



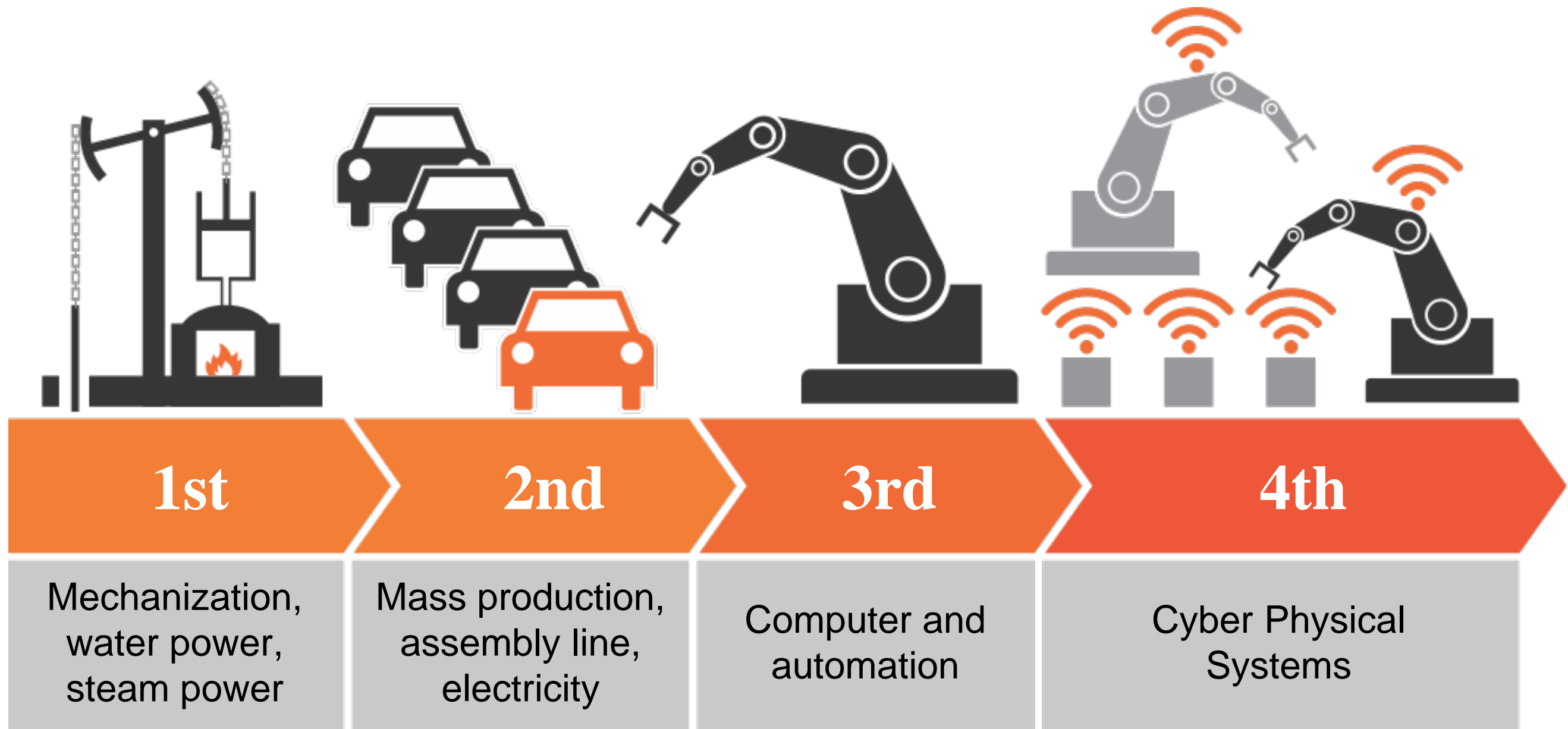
University - Industry collaboration mechanism in the Industry 4.0

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What is Industry 4.0



What is Industry 4.0

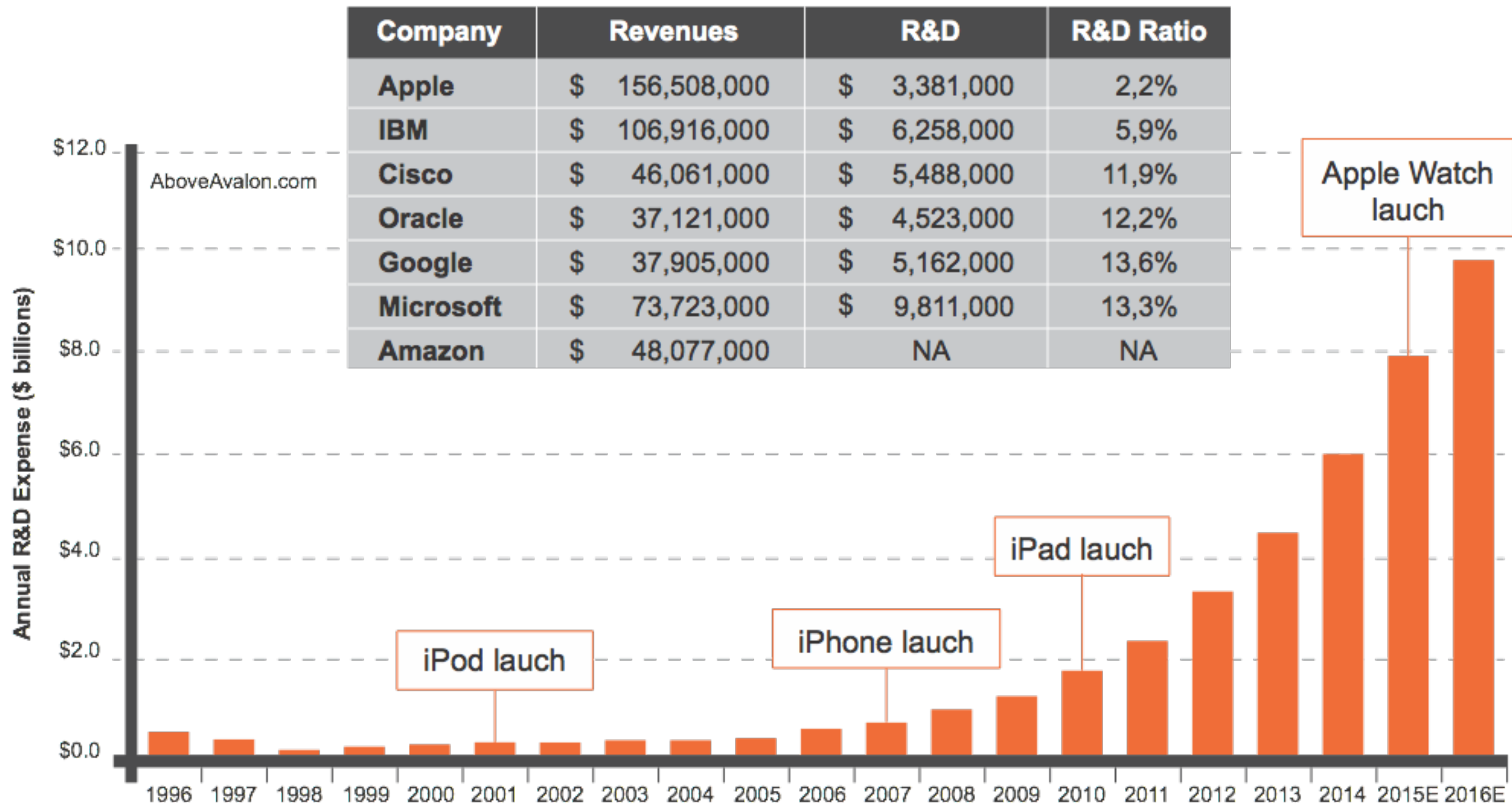


- McDonalds To Open 25,000 Robot-Run Restaurants



- Foxconn is cutting 60,000 factory jobs, to be replaced by robots

Research trends



Source: Company Reports, Above Avalon

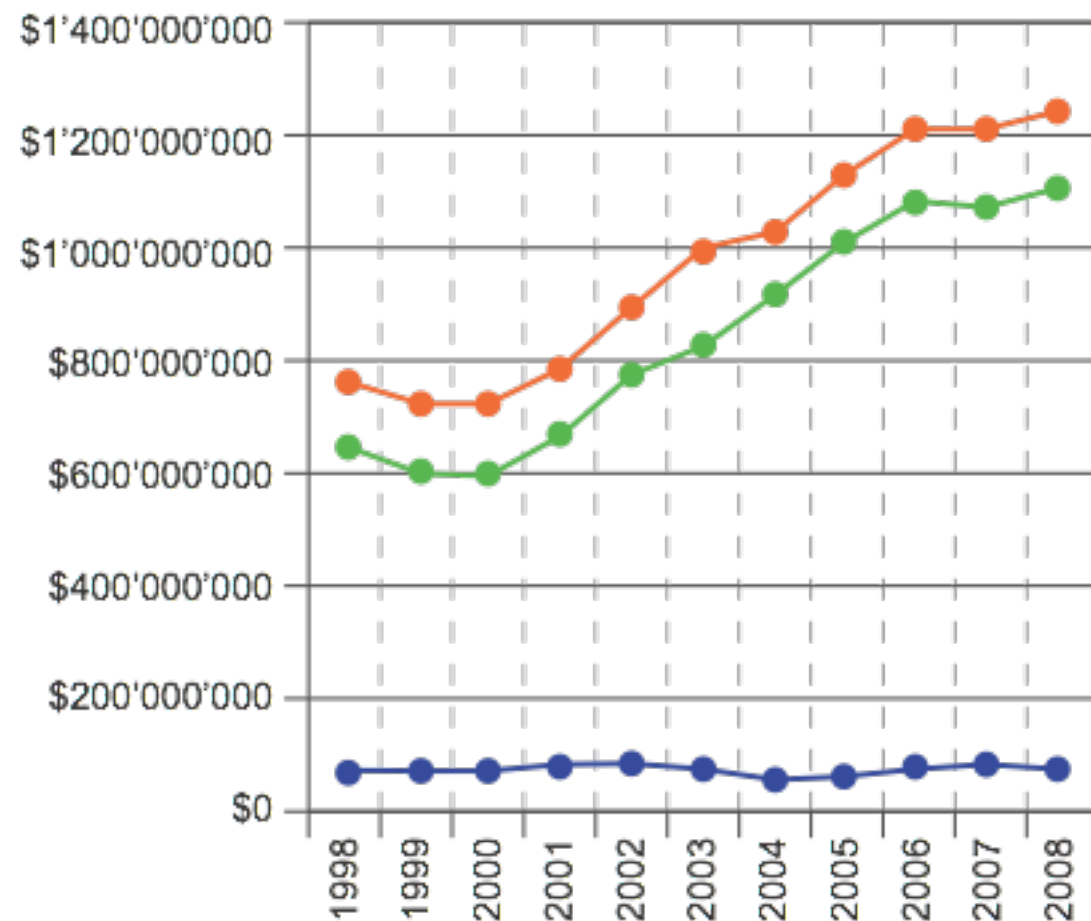
Research trends

MIT vs. Stanford Sponsored research budgets

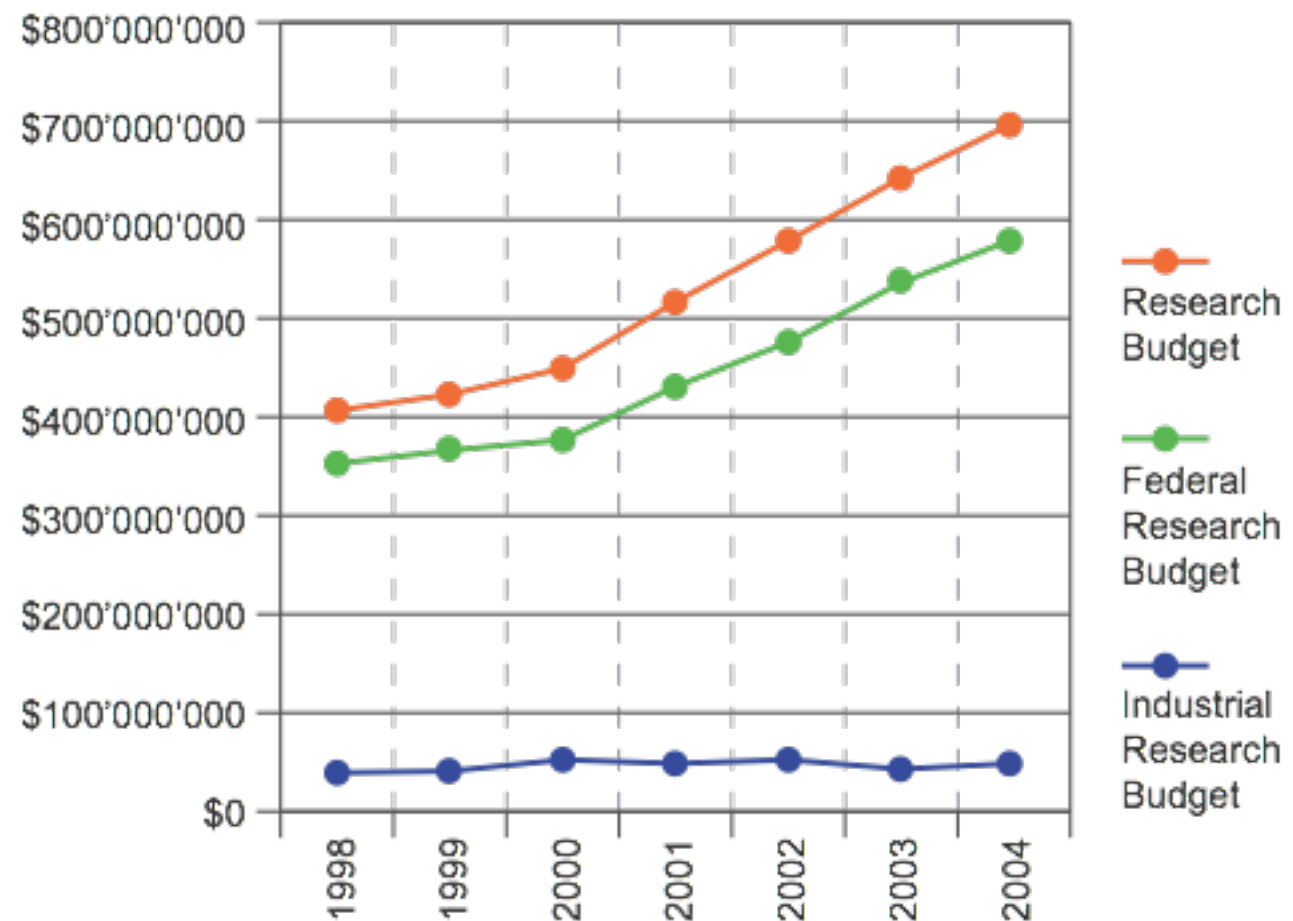
- **Federal sponsor:** about 85% of total research budget for both
- **Industrial sponsors:** MIT - about 7-10% of research budget
Stanford - about 5-8% of research budget

- Top corporations spend 10 times more on R&D than top universities

MIT Research

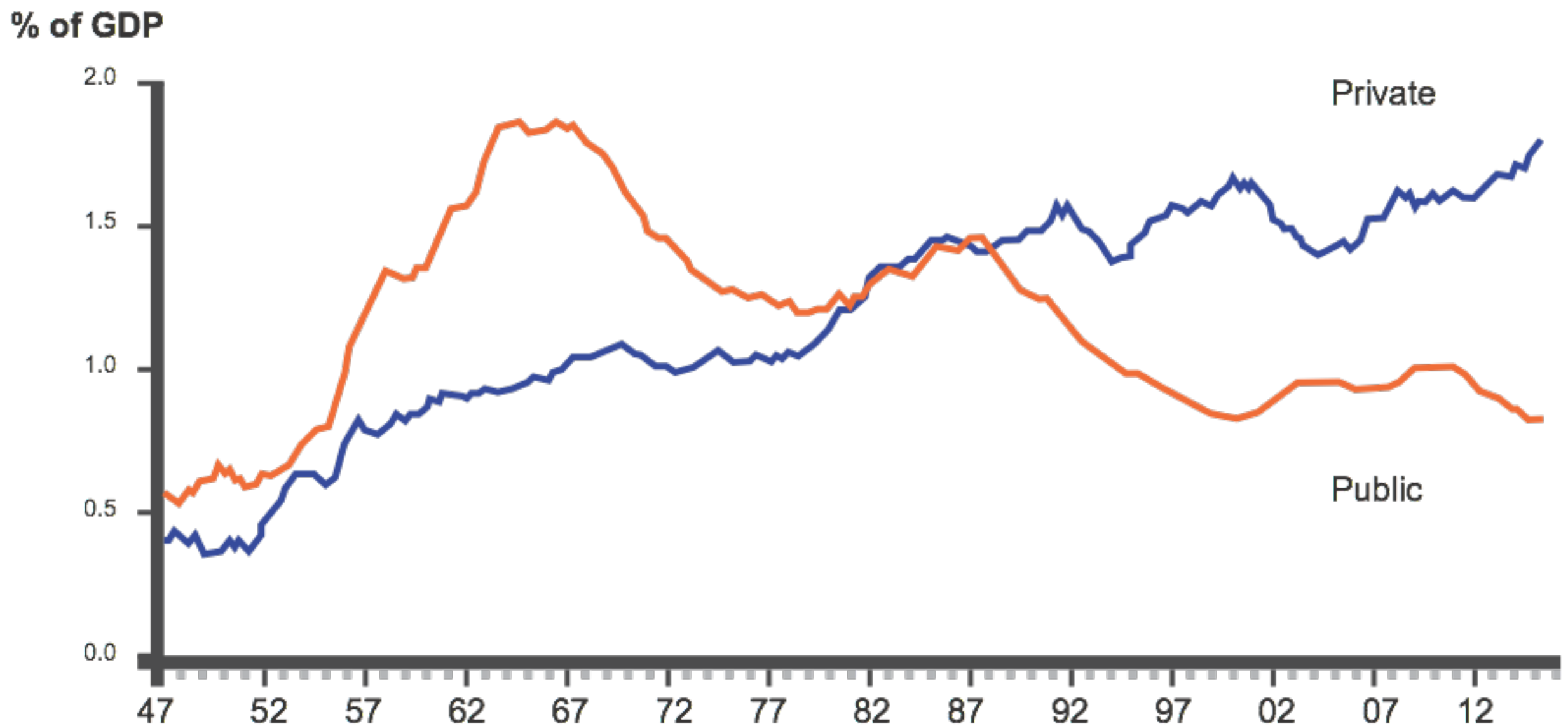


Stanford Research



Research trends

Figure 2: Public and private R&D spending



Source: BEA

Trends

- R&D expenditures have risen in private sector
- Universities are becoming less important in R&D compared with industry.



The model of Technopolis



The model of Technopolis

- Synonyms: university research park, science park, technology park
- A physical place that supports university-industry and government collaboration with the intent of creating high technology economic development and advancing knowledge



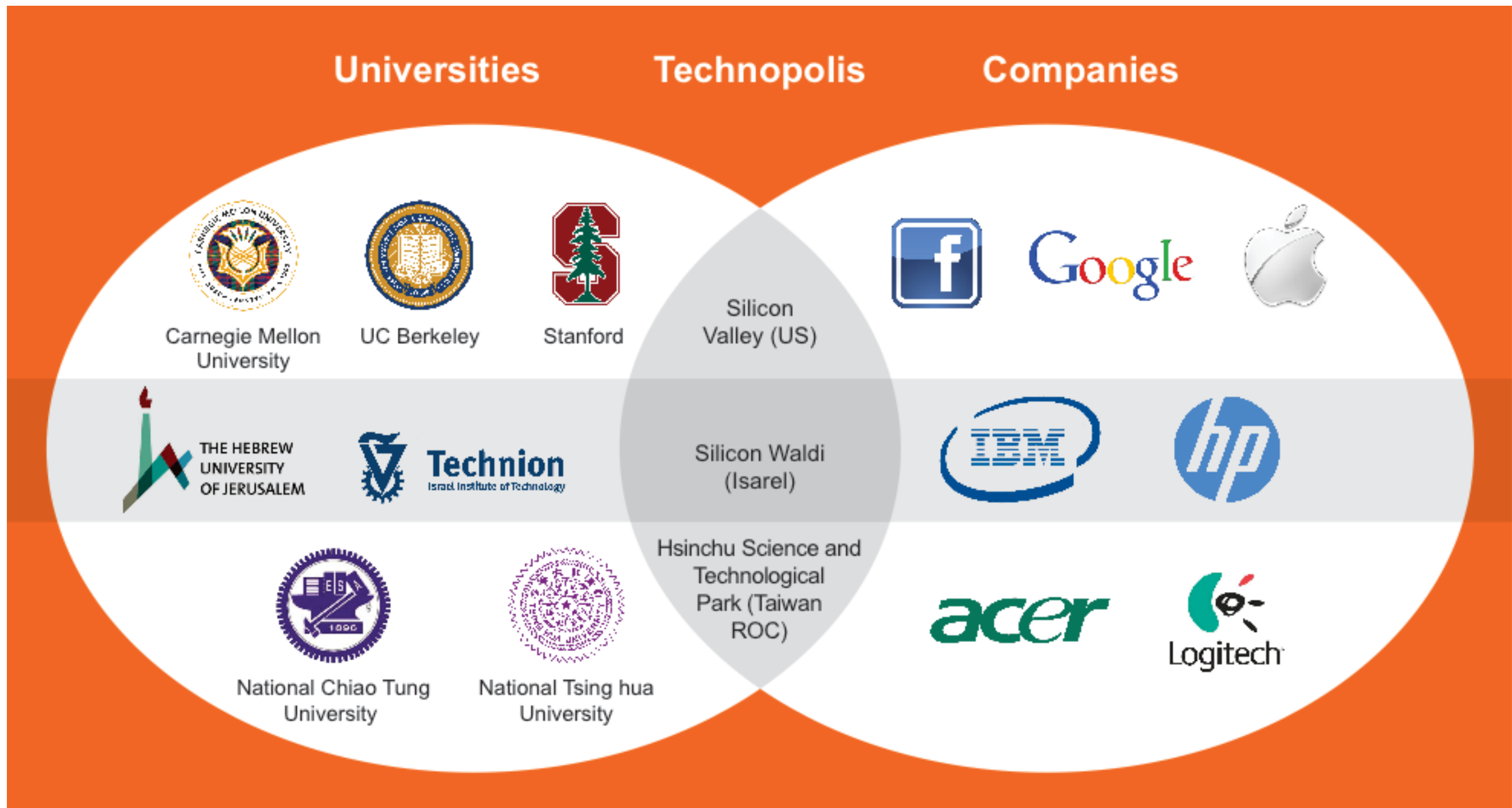
The model of Technopolis

- The advantages of spatial proximity between universities and industrial companies:
 - Facilitating the transfer of knowledge, especially tacit knowledge
 - Allowing industry to access specialized inputs, such as high qualified graduates from universities
 - Increasing demands by reducing consumer search costs
 - Shared resources: infrastructure, facilities, workforce, R&D expenditures



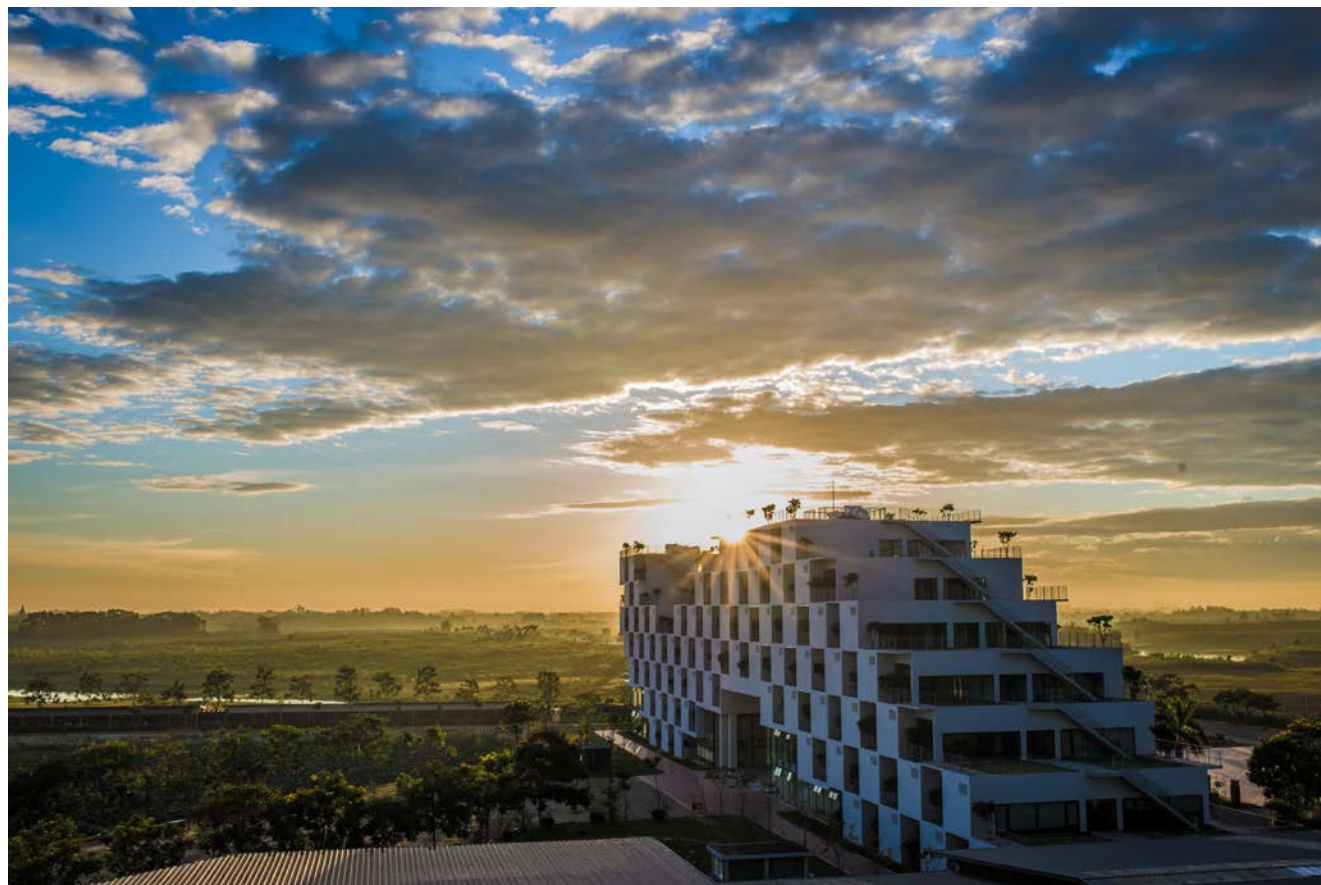
The model of Technopolis

- High profile examples:



FPT University – an example

- Established under the auspice of FPT corporation in 2006
- **17,000 students**, mainly in ICT and business majors in 2016 of which 400 are international students
- First institution to be rated 3 stars by QS (with 5 stars for teaching and employability) in 2012
- **98%** employed after 6 months graduation.
- **About 20%** higher start salary in market



FPT University – an example

- FPT University is a private information technology university in Ha Noi, Vietnam, established in 2006. It is the first private university to be opened in Vietnam.



FPT University – an example

- **FPT university's policies on industrial cooperation:**
 - As an affiliated member of an ICT corporation, FPTU is fully aware of the importance of academy – industry linkage
 - FPTU is the first education institution and among the first organizations to move to Hoa Lac Science Park in 2012
 - All students must spend one semester internship at industry



FPT University – an example

- Maintaining a certain proportion of faculty staff who have had experiences from industry
- Joint collaborative research with financial sponsors from industry
- Established an internal company as an incubator for start-up and young entrepreneurs



Wrap up



- Industry 4.0 is coming soon



- Investment in IT transit from public to private



- University & Technology Company = Technopolis



- FPT University as an example in Vietnam



Q & A



**Thank you
for your attention**