The background is a dark purple field filled with various geometric shapes and patterns. There are several circles, some solid and some with patterns like diagonal stripes or polka dots. There are also triangles, some solid and some dashed. A large, solid dark blue circle is centered on the slide, containing the main text. Other shapes include a yellow zigzag line, a yellow triangle, a pink pentagon, and a yellow circle. The overall aesthetic is modern and abstract.

How to oscillate from fixed to fluid science governance?

Soledad Quiroz & Martin Perez Comisso. September 6th, 2019

4S 2019. New Orleans, USA. Innovations, Interruptions and Regenerations



Her story is a
speculative story

She's Lorena



1.

What is **fixed science** governance?

National Innovation systems assumptions and shortcomings



“

National innovation systems (NIS) are
“the national institutions their
incentive structures and their
competencies, that determine the rate
and direction of technological learning”
(Sharif, 2006)

Chilean NIS before ministry-reform (1990–2018)

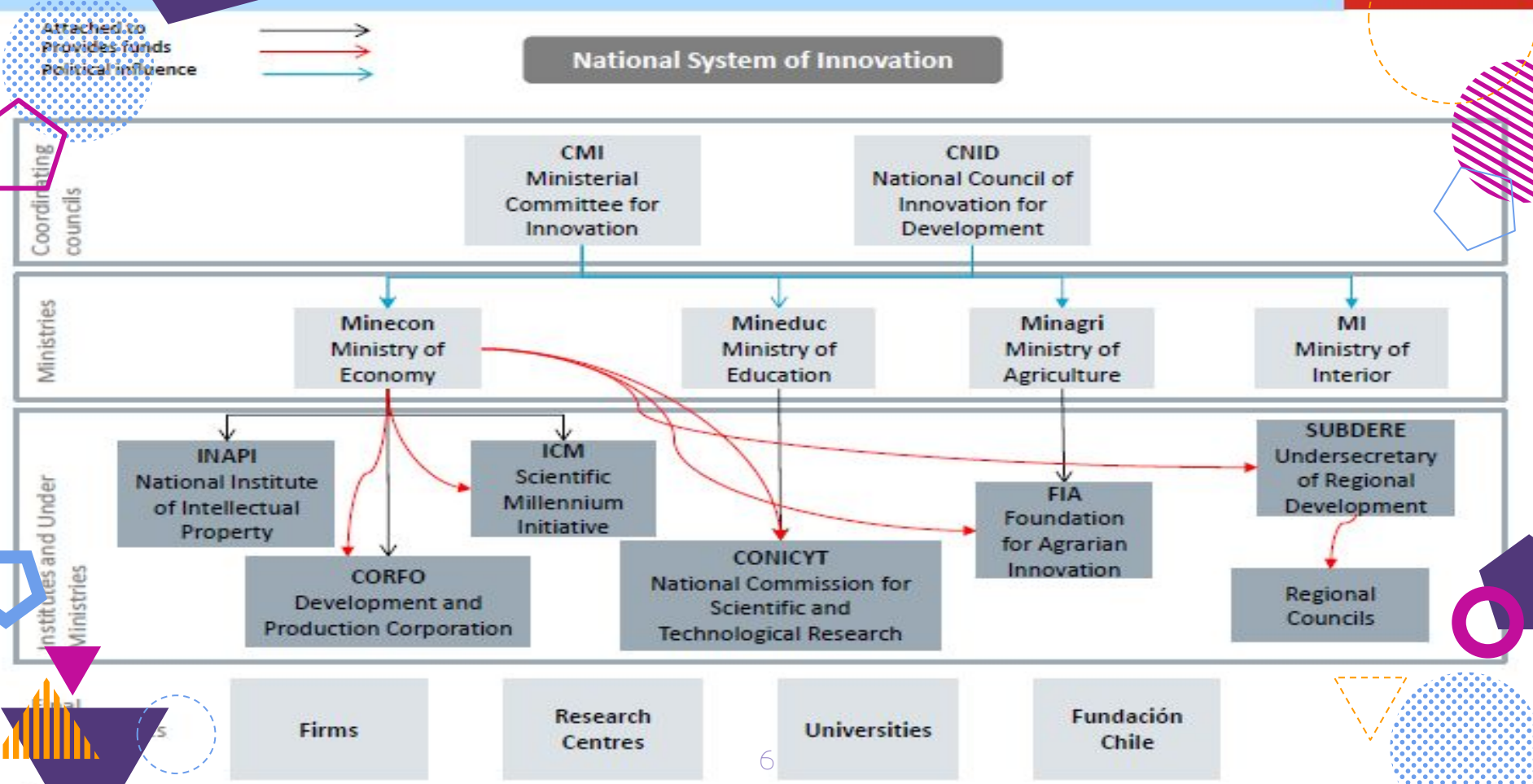


- Hierarchical (formal and informal power fluxes)
- Fragmented (non-coordination or alignment)
- Unbalanced (centre-periphery; disciplinarian boundaries)

Researchers compete in project-based funds, with few diversity and increasing competition from master degree to senior researchers.

1.1 Chile: National map of the innovation system

[Bound, Reid and Egassser \(2016\)](#) NESTA



Some Assumptions in Science Policy



Mertonian Science

Communism/Communalism

Universalism

Disinterestedness

Organized Skepticism

(Merton, 1938)

Linear Innovation

Progress and Wellness
(and Development, outside
the US) are linked to
evidence and knowledge.

Strong institutions to
manage and support
science enterprise are
relevant to improve
quality of life in
countries (Bush, 1945)

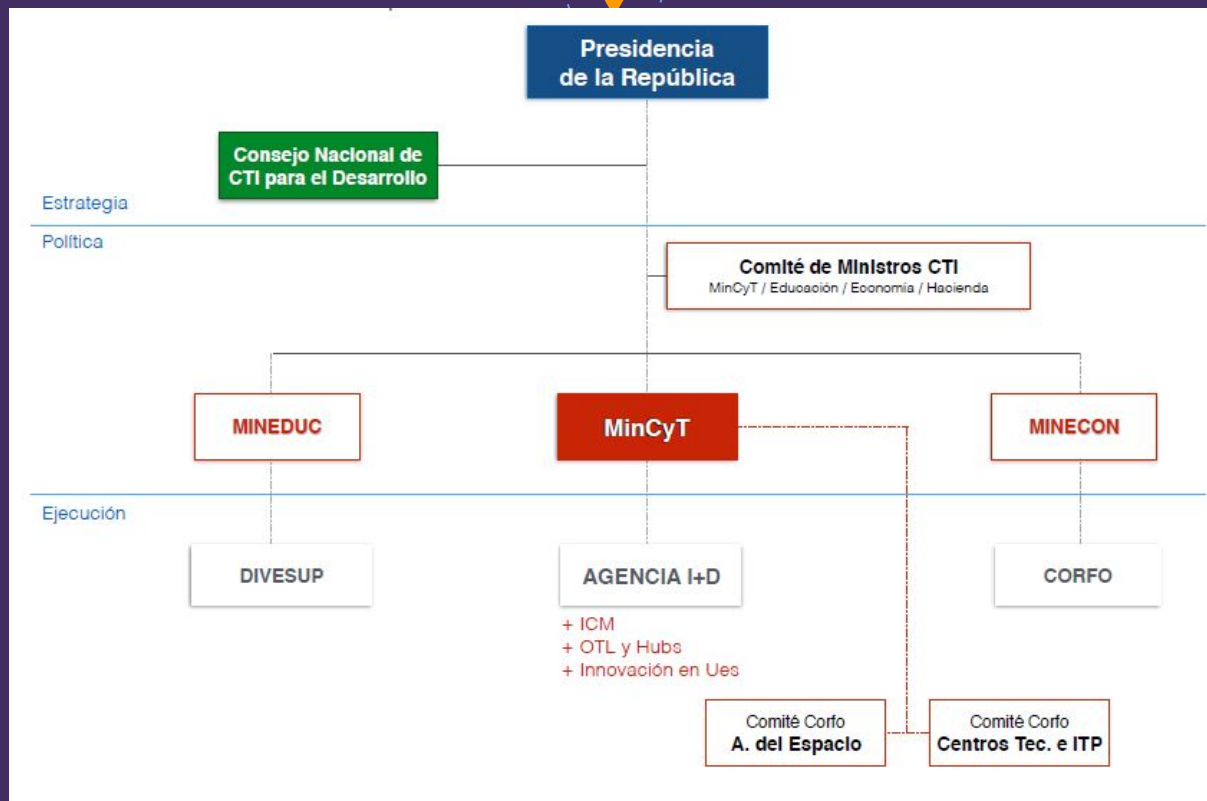
Democracy and Science

Imbrincancy between
governance and knowledge.
(Bacon, Foucault)

Power reflect and
reproduce civic
epistemologies (Jasanoff,
1995, 2005)

Framing is central to
communicate knowledge
(Collins & Pinch)

New Chilean Ministry/SNI of Science, Technology, Knowledge and Innovation (2018)





2.

Feminist principles for a fluid oscillation in #Scipolicy

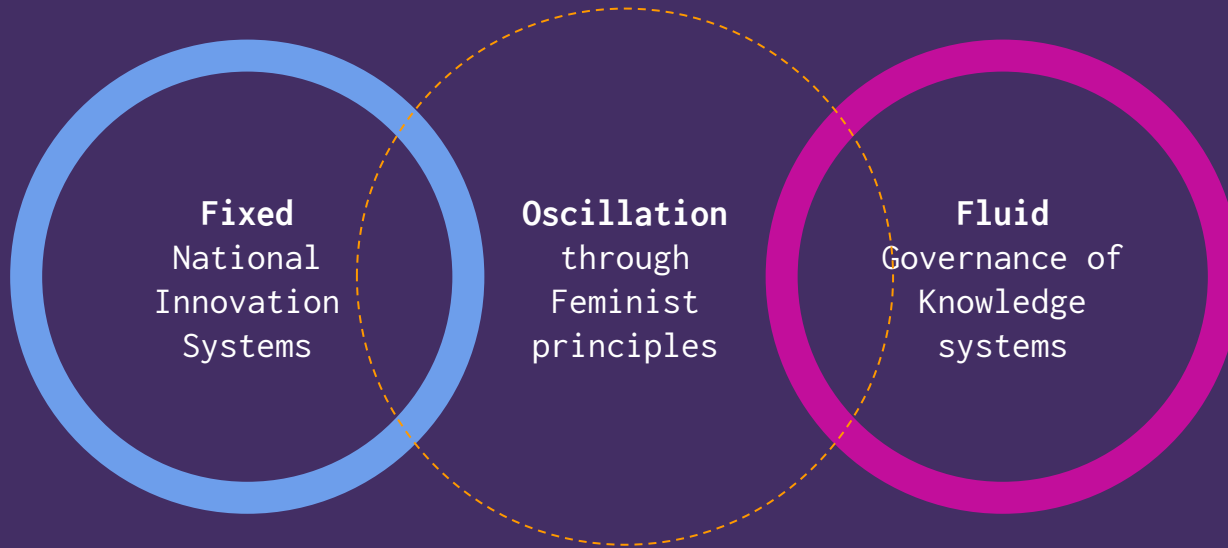
5 ideas that can disrupt our assumptions



“

What if **we invert the hierarchy** of these assumptions and principles in science policy?

Why to oscillate?



“

“We can understand diffraction patterns –
as patterns of difference that make a
difference – to be the fundamental
constituents that make up the world”
(Barad, 2007, p.72).

5 principles



Generative co-creation

Inter and intra-actions performed by researchers configure ecologies of knowledge. Researcher's expertise is in service to others.

Intimate location

Researcher's location are the place in the world. Thinking-with local experiences confronts privileged assumptions and fake dualisms.

Intellectual fluidity

Researchers are performative beings, and their careers are not stuck in disciplinary identities. Knowledge is generative in the re-articulation of networks and ecologies of practices.

Organized reflexivity

Ways of knowing and ways of feeling are entangled. Reflexivity of positionality, relevance and impact can replace quantified profiles and inaccurate metrics

Nurture over training

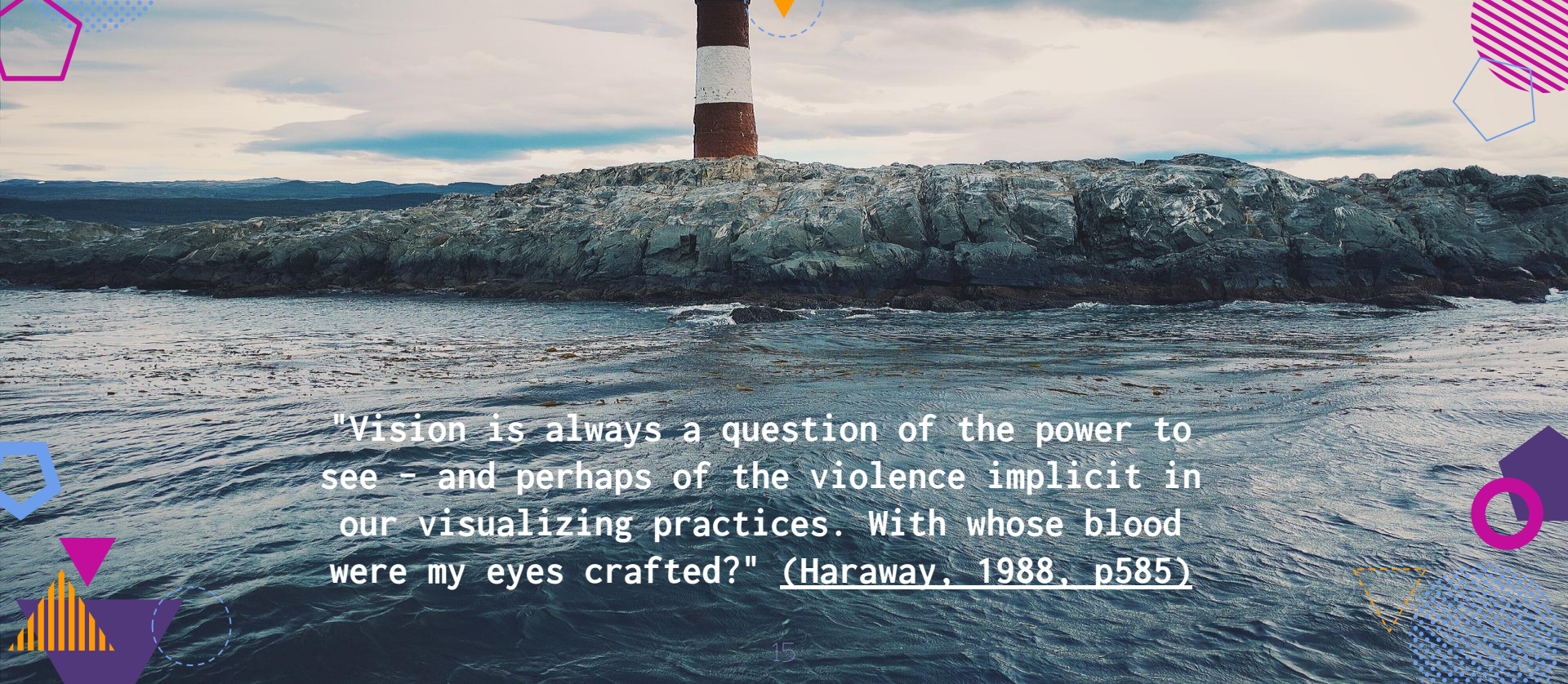
Care is a communitarian practice between researchers, peers, non-researchers and ideas. Inclusive mentorship and involvement must be valued.

Generative co-creation

“Individuals”
do not not exist,
but are not individually
determinate. Rather,
“individuals” only exist
within phenomena
... in their ongoing
iteratively
intra-active reconfiguring.
(Barad, 2012)

“Intra-action acknowledges the impossibility of
an absolute separation or classically understood
objectivity, in which an apparatus (a technology
or medium used to measure a property) or a person
using an apparatus are not considered to be part
of the process that allows for specifically
located ‘outcomes’ or measurement. (Barad, 2003;
Stark, 2016)

Intimate location




"Vision is always a question of the power to see - and perhaps of the violence implicit in our visualizing practices. With whose blood were my eyes crafted?" (Haraway, 1988, p585)

Intellectual Fluidity

After all, the way we institutionally carve up universities into schools and departments and professional associations into divisions and sections generally reflects the way we mentally carve up the world in our minds, as well as the way we experientially construct our professional identities as scholars (Zurubavel, 1995)

“When we said that gender is performed, we are saying that we’re acting in some way, and our acting or our role playing is crucial to the gender that we are and the gender that we present to the world”. (Butler, 2016)

Organized reflexivity



Standpoint theory provides a logic of research that focuses attention on problems that are deeply disturbing to anyone reflecting on contemporary challenges to Western thought and practice, and yet insoluble within the philosophical, political, and theoretical legacies that they provide. Engaging with the needs and desires arising from the daily lives of less advantaged citizens of the globe, and learning how our projects impact on their lives-these projects cannot cease to be controversial as long as social injustices exist. (Harding, 2009)

Nurturing over training

“Conscience-raising is a feminist method”
(Harding, 1987 – quoting MacKinnon, 1982)





3.

Speculative fluid science policy and consequences

Envisioning new institutions, practices and performances



Fluid governance of knowledge



- Effects on institutional organization and function
- Change on instruments assumptions
- Focus on collective exploration of ideas and practices.
- Limitations on the enactment of **fluid knowledge governance**: Capitalist resistance, development of specific tools, experimentation with sand-boxes

Institutional transformation



Location of agencies

Division of labor is centered in location (cities, regions, macrozones) and not by “Study groups”.

Acknowledgement of fluidity and situated expertise/experiences

Metrics

Trajectories of knowledge instead of publications.
Increasing complexity of registers, observing networks with communities, mentoring, support.

Researcher is understood as an holistic experience.

Effects on instruments



Researcher's profile

Evolution of research agendas comes from (hi)stories and experiences of exchange. Each researcher involved in the system collects those interactions with others researchers, and intra-active experiences within themselves.

Organization in practices

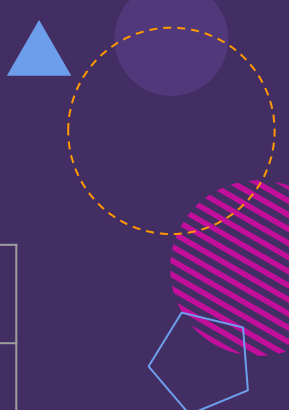

Research projects are seen as collective endeavors of exchange. A problem oriented approach in which the researcher is a significative piece. Maintenance of practices are documented within the communities of practices and their epistemic neighbors.

Scaling nurturing

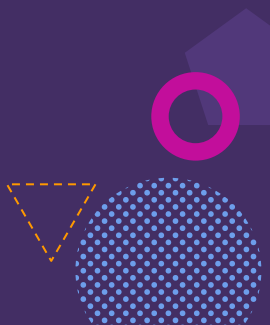

Projects start as a glimpse of exploration. Ideas which involves more people (students, communities, participants, others researchers) are supported to value their endeavour, as well as, allows the exploration of new members in the communities of practices.



Fluid knowledge governance



The Traditional Science policy	A feminist knowledge governance
Universalism	Intimate location/Situated
Disciplinarian structures	Intellectual fluidity
Linear Innovation	Generative co-creation
Organized skepticism	Organized reflexivity
Institutional Hierarchy/Bureaucracy	Nurture over training



“

Puig de la Bellacasa (2011, 2012) says that care, rather than a moral disposition, is an ethical and political disposition anchored to the concrete and daily practices that shape the production of knowledge; in particular, those practical provisions that, apart from asking about power, marginality and inequalities, have **the pretensions to collectively build other possible worlds**” (Perez Bustos and Marquez, 2016)

The slide features a dark purple background with various geometric shapes in the corners. Top-left: a pink circle, a dashed yellow circle, a solid purple pentagon, a blue dotted circle, and a pink outlined pentagon. Top-right: a blue triangle, a dashed yellow circle, a solid purple circle, a pink striped circle, and a blue outlined pentagon. Bottom-left: a blue outlined pentagon, a pink triangle, a yellow striped triangle, and a dashed yellow circle. Bottom-right: a pink circle, a dashed yellow triangle, a blue dotted circle, and a solid purple pentagon.

Thanks!

Any questions?

You can find me at [@soledad_qv](https://twitter.com/soledad_qv)/[@mapc](https://twitter.com/mapc) & squirozv@gmail.com

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- Purple **#432e64**
- Dark Purple **#0e004a**
- Yellow **#ff9900**
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