



## **A Quid Pro Quo: The Role of Universities in Providing Sustainable Human Capital for Industries**



Industry Relations Division  
Department of Higher Education  
Ministry of Higher Education Malaysia



-  Innovation & Higher Education
-  Graduate Employability
-  Industry Landscape
-  The Cultural Gap
-  Job Opportunity
-  Signature Program

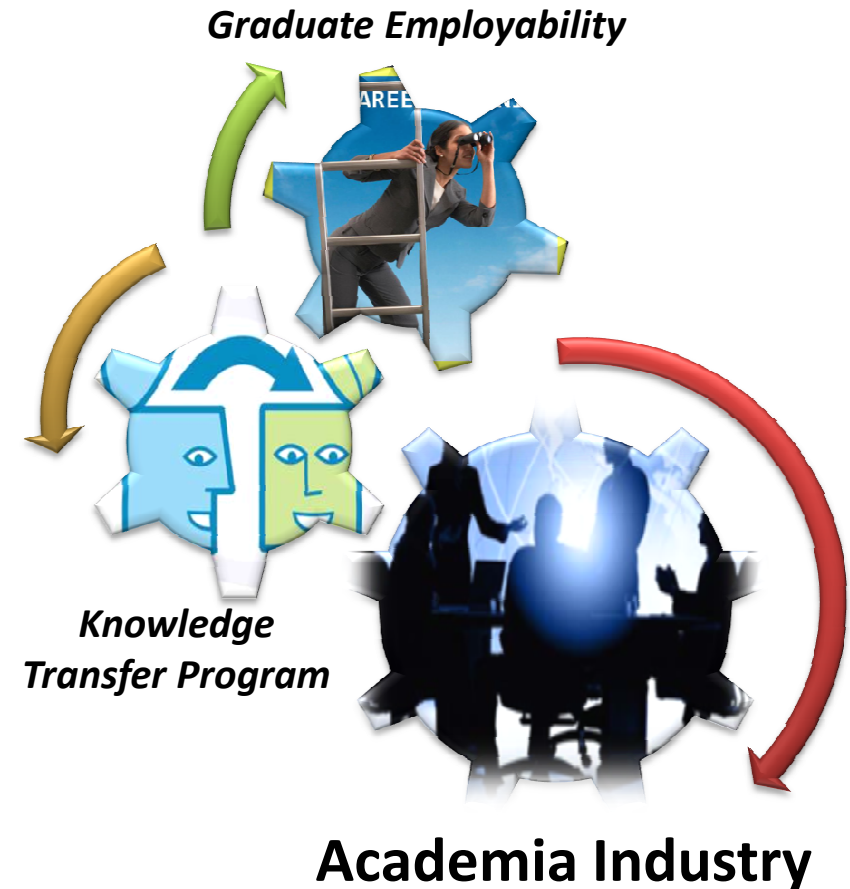
*Graduate Employability*



# **INNOVATION AND HIGHER EDUCATION**

## Critical Agenda Project

CAP	Strategic Objective
Academia – Industry	<ul style="list-style-type: none"> <li>To enhance and ensure sustainable collaborations between industries and universities.</li> </ul>
Graduate Employability	<ul style="list-style-type: none"> <li>To ensure high % of graduates being employed within 6 months of completion of studies that will contribute to national development.</li> </ul>
Knowledge Transfer Program	<ul style="list-style-type: none"> <li>To enhance and enrich knowledge transfer in IHL;</li> <li>Change agent for sustainable knowledge transfer;</li> <li>Knowledge transfer as the driver for industry and community growth</li> </ul>



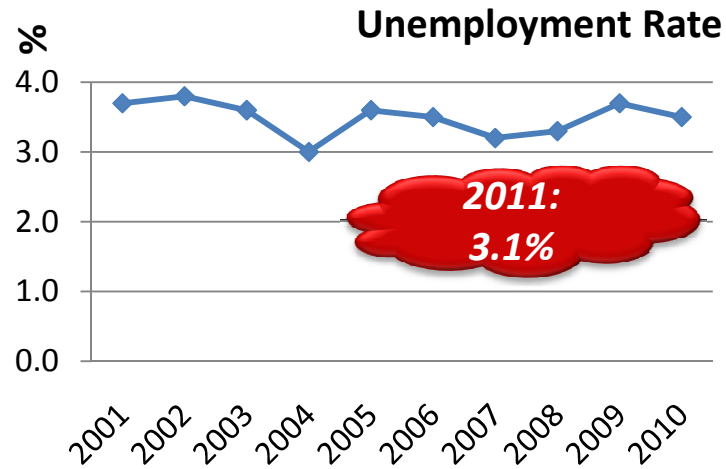


*Graduate Employability*



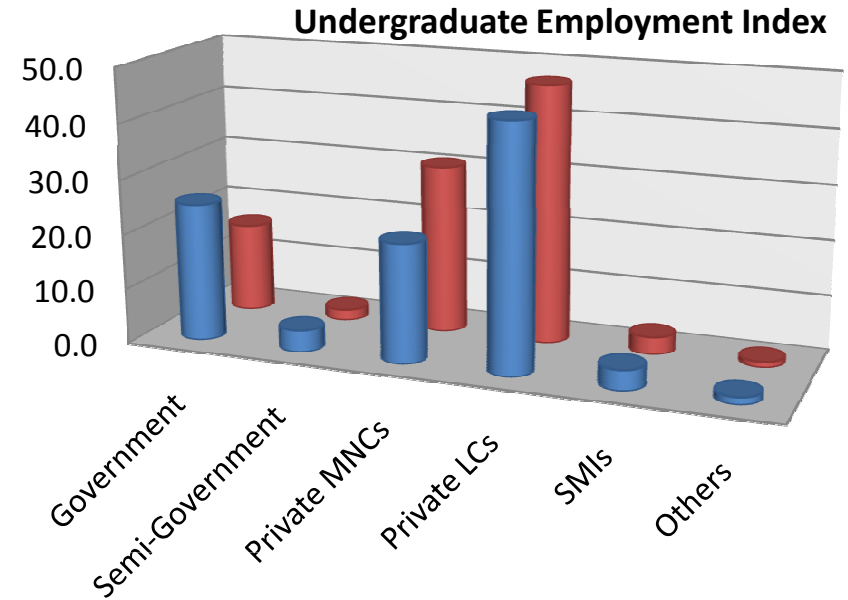
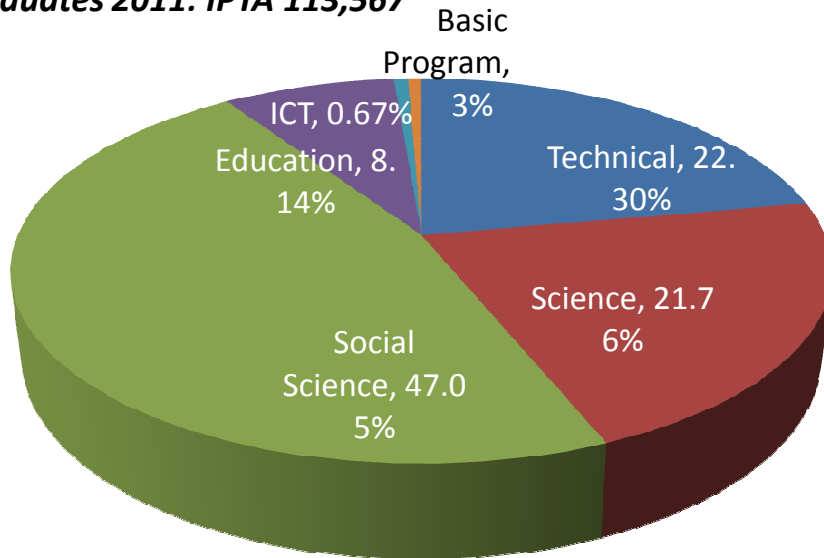
# GRADUATE EMPLOYABILITY

# Employability Status

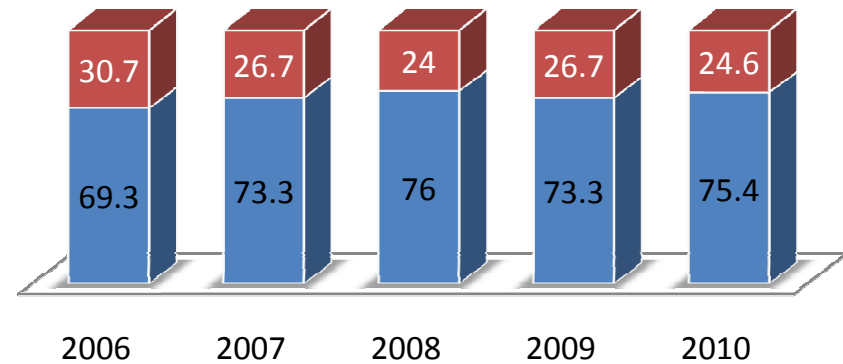


Source: DOS Dec 2011

## Graduates 2011: IPTA 113,567



Legend: Working (Blue), Not Working (Red), Public University (Blue), Private University (Red)



Source: Tracer Studies

# Employment Status

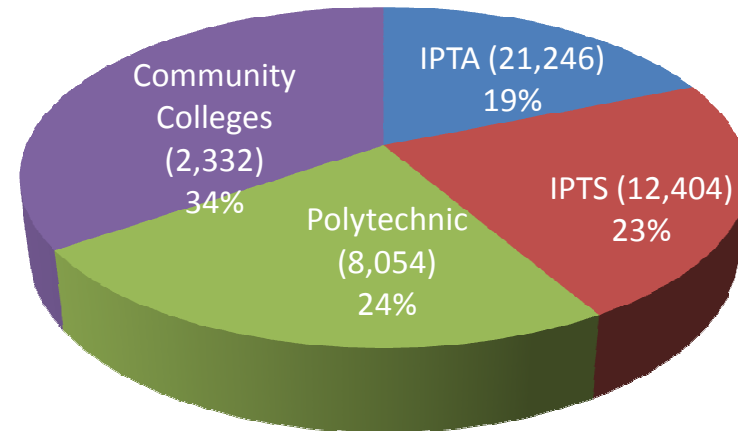
## Total 2011 Graduates

- ✓ IPTA 113,567
- ✓ IPTS 54,397
- ✓ Community College 6,627
- ✓ Polytechnic 33,310

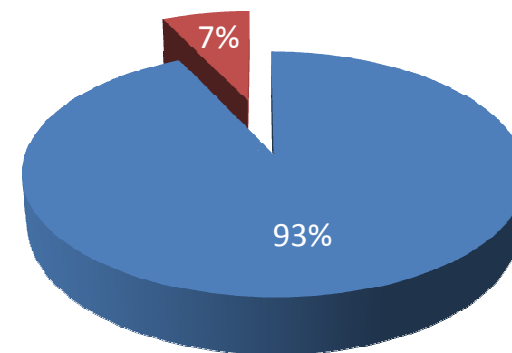
**Total 207,901**



## Unemployed Graduates based on Institution

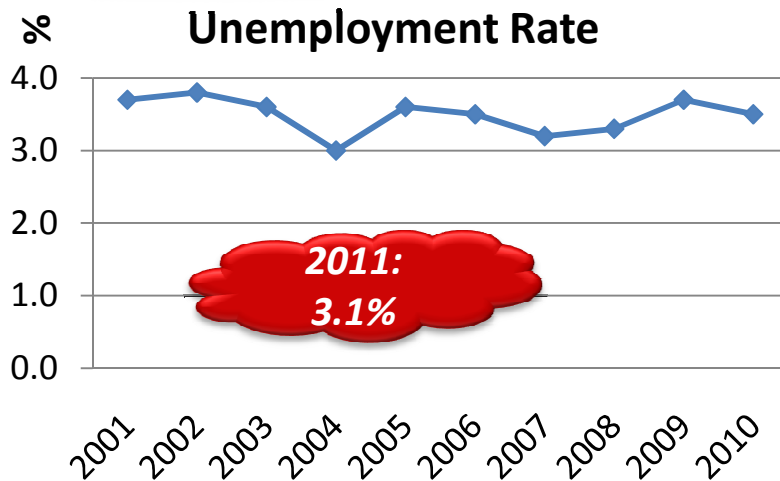


**3% Unemployment (16 - 64 aged working group) ~ 500,000 heads**



■ Others ■ Graduates

Source: DOS Dec 2011



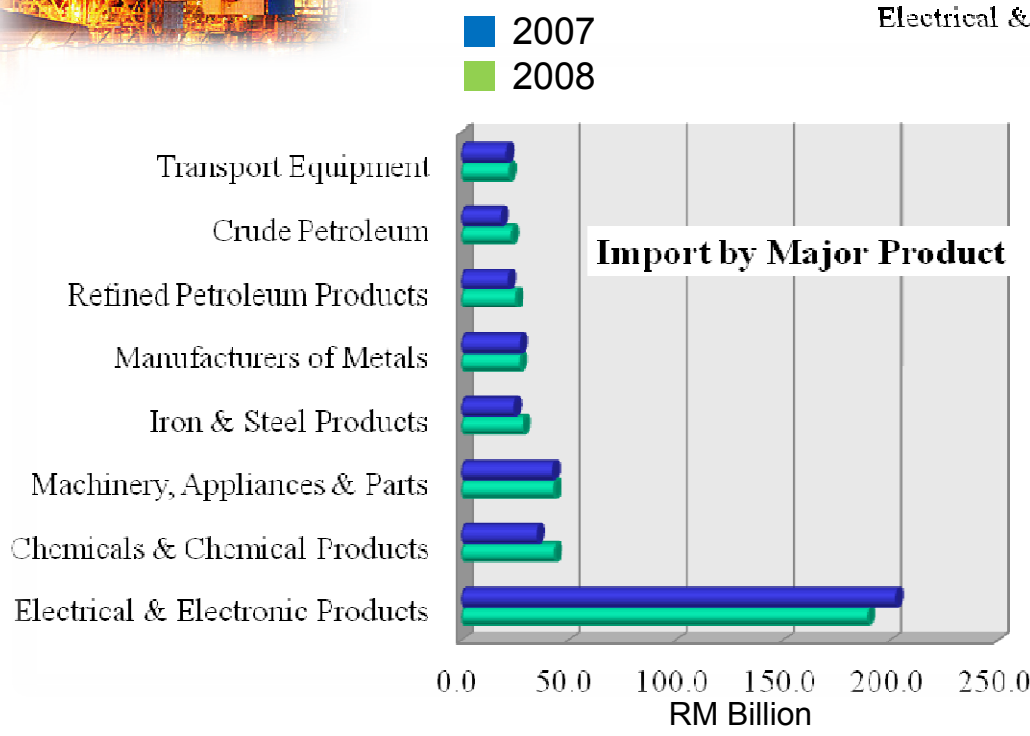
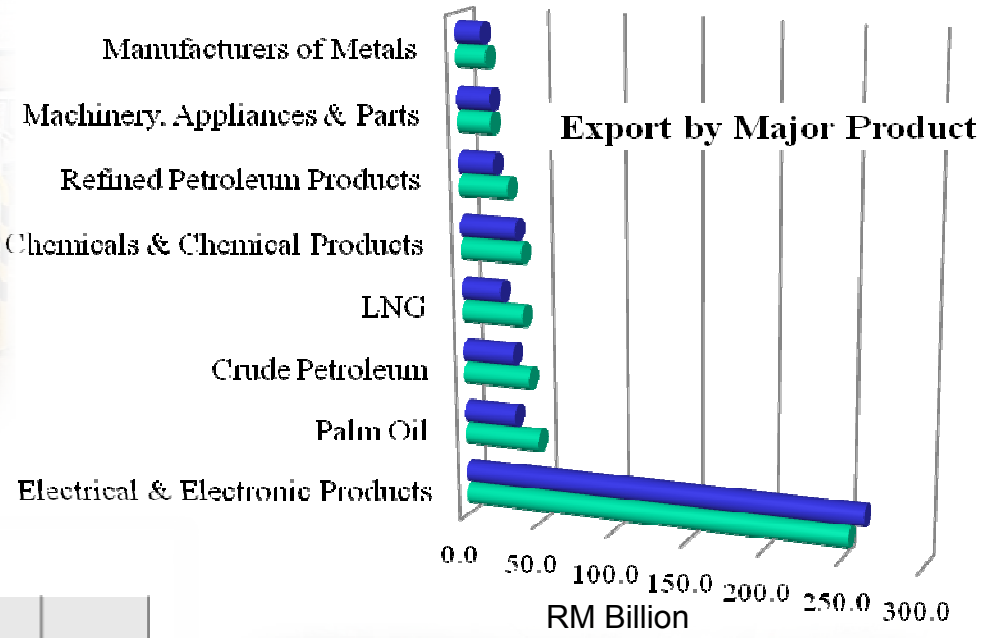
*Graduate Employability*



# **MALAYSIAN INDUSTRY LANDSCAPES**

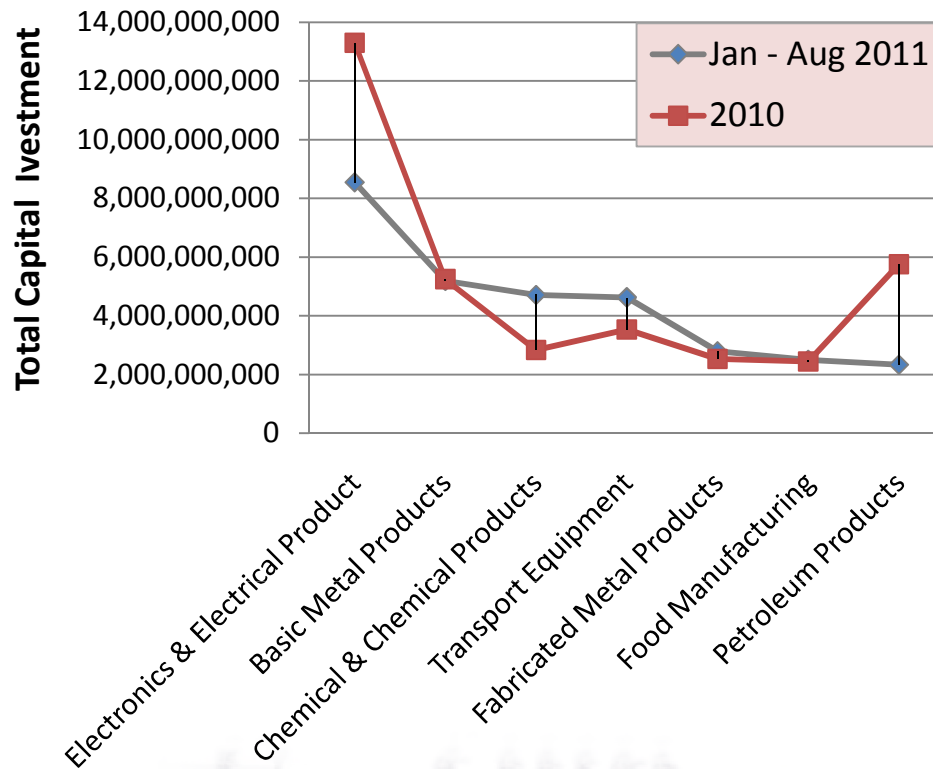


# Industrial Landscape – Historical Performance

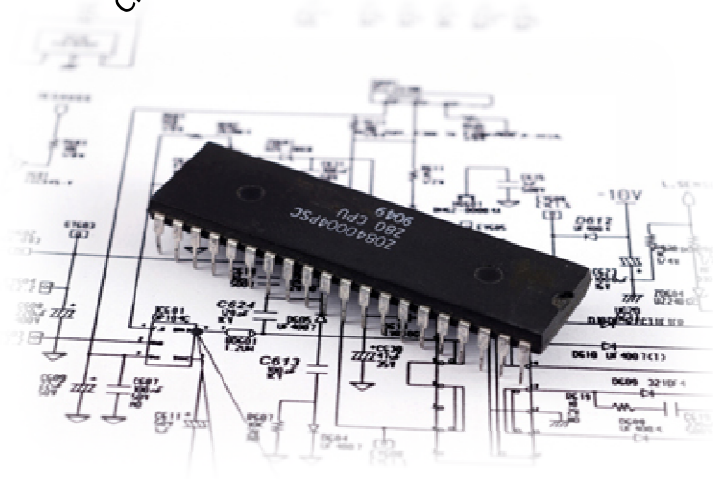
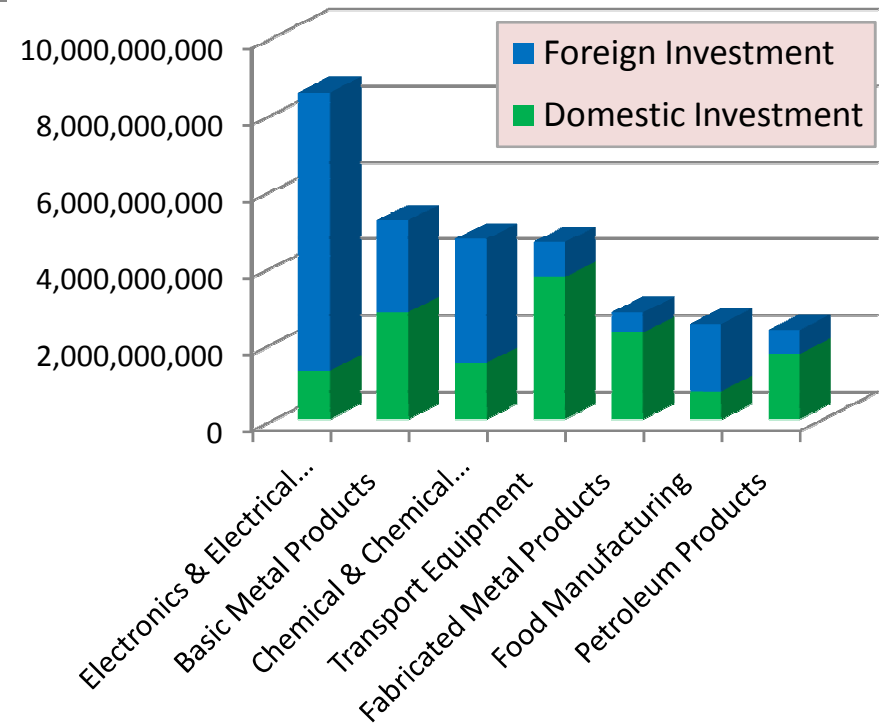


Source:  Malaysian Investment Development Authority

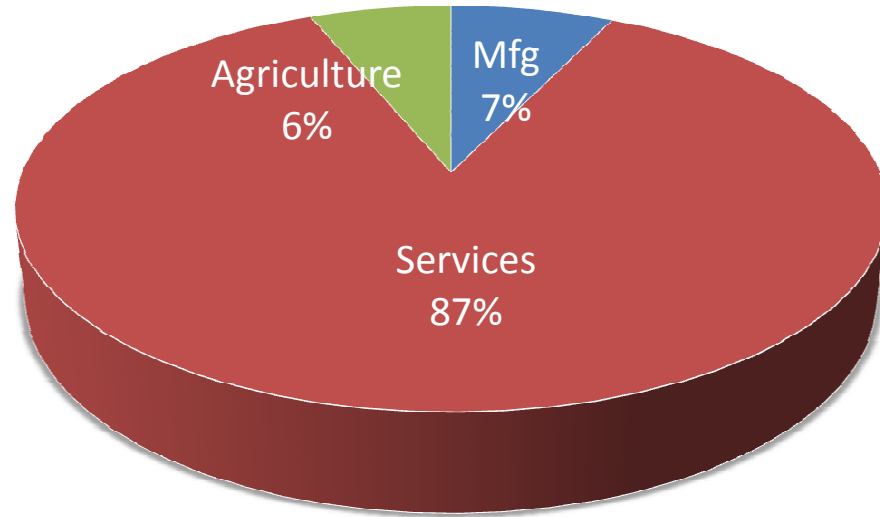
# Industrial Landscape – Investment



Source:  Malaysian Investment Development Authority

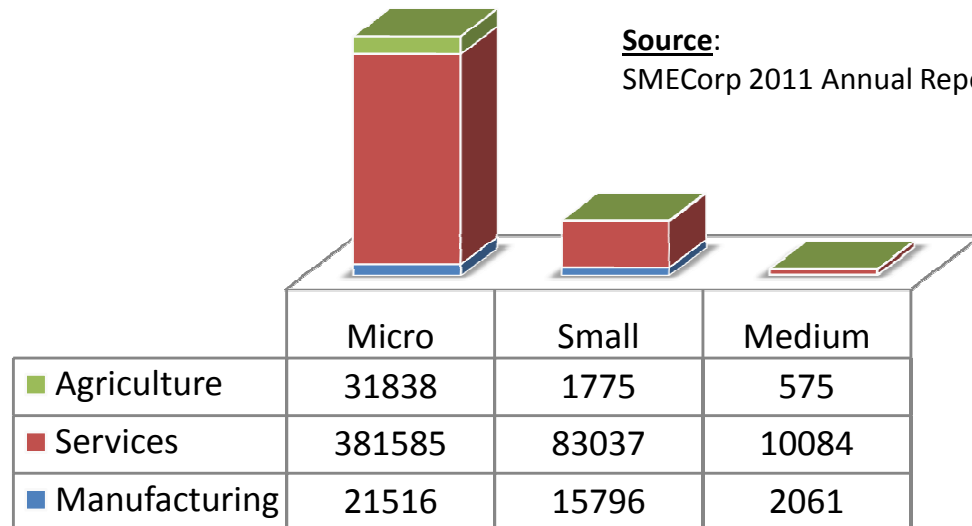


# Small & Medium Scale Industries/Enterprises



99% SMI/SME

Source:  
SMECorp 2011 Annual Report



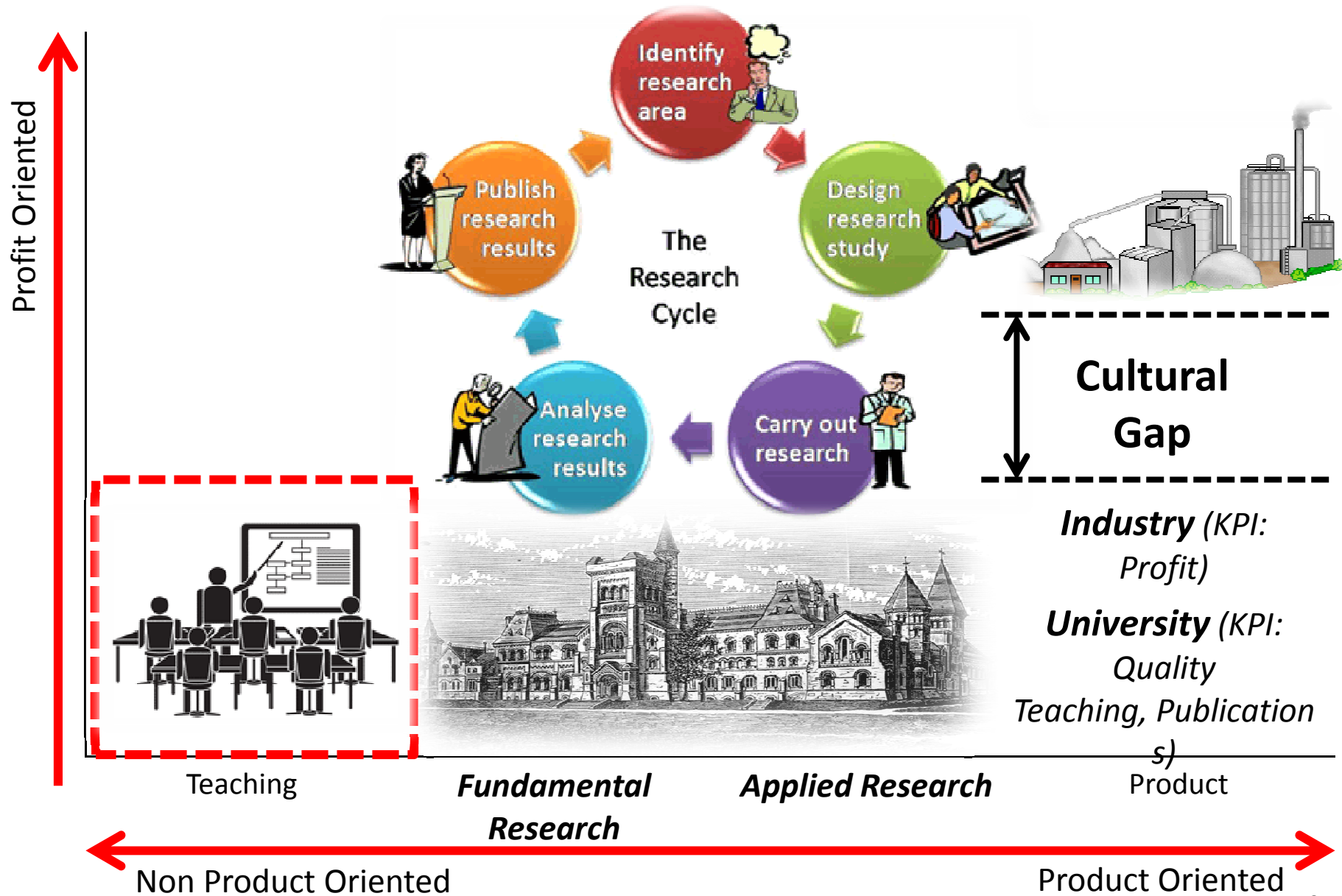
*Graduate Employability*



# THE CULTURAL GAP



# Academy – Industry Cultural Gap



# Cultural Behavior



## Industry Perception:

### 1. *Too Academic*

- Research work done for publications
- Some work conducted by students – less quality
- Priority shifted – exams

### 2. *Too Risky*

- No research without risks
- Resources for transforming lab to market

### 3. *Confidentiality*

- ‘Sharing of knowledge’ stirs doubt in maintaining confidentiality

Subject	University	Industry
Focus	Education, Research	Business – Profit
Output	Graduates, Publications	Products, Services
Knowledge	Knowledge sharing through publications	Very limited knowledge sharing
Responsiveness	Less reactive	More reactive due to market competition
Fund	Research grants mostly funded by government	Self-funded

*Graduate Employability*



# **JOB OPPORTUNITY**

## Economic Transformation Programme

### ETP focus on:

- ❑ 12 National Key Economy Areas (NKEAs)
- ❑ 131 entry point projects
- ❑ 3.3 millions new jobs by 2020
- ❑ 60% are middle & high-income jobs





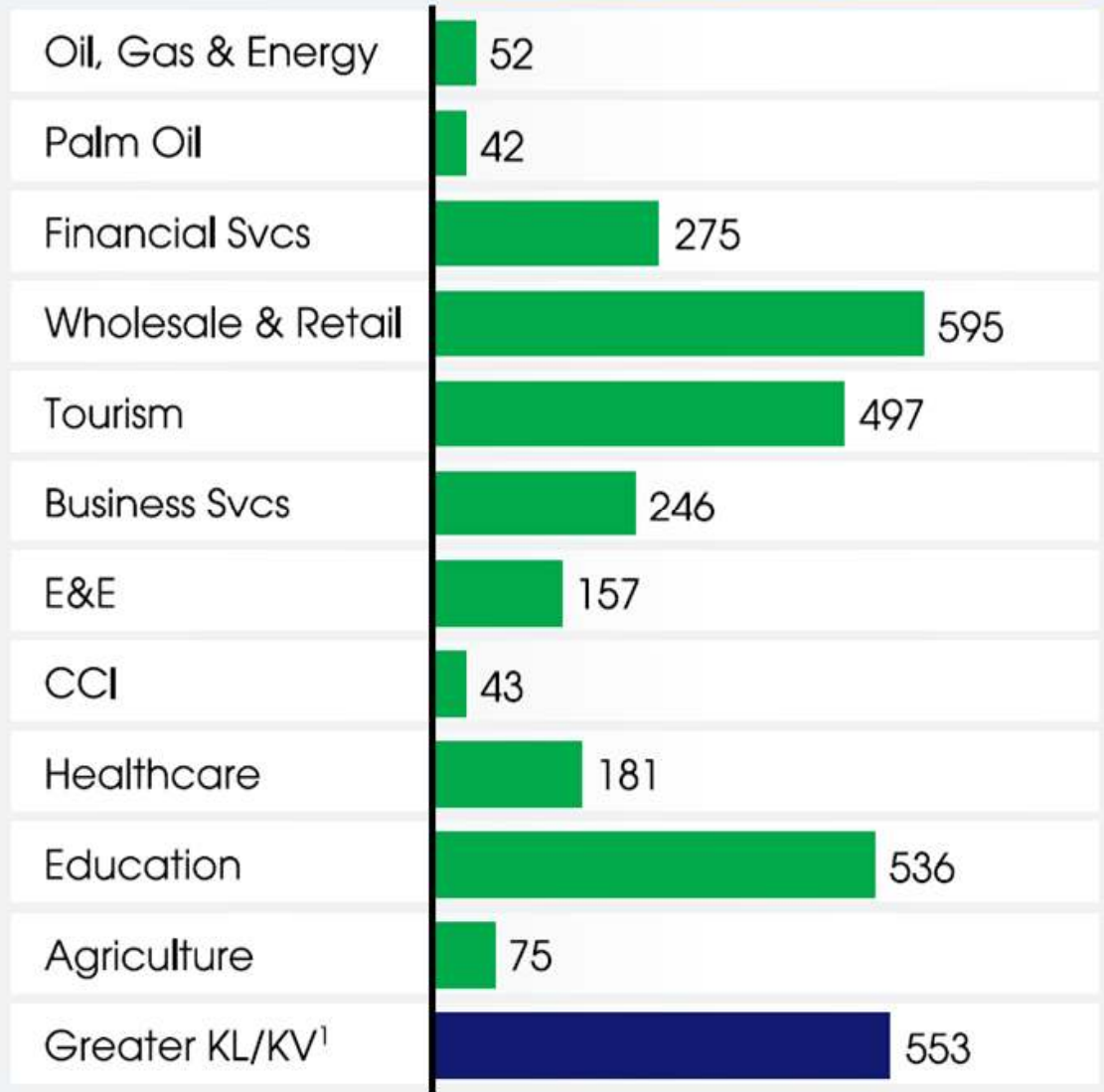


## ETP Employment Projection



**12 NKEAs:**  
**3,252,000 jobs**

**New jobs created (2020)**  
 Thousands



Source: Economic Transformation Program, 2010

# MIDA Human Capital 2011 Projection

INDUSTRY	CATEGORY OF EMPLOYMENT					TOTAL
	Managerial	Supervisory & Technical	Skilled Workers	Unskilled Workers	Sales, Clerical & Others	
Food Manufacturing	514	611	1,448	266	2,599	5,438
Beverages & Tobacco	12	20	42	10	65	149
Textiles & Textile Products	82	93	838	56	287	1,356
Wood & Wood Products	220	265	1,113	93	1,503	3,194
Furniture & Fixtures	201	346	1,213	836	2,883	5,479
Paper, Printing & Publishing	169	122	774	223	812	2,100
Chemical & Chemical Products	388	637	1,019	0	932	2,976
Petroleum Products (Inc. Petrochemicals)	49	137	148	0	71	405
Rubber Products	152	128	2,304	49	1,615	4,248
Plastic Products	432	223	1,648	155	574	3,032
Non-Metallic Mineral Products	126	272	709	472	273	1,852
Basic Metal Products	513	824	3,456	42	1,818	6,653
Fabricated Metal Products	333	428	1,508	448	1,436	4,153
Machinery & Equipment	436	587	1,561	508	844	3,936
Electronics & Electrical Products	1,436	7,620	17,225	8,478	7,929	42,688
Transport Equipment	799	1,208	5,885	34	1,801	9,727
Scientific & Measuring Equipment	151	203	1,078	84	100	1,616
Miscellaneous	97	58	723	139	514	1,531
<b>TOTAL</b>	<b>6,110</b>	<b>13,782</b>	<b>42,692</b>	<b>11,893</b>	<b>26,056</b>	<b>100,533</b>

*Graduate Employability*

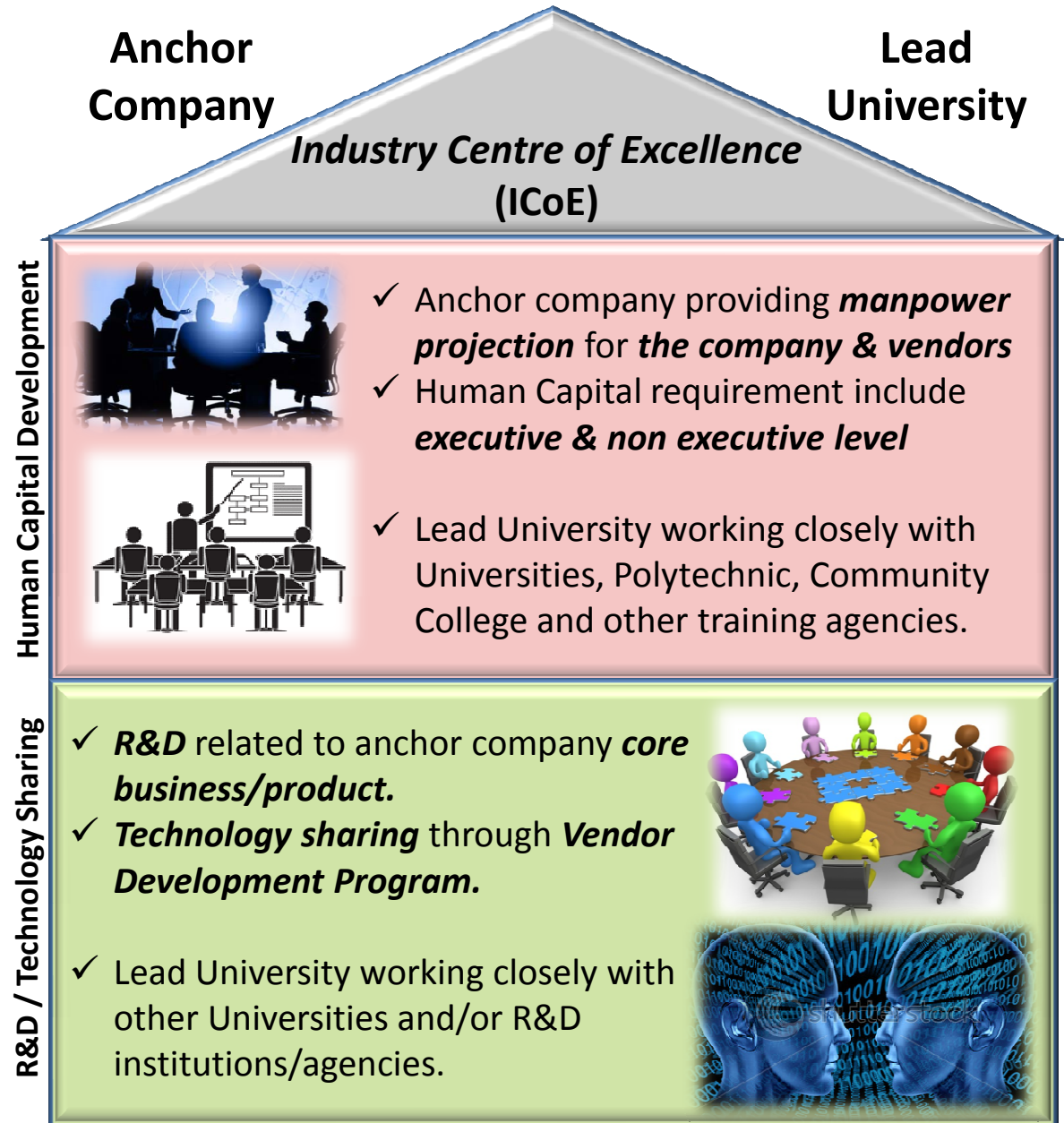


# **SIGNATURE PROGRAM**

## Signature Program 1

### Industry Centre of Excellence

- Electrical & Electronic
- Automotive
- Oil & Gas
- Wholesale, Retail & Distribution



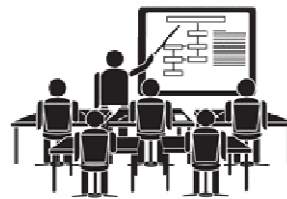
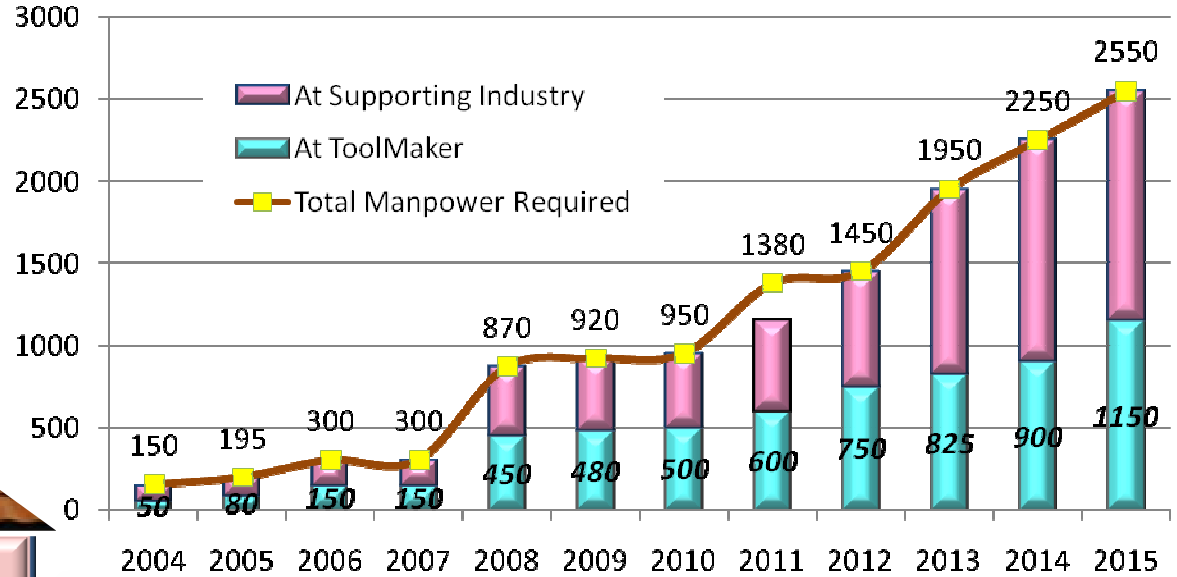
# ICoE Case Example 1



**ICoE Miyazu**



## MIYAZU-HCD PROJECTION 2011-2015

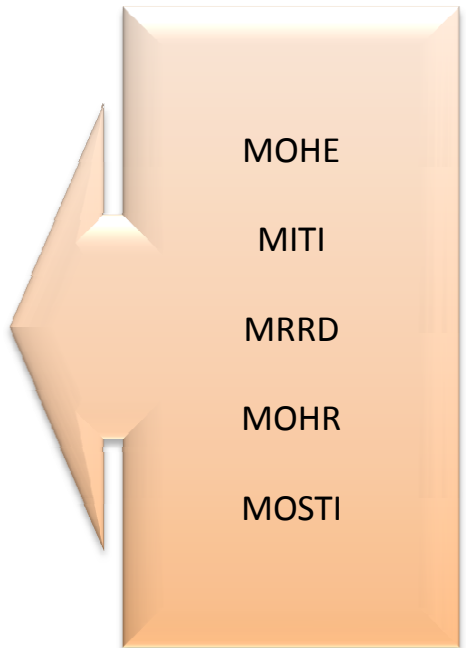


**Human Capital Development**



**Research, Innovation & Commercialization**

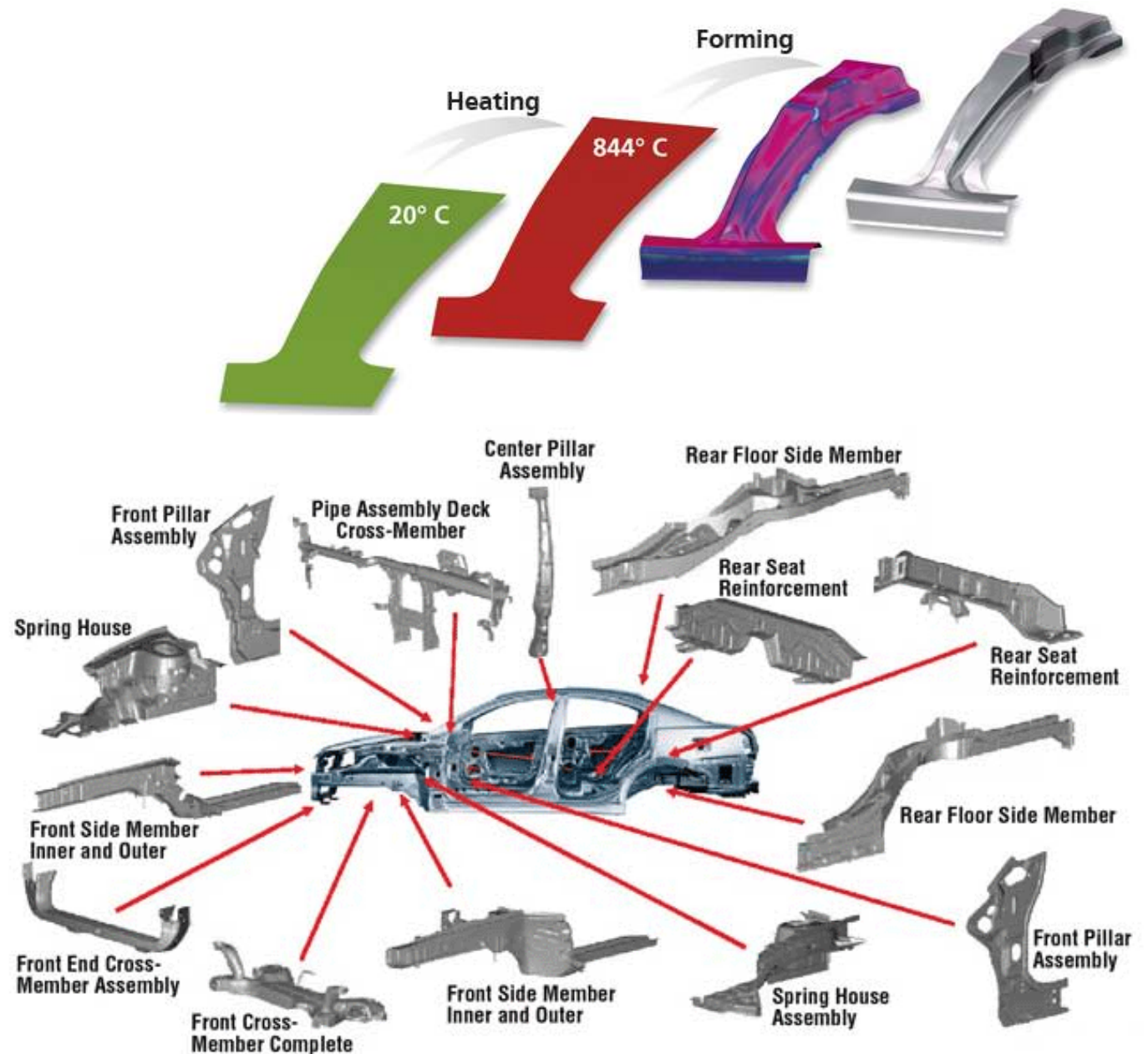
**UMP & MIYAZU**





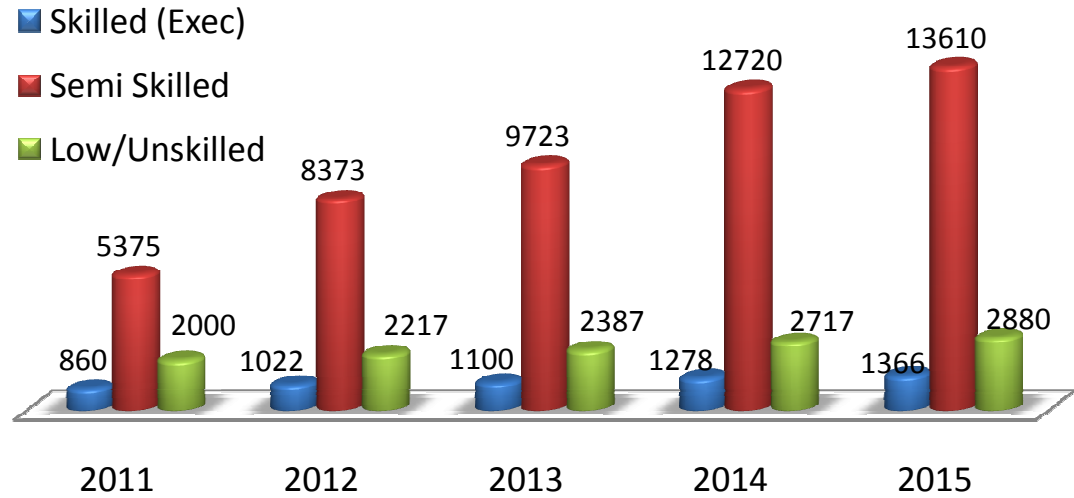
## Hot Forming

*Hot forming processes* have become important for the automotive industry to meet specific requirements regarding *a higher level of crash safety* and *a reduction of overall weight*.





## ICoE Case Example 2



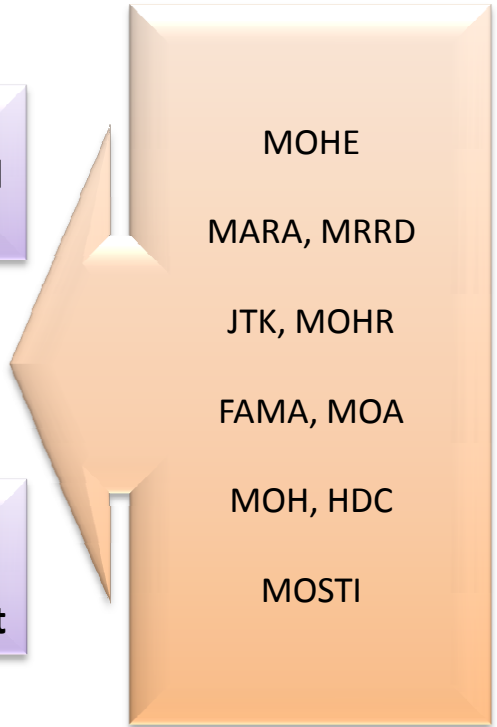
**UiTM &  
Mydin Retail  
Academy**

*Human Capital Development*

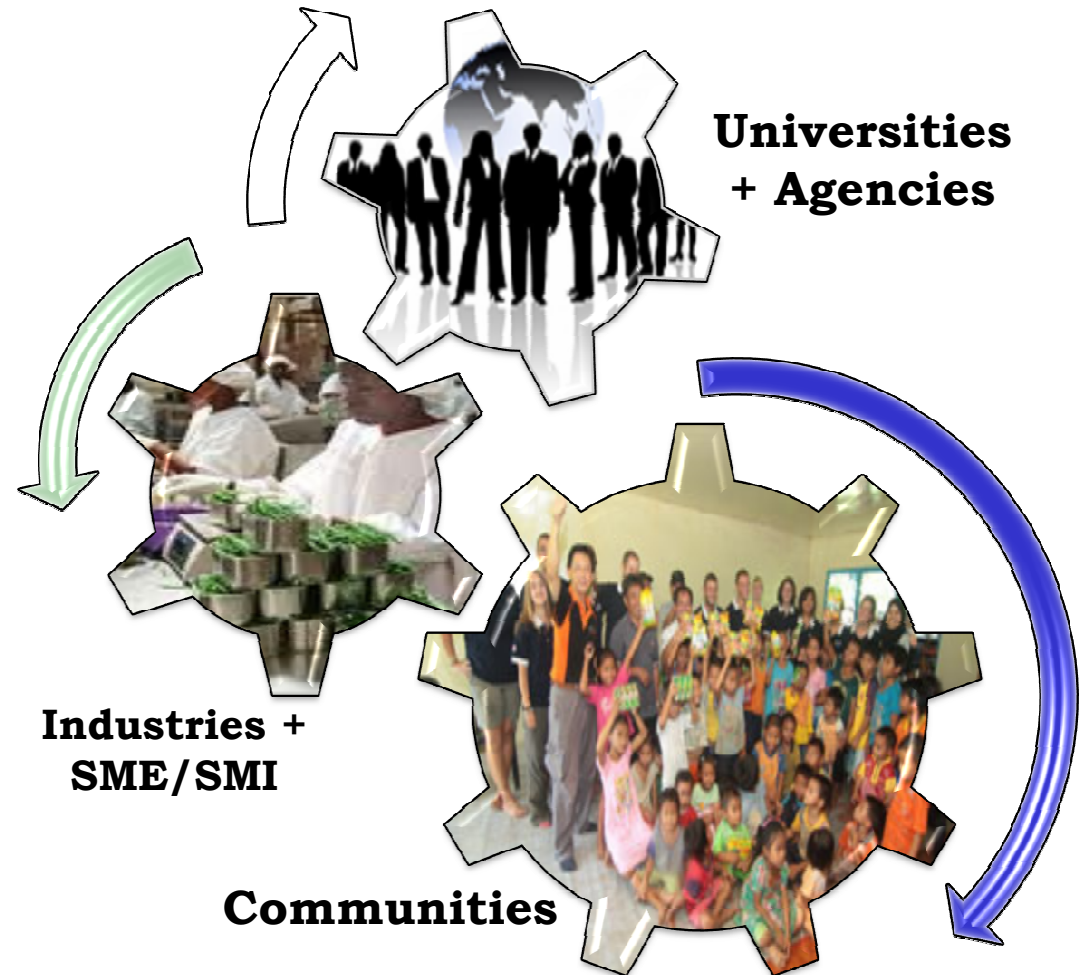


**UUM &  
Mydin  
Procurement**

*Technology Sharing  
(Vendor Development Program)*



## Technology Sharing



## Case Example 1

Alima C. Mohamed, Barokah  
Segera Enterprise, Bukit  
Chabang, Padang Besar, Perlis.

Once a Department of  
Community Welfare dependent.

Frozen Food, Cake & Bread Short  
Course graduate

- ❑ Previously inconsistent earning of RM400/month through cooked/fried product because of no frozen food knowledge.
- ❑ Current earning: RM4000 – RM5000/month





## Case Example 2

1. Mat Jaya Haron, CT Komuniti Enterprise, Kg. Sg. Utan Aji, Kangar, Perlis.
2. Food Processing Short Course graduate.
  - Inconsistent income earning of ~ RM600/month through sharing a 'warong lot' making and selling 'roti canai'.
  - With the production and supplies of the soya and chili sauce to surrounding retailers, monthly income earned – RM1500 to RM2000/month



## Signature Program 2

### 1. Campus Connect

- ❑ ICT based

1. Addressing the **market requirements**:

*a. IBM Hardware – UMP*

*b. IBM Software – KTAR*



University  
&  
Software / Hardware  
Company



Other Universities  
Polytechnic  
Community Colleges  
MARA, MRRD  
JTK, MOHR  
MDEC, MOSTI  
Participating **Customers**  
providing Internship & work  
placement

## ICoE established and in the Pipeline



### 1. Electrical & Electronic

- a. *Silterra and MTUN*
- b. Infineon Kulim & UniMAP
- c. Infineon Melaka & UTEM

### 2. Automotive

- a. Sapura & UMP
- b. Miyazu & UMP

### 3. Oil & Gas

- a. *Malaysian Petroleum Resources Corporation and UTM*

### 4. Wholesale, Retail & Distribution

- a. Mydin and UiTM/UUM
- b. MRCA and UUM







**KPT**  
KEMENTERIAN PENGAJIAN TINGGI

**THANK YOU**