15.912 Technology Strategy
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Ember

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Value Capture: What should Ember do?

How will we *Create* value?

How will we *Deliver* value?

How will we *Capture* value?
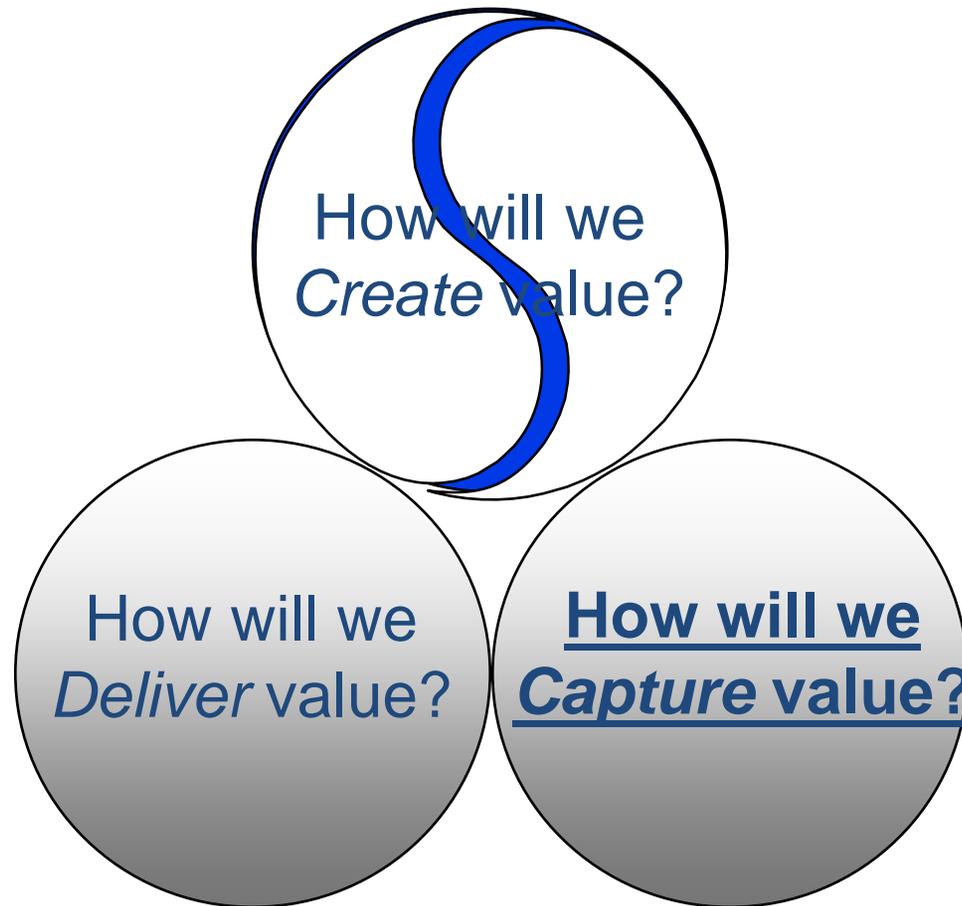
Ember & Zigbee:

- **OEMs and customers will not commit to proprietary standards from a venture capital-backed startup…**
- **…so Ember does join Zigbee standard**
  - Had to give away a lot of IP to the Zigbee standard…lot of debates about this!
  - TI & Freescale joined, but really were dragging their feet
    - Always late to pay the budget, so Ember is paying most of it.
    - Missed meetings; made Ember do advertising campaign
  - But Ember would develop one of the best Zigbee implementations! How?

Ember partners with Chipcon for Chip Design

- **Chipcon:** Biggest chip designer in Norway
  - They split design costs, which are large
  - But Chipcon want rights to use chips and IP as they see fit…
  - ..a big debate about this inside Ember!
  - But they ultimately agree to a deal to share costs in developing the first robust integrated chip.
  - Few years later, Chipcon is bought by TI, who becomes a major competitor!
  - …but the joint venture did get costs down to ~$1 node.

Ember's Competition

- **Zensys fades away…**
- **TI and Freescale (who acquired Motorola's assets in this area) become the major competitors**
  - But Ember is winning 75% of competitive sales…because the product works well
    - Freescale: seems to be not paying attention to the business
      - Software won't compile…big company problems
    - TI:
      - Ember better at bug fixing, and may have more software features

Which markets? …sales may be beginning to take off!

- **Markets:**
  - Many of the niche markets in the case fail to grow dramatically…
  - Utility Home Market takes off!
    - Eaton's market!
      - But Eaton couldn't seem to release a low cost (integrated) solution…they may have lacked effective organization
  - Ember moved into the void: branded themselves as the ultimate <u>Green Energy Solution</u>!
    - Reading energy meters
    - In commercial apps: are the lights on?
    - Basically, can monitor everything, and save energy.

Looking Forward:

- Competition in Standards-based Industries:
  - Network Externalities and Increasing Returns:
    - Small vs. Large company strategies
    - Open or closed?
    - Public or Private?
- Bring your reflections to class.