Who wins the VVC Patent Race

Webinar July 31st 2024

Moderator:

Tim Pohlmann
Founder LexisNexis IPlytics

Expert Panel Speaker

Patent data is divorecd from standards data

Global Patent Data

Patent Databases have little correlation to Standard Databases from SSOs.

SSO databases are difficult and time-consuming to use.

Any SEP found is frequently divorced from other vital patent information.

Standard Database information can not be used for stand-alone analysis e.g. Competitive Intelligence

Technical Standard Data

SEP Data Challenge for Video Standards

Under-declaration

VVC declaring entities

Only 5 out of 43 **(~12%) declaring companies** have submitted specific patent declarations at the ITU-T.

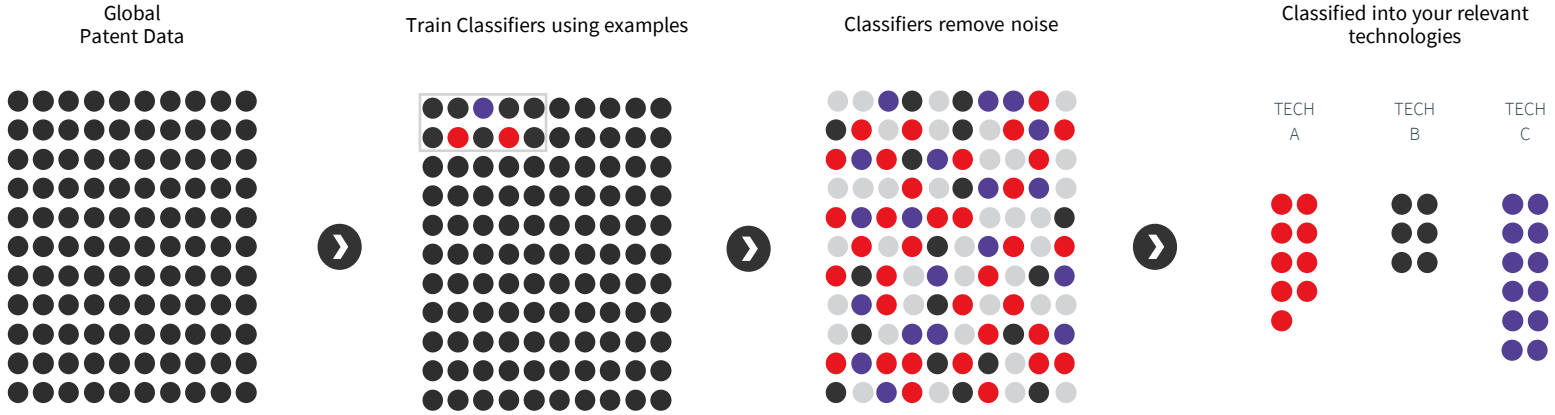
VVC contributors

As little as **9%** of the HEVC/ VVC **contributing companies** have submitted specific patent declarations at the ITU-T

SEP Data Solution for Video Standards

Undeclared Patents

- The IPlytics data team has utilized a supervised ML algorithm (**LexisNexis Cipher**) to identify undeclared patents for AVC, HEVC, VVC, AV1 and VP9 standards.
- The algorithm uses **true positive** (patent pools) and **true negative training data** to build patent landscape classifiers with independently verified accuracy.

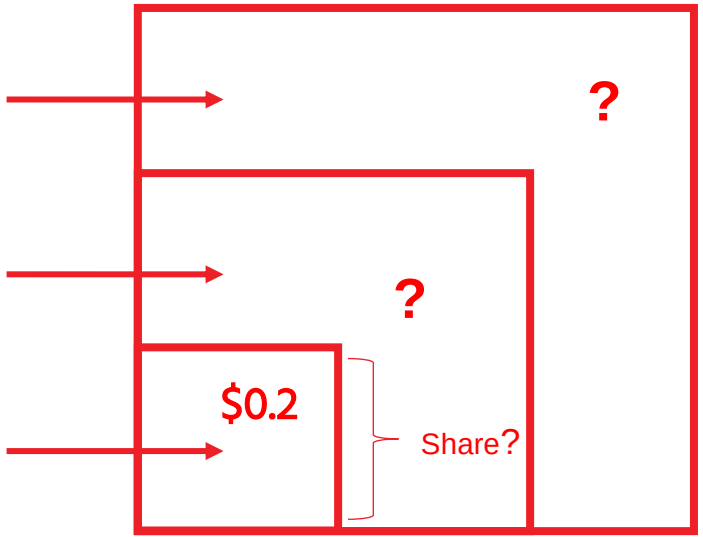


Decrease uncertainty about the patent royalty stack

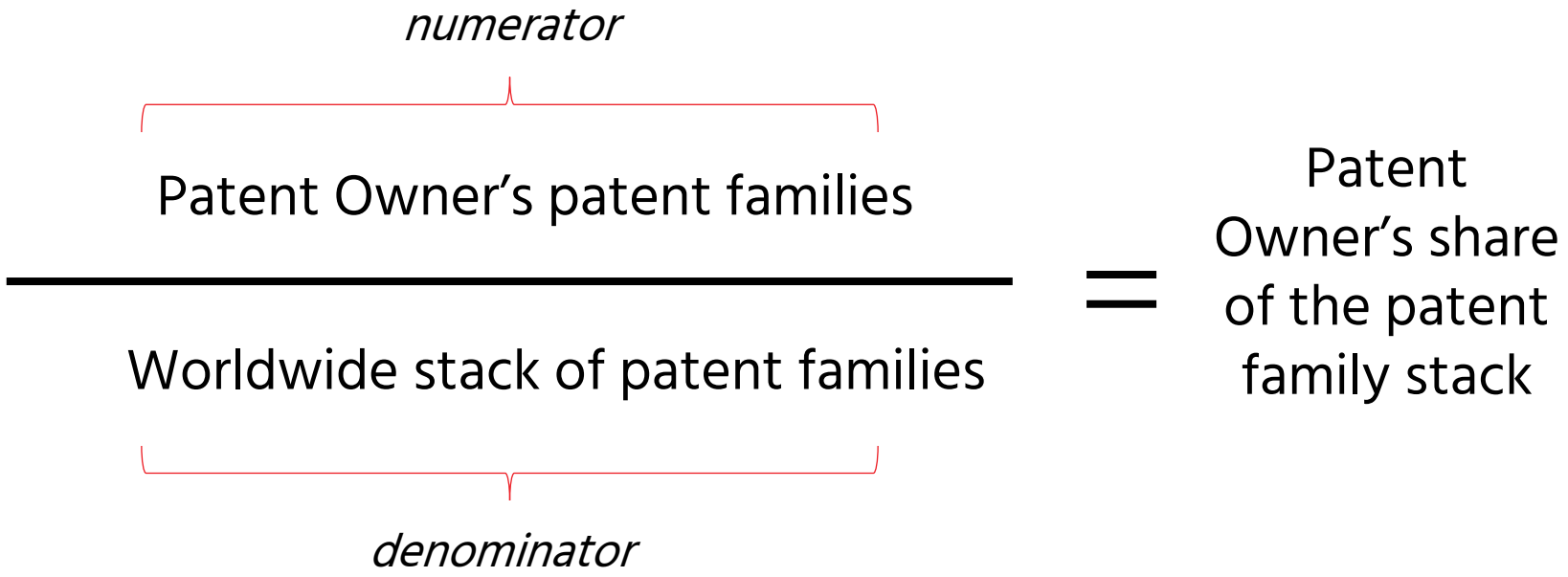
Royalty ask from
unknown SEP licensors

Royalty ask from
known SEP licensors

Royalty ask from
SEP patent pool



Determine the royalty share of a patent owner / pool



Use data to facilitate licensing

Determine for FRAND by identifying patent value and market share.

Mitigating risk by keeping up to date with SEP ownership and litigation

Reducing negotiation time on licensing deals

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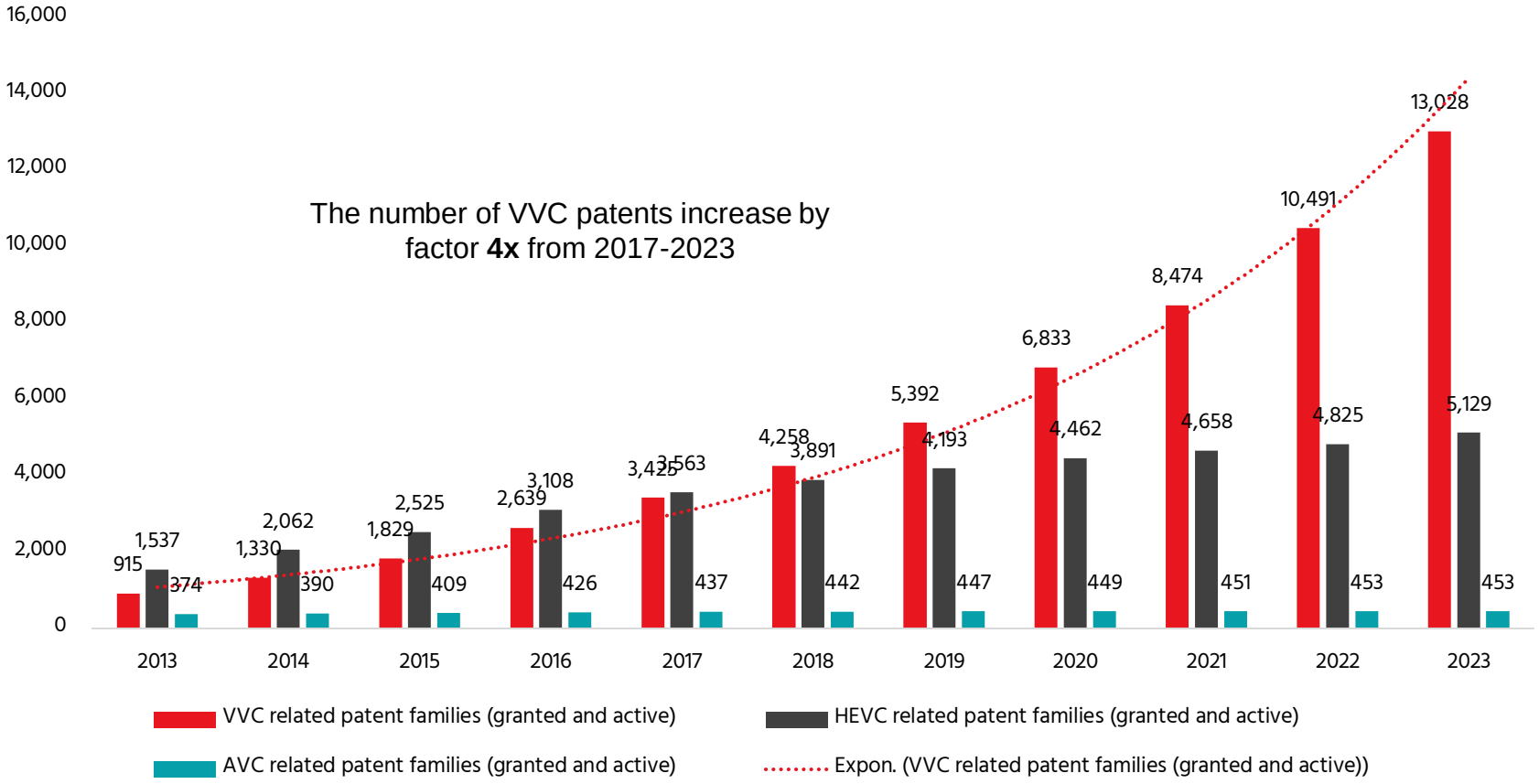
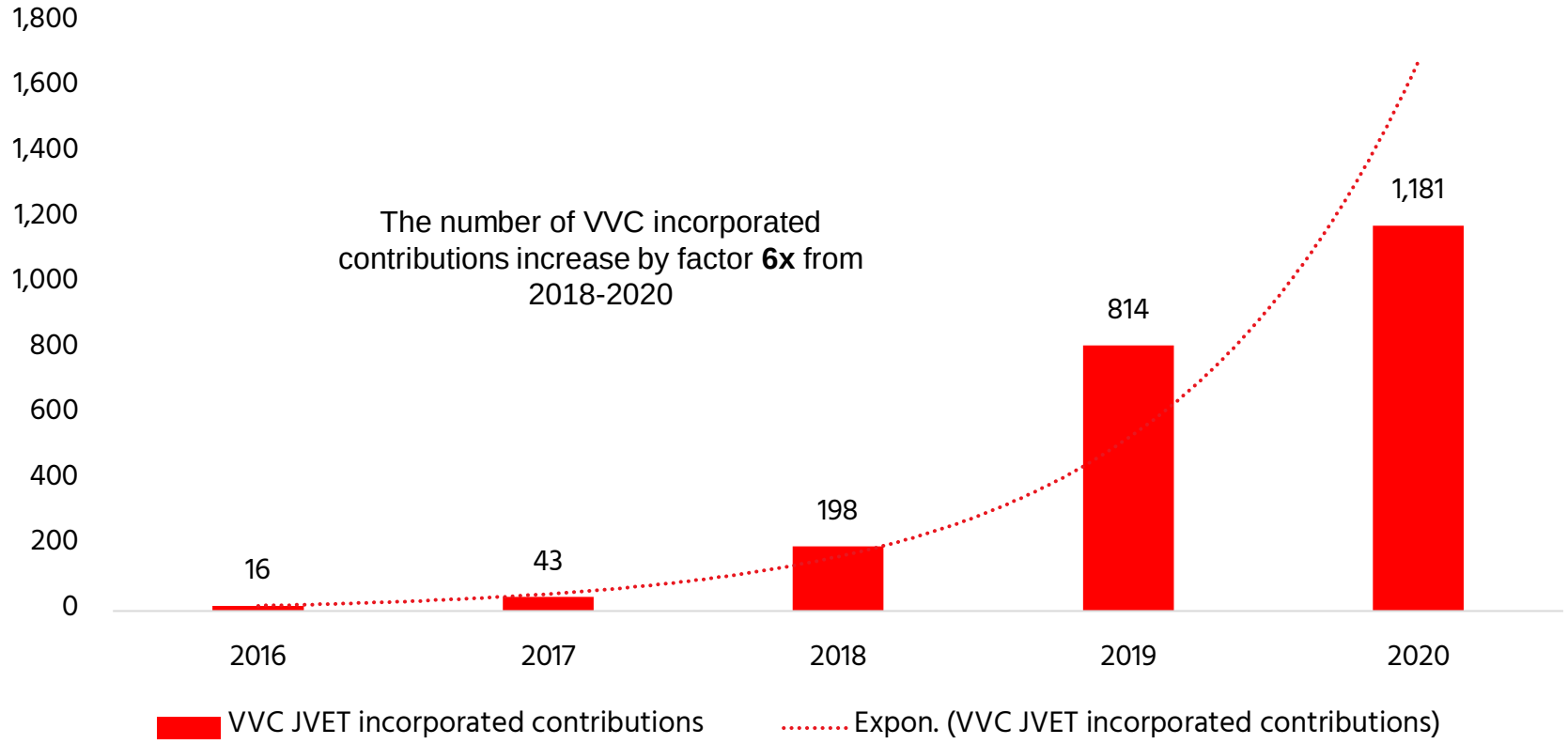
The Growing VVC Patent Landscape

Cumulative number of AVC, HEVC & VVC patent families



Cumulative number of VVC incorporated contributions



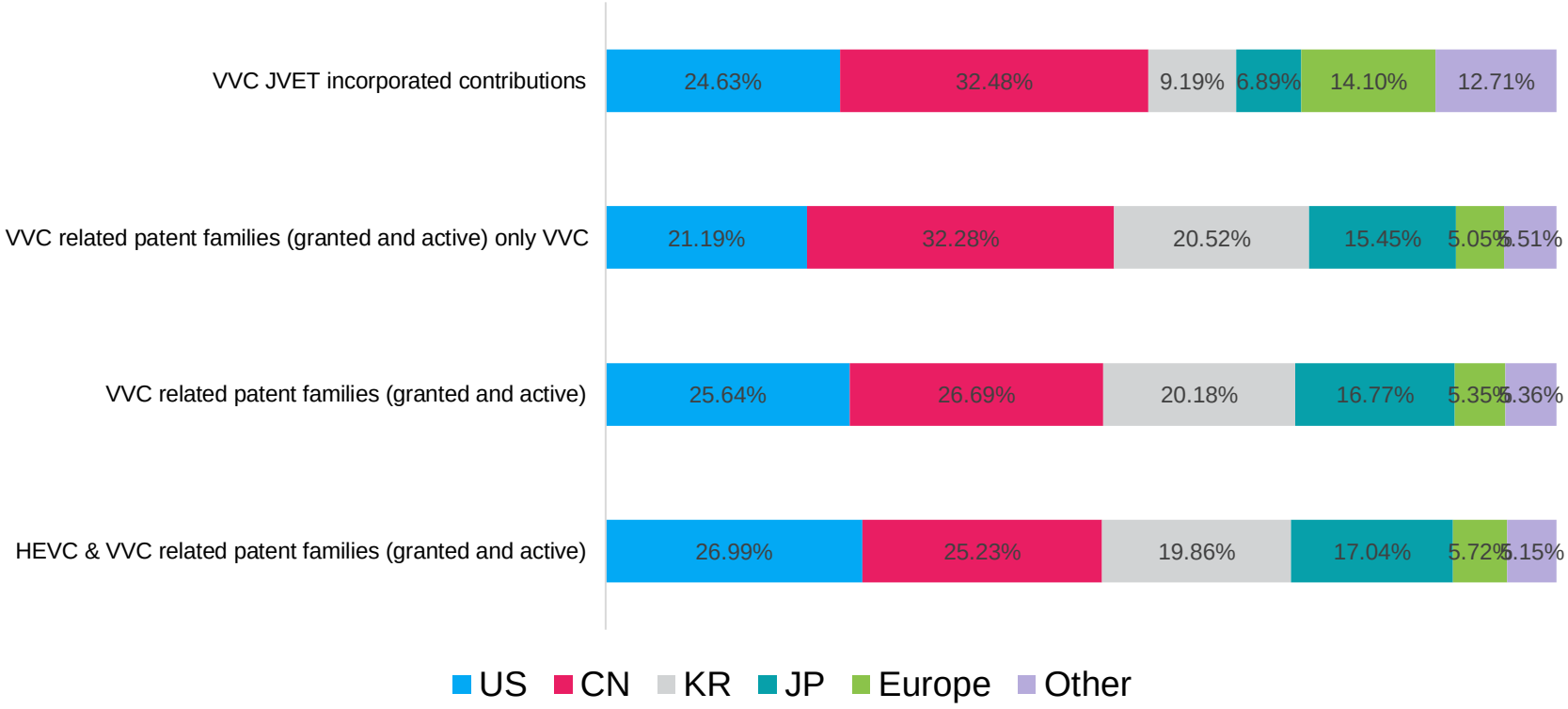
Top 10 VVC patent owner

Ultimate Owner	Region of HQ	HEVC & VVC related patent families (granted and active)	VVC related patent families (granted and active) allow overlap	VVC related patent families (granted and active) only VVC
Qualcomm	US	6.57%	7.30%	5.93%
Huawei	CN	5.48%	5.97%	6.47%
Tencent	CN	4.25%	4.95%	6.64%
LG Electronics	KR	4.87%	4.98%	5.68%
MediaTek	TW	3.09%	3.49%	3.62%
Samsung	KR	5.72%	5.64%	4.96%
InterDigital	US	3.21%	2.81%	2.34%
Sony	JP	2.94%	2.84%	2.45%
Canon	JP	2.38%	2.60%	2.32%
Panasonic	JP	1.59%	1.56%	1.60%

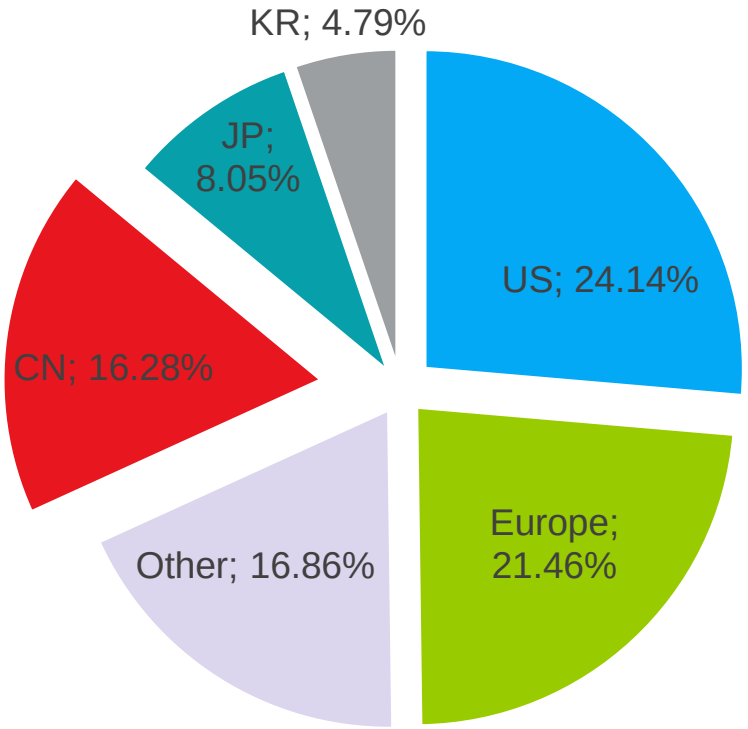
Top 10 VVC standards contributors

Ultimate Owner	Region of Headquarter	VVC JVET incorporated contributions
Qualcomm	US	18.97%
Huawei	CN	18.71%
Tencent	CN	13.29%
LG Electronics	KR	8.72%
MediaTek	TW	9.48%
Samsung	KR	4.15%
InterDigital	US	6.10%
Sony	JP	2.79%
Canon	JP	1.44%
Panasonic	JP	4.66%

VVC patent families by region of headquarter



HEVC and VVC patent pool listed licensees by region of HQ



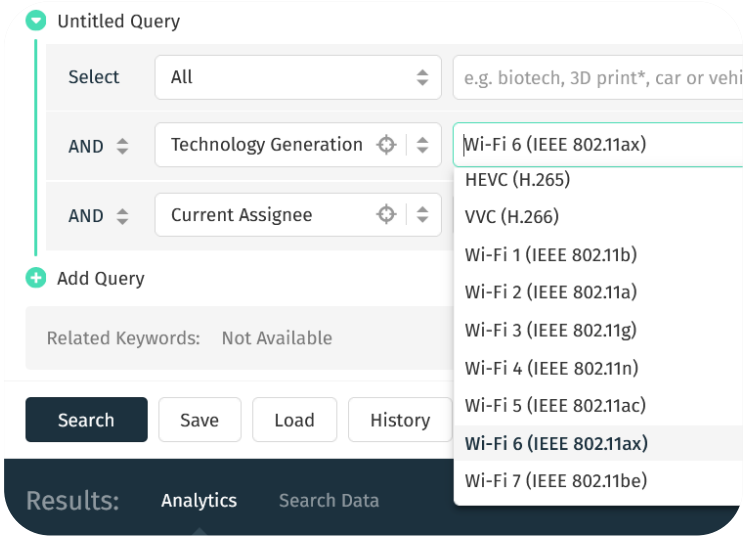
LexisNexis IPlytics 2024 VVC report:

Gain unique insights into the VVC technology patents landscape and its major players.

Download

LexisNexis® IPlytics standards landscapes

- Declared patents **3G, 4G, 5G**
- Undeclared patents **Wi-Fi 4, 5, 6**
- Undeclared patents **AVC, HEVC, VVC**
- Undeclared patents **Qi standard**
- Undeclared patents **AV1, VP9** **(coming soon)**
- Undeclared patents **AAC** **(coming soon)**
- Undeclared patents **ATSC** **(coming soon)**



LexisNexis® IPlytics Overview

Coverage of worldwide SEP and contribution **data**

- Access to SEP declarations from over 25 standards organizations (over **580k declared patents**),
- Access patent pool listed SEPs from over 10 patent pools (over **60k pooled patents**),
- Access to standards contributions for cellular, wireless and video codecs (over **2M standards contributions**)

Refinement features for SEPs and standards data

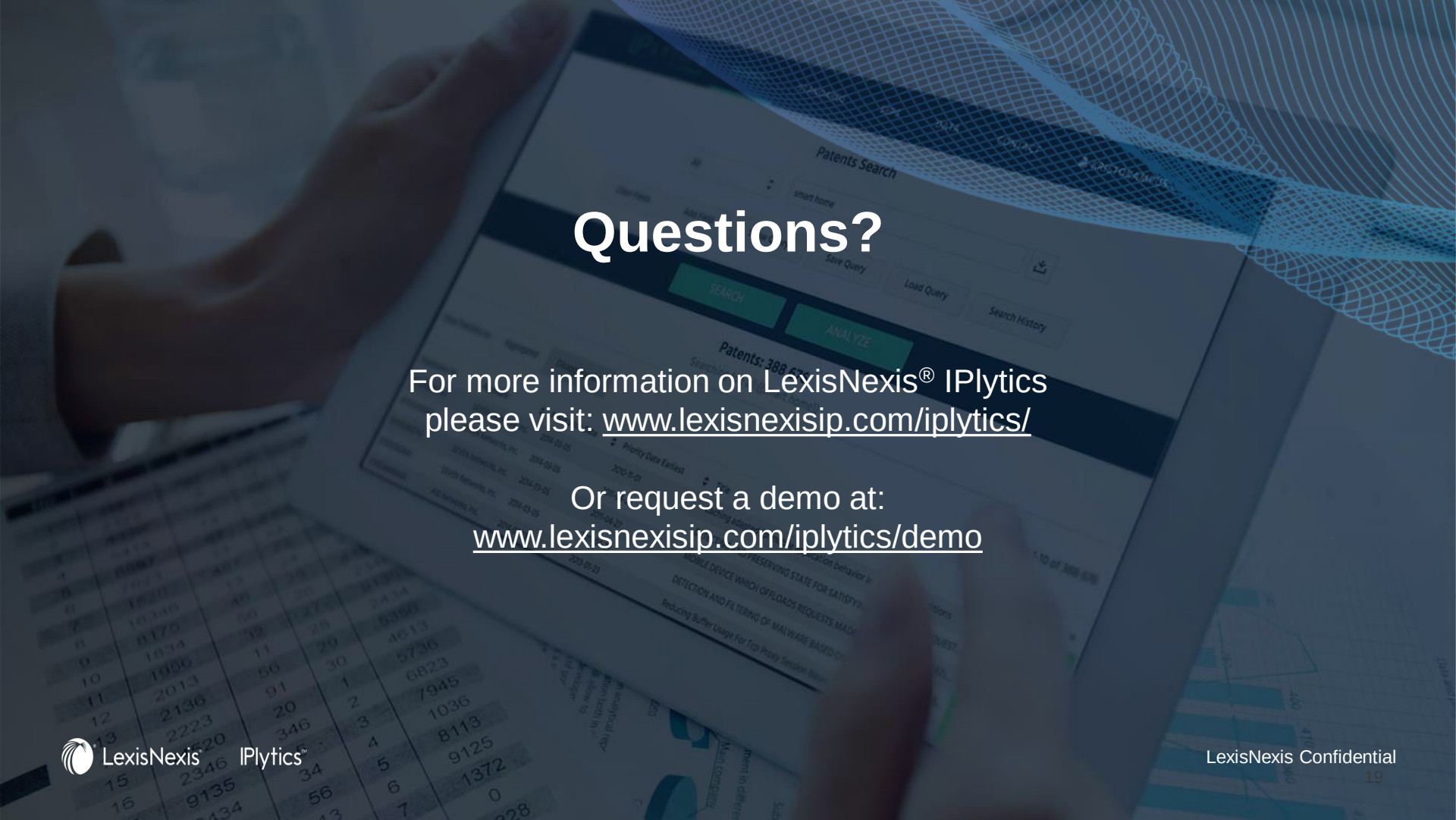
- SEPs/contributions can be refined by technology generations (3G/4G/5G, AVC/HEVC/VVC, Wi-fi 4/5/6/7), standards groups and releases (RAN 1, JVET, TGbe, Release 11-18) and protocols (NB-IoT, V2X)

Value standard essentiality (LexisNexis® IPlytics **Semantic Essentiality Score**)

- Estimate declared patents' claims likelihood of being essential to declared standards document sections

Identify undeclared patents (LexisNexis® IPlytics **Undeclared Patents**)

- Identify patents hidden under blanket declarations for technologies such as video codec (AVC/HEVC/VVC) and Wi-Fi (Wi-Fi 4,5,6).



Questions?

For more information on LexisNexis® IPlytics please visit: www.lexisnexisip.com/iplytics/

Or request a demo at: www.lexisnexisip.com/iplytics/demo