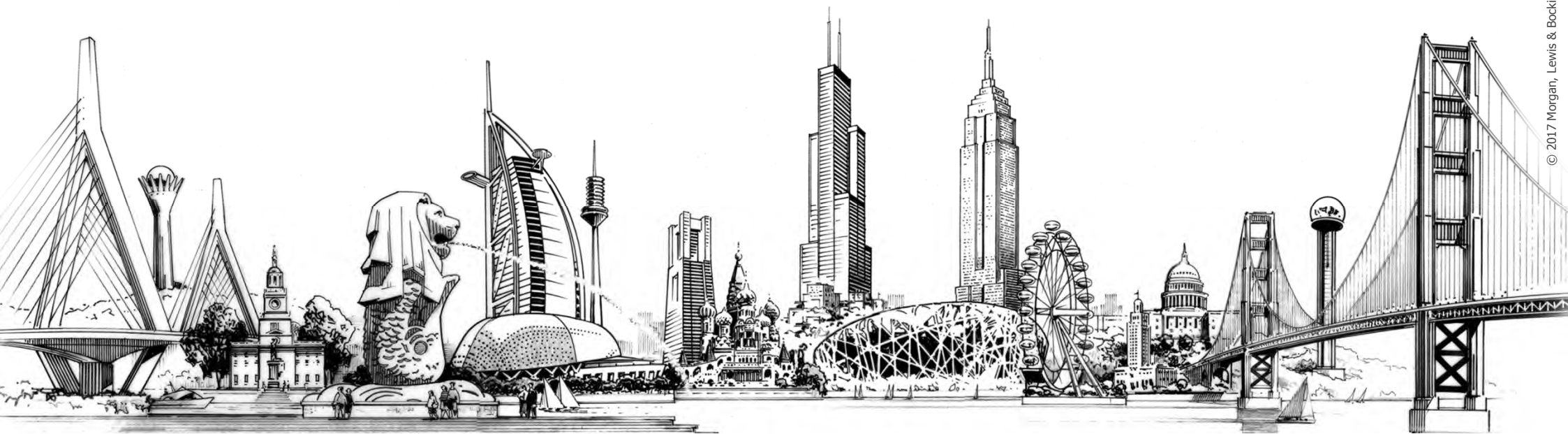


Morgan Lewis

REGULATING THE FUTURE

DOING BUSINESS IN THE GOLDEN STATE

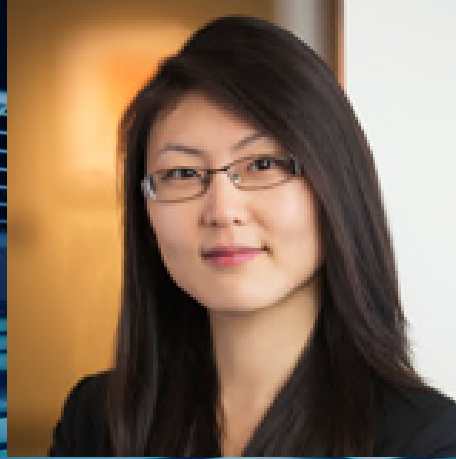
July 5, 2017



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Esther Ro
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Corey Houmand
Silicon Valley

Regulating the Future

Do regulations really kill jobs?

Is California losing its edge on innovation?

Drones: How disruptive are they and what is being done to regulate them?

Delivery robots rolling into regulatory thicket

Self-driving cars ditch California for innovation-friendly Arizona

California's descent to socialism

Regulators scramble to stay ahead of self-driving cars

Regulations coming to cannabis industry in California

Congress finally gets going on that regulating robocars thing

Regulating the Future

Government as a **referee** to oversee market activity

- **Health/Safety** - protect people from dangerous products or workplace conditions
- **Economic** - improve market efficiency and facilitate smooth operation of economy
- **Administrative** - manage practical functioning of public/private sectors

Regulating the Future

Drones

Autonomous vehicles

Robots in the workplace/home

DRONES

Drones

U.S. Drone Sales More Than Double Year-Over-Year With a Strong Start to 2017

(NPD 2017)

Drones

Media
Insurance
Agriculture

Mining
Security
Transport

**Global Market for Commercial Applications of Drone
Technology Valued at Over \$127B**

Telecommunication

Infrastructure

(PWC 2016)

Drones

To Get More Drones in U.S. Skies, the Industry is Asking Trump for Something Rare: More Regulation

(ReCode, June 2017)



DRONES: FEDERAL REGULATIONS

Federal Regulations

FAA Modernization and Reform Act of 2012

Registration

- Registration (14 CFR Part 408)

Operation

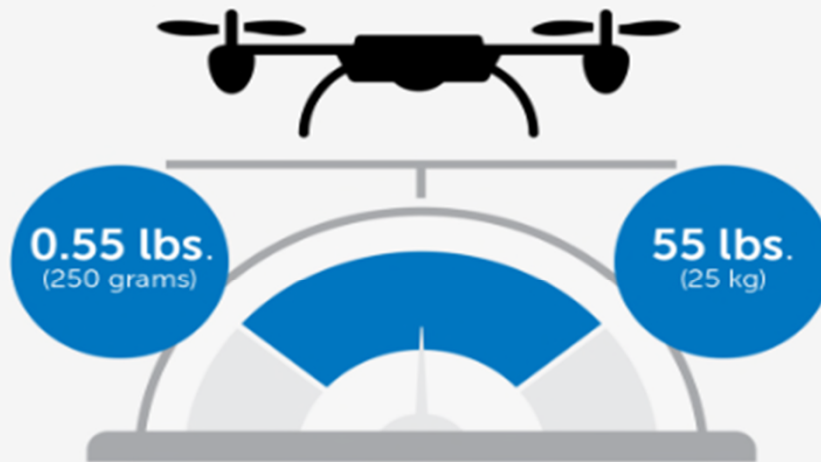
- Recreational (Section 336 of FMRA)
- Non-Recreational (14 CFR Part 107)

Federal Regulations: Registration

14 CFR Part 408

Do I need to register my Unmanned Aircraft?

You need to register your aircraft if it weighs between **0.55 lbs.** (250 grams) and up to **55 lbs.** (25 kg)



You will be subject to civil and criminal penalties if you meet the criteria to register an unmanned aircraft and do not register.



Federal Regulations: Registration

Taylor v. Huerta (D.C. Cir. May 19, 2017)

D.C. Circuit Strikes Down FAA Registration Rule for Recreational Drones

Monday, May 22, 2017

Man fought FAA over registering drones. And won. Now what?

DRONE

You No Longer Have to Register Your Drone

Jonathan Vanian
May 19, 2017



Federal Regulations: Registration

Taylor v. Huerta (D.C. Cir. May 19, 2017)

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Unmanned Aircraft Systems



We are carefully reviewing the [U.S. Court of Appeals decision \(PDF\)](#) as it relates to drone registrations. We are in the process of considering our response to the decision as well as any registration implications for non-commercial users. Please check this website regularly for further updates and instructions.

In the meantime, we encourage registration for all drone operators.

What?

e



Man fou

Federal Regulations: Registration

Taylor v. Huerta (D.C. Cir. May 19, 2017)

The FAA is working on a final rule with respect to registration and marking that will implement the court's decision. In the meantime, if you are an owner operating exclusively in compliance with section 336 and you wish to delete your registration and receive a refund of your registration fee, you may do so by accessing a registration deletion and self-certification form . . .

Federal Regulations: Recreational Use

Fly in accordance with the Special Rule for Model Aircraft (Section 336 of FMRA)

- Fly within visual line of sight
- Give way to manned aircraft
- Provide prior notification when flying near airport
- Follow a community-based set of safety guidelines

Federal Regulations: Non-Recreational Use

Fly in accordance with the FAA's Small UAS Rule (14 CFR Part 107)

- Requires remote pilot certification
- Allows commercial activity within limitations
 - Must fly within visual line of sight
 - Must fly during daylight hours
 - Must not fly over people

Federal Regulations: Non-Recreational Use

Most restrictions under the FAA's Small UAS Rule are **waivable** if applicant demonstrates that operations can be conducted safely

Waiver/Airspace Authorization

You must select at least one regulation subject to waiver or airspace authorization.

Regulation subject to airspace authorization

- ☐ 107.41 Operation in certain airspace

Regulations subject to waiver

- ☐ 107.25 Operations from a moving vehicle or aircraft
- ☐ 107.29 Daylight operation
- ☐ 107.31 Visual line of sight aircraft operation
- ☐ 107.33 Visual observer
- ☐ 107.35 Operation of multiple sUAS
- ☐ 107.37(a) Yielding the right of way
- ☐ 107.39 Operation over people
- ☐ 107.41 Operation in certain airspace
- ☐ 107.51(a) Operating limitations: ground speed
- ☐ 107.51(b) Operating limitations: altitude
- ☐ 107.51(c) Operating limitations: minimum visibility
- ☐ 107.51(d) Operating limitations: minimum distance from clouds

Federal Regulations: New Proposals

Proposed Rules Would Allow U.S. to Track and Destroy Drones

By CHARLIE SAVAGE MAY 23, 2017

FAA PLANNING TO CHANGE REGULATIONS ON DRONE FLIGHTS
OVER PEOPLE

FAA Establishes Drone I.D. Rulemaking Committee

By Tammy Waitt - June 22, 2017

FAA Sends Proposed Rule for Drone Flights
People to the White House OIRA

Drone Federalism Act Would Shift Regulation to State and Local Governments

The FAA would serve as a liaison between local governments and the national drone air traffic management system.

By Jake Lamb June 6, 2017

DRONES: STATE AND LOCAL REGULATIONS

State Regulations

Forty states have enacted laws and an additional three states have adopted resolutions

- Protecting privacy
- Prohibiting interference with emergency services
- Prohibiting weaponization
- Limiting use in connection with hunting and fishing
- Limiting operation near prisons
- Limiting operation near critical infrastructure
- Requiring registration and licensing

(NCSL 2017)

State Regulations: California

Cal. Civ. Code § 1708.8

- Prohibits use of drones in physical or constructive invasion of privacy
- Violators subject to potential injunction, disgorgement, treble damages, punitive damages, or civil fines (\$5,000 - \$50,000)

Good News for Kanye West: California Bans Paparazzi Use of Drones to Spy on Celeb Homes

By Justin Peters



371

State Regulations: California

Cal. Pen. Code § 402(a)(1)

- Potential misdemeanor if drone impedes personnel at emergency sites

Cal. Gov. Code § 853

- No liability if local officials damage a drone that is interfering with emergency services

Local Regulations

Certain states have preempted localities from regulating drones (e.g., Arizona, Delaware, Maryland, Michigan, Oregon, Rhode Island, and Virginia)

Over one hundred localities within at least thirty states have enacted drone regulations

- Some localities impose fines
- Some localities impose a misdemeanor charge

(Center for Study of Drones at Bard College, 2017)

Local Regulations: League of California Cities



Unmanned Aircraft Systems Policy Statement and Guidelines for Local Regulation

Objective

The purpose of this paper is to lay the foundation for an integrated regulatory framework for unmanned aerial systems (UAS), or drones, comprised of a seamless web of federal, state and local regulations that will work in harmony, complementing one another to ensure an effective regulatory approach that reduces risk and increases the positive uses of drones.

This objective is particularly urgent given the active efforts in state legislatures across the country, including California, to strip cities of the ability to enact reasonable regulations that protect their residents and enable productive use of drones.

While the efforts of the drone industry to achieve local pre-emption have so far failed here in California, the industry is engaged in a nationwide push, seeking to preempt cities in every state. We expect that the industry will continue to push for policies in Sacramento to eliminate local governments' ability to enact reasonable and common sense restrictions on behalf of their communities.

Local Regulations: California

- Prohibiting use in recreational areas
(e.g., San Mateo, Menlo Park, Santa Cruz)
- Restricting use near special events
(e.g., Santa Clara)
- Reinforcing existing FAA regulations
(e.g., Los Angeles)

Local Regulations: More to Come



Times Community News / Daily Pilot / News

Cities look for ways to control drone misuse

Drone Law Practices Taking Off — Again

Monika Gonzalez Mesa, Daily Business Review

May 8, 2017 | 0 Comments

San Diego City Council committee backs drone regulations

POSTED 4:07 PM, FEBRUARY 8, 2017, BY CITY NEWS SERVICE

Proposed Law Would Let Local Governments Legislate Drones

Morgan Lewis

Don Reisinger
Jun 28, 2017



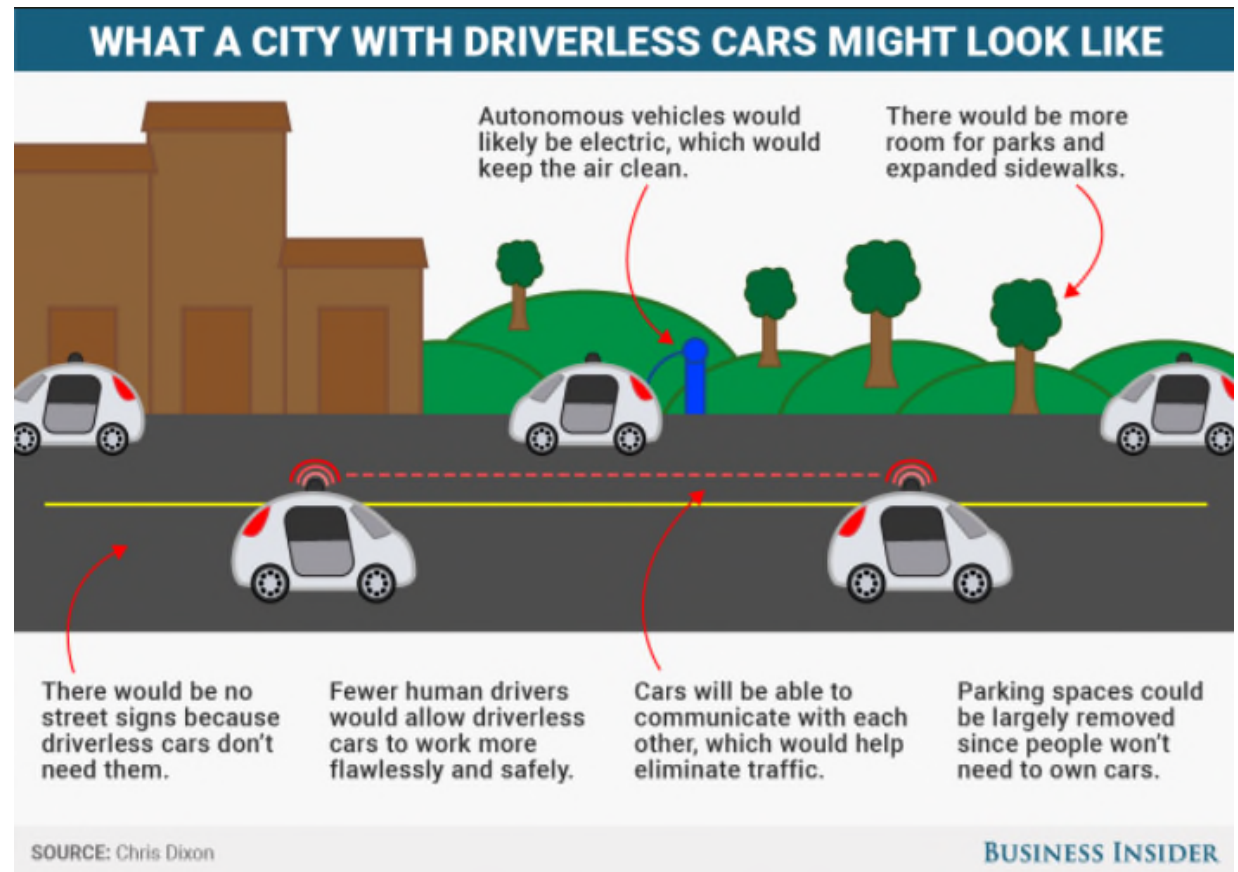
AUTONOMOUS VEHICLES

An “Autonomous Vehicle” by Any Other Name...

- “Autonomous vehicles”
- “Self-driving vehicles”
- “Driverless vehicles”

What's the Big Deal?

- Car industry
- Safety
- City planning
- Sharing economy



The Players

- Car manufacturers
- Technology companies
- Domestic and international companies



上汽集团
SAIC MOTOR



drive.ai

PSA
GROUPE



The Regulators

- Federal
 - National Highway Traffic Safety Administration
 - Department of Transportation
 - Federal Trade Commission
- States
 - Department of Motor Vehicles
 - Governor executive orders

Federal Agencies



What's Happening in the Golden State?

January 1, 2013:
California Vehicle Code section 38750 requires DMV to adopt regulations governing both the testing and public use of autonomous vehicles on California roadways

September 16, 2014:
California's autonomous vehicles testing regulations effective

December 16, 2015/September 30, 2016: DMV releases draft regulations for deployment of autonomous vehicles for public operation

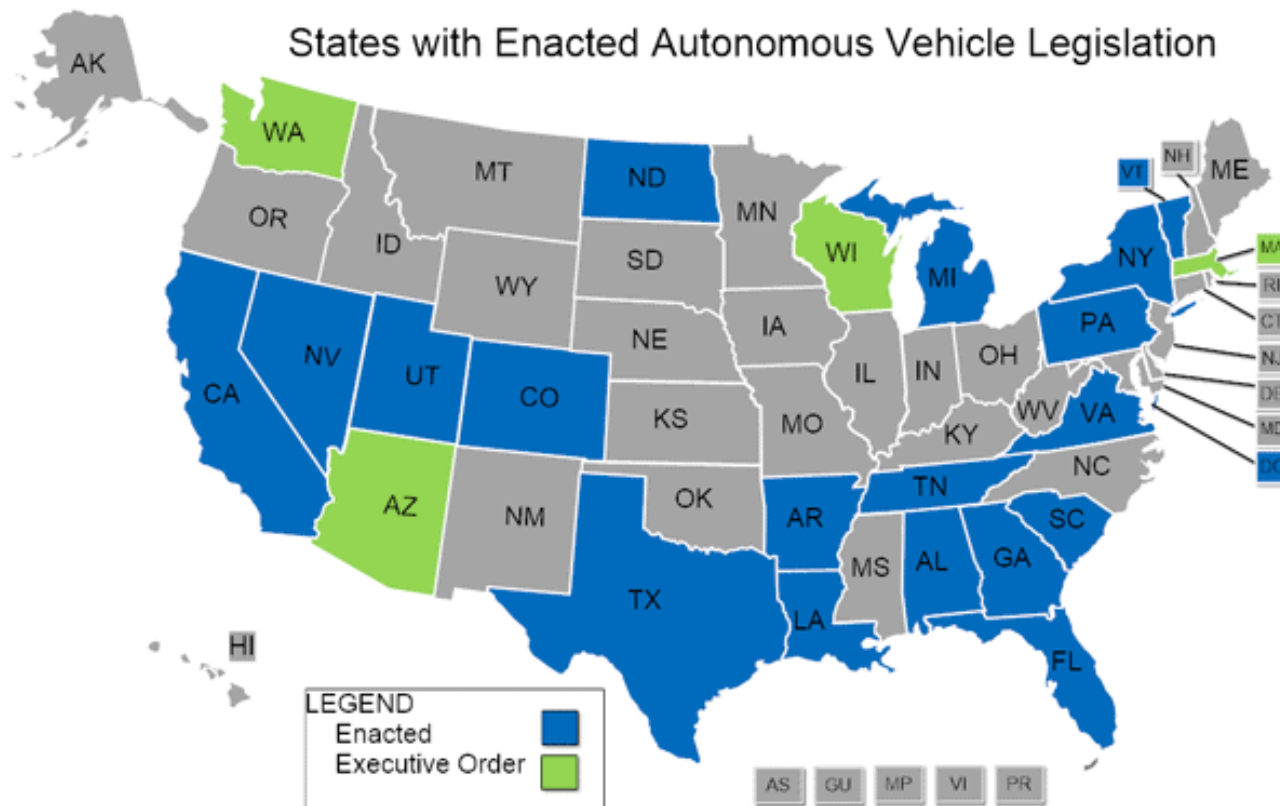
March 10, 2017: DMV releases proposed regulations to establish a path for the testing and deployment of fully autonomous vehicles in California

What's Happening in the Golden State?

- March 2017 Proposed Regulations
 - Amending Article 3.7 (testing) and adding Article 3.8 (deployment)
 - Article 3.7: testing of vehicles that do not require the presence of a driver
 - Article 3.8: deployment of vehicles that do not require the presence of a driver

State Regulations Across the Country

In 2017, 33 states have introduced legislation, up from 6 in 2012



Source: National Conference of State Legislators

Legal Issues

- Regulatory Compliance
- Products Liability
- Data & Security Breaches
- Patents & Patent Litigation
- Insurance
- Partnerships & Corporate Deal Making

What Does the Future Hold?

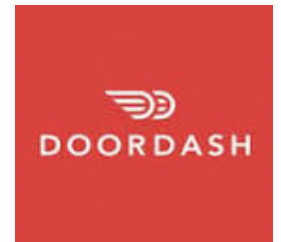
- More regulations
- More litigation
- Where will California end up in the autonomous vehicle movement?

ROBOTS IN THE WORKPLACE

Robotics in the Workplace

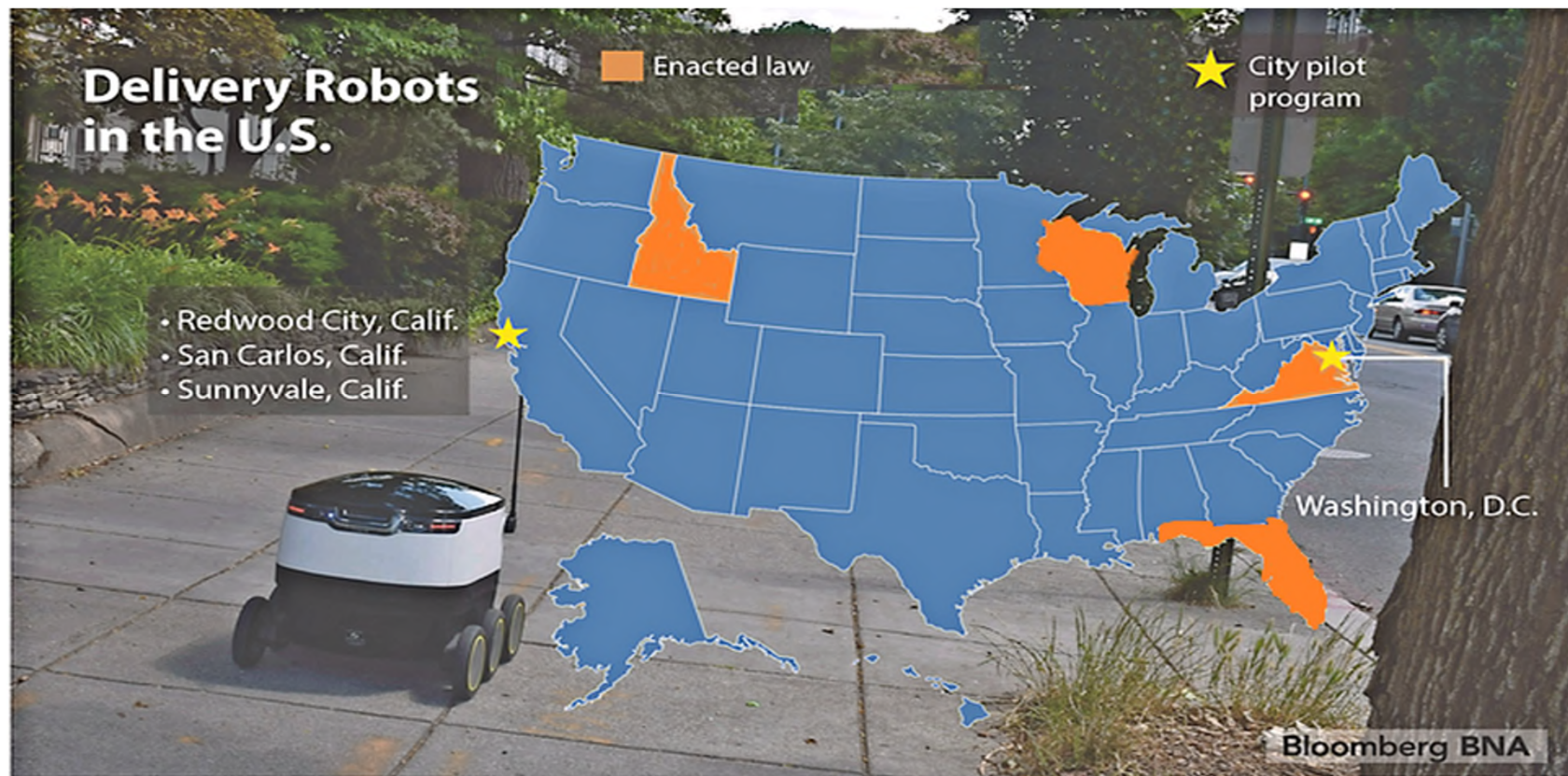
- George Charles Devol applied for a patent on the first industrial robot, the Unimate, in 1954.
- Biggest factors driving automation and AI include improved efficiency, cost reduction, technological sophistication and safety advantages.

Companies Using AI and Robots in the Workplace



Delivery Bots

VA, ID, WI and FL first to pass legislation authorizing personal delivery robots on public sidewalks.



Why Have States Passed laws?

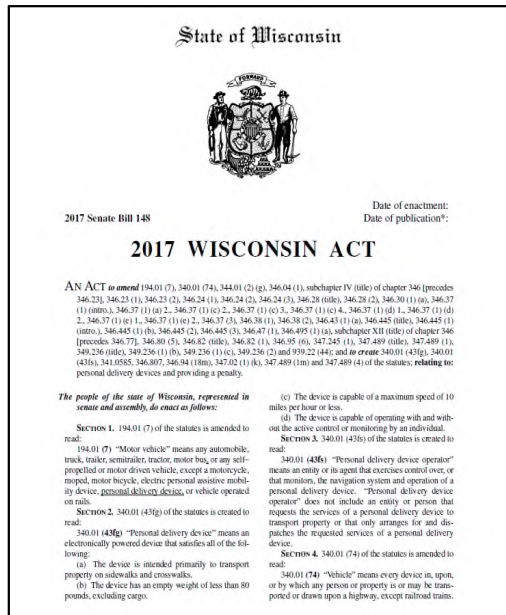
Delivery robot startups have successfully lobbied state legislatures and cities around the country.

- Starship Technologies (Estonia and London)
- Dispatch (San Francisco)
- Marble (San Francisco)

State Split

- ID and FL allow municipalities to enact their own laws or ban delivery bots entirely.
- VA and WI allows municipalities to ban delivery bots, but not enact additional regulation (to avoid patchwork quilt of local laws).

Requirements Differ by State



Idaho, Florida & Wisconsin:

- 80 lbs. or less excluding cargo
- Max 10 mph
- Equipped with braking system
- Plate or identifying marker (Wisconsin)
- Unique identifying number (Idaho & Florida)
- Device operator

Virginia:

- 50 lbs. or less excluding cargo
- Max 10 mph
- Equipped with braking system
- Unique identifying number
- Device operator

Local Anti-Delivery Bot Legislation

- San Francisco City Supervisor, Norman Yee (D), introduced an ordinance in May that would create civil or criminal penalties for the operation of delivery robots.
- Top Concerns: Delivery jobs, sidewalk safety, promotion of healthy lifestyles.

Uncertain Regulatory Landscape

CA Labor & Employment Bulletin

149

May 2017

Robotics and Automation in the Workplace

Karen Y. Cho & Caitlin V. May

technology will ultimately create or displace more jobs. Of the 1,896 experts surveyed by the Pew Research Institute, 48 percent envisioned a future in which robots and related technologies displaced blue- and white-collar workers, leading to further income inequality and unemployment.¹ However, 52 percent of experts responded that even if robots took over human jobs, technology would lead to the creation of new jobs and industries.² Other studies have painted a similar picture, such as Oxford's 2013 study, which indicated that 47 percent of American jobs are at "high risk" of being taken over by computers in the next 10 to 20 years.³ Experts indicate that industries hit the hardest may include automotive, manufacturing, and food services.⁴

Even though the full impact of robotics and automation on the workplace may be unknown, one thing is certain—employers should be aware of potential legal landmines and start planning now. This article focuses on areas of

committing significant resources to developing and rolling out these technologies. Last year the White House predicted that automation may eventually replace 1.3 to 1.7 million heavy and tractor-trailer truck-driving jobs.⁵ Manufacturing is another area where workers are already commonly working beside robots and automated technology. Retailers even use robots to quickly and efficiently fulfill and ship online orders.⁶

But robots are not just taking on manual labor and manufacturing roles; they are also performing human resource related tasks, such as conducting job interviews and acting as customer service representatives.⁷

¹ Alana Semuels, *When Robots Take Bad Jobs*, THE ATLANTIC (February 27, 2017), available at <https://www.theatlantic.com/business/archive/2017/02/when-robots-take-bad-jobs/517953/>.

² Sam Sheard, *Amazon Now Has 45,000 Robots in its Warehouses*, BUSINESS INSIDER (Jan. 3, 2017), available at <http://www.businessinsider.com/amazon-robot-army-has-grown-by-50-2017-1>.

³ See, e.g., Cameron Scott, *As Robots Evolve the Workforce, Will Labor Laws Keep Pace?* Singularity Hub (Mar. 16, 2014), available at <https://singularityhub.com/2014/03/16/robots-entering-the-workforce-but-are-labor-laws-keeping-up/> (discussing "Sophie" the human resources interviewing robot that measures interviewees' "psychological responses" to questions, such as their eye movement, along with their verbal answers); see also News Release, *Lowe's Introduces LoweBot—The Next Generation Robot to Enhance the Home Improvement Shopping Experience in the Bay Area*, PR NEWSWIRE (Aug. 30, 2016), available at <http://www.prnewswire.com/news-releases/lowes-introduces-lowebot—the-next-generation-robot-to-enhance-the-home-improvement-shopping-experience-in-the-bay-area-300319497.html> (discussing Lowe's new robot that can assist employees and customers by, for example, helping them locate products in the store).

⁴ Aaron Smith & Janna Anderson, *AI, Robotics, and the Future of Jobs*, PEW RESEARCH CENTER (August 6, 2014), available at <http://www.pewresearch.org/2014/08/06/future-of-jobs/>.

⁵ Smith, et al., *supra* note 1.

⁶ Smith, et al., *supra* note 1.

⁷ Carl Benedikt Frey & Michael A. Osborne, *The Future of Employment: How Susceptible Are Jobs to Computerisation?* University of Oxford (Sept. 17, 2013), available at http://www.oxfordmartin.ox.ac.uk/downloads/academic/The_Future_of_Employment.pdf.

⁸ Christie Nicholson, *Our Rising Robot Overlords: What Is Driving the Coming Upheaval* (August 24, 2011), available at <http://www.zdnet.com/article/our-rising-robot-overlords-what-is-driving-the-coming-upheaval/>.

Regulation of robotics and AI in the workplace remains very much uncharted territory.

Uncertain Regulatory Landscape

- **Workplace Compliance and Restructuring Issues**

- Job Dislocation and Job Creation
- Labor Unions and Collective Bargaining
- Health and Safety Standards/OSHA
- Anti-Discrimination
- Disability Accommodations
- Workers compensation

Outdated OSHA Standards

OSHA currently does not have any standards that specifically target robotics and automation in the workplace.

Prior guidelines were issued years ago and are severely outdated.

- **OSHA-Guidelines for Robotics Safety, STD 01-12-002-PUB 8-1.3 (1987)**

Contains guidelines for OSHA compliance officers, employers, and employees for safe operation of robots and robot systems.

- **OSHA Technical Manual TED 01-00-015, Section IV Chapter 4 (1999)**

Provides guidance on industrial robot hazards and robot systems safety.



What Has Been Done to Address Robots in the Workplace?

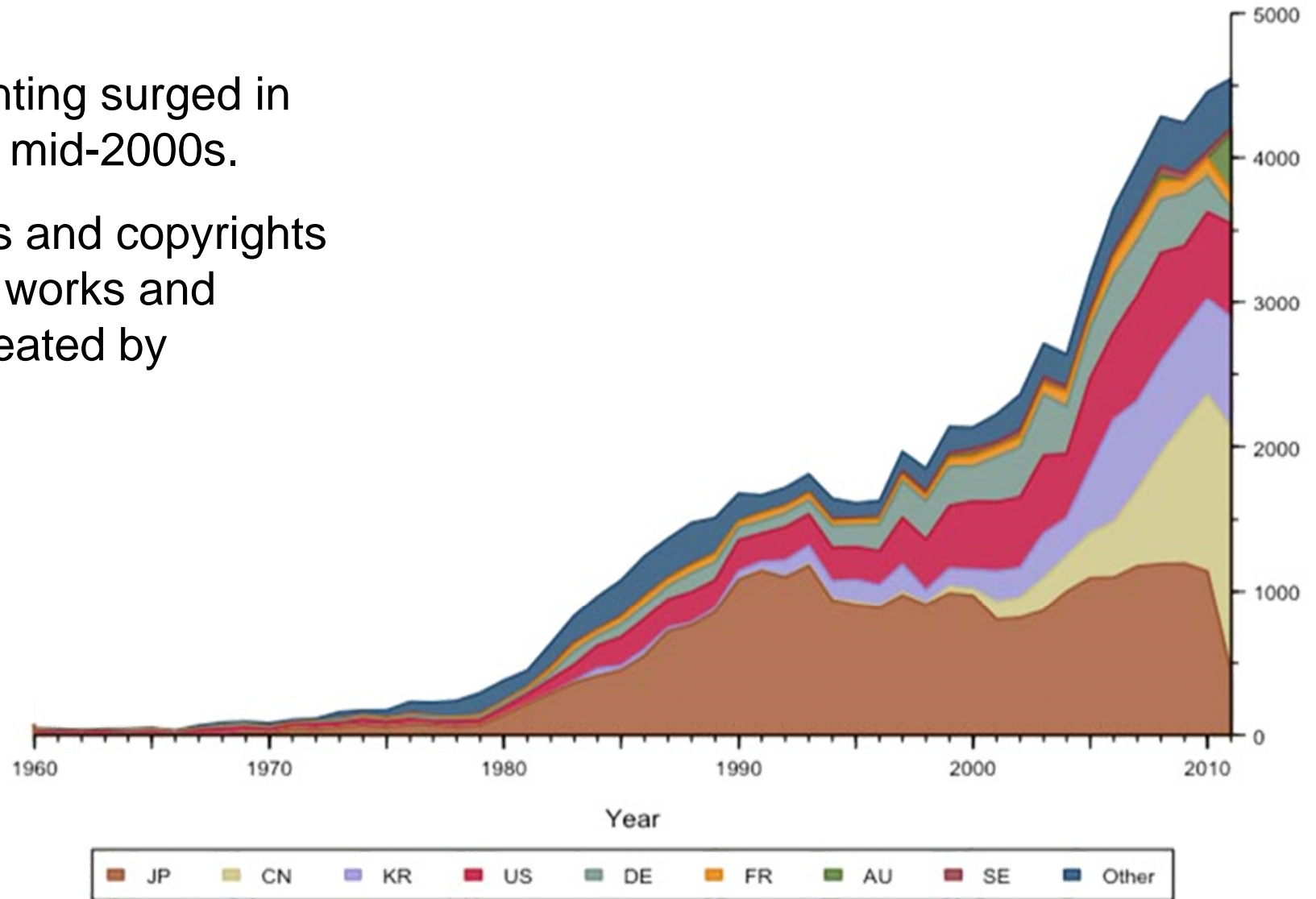
- 2011: Obama Administration launches National Robotics Initiative and Advanced Manufacturing Partnership
- 2015: OSHA announces Awareness Protection of Robotics Industry Layout (APRIL)
- 2016: White House Office of Science and Technology Policy issues *Preparing for the Future of Artificial Intelligence* and *National Artificial Intelligence Research and Development Strategic Plan*

Who Should Oversee and Set Standards for AI/Robots in the Workplace?

- **Federal or State?** Some robotics experts propose the creation of a **federal robotics commission**, similar to what Japan and the EU have.
- **Which agency should have regulatory authority?** Currently OSHA, NIOSH, FAA, SEC and NHTSA all have regulations which are applied to varying degrees of robotic technology

Robotics and Intellectual Property

- Robotics patenting surged in the 1980s and mid-2000s.
- Should patents and copyrights be granted for works and innovations created by robots?



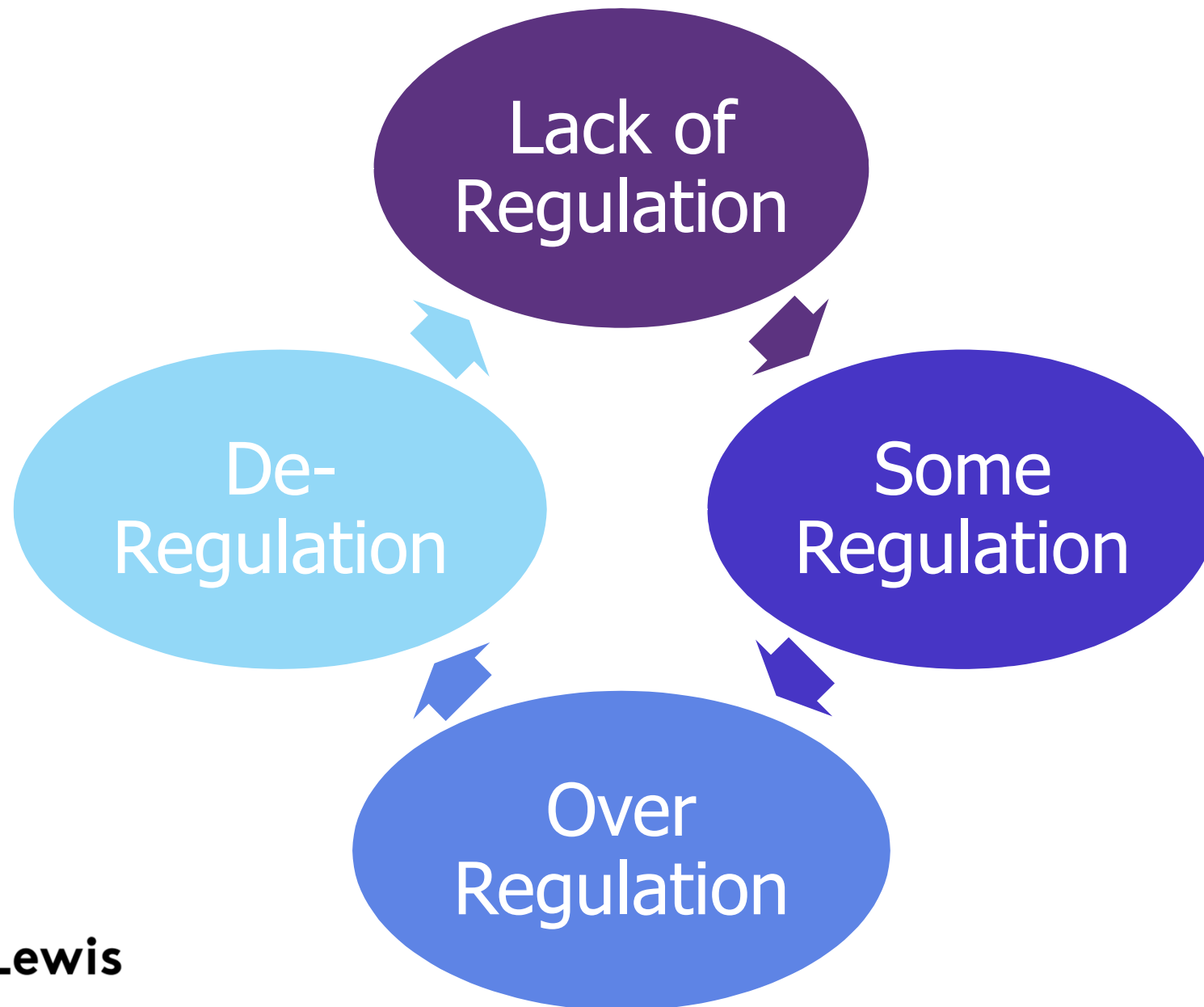
Robotics and AI in the Home

- Many of California's leading technology companies are competing to bring robotics and AI into homes.
 - Apple's HomePod
 - Google's Home
 - Amazon's Echo

Robotics and AI in the Home: Issues

- How willing are consumers to accept devices in their homes with AI that can look, listen, learn, and report on their behavior?
- How will governments try to use this information for law enforcement and other purposes?
- What protections do consumers have over their data (constitution, statutory, or otherwise)?

Common Cycle of Regulation



THANK YOU

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Biography



Brian C. Rocca focuses his practice on antitrust and complex litigation matters. He is managing partner of the San Francisco office and leader of the Firm's California antitrust practice. Brian has worked on high-stakes competition and litigation matters in a wide range of industries, with particular emphasis on high technology and internet-based services. He was named one of the Top 40 lawyers in California under the age of 40 by the San Francisco and Los Angeles *Daily Journal* in 2017.

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Lucy Wang has broad experience representing financial institutions and high-tech companies in complex and cross-border disputes. Lucy's practice focuses on securities and regulatory actions as well as a range of intellectual property and commercial litigation. She has been recognized as a Rising Star in Securities Litigation by Super Lawyers.

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Litigator Esther K. Ro represents clients in business, corporate, and intellectual property (IP) disputes, in both US federal and state courts. She drafts and argues motions, takes and defends witness depositions, and drafts and manages the discovery process. Esther also has federal jury trial experience, which includes managing day-to-day trial activities, preparing witnesses, drafting jury instructions, and preparing and opposing pretrial and post-trial motions.

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Corey R. Houmand represents clients in litigation involving patents, trademarks, copyright, trade secrets, and related intellectual property matters such as unfair competition. Corey joined Morgan Lewis after serving as a law clerk for Judge Mary Beck Briscoe of the US Court of Appeals for the Tenth Circuit and Judge Samuel G. Wilson of the US District Court for the Western District of Virginia. In law school, Corey was articles editor for the Wake Forest Law Review.

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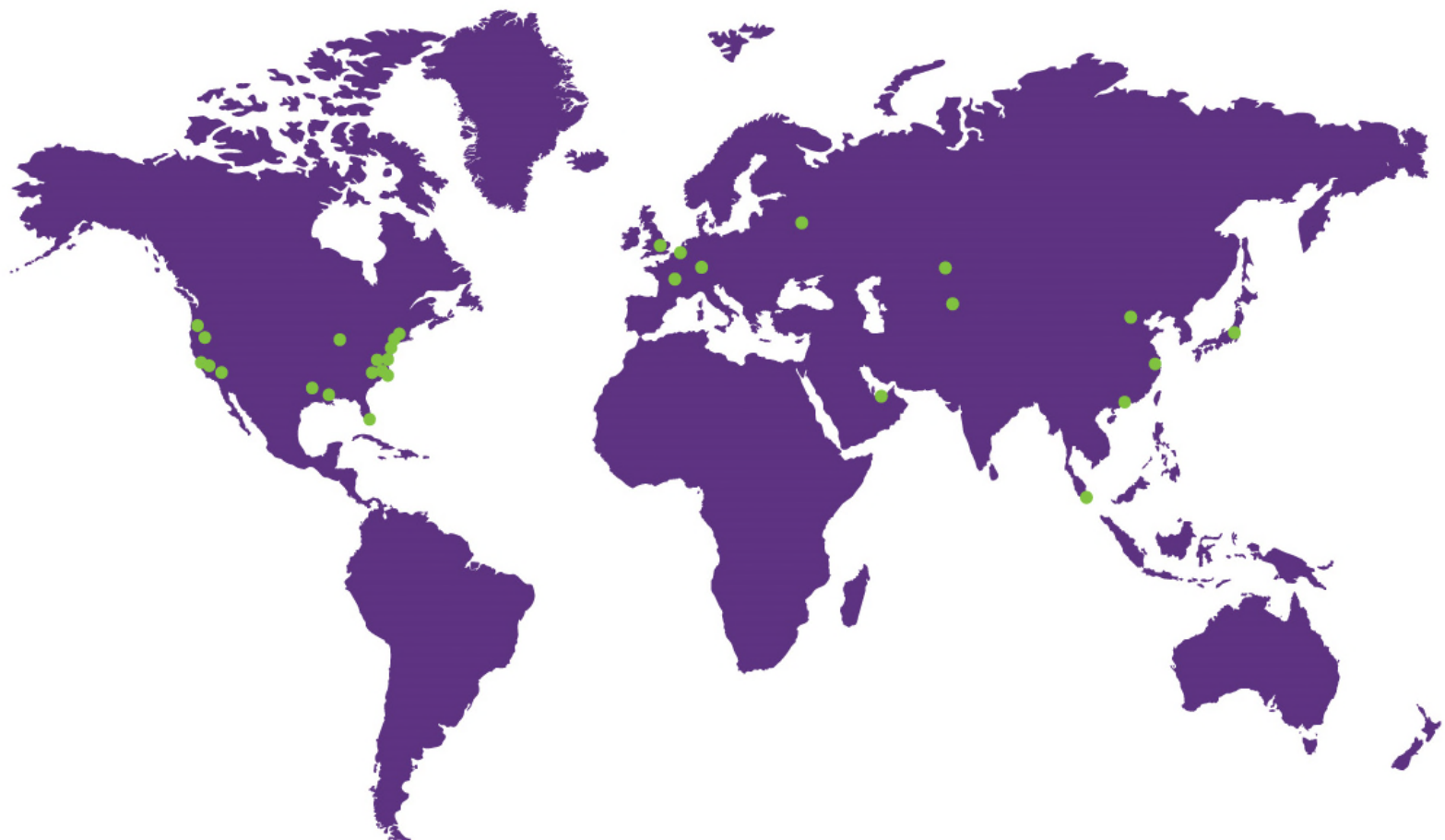
corey.houmand@morganlewis.com

Our Global Reach

Africa
Asia Pacific
Europe
Latin America
Middle East
North America

Our Locations

Almaty	Dallas	London	Paris	Shanghai*
Astana	Dubai	Los Angeles	Philadelphia	Silicon Valley
Beijing*	Frankfurt	Miami	Pittsburgh	Singapore
Boston	Hartford	Moscow	Princeton	Tokyo
Brussels	Hong Kong*	New York	San Francisco	Washington, DC
Chicago	Houston	Orange County	Santa Monica	Wilmington



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