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2023 - IPlytics - Closing the SEP Transparency Gap Part 3:

How to gather patent pool and SEP litigation data to predict legal risks and royalty payment

Video Recording:

<https://www.youtube.com/watch?v=tRO4QjIhUlw>

IPLYtics Webinar Series 2023

- I. Part 1: “How to Deal with Data Accuracy Challenges”
July 27th, 2023
Recording: <https://www.iplytics.com/events/past/>

- II. Part 2: “How to Deal with SEP Determination Valuation Challenges”
August 29th, 2023
Register: <https://www.iplytics.com/events/past/>

- III. Part 3: “How to Deal with FRAND Determination Challenges”
September 26th, 2023
Register: <https://www.iplytics.com/events/upcoming/>

Today's Speaker



The World's Leading IP Strategists 2023

Tim Pohlmann

Chief Executive Officer, IPlytics GmbH

IAM says: As architect of the game-changing IPlytics intelligence platform, Tim Pohlmann has distinguished himself as one of the most forward-thinking minds in intellectual property today. He is a top expert on standard essentiality and has his finger on the pulse of technology industry developments.



- **PhD & Post Doc.** TU Berlin, CERN, MINES ParisTech.
- CEO and **founder of IPlytics.**
- **2023 IAM Strategist 300.** Recognized thought leader.
- **Economic expert** and author of studies for the EU Commission, WIPO and German government.
- Appointed **faculty lecturer** (TU Berlin, EPF Lausanne, CEIPI Strasbourg, Cleveland-Marshall College of Law)
- **Author** of over 50 industry articles published at IAM Magazine, IPWatchdog and Managing IP.

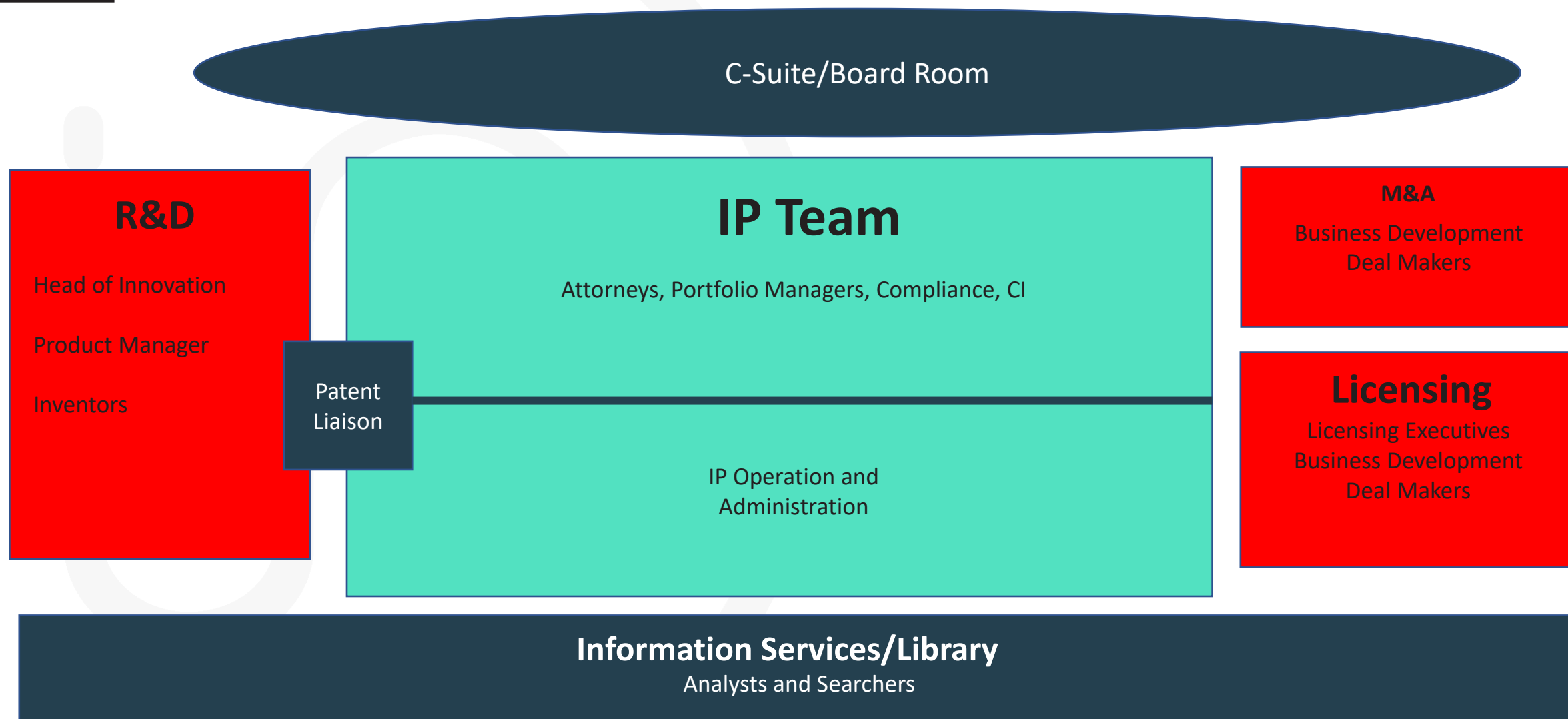


Agenda

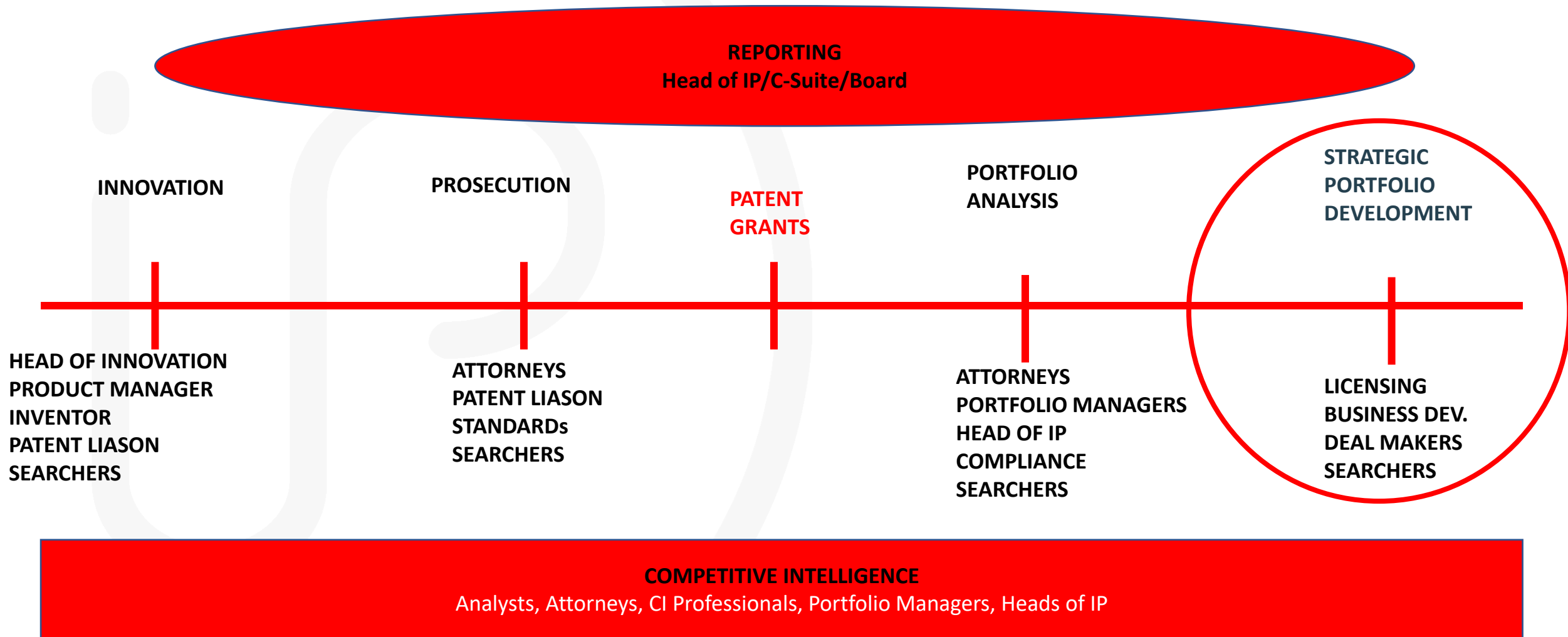
- I Licensing, Transaction and Litigation personas
- II Licensing, Transacting and Litigating trends
- III SEP portfolio Validity and SEP Essentiality
- IV Joint licensing platforms and patent pools
- V Bilateral SEP licensing
- VI How to use patent pool data to predict Royalty Payments
- VII Takeaways

I Licensing, Transaction and Litigation **personas**

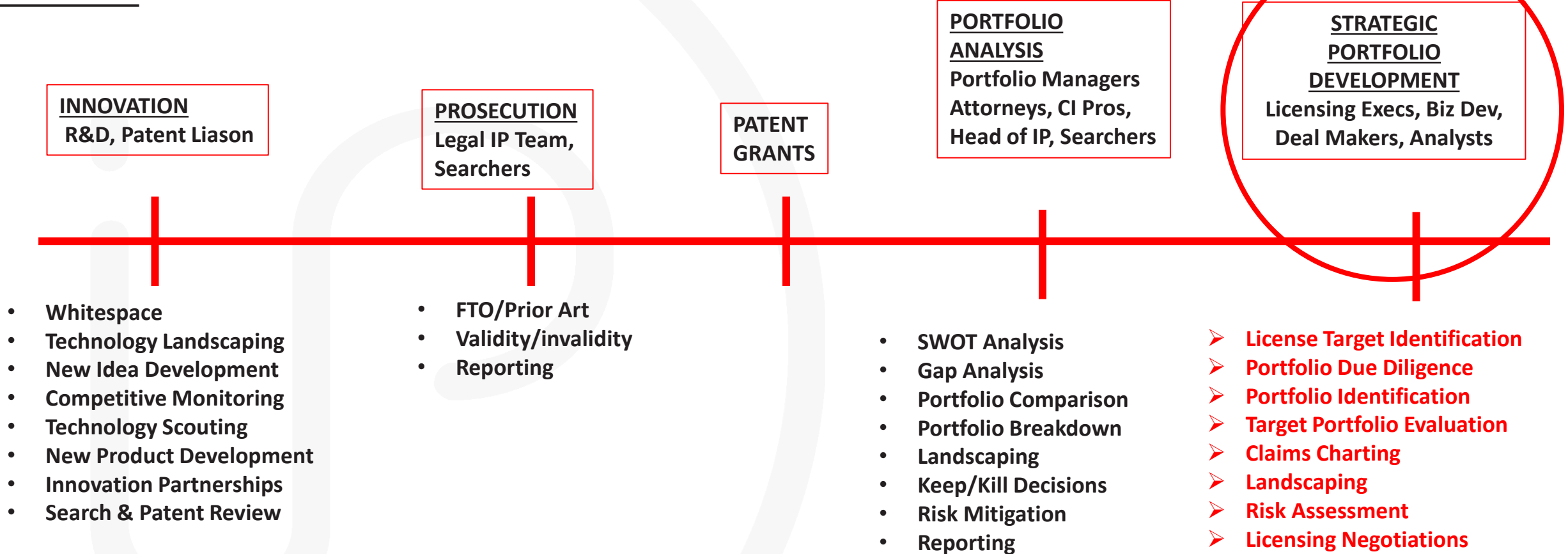
Corporate Layout of Personas



Key Events in the Life of a Patent by Persona



Key Events in the Life of a Patent by Use Case



Personas in Context – Licensing Executive

Titles: Licensing Executive, Portfolio Development, Business Development, Director of Corporate Strategy, Head of IP Transactions

What do they do:

- Tasked with generating value and revenue from the IP Portfolio through licensing activities, both **carrot and stick**.
- Need to generate a **pipeline** of possible **licensing deals**.
- Needs to work with R&D, portfolio managers and legal to understand what **patents can be licensed**
- Identify possible **licensing targets**
- Work with SMEs and legal counsel to **prove infringement**
- **Negotiate licensing deals**; draw up agreements
- **Invoke litigation** if needed
- **Monitor competitors**, new technologies and products

What are their Challenges/Goals:

- **Finding** the technologies or **assets (patents)** to license
- Finding solid partnership or **licensing candidates** quickly, and effectively
- **Hitting revenue targets**/managing a pipeline of deals
- Avoiding blow back or understanding early on possible **cross licensing opportunities**

Use Cases

- **All Strategic Portfolio Development Use Cases**
- **Portfolio Breakdown**
- **Portfolio Comparison**

Use Case by Persona – law firm

New Client Acquisition

Managing Partner
Partner
Attorney

Current Client Retention

Managing Partner
Partner
Attorney

Search & Analysis Services
Due Diligence

Paralegal
Researcher/Analyst
Attorney

II Licensing, Transacting and Litigating trends

The future of 5G – Challenges for SEP licensing

As to a Deloitte study published 2021:

- “The majority of **SEP holders** will actively monetize and **enforce their SEP portfolios** covering 5G standards in this fast-moving, high-investment environment.”
- “SEP owners as well as standard implementers are faced with the challenge to **manage operational and financial risks** and cost exposures while striving to maximize value.”



Standards Implementation Wi-Fi

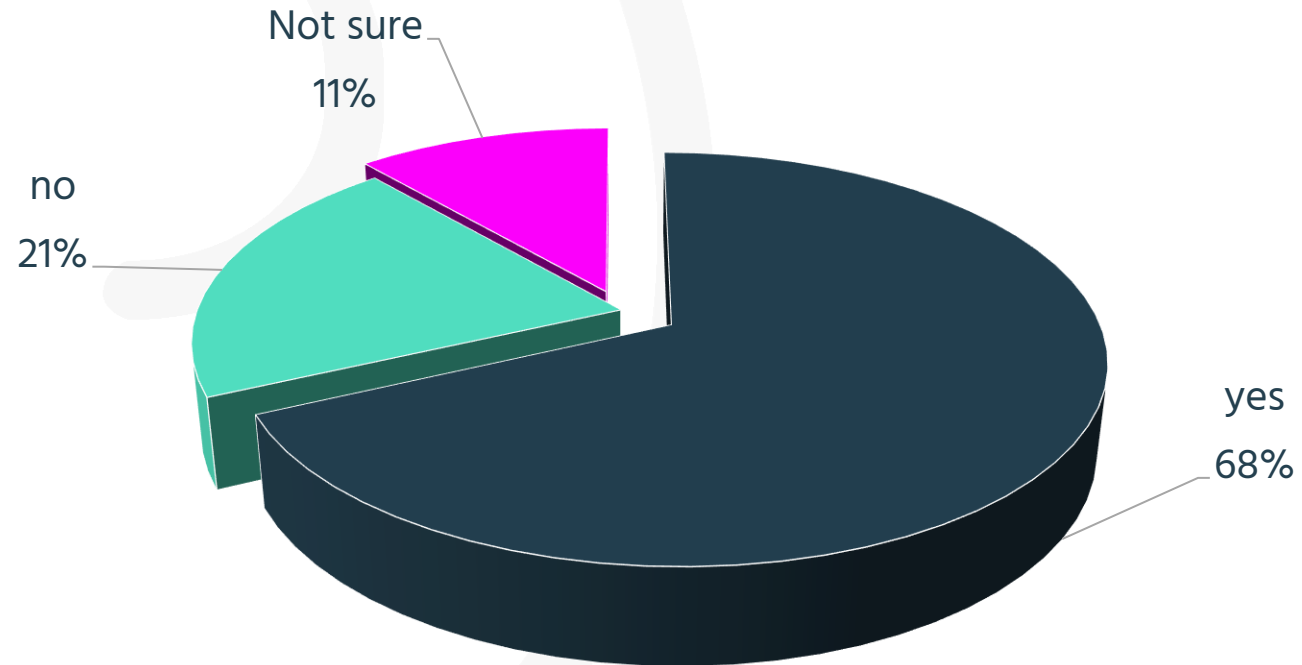
Wi-Fi compliant products

- The number of products that implement Wi-Fi outside of the communication sector has drastically increased (e.g. Other and Smart Home).

Category	Products	Brands
Phones	21.507	111
Routers	14.941	297
Televisions & Set Top Boxes	11.941	83
Computers & Accessories	7.652	148
Other	6.757	262
Tablets, Ereaders & Cameras	2.697	86
Gaming, Media & Music	1.636	124
Smart Home	529	89
Building	3	1

TU Berlin Industry Survey in 2021

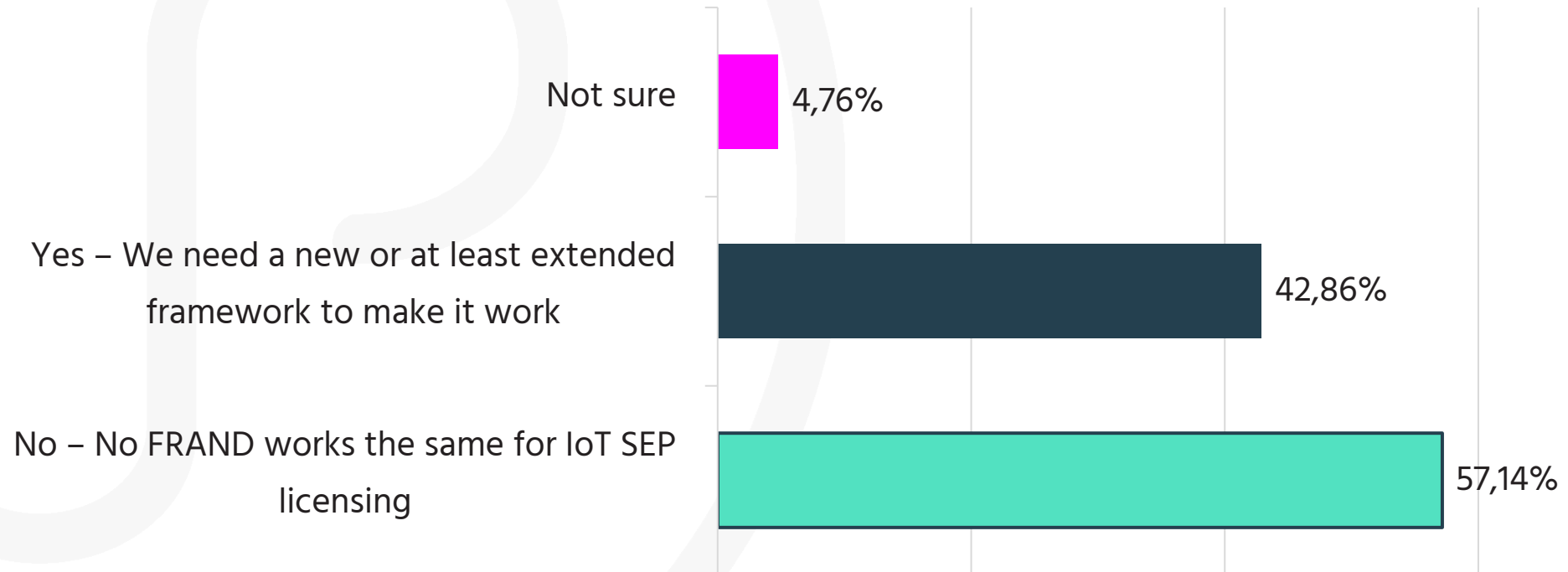
Q1: Do you think that SEP licensing will be more challenging for IoT applications compared to the smartphone market? (N=54)



Source: <https://www.iplytics.com/report/video-recording-tu-berlin-virtual-conference-licensing-of-seps/>

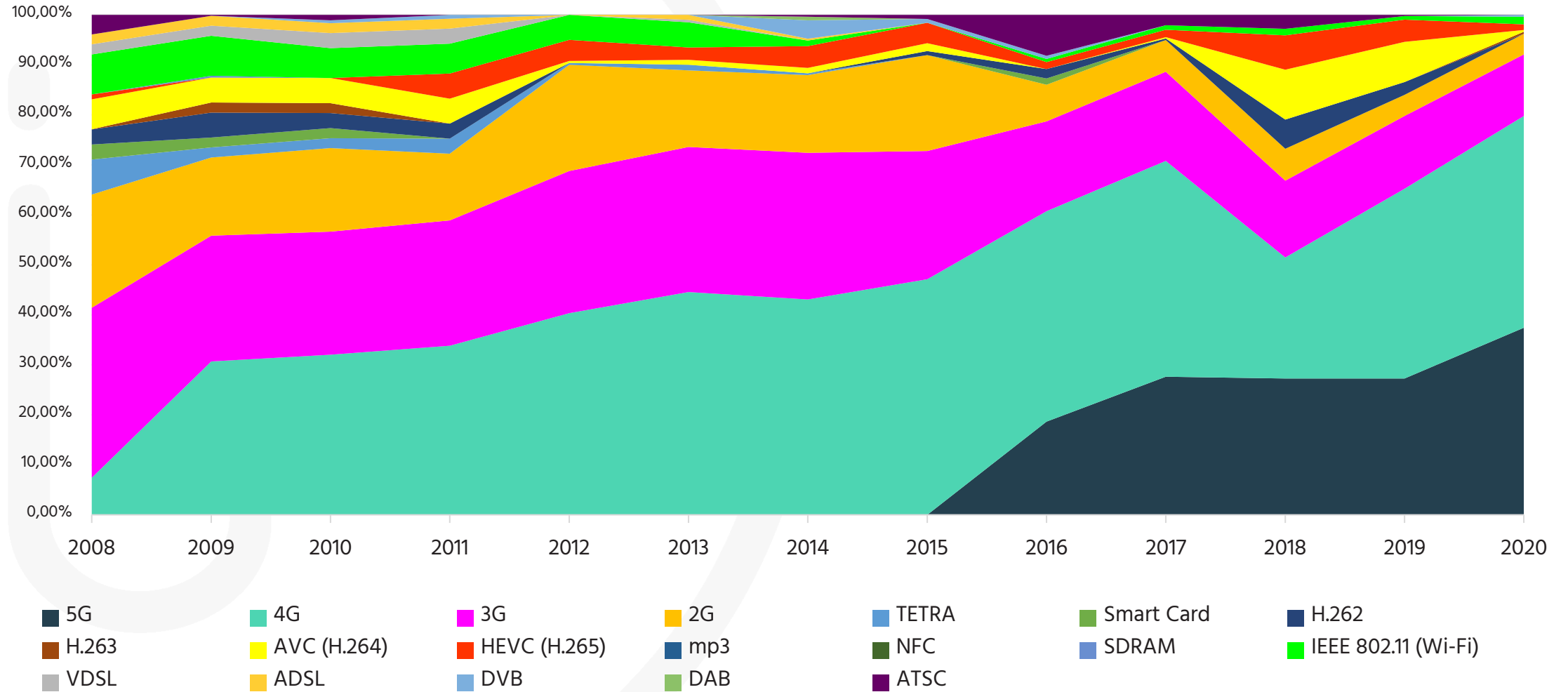
TU Berlin Industry Survey in 2021

Q2: Do we have to rethink the FRAND framework for SEP licensing for IoT? (N=52)



Source: <https://www.iplytics.com/report/video-recording-tu-berlin-virtual-conference-licensing-of-seps/>

SEP Litigation per Standard 2001-2021 (worldwide)



SEP litigation beyond smart phones

Recent SEP auto industry litigation :

- Nokia vs. Daimler (Germany, 2019)
- Sharp vs. Daimler (Germany, 2020)
- Conversant vs. Tesla (Germany, 2020)
- Sharp vs. Tesla (Japan, 2020)
- Sisvel vs. Tesla (USA, 2021)
- L2 Mobile vs. Ford Motors (USA, 2021)
- IV vs. GM, Toyota, Honda (USA, 2021)
- Sharp vs. Volkswagen (Germany, 2022)
- IP Bridge vs. Ford Motors (Germany, 2022)

Automotives: the next battlefield of SEP litigation?

01-07-2019 Pauline Debré and Simon Corbineau-Picci



ParabolStudio / Shutterstock.com

Editor's Picks | M

[Booking.com—floodga](#)

[Sky v SkyKick goes to](#)

[Donald Trump fights fir
copyright row](#)

[US Copyright Office w
box row](#)

[CPA Global to make re
'new normal'](#)



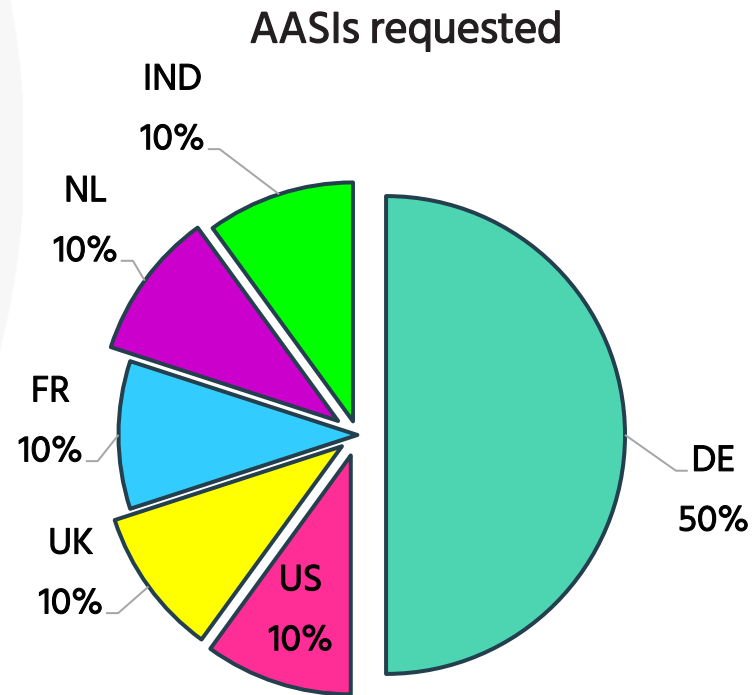
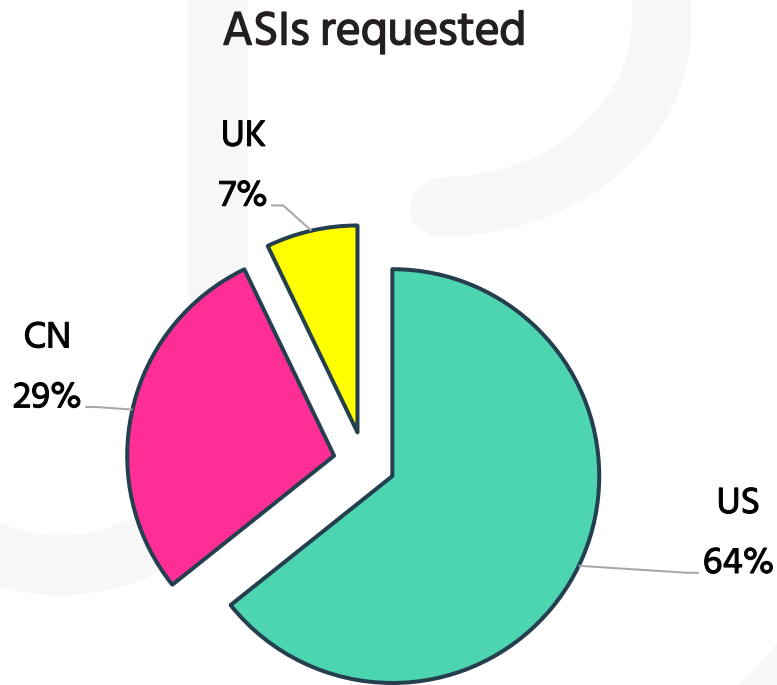
Local courts global rates?

- Decisions in which a national court has considered a request by one of the parties to litigation to determine a **worldwide rate** for FRAND licensing.

Jurisdiction	Instance	Global FRAND?
UK	Vringo v ZTE [2015] EWHC 214 (Pat)	NO
	Unwired Planet Intl. Ltd. v Huawei Techs. Co. Ltd. [2020] UKSC 37	YES
US	TCL Communication Technology Holdings Ltd. v Ericsson US No. 2:15-cv-02370 CV 15-2370 JVS(DFMx) SACV 14-341 JVS(DFMx) (C.D. Cal Dec. 21, 2017)	YES
	Optis Wireless Tech., LLC, v. Huawei Device Co. Ltd., No. 2:17-cv-123-JRG-RSP, 2018 WL 476054 (E.D. Tex. Jan. 18, 2018)	NO
China	Xiaomi Communication Technology Co Ltd v InterDigital Inc [2020] Wuhan Intermediate People's Court, Case E 01 Zhi Min Chu No 169.	YES
	Samsung v Ericsson [2020] Wuhan Intermediate People's Court, Case E 01 Zhi Min Chu No 743.	YES
	OPPO v Sharp, Supreme People's Court (19.08.21). (2020) Zui Gao Fa Zhi Min Xia Zhong No. 517	YES
	Oppo v Nokia Intermediate Court of Chongqing [2021] Docket: (2021)渝01民初1232号	No information available

Anti Suite Injunctions?

- Requests for Anti-Suit and Anti- Anti-Suit injunctions – SEP disputes (2012-2021)
- ASIs are essentially coming from non-EU countries and EU countries respond to ASIs by issuing AASIs in order to re-establish their jurisdiction.



SEP litigation statistics

Are declared SEPs more likely to be litigated? (number of US families)

- Yes, data shows that declared SEPs are more than **3x more likely** to be litigated!
- A declared SEP had a chance of **2.27% to be litigated** (US)

Are cases more likely to feature declared SEPs than other cases? (number of US cases)

- Yes, over **4x more likely** a US case would feature a declared SEP
- Of all **US litigation cases, 2.06%** featured at least one declared SEP

SEP litigation monitoring

- Track SEP litigation activities relevant to your industry.
- What standards are currently subject to SEP litigation?
- Are competitors in litigation?
- In which territory?

Ultimate Ow...	SEPs	Fam.	Share	MC	TR	SES
Oppo	33	27	19.4%	1.39	0	75.9%
Nokia	20	16	11.5%	1.29	0	78.6%
ETRI Korea	14	10	7.2%	2.92	0	75.6%
Dolby Laboratories	11	8	5.8%	4.92	0	62.9%
GE	14	6	4.3%	9.32	0	70.9%
Ideahub	6	6	4.3%	3.08	0	78.7%
Ericsson	6	5	3.6%	1.78	0	84.7%
InterDigital	6	5	3.6%	2.53	0	77%
5G IP Holdings	4	4	2.9%	0.81	0.28	81.8%
Apex Beam Technologies	4	4	2.9%	0.94	0	70.1%
Samsung	4	4	2.9%	2.98	3.95	73%
VoiceAge	6	4	2.9%	2.56	0	95.4%
Xiaomi	4	4	2.9%	0.75	0	77.6%
Atlantic IP Services	3	3	2.2%	0.66	0	79.6%
Sisvel	5	3	2.2%	1.21	4.9	75.5%
Active Wireless Technologies	2	2	1.4%	0.62	0	81.8%



III SEP portfolio **Validity** and SEP **Essentiality**

How many SEPs are enough?

How to right-size a SEP portfolio:

- A properly managed SEP portfolio should generate revenue for an organization by protecting its investments and balancing its maintenance costs.
- This requires an organization to make critical and often **risky decisions** about where and when to invest in R&D, standards development and patent prosecution.
- This is true for both sides of the table as a SEP portfolio is often used also by net-licensees to cross-license.

Likelihood of validity and essentiality

- Estimating the **statistical likelihood** of a portfolio including at least **one essential and valid patent** shows that even in pessimistic scenarios a portfolio of **250 patents** includes at least one enforceable SEP:

Validity	pessimistic (30% valid)			optimistic (80% valid)			
	Essentiality	low (10%)	medium (25%)	high (50%)	low (10%)	medium (25%)	high (50%)
Portfolio size							
5		0.1413	0.3228	0.5563	0.3409	0.6723	0.9222
10		0.2626	0.5414	0.8031	0.5656	0.8926	0.9940
25		0.5330	0.8576	0.9828	0.8756	0.9962	1.0000
50		0.7819	0.9797	0.9997	0.9845	1.0000	1.0000
100		0.9524	0.9996	1.0000	0.9998	1.0000	1.0000
250		0.9995	1.0000	1.0000	1.0000	1.0000	1.0000

How to file valid claims?

Validity is not given:

- The immense amount of potential prior art documents create considerable risk for SEP owners of losing patents for good when **prosecutors do not draft claims properly** and **patent offices fail to identify all prior art**:
 - **76%** of all IPRs filed against SEPs used **non-patent literature (NPLs)** as prior art
 - **66%** of these proceedings specifically used NPLs that were produced explicitly for the purpose of developing and refining standards, e.g., technical **specifications/standards contributions/reports** or **working group documents** produced under the auspices of a standard-setting organization.

Source: Sterne, Kessler, Goldstein & Fox March 2022: <https://www.sternekeessler.com/news-insights/publications/standard-essential-patents-ptab-are-seps-faring-any-differently-non-seps>

How to file valid claims?

Analysis of NPL-citations: 3GPP

- ▶ 81,383 patents citing 3GPP documents, including
 - ▶ 26,702 citations to technical specifications (TS)
 - ▶ 29,603 citations to technical contributions
 - ▶ 9,249 citations to meetings (meeting minutes?)
 - ▶ 5,969 citations to technical reports (TR)

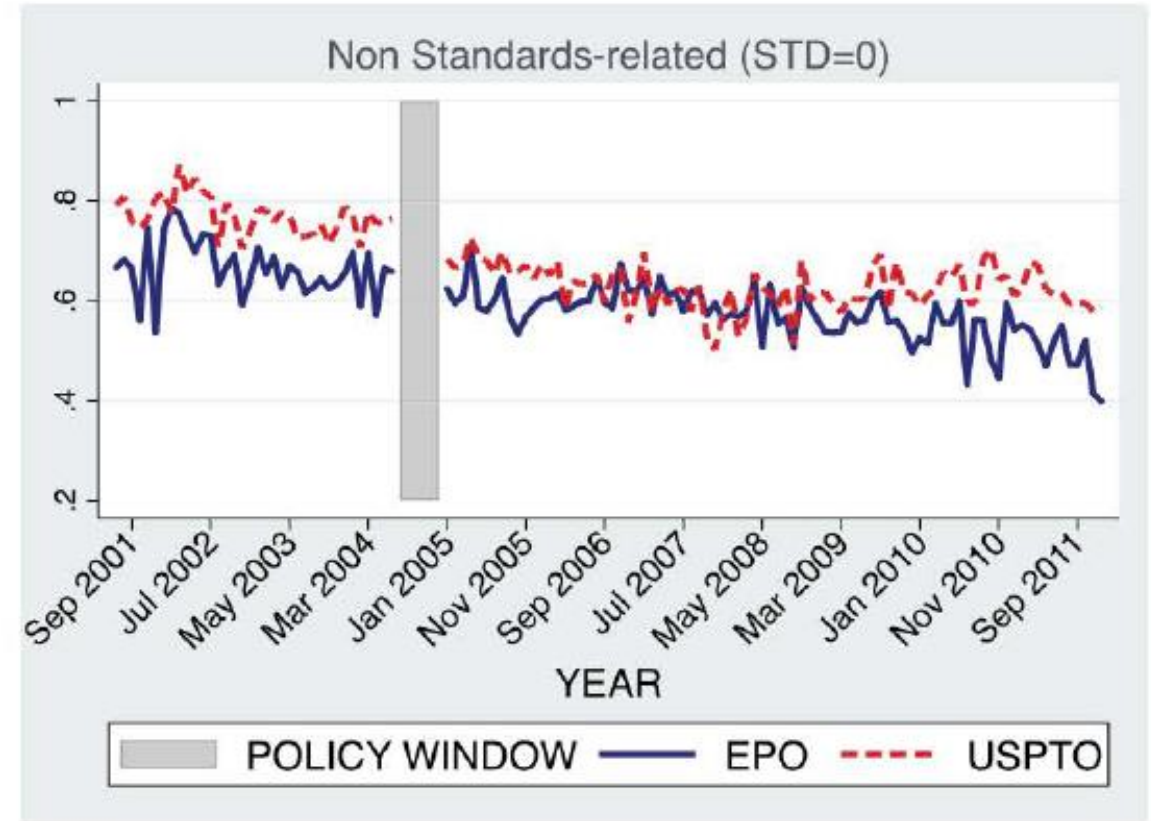
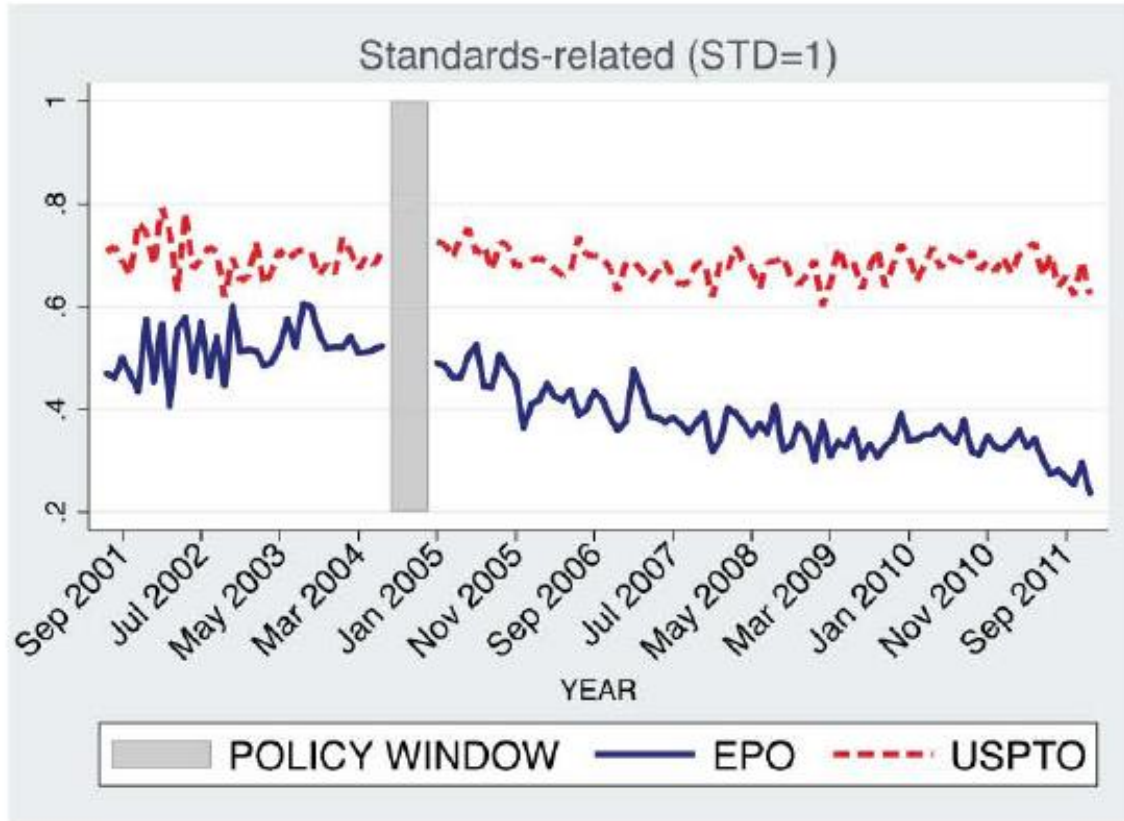
Source: Justus Baron and Daniel F. Spulber: Technology Standards – An Introduction to the Searle Center Database, Journal of Economics and Management Strategy, 27-3, 2018

Patent offices and access to standards data

Access to standards data:

- Patent offices such as the **USPTO** or the **EPO** have signed a Memoranda of Understanding (**MoU**) with the European Telecommunications Standards Institute (**ETSI**) and with the Institute of Electrical and Electronics Engineers (**IEEE**).
- These agreements gave the patent offices **access** to a broad repository of relevant documents such as **standards documents, preliminary standards drafts, other documents related to the temporary drafting of the standards, contributions or working groups minutes.**
- At the **EPO** since **2004** the **ETSI** non-patent literature database was set up while the **ITU** and **IEEE** databases were then completed in **2006** and **2008**, respectively.

How to file valid claims?



Bekkers, Rudi, Arianna Martinelli, and Federico Tamagni. "The impact of including standards-related documentation in patent prior art: Evidence from an EPO policy change." *Research Policy* 49.7 (2020): 104007.

PTAB and SEP invalidation

Fighting patents on validity:

- The number of technology standards implementers that find themselves entangled in **SEP disputes** has drastically increased.
- The biggest risk to potential infringers will always be the **threat of an injunction**.
- In the US, **Filing an IPR** (inter partes reviews) can be critical to the standards implementer's **defense**.
- Conversely, **mitigating the effect of an IPR** on a request for injunctive relief should be a primary focus of an **SEP holder**.
- We have **risks on both sides of the table**: Standards implementers risk of an injunction and the SEP holders' risk of SEP invalidation.

PTAB and SEP invalidation

SEP PTAB statistics:

- IPRs involving electronics-based SEPs have **similar claim cancellation rates** as proceedings involving non-SEP electronics patents, and actually have **higher chances of having all claims cancelled**:

Figure 3: Claim Cancellation Outcomes at FWD (Electronics IPRs)¹²

	All Claims Cancelled	Some Claims Cancelled	No Claims Cancelled	Total Number of Claims
SEP Proceedings	78%	5%	17%	137
Electronics IPRs	71%	15%	14%	2506

Source: Sterne, Kessler, Goldstein & Fox March 2022: <https://www.sternekeessler.com/news-insights/publications/standard-essential-patents-ptab-are-seps-faring-any-differently-non-seps>

Using data to right-size your SEP portfolio

The subject matter expert approach:

- It undisputable that manually determining SEP essentiality and SEP value is **economically not feasible** for all declared patents.
- SMEs are also not always right and when claim charting is not rigorous (e.g. only a 20 min look-up) and may even be subject to a systematic bias.

The data approach:

- Semantic claim section essentiality scores are not perfect (error rate) but they can be a first step analysis before conducting expensive and lengthy claim charting → SES will not replace the SME but enable more efficient claim charting.
- Semantic essentiality score (SES) is used as a proxy for patent portfolio value.

Access to standards data

Access to standards data:

- Multidimensional access to fully indexed standards contributions, standard documents, standards meeting minutes and email combinations is crucial for identifying prior art to ensure patent claims are novel and thus valid.
- There are several search strategies to identify prior art:
 - Follow the corresponding standards **meetings proceedings**, minutes and contributions
 - Follow the **inventors**
 - Follow the **claim elements disclosed**

IV Joint **licensing platforms** and patent pools

SEP Licensing – Patent Pools

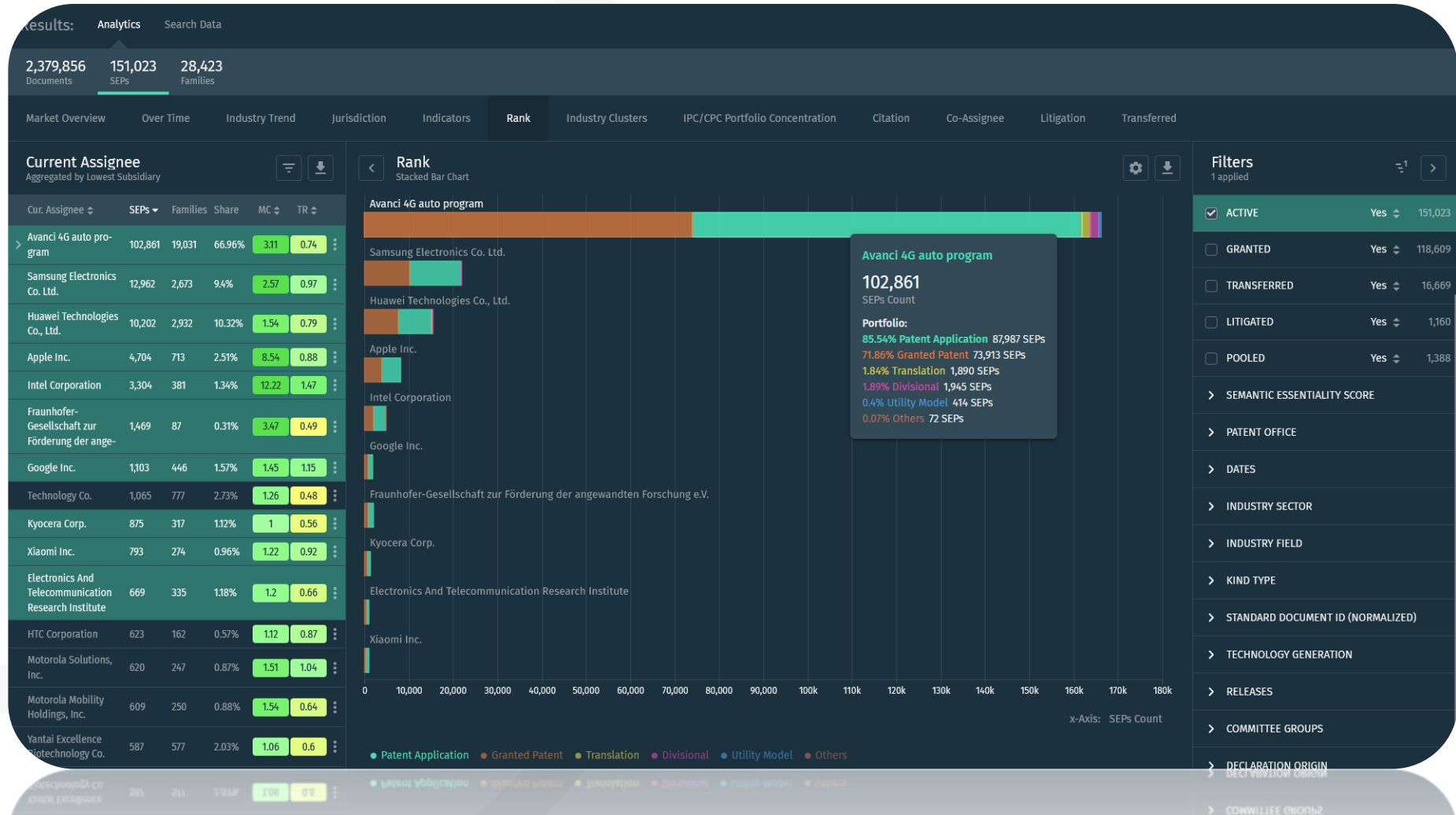
Patent pools:

- A patent pools aggregate patent ownership and offer a license program under a single license contract – “one-stop shop”.
- Many **economist claim positive** effects from pooling patents:
 - Pools may reduce **transaction costs** (reduce number of licensees)
 - Reduce multiple **marginalization** problem
 - **Clear** blocking positions (blocking patents)
 - **Facilitates** a technology to the public
- Pools are often created for standardized technologies due to the **nature of SEPs** that must be licensed in any implementation (no bundling).

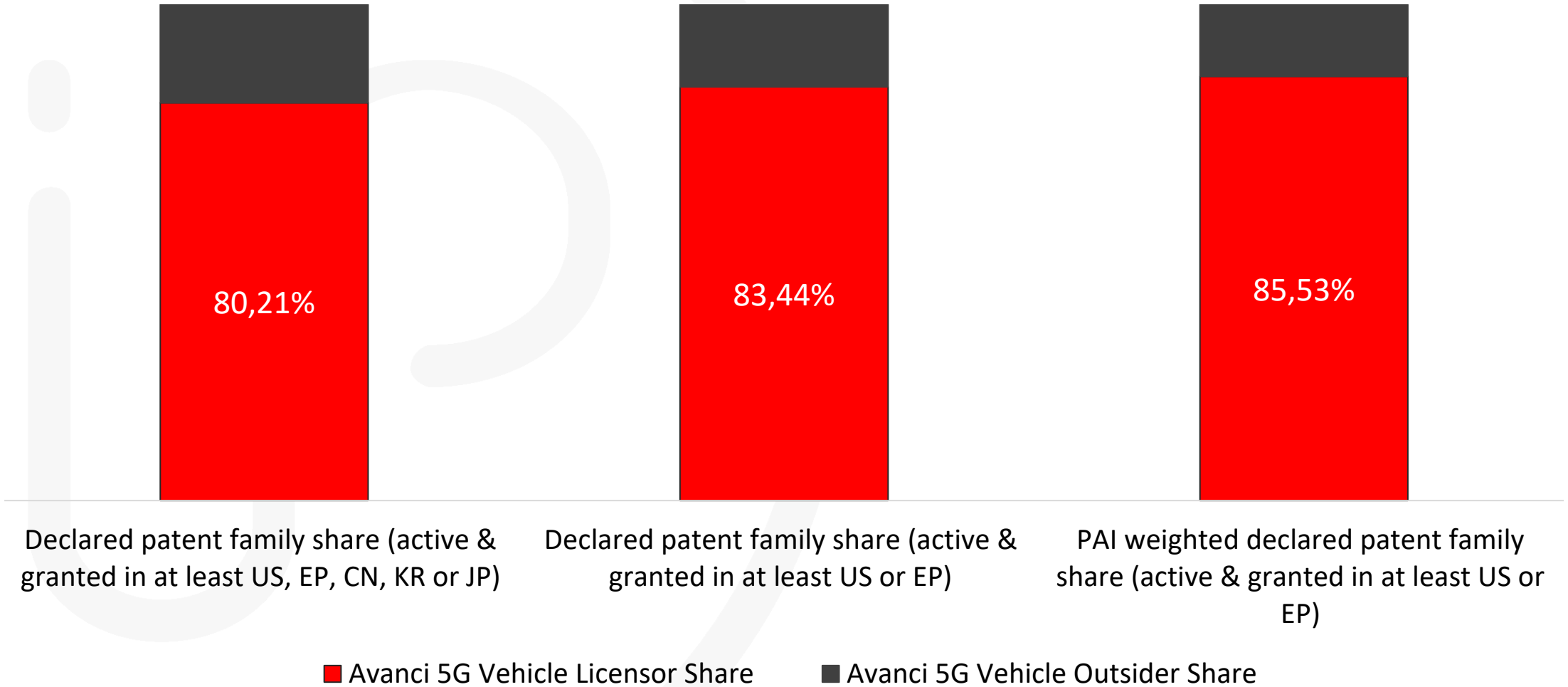
SEP Licensing – Patent Pools

- **Potential Patent Pool Costs:**
- Pools have substantial **set-up costs** (usually worn by the SEP owners that consider to join the pool, the pool initiator and/or the pool administrator).
- It is **difficult** for pools to **agree on revenue-sharing rules** if there are significant (perceived) differences in the value of essential patents or differences in the fees that the patent owners wish to receive.
- Pools may introduce **complexity** when pool members negotiate license or litigate individually.
- Broad pools may create **attractive positions for single firms to stay out**
- Some patent pools are set up to **set royalty rate** for a certain standard

2G, 3G, 4G declared paten families



Avanci Vehicle 5G Multimode



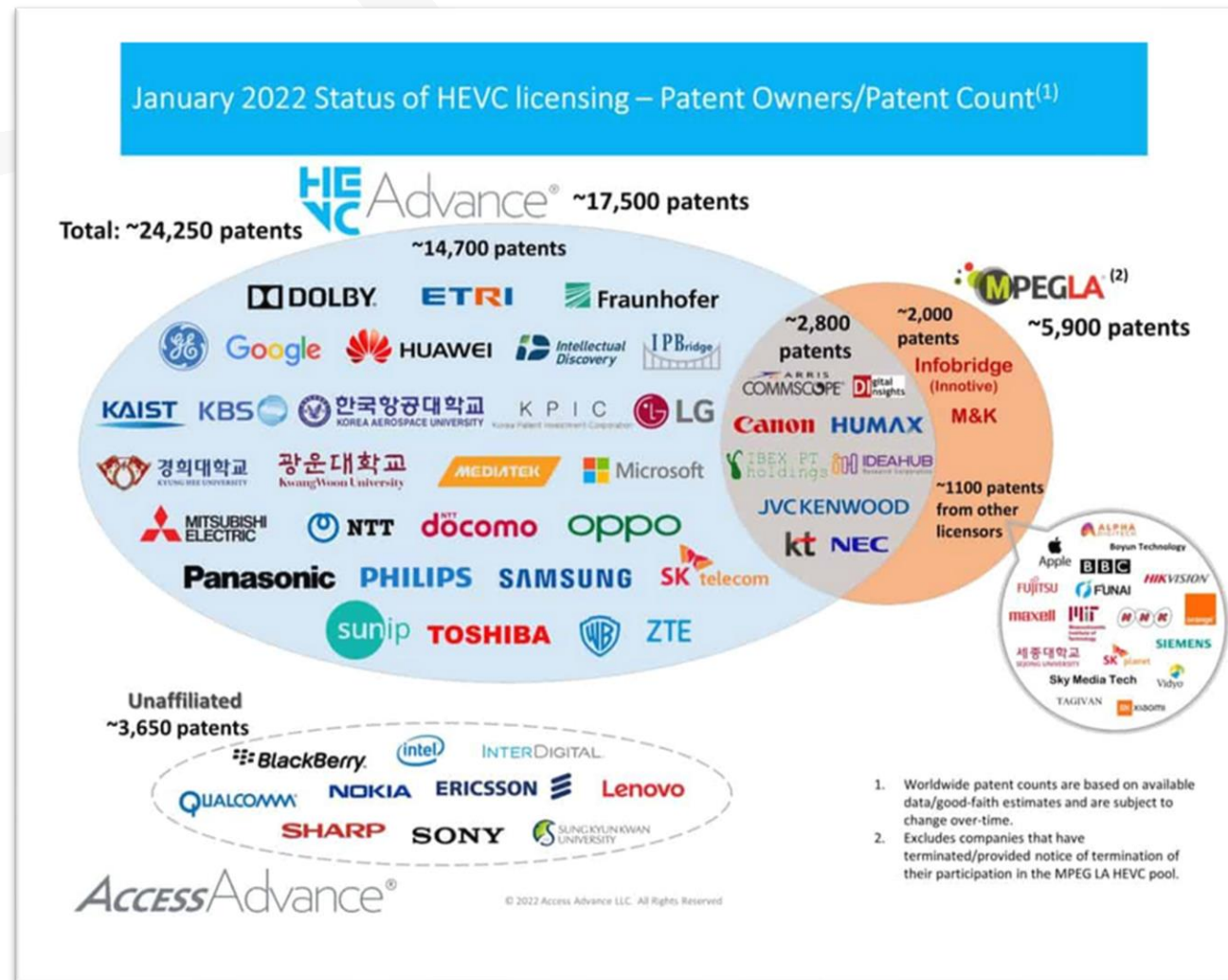
SEP Licensing – Patent Pools

Successful pools

- Many of the SEP licensing programs with the largest number of licensees are in the field of Audio/Video Coding.

Pool	Administrator	Number of currently listed licensees
AVC/H264	MPEGLA	1,575
MPEG Audio	Sisvel	1,154
Advanced Audio Coding	Via Licensing	891
MPEG2	MPEGLA	822

HEVC pool situation



VVC pool situation

MPEG LA Announces Development of VVC (Versatile Video Coding) Pool License

VVC expected to improve video compression efficiency and functionality

January 27, 2021 07:13 PM Eastern Standard Time

DENVER--(BUSINESS WIRE)--MPEG LA, LLC, the world leader in digital video patent pool licensing for nearly 25 years, announced today the development of a pool license for the next generation video coding standard known as VVC (Versatile Video Coding, also known as H.266 and MPEG-I Part 3) in order to offer the market a convenient one-stop alternative enabling VVC's wide adoption.

"MPEG LA applauds the work of leading technology innovators from around the world whose research and development investments have made VVC possible, and welcomes them to join MPEG LA's license development effort"

VVC has the potential to achieve the same level of perceptual quality as prior video codecs with up to a 50% improvement in video coding efficiency, thereby supporting 4K and 8K Ultra High Definition (UHD) and High Dynamic Range (HDR) video, telemedicine, online gaming, virtual 360° video and adaptive streaming applications.

"MPEG LA congratulates the Media Coding Industry Forum (MC-IF) and its participants for their pool fostering initiative preparing the market for a VVC pool license. MC-IF's work has been of immeasurable benefit, and MPEG LA was pleased to cooperate in that process. Building on MC-IF's work, MPEG LA is moving ahead with the next step listening to, working with and leading MC-IF participants and others to make yet another breakthrough generation of digital video compression technology widely accessible to the market under reasonable, trusted, transparent and non-discriminatory licensing conditions," said Larry Horn, President and CEO of MPEG LA.

"MPEG LA applauds the work of leading technology innovators from around the world whose research and development investments have made VVC possible, and welcomes them to join MPEG LA's license development effort," said Bill Geary, MPEG LA's Vice President of Business Development.

To participate in the initial VVC license development meeting, parties that believe they have patents essential to the VVC standard are invited to submit them to MPEG LA in accordance with the submission procedures at <https://www.mpegla.com/vvc/>.

Although only issued patents will be included in the license, patent applications with claims that owners believe are essential to the VVC standard and likely to issue in a patent also may be submitted in order to participate in the license development process.

MPEG LA, LLC

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Access Advance Launches VVC/H.266 Video Patent Pool

JULY 1, 2021

SHARE   

Includes innovative Multi-Codex Bridging Agreement that Provides Substantial Royalty Savings to Licensees in both the VVC and HEVC Advance Pools

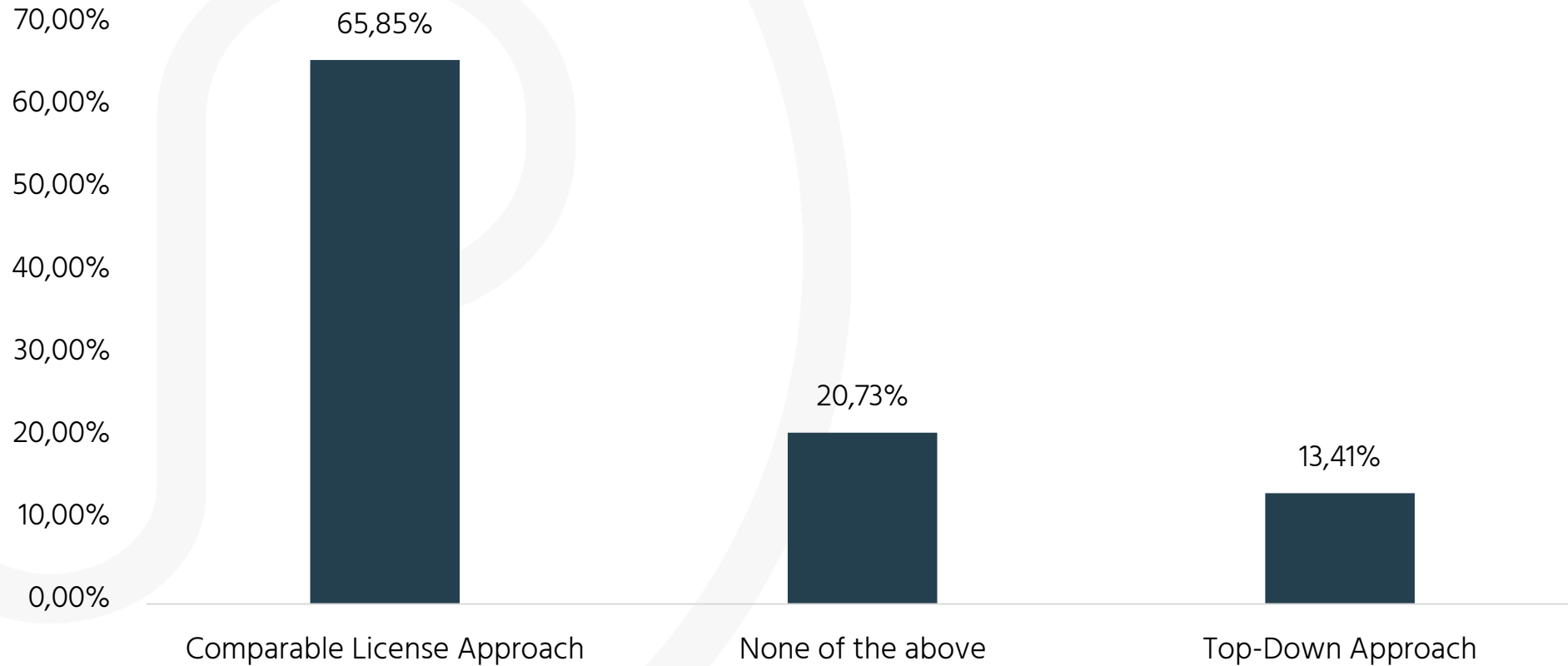
BOSTON – (July 1, 2021) – Building on the success of its HEVC Advance Patent Pool, Access Advance today announced the launch of the VVC Advance Patent Pool *and* the Multi-Codex Bridging Agreement ("MCBA"). VVC is the next generation video codec standard finalized less than one year ago, which provides significant improvements in video compression of up to 50% over HEVC, enabling a new generation of products, ever more beautiful video, faster downloads, and improved savings on storage.

The license structure of the new VVC Advance Pool mirrors that of the HEVC Advance Platform Pool License recently announced, with royalty rates and caps set at a **modest 25% increase** over the equivalent HEVC Advance License structure. Please see <https://www.accessadvance.com/vvc-advance-patent-pool-royalty-rates-summary>.

V **Bilateral** SEP licensing

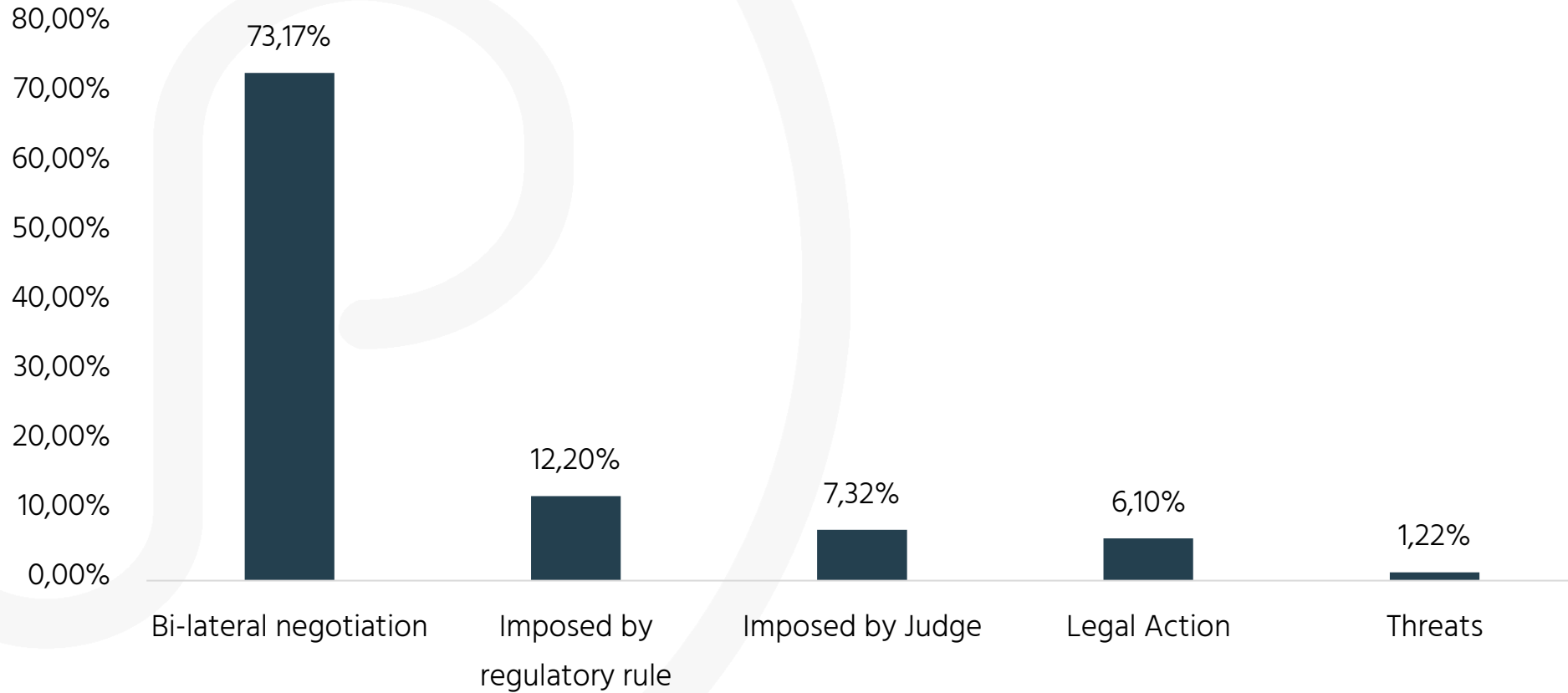
Poll Question Results

Q1: What is in your experience the more accurate approach to determine FRAND? (N=182)



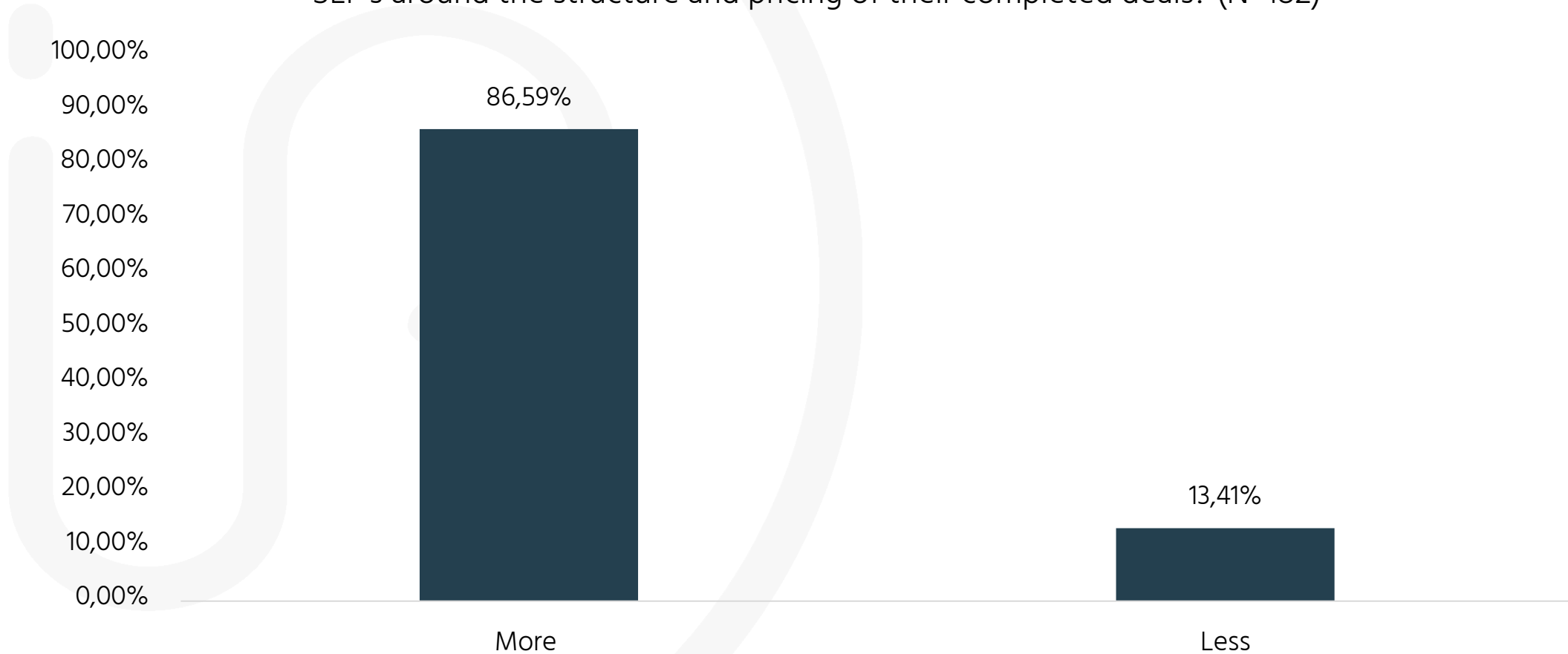
Poll Question Results

Q2: What is in your opinion the best way for companies to decide on the value of SEP portfolios? (N=182)



Poll Question Results

Q3: Do you think there should be more or less transparency by companies licensing SEP's around the structure and pricing of their completed deals? (N=182)



VI How to use patent pool data to predict **Legal Risks** and **Royalty Payments**

Do you market products that implement standards?

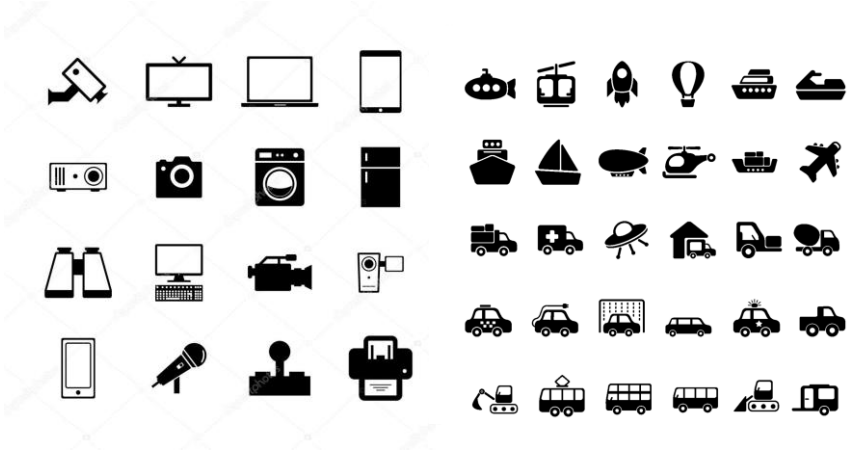
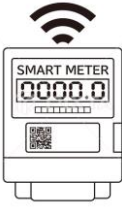
Standards Subject to SEPs

- AVC
- HEVC
- VVC
- VP9
- AV1

implementation



Networked devices



Have you received a letter to pay royalties?

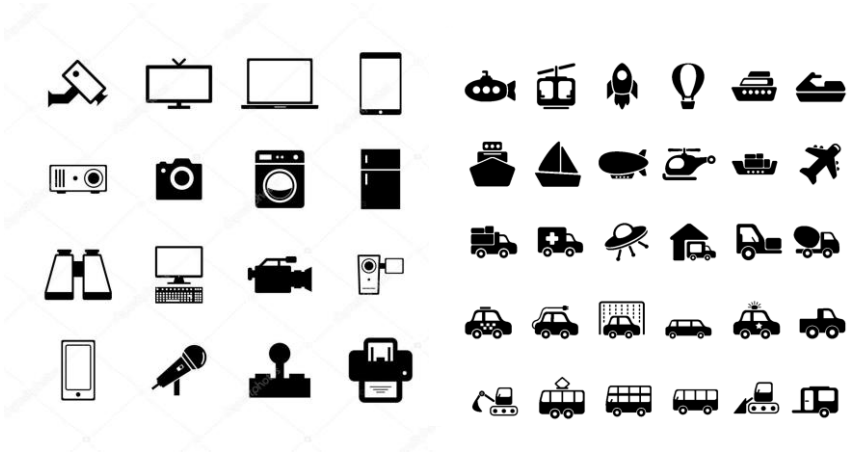
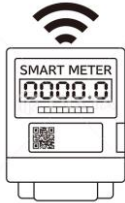
SEP Owner / Licensor /
Patent Pool

*SEP owner sends
letter requesting
royalties*



Your **product XY** implements **VVC** and
uses the attached list of SEPs.
We request you to pay **\$0.7 per unit**
royalties respectfully.

Original Equipment
Manufacturer (OEM) of
networked devices



VVC

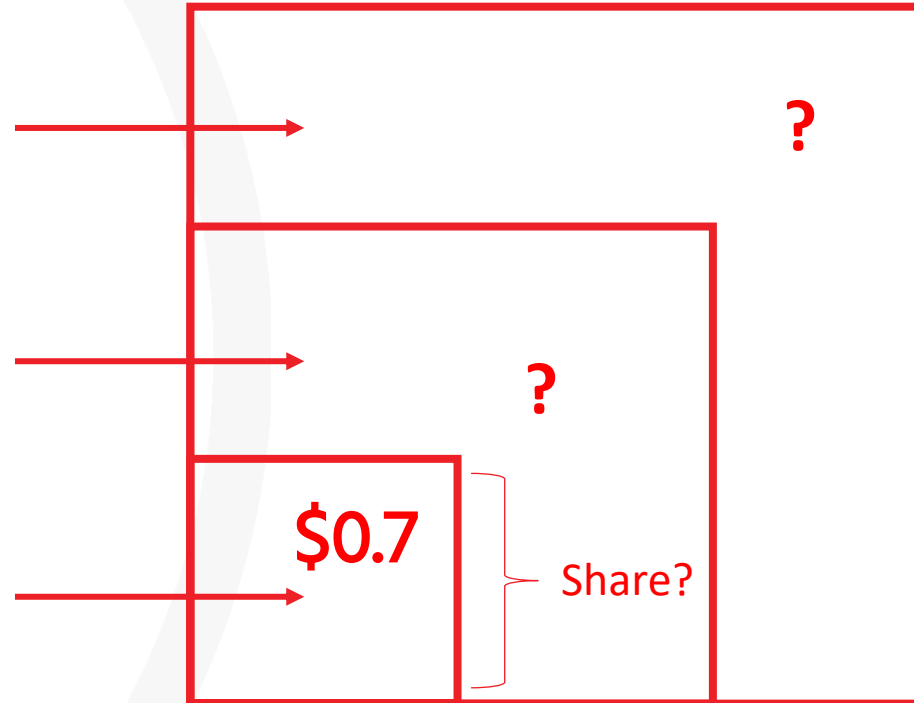
Pool Admin	Rates per device (handset)	Source
Access Advance	\$0,50	https://accessadvance.com/vvc-advance-patent-pool-royalty-rates-summary/
Via LA	\$0,20	https://www.via-la.com/licensing/vvc/vvc-license-fees/
Sum	\$0,70	

Uncertainty about the royalty stack

Royalty ask from **unknown licensors**

Royalty ask from **known licensors**

Royalty ask from **patent pools**



Is the royalty request reasonable or excessive?

Open questions:

- **Who else** will contact you for royalties?
- How can you calculate the **aggregate royalty** for VVC?
- How do you know if the royalty request is **FRAND**?

Determine the Royalty Share of a patent owner / pool


$$\frac{\text{Patent Owner VVC patent family portfolio}}{\text{Number of worldwide VVC patent families}} = \text{Patent owner VVC patent market Share}$$

numerator

denominator

Identify the licensors SEP share

- In a first step, you need to identify the **SEP owner's share** of patent families for the respected **standard**, for the respective **market** and **time**.
- With IPlytics you can chose the **standard**, standard **version/release**, **date** range and **jurisdiction**:


Technology Generation  |

Publication Date

Patent Office

- AVC (H.264)
- HEVC (H.265)
- VVC (H.266)
- VP9
- AV1

▼ DATES

Publication Date 

Publication Date

Declaration Date

Application Date

Expiration Date

Priority Date Earliest

▼ PATENT OFFICE

Search...

- PCT (WO)
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- United States (US)
- European Patent Office (EP)
- Republic of Korea (KR)
- Japan (JP)

Identify the Via LA VVC share

▼ Via LA VVC	470	274	3%
Foxconn	152	101	1.1%
Fujitsu	144	79	0.9%
Orange	89	41	0.4%
NHK	22	14	0.2%
Siemens	18	12	0.1%
B COM	16	8	0.1%
BBC	8	6	0.1%
DIGITALINSIGHTS INC	8	6	0.1%

Use IPlytics Grouping Feature to aggregate the Via LA pool members*

Ultimate Ow...	SEPs	Fam.	Share
Qualcomm	1,535	705	7.6%
Huawei	878	504	5.4%
Tencent	719	504	5.4%
Samsung	1,022	417	4.5%
LG Electronics	656	392	4.2%
MediaTek	827	353	3.8%
Sony	990	344	3.7%
> Via LA VVC	470	274	3%
InterDigital	578	273	2.9%
Canon	348	212	2.3%

*<https://www.via-la.com/licensing/vvc/vvc-licensors/>

Identify the Via LA VVC share

✓ Access Advance VVC	7,508	2,461	19.1%
Tencent	1,004	544	4.2%
ETRI Korea	892	249	1.9%
Panasonic	500	214	1.7%
Sun Patent Trust	756	139	1.1%
Fujitsu	352	134	1%
Dolby Laboratories	627	109	0.8%
SK Telecom	176	107	0.8%
JVCKENWOOD	346	103	0.8%
NEC	289	91	0.7%
Toshiba	289	82	0.6%
KDDI	107	77	0.6%
Mitsubishi Electric	293	73	0.6%
CommScope	204	66	0.5%

Use **IPLYtics Grouping Feature** to aggregate the **VVC Access Advance pool members***

> Access Advance VVC	7,508	2,461	19.1%
Qualcomm	3,173	877	6.8%
Samsung	3,071	847	6.6%
Huawei	1,347	562	4.4%
LG Electronics	1,346	522	4.1%
Sony	2,044	482	3.7%
MediaTek	1,349	445	3.5%
InterDigital	1,248	370	2.9%
Canon	828	355	2.8%
NTT	740	276	2.1%
Alphabet	487	222	1.7%

*<https://accessadvance.com/vvc-advance-patent-pool-list-of-licensors/>

Identify the licensors SEP share

- Via LA & Access Advance combined offer VVCs SEP for **\$0.7 per unit***
- Via LA & Access Advance combined patent family share is **22%**
- Using pool data as a reference point results in a cumulative royalty :
$$(100 / 22) \times \$0.7 \text{ per unit} = \$3,18 \text{ per unit}$$
- The aggregated royalty for your VVC networked product is **\$3,18 per unit**

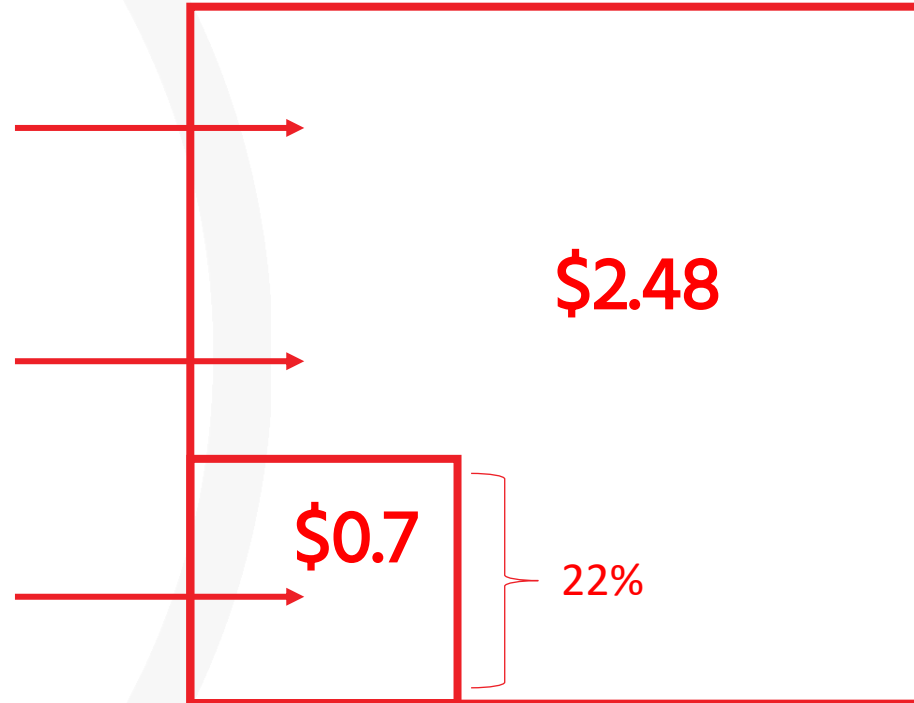
- <https://www.via-la.com/licensing/vvc/vvc-license-fees/>
- <https://accessadvance.com/vvc-advance-patent-pool-where-and-when-is-a-royalty-due/>

Uncertainty about the royalty stack

Royalty ask from **unknown licensors**

Royalty ask from **known licensors**

Royalty ask from **patent pools**



Do you market products that implement standards?

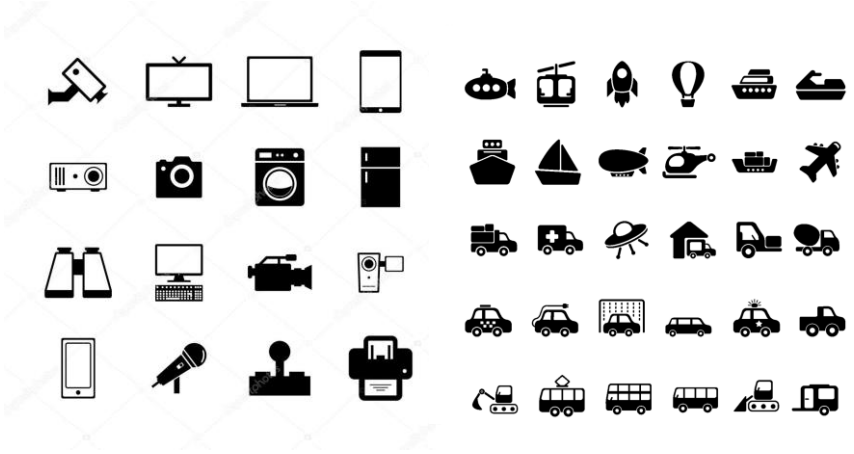
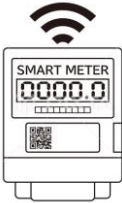
Standards Subject to SEPs

implementation

Networked devices

2G  3G 

4G  5G 



Royalty Cap

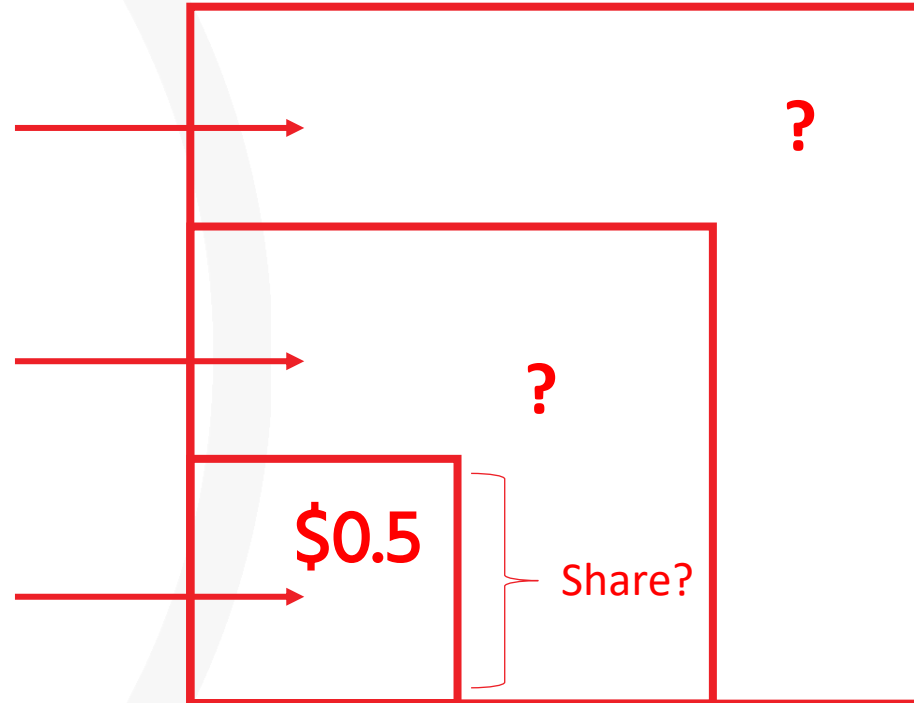
5G Licensors	Publicly Announced 5G Royalty Cap	Source
Qualcomm	\$13,00	https://www.qualcomm.com/content/dam/qcomm-martech/dm-assets/documents/qualcomm-5g-handset-licensing-program.pdf
Interdigital	\$1,20	https://www.interdigital.com/rate-disclosure
Nokia	\$3,00	https://www.nokia.com/about-us/news/releases/2018/08/21/nokia-licensing-rate-expectations-for-5gnr-mobile-phones/
Huawei	\$2,50	https://www.huawei.com/en/news/2023/7/ipr-innovation-horizon
Ericsson	\$5,00	https://www.ericsson.com/assets/local/patents/doc/frand-licensing-terms-for-5g-nr-in-3gpp-release-15.pdf
Ericsson	\$2,50	https://www.ericsson.com/assets/local/patents/doc/frand-licensing-terms-for-5g-nr-in-3gpp-release-15.pdf
Sisvel	\$0,50	https://www.sisvel.com/licensing-programmes/mobile-communications/5g-multimode/#tab-licence-terms

Uncertainty about the royalty stack

Royalty ask from **unknown licensors**

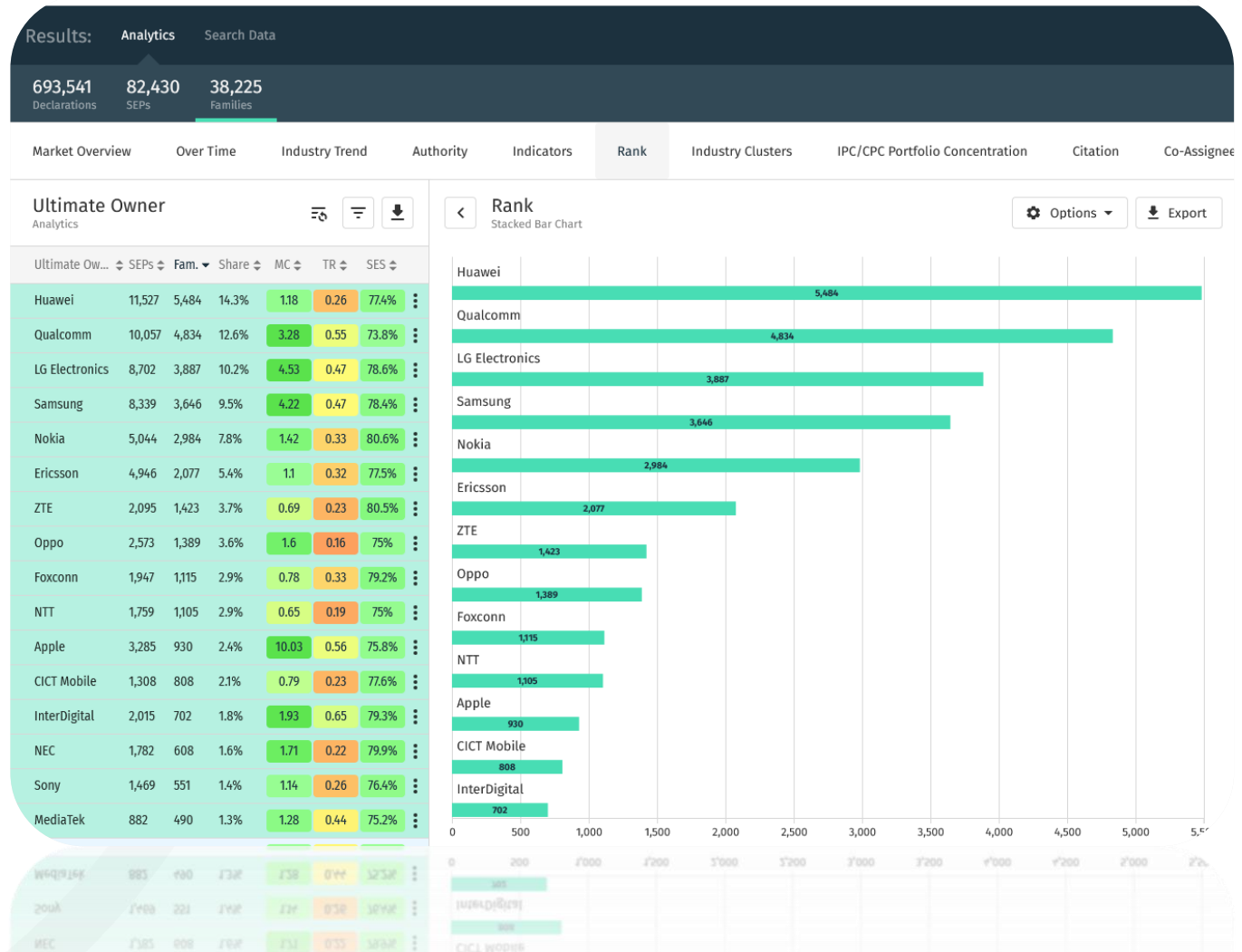
Royalty ask from **known licensors**

Royalty ask from **Sisvel patent pool**



Determine the Royalty Share

➤ Use IPlytics Platform to identify each 5G patent owners share



Determine the Royalty Share

$$\frac{\text{Patent Owner 5G patent family portfolio}}{\text{Number of worldwide 5G patent families}} = \text{5G patent market Share}$$

numerator

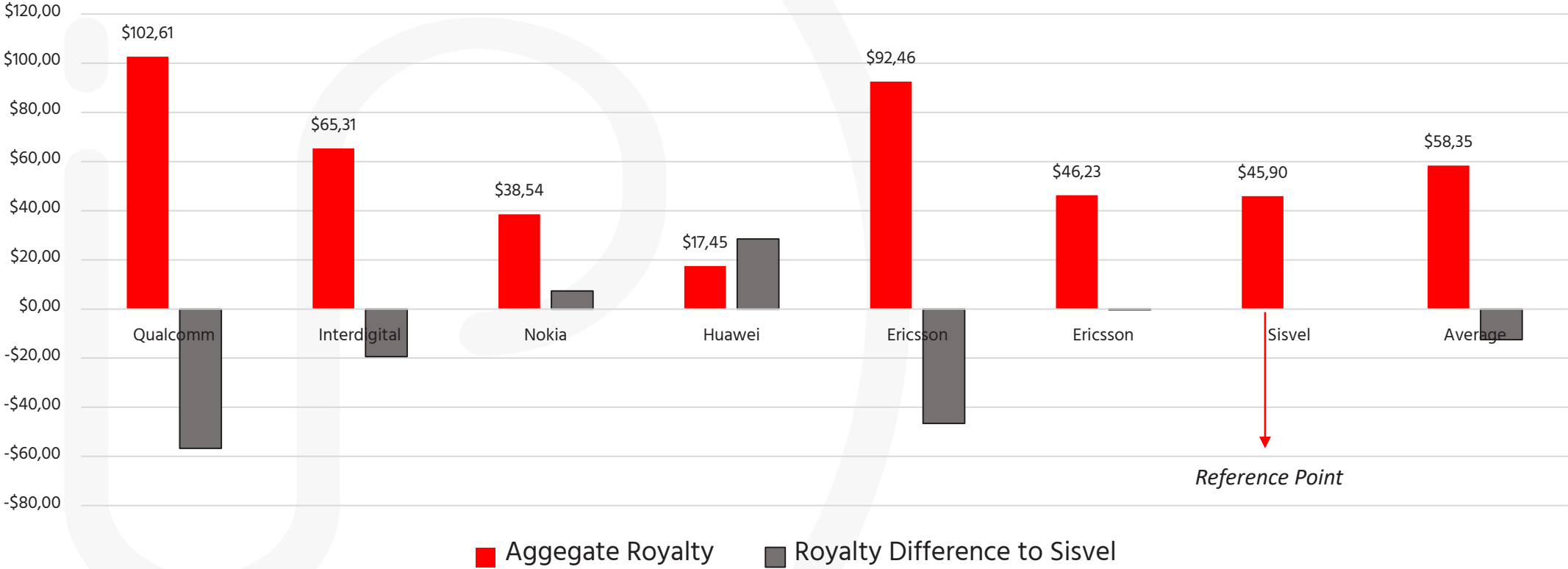
denominator

SEP royalty share = \$

Royalty Cap

5G Licensors	5G multimode share (declared families granted EP or US)	Publicly Announced 5G Royalty Cap	<i>Aggregate Royalty</i>
Qualcomm	12,67%	\$13,00	<i>\$102,61</i>
Interdigital	1,84%	\$1,20	<i>\$65,31</i>
Nokia	7,78%	\$3,00	<i>\$38,54</i>
Huawei	14,33%	\$2,50	<i>\$17,45</i>
Ericsson	5,41%	\$5,00	<i>\$92,46</i>
Ericsson	5,41%	\$2,50	<i>\$46,23</i>
Sisvel	1,09%	\$0,50	<i>\$45,90</i>

Do you market products that implement standards?



Is the royalty request reasonable or excessive?

Open questions:

- **Does the share calculation drive the aggregate royalty calculation?**
 - Yes, there are different approaches to calculate the share. You can refine the data by selecting different cut-off dates, different jurisdictions or consider only certain versions or releases of the standard. All that changes a patent holder's patent family share. However, also a range of an aggregate royalty price provides a reference point.
- **How do you know what is reasonable or excessive?**
 - If you already closed deals with other SEP owners, you can use IPlytics to compare the aggregate royalties with earlier deals as a comparable. Also, there are publicly available data points (e.g. court decisions) about royalties you can use – ask you IPlytics account manager.

SEP licensees (standards implementers)

IPLYtics Platform:

- Value and determine SEP portfolios offered for license. Identify the numerator and denominator to measure the patent holder's market share.
- Calculate the aggregate royalty share to prepare for **FRAND negotiation**.
- **Identify standards subject to SEPs** in the complex value chain of suppliers as SEP holder approach OEMs or at least module supplier
- Monitor SEP filing, SEP change of ownership and litigation to **quantify risks and plan royalty payments**.

VII Takeaways

SEP licensors (patent owners)



SEP licensors use of IPlytics Platform:

- Align R&D investments, standards development, patent prosecution, patent portfolio management and licensing/monetization strategy to **file valid and essential patents** and to **commercialize SEPs** in world-wide licensing campaigns.
- Compare SEP portfolios for **cross-license** negotiations and **monitor competition** making sure to sustain revenues both on the downstream product market as well as upstream licensing market.
- Monitor **competitors' standards development** investments (contribution count) and identify new standards groups to maintain leading positions in standards development.

SEP licensees (standards implementers)

SEP licensees use of IPlytics Platform:

- Value and determine SEP portfolios offered for license. Prepare for **FRAND negotiation**. Identify the numerator and denominator to measure the patent holder's market share.
- **Identify standards subject to SEPs** in the complex value chain of suppliers as SEP holder approach OEMs or at least module supplier
- Monitor SEP filing, SEP change of ownership and litigation to **quantify risks and plan royalty payments**.
- **Identify** industry related (e.g. M2M, IoT, IIoT) **standards development initiatives** to have a seat at the table when future connectivity technology is developed.



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The
SEP
Couch

with Tim Pohlmann

Contact

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