FICPI

Gamification Code:

SALON

Inventing a Greener Future

IP Strategies for sustainable innovation

Gabriel Di Blasi

Di Blasi, Parente & Associados

Inventing a Greener Future: IP Strategies for Sustainable Innovation

- Building the IP Foundation for Sustainable Innovation
- Commercial Execution and IP Governance
- Strategic Business Value and IP Monetization
- Institutional Enablement and Global Collaboration

Laura Mannering

Bryn Aarflot

Building the IP Foundation for Sustainable Innovation

Green technology is an interconnected field

EXAMPLES OF GREEN TECHNOLOGY

Renewable energy

Solar and wind

First Solar · Vestas · Ørsted

Energy storage + smart grids

Battery storage, demand management and grid control

Tesla Energy · CATL · Siemens Energy

GREEN TECHNOLOGY

one connected ecosystem

Sustainable transport

Electric vehicles and charging infrastructure

Tesla · BYD · ChargePoint

Circular economy + recycling

Collection, sorting, reuse and material recovery

TOMRA · Veolia

Environmental technologies

Carbon capture, water treatment and pollution reduction

Climeworks · SLB Capturi

Green technology can rarely be protected effectively as a single invention.

Norway: leading adopter, marginal inventor, attractive market

GREEN TECH ADOPTION AGAINST Y02 PATENT COVERAGE

1 ADOPTION | Norway leads every measure

	NO	SE	FI	UK	DE
EV new cars	**99%**	45%	52%	30%	28%
EV share of fleet	**~32%**	16%*	n/a	6%	4%
Charge points / 1,000	**~6**	~5.5	~1.8	~1.7	~2.5
Renewable electricity	**~98%**	~72%	~56%	53%	55%

* Sweden includes plug-in hybrids

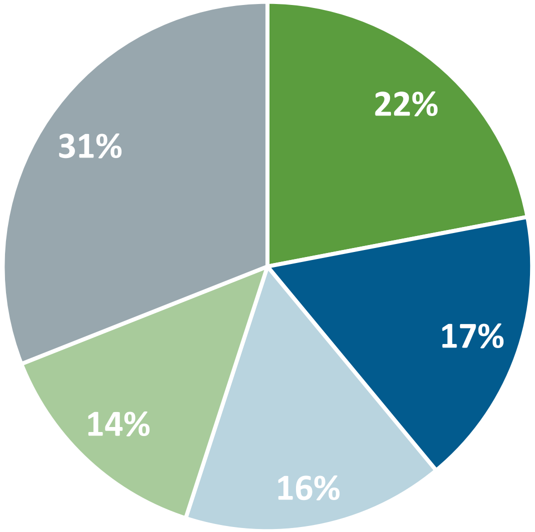
2 Y02 PATENTS | Highest coverage-to-origin ratio

Country	Origin families	Coverage (adj.)
Norway	**1,853**	**11,201**
Finland	3,192	13,758
Germany	51,805	199,254
Sweden	5,746	12,618
United Kingdom	9,240	15,423

Adoption: OFV, SSB, Mobility Sweden, Trafikanalys, Statistics Finland, SMMT, Zapmap, KBA, NOBIL, DESNZ, UBA, Ember. Latest published month per country to Aug 2026; per-capita and renewables-only figures derived. Patents: CPC Y02 applicant families; coverage adjusted for Unitary Patent effect post-2023.

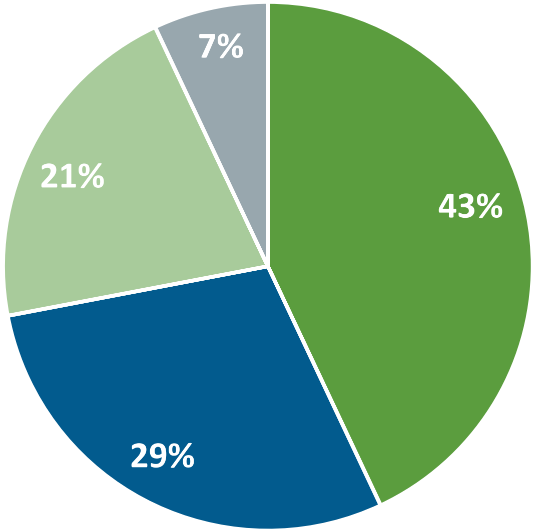
My client portfolio: sector mix and clean-tech maturity

PORTFOLIO BY SECTOR



- **Green and clean technology 22%**
- Offshore and oil **17%**
- Aquaculture and marine **16%**
- Med tech **14%**
- Other **31%**

GREEN + CLEAN CLIENTS BY STAGE



- Start-up **43%**
- SME **29%**
- Scale-up **21%**
- Large company / institution **7%**

Draft for the environmental mechanism and the control point

TWO SEPARATE INQUIRIES

1 What produces the environmental benefit?

- Lower energy consumption?
- Longer service life?
- Reduced degradation?
- Improved recovery yield?
- Lower material use?
- Better coordination of infrastructure?

2 What produces the commercial control?

- A component?
- A process step?
- A control layer?
- An interface?
- A data flow?
- A lifecycle or end-of-life operation?

DRAFTING PROPOSITION

Protect the technical mechanism that creates the sustainability effect—and claim the point at which economic value is captured.

Patents as strategic options

PORTFOLIO DESIGN UNDER UNCERTAINTY

PRESERVE OPTION VALUE

01 Anticipate migration into adjacent industries

02 Support multiple applications, implementations and claim categories

03 Preserve divisional or continuation pathways where available

04 File before pilots, standards discussions and supply-chain disclosure

Freedom to operate is asymmetric for new entrants

OWNERSHIP ≠ OPERATIONAL FREEDOM

THE START-UP'S PROBLEM

A new entrant may have:

1. A patent on the inventive technical core
2. No commercial manufacturing line
3. Limited process and certification experience
4. Dependence on established suppliers
5. Limited bargaining power
6. No licence to implementation-layer patents
7. Insufficient resources for multi-jurisdictional disputes

THE VALUE-CHAIN MONOPOLY PROBLEM

Control may sit at a bottleneck or hub:

1. Manufacturing process
2. Mandatory interface
3. Installed infrastructure
4. Certification pathway
5. Data-access point
6. Standard or protocol
7. Essential collection or distribution network

Owning the core invention does not establish freedom to commercialize the complete system.

TOMRA® shows how circularity creates new control points

CIRCULAR-ECONOMY TECHNOLOGY SPANS THE PRODUCT LIFECYCLE

Design → Use → Identification → Collection → Sorting → Recovery → Reintegration

POTENTIAL IP POSITIONS | A FOUR-LAYER TECHNOLOGY STACK

1 REVERSE VENDING & CONTAINER IDENTIFICATION

G07F7/06 · 657 patents · 21.7%

Deposit-return machines that accept, verify and refund containers—the core commercial application.

2 OPTICAL & SPECTRAL SORTING

B07C5/342, B07C5/34, G01N21/xx · ~800+ patents

Colour, NIR and photo-electric sensing, flaw detection and sample analysis form the portfolio’s deep classification engine.

3 MECHANICAL HANDLING & COMPACTION

B07C5/36, B30B9/32, B65G family · ~550 patents

Conveyors, routing, orientation and compactors create the physical layer that moves, processes and stores identified items.

4 DATA & RECOGNITION

G06F7/00, G06K7/10 · ~120 patents

Data processing and barcode/EM reading form a smaller, growing digital layer for smart recycling and industrial sorting lines.

IP portfolio management

ENTERPRISE VALUE

Green tech is an innovation-intensive industry. Intangible assets represent the majority of enterprise value.

IP AUDITS

Before investment rounds and before launching new products or entering new markets

REVENUE

Create new revenue channels through IP optimisation

REVIEW

Systematic review of IP assets to assess legal status, use and value

LEAN IP MODEL

Liz Bui

Yulex

Innovation Evolves

Brands Endure

IP Protects Both

YULEX BRANDS

About YULEX

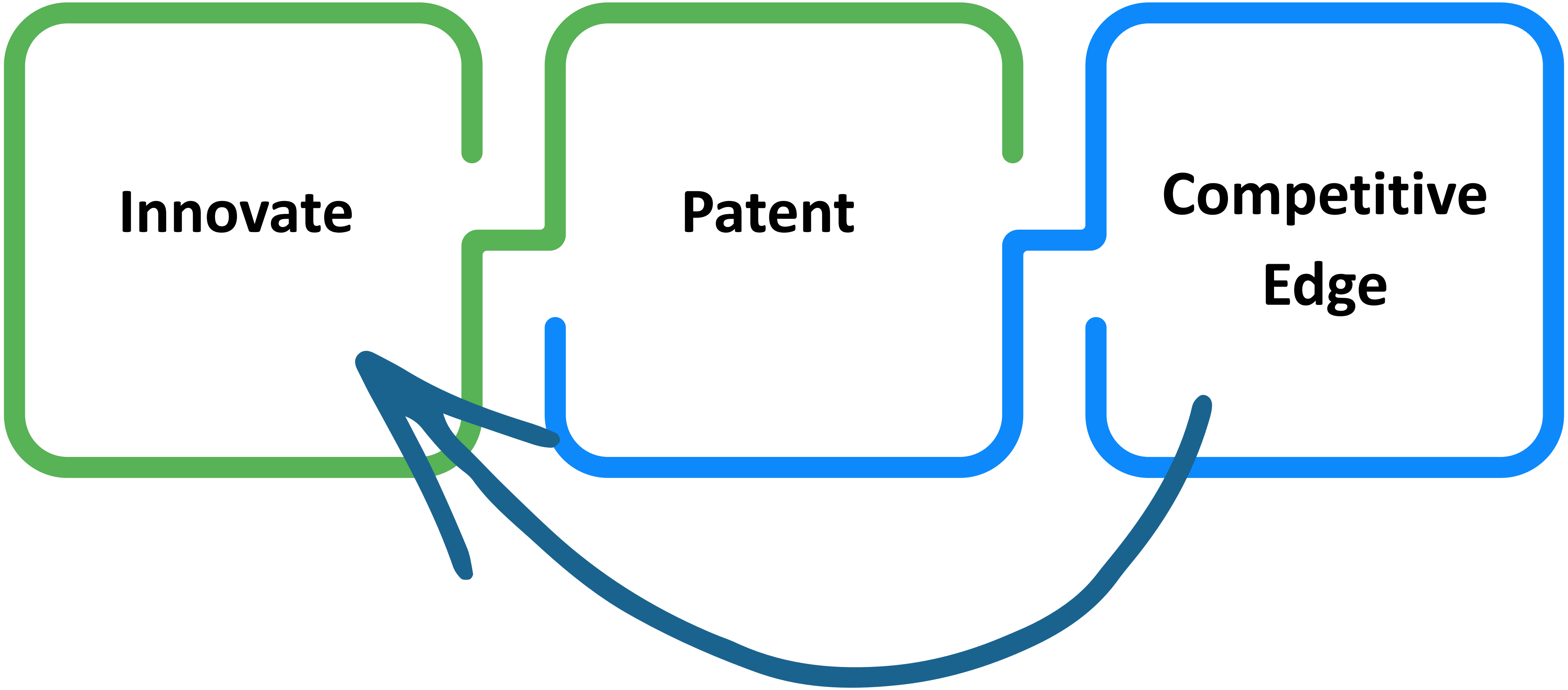
YULEX is a material science company innovating and commercializing natural rubber replacements for synthetic, fossil fuel-based, rubber, foams and fibers.

About Us

Liz is Ph.D. Esq. is a scientist and American attorney with over 20 years in biotech at ViaCyte (now Vertex) building a formidable patent portfolio that was acquired for $320M by Vertex Pharmaceuticals. Liz joined Yulex in 2022 and manages all strategic & operations.

Jeff Martin is a textile engineer & serial innovator with over 30 years of leadership in the natural rubber industry including leading sales & marketing at Safeskin and its acquisition by Kimberly Clark for $900M. Jeff manages R&D and finance.

Not One Size Fits All



Innovation Depends on Many Business Factors

Product Development

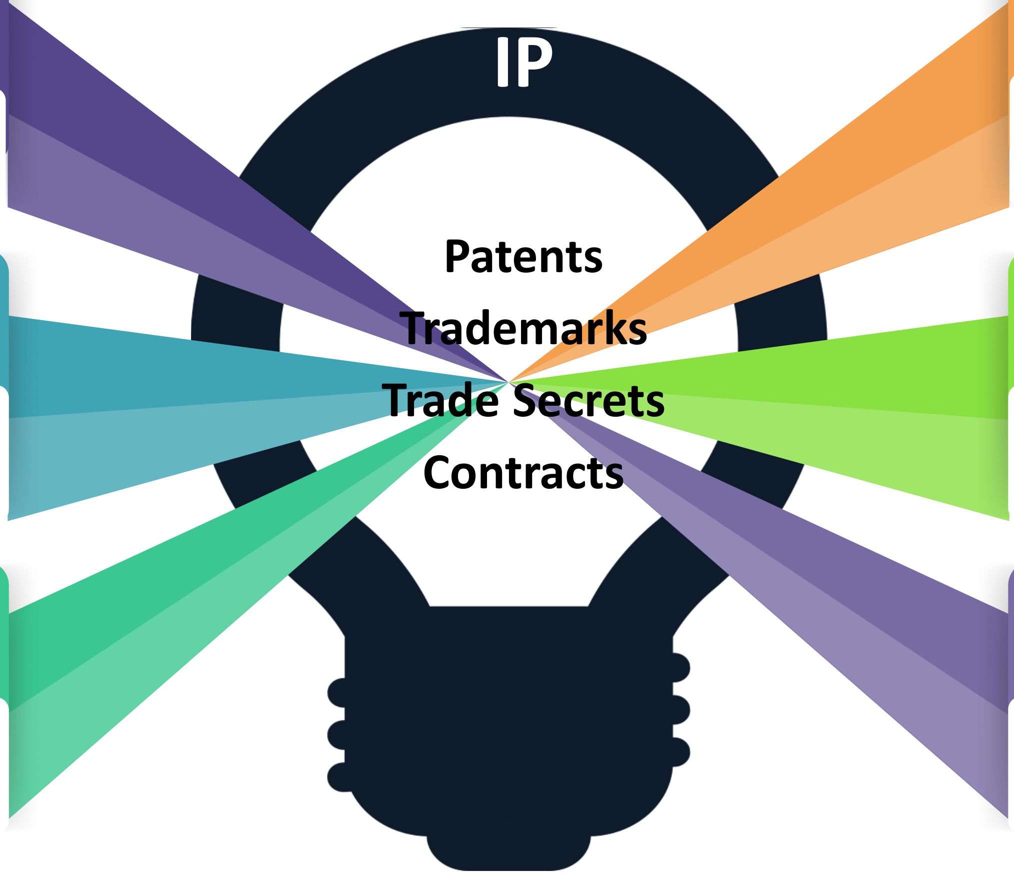
Align filings with development, testing, commercialization.

Supply Chain & Scale Up

Supplier agreements, & Tech Transfer & Non-compete

Revenue Objectives

Focus on market differentiation.
Support partnerships, licensing, and market entry



Customer Requirements

Create unforgettable experiences
Address performance specifications.

Budget Constraints

Prioritize innovations
Match IP spend to available runway

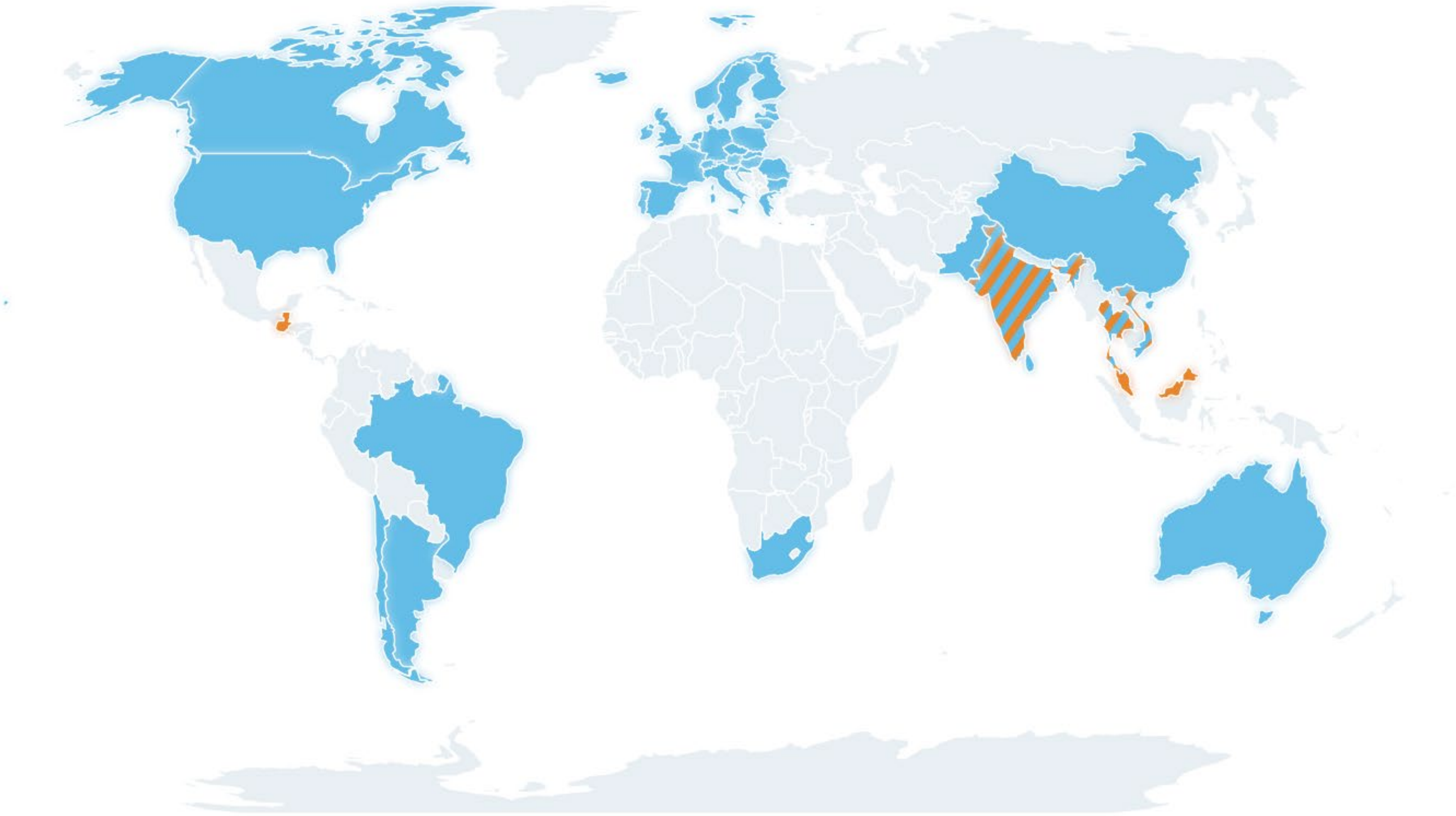
Manufacturing Realities

Account for yield, cost of goods, tolerances, and quality control.

Material Performance Earns Adoption & Partners Help Build Market Trust

Patagonia	Decathlon	ScupaPro
O'Neill	GUL	Zhik
Ripcurl	Zone3	Oxbow
Finisterre	Nyord	Ombak
Abysse	Atmosea	Srface
Manera	Summersun	Aqualung
Pride	Avaly	Alpkit
Alpkit	The Seea	Wallien

Protect the YULEX Brand Where Customers See It & the Technology at its Source



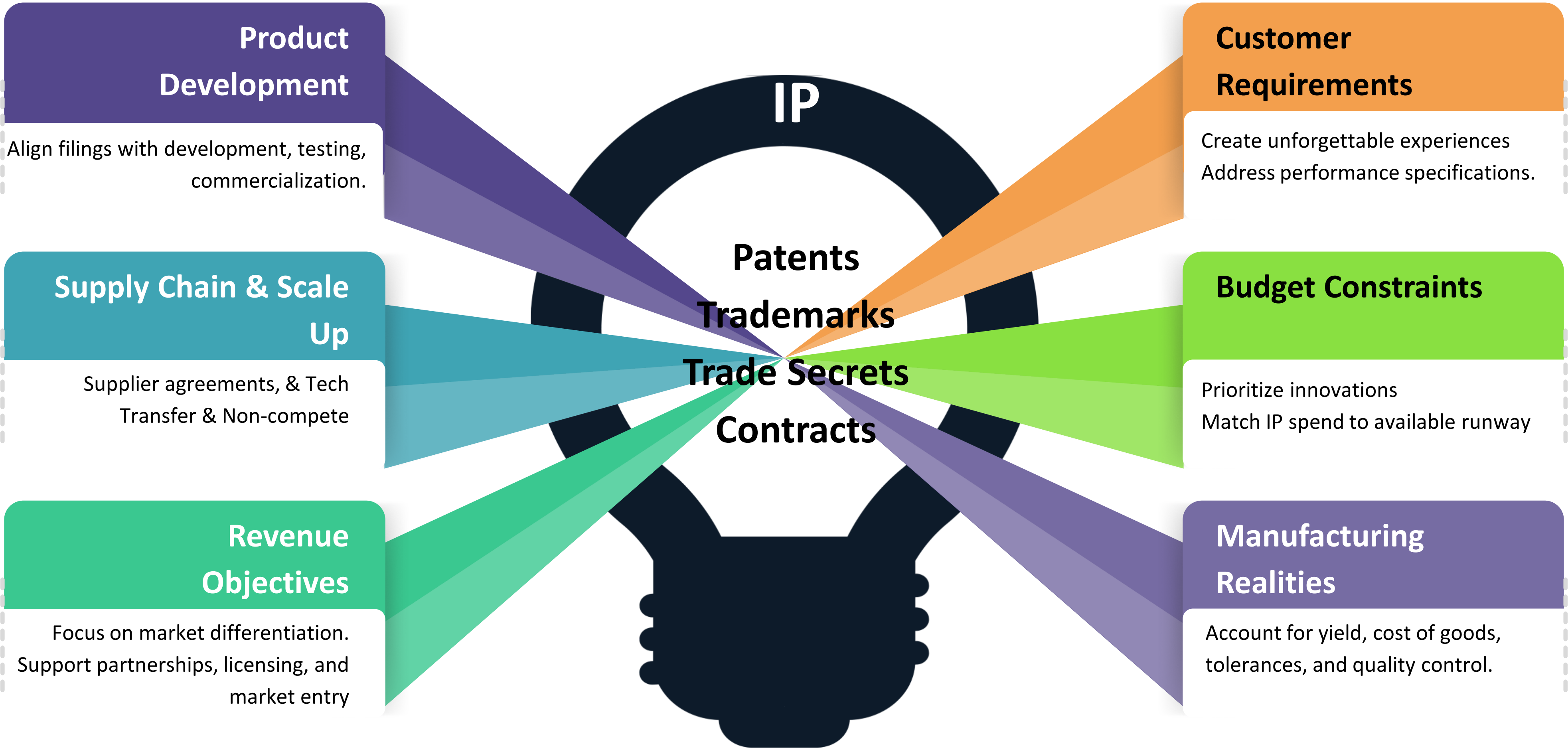
Trademark Patent Both India · Vietnam · Thailand

Technology Evolves | IP Keeps Pace

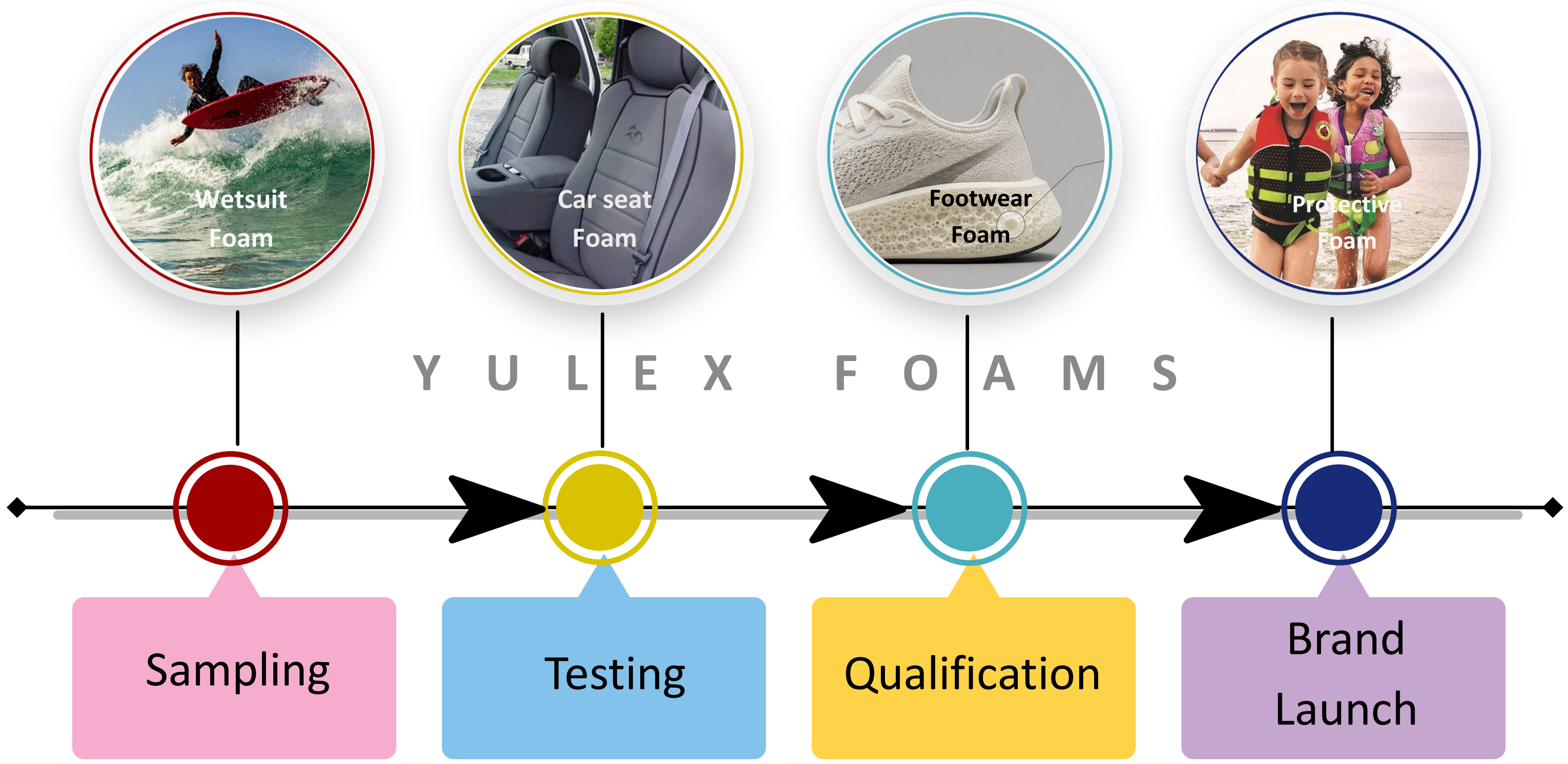
Y U L E X F O A M S

Technology Evolves | IP Keeps Pace

IP Decisions are Rarely Purely Legal



Takeaway: Protect Not Only the Technology Customers See Today, But the Platform It Will Become Tomorrow



Adoption Takes Time While Technology Keeps Evolving

Thank you

Contact Us:

YULEX BRANDS

Liz Bui

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Jaya Bhatnagar

Sieben IP

Strategic Business Value and IP Monetization

INTRODUCTION

“Protection Is the Beginning, Commercialization Is the Goal”

- Innovation alone does not create environmental impact.
- IP protection provides the foundation for commercialization.
- The real goal -**investment, adoption, growth, and scale**.
- Successful innovation -**lab → market → global impact**.

WHY IP MATTERS FOR SUSTAINABLE TECHNOLOGIES

- **Protects innovation**: Gives legal protection to green technologies.
- **Attracts investment**: Builds investor confidence and funding.
- **Supports commercialization**: Helps turn inventions into marketable products.
- **Rewards inventors**: Enables financial benefits through IP.
- **Promotes collaboration**: Licensing enables global technology sharing.

Example: A patented solar-panel technology can attract investors, be licensed, and reach the market.

IP PROTECTS

* Inventions
* Investments
* Competitive Advantage

EXAMPLE

WHY SUSTAINABLE TECHNOLOGIES NEED IP

- Protects innovative technologies from imitation.
- Builds confidence among investors and partners.
- Creates opportunities for licensing and technology transfer.
- Supports international expansion and commercialization.
- Converts innovation into a **valuable business asset**.

Without technological innovation, achieving net-zero emissions and sustainable development will not be possible.

SUSTAINABLE INNOVATION: THE COMMERCIALIZATION CHALLENGE

- High development and manufacturing costs.
- Uncertainty among investors and customers.
- Complex regulatory requirements.
- Difficulty in scaling production. Risk of competitors copying successful technologies.
- Need for strong partnerships and market access.

Commercialization Process:

Research → Patent → Prototype → Investment → Manufacturing → Market

Example:

Solar panel manufacturers licensing patented technologies worldwide.

INVESTORS LOOK BEYOND TECHNOLOGY

- A strong IP portfolio shows innovation capability.
- Helps attract investors and funding.
- Demonstrates technological uniqueness and market potential.
- Reduces investment risks.
- Supports scalability and business growth.
- Helps companies build strategic partnerships.

Why Patents Matter

- Reduce investment risk
- Increase company valuation
- Encourage venture capital

Investors Evaluate

- Patent Portfolio
- Technology Readiness
- Market Potential
- Scalability

LICENSING GREEN TECHNOLOGIES

- Helps sustainable technologies reach new markets faster.
- Allows local partners to manufacture and distribute technologies.
- Generates revenue for innovators.
- Reduces the need for companies to build operations everywhere.
- Accelerates global adoption of sustainable solutions.

Example: Lithium-ion battery technologies → licensing & partnerships → growth of EVs and energy storage.

PARTNERSHIPS AS GROWTH MULTIPLIERS

Sustainable innovation requires collaboration with:

- Manufacturers
- Research institutions
- Governments
- Suppliers
- Industry partners
- Standards organizations

IP provides a framework for sharing technology while protecting interests.

REGULATORY ALIGNMENT & MARKET ACCESS

- Patents provide **exclusivity**.
- Regulations provide **market access**.
- Sustainable technologies must meet:
  - Safety requirements
  - Environmental regulations
  - Product certifications
  - Energy-efficiency standards

Example: Sustainable Aviation Fuel (SAF) requires both patented technology and regulatory approval.

CROSS-BORDER DEPLOYMENT

- Sustainability challenges are global.
- IP protection should support international business goals.
- Prioritize markets based on:
  1. Customer demand
  2. Investment opportunities
  3. Regulations
  4. Competitors
  5. Growth potential

Goal: Protect where IP creates real business value.

FUTURE OF SUSTAINABLE TECHNOLOGIES

Notpla – Seaweed-Based Packaging

- **Innovation:** Notpla uses seaweed-based materials for sustainable food packaging.
- **Impact:** Its packaging has been used for **15+ million meals**.
- **IP:** Its patented material supports plastic-free packaging solutions.

Source: https://www.notpla.com/sustainable-food-containers

India's Hydrogen Train – Green Rail Mobility

- **Innovation**: India's first hydrogen fuel-cell train was launched in July 2026.
- **Technology**: It uses hydrogen fuel cells to generate electricity onboard.
- **Benefit**: Produces water vapour as the direct by-product at the point of use.
- **Development**: Designed and developed in India with hydrogen storage, fuel cells, and batteries.

Source: https://www.pib.gov.in/PressReleasePage.aspx?PRID=2289319

BUILDING A COMMERCIALLY RELEVANT IP PORTFOLIO

Quality > Quantity

A strong IP portfolio should:

- Protect core technologies.
- Support fundraising.
- Enable licensing.
- Facilitate partnerships.
- Reduce competitive risks.
- Strengthen negotiation power.

IP should follow the business strategy.

CONCLUSION

- Protection is the beginning. Commercialization is the goal.
- IP can attract investment and enable partnerships.
- Licensing and technology transfer accelerate adoption.
- Strategic IP helps sustainable technologies scale globally.

“The true success of sustainable innovation is measured by how widely it is adopted, how effectively it scales, and how meaningfully it improves lives and protects our planet.”

Thank You!

QUESTIONS & DISCUSSION

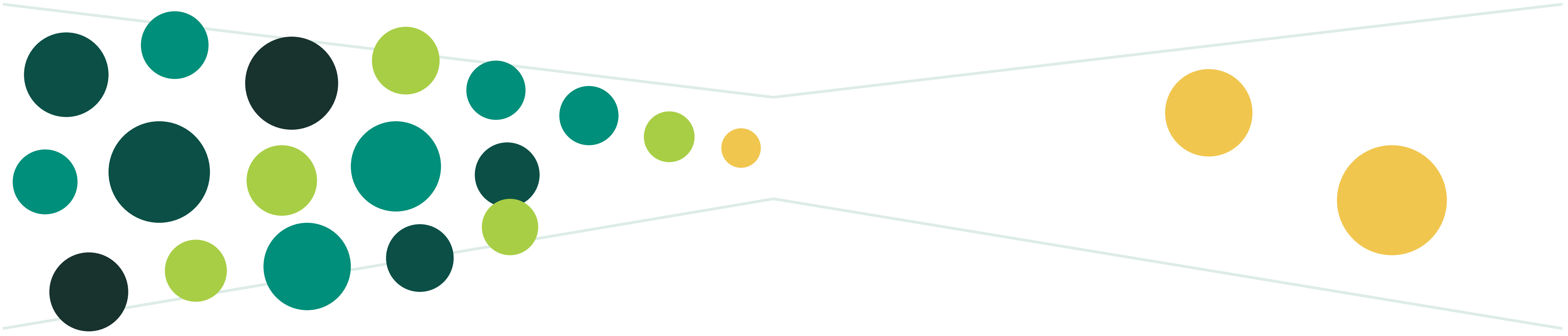
Anja von der Ropp

WIPO

Institutional Enablement and Global Collaboration

Innovation exists. Deployment lags.

AVAILABLE SOLUTIONS **DEPLOYED IMPACT**



The challenge is not invention alone. It is moving proven solutions into use.

IP as an enabling system

INCENTIVIZE	REVEAL	TRANSFER	ADAPT
Protect R&D and attract investment	**Reveal solutions for evaluation**	**Clarify licensing + collaboration terms**	**Build trust and fit local conditions**
Patents • designs • trade secrets	Patent information • intelligence	Licensing • partners	Brands • standards • local know-how

WIPO GREEN moves solutions from visibility to deployment

CONNECT — Database of technologies, needs and experts

ACCELERATE — Local matchmaking, pilots and deployment pathways

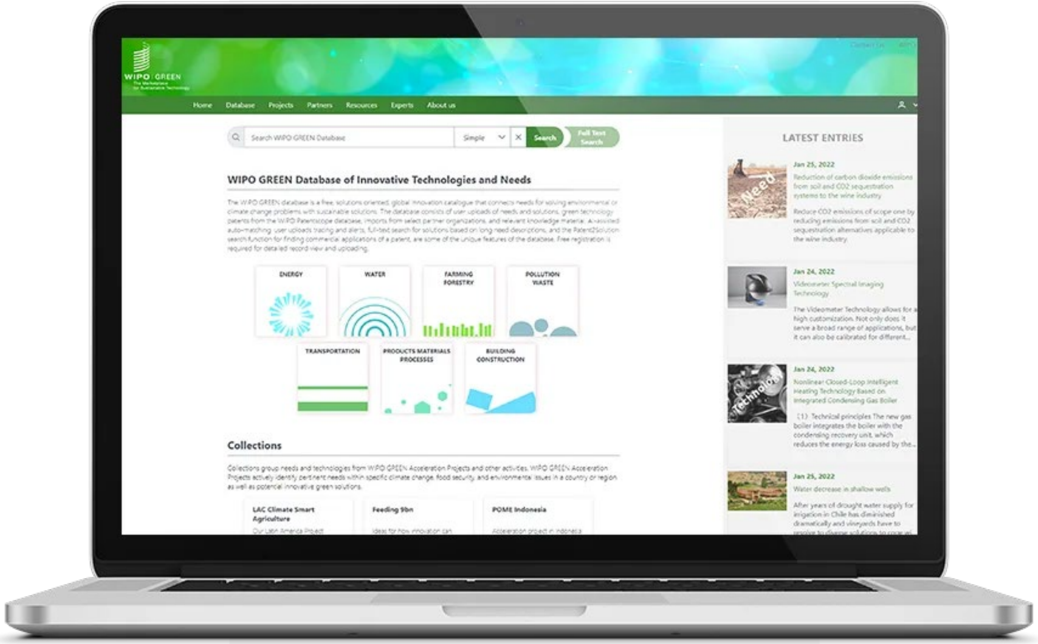
SUPPORT — IPO GREEN tools for national IP offices

ADVOCATE — Green Technology Book, Ambassadors and partners

A platform combining technology intelligence, matchmaking, partnerships and institutional trust.

WIPO GREEN database

- Needs and solutions uploaded by different users, **free of charge**
- Integration of green technology patent applications from the **WIPO Patentscope**
- **Imports** from select partner organizations
- Relevant **knowledge material**



145,000+ technologies, needs, and experts

4,500+ users from all over the world

Green Technology Book: Real-world technology insights that drive action

>1.4m

unique visitors

>160k

PDF downloads

5th

edition to be launched at COP31

Past

Five editions since 2022

Adaptation, mitigation, energy, climate-disaster technologies and Asia-Pacific special edition released for EXPO25 in Japan.

Next

Ecosystem decline

Launch at COP31 in November 2026.

Acceleration Projects

Local, needs-based initiatives that turn climate challenges into deployable technology matches.

1. **Start local**
   Grounded in real needs from farmers, firms, cities and districts.
2. **Understand the constraints**
   Related to local conditions and barriers that shape adoption.
3. **Match proven solutions**
   Identified options are documented in the WG Database.
4. **Broker adoption**
   Showcase solutions, connect parties and support mutually beneficial deals.

Covering system to protect crops from strong winds in Chile.
(Photo: Courtesy VOEN)

Technology adoption is dependent on a range of factors

OWNERSHIP

Formal rights + know-how

READINESS

technical + commercial

MATCH

provider + seeker

LOCAL FIT

partner + implementation

FINANCE

capital + risk

ACCELERATION PROJECTS ADD THE LOCAL LAYER

Needs assessment • solution scouting • matchmaking • implementation support • knowledge sharing

National IP offices: from registrars to ecosystem actors

- National IP offices remain central to protection, examination, registration, information services and legal certainty.
- The green transition also creates opportunities for IP offices to act as ecosystem conveners, educators and connectors.

IPO GREEN

- Launched in 2022, this initiative brings IP Offices together to share their experiences and insights. IPO GREEN has identified practical areas for action,
- Recordings of 18 webinars are available: Watch the webinars
- An online dialogue among IP offices is planned for later this year.

What IP professionals can do

- Support SMEs and start-ups in aligning IP, business models and market entry strategies.
- Use licensing and collaboration tools to make green technologies easier to adopt and scale.
- Work with WIPO GREEN to connect technologies, needs, partners and finance.

FICPI

How to engage with WIPO GREEN

Three simple ways to start

1. **Register as a user or become a partner**
   Create a profile so solution seekers and providers can find you.

2. **Add technologies and needs**
   Contribute solutions or requests to strengthen the global database.

3. **Connect and accelerate deployment**
   Use the platform and projects to move from matchmaking to action.

Scan to join WIPO GREEN

Thank you!


Gamification Code:
SALON
FICPI
STRENGTHENING THE PRACTICE OF THE INDEPENDENT IP ATTORNEY