



Rigorous empirical
research on
intellectual property

License to All or Access to All? A Law and Economics Assessment of Standard Development Organizations' Licensing Rules

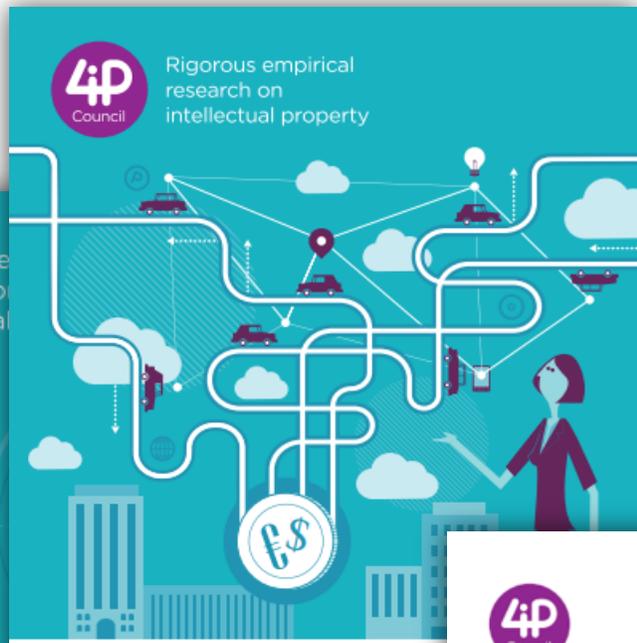
Host: Axel Ferrazzini, Managing Director, 4iP Council

Presenters:

Anne Layne-Farrar, Vice President in Competition Economics at Charles Rivers Associates and an Adjunct Professor at the Northwestern University Pritzker School of Law

Richard J. Stark, Partner in the Litigation Department of Cravath, Swaine & Moore LLP





The Value of Connectivity in the Automotive Sector

Prof. Bowman Heiden
Center for Intellectual Property (CIP), Chalmers University of Technology
The Hoover Institution, Stanford University



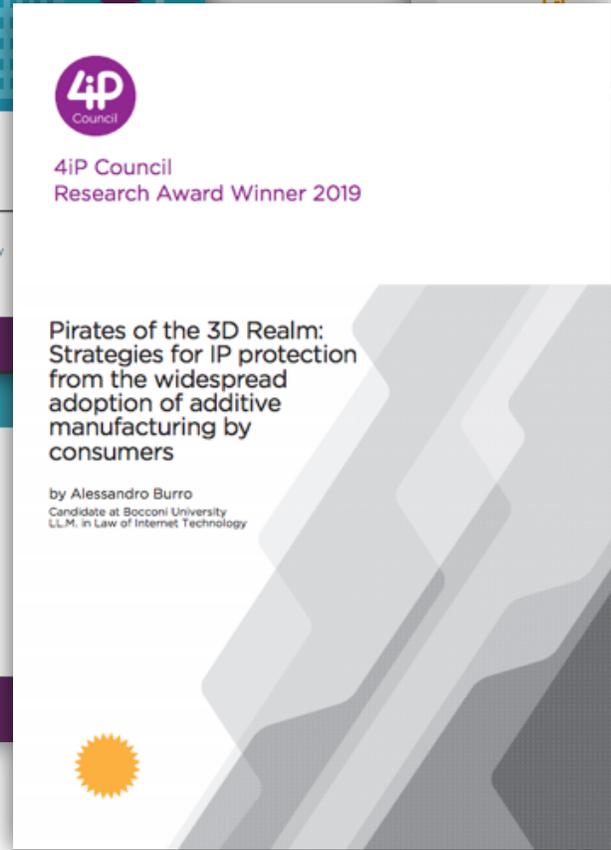
FRAND licensing levels under EU law

Dr Jean-Sébastien Borghetti
Professor of Private Law at University Paris II Panthéon-Assas

Dr Igor Nikolic
Senior Fellow at University College London (UCL) Centre for Law, Economics & Society

Dr Nicolas Petit
Professor of Law at the University of Liege and at the College of Europe

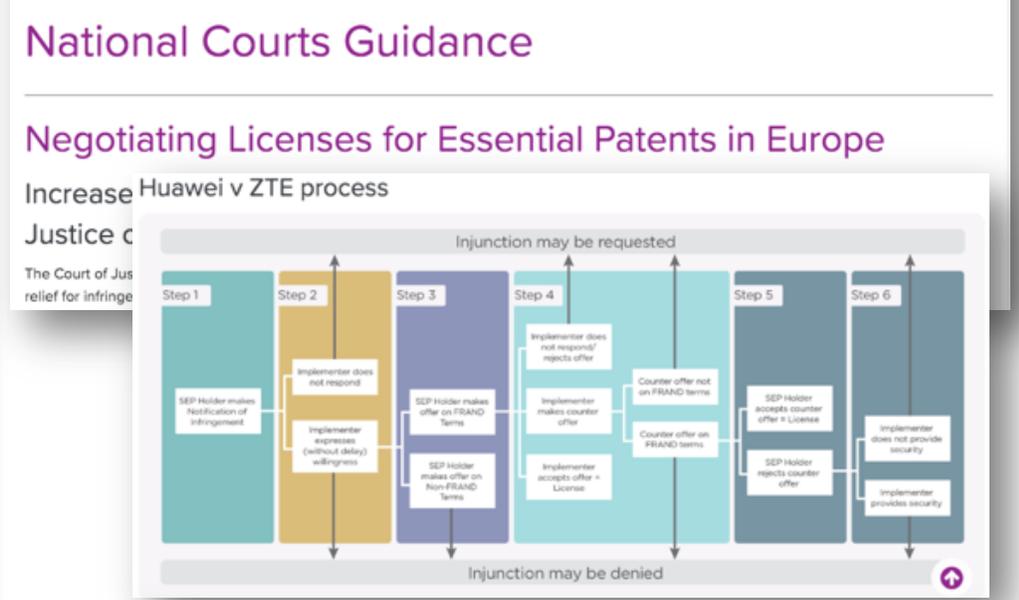
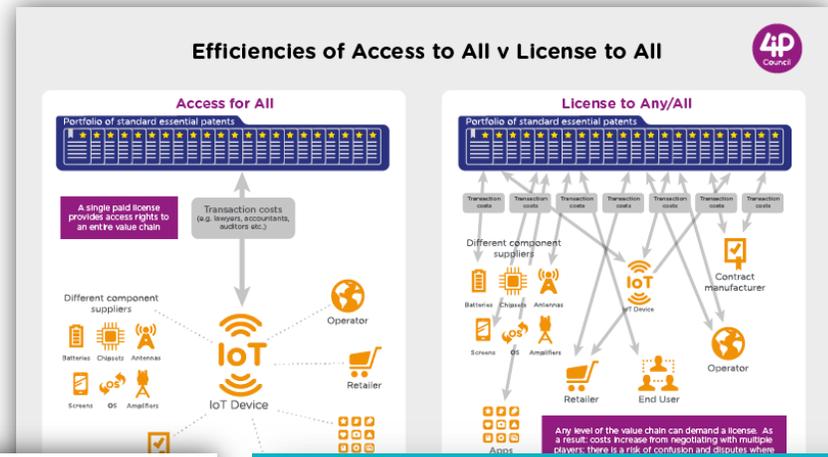
Summary February 2020



4iP Council Research Award Winner 2019

Pirates of the 3D Realm: Strategies for IP protection from the widespread adoption of additive manufacturing by consumers

by Alessandro Burro
Candidate at Bocconi University
LL.M. in Law of Internet Technology



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4iP Council Rigorous empirical research on intellectual property

- Types of IP
- Benefits of IP
- IP for Business Growth
- 4 Reasons to Patent
- 4 Reasons 4 Copyright
- 4 Reasons 4 Trademarks
- SME Features
- Research

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4 REASONS TO PATENT

- 1 - MARKET ACCESS
- 2 - NEGOTIATING
- 3 - FUNDING
- 4 - STRATEGIC VALUE

Explore how patents add value with our **interactive guide**.

4 REASONS 4 COPYRIGHT

- 1 - COMPETITIVE EDGE
- 2 - REPUTATION
- 3 - COLLABORATION
- 4 - FUNDING

Explore the benefits of copyright with our **interactive guide**.

4 REASONS 4 TRADEMARKS

- 1 - DIFFERENTIATION
- 2 - PROTECTION
- 3 - REPUTATION
- 4 - REVENUE

Explore the benefits of trademarks with our **interactive guide**.

4 REASONS 4 DESIGN RIGHTS

- 1 - EXCLUSIVITY
- 2 - COMMERCIALISATION
- 3 - REPUTATION
- 4 - VALUE

Explore the benefits of design rights with our **interactive guide**.

Which types of intellectual property do you need?

Filter table columns

| | PATENTS | COPYRIGHTS | DESIGNS | TRADEMARKS | TRADE SECRETS |
|-------------------------------------|---|--|---|---|---|
| What do they protect? | All inventions, regardless of whether they are of any technical nature, or relating to a technical process. | A work in original intellectual creation. | A new and original design. | Any sign capable of being perceived by the human eye and which is novel and distinctive. | Any type of confidential information that is secret and has commercial value. |
| Examples of what is protected | Inventive products and processes in all areas of business. For examples of successful inventions see here . | Audio-visual works, software, graphics, architecture, databases, software, design, literature, novels, poems, plays, music and video, graphic works. | Product designs, industrial designs, graphic designs, logos, signs, marks and video, graphic works. | Product names, service marks, trade names, trade dress, etc. | Trade secrets, know-how, etc. |
| How are my rights protected? | Priority examination making sense on selling of the patented invention. | Protects the work being created, administered, copied, published, distributed or made available online. | Protects the integrity and attribution of the work. | Registered rights. Public performance and display of the design. | Contractual protection. |
| How long is my invention protected? | Up to 20 years. | Lifetime of the author plus 70 years after their death (depending on the country). | 10 years from the date of registration. | As long as the design is novel and distinctive. | As long as the information remains confidential. |
| Do I have to register it? | Yes, filing an application to a patent office is required. There are patent applications in EU , UK , USA , Australia , Japan , Canada and the EU . | No. Copyright protection arises automatically with its creation. | Yes, filing an application to a design office is required. There are design applications in EU , UK , USA , Australia , Japan , Canada and the EU . | Yes, filing an application to a trademark office is required. There are trademark applications in EU , UK , USA , Australia , Japan , Canada and the EU . | No. Trade secret protection arises automatically with its creation. |

How do I use intellectual property to grow my business?

License to All or Access to All? A Law and Economics Assessment of Standard Development Organizations' Licensing Rules



Anne Layne-Farrar, Vice President in Competition Economics at Charles Rivers Associates and an Adjunct Professor at the Northwestern University Pritzker School of Law



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License-to-All or Access-to-All?

Topics

1. The Arguments
2. Principles of Patent Law
3. Patent Licensing
4. SDO Policies (ETSI, IEEE)
5. Legal Analysis
6. Economic Issues

The Arguments

- In favor of license-to-all:
 - All entities in chain of production need licenses to SEPs.
 - FRAND commitments should be interpreted to require SEP holders to grant SEP licenses to anyone who asks.
- Against license-to-all / for access-to-all:
 - Not true that all entities need licenses to SEPs.
 - Entities in the production chain need access to standardized technologies, to perform their link in the chain.

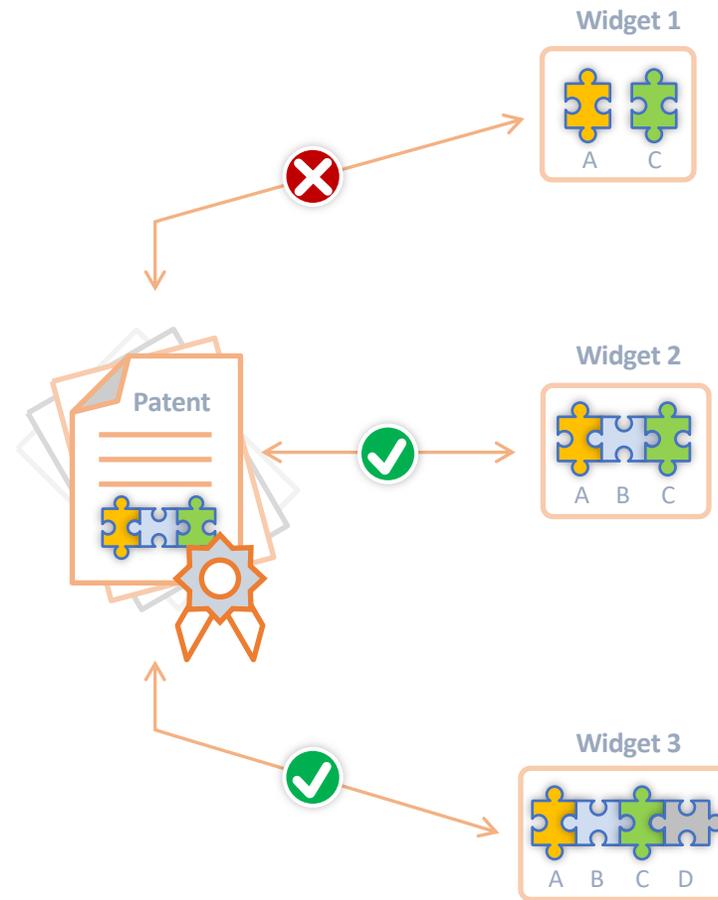
What's really the issue?

- Amount of royalties.
- 1% royalty x \$1,000 device price = \$10
- 1% royalty x \$10 chip price = \$0.10

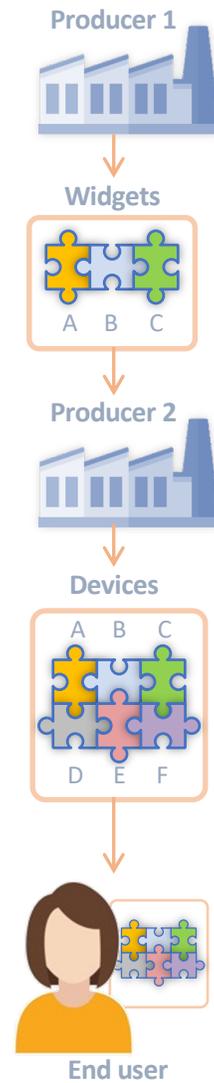
Patent Law Principles

- What is a patent?
 - A patent is a grant from the U.S. government to an inventor of “the right to exclude others from making, using, offering for sale, or selling” his or her invention
 - For a limited time (20 years from the date of application)
- How is a patent enforced?
 - Litigation in national courts.
 - Patent holder must prove infringement (“all elements rule”).
 - Patent holder must overcome all defenses.
 - Remedies: damages, injunction

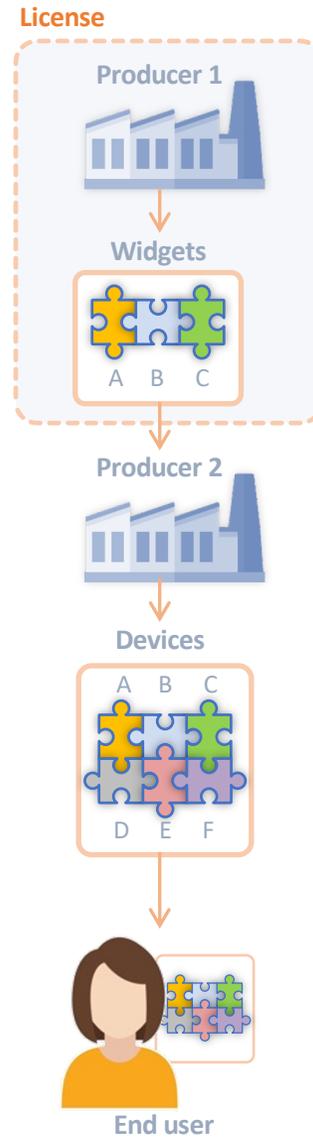
Patent Infringement Analysis



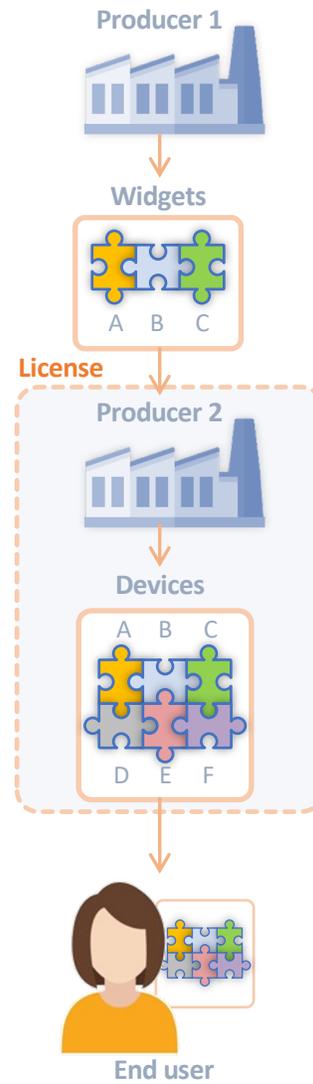
Patent Infringement and Chain of Production



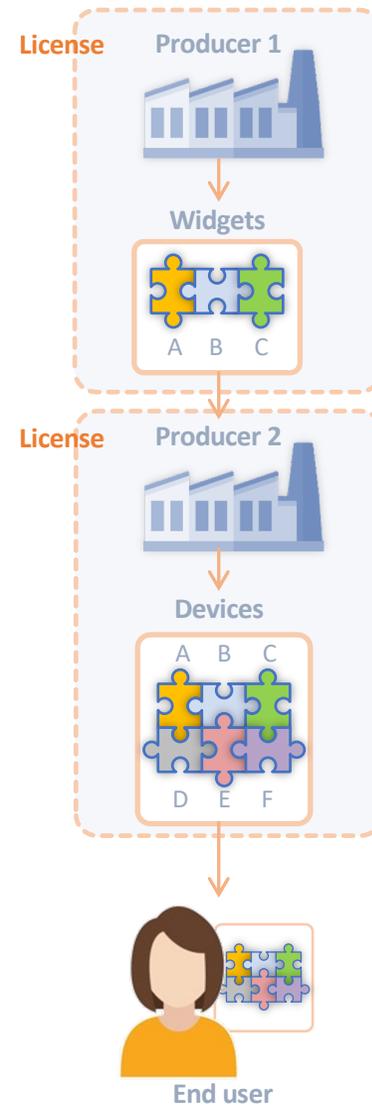
Patent Licenses



Patent Licenses



Patent Licenses



SEPs and FRAND

- Standard Development Organizations (SDOs) – there are many
- Industry standards – there are MANY

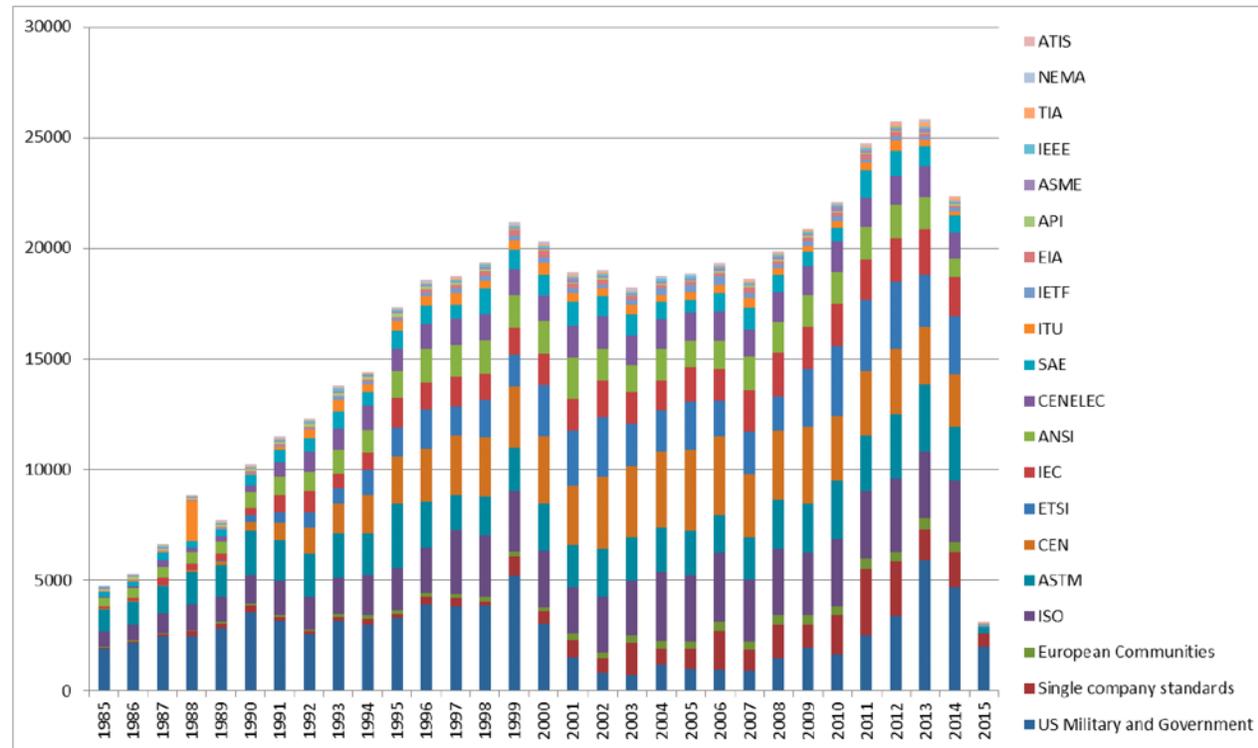
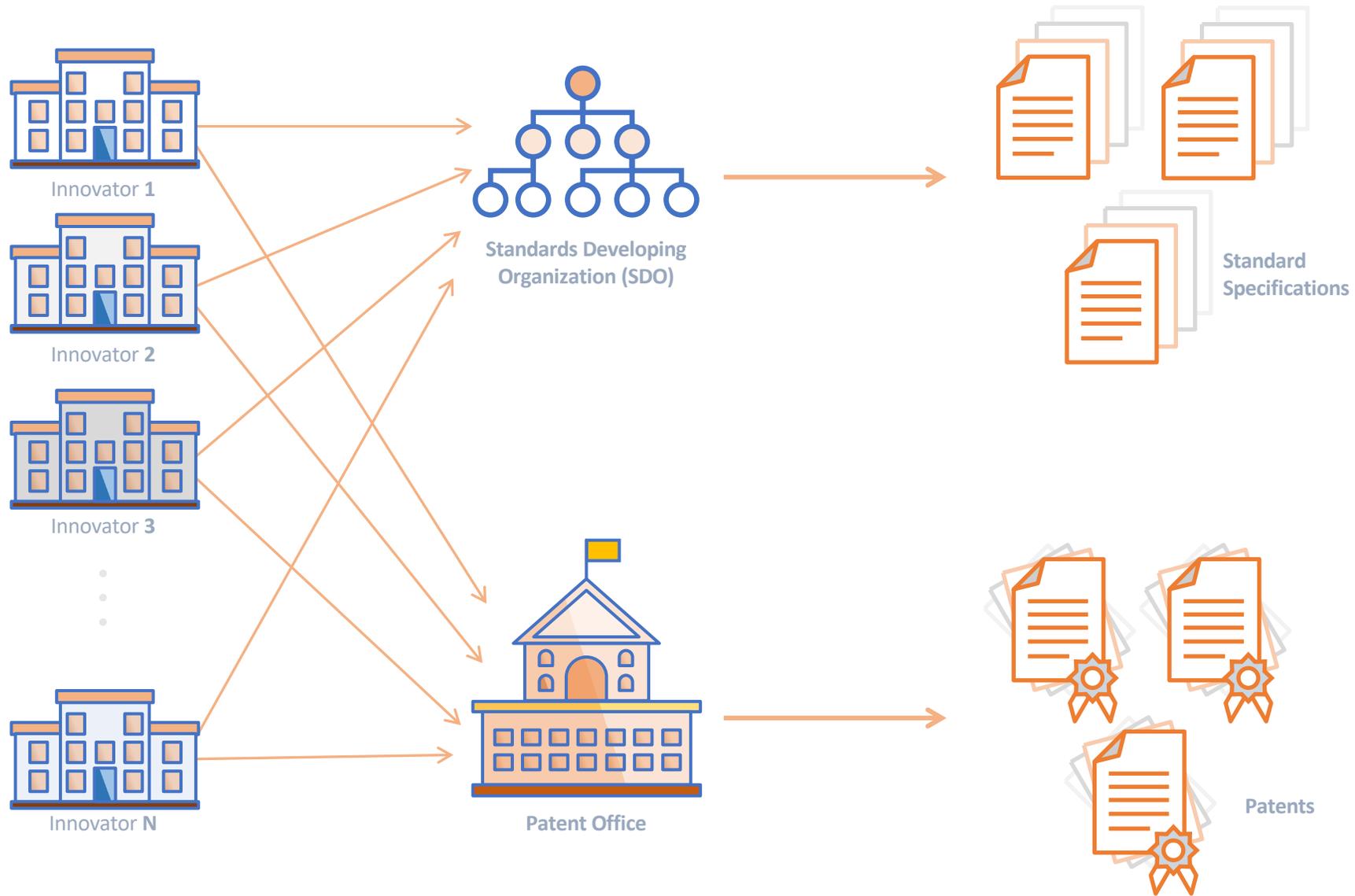


Figure 7: Number of standards issued each year by SSOs in our sample, by technological field

(Source: Justus Baron & Daniel F. Spulber, "Technology Standards and Standard Setting Organizations: Introduction to the Searle Center Database" (Feb. 2, 2018).)

SEPs and FRAND



SEPs and FRAND

- Standard Essential Patents (SEPs) – When the claims of a patent read on an aspect of a standard, so that it is not possible to practice the standard without infringing, the patent is “essential” and is referred to as an SEP.
- SDO policies/rules regarding SEPs (or intellectual property rights – IPRs – more generally).
 - Fair, Reasonable and Nondiscriminatory (FRAND) terms and conditions.

ETSI IPR Policy

- Objectives
 - Reduce risk that a standard could be “unavailable”.
 - IPR holders should be adequately and fairly compensated.
- SEP owner is requested to commit that:
 - “it is prepared to grant irrevocable license on fair, reasonable and nondiscriminatory terms and conditions” “to at least the following extent”:
 - “MANUFACTURE... EQUIPMENT”
 - EQUIPMENT = “any system, or device fully conforming to a STANDARD”

ETSI IPR Policy

- Does not:
 - Require licenses to the entire production chain
 - Merely asks the patent owner to agree “that it is prepared to grant irrevocable licenses”
 - Require licenses be granted to any particular entities
 - Require any particular number of licenses
- Rather, the scope of the ETSI FRAND commitment is defined in terms of subject matter: licenses for the manufacture of “fully conforming” devices and systems.

IEEE Patent Policy

- SEP owner is requested to give a “letter of assurance” either that:
 - Will not enforce its SEPs; or
 - Will make available licenses “without compensation or under Reasonable Rates” to “make, have made, use, sell, offer to sell, or import any Compliant Implementation that practices the Essential Patent Claims for use in conforming with the IEEE Standard.”
 - “Compliant Implementation” = “any product (e.g., component, subassembly, or end-product) or service that conforms to any mandatory or optional portion of a normative clause of an IEEE Standard.”

IEEE Patent Policy

- Does not:
 - Expressly require licenses to the entire production chain
- But unlike the ETSI IPR Policy:
 - The IEEE Patent Policy defines the scope of the license rights to be granted as covering any “Compliant Implementation” —a term that is defined to include components, subassemblies, and end-products.

Legal Analysis

- Legal Analysis – Is it accurate to say that FRAND commitments require that licenses be granted to all comers?
- Are SEP licenses needed by all?
 - Legally – no.
 - Practically – no.
- Do SDO policies require licenses for all entities?
 - No.
 - FRAND commitments are contracts.
 - Must look at each specific SDO policy individually.
 - ETSI vs. IEEE
 - Neither contains an express requirement to license all.
 - Differ on scope of the licensing commitment.

Legal Analysis

- Does competition law require licenses to all comers? No.
- Theories
 - “Intentionally false promise” - *Broadcom Corp. v. Qualcomm Inc.*
 - D.C. Circuit pointed out this is contrary to Supreme Court authority. *Rambus, Inc. v. FTC*
 - In any event, as the Ninth Circuit recently explained in *FTC v. Qualcomm*, the mere fact that a patent holder declined to license a subset of potential users of its technology without a finding of intentional deception does not fall within the Third Circuit’s “false promise” holding.
 - Refusal to deal – *Aspen Skiing* – very narrow
 - Refusal to license rivals contributes to monopoly power (Sherman Act section 2) - rejected by the Ninth Circuit in *FTC v. Qualcomm*.

IEEE Patent Policy

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 - Expressly require licenses to the entire production chain
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ROI Plays a Key Role in SDO Participation

- On the cost side:
 - Innovators invest in R&D, contribute technologies
 - Downstream implementers invest in turning standard specifications into commercial products
- Only incur these costs if benefits expected to outweigh them
 - Only two sources of profits:
 - 1) licensing SEPs and other relevant patents or
 - 2) selling standard-based products
 - Vertically integrated firms can benefit from both; specialists only get one
- Before ever joining an SDO, or a standard effort within an SDO, firms consider the ROI

SDO Participation Falls as Costs Rise or Returns Fall

- True for both innovators and implementers
- With less innovator participation
 - Fewer new technologies contributed to standards
 - Lower quality tech contributed as higher quality held out due to lack of return
 - May get fewer standards altogether if insufficient tech submitted
- With less implementer participation
 - Less competition in downstream markets
- Both of these can affect consumer welfare, So balance matters a lot

Rules that Tip the Balance Have Real Effects

- Consider IEEE
 - Very restrictive FRAND rules imposed in 2015
 - Participants began opting out immediately with “negative” LOAs
 - Increased ambiguity over FRAND
 - As of mid 2019, 77% of IEEE’s Letters of Assurance for WiFi amendment standards were negative
 - ANSI refused to approve these two standards amendments
- US DOJ issued amended BRL suggesting that IEEE consider changing its rules
 - Goals of increased clarity not achieved
 - Out of step with current court cases

“Optimal” Royalty Base is Case Specific

- Cannot define the “proper” level at which to license in the abstract
 - Some patented technology as used in some standardized products will be fully valued in a component
 - SSPPU can makes sense here
 - Other technologies only fully valued in end product use
 - Value is different from physical implementation
 - Example: battery tech using sensors
- Need to provide the parties flexibility in where to license
 - Only way to ensure balance and true Fair and Reasonable rates

Court/Agency Interpretations of SDO Rules Affect ROI

- Need to be careful not to overstep contract language of SDO
 - When in doubt, do not impose LTA
 - Only apply when SDO language is 100% clear
 - Otherwise, balance will be upset and standards ecosystem can be harmed, including consumers of standardized products

Thank you

Q & A

(Please use the Q&A tool to submit your questions)

Forthcoming webinars

| | | |
|--------------|--|---|
| 27 Oct. 2020 | The value of intangible assets 10am ET 4pm CET | Dr. André Gorus (LESI) Independent Consultant, former IP Valuation Director, Solvay |
| 17 Nov. 2020 | License your valuable assets 10am ET 4pm CET | Presented by a member of LESI Details coming soon |

Stay tuned to our website for more details and more topics and dates