

Reinventing Patent Maps

Sample topic: **Battery materials**

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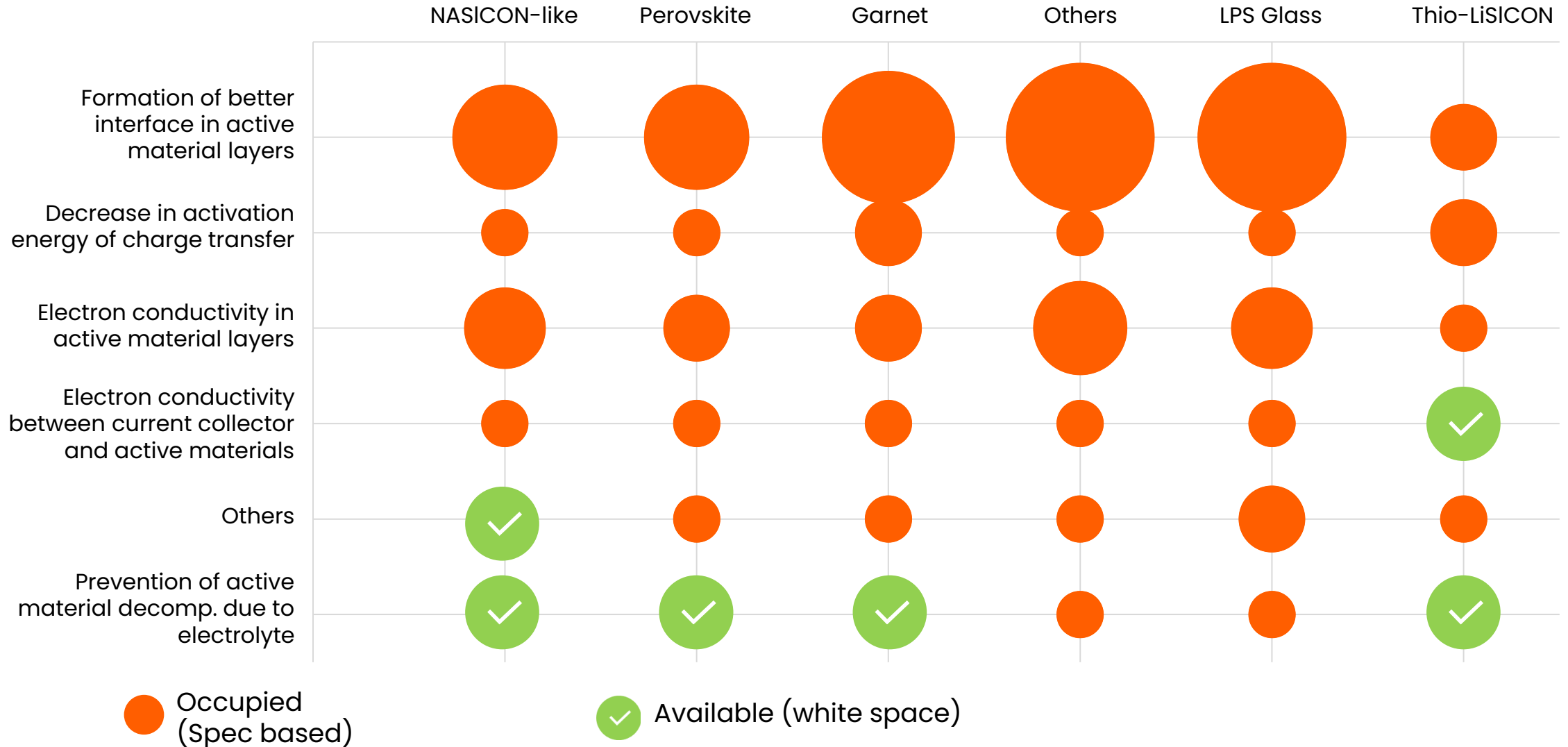
- Patent landscape reports are commonly used to identify **white spaces in technology, monitor competitors**, etc.
- A common analyst-driven (as opposed to a machine driven) patent landscape relies on **terms present in title/abstract/claims** and **full specification**
- However, a **patent landscape based on full specification is an aggressive approach** to claim interpretation. This interpretation may limit whitespaces much more aggressively than what is warranted
- An **alternative conservative, approach to patent landscape reports is to base them on claims and working examples**. It is well-known in case law that working examples limit patent claims
- A better way to develop patent landscapes is to **analyze patents using both approaches and present the range of possibilities visually** so that users can identify areas where a closer look can unlock new whitespaces
- This report details this approach with an example from battery technology

Working Example-Based vs. Specification-Based Mapping

- **Examples play a key role in interpretation of claim limitations** in a patent litigation
- To illustrate how a patent map can change significantly if **claim/working example-based mapping** is applied vs. conventional **specification-based mapping**, SPA picked a recent project involving battery technology
- SPA's analysis approach was as follows:
 - Information presented in patent disclosures was captured **only from claims AND working examples**
 - Information **disclosed in specification, but not claimed or supported through experimental data, was ignored**
- Such captured information was charted in the traditional formats: Technology Trend map and White Space maps
- For the purpose of illustration, maps were also developed using SPA's conventional mapping approach where information disclosed in **claims AND general specification** is captured

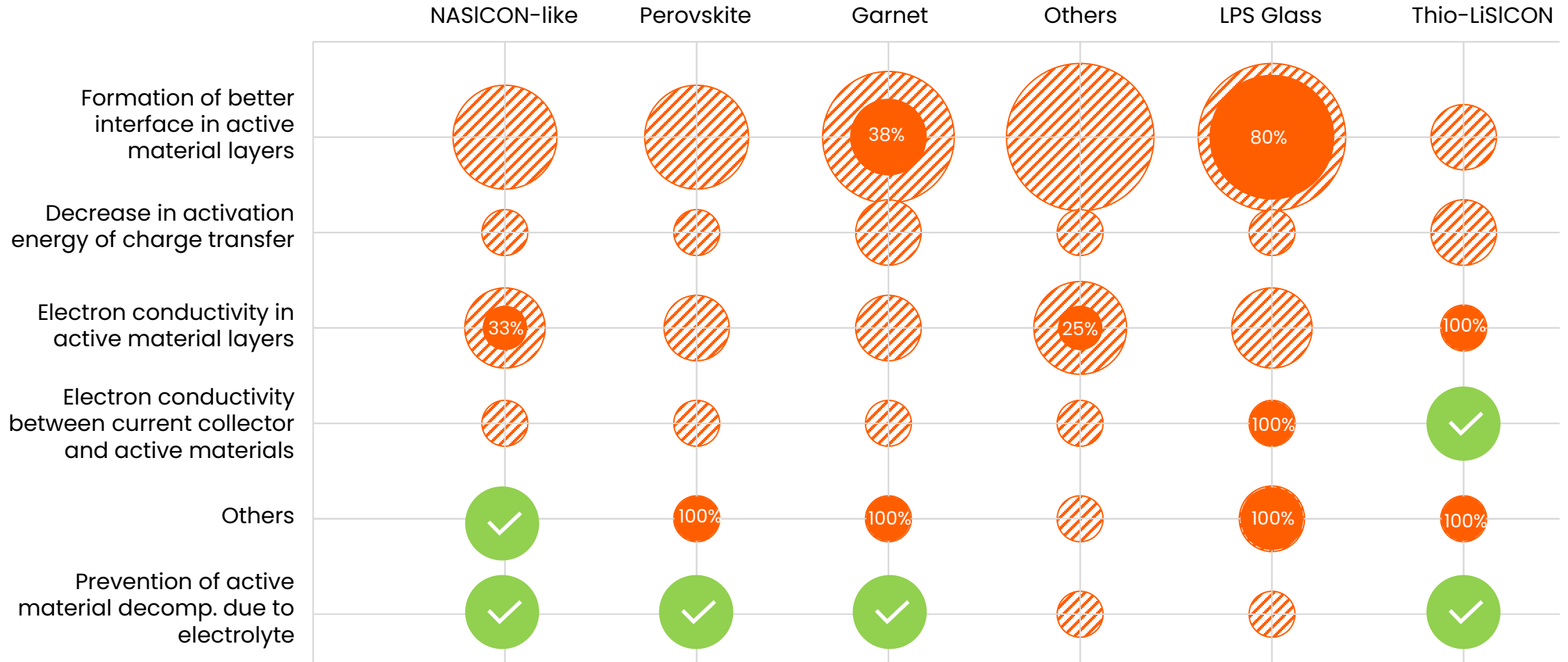
Specification-Based White Space Map

INORGANIC SOLID ELECTROLYTE VS. INTERFACE PROBLEM



Working Example-Based Whitespace Map

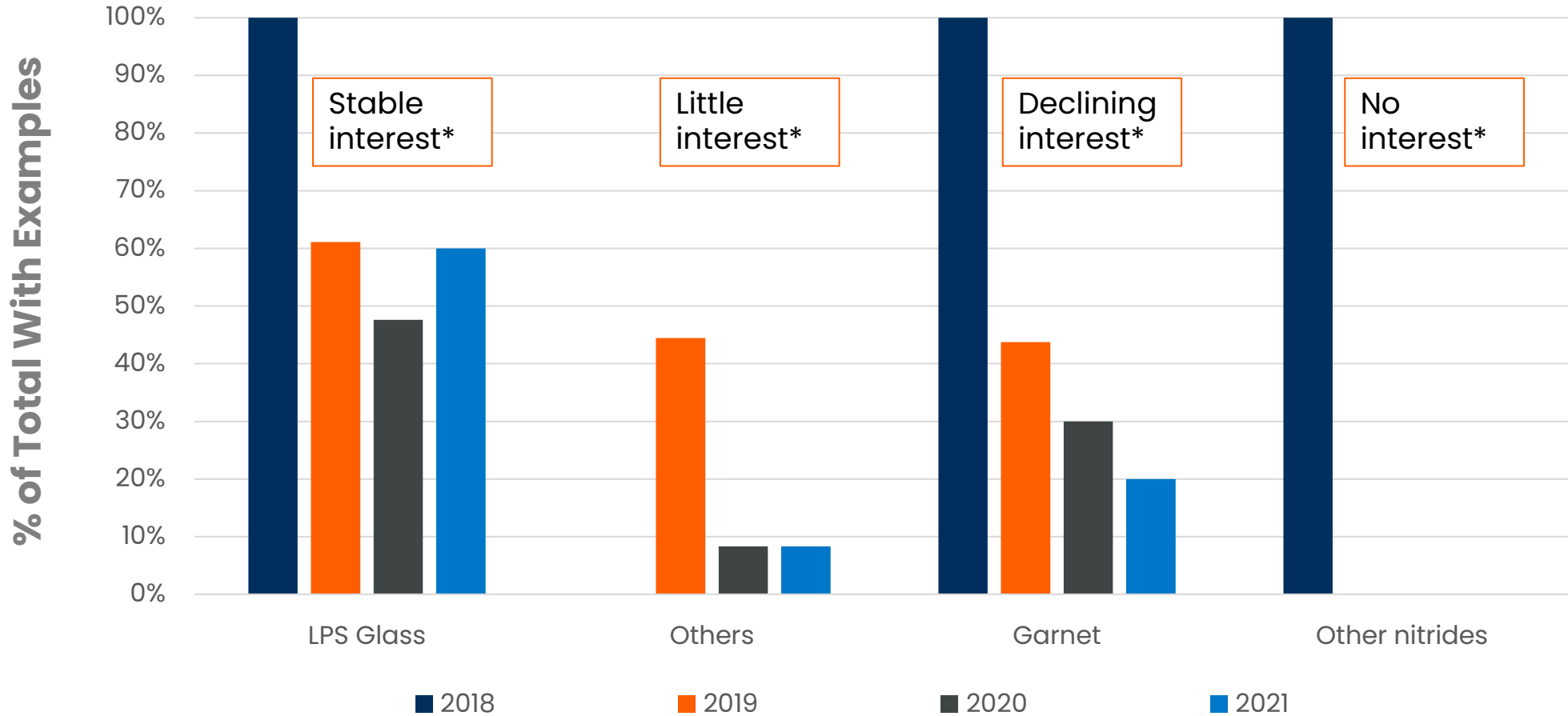
INORGANIC SOLID ELECTROLYTE VS. INTERFACE PROBLEM



● Occupied (Claim/example based)
 ● Potentially open (No working examples)
 ✓ Available (white space)

Working Example-Based Trend Chart

TYPE OF INORGANIC SOLID ELECTROLYTE BY PATENT FILING YEAR



** Interest assessed based on working examples of that material disclosed in the patents*

Why are Working Examples important?

35 U.S.C. § 112

Specification Requirements

1. Contain a written description of the invention
2. Enable the invention through description of the manner and process for making and using it, and
3. Set forth the best mode contemplated by the inventor of carrying out the invention

“Undue Experimentation”

Wands Factors* Applied In Patent Litigations

1. The quantity of experimentation necessary
2. The amount of direction or guidance presented
3. The presence or absence of working examples
4. The nature of the invention
5. the state of the prior art
6. the relative skill of those in the art
7. the predictability or unpredictability of the art, and
8. the breadth of the claims

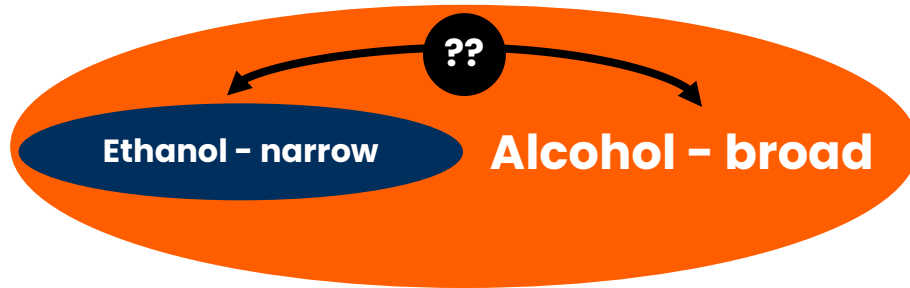
* *Applied to assess claim scope and validity*

Working examples play a key role in claim interpretation and patent validity assessment

How are Claims Interpreted in Patent Litigations?

PURPOSE

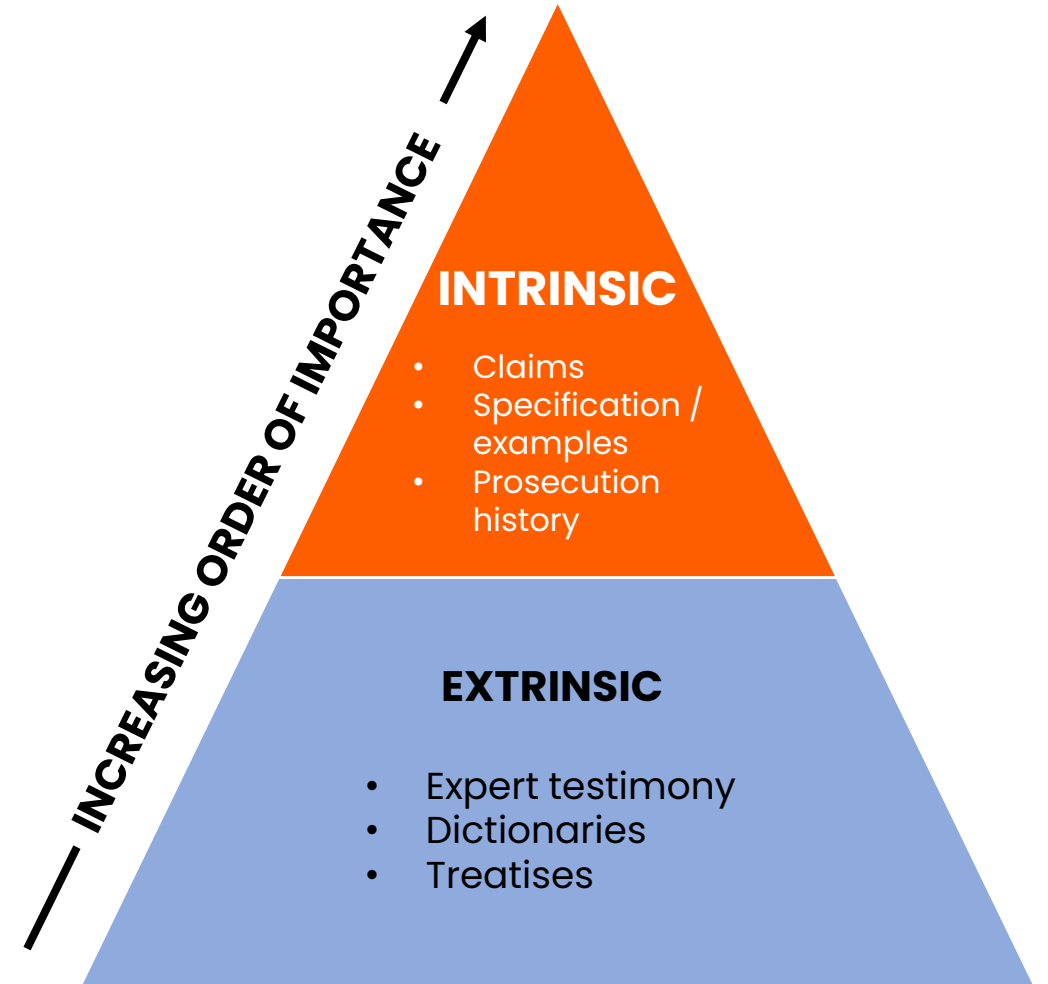
Identify key disputed claim limitations



COURT PROCESS

- Markman Hearings (in US courts) play a key role
- After Fact Discovery, both plaintiff and defendant present their constructions
- The judge then rules on claim construction
- The judge's ruling on construction becomes part of jury instructions during subsequent trial

EVIDENCE FOR CONSTRUING A CLAIM



- Visualizing patent landscapes both from specification and examples provides a more robust approach to understand whitespaces
- This approach provides multiple advantages by providing deeper insight into
 - Areas requiring a deeper dive into claim interpretation
 - Technologies of growing competitive and/or commercial interest, etc.
- Users of patent maps, armed with this understanding, should be specific in what analysis is truly needed, e.g.,
 - Specification-based
 - Claim/example-based
 - Figure-based, etc.
- In addition to the above approach, a meaningful taxonomy is critical to extracting insights. Analysts should work closely with R&D clients to clearly define what taxonomy is meaningful for the problem at hand

About SciTech Patent Art

SciTech Patent Art (SPA)

- **Technology & patent intelligence** firm established in 2002...over 20 years old
- **Hyderabad**, India-based
- **ISO 27001** certified - maintaining confidentiality is core
- **Over 300 R&D clients** in US, Japan & Europe
 - Consumer goods
 - Chemical
 - Packaging
 - Food, etc
- 100+ advanced degree **scientists and technologists. AI & Big Data analytics** team

Patent Intelligence Services

- Prior art / landscape
- Patentability
- Freedom-to-operate
- Invalidation
- Evidence-of-use
- Design
- Alerts and one-page summaries

Technology Intelligence Services

- **Technology strategy & plan.** - Patent, non-patent & product landscape; Technology trends, Problem-solution, tutorials, whitespace analysis, etc.
- **Competitor monitoring** - Technology / product profile, alerts and one-page summaries
- **Technology scouting** - Start-up tracking, partner identification
- **Other custom reports**

Portal Services

- Competitive intelligence
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- Connect-the-dots
- Technical literature tracker
- Patent prosecution track
- Alerts
- Automatic figure labeling
- Patent ranking
- Patent portfolio analysis

Our Litigation Alliance Partners



CaseSight, Inc.

- **Consulting firm** founded in late 90s...over 25 years old
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- Focused on **patent litigation consulting**
 - Markman tutorials
 - Trial graphics
 - Expert witness preparation
 - Depositions, etc.
- Clients are highly **reputed patent litigation law firms**, e.g.,
 - Morgan Lewis
 - Mintz Levin
 - Prince Lobel
 - K&L Gates



LitAgility, Inc.

- **Software and related services** firm founded in 2016
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- Focused on **IP litigation strategy**
 - Contextual evidence presentation
 - Claim charts
 - SWOT analysis
 - Damages evaluation, etc.
- Used repeatedly for evaluating case strategy by litigation teams at
 - Prince Lobel
 - K&L Gates
 - Mintz Levin and others

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