Technology Commercialization

Academia – Industry Collaboration

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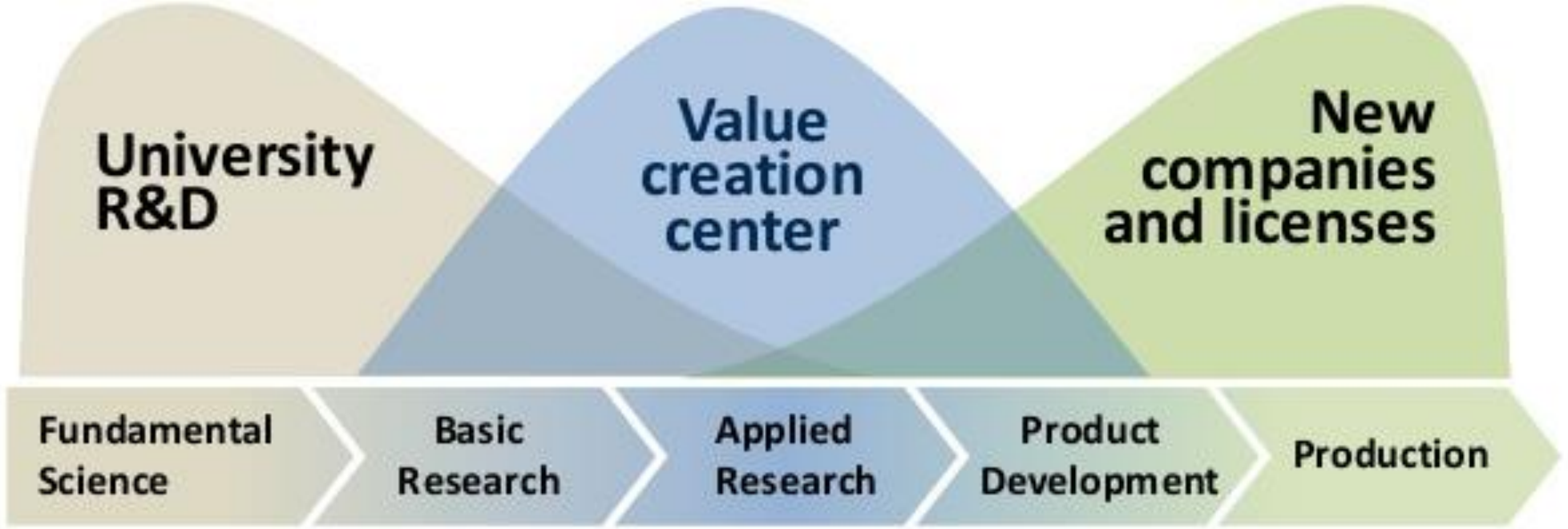
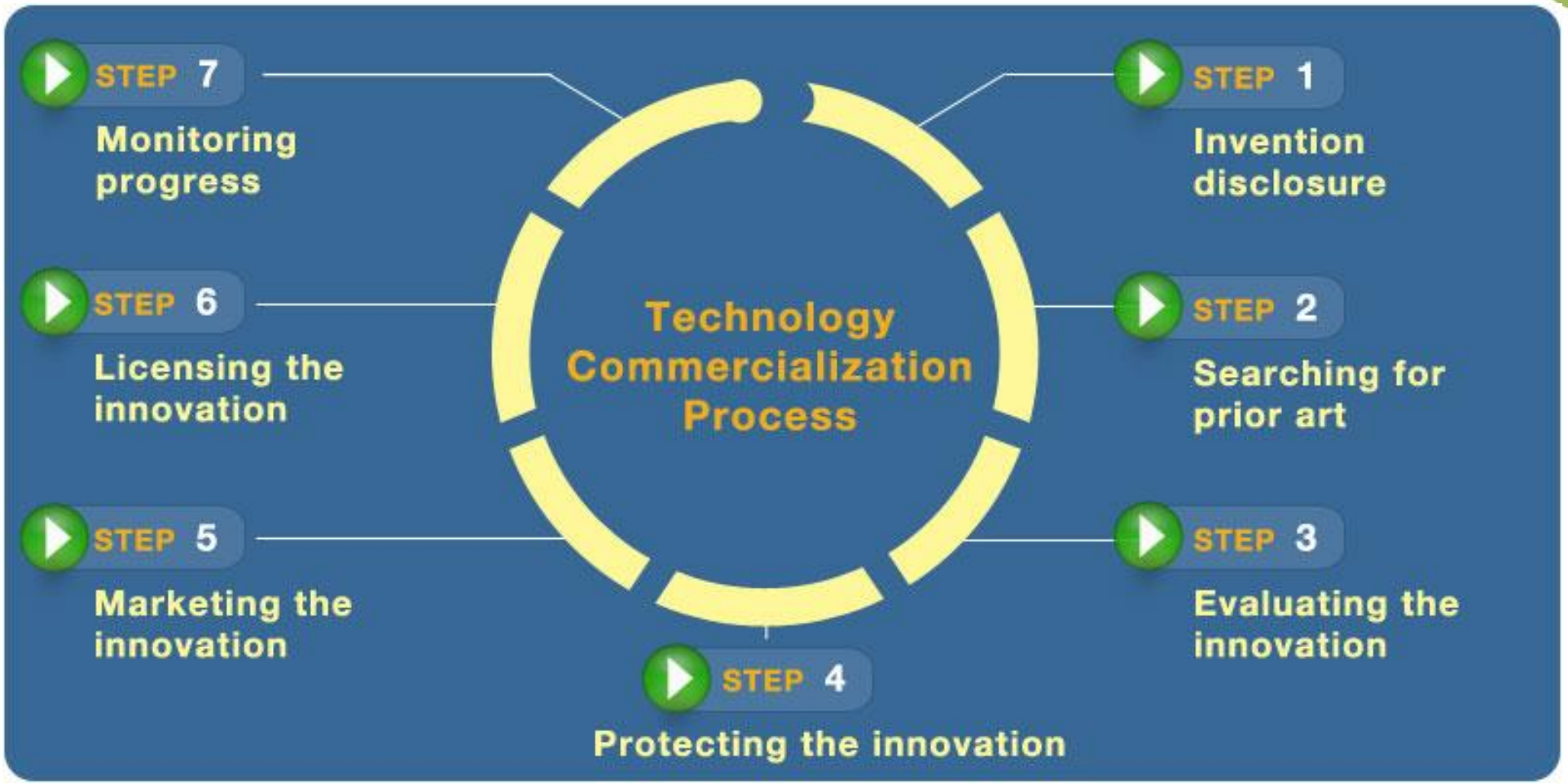
1.1 Stakeholders



Ref. Strategic Business Insights

1.2 Technology Commercialization Process



Ref. Georgia Tech

2.1 Describing your own innovation (I)

1. Innovation: New value to the customer
2. **Simple??? The Most Difficult Thing**
3. What you are saying is the one that:
   - What you want to say?
   - Is what the next person interpreting?
   - Is what the customer want?
4. 3-4 lines: Non-technical
   - What it is?
   - What it does?
   - What problem it solves for whom?
5. Objective: Make potential partner/customer interested to ask more.

2.1 Describing your own innovation (II)

Do you have the right description?

1. Your friends can repeat it.
2. Non-technical person can understand it
3. Doesn’t disclose intellectual property
4. Positive: Focus is solution and not problem
5. Next person asks you questions.

Try to write. Name it. Frame it.

Pitch to other.

Hear from other.

Iterate.

Practice with 25 audiences.

2.2 Benefits (I)

1. **Feature:** Technical thing
2. **Benefit:** Use of feature
3. **Value:** Business benefit

Example:

Feature: Online tracking via What's app

Benefit: Where is our employee, how much time is he spending

Value: Improve in productivity and date for decision making

Checkpoints:

1. Why you created and verify with others
2. Quantify (Prove)
3. Be specific

2.2 Benefits (II)

Performance

- speed
- strength
- processing speed and capacity
- battery life
- energy consumption
- effectiveness in solving problem
- percentage of problem it solves

Physical characteristics

- weight and size advantages
- portability
- longevity or life span
- resistance to elements: weather, temperature extremes, corrosion, rot, moisture, insects

Cost reductions

- expenditures
- personnel or production
- raw materials
- cost regulations
- capital cost
- operating cost or time
- commercialization

Environment

- carbon footprint
- green house gas emissions
- Volatile Organic Compounds (VOCS)
- raw materials used
- resource intensiveness
- energy consumption
- end of life disposition

Life cycle

- maintenance and spare parts requirements
- service and support
- ease of adoptability
- fit with existing infrastructure and processes
- ease of manufacture
- scalability
- customer lock-in

Ref. Technology Readiness Series

2.3 Intellectual Property

1. Patent: Innovation
2. Industrial Design and Trade Mark: Look, brand, sound
3. Copyright: creative work
4. Trade secret: Secret

Key Points:

1. Attorney
2. Document: Date, signature, hard copies
3. Ownership
4. Inventors
5. Give credit
6. NDA, invention disclosure form, agreements, non-compete clauses

2.4 Development Status (I)

Key Points:

1. Decide: Do you want to continue?
2. Get partners: Validate at each stage
3. Focus-Focus-Focus
4. Easy target group, reduce risk
5. As you go, risk increases, value increases
6. Certifications
7. Customer validations

2.4 Development Status (II)

Steps:

1. Idea
2. Proof of concept
3. Iterative Prototyping
4. Pre-commercial Trials
5. Commercial: Business case

Key Points:

1. Decide: Do you want to continue?
2. Get partners: Validate at each stage
3. Focus-Focus-Focus
4. Easy target group, reduce risk
5. As you go, risk increases, value increases
6. Certifications and Customer validations

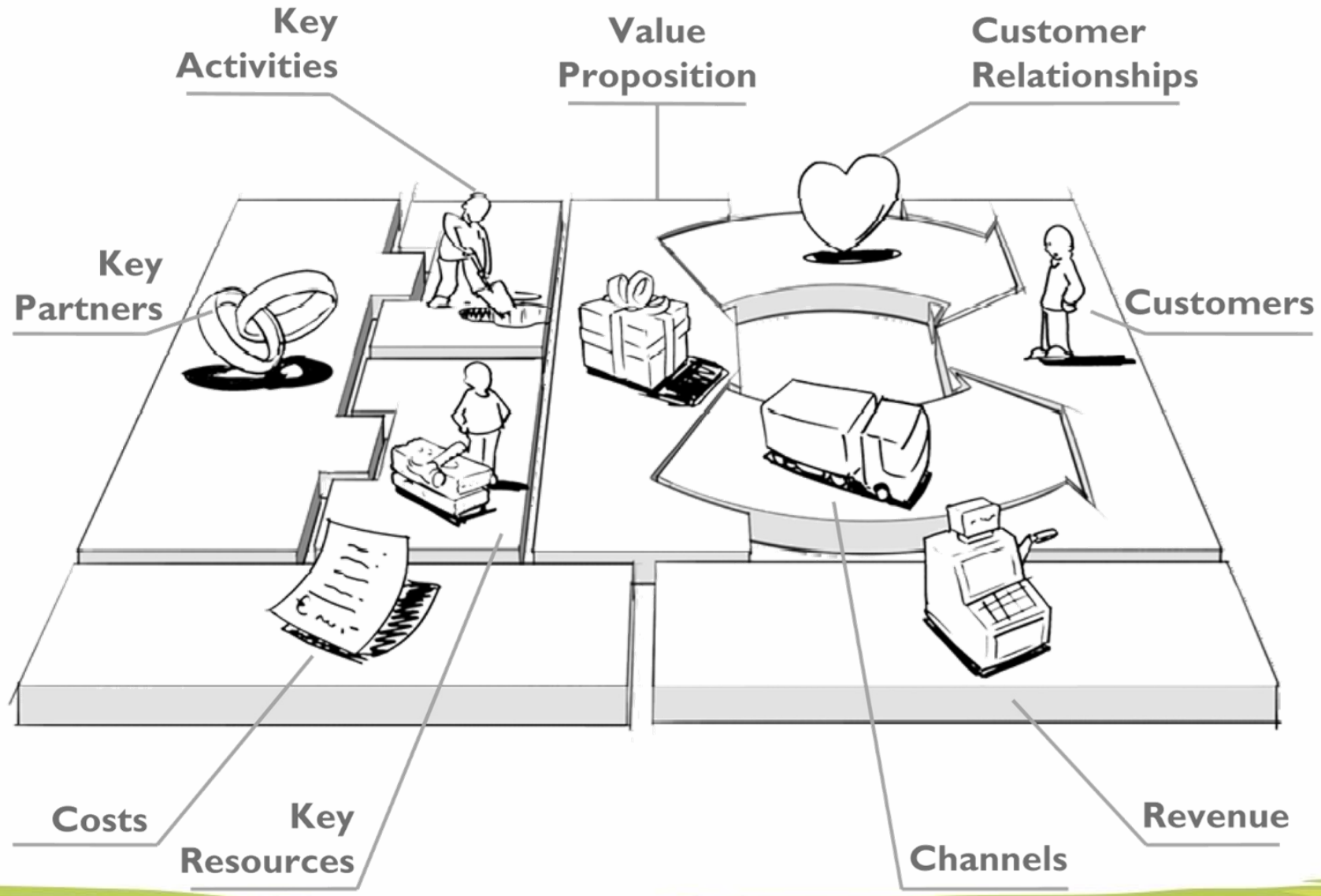
2.5 Competition

1. In real world, customer has the option/alternative.
2. Brand Competition
3. Functional Competition
4. Competitive advantage: Benefit against competitor
5. Validate with Customer
6. Other aspects: May add value: Ex. Tracking and IIoT
7. Incremental benefit v/s Disruption
8. Objective: Competitor v/s Features and Benefits

2.6 Validation

1. Talk to people: Conversion varies 10-25: 1
2. Validate what you are saying:
    - Science
    - Usefulness of product
    - Concerns of buyer/payer
    - Value chain fit
3. At least 5 in each category
4. Make one pager based on these points

3. Business Model Canvas



drawings by JAM