

10 points to AI in Vietnam

Ho Tu Bao

Vietnam Institute for Advanced Study in Mathematics

John von Neumann Institute, Vietnam National University-HCMC

Japan Advanced Institute of Science and Technology

bao@viasm.edu.vn, bao.ho@jvn.edu.vn, bao@jaist.ac.jp



10 points to AI in Vietnam

1. Only a small number of winners takes all?
2. Be aware of “data-driven AI”
3. Why AI is a drive force for Vietnam?
4. Many rooms for AI in late countries
5. No digital infrastructure, no AI
6. No talent, no AI
7. How many AI specialists?
8. AI for the top priorities of Vietnam
9. AI for SMEs
10. Not much robotics but agriculture and tourism

1. A small number of winners take all?

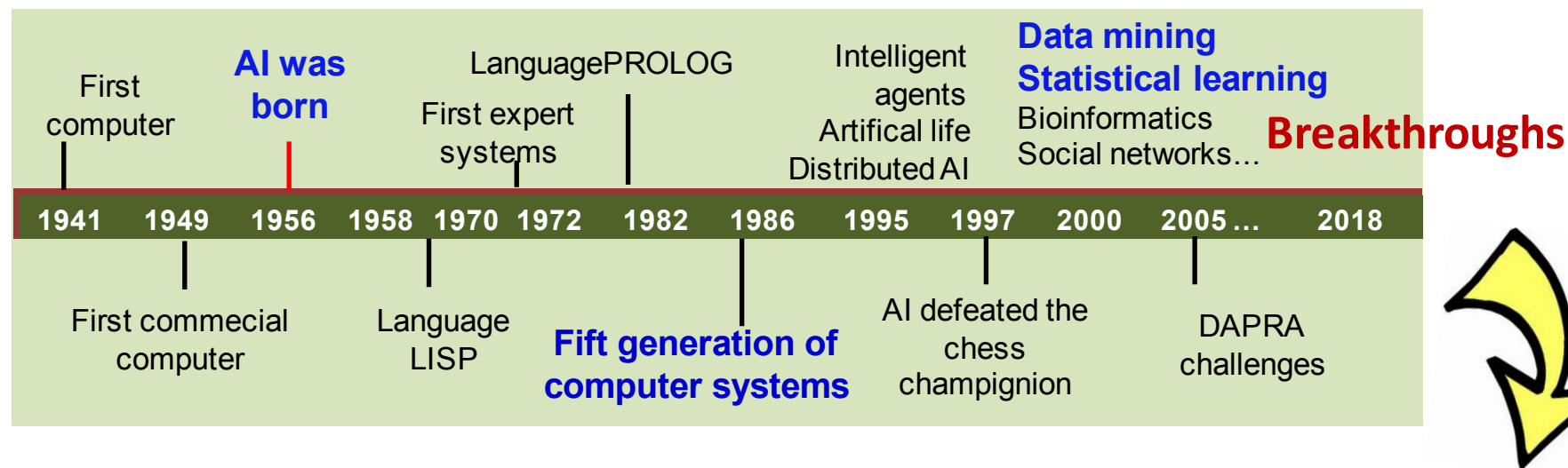
- “Threat: A small number of winners takes all”*.
- Who will be the winners in the digital transformation time?
- Why do they win?
- Will Vietnam be in the group of losers?
- If yes, how to escape from it?



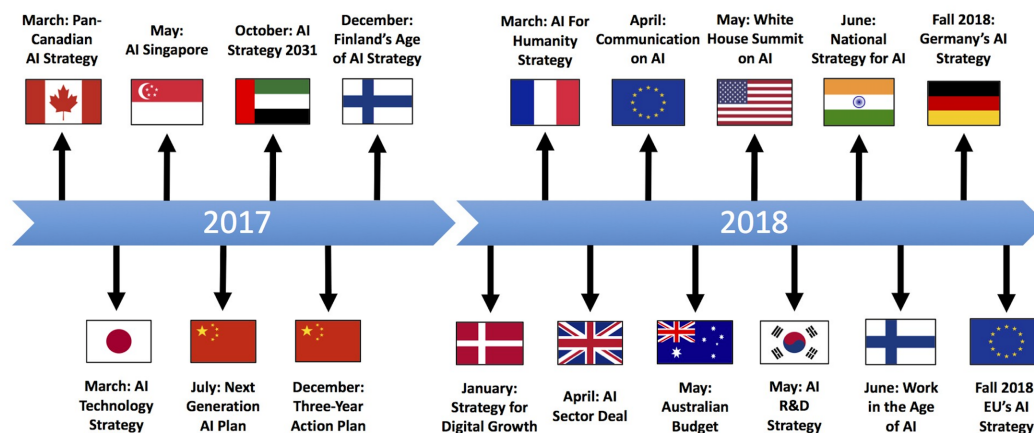
**win
ourselves**

* Prof. Sang Kyun Cha, Director of Korea Institute of Big Data, PAKDD 2017

2. Be aware of “data-driven AI”



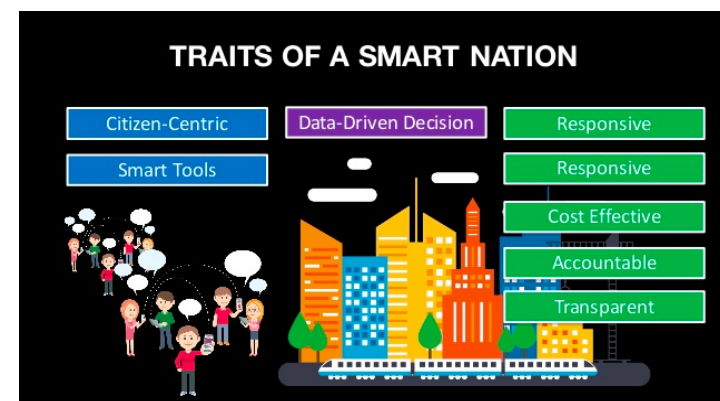
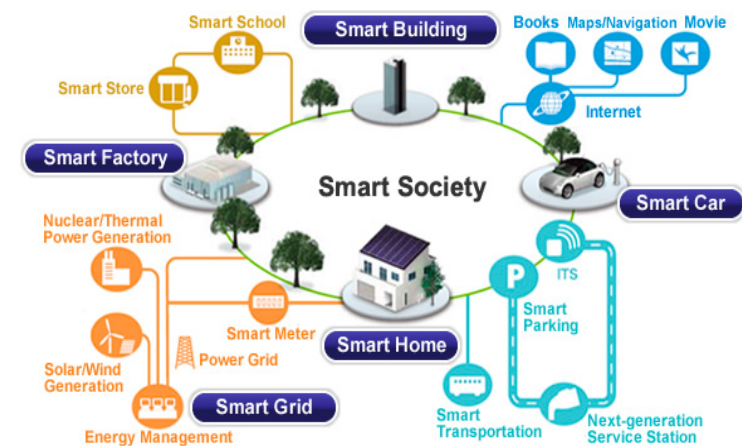
**Essence:
Data-driven AI**



<https://medium.com/politics-ai/an-overview-of-national-ai-strategies-2a70ec6edfd>

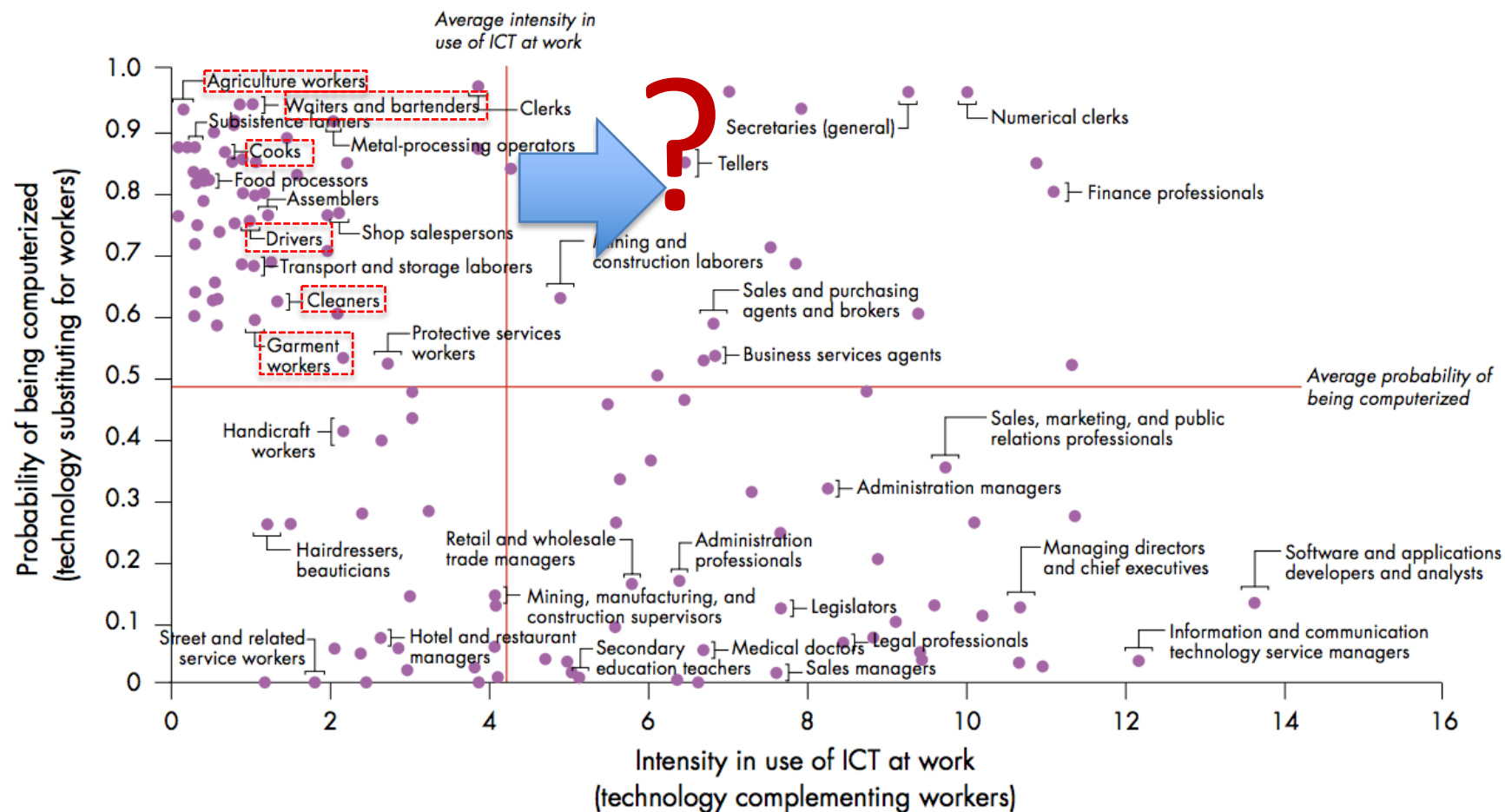
3. Why AI is the drive force for Vietnam?

1. In the digital transformation we have much “numbers” than ever before.
2. The future of each country depends on how that country uses those “numbers” for the development.
3. AI means using those “numbers” in a smart way.

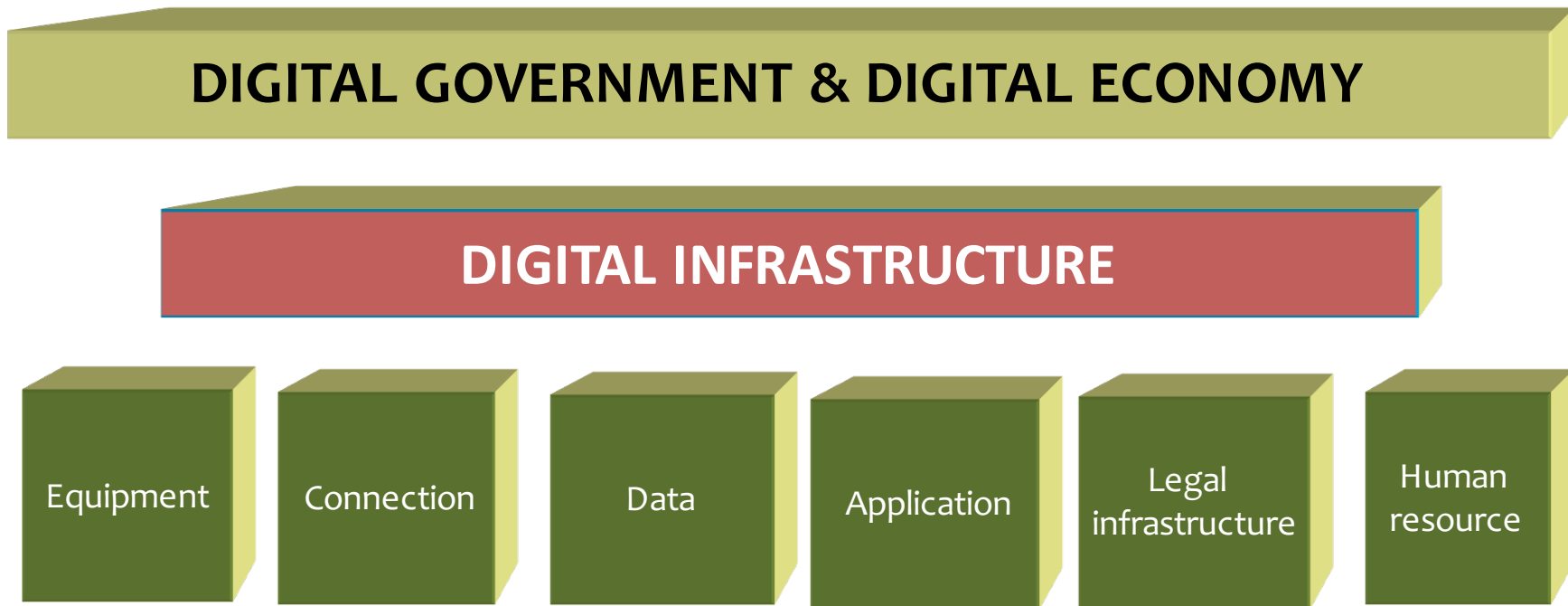


4. Many rooms for AI in late countries

Probability of being computerized and intensity in use of ICT at work, by occupation



5. No digital infrastructure, no AI



Digital infrastructure, especially data resources, is essential for data-driven AI.

5. No digital infrastructure, no AI

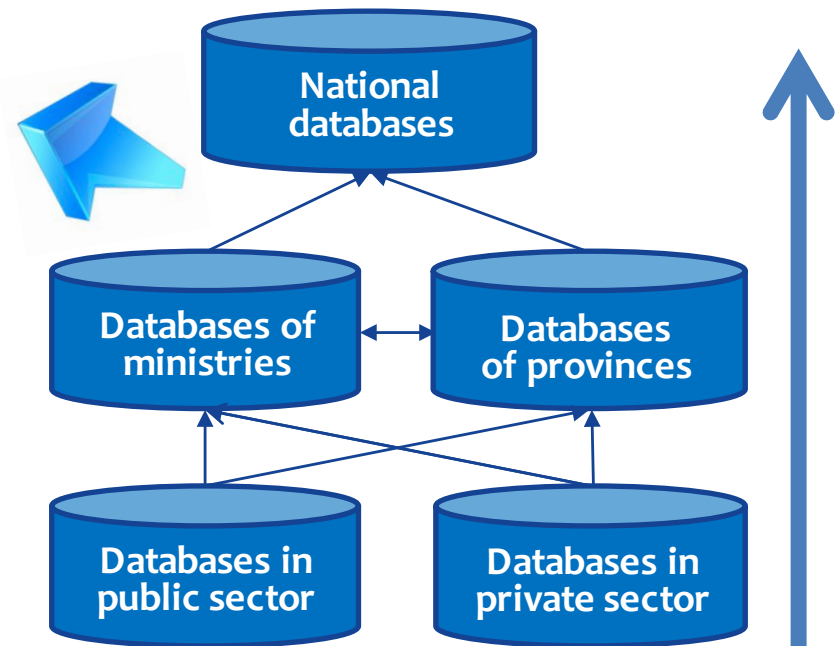
Know the world as much as possible for the development



- Connected with **standards** and **good architecture**.
- Build data infrastructure with **closed, shared, and open** data.
- Three levels: **local, national, and global**.



The databases is the **main asset** of the nation and enterprises.



5. No digital infrastructure, no AI

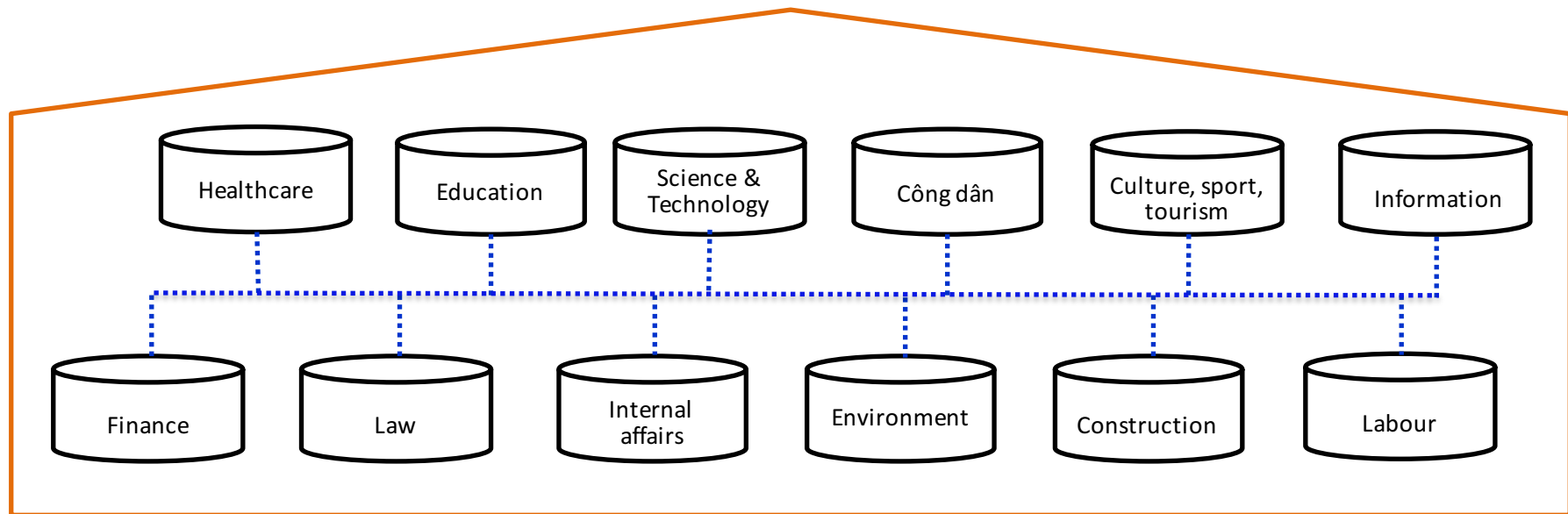
How to educate and train to have enough labors with new skills in the digital transformation?

How to increase the added value of the product, not just crude exports?



How 70% of the people live in rural areas, accounting for over 43% of labor, can contribute more than 18% of GDP?

How to reduce bad debt and cross-ownership?



DATA PORTALS (LINKED AND SHARED)

6. No talent, no AI



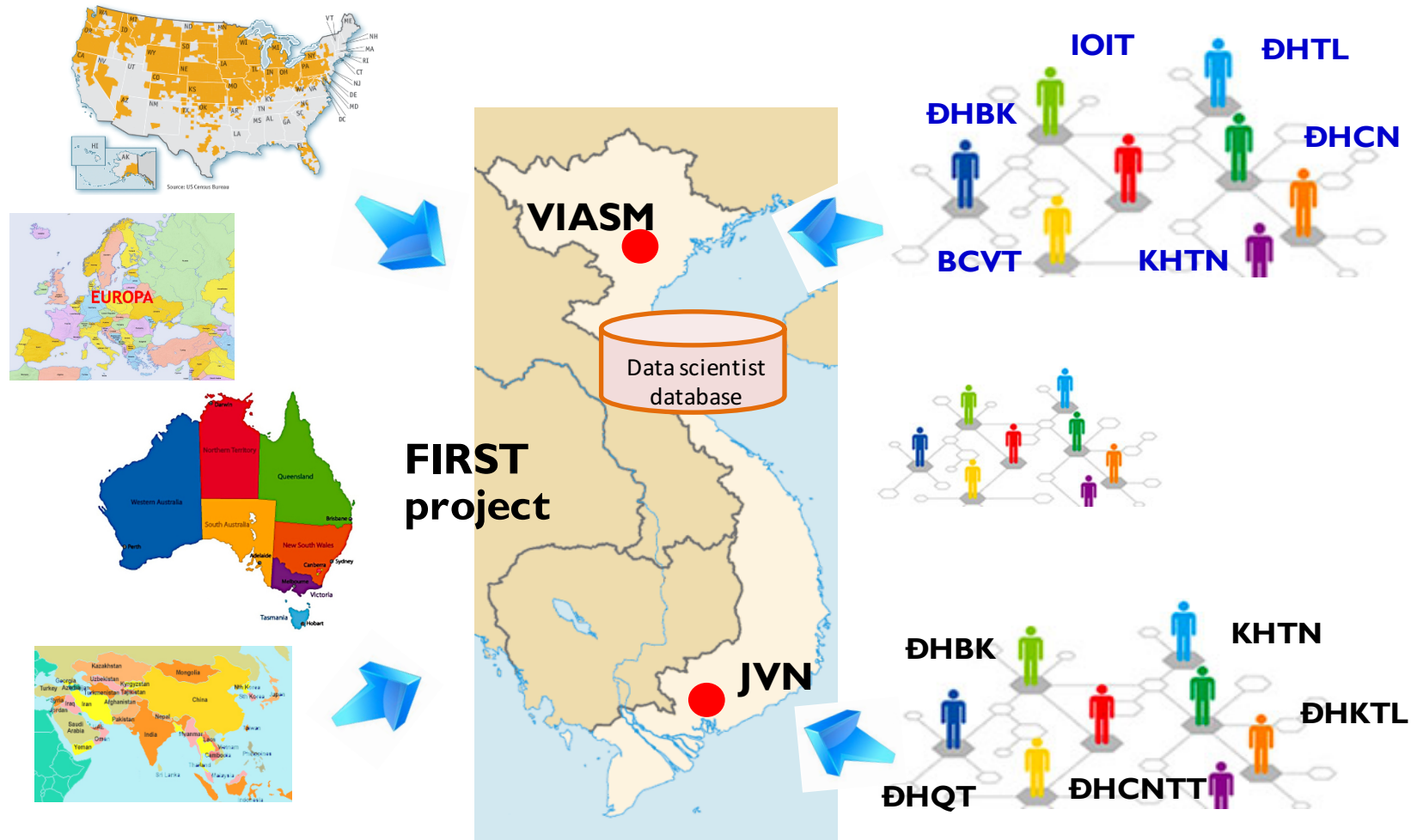
7. How many AI specialists?

Korea: six established graduate schools in AI by 2022 with the goal of training 5,000 AI specialists (1,400 AI researchers and 3,600 data management specialists).

How many AI specialists Vietnam needs and can produce?



7. How many AI specialists?



JVN and VIASM actively contribute to training AI specialists

8. AI for SMEs



Customer



Employee



Market



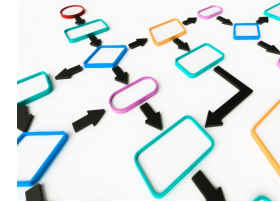
Sale



Production



Finance



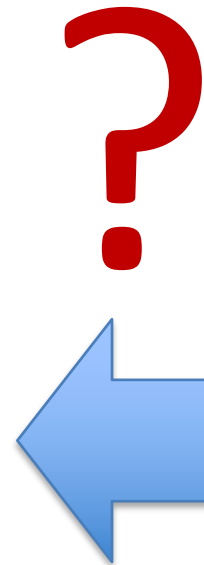
Descriptive Analytics



Predictive Analytics

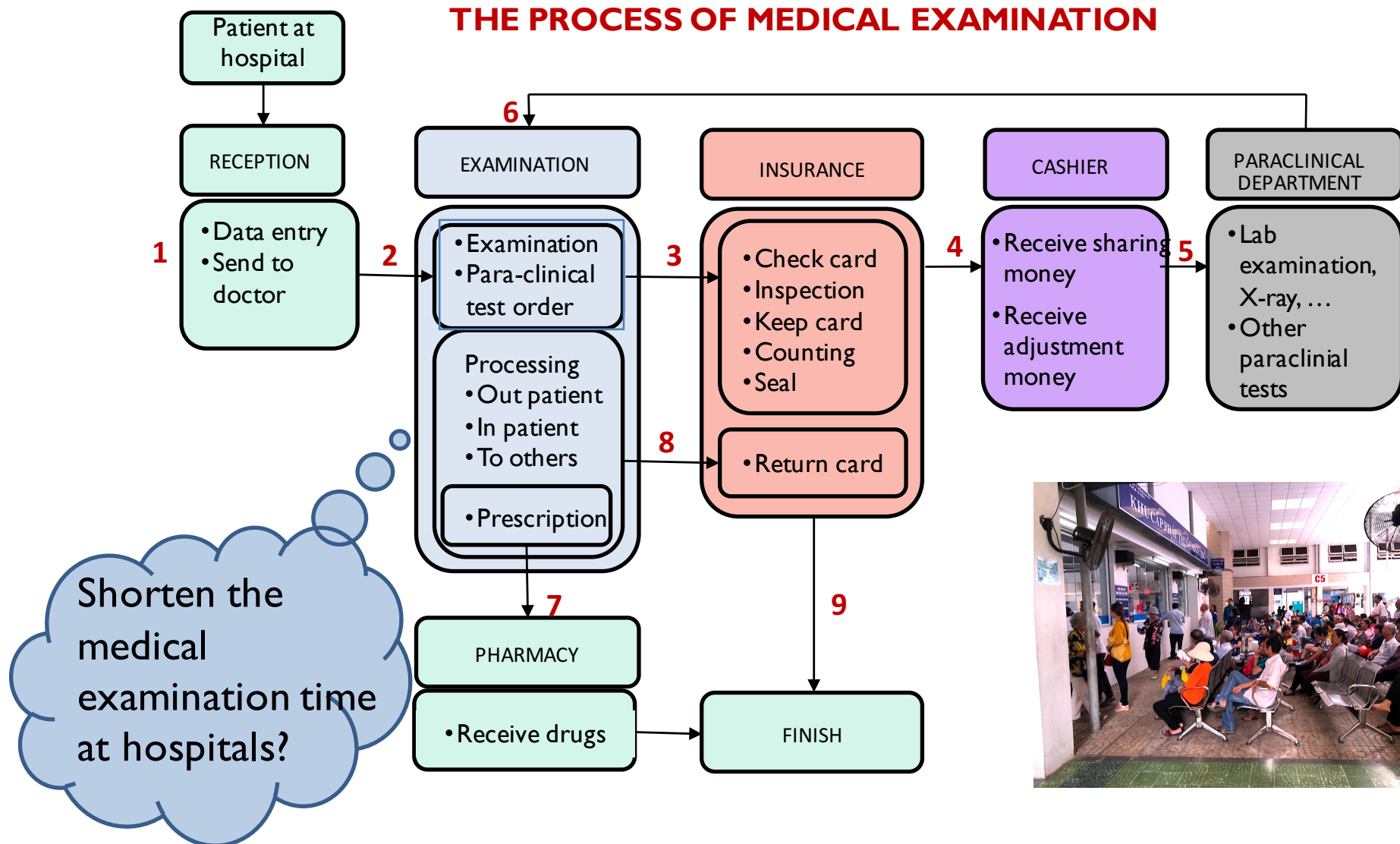


Prescriptive Analytics

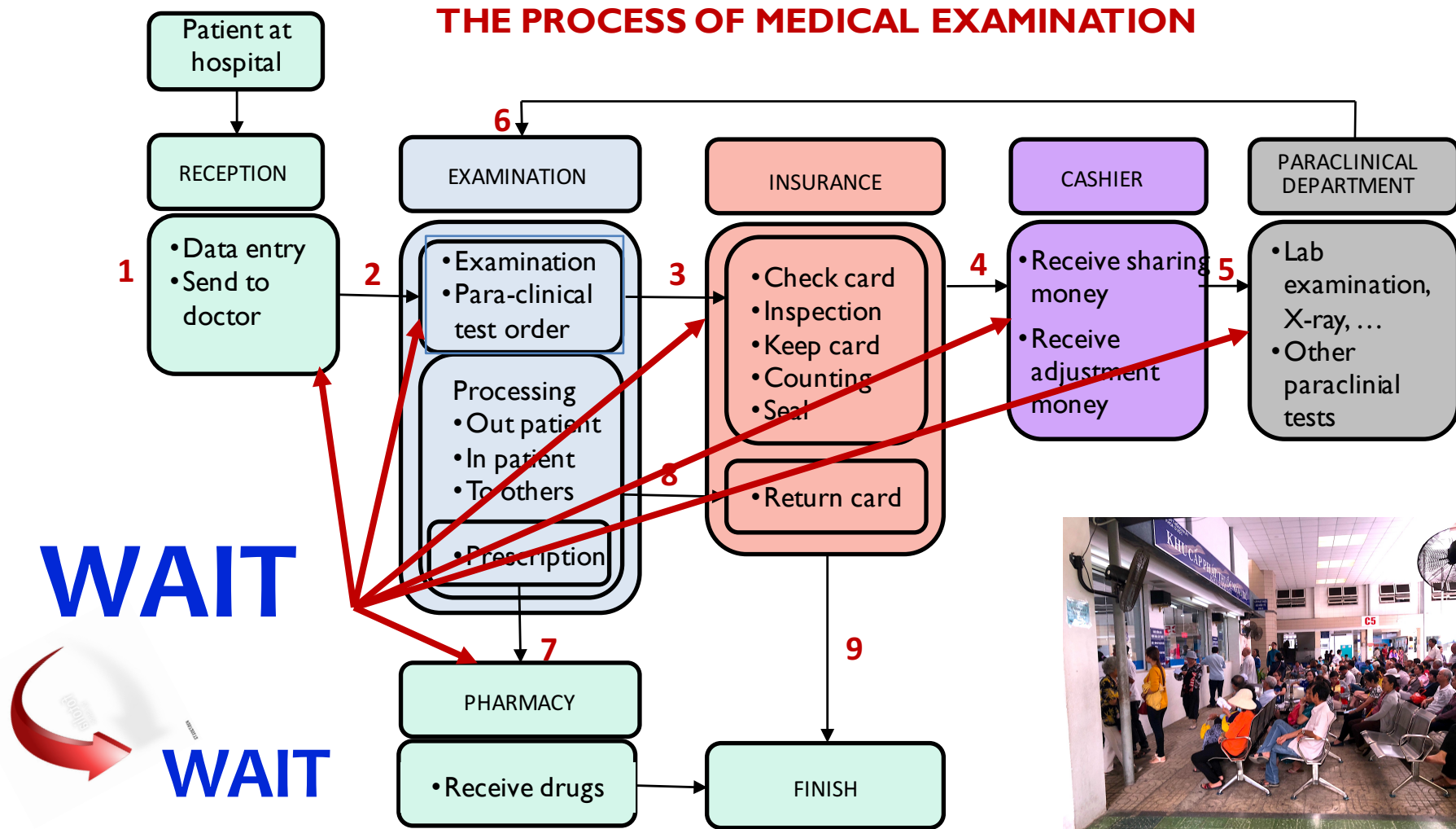


How SME people know to use AI in their business analytics?

9. AI for the top priorities of Vietnam



9. AI for the top priorities of Vietnam



10. Not much robotics but agriculture and tourism

