

From Technological Diversity for Growth to Technodiversity in Post-Growth

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BUT

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-

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Hyp: Ecological transition requires a shift of technology toward post growth

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Hyp: Ecological transition requires a shift of technology toward post growth

Which technological diversity could be valued to move toward post-growth?

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1. What is meant by « technological diversity »?
2. Projecting by analogy: from optimization to suboptimality
3. A proposal: Technodiversity

1. What is meant by « technological diversity »?

- **A literature review**

- How is understood « technological diversity »?
- For what is it (or not) promoted?
- Hyp: A system of values can be visible in scientific papers

Are these understandings of « technological diversity » embedded into a growth system of values?

1. What is meant by « technological diversity » ?

Requests (limited to publications after 2015)	Number of results
TITLE (technological AND diversity AND ict)	0
TITLE (technological AND diversification AND ict)	2
TITLE-ABS-KEY ("technological diversity" AND ict)	1
TITLE-ABS-KEY ("technological diversification" AND ict)	2
TITLE (technological AND diversity) AND (LIMIT-TO (SUBJAREA , "COMP" OR " ENGI "))	12

**Number of total relevant results:
13 articles**

1. What is meant by « technological diversity » ?

Technological diversity as...

For...

1. Diversity of **patents** of a firm

Innovation

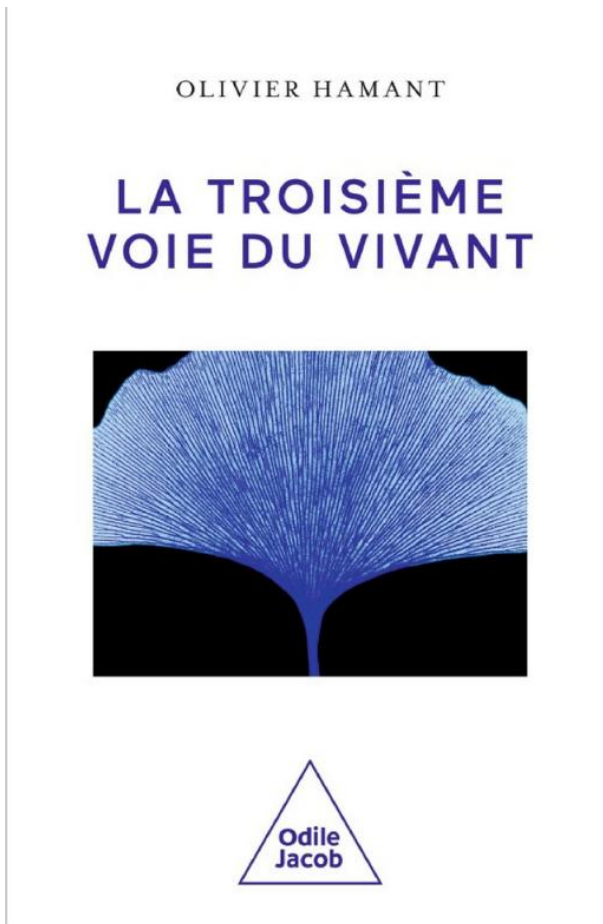
2. A **property** of a network

Innovation,
Resilience,
Technological
Convergence

3. A component of **technological evolution**

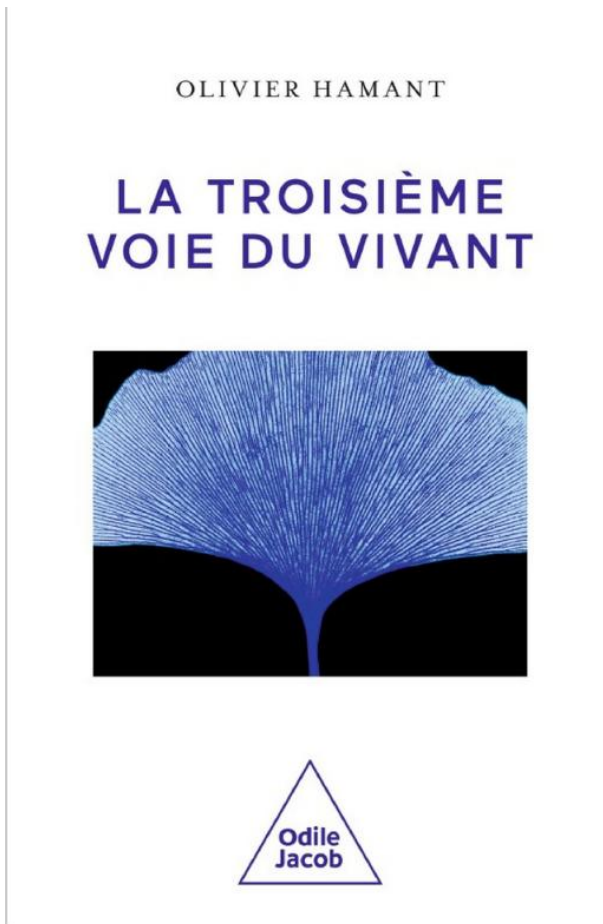
Growth,
Competitiveness

2. Projecting by analogy: from optimization to sub-optimality



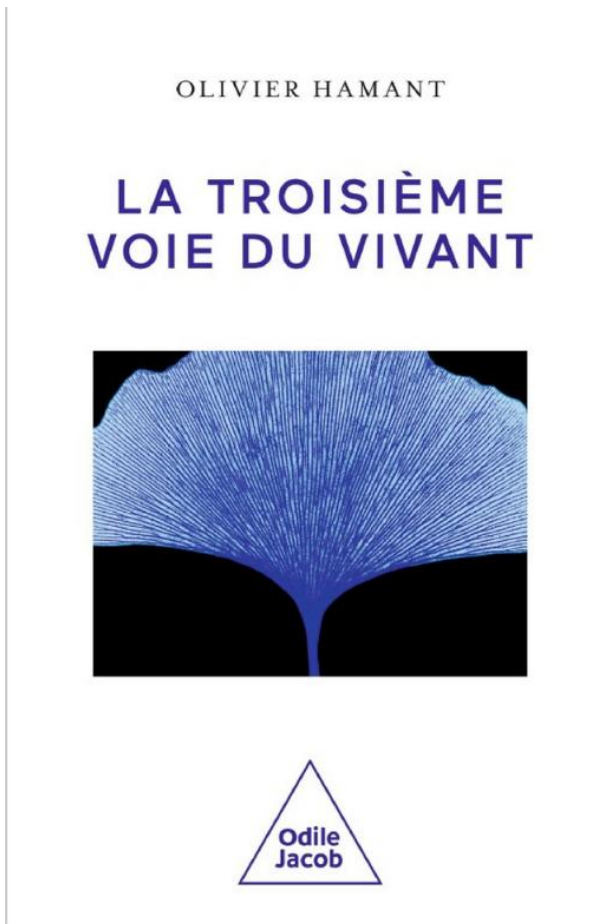
- One key driver of the Anthropocene is our « conception of optimization »
- Optimization
 - Improvement of performance
 - Effectiveness + Efficiency
 - Has intrinsic value

2. Projecting by analogy: from optimization to sub-optimality



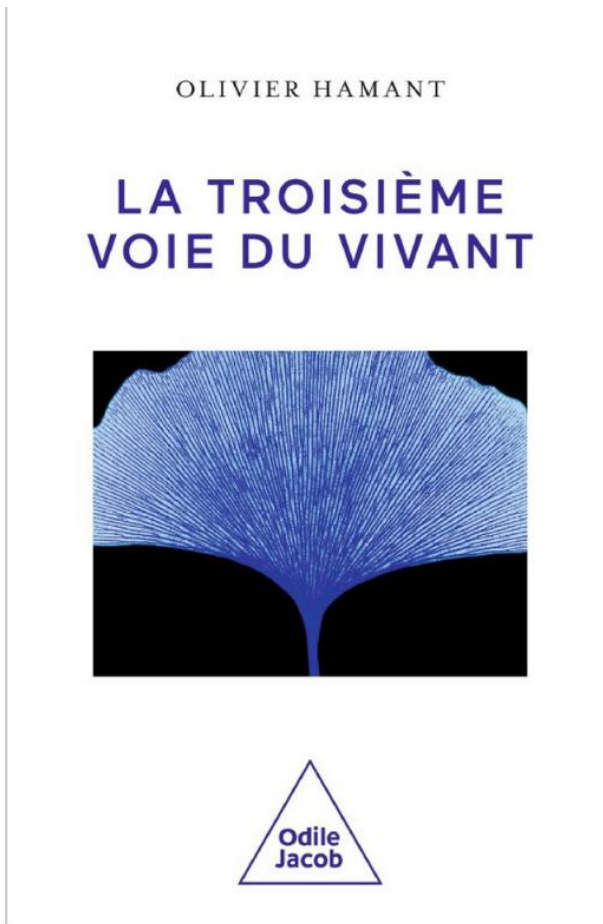
- Suboptimality
 - Projection from the present situation: optimization

2. Projecting by analogy: from optimization to sub-optimality



- Suboptimality
 - Projection from the present situation: optimization
 - « *the capacity of evolving on the long term while using internal weaknesses, not as problems to be circumvented, but as springboard for adaptability* »

2. Projecting by analogy: from optimization to sub-optimality



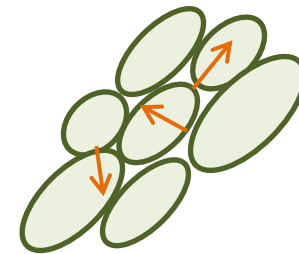
- Suboptimality
 - **Randomness**
 - Redundancy
 - Waste
 - **Heterogeneity**
 - **Fluctuations**
 - Slowness & hesitation
 - Incoherences
 - Errors & Imprecisions
 - Incompletion & Imperfection

2. Projecting by analogy: from optimization to sub-optimality

- **Randomness** : diversity *a priori* before selection allows for adaptation

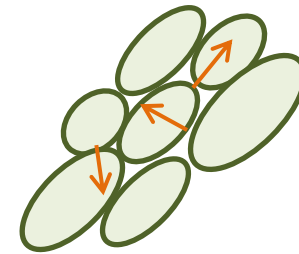
2. Projecting by analogy: from optimization to sub-optimality

- **Randomness** : diversity *a priori* before selection allows for adaptation
- **Heterogeneity** allows for information transfer and coordination



2. Projecting by analogy: from optimization to sub-optimality

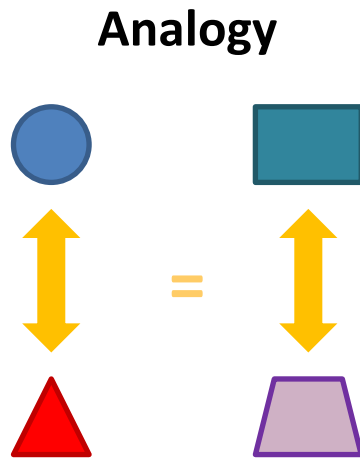
- **Randomness** : diversity *a priori* before selection allows for adaptation
- **Heterogeneity** allows for information transfer and coordination



- **Fluctuations** do not hinder reproducibility
-> law of large numbers

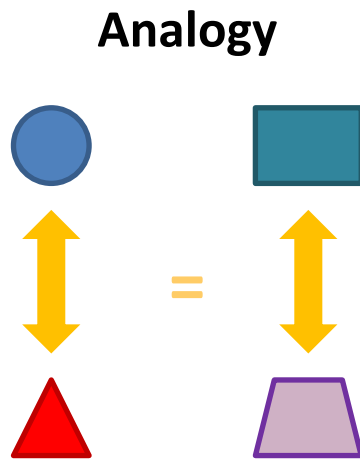
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- **Analogy**: identity of **relations**



2. Projecting by analogy: from optimization to sub-optimality

- **Analogy**: identity of **relations**



- **Biodiversity**

- The diversity of diversities
- Multiple facets in **relation** with one another
- Can never be studied entirely

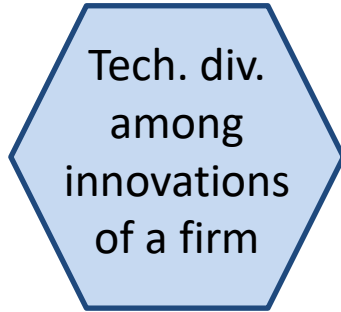
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- **Analogy**: identity of **relations**
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 - The diversity of **diversities**
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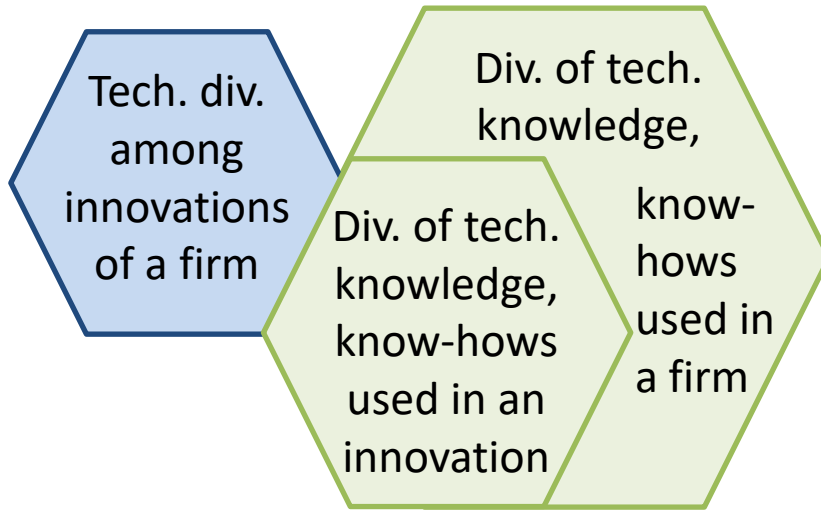
What relations do exist between the diverse technological diversities?

What other facets of technological diversity are being masked?

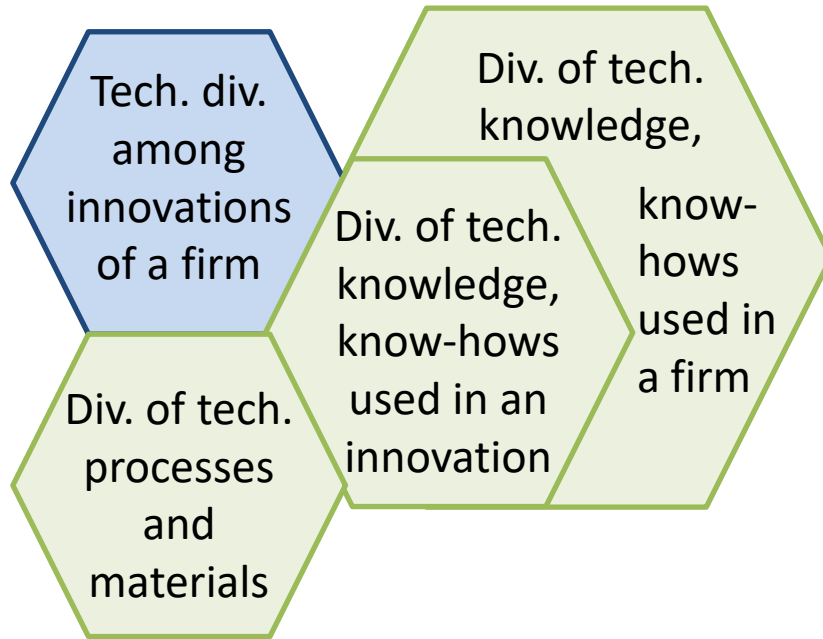
3. A proposal: Technodiversity



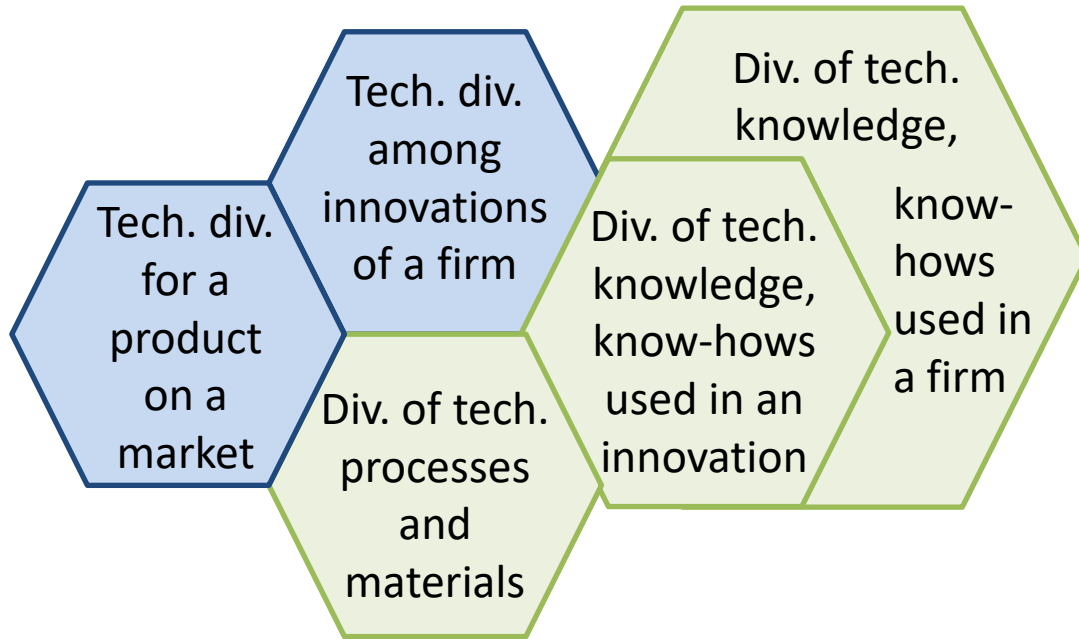
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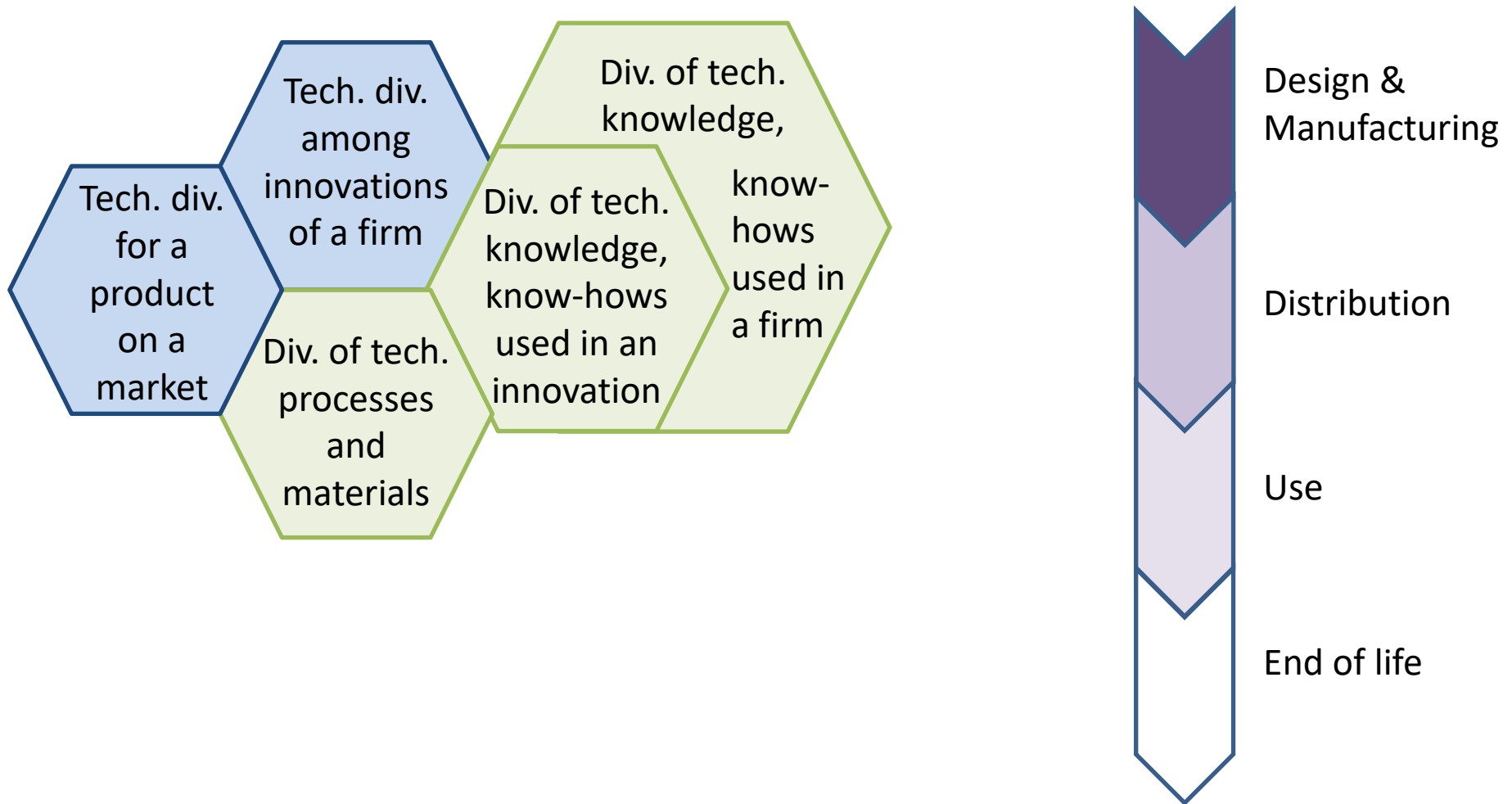
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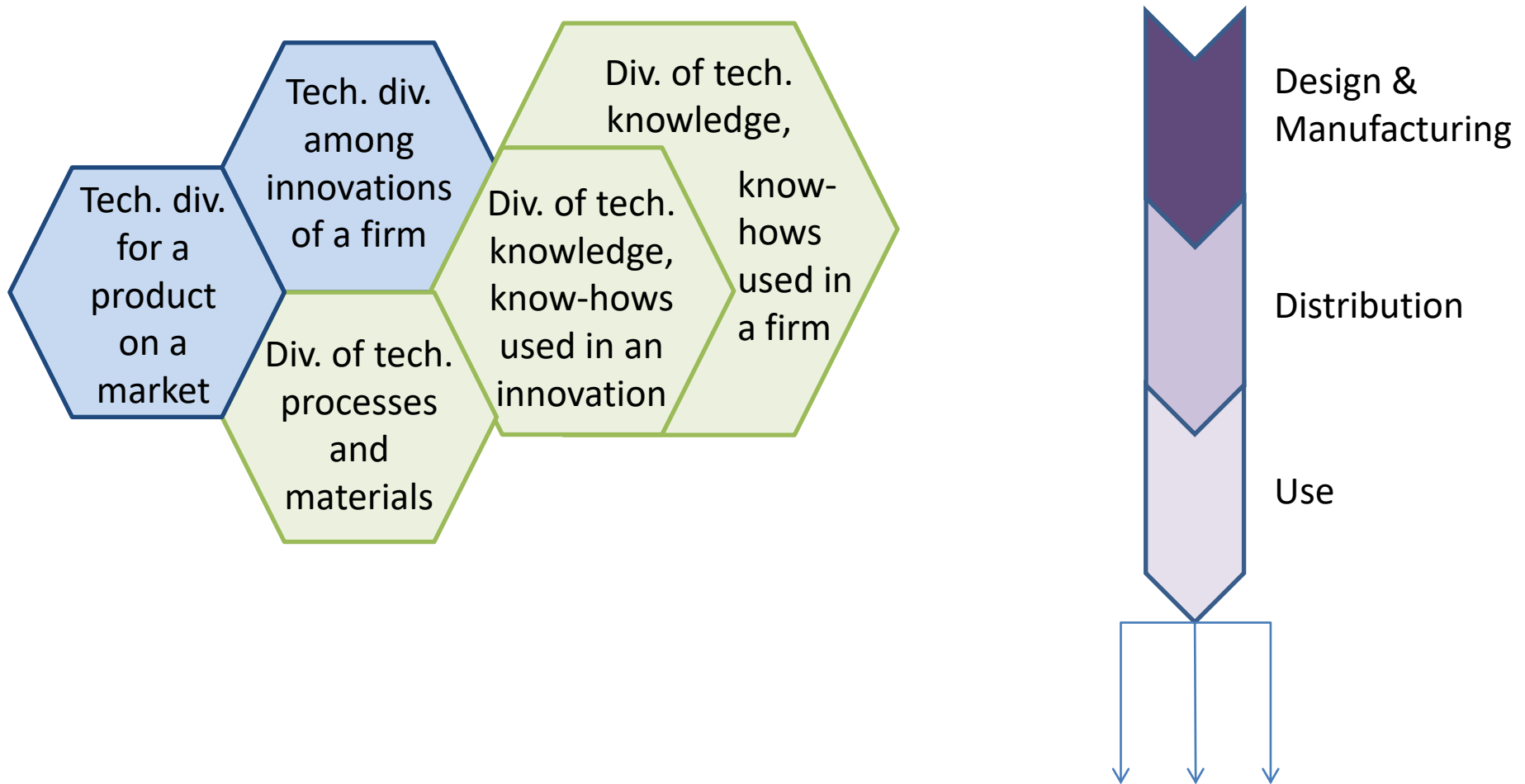
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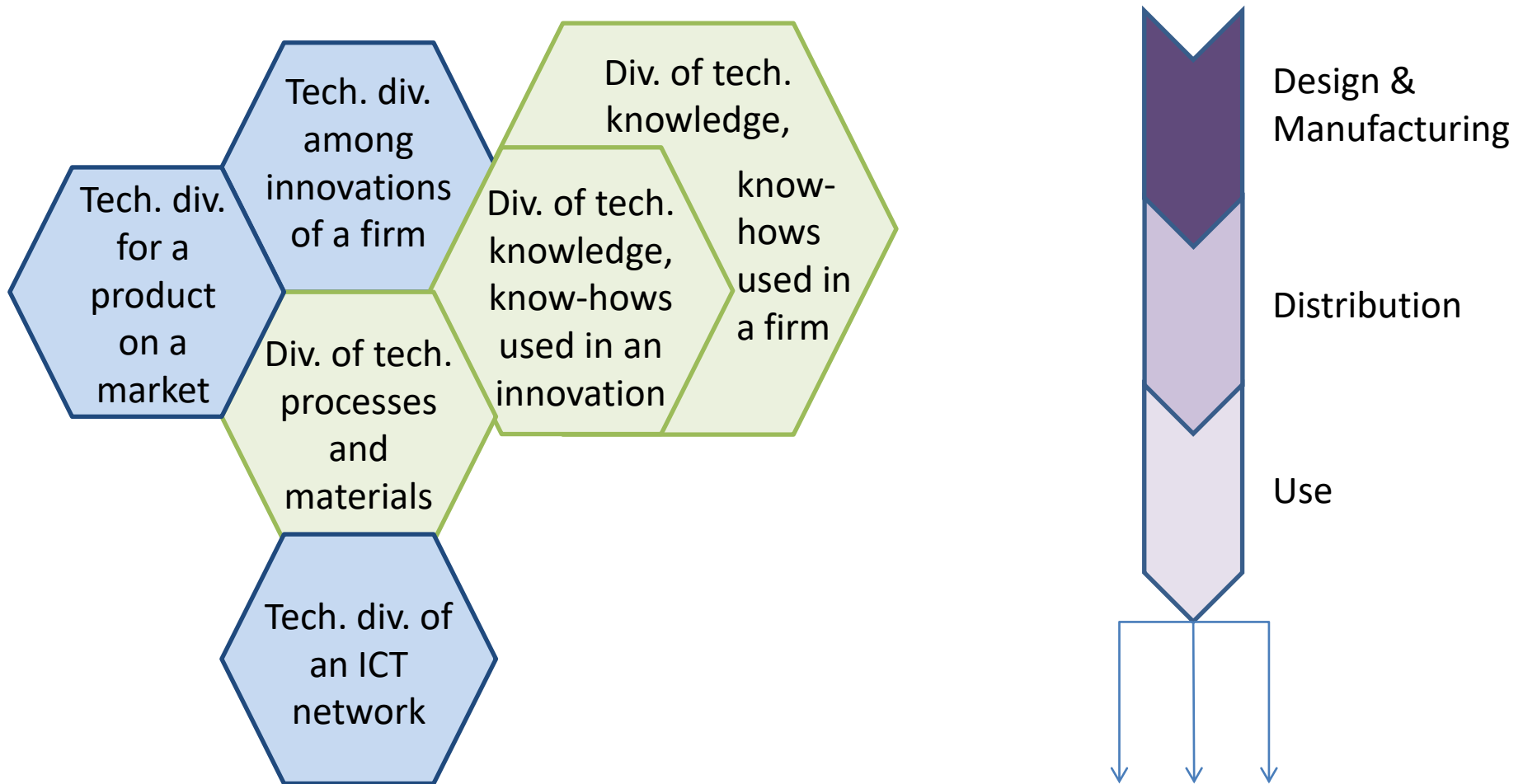
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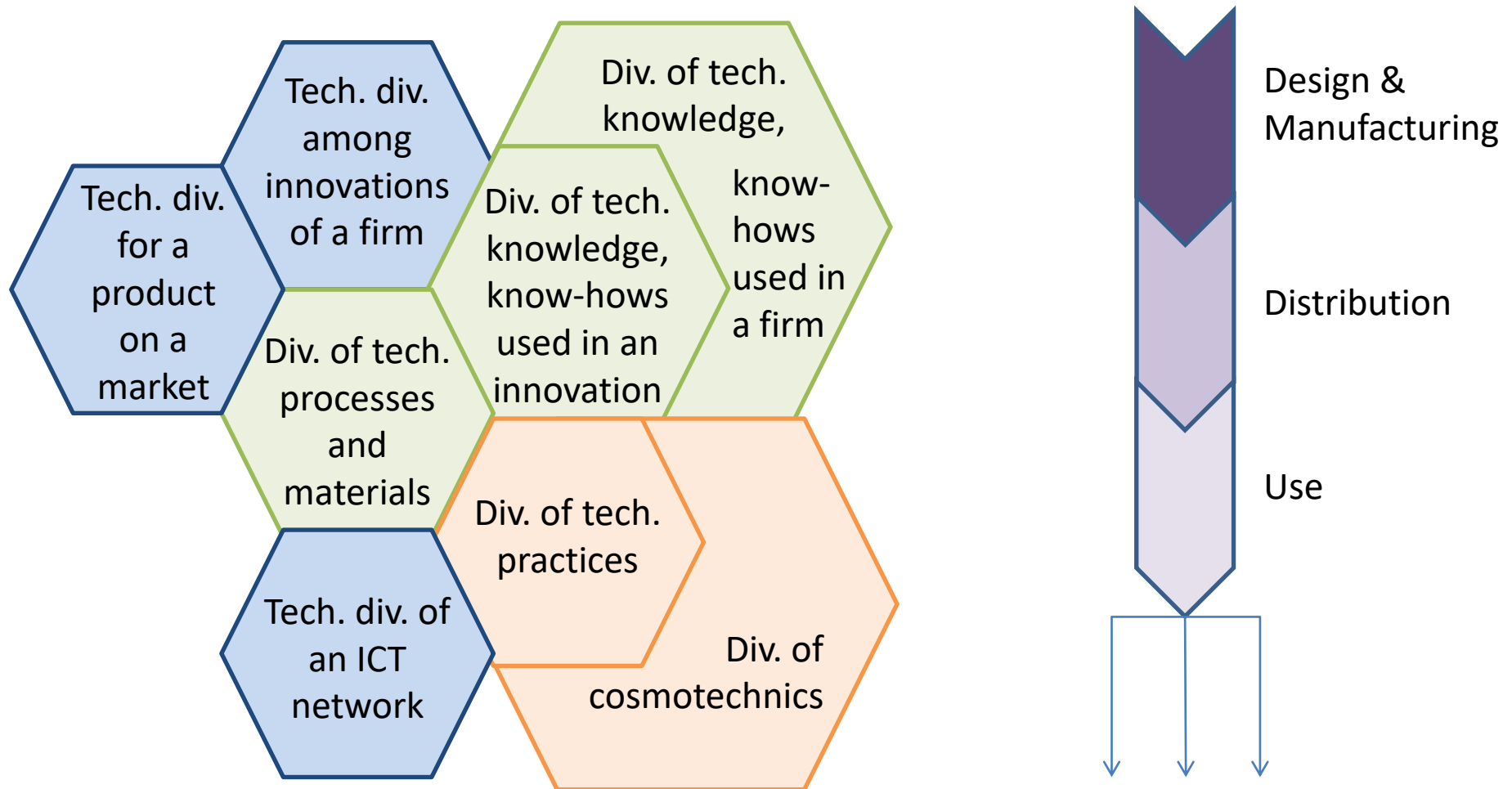
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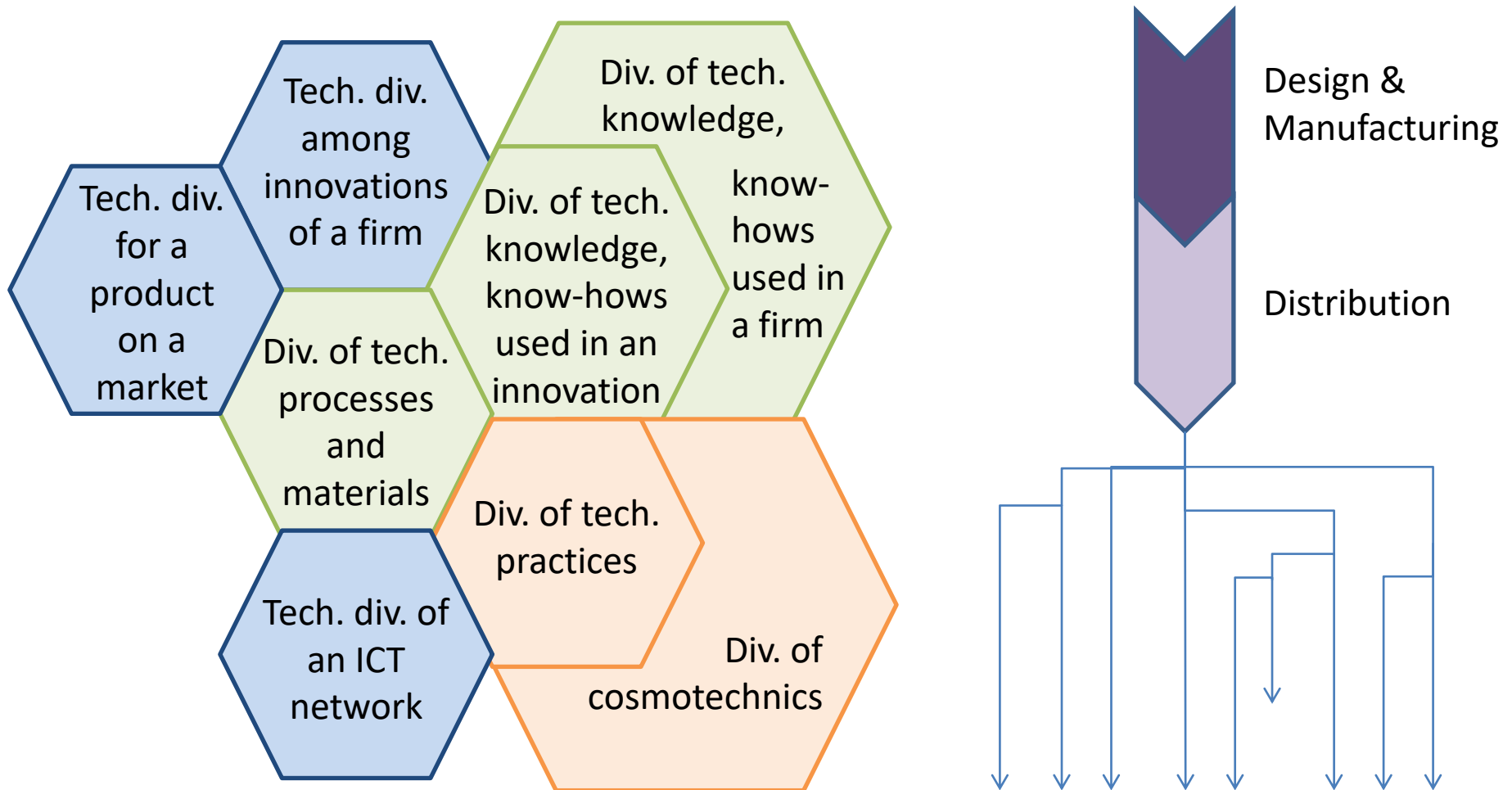
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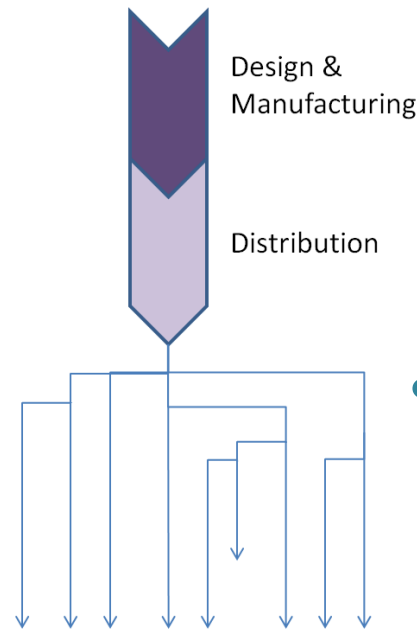
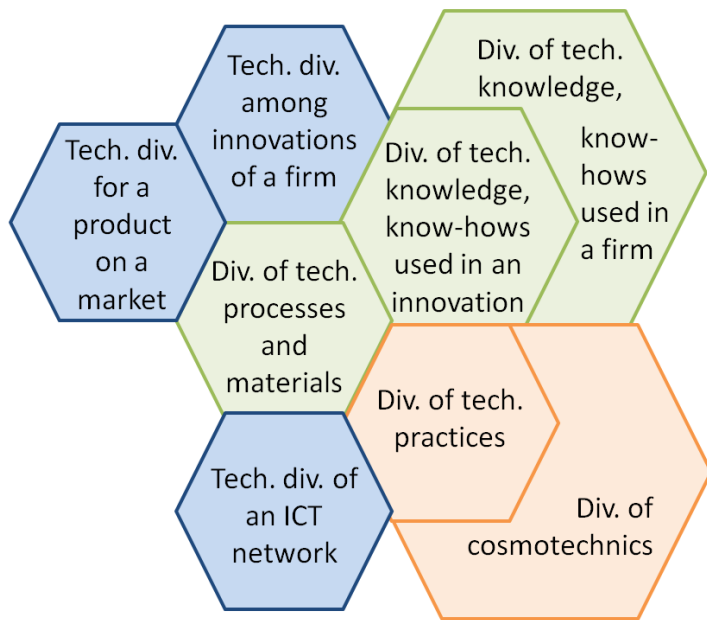
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Which technological diversity could be valued to move toward post-growth?



- **Technodiversity**
 - Multiple facets in **relation** with one another
 - Always a partial view
- **Valuing of**
 - Relations
 - Openness
 - Indetermination