Rigorous empirical research on intellectual property
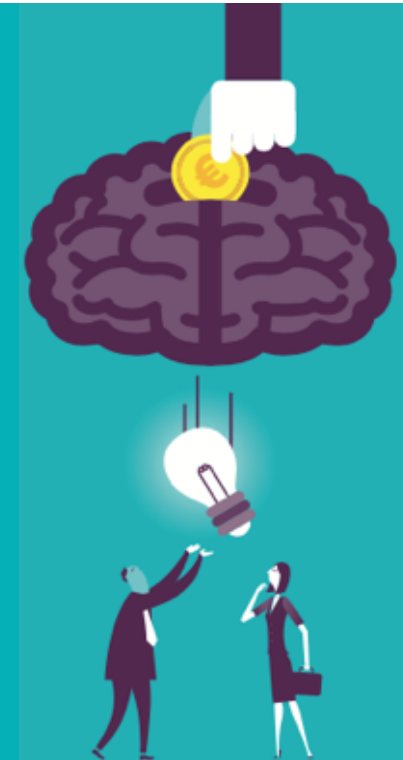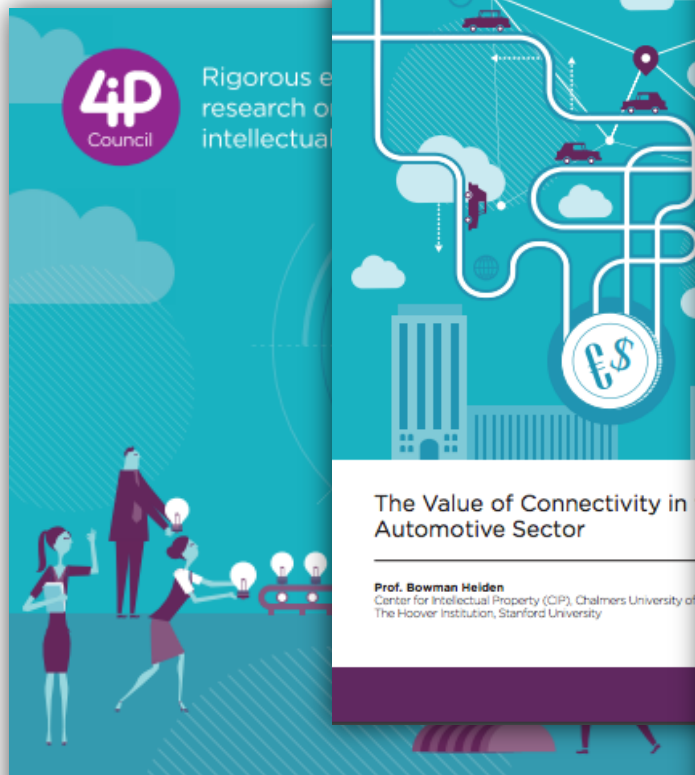
The Value of Standard Essential Patents and the Level of Licensing

Host: Axel Ferrazzini, Managing Director, 4iP Council

Presenters:
- **Bowman Heiden**, Co-Director, Center for Intellectual Property (CIP), Chalmers/UGOT/NTNU; Visiting Professor, UC-Berkeley
- **Jorge Padilla**, Senior Managing Director, Compass Lexecon
- **Ruud Peters**, CEO, Peters IP Consultancy B.V. ; Former Chief IP Officer and Executive Vice President at Koninklijke Philips N.V.

Rigorous empirical research on intellectual property

The Value of Connectivity in the Automotive Sector

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

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The Value of Standard Essential Patents and the Level of Licensing

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Summary   January 2021

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 Liège and at the College of Europe

Summary   February 2020

Case Law post CJEU ruling *Huawei v ZTE*

4iP Council | Case law home | CJEU Huawei v ZTE | German court decisions | Italian court decisions | English court decisions | English/Irish court decisions | Romanian court decisions | French court decisions | Dutch court decisions | National Courts Guidance

Authors & contributors

National Courts Guidance

Negotiating Licenses for Essential Patents in Europe

Increased clarity provided on the principles established by the Court of Justice of the European Union in Huawei v ZTE.

The Court of Justice of the European Union clarified, in Huawei v ZTE (Case No. C-170/13), European law relating to the availability of injunctive relief for infringements of FRAND-based standard essential patents. In doing so, the Court provided a legal framework focused on the good faith

Huawei v ZTE process
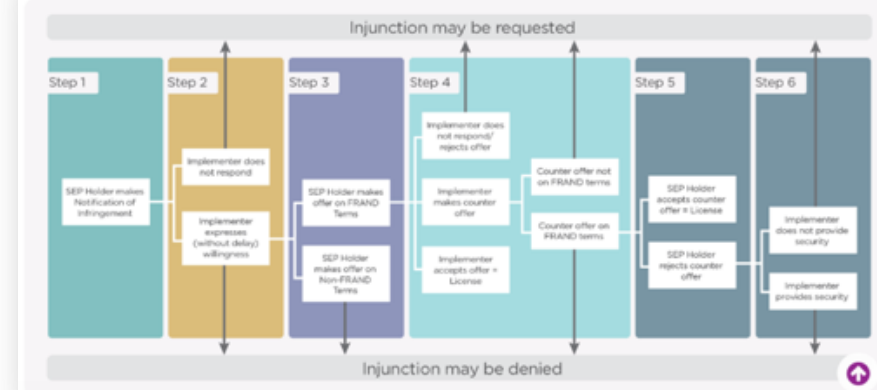
4iP | About ⌄ | The Issue ⌄ | Research ⌄ | Publications | Webinars ⌄ | Case Law Search | News ⌄ | Features | 4SMEs ⌄ | Network ⌄

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

Rigorous empirical research on intellectual property

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**.

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Which types of intellectual property do you need?
Filter table columns
PATENTS | COPYRIGHTS | DESIGNS | TRADEMARKS | TRADE SECRETS

How do I use intellectual property to grow my business?

The Value of Standard Essential Patents and the Level of Licensing

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Open, consensus vs. proprietary standards
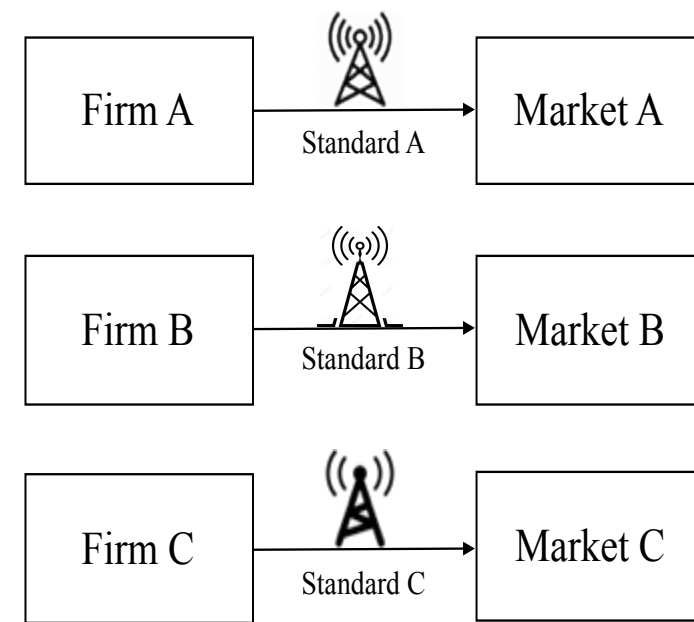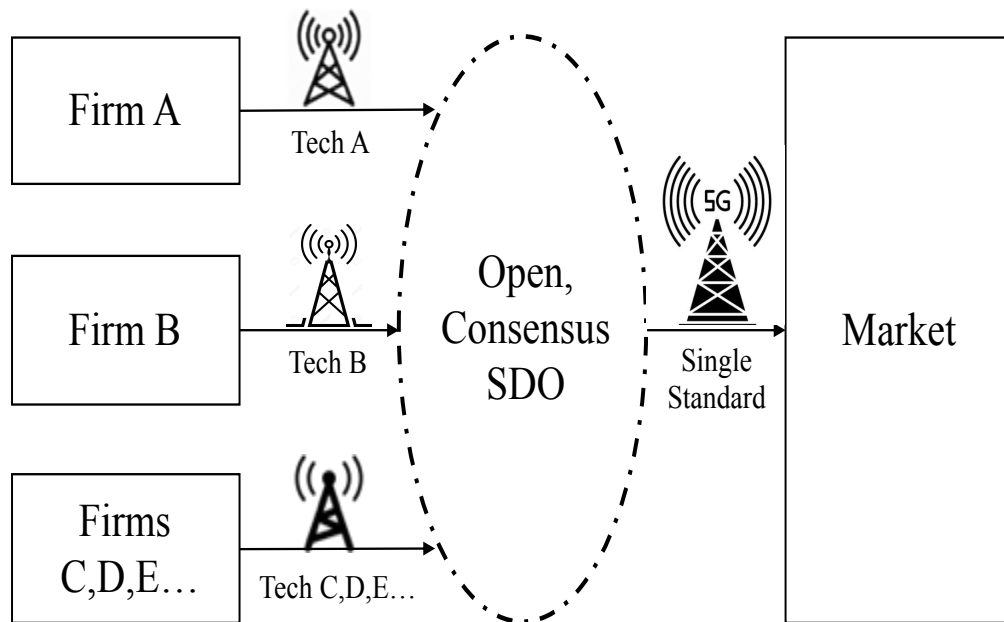
Cellular standards have been very successful

$4.1T

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R&D → Technical Contributions → Standard Development → Standard Releases → Implementation
```

R&D

Private investment in fundamental cellular technology

Tens of billions in R&D

Standard Development

Collaborative investment in standard development

Millions of person-hours

Implementation

Open standards for implementation across industries

Trillions in economic impact

- SEP Licensing
- Smartphone revenue
- Mobile economy

Cellular Value Chains
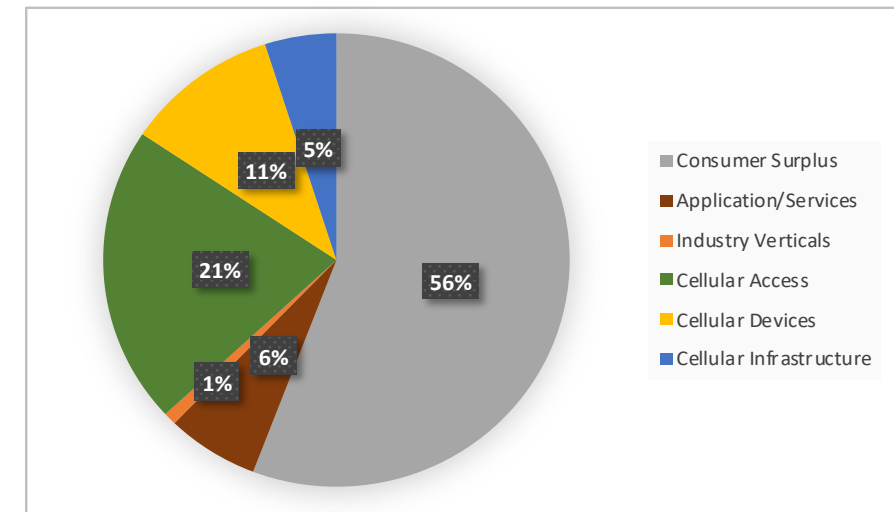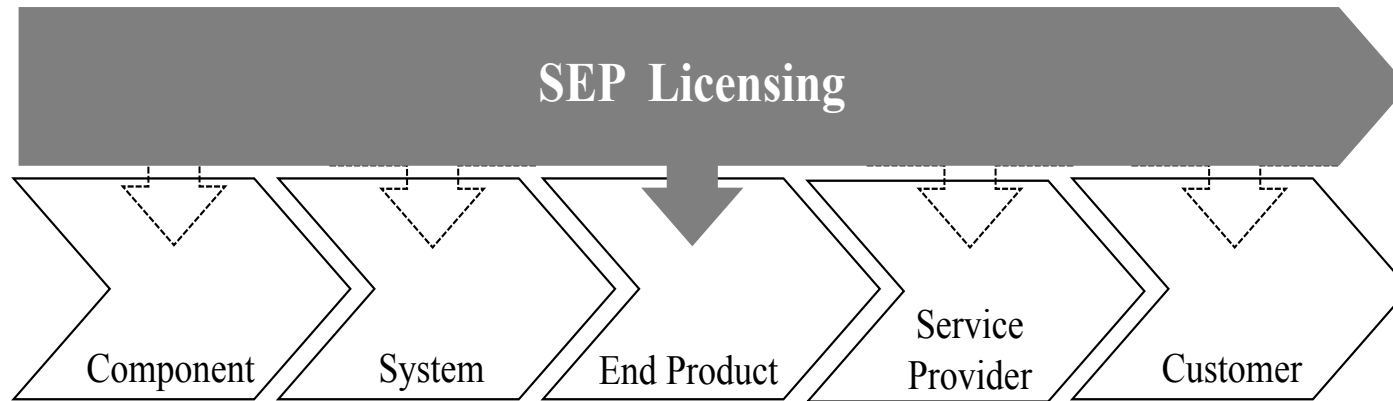
SEP Valuation

Appropriation challenges

- Owners of enabling technologies often lack the complementary assets to capture/control downstream spillovers.

- The value of enabling technologies may be unknown when they are first introduced in the market, especially in all different use-cases.

- Enabling technologies are intermediate inputs in the value chain, while the value they create is best determined further downstream in the consumer final product/service markets.

- Owners of enabling technologies often lack the resources and concomitant bargaining power to be a credible threat to vertically integrate and compete in the downstream market.

Appropriation solutions

- FRAND Licensing

- End-user/Consumer-level value determination

- SEP value based on use-case

The Issue

- SDOs typically require that SEP licensing is conducted under **Fair, Reasonable, and Non-Discriminatory (FRAND)** terms.

- The necessarily open and incomplete nature of the FRAND commitment creates opportunities for actors to try to influence courts and policymakers to define the meaning of FRAND in their self-interest.

- Two of the main contentious issues involved in the practical implementation of the FRAND commitment are (1) **SEP value** and (2) the **level of SEP licensing** in the value chain.

- While they are often depicted as separate issues, they are, in fact, used in combination together with other factors to influence the SEP royalty (and other terms and conditions), which is a function of SEP value.

- Price is ultimately the most important factor (i.e., if the price is right, then little else matters), where **the discussion over the level of licensing is typically a negotiation over price**.

Three Principles

- **Principle #1**. The determination of SEP/FRAND royalty payments should be independent of the choice of licensing level but dependent on its value in end-use.

- **Principle #2.** The choice of licensing level should consider the minimization of transaction costs in relation to other key technical, legal, and market norms. The adoption of this principle is likely to lead to the choice of a single licensing level.

- **Principle #3**. Firms in the value chain located upstream or downstream of the licensing level should be able to sell or buy from licensed firms without risk. This objective may be achieved by different statutory and contractual means: "exhaustion rights," "non-assertions," "covenants not to sue," "covenants to sue last," or "have made rights." Which alternative is preferable will depend on the relevant legal and economic framework.

A Few Clarifications

- The optimal level of licensing is unrelated with the choice of royalty base.

- Once value is established, concerns about hold up and holdout no longer play a role in the determination of the optimal level of licensing.

- In that scenario, the choice of level of licensing can be safely delegated to licensors.

- In some industries, established licensing practices may have to be taken into consideration when setting the level of licensing.

Conclusion

The determination of SEP value should be independent of the level of licensing in the value chain.

The Level of Licensing in Practice

- Traditionally most SEP licensing has been done at end-product level for consumer products, like TVs, STBs, DVD Players) for:
  i. System related standards (e.g. DVB, DAB, DVD), and
  ii. Specific technology standards (MPEG 1, 2, 4 standards).

- Most standards were predominantly made by end-product makers with little to no involvement of component makers.

- Most SEP holders for these standards were end-product makers, including vertically integrated companies also having component businesses.

- Component makers were not targeted for SEP licensing.

The Level of Licensing in Practice

- Component makers could sell their products to both licensed and unlicensed end-product makers.

- In other cases, arrangements were made between SEP licensors and component makers that they would only sell to licensed product makers.

- In both situations component makers sold their products without explicit or implied license to SEPs.

- Component makers did not provide any patent indemnity for SEPs.

"Have made" rights

- Licensors may grant licenses to make, use and sell end-products, including have made rights for components for use in licensed end-products.

- Have made rights may be limited to components based on licensee's own design and solely for supply to licensee.

- If license to licensee is terminated, the have made right to the component supplier terminates also.

- Some argue that have made rights do not allow the have made manufacturer to purchase components its needs from suppliers higher up in the value chain.

- In the US have made rights are interpreted broadly as allowing licensee to do all what is needed to make license products.

Non-asserts / Covenants-not-to-sue

- Formalized unregulated situation: non-asserts for upstream component makers.

- Some US-courts have considered have made rights equivalent to a license grant leading to exhaustion of patents.

- With non-assert for component makers a licensor can no longer put pressure on an unwilling licensee through its suppliers.

- Alternative is covenant-to-sue-last: sue supplier only if all other remedies are exhausted.
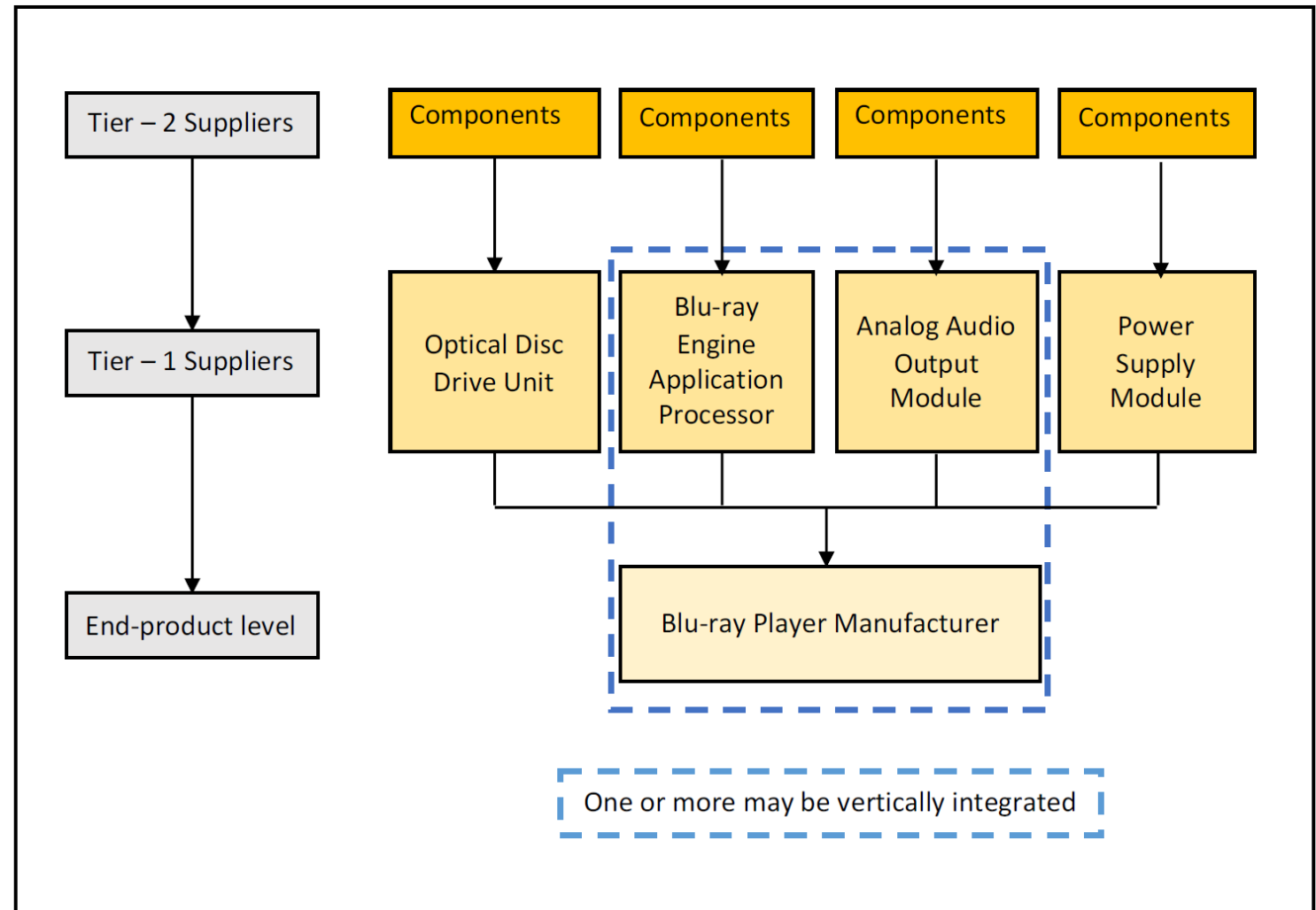
Case Study: One-Blue Patent Pool

- 2006: Introduction of Blu-ray products to the market.

- 2011: Start One-Blue patent pool licensing more than 10.000 patents from 15 (now 19) licensors.

- One-Blue is a licensing platform for different Blu-ray products, incl. players, recorders, drives, software and pre-recorded/recordable discs.

- One-Blue is the first product pool combining SEPs for the different optical CD, DVD, Blu-ray standards in a single license and royalty.

Case Study: One-Blue Patent Pool

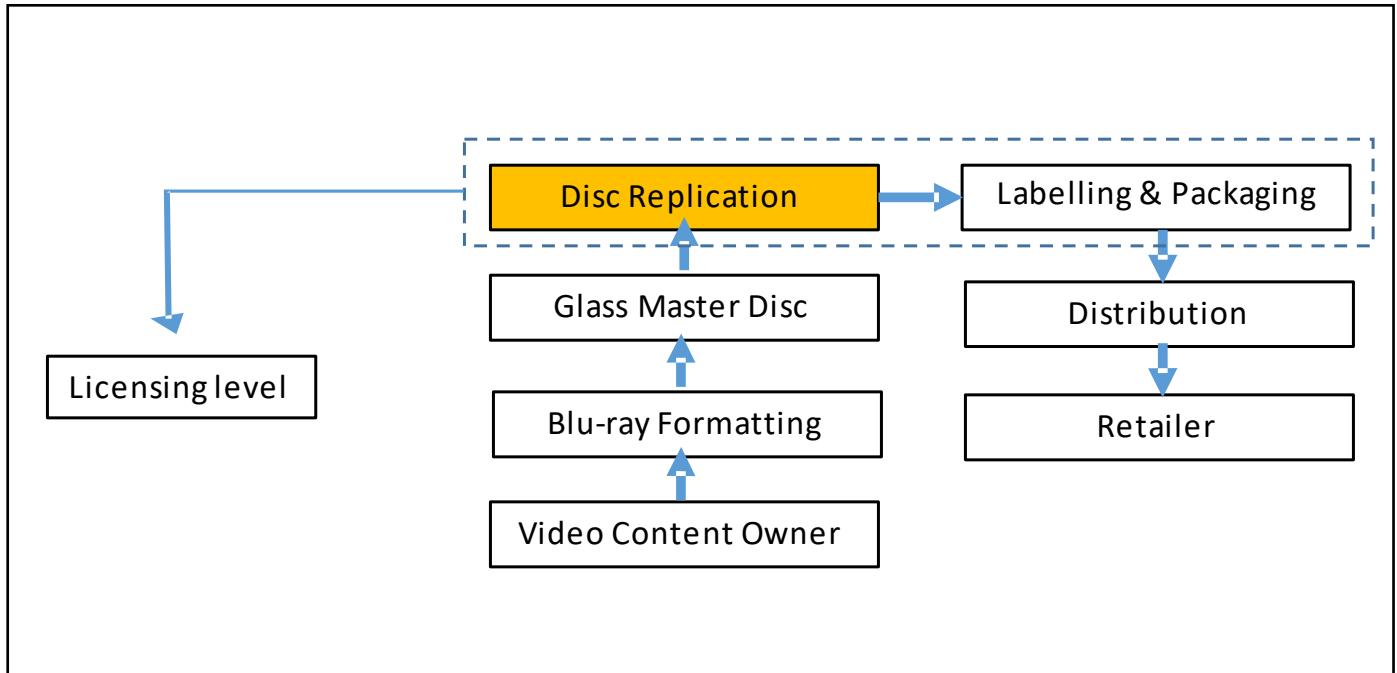| Blu-ray Standards	DVD Standards	CD Standards
BD-ROM	DVD-ROM	CD-Audio
BD-Recordable	DVD+R	Video-CD
BD-Rewritable	DVD+RW	CD-R
	DVD-R	CD-RW
	DVD-RW	
	DVD-RAM	
	DVD-Audio	

- Many different optical standards used in Blu-ray Players/Recorders.
- For each standard multiple SEP holders.
- Licensing per standard would seriously hamper development of market for Blu-ray product.

Case Study: One-Blue Patent Pool

Value chain Blu-ray player manufacturing

Case Study: One-Blue Patent Pool

Value chain Blu-ray pre-recorded disc manufacturing

Disc Replication → Labelling & Packaging

Licensing level

Glass Master Disc

Blu-ray Formatting

Video Content Owner

Distribution

Retailer

Thank you
Q & A

Forthcoming webinars

11 February 2021, 16.00-17.00 CET	3D printing and intellectual property issues and solutions	Dr. Peter Schramm, Attorney at Law on behalf of INTA

Alessandro Burro, 4iP Council Research Award winner 2019 |
| **2 March 2021, 16.00-17.00 CET** | Downsides of Using Inadequate Open Source Software Processes and Licenses within Standard Development | Michele Herman, CEO of Early Stage Health-Tech Startup and Founder of JusTech Law

Dr. Justus Baron, Senior Research Associate at the Center on Law, Business, and Economics, Northwestern University Pritzker School of Law |