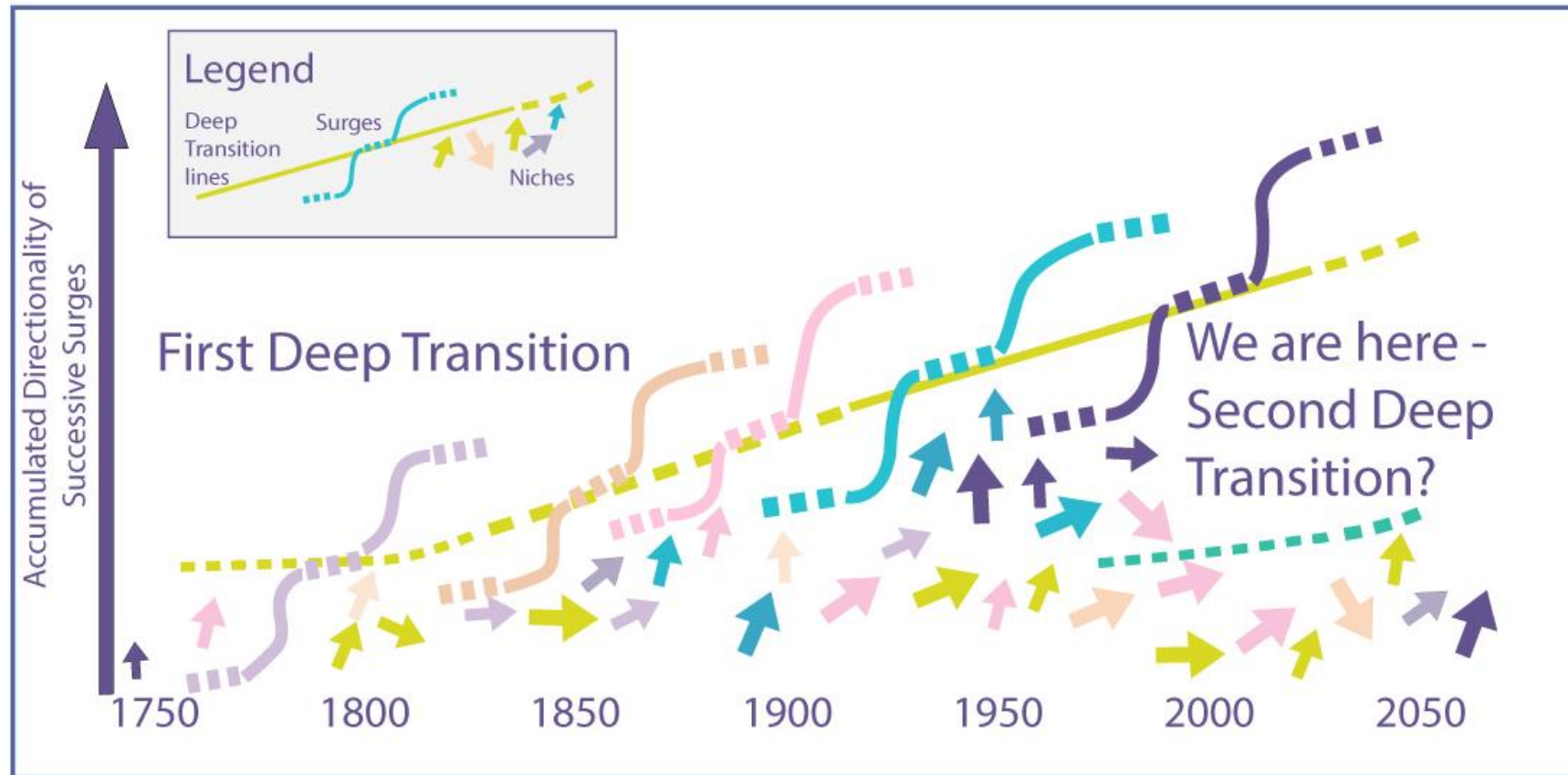# Implementing Transformative Innovation Policy through formative evaluation with transformative outcomes

Presentation for Working Group Understanding and Managing Industrial Transitions, 15 July 2020
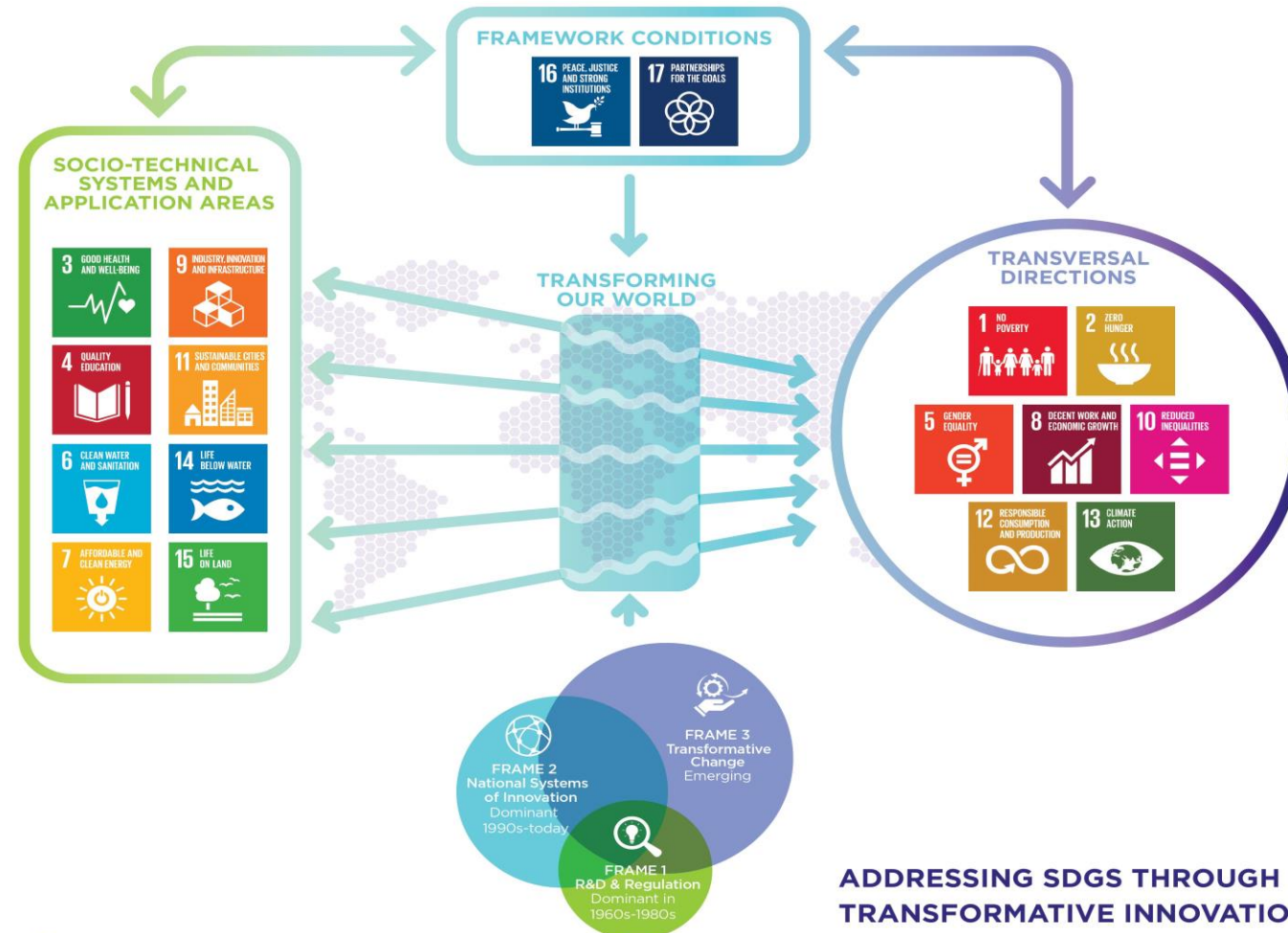
Johan Schot, Utrecht University Centre for Global Challenges

Based on TIPC working paper with Bipashyee Ghosh, Paula Kivimaa & Jonas Torrens
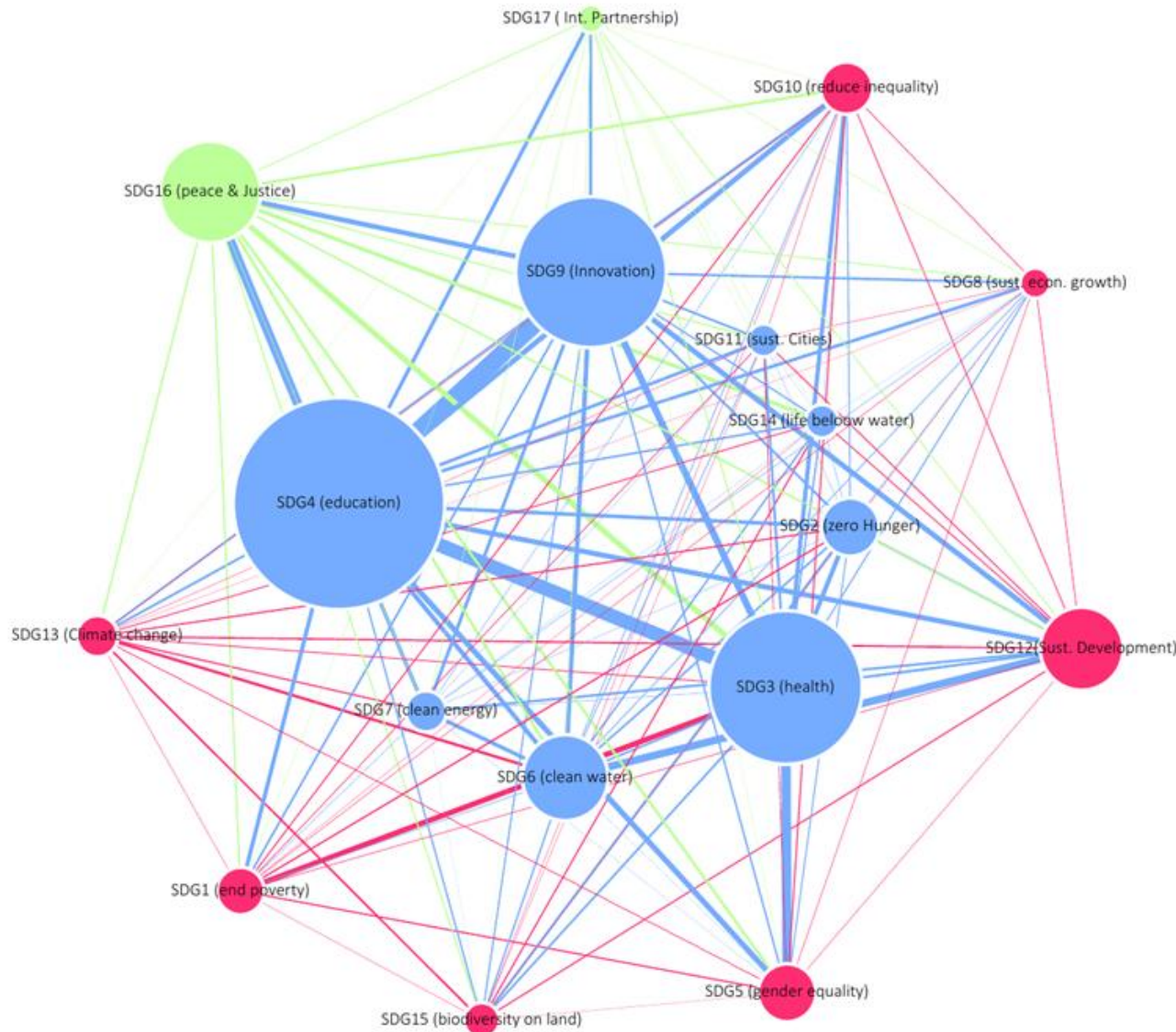
Long term continuity in Deep Transition Dynamics

Transformative Innovation & SDG Implementation

ADDRESSING SDGS THROUGH TRANSFORMATIVE INNOVATION POLICY

Schot, Boni, Ramirez, Steward 2018

@tipconsortium

Overview

1. It is significant that two areas of chronic and prolonged problems in Mexico - **poverty and inequality** – appear under-represented compared to other SDGs .
2. Strong interaction between SDG3-4-9 together with SDG16 and 12
3. we suggest that analysis of knowledge communities and triads can help to focus on specific areas for experimentation and strengthening of nexus type research

Ramirez, M., Romero, O., Schot, J., & Arroyave, F. (2019). Mobilizing the Transformative Power of the Research System for Achieving the Sustainable Development Goals. SPRU Working Paper Series.

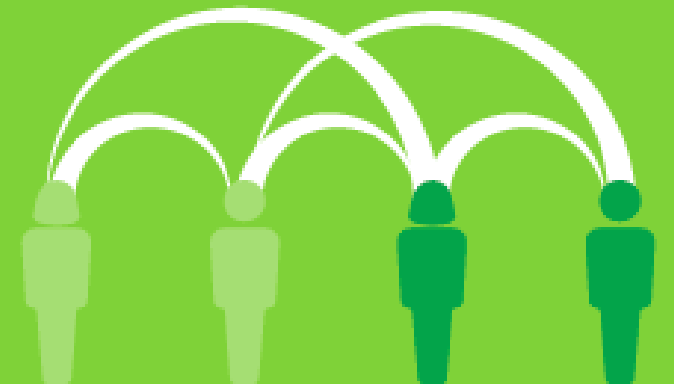TRANSFORMATIVE
INNOVATION
POLICY
CONSORTIUM

Background

- Transformative innovation policy has emerged as a new approach to innovation policy to achieve SDGs
  - Socio-technical system change
  - Experimentation
  - Directionality
  - Inclusivity

9 core members and associates

9 Core and associate members including the national agencies for Science, Technology and Innovation in China, Colombia, Ghana, Finland, Kenya, Norway, Senegal, South Africa and Sweden.

- Main question for TIPC: How can orient the efforts of STI agencies towards making their existing policies, programmes and projects more transformative? Finding answer through process of:
  - Co-creation of theories, application to practise, building capabilities
  - 5 year programme in Global South and Global North

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Conclusions TIPC collaboration first 1-2 years

- STI agencies can implement TIP using two key concepts:
  - Experimental policy engagements – "diverse ways in which (STI) policy makers engage with processes of societal experimentation for sustainable transformation.."
  - Transformative outcomes (TOs) – (processes of) change through altering rule-sets in socio-technical systems

- Method: co-creation of a formative evaluation method to identify processes of transformation, and monitor transformation efforts through experimentation
  - Initial list of transformative outcomes tried out, revised and refined through transdisciplinary engagements like:
    - TIPC Learning journey (June 2019)
    - TIPC training week in South Africa (September 2019)
    - TIPC engagement week in Spain (November 2019)
    - VINNOVA workshop in Sweden (February 2020)

Co-creation between academics and policy-makers

to produce **knowledge on policy**

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Transformative outcomes – the framework
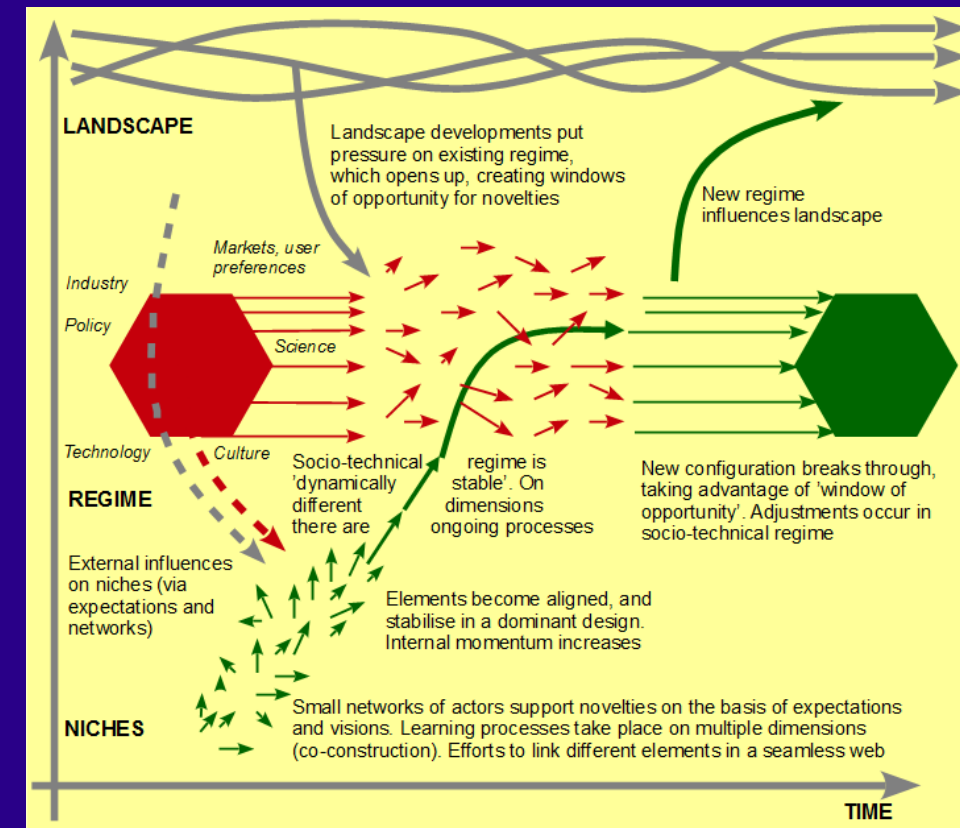
Principles:

- System change through complex interactions between niches, regime, landscape

- Changes in rules across system dimensions

- Multi actor, negotiated and contested process

- Change is spatially bounded

Three general macro processes that can facilitate transformations:

1) building and nurturing niches

2) expanding and mainstreaming niches

3) opening up and unlocking regimes

A set of four sub-processes in each of the three macro-processes

= 12 transformative outcomes

LANDSCAPE

Landscape developments put pressure on existing regime, which opens up, creating windows of opportunity for novelties

New regime influences landscape

Markets, user preferences

Industry

Policy

Science

Technology   Culture

REGIME

Socio-technical 'dynamically different there are

regime is stable'. On dimensions ongoing processes

New configuration breaks through, taking advantage of 'window of opportunity'. Adjustments occur in socio-technical regime

External influences on niches (via expectations and networks)

Elements become aligned, and stabilise in a dominant design. Internal momentum increases

NICHES

Small networks of actors support novelties on the basis of expectations and visions. Learning processes take place on multiple dimensions (co-construction). Efforts to link different elements in a seamless web

TIME

Multi-level perspective (based on Geels, 2002; Schot and Kanger, 2016)

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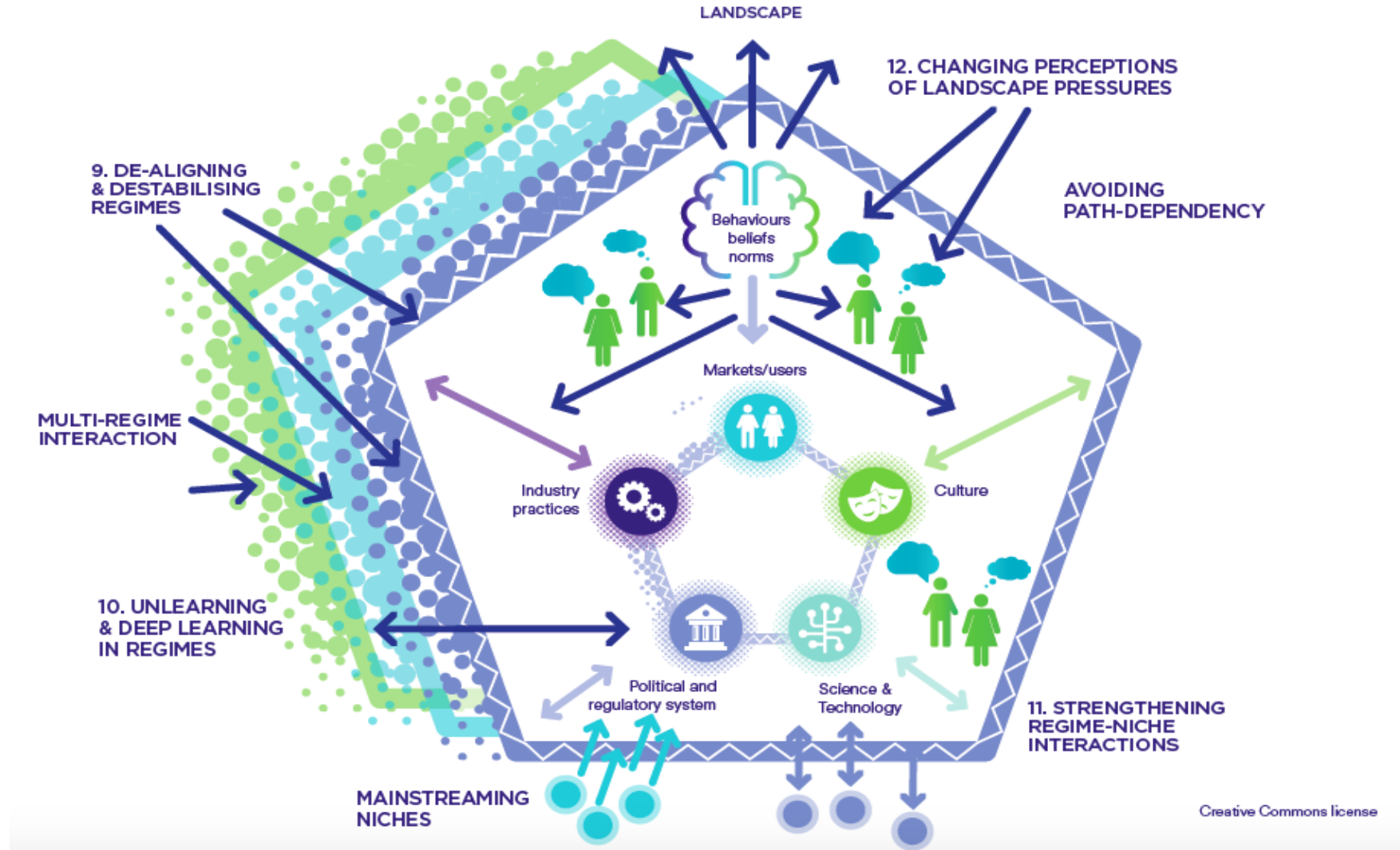TRANSFORMATIVE OUTCOMES FOR BUILDING & NUTURING NICHES
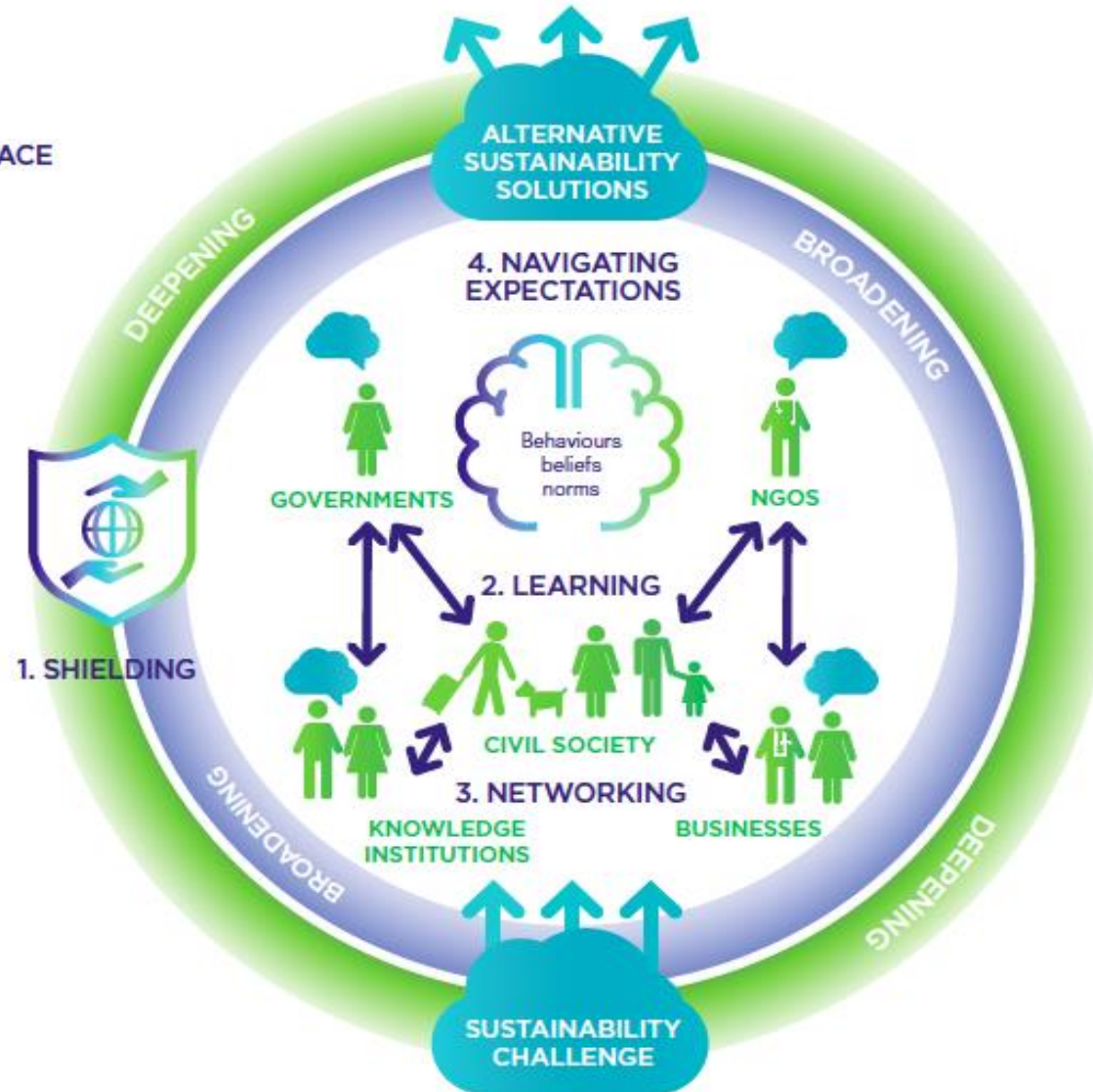
TRANSFORMATIVE OUTCOMES FOR EXPANDING & MAINSTEAMING NICHES
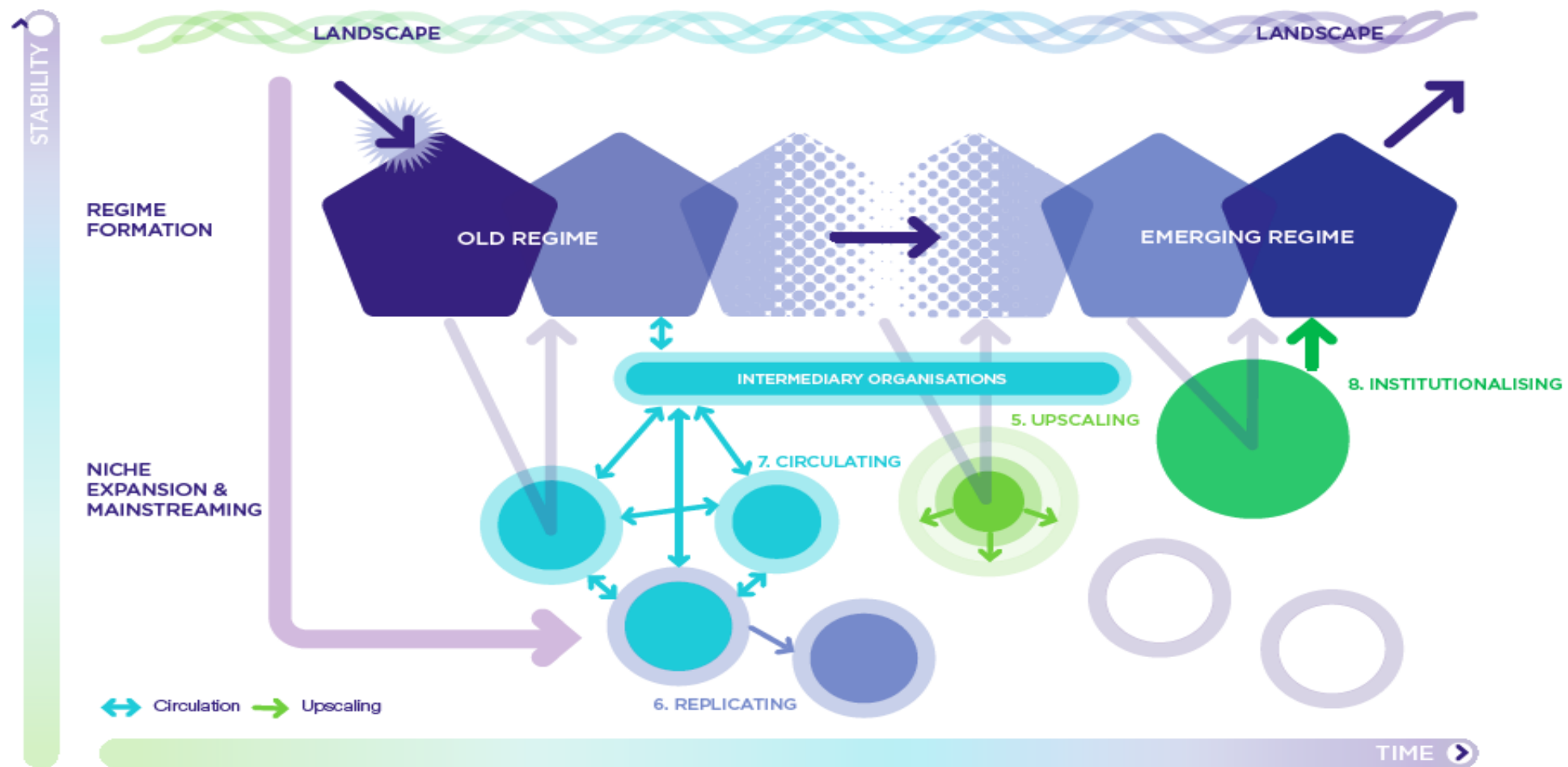
Adapted from Geels and Raven (2006).

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TRANSFORMATIVE OUTCOMES IN OPENING UP AND UNLOCKING REGIMES

LANDSCAPE

12. CHANGING PERCEPTIONS OF LANDSCAPE PRESSURES

9. DE-ALIGNING & DESTABILISING REGIMES

AVOIDING PATH-DEPENDENCY

Behaviours beliefs norms

Markets/users

MULTI-REGIME INTERACTION

Industry practices

Culture

10. UNLEARNING & DEEP LEARNING IN REGIMES

Political and regulatory system

Science & Technology

11. STRENGTHENING REGIME-NICHE INTERACTIONS

MAINSTREAMING NICHES

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Some further reflections and conclusions

- Cases: Transitions to speciality coffee in Colombia and and transition to mobility-as-a-service transition
  - Some transformative outcomes are more visible than others
  - Varied quality of transformative outcomes, necessitating indicators
- Transformative change is needs *deliberation, coordination and reflexivity* between niche and regime actors
  - Transformative outcomes provide a *guide for accelerating change through* a *systemic approach*
- STI agents should focus on shaping, modulating and stretching ongoing transformation processes
  - targeted interventions and quality enhancement through transformative outcomes
- Transformative outcomes is contextual and qualitative indicators of change, assuring *directionality,* important for achieving SDGs.

2020...

12 transformative outcomes for countries to meet Sustainable Development Goals

Informing and shaping the global policy conversation on SDGs

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Thank you! @Johan_Schot @TIPConsortium