



MINISTRY OF HUMAN
RESOURCES



Empowering Human Capital for the Future Jobs

*UNDER SECRETARY, POLICY DIVISION
MINISTRY OF HUMAN RESOURCES*

23RD APRIL 2019

**CONFERENCE ON FUTURE OF WORK, FUTURE SKILLS AND THE LAUNCHING OF
LMI GATEWAY & ELECTRONIC TRADE UNION INFORMATION SYSTEM (e-TUIS)**

CONTENT



- **Challenges of the Future of Work**
- **Industrial Revolution 4.0's Impact on Malaysia**
- **Labour Market Outlook and Prospects**
- **Future of Work – a Human Centered Agenda**





01 CHALLENGES OF THE FUTURE OF WORK

65%

of children entering primary school today will end up working in completely new job types that don't yet exist¹

54%

of all jobs in Malaysia could be at high risk of being displaced by technology in the next two decades²



Source:

1. *The Future of Jobs* (World Economic Forum, 2016)

2. *The Times They Are A-Changin': Technology, Employment, and the Malaysian Economy*, Khazanah Research Institute (2017)

Five megatrends disrupting the way people work



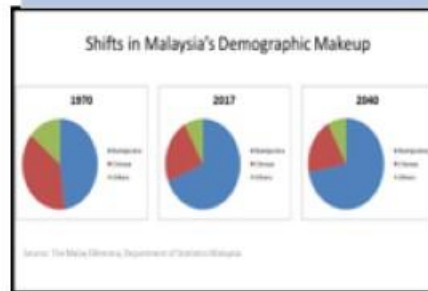
1

Rapid urbanisation



2

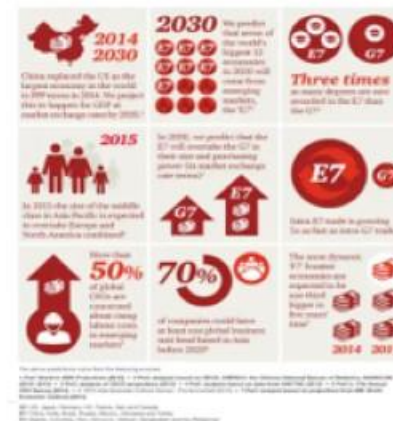
Demographic shifts



3

Shifts in global economic power

Shift in global economic power
Did you know?



4

Resource scarcity & climate change

5

Technological breakthroughs

- People & the Internet
- Computing, communications & storage everywhere
- The Internet of Things
- Artificial Intelligence (AI) and big data
- The sharing economy & distributed trust
- The digitization of matter e.g. 3D printing

Comparing Skills Demand : 2018 vs 2022



Occupations on the Rise



Data Analysts and Scientists

Software and Applications
Developers

Ecommerce and Social Media
Specialists

Customer Service Workers

Sales and Marketing
Professionals

Training and Development

People and Culture

Organizational Development
Specialists

Innovation Managers

AI and Machine Learning
Specialists

Big Data Specialists

Process Automation Experts

Information Security Analysts

User Experience and Human-
Machine Interaction
Designers

Robotics Engineers

Blockchain Specialists

- Among the range of roles that are set to experience increasing demand in the period up to 2022 are established roles such as:
 - ✓ *Data Analysts and Scientists*
 - ✓ *Software and Applications Developers*
- Also expected to grow are roles that leverage distinctively 'human' skills such as *Customer Service Workers and Sales and Marketing Professionals*
- Accelerating demand for a variety of wholly new specialist roles related to understanding and leveraging the latest emerging technologies such as AI and Machine Learning Specialists.



02 INDUSTRIAL REVOLUTION 4.0'S IMPACT ON MALAYSIA

Impact of Industrial Revolution 4.0



01 WORK

Routine, repetitive, predictive work being displaced by automation and algorithm

02 WORKPLACE

New technologies are enabling workplace innovations

03 WORKFORCE

The nature of the contract between employer and employee is changing

Effects of IR 4.0 in production and employment

Changes in geography of production, distribution and value chains, employment types

- 50% automation will lead to some reduction in their full-time workforce by 2022
- 38% expect to extend their workforce to new productivity- enhancing roles.
- 25% expect automation to lead to creation of new roles in organisations
- **75 million jobs** estimated to increase by 2022
- 59% employers expected to modify on their composition of value chain
- 50% expect to modify geographic base of operations
- 74% will prioritise the availability of skilled local talent
- **1.74 million jobs** may be displaced by a shift in the division of labour between man and machine

Source:

The Global Risks Report 2017 (World Economic Forum, 2017)

The Future of Jobs Report (World Economic Forum, 2018)

Malaysian Jobs at Risk of Automation



4 out of 5 jobs at high risk of displacement by technology are semi-skilled

More than 70% of semi-skilled and 80% of low-skilled jobs – including clerical support workers, sales worker, and many semi-skilled and elementary occupations in manufacturing, construction and agriculture



Malaysian companies are already evolving



- Three examples of company that are already opting for automation



- APAS: a robot which work hand-to-hand with the human colleagues
- RFID technology: a tracking system of the product manufactured along the supply chain, for logistic optimization
- Smart glasses: technical aids for QS of the product.



- Digi alt.hr, a one-stop mobile app for all human resource needs.
- Digi Maker Lab, a dedicated space to nurture innovators and embrace the innovation 360° culture among their employee
- Digi Digital Day, a one-day event dedicated to inspire their employee to learn and discover new technologies and digital services.



- AIA iPoS- It's a business solutions tool that enables policies to be underwritten and processed in less than an hour.



Sources:

<http://www.digi.com.my/sustainability/winning-team.html>

https://www.aia.com.my/content/dam/my/en/docs/pressreleases/2013/AIA_press_release_20130515_v2.pdf



03 LABOUR MARKET OUTLOOK AND PROSPECTS

Labour Market Outlook and Prospects



HAYS Recruiting experts
worldwide

According to Hays, the following are the top 10 talent trends for Malaysia in 2019:

No.	Talent Trends	Key Explanation
1	Surge in Accountancy & Finance positions	<ul style="list-style-type: none">Malaysia remains a key destination for more MNCs to invest in large Shared Service Centers (SSCs), that houses almost their major finance function to support their offices both locally and across the APAC area.The demand for finance professionals skilled in accounts payable, accounts receivable and general ledger will continue to grow in the coming years.
2	Positive outlook for tax-related roles	<ul style="list-style-type: none">The new SST has now been implemented and the market is expected to pick up again in terms of hiring on professionals with transfer pricing knowledge in addition to the new SST mechanics.
3	New horizons for legal candidates	<ul style="list-style-type: none">Rapid growth in fintech and e-commerce is causing increasing demand for lawyers who have experience in dealing with intricate and complicated software and hardware agreements.
4	Compliance, risk and governance roles more vital than ever	<ul style="list-style-type: none">Banking regulatory changes has resulted in a boost in demand for audit risk compliance, cyber security and HR governance talents.
5	Agile talents are becoming the mainstream	<ul style="list-style-type: none">Businesses are increasingly looking for individuals who are heavily process-driven with an agile and independent mindset to adapt in working environments as of start-ups.Employers will need to start training and developing potential talent, as well as establishing learning and development teams that create more robust programmes to fill the widening talent gap in technical areas.

Labour Market Outlook and Prospects



HAYS Recruiting experts
worldwide

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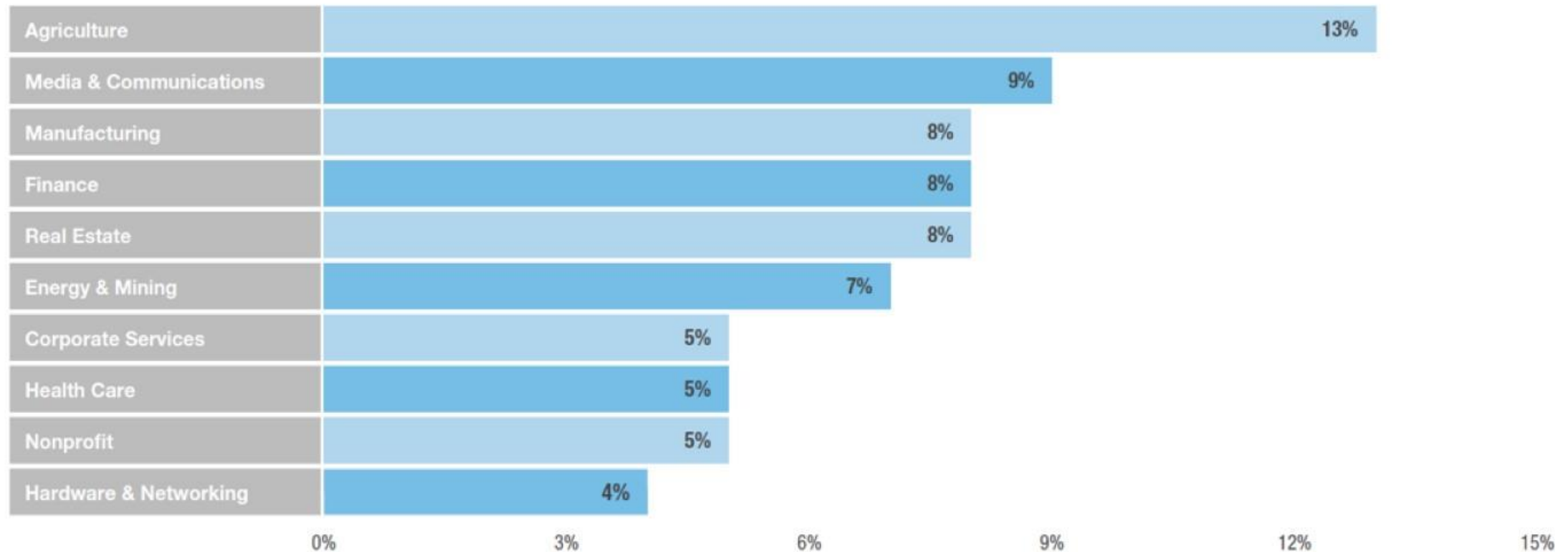
No.	Talent Trends	Key Explanation
6	Transforming nature of the IT industry	<ul style="list-style-type: none">With the advances in technologies such as artificial intelligence (AI) and machine learning (ML), businesses are leveraging on data analytics for their process improvement and efficiency.The creation of new roles such as AI Developer, Machine Learning specialist or data scientist will be a common trend in the labour market.
7	The boom in SME and e-commerce platforms	<ul style="list-style-type: none">SME and E-commerce platform scene is expected to rise in 2019 thanks to government policies supporting the National Industry 4.0 Policy Framework, including the creation of the Digital Free Trade Zone (DFTZ).
8	Evolving role of a CFO	<ul style="list-style-type: none">Companies are leaning towards having CFOs who contribute to the strategic financial direction of a business on top of overseeing functions such as sales, marketing and procurement.
9	Buoyant IT job market	<ul style="list-style-type: none">The demand for development skills with mobile development, .net and java knowledge remain in high demand.Companies are on the lookout for ERP candidates in the market, as well as project managers and heads of IT.
10	Data savvy talents desirable in Manufacturing & Operations	<ul style="list-style-type: none">Within manufacturing & operations, businesses are increasingly requiring talents with high analytical and strategic thinking.

The rise in digital transformation is driving demand for talent



Malaysia's agriculture and manufacturing sectors are also starting to use digital tools like sensors and technologies like IoT to capture data for quality control. Digitally skilled professionals are increasingly being hired in Malaysia, even across more traditional sectors.

Top 10 Growth Industries in Digitally Skilled Hires*



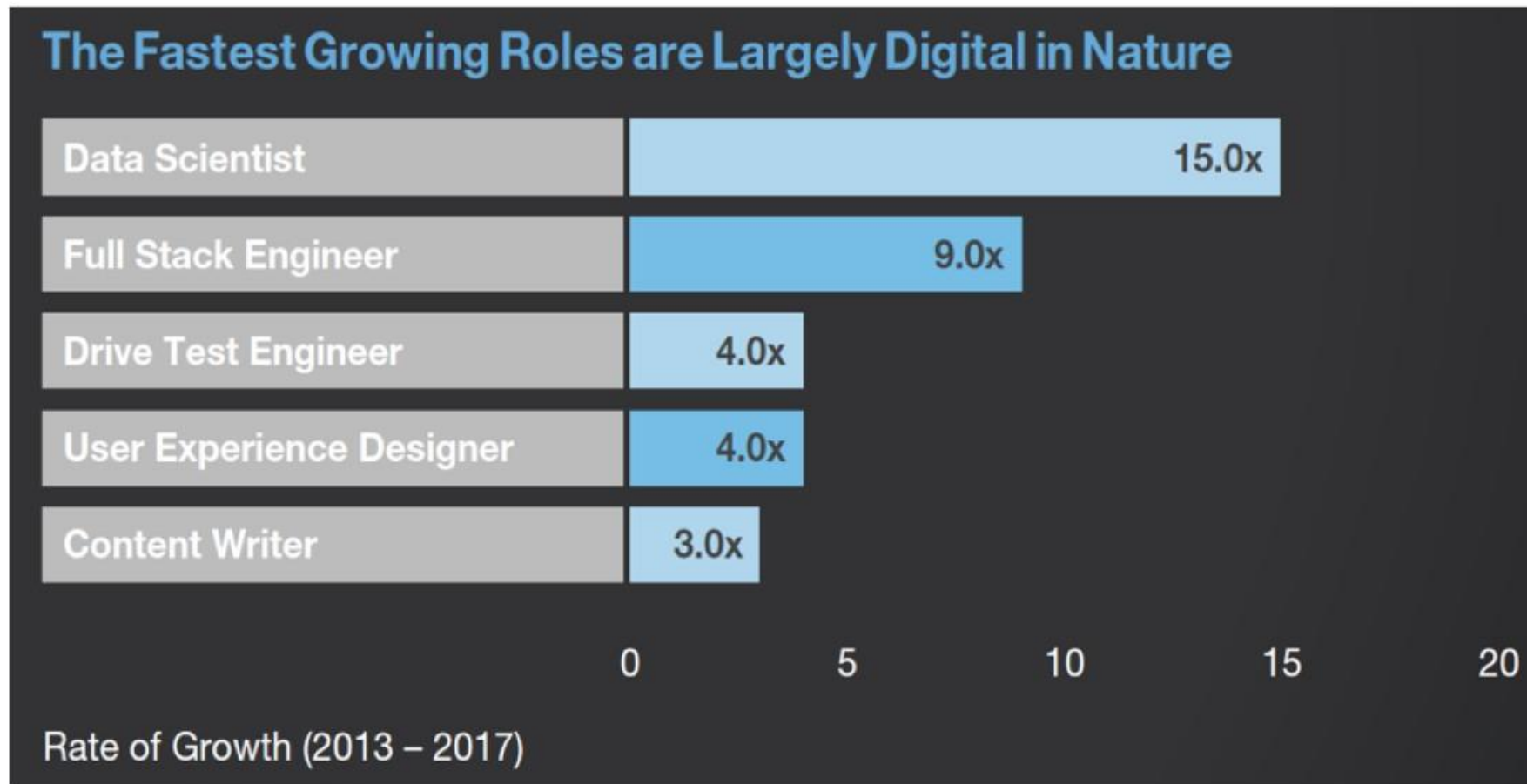
Percentages represent year-over-year growth in the number of digitally skilled hires as a proportion of hires in the industry.

*Digitally skilled hires are defined as new hires made in the last 1 year who possess 1 or more Software Development, Information Technology or Information Science related skills.

The top 5 emerging jobs in Malaysia



Based on LinkedIn's analysis, the top 5 emerging jobs in Malaysia are mainly tech-related. Malaysia's digital transformation is rapidly picking up pace. In 2017, 7% of Malaysia's GDP was delivered from digital products – that's expected to grow more than six times by 2021. This is creating strong demand for talent that can help organizations take their businesses online and implement digital transformation.



Gig Economy: Futurising the Future

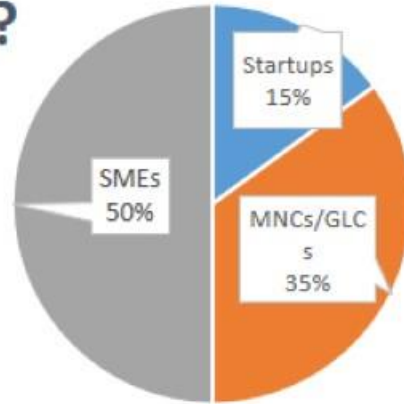
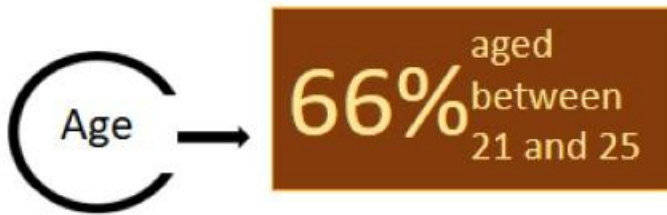


What is the gig economy?



- Requires a high degree of autonomy
- Payment by task, assignment, or sales
- Short-term relationship between worker and client.

Who is part of the gig economy?



Why do talent opt for gig-type jobs

- ✓ Flexibility to choose jobs or projects
- ✓ Exposure to a more diverse work experience
- ✓ Control over working hours

Top skills identified by freelancers



Communication and business correspondence



Networking



Time management



Interpersonal Skills and negotiation



Problem Solving

Top 5 regions that employ online labour

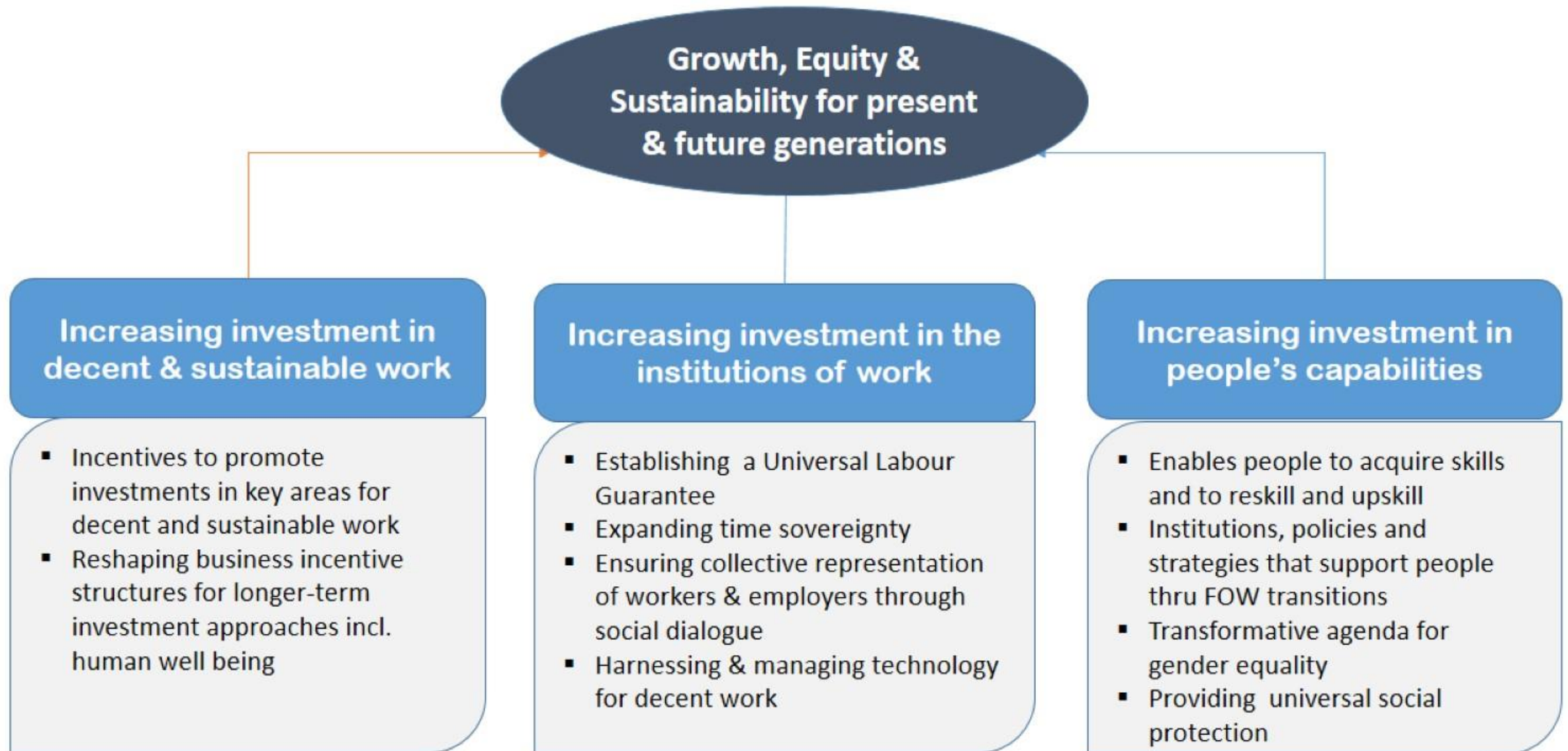


1. United States of America
2. Europe
3. Australia
4. United Kingdom
5. Asia and Oceania



04 ***FUTURE OF WORK – A Human Centered Agenda***

People at the center of future of work





mid-term review of the
**ELEVENTH
MALAYSIA
PLAN**
2016-2020

new priorities and emphases

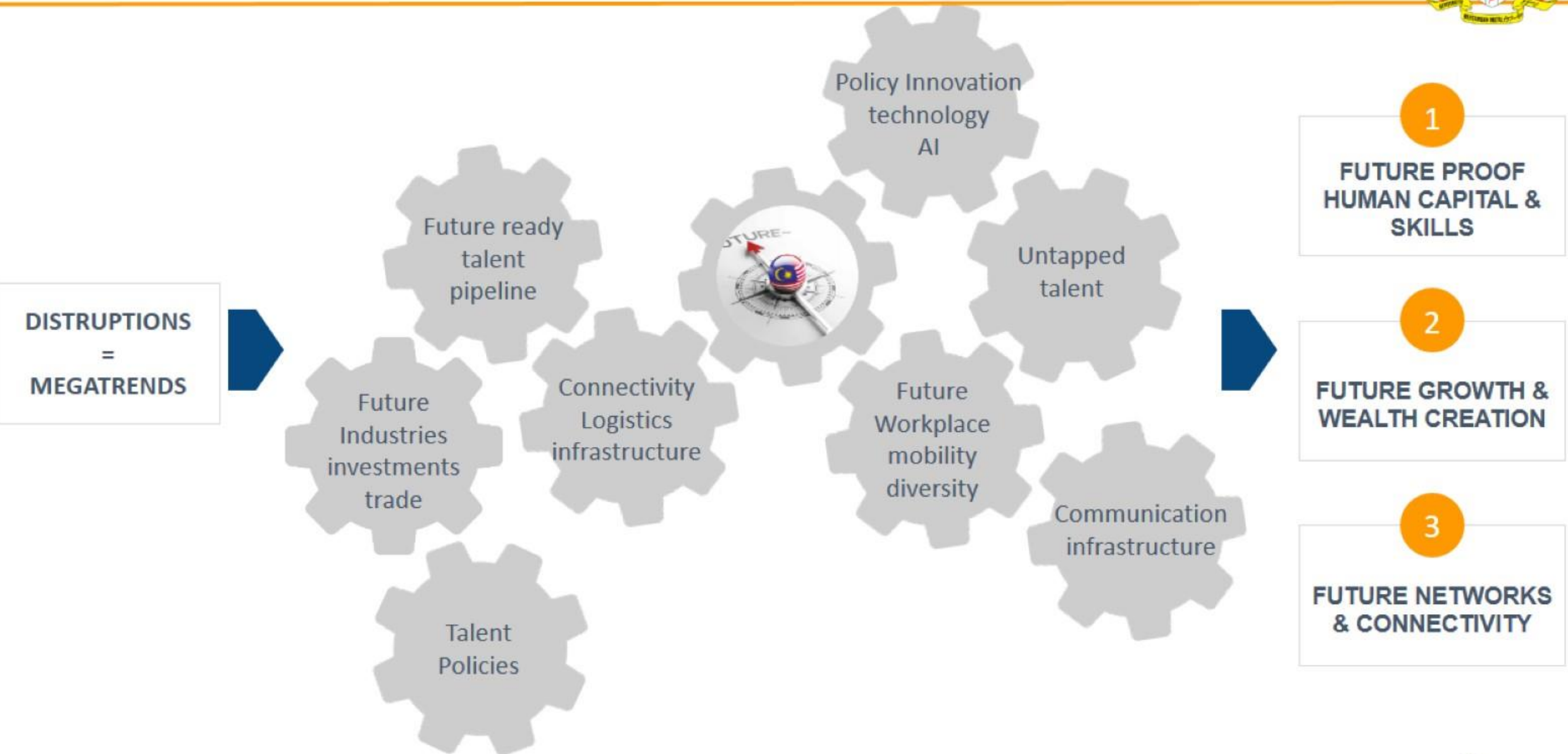


Focus will be given to create skillful, knowledgeable and innovative human capital to meet the requirements of the industry. Human capital development initiatives will provide opportunities for quality employment as well as ensure access to quality education and training towards building a more inclusive, equitable and prosperous nation.

Pillar IV: Human Capital Development

Mid-Term Review of the 11th Malaysia Plan

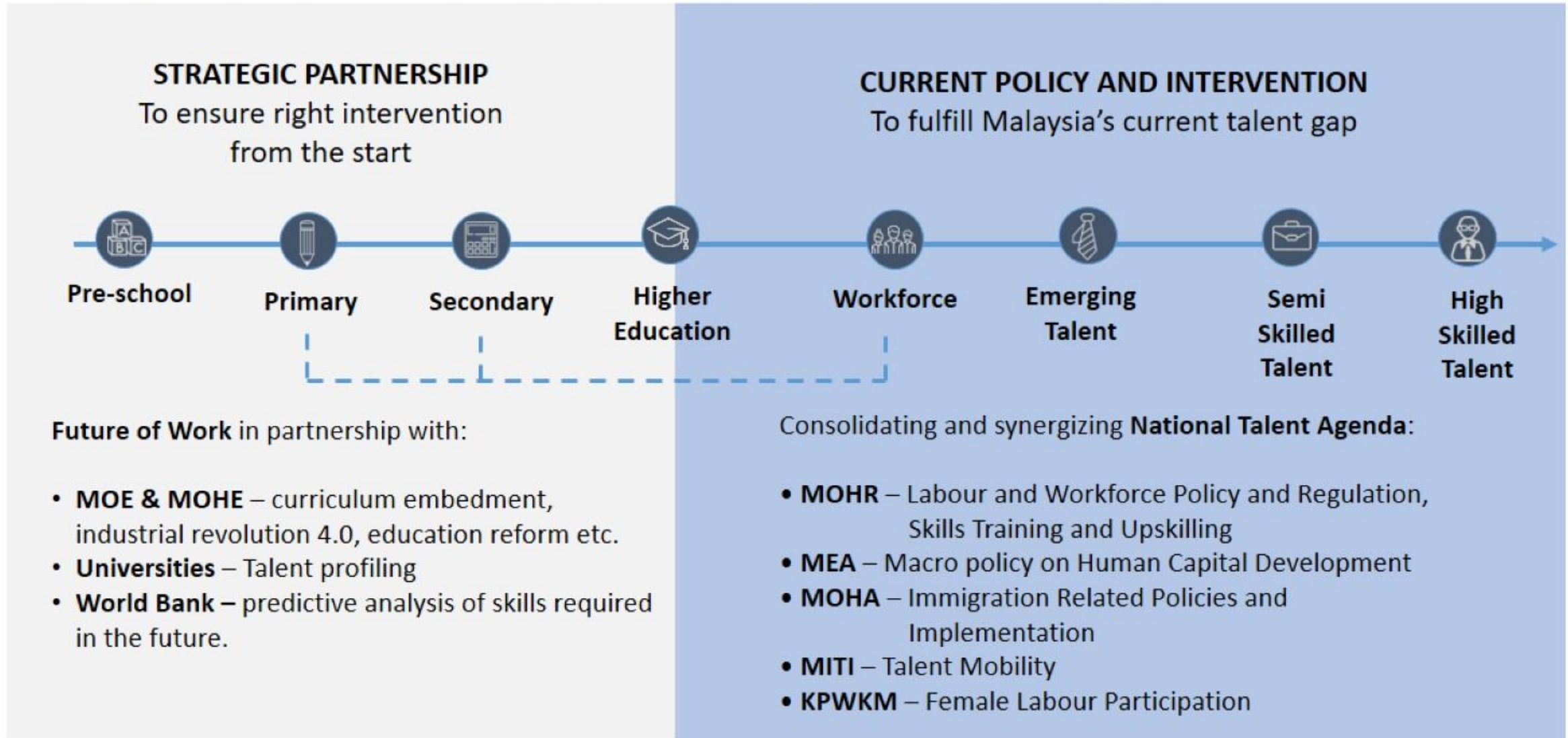
We require a new talent ecosystem for the future





Closing the Talent Ecosystem Loop

Synergized and proactive policy intervention across Ministries and Agencies



Labour & Employment Policies



1

Labour market & employment

- Enhancing the efficiency of the employment service delivery system
- Enhancing and expanding career guidance service at every level
- Increasing job opportunities for specific target groups including women, youth, the persons with disabilities, senior citizens, indigenous people etc.
- Facilitating the implementation of new and flexible employment systems for both employers and employees



2

Human capital development

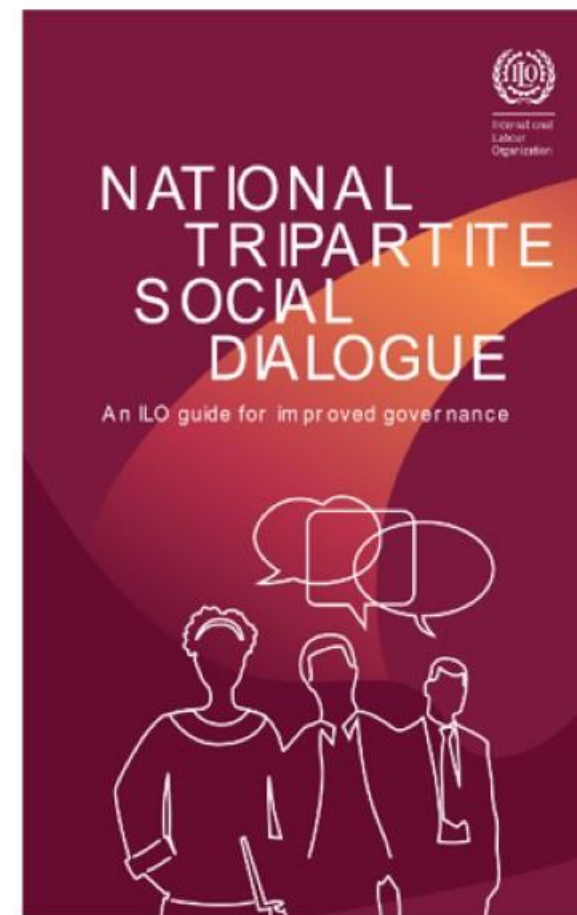
- Strengthening the national workforce planning that meets industry needs
- Identifying & closing the skills gap & demand
- Strengthening industry-led TVET programmes
- Enhancing workforce capacity building programmes
- Expanding the access for life long learning to achieve a sustainable workforce



3

Social dialogue & collective representations

- Enhancing tripartite cooperation amongst employees, employers and the Government
- Supporting the principles of natural justice on the rights and responsibilities of employees and employers
- Improving and enforcing policies, laws and regulations regarding labour and industrial relations in a progressive manner
- Promoting the development of trade unions of employees and employers
- Enhancing society awareness on the rights and responsibilities of employees and employers
- Encouraging an equitable wage system that is linked to productivity and performance
- Encouraging work-life balance and well-being practices



Labour & Employment Policies

4

Occupational safety and health

- Supporting the principle of duty of care on occupational safety and health
- Streamlining and improving legislations and enforcement
- Strengthening consultancy services and occupational safety and health education at the workplace
- Enhancing tripartite cooperation between employees, employers and the Government
- Improving knowledge, skills and expertise of the tripartite members
- Improving the culture of prevention as well as providing a safe and healthy working environment

5

Comprehensive social safety net

- Disseminating knowledge on social security to every level of society
- Improving and expanding social security schemes that will enhance well-being and social protection
- Improving the delivery service system on social security protection for stakeholders





THANK YOU