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**
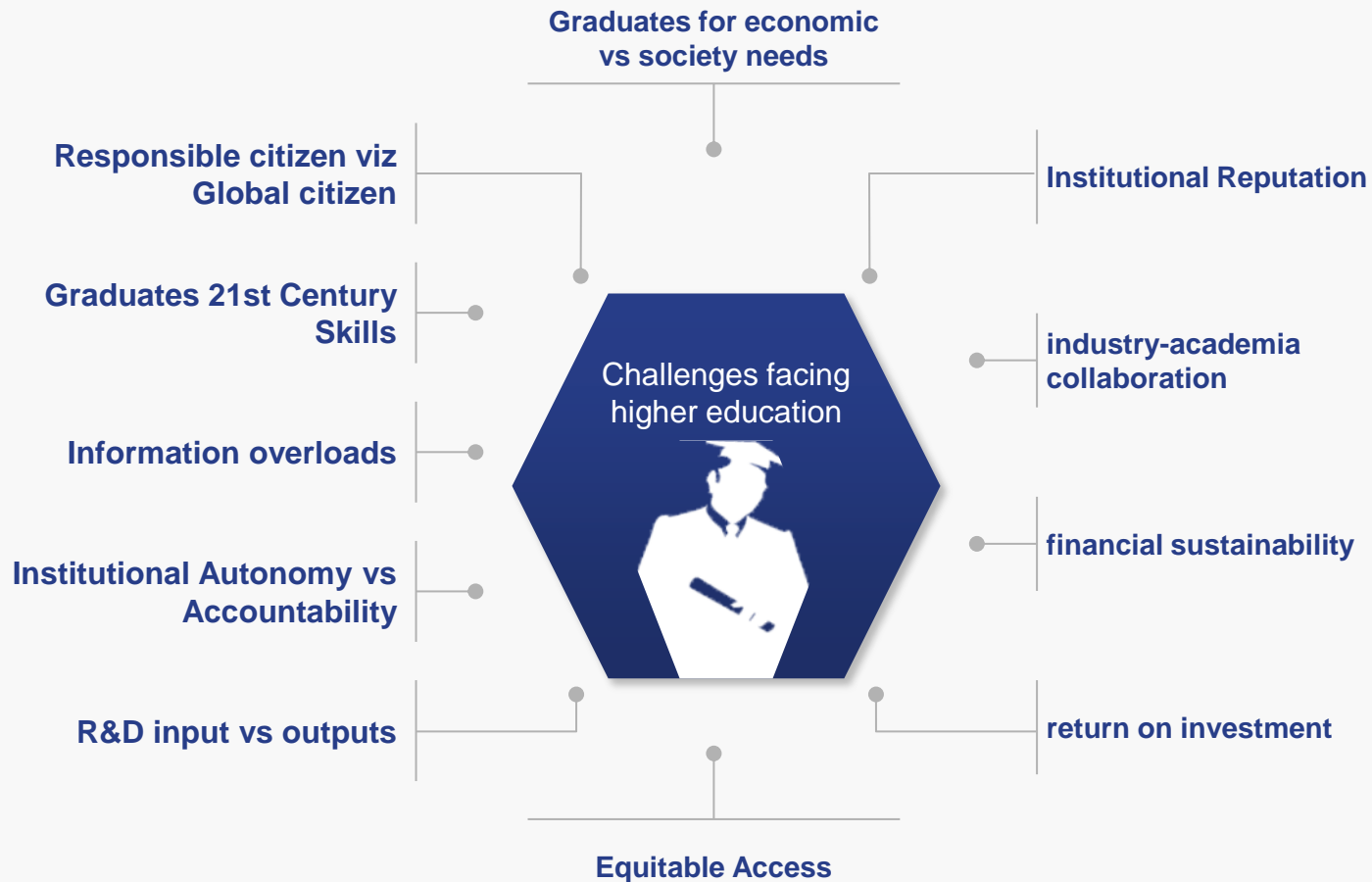
5. **Challenges** in Implementation

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 Graduate School For Global Leaders   OECD BETTER POLICIES FOR BETTER LIVES

The Malaysia Education Blueprint (Higher Education) will be centered on 10 Shifts

Table of contents

Intro-ductory 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

Stakeholder **Outcomes**

Enablers to improve outcomes

Malaysia Education Blueprint 2015-2025 (Higher Education)

- **14** chapter writing teams
- **20** lead authors
- **42** writing team members

Sources of input for development of Malaysia Education Blueprint (Higher Education)

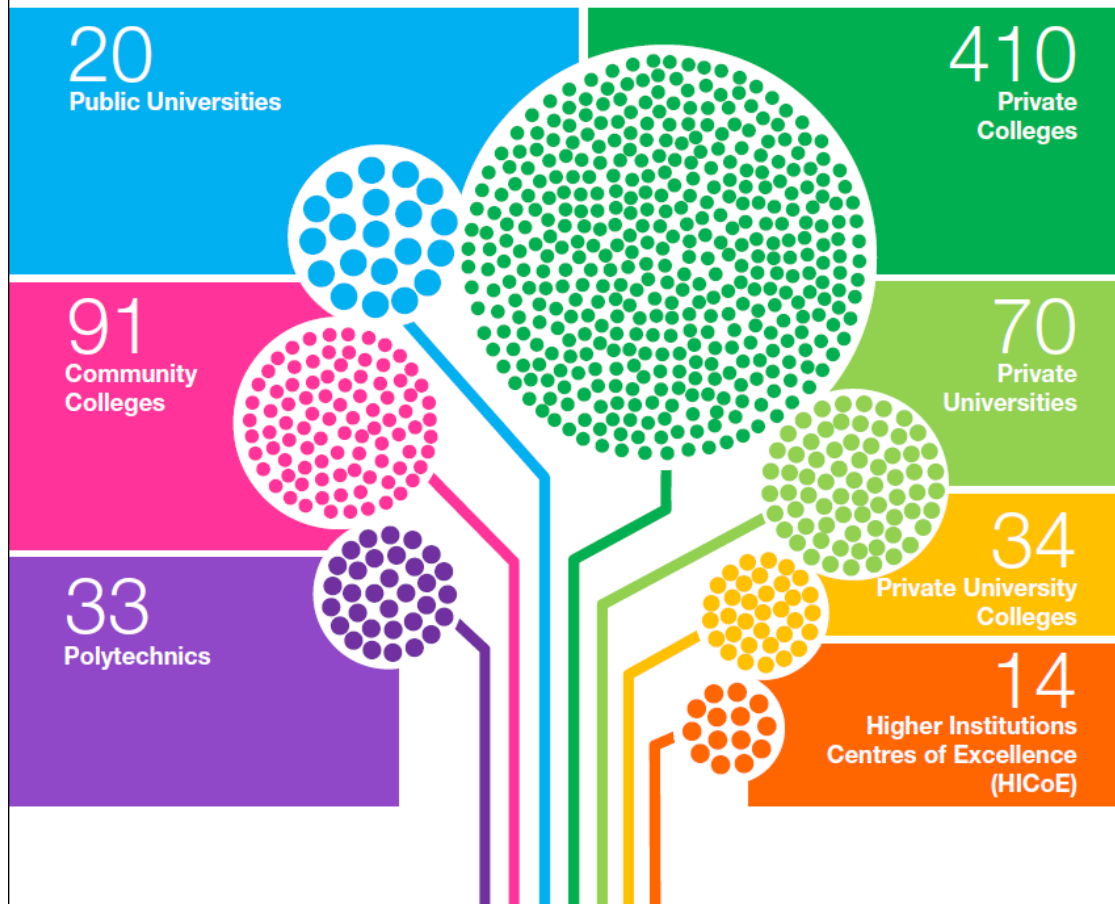|		
Blueprint developers	▪ **35** PSPTN review team members ▪ **14** chapter writing teams ▪ **20** lead authors ▪ **42** writing team members	**Malaysia Education Blueprint** 2015-2025 (HIGHER EDUCATION)
Engaged stakeholders **Phase I**	▪ **2,300+** survey responses ▪ **2,300+** townhall and focused groups participants ▪ **16** international advisors and experts ▪ **14** Malaysian advisors	▪ **1** national survey ▪ **18** townhalls ▪ **9** focused groups
Phase II	▪ **250+** stakeholder representatives	▪ **5+** workshops
Phase III	▪ **90+** HLI Chairmen, Vice-Chancellors, and Chief Executives ▪ **200+** HLIs represented ▪ **40+** industry skills councils and professional bodies ▪ **25** members of national education councils ▪ **50+** senior thought leaders and professors ▪ **140** districts of Parent-Teacher Association ▪ **20+** unions and associations ▪ **250+** students and alumni	▪ **30+** engagement sessions ▪ Continuous **online** engagement **>10000 stakeholders engaged with >1000 comments**
External research	UNESCO · u21Global Graduate School For Global Leaders · THE WORLD BANK · OECD BETTER POLICIES FOR BETTER LIVES · Scopus	

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HIGHER EDUCATION IN BRIEF

○ Each dot represents one Higher Learning Institution in Malaysia

20 Public Universities

91 Community Colleges

33 Polytechnics

410 Private Colleges

70 Private Universities

34 Private University Colleges

14 Higher Institutions Centres of Excellence (HICoE)

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

5 Research Universities
4 MTUN (TVET)
11 Comprehensive Universities
14 HICoE

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)

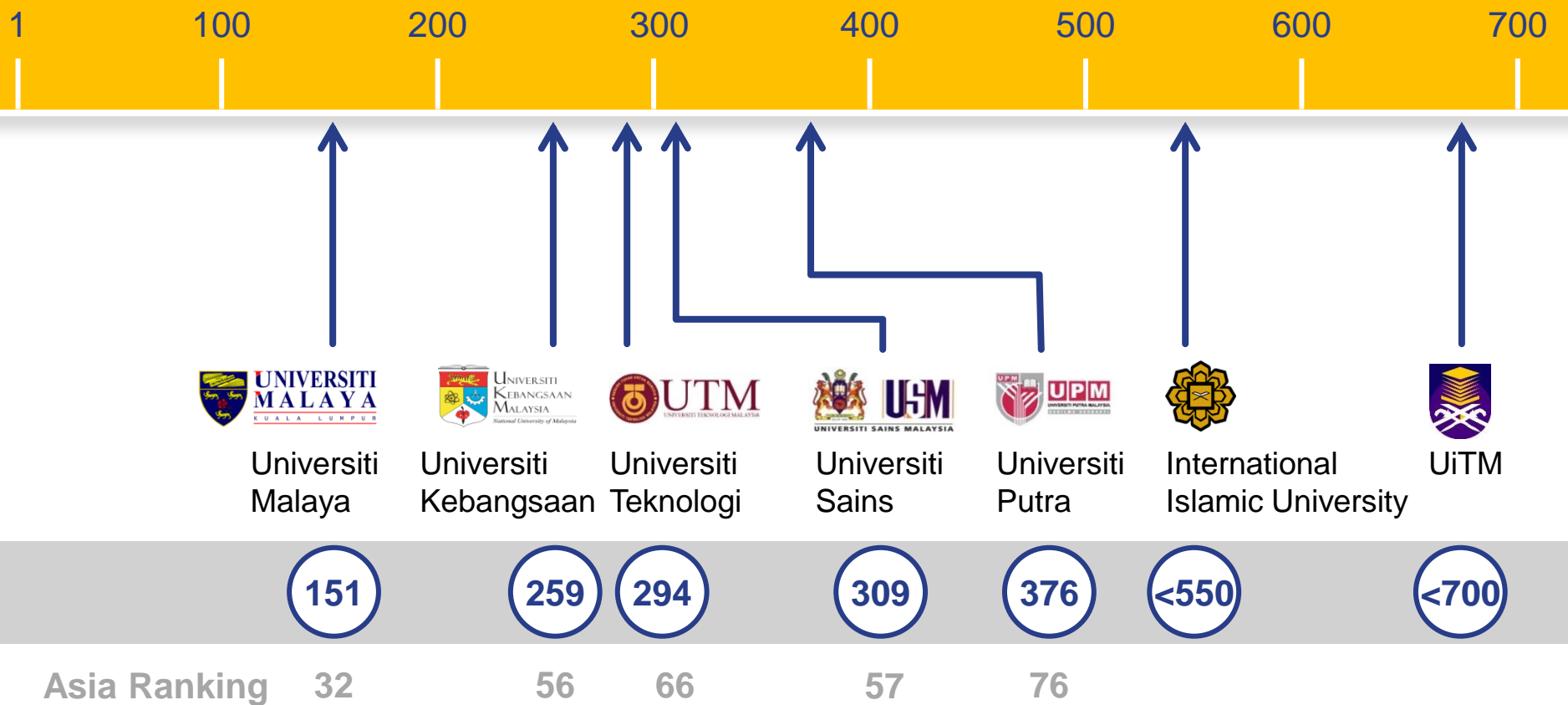# Malaysian universities ranked in top 200 in several subject areas

Subject Area	Top 151-200	Top 101-150	Top 51-100	Top 50
Modern Languages	IIUM		UM	
Computer Science & Information Systems	UTM UPM		UM USM	
Engineering - Chemical	UPM UKM UTP	UTM	UM USM	
Engineering - Civil & Structural	UM	UKM UPM UTM	USM	
Engineering - Electrical & Electronics		UKM UPM USM UTM	UM	
Engineering – Mechanical, A&M[1]		UKM UPM UTM	UM USM	
Agriculture & Forestry			UPM	
Medicine	UM			
Pharmacy & Pharmacology	UKM UPM	UM	USM	
Chemistry		USM		
Environmental Sciences	**UM**	**UPM**		**USM=28**
Geography	UKM UM			
Materials Science	USM UM			
Mathematics		UKM		
Communication & Media Studies	UPM	USM		
Economics & Econometrics	UKM USM UM	UPM		
Education		USM	UPM UKM UM	
Law		UKM UM		
Politics & International Studies			UKM	

- **Top 50 in 1 subject area**
- **51-100 in 10 subject areas**
- **101-150 in 5 subject areas**
- **151-200 in 3 subject areas**
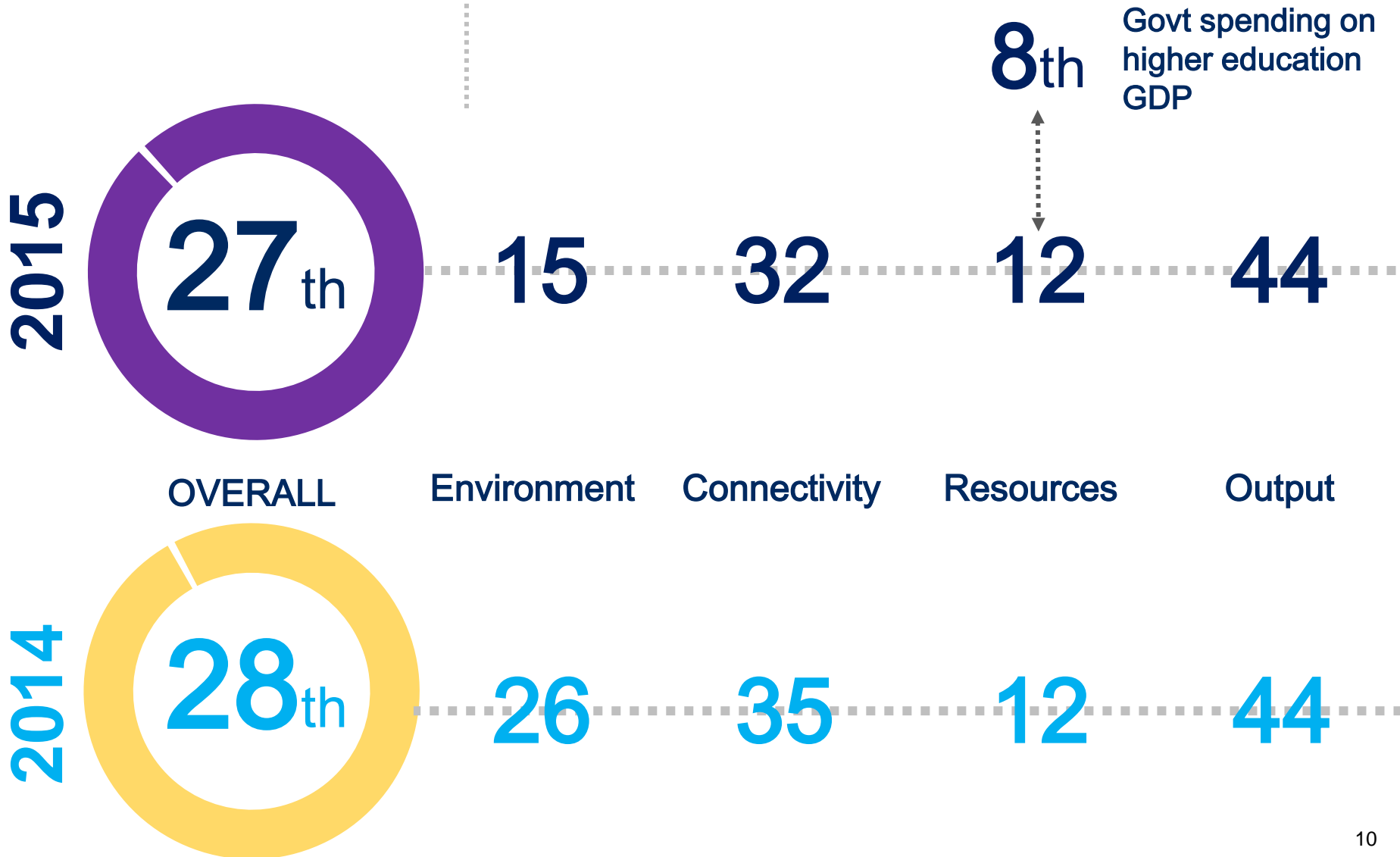
1 Aeronautical & Manufacturing

SOURCE: QS World University Rankings by Subjects 2014

8

Malaysian Universities **Global Ranking 2014**

| 1 | 100 | 200 | 300 | 400 | 500 | 600 | 700 |

Universiti Malaya	Universiti Kebangsaan	Universiti Teknologi	Universiti Sains	Universiti Putra	International Islamic University	UiTM
151	**259**	**294**	**309**	**376**	**<550**	**<700**

| Asia Ranking | 32 | 56 | 66 | 57 | 76 | | |

Improvements
U21 Rankings

2015

27th

2014

28th

	OVERALL	Environment	Connectivity	Resources	Output
2015	27th	15	32	12	44
2014	28th	26	35	12	44

8th Govt spending on higher education GDP

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

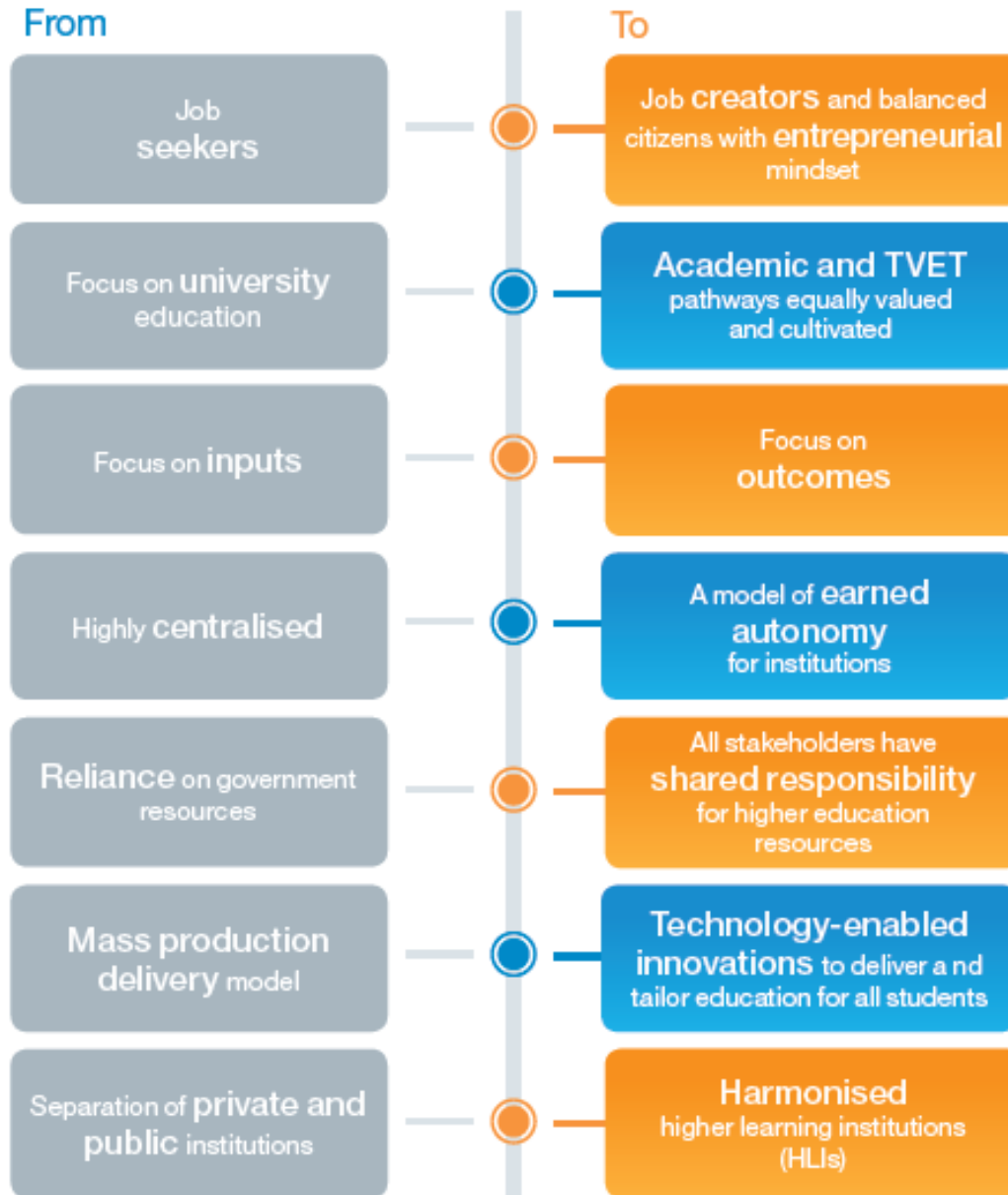Ethics & Spirituality · Leadership Skills · National Identity · Language Proficiency · Thinking Skills · Knowledge

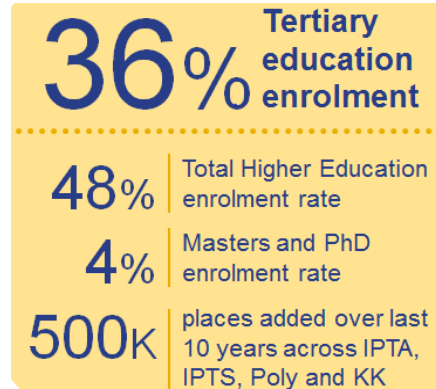AKHLAK (Ethics and Morality) — BALANCE — ILMU (Knowledge and Skills)

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

From → **To**

From	To
Job seekers	Job **creators** and balanced citizens with **entrepreneurial** mindset
Focus on **university** education	**Academic and TVET** pathways equally valued and cultivated
Focus on **inputs**	Focus on **outcomes**
Highly **centralised**	A model of **earned autonomy** for institutions
Reliance on government resources	All stakeholders have **shared responsibility** for higher education resources
Mass production delivery model	**Technology-enabled innovations** to deliver and tailor education for all students
Separation of **private and public** institutions	**Harmonised** higher learning institutions (HLIs)

SYSTEM ASPIRATION

CURRENT PERFORMANCE

36% Tertiary education enrolment

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

75% Graduate employability

36 | out of 50 countries in U21 for research output ranking

107K | International tertiary students

1 | University in Top 200 globally (QS rankings)

Access

Quality

ASPIRATION

53% Tertiary education enrolment[1]

70% | Total Higher Education enrolment rate[1]

8% | Masters and PhD enrolment rate

1.1M | new places by 2025 (mainly TVET, IPTS, online learning)

>80% Graduate employability

Top 25 | for research output ranking

250K | international tertiary student

1 | university in Asia **Top 25**

2 | university in Global **Top 100**

4 | university in Global **Top 200** by 2015
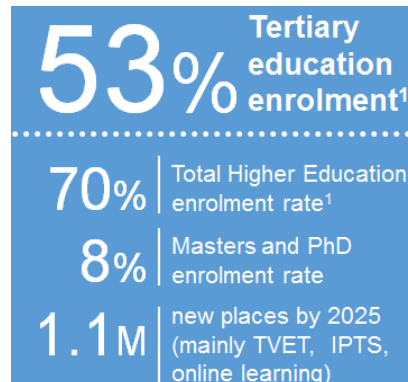
SYSTEM ASPIRATION

CURRENT PERFORMANCE

No data currently available to comprehensively assess socio-economic equity

No method commonly accepted to measure unity

RM**20.7**k
Government spending[1] per student in public institutions

44th | out of 50 countries in U21 outputs[2] ranking

12th | out of 50 countries in U21 ranking on resources committed to Higher Education

Equity

Unity

Efficiency

ASPIRATION

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

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

No increase in Government spending per student in public institutions

Top **25** | In U21 output[2] ranking

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Holistic, Entrepreneurial and Balanced Graduates

○ **Integrated CGPA**

○ **Entrepreneurial Mindset**

○ **Experiential Learning**

○ **Job seeker** ➔ **Job Creator**

10 SHIFTS ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

2

Talent Excellence

4 career pathways

I **Educators**
(Educators)

II **Researchers**
(Researchers)

III **Institutional leaders**
(Leaders)

IV **Professional practioners**
(Practitioners)

CEO Faculty Programme
(CEO Faculty)

Nation of Lifelong Learners

1 2 **3** 4 5 6 7 8 9 10

5 **7** **13** **16** **18** **PSH**

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

90%

Government support OE in public HLIs

6% Per year
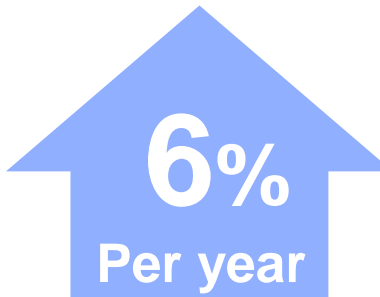
Increased student enrolment

7% Per year

Increase cost in Higher Education

10 SHIFTS

Financial Sustainability

5

1 2 3 4 5 6 7 8 9 10

Income Contingent Loan from PTPTN

Endowment and Waqf funds with matching grants

New Funding Formulae based on performance

Funding formula for public universities

FROM → Gradual[1] → TO

Govt Supply-side Funding

Current Funding Mix (FROM)

OE
- **100%**
- Tuition Fees
- Other Income
- Block Grants (60-70% for Emoluments)

DE
- Development

New Funding Formulae (TO)

OE
- **100%**
- Tuition Fees
- Endowment and other Income
- Performance Funding
- Per Student Funding
- Block Grants

DE
- Development

Notes (right column)

- 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.
- **Approval on project basis.**
- Reviews are conducted to **match duration** of performance contracts.

1 The implementation of the new funding formula will be stage-gated based on the different readiness levels and types of public universities

Empowered Governance

Tight Controller

↓
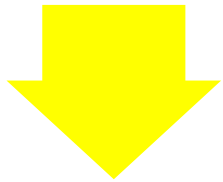
Regulator and Policy-Maker

Increased Autonomy and Accountability
based on state of readiness

Performance Contract 5 years (3+2)
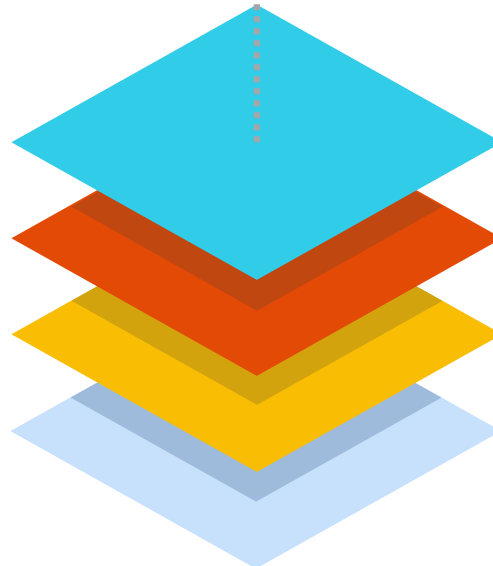
University Board Members
wider representations

Based on skill-sets

Women

International Experts

1 2 3 4 5 6 **7** 8 9 10

Innovation Ecosystem

Quadruple Helix

Lingkaran Empat Pihak

Government	Kerajaan
Universities	Universiti
Industry	Industri
Community	Komuniti

PPRN
Public Private Research Network

CREST
Collaborative Research in Engineering, Science & Technology

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

M O O C

Massive | **Open** | **Online** | **Courses**

70% | | | | **20** ○

Courses using Blended Learning

SEP 2014

The first involvement of public universities in MOOCs

1 2 3 4 5 6 7 8 9 **10**

Transformed Delivery

Putrajaya Committee for Higher Education
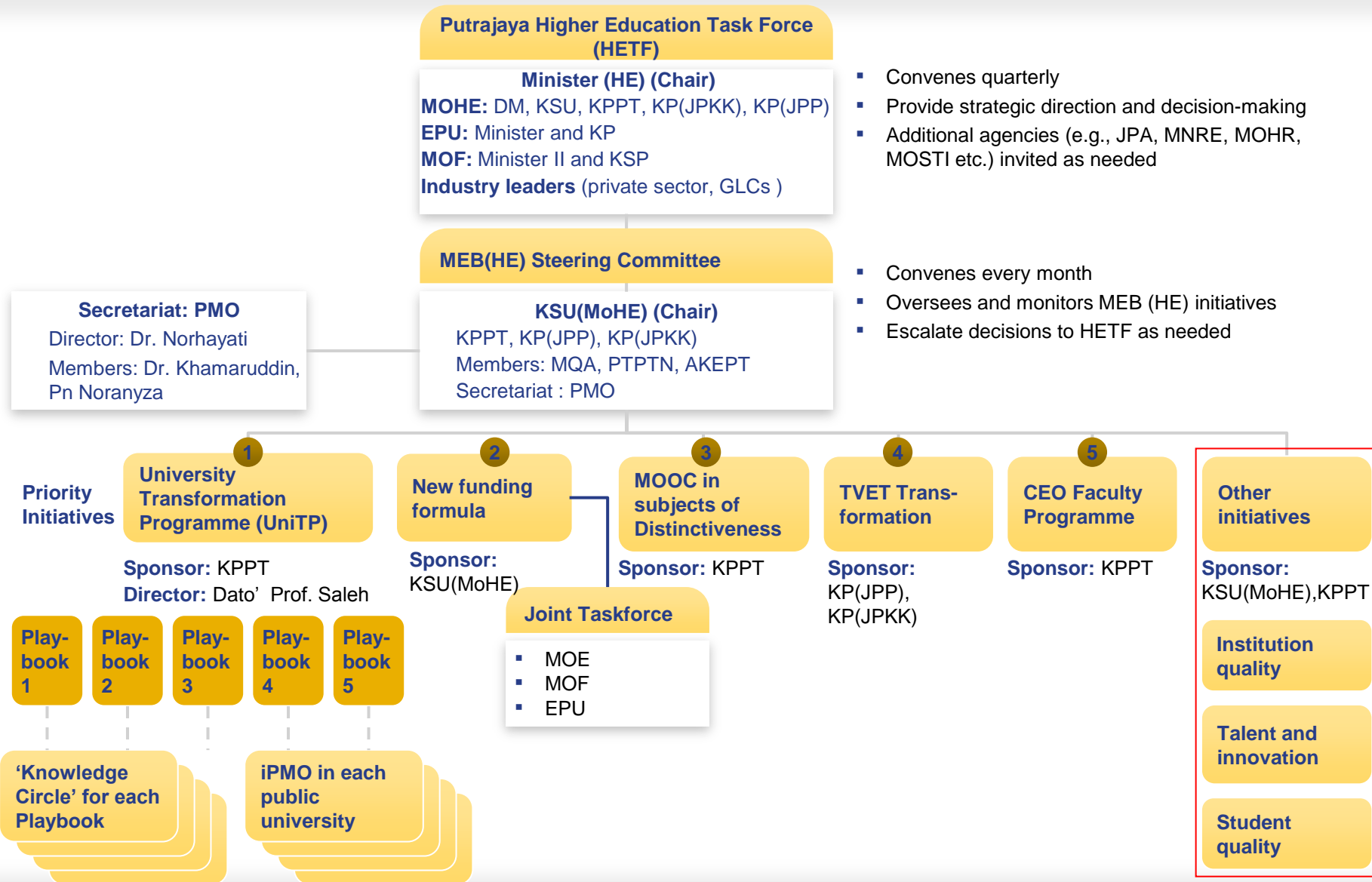
University Transformation Programme
Based on GLCT

Higher Education Transformastion

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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)

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

MEB(HE) Steering Committee

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

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

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

Priority Initiatives

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

- Play-book 1
- Play-book 2
- Play-book 3
- Play-book 4
- Play-book 5

'Knowledge Circle' for each Playbook

iPMO in each public university

2 New funding formula
Sponsor: KSU(MoHE)

Joint Taskforce
- MOE
- MOF
- EPU

3 MOOC in subjects of Distinctiveness
Sponsor: KPPT

4 TVET Trans-formation
Sponsor: KP(JPP), KP(JPKK)

5 CEO Faculty Programme
Sponsor: KPPT

Other initiatives
Sponsor: KSU(MoHE),KPPT

Institution quality

Talent and innovation

Student quality

33

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

5 PRIORITY **INITIATIVES** for **2015**

University Transformation Programme is a critical initiative of MEB (HE)

1
Ministry

KEMENTERIAN PENDIDIKAN TINGGI MALAYSIA

20
Public
universities

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 Brown/Orange Book

Career Pathway
Strengthening Career Pathways and Leadership Development

UniTP Purple Book

Income Generation
Establishing Alternative Income Sources Including Endowment

UniTP Yellow Book

Productivity
Improving Academic Productivity and Cost Efficiency

ENHANCING UNIVERSITY
BOARD GOVERNANCE
AND EFFECTIVENESS

UNIVERSITY TRANSFORMATION PROGRAMME GREEN BOOK, SEPTEMBER 2015

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

UNIVERSITY TRANSFORMATION PLAN

MEB (HE) Implementation Steerco **D**

- Steerco will sign off the 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
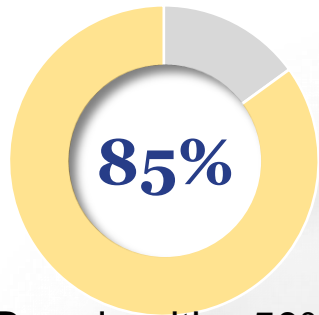
85% — Boards with >50% Directors from the public sector
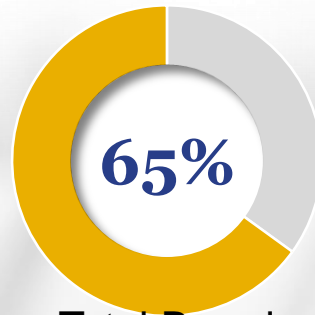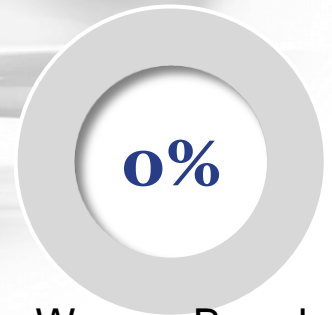
65% — Total Board Directors from the public sector
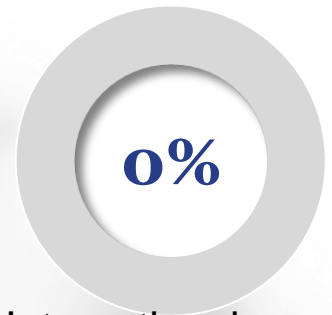
0% — International non-Malaysian Board Directors
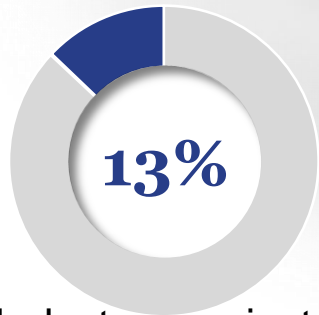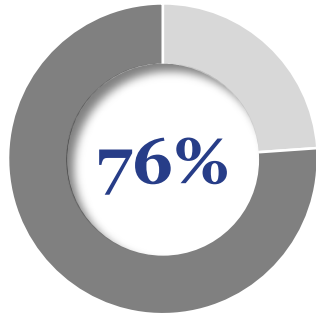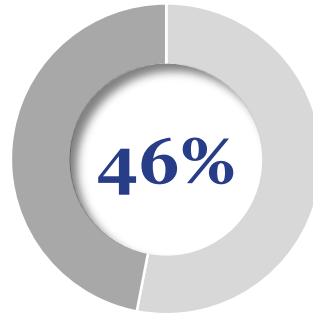
13% — Industry or private sector Board Directors
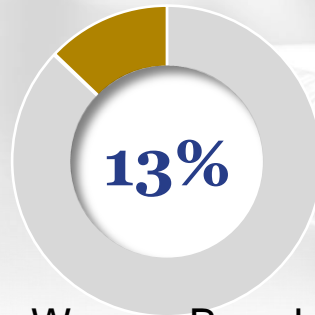
13% — Women Board Directors

0% — Women Board Chairpersons

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

76%
"Current board composition is not optimal"

46%
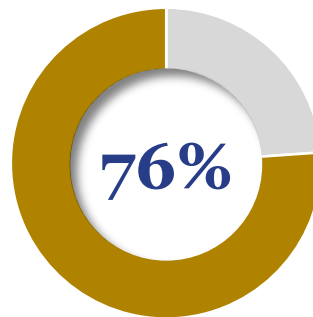"Not all board members are clear on roles"
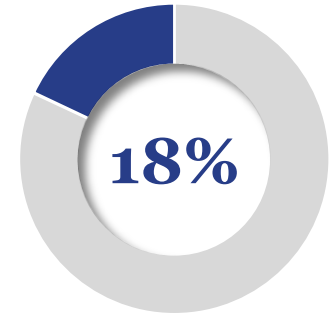
18%
"Absenteeism is a significant problem"

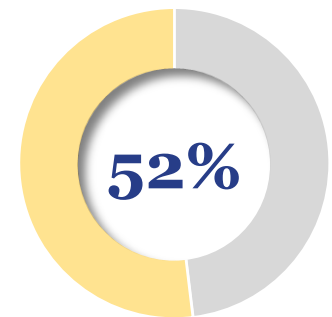## Current gaps in knowledge and skills of University Boards

70%
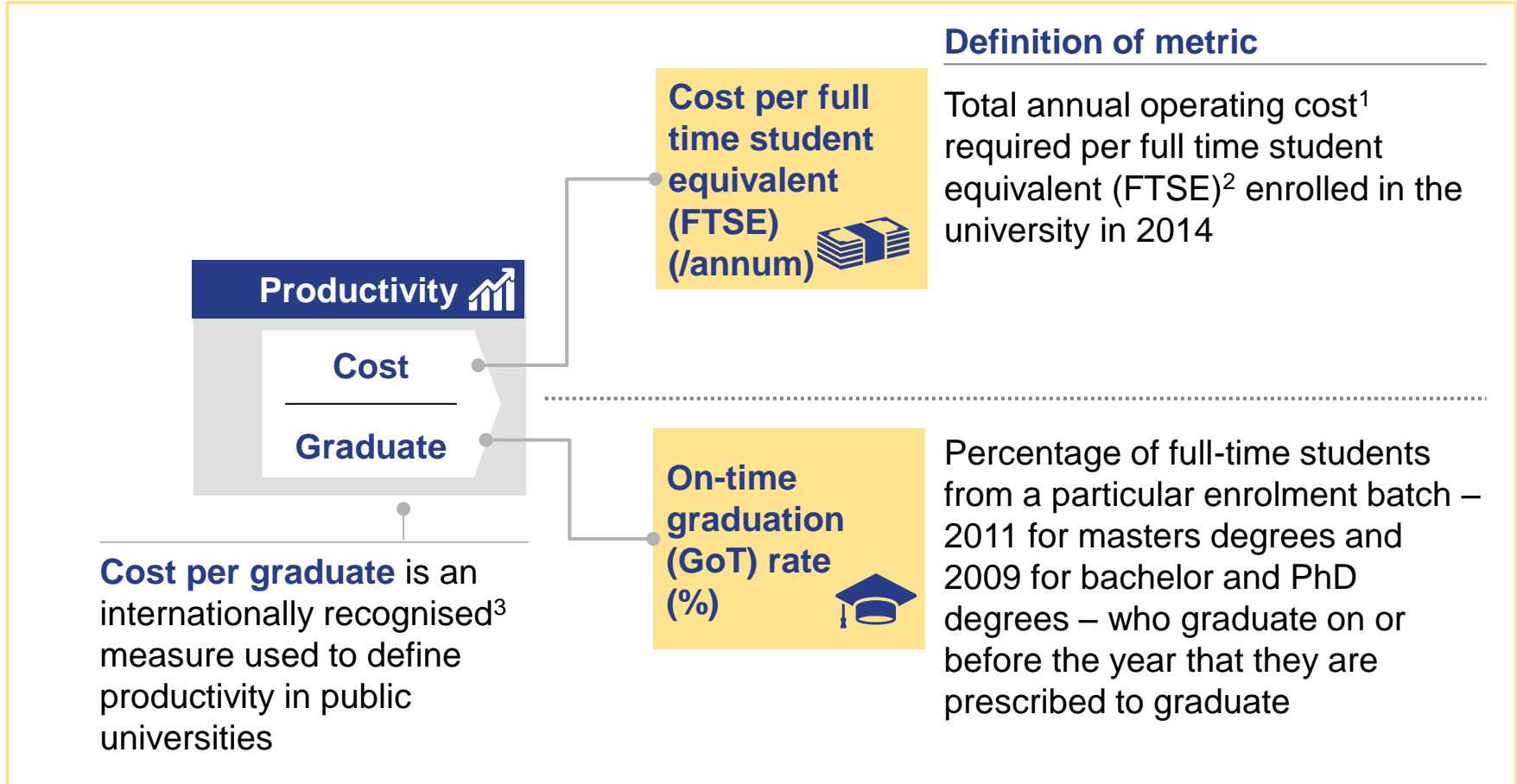Strategy expertise

76%
Fundraising expertise

52%
Connections to industry

Source: Survey conducted by MOHE in June 2015 of all 20 LPUs, and 20 VCs of Malaysian public universities, Respondents N=40

42

One of the key metrics to measure 'academic productivity' - cost per graduate

Cost per full time student equivalent (FTSE) (/annum)

Definition of metric

Total annual operating cost[1] required per full time student equivalent (FTSE)[2] enrolled in the university in 2014

Productivity

Cost
_____
Graduate

Cost per graduate is an internationally recognised[3] measure used to define productivity in public universities

On-time graduation (GoT) rate (%)

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

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.
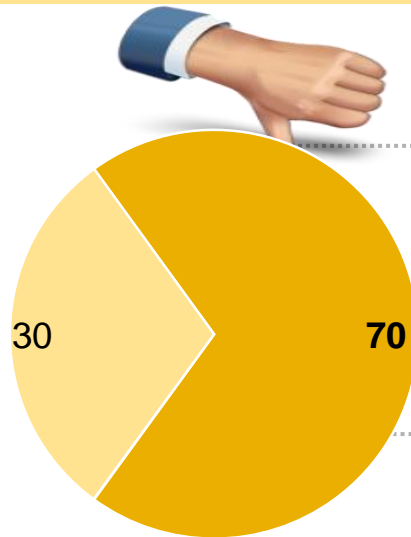
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70% of change programs fail because behaviors get in the way!

70% of change programs fail …

30   **70**

… mainly because behaviors get in the way

Other obstacles	**14**
Inadequate resources or budget	**14**
Management behavior does not support change	33
Employee resistance to change	39

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?
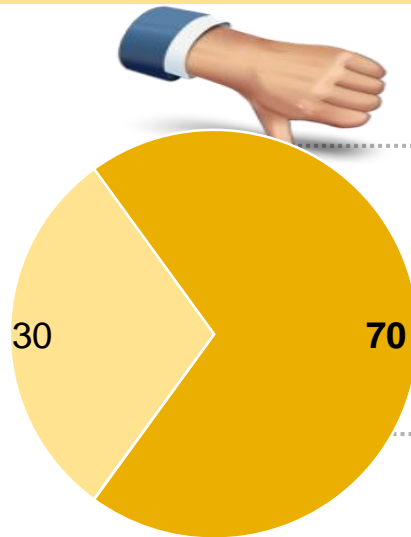

10%

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 …

30   70

… mainly because behaviors get in the way

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

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

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