



Bharath Reddy  
Associate Fellow, Takshashila Institution  
February 2025

# Emerging Tech Governance

AICCTP | Australia India Joint Impact Assessment of Critical Technologies for Peace and Stability

# What is an Emerging Technology?

Emerging technologies have the attributes of radical novelty, relatively fast growth, coherence, prominent impact, and uncertainty and ambiguity of use and risks

Source: Rotolo, Daniele, Diana Hicks, and Ben Martin. "What Is an Emerging Technology?"

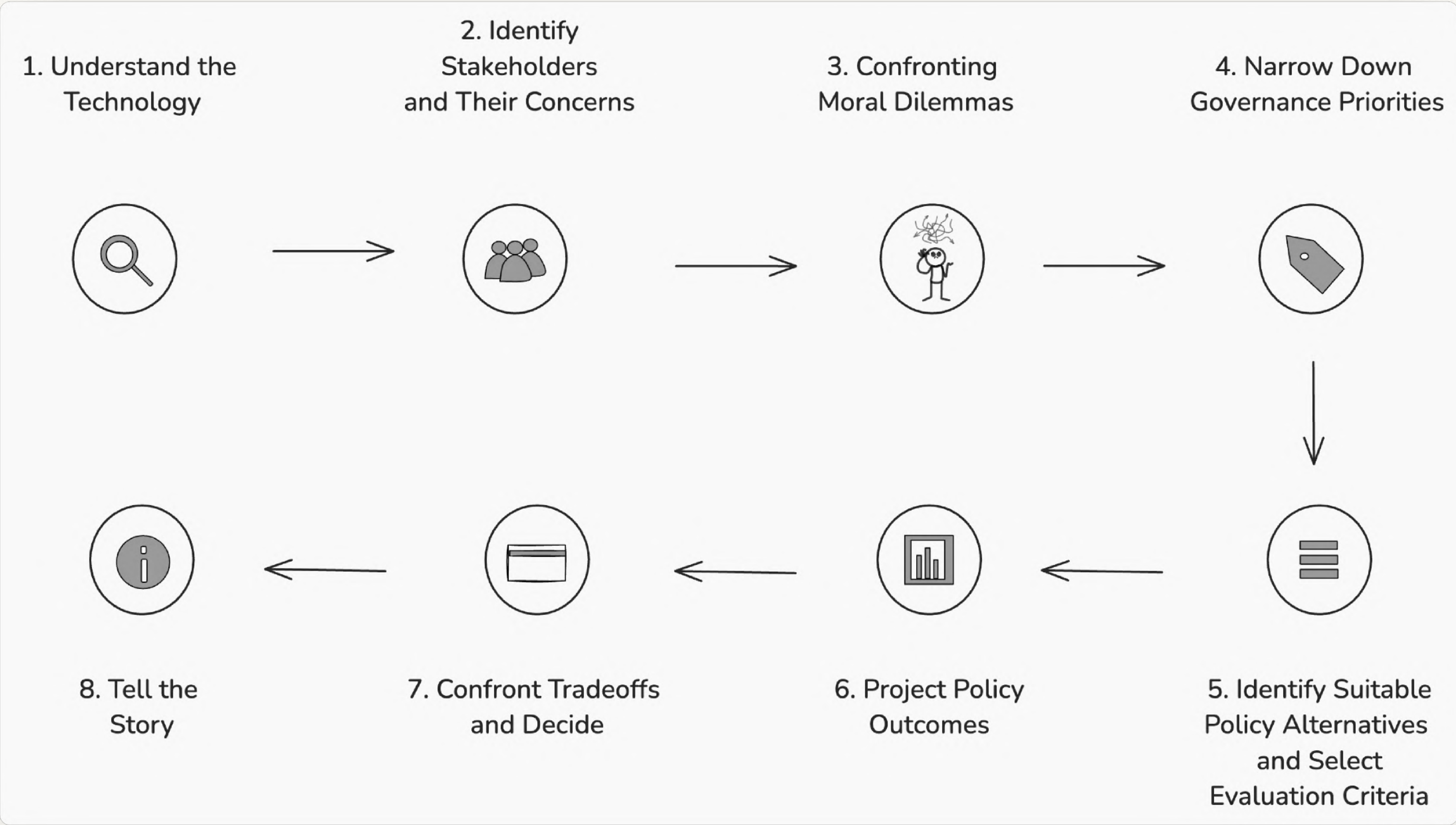
# The Challenge with Governing Emerging Technologies

- The "**pacing problem**" creates a widening gap between technology adoption and regulation.
- Policymakers must balance multiple, often competing objectives when governing emerging technologies.
- Governance objectives also evolve across a **technology's lifecycle** from scientific discovery to commercialisation requiring adaptive governance approaches.
- **Geopolitics and great power competition** add a new dimension to governance. Strategic autonomy, supply chain security, protection of critical infrastructure, and technological competitiveness have become important governance considerations.

# Retrospective on Governing Electricity

- Safety Concerns and Public Panic
- Economic and Labor Disruptions
- Cultural and Social Resistance
- Technical and Logistical Challenges

# A Framework for Governing Emerging Tech



# 1. Understand the Technology

Costs, Inputs and  
Supply Chains

Technology Maturity

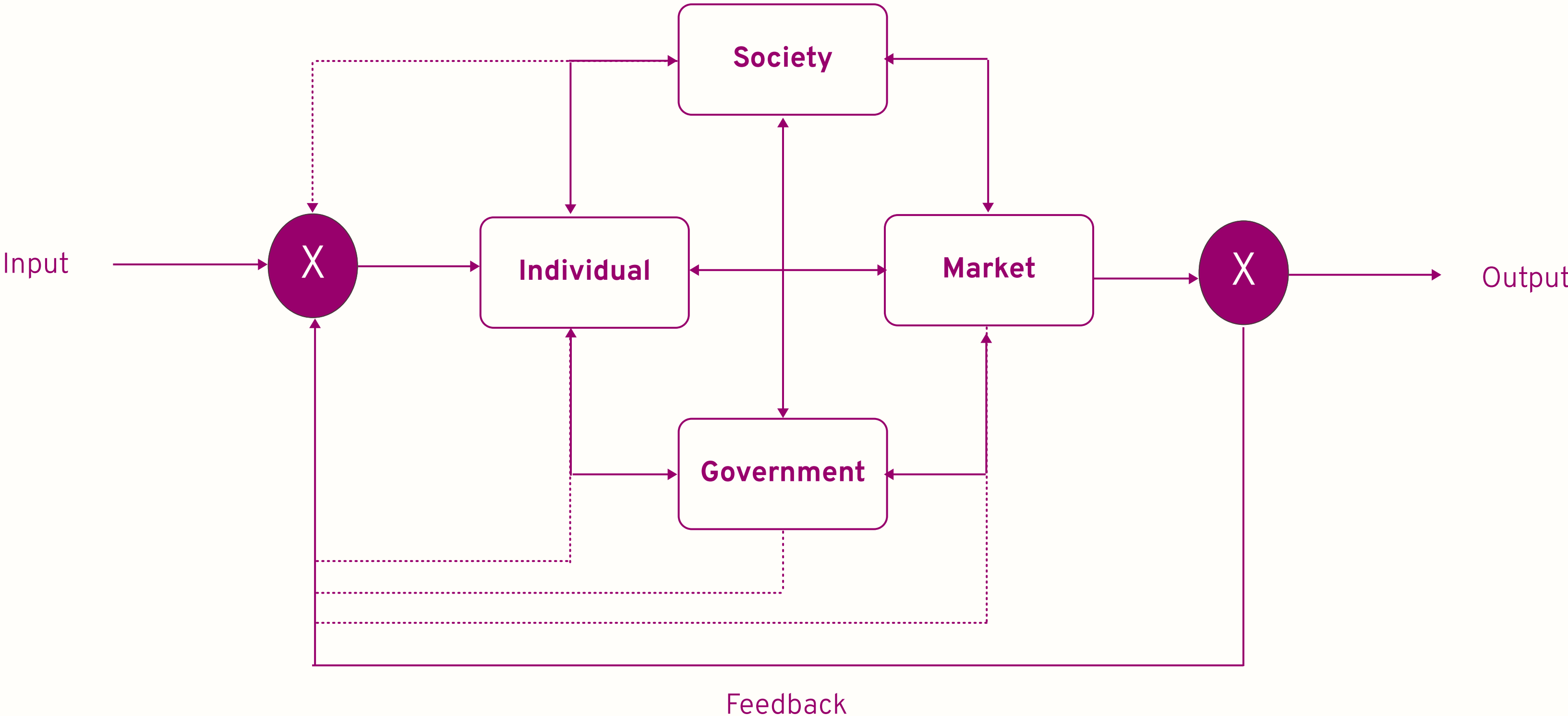
Global  
Competitiveness

Strategic Autonomy  
and National Security

Social and  
Environmental Impact

Comparison with  
Existing Technologies

# 2. Identify Stakeholders and Their Concerns



## 2. Identifying Stakeholders - An example

Individuals	Market	Society	Government
AI system builders (designers, developers, engineers, product/process owners, data scientists, business leaders)	Organisations that fund or build AI models	Civil rights organisations	Policymakers (MeitY, NITI Aayog, NSA)
Non-AI experts in domains such as humanities, law, other technologies, etc	Domestic organisations that fund or build AI models	Underrepresented groups in AI datasets (minorities, socioeconomic status, region, religion, ethnicity, etc)	Regulatory bodies (Data Protection Board, Competition Commission, Bureau of Indian Standards, Cert-IN, TRAI, etc)
Knowledge workers and content creators	Organisations that fund or build AI applications	Professional bodies (journalists, writers, photographers, actors, artists, musicians, etc)	International consortia (GPAI, WEF, UN, UNICEF)
Individuals whose jobs might be at risk	Companies whose existing businesses will be impacted by AI (BPOs, customer service and administrative sectors, basic analytics sectors, entry-level graphic design, etc)	Research institutes and think tanks	Intergovernmental institutions (OECD, G7, G20, GPAI)
Human-computer interface researchers and experts	Large multinational technology companies (Microsoft, Google, IBM, Meta, ..)	Groups who might be negatively impacted (women, younger or older people, education, digital literacy, etc)	Technology governance institutions (ITU)
Users of AI systems, users who lack training and understanding about how AI works	Non-tech companies using AI (Retail, media, news organisations)	Users who lack training and understanding about how AI works	Impacted ministries and departments and responsible officials (Department of Science and Tech, Department of Telecommunications, Ministry of Finance, Ministry of Education, Ministry of Skill Development and Entrepreneurship, etc)
Educators, parents, children	Universities and schools		State and local government bodies
Data subjects			



## 2. Identify Stakeholders Concerns - Individuals

Save on cost	Does the technology give an opportunity for individuals to save on cost?
Opportunity to make money	Does the technology provide an opportunity for the individual to make money?
Improvement in social status (extrinsic value)	Does the technology lead to an improvement in social status (extrinsic value)?
Circumvent rules	Does the technology allow its users to circumvent existing rules?
Additional capability	Does the technology give additional capabilities?
Sheer joy (Intrinsic value)	Does the technology spark sheer joy (intrinsic value)?
Save on time	Does the technology lead to time saved?
Save on effort	Does the technology help save on effort expended?
Makes life better	Does the technology make the life of its users better?
Inertia	Does this technology have value and simplicity to overcome inertia?

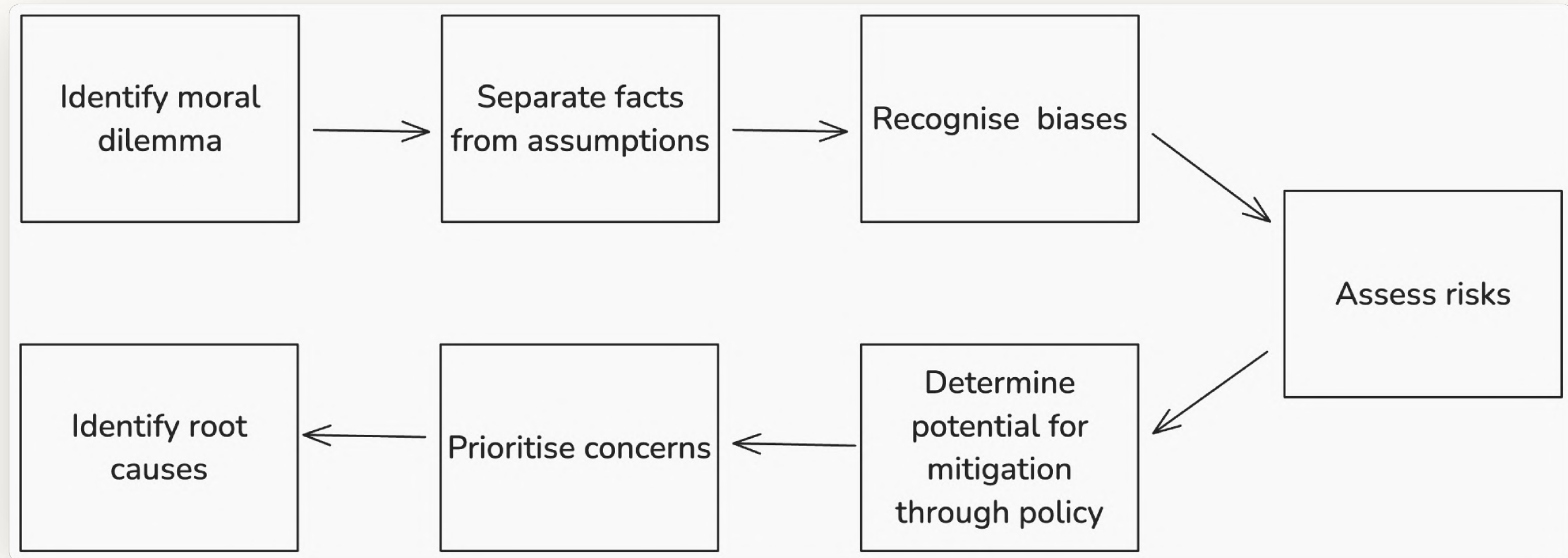
## 2. Identify Stakeholders Concerns - Individuals

Save on cost	Does the technology give an opportunity for individuals to save on cost?
Opportunity to make money	Does the technology provide an opportunity for the individual to make money?
Improvement in social status (extrinsic value)	Does the technology lead to an improvement in social status (extrinsic value)?
Circumvent rules	Does the technology allow its users to circumvent existing rules?
Additional capability	Does the technology give additional capabilities?
Sheer joy (Intrinsic value)	Does the technology spark sheer joy (intrinsic value)?
Save on time	Does the technology lead to time saved?
Save on effort	Does the technology help save on effort expended?
Makes life better	Does the technology make the life of its users better?
Inertia	Does this technology have value and simplicity to overcome inertia?

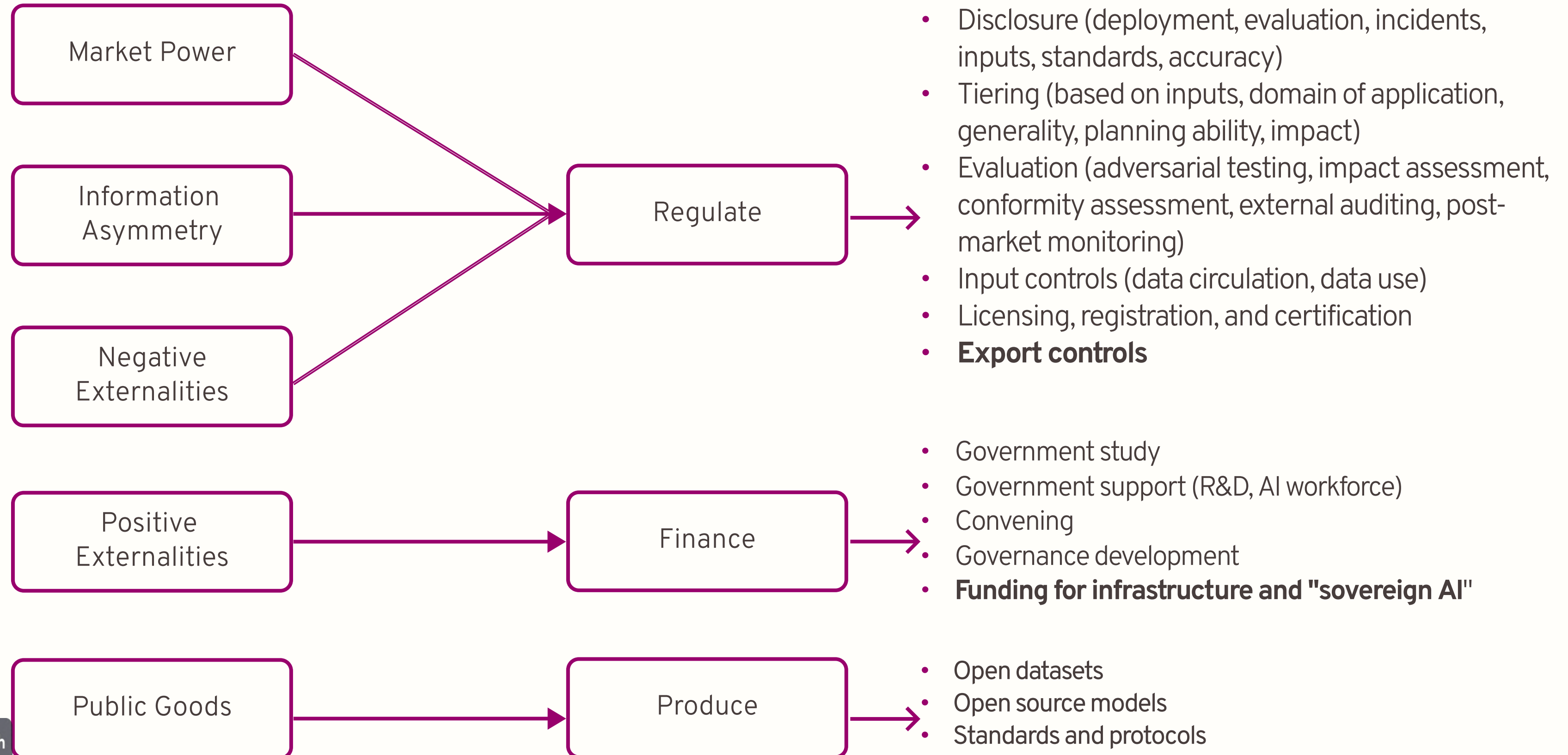
## 2. Identify Stakeholders Concerns - Individuals

Network effects	What are the network effects associated with this technology?
Gurr grievances	Does this technology increase the gap between "what people think they deserve" and "what people think they are getting"?
Past experiences	What are user's past experiences with similar technologies?

# 3. Confronting Moral Dilemmas



# An Example: Policy Toolkit for Governing AI





Bharath Reddy  
Takshashila Institution  
February 2025

Thank you!



# Want to make a presentation like this one?

Start with a fully customizable template, create a beautiful deck in minutes, then easily share it with anyone.

[Create a presentation \(It's free\)](#)