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Business Insight - Astra Digital

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AstraDigital

WHO IS ASTRA?

7 Business Stream **229** Company **224.488** Employee

AstraDigital

Automotive

Automobile

- Daihatsu
- Motorcycle

Component

· Astra Otoparts

Other



Financial Services



Heavy Equipment and Mining

Construction Machinery

- United Tractors Traktor Nusantara
- Mining Contracting

· Pamapersada Nusantara

Coal Mining

- · Tuah Turangga Agung **Construction Industry**
- Acset Indonusa



Business Structure



Logistics

Infrastructure and

Toll Road Water Utility

Sea Port



Agribusiness

Information Technology

Office Services

Astra Graphia Xprins

Document Solution

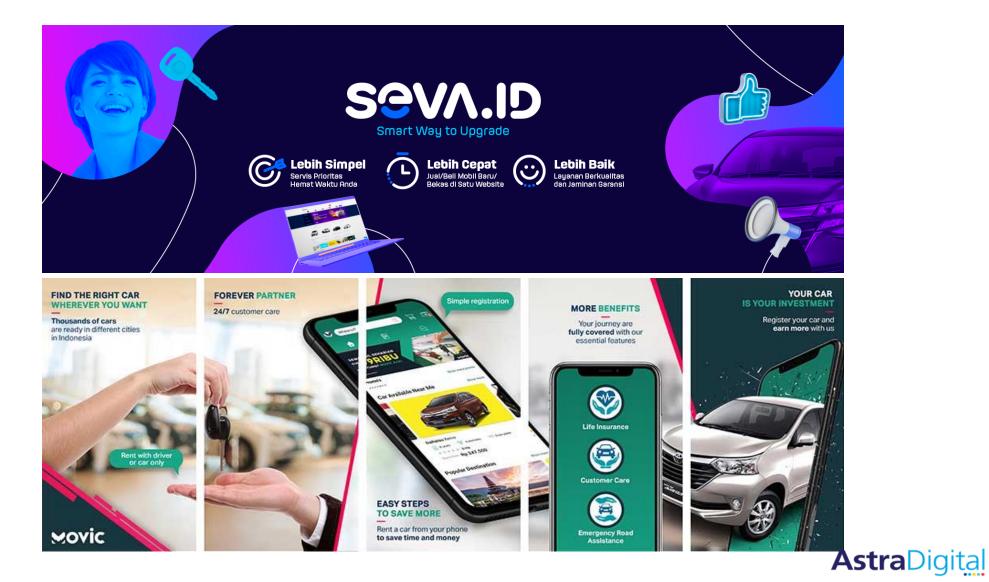
Astragraphia

IT Solution

Astra Graphia Information Technology

Property

Astra Digital Product



Astra Digital Product



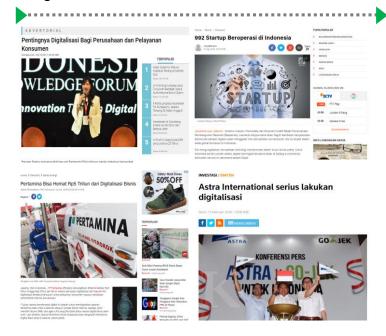


The world has change, digitalization bring great opportunities for business

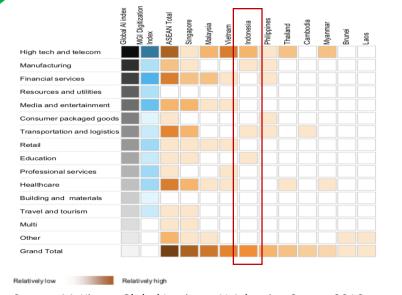
Digitalization Trend in Indonesia

➤ Industry Revolution 4.0

Green Field for Al Adoption Level



Industry Revolution 1.0 1784	Mechanization, Water Power, Stream Power
Industry Revolution 2.0 1870	Mass Production, Assembly Line, Electricity
Industry Revolution 3.0 1969	Computer and Automation



Source: McKinsey Global Institute AI Adoption Survey 2016

- BY 2022 Indonesia Economics will be digitized by 40% with total value 482Bn USD
- Over total Indonesia Digitalization project at least there will be 10% Al Adoption with total value 48Bn USD
- Al Technology has potential to automate about 50% of work activities at ASEAN four biggest economies (This activities Currently generate 900Bn USD Wages)
- Indonesia Government have formulated "Making Indonesia 4.0"
 Map and big data analytic will play a crucial role for its implementation

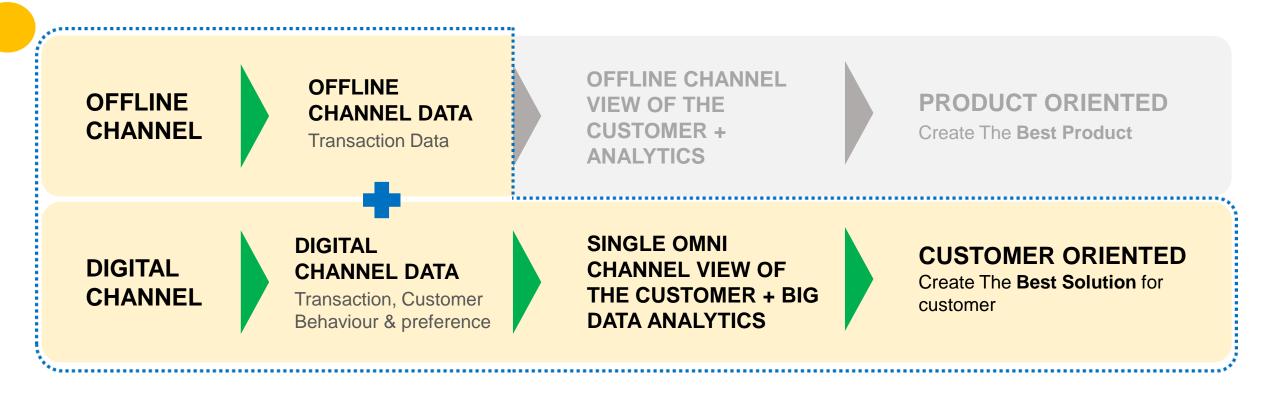
Based on Adoption Level Survey
 Indonesia still having lot of green field in Al Implementation within Financial Service, Media and Entertainment,

 Retail and Health Care

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Big Data Analytics as a pillar to create the Best Solution for Customer

Currently Astra have digitalization agenda in Astra group. **ASTRA DIGITAL** is our way of **strengthening Astra's value** and **responding to disruption** (by digital or principal). Astra Digital respond to disruption by shifting from **product centric company to customer centric**.







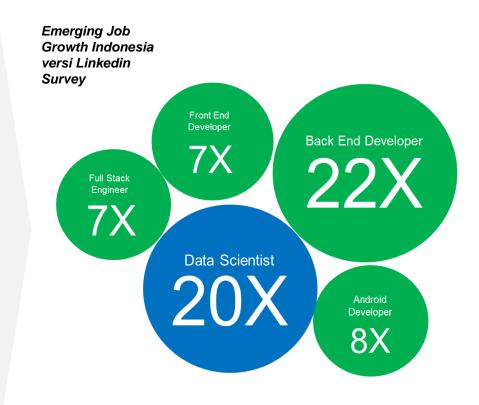
A shortage of talent is a clear headwind for Indonesia's digital transformation and also for Astra

Digitalization Growth

Increase Digital Talent Needs

Short supply Digital Talent

- 72 per cent of Indonesians using their smartphones to get online.
 As organisations rush to meet the growing demands of Indonesia's mobile and digital middle class, demand for tech skills will boom*.
- The emergence of unicorns (eg. Gojek, Bukalapak, Traveloka, Tokopedia) is fuelling demands for digital talent**.
- Industry 4.0: Traditional industries are turning to tech talent. For example, a fifth of local government agencies in Indonesia will use IoT in infrastructure like roads, street lights, and traffic signals to gain insights by 2019**



- estimated that there will be a shortage of 9 million skilled and semiskilled ICT workers in Indonesia.

 Another challenge is that some ICT graduates aren't leaving training with the skills the industry needs. A shortage of talent is a clear headwind for Indonesia's digital transformation.
- The Ministry of Communications and Informatics and five state universities in Indonesia have launched the "Digital Talent Scholarship", which will be intensive courses to rapidly bring talent into the market who have the skills relevant to the industries



^{*} https://www.gigabitmagazine.com/company/how-telkom-indonesia-transforming-indonesia-global-digital-hub#

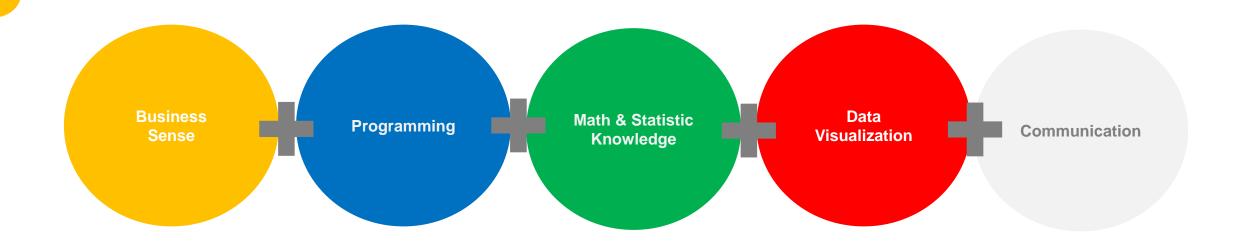
^{**} https://www.thinkwithgoogle.com/intl/en-apac/tools-resources/research-studies/e-conomy-sea-2018-southeast-asias-internet-economy-hits-inflection-point/

^{***} https://www.questex.asia/article/idc-sees-govt-use-iot-indonesia-2019-1967761722/

^{****} https://www.opengovasia.com/digital-talent-scholarship-to-upskill-indonesians-for-digital-industry/

^{*****} https://blogs.worldbank.org/eastasiapacific/files/preparing_ict_skills_for_digital_economy-revised_7mar2018.pdf

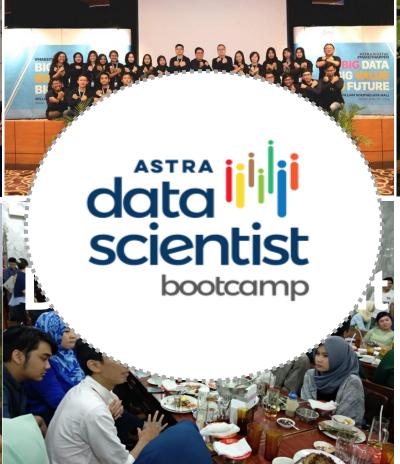
How to become great data scientist for business





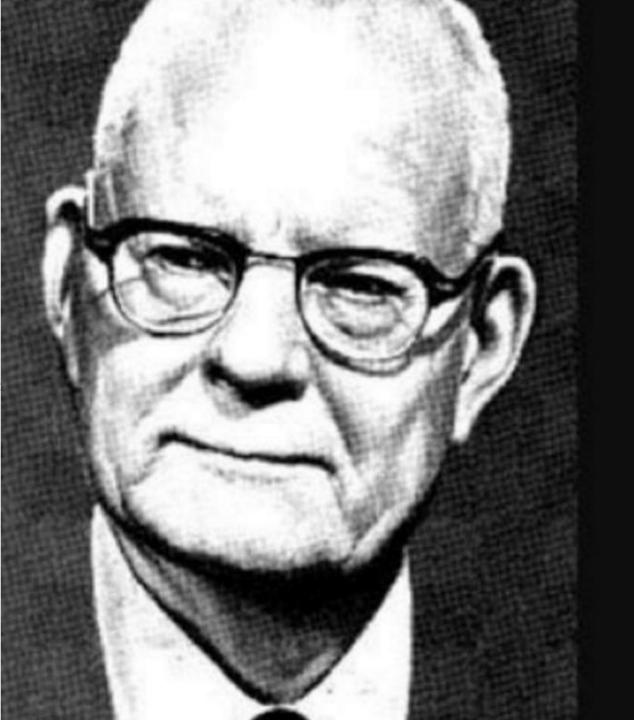
Accelerate Data Analytics Capability To Be Pride Of The Nation











"Without data you're just another person with an opinion."

W. Edwards Deming,
 Data Scientist

Let's Play a Bit

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You can use your phone, ask your friend, or anything

What is the **most populated country** in the world?



Who is the **winner** of FIFA World Cup 1982?



Distance from Jakarta to **Tokyo**?



Who is President Director Of Astra International?



How **Far** is The **Sun** to Earth?



How many Indonesian gold medals in the Asian Games



TIME SPENT WITH MEDIA

AVERAGE DAILY TIME SPENT CONSUMING AND INTERACTING WITH MEDIA [SURVEY BASED]



AVERAGE DAILY TIME SPENT USING THE INTERNET VIA ANY DEVICE AVERAGE DAILY TIME SPENT USING SOCIAL MEDIA VIA ANY DEVICE AVERAGE DAILY TV VIEWING TIME (BROADCAST, STREAMING AND VIDEO ON DEMAND) AVERAGE DAILY TIME SPENT LISTENING TO STREAMING MUSIC







8H 36M

3H 26M

2H 52M

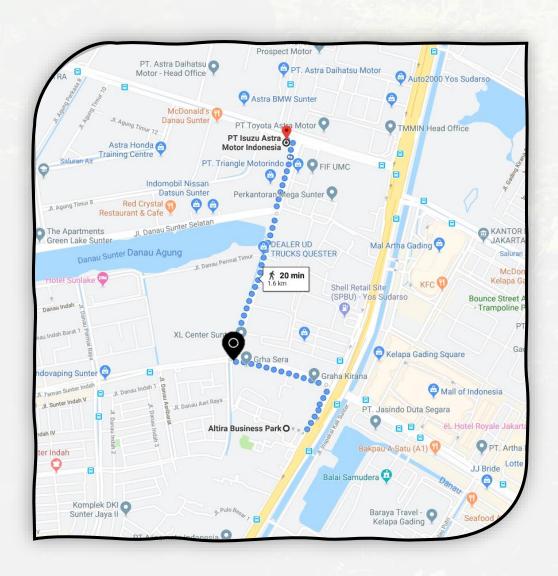
1H 22M

DATA NEVER SLEEP



Knowing Our Goals is NOT Everything

You've get lost not because you don't know where is your GOAL, it is about where you are now



same thing happen on price engine mechanism

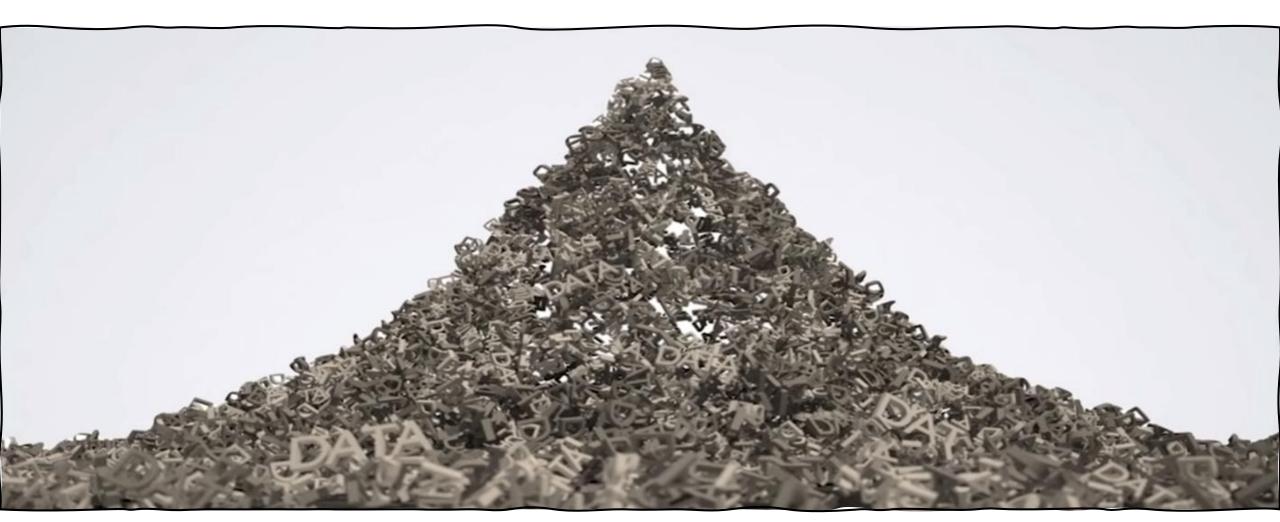






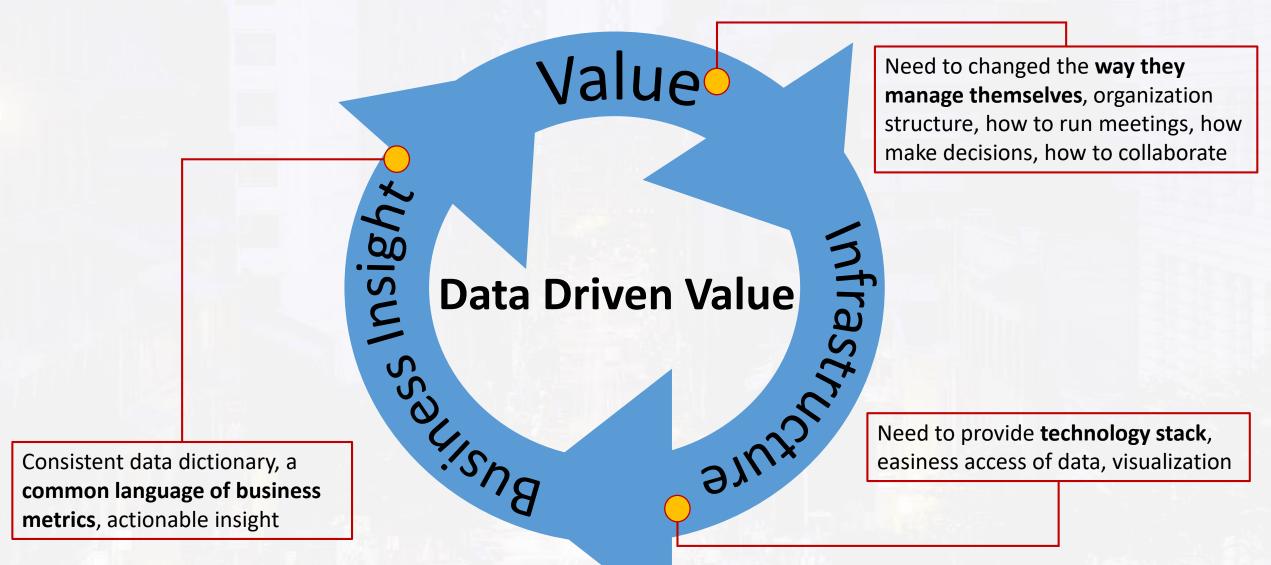
It Not Only About the Data

Data without Insight is useless. Moreover, Insight without Action is worse than useless



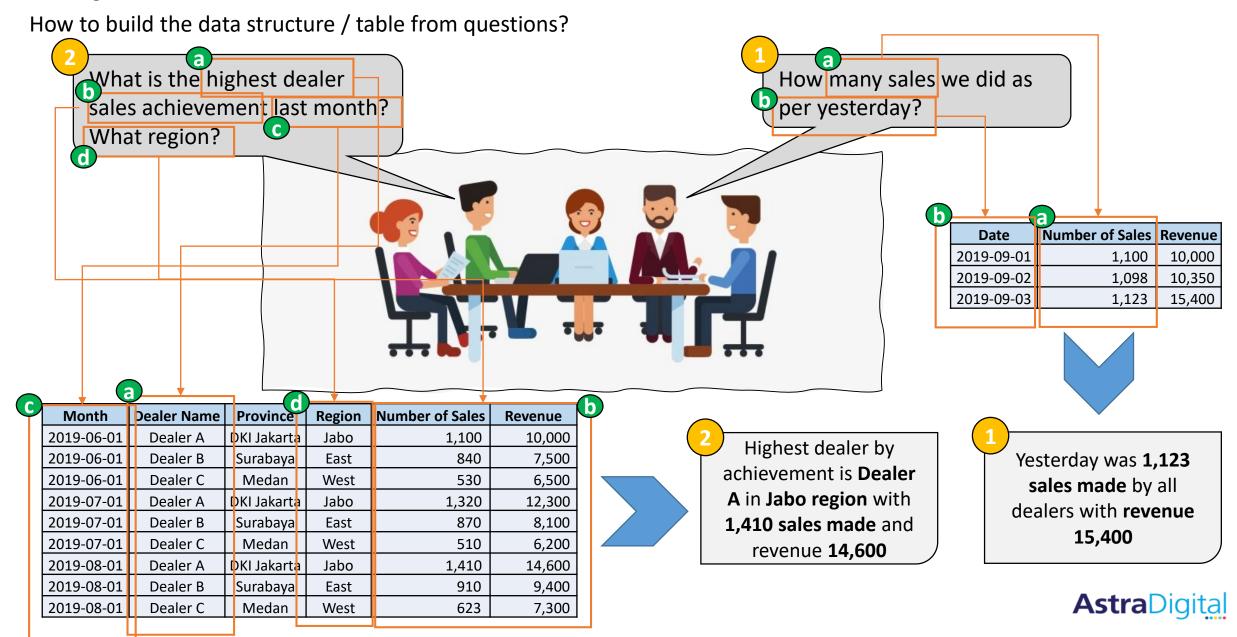
What We Need to be a Data Driven Company

Data Driven not only capturing the data, doing analysis and all technical things, more important is make organization ready



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Simple Case on Build Data Structure from Business Question



The AI Driven Enterprise – Orchestra for Radical Collaboration

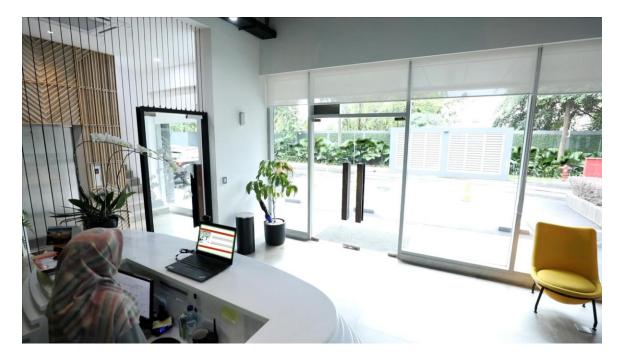
Crowd Counting



Plate Recognition



Advanced Leads Management



Free Slot Parking Detection



Age & Emotion Video Detection



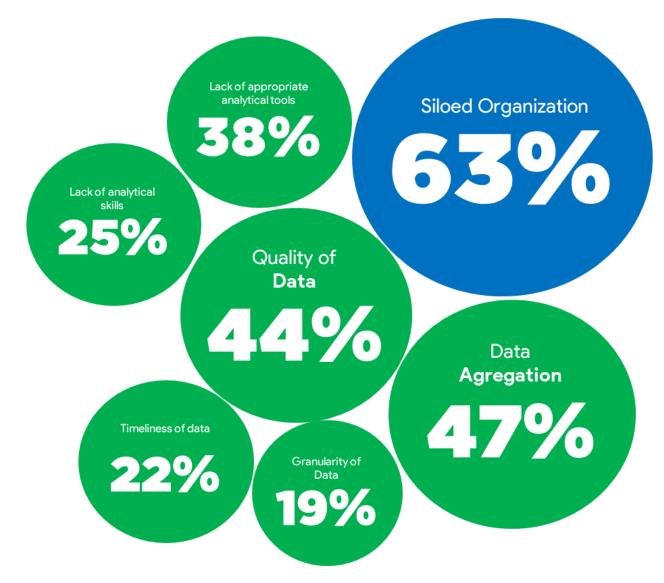
Security Black List & White List



Live Traffic CCTV Video Analysis



Challenges when using Customer Data for Better Audience Targeting*





"As one retail executive explained,
"You're in my store. You're on my app
in my store. How do I engage you to
actually make sure you're getting the
best experience? Since the teams
that work in those spaces don't talk
to each other, they can't answer
that question."

