



# Beyond the point of no return

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## Risky decision making

- Large scale innovation process in NL: Tetra standard and C2000 (1990-2004)
- Risks involved in large innovation and standardization projects:
  - Take longer than expected
  - Cost more than expected
  - Complexity and heterogeneity
  - Uncertainty
- Problem of irreversibility

## Irreversibility in standardization

- Time gap between unofficial choice for Tetra and 'official' political decision for Tetra by Dutch government (1994-2001)
- How did irreversibility emerge?
- Concept of "technological frame" (Bijker) and "(cognitive) dissonance" (Festinger)

## Technological frame around Tetra standard

Goals	Implementing a digital communication network in NL based on a European standard, increasing public safety in the Netherlands and improving the cooperation between emergency services
Key problems	Old analogue systems are outdated and need replacement
Problem-solving strategies	Supporting and influencing ETSI development of MDTRS/Tetra standard ("there are no alternatives")
Requirements to be met by problem solutions	European solution, multi-vendor, economically viable
Political rationale	The Netherlands in a frontline position (being first), being a good European country, supporting the implementation of the Schengen agreements
Exemplary artifact	Tetra as GSM for public safety

## Dealing with dissonance I

- Debates on Tetra in the Dutch parliament:
  - Tetra or Tetrapol?
  - Dependence on decisions by other countries (Germany)
- Dutch decision justified by “being a good European” and that there were “no alternatives”
- Issues of reputation and prestige

## Dealing with dissonance II

- From Go/no go decision -> Go/unless...
- From "test" to "test within a test"
- 10% proven functionality -> go!
- Explanations:
  - Contract with Tetraned
  - Expensive to postpone implementation
  - Disasters created sense of urgency
- Irreversibility of choice for Tetra

## Conclusions

- One dominant technological frame that structured actions and interactions
- Irreversibility actively constructed by the Dutch government
- Point of no return in mid-1990s
- Mismatch between “political” time and “infrastructure” time (Edwards)
- Advantages of irreversibility
- Problem of control and democracy