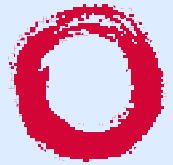


# Comparing DOD to Commercial Environment



## DOD

- Mission/Program/Problem Driven
- Relatively small set of customers
- Requirements often controlled by single office
- Formal development cycle and schedule controlled by customer
- Customer(project office) pays for development
  - long front end process
  - very formal development
  - must meet ALL specs before accepted
- Market usually limited -
  - difficult to stimulate internal investments
  - difficult to stimulate broad investment in complementary technologies
- Program Office/ Contract drives schedule
- Sometimes seduced by proprietary solutions (what seems best for program but may not be in the long run)

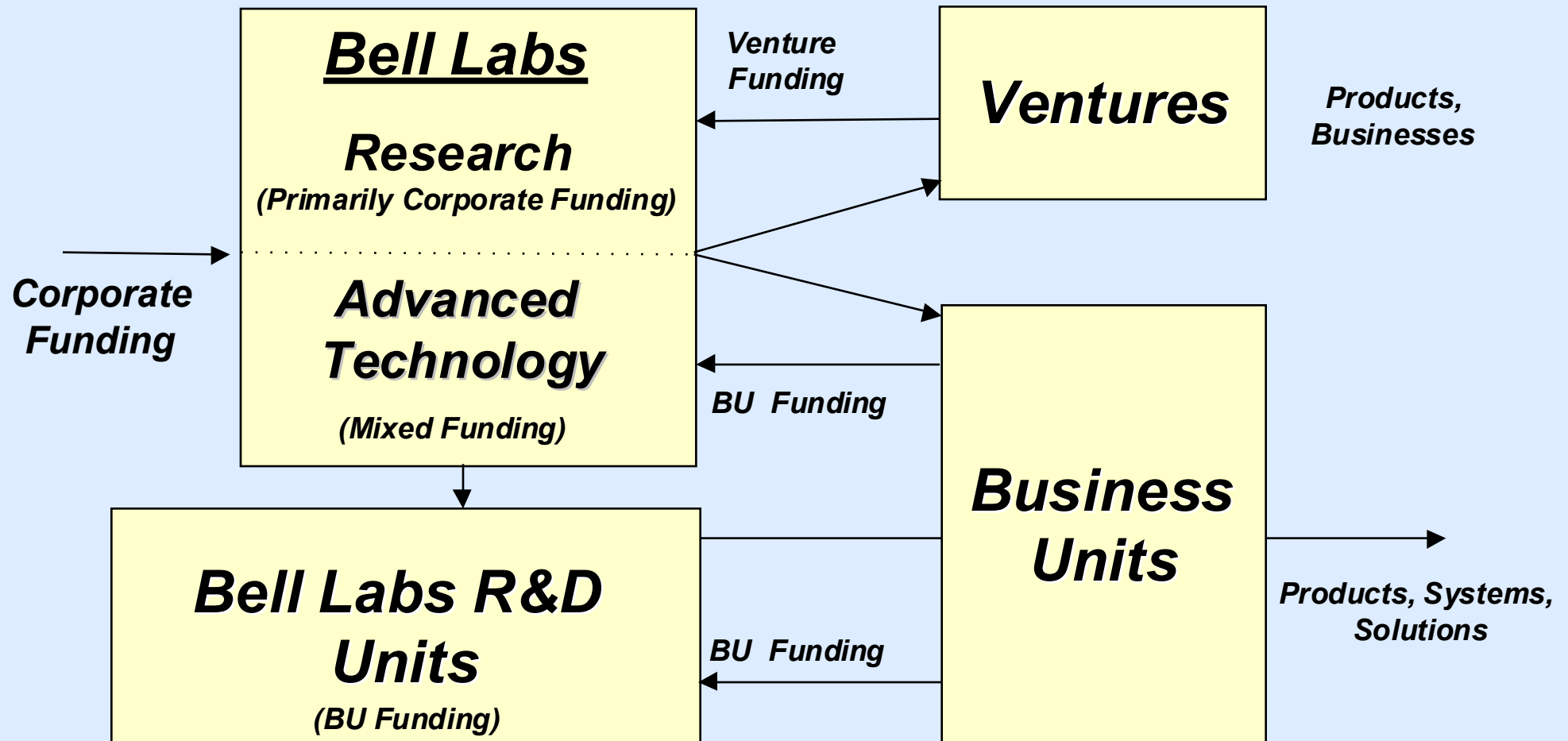
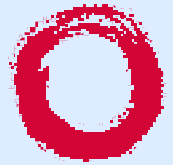
## Commercial

- Market/Profit Driven
- Large set of customers for technology/products
- Vendors develop (invest) products to satisfy market needs & please customers
  - less “micromanagement/control”
- Customers must pick from best available
- Vendors enter market with best shot and upgrade (market window is key vs. meeting a spec)
- Open standards key for success
- Market opportunity stimulates investment by many companies in complementary technologies (e.g. wireless - batteries, antennas, DSPs, etc.)
- Market window, large profits, and survival drive schedules

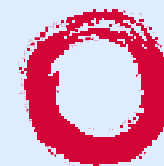


# Private Sector Example - Lucent

Lucent Technologies  
Bell Labs innovations



# Positions



- **Is it easier to transition technology in the private sector**
  - ➔ Many more opportunities
  - ➔ Many more failures
  - ➔ Only noticing the successes?
  - ➔ 1 of 20 New Businesses/ New Products (NEW/NEW) succeed
  - ➔ More success in core markets (New/Old)
- **Are there parallels to acquisition reform, downsizing, consolidation**
  - ➔ Mergers in Telecom but for different reasons - growing vs. shrinking market
  - ➔ switched from downsizing to growth
  - ➔ doubt if prices would go up (in an unregulated environment)
  - ➔ DOD probably paying for fixed infrastructure costs despite shrinking market
- **Measuring technology transition**
  - ➔ metrics (primarily P&L contribution, also # of breakthrough projects, time to market, ...)
  - ➔ technology mix - r&d management, business leaders, product managers interlock
  - ➔ level of maturity - R&D and product managers
  - ➔ who decides( business units based on market demands)
  - ➔ pursued or created ( predominantly pursued)
- **Can we upgrade older legacy systems**
  - ➔ Must evaluate on a case by case basis; usually requires special modifications(tailoring)
  - ➔ sometimes may be better to scrap, sometimes must try to update