

Capture Value from Novelty

How patents, secrecy, complementary assets, speed and contracts decide who actually captures the value an innovation creates.

Theory session

Advanced

Running case: RelayMesh



Where this session sits

Module 1 defended a position; Module 2 architects the market around it

MODULE 1

Foundations of
Defensible Position

MODULE 2

**Defensibility Through
Market Architecture**

MODULE 3

Strategic Advantage
Under Rivalry

SESSIONS IN THIS MODULE

2.1

Capture Value from Novelty

Patents, secrecy, complementary assets, speed and contracts

YOU ARE HERE

2.2

Engineer Retention and Positive Feedback

Migration friction and participant density

2.3

Govern a Defensible Platform Ecosystem

Access rules, incentives, standards and enforcement

What this session explains

Why innovators frequently fail to capture what they create

01 Innovation and appropriation are separate problems

Creating value and keeping it require different mechanisms.

02 The appropriability regime sets the terms

How well protection works in your setting determines which mechanism can carry the weight.

03 Complementary assets decide the split

When protection is weak, whoever owns the scarce complement captures the return.

04 Appropriability can be designed in

TradeLens built control and visibility into the architecture rather than relying on contracts alone.

The profiting-from-innovation problem

Teece's question: why do imitators so often capture more than innovators?

WORKING DEFINITION

Whether an innovator captures the value it creates depends on two things it does not control by inventing: how effectively the innovation can be protected, and who owns the assets needed to commercialise it.

1

The regime

Tight where protection genuinely works — strong patents, or knowledge that resists reverse engineering. Weak where it does not.

2

The complements

Manufacturing, distribution, service, brand, installed base. Innovation rarely reaches a customer alone.

3

The dominant design

Before one emerges, variety competes. After, the contest moves to cost and complements — where incumbents usually win.

Teece, D. (1986). Profiting from technological innovation. *Research Policy*, 15(6), 285–305.

Five ways to appropriate value

Each trades protection against disclosure, cost and speed

1

Patents

Legal exclusion for a term, in exchange for full public disclosure. Strong in pharmaceuticals and chemicals; weak where invention is easily designed around.

2

Secrecy

No disclosure, no term limit, no protection against independent discovery. Survey evidence ranks it above patents in most industries.

3

Lead time

Being first and moving fast enough that imitators are always behind. Only a mechanism if the lead produces something durable.

4

Complementary assets

Control the scarce thing the innovation needs to reach a customer. Frequently the strongest of the five.

5

Contracts and architecture

Licences, NDAs, exclusivity — and technical design that enforces them. TradeLens sits here.

EMPIRICALLY

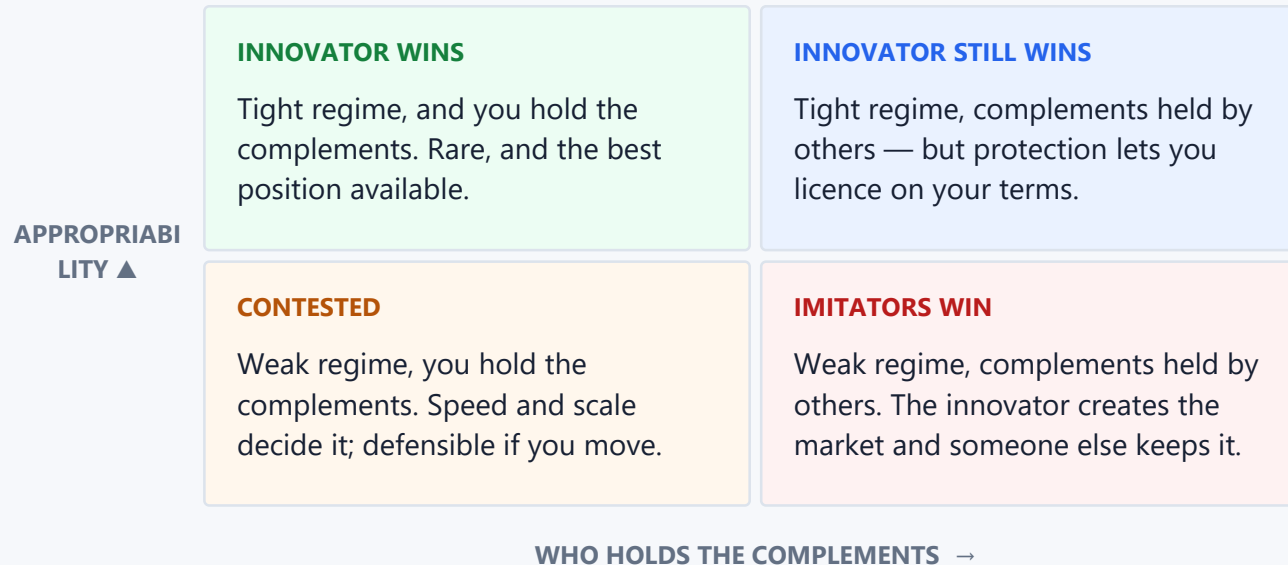
Patents rank low

Across most manufacturing sectors, managers rate secrecy and lead time as more effective than patents (Cohen, Nelson & Walsh, 2000).

Cohen, W., Nelson, R. & Walsh, J. (2000). Protecting their intellectual assets. NBER Working Paper 7552.

Where the value actually lands

Teece's two-by-two, which predicts the outcome better than novelty does



THE COMMON STARTUP POSITION

Bottom-right

Weak protection, complements owned by incumbents. This is the default unless something is done about it.

THE TWO ESCAPES

Strengthen or acquire

Either tighten the regime — architecture, secrecy, contracts — or secure the scarce complement before scaling.

THE DIAGNOSTIC

Name the scarce complement

If you cannot say what it is, you have not finished the analysis.

The disclosure trade-off

A patent is a bargain: exclusion in exchange for teaching everyone how

PATENT

Protection through disclosure

WHAT YOU GET

A time-limited right to exclude, enforceable, and tradeable as an asset.

WHAT YOU GIVE

Full public teaching of the invention, permanently, including to rivals who will design around it.

CHOOSE IT WHEN

The invention is hard to design around, easy to detect in a rival's product, and you can afford to enforce.

SECRECY

Protection through concealment

WHAT YOU GET

No term limit, no disclosure, no filing or enforcement cost.

WHAT YOU GIVE

No protection at all against independent discovery or reverse engineering.

CHOOSE IT WHEN

The advantage is a process rather than a product, hard to observe from outside, and your people stay.

THE TEST MOST TEAMS SKIP

Detectability is the deciding question. A patent you cannot tell is being infringed is a disclosure you paid to make.

Appropriability built into architecture

TradeLens separated three questions that are usually merged

WHO CONTROLS IT

Participants retained control of their own data rather than ceding it to the platform.

WHO CAN SEE IT

Two visibility groups — relevant parties only, not transparency to all.

WHO CAN CHANGE IT

Consensus-based immutability; no single actor could alter the record unilaterally.

WHO DECIDES THE RULES

Three governance layers coordinating the above — the subject of Session 2.3.

THE INSIGHT

Separate the questions

Ownership, visibility and mutability are distinct. Collapsing them into “who owns the data” makes the problem unsolvable.

WHY ARCHITECTURE BEATS CONTRACT

Enforcement is automatic

A contractual promise is enforced after a breach. A technical control prevents it.

THE LIMIT

Technology alone fails

TradeLens was weakest wherever a single mechanism was expected to carry the whole trust burden.

Matching the mechanism to the situation

Five diagnostic questions, each pointing at a different tool

Question	If yes	If no
Can a rival detect that you are using it?	Patent becomes enforceable.	Secrecy is the stronger choice.
Can it be reverse-engineered from the product?	Secrecy will not hold; patent or move fast.	Secrecy can be durable.
Do you own the scarce complement?	Weak protection is survivable.	Secure it, licence early, or expect to lose the value.
Is there a dominant design yet?	Competition has moved to cost and complements.	Variety still competes; speed matters most.
Can the rule be enforced technically?	Build it into the architecture.	Fall back to contract, and expect leakage.

USE SEVERAL

Most defensible positions use three or four of these at once. Relying on a single mechanism is the characteristic error, and patents are the most commonly over-trusted.

How much to give away deliberately

Disclosure can build a market faster than exclusion protects one

CLOSED Everything proprietary. Maximum capture per unit, smallest market, and you carry all adoption cost yourself.	SELECTIVELY OPEN Open where it drives adoption; closed where value is captured. Published APIs, proprietary core.	FULLY OPEN Maximum adoption, no direct capture. Only viable when revenue comes from a complement you control.
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THE SELECTIVE-OPENNESS RULE

Open this	Keep this closed
Interfaces and protocols that drive adoption.	The implementation that makes yours better.
Data formats that reduce switching friction inbound.	The aggregated data set that improves with scale.
Documentation and tooling for the ecosystem.	The complement your revenue actually depends on.

Three ways innovators lose the value they created

All three are common, and two are avoidable

Patent as the whole strategy

Looks like A granted patent treated as the moat.

Why it fails It teaches rivals the invention and is only worth what you can afford to enforce.

Fix Pair it with lead time and a complement you control.

Scaling without the complement

Looks like Rapid growth on someone else's distribution or manufacturing.

Why it fails The complement owner sets the terms once you matter to them.

Fix Secure or substitute it before you depend on it.

Contract without architecture

Looks like Strong terms, no technical enforcement.

Why it fails Breach is discovered late and remedied slowly, if at all.

Fix Encode what you can in the system, as TradeLens did.

CASE STUDY

TradeLens

A shared platform that had to make competitors willing to contribute commercially sensitive data.

Appropriability as an architectural choice

Control, visibility and integrity answered separately

THE APPROPRIATION PROBLEM

Cooperation under exposure

THE REQUIREMENT

Competing participants had to exchange supply-chain data through one ecosystem.

WHY THEY RESISTED

That data carries strategic and commercial significance; contributing it risks giving rivals an advantage.

THE REAL QUESTION

Not whether data could be shared technically, but whether anyone could be assured of retaining control.

THE DESIGN ANSWER

Control, visibility, governance

OWNERSHIP SEPARATED FROM ACCESS

Participants retained control of their own data rather than surrendering it to the platform.

VISIBILITY SCOPED

Two visibility groups; relevant parties only, rather than transparency to everyone.

INTEGRITY ENGINEERED

Consensus-based immutability prevented unilateral alteration by any single actor.

READING THE CASE

Appropriability was designed into the architecture. Who controls information and who may see it are different questions, and TradeLens answered them with different mechanisms.

Drawn from the session case pack.

Bringing the theory to RelayMesh

Deciding who captures the value of a data exchange

Question	What you determine	RelayMesh example
The regime	Tight or weak, honestly assessed.	Weak — the matching logic is inferable from outputs within months.
The scarce complement	What the innovation needs to reach a customer.	The connected carrier base. Whoever holds it sets the terms.
The mechanism mix	Three or four, not one.	Secrecy on matching; architecture on data control; speed on onboarding.
What to open	Adoption drivers only.	Message schemas published; the normalisation engine stays closed.
What to encode technically	Rules a contract would enforce too slowly.	Per-participant visibility scoping, enforced in the platform.
The exposure	What would make this fail.	A large carrier building its own exchange and taking its base with it.

WHAT COMES NEXT

Session 2.2 turns the connected base into switching costs and network effects.

What to carry out of this session

1 **Creating value and capturing it are different problems.**

The innovator frequently loses to whoever owns the complements.

2 **Assess the appropriability regime honestly.**

If protection is weak, say so — the strategy then has to rest on something else.

3 **Name the scarce complement.**

If you cannot, the analysis is unfinished and the exposure is real.

4 **Patents are over-trusted.**

They require detectability and enforcement budget, and they teach rivals the invention.

5 **Encode rules in architecture where you can.**

A technical control prevents; a contract only remedies.

Sources for this session

Primary references behind each concept

APPROPRIABILITY	Teece, D. (1986). Profiting from technological innovation. <i>Research Policy</i> , 15(6), 285–305.
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