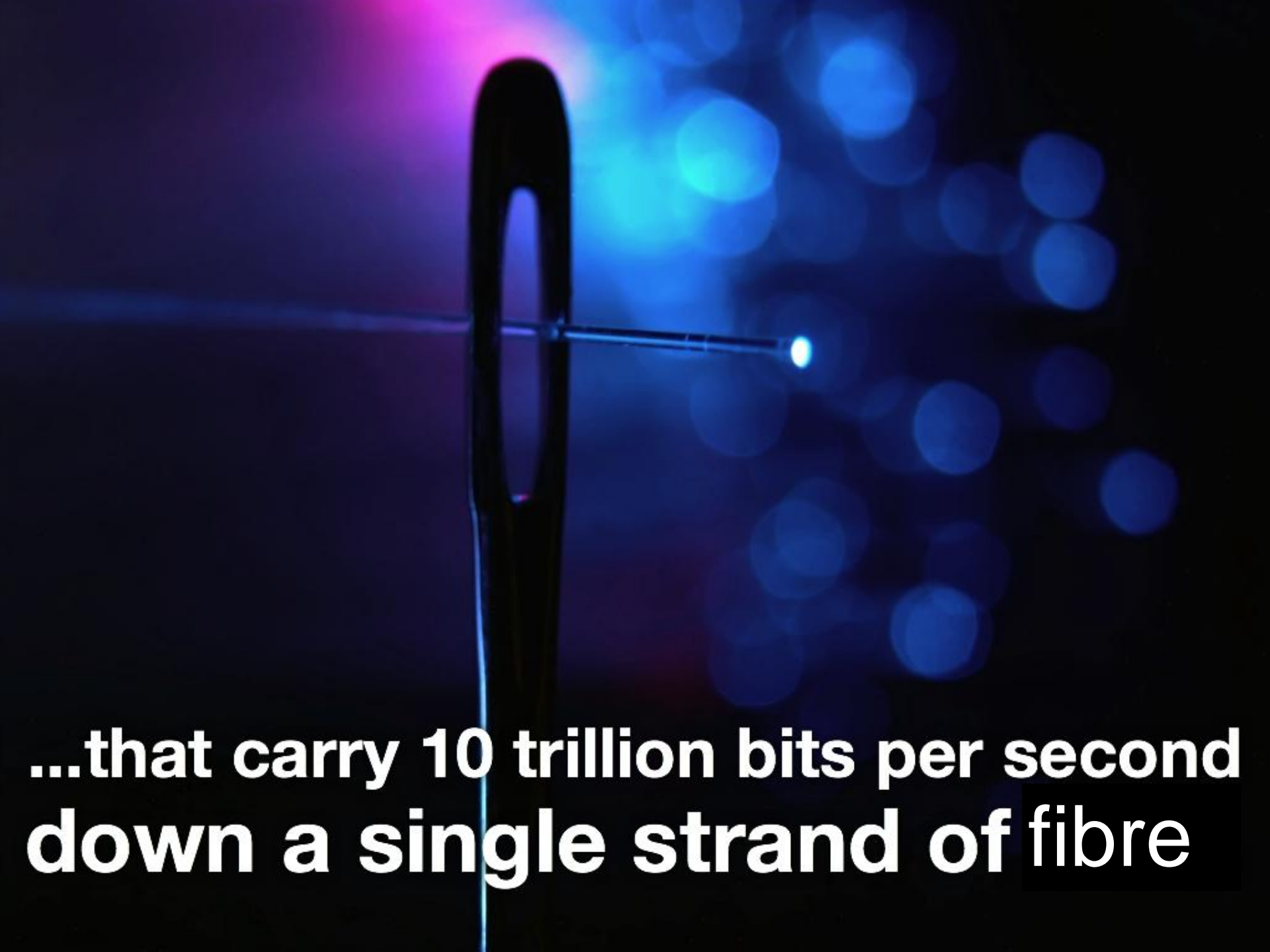
For students starting a
three-year university degree,
this means that . . .

half of what they learn in their first
year of study will be outdated
by the end of their studies.

**By 2010 it is predicted to
double every 72 hours**

Third generation fiber optics
have recently been separately tested
by NEC and Alcatel...





**...that carry 10 trillion bits per second
down a single strand of fibre**

That is 1,900 CDs
or 150 million phone calls
every second

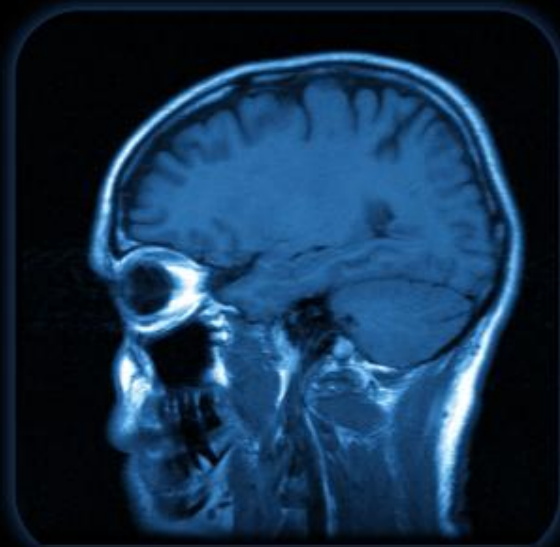


3x

It is currently tripling every 6 months and is expected to do so for the next 20 years



47 million laptops were shipped worldwide last year.



Predictions are that by 2013 a supercomputer will be built that exceeds the computation capability of the human brain

And while technical predictions further out than about 15 years are hard to do...



predictions are that by 2049 a £500 computer will exceed the computational capabilities of the entire human species

So, what does it all mean?



shift**happens**

NOW YOU

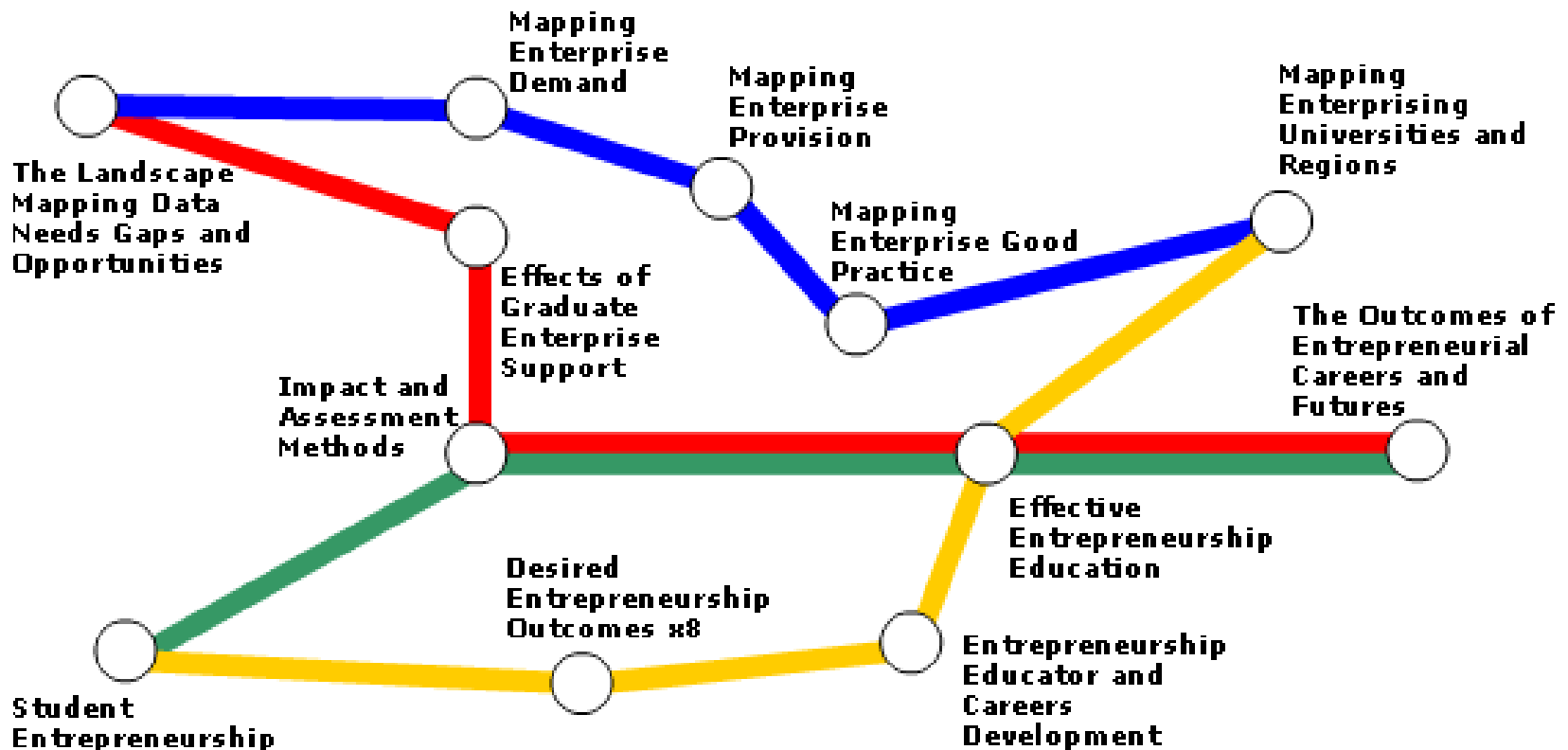
KNOW

HE Overview

HESA - Destinations of leavers from higher education in the United Kingdom for the academic year 2006/07

- 190,385 full-time first degree graduates
- 64% were in employment, the same as in 2005/06
- 9% were in a combination of work and study (+1%)
- 16% were in further study (equal); and 6% were assumed to be unemployed (equal).

The National Council for Graduate Entrepreneurship



Mapping Provision

The National Council for Graduate Entrepreneurship (NCGE) 2007 survey of Enterprise and Entrepreneurship in Higher Education, conducted across 127 universities in England serving a student population of 1.76 million, achieved a 96% response rate.

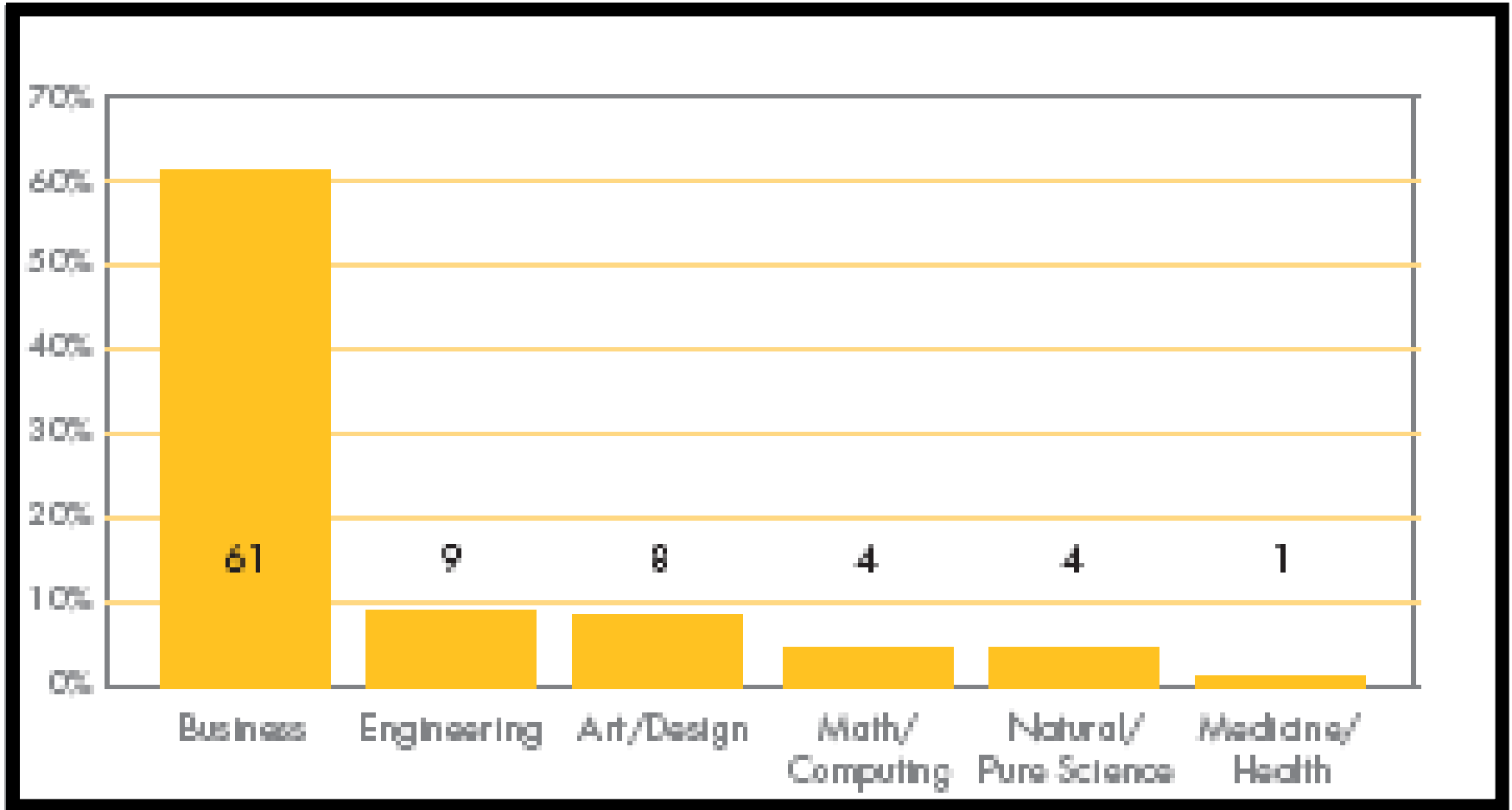
Student engagement

- Overall rates of engagement have grown
- The Student Engagement Rate is now 11%
- Gender split is relatively balanced at 53% male; 47% female

In-curricula provision

- Accounts for 36% of enterprise and entrepreneurship activity
- Business and management schools are responsible for 61% of provision (9% engineering; 8% creative; 1% health)
- 80% of provision is at undergraduate level; 87% for full-time study

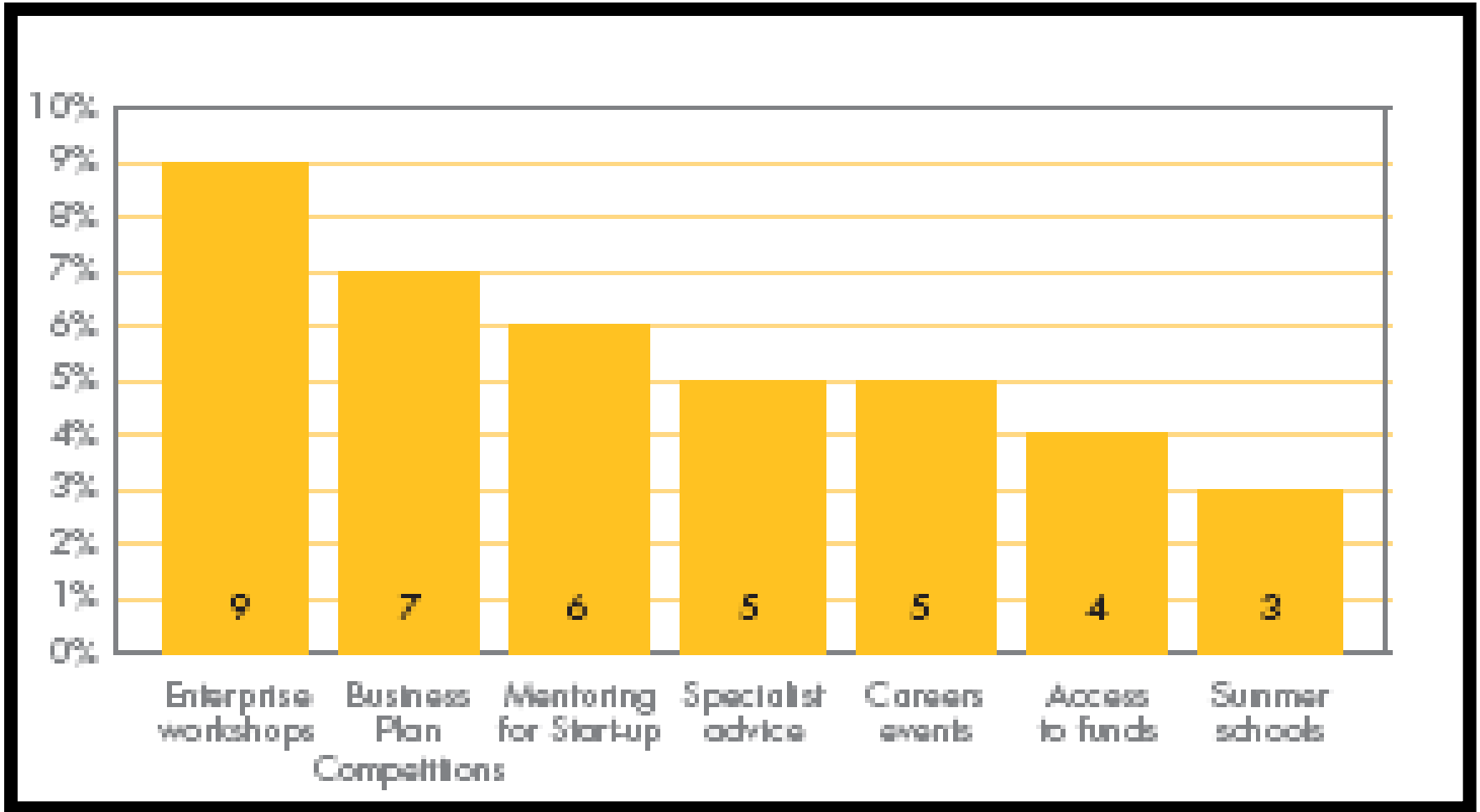
In-curricula provision



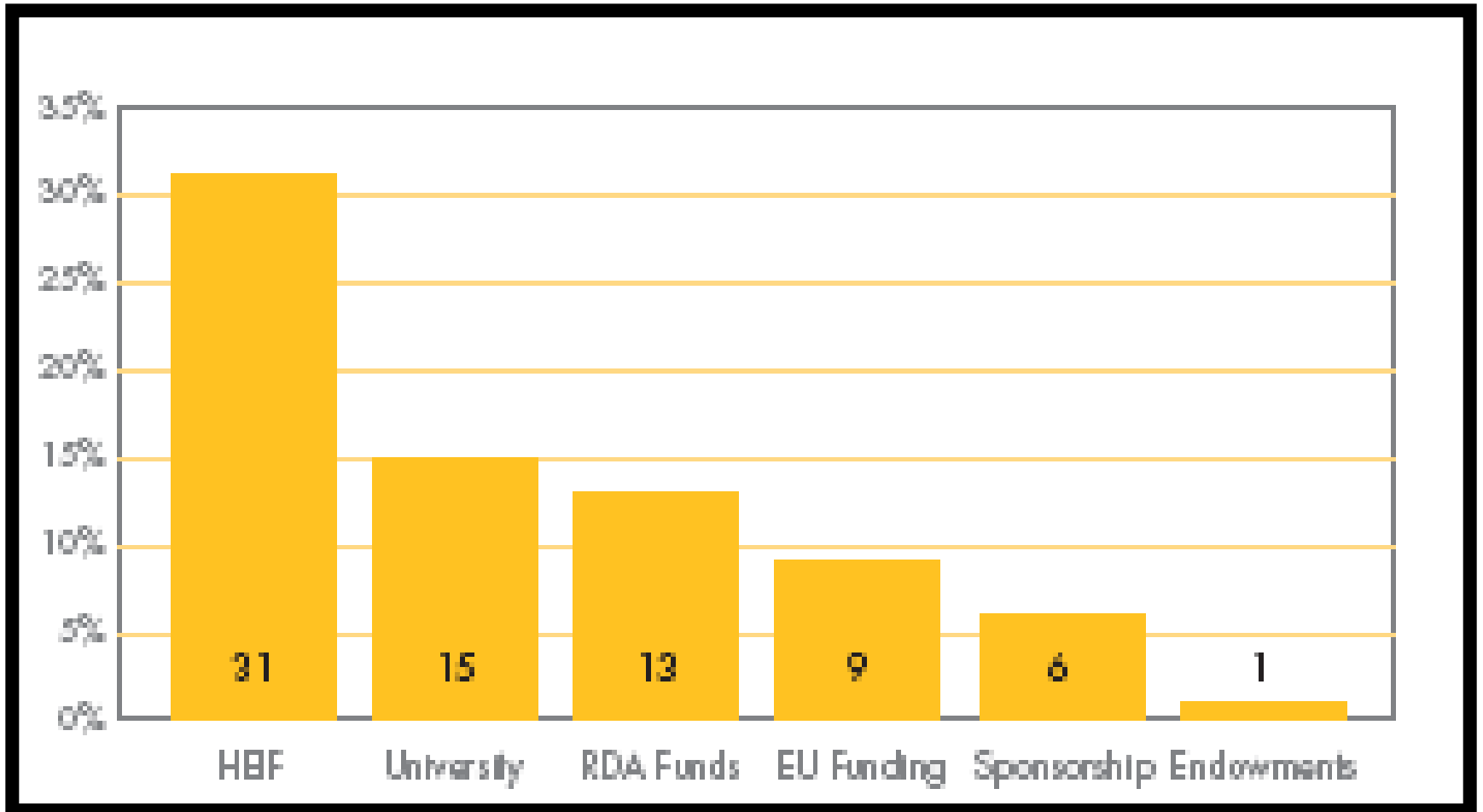
Extra-curricula provision

- Accounts for 64% of enterprise and entrepreneurship activity
- Wide range of opportunities provided
- Strong reliance on short-term funding
- More than 80% of funding for extracurricular activity is from the public sector

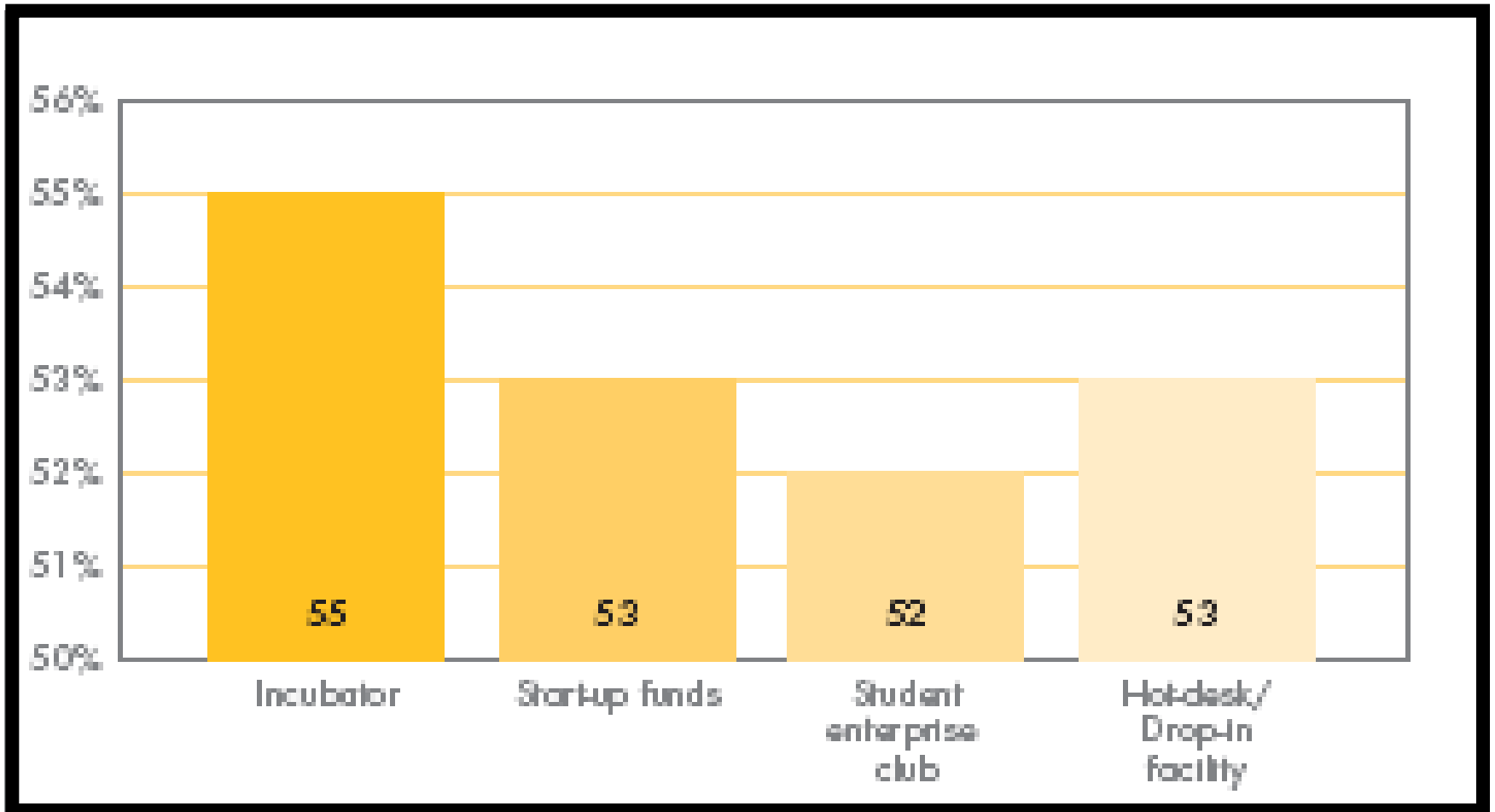
Extra-curricula provision

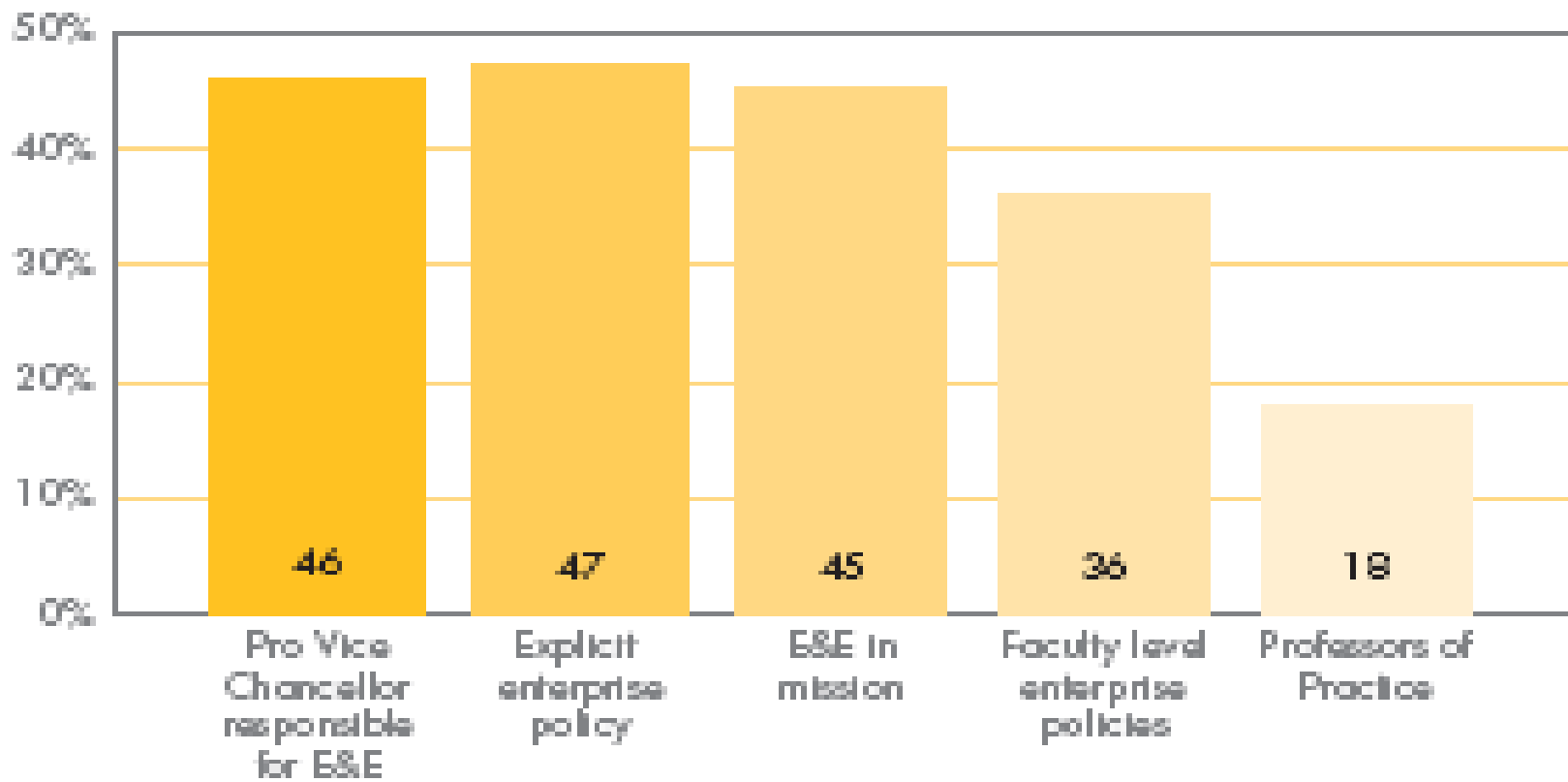


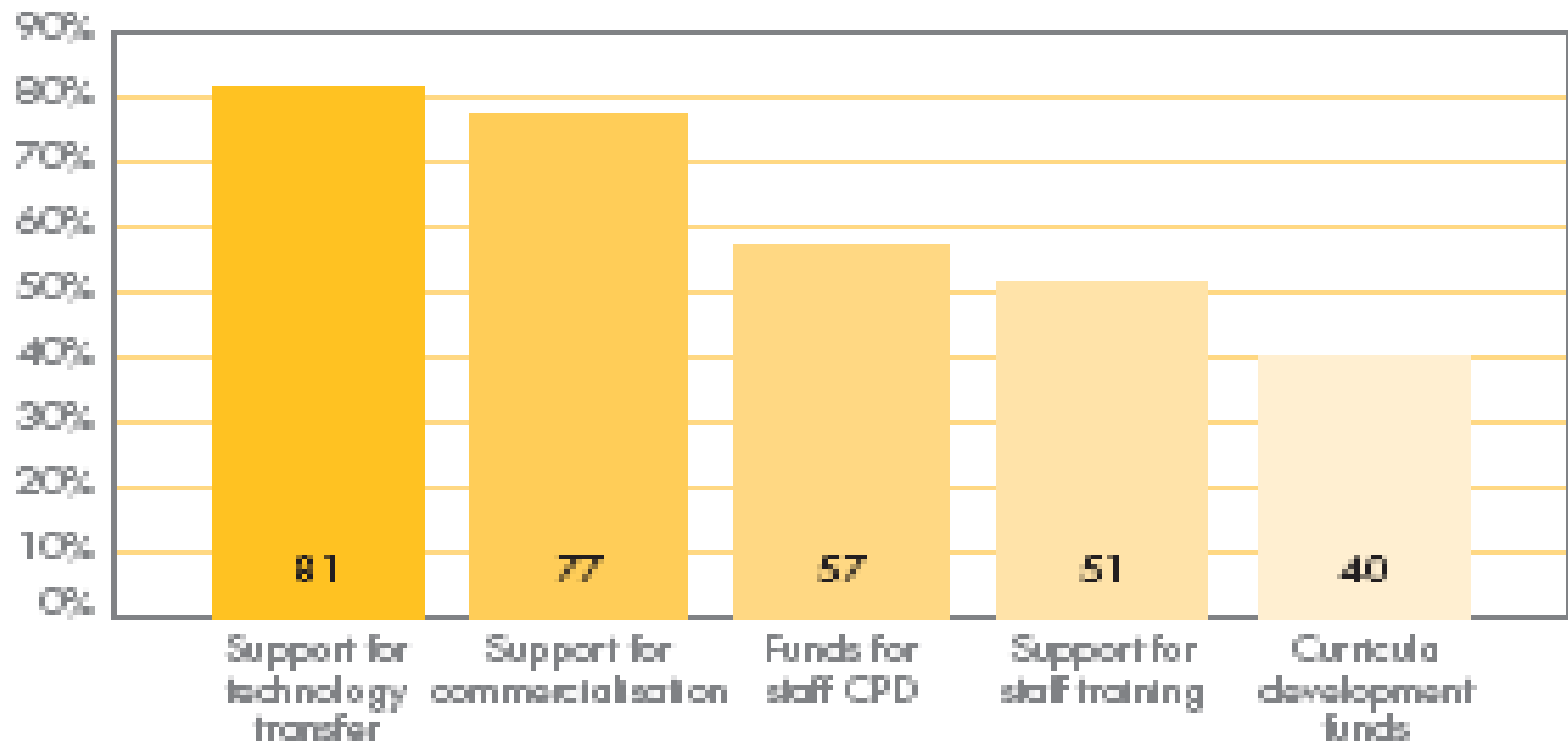
Funding



Infrastructure







The Make Your Mark Campaign

A business-led, government-backed campaign to inspire young people to be enterprising

Founded by BCC, CBI, FSB and IoD, funded by BERR

- Works with corporate partners, RDAs, celebrity ambassadors and role models. In partnership with the 25-member Enterprise Campaign Coalition
- Five geographical hubs – Liverpool, Wakefield, Lowestoft, Coventry, Tees Valley
- Specific campaigns – in women's enterprise, FE, HE, schools, BME, social enterprise

Rebranding Entrepreneurship in Higher Education

“Enterprise is about having ideas and
making them happen”

“Employees being enterprising in the
workplace, business start-ups or social
enterprise”



+venture

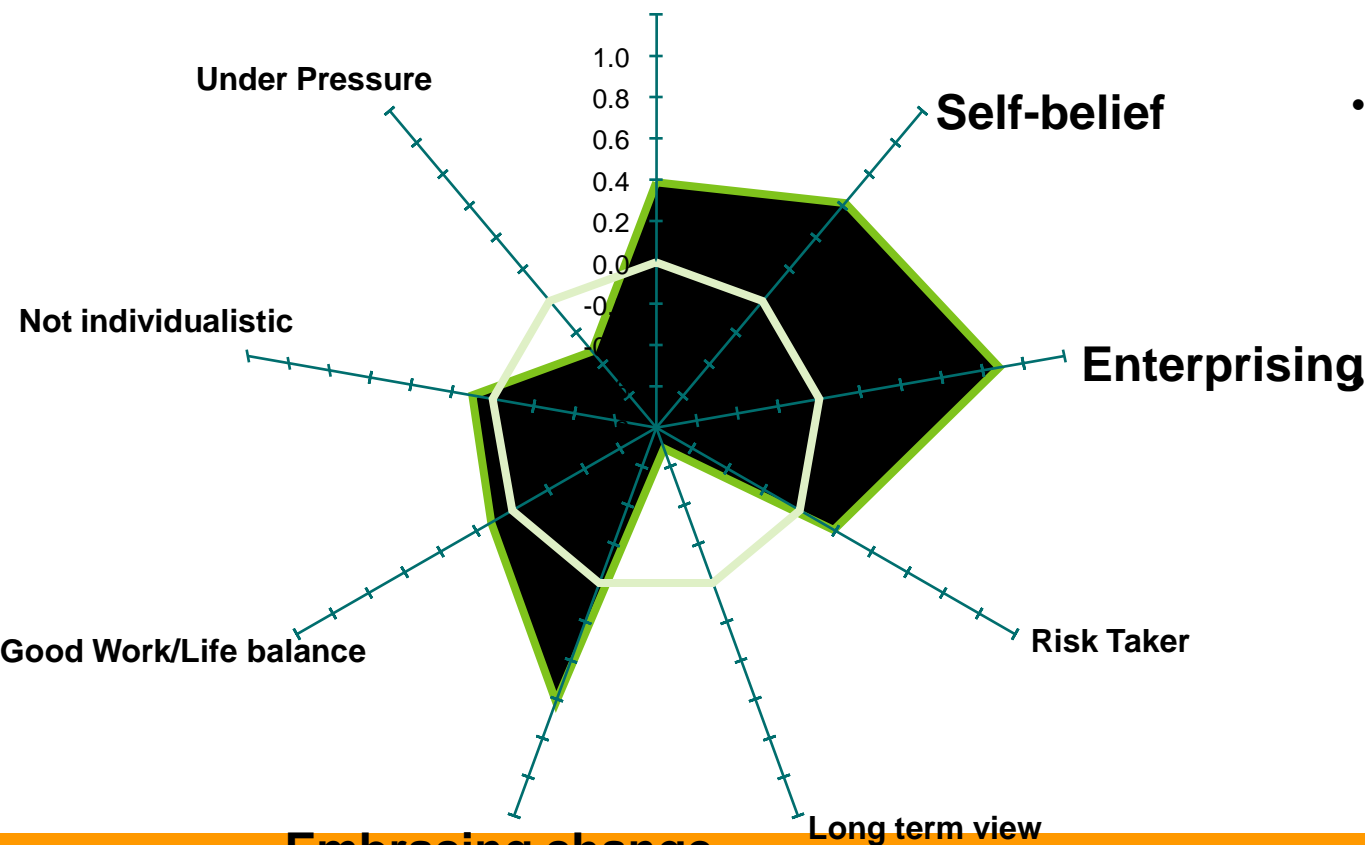


Young Self-Starter

Young Self Starters

— Total
— Young Self Starter

Confident in own abilities



- They believe they have the skills to start their own business
- 90% would rather work for themselves than work for a large company

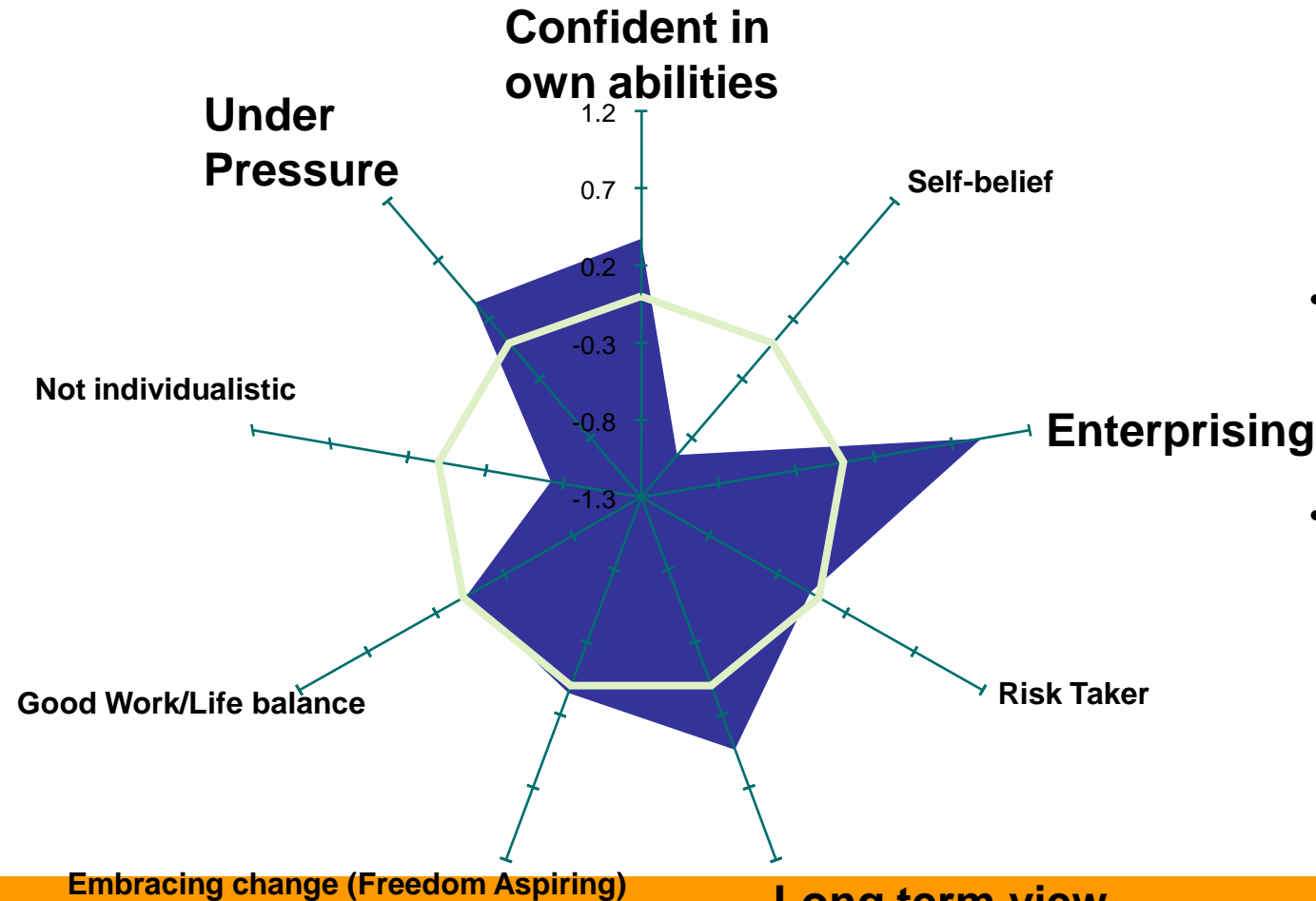
Most likely of all segments to feel that the best time to start a business is in their twenties (46%)

**Embracing change
(Freedom Aspiring)**

+venture

Hesitant Creatives

— Total
— Hesitant Creatives



- Most likely segment to say that they would rather work for themselves than a large company
- Perfectionists who prefer to work on their own (rather than in a team)
- Will bend rules in order to reach their goal

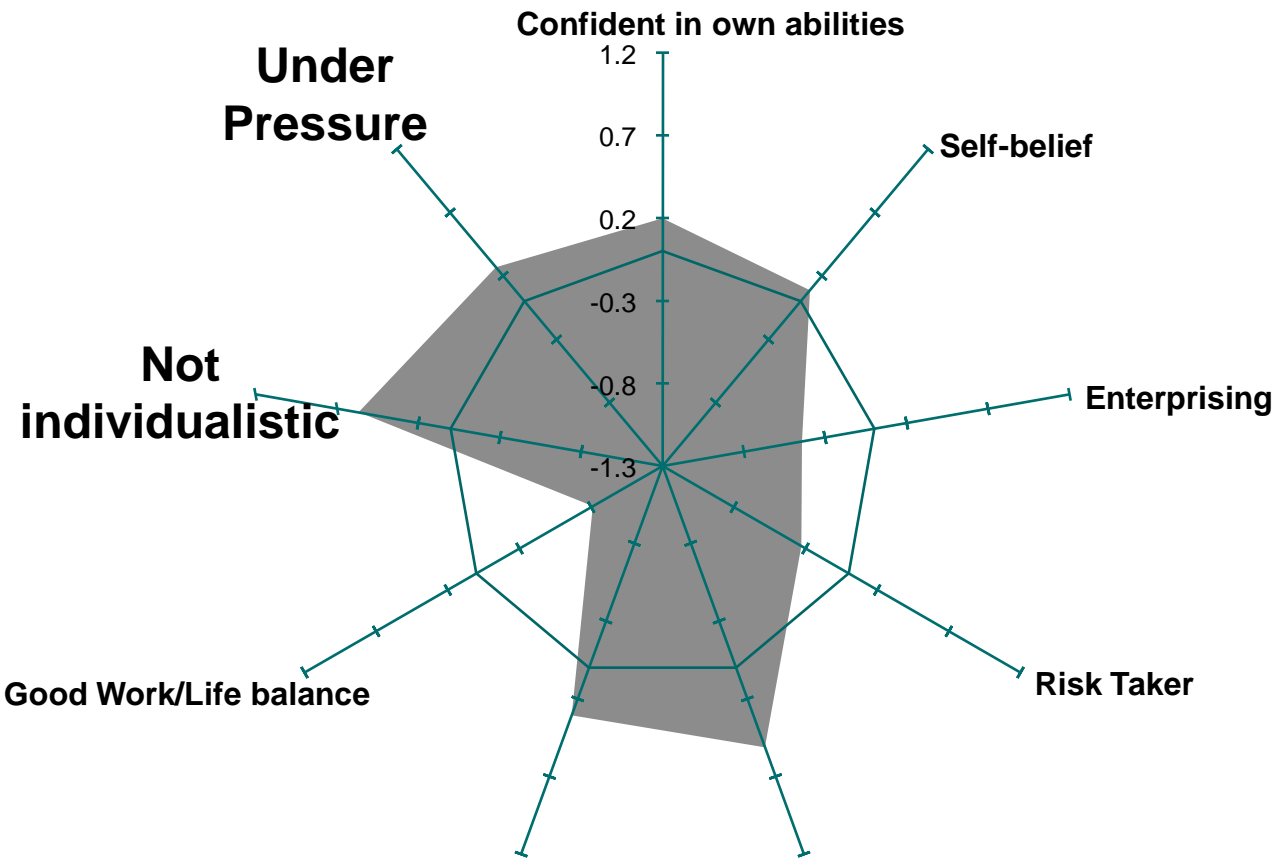
Long term view
+venture



Corporate Strivers

Corporate Strivers

— Total
— Corporate Strivers



- Team players who are keen to be socially accepted and fit in
- Less likely than other segments to want to work for themselves rather than a large company
- Over a third say their current job encourages them to develop new ideas/do things differently

**Embracing change
(Freedom Aspiring)**

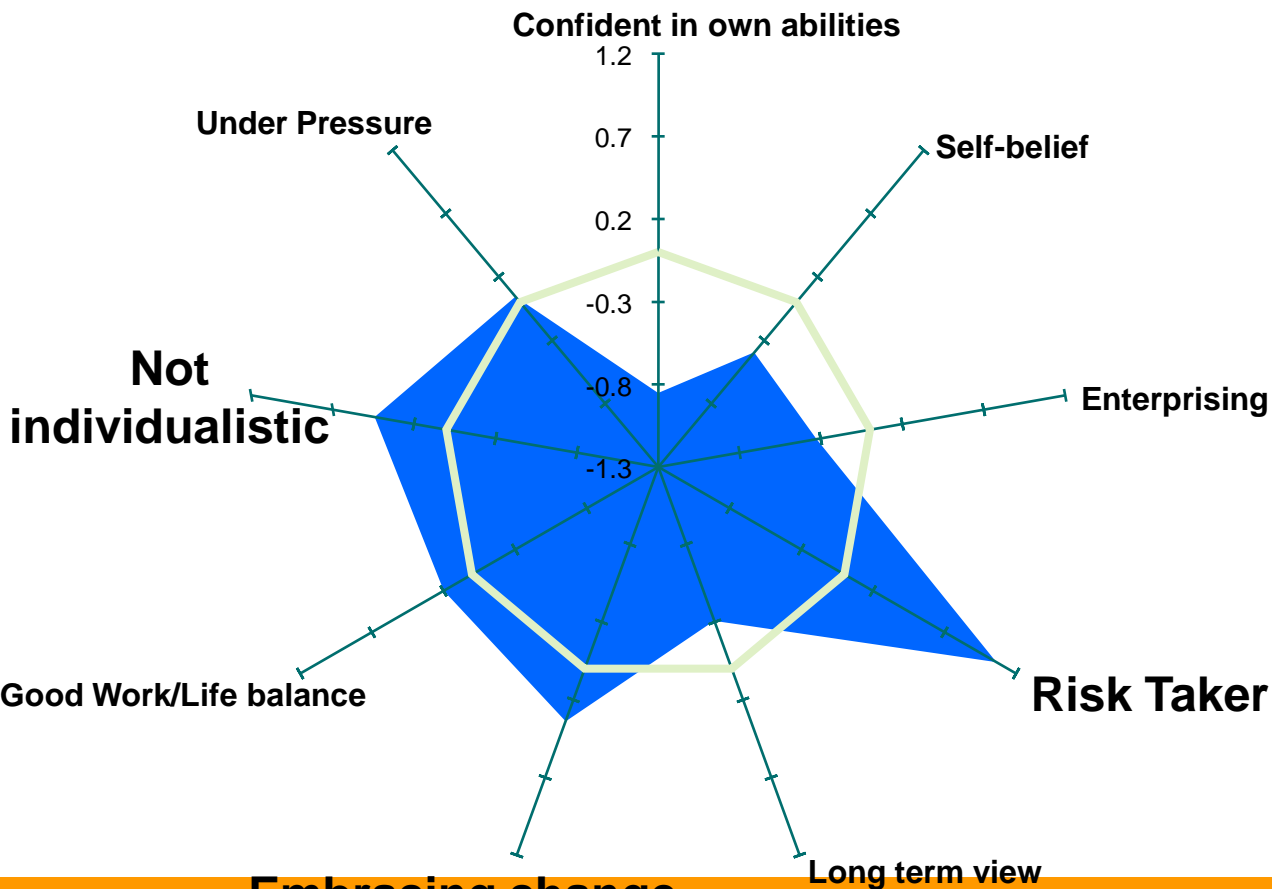
**Long term view
+venture**



Drifting Opportunist

Drifting Opportunists

— Total
— Drifting Opportunists



- Risk takers, who are happy to bend the rules to reach their goals
- 38% have only a vague idea about their future career path
- Most likely segment to 'live in the moment'

**Embracing change
(Freedom Aspiring)**

+venture

Enterprise Week 2008

- Enterprise Week (17-23 November 2008), part of Global Entrepreneurship Week, is a national celebration of enterprise with thousands of events and activities happening across the UK. Last year there were over 5,000 events and more than half a million people took part!
- Over 2,000 organisations run events and activities during the week to encourage people to have ideas and make them happen. This can be by starting up a new business or social enterprise, or by having ideas and making them happen in the workplace.

Session 2

- Case studies from across the UK
- Successful delivery projects
- Opportunities in the UK
- Global Entrepreneurship Week 2008
- International Educators Conference

Thank you
Nataliedcampbell@gmail.com