The African Education Summit
Sommet Africain de l'Education

Discovery Education Opening Ceremony

"From poor to fair to good to great: How the world's most improved school systems keep getting better."

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McKinsey & Company

Discovery EDUCATION™

OPENING CEREMONY PARTNER

AfricanBrains
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From poor to fair to good to great: How the world's most improved school systems keep getting better

McKinsey & Company

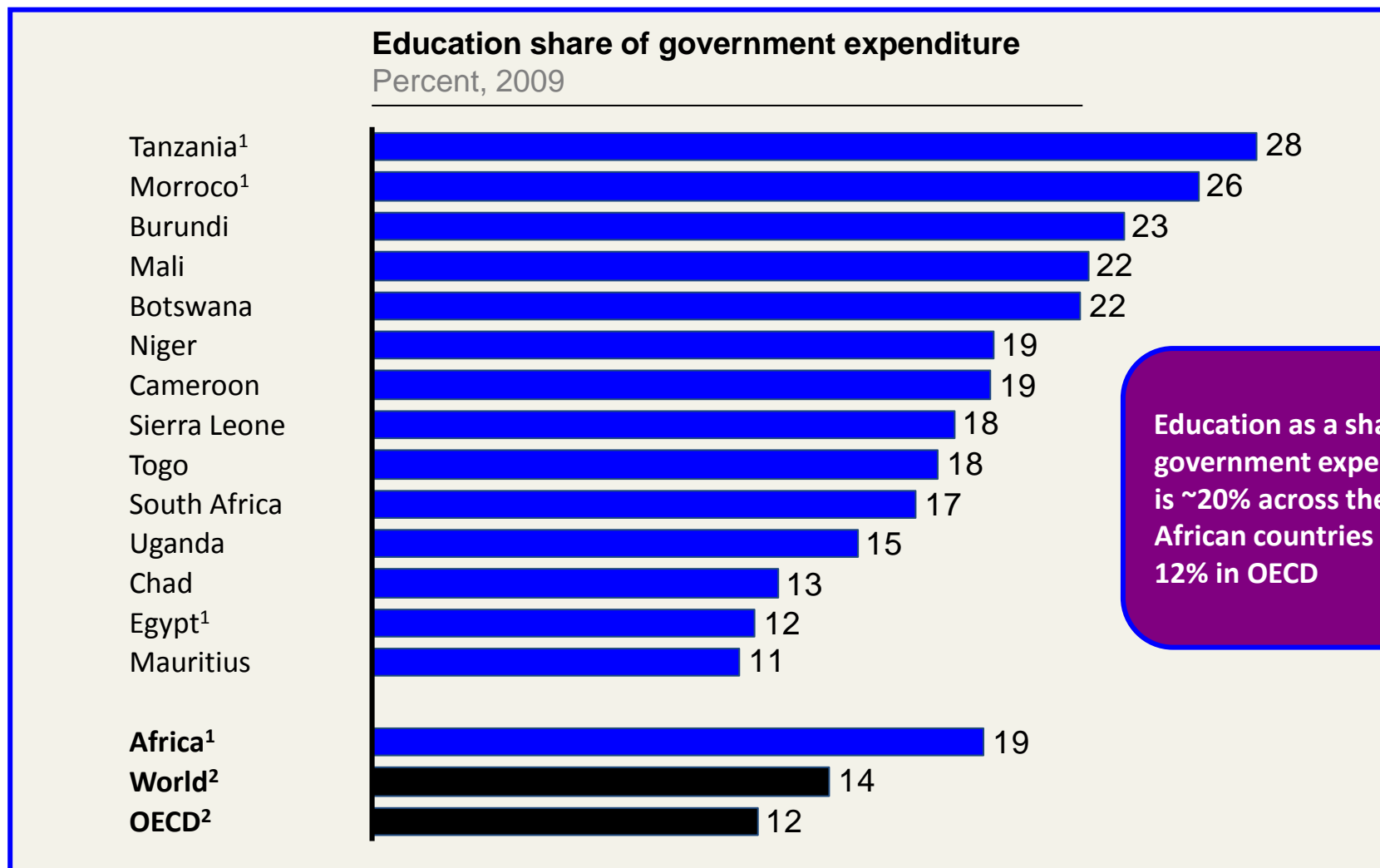Presentation to the Africa Education Summit
Rabat, Morocco
July 12th 2011

Africa invests a substantial share of its resources in education

Education share of government expenditure
Percent, 2009

Country	Value
Tanzania[1]	28
Morroco[1]	26
Burundi	23
Mali	22
Botswana	22
Niger	19
Cameroon	19
Sierra Leone	18
Togo	18
South Africa	17
Uganda	15
Chad	13
Egypt[1]	12
Mauritius	11
Africa[1]	19
World[2]	14
OECD[2]	12

Education as a share of government expenditure is ~20% across these African countries vs. 12% in OECD

1 Latest data available: 2008
2 Latest regional data available: 2007 for OECD, 2004 for World average

3

SOURCE: World Bank Development Indicators, UNESCO Institute of Statistics

African countries have made large strides in increasing access to schooling, although absolute secondary enrolment remain low

Country	Primary Enrolment — Change in primary net enrolment rate percent, 1999-2009; Primary NER 2009		Secondary Enrolment — Change in secondary net enrolment rate percent, 1999-2009; Secondary NER 2009	
Mozambique	38	91	12	15
Guinea	30[1]	73	17[1]	29
Niger	28	54	3[1]	9
Burkina Faso	28	63	7	15
Zambia	21	91	29	46
Kenya	20	83	16	50
Ghana	16	76	13	46
Lesotho	16	73	12	29
Tunisia	3[1]	98	8[1]	71
Eritrea	3	36	10	27
Namibia	1[1]	89	15[1]	54
South Africa	-7	85	9[1]	72
Malawi	-8	91	-4	25
Africa average[2]	15	77	11	38

MDG II:
Achieve Universal Primary Education

"Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling"

1 2008 data used where 2008 data not available. For secondary education 2007 data used for Guinea, Niger, Namibia and South Africa For Kenya and Tunisia 2000 secondary NER used in lieu of 1999
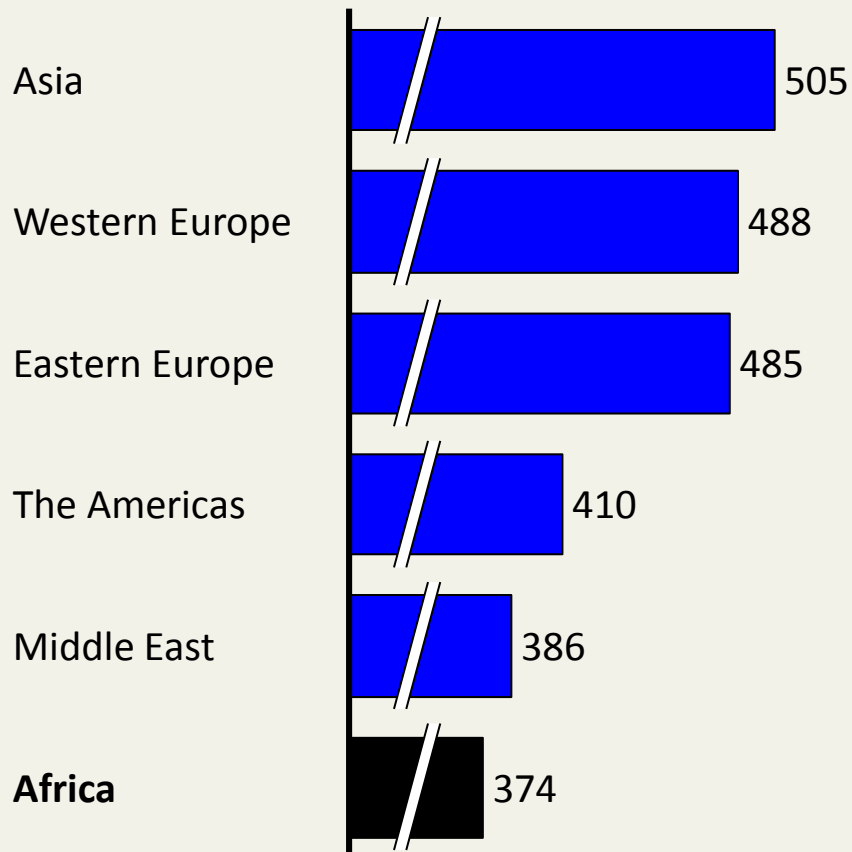
2 Based on 13 countries listed here, chosen based on data availability

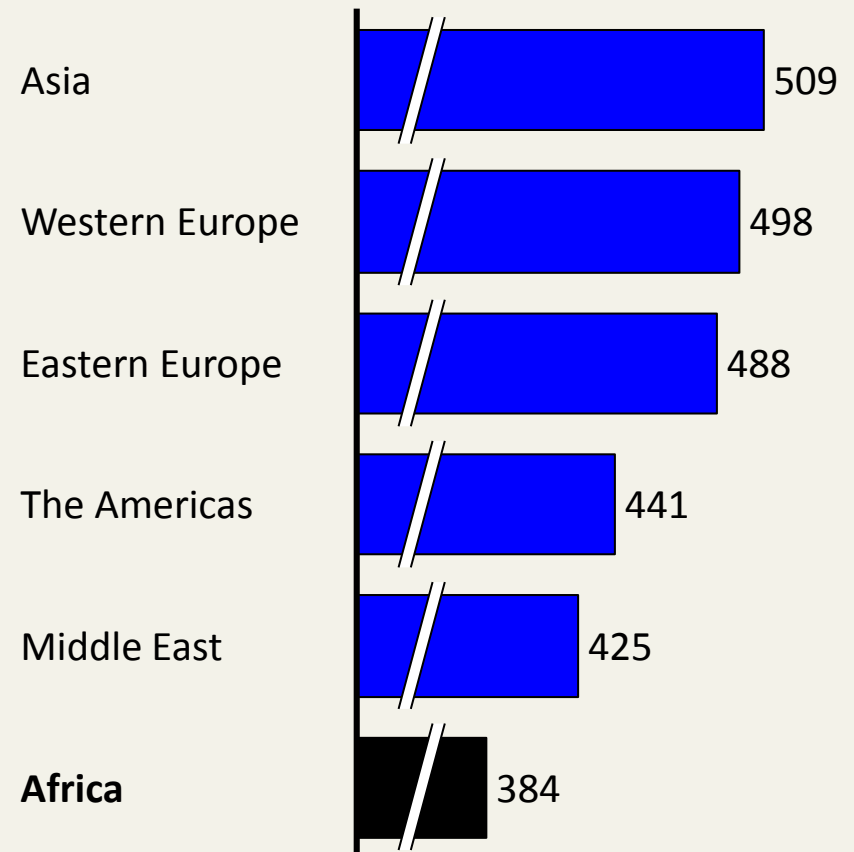SOURCE: World Bank World Development Indicators, MDG Monitor,

Africa has lowest student achievement levels in the world

2007 Trends in Maths and Science Survey, TIMSS; 8th Grade
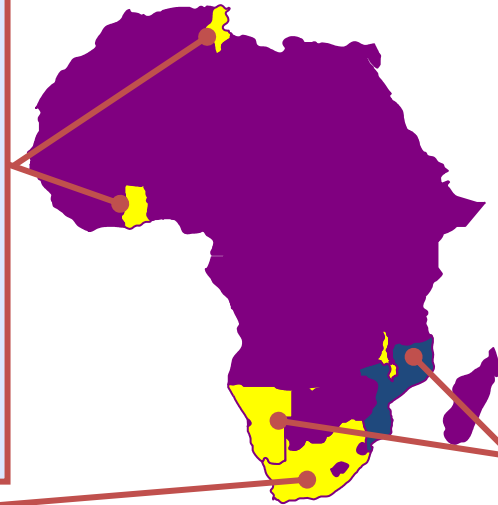**Average of country scores in each region**

Maths

Region	Score
Asia	505
Western Europe	488
Eastern Europe	485
The Americas	410
Middle East	386
Africa	374

Science

Region	Score
Asia	509
Western Europe	498
Eastern Europe	488
The Americas	441
Middle East	425
Africa	384

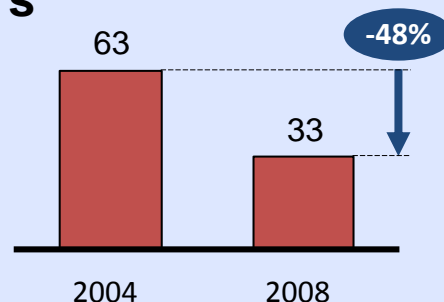# However, there are some encouraging student achievement examples across the continent

Ghana & Tunisia achieved the world's largest gains on 8th grade TIMSS from 2003-2007 (of 33 countries)

	Maths	Science
Ghana	• Largest gains (+33)	• Largest gains (+48)
Tunisia	• 5th largest gains (+10)	• 2nd largest gains (+41)

On SACMEQ, several countries that declined from 1995-2000 increased significantly from 2000-2007

Percent change in grade 6 literacy scores over period[1]

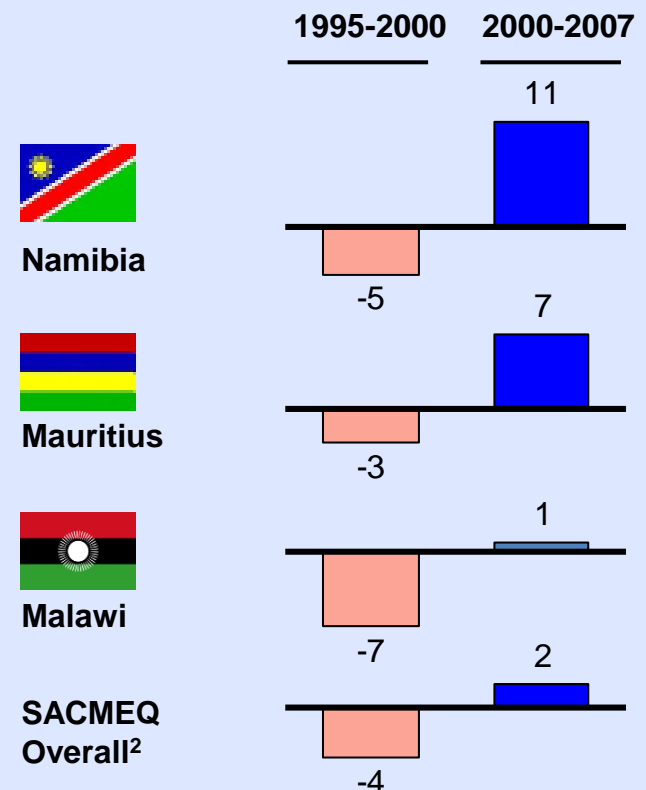|	1995-2000	2000-2007
Namibia	-5	11
Mauritius	-3	7
Malawi	-7	1
SACMEQ Overall[2]	-4	2

A South African province has halved the literacy gap between the top and bottom wealth quintiles over 4 years

Difference in percent of learners who are literacy-proficient in the top and bottom wealth quintiles in one Province

2004	2008
63	33

-48%

In 2010, we published a report on school system improvement across a wide range of countries and contexts

England
Saxony, Germany
Poland
Slovenia
Lithuania
Latvia
Ontario
Boston Public Schools
Aspire
Long Beach
Minas Gerais
Chile
Ghana
Western Cape, South Africa
Jordan
Armenia
India
Korea
Shanghai
Hong Kong
Singapore
KIPP:

SOURCE: McKinsey & Company
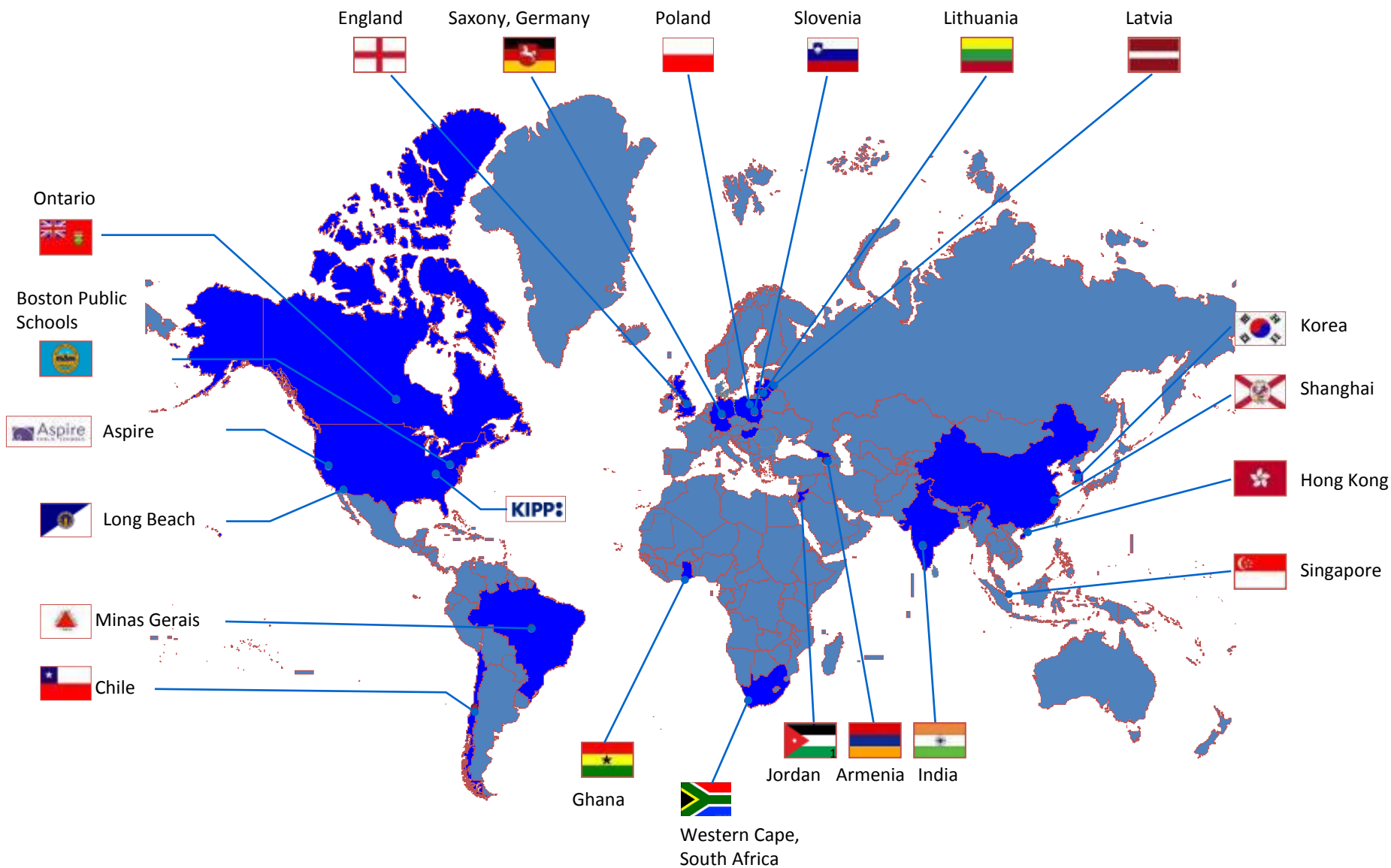
Those systems represents a continuum of improvement from poor to fair to good to great

Poor[2] Good[2]
Fair[2] Great

Systems

| Singapore |
| Hong Kong |
| South Korea |
| Ontario, Canada |
| Saxony, Germany |
| England |
| Latvia |
| Lithuania |
| Slovenia |
| Poland |
| Long Beach, CA, USA |
| Boston/MA, USA |
| Armenia |
| Jordan |
| Western Cape, SA |
| Chile |
| Ghana |

Systems with Special Assumptions

| Aspire Public Schools (USA) |
| Minas Gerais, Brazil |
| Madhya Pradesh, India |

8

SOURCE: TIMSS, PISA, NAEP, national and provincial assessments; McKinsey & Company interventions database

Lesson I

A system can make significant gains from wherever it starts – and these gains can be achieved in as short as six years

Significant improvement is possible in 4-6 years: Minas Gerais, Brazil

Following implementation of the literacy reform in 2006, Minas Gerais improved literacy levels and rose to the top of Brazil's national assessment

Percentage of 8 year olds reading at recommended level
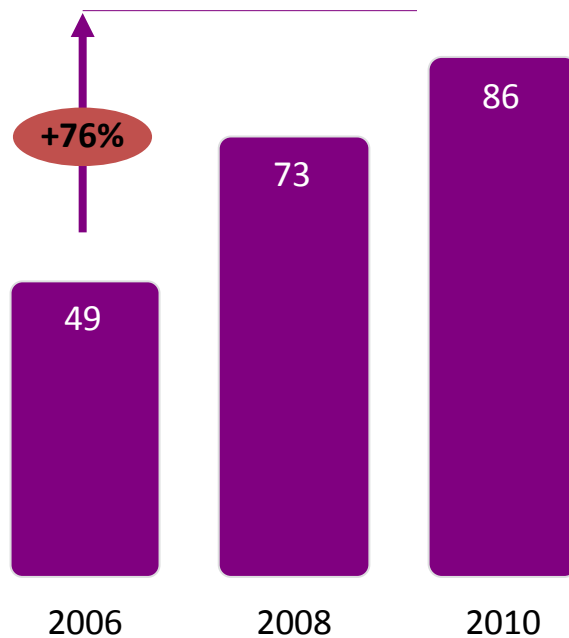
Percentage of 8 year olds reading at poor levels[1]

+76%

49 — 2006
73 — 2008
86 — 2010

-82%

31 — 2006
14 — 2008
6 — 2010
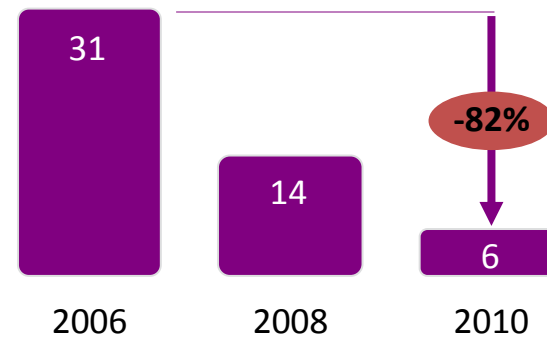
From 2007 to 2009, Minas Gerais also rose from 5th place to 1st place among Brazilian states on Brazil's national (IDEB) assessments

1 Poor performance level is defined by assessment as students are only able to read words
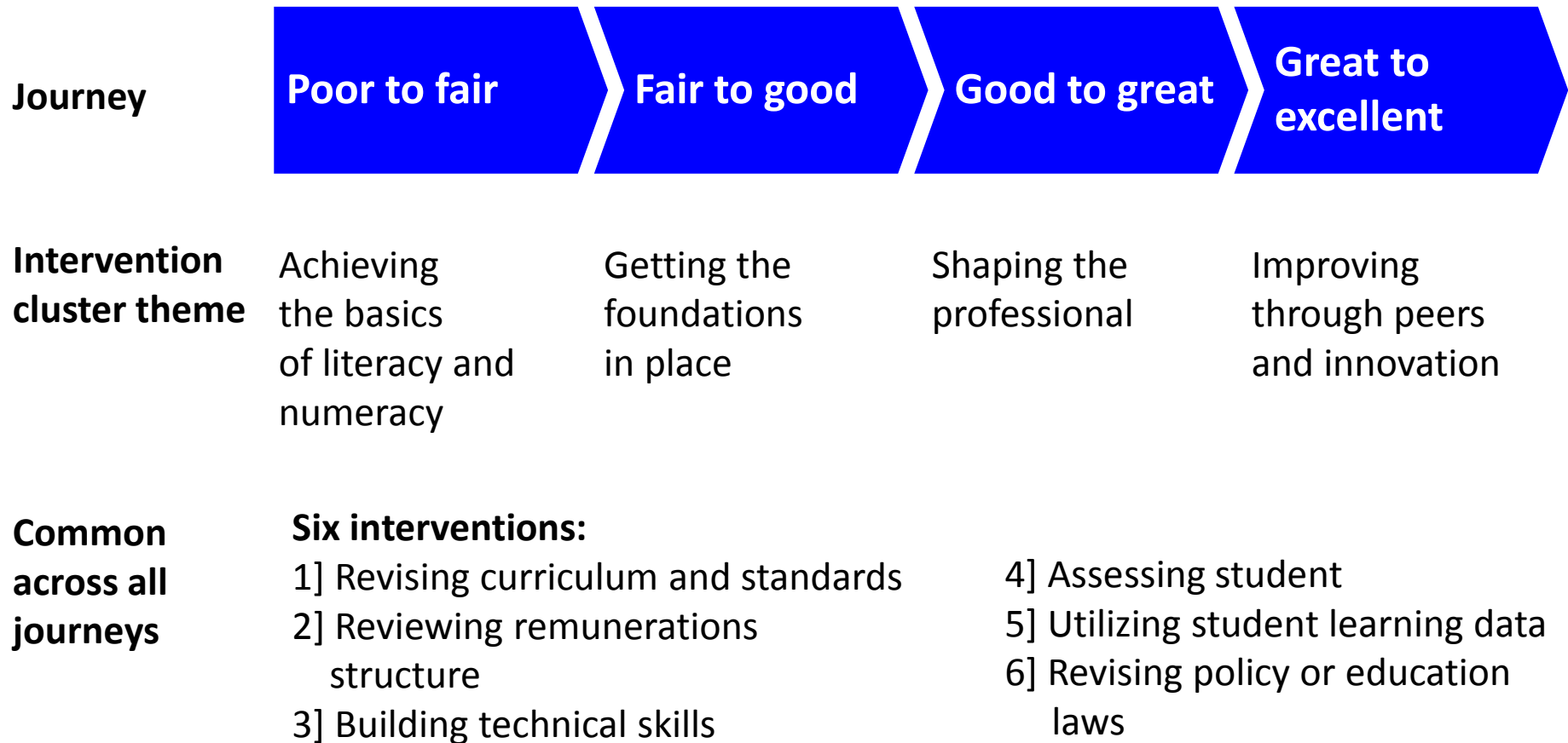
SOURCE: Brazil PROALFA reading assessment

Lesson II

Each stage of the school system improvement journey is associated with a unique set of interventions, from poor to fair to good to great to excellent

Our research finds that a unique 'intervention cluster' exists for each improvement journey, with six interventions common across all journeys

Journey	Poor to fair	Fair to good	Good to great	Great to excellent

Intervention cluster theme

Achieving the basics of literacy and numeracy	Getting the foundations in place	Shaping the professional	Improving through peers and innovation

Common across all journeys

Six interventions:

1] Revising curriculum and standards
2] Reviewing remunerations structure
3] Building technical skills

4] Assessing student
5] Utilizing student learning data
6] Revising policy or education laws

Poor to fair journeys focus on achieving basic literacy and numeracy

Theme	Intervention types	
Providing scaffolding and motivation for low skill teachers and principals	▪ Scripted lessons ▪ Instructional time on task ▪ Coaching on curriculum ▪ School visits by center ▪ Incentives for high performance	These interventions enable low-capacity low-performance systems to establish **fundamentally sound instruction with consistency** across underperforming schools and classrooms
Getting all schools to minimum quality standard	▪ Targets, data, and assessments ▪ Infrastructure ▪ Textbooks and learning resources ▪ Supporting low performing schools	
Getting students in seats	▪ Expand seats ▪ Fulfill students' basic needs	

Systems included

Chile (2001–05)

Madhya Pradesh (2006+)
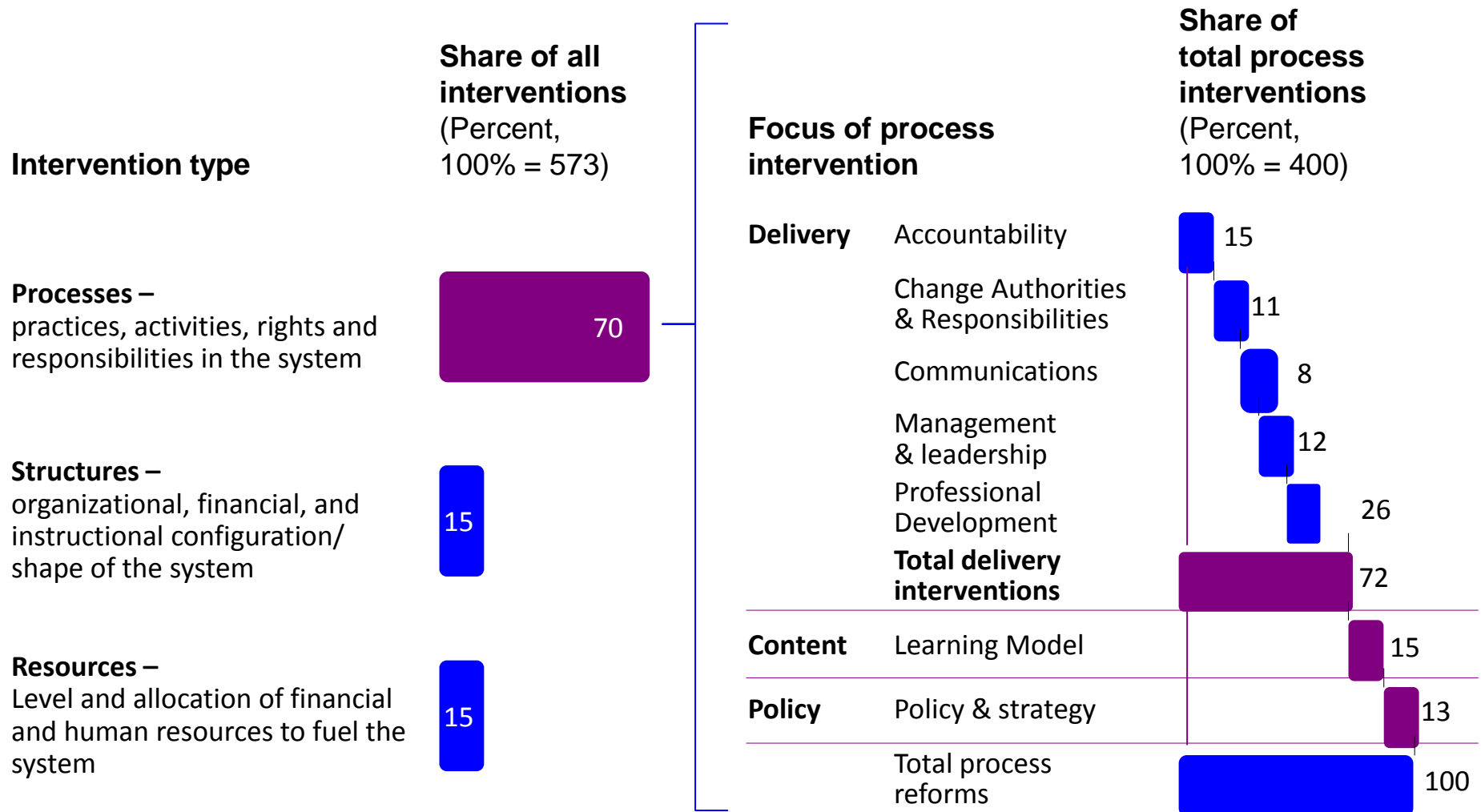
Minas Gerais (2003+)

Western Cape (2003+)

Ghana (2003+)

Lesson III

While 'structure' and 'resource' interventions dominate the debate, 'process' deserves as much attention

Process is the most prevalent intervention type among improved school systems, relative to structure and resource

Intervention type

Share of all interventions (Percent, 100% = 573)

Focus of process intervention

Share of total process interventions (Percent, 100% = 400)

Processes – practices, activities, rights and responsibilities in the system

70

Structures – organizational, financial, and instructional configuration/ shape of the system

15

Resources – Level and allocation of financial and human resources to fuel the system

15

Delivery	Accountability	15
	Change Authorities & Responsibilities	11
	Communications	8
	Management & leadership	12
	Professional Development	26
	Total delivery interventions	72
Content	Learning Model	15
Policy	Policy & strategy	13
	Total process reforms	100

In addition…

While education ICT investment is growing, its potential to transform teaching and learning has yet to be fully unleashed

SOURCE: McKinsey & Company

While education ICT investment in MEA is large and growing, its potential to transform learning has yet to be fully unleashed

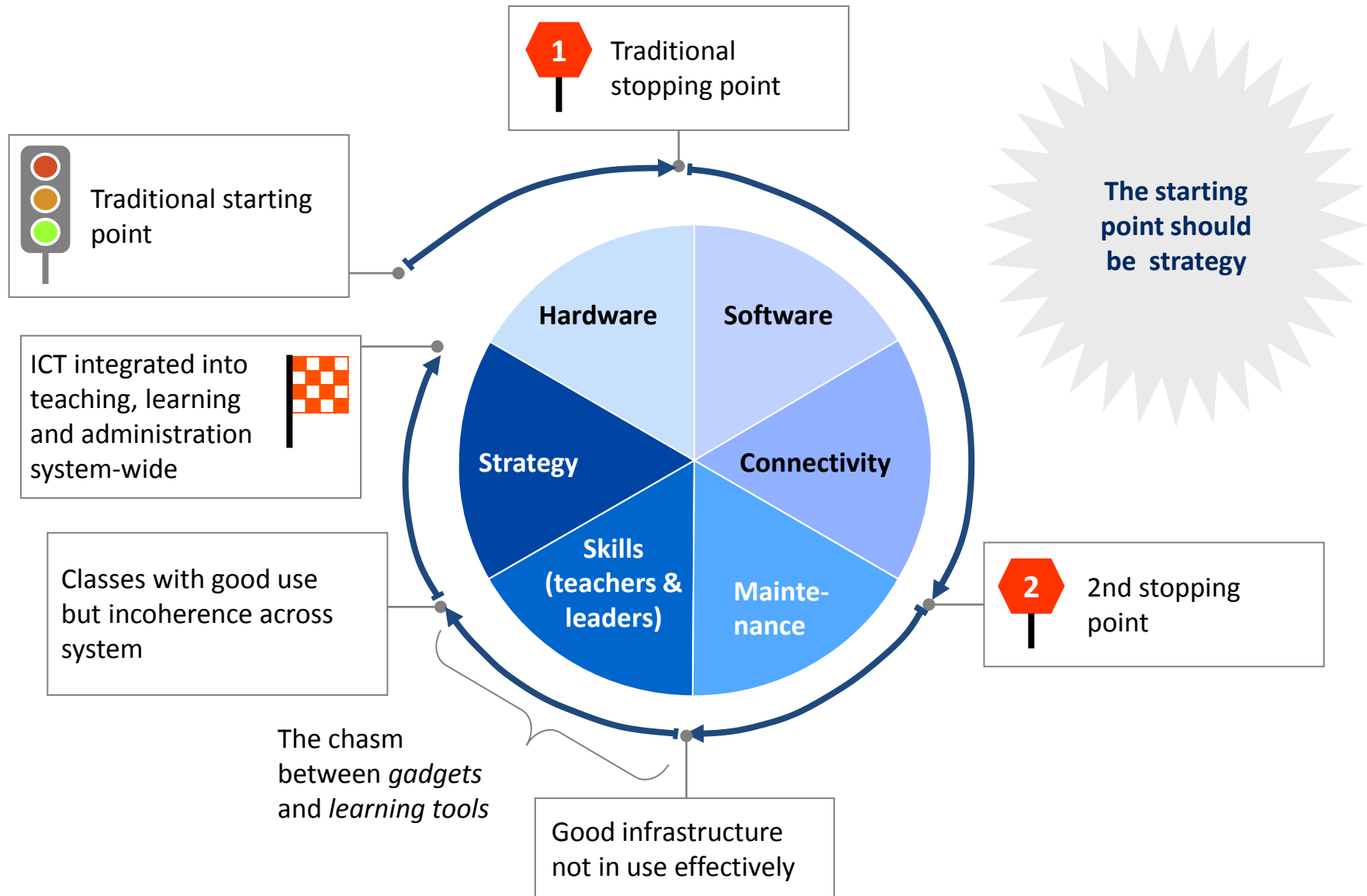**Forecasted ICT spending in the educational sector in MEA**
$ million
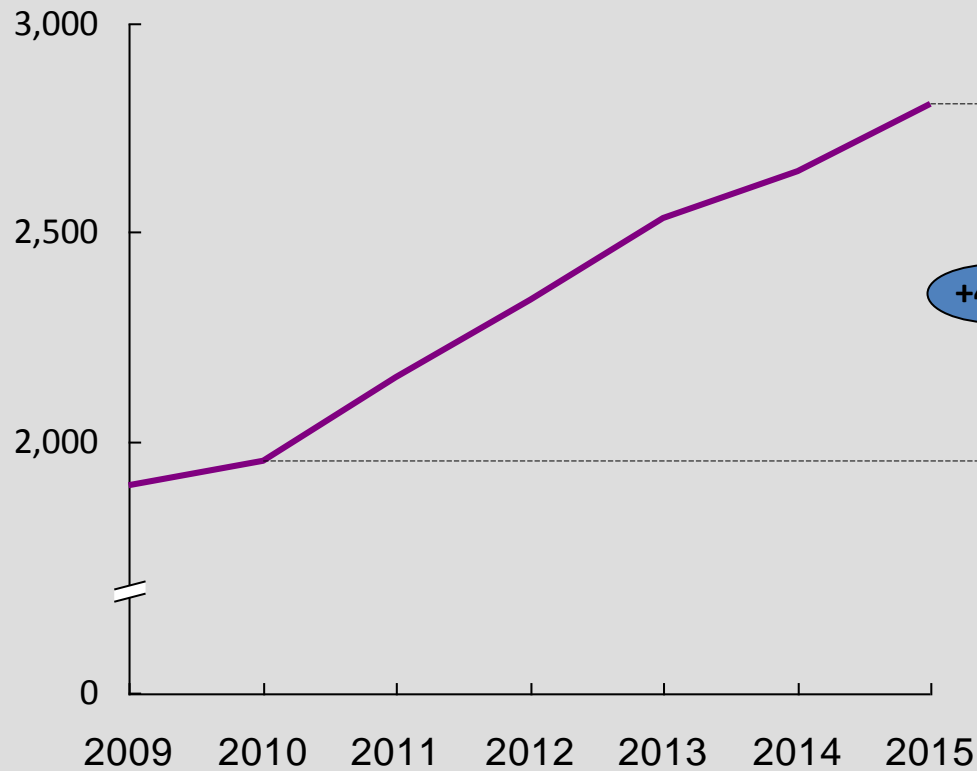
"The development of ICT in schools is progressing unevenly across and within schools and technologies...the evidence on attainment is somewhat inconsistent, although it does appear that, in some contexts, with some pupils, in some disciplines, attainment has been enhanced"

— *Becta, UK, 2008*

+44%

SOURCE: Gartner, April 2011. England Harnessing Technology Schools Survey 2008, Becta;

The journey to effective system-wide ICT integration

1 Traditional stopping point

Traditional starting point

ICT integrated into teaching, learning and administration system-wide

Classes with good use but incoherence across system

The chasm between *gadgets* and *learning tools*

Good infrastructure not in use effectively

2 2nd stopping point

The starting point should be strategy

Hardware

Software

Strategy

Connectivity

Skills (teachers & leaders)

Mainte-nance

Significant improvement is possible in 4-6 years: W. Cape, S. Africa

South Africa's Western Cape Province narrowed the literacy inequality gap in four years: among 3rd graders, the bottom three quintiles have caught up to the second richest
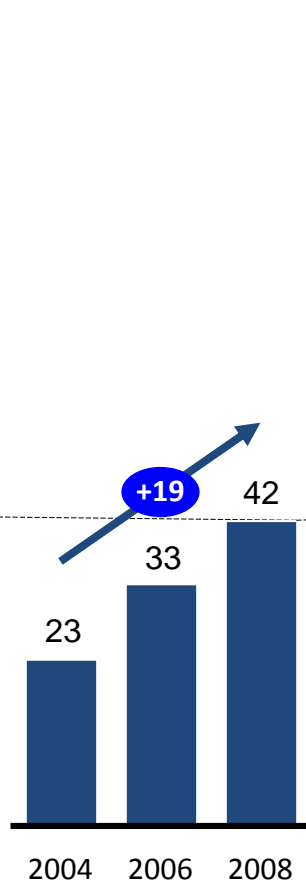
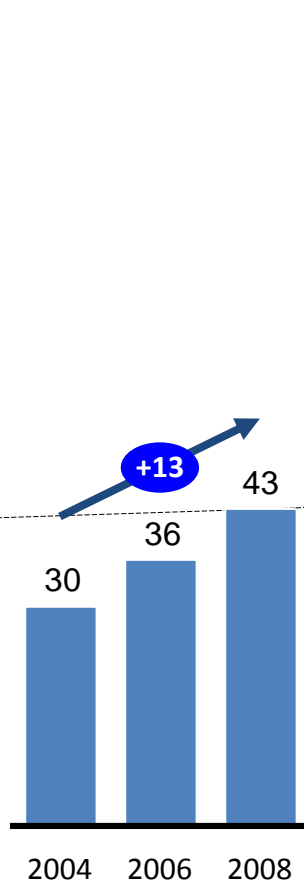

Pass rates, grade 3
Lowest wealth
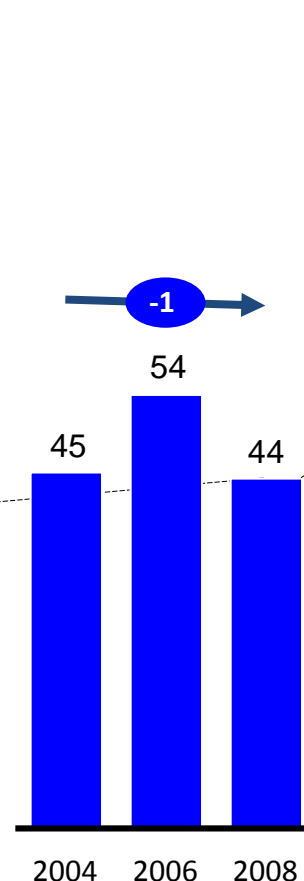Percent
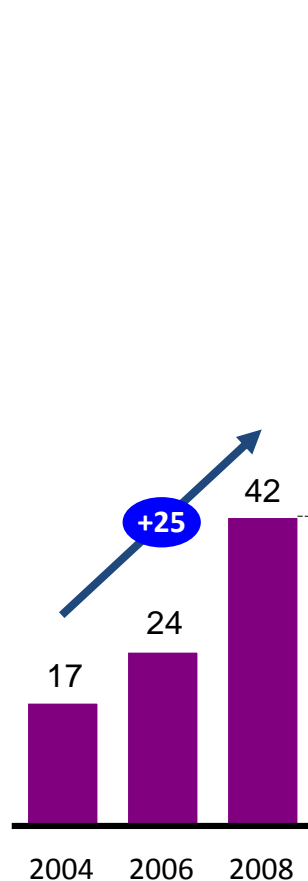
Pass rates, grade 3
2nd lowest wealth
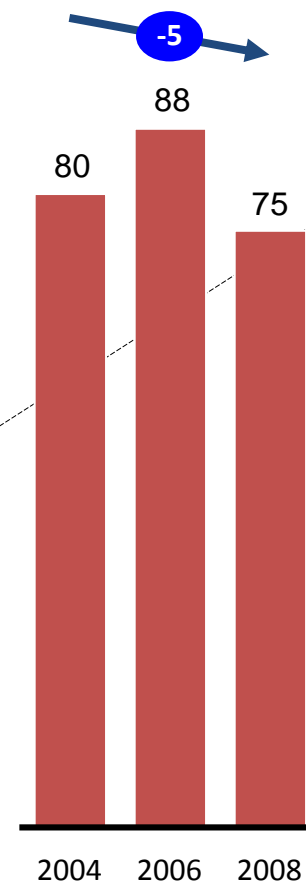Percent

Pass rates, grade 3
3rd lowest wealth
Percent

Pass rates, grade 3[1]
2nd highest wealth
Percent

Pass rates, grade 3[1]
Highest wealth
Percent

Lowest wealth: 2004: 17, 2006: 24, 2008: 42 (+25)
2nd lowest wealth: 2004: 23, 2006: 33, 2008: 42 (+19)
3rd lowest wealth: 2004: 30, 2006: 36, 2008: 43 (+13)
2nd highest wealth: 2004: 45, 2006: 54, 2008: 44 (-1)
Highest wealth: 2004: 80, 2006: 88, 2008: 75 (-5)

1 Interviewees in WCED attributed some of the drop in the two highest wealth quintiles to shifts upwards in wealth categories of learners from 2006

SOURCE: WCED Learner Assessment Studies, Final Reports, 2002-2008