

INTRODUCTION TO NEUROETHICS

WHAT IS NEUROETHICS?

[A discipline that examines societal values and humans rights issues raised by neuroscience]

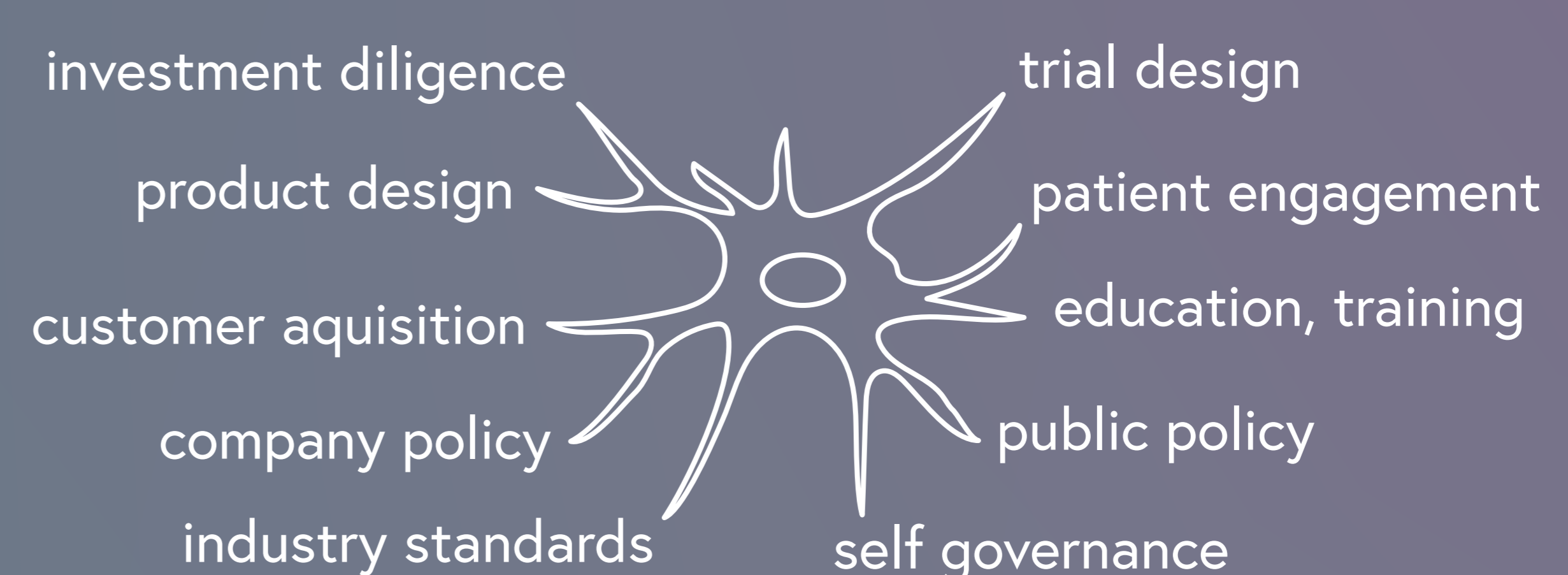
WHY DO WE NEED IT?

The brain raises special issues distinct from bioethics



HOW DO WE USE IT?

Neuroethics can be used as a framework for decisionmaking in innovation:



EXAMPLES TODAY



Consenting an implanted neurostimulation device that causes personality changes



Use of cognitive enhancement tools in young people with still-developing brains



Considerations for wearables and sensors with respect to data privacy, discrimination

20+ Published Guidelines & Frameworks

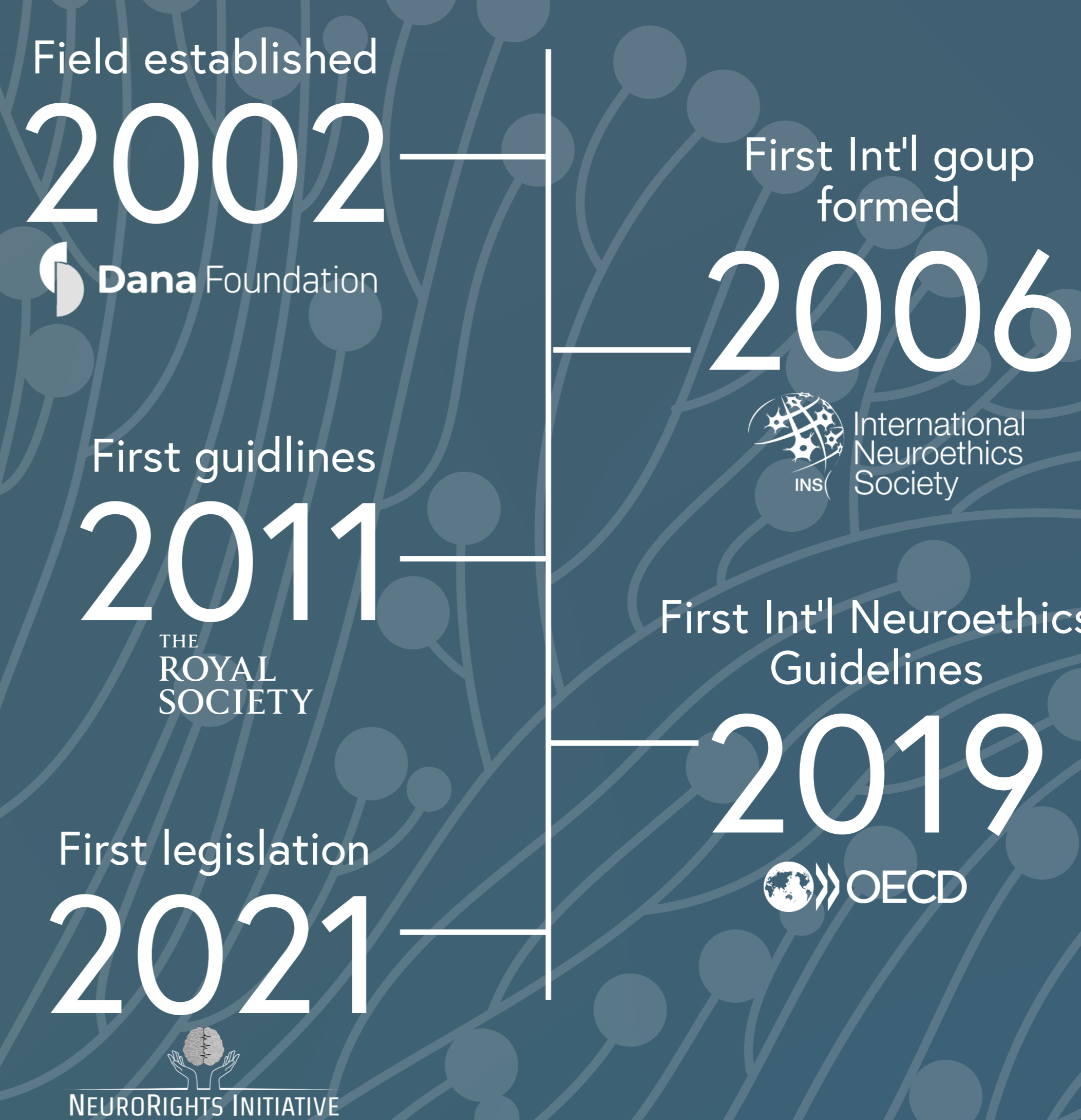


VOICES

- Academics**
 - Neuroscientists
 - Ethicists
 - Scientists across Disciplines
 - Philosophers
 - Educators
 - Anthropologists
- Private Sector**
 - Investors
 - Entrepreneurs
 - Engineers
 - Corporations
 - Product Designers
 - Philanthropists
 - Employers
 - Professional Groups

- Clinicians**
 - Physicians
 - Surgeons
 - Mental Health Professionals
- Policymakers**
 - Government officials
 - NGOs
 - Lawmakers
 - Judicial system
- The Public**
 - Consumers
 - Patients
 - Caregivers
 - Marginalized Communities
 - Religious groups

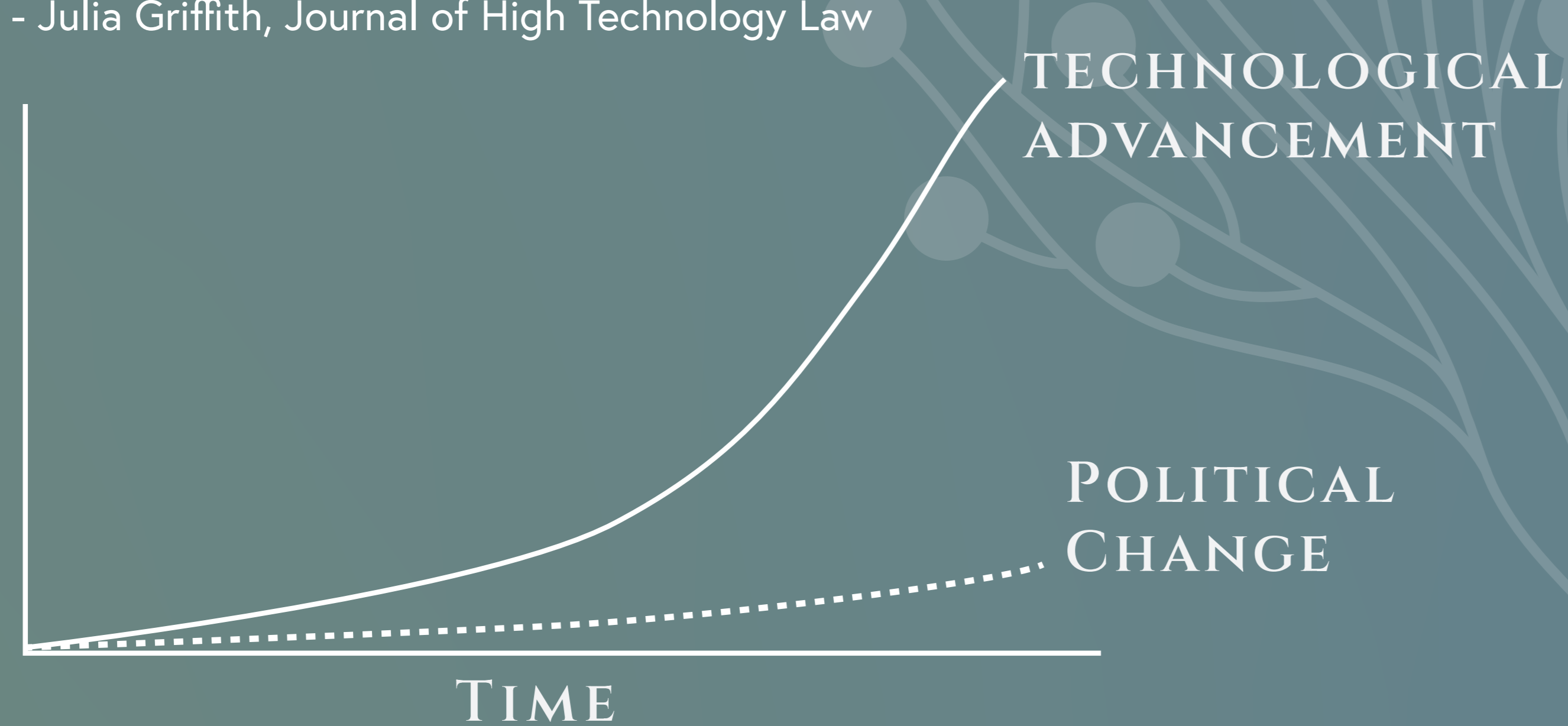
MILESTONES



IMPLEMENTATION CHALLENGES

PACING PROBLEM

"Law is at least five years behind developing a technology"
- Julia Griffith, Journal of High Technology Law



STAKEHOLDER PROBLEM

Innovation is decentralized across sectors, and few are aware of neuroethics and/or how to use guidelines.



CALL TO ACTION

The neuroinnovation community needs to collectively commit to ongoing engagement with neuroethics frameworks, and we need mechanisms for accountability across neuroscience stakeholder groups.