Malaysia Education Blueprint 2015-2025
(Higher Education)

Challenges in Implementation

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Ministry of Higher Education

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Content

1. Brief overview of Blueprint development
2. Current state, vision and aspirations for Higher Education
3. Overview of the 10 Shifts
4. Way forward
5. Challenges in Implementation
Addressing current and future Challenges:

GLOBAL Economic crisis
GLOBAL Competition due to GLOBALIZATION
Accelerating PACE of CHANGE due to DIGITAL age

Graduates for economic vs society needs

Responsible citizen viz Global citizen
Graduates 21st Century Skills
Information overloads
Institutional Autonomy vs Accountability
R&D input vs outputs

Challenges facing higher education

Institutional Reputation
industry-academia collaboration
financial sustainability
return on investment

Equitable Access

THE WORLD BANK
UNESCO
U21Global
OECD
The Malaysia Education Blueprint (Higher Education) will be centered on 10 Shifts

Table of contents

Introductory chapters
- Introduction
- Current Performance
- Vision and Aspirations

Shift chapters
- Shift 1: Holistic Entrepreneurial and Balanced Graduates
- Shift 2: Talent Excellence
- Shift 3: Nation of Lifelong Learners
- Shift 4: Quality TVET Graduates
- Shift 5: Financial Sustainability
- Shift 6: Empowered Governance
- Shift 7: Innovation Ecosystem
- Shift 8: Global Prominence
- Shift 9: Globalized Online Learning
- Shift 10: Transformed HE Delivery

Final Sections
- Conclusion
- Appendices and glossary
# Sources of input for development of Malaysia Education Blueprint (Higher Education)

<table>
<thead>
<tr>
<th>Blueprint developers</th>
<th>Engaged stakeholders</th>
<th>Phase I</th>
<th>Phase II</th>
<th>Phase III</th>
<th>External research</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ 35 PSPTN review team members</td>
<td>▪ 2,300+ survey responses</td>
<td>▪ 2,300+ townhall and focused groups participants</td>
<td>▪ 250+ stakeholder representatives</td>
<td>▪ 90+ HLI Chairmen, Vice-Chancellors, and Chief Executives</td>
<td>▪ &gt;10000 stakeholders engaged with ▪ &gt;1000 comments</td>
</tr>
<tr>
<td>▪ 14 chapter writing teams</td>
<td>▪ 2,300+ townhall and focused groups participants</td>
<td>▪ 16 international advisors and experts</td>
<td>▪ 250+ stakeholder representatives</td>
<td>▪ 200+ HLIs represented</td>
<td>▪ UNESCO</td>
</tr>
<tr>
<td>▪ 20 lead authors</td>
<td>▪ 2,300+ townhall and focused groups participants</td>
<td>▪ 14 Malaysian advisors</td>
<td>▪ 40+ industry skills councils and professional bodies</td>
<td>▪ 25 members of national education councils</td>
<td>▪ U21Global</td>
</tr>
<tr>
<td>▪ 42 writing team members</td>
<td>▪ 2,300+ townhall and focused groups participants</td>
<td>▪ 14 international advisors and experts</td>
<td>▪ 50+ senior thought leaders and professors</td>
<td>▪ 140 districts of Parent-Teacher Association</td>
<td>▪ THE WORLD BANK</td>
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</tbody>
</table>

### Phase I
- 2015-2025
- >10000 stakeholders engaged with
- >1000 comments

### Phase II
- 2025-2025
- 30+ engagement sessions
- Continuous online engagement

### Phase III
- 2025-2025
- 30+ engagement sessions
- Continuous online engagement

### External research
- UNESCO
- U21Global
- THE WORLD BANK
- OECD
- Scopus
<table>
<thead>
<tr>
<th>Agenda</th>
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<tbody>
<tr>
<td>1. Brief overview of Blueprint <em>development and timeline</em></td>
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<td>2. Current <em>state, vision and aspirations</em> for Higher Education</td>
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<td>3. Overview of the <strong>10 Shifts</strong></td>
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<td>4. <strong>Way forward</strong></td>
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<tr>
<td>5. <strong>Challenges</strong> in Implementation</td>
</tr>
</tbody>
</table>
67,746 Academic Staff
(PhD 15,461 - 23%)

Enrollment (1,253,501)
Public HLIs = 618,180
Private HLIs = 524,350
Polytechnics = 89,503
Community Colleges = 21,468
Total = 1.2 mil

International students
Undergraduate level = 80,206
Post-graduate level = 27,812
Total = 107,838
The higher education system in Malaysia has come a long way

**10 Years**

**Substantial increase in ACCESS**

- **70%** increase in total tertiary enrolment to 1.1 million students and 36% enrolment in MoE institutions (IPT, KK, Poly)
- **6x** increase in Bachelor degree enrolment (1990 to 2010)
- **10x** increase in Master’s and PhD enrolment (1990 to 2010) – now ranked 3rd in ASEAN behind Singapore, Thailand

**5 Years**

**Rapid improvements in RESEARCH**

- **3.1x** increase in publications from 2007-2012, highest growth rate in the world
- **4x** increase in number of citations from 2005 to 2012
- **70%** of publications from 2007-12 contributed by 5 Research Universities
- **11%** yearly growth in number of patents from 2007 to 2011 – Malaysia was 28th in the world in 2011
- **RM 1.25 billion** revenues generated from RUs as solution provider to industries, agencies, NGOs (2007-2012)
Malaysian universities ranked in top 200 in several subject areas

<table>
<thead>
<tr>
<th>Modern Languages</th>
<th>IIUM</th>
<th>UM</th>
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<tbody>
<tr>
<td>Computer Science &amp; Information Systems</td>
<td>UTM UPM</td>
<td>UM USM</td>
</tr>
<tr>
<td>Engineering - Chemical</td>
<td>UPM UKM UTP</td>
<td>UTM UM USM</td>
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<tr>
<td>Engineering - Civil &amp; Structural</td>
<td>UM UKM UPM UTM</td>
<td>USM</td>
</tr>
<tr>
<td>Engineering - Electrical &amp; Electronics</td>
<td>UKM UPM USM UTM</td>
<td>UM</td>
</tr>
<tr>
<td>Engineering – Mechanical, A&amp;M¹</td>
<td>UKM UPM UTM</td>
<td>UM USM</td>
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<tr>
<td>Agriculture &amp; Forestry</td>
<td>UPM</td>
<td></td>
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<tr>
<td>Medicine</td>
<td>UM</td>
<td></td>
</tr>
<tr>
<td>Pharmacy &amp; Pharmacology</td>
<td>UKM UPM</td>
<td>UM USM</td>
</tr>
<tr>
<td>Chemistry</td>
<td>USM</td>
<td></td>
</tr>
<tr>
<td>Environmental Sciences</td>
<td>UM UPM</td>
<td>USM=28</td>
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<tr>
<td>Geography</td>
<td>UKM UM</td>
<td></td>
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<tr>
<td>Materials Science</td>
<td>USM UM</td>
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<tr>
<td>Mathematics</td>
<td>UKM</td>
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<tr>
<td>Communication &amp; Media Studies</td>
<td>UPM</td>
<td>USM</td>
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<tr>
<td>Economics &amp; Econometrics</td>
<td>UKM USM UM</td>
<td>UPM</td>
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<tr>
<td>Education</td>
<td>USM UPM UKM UM</td>
<td></td>
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<tr>
<td>Law</td>
<td>UKM UM</td>
<td></td>
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<tr>
<td>Politics &amp; International Studies</td>
<td>UKM</td>
<td></td>
</tr>
</tbody>
</table>

Top 51-100 in 1 subject area
Top 101-150 in 10 subject areas
Top 151-200 in 5 subject areas
Top 201-250 in 3 subject areas

SOURCE: QS World University Rankings by Subjects 2014
Malaysian Universities **Global Ranking 2014**

Source: QS World University Rankings 2014
Improvements

U21 Rankings

2015

27th

Overall

Environment

Connectivity

Resources

Output

2014

28th

OVERALL

Govt spending on higher education GDP

8th

15

32

12

44

26

35

12

44
OUR ASPIRATIONS

Transformation in HE Landscape
The MEB (HE) sets out clear system and student aspirations

**System aspirations**
- Access
- Quality
- Equity
- Unity
- Efficiency

**Student aspirations**
- Ethics & Spirituality
- Leadership Skills
- National Identity
- Language Proficiency
- Thinking Skills
- Knowledge

**AKHLAK**
(Ethics and Morality)

**ILMU**
(Knowledge and Skills)

**BALANCE**
The new higher education system – major changes in a way it operates

From

- Job seekers
- Focus on university education
- Focus on inputs
- Highly centralised
- Reliance on government resources
- Mass production delivery model
- Separation of private and public institutions

To

- Job creators and balanced citizens with entrepreneurial mindset
- Academic and TVET pathways equally valued and cultivated
- Focus on outcomes
- A model of earned autonomy for institutions
- All stakeholders have shared responsibility for higher education resources
- Technology-enabled innovations to deliver and tailor education for all students
- Harmonised higher learning institutions (HLIs)
SYSTEM ASPIRATION

CURRENT PERFORMANCE

- **Tertiary education enrolment**
  - 36%
  - 48% Total Higher Education enrolment rate
  - 4% Masters and PhD enrolment rate
  - 500K places added over last 10 years across IPTA, IPTS, Poly and KK

ASPIRATION

- **Tertiary education enrolment**
  - 53%
  - 70% Total Higher Education enrolment rate
  - 8% Masters and PhD enrolment rate
  - 1.1M new places by 2025 (mainly TVET, IPTS, online learning)

- **Graduate employability**
  - >80%
  - Top 25
  - 250K
  - 1 for research output ranking
  - 2 university in Asia Top 25
  - 4 university in Global Top 100
  - 4 university in Global Top 200 by 2015

- **Graduate employability**
  - 75%
  - 36 out of 50 countries in U21 for research output ranking
  - 107K international tertiary students
  - 1 University in Top 200 globally (QS rankings)
SYSTEM ASPIRATION

CURRENT PERFORMANCE

No data currently available to comprehensively assess socio-economic equity

No method commonly accepted to measure unity

RM 20.7k Government spending per student in public institutions
  44th out of 50 countries in U21 outputs ranking
  12th out of 50 countries in U21 ranking on resources committed to Higher Education

ASPIRATION

Equity

Students from disadvantaged socio-economic communities not under-represented in enrolment and completion

Unity

Mix of ethnicities in HLIs are representative of overall population. A new methodology will be designed to assess unity over time

Efficiency

No increase in Government spending per student in public institutions
  Top 25 in U21 output ranking
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Holistic, Entrepreneurial and Balanced Graduates

1 Integrated CGPA
2 Entrepreneurial Mindset
3 Experiential Learning

Job seeker → Job Creator
10 SHIFTS

2

Talent Excellence

4 career pathways

Educators (Educators)
Researchers (Researchers)
Institutional leaders (Leaders)
Professional practitioners (Practitioners)

CEO Faculty Programme (CEO Faculty)
Wider adoption of APEL

National credit bank/system

Increased support/assistance for LLL
Quality TVET Graduates

Increase capacity, quality and levels

Industry-led curriculum

New Collaborative Models

Increase enrolment 2.5X

Enrolment 2012: 250K

Enrolment 2025: 650K
Financial Sustainability

- **Government support OE in public HLIs**: 90%
- **Increased student enrolment**: 6% per year
- **Increase cost in Higher Education**: 7% per year
Financial Sustainability

1. Income
2. Contingent Loan from PTPTN
3. Endowment and Waqf funds with matching grants
4. New Funding Formulae based on performance
Funding formula for public universities

FROM Gradual\(^1\) TO

100%  100%

**Current Funding Mix**

<table>
<thead>
<tr>
<th>Govt Supply-side Funding</th>
<th></th>
<th>Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition Fees</td>
<td>Tuition Fees</td>
<td>Endowment and other Income</td>
</tr>
<tr>
<td>Other Income</td>
<td></td>
<td>Performance Funding</td>
</tr>
<tr>
<td>Block Grants</td>
<td>Performance Funding</td>
<td>Block Grants</td>
</tr>
<tr>
<td>(60-70% for Emoluments)</td>
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**New Funding Formulae**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Block Grants for basic operations of public universities.</td>
</tr>
<tr>
<td>Approval on project basis.</td>
</tr>
<tr>
<td>Reviews are conducted to match duration of performance contracts.</td>
</tr>
</tbody>
</table>

- **Majority of funding to be linked to outcomes and performance.**
- **Performance funding** linked to:
  - Priority outcomes, for example, completion rates, cost per student;
  - National priorities, for example, access for low income students; and
  - Institutional mission, for example, research output for MRUs.
- **Largest funding component** linked to number of students:
  - Differentiated based on qualification (bachelor vs masters vs PhD) and type of programmes; and
  - Links funding to demand.
- **Block funding** for basic operations of public universities.
Empowered Governance

1. Tight Controller
2. Increased Autonomy and Accountability based on state of readiness
3. Performance Contract 5 years (3+2)
4. University Board Members wider representations
   - Based on skill-sets
   - Women
   - International Experts
Innovation Ecosystem

Quadruple Helix

1. Government
2. Universities
3. Industry
4. Community

PPRN
Public Private Research Network

CREST
Collaborative Research in Engineering, Science & Technology

Lingkaran Empat Pihak
Kerajaan
Universiti
Industri
Komuniti
Global Prominence

Education as a National Key Economic Area
ASEAN-Integrated economic community
International student hub

Enhancing the international student experience
Increasing brand visibility
Attracting new markets
Globalised Online Learning

MOOC

Massive Open Online Courses

70% Courses using Blended Learning

SEP 2014

The first involvement of public universities in MOOCs
Transformed Delivery

Strategic Talent Management Framework

Succession Planning

Identify and develop organizational leaders

Talent Ministry
Transformed Delivery

- Similar standards and regulations
- Improve processes for private HLI
- Increase student and staff mobility
- Greater collaboration between public and private HLI
- Cross-fertilisation
Transformed Delivery

Putrajaya Committee for Higher Education

University Transformation Programme Based on GLCT
1. Brief overview of Blueprint development and timeline
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Proposed overall governance for MEB (HE) implementation

Putrajaya Higher Education Task Force (HETF)

- Minister (HE) (Chair)
  - MOHE: DM, KSU, KPPT, KP(JPKK), KP(JPP)
  - EPU: Minister and KP
  - MOF: Minister II and KSP
  - Industry leaders (private sector, GLCs)

MEB(HE) Steering Committee

- KSU(MoHE) (Chair)
  - KPPT, KP(JPP), KP(JPKK)
  - Members: MQA, PTPTN, AKEPT
  - Secretariat: PMO

Secretariat: PMO
- Director: Dr. Norhayati
- Members: Dr. Khamaruddin, Pn Noranyza

Priority Initiatives

1. University Transformation Programme (UniTP)
   - Sponsor: KPPT
   - Director: Dato’ Prof. Saleh

2. New funding formula
   - Sponsor: KSU(MoHE)

3. MOOC in subjects of Distinctiveness
   - Sponsor: KPPT

4. TVET Transformation
   - Sponsor: KP(JPP), KP(JPKK)

5. CEO Faculty Programme
   - Sponsor: KPPT

Other initiatives

- Sponsor: KSU(MoHE), KPPT
  - Institution quality
  - Talent and innovation
  - Student quality

Joint Taskforce

- MOE
- MOF
- EPU

Additional initiatives

- Convenes quarterly
- Provide strategic direction and decision-making
- Additional agencies (e.g., JPA, MNRE, MOHR, MOSTI etc.) invited as needed

- Convenes every month
- Oversees and monitors MEB (HE) initiatives
- Escalate decisions to HETF as needed

‘Knowledge Circle’ for each Playbook

iPMO in each public university

Playbook 1
Playbook 2
Playbook 3
Playbook 4
Playbook 5
5 PRIORITY INITIATIVES for 2015

1. University Transformation Programme
2. New Funding Formulae
3. MOOC in subjects of Distinctiveness
4. Technical and Vocational Education and Training Transformation
5. CEO Faculty Programme
University Transformation Programme is a critical initiative of MEB (HE)

1
Ministry

KEMENTERIAN PENDIDIKAN TINGGI MALAYSIA

20
Public universities

The ministry leverages UniTP as the conduit to drive transformation through public universities to implement all dimensions of MEB (HE) to impact 500K students

33k
Academic staff

500k
Students

The ministry leverages UniTP as the conduit to drive transformation through public universities to implement all dimensions of MEB (HE) to impact 500K students
University Transformation Programme (UniTP) and the Five (5) Playbooks

- **UniTP Green Book**
  - **Governance**
  - Enhancing University Board Governance and Effectiveness

- **UniTP Blue Book**
  - **Performance Mgmt**
  - Strengthening Performance Management and Financial Reporting

- **UniTP Purple Book**
  - **Income Generation**
  - Establishing Alternative Income Sources Including Endowment

- **UniTP Brown/Orange Book**
  - **Career Pathway**
  - Strengthening Career Pathways and Leadership Development

- **UniTP Yellow Book**
  - **Productivity**
  - Improving Academic Productivity and Cost Efficiency

**PLAYBOOKS ● GUIDE BOOKS**
The approach to developing the playbooks and university transformation plans will be implemented across three stages:

**A. Five Transformation Playbooks on critical topics**
- Input of senior advisor team – e.g. Tun Zaki chaired governance playbook team
- Formal syndication with key stakeholders including VCs, Chairmen, Registrars, PUUs and Bursars

**B. Pilot Universities to “lead the way” on play-book implementation**
- Pilot universities selected to lead implementation e.g.,
  - Governance pilot – UMS, UM, UKM
  - Productivity pilots - UPM, UIAM, UTEM, UKM, UiTM

**C. University Transformation Plans by each public university**
- Each public university will be required to draft an end-to-end transformation plan across all dimensions of the UniTP and submit to the Ministry by Dec 2016

**D. MEB (HE) Implementation Steerco**
- Steerco will sign off on the key recommendations, and drive the necessary policy changes
- Universities will report on progress against transformation plans at HE steerco from Jan 2016
GOVERNANCE PLAYBOOK (UNiTP Green Book) provides guidance on the critical elements of an effective University Board

Key changes within the components of an effective University Board

1. Fulfilling fundamental roles and responsibilities
   - Re-align accountability of university senior management directly to the Board – not the Ministry
   - VC nomination by the Board and Minister appoints from nominees

2. Structuring a high-performing University Board
   - Shift composition of Boards to close skill gaps
   - Introduce diversity of experience to the Board – more: Private sector, Internationals, Women

3. Ensuring effective operations and interactions
   - Increase the effectiveness of Board meetings:
     - Quality and timing of materials submitted will be standardized
     - Board agendas will focus more on strategy

Assessing effectiveness of a University Board
   - Board will assess their effectiveness annually and submit results to Ministry
   - Consistent underperformance will have consequences
GOVERNANCE PLAYBOOK (UniTP Green Book): Analysis of board composition reflects gaps in diversity of experiences, gender and international representation

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>Boards with &gt;50% Directors from the public sector</td>
<td>85%</td>
</tr>
<tr>
<td>Total Board Directors from the public sector</td>
<td>65%</td>
</tr>
<tr>
<td>International non-Malaysian Board Directors</td>
<td>0%</td>
</tr>
<tr>
<td>Industry or private sector Board Directors</td>
<td>13%</td>
</tr>
<tr>
<td>Women Board Directors</td>
<td>13%</td>
</tr>
<tr>
<td>Women Board Chairpersons</td>
<td>0%</td>
</tr>
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</table>

Source: Board composition of Malaysia’s 20 public universities – membership rosters provided via MOHE governance unit
GOVERNANCE PLAYBOOK (UniTP Green Book): A survey of all public university LPUs and VCs suggests gaps extend in skills and expectations

**Percentage of respondents agreeing with statement**

- **Current board composition is not optimal**: 76%
- **Not all board members are clear on roles**: 46%
- **Absenteeism is a significant problem**: 18%

**Current gaps in knowledge and skills of University Boards**

- **Strategy expertise**: 70%
- **Fundraising expertise**: 76%
- **Connections to industry**: 52%

Source: Survey conducted by MOHE in June 2015 of all 20 LPUs, and 20 VCs of Malaysian public universities, Respondents N=40
One of the key metrics to measure ‘academic productivity’ - cost per graduate

Definition of metric

Cost per full time student equivalent (FTSE) enrolled in the university in 2014

Percentage of full-time students from a particular enrolment batch – 2011 for masters degrees and 2009 for bachelor and PhD degrees – who graduate on or before the year that they are prescribed to graduate

Cost per graduate is an internationally recognised measure used to define productivity in public universities

1 Cost is calculated on an accrual basis, excluding any expenses related to government-allocated hospital budget (only for UM, UKM and USM) and Private Finance Initiatives (PFIs)
2 The estimate for part time students is calculated by multiplying the number of part time students by a ‘part time : full time’ conversion factor. For most institutions, this factor is 1:3, and therefore MoHE has chosen a conversion factor used in the analysis of 1/3
3 National Center for Higher Education Management Systems (NCHEMS) and American Institutes for Research: Delta Cost Project use cost per graduate to measure productivity of public universities in the US. The metric is also used by state government bodies such as in Indiana and Florida.
NEW FUNDING FORMULA: The Ministry has outlined 3 key levers for the implementation of the new funding formula and performance based contracts

1. Replacing block grants with performance-linked and per-student funding
   - Performance funding will be tied to specific student outcomes, national priorities and the institutional mission
   - Per student funding will be linked to demand, and nuanced by degree type, course type etc.

2. Implementing 5 year performance contracts (3+2)
   - The 3+2 year performance contracts will be tailored for each university
   - To be implemented based on the readiness level of each institution

3. Defining clear tailored KPIs for every public university
   - Outcome-based KPIs will be carefully tailored for each public university across key dimensions, such as academic teaching and curriculum, research outcomes, contributions to the community, organisational improvements etc.
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70% of change programs fail because behaviors get in the way!

70% of these failures are due to organization issues

SOURCE: Scott Keller and Colin Price; Beyond Performance: How Great organisations Build Ultimate Competitive Advantage. 2011; McKinsey Quarterly Transformational Change survey; January 2010
Change is tough ...
... even when the stakes are high

Medical researchers took a group of heart patients who had coronary bypasses resulting from their lifestyle:

• Smoked too much
• Ate too much
• Drank too much
• Had too much stress
• And didn’t exercise

The patients were told: « Change or Die »
When faced with the ultimate “burning platform”, what percentage of heart patients changed their lifestyle?

10%
But change is possible

77% of patients who underwent a behavioral change program were able to change their lifestyles and avoid life-threatening heart problems.
70% of change programs fail because behaviors get in the way!

### 70% of change programs fail …

### … mainly because behaviors get in the way

- Other obstacles: 70%
- Inadequate resources or budget: 39%
- Management behavior does not support change: 33%
- Employee resistance to change: 14%

**Including initiatives that primarily focus on shifting mindsets and behaviors doubles the chance of success**

**SOURCE:** Scott Keller and Colin Price; Beyond Performance: How Great organisations Build Ultimate Competitive Advantage. 2011; McKinsey Quarterly Transformational Change survey; January 2010
Contact:
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Director, Programme Management Office
E-mail: norhayati@mohe.gov.my