



# Protecting Your Intellectual Property: Practical Strategies for Managing Patent Rights

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# OVERVIEW

- **Patent Basics**
- **Post-Grant Review of Patents**
- **Patent Eligible Subject Matter**

# Intellectual Property

<b>Types of Rights</b>	<b>Scope of Coverage</b>	<b>Examples</b>
<b>Patents</b>	<b>New and Useful Inventions</b>	<b>Products, Devices, Processes, Improvements, Designs</b>
<b>Trademarks</b>	<b>Identification of Source of Product or Service</b>	<b>Apple ®</b>
<b>Copyrights</b>	<b>Unique Expressions of Ideas</b>	<b>Instruction Manuals, Books, Packaging</b>
<b>Trade Secrets</b>	<b>Secret Information</b>	<b>Any Secret that Benefits Business: Non-public Processes, Business Plans, Databases, Customers</b>

# Patent Basics: What is a Patent?

- Complete description of an invention, followed by “claims”
- **Claims**: The claims define in words the inventive technology owned by the patent holder
- **Rights**: Patents provide the right to exclude others from making, using, selling, or importing the claimed invention into the United States – *a patent does not confer a right to use invention*
- **Term**: of 20 years from filing (not counting various patent and regulatory extensions)

# Patent Basics: Anatomy of a Patent

- **Specification**
  - **Abstract**
  - **Detailed Description**
  - **Figures**

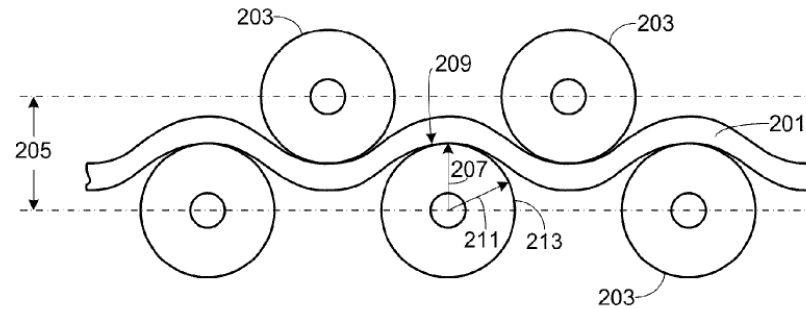


FIG. 2

From U.S. Patent No. 8,541,127 assigned to Tesla Motors, Inc.

- **Claims**
  - Define the “territory” owned or scope of the invention

# Patent Basics: Claims

## Independent and Dependent Claims

Examples from U.S. Pat. No. 8,541,127 Assigned to Tesla Motors, Inc.

1. A thermal management system for use with a battery pack, the battery pack comprised of a plurality of cells arranged into at least a first row of cells and a second row of cells, wherein said first row of cells is adjacent to said second row of cells, said system comprising:

a cooling manifold assembly interposed between said first and second rows of cells, said cooling manifold assembly comprising; a coolant tube, said coolant tube including at least one coolant channel, wherein said coolant tube is comprised of a first surface adjacent to said first row of cells and a second surface adjacent to said second row of cells; and

a thermal interface layer overmolded onto said coolant tube, wherein said thermal interface layer is comprised of a plurality of pliable fingers that extend away from said coolant tube, wherein said plurality of pliable fingers are interposed between said first surface of said cooling tube and said first row of cells and between said second surface of said cooling tube and said second row of cells, and wherein said plurality of pliable fingers are deflected by and in thermal contact with said first and second rows of cells.

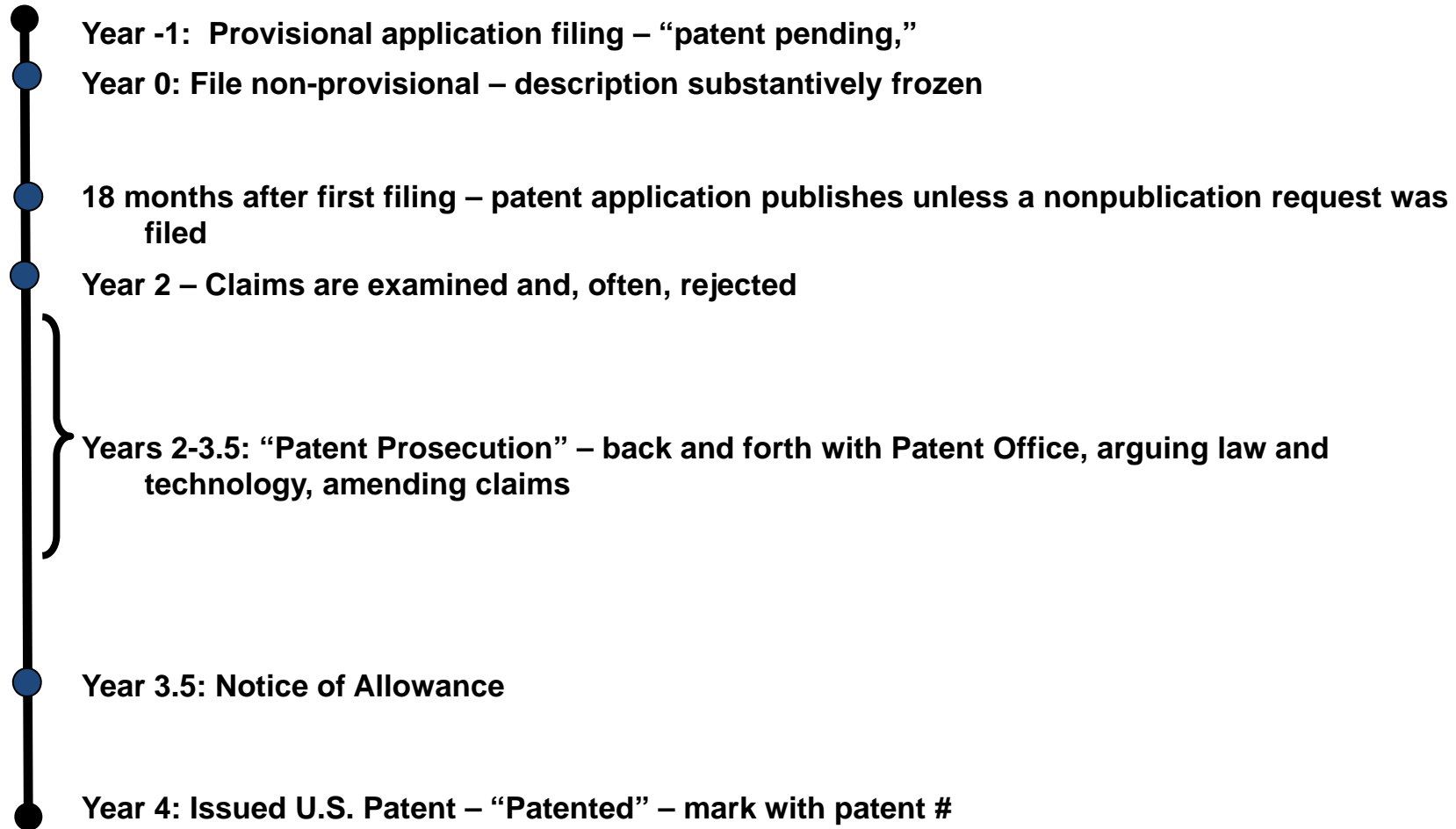
2. The thermal management system of claim 1, wherein said first row of cells is offset from said second row of cells.

# Types of Patents: Technologies

**Patent Eligible Subject Matter:** Any “new and useful process, machine, manufacture, or composition of matter”

- **Mechanical Inventions** – turbines, wind power, hydropower, electric vehicles, fueling stations, modular housing
- **Electrical Inventions** (hardware, software) – solar cells, fuel cells, batteries, power distribution control, network architecture for power management, LEDs
- **Chemistry-Related Inventions and Biotechnology** – biodegradable materials, polymers made from recycled pollutants, light-weight composites, high-temperature materials for more efficient combustion technologies, cement alternatives, insulation materials
- **Methods or processes for any of the above** – methods of use, methods of making, etc.

# Example Timeline of a Typical U.S. Patent Application





# Some Patent Statistics

## Number of US Patents Issued by the USPTO in 2014

- Colorado – 3184
- Utah – 1374
- Idaho – 1012
- Nebraska – 364
- Wyoming – 122
- Montana – 115
- South Dakota – 115
- North Dakota – 104

# New Third-Party Challenges to Patents and Patent Applications at the USPTO

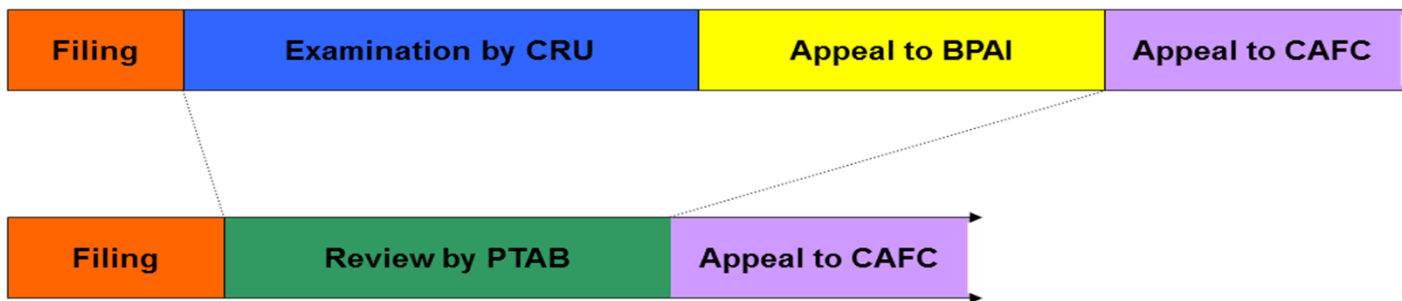
- Third-party challenges to patents or patent applications include:
  - **Inter partes review (IPR)**
    - USPTO fees ~\$25k
    - \$350k-\$700k professional fees to completion
    - Typical patent case is \$1-\$5 million to completion
  - Post grant review (PGR)
  - Ex Parte Reexamination
  - Covered Business method patent review (CBM)
  - Preissuance submissions
  - Derivation proceedings

# Why and When Use an IPR?

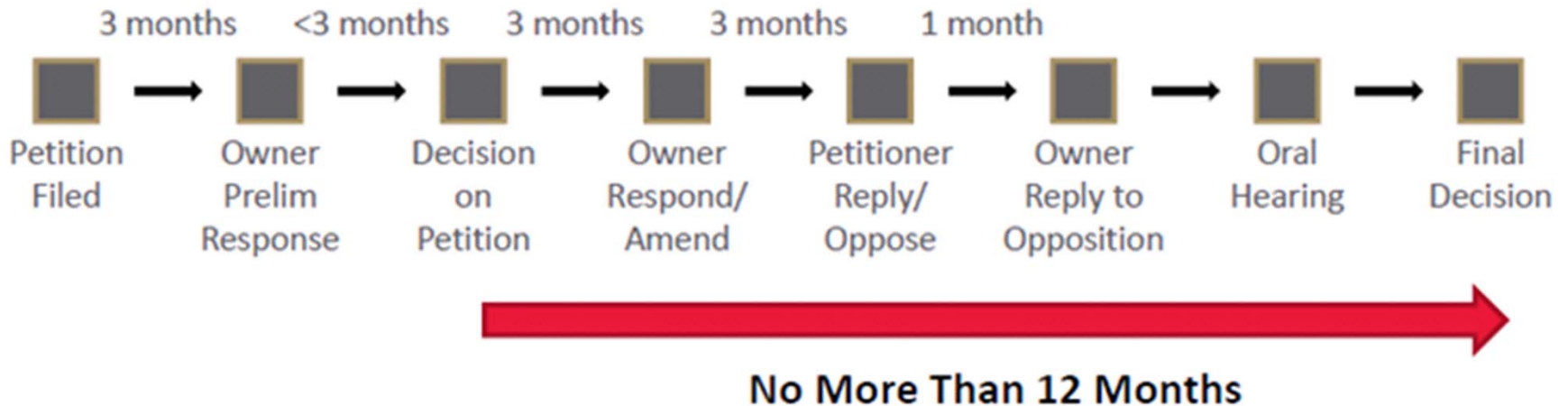
- **Why?** – Faster, cheaper, and more defendant friendly to challenge the validity of an issued patent at the USPTO than in federal district court
  - ~85% of IPR petitions granted
  - ~70% of stays granted in patent litigation cases in which an IPR was filed
  - ~60% – all claims in patent deemed unpatentable in IPRs
  - ~76% – cancellation/amendment of at least some claims in patent in IPRs
- **When?** – Your company is sued for patent infringement and/or a patent prevents your company from being able to freely operate

# Stages and Timeline of an IPR

- Old *inter partes* reexamination proceedings



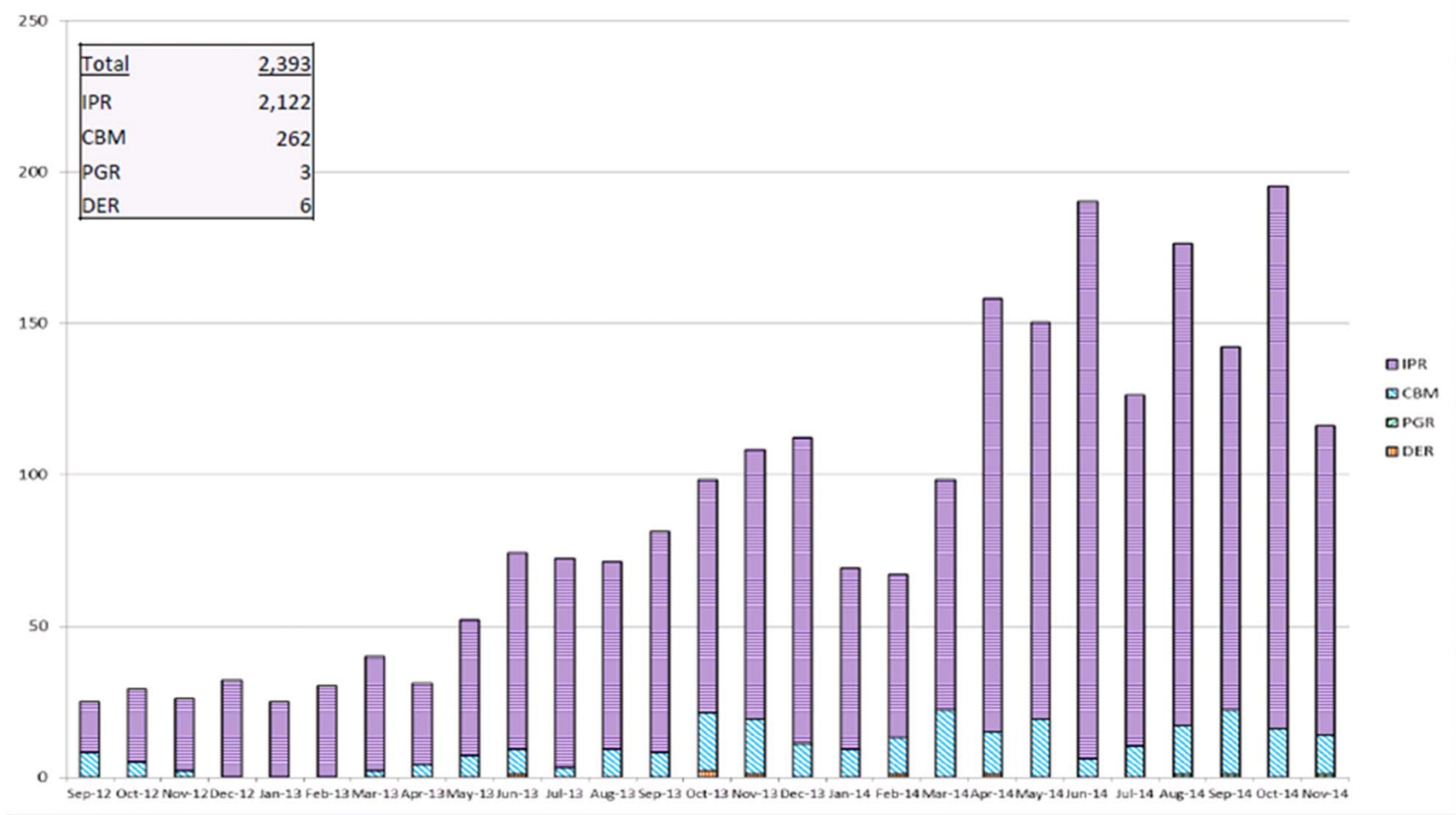
- *Inter partes* review proceedings



# Efficient Resolution of Validity

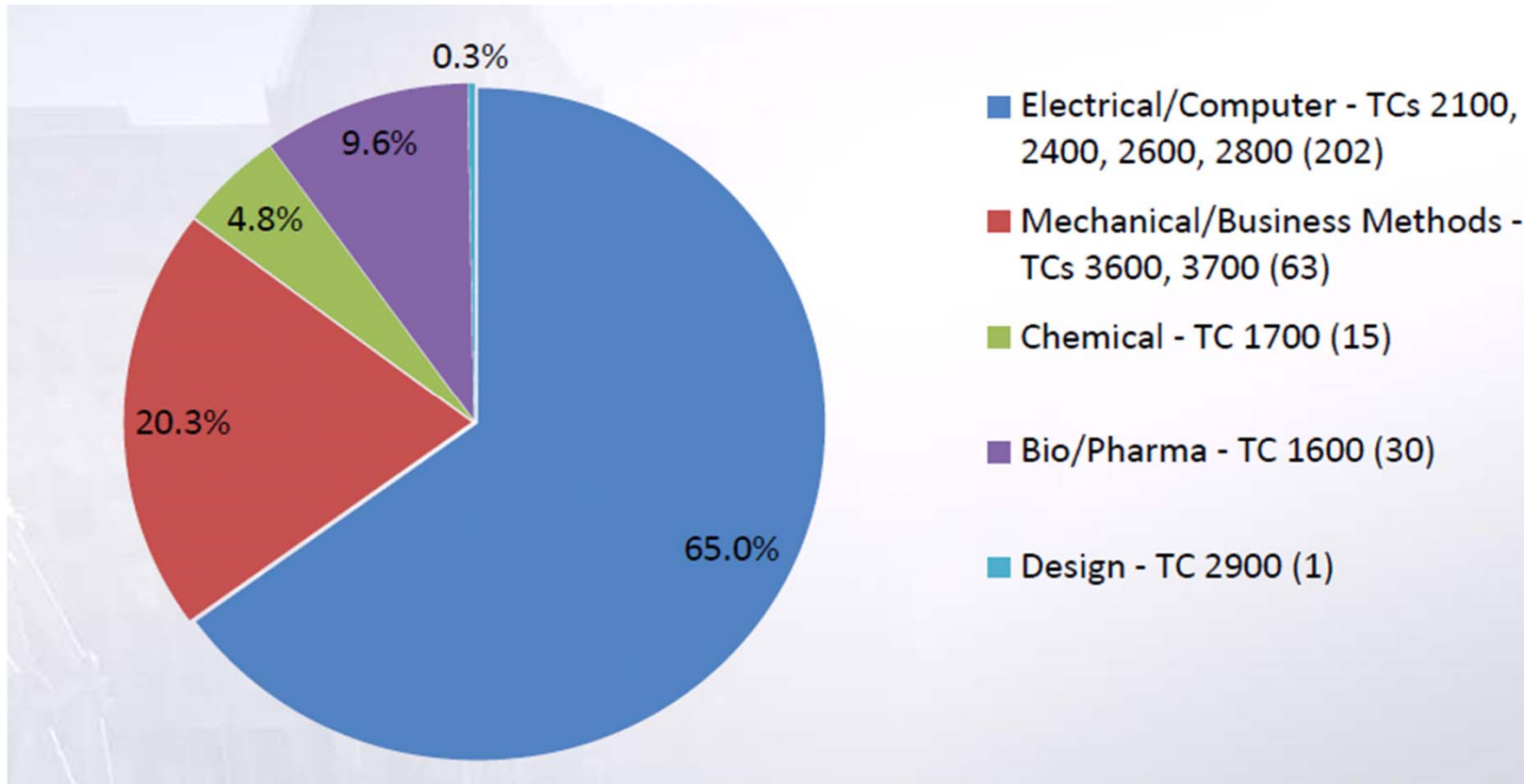
<b>Who is in charge?</b>	3 Administrative patent judges
<b>Communication</b>	Emphasis on access and quick decisions (encourages conference calls)
<b>Flexibility</b>	Parties can stipulate to different dates than the scheduling order (but not different oral hearing date). Trial Practice Guidelines (77 F.R. 48,756).
<b>Discovery</b>	Limited, routine discovery is allowed. Parties may agree to additional discovery between themselves. 37 C.F.R. § 42.51(b)(2).
<b>Speed</b>	Final written decision w/in 12 months of initiation of proceedings (grant of petition). But can extend 6 months for good cause. 35 U.S.C. § 316(a)(11), 37 CFR 42.100  The PTAB recently confirmed that they are committed to meeting the 12 month deadline, despite the increasing workload

# Increasing Popularity



[http://www.uspto.gov/ip/boards/bpai/stats/112714\\_aia\\_stat\\_graph.pdf](http://www.uspto.gov/ip/boards/bpai/stats/112714_aia_stat_graph.pdf)

# Electrical/Computer Patents are Challenged Most Often



[http://www.uspto.gov/ip/boards/bpai/stats/112714\\_aia\\_stat\\_graph.pdf](http://www.uspto.gov/ip/boards/bpai/stats/112714_aia_stat_graph.pdf)

# Major Differences Between AIA Actions

## IPR

All patents are eligible (both Pre- and Post-AIA filing dates)

Petitioner has not filed an invalidity action and petition is filed no more than one year after service of infringement complaint

Only §§ 102 and 103 grounds based on patents or printed publication

## PGR

Only FTF (post-AIA) patents are eligible

Petitioner has not filed an invalidity action and petition filed within 9 months of patent grant

Only §§ 101, 102, 103, and 112, except best mode

## CBM

All covered business method patents are eligible

Petitioner must be sued or charged w/ infringement

Only §§ 101, 102, 103, and 112, except best mode



# Patent Eligible Subject Matter

- What has changed after *Alice* and *Sequenom*?

	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15
<b>Biotech</b>								
1630	32.9%	33.7%	32.0%	32.1%	37.7%	35.3%	35.1%	35.0%
1640	18.9%	20.7%	17.2%	15.3%	11.2%	21.3%	17.3%	16.5%
<b>Ecommerce</b>								
3620	89.1%	89.8%	85.7%	88.0%	84.4%	90.1%	92.2%	90.3%
3680	82.0%	82.7%	86.5%	82.5%	76.9%	83.7%	84.3%	85.4%
3690	94.5%	93.3%	88.0%	93.1%	87.5%	95.7%	94.1%	96.6%
<b>Other</b>	7.3%	6.8%	4.5%	6.8%	5.8%	13.1%	7.7%	7.4%

# **Alice – “Abstract Idea” problem for computer-implemented innovation**

- **Patent concerned system for intermediated settlement of a transaction**
- **US Supreme Court invalidates patent, setting out process for invalidation when directed toward “abstract idea”**
  - **Identify the “abstract idea” (intermediated settlement)**
  - **Then, look for “something more”**
  - **NOT OK = routine steps, generic computer implementation, obtain data, etc.**
  - **COULD BE OK = improve function of computer itself, improve another technology or field**

# ***Mayo/Sequenom* – “Law of nature” problem for therapeutic innovation**

- ***Mayo* patent concerned system for correcting drug dosage based on measured quantity of blood metabolites**
- **US Supreme Court invalidates patent, setting out process for invalidation when directed toward “law of nature”**
  - **Identify the “law of nature” (metabolism of drug in bloodstream)**
  - **Then, look for “something more”**
  - **NOT OK = routine steps, administer drug, measure metabolite levels**
  - **COULD BE OK = action to be taken, how to administer drug, mechanism to measure metabolite levels**

# ***Mayo/Sequenom* – “Law of nature” problem for therapeutic innovation**

- ***Sequenom* patent concerned MaterniT-21 test for fetal anomalies (e.g., Downs)**
- **Federal Circuit invalidates patent as ineligible “law of nature”**
  - **Identify the “law of nature” (presence of fetal DNA in maternal blood stream)**
  - **Then, look for “something more”**
  - **NOT OK = routine methods and techniques for isolating, amplifying, sequencing DNA**

**Even technology that “revolutionized patient care” can be patent ineligible**

# What to do?

- **Greater care in assessing inventions in these areas**
  - **Fields like digital health / “big data” for medicine can face a double-whammy**
- **Computer-implemented inventions**
  - **Focus on how computer operation is improved**
  - **Where possible, include portions of a physical system that go beyond an everyday computer**
- **Medical inventions**
  - **Consider claiming actions taken based on diagnostic information**
  - **Where possible, include specific actions or systems for sample acquisition or analysis**
- **Consider alternatives**

# Alternatives

- **Design Patents**
- **Trade Secrets**

# Thanks for your attention! Questions?



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