

# Narrative Dynamics of Institutional Logics in the Development of Technology Roadmaps

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## Theoretical Backgrounds

- Assume that **institutional logics** (e.g. market or engineering) work as organising principles that prescribe “how to interpret organisational reality” (Thornton, 2004, Friedland & Alford, 1991).
- ‘**Institutional work**’ represents the broad category of purposive action aimed at creating, maintaining and disrupting institutions (Lawrence & Suddaby, 2006).

## Aims

- Categorise the ideal types of engineering logic and market logic
- Identify the patterns of engineers’ engagement in the development of TR, guided by institutional logics

## Method

- Captured the detailed aspects associated with TR practices by using the video-recordings (Hyundai NGV)

## Findings

|                                       | Engineering Logic  | Market Logic   |
|---------------------------------------|--|--|
| <b>Identity</b>                       | • Producing as a profession  | • Producing as a business  |
| <b>Sources of Legitimacy</b>          | • Personal reputation<br>• Professional norm<br>• Efficiency and effectiveness of a product/service<br>• Feasibility and compatibility | • Market position of firm<br>• Expected return<br>• Customer value or share value<br>• Competitive advantages          |
| <b>Focus of Attention</b>             | • Resolving technological problems<br>• Developing forms and functions   | • Selling products/services<br>• Generating profits  |
| <b>Basis of Strategy</b>              | • Means-oriented<br>• Exploring and exploiting technological capabilities<br>• Building professional imprints and expertise            | • Goals-oriented<br>• Sensing and seizing growth opportunities<br>• Mobilising resources<br>• Building market channels |
| <b>View of Future and Uncertainty</b> | • Predictive<br>• Avoiding uncertainty   | • Creative<br>• Leveraging uncertainty   |
| <b>Market Logic</b>                   | • Searching information  | • Strategizing on market position<br>• Prioritising opportunities  |
| <b>Engineering Logic</b>              | • Generating ideas<br>• Specifying ideas<br>• Searching information  | • Validating ideas on feasibility<br>• Asymmetrical or mutual learning   |
| Individual Work                       |  | Collaborative Work   |

## Engagement Patterns

- Type 1 (Switching between individual and collaborative work): Generating ideas → validating ideas → specifying ideas
- Type 2 (Reinforcing within individual work): generating ideas or searching info → specifying ideas
- Type 3 (Reinforcing within collaborative work): Asymmetrical or mutual learning
- Type 4 (Switching between engineering and market logic): Asymmetrical learning → Strategizing

## Implications

- Balancing the depth of expertise and the breath of expertise
- Formulating a list of strategic questions
- Role of facilitator or group leader in avoiding disengagement