

Academia's strategy for technology leading and capacity building in semiconductor ecosystem in Korea

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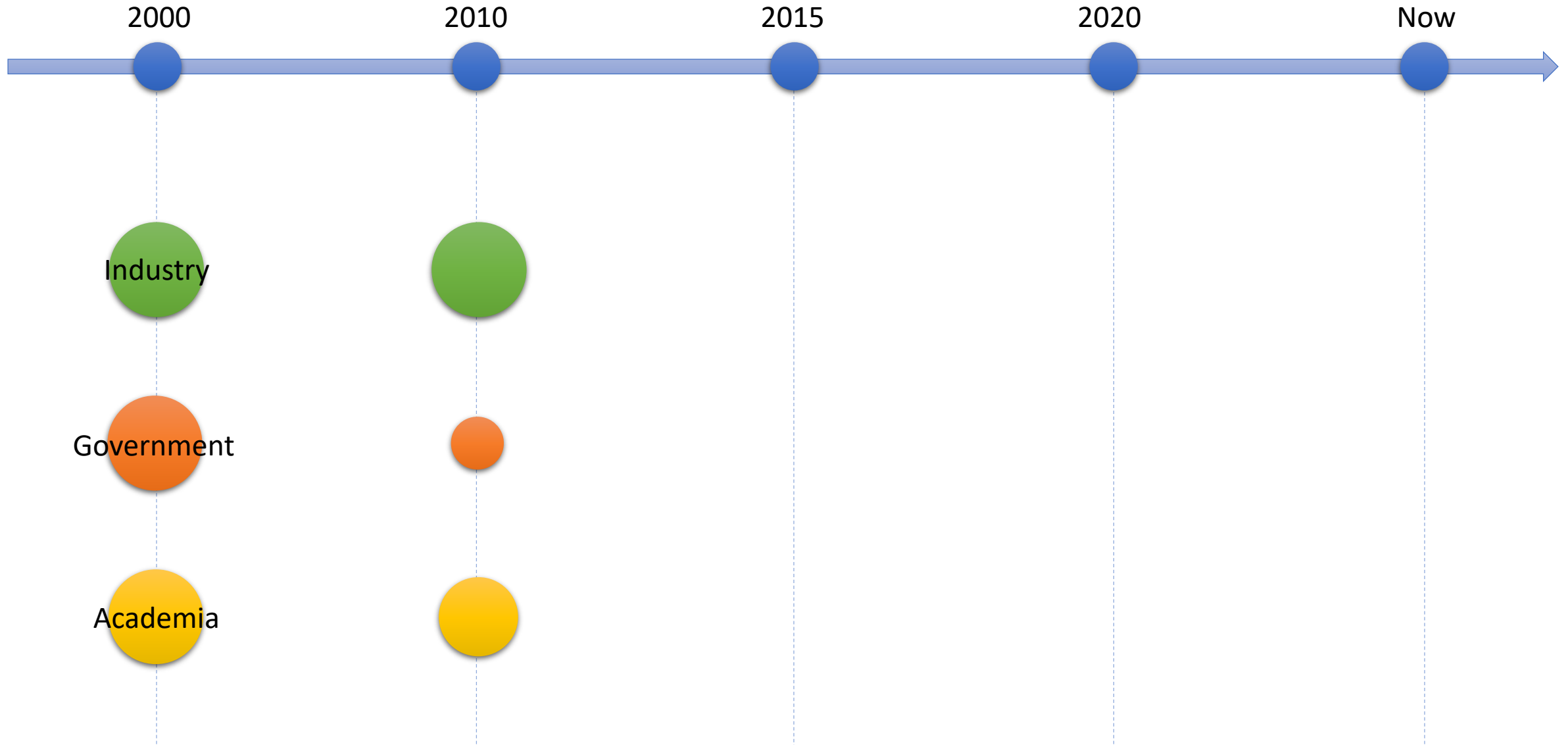
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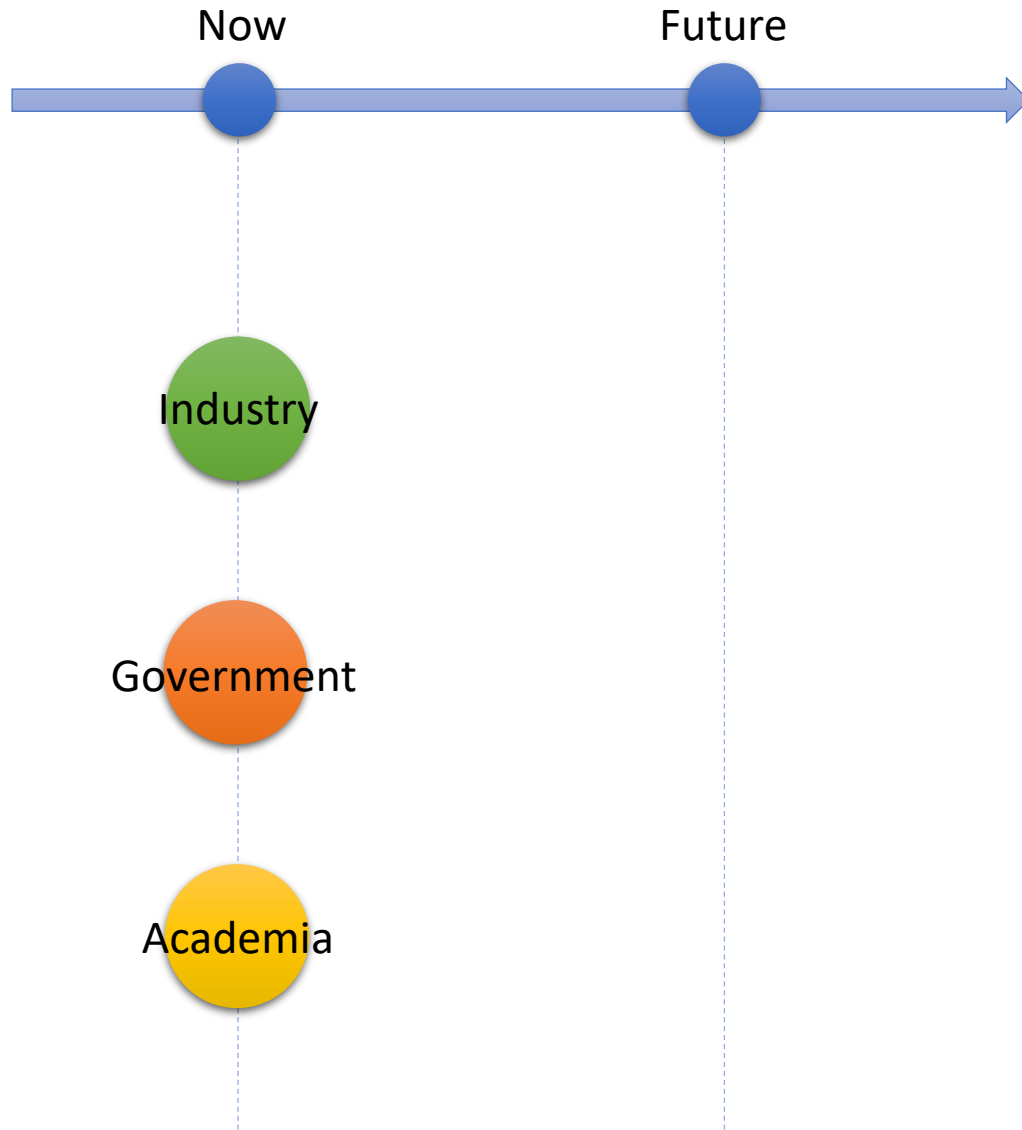
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Semiconductor ecosystem in Korea



Future uncertainties and potential challenges



- All situations are set up to be favorable for the Industry.
- A sufficient supply of new semiconductor talents is secured, and the industry can easily and affordably respond to changes in their business liquidity (referencing the law of supply and demand).
- In such a situation, the most likely victims are either the semiconductor talents currently being educated or those already employed in the industry.

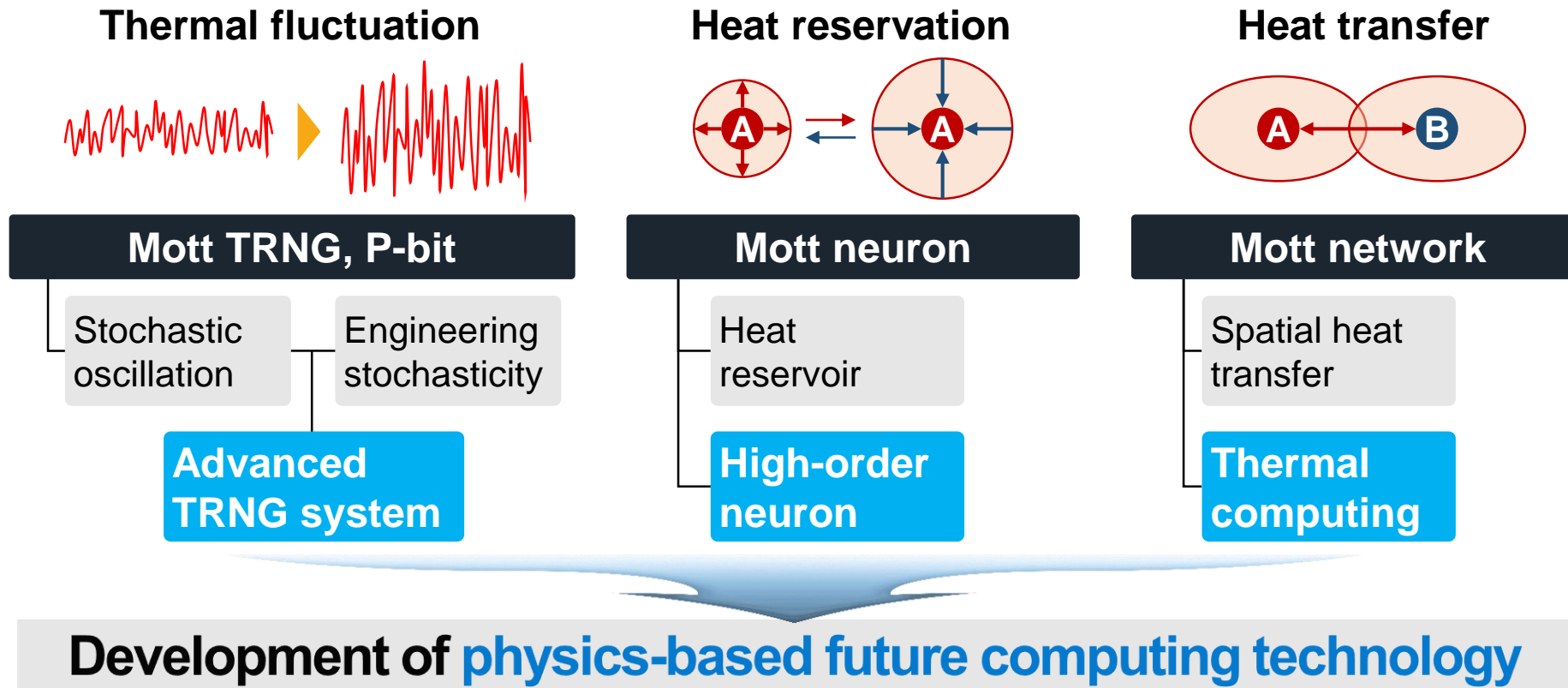
Our strategy I – Performing the role of a strategic **intermediary**

- Industries need academia
- An advisory role based on extensive experience
 - Surprisingly, the experience of the industry's research team is limited.
 - In particular, extensive academic experience in new technologies can be highly beneficial to the industry.
 - ex) S, Future Technology Council
- Execution of collaborative projects with NDA
 - The industry faces challenges with both internal and external technology exchange.
 - Additionally, it seeks to avoid responsibility for failures.
 - Academia, without the burden of failure, can quickly address the industry's needs.
 - Ex) S case; H case

Our strategy II

– Leading the research of **next-next-generation** technologies

- Stay ahead of the industry - development of next-next-generation technologies
- Ex) Probabilistic computing, Thermal computing



Our strategy III – K-semiconductor, Open eyes towards **abroad**

- The world wants semiconductors. Our semiconductor technology is world-class.
- Recent opportunities for international collaboration
 - Various international collaboration projects supported by the government
 - KAIST-NYU

Our strategy III – K-semiconductor, Open eyes towards **abroad**

- Benefits for academic graduates
 - High salary
ex) S vs I
 - More opportunities around the industry
 - More opportunities beyond the industry
ex) Research institute, Professor
 - More values that cannot be quantified.

Closing

- Currently, we are in the golden age of semiconductor education.
 - ex) FuST at KAIST, and more at SNU
- However, their future is not guaranteed domestically.
- Semiconductor education should also focus on cultivating global leaders more than any other research area.