

SPARK Learning Framework: Our Approach

CARDIFF
UNIVERSITY

PRIFYSGOL
CAERDYDD

Social Science
Research Park

Y Parc Ymchwil
Gwyddorau Cymdeithasol



Introduction

SPARK is the world's first social science research park, bringing together a creative, curious and entrepreneurial community in the purpose-built sbarc|spark.

As part of Cardiff University's research infrastructure, SPARK unites leading research centres, businesses, public and third sector partners, and community groups to tackle complex societal challenges. Our mission is driven by six core aims:

- Foster a collaborative, cross-sector research culture
- Cultivate a creative, entrepreneurial, innovative community.
- Catalyse new ways of working that transform University culture and improve responsiveness to social need.
- Enhance our national and international reputation in social science, innovation and interdisciplinarity.
- Create a wiser society that understands complex challenges and how best to respond.
- Become an anti-racist community.



Photograph: M Horwood



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The SPARK Learning Framework

SPARK operates in a complex, fast-changing environment. To achieve a step-change in social science research, it needs a way to understand what's working, adapt quickly and learn continuously.

SPARK's Learning Framework provides this by:

- Showing how activities contribute to SPARK's aims – making progress visible.
- Equipping SPARK to navigate uncertainty and complexity at both strategic and day-to-day levels.
- Enabling shared learning across SPARK, the wider University and external partners.
- Supporting the spread of effective, transferable practices that strengthen the whole research ecosystem.

Influences

SPARK is a complex system made up of many interconnected parts. Understanding its activity and impact requires viewing it within its wider system.

Because of this complexity, SPARK needs a structured learning framework to understand what is emerging, identify what is working, and guide adaptive, evidence-informed action. The Learning Framework brings together three complementary approaches:

1. **Cynefin framework:** Uses a probe-sense-respond model to navigate emergent, complex environments (Snowden & Boone, 2007).
2. **Human Learning Systems:** Emphasises continuous learning and human-centred, healthy systems (Lowe et al., 2021).
3. **Vector Theory of Change:** Focuses on direction rather than fixed goals, identifying ‘adjacent possibilities’ as next steps toward system change (Doyle, 2021; Loreto, 2015)

These approaches embrace complexity, value lived experience and support collective sense-making. They move beyond linear models by fostering adaptive learning and contextual understanding. They help SPARK reflect, learn and adapt its actions based on real-world insight.



Photograph: M Horwood

How the Learning Framework Works in Practice

SPARK's Learning Framework helps SPARK respond to a changing environment while staying focused on long-term aims. It provides a cyclical way of learning that shows where SPARK is now, identifies next steps, and tracks progress. It acts like a compass, guiding SPARK along a route not yet travelled, by (1) gathering insights, (2) mapping progress, (3) sense-making and (4) creating learning cycles.

1. Gathering Insights

SPARK draws on a wide range of quantitative and qualitative information to support ongoing learning. **Core Insight Sources** include:

- Event and activity attendance data + feedback.
- Ripple Effect Maps across SPARK work strands.
- Bi-annual SPARK community survey.
- Reports from the SPARK Management Board, hub team and research centres.
- Membership review logs with external SPARK community members.
- Newsletter and website content (including blogs).
- Annual income-generation data.
- Logs of brokering and support activity.
- One-off sources, such as independent studies and unrepeated surveys.

2. Mapping Progress

Drawing on the Vector Theory of Change approach (Doyle, 2021), **Direction of Travel Maps** are created for each of SPARK's aims. Each map includes:

- Two pathways showing how SPARK can make progress; one reflecting change within the SPARK community (internal) and one reflecting impact beyond SPARK (external).
- Learning points plotted every three months, based on the core insight sources.
- An evaluation matrix is used to position each point on the map using three impact levels (see Hansen, 2017):
 - T1 – Transactional: one-off or individual impacts
 - T2 – Transitional: changes beyond individuals, but not yet system-wide
 - T3 – Transformative: community or system-level change

These maps provides a shared, consistent way to interpret impact and understand SPARK's progress over time.

Visualisation of a Direction of Travel Map

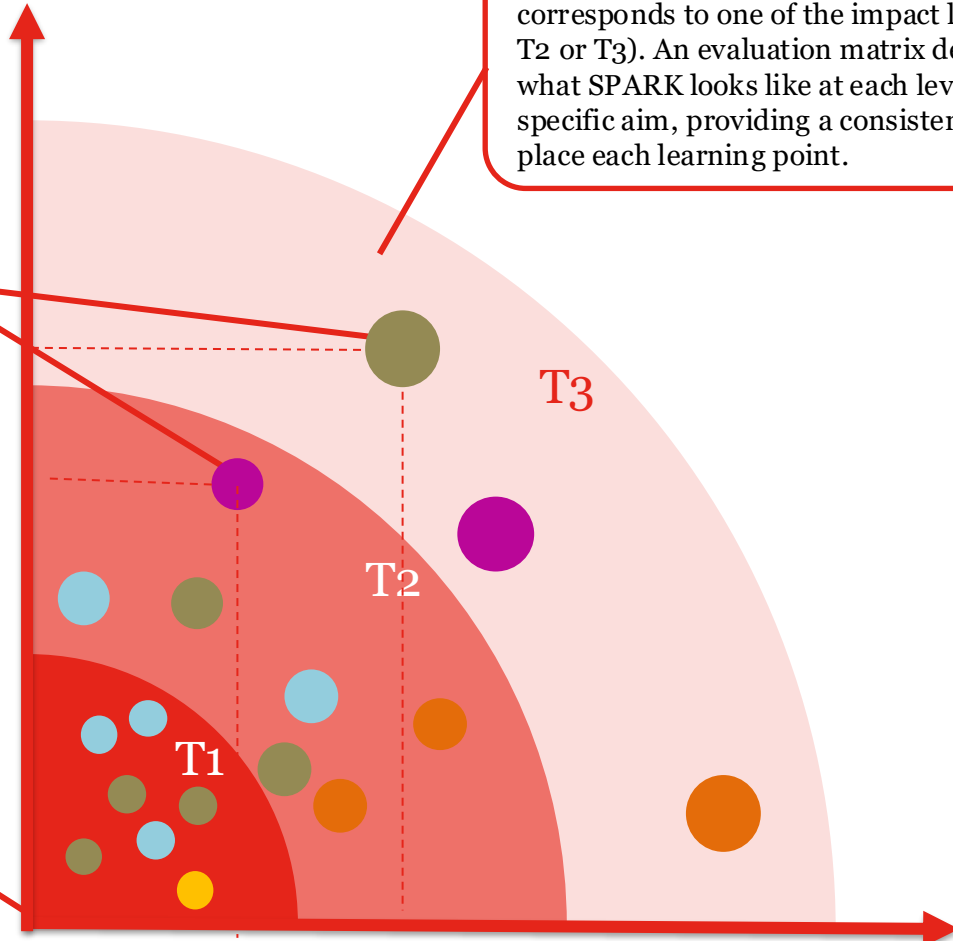
Each dot represents a learning point drawn from one or more Core Insight Sources. These points may be qualitative (e.g., feedback comments, Ripple Effect Maps) or quantitative (e.g., research income, event attendance). The colour indicates the source of the insight, and the size of the dot reflects its level of impact.

The red axes represent each of the two pathways to achieving the aims of SPARK:

- **Internal pathway** (e.g., Lived and practice-based knowledge informs and influences the research undertaken in SPARK.)
- **External pathway** (e.g., Multi-sector, discipline and expertise collaborations are leading to new research practices, processes and types of projects.)

External pathway

Each area of the Direction of Travel Map corresponds to one of the impact levels (T1, T2 or T3). An evaluation matrix describes what SPARK looks like at each level for a specific aim, providing a consistent way to place each learning point.



Internal pathway

3. Sense Making

- The hub team uses sense-making activities to help the community understand emerging insights and their relevance to SPARK's aims.
- Quarterly 'deep-dive' sessions review mapped insights, identify patterns and consider implications for day-to-day work.
- The Management Board joins an annual sense-making session to explore key challenges and possible routes forward.
- After 12 months, the hub team updates the 'state of play' for each aim using the maps.
- This process identifies adjacent possibilities – practical next steps for the SPARK community.
- These insights shape the hub team's annual action plan and inform the annual insight report shared with the community.

4. Creating Learning Cycles

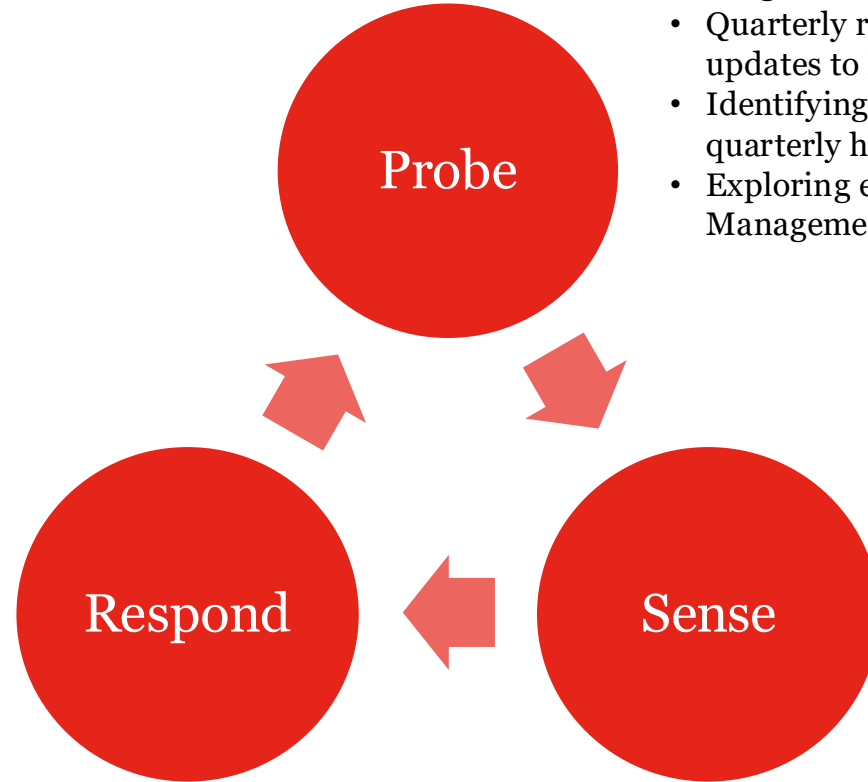
- This forms a year-long learning cycle, repeated annually.
- This learning cycle is structured around: Probing, Sensing and Responding.



SPARK's Learning Cycles

Responding Activities

- Produce an annual insight report for each learning cycle.
- Share the insight reports via mailing lists, website, blog posts, social media and workshops.
- Adapt and continue existing activities based on learning.
- Test new interventions and pilots informed by adjacent possibilities.



Probing Activities

- Ongoing, ad-hoc gathering of learning insights.
- Quarterly review of insights and updates to Direction of Travel maps.
- Identifying emerging learning in quarterly hub-team 'deep-dive' sessions.
- Exploring emerging learning in the Management Board's annual session.

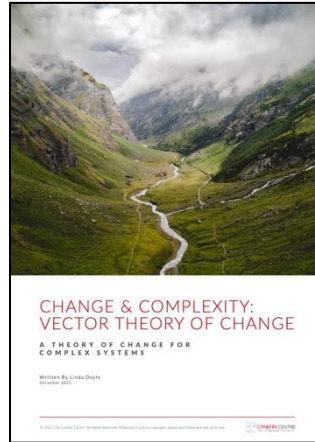
Sensing Activities

- Use Direction of Travel maps to identify broad adjacent possibilities.
- Develop the SPARK hub team's annual action plan.
- Collaborate with the SPARK community to shape contributions to adjacent possibilities.

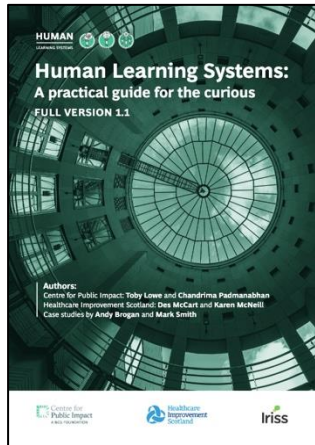
Decision-making in complex environments model taken from the Cynefin framework (Snowden and Boone, 2007) with indicative list of SPARK's learning activities attributed to each phase.

References

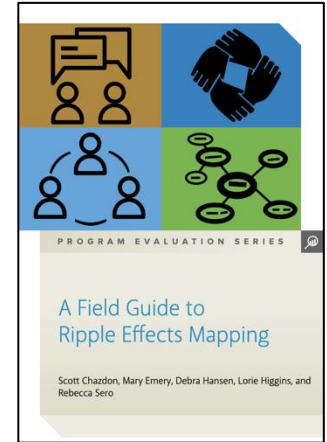
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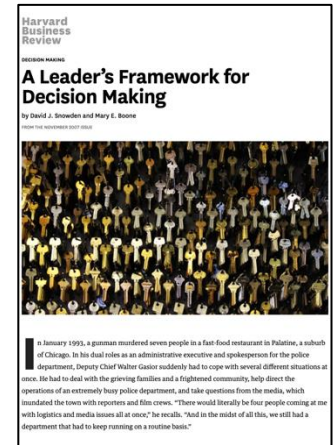
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