


# Infusing ICT in Education as a Catalyst for Human Capital Development



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# OUTLINE

1. SETTING THE CONTEXT
  2. TENTH MALAYSIA PLAN EDUCATION REFORM AGENDA
  3. GOVERNMENT EXPENDITURE FOR ICT IN EDUCATION 1999-2010
  4. HOLISTIC ICT IN EDUCATION FRAMEWORK
  5. 22 ACTION ITEMS CRAFTED
  6. WAY FORWARD
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# SETTING THE CONTEXT

## 2001-2010: Education Development Plan

Education for All in terms of Access, Equity and Quality

## 2006: Education Masterplan

Ensuring Access to quality education and promoting excellent schools

## 2010: Tenth Malaysia Plan, 2011-2015

Revamping the education system to significantly raise student outcomes

## 2010: Government Transformation Programme with NKRA

Key focus areas to widen access to quality and affordable education

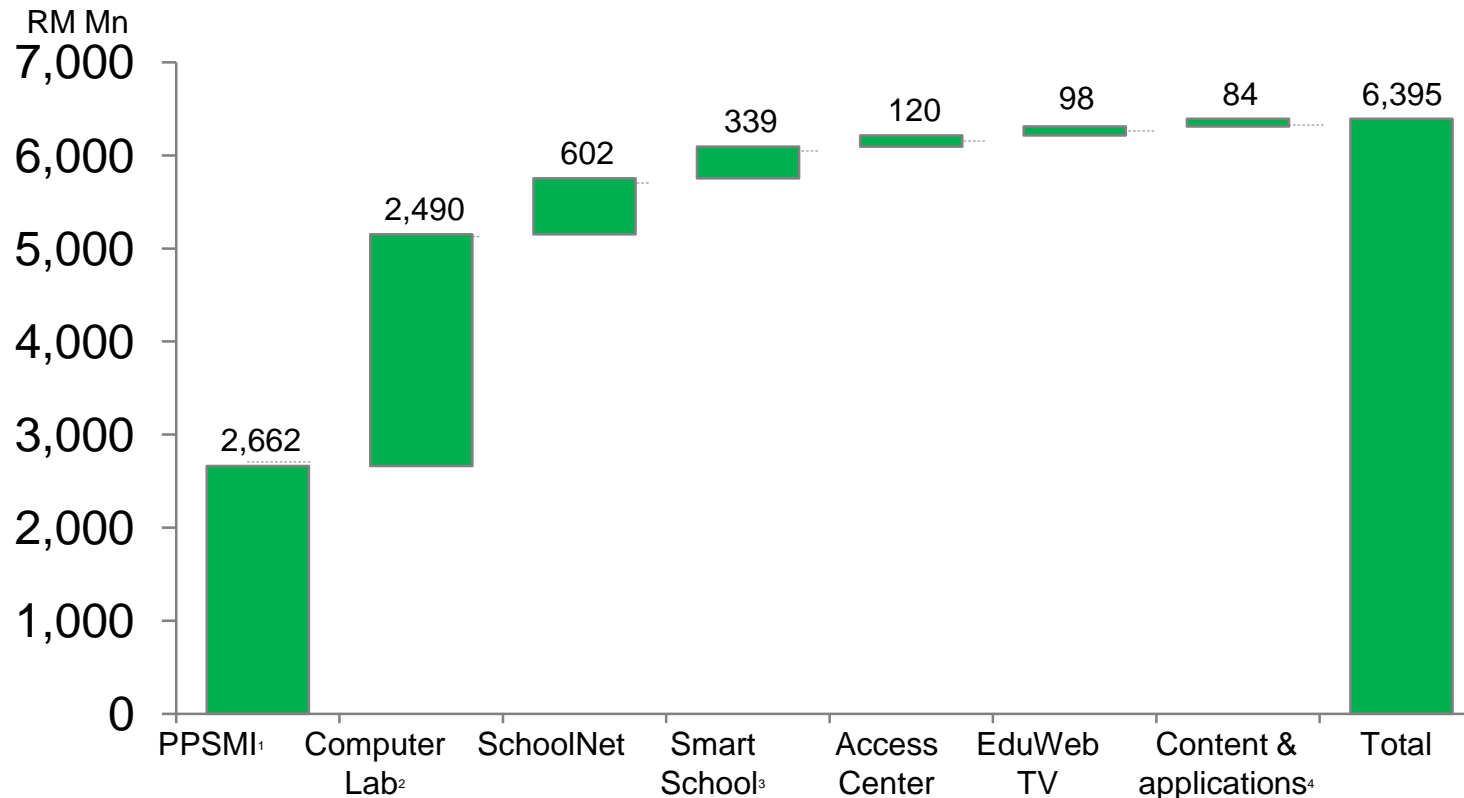


# 10MP Education Reform Agenda: ICT as the Enabler

	Early childhood	Pre-school	Basic education	Tertiary Education <ul style="list-style-type: none"> <li>University/college</li> <li>Polytechnic</li> <li>Community college</li> <li>Technical Education and Vocational Training (TEVT) Institution</li> </ul>	Professional working life	Retiree/ Second career
<b>Ages</b>	0+	4+	5+/6+	17+	20+	
<b>Themes</b>	<ul style="list-style-type: none"> <li>Ensuring every child succeeds</li> <li>Holding schools accountable for outcomes</li> <li>Investing in great leaders for schools</li> <li>Attracting and developing the best teachers</li> </ul>			<ul style="list-style-type: none"> <li>Mainstreaming and broadening TEVT</li> <li>Enhancing the competency of tertiary graduates</li> </ul>		<ul style="list-style-type: none"> <li>Accelerating labour reform</li> <li>Attracting and retaining top talent</li> <li>Upgrading existing talent pool</li> </ul>
	<b>Revamping education system to significantly raise student outcomes</b>			<b>Raising skills to increase employability</b>		<b>Reforming labour market to transform Malaysia into a high-income nation</b>

SOURCE: Economic Planning Unit

# Breakdown of Government Expenditure in ICT in Education Initiatives (1999-2010)

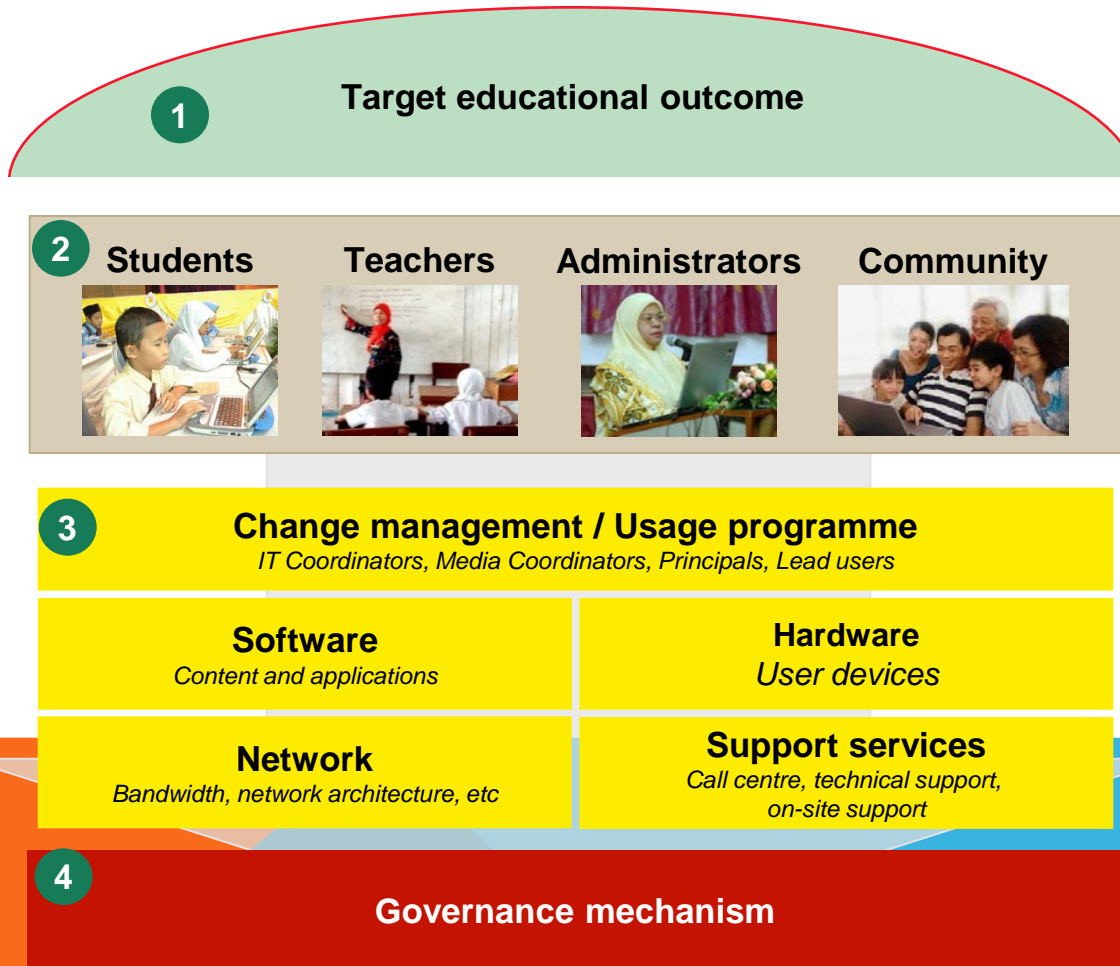


1. ICT equipment for Teaching of Science and Mathematics in English phase 1-6
2. New hardware phase 1-4, maintenance 2009-2010 and replacement 2009-2010 (estimated)
3. Developing Pilot Smart Schools 1999-2007 and developing rural smart schools 2009-2010 (estimated)
4. E-bahan developed by BTP Resos for the period 2004-2011, development of LMS, SMS and SPK

Source: EPU; MoE; Interviews; BCG

Today, many ICT initiatives have already been rolled out ...with room for progress as Malaysia evolves to more advanced phases of ICT penetration

# Holistic ICT in Education Framework



- 1 Overall goal of ICT in education**
- Stakeholders aligned to common goal
  - Reflect aspiration of national education sector
  - Impact of technology usage at schools

- 2 Target users**
- Key user group(s) significantly benefiting from ICT
  - 'Right' model to utilise technology

- 3 Building blocks to deliver**
- Critical enablers to achieve target outcome
  - Prerequisites for each enabler

- 4 Ownership and accountability**
- Ministry/ agency taking lead to drive initiatives forward
  - Lead align and coordinate responsibilities with other key stakeholders

# 22 ACTION ITEMS CRAFTED

## Change management

- 1.1 Communicate change agenda from Ministry state, district and schools to create ownership
- 1.2 Create expectations and accountability of change agenda
- 1.3 Ensure that Principals are minimally ICT literate and users of ICT
- 1.4 Establish lead user programme to cascade change culture and competency development at schools

## Software/applications

- 2.1 Improve user-friendliness of existing portals
- 2.2 Build up a repository of vetted externally-developed content
- 2.3 Install relevant teaching and learning applications for all hardware
- 2.4 Develop a single portal for all education-related materials

## Hardware

- 3.1 Increase formats for access to ICT in schools
- 3.2 Provide necessary ICT facilities and hardware upgrades to schools
- 3.3 Provide schools the autonomy to manage ICT hardware needs

## Network

- 4.1 Upgrade to 2 and 4Mbps at base level
- 4.2 Convert and upgrade bandwidth of VSAT schools where possible
- 4.3 Apply additional network management techniques
- 4.4 Provide schools the autonomy to manage bandwidth requirements

## Support services

- 5.1 Establish regular maintenance schedule, adopting preventive strategy
- 5.2 Set-up a single support management entity to own end-to-end support process
- 5.3 Define and implement comprehensive SLAs
- 5.4 Design and implement close-loop users feedback

## Governance

- 6.1 Assign MoE as single owner of all ICT initiatives to coordinate end-to-end ICT initiatives in education
- 6.2 Streamline roles and responsibilities of each implementing division
- 6.3 Enhance SSQS star-ranking

**WAY FORWARD**

**IMPLEMENTATION ROADMAP OF HOLISTIC  
ICT IN EDUCATION FRAMEWORK**

**CRUCIAL**

**FOR REALISATION OF NATIONAL HUMAN  
CAPITAL DEVELOPMENT**

*Thank you*

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