

# How to Navigate Risk Webinar Part 3: The Role of Standard Essential Patents for Smart Energy Applications

Tim Pohlmann, CEO IPlytics GmbH

Recording: <https://youtu.be/WZl6xEbVrAc>

# IPLYtics Navigate Risk Webinar Series 2021

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I. Navigate Risk Part 1: “The Role of SEPs in the **Auto Industry**”

October 12<sup>th</sup>, 2021

**Recording:** <https://www.iplytics.com/events/past/>

II. Navigate Risk Part 2: “The Role of SEPs for **Smart Factory** applications”

November 23<sup>rd</sup>, 2021

**Recording:** <https://www.iplytics.com/events/past/>

III. Navigate Risk Part 3: “The Role of SEPs for **Smart Energy** applications”

January 11<sup>th</sup>, 2022

**Recording:** <https://www.iplytics.com/events/past/>

# Today's Speaker



The World's Leading IP Strategists 2021

**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 and Post Doc. from CERNA, **MINES ParisTech** and **TU Berlin**.
- CEO and founder of IPlytics.
- 2021 IAM Strategist 300. Panel speaker and thought leader.
- Appointed faculty lecturer at:
  - **Technical University of Berlin** - Strategic Standardization
  - **CEIPI Université de Strasbourg** - SEPs and FRAND licensing
  - **EPFL Lausanne** - Big Data Driven Patent Intelligence
  - **PATON Ilmenau** – The Interplay of Patents and Standards
  - **European Patent Office** – SEP / FRAND and standards development



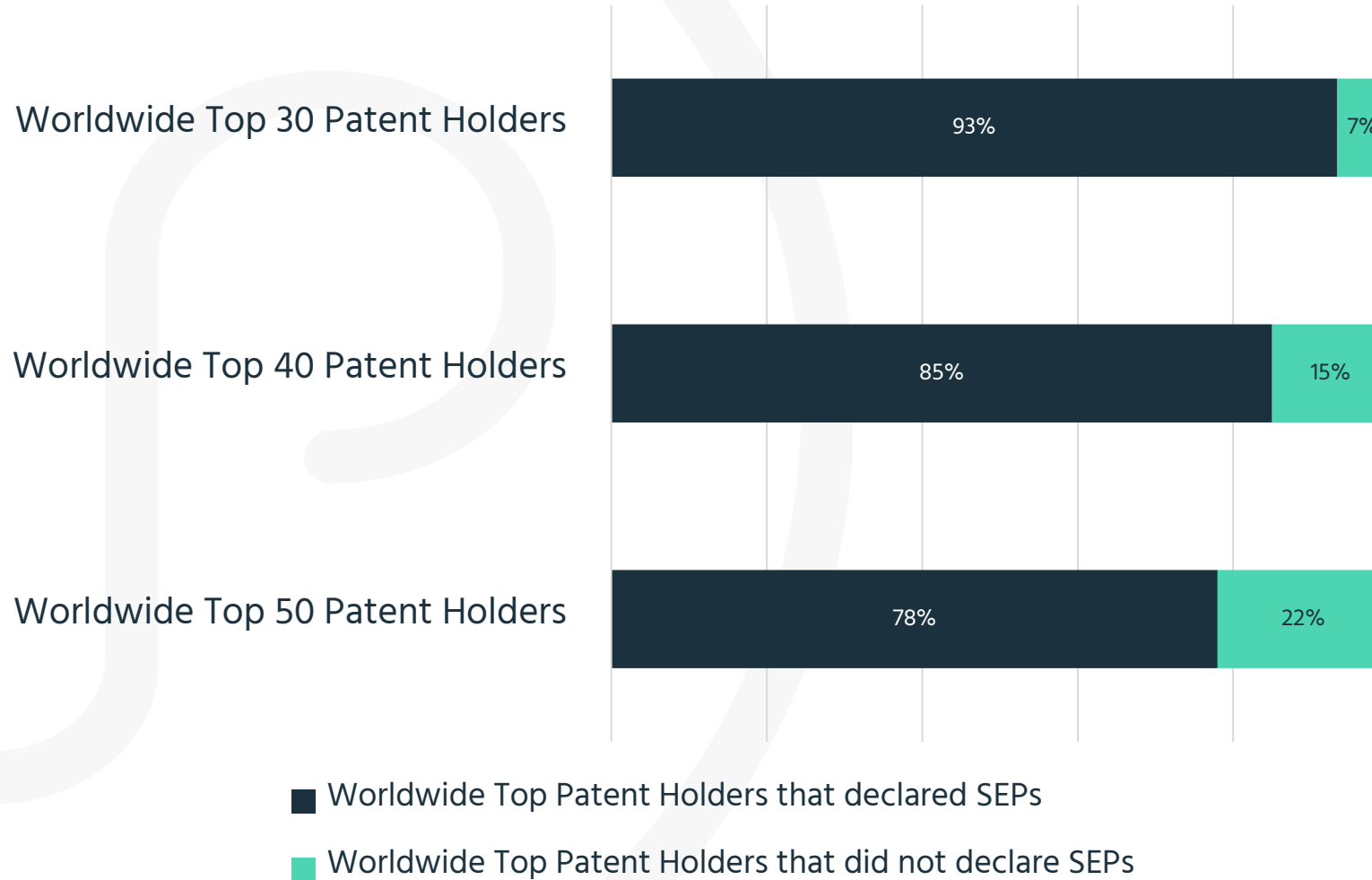
# Today's Agenda

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- I. The Rise of SEPs and Standards
- II. Patents, SEPs and Standards in the Smart Energy Industry
- III. 5G & Wi-Fi 6 SEPs and Standards for Smart Factory Applications
- IV. ZigBee SEPs and Standards for Smart Factory Applications
- V. SEP Litigation Trends
- VI. Patents and Standards Data to Navigate Risk
- VII. The complexity of patent declaration data
- VIII. Takeaways

# I. The Rise of SEPs and Standards

# Share of SEP holders in top 50 (IPlytics, 2021)



- Worldwide Top Patent Holders that declared SEPs
- Worldwide Top Patent Holders that did not declare SEPs

Source: <https://www.iplytics.com/report/rise-standard-essential-patents/>

# Number of unique SEP holders over time (IPlytics, 2021)

- The number of declared patents has more than **tripled** in 10 years (by factor **3.5x**)
- The number of **SEP holders** has more than **doubled** in 10 years (by factor **2.6x**).
- SEPs today are crucial to almost any large company actively pursuing R&D:
  - **78% of the top patent owners declare SEPs.**
- Many **manufacturers** among the SEP declaring companies including leading manufacturer
- Companies do not own SEPs by chance. Patents describing an invention that is essential for technology standards are the outcome of **many years of R&D investments** and contributions to **standards developments**.

Source: <https://www.iplytics.com/de/report/rise-standard-essential-patents/>

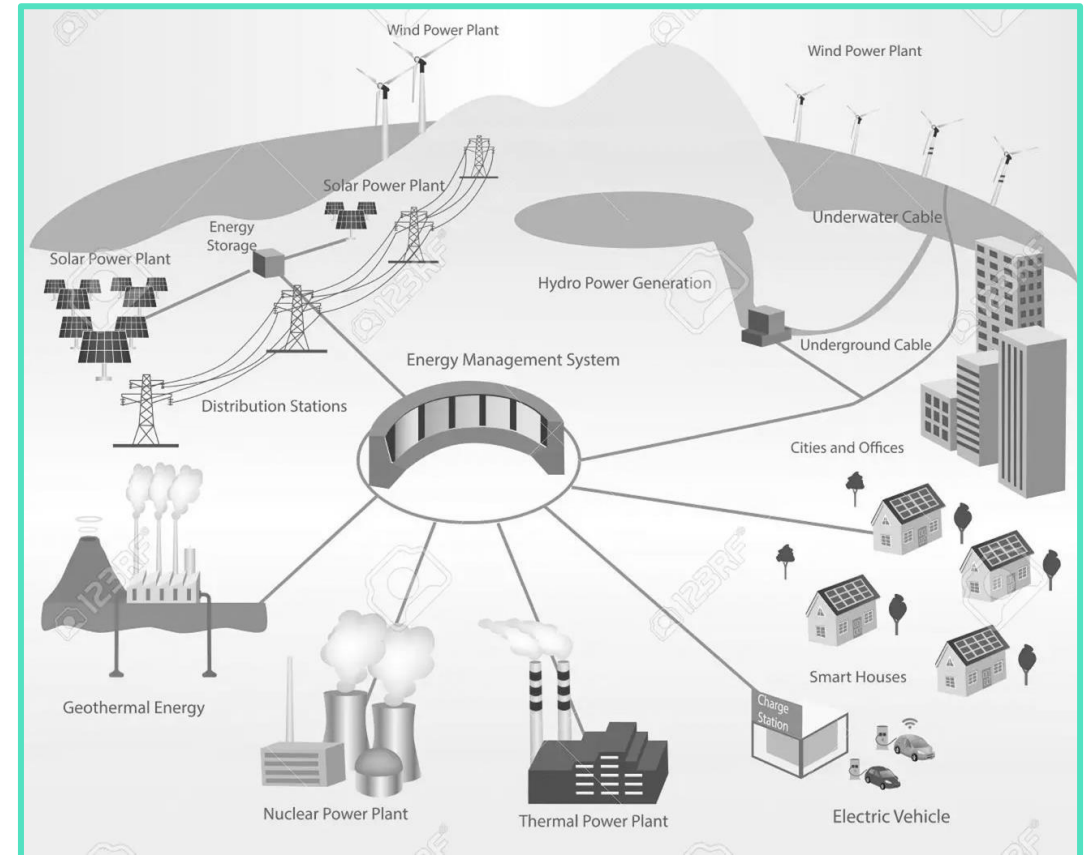
# II. Patents, SEPs and Standards in the Energy Industry



# The smart energy Universe

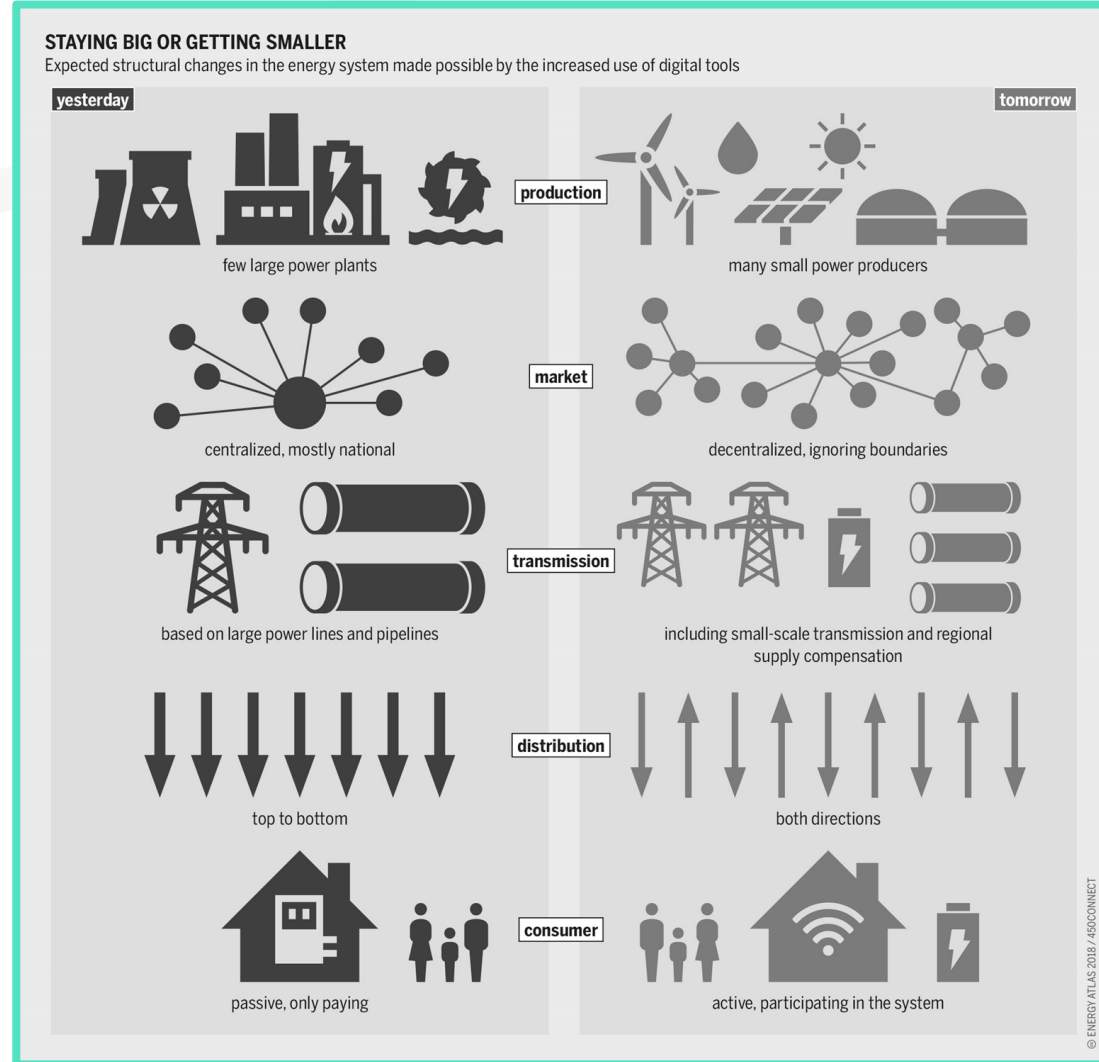
## Smart Energy

- Global smart energy market size is projected to reach **\$253.1 billion by 2027**, growing at a CAGR of **9.6%** from 2020 to 2027.
  - Smart energy is a cost-effective, sustainable, and secure energy system, which focuses on sustainable energy production while reducing the production cost.
  - The smart energy system consists of **smart electricity, smart gas, and smart thermal grids**.
  - In addition, the application of smart energy system can also **eliminate need of conventional fossil fuels**.
  - Smart energy includes the products, **Smart Grid, Smart Solar and Home Energy Management System (HEMS)**.



Source: <https://www.iptytics.com/report/standard-essential-patents-auto-industry/>

# Energy industry looks set to change



# Energy industry looks set to change

Disruptive technology trends in the energy industry:

## ➤ Smart Grid

- Electrical grid which includes a variety of operation and energy measures including **advanced metering, Smart distribution boards, circuit breakers or demand response**. Smart grid technology is estimated to grow to **\$55.9 billion by 2026**, at a compound annual growth rate (CAGR) of **8.7%** during the forecast period of 2021-2026.

## • Smart Solar

- Smart solar solutions helps minimize **electricity expenses** and increase the **efficiency** of solar components by **real-time monitoring and communication**. Smart Solar Market is projected to be worth USD **\$41.56 Billion by 2027**, registering a CAGR of **15.8%** during the forecast period.

## • Home Energy Management System (HEMS)

- HEMS to improve **energy consumption** in **homes and buildings** communicating with the various **home devices** for **monitoring** and **control** data to provide feedbacks to homeowners but also communication with the local utility for receiving demand response (DR) signals. The global home energy management system market is expected to reach **USD 3.15 Billion by 2022**, at a **CAGR of 18.36%** between 2016 and 2022.

Source:

Smart Grid: <https://www.businesswire.com/news/home/2021102005856/en/Global-Smart-Grid-Market-Report-2021-2026-A-55.9-Billion-Market-by-2026---ResearchAndMarkets.com>

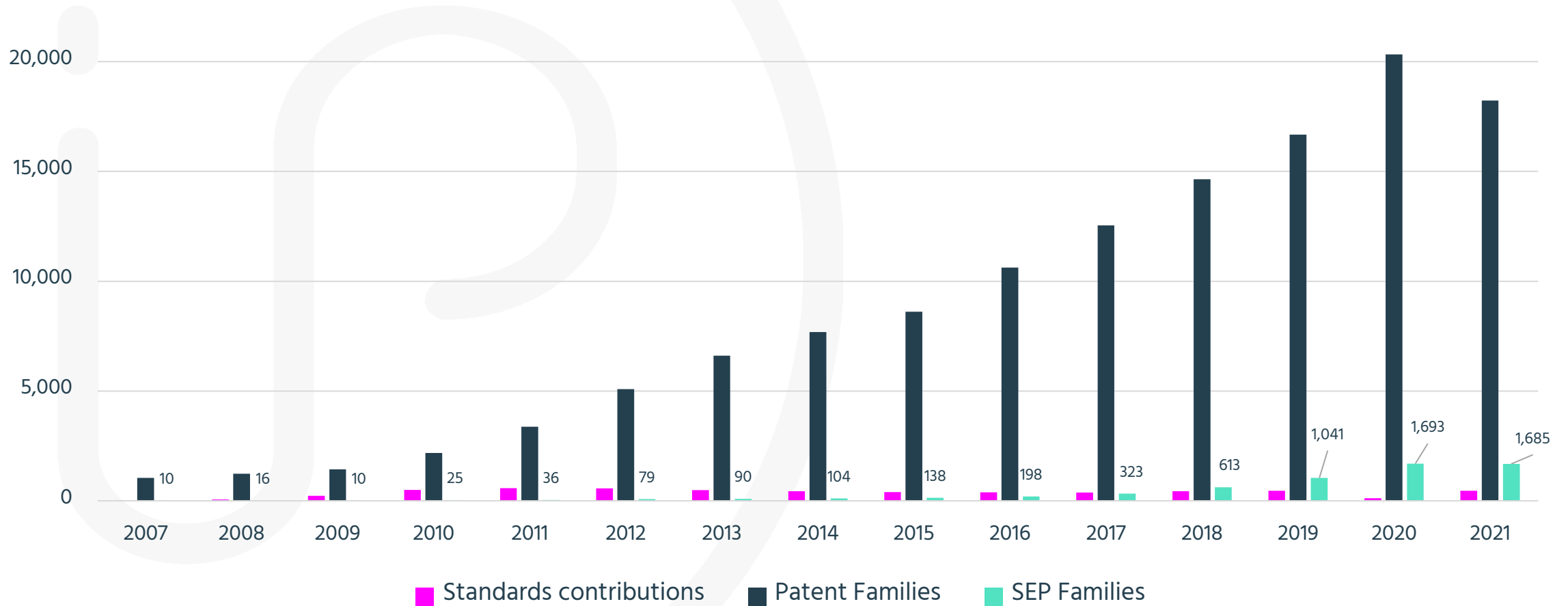
Smart Solar: <https://www.marketresearchfuture.com/reports/smart-solar-market-7522>

HEMS: <https://www.marketsandmarkets.com/Market-Reports/home-energy-management-systems-hems-market-757.html>

# Smart Grid

# Standards, SEPs, Patents – Smart Grid

Number of patents, declared SEPs and standards contributions that mention „smart grid“



# Standards, SEPs, Patents – Smart Grid

- Number of **patents filed** (pending and granted), **number of SEP families declared** and number of **standards contributions** that describe edge computing technologies as to current assignee / standards developer.

Current Assignee	Patent Families	SEP Families	Standards Contributions
Samsung (KR)	2,287	1,427	74
Huawei (CN)	2,018	507	324
LG (KR)	1,223	372	46
Toshiba (JP)	1,009	0	2
Panasonic (JP)	857	38	9
Mitsubishi (JP)	793	4	2
Hitachi (JP)	708	0	8
General Electric (JP)	580	9	0
Siemens (DE)	575	8	92
QUALCOMM (US)	546	138	107
NARI Technology (CN)	489	0	0
Toyota (JP)	445	0	0
NEC (JP)	363	6	29
Cisco (US)	327	7	80
Fujitsu (JP)	304	1	0
IBM (US)	244	3	0
Sony (JP)	194	1	3
Sharp (JP)	187	3	0
Abb Power Grids (CH)	186	1	1
ETRI (KR)	152	1	75
Nokia (FN)	146	33	184
Robert Bosch (DE)	133	2	4
CATT (CN)	121	114	25
Oppo (CN)	121	9	0
Intel (US)	120	13	229
ZTE (CN)	99	87	99

Patents, SEPs and contributions

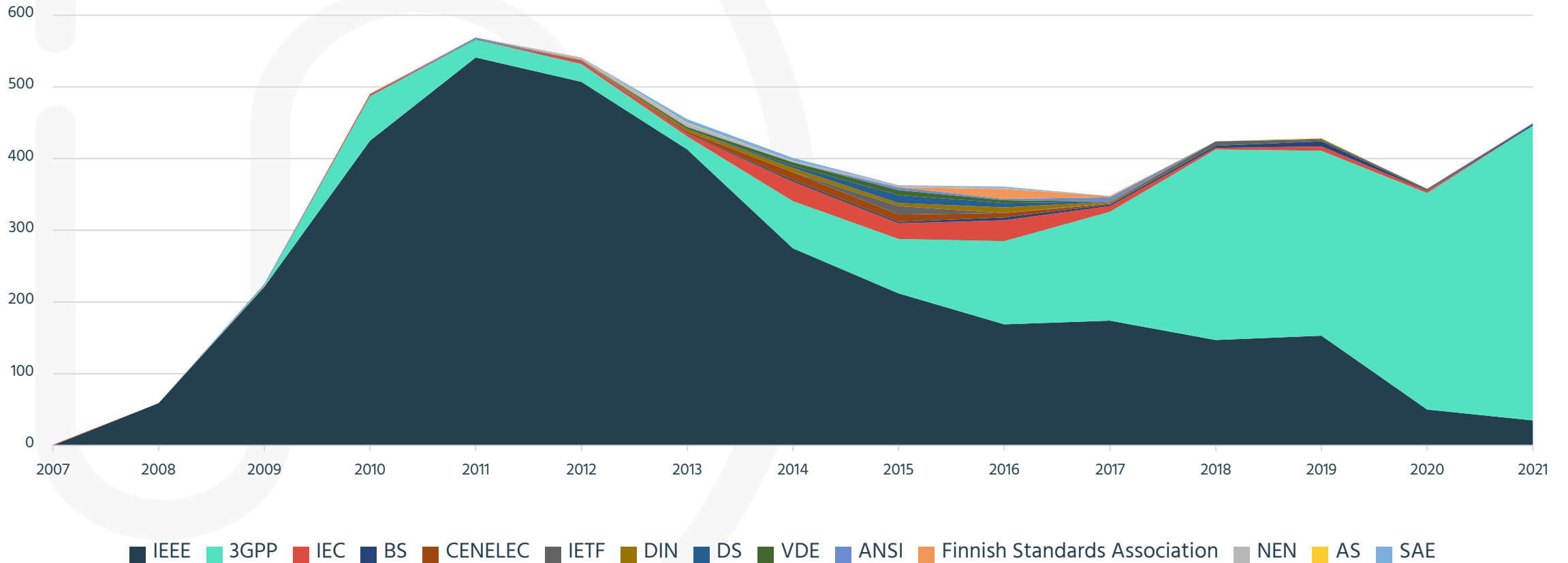
Patents and contributions

Patents and SEPs

Only patents

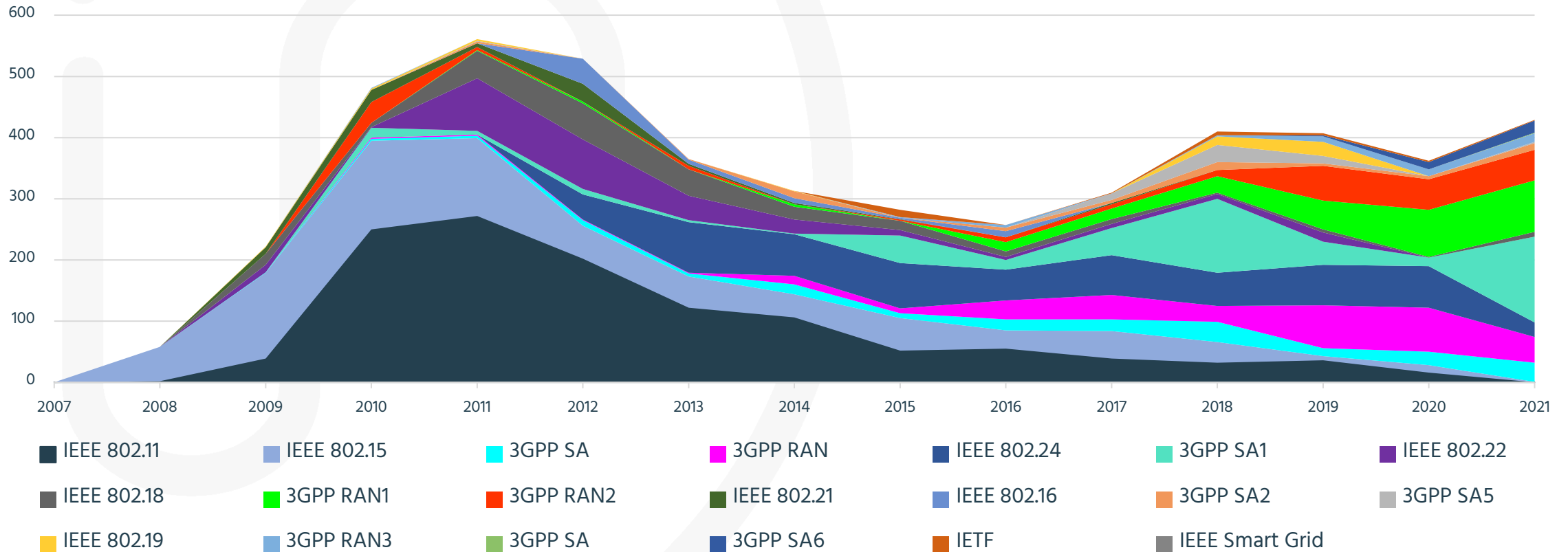
# Connectivity Standards – Smart Grid

Number of smart grid standards contributions by SSO and by year



# Connectivity Standards – Smart Grid

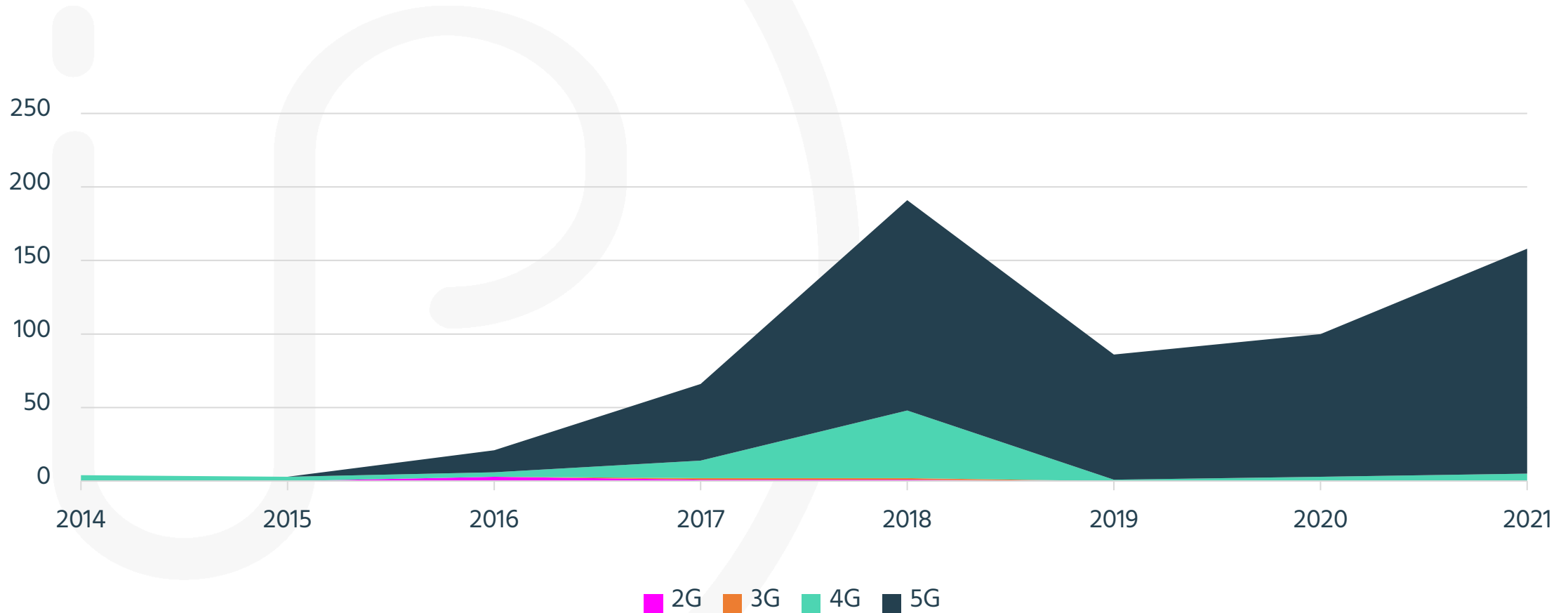
Number of standards contributions by standards project, by year





# Connectivity Standards Generation – Smart Grid

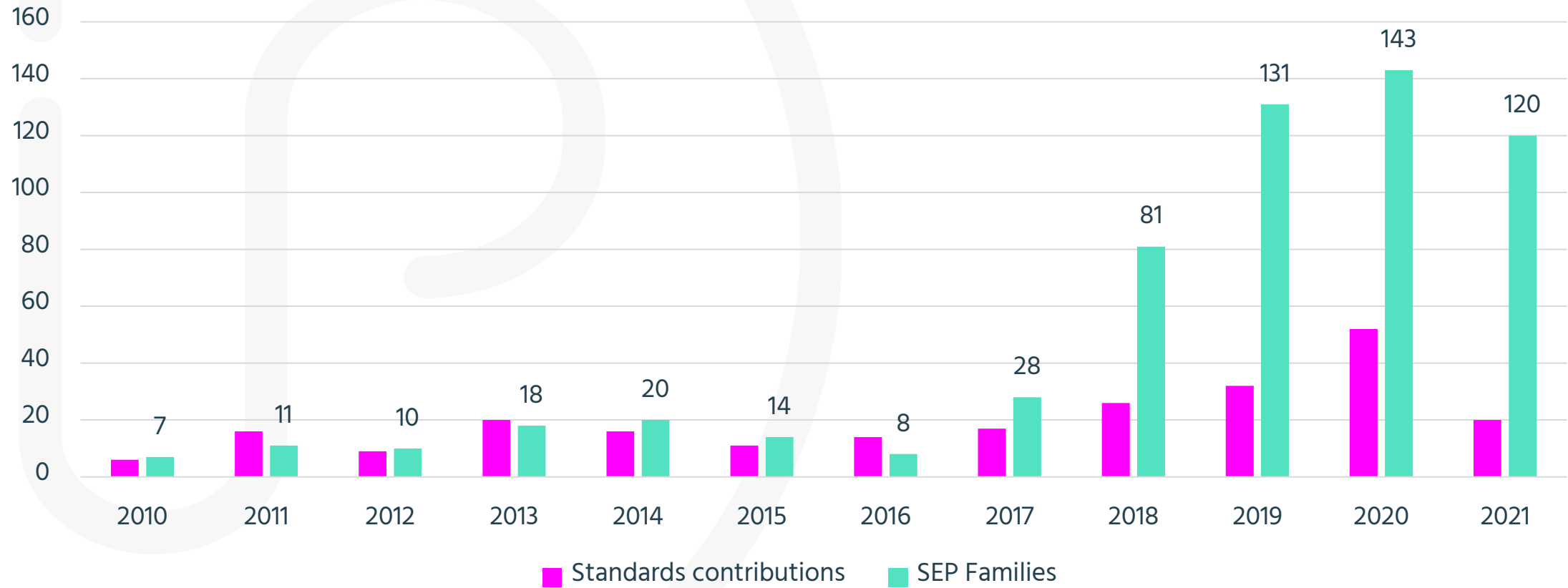
Number of standards contributions by standards generation, by year



# Smart Solar

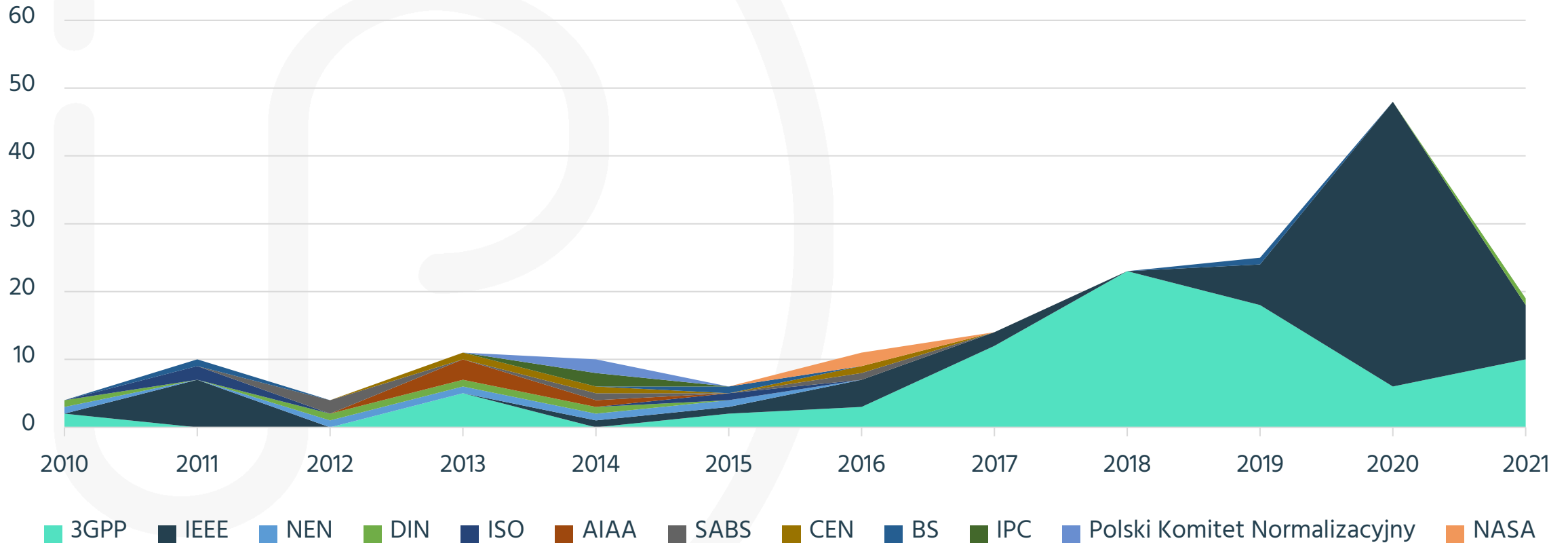
# Standards, SEPs– Smart Solar

Number of declared SEPs and standards contributions that mention „smart solar“



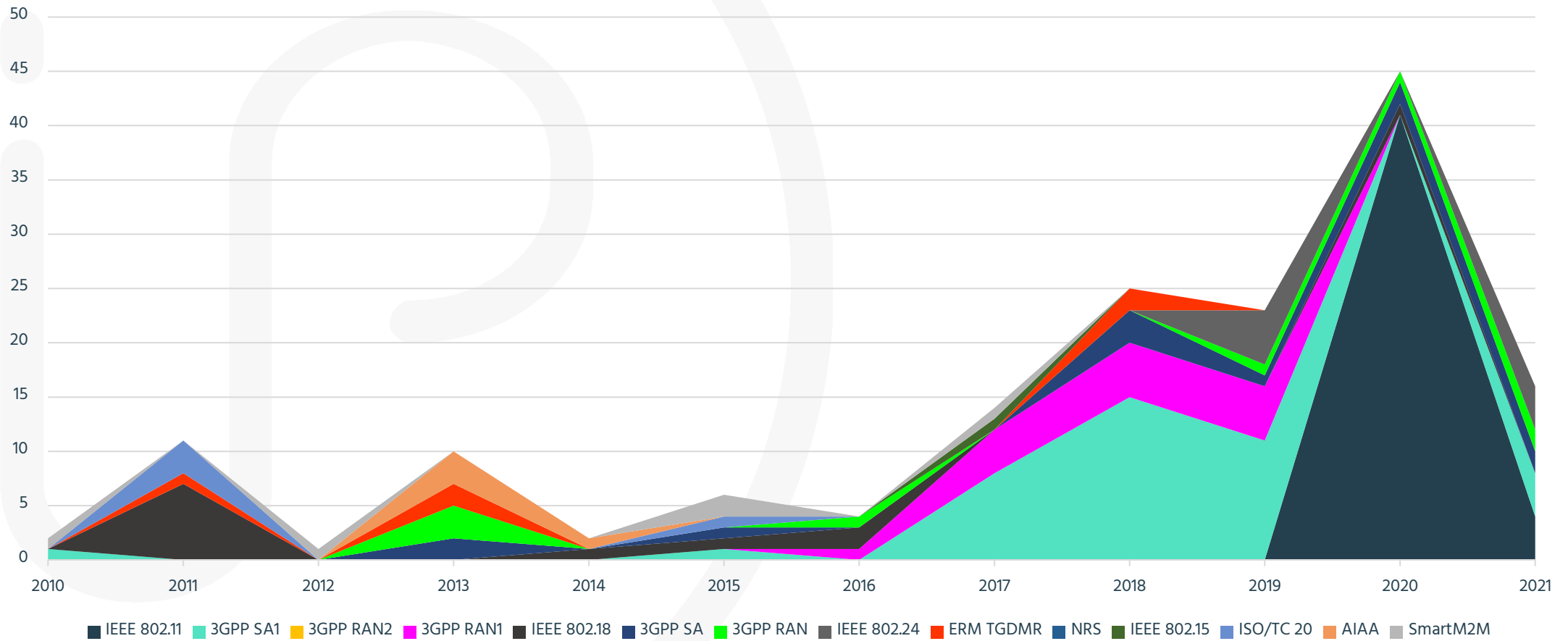
# Standards– Smart Solar

Number of smart solar standards contributions by SSO and by year



# Standards– Smart Solar

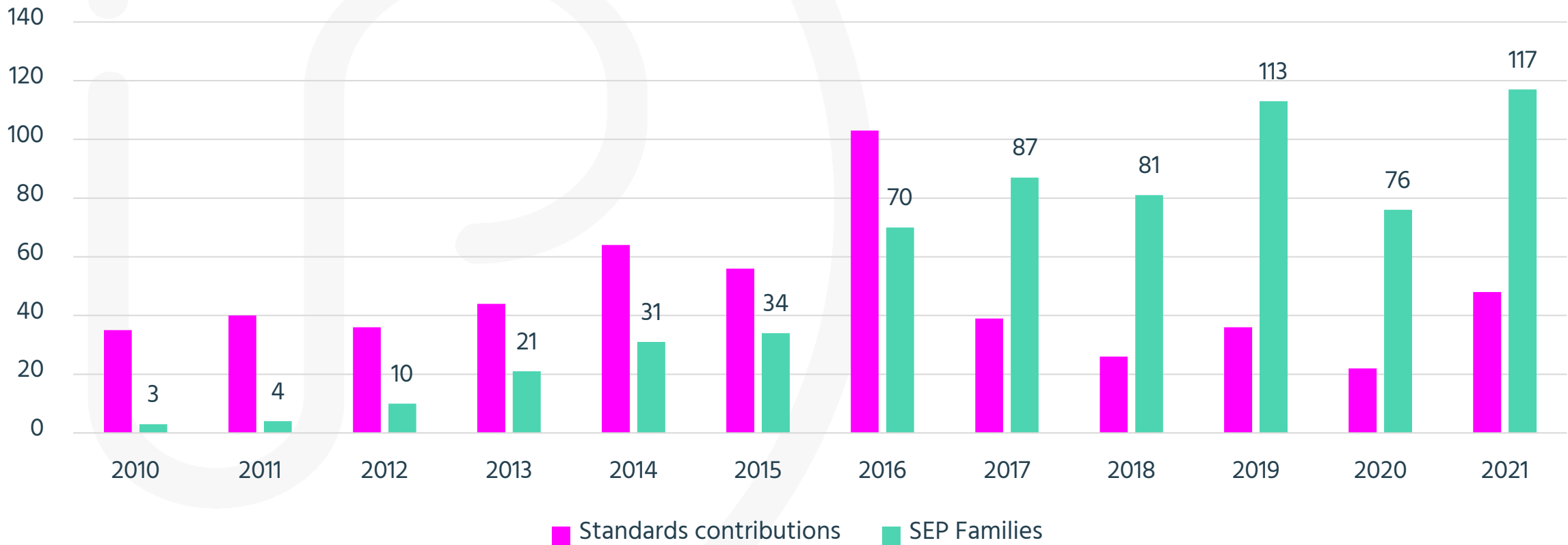
Number of smart solar standards contributions by standards project, by year



# Home Energy Management System (HEMS)

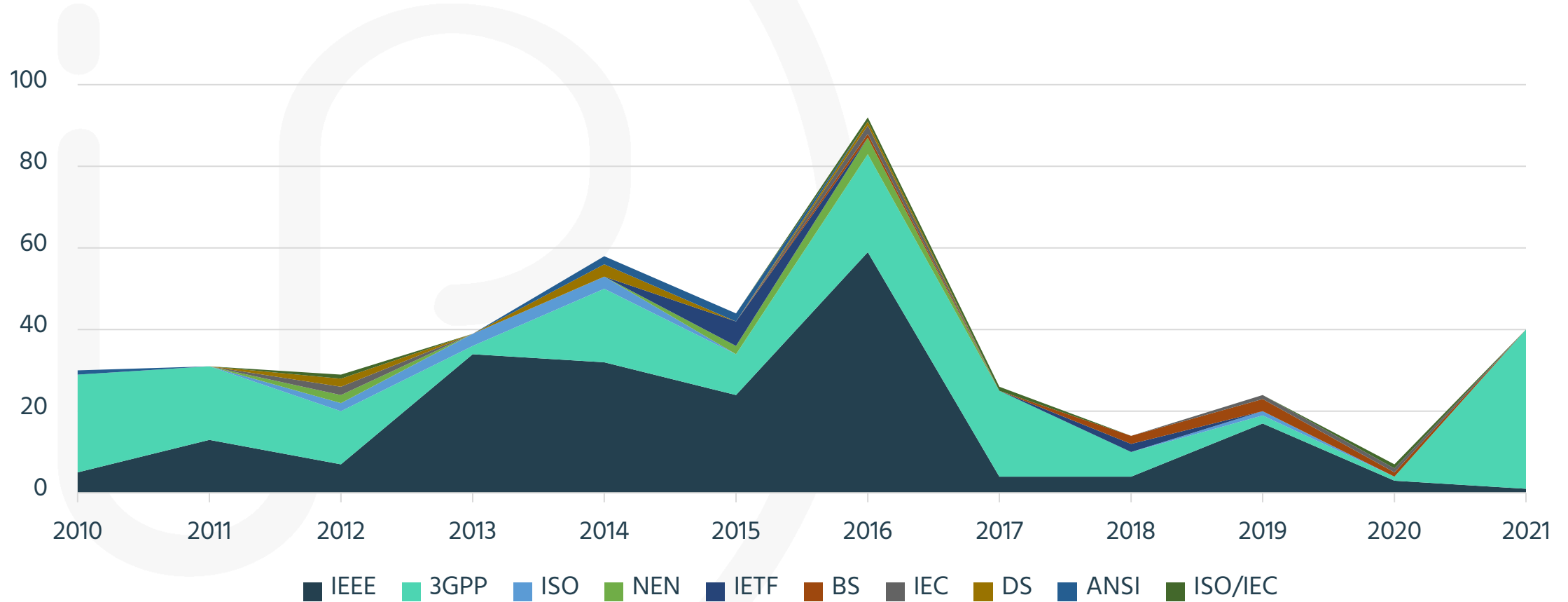
# Standards, SEPs– HEMS

Number of declared SEPs and standards contributions that mention „HEMS“



# Standards- HEMS

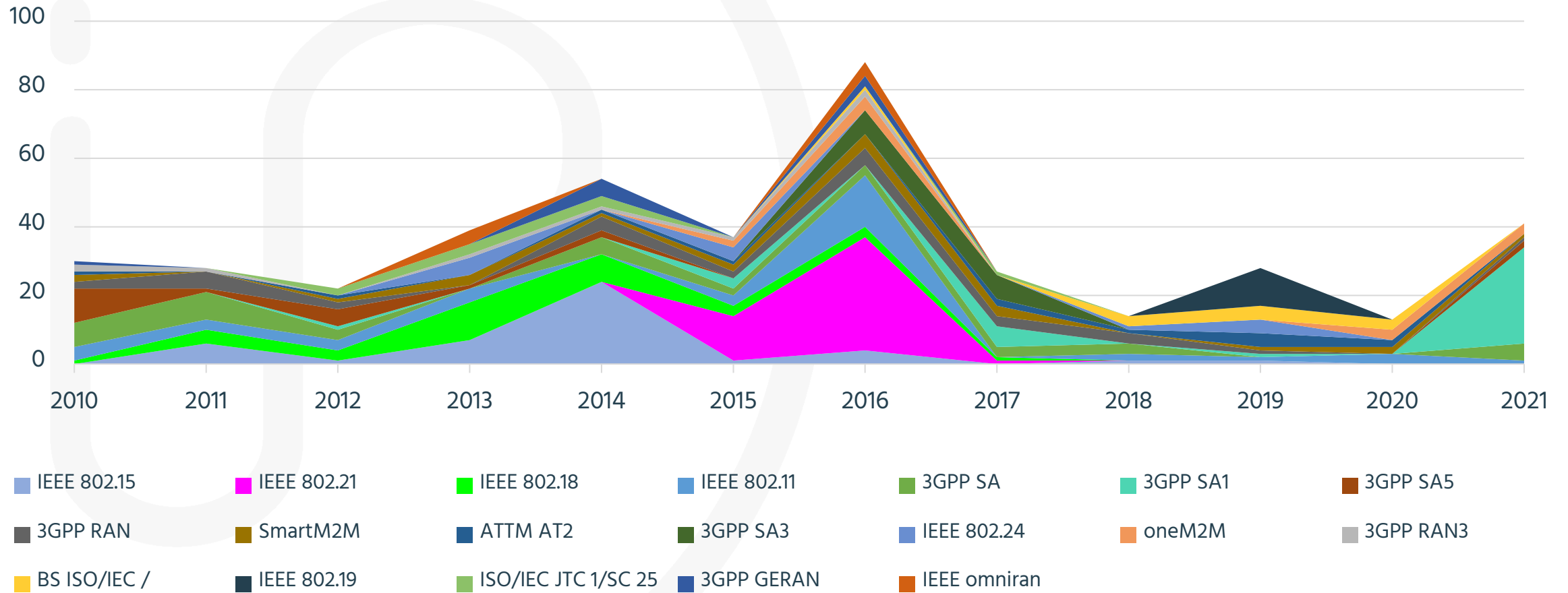
Number of HEMS standards contributions by SSO, by year





# Standards- HEMS

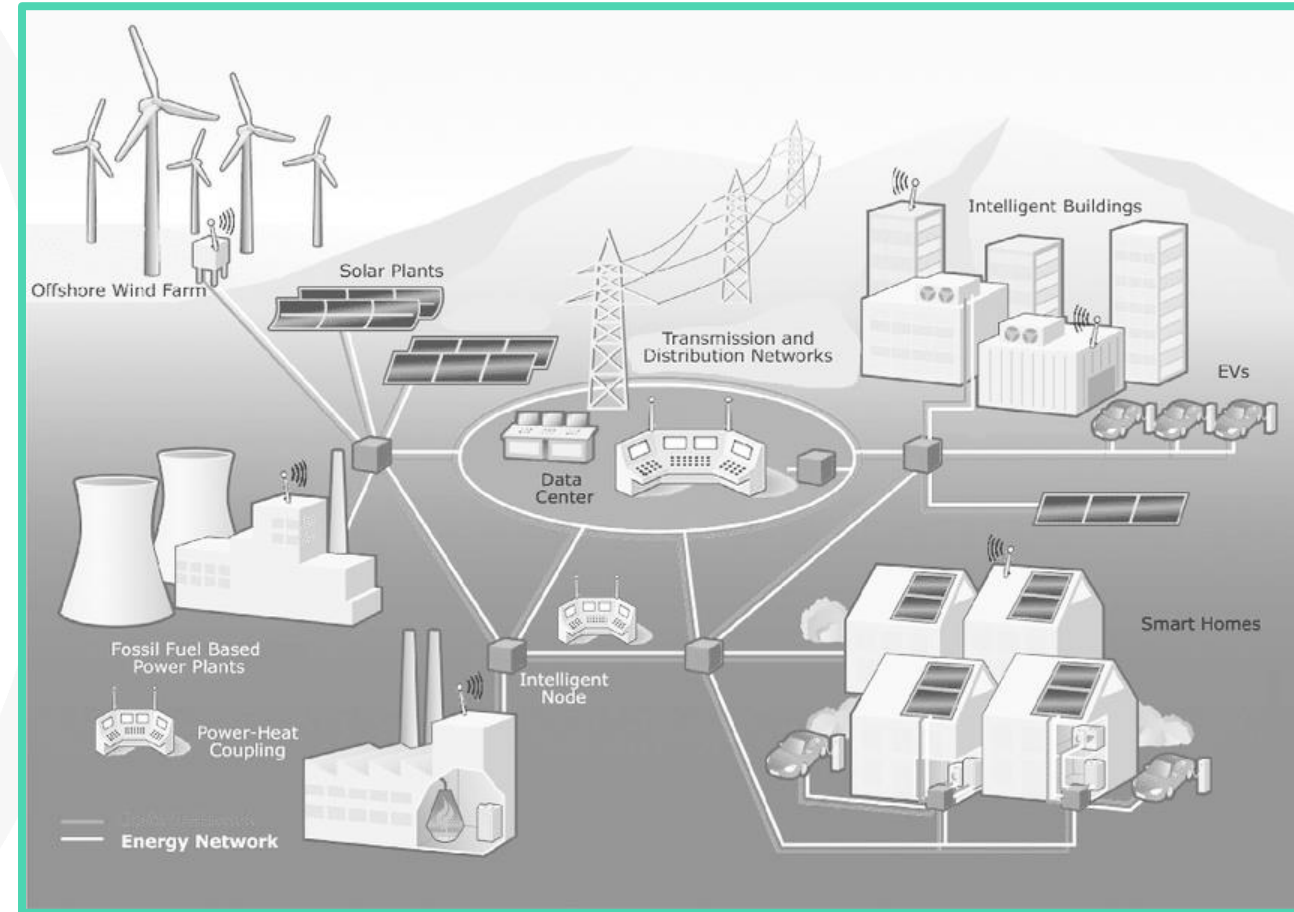
Number of HEMS standards contributions by standards project, by year



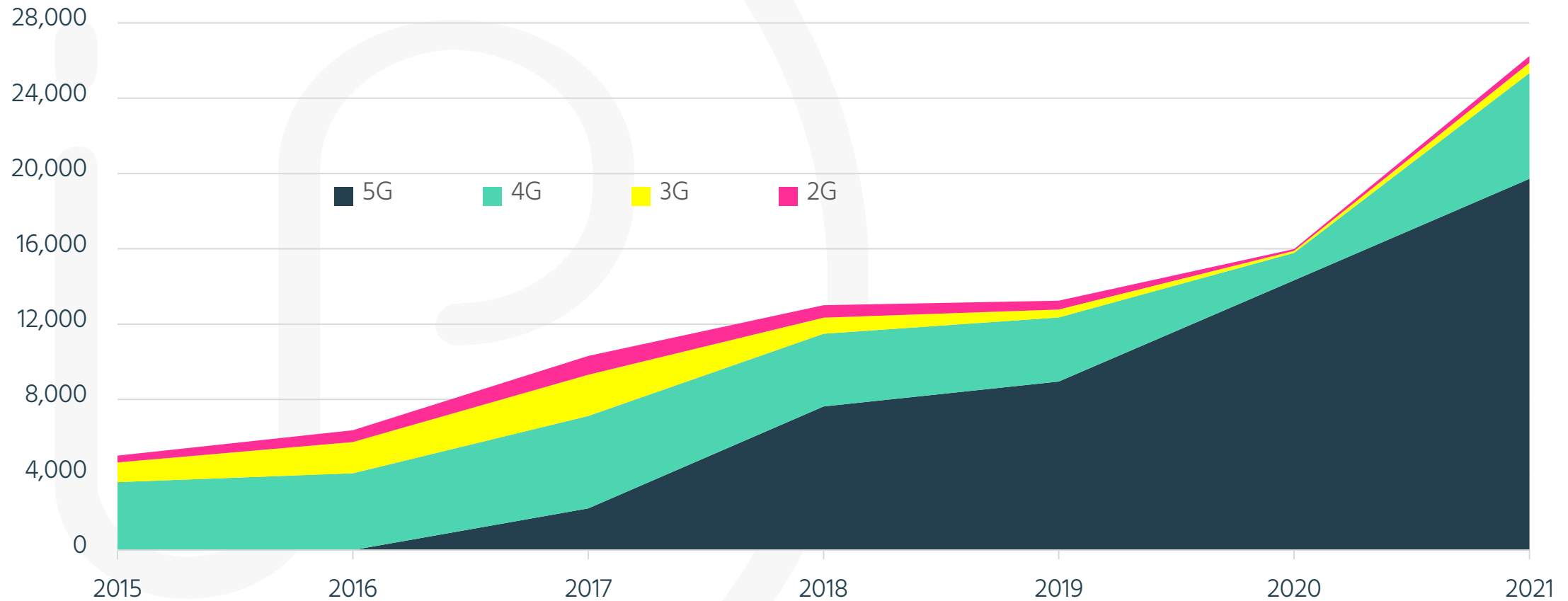
# III. 5G & Wi-Fi 6 SEPs and Standards for Smart Energy Applications

# 5G and Connectivity – Smart Factory

- 5G's enhanced latency, reliability and bandwidth capabilities :
  - Enable the **management and automation** of smart electricity grids
  - Allow real-time **detection and responds to faults** along the grid
  - Support the **control and automation** of the **feeder line system**
  - Assist to **manage demand** on grid, with the integration of **Distributed Energy Resources (DER)** like renewables into the power grid
  - Prevent evolving **cybersecurity threats**



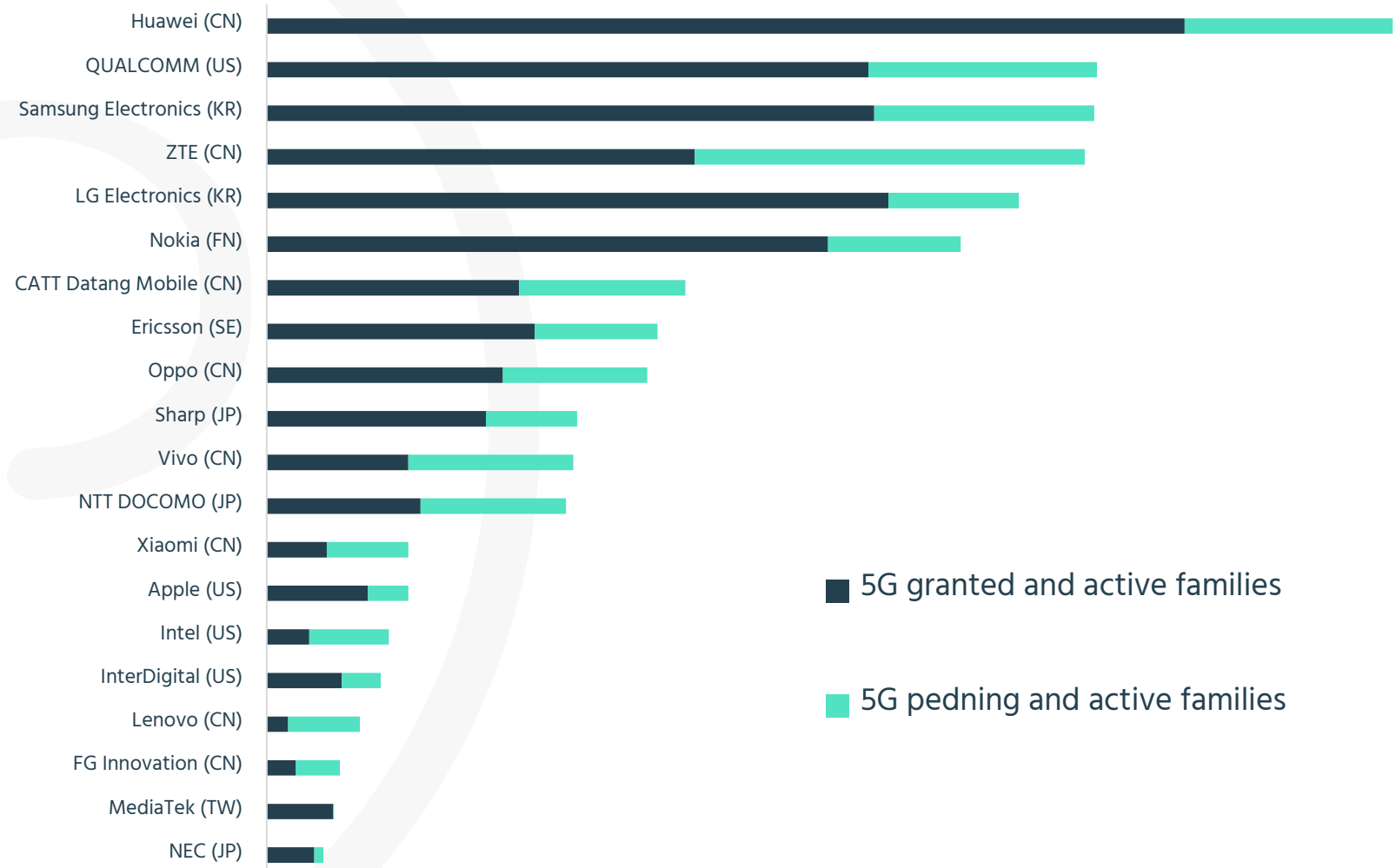
# 3G, 4G, 5G declared patent families by declaration year



Source: <https://www.iplytics.com/report/5g-patent-race-november-2021/>

# 5G declaring companies

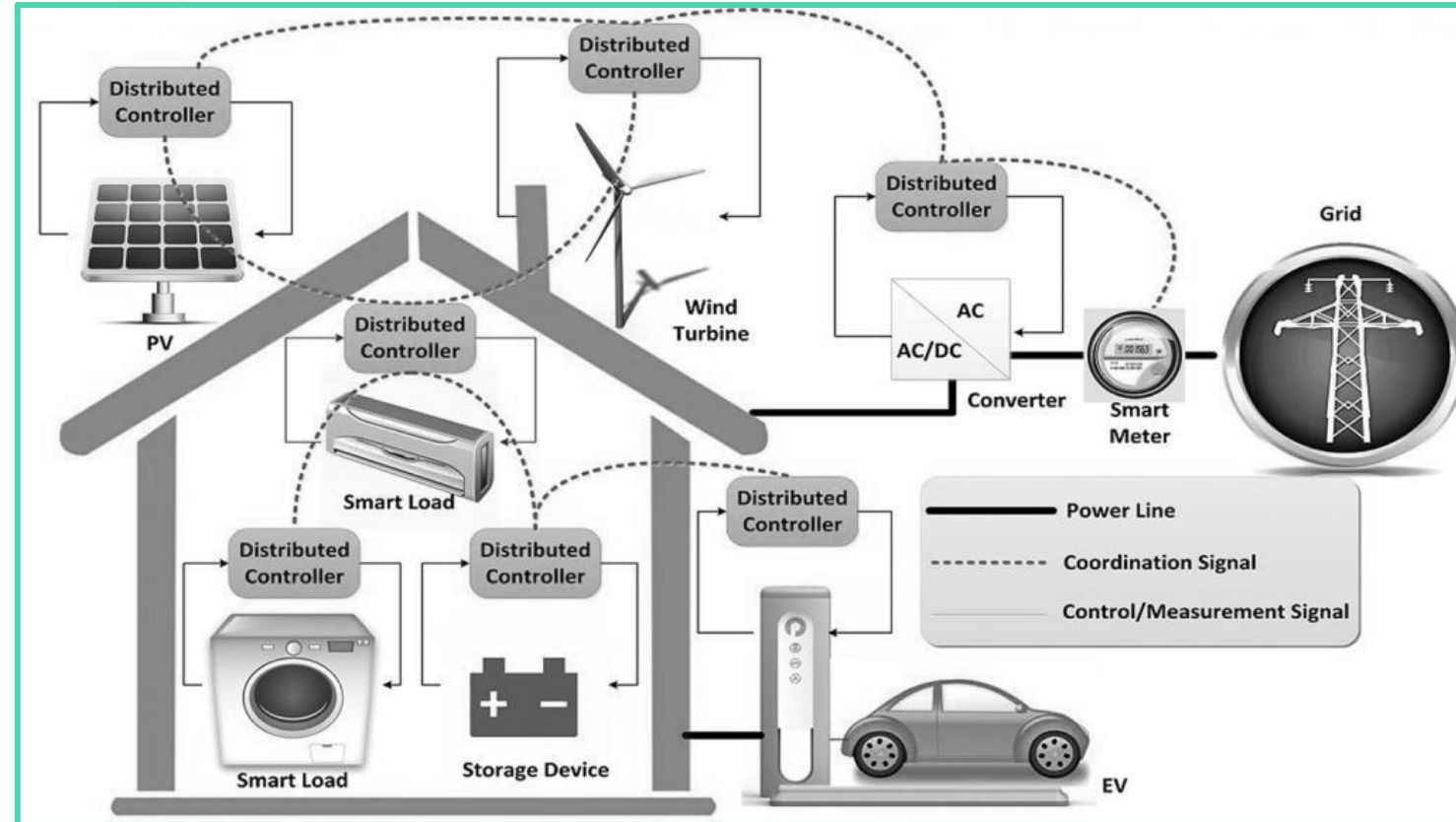
➤ **Self-declared patent families** by the top 5G patent owners as to granted or pending.



Source: <https://www.iplytics.com/report/5g-patent-race-november-2021/>

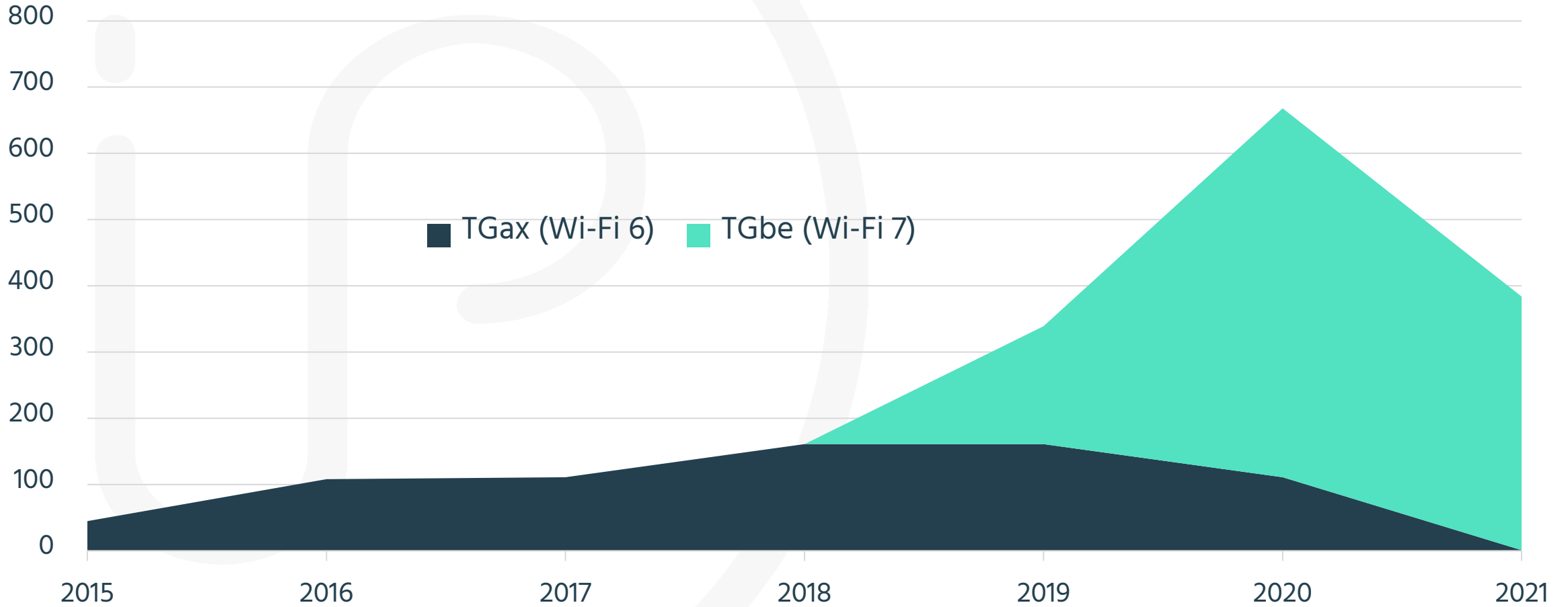
# Wi-Fi and Connectivity – Smart Energy

- **Wi-Fi** networks connect smart meters with cloud services and data centers.
- **Wi-Fi** technologies OFDMA and MU-MIMO allow more devices to operate unimpeded on the network and thus allows to connect of components and real time data points to operate at low-power consumption.



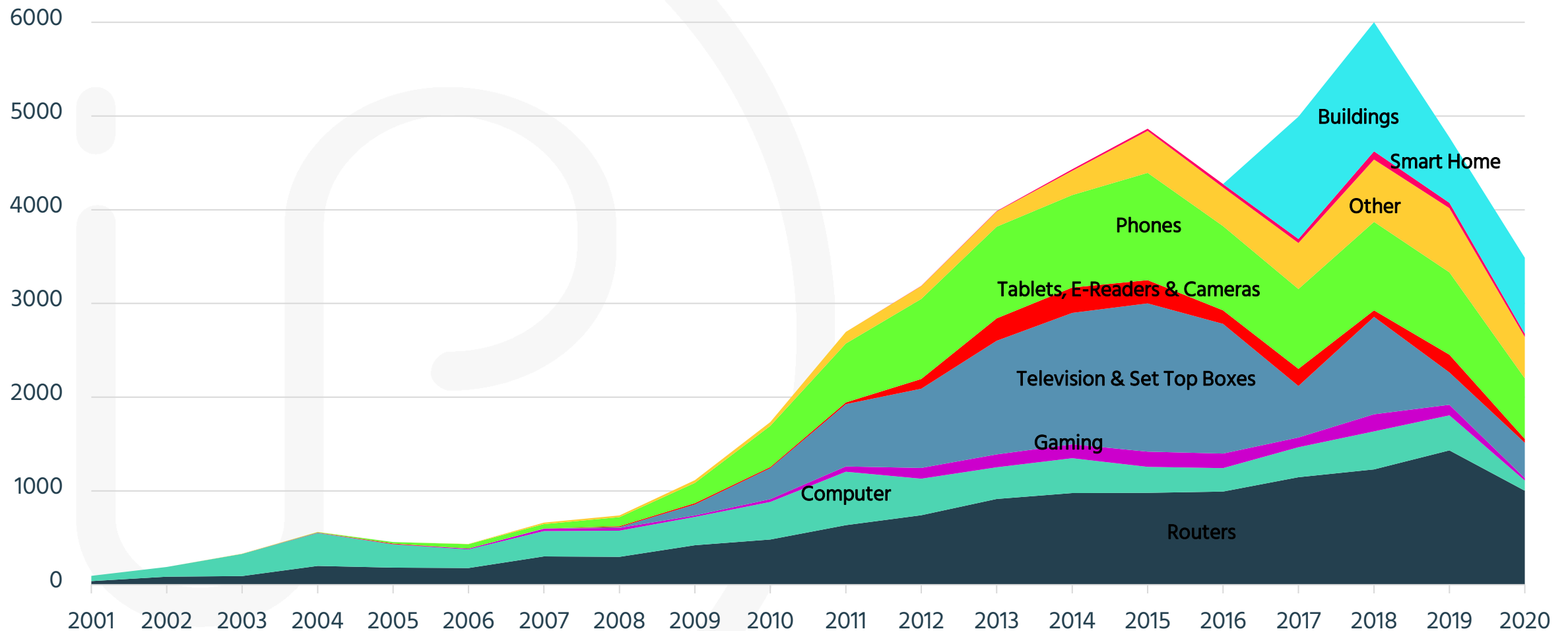
# Wi-Fi Generations

Submitted Contributions as to Wi-Fi generation



Source: <https://www.iplytics.com/report/whos-ahead-wi-fi-6-patent-race/>

# Wi-Fi adoption (Wi-Fi Alliance certified products)

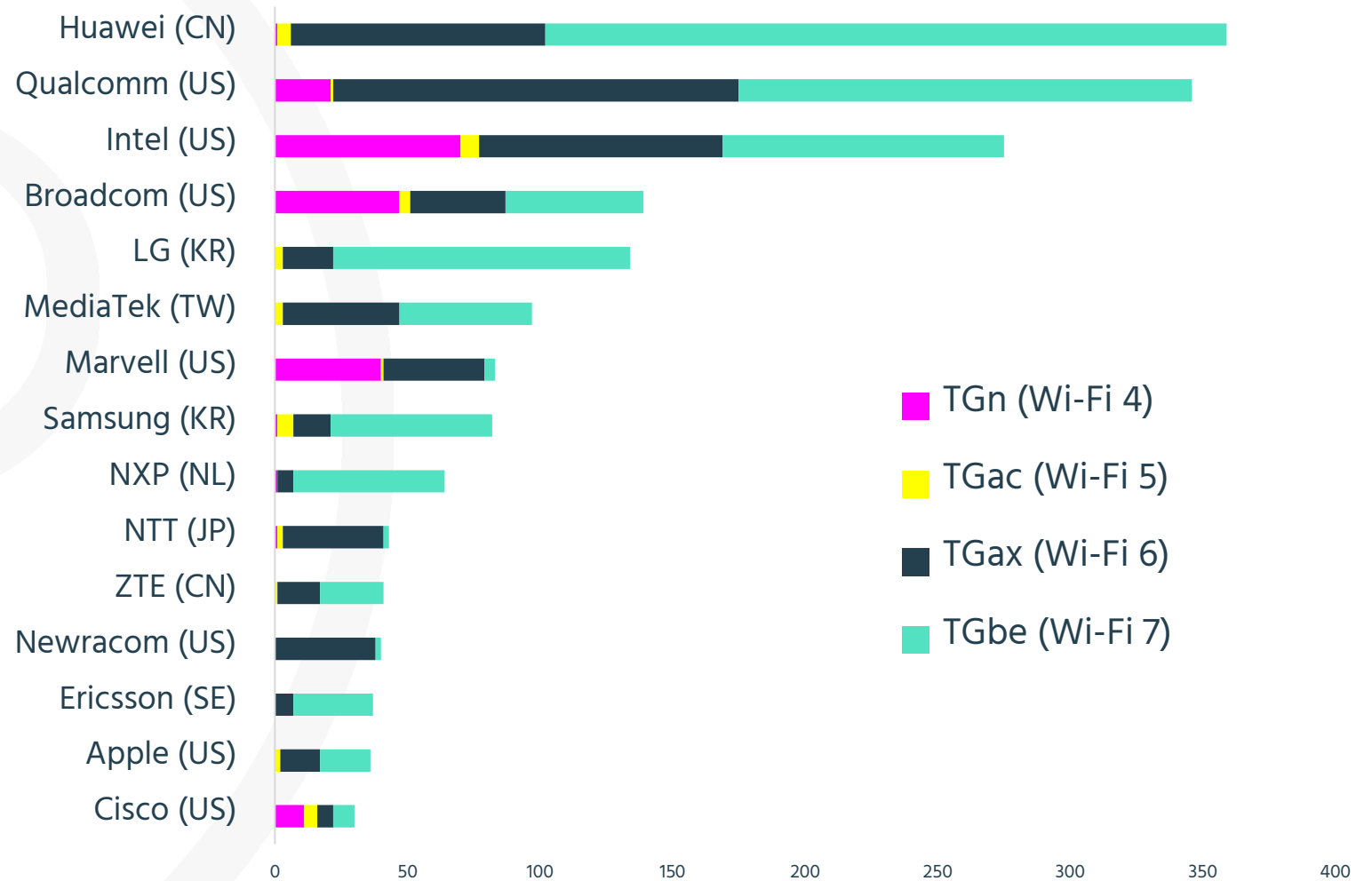


Source: <https://www.iptytics.com/report/whos-ahead-wi-fi-6-patent-race/>



# Wi-Fi standards contributions

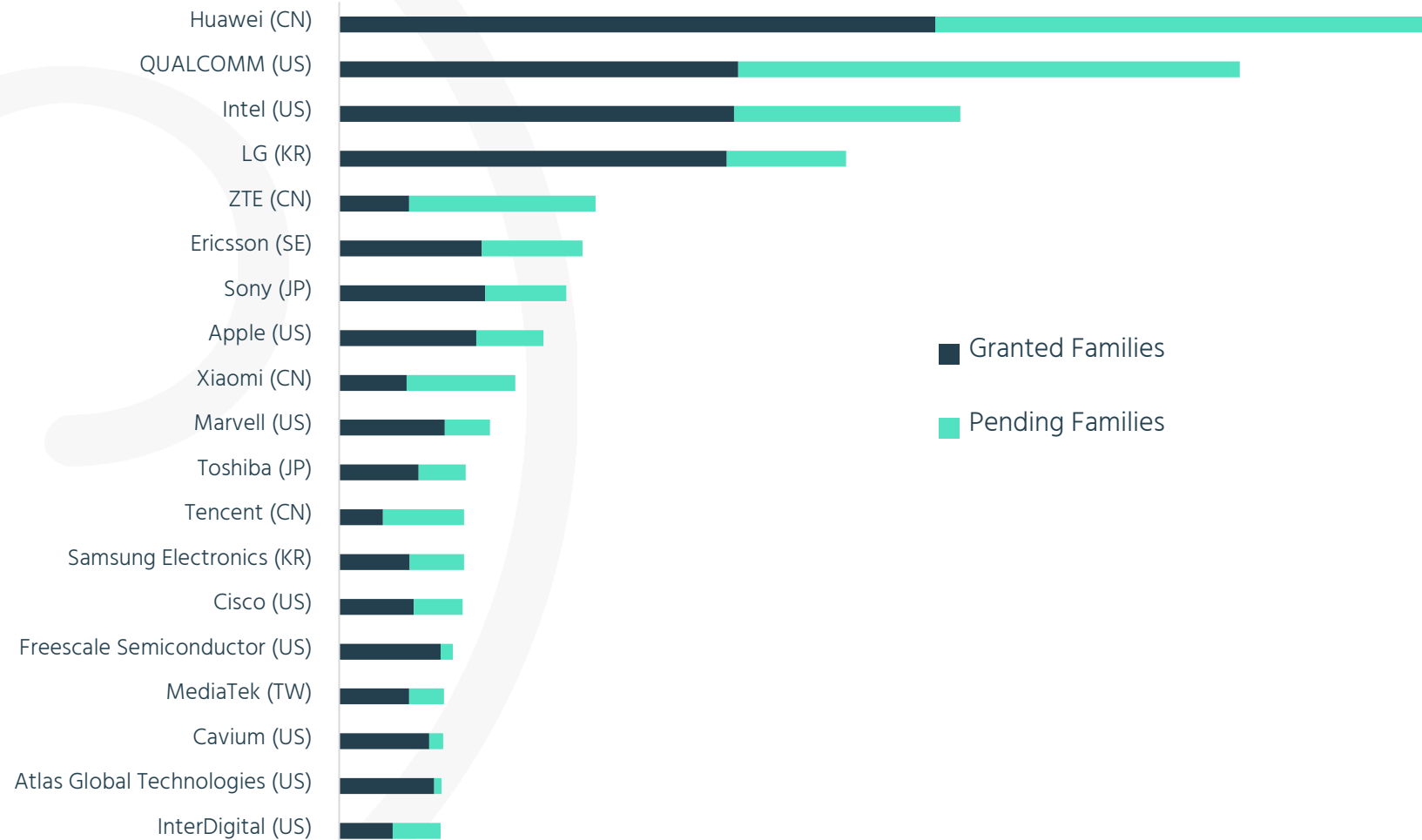
- Submitted contributions as to Wi-Fi 4, 5, 6 and 7 as to contributing company



Source: <https://www.iplytics.com/report/whos-ahead-wi-fi-6-patent-race/>

# Wi-Fi 6 patent Universe

- Number of **potentially essential Wi-Fi 6 patent families**, pending and granted.

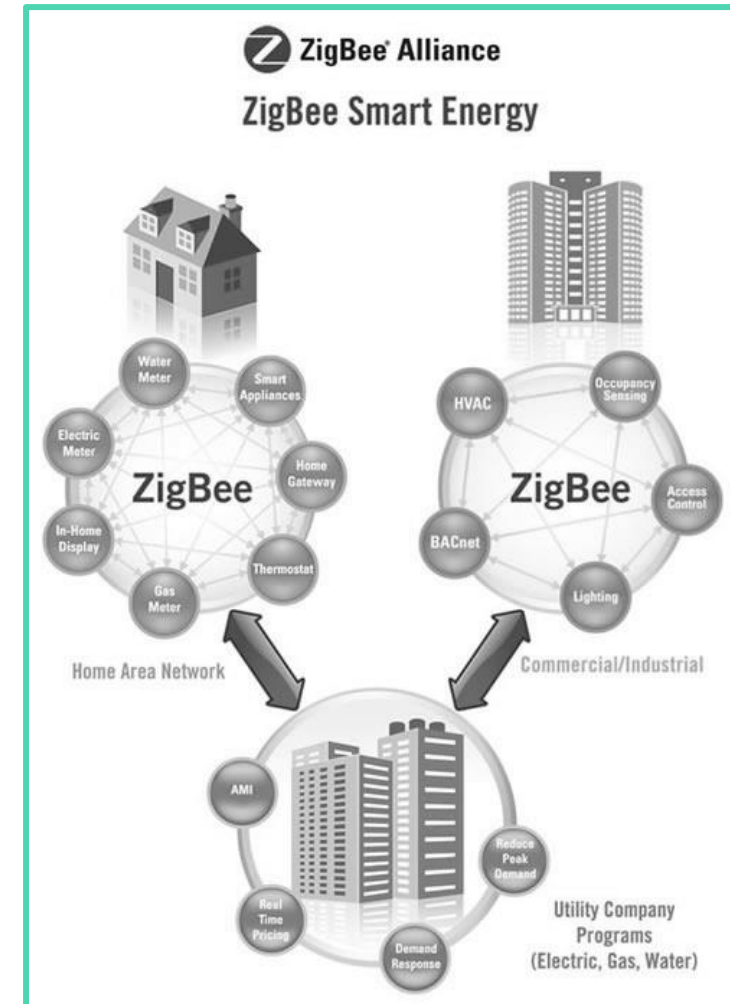


Source: <https://www.iplytics.com/report/whos-ahead-wi-fi-6-patent-race/>

# IV. ZigBee SEPs and Standards for Smart Energy Applications

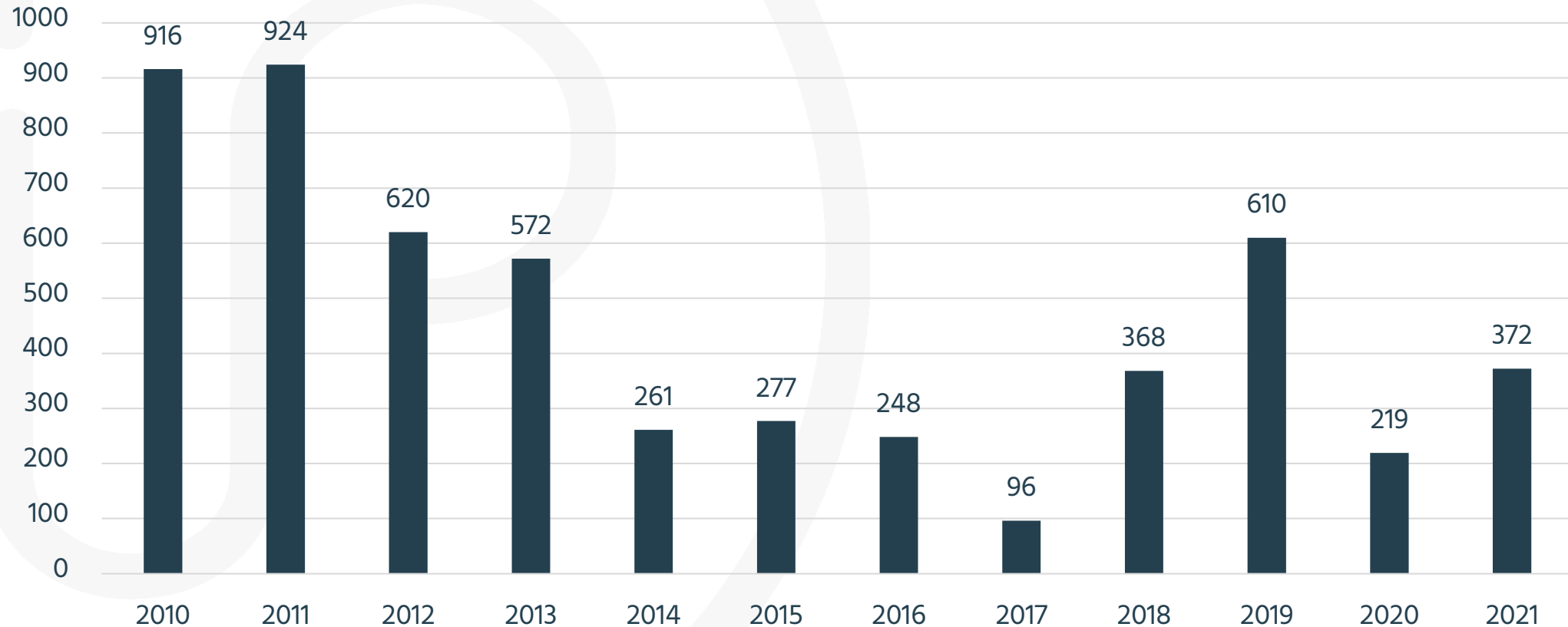
# ZigBee and Connectivity – Smart Energy

- ZigBee **Smart Energy** enables
  - wireless communication and automation between utility companies,
  - the Smart Grid and common household devices such as thermostats, water heaters, pool pumps and appliances
  - improves energy efficiency by allowing consumers to manage their energy consumption more precisely using automation and near real-time information.



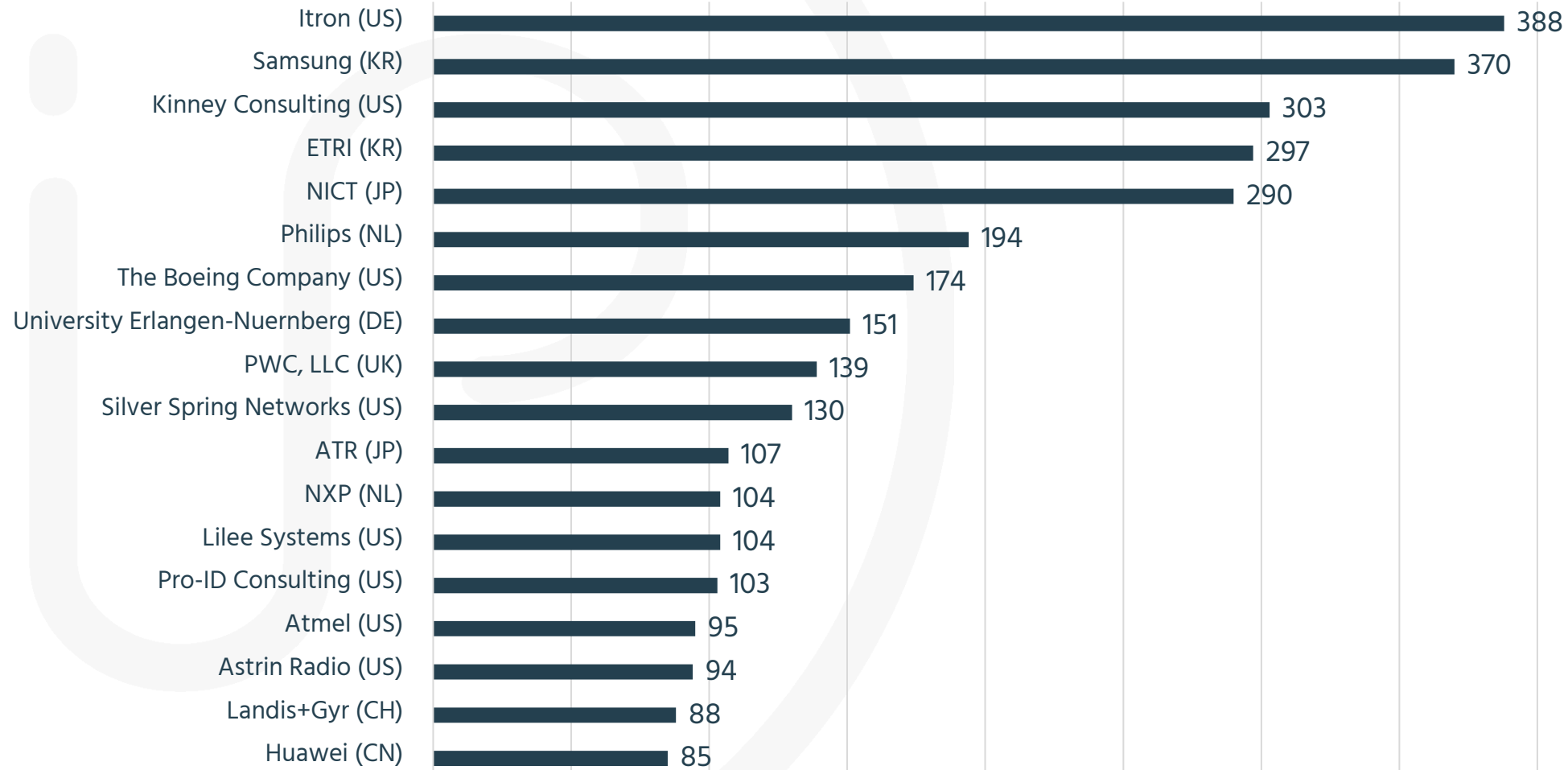
# ZigBee and Connectivity – Smart Energy

IEEE 802.15.4 -ZigBee standards contributions



# ZigBee and Connectivity – Smart Energy

IEEE 802.15.4 -ZigBee standards contributions by company



# V. SEP Litigation Trends

# The future of SEPs – Challenges in licensing IoT

As to a Deloitte study published 2021:

- “The majority of patent holders will actively monetize and enforce their SEP portfolios covering connectivity standards in this fast-moving, high-investment environment.”
- “Negotiating and operating in the complex SEP environment will be one on the major challenges of 5G, Wi-Fi or Bluetooth technology adopters.”
- “5G patent owners as well as 5G patent implementers are faced with the challenge to manage operational and financial risks and cost exposures while striving to maximize value.”





# The future of SEPs – Challenges in licensing IoT

## New IoT market players will introduce challenges:

- Licensing of SEPs in the smartphone industry is well understood however, **licensing SEPs outside** of the smartphone industry e.g. for IoT applications is expected (by SEP owners) to be far more challenging.
- Industries outside of the smartphone world (eg automotive, manufacturing, home appliances, healthcare, ...) have **yet little experience** with licensing SEPs.
- **SEP owners** feel that for real Internet of Things (IoT) applications, it is not feasible to discuss terms with each licensor individually. There must be an aggregated solution.
- However, **setting up patent pools is a challenge** and SEP owners as well as licensees may shy away from patent pools if their interests are not represented.

# The clash of cultures

## Communication Industry

- SEPs are licensed on the **User Equipment level**
- Consequence: licensing negotiations always target the device manufacturer (**OEM**)
- Horizontal license negotiations
- **Result:** Potentially high licensing costs for OEMs without own SEP portfolios



## Manufacturing Industry

- Patents are usually (cross --) licensed on **vertical levels**
- **Suppliers** typically incorporate IP rights into its component supply contracts
- License based on a component selling price
- **Result:** Minimum increase of car sales price

# SEP licensing in the auto industry

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## What is the basis of the license?

- The product/vehicle vs. the component (SSPPU)

## What is the mechanism?

- Percentage of the product/component vs. lump sum price per product/component

## Who can take a license in the value chain?

- OEM vs. Supplier

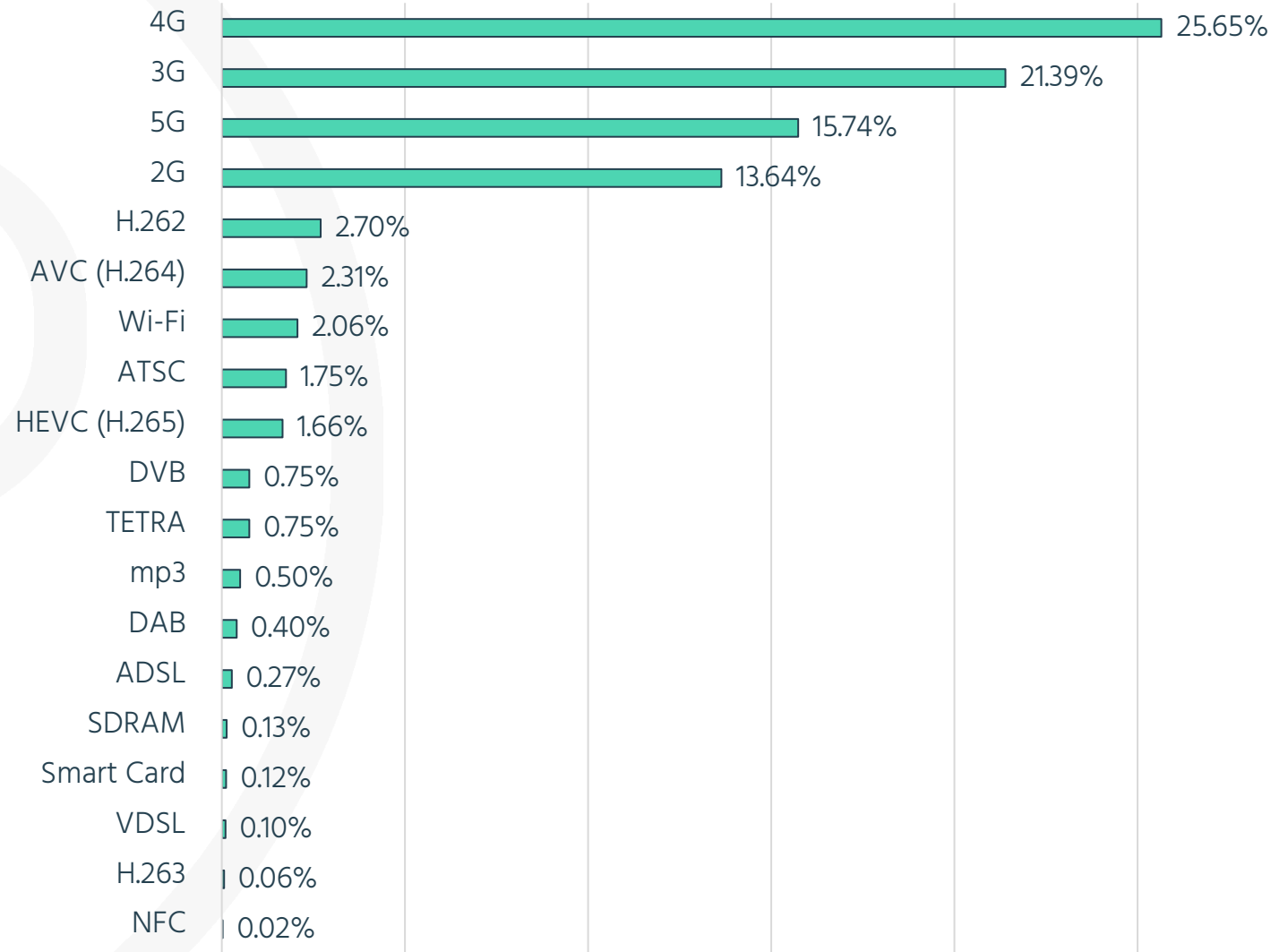
## What is the model?

- Patent pools vs. Bilateral license

## What is a reasonable royalty as to FRAND?

# Litigated SEPs in the past 10 years

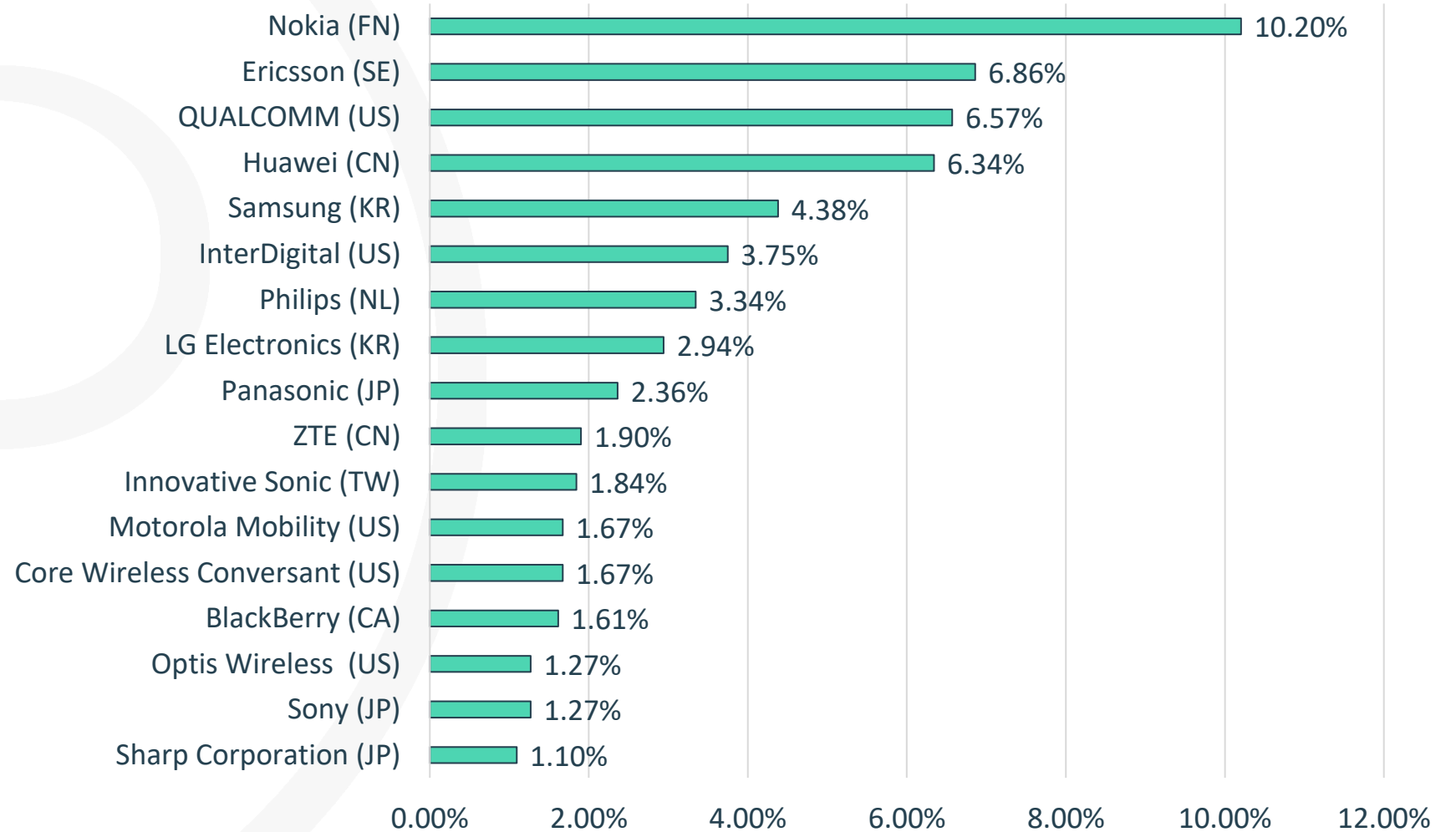
- Share of standards subject to litigated patents (IPlytics Platform 2021)



Source: <https://www.iplytics.com/report/sep-litigation-trends-what-data-say/>

# Litigated SEPs

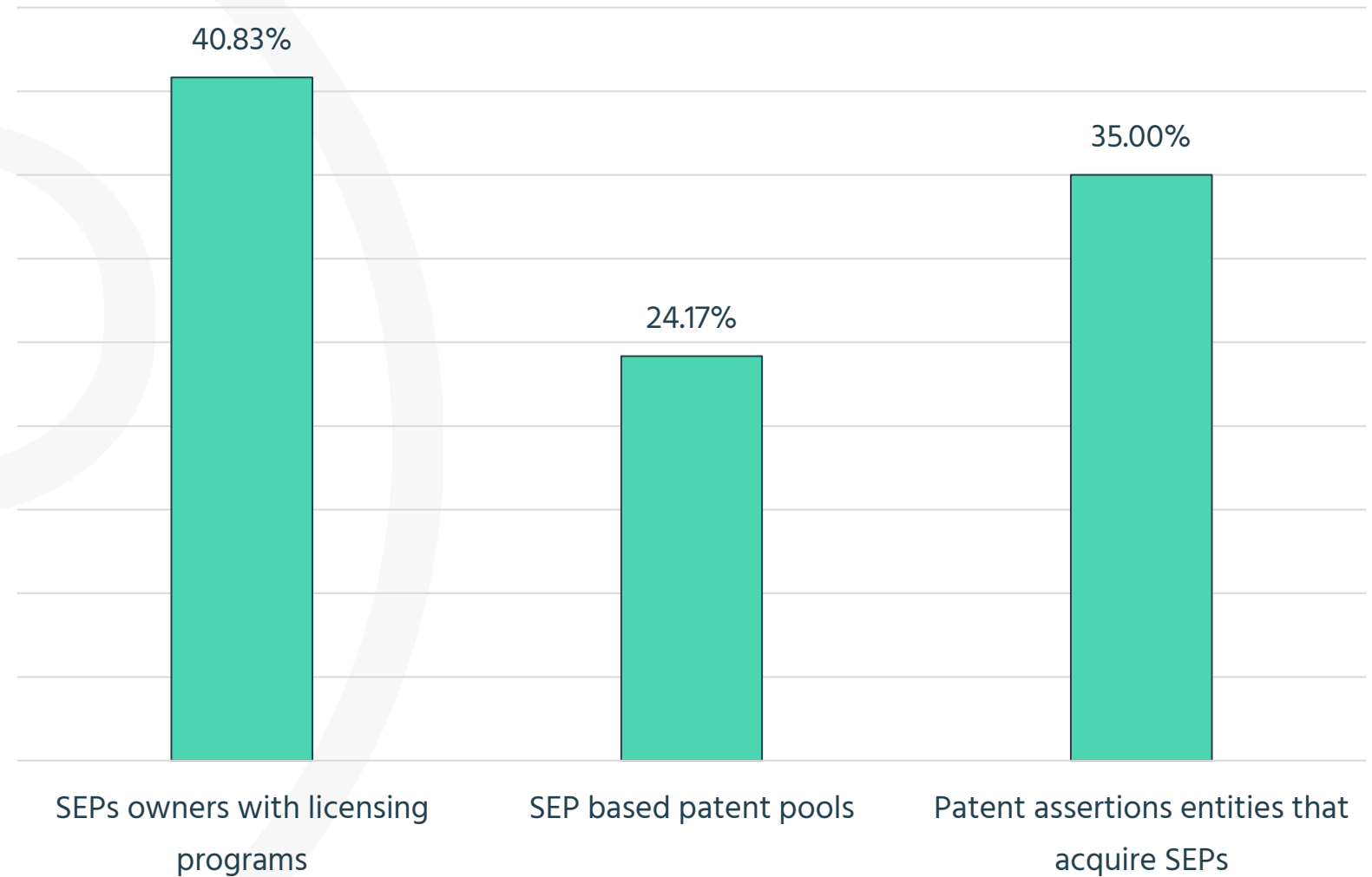
- Plaintiff share as to litigated declared SEPs (IPlytics Platform, 2001-2021)



Source: <https://www.iplytics.com/report/sep-litigation-trends-what-data-say/>

# Litigated SEPs

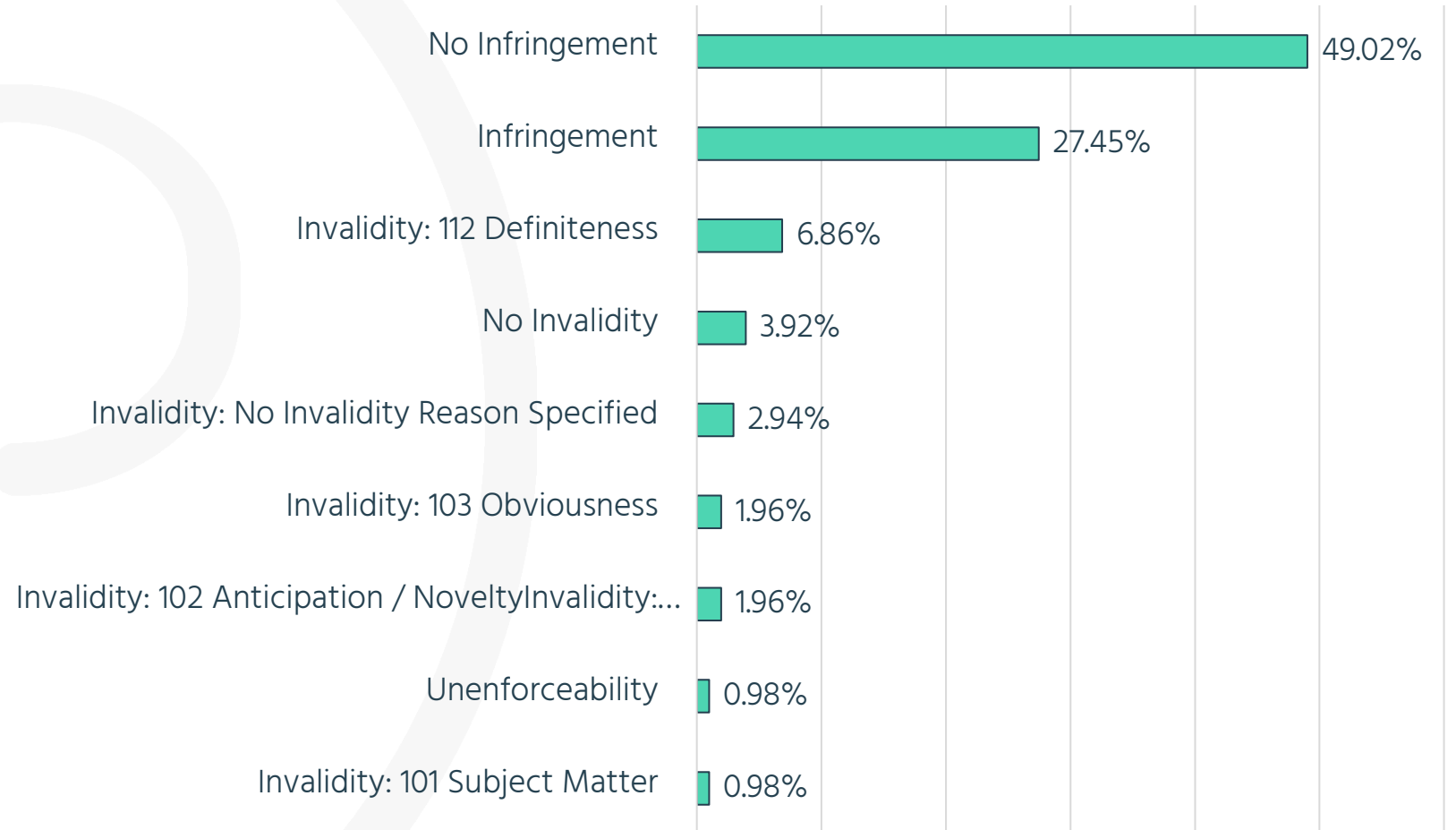
- Who will drive SEP litigation in the upcoming years on the plaintiff side? (IPWatchdog Webinar Polls, March 2021, N=294)



Source: <https://www.iptytics.com/report/sep-litigation-trends-what-data-say/>

# Litigated SEPs

- Litigated declared patents as to decision outcome (US courts only)



Source: <https://www.iplytics.com/report/sep-litigation-trends-what-data-say/>

# VI. Patents and Standards Data to Navigate Risk and Identify Opportunities



# Increasing complexity

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- **Connectivity is everywhere**, and it heavily relies on standards that are subject to SEPs.
- Smart cars, smart homes or smart factories that implement 3G and 4G (soon 5G), Bluetooth, NFC, RFID, Qi, HEVC/VVC and DVB, among many others, for more **than a decade now**.
- The **number and variety of use case of standardized connectivity** technology has increased over the past 5 years with a growing number of newly implemented standard subject to SEPs (e.g. SAE standards, Qi standard)
- It is challenging to keep up with technology trends, new standards projects as well as SEPs or new pool license programs.
- **Multidimension access** to patents and standards data is crucial to be part of the discussion and have a seat at the table where standards are developed, patents are licensed and pools are formed.

Source: <https://www.marketresearchfuture.com/reports/in-car-wireless-charging-market-5746>

# Standard Essential Patent Data (1978-2021)

SSO	Example Standards	Declared SEPs
ETSI	2G, 3G, 4G, 5G, NB IoT, LTE-E, ITS, C-V2X, DVB, DMR, DECT, TERA	280,000
ITU	AVC H.264, HEVC H.265, VVC H.266	15,000
ATSC	ATSC -1.0- 3.0, Over the Air Internet TV Broadcasting	9,900
ISO	RFID, MPEG 1-4, mp3	4,800
ETSI	2G, 3G, 4G, 5G	4,700
IETF	Internet Protocol Standards	1,700
IEEE	Wi-Fi 1-7, DSRC, WAVE, LAN/MAN, Bluetooth, ZigBee, FireWire, WiMAX, Ethernet	1,500
ARIB	2G, 3G, 4G, 5G	1,500
Wireless Power Con.	Wireless Charging Qi Standard	1,150
ISO/IEC	MPEG Visual	1,100
SMPTE	Motion Picture and Television	800
OMA	GSM, UMTS or CDMA2000	700
IEEE / IEC	Wi-Fi 1-7, DSRC, WAVE, LAN/MAN, Bluetooth, ZigBee, FireWire, WiMAX, Ethernet	260

# Standard Essential Patent Data (1978-2021)

SSO	Example Standards	Declared SEPs
ANSI	Wi-Fi 1-7, LAN/MAN, Bluetooth, ZigBee, FireWire, WiMAX, Ethernet	210
IEC	Electric vehicle conductive charging, Industrial Networks, CQN series RF, RFID	113
ATSC	Advanced Television Systems, Digital Television Transmission over Terrestrial	81
ITU-T	Radio Transmission	44
VESA	DisplayPort	40
OASIS	XrML WSRP UOML   UOML UDDI	35
Broadband Forum	Ethernet, ADSL, DSL, Optical Fiber	21
TIA	TDMA, CDMA, WCDMA	19
CEN	IST, Electronic Identification, Authentication and Trusted Services	12
SAE	Broadband PLC Communication for Plug-in Electric Vehicles, Mobile Fueling Station	7
ECMA	NFC	1

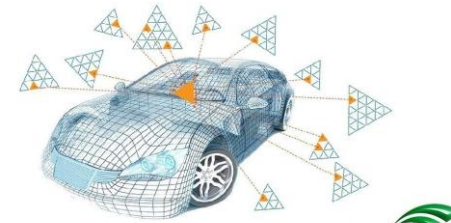
# Patent Pool Data (1990-2021)

Patent pools listing verified standard essential patents. Among others:

- MPEG LA
- Via Licensing
- SISVEL
- AVANCI
- Access Advance
- ULDAGE
- France Brevets NFC

ACCESS Advance<sup>SM</sup>

VEL S  
media



AVANCI

5G



VIA LICENSING



SISVEL

**ULDAGE**<sup>®</sup>  
United License for Digital Age

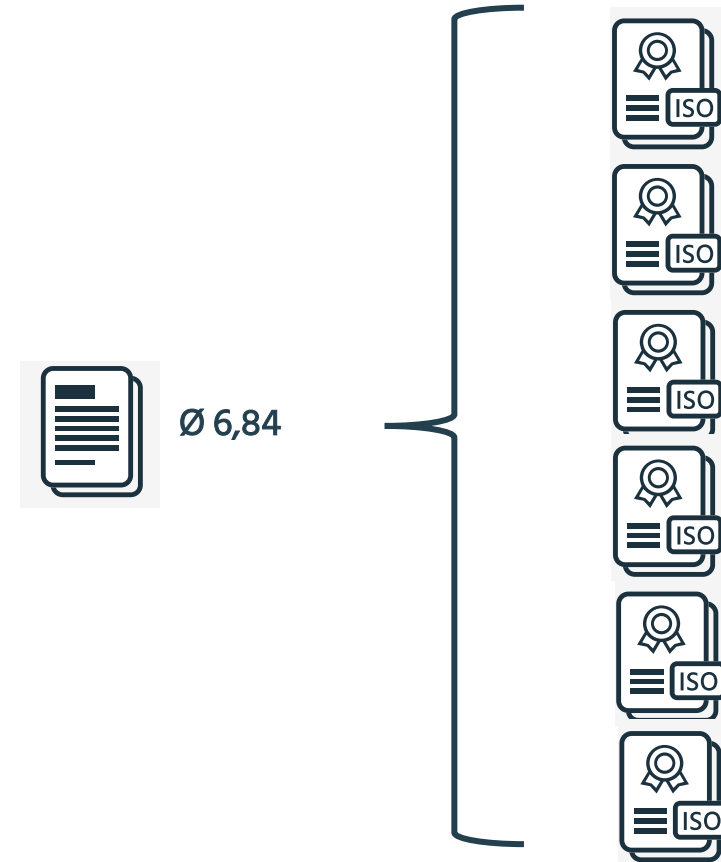
**MPEG LA**<sup>®</sup>  
The Standard for Standards<sup>®</sup>

“The question about which patents are essential and which are not, is one of the most debated when negotiating SEP portfolio value, royalties or infringement claims.”

# VII. Complexity of patent declaration data

# SEPs often relate to multiple standard specifications


- SEPs' claims may be essential to several different standards specification
- SEPs are declared to on average **6,84** standard specifications (as to 5-digit level not even considering the version)



# Example of complex patent and standard specifications

- E.g. “*EP2675081B1*” has been declared to 14 different 5G standards specifications
- The **14 standards documents** are complex and have **98-671 pages** and each **80-350 different sections**

EP2675081B1

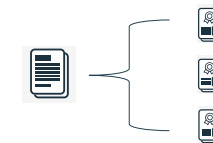


- TS 37.340 (98 page document)
- TS 23.501 (219 page document)
- TS 36.311 (671 page document)
- TS 38.213 (122 page document)
- TS 38.214 (253 page document)
- TS 38.215 (175 page document)
- TS 38.300 (187 page document)
- TS 38.321 (215 page document)
- TS 38.322 (342 page document)
- TS 38.323 (287 page document)
- TS 38.331 (198 page document)
- TS 38.413 (104 page document)
- TS 38.423 (186 page document)
- TS 38.473 (356 page document)



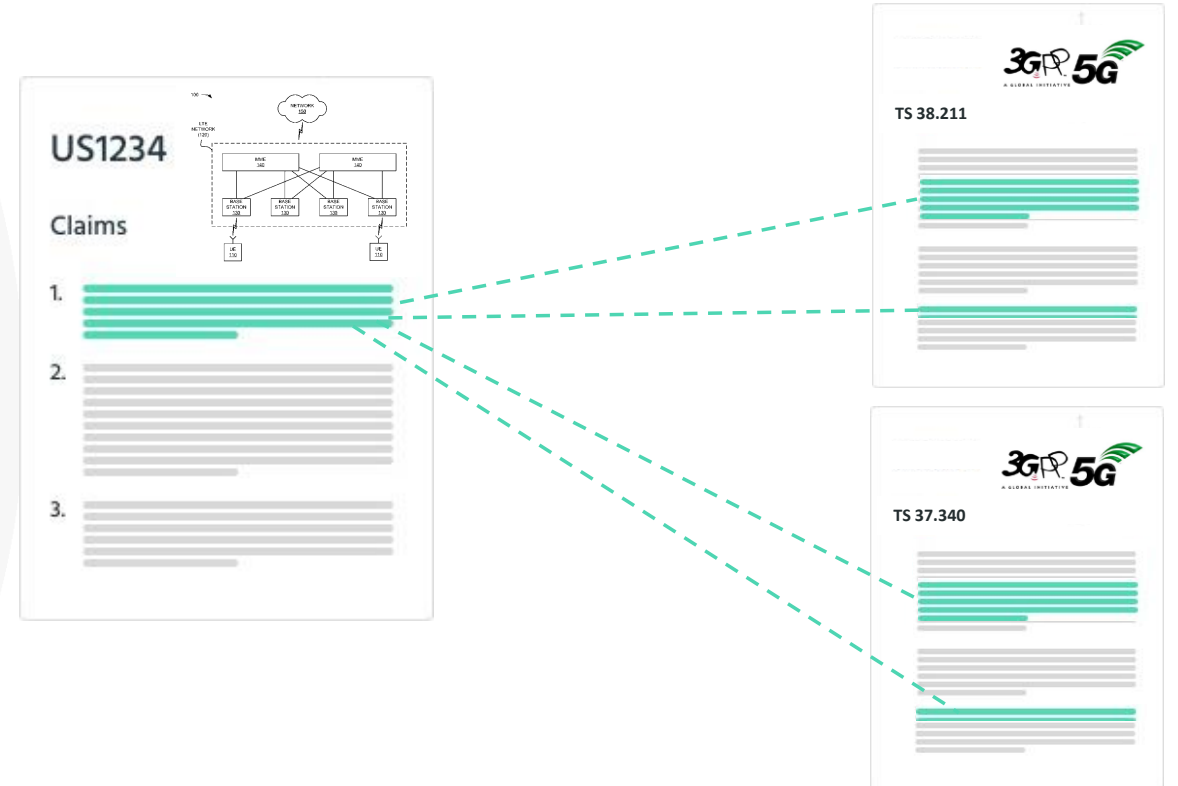
# n:m combinations of patents and standards

~260,000 ETSI patents  
X  
declared to Ø 6,84 standards specification  
=  
**1,778,400 combinations**  
of declared patents and standards  
specification



# n:m combinations of patents and standard sections

**1,778,400 combinations**  
of declared patents and standards  
specifications  
x  
Ø **212 standard sections** per standard  
specification  
=  
**~377 Million combinations**  
of declared patents and  
standards sections



# n:m combinations of patents' claims and standard sections

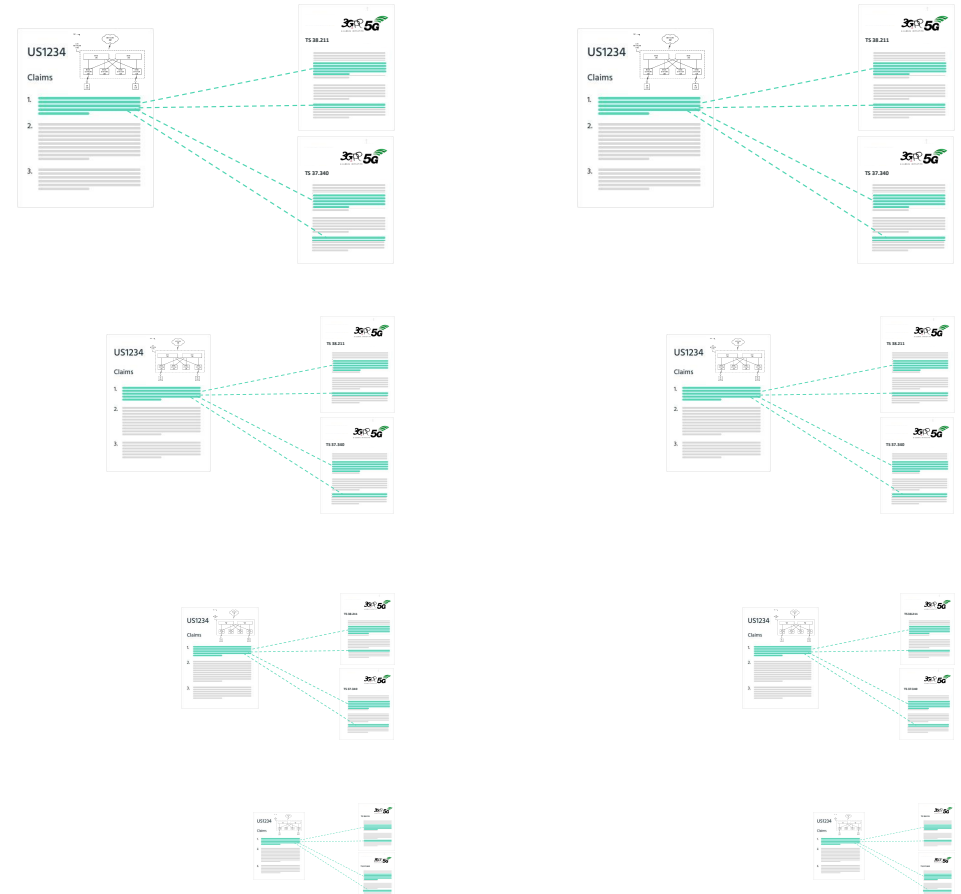
**~377 Million combinations**  
of declared patents and standards  
sections

**x**

**~5 independent claims per  
patent**

**=**

**~1,9 Billion combinations**  
of declared patents' claims and  
standards sections



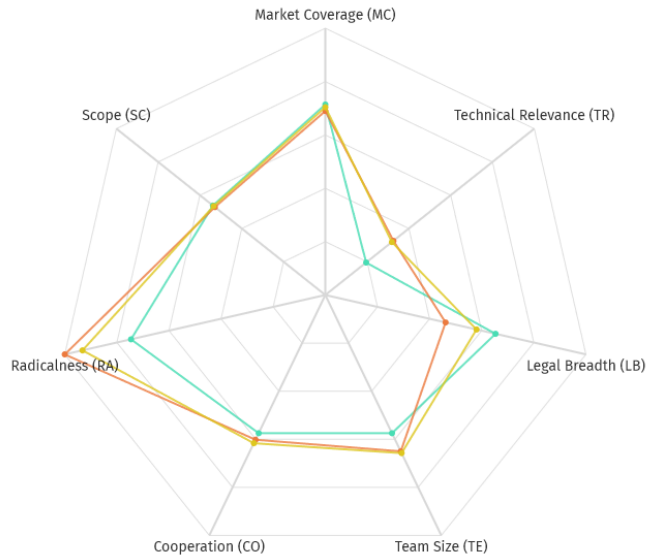
# Challenge

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**“It is economically not feasible to manually map billions of combinations of patent claims and standard sections”**

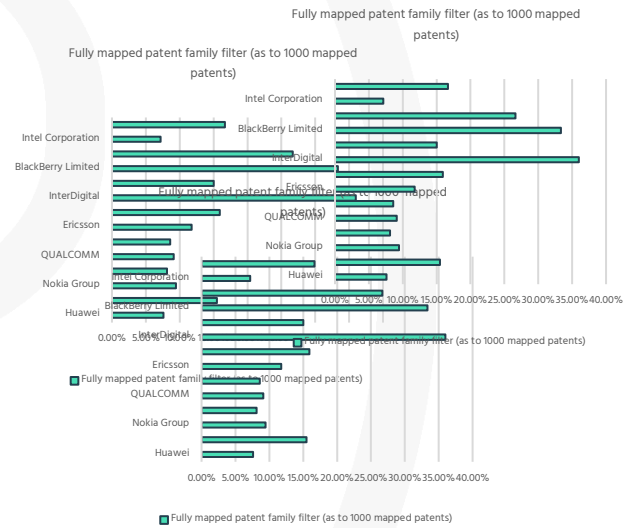
# Solution

## 1 VALUATION



Objective data correlation

## 2 RANDOM SAMPLE



SEP essentiality sample share

## 3 AI SEP DETERMINATION



Predict SEP essentiality

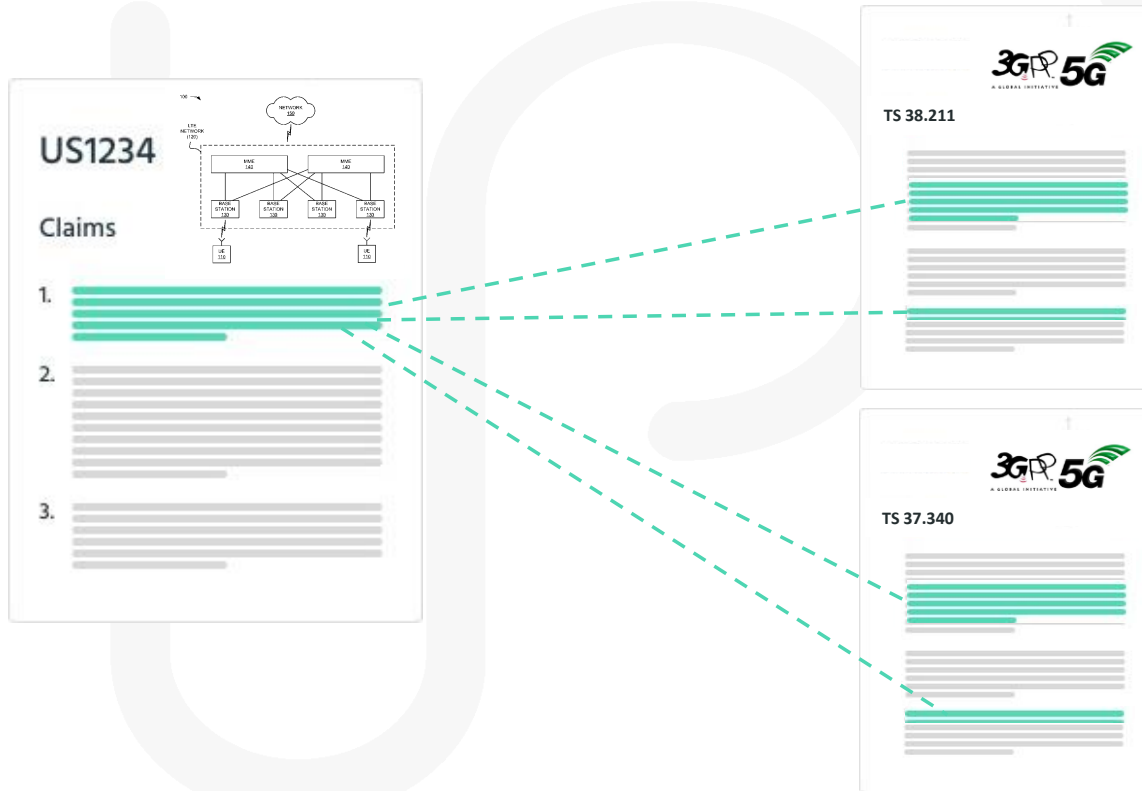
# Data Correlation

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## Correlating patents and standards – 7 relevant features:

1. Patent's claims are **semantically similar** to corresponding standard document (TS)
2. Patent's listed **inventors** (name, surname, affiliation) **participated** at corresponding standards meeting
3. Patent's **applicant/assignee** submits accepted and **approved contributions** at to corresponding standard in working group
4. Patent's **prio. date** overlaps with **core date range** of standards development
5. Patent has been **cited by declared SEPs** (excluding self-citations)
6. Patent cites of **predecessor standard** or Tdocs as prior art in the non-patent literature
7. Patent's **IPC/CPC** overlaps with verified SEP's IPC/CPCs

# Semantic analysis of patent claims and standards



- While claims and standards describe the very same topic and thus can be mapped and charted by experts – the **actual language used can be very different.**
- To overcome this, we **create a vector space (LSI model)** that understands the context of claims and standards and recognizes the use of different expressions for certain concepts to identify claim elements in standards sections.

# The LSI (Latent Semantic Indexing) Model

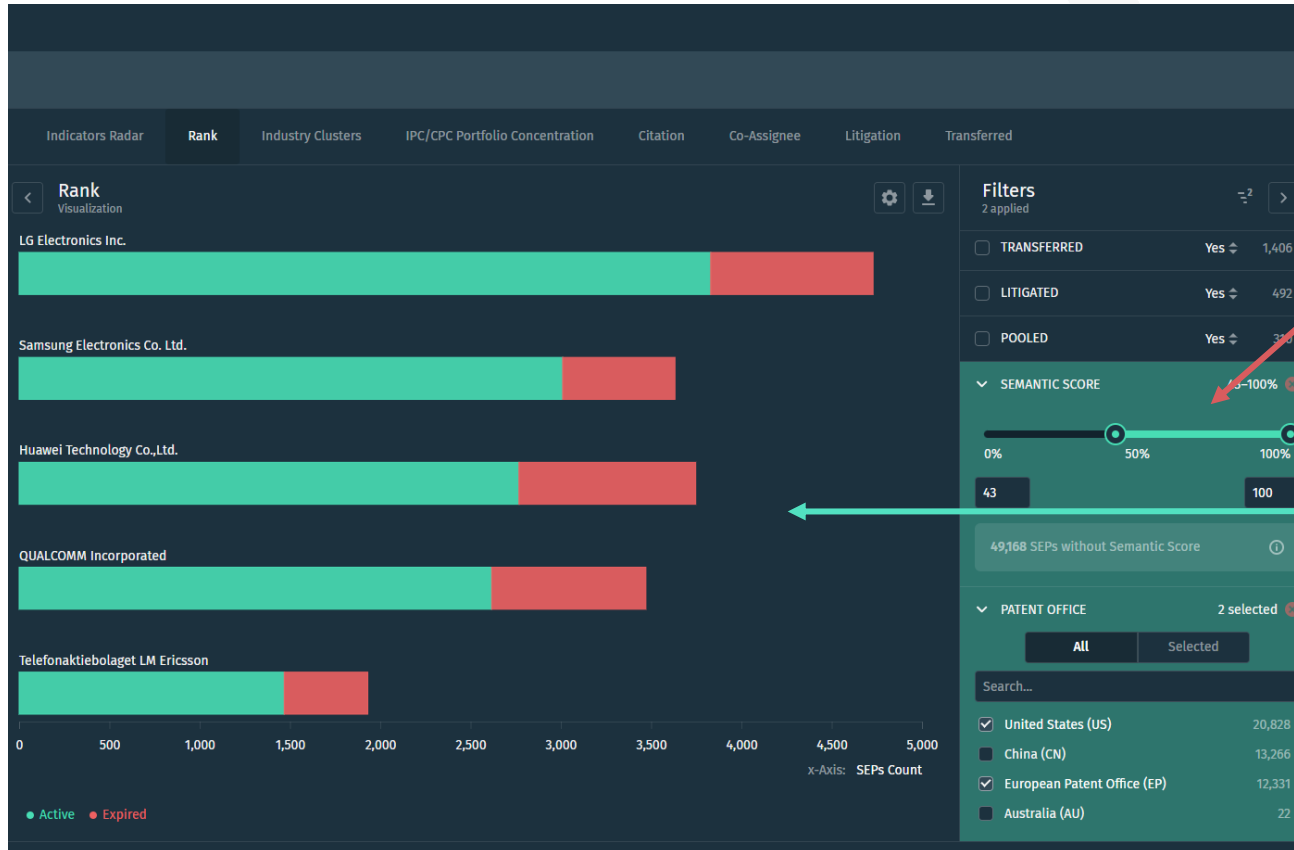
## Latent Semantic Indexing:

- Latent semantic analysis (sometimes latent semantic indexing), is a class of techniques where documents are represented as **vectors in term space**:

$$\begin{array}{ccccccc}
 & & X & & U & & \Sigma & & V^T \\
 & & (\mathbf{d}_j) & & & & & & (\hat{\mathbf{d}}_j) \\
 & & \downarrow & & & & & & \downarrow \\
 (\mathbf{t}_i^T) \rightarrow & \begin{bmatrix} x_{1,1} & \dots & x_{1,j} & \dots & x_{1,n} \\ \vdots & \ddots & \vdots & \ddots & \vdots \\ x_{i,1} & \dots & x_{i,j} & \dots & x_{i,n} \\ \vdots & \ddots & \vdots & \ddots & \vdots \\ x_{m,1} & \dots & x_{m,j} & \dots & x_{m,n} \end{bmatrix} & = & (\hat{\mathbf{t}}_i^T) \rightarrow & \begin{bmatrix} \mathbf{u}_1 \\ \dots \\ \mathbf{u}_l \end{bmatrix} & \cdot & \begin{bmatrix} \sigma_1 & \dots & 0 \\ \vdots & \ddots & \vdots \\ 0 & \dots & \sigma_l \end{bmatrix} & \cdot & \begin{bmatrix} \mathbf{v}_1 \\ \vdots \\ \mathbf{v}_l \end{bmatrix}
 \end{array}$$



# Filter declared patents as to claim section relevance



- Filter declared patents as to semantic similarity of section and claims.

- Rank portfolios as to semantic score

- Refine Results as to other filters

# Filter declared patents as to claim section relevance

The screenshot shows a 'Filters' panel with the following settings:

- Filters** (2 applied)
- TRANSFERRED Yes 1,406
- LITIGATED Yes 492
- POOLED Yes 310
- SEMANTIC SCORE** 43-100% (with a red 'x' icon)
- Slider: 0% to 100% (set to 43)
- Buttons: 43 and 100
- Footer: 49,168 SEPs without Semantic Score (with an 'i' icon)

- Semantic Score is only applicable to English language original patent documents
- Identify patents outside of the semantic scoring feature

# Semantic scoring

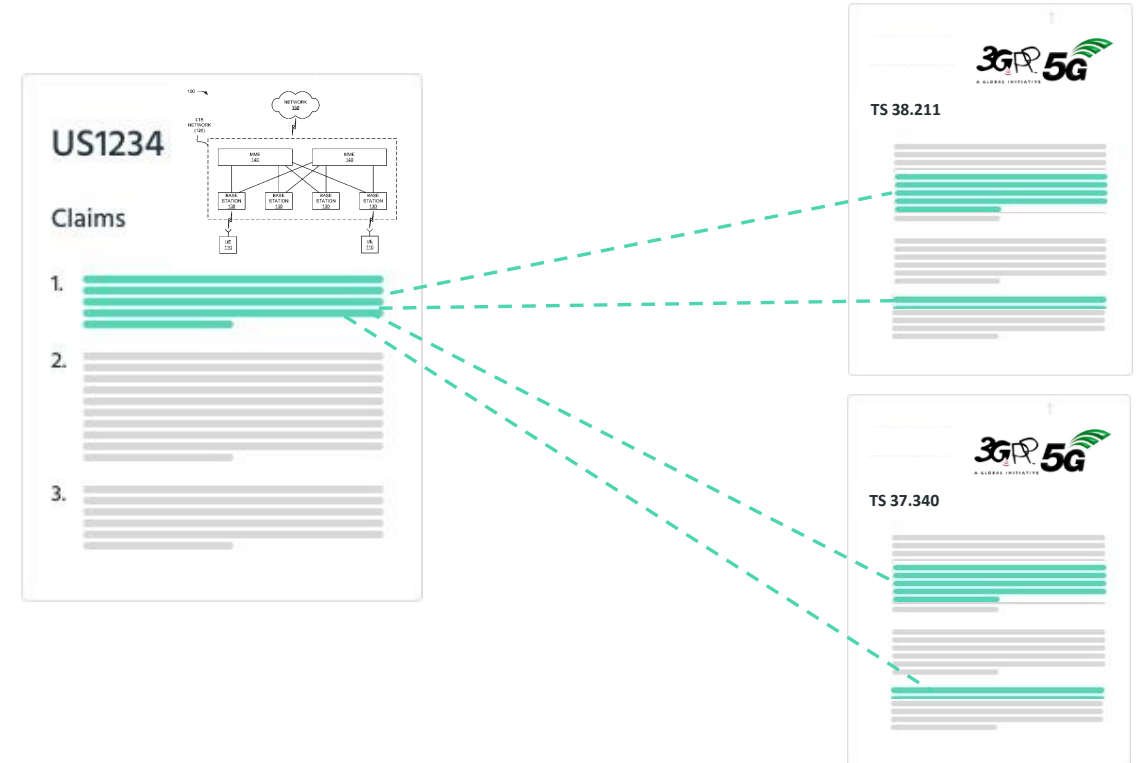
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“IPlytics SES does not replace subject matter expert claim charting but it is your first-step approach to understanding declared patent portfolios before spending time and dollars!”

# Manually mapped/charted patents across standards

## Iplytics SEP sampling

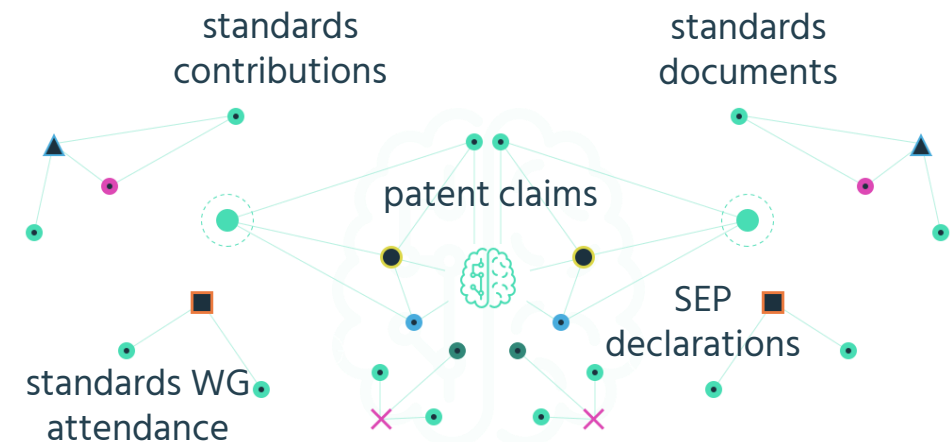
- 2,000 **5G** mapped patents (randomly selected and representative across top 30 SEP portfolios)
- 1,000 **3G/4G** mapped patents (randomly selected and representative across top 30 SEP portfolios)
- 200 **Wi-Fi 6** mapped patents (randomly selected and representative)
- 400 **VVC** mapped patents (randomly selected and representative)



# AI to predict essentiality rates of portfolios

## IPLYtics – PES (Patent Essentiality Score)

- IPLYtics prediction model scores patents as to their likelihood of being standard essential.
- A semantic LSI model is trained to compare independent claims and standard sections.
- 7 correlation features are incorporated.
- The model uses firm fixed effects to consider company specific differences.
- The model is trained making use of verified SEP training data from expert claim charts.



# VIII. Takeaways

# Takeaways

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## Technology revolution:

- Connectivity in the energy sector has the potential to **fundamentally change** the energy industry **value chain**.
- To cope with these challenges, the energy industry needs to face the complex licensing world of the telecommunications industry:
  - ensure that they not only have the **right IP strategy** in place but also a **seat at the table** when technology standards are developed.
  - This includes a more **comprehensive monitoring** of patent filings, SEP declarations, as well as patent pooling initiatives
  - in order to **manage risk** and **identify opportunities** to shape the future of connected technology.

# Iplytics Europe and US

For more information on Iplytics Products and Services, please contact us on:

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# IPLYtics Podcast

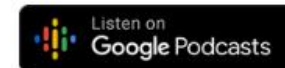
For more information:

<https://www.iplytics.com/events/podcast/>



## The SEP Couch

In this podcast, Tim Pohlmann, CEO and Founder of IPLYtics, hosts discussions with industry leaders, academics and policy makers on current topics around standard essential patents (SEPs) and as they relate to FRAND, licensing, litigation, dealmaking, policy, and regulation as well as general trends for markets where SEPs matter. Invited guests are interviewed in a 45-minute podcast format expressing their personal views on topics under discussion among IP professionals when it comes to essential IP. This podcast encourages an open discussion format while it remains neutral to the controversial opinions and viewpoints of invited guests.



# Contact

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Questions?

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