

Trade – ASEAN's Future

Key Issue:

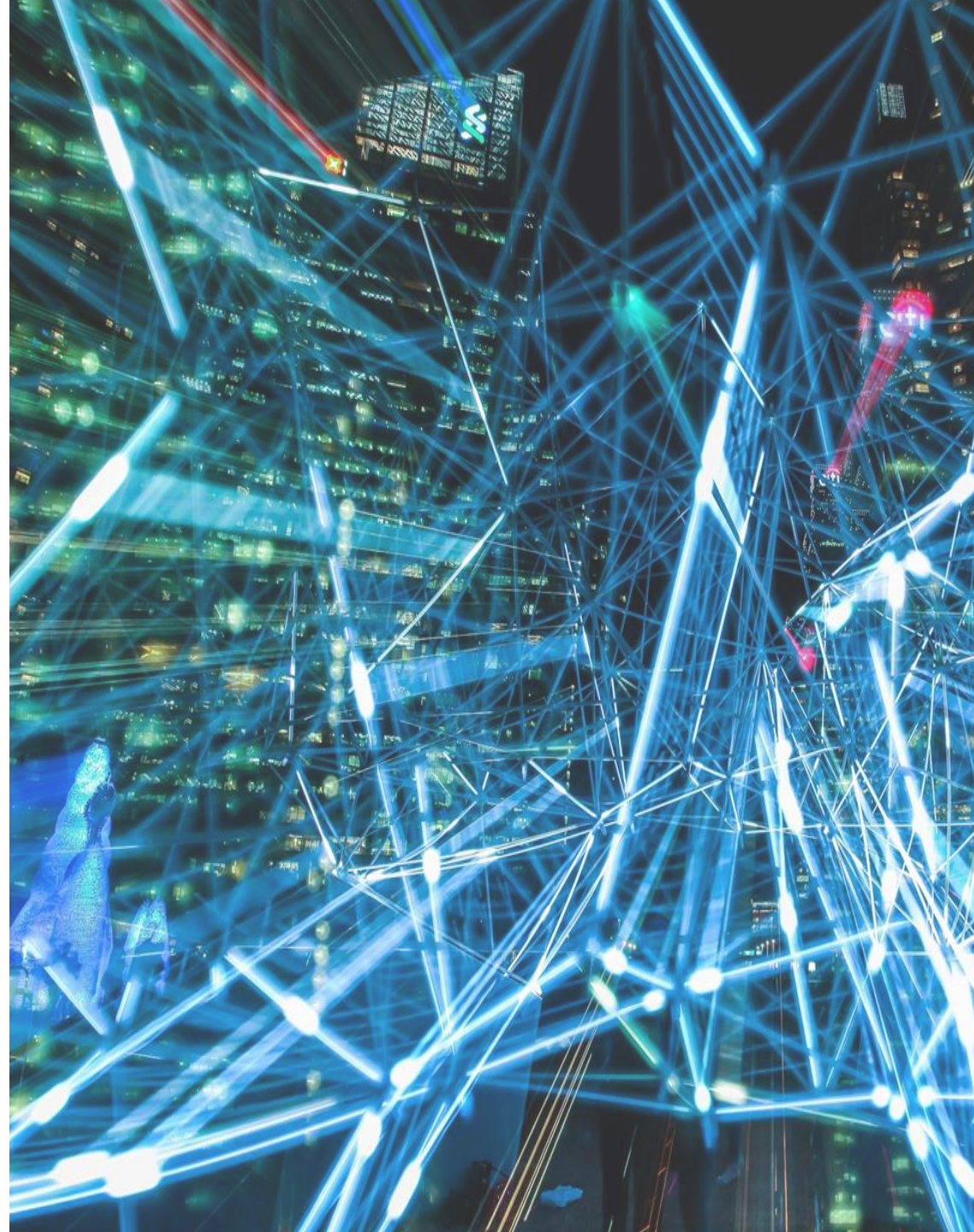
How will ASEAN (and the Industry of IP) evolve in the next 10 years as a trading hub in the new world of e-commerce, digital free trade, trade alliances, and other initiatives?

By: Abdul Aziz Ismail



Contents

- 1. What is IR 4.0**
- 2. Current Scenario of SME's**
- 3. Gaps To Be Addressed for ASEAN's Future**
- 4. Drawbacks for Digitization faced by SME's**
- 5. Fears & Concerns**
- 6. Recommendations**



What Will The Future Look Like for ASEAN?

- Most ASEAN nations are developing countries. The trend in technological advancements now is towards digitisation of business (Industry 4.0)
- The focus would now shift towards SMEs in general as they're the largest driving force in most economies
- Industry 4.0 would have the most impact on SMEs

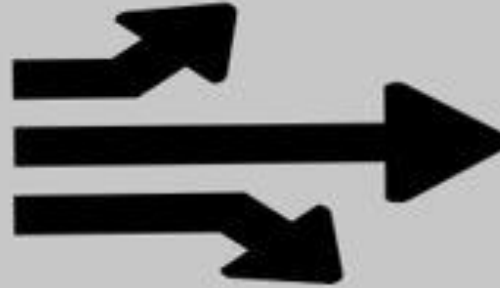


What is “Industry 4.0”?

- “Industry 4.0” is a systemic developing on intelligent, real-time, capable, horizontal and vertical networking of humans, objects, and systems.



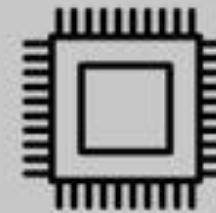
Shift Factors in Industry 4.0



People



Process

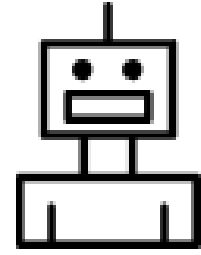


Technology

4 Pillars of Industry 4.0



**Cloud
Technology**



**Artificial
Intelligence**



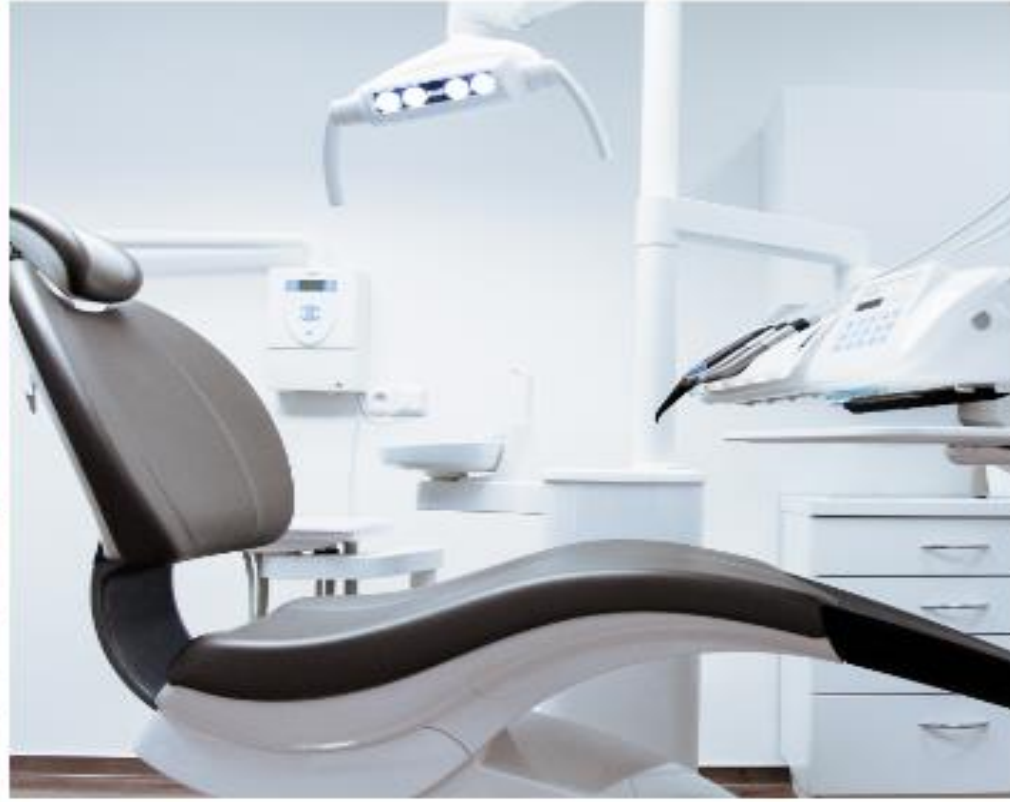
**Big Data
Analysis**



Internet of Things



A GLIMPSE OF HOW FAR
BUSINESSES AND LIVES
HAVE CHANGED SINCE
IR 3.0
TO NOW



Current Scenario

Interactions between SMEs and consumers are becoming digital in nature.

Areas that need to be prioritised:

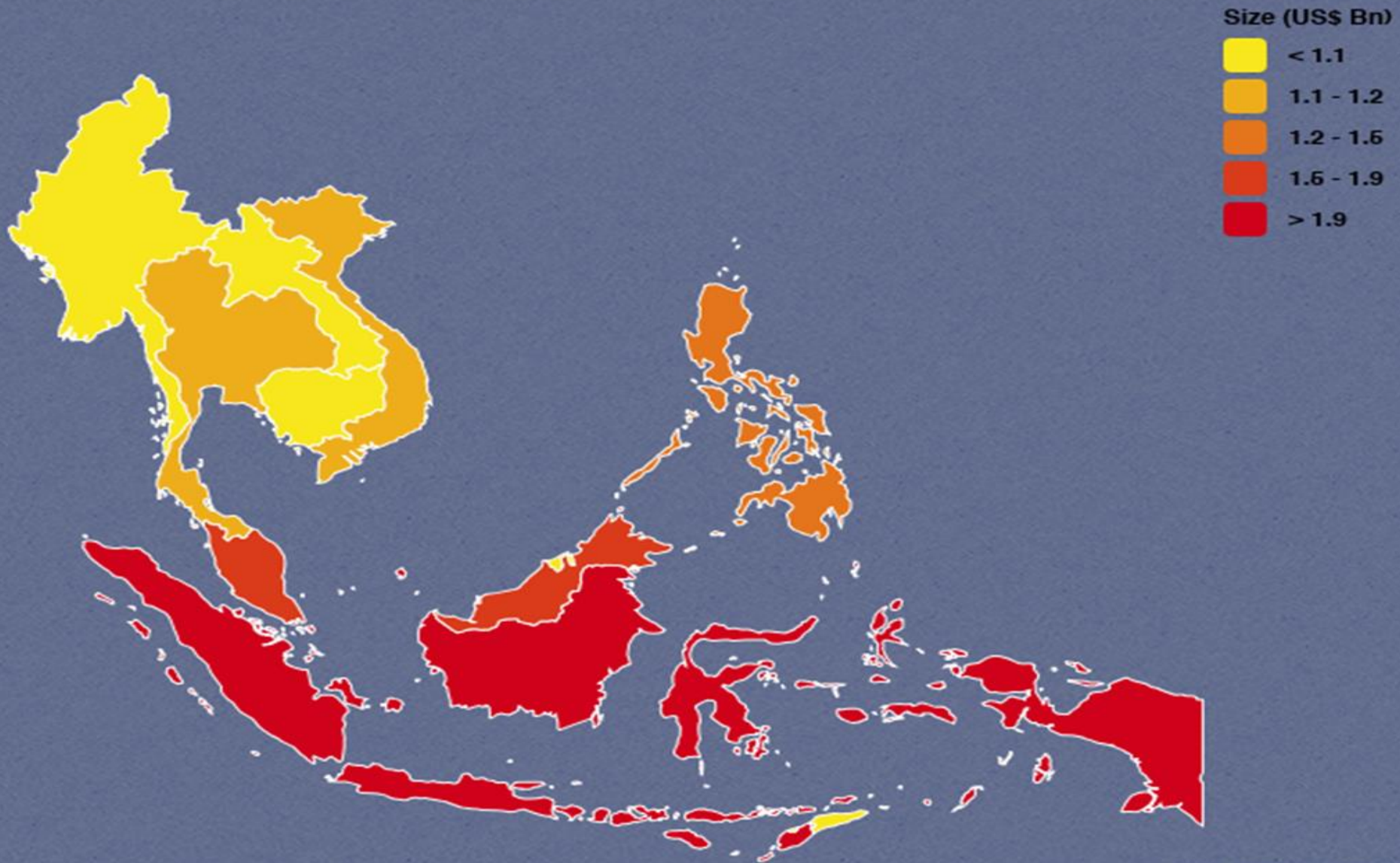
- Having access to digital technology (including affordability and experience)
- Having technology literacy
- Being able to participate in and create the necessary digital environment with available technology and laws



Examples of Digitization Initiatives Affecting Intellectual Property

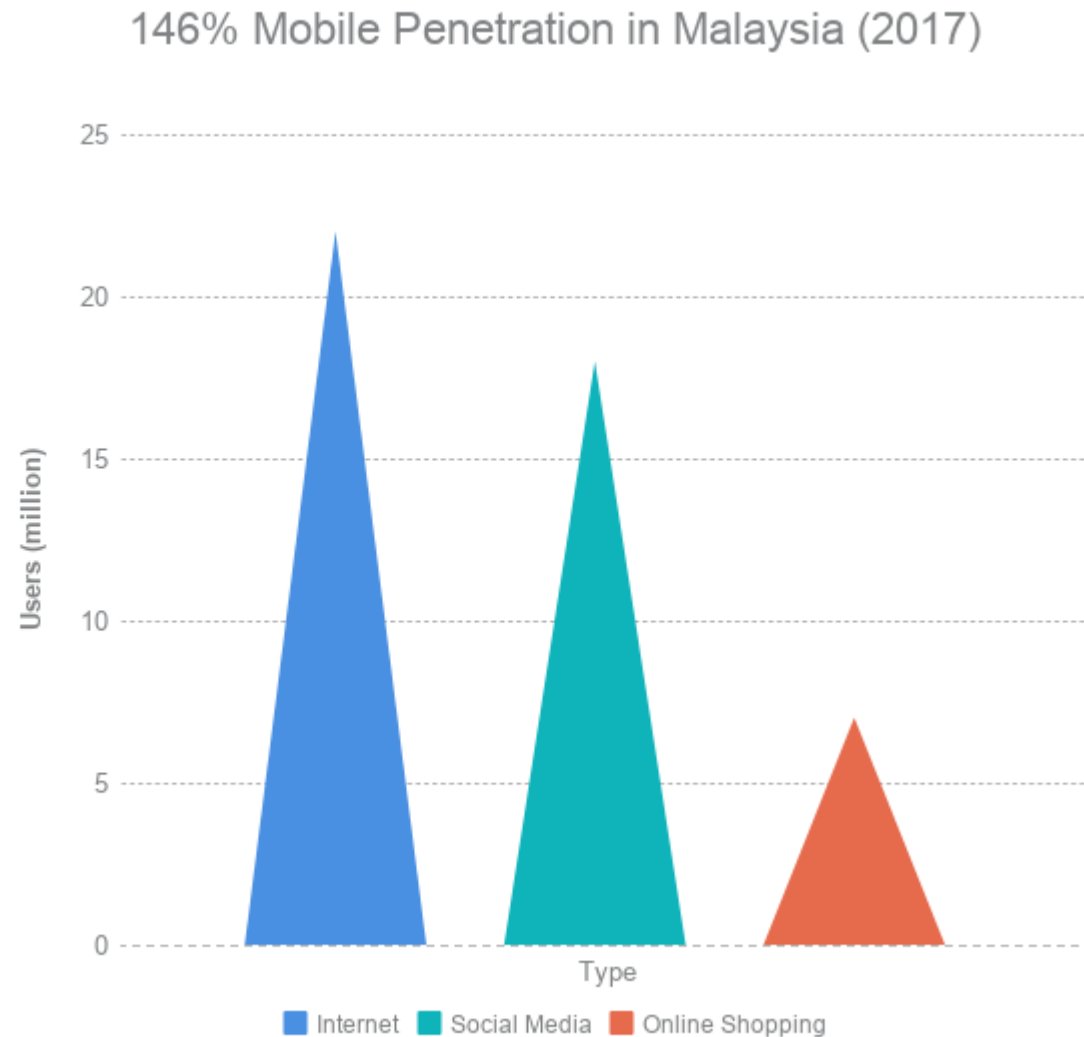
- ASEAN Digital Free Trade Zone
- One Belt and One Road Initiative (BRI)
- Comprehensive Partnership- Trans Pacific Partnership Agreement (TPPA)
- Regional Comprehensive Economic Partnership (RCEP)
- ASEAN Working Group on IP Cooperation (AWGIPC) Initiatives

SEA Retail E-Commerce Size 2017



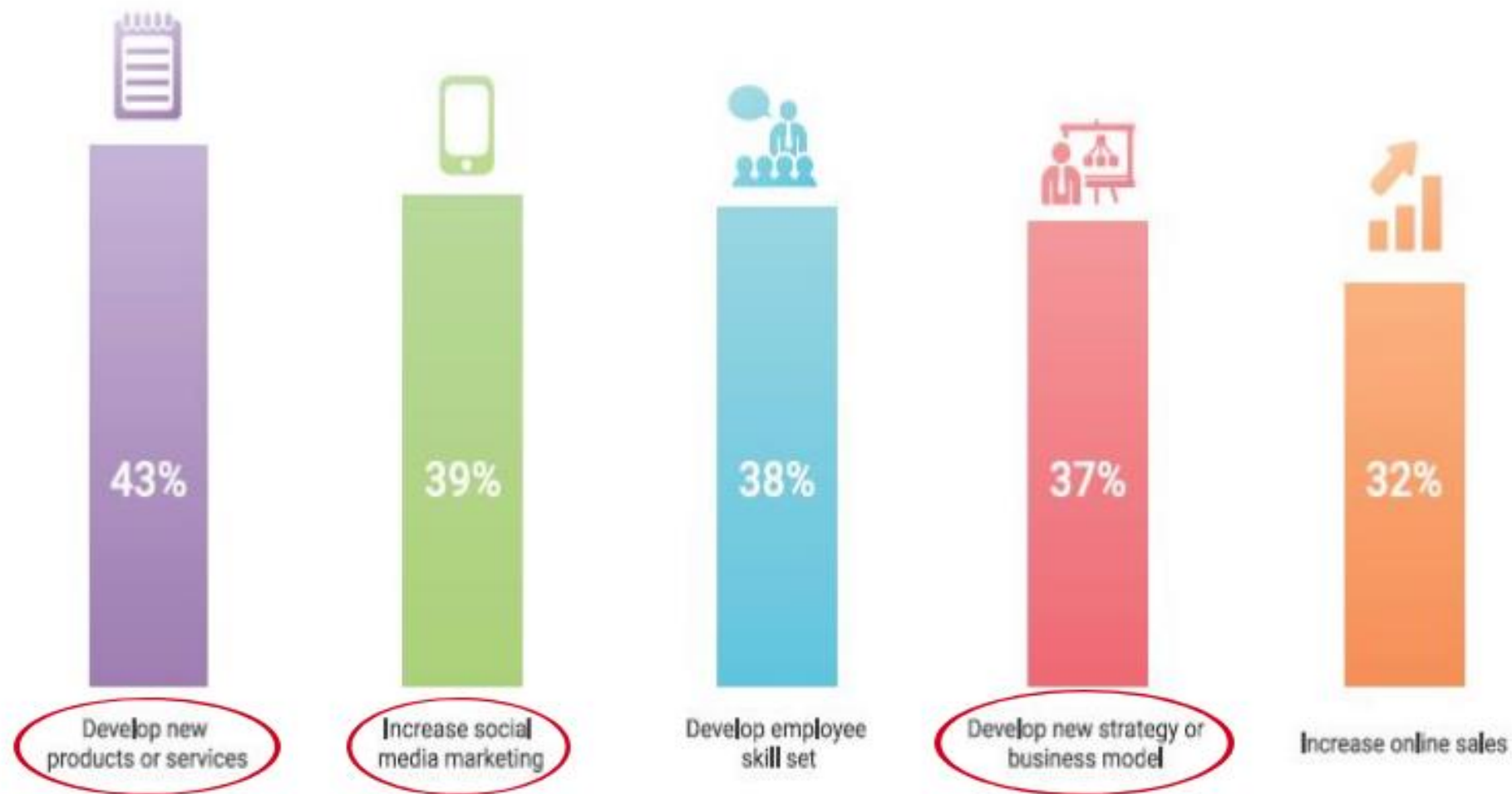
Source: Datuk Dr. Hafsa Hashim, "Industry 4.0 - SMEs are the Vanguard in Catalysing Change"

2017 Scenario (in Malaysia)



Source: Datuk Dr. Hafsa Hashim, "Industry 4.0 - SMEs are the Vanguard in Catalysing Change"

SME Business Improvement Initiative Plans in the Next 1-2 Years



Source: Malaysia Digital SME Study 2018, SME Corp. Malaysia & Huawei Technologies (M) Sdn. Bhd.

The % Distribution of SMEs in MY

SMEs by Sector



Services
89.2%
(809,126 SMEs)



Manufacturing
5.3%
(47,698 SMEs)



Construction
4.3%
(39,158 SMEs)



Agriculture
1.1%
(10,218 SMEs)



Mining & Quarrying
0.1%
(865 SMEs)

Source: Economic Census 2016: Profile of SMEs (reference year 2015), Department of Statistics, Malaysia

Current Scenario

For SMEs that use ICT technologies for front-end business processing:

About **71%** of SMEs engaged in social media for product communication and marketing.

Only **44%** involved in e-commerce activities.

Less than **20%** are using for business operations solutions.



The Gaps To Be Addressed for ASEAN's Future

Little use is made of the evaluation of large data streams to optimise processes or for downstream services. This is important when businesses in ASEAN are going borderless.

WHY?

- The integration of the data generated in the value creation process **requires the networking of various IT systems** both within and beyond the company.
- There are too many interface and technologies, then coupled with a lack of standard and norms, there is a lack of methodical approach to implementation both in technology and law.



The Gaps To Be Addressed for ASEAN's Future

The spread of “Industry 4.0” depends on company size.

WHY?

- The level of dissemination among large companies is higher i.e. more likely to deploy the relevant Industry 4.0 technologies than SMEs.
- It is not easy for SMEs to assess the technological maturity of the relevant solutions and their business uses.

The Main Drawbacks

Main Drawbacks of Industry 4.0 for SMEs.



Costly

With so many types of systems to spend on, investments in IT system integration are either not carried out or delayed.



Data Security

SME's need to worry not only about opting for the wrong standard, but also about data security.



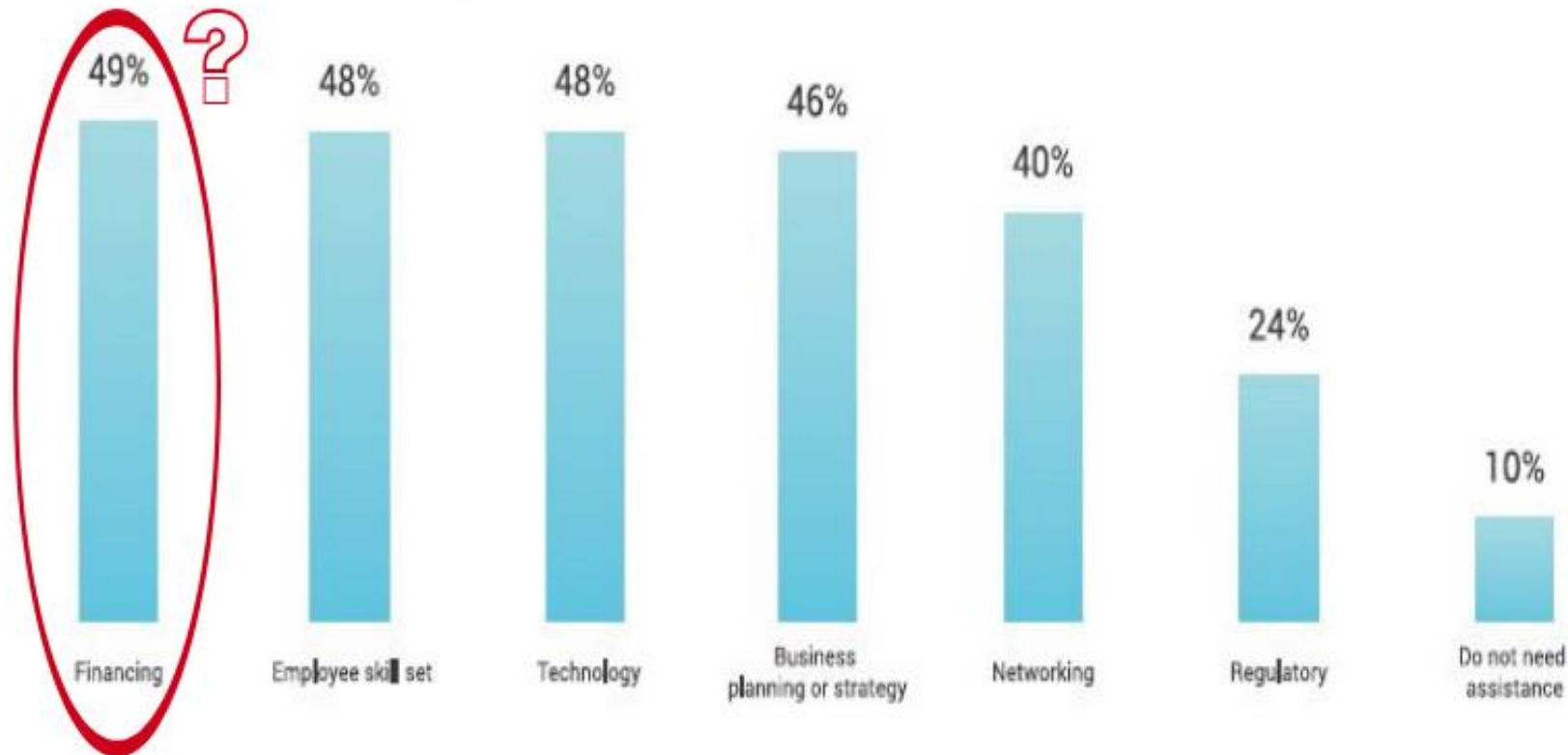
ICT awareness is still low.

Only 20% SMEs in Malaysia use ICT Applications actively.

The Main Drawbacks

Digitalisation Challenges faced by SMEs

Figure 14: Digitalisation Challenges faced by SMEs



Source: Malaysia Digital SME Study 2018, SME Corp. Malaysia & Huawei Technologies (M) Sdn. Bhd.

Intellectual Property Strategy for the Industry 4.0 Era



IP Protection Is More Necessary Than Ever

- With the speed of technological advancements, **NOW** is the ideal time to review your IP strategy and position your IP portfolio for Industry 4.0
- IP Protection in the digital world is more important than in the analog world to tackle cross border infringements
- Looking deeper into your IP portfolio will help identify areas that can be expanded to cover technological areas impacted by Industry 4.0
- IP as a **collateral** for bank loans and end-financing
 - Under the ASEAN Working Group on IP Cooperation (AWGIPC) Initiatives
 - Lead countries are Malaysia and Singapore

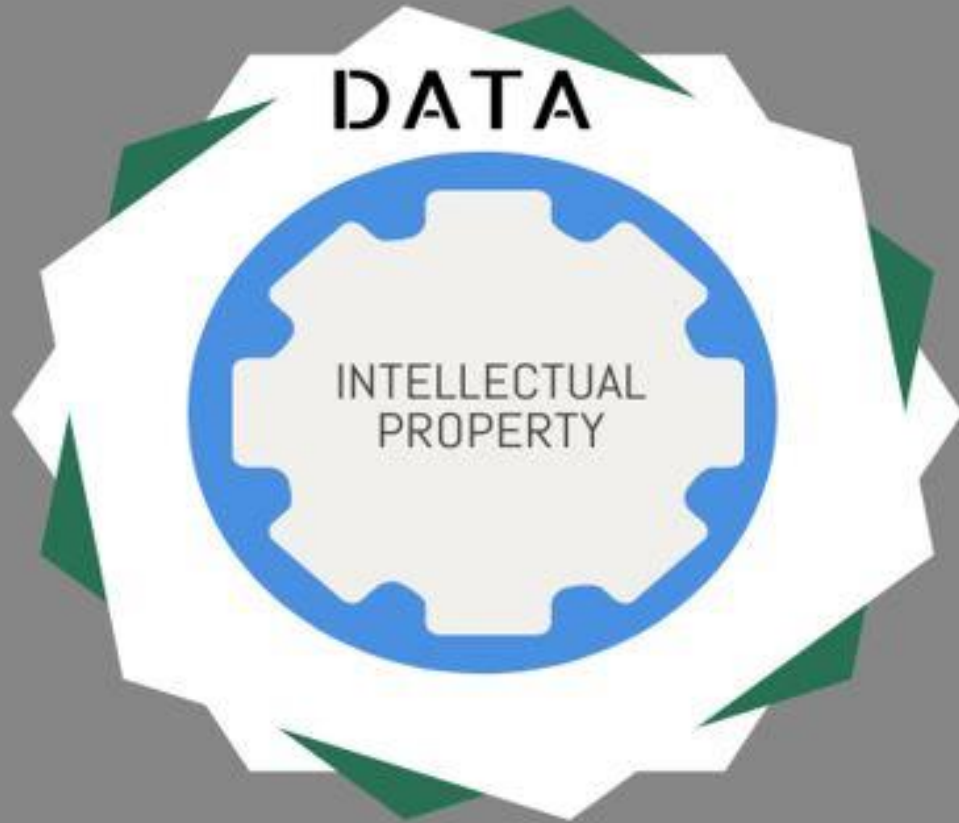


How SMEs data and IP Can Be Compromised?

- Most “FREE” tech and apps are owned by big companies/corporations.
- These technologies are used to gather and “farm” data from it’s users.
- To use their services, users are made to agree to terms which may compromise their data security - With or without their knowledge.
- The general public are relying heavily on these techs in their daily routines.

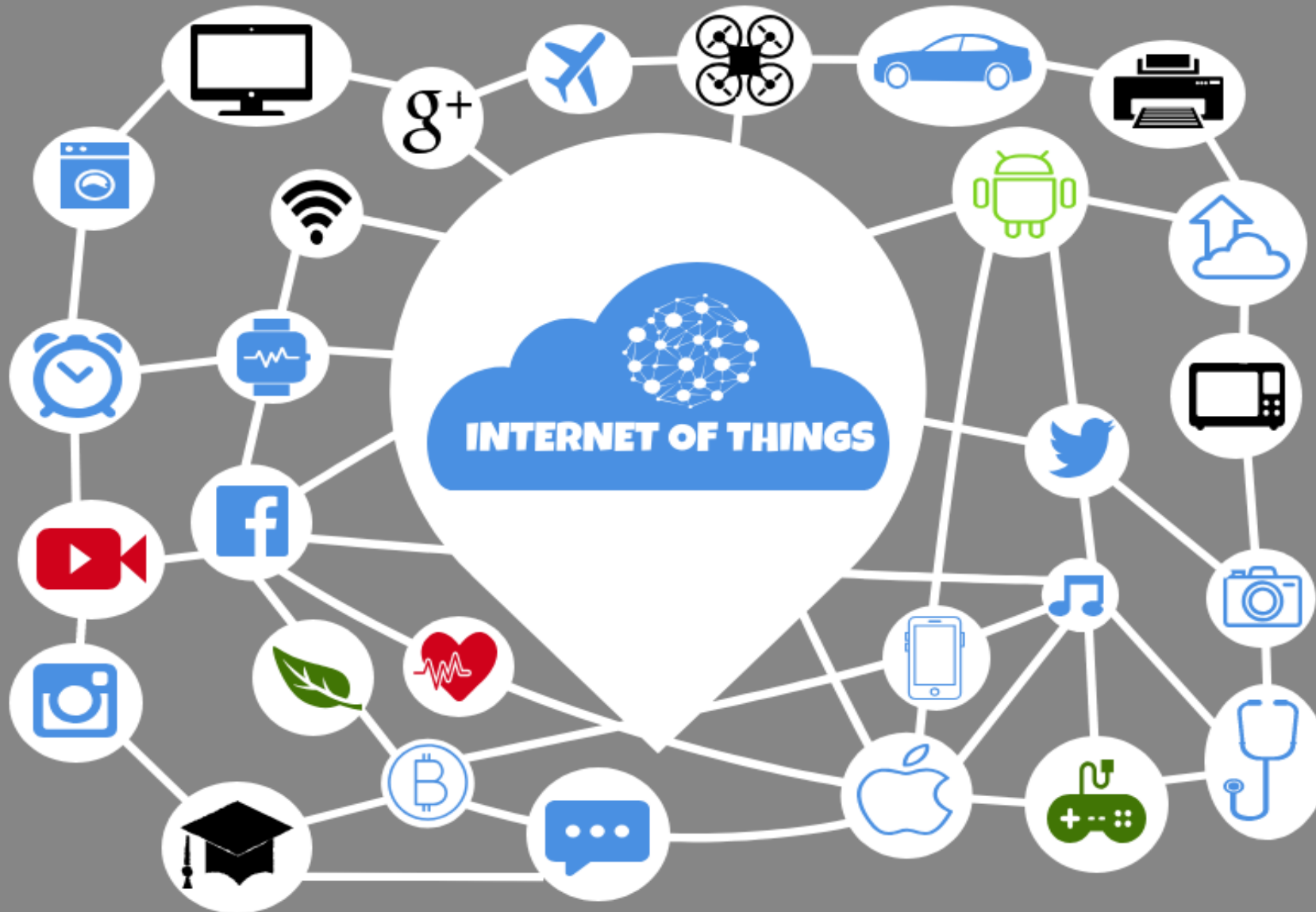
The “New” Fuel

“ **Data** is only a ‘fuel’ for the machines to work and act upon the data input given. ”



Data may not be Intellectual Property in its entirety, **BUT** they may contain sensitive information in the form of Intellectual Property and Intellectual Assets.

This "Fuel" Is Shared Amongst Machines and Softwares in the IoT Chain



Formal Intellectual Assets



Industry 3.0 IP Assets, although intangible, protect tangible physical things



Registered



Copyright



Trademarks



Patents



Trade Secrets



Designs

Industry 4.0 IP Assets are, by extension, intangible, but protect intangible things, hard to quantify or qualify



Methodologies



Data Ownership



Brand Recognition



Algorithms and Techniques

The **Problems** facing current Formal Intellectual Assets Protection

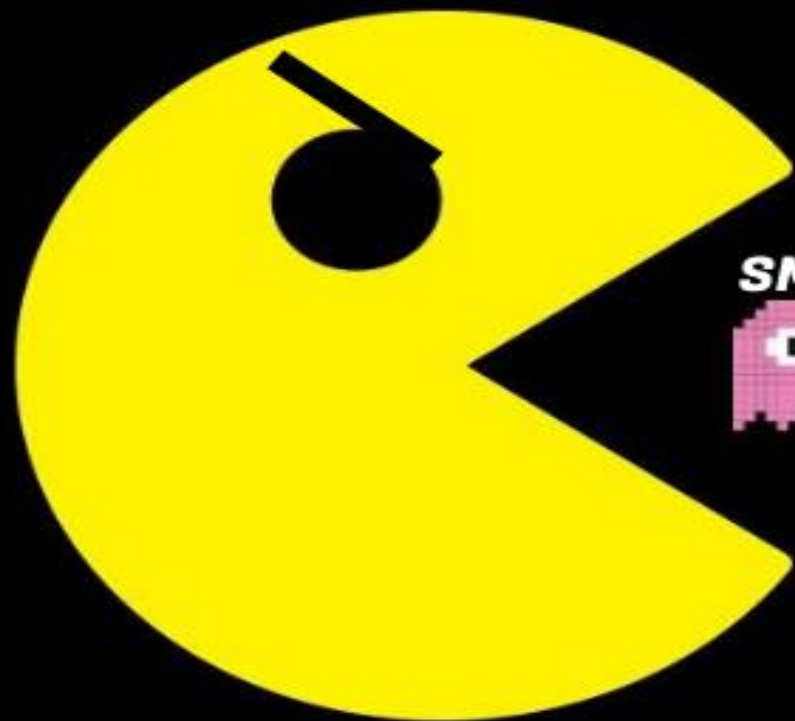
- IP Registration is woefully **slow** compared to the pace of digital transformation.
- So much sharing of Data and aggregate Data that need the right identification for IP protection.
- Cross border digital technology implementation may be subjected to various IP laws and jurisdiction that are territorial and different in nature.



Is IP Protection relevant in the Era of Industry 4.0?

Yes, it is more relevant than ever

Big
Companies/
Tech Giants



SME



SME



SME



*Data
/IP*



*Data
/IP*



*Data
/IP*



*Data
/IP*



*Data
/IP*





Importance of Intellectual Property Spurring Growth in The Digital Climate

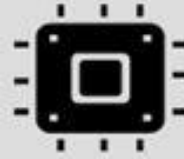
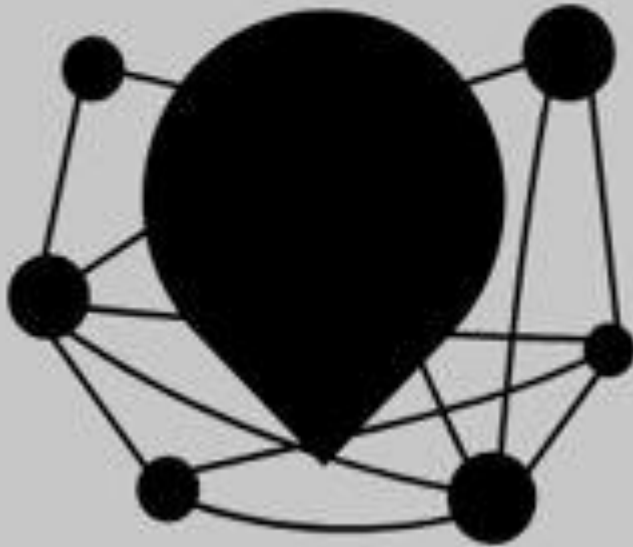
- Intellectual Property is critical to the very first steps of the innovation life cycle.
- When countries invest in IP, economies are more likely to attract foreign investment, creating access to venture capitalists and generate high value jobs.
- With a strong IP system in place, developing countries can hurdle the middle-income trap and transform itself into a globally competitive innovative and creative economy in the world stage.
- For example, the 2018 International IP Index highlights the ways the Malaysia Intellectual Property Office (MyIPO) heralded IP as critical to the success of its national innovation plans.



Why The Need to Secure Legal Ownership of Your Data and AI?

- The use of cyber-physical systems or automated systems can require the collection of data whose protection and confidential use must be ensured.
- Data exchange between companies makes it possible for third parties to obtain access into their business strategies.
- It must be clarified in black and white as to whom the generated data belong to and who is entitled to use them.

Internet Of Things



- Utility Patents
- Sensory Chips/Microchips
- Hardware
- Technical Software



- Trademarks/Service Marks

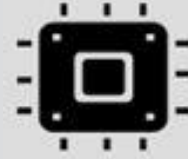
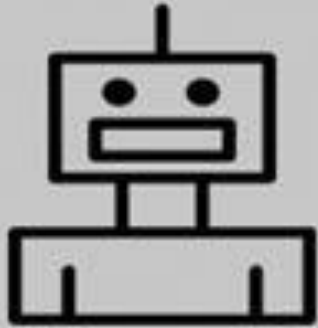


- Processed Data
- Source Codes



- Trade Secrets

Artificial Intelligence



- “Computer Implemented Inventions” (CII)
- AI-related inventions of technical character (cognitive learning)



- Trademark/Service Marks

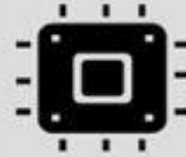


- Copyright for source codes and software
- Processed Data
- Any other creative expressions



- Trade Secrets

Cloud Technology



- Hardware
- Technical Softwares



- Trademarks/ Service Marks



- Digital Blueprint Files
- Data Files



- Trade Secrets

Big Data Analytics

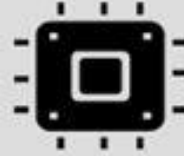


- Solutions
- Processed Data



- Trade Secrets
- Raw Data
- Input Data by Consumers

3D Printing



- Hardware
- Technical Softwares
- Printing Technology



- Protection against infringement via production of 3-D print of a trademark or design



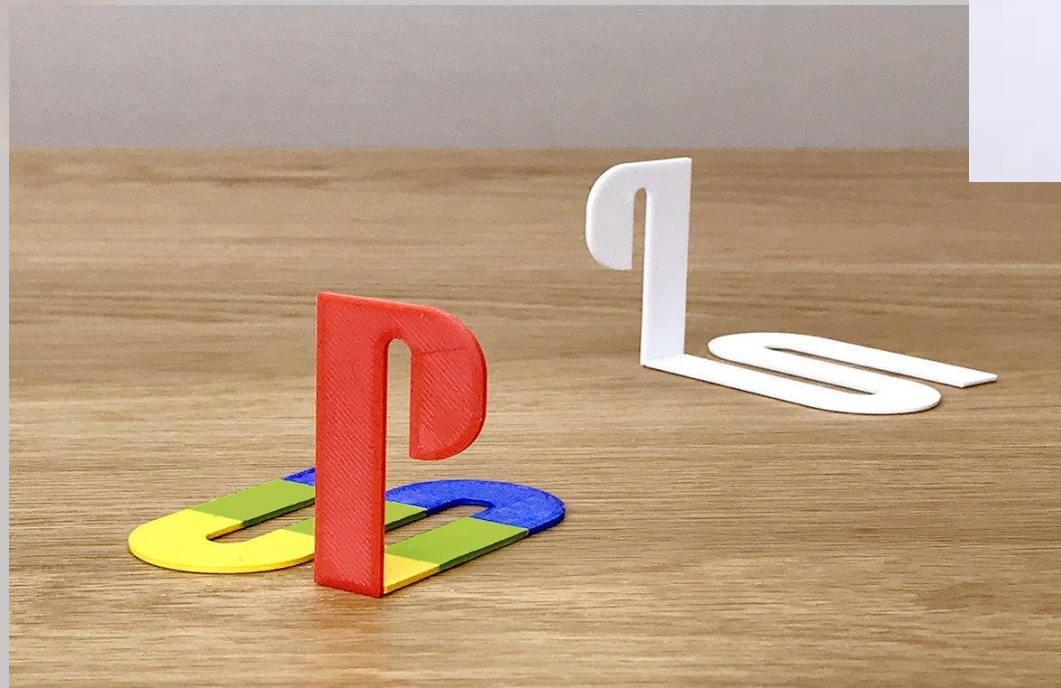
- Digital blueprint files
- Data files



- Trade Secrets



Examples of
Infringement via 3D
Printing





These are Protected Intellectual Property



These are Unprotected Intellectual Property



HOW

Securing Your IP Can Benefit Your Business via **Cross-Licensing**

- You do not have to exchange and use data for “free” and risk losing ownership or authorship.
- Greatly reduces time and resources used for developing independent technology.
- Boosting development and production, hence seeing profits much sooner.
- Encouraging knowledge flow without infringing or have your rights infringed

IMPORTANT POINT!

We need to change and rethink the way we handle Data.
Intellectual Property should be one of SMEs core protection.



Being in a VUCA economic world

- Volatile, Uncertain, Complex, Ambiguous.

Digital **IP Protection** should fulfill this criteria

- Affordable
- Reliable
- Protected globally, across any borders
- Without any compromise of trade secrets

Dr. Jasmine Begum- Microsoft Malaysia

- US\$ 11tn in information by 2020.
- US\$ 3.9tn in global business value in 2022 in the AI industry.
- “Digital by Default, Embed a Digital Culture.”

Edward Clayton- PwC Strategy

- Look at what value you can provide to your customers, use digital to do it better.

Any Digital Information



Multimedia



Art/ Photographs



Designs/ Logos

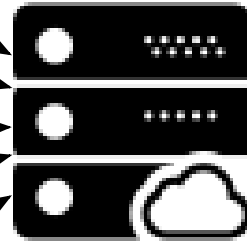


Blueprints



Code

One-way hashing process



No data is stored on the hashing server

Simply put, the same input will always produce the same output for the asset hash, with a different metadata hash, each time. This cannot be reverse-engineered nor duplicated.

Hash of the tangible item

f81a963df089ac6dc7dd9ef97f99537f771a...

+

095c287adf41eaf89b49902c96301a3c2...

Hash of the Metadata - timestamp, author and other details

f81a963df089ac6dc7dd9ef97f99537f771a



Full irreversible hash based on publicly available cryptography, stored in a secure, protected and internationally accepted registry

Protecting Digital Assets



I am a photographer or filmmaker?

- ideas for a project
- a storyboard
- a treatment
- a script
- photographs
- videos



I am a songwriter or composer?

- a new riff
- new lyrics
- a new composition
- an updated version of your composition



I am an author?

- an idea
- an outline
- a draft
- an updated version of your draft for a story or book



I am an academic?

- an idea for research
- research data
- a draft publication
- an updated version of your draft



I am an engineer or inventor?

- a new idea/invention/execution
- a new design
- an improvement
- a new schematic or layout



**Thank
You**

Website: www.iswip.com.my
Email: aziz252656@gmail.com



REGISTERED PATENT AGENT,
TRADEMARK AGENT, AND
INDUSTRIAL DESIGN AGENT.

ABDUL AZIZ ISMAIL
CEO
LL.B (Hons), UITM

www.iswip.com.my

**ISW INTELLECTUAL PROPERTY
SDN BHD** (Company No.1043224-U)
Unit A-19-02, Level 19, Tower A
Menara UOA Bangsar
No. 5, Jalan Bangsar Utama 1
59000 Kuala Lumpur.

Tel. : +(603) 2280 0279
Fax : +(603) 2280 0271
Mobile : +(6013) 391 0955
E-mail : aziz@iswip.com.my