Research, Innovation & Commercialization
Excellence in UTM
The Way Forward

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Deputy Vice Chancellor (Research & Innovation), UTM

Date : 26th Feb 2015 | Time : 9.00 am |
Venue : CTL Hall, Block F54,
School of Graduate Studies Building, UTM JB
Content

1. Future – Engage – Deliver
2. **Future** – Engage – Deliver (Leadership)
3. Future – Engage – Deliver (Team Working)
4. Future – Engage – **Deliver** (Tradition of Change)
KONSEP IQRA'

MENGENAL ALLAH

IKHLAS

MENYELIDIK

MENERBIT / MENULIS

MENGAJAR / MENDIDIK

MENGENAL DIRI

آقدًا يُبَيِّنُ اللَّهُ لَكُمُّ أَيْمَنَكُم ۚ أَلَمْ تَسَاءَلُوا سَائِلًاً عَنْ مَا لَمْ يَعْلَمَ، وَأَلَمْ تَسَاءَلُوا سَائِلًاً عَنْ أَعْلَمِهِ، وَأَلَمْ تَسَاءَلُوا سَائِلًاً عَنْ الْأَكْرَمِ، وَأَلَمْ تَسَاءَلُوا سَائِلًاً عَنْ رَبِّكَ. 

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5P: PENGAJARAN, PENYELIDIKAN, PENERBITAN, PEMBANGUNAN MAHASISWA, DAN PERKHIDMATAN KEPADA WATAN

DENGAN NAMA TUHANMU

MENGAJAR

MENYELIDIK

MENERBIT/MENULIS

KONSEP IQRA’
UTM MOTTO

KERANA TUHAN UNTUK MANUSIA

*In the name of God for Mankind*
**OUR SPIRIT**

1. Future – Engage – Deliver
2. **Future** – Engage – Deliver (Leadership)
3. Future – **Engage** – Deliver (Team Working)
4. Future – Engage – **Deliver** (Tradition of Change)
Future–Engage–Deliver

This is a proven Framework in use with leaders worldwide. It has consistently been the catalyst for leaders who have wanted to accelerate their own and others' growth. You'll find a place for any leadership idea you come across inside this framework.
Leadership only comes in three parts whatever it is we are leading for.

- It always starts with the **FUTURE**: Where do we want to go? What do we want to build? What is the future that we want? That’s the essence of leadership.

- Second, we have to get out there and **ENGAGE** people so they want to come with you.

- Third, you have to **DELIVER**. Make things happen.
First, leading always starts in the **Future**.

**Ideas**

- How you’d like things to be?
- Where you’d like to get to?
- What you’d like to see in the Future?
- What you’d like to build?

**Vision**

- Mission
- Target

**Past**

- Thought
- Ambition
- Goal
- Mission
- Aspiration

**Strategies**

- Change
- Direction
- Plan
- Ambition
- Mission

**Legacy**

- Dream
11 BIG IDEAS

1. EMPOWERED GOVERNANCE
2. FINANCIAL SUSTAINABILITY
3. HIGHER EDUCATION EXCELLENCE
4. HOLISTIC ENTREPRENEURIAL GRADUATES
5. INNOVATION ECOSYSTEM
6. HIGHER EDUCATION DELIVERY TRANSFORMATION
7. PRIVATE HIGHER EDUCATION INSTITUTIONS ENHANCEMENT
8. ENCULTURATION OF LIFELONG LEARNING
9. TECHNICAL AND VOCATIONAL EDUCATION TRANSFORMATION
10. GLOBAL PROMINENCE
11. INTENSIFICATION OF ONLINE LEARNING
Malaysian Education blueprint

- The 11 shifts of transformation under the National Higher education Blueprint 2013-2025 that can be seamless with 11 Big ideas
  - Provide equal access to quality education of international standard
  - Develop values-driven Malaysians
  - Ensure high-performing school leaders in every school
  - Empower schools to customise solutions based on need
  - Leverage ICT to scale up quality learning across Malaysia
  - Transform ministry’s delivery capabilities and capacity
  - Partner with parents, community and the private sector at scale

The only constant is change
Higher Education hub with a difference

relevant to society
values-driven

RANKING UNIVERSITY
values-driven

3R
respected
referred
relevant
Connecting the Dots: Strategies Towards Global Positioning of Malaysian IPTS

Ecosystem For Innovation

- Consortium of CoEs
- Global Linkage
- Human Resource
- Revenue
- Publications
- Grant Outputs

Glonacal: Talents which considers the inter-relationship between the global, the national and the local.

Innovative ● Entrepreneurial ● Global

www.utm.my
Powerful and effective leaders are guided by the **Future** they want. And more than this, the leader is strongest when that Future is powerfully connected to what he or she cares about.
In three years’ time, UTM will consistently be among the top 200 universities in the world.

The principles of excellence and capacity building will underpin the University’s “Research, Innovation, Commercialization and Entrepreneurial” strategy.

We will ensure that our research has national and global impacts by addressing the grand challenges of our time.

We will embark on a high impact project to strengthen the “Research, Innovation, Commercialization and Entrepreneurial” based on UTM Global Plan (Phase II).
Our Desired State

- UTM already has international recognition as a successful, research-intensive University; the challenge is to enhance that position on an increasingly competitive environment.
- The “Research, Innovation, Commercialization and Entrepreneurial” strategy sets out how we will deliver our desired state, to ensure that we are contributes to the National Key Economic areas.
UTM Desired State by 2020

- **Student enrolment:** 27,000
- **UG-PG ratio:** 40:60
- **Academic staff-student ratio:** (1:8 – 1:10)
- **Academic staff-non-academic staff ratio:** (1:1.3)
- **Academic staff with PhD by 2020:** 85%
- **Research University:** Maintain status
- **SETARA Rating:** Tier 6
- **QS World Univ Rankings:** Top 50 (Engineering and Technology)
- **Graduate employability:** 80%
- **Financial sustainability:** 70:30 (Govt: Non Govt)
Second, if you want the help of others to create that Future, you’ll need to Engage them.
Engagement is central to a leader’s ability to build alignment, involvement, ownership, unity and team.
WHAT'S POSSIBLE FOR A GROUP OR ORGANISATION WHEN PEOPLE ARE REALLY ENGAGED CAN BE IMMENSE.
How do we engage?

**Product and services customer oriented**

1. Synergize the Centre of Excellences.
2. Research initiatives focused on National Key Economic Area (NKEA).
3. Introduce a new overarching theme for our research project i.e. INNOVATIVE S&T FOR PROSPERITY (INSPIRE).
4. Organize technology-business matching program e.g. seminar, forum, etc.
5. Work with industries from idea to launching stages.
**How do we engage?**

<table>
<thead>
<tr>
<th>Product and services customer oriented</th>
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<tbody>
<tr>
<td>6. “UTM R&amp;D for UTM” campaign to use home grown technologies in campus.</td>
</tr>
<tr>
<td>7. Create follow-up (internal) grant for research continuation.</td>
</tr>
<tr>
<td>8. Increase the effectiveness of intellectual property management by balancing the value of royalty and licensing fees.</td>
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<tr>
<td>9. Increase number of start-up and spin off companies.</td>
</tr>
<tr>
<td>10. Create better linkages with grant providers e.g. CRADLE, MTDC, L2M, and angel investors.</td>
</tr>
</tbody>
</table>
## How do we engage?

Generate leadership and outstanding contributions in research, innovation and commercialization

<table>
<thead>
<tr>
<th>1.</th>
<th>Nurturing Top Research Talent Programme</th>
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<tbody>
<tr>
<td>2.</td>
<td>Enforce the six policies i.e. Policy on Research, Publication, UTM Journal, Book Chapter, Exhibition of Inventions and Commercialization.</td>
</tr>
<tr>
<td>3.</td>
<td>Formulate strategic plan for international funding and secure new sources of funding nation (e.g. China, Russia, Korea, Singapore)</td>
</tr>
<tr>
<td>4.</td>
<td>Aggressive promotion of our experts.</td>
</tr>
<tr>
<td>5.</td>
<td>Increase international networking and linkages.</td>
</tr>
<tr>
<td>6.</td>
<td>Increase visibility of our experts in international professional bodies and associations</td>
</tr>
</tbody>
</table>
Third, in Deliver, you make things happen.

“THERE ARE PEOPLE WHO MAKE THINGS HAPPEN, THERE ARE PEOPLE WHO WATCH THINGS HAPPEN, AND THERE ARE PEOPLE WHO WONDER WHAT HAPPENED. TO BE SUCCESSFUL, YOU NEED TO BE A PERSON WHO MAKES THINGS HAPPEN.”

JAMES A. LOVELL
“Action without vision is only passing time, vision without action is merely day dreaming, but vision with action can change the world.”

- Nelson Mandela
Leadership

Management is doing things right; while leadership is doing the right things. Great leaders possess dazzling social intelligence, a zest for change, and above all, future that allows them to set their sights on the "things" that truly merit attention.
Leadership is the art of motivating a group of people to achieve a common goal.
LEADERSHIP

5 RA Deans

- Smart Digital Community
- Frontier Materials
- Health and Wellness
- Resource Sustainability
- Innovative Engineering

Research Direction

- AMTEC CAIRO IKG MDRG
- CEE CASIS MDRG
- IBD ICA MDRG
- UTM-MPRC IVAT MDRG
- UTM-MIMOS MDRG

10 CoEs
56 MDRG

Legend:
SDRG : Single discipline RG
MDRG : Multi discipline RG
# New Leaderhips

<table>
<thead>
<tr>
<th>NO.</th>
<th>NEW RESEARCH ALLIANCES</th>
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<tr>
<td>1</td>
<td>Frontier Materials</td>
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<tr>
<td>2</td>
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<tr>
<td>3</td>
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<tr>
<td>4</td>
<td>Resource Sustainability</td>
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<tr>
<td>5</td>
<td>Innovative Engineering</td>
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</table>
6 Institutes (Super CoE)

<table>
<thead>
<tr>
<th>NO.</th>
<th>NEW INSTITUTES (SUPER CoE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Research Institute for Sustainable Environment (RISE)</td>
</tr>
<tr>
<td>2</td>
<td>Institute for Vehicle Systems and Engineering (IVeSE)</td>
</tr>
<tr>
<td>3</td>
<td>Ibnu Sina Institute for Scientific and Industrial Research (IBNU SINA ISIR)</td>
</tr>
<tr>
<td>4</td>
<td>Institute for Smart Infrastructures and Innovative Construction (ISIIC)</td>
</tr>
<tr>
<td>5</td>
<td>Institute of Human Centered Engineering (IHCE)</td>
</tr>
<tr>
<td>6</td>
<td>Institute of Future Energy (IFE)</td>
</tr>
</tbody>
</table>
The function of leadership is to add Value.
1. Connections create value
2. Power in community
3. Collaboration > control
4. Celebrate onlyness
5. Allow all talent
6. Consumers become co-creators
7. Mistakes can build trust
8. Learn. Unlearn. (Repeat)
9. Bank on openness
10. Social purpose unleashes ownership
11. (There are no answers)
1. Connections can create values.
2. Collaboration > Control
3. Allow all talent
4. Lean and unlearned
5. Bank on openness
6. Mistake can built trust

-Nilofer Merchant-
GREAT LEADERS DON'T TELL YOU WHAT TO DO
THEY SHOW YOU HOW IT'S DONE.
“As a leader, think of yourself as a “signal generator” whose words and actions are constantly being scrutinised and interpreted, especially by those below you (in the hierarchy)”

“Signal generators reduce uncertainty and ambiguity about what is important and how to act”

Charles O’Reilly, Leaders in Difficult Times, 2009
So we have to *ask ourselves* some of these following questions...
Does your team have clear goals?

**Shared purpose** goes way deeper than vision and mission; it goes right into your gut and taps some part of your primal self. I believe that if you can bring people with similar primal purposes together and get them all marching in the same direction, amazing things can be achieved.

- Seth Garguilo -
Who is in your team?

“Get the right people on the bus, and the wrong people off the bus, then figured out where to drive it.”
Do you have regular **feedback** mechanism?

✓ Honest and non-judging feedback is critical in our efforts to learn about ourselves and motivating our team.

When people give you feedback, they are helping make you better. It’s your choice to listen or not.

✓ Feedback and recognition improves morale, less costly mechanisms to achieve performance improvements.

✓ Employees are more engaged in operations, the business and objectives when recognized by management for their efforts.
Team Working

A good team functions as a single organism. Not only do members work together toward a common goal, but they complement and support one another so that their work seems effortless. A leader is responsible to engage them.
Coming together is a beginning; keeping together is progress; working together is success.

-HENRY FORD
TEAM

TOGETHER

EVERYONE

ACHIEVES

MORE
A boat doesn't go forward if each one is rowing their own way.
Engagement Strategy
Imagine two Universities...

- Both have talented, hard-working, passionate faculty and staff and well-respected, highly ranked programs
- However, some differences have emerged
- At one of these universities...
  - Turnover of top talent is going up
  - Productivity of faculty and staff is dropping
  - Students and community stakeholders are less happy
  - Goals are being scaled back

What does the future looks like?
Why are faculty and staff at one university more likely to stay, willing to work harder, more productive, and delivering better service to students and the community?

It’s NOT about money...

...it’s about Engagement.
What is Engagement?

Passion and dedication to collective excellence and wellbeing.

Why is it Important?

Engagement profoundly shapes the quality of experiences and outcomes in the workplace.

- Recruiting, retaining, and developing top talent
- Resilience and wellbeing
- Collaboration and innovation
- Performance and productivity
What *creates* engagement?

Commitment to each others’ success, willingness to invest time and energy to transform good into great, and being empowered to do your best work.

What *research and practice tell us*?

- Engagement is driven **LOCALLY**.
- Leaders create the foundation for engagement through motivating others toward common goals and providing support to enable success.
What research and practice tell us?

Gallup findings (Lopez, 2013)

Does your leader at work make you enthusiastic about the future?

- Yes: 69%
- No: 1%

Engaged
Research at the University of Minnesota found that the drivers of engagement are also hallmarks of their most research-productive departments.

(Bland, Weber-Main, Lund, & Finstad, 2005)
Key Drivers of Engagement

Creating Motivation

- Build a shared vision for the future
- Inspire each other to go above and beyond what is expected
- Consistently recognize and value good work
- Listen actively and seek to understand others’ viewpoints
- Show concern and support for each others’ wellbeing
- Help each other make progress toward professional and career goals

Enabling Success

- Ensure roles and responsibilities are clear and agreed upon
- Close gaps in resources needed for success
- Eliminate micro-management and empower individuals to make decisions
- Identify meaningful ways to enhance teamwork and collaboration
- Address pain points in administrative processes and eliminate “red tape”
- Ensure people are in the right jobs and provide training to close skill gaps
IF YOU WANT TO GO FAST, GO ALONE.
IF YOU WANT TO GO FAR, GO TOGETHER.

- AFRICAN PROVERB
Tradition of Change

Leaders ask their staff to be ready for change, but do not engage enough in sense making. Sense making is not done via marketing or slogans but by emotional connection with employees to deliver the goal.
You can’t impose anything on anyone and expect them to be committed to it.

Edgar Schein, Professor Emeritus
MIT Sloan School
LEADERSHIP
COMPLIANCE VS. COMMITMENT

YOUR CHOICE!
The Hierarchy of Commitment

- **Commitment**: I will do it! I will lead others to do it
- **Compliance**: I have to do it! I can do it when I am told to...
- **Complain**: Why should I do it? If nobody says so...
- **Non-Committal/Condemn**: I will not do it! I will influence others...
ORGANISING

OR

MOBILISING
Bring people together, then **Organize** them to address whatever emerges as the priorities.
Connecting to shared purpose, engaging, **Mobilising** and calling to action to get things done.
Organizers need mobilization to keep people engaged so that participants feel a sense of trajectory and accomplishments.

Mobilizers need organizers to weave the base they will work with to act.
“If we want people to act, we have to connect with their emotions through values.”

- Marshall Ganz -
Results
Number of UTM SCOPUS publications versus other RUs

- UTM
- UKM
- UPM
- USM
- UM
Increased publication local collaboration in Scopus 2012-2014

UTHM: 27%
UMP: 20%
UNIMAP: 16%
UTP: 6%
UiTM: 9%

Year: 2012-2014

Source: SciVal
Publications by Journal category (2010 - 2014)

Source: SciVal
<table>
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<tr>
<th>No.</th>
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<th>IPT Marks</th>
<th>Benchmark Scores</th>
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**STAR RATING:** 🌟🌟🌟🌟🌟
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<td>TOTAL</td>
<td>SORRY</td>
<td>73.48</td>
<td>100</td>
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</table>
WORK is “contractual”.

EFFORT is “personal”.

WALK THE EXTRA MILE
Money incentives do not create Energy for change; the energy comes from connection to meaningful goals.

Ann-Charlott Norman
Talking about improvements: discursive patterns and their conditions for learning, March 2012
We will actively pursue high quality “Research, Innovation and Commercialization” collaborations, as a key ingredient in the pursuit of excellence.

As part of our international collaboration activities we will continue with the Distinguished Visiting Fellows scheme. This will be directed towards increasing the number of high quality international collaborative publications.
Our strategic objective is to increase our current level of research income by 10% per annum during this planning period.

We recognise that this will be challenging in the current economic climate.

There will be an expectation that research active staff contribute to the achievement of the University’s research income targets.
Performance

Progress in achieving the ambitions outlined above by 2018 will be measured by the following key performance indicators:

1. Top 10 in REF 2014 measured by Grade Point Average.
2. Research income growth of 10% p.a.
3. Increase funding by 12.5% p.a.
4. Increase in Research Council funding (to 2.5% market share).
5. Increase industry funding by 10% p.a.
6. Development of the “Innovation System”.
7. Double the number of highly cited researchers from c.9 to 18.
8. Increase Post Graduate Research student numbers by 30% in total, with 95% submission in 4 years in all Faculties for full time students.
9. 80% of academic staff will have a H-Index of 2.
10. 60% publications in Quarter 1 & 2 journal.
11. 100% passing rate for all audited CoEs.
FOUR SOURCES OF ENERGY

- Body
- Heart
- Mind
- Spirit

-Steve Radcliffe-
Energy of analysis, logic, thinking, rationality. Drives curiosity, planning and focus.

Energy of human connection and relationships. Essential for teamwork, partnership, alignment and collaboration.

Energy of vitality, passion, the future and sense of possibility. Brings hope and optimism and helps people feel more ready and confident to build the future.

Energy of action, making things happen and getting them done. Key part of vitality, maintaining concentration and commitment.
1. In order to sustain transformational change, we as leaders need to move from a *burning platform* (fear based urgency) to a *burning ambition* (shared purpose for a better future).

2. We as leaders need to articulate personal reasons for change as well as organisational reasons.

3. If the fire (the compelling reason) goes out, all other factors are redundant.
WE MAY HAVE ALL COME ON DIFFERENT SHIPS, BUT WE'RE IN THE SAME BOAT NOW.

Martin Luther King, Jr.
**Conclusion**

**FUTURE**
Help people see the future, create a future that is compelling, makes best use of their skills. Move from the present. Be up to something.

**ENGAGE**

**DELIVER**
Mobilise the team’s drive for improvement, provide a sense of purpose, hold people to account, drive for results and celebrate success so people feel they have done something important. Make things happen!
Leadership really need not be complicated. I believe that leading is natural, human activity that is part of all of us. You don’t need a certain IQ or job title to be a leader. Anyone can be a leader!

-Steve Radcliffe-
Leadership – Plain and Simple
Thank You!

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fauzi.ismail@gmail.com