



TIP RESOURCE LAB

TOOLS · ACTIONS · LEARNINGS

Transformative Innovation Policy Resource Lab

Visit website: www.tipresourceclab.net

User guide

The **Transformative Innovation Policy (TIP) Resource Lab** offers tools and resources for implementing TIP methods and shares learnings from the journey of the TIP Consortium members since 2017. It also links to academic research that drives TIP thinking about the nature of society and processes of change.

This **User Guide** provides an overview of TIP thinking and introduces the five components of the Resource Lab. On the web pages for each component, you will find further explanations of specific elements of the TIP approach, and an invitation to explore case studies, theory, and tools for each section.

The TIP methodology is, above all, flexible and experimental. There is no right or wrong way to implement it. You will see from the examples provided that the customisation of practical application and the diversity of interpretations across different contexts helps to enrich our thinking and practice.

Transformative Innovation Policy: The Big Picture

Transformative Innovation Policy (TIP) is an approach and a set of methods for addressing our current failings to move towards a more sustainable and socially just future. It is based on a specific set of understandings of human behaviour and society called 'transition theory'. Transition theory is an interpretation of how society operates and by using this theory, we have developed a collection of methods for facilitating social change.

Most people have some ideas or assumptions about how society changes over time. Some would focus on political ideology, others on faith; some see change as a process of democratic decision-making, while others believe that leaders or authorities set a vision for change, establishing regulations or policies to make change happen.

In our age, there is widespread belief that technological change (innovation) underlies social change. It certainly true that innovation has had profound effects. However, if the application of technology is leading to social crises in climate change, species depletion, social injustice and resource exhaustion, then the only apparent response is more technology (i.e. innovations) to fix these crises.



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TIP begins with the observation that innovations are a choice; not only are innovations chosen by their designers and promoters and users, but the direction of an innovation is shaped by a collection of values, practices, and principles in society that we refer to as 'rules'.

These rules are generally not legislated. They arise from the need for routines and standard ways of accomplishing purposes.

For example, since the industrial revolution, we have employed a rule to 'use fossil fuel as a principal energy source'. We employ the rule widely in society across the systems that meet social needs for food, mobility, clothing, and housing. We now understand that this rule is a major contributor to climate change and species depletion, and that we must find a means for changing this rule – that the rules guide societies and change, rather than the technological innovations by themselves.

The systems that meet our social needs are 'socio-technical' – they are comprised of productive ways of supplying these needs (technology) and the practices and preferences we have for fulfilling these needs (what we eat, how we move about, what we wear and where we live). Socio-technical systems are bound together by rules – the practices, customs and habits – that are specific to them (e.g. using automobiles for mobility) and that link together different systems (e.g. use of fossil fuel (petrol) to run automobiles).



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Example: Renewable electrical energy

There are several technologies that allow renewable electrical energy to be generated. It is a choice whether to use these energy sources to form an extensive network, commonly called a grid, or to use the energy at or near the point of production.

The latter choice is facilitated by battery storage (making the electricity source portable) and a range of battery-powered appliances that are alternatives to those requiring wiring and power sockets. The latter choice can also be facilitated by localised networks that allow sharing of the generated electricity. Together, battery storage and local networks can provide an alternative to extending the grid. In a less wealthy area, this may allow electrification without the need for huge investments. In a wealthier area, benefits might include the reduction or even closure of large-scale fossil fuelled power generation.

The interdependence of systems – here the production and use of energy – is nearly universal. Longer term and more basic or radical changes required for sustainability and social justice require changing the rules of multiple systems.

An innovation that changes one rule in one system will not necessarily be taken up because other rules persist. Thus, battery powered automobiles do not change the rules that support other related systems – roads, car parks, materials use, and urban land use. Automobiles might become battery powered, but continue to require massive amounts of energy, land for roads and increasingly intensified resource extraction.

Once established, rules are very persistent. They become the basis for 'business-as-usual' and drive incremental innovation directed at system optimisation. As this optimisation is undertaken within the prevailing rules, it continues the direction or trajectory of change in ways consistent with business-as-usual.

Transformative Innovation requires the adoption of new rules, often available in 'niches' that live in the shadow of the dominant rules. Niches are the carriers of new rules – sometimes they require social or technological innovations to come into existence, but they are often already present and they can be identified by mapping the socio-technical system.

Transformative Innovation Policy is about changing the rules that are followed in socio-technical systems. Alternative rules may be found in smaller scale organisations that are less dominant than those following well-established rules, or in well-established organisations that consider alternative rules in our existing socio-technical systems.

The distinction between TIP and other policies aimed at change is that TIP attempts to change those dominant rules of sociotechnical systems that are inconsistent with social needs. The TIP Resource Lab focuses on how we might do this, informed by the practical experiences of TIP members.

TIP Resource Lab Structure and Contents

The TIP Resource Lab has five components.

The first three allow you to explore TIP's distinctive methods for:

1. understanding a chosen socio-technical system, and defining what changes are needed;
2. planning and implementing experimental interventions to help build new rules to enable change; and
3. monitoring, evaluating and learning from the experimental interventions.

The final two components provide complementary tools, resources and references for:

4. ways of working with different political and cultural contexts, with different types of organisations and with a variety of people, with an attention to the process of implementing TIP; and
5. extending the TIP community of practice and the knowledge infrastructure needed to continuously improve TIP practice and theory.

User Guide to Components

Component 1

As described in the introduction, TIP provides a generic theory of change (a general outline and idealised model of how change happens). This theory depicts change as a process of replacing dominant rules by alternatives that are more compatible with sustainability and social justice, as indicated by the Sustainable Development Goals (SDGs). Alternative rules might be found in niches that are already existing or emerging in society, and that need support or nurturing. In some cases, it may be necessary to create niches in order to accomplish social aims.

Applying this generic theory to a specific context requires analysis of the system that we are attempting to change. This involves mapping actors, processes, material flows, and other features of the system, including its social dynamics – who benefits from the current system and who is excluded from or deprived by it? It also involves anticipating how the system is evolving – the factors driving it forward and the problems or contradictions that are growing or becoming more keenly felt. The opening section of Component 1 sets out what is needed to do this analysis, as well as tools and practical interpretations.

Understanding the problems faced in the system is a first step in understanding what change is needed in the system: developing a context-specific ‘Theory of Change.’ In Component 1, we also begin to plan interventions aimed at systemic change, drawing on the Multi-Level Perspective as a model to help us identify and define an experimental space for a specific context. A useful complementary activity involves widening the focus from a perceived unsustainability or inequity in an existing system to **anticipating** future developments in society, technology and the environment. Effective change can bring into existence many alternative futures than the one that would have occurred by following business-as-usual. The anticipation process requires a collection of skills that can be called ‘futures literacy.’ Futures literacy involves combining imagination and analysis to develop alternative visions or imaginaries of plausible and desirable futures.

Sociotechnical systems typically have strong points – where they meet some social needs; and weak points – where they fail or have negative consequences. The weaker points are often the point of entry for scaling up existing niches or inventing new niches and can be thought of as ‘leverage points’.

Leverage points include complementary actions to protect niches from the dominant regime, or to make room for varying the existing regulations and practices that favour business-as-usual. Doing this will often require political work to gain influence or power. This customisation process culminates in the definition of an ‘experimental space’ – a set of options for interventions that show promise in making transformative change.

The TIP approach defines the experimental space needs with a view to ‘Transformative Outcomes’ that describe in more detail the process of niche building and existing regime replacement. Component 1 introduces Transformative Outcomes and touches on their role in the practical design of a flexible Theory of Change.



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Component 2

The development of a localised Theory of Change ideally comes before an experiment, as it then better helps to identify the space in which experimentation is feasible, along with the relevant points of intervention aimed at transformative change and complementary actions for learning from the experiment.

Change is often sought in projects or initiatives that are underway. These potential niches are ideal sites of experimentation if we can develop our understanding of how to apply TIP methodology flexibly within them.

The necessity of experimentation is often uncomfortable. After all, business-as-usual commonly involves defining next incremental steps and solving immediate problems that should be addressed to make those steps. When not focussing on incremental change, business-as-usual is waiting for 'something better to come along,' typically in the form of a major technological or business model innovation that will accelerate progress along the current trajectory.

Experimentation is motivated by humility. No one has the blueprint for attaining a sustainable and socially just society. To learn how to do things differently, we need to experiment, and then to learn from those experiments how to do better experiments.

Experiments lay the foundations for a change in directions away from the trajectories that underlie our current existential challenges. Ideally, they are undertaken after choosing between alternatives informed by a localised Theory of Change: the actual experiments chosen will be the most promising within the various options of intervention that can be undertaken given political and financial constraints.

Often, experiments involve a modification or re-focussing of a project that has been undertaken for other reasons. If this is the case, we refer to the modification or re-focus as 'stretching' existing projects to introduce an experimental and transformational element. The same question needs to be asked – what is the most promising experiment that can be conducted within the constraints (which now include those of delivering on the project's original aims)? This is where we apply Transformative Outcomes as part of a core methodology to evaluate transformative potential of an experiment.

Experiments themselves are similar to projects undertaken with public or private investments that have a tolerance to failure, with the understanding that failures provide learning opportunities. They involve consideration of what can be done with available resources, of how to document the aims and processes, along with systemic project management and active management of capability building in the experimental team. The last of these involves attention to the question of where learning occurs and how it is circulated within and outside of the experiment.

All of these facets are examined in Component 2, combined with tools, case studies and theoretical foundations.



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Component 3

In Component 3, you will find resources and tools to support monitoring, evaluation and learning in experiments, as well as how Transformative Outcomes can be used to craft objectives and select experiments.

Monitoring, evaluation and learning (MEL) are key to describing the way in which experiments should be conducted to be effective in making change. Experimental interventions that require public or private investment bear an accountability responsibility – a shared understanding of evaluation is therefore important, and that the sponsor is aware of and endorses the aim of experimentation and learning.

In TIP, we stress the importance of ‘Formative Evaluation’ – as opposed to methods of evaluation that emphasise whether project objectives were met, or pre-specified deliverables were produced. Formative Evaluation involves an assessment of what was learned, what might be done differently in the future, and how the assumptions expressed in the Theory of Change in place at the beginning of an experiment should be altered in planning and conducting later experiments.

These insights may be generated within more conventional experimental projects, but often not recorded and made more generally available. In a project embracing elements of TIP, the monitoring of experimentation and systematic recording and sharing of learning is key to the Formative Evaluation process. It underlies the reason for undertaking experiments and is the most important output.

Achieving Transformative Outcomes is the ultimate aim of TIP, guiding those activities involved in analysing existing systems and formulating a Theory of Change. The idea of Transformative Outcomes comes from the Theory of Change drawn from sustainability transitions studies, which seeks to generalise from broad systemic change dynamics and offer a set of goals to be achieved in order to change the rules influencing a system.

These goals, in turn, allow the application of measures and indicators to assess whether the experiment is delivering Transformative Outcomes and how the existing or future experiments can be ‘stretched’ to achieve further and better outcomes.

If possible, the intent of achieving Transformative Outcomes should sit at the heart of the formulation of a localised Theory of Change and definition of an experiment. In the experience of TIP so far, however, we have not always been able to ‘pre-load’ Transformative Outcomes into experiments. In fact, the theory of 12 Transformative Outcomes was developed in parallel to experimentation with TIP partners, and this has often led to unstructured and unsystematic execution of MEL.

Although formative outcomes have a theoretical and empirical foundation, TIP is an evolving practice. We expect that local conditions and needs might indicate that other outcomes have transformative potential.



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Component 4

The three components described above contain the essence of TIP thinking and practice, but are not a guide to 'doing TIP.'

TIP is ultimately about people and their desire to make positive change – a bottom-up process that recognises the possibility of initiatives that are not undertaken only through government directives or funding programmes. It relies upon a sustained commitment, devoted to building capabilities, and is strengthened through diversity – people from all over the world practicing TIP methods in their attempts to enact change.

TIPC work brings together people with very different understandings of the world and processes of change. At present, TIPC experiments or projects with TIP elements are usually initiated by government officials attempting to improve the transformative performance of projects that they fund and oversee. This is an important step from 'fund and forget' models, in which oversight is limited to monitoring how grants are spent and what outputs are produced.

A major aim of TIP is inclusivity in the planning and implementation of projects. This addresses a common issue throughout the world that change projects, regardless of their aim, are often undertaken in a top-down fashion and at risk because of a lack of shared ownership of, and commitment to, the project from those affected by it. TIP also involves active collaboration between researchers and practitioners co-creating new knowledge, concepts and methods – a process known as transdisciplinary research.

Becoming more inclusive in a meaningful way creates further challenges around translation, engagement and co-production. Facilitating the empowerment of participants is not an easy or straightforward process. It also challenges business-as-usual processes, in which stakeholders may have limited influence over the definition, implementation and evaluation of projects.

TIP works at change at the level of niches and their interaction with existing practices within the dominant sociotechnical regime. Necessarily, this involves consideration of localised context – what is easy and obvious in one context might take substantial effort to achieve in the face of alternative political systems, cultures, capabilities and technologies.

Not every context is fundamentally different – if this was the case, adaptation, imitation, circulation and re-invention of innovation would not be a recurrent theme in social and technological history. At the same time, it is rarely the case that a transformative change process will be universal in scope and detail. Context does matter, and Component 4 considers the significance of locality and divergence in how power is distributed and shared, who has a voice and how inclusion is fostered.



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Component 5

Transdisciplinary research involves translation into commonly understood language, as well as the advance of methods and theory. For TIP to make a larger impact requires the construction of communities of practice and knowledge infrastructures that are open and shared by those engaged with practice and research on social change processes. Component 5 surveys the resources and examples of these communities of practice and knowledge networks that are part of the organic growth and development of TIP.

As an academic term, 'communities of practice' can refer to a group of people engaged in a common set of activities whose relation to one another is defined and strengthened by mutual regard of each other's expertise; it can also refer to groups of people with a common interest in a particular practice, who exchange information with one another episodically without building strong ties. In TIP, both understandings are relevant.

The second understanding is a useful way to think about how knowledge about TIP circulates among a growing number of people; the first helps us to consider how to connect people and share the load implied by a critical mass working to address new capabilities and share their experience.

The TIP Consortium aims to help both types of practice communities to grow and flourish through the organisation of learning events, conferences and workshops, and by the maintenance of mailing lists and directories of peoples' interests and capabilities. Practice communities benefit from the inclusion of practitioners, academics and 'pracademics' whose roles overlap, and a core aim of TIPC is to assure this inclusion and interaction. In Component 5, we consider activities related to the creation and maintenance of these communities of practice.

TIP is also a burgeoning area of research, in which there is a need for active participation and leadership from the community of diverse actors working on TIP, as well as early career researchers and those pursuing advanced degrees or early in their professional careers, perhaps also new to action oriented, transdisciplinary research.

Academic life is often organised around a hierarchical understanding of communities of practice, in which some people are assumed to have power or expertise, often structured along disciplinary lines. As a transdisciplinary research area, many researchers with an interest in TIP are committed to creating a less hierarchical and more vibrant community of exchange for networking, meeting and developing ideas, accessible to a wide range of stakeholders with different types of knowledge and disciplinary backgrounds, and levels of experience.

As a facilitative space, the TIP Consortium is active in building bridges between established networks of scholars, such as the Sustainability Transitions Research Network (STRN), Globelics community, African Network for Economics of Learning, Innovation and Competence Building Systems (AfricaLics), Latin American Hub of the Transformative Innovation Policy Consortium, and European Forum for Studies of Policies for Research and Innovation (Eu-SPRI), alongside disciplines such as environmental and development studies.

The aim of such networking, as seen through the TIP conference 2022 and its Formative Evaluation efforts, is to increase the extent of knowledge exchange, to develop a common language and understanding of transition and its policy implications and to support the recording of experience through interactions between researchers and other stakeholders – an activity often referred to by the somewhat dubious term 'impact.'

What we are trying to build is a knowledge infrastructure, alternative to conventional scholarly routines, that is compatible with both academic norms of publication and with active participation in transformational work, often called action research.

The activities related to building a knowledge infrastructure and associated 'design criteria' to build and sustain such an infrastructure and knowledge systems as a whole are described in Component 5.



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