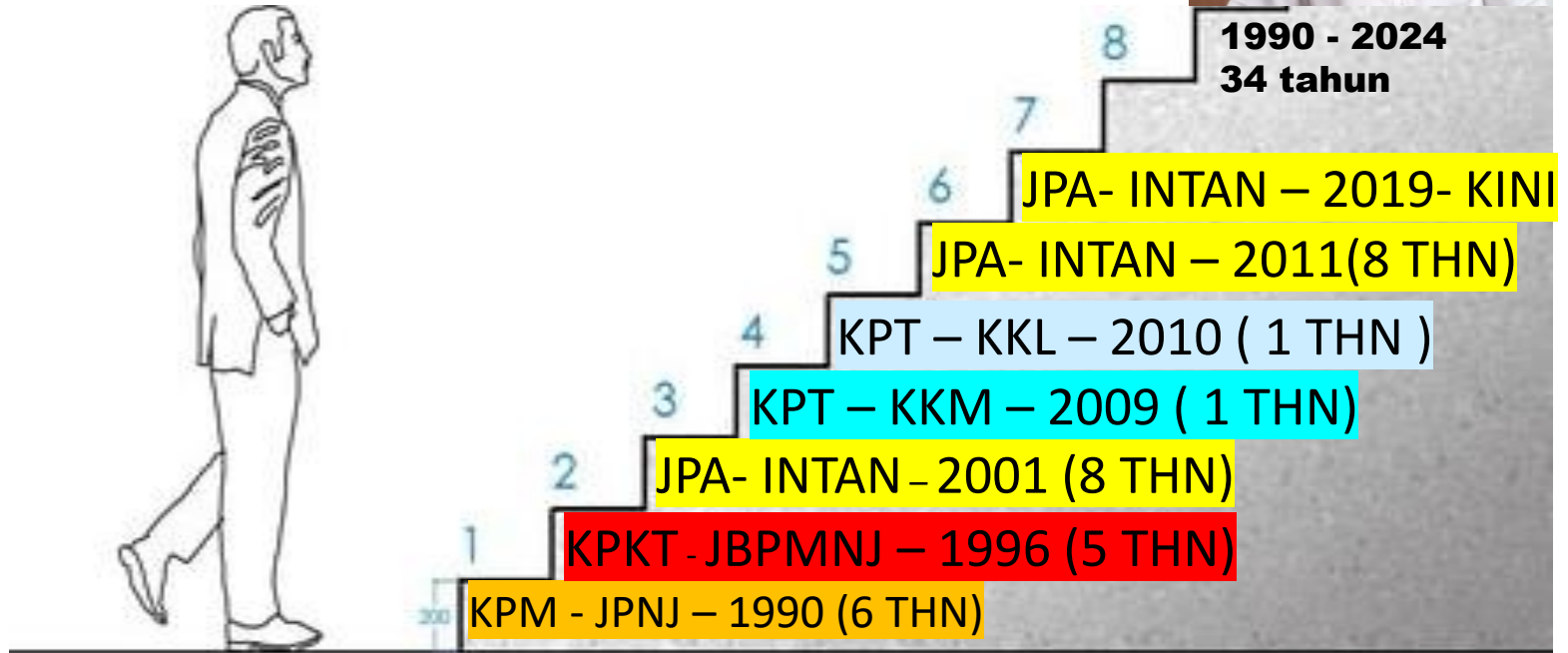


# Kemahiran Berfikir Kreatif dan Inovatif



# Assalamualaikum & Selamat Sejahtera

ROSLAN BIN HJ. DASIRON  
PEN.PERUNDING LATIHAN



# SKOP PEMBELAJARAN

Pengenalan  
kepada konsep  
berfikir kreatif  
dan inovatif

Keputusan  
berfikir kreatif  
dan inovatif

Proses berfikir  
kreatif

Cara  
meningkatkan  
kemahiran  
berfikir kreatif



# OBJEKTIF SESI



Menerangkan kepentingan berfikir secara kreatif dalam konteks penjawat awam.

**2**

**3**

Menerangkan proses berfikir kreatif berdasarkan Edward De Bono

**4**

Mengaplikasikan langkah-langkah untuk berfikir secara kreatif melalui teknik *Random Stimulation* dan SCAMPER

**1**

Menerangkan konsep kemahiran berfikir kreatif dan inovatif.





1.  
APA ITU  
**KREATIVITI**  
DAN INOVASI

# SATU PERKATAAN YANG MENGGAMBARKAN 'KREATIF'

[PollEv.com/nurfirdausab804](https://pollev.com/nurfirdausab804)



# cre·a·tiv·i·ty

noun \ ,krē-(,)ā-'ti-və-tē , ,krē-ə- \

1: the ability to create

2: the quality of being creative



# KITA SEMUA MAKHLUK KREATIF





$$5 + 5 = ?$$



$$? + ? = 10$$

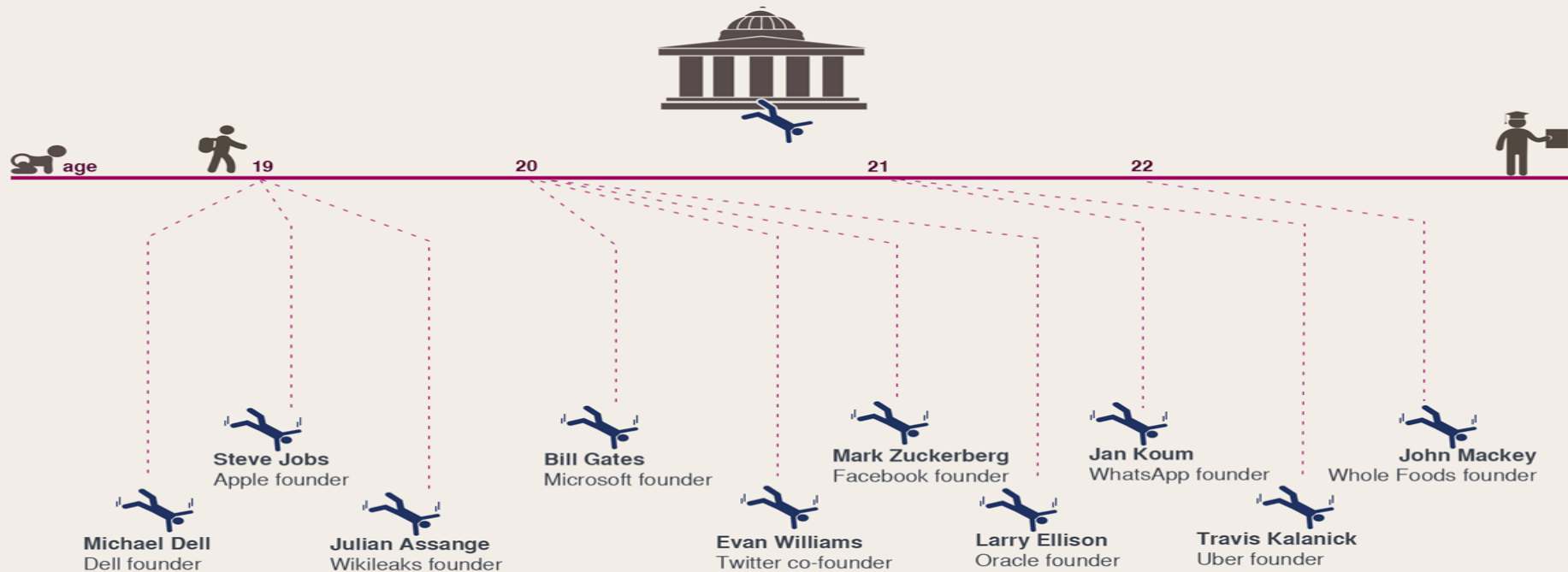




# LEARNING WITHOUT SCHOOL

by Anna Vital

ENTREPRENEURS WHO DROPPED OUT OF COLLEGE



I HAVE  
NEVER LET SCHOOL  
INTERFERE WITH MY EDUCATION.

*Mark Twain*

SUMBER: [FQ1 Funders and Founders](#)



*"Creativity is giving yourself permission  
to SEE things differently"*

*- Anonymous*

Kreativiti memberi kebenaran kepada diri  
sendiri untuk MELIHAT perkara secara berbeza





*"Creativity is giving yourself permission  
to THINK things differently"*

'Kreativiti memberi kebenaran kepada diri  
anda untuk BERFIKIR secara berbeza"





*"Creativity is giving yourself permission to  
DO things differently"*

→ *Innovation*



'Kreativiti memberi kebenaran kepada diri sendiri untuk MELAKUKAN perkara secara berbeza

} Inovasi





*“Creativity is giving yourself permission to  
TRY things differently”*

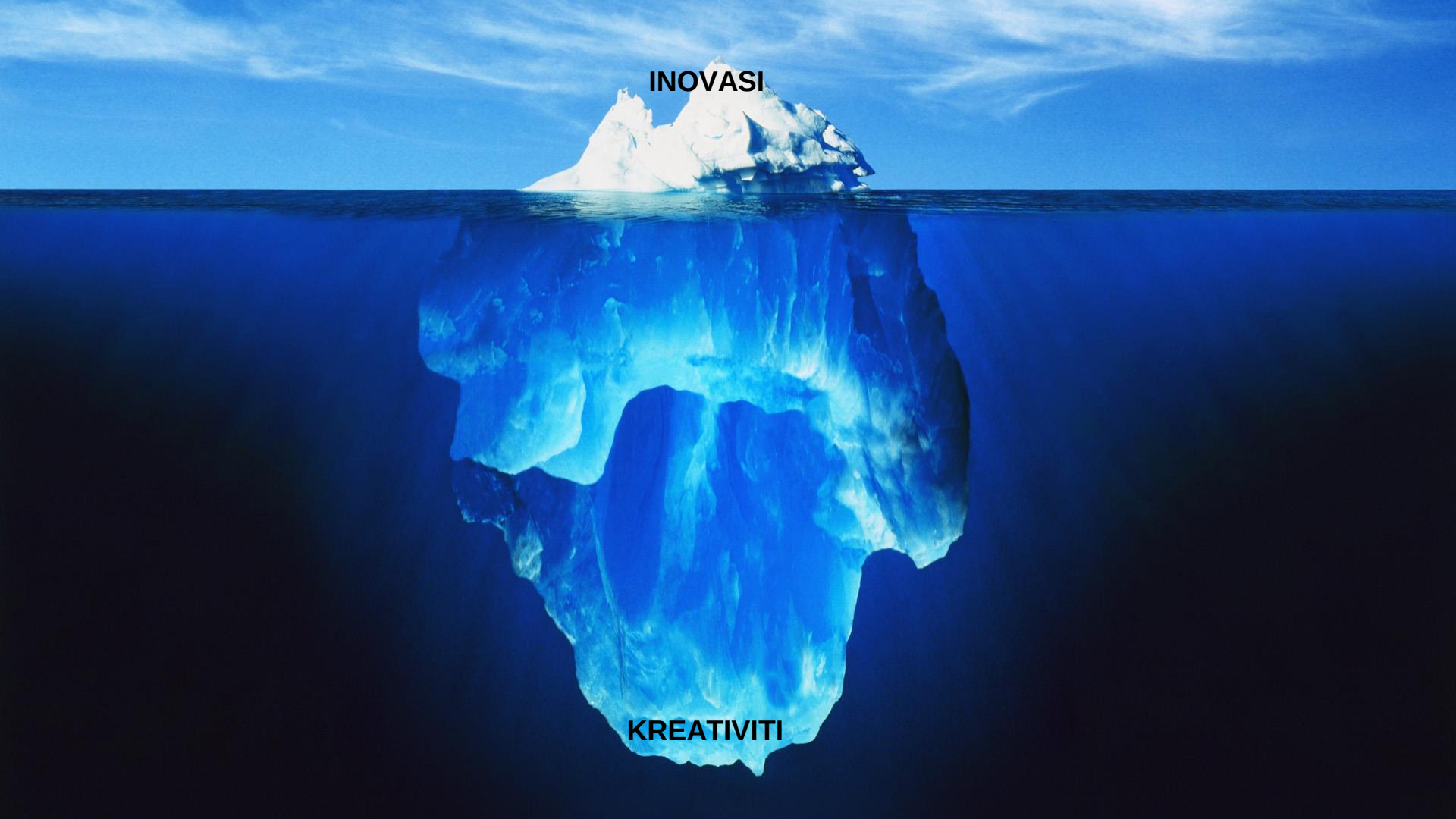
*- Dr. Nickolas Martin, The Ego Unmasked,  
2010*



“Kreativiti memberi kebenaran  
kepada diri anda untuk MENCUBA  
perkara secara berbeza





An iceberg floating in a deep blue ocean under a clear blue sky. The tip of the iceberg is above the water line, while the much larger, more complex structure is submerged below. The water is a deep, dark blue, and the sky is a lighter, clear blue with some wispy clouds. The iceberg itself is white and jagged, with a large, irregular shape below the water line.

**INOVASI**

**KREATIVITI**

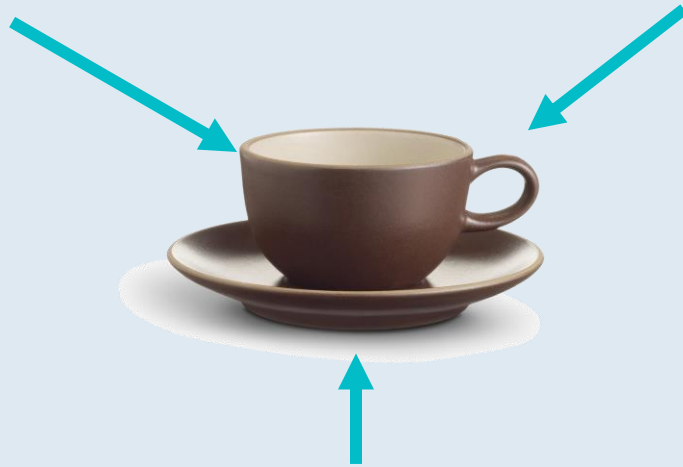


INNOVATION STARTS WITH CREATIVITY



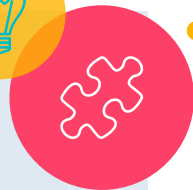
# 3

Komponen  
Kopi



3

## Komponen Kopi



3

# Komponen Kreativiti

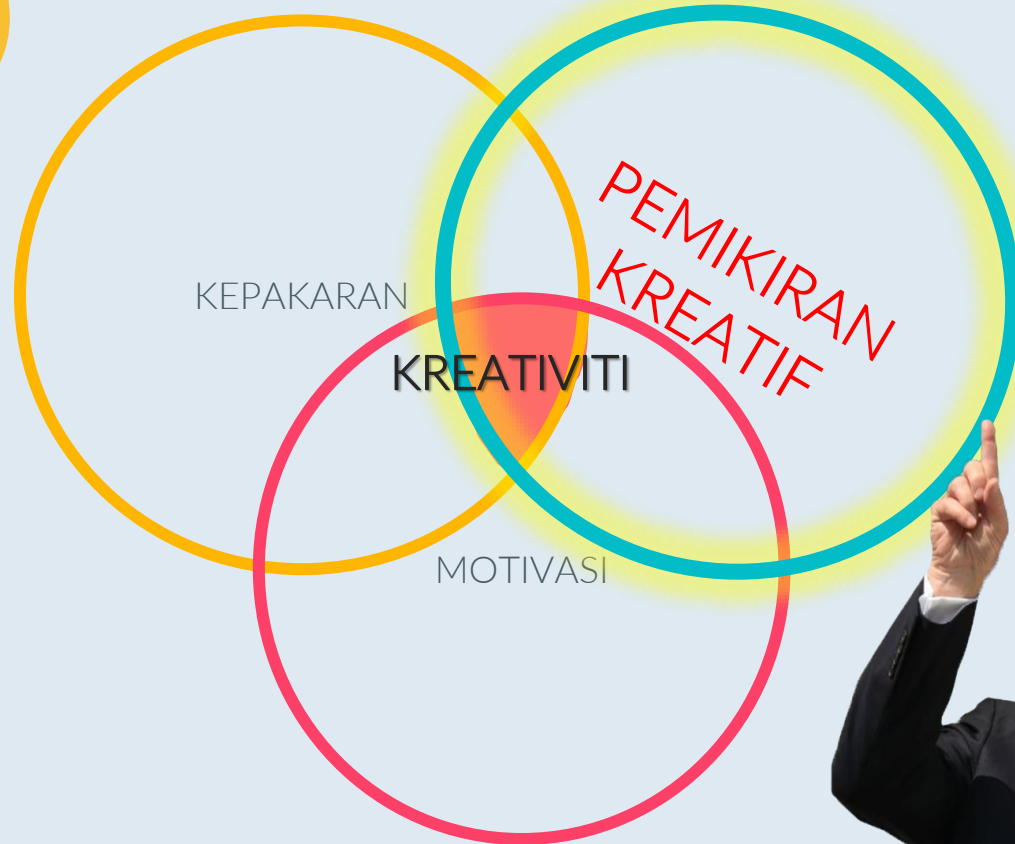


- Harvard Business School  
professor, Teresa Aamile



3

# Komponen Kreativiti







## #1 : SERUAN MANTAN PERDANA MENTERI



**“Budaya kreatif dan kebolehan berfikir di luar kotak akan digalakkan, agar warga perkhidmatan awam boleh mempertajam kebolehan mereka dalam bidang masing-masing.”**

Janji 21:  
Memperkasa Perkhidmatan Awam.

**BUKU  
HARAPAN  
MEMBINA  
NEGARA  
MEMENUHI  
HARAPAN**



*Inspirasi Inovasi IPA, 6/2018  
Bahagian Khidmat Pengurusan  
Jabatan Perkhidmatan Awam*





KERAJAAN MALAYSIA

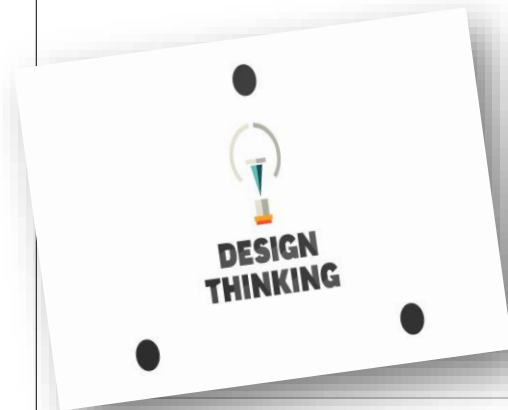
PEKELILING TRANSFORMASI PENTADBIRAN AWAM  
BIL. 1 TAHUN 2016

PANDUAN PEMBUDAYAAN DAN PEMERKASAAN  
INOVASI DALAM SEKTOR AWAM MELALUI  
HORIZON BAHARU KUMPULAN INOVATIF  
DAN KREATIF



**NBOS**

UNIT PEMODENAN TADBIRAN DAN PERANCANGAN  
PENGURUSAN MALAYSIA (MAMPU)  
JABATAN PERDANA MENTERI



**“Bab 2 Perkara 2.7 :  
Teknik dan Kaedah  
Penghasilan Projek”**

Saluran  
Sedia Ada



**ANUGERAH  
INOVASI  
NEGARA  
[AIN] 2016**

**mosti**  
KEMENTERIAN SAINS, TEKNOLOGI DAN INOVASI  
MINISTRY OF SCIENCE, TECHNOLOGY AND INNOVATION

**KATEGORI  
PRODUK  
PERKHIDMATAN  
AKAR UMBI  
SEKOLAH**

**Tarikh Tutup  
15 Ogos 2016 (Isnin)**

**KATEGORI  
MEDIA CETAK  
MEDIA ELEKTRONIK**

**Tarikh Tutup  
1 September 2016  
(Khamis)**

**PENYERTAAN  
SEGERA**

**Hadiah wang tunai  
menanti anda!**

  
<http://ain.mosti.gov.my>

**Sains & Inovasi**  
Pemacu Transformasi  
DEKAD INOVASI 2010 - 2020





# ANUGERAH



## Majlis Anugerah Inovasi Perdana Menteri 2014

Akan disampaikan oleh:

**YAB Dato' Sri Mohd Najib bin Tun Haji Abdul Razak**  
Perdana Menteri Malaysia

Tempat : Dewan Perdana, Pusat Konvensyen  
Antarabangsa Putrajaya (PICC)

Tarikh : 5 September 2014

Masa : 10.30 pagi - 12.00 tengah hari



<http://ain.mosti.gov.my>

### Hadiah wang tunai menanti anda!





ANUGERAH



# Majlis ANUGERAH INOVASI SEKTOR AWAM (AISA)

9 Oktober 2014 (Khamis)

2.30 petang hingga 5.00 petang

Grand Ballroom, The Place @ One City, Subang Jaya

2014

1

MELESTARIKAN INOVASI, MEMARTABATKAN TRANSFORMASI



<http://ain.mosti.gov.my>

Hadiah wang tunai  
menanti anda!





KERAJAAN MALAYSIA

---

Peraturan Mengenai Perbelanjaan  
Sambutan Hari Inovasi

---

PERBENDAHARAAN MALAYSIA

**mosti**

KEMENTERIAN SAINS, TEKNOLOGI DAN INOVASI  
MINISTRY OF SCIENCE, TECHNOLOGY AND INNOVATION



**MAMPU**  
BERSAMA SAMA SAMA MELAKSANAKAN TRANSFORMASI

2014

TRANSFORMASI

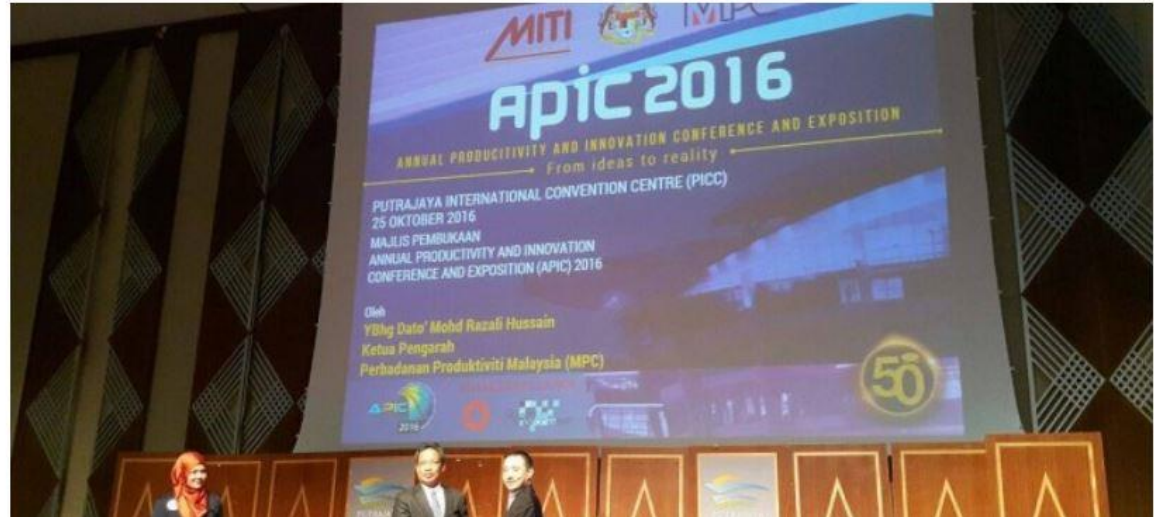
**Sains & Inovasi**  
Pemacu Transformasi  
DEKAD INOVASI 2010 - 2020



## #2: PENJIMATAN

### Penjimatan kos organisasi hampir 108 juta melalui inovasi

Era Baru 25/10/2016



## #2: PENJIMATAN

31

MENU **IndustryWeek** [SEARCH](#)

**RECENT**

Industry Report: Chemicals in the U.S. 2017  
MAR 09, 2018

Industry Report: Computers & Electronics in the U.S. 2017  
MAR 09, 2018



**LEADERSHIP > COMPANIES & EXECUTIVES**

# Product Design Innovations Reduce Costs and Increase Customer Satisfaction

Best-in-class manufacturers that use **digital prototyping** out-perform competing manufacturers that do not by getting products to market on average 58 days faster.



## #2: PENJIMATAN



### Inovasi jimat minyak

32



DR. ABU BAKAR MOHAMAD DIAH (dua dari kiri), bersama Mohd. Azman Shahidin (kiri) pada program penyerahan bot berteknologi hibrid kepada nelayan di Jeti Kampung Hailam Tangga Batu, Melaka, baru-baru ini.

MENERUSI program Inovasi Sosial Kementerian Sains, Teknologi dan Inovasi (MOSTI) atau MSI, pendekatan membantu rakyat terus diperkasa dan terbaharu Komuniti Keluarga Nelayan Tanjung Kling di Tangga Batu, Melaka menerima faedahnya baru baru ini.

Menerusi program MSI itu, mereka menerima sumbangan 10 unit bot nelayan pantai berkuasa 40 kuasa kuda yang dilengkapi dengan teknologi terbaharu, penjana gas Syn-Hybrid yang bernilai kira-kira RM300,000 kesemuanya dari Technology Park Malaysia Corporation Sdn. Bhd (TPM).





## #2: PENJIMATAN



## #3: MEMUDAHKAN



'Mars-Mirror' memudahkan urusan pasport bayi

Oleh Mohd Roji Kawi  
mdroji@bh.com.my

ETRA JAYA: Sekumpulan aktiviti merentas

Oleh Mohd Roji Kawi  
mdroji@bh.com.my



**URUSAN PASPORT BAYI**

PETRA JAYA: Sekumpulan 10 pegawai Jabatan Imigresen Malaysia Sarawak menyerahkan kreativiti mereka apabila mencipta tempat khas untuk memudahkan pengambilan gambar kanak-kanak bawah dua tahun untuk urusan pasport.

Kejayaan mereka mencipta tempat pengambilan gambar kanak-kanak yang dinamakan 'Mars-Mirror' itu bukan saja melonjakkan nama Jabatan Imigresen Sarawak pada pertandingan inovasi, tetapi juga membantu memudahkan rakan setugas di seluruh Pusat Transformasi Bandar (UTC) di Kuching, Miri dan Bintulu.

Hasil ciptaan mereka itu dimanfaatkan di Jabatan Imigresen Sarawak pada 15 Januari 2019.

### #3: MEMUDAHKAN



## Program pra-pelepasan jemaah haji: Malaysia hargai pengiktirafan Arab Saudi

📅 Ogos 25, 2017 20:22 MYT



Inisiatif Malaysia itu dapat mempercepatkan proses pemeriksaan imigresen dan kastam di lapangan terbang. - Gambar hiasan

**MAKKAH:** Malaysia menghargai pengiktirafan kerajaan Arab Saudi yang memilih Malaysia sebagai negara pertama di dunia dalam melaksanakan program prapelepasan jemaah haji dan berharap inovasi itu dapat diteruskan pada musim haji akan datang.

Timbalan Menteri di Jabatan Perdana Menteri Datuk Dr Asyraf Wajdi Dusuki berkata inisiatif itu adalah inovasi yang baik dan seluruh dunia wajar memberi pujian kepada kerajaan Arab Saudi, kerana ia dapat mempercepatkan proses pemeriksaan imigresen dan kastam di lapangan terbang di negara berkenaan.

"Kita berharap model kepada Malaysia ini menjadi contoh (kepada negara lain)," katanya kepada pemberita selepas melawat maktab penginapan jemaah haji Malaysia di Hotel Awttad Makkah di sini, Jumaat.



## #4: KRISIS KREATIVITI

1990



“The total sample for all six normative samples included 272,599 kindergarten through 12th grade students and adults.

Analysis of the normative data showed that creative thinking scores remained static or decreased, starting at sixth grade. Results also indicated that since 1990, even as IQ scores have risen, creative thinking scores have **significantly** decreased. The decrease for kindergartners through third graders was the most significant. “

*Creativity Research Journal 23(4):285-295 · October 2011*



## #4: KRISIS KREATIVITI

"The total sample for kindergarten through

Analysis of the norm  
remained static or  
indicated that since  
scores have **signifi**  
through third grader

Creativity Research Jo

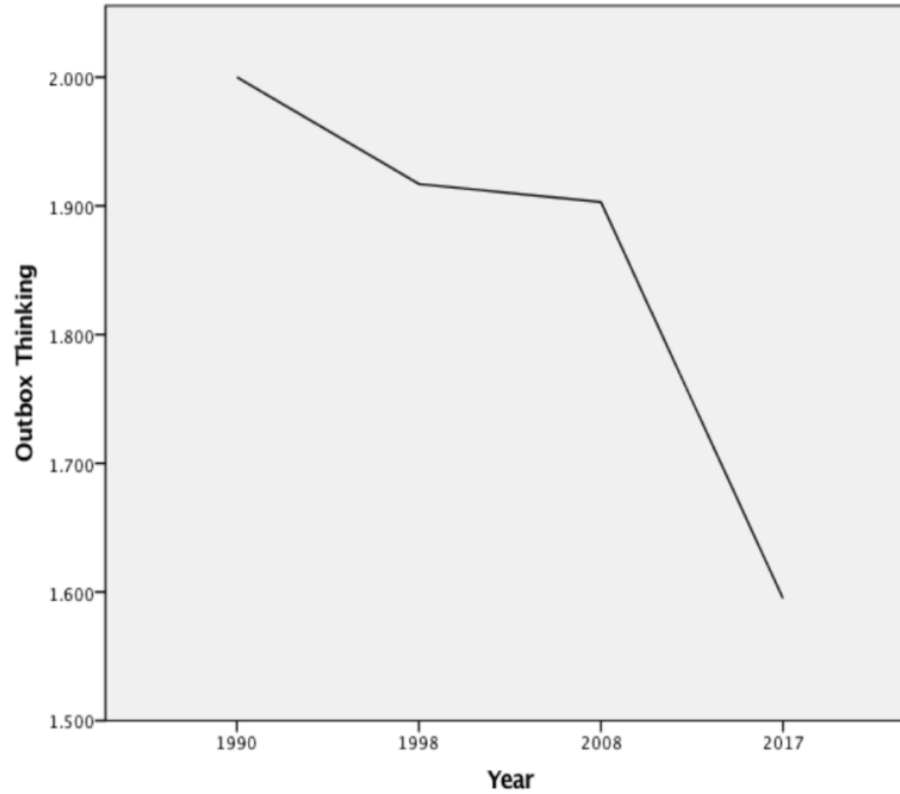


Figure 1. Changes in Outbox Thinking



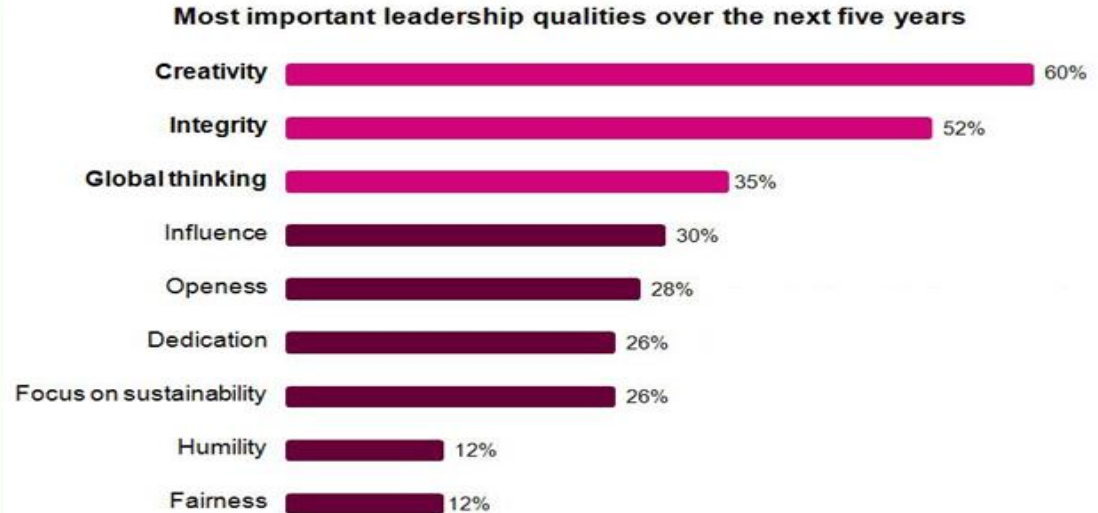
## #4: KRISIS KREATIVITI



# The Most Important Leadership Quality for CEOs? Creativity

38

About 60% of the CEOs polled by IBM cited creativity as the most important leadership quality, compared with 52% for integrity and 35% for global thinking.



Largest known sample of one-on-one CEO interviews, over 1,500 corporate heads and public sector leaders , 60 nations , 33 industries



#5: '*Tools*' untuk  
*SURVIVAL*



Otzi 5300 year  
icemen shoe



## #5: 'Tools' untuk *SURVIVAL*

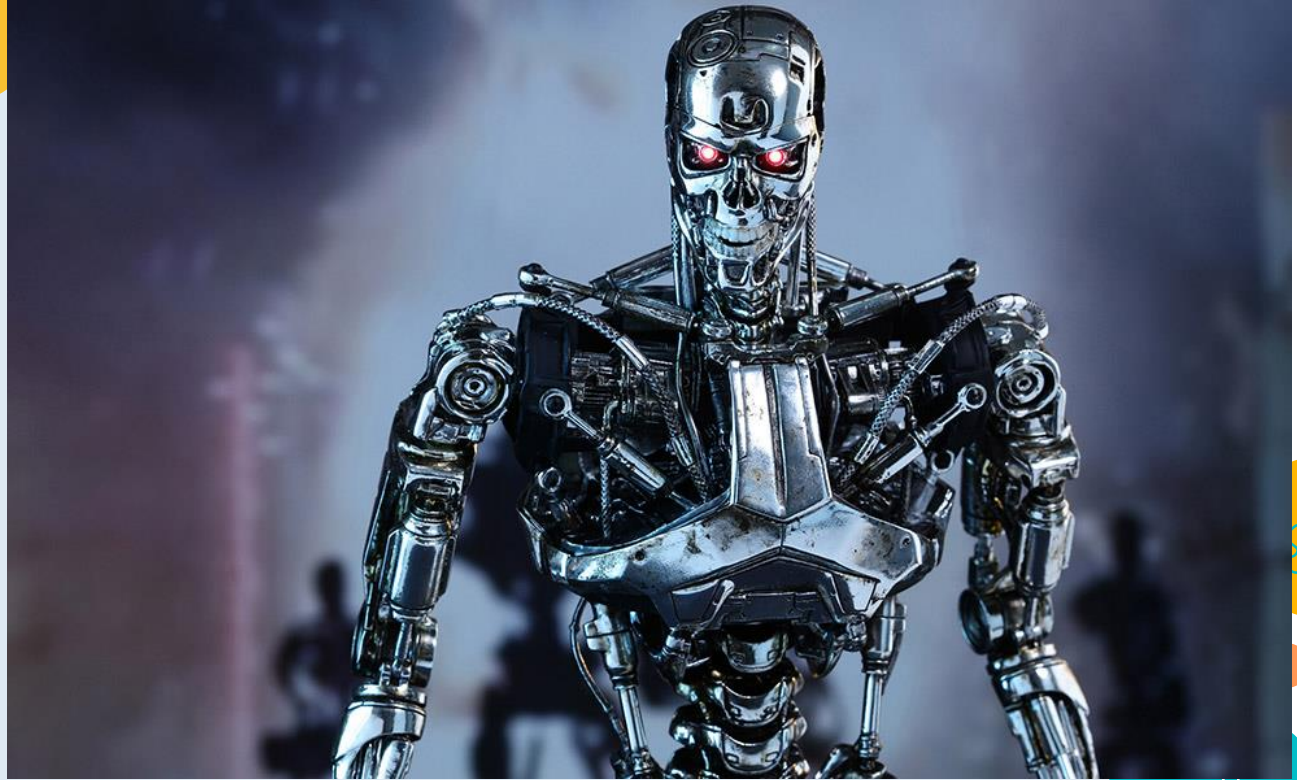
Teknologi Microlith/Microblade Benua India

*Collection # 9*



40

#5: '*Tools*' untuk  
*SURVIVAL*



## #5: 'Tools' untuk *SURVIVAL*

- The study of 46 countries and 800 occupations by the McKinsey Global Institute found that up to one-fifth of the global work force will be affected.



## Robot automation will 'take 800 million jobs by 2030' - report

🕒 29 November 2017

[f](#) [🐦](#) [💬](#) [✉](#) [Share](#)



Richer countries will see more automation since they have the cash to invest in technology

Up to 800 million global workers will lose their jobs by 2030 and be replaced by robotic automation, a new report from a consultancy has found.





#5: '*Tools*' untuk  
*SURVIVAL*



43





## #5: '*Tools*' untuk *SURVIVAL*

Kilang Foxconn  
menggantikan  
60,000 pekerja  
dengan robot pada  
tahun 2016



#5: *'Tools'* untuk  
*SURVIVAL*





## #5: 'Tools' untuk *SURVIVAL*





# KUIZ:

Sekarang//Akan Datang//Tak Mungkin



Senario:  
Gudang Barangan yang diuruskan TANPA  
seorang manusia pun.



Senario:  
Kendaraan berat (traktor, lori, bus dsb.)  
TANPA pemandu.



Senario:  
**Ladang diuruskan sepenuhnya oleh ROBOT.**



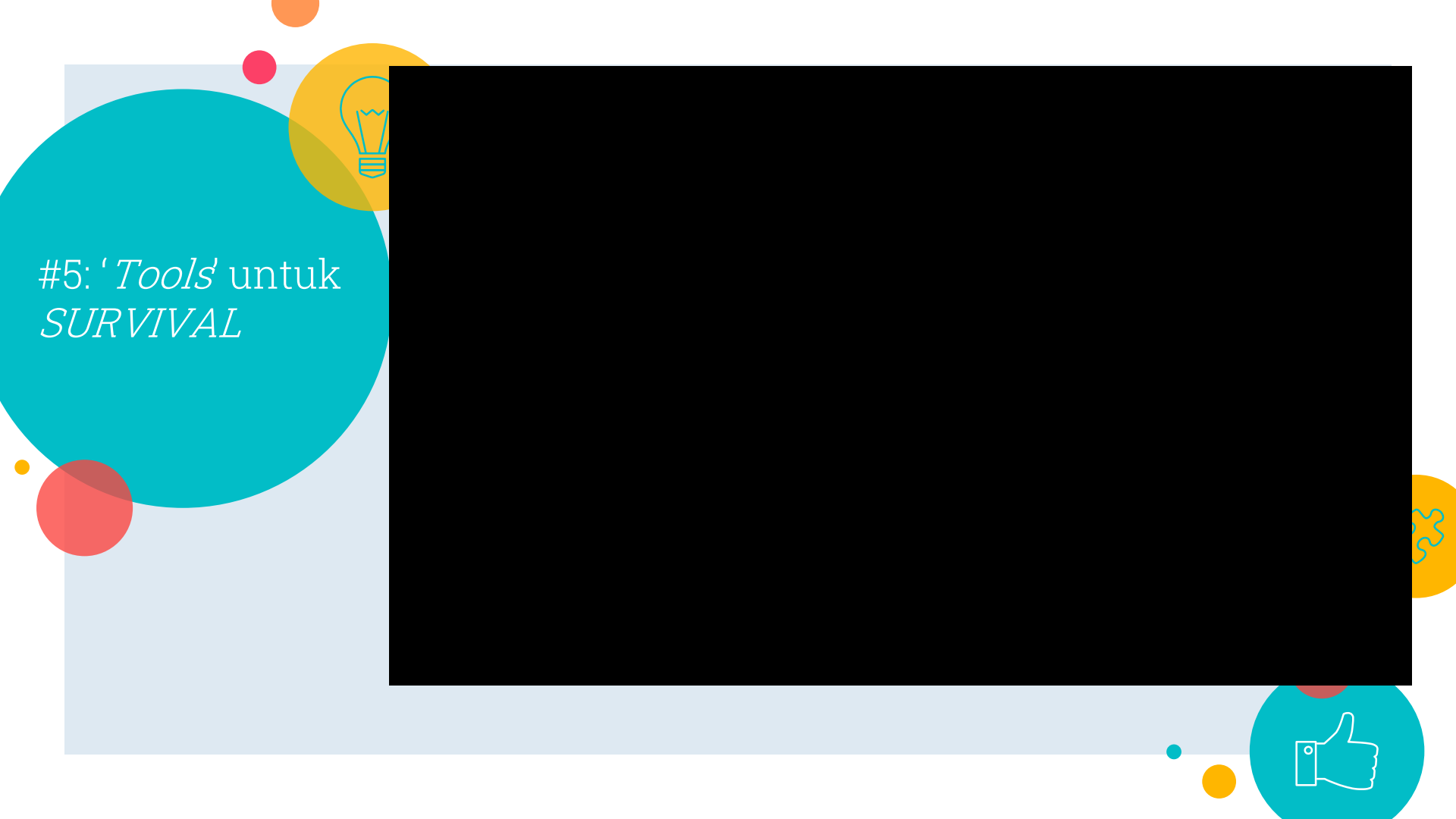
Senario:  
**Rumah dibina dalam masa SATU HARI.**



Senario:  
Kedai makan/runcit TANPA pekerja  
manusia.





The background features a light blue rectangular area on the left. To its right is a large black rectangle. Various colored circles (cyan, orange, red, yellow) are scattered around. Icons include a lightbulb in a yellow circle, a thumbs-up in a cyan circle, and a puzzle piece in a yellow circle.

## #5: '*Tools*' untuk *SURVIVAL*

## #5: 'Tools' untuk *SURVIVAL*

JUST IN ATCLASSIAN PAINTS DIRE FUTURE FOR WORKERS IN THE FACE OF AUTOMATION

# Robots will replace 250,000 government jobs -- and that's just the beginning

Is your job dull enough that a robot could do it? If so, start worrying.



By Steve Ranger | February 6, 2017 -- 14:22 GMT (22:22 GMT+08:00) | Topic: Innovation

Get your

**\$30 Trading Bonus\***

\*T&Cs apply. Forex and CFD trading is high risk and can result in the loss of all your invested capital.

Gold



[Read More](#)



0

f 374

in

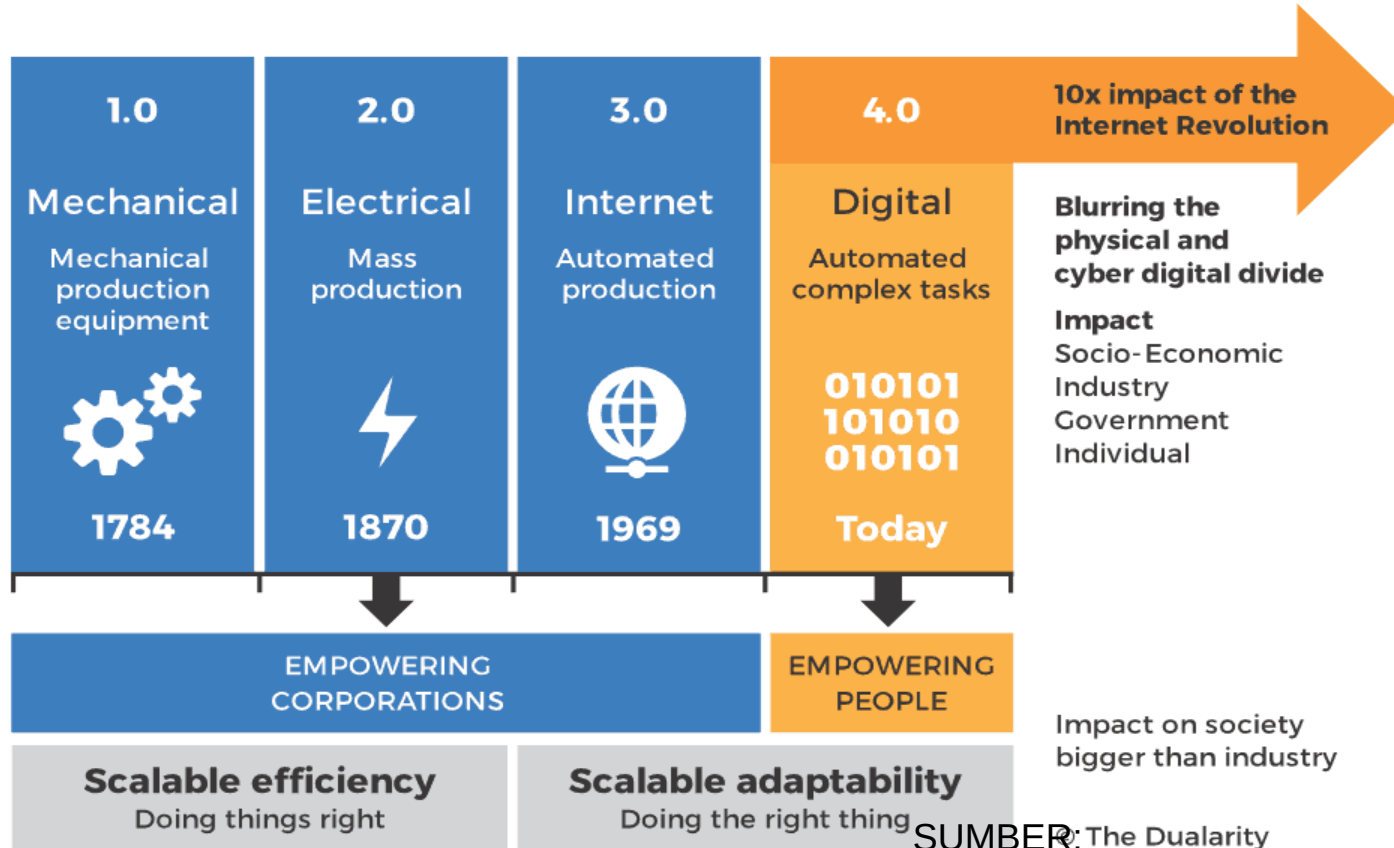


#5: '*Tools*' untuk  
*SURVIVAL*



# Welcome to the Industrial Revolution 4.0

010101  
101010  
010101



SUMBER: The Duality

3.

MENJADI  
PEMIKIR  
KREATIF DAN  
INOVATIF



$$? + ? = 10$$









Tasmania









Applaud  
the  
Jelly fish

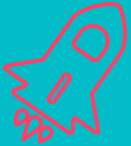


?



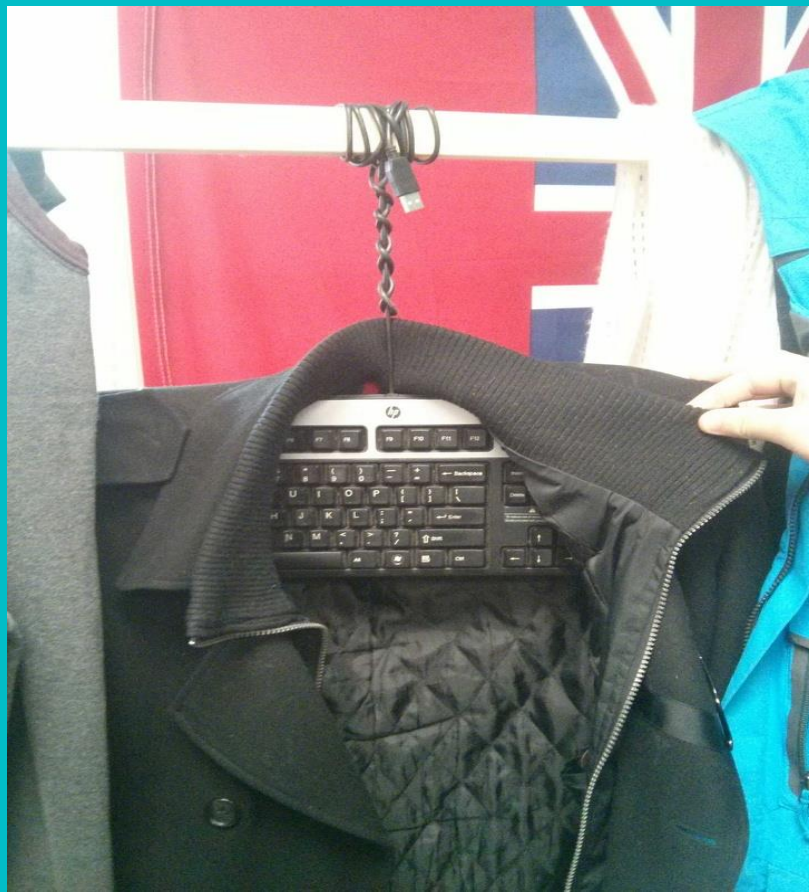
# REFRAMING

# MERANGKA SEMULA

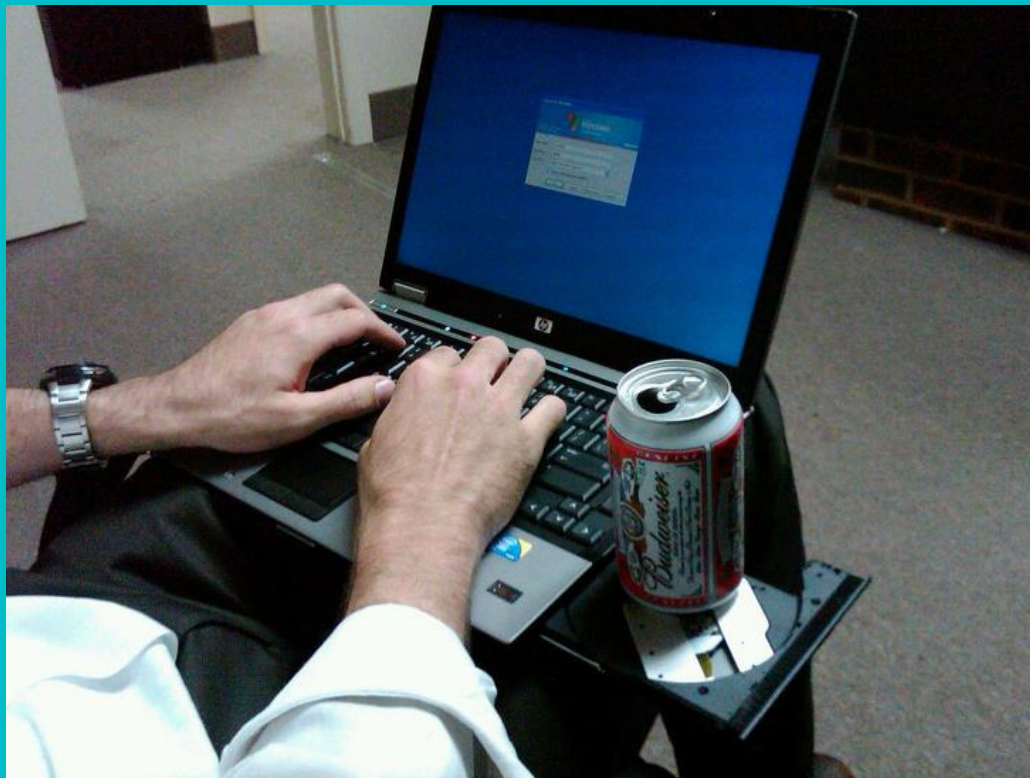




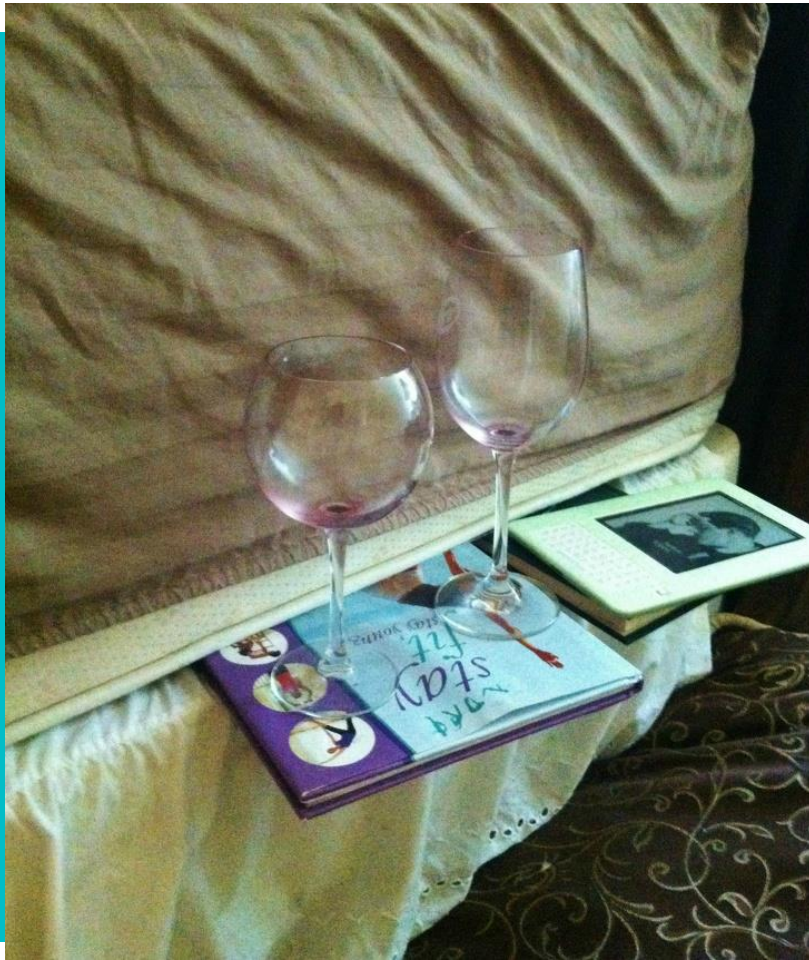








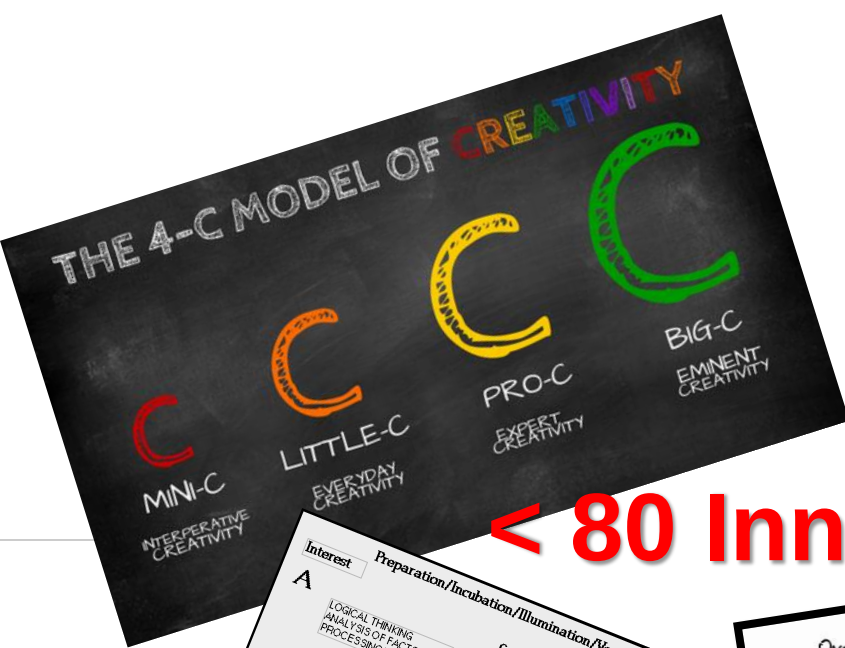




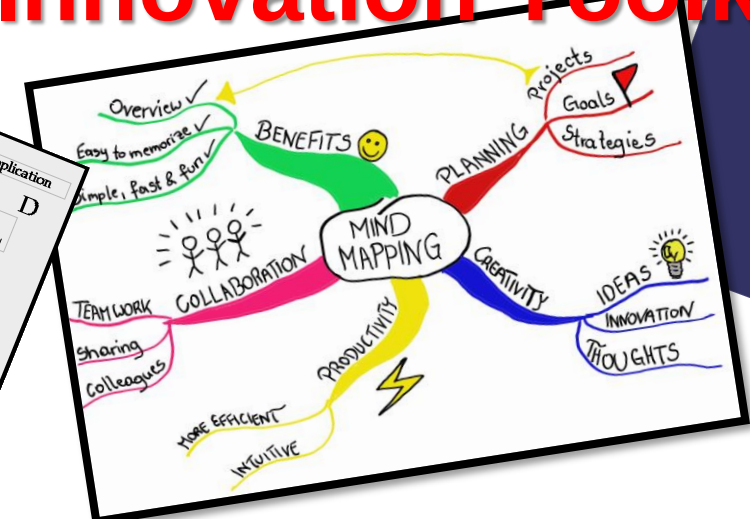
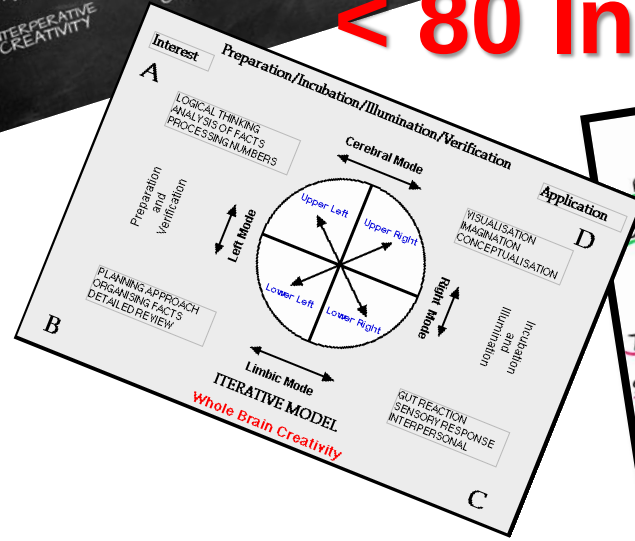


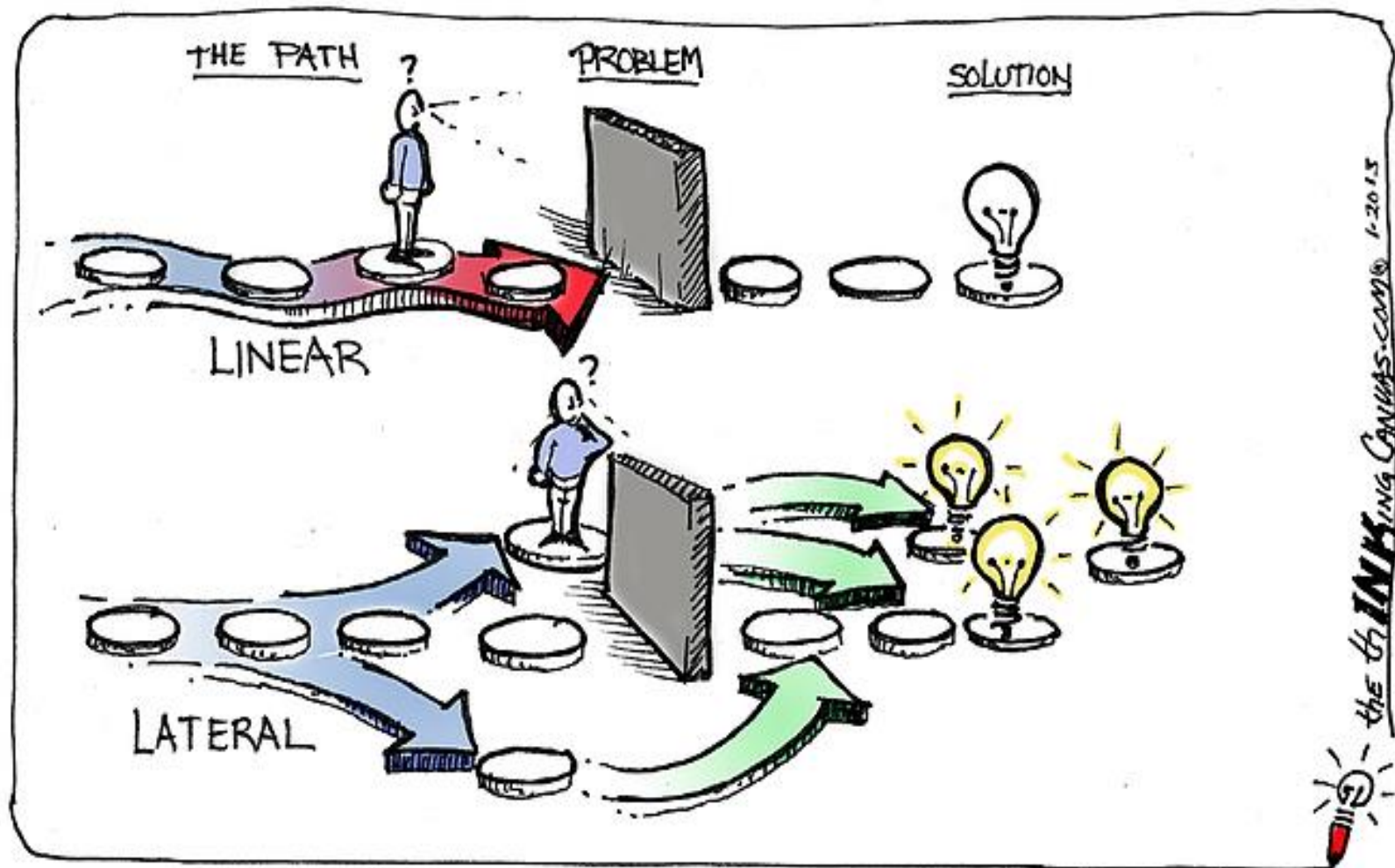






# < 80 Innovation Toolkit





# Random Stimulation

Lateral Thinking by Edward de Bono

Rangsangan Rawak



Cabaran:  
Bagaimana untuk kita  
menambah minat membaca  
rakyat Malaysia?

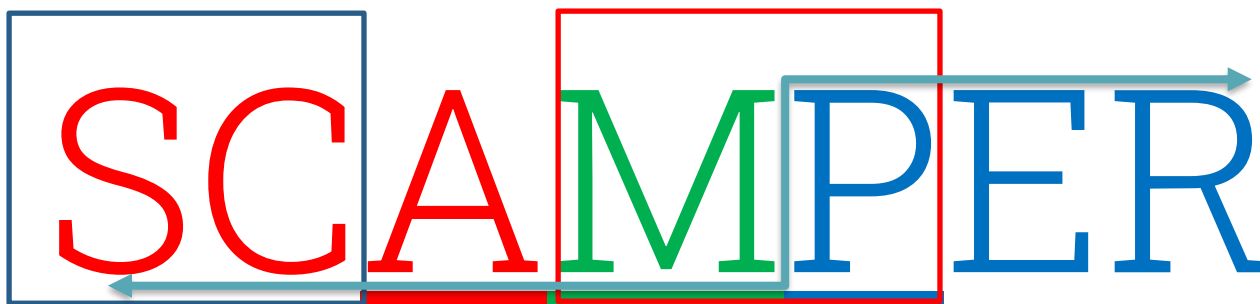


# SCAMPER

*Bob Eberle (1971) SCAMPER: Games for Imagination Development.*



SCAMPER

The word "SCAMPER" is displayed in large, bold, sans-serif capital letters. Each letter is a different color: S (red), C (red), A (red), M (green), P (blue), E (blue), and R (blue). The letters are grouped into three overlapping boxes: a blue box around "SC", a red box around "AM", and a blue box around "PER". A blue double-headed arrow is positioned below the "SC" and "AM" boxes, and another blue double-headed arrow is positioned above the "AM" and "PER" boxes.

?







The  
**NAKED**  
truth about our  
**WAITRESSES**  
is that they only  
**FLIRT**  
**WITH YOU**  
to get a better tip.

O'DONOVAN'S  
Irish pub

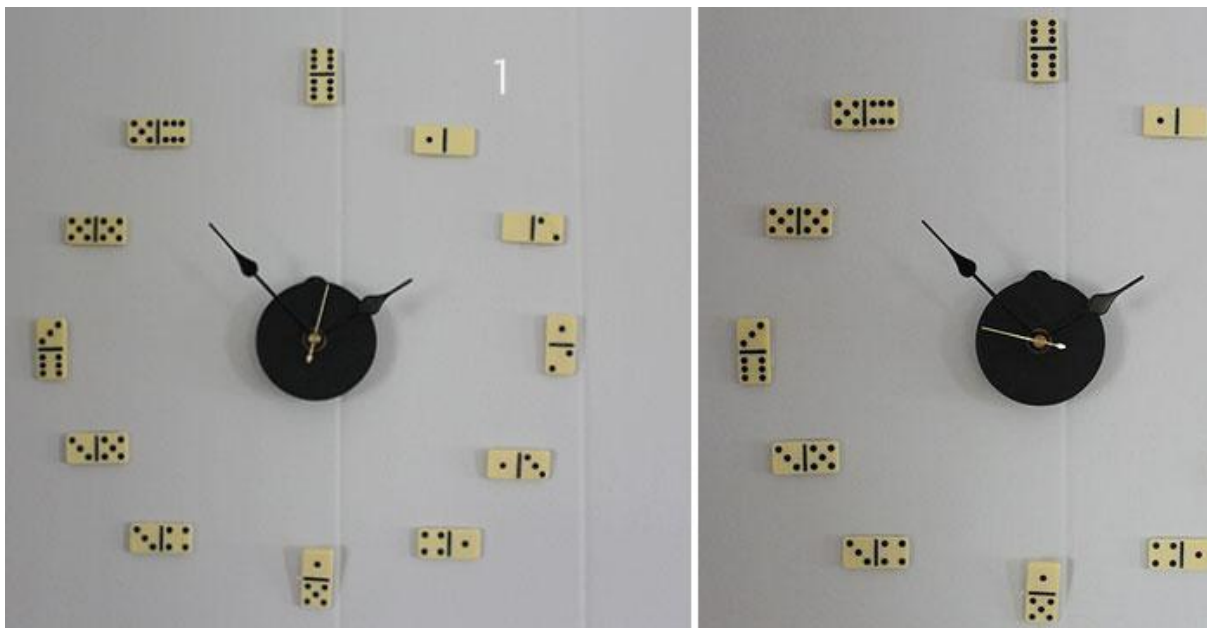


C













# GNIMROTS NIARB

*Alex Osborn (1948) Your Creative Power*



# BRAIN STORMING

*Alex Osborn (1948) Your Creative Power*





1. Moderator
2. 5-10 Ahli
3. *Warm-up*
4. Masalah Jelas
5. Set Masa
6. Ikut *Law!*



**1** Zon Anti-Menyampuk

**2** Zon 'Nasi Tambah'

**3** Zon Bebas Kritik

**4** Zon Idea Gila

**5** Zon Fokus Topik

**6** Zon Catatan Visual

**7** Zon Kuantiti

**8** Zon Positif

**9** Zon Memecut

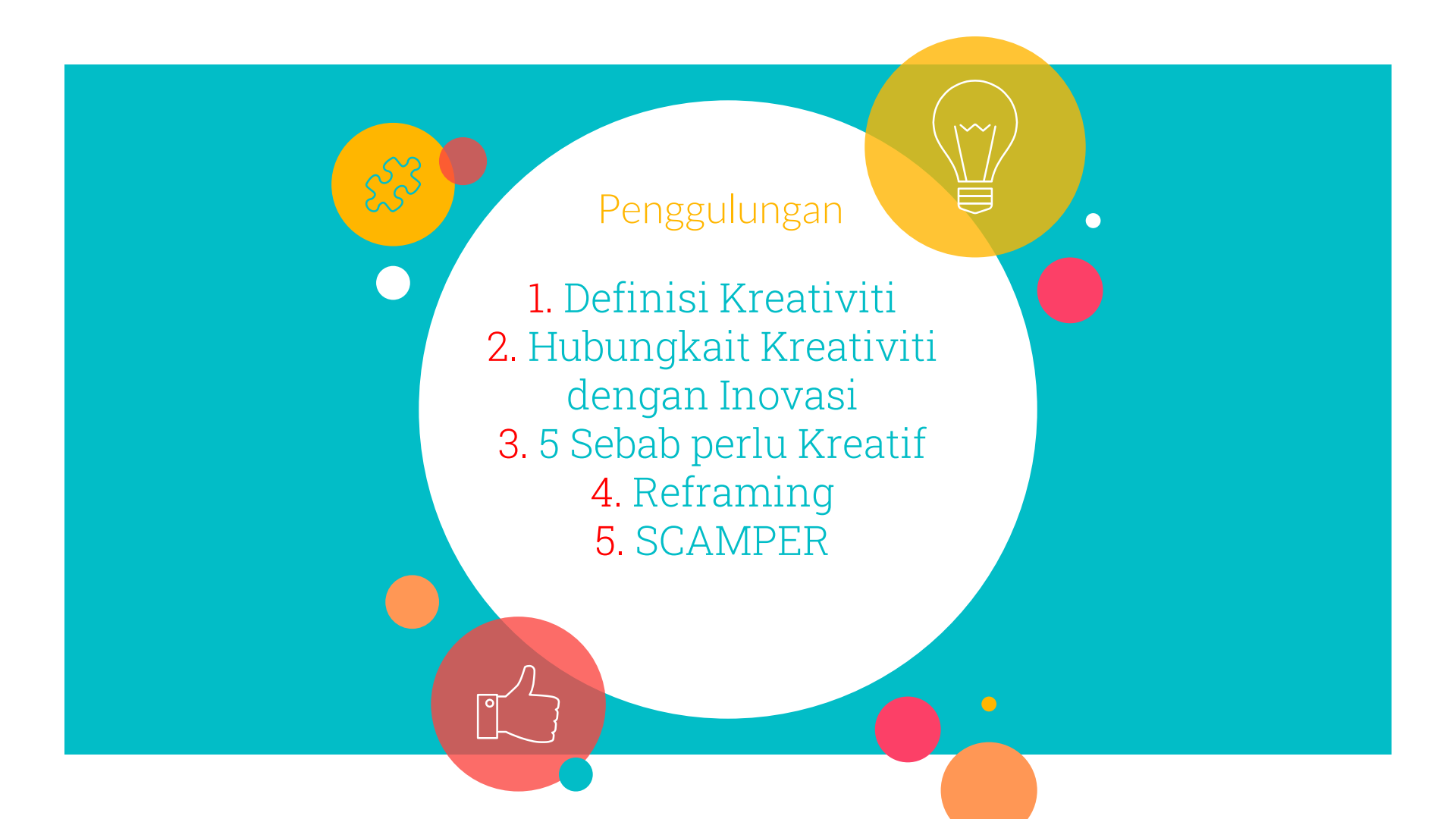
**9** Zon  
*Brainstorming*



# DIGITAL BRAINSTORMING







## Penggulungan

1. Definisi Kreativiti
2. Hubungkait Kreativiti dengan Inovasi
3. 5 Sebab perlu Kreatif
4. Reframing
5. SCAMPER



Bacaan lanjut: -

*The Art Of Creative  
Thinking: 89 Ways To  
see Things Differently*  
oleh Rod Judkins





Bacaan lanjut: -





# Terima Kasih!

## Ada Soalan?

Roslan Dasiron

[rosland@ikwas.intan.my](mailto:rosland@ikwas.intan.my)

