

From Gridlock to Greenlights

Integrating Legitimacy, Engineering and Regulation in Impact Assessment

Agenda

- 01 Introduction and scene setting
- 02 Exercise 1 - Diagnosing Legitimacy
- 03 Exercise 2 – Participative Due Diligence
- 04 Exercise 3 – Visioning
- 05 Exercise 4 – Co-design of the plan



Stakeholders

Blue – Impact Assessor

Green – Community / Indigenous

Yellow – Government / Regulator

Red – Project Developer

Purple – Investor / MDB

Orange – NGO / Civil Society

Introductions

30 years. 100+ documented cases.



Katherine Teh

Executive Chair,
Spektrum Development

1996



Australian Mining Industry

World's first mining environment & social code.

1998



Gordon LNG

Approvals strategy – now 10-years production.

2002



BP Petrol

Non-sniffable petrol – product redesign as consent.

2003



Cadia

Water cooperation – opposition – voluntary allocation.

2006



Caroona Blockade

2.5 years resolved in 3 months.

2006-2008



Gladstone Air Emissions

Reduced community concern about air emission poisoning from 75% to 22%.

2000-2011



Pt Pirie Re-licence

Reduced lead levels in children & re-licenced with community support.

Endorsed by

Dr Megan Clarke AC
Former Rio Tinto Board Member

Jerry Ellis AO
Former Chairman of BHP

They are documented, measurable conversions of opposition into consent



Spektrum Development Pty Ltd – Confidential – April 2026

Deciding Together

28 years of engineering expertise



Anna Quillinan

CEO, Spektrum
Development

1998



Pasminco

Mining and
processing of zinc
and lead

2001



Jacobs

Engineer:
Concept -
Operation

2007



Worley

Engineer:
Concept -
Operation

2011



**Worley
Executive**

Leader of 1100
engineers

2018



ENGIE

Developer of Net
Zero Precincts

2025



**Spektrum
Development**

Integration of
legitimacy
architecture into
mining
development

Engineers are natural problem solvers

But they need ALL of the information in
order to produce the best results



Purpose

Major infrastructure and critical minerals projects increasingly stall despite technical feasibility and financial viability. In many cases, impact assessment becomes the arena in which unresolved conflicts between proponents, communities and governments are contested.

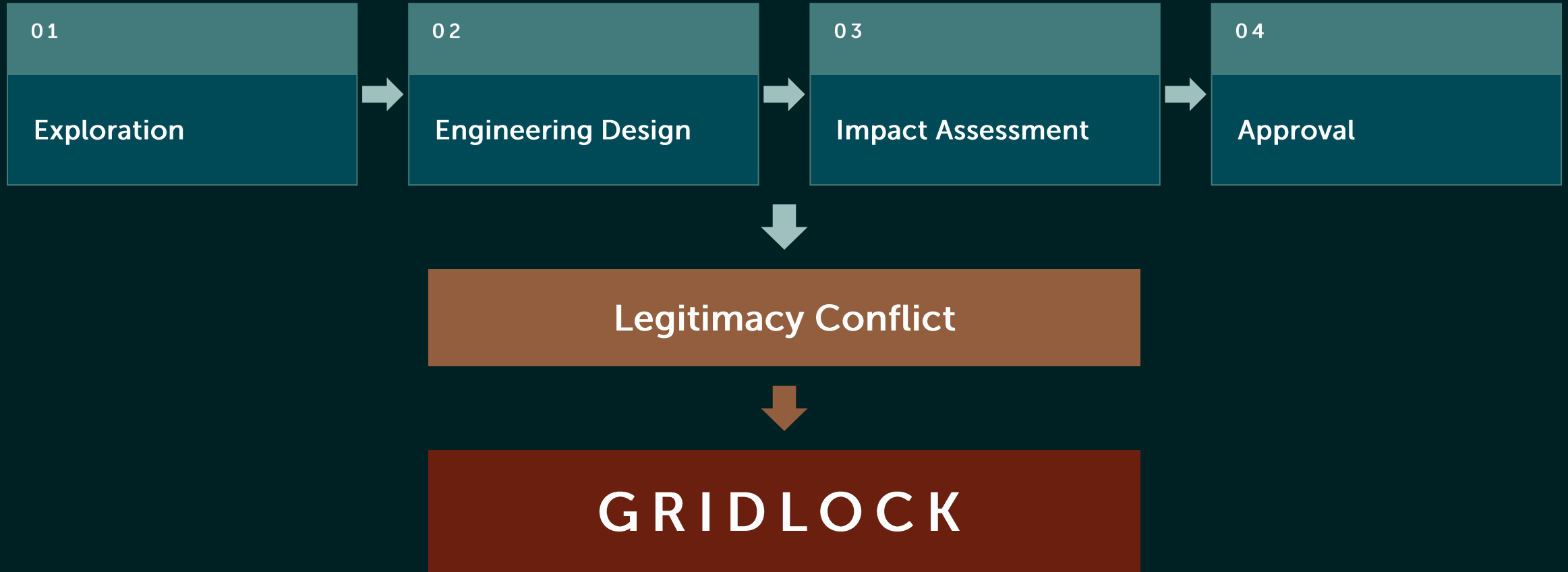
This session explores whether earlier integration of legitimacy diagnostics, engineering design and regulatory pathways could strengthen impact assessment practice and reduce the uncertainty and mistrust in which misinformation and disinformation can flourish.

The session tests elements of the Development by Consent[©] (DbC) methodology through a participatory Solution Room process.



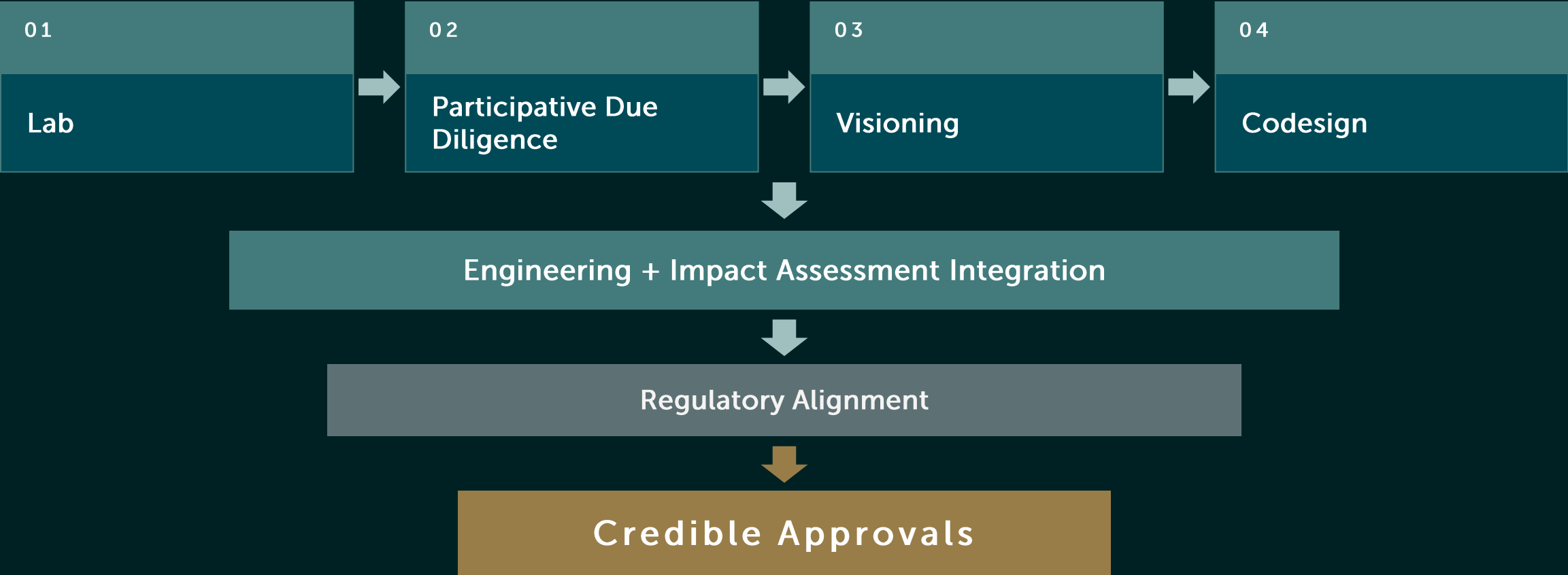
Traditional Project Model

Sequential, linear, and prone to legitimacy failure



Development by Consent[©]

Relational, integrative, and built for credible approvals





Exercise 1 – Diagnosing Legitimacy

LVaR[®] – Quantitative Legitimacy Risk Diagnostic

What L-VaR[®] is not:

- ESG audits
- Reputation surveys
- Compliance checklists

Six-Domain Risk Instrument

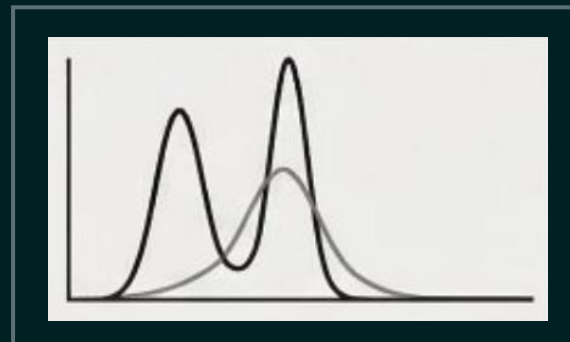
Converts social uncertainty into dollar-at-risk against NPV

<p>01. OS Outrage: Community experience</p>	<p>02. CBA Company Behaviour: Impact on issue</p>	<p>03. SMS Social Maturity: Phase of issue</p>
<p>04. ASI Activist Sophistication: Opponent capability</p>	<p>05. GAS Government Accommodation: Stability</p>	<p>06. SA Societal Antagonism: Flow toward consent</p>



Four Interaction Effects

- The Hazard Floor
- Sovereign Reversal Risk
- Hysteresis
- Path Dependence



Bridging the Governance Gap

FID gates test four things — technical, financial, legal and operational-readiness.

None of them ask whether the project is legitimate.

L-VaR[®] assesses this risk and provides boards with a mechanism to measure and track.

Exercise 1

Purpose: to test whether the diagnostic domains reflect practitioner experience by applying it to the stranded project, Cobre Panama.

Time:

- 5 minutes for introductions & to understand instructions (Sheet 1)
- 12 minutes to assess each of the legitimacy domains (Sheet 2a and b)
- 2 minutes per table to report back



Plenary Questions to Answer

- What indicator is missing?
- Which signal appeared first?



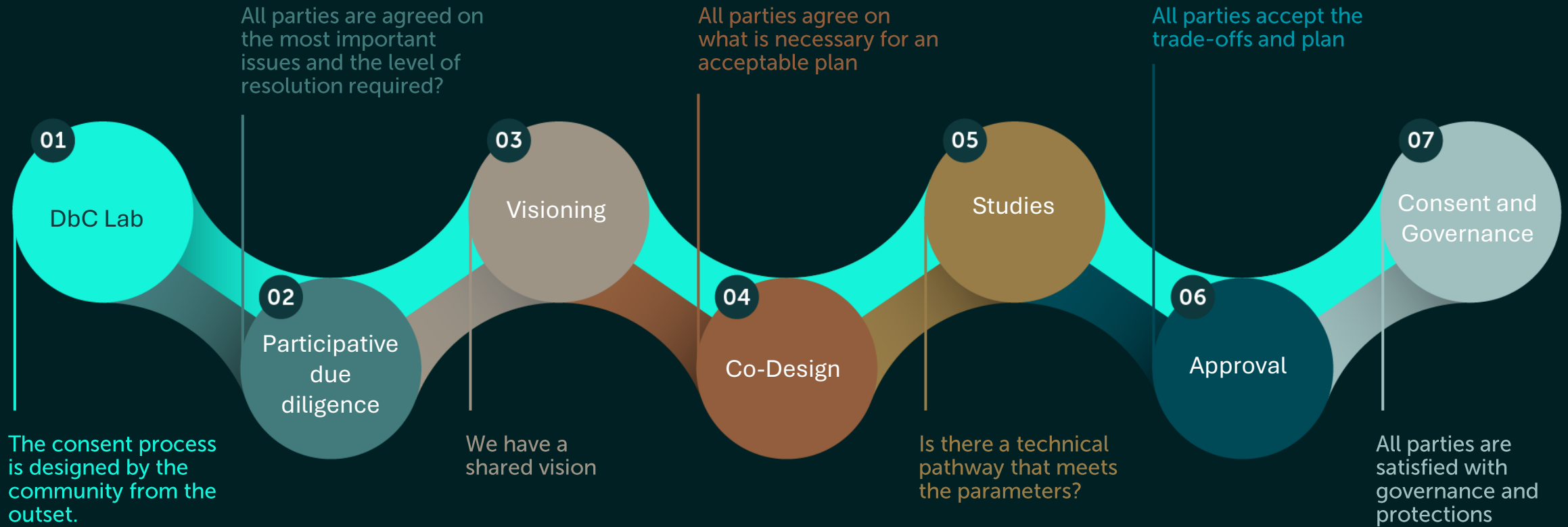


Exercise 2 – Participative Due Diligence

Our proposition

Projects shift from perceived threat → credible value proposition when risk reduction, governance and benefits are structured together.

The 7 stages of Development by Consent[®]



Exercise 2

Purpose: to identify the key aspects of the major risks that the NGOs have raised on the Cobre Panama project.

Process:

- One person from each table remains in place to scribe
- Remaining participants rotate around each table

Time:

- 7 minutes per table (Sheet 4)
- 2 minutes per scribe to report back



Key Problem Areas



01

Water



02

Tailings



03

Indigenous Rights & Decisions



04

Governance



05

Economic Opportunities & Risk



06

Biodiversity



07

Regulation



08

Corruption



09

Jobs

Hold that thought...

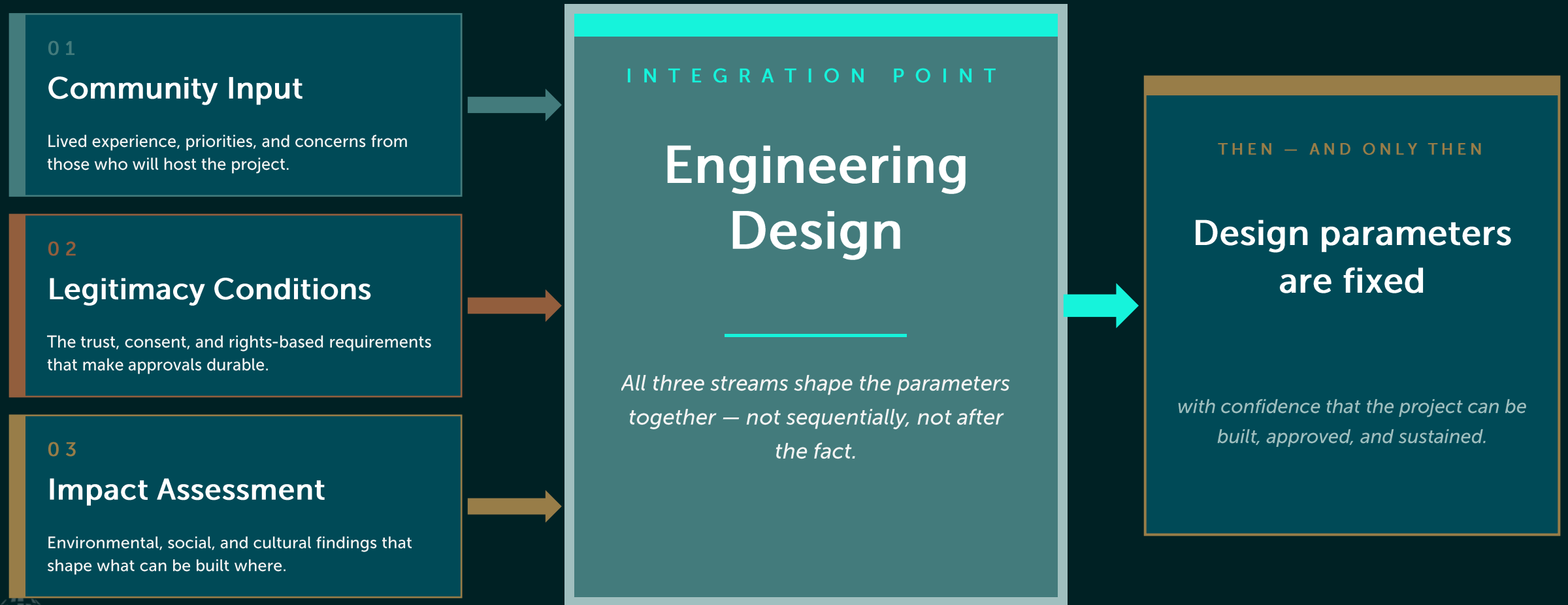
If these legitimacy conditions are visible earlier, the next question becomes how they influence engineering design and regulatory pathways....

Exercise 3 – Visioning

Our Proposition – Integrated Engineering Design

Engineering design should integrate three streams of input

— *before design parameters are fixed.*



Exercise 3

Purpose: to evaluate the key risks for Cobre Panama against the potential solutions.

Process:

- Choose a table (risk you're most passionate about)
- Identify solutions that would eliminate risk or advance outcomes (sheet 5)
- Choose one action and write on a post-it to add to the wall

Time:

- 20 minutes





Exercise 4 – Co-design of the Plan

Recovery Pathway and Management Options

Management options selected can change the future – either permanent loss or asset recovery (sheet 6).

Our proposition

Early community alignment could allow regulators to recognise pre-aligned consent conditions without weakening safeguards.

Exercise 4

Purpose: to understand how the project timeline a greenfield project that valued legitimacy could address issues earlier?

Process:

- Answer the key questions (sheet 7)
- Reference sheet 8

Time:

- 30 minutes



Our proposition

Early community alignment could allow regulators to recognise pre-aligned consent conditions without weakening safeguards.

Reflection

What role should impact assessment practitioners play in enabling legitimate project development?

Reflection

Impact assessment has traditionally focused on evaluating impacts after projects are designed.

The Development by Consent[©] process suggests a different possibility:

Impact assessment could help diagnose legitimacy conditions, shape design choices and support credible approval pathways earlier in project development.

Video Evaluation

Interview someone on your table:

- What did you like most about this course?
- What did you learn?

Email your videos to:

katherine.teh@spektrumdevelopment.com

If you have a stranded asset you'd like us to review, please get in touch:

anna.quillinan@spektrumdevelopment.com





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