

My father was an economist ...

I saw him come home from work, never happy in his job

I said, “I’m NEVER going to do that stuff, I’m going to go into science and technology!”

Most of what I did after my first few years in industry was work on **economics problems**

Most prescriptions for improving America's technological position or competitiveness focus on the supply side

Supply Side Incentives

- R&D programs – research funding, labs, centers, direct funding, etc.
- Workforce preparation – training/ retraining programs, skills development
- Tax benefits – holidays, accelerated depreciation, credits
- Infrastructure support
- Direct and indirect subsidies

Demand Side Incentives

- Who's going to buy this output?
- Will they fund my learning?
- Can I get a job / have an exciting career in this area?



Willy's study of the Chinese motorcycle industry

Chongqing, circa 1980s

“Cold War’s over ...
go make civilian
goods!”



Household
manufacturing –
100's of shops, each
making one part

“How can that
possibly work?”



“Oh, we had standards
– there was the Honda
standard, the Yamaha
standard, the Suzuki
standard”

“It’s a terrible business –
no differentiation!”



But a brand new
Yamaha costs
US\$6000, and one of
ours costs US\$800

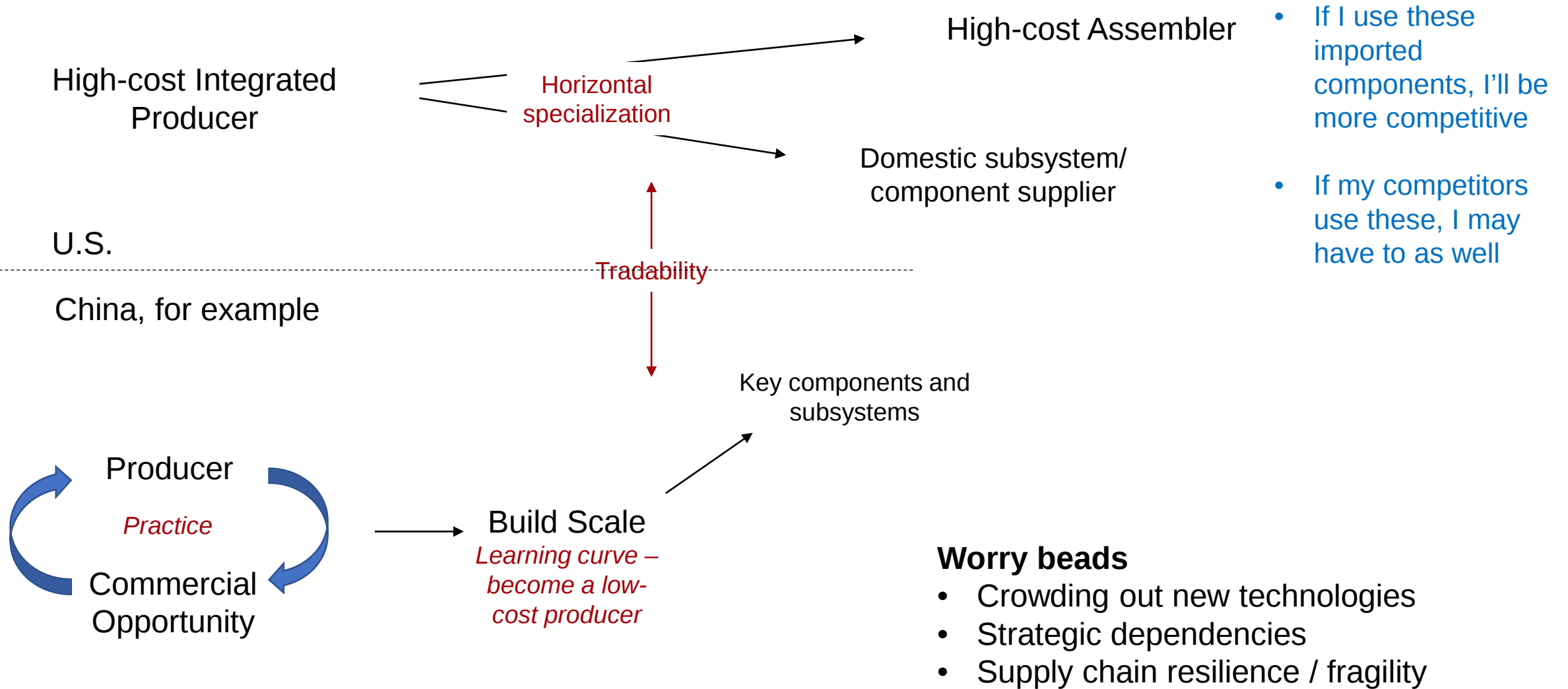
Now at Home Depot!



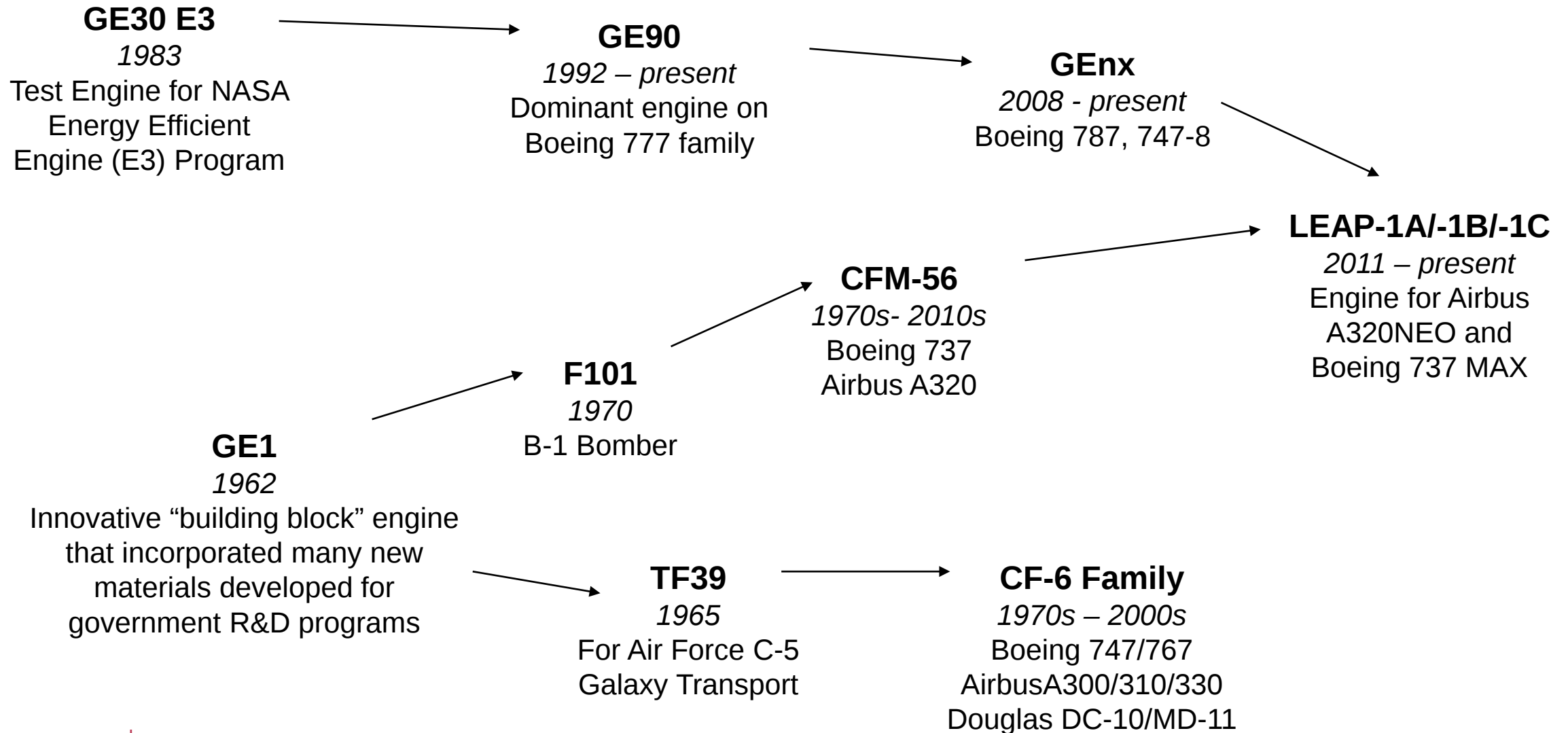
- Company put in TPS
- Drove down the learning curve
- Had customers for its output = cash flow
- Leveraged home market to build a global presence



HARVARD
BUSINESS SCHOOL



Problem / Mission Oriented Approach



Problem / Mission Oriented Approach



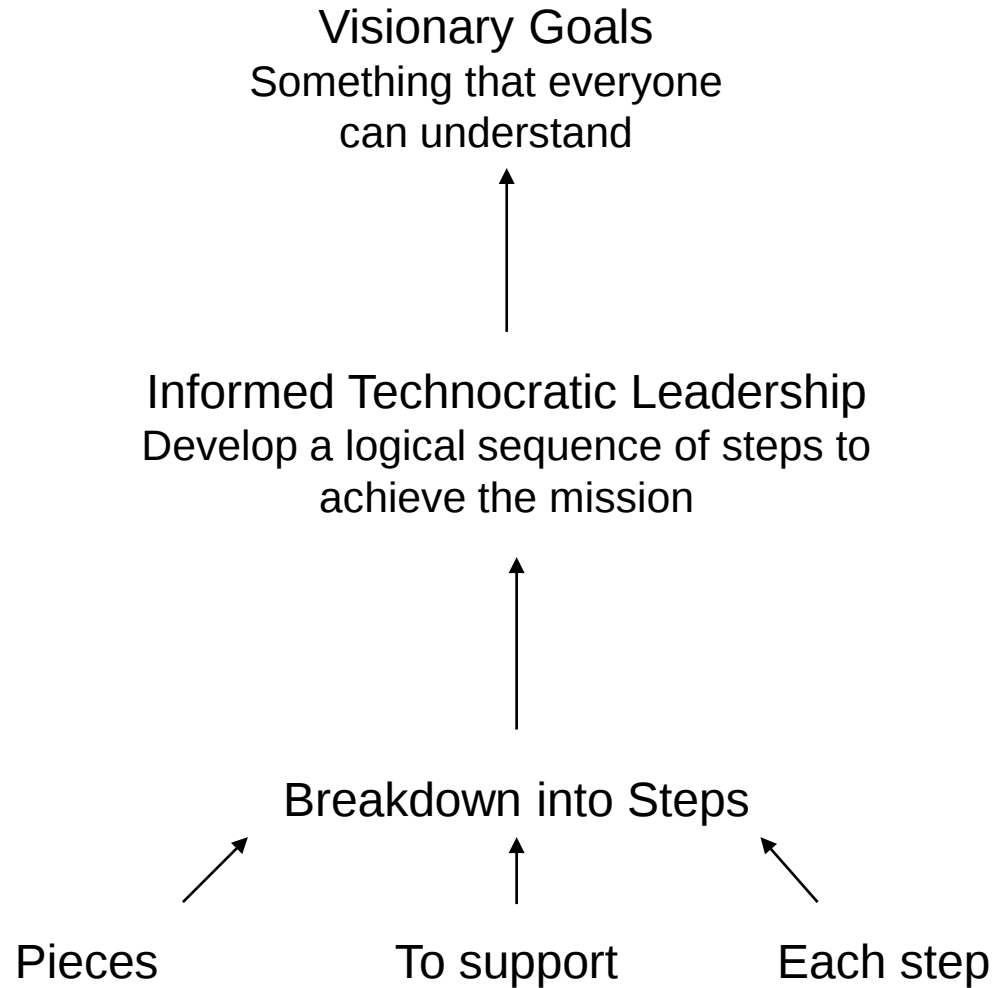
Contracted launches = cash flow



Perfect new technology and processes



Mission-oriented Goals



“Grid Modernization”
21st Century Grid

Smart, Integrated,
Distributed Generation

5G-6G
Communications
Technology

Energy
Storage

Switching and
Transmission

HVDC

Power Semis

Group III-V
Semis

SiC Semis

