

Modernizing Mission-Critical Systems at USITC

The United States International Trade Commission plays a key role in regulating international trade and ensuring the vitality of American enterprise.

The Mission

Adjudicate on claims of domestic injury or violations of U.S. intellectual property rights caused by import activities.

Provide analysis and information on tariffs, trade, and competitiveness.

Maintains the U.S. tariff schedule, a key data source for international commerce.

2023*

116 New Investigations
Import Injury, Intellectual Property, and Economic Analysis

136 Completed Investigations
Import Injury, Intellectual Property, and Economic Analysis

53 Investigations Instituted
Anti-Dumping and Countervailing Duty Investigations

55 New Investigations
Patent, Trademark, Copyright Infringement

14 Times
Harmonized Tariff Schedule compiled, updated, and published



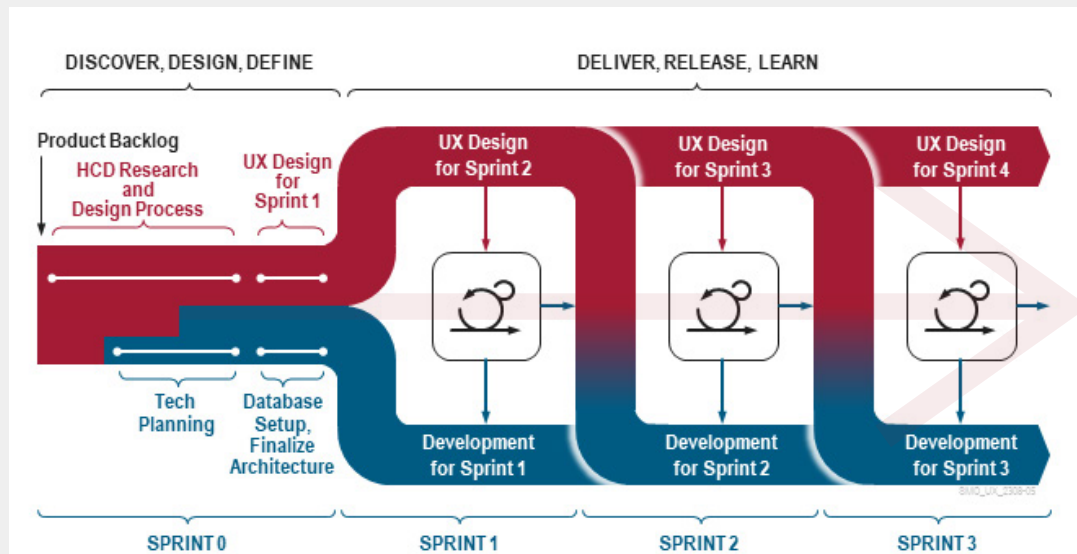
Applications Built to Achieve Regulatory Goals

Like other regulatory agencies, USITC has to accomplish a lot with few resources. With a broad user base, they contend with complex customer needs predicated on intricate regulatory responsibilities and policies. Applications must manage complicated data sets needed by an expansive group including single inventors, small and medium-sized businesses, government officials, large multinational corporations, and unions representing thousands of workers.

Technical Challenges

- Legacy application for data sharing had poor UI and required a difficult learning curve to use effectively. Data applications were not integrated with other tools.
- Tools for administering complex investigations were spread across several legacy applications creating inefficient workflows and issues with data consistency.

TCG's HCD and UX Design Process for Iterative Agile



TCG Supports 5 Mission Critical Systems with 54,430 Users

TCG's Approach to App Dev for Regulatory Missions

TCG provides user-centric software development support that maximizes resources, and continually improves quality and efficiency of systems and processes.

Know your client

Before you start designing or building, you need to understand your client and their business needs —this is accomplished through relationship and trust building.

Use Best UX Practices

Our Agile development process incorporates best UX practices, ensuring we build the right system with the least number of iterations with constant feedback along the way.

Design and Build With Reusable Code

Reusable code can be used across multiple projects, saving time and money. A reusable code library also allows all systems to inherit updates and upgrades, increasing reliability.



Investigation Database System (IDS):

Mission Impact: USITC case management system relied on for 116 New and 136 Completed Unfair Import and Import Injury cases in 2023.

TCGs Support: Prior to the development of IDS, investigation information was stored in several disparate applications, resulting in challenges such as data redundancy across systems and nonstandard, time-consuming workflows. TCG combined these disparate applications, resulting in streamlined Commission processes. Code from IDS formed foundation of USITC's central design component library.



Electronic Document Information System (EDIS):

Mission Impact: EDIS stores and catalogs the documents relevant to each investigation. It is used by USITC investigators to manage all case data related to global trade disputes. EDIS is integrated with IDS to streamline data needed to adjudicate cases.

TCG's Support: Over the years, more needs have emerged, including requirements for a bulk uploading functionality. To meet these needs, we have built out additional EDIS modules while at the same time modernizing the system's code and revitalizing the frontend features to a more user-friendly view.



Harmonized Tariff Schedule (HTS):

Mission Impact: The definitive source for all real-time trade and tariff rates. Contains 17,000 unique classifications for products and services and is relied on by everyone importing goods into the U.S., totaling an estimated \$3.38 trillion in 2023.

TCG's Support: When we arrived at USITC, HTS was running on an end-of-life Java library, leaving it open to vulnerabilities. In addition to rewriting HTS using a newer version of Java and Angular, we redesigned the public-facing side of the site. HTS is USITC's most-used public site. The UI we developed for HTS was the first at USITC to use the code base supplied in the USWDS. A byproduct of the new UI is a reusable Angular library of components built from the USWDS.



DataWeb:

Mission Impact: DataWeb provides access to years of import/export trade and tariff data. Investment groups, trade associations, and USITC staff rely on it.

TCG's Support: Before our redesign, users struggled to understand DataWeb, often relying on trial-and-error to learn its functionalities. Using HCD techniques, we revitalized DataWeb's interface to create clearer steps in the user's ability to find functionality and edit requests. The original DataWeb was written with outdated technology, so we modernized it using Java and Angular. In the process of updating the tech, we improved usability and added functionalities.



Conflict of Interest Notification System (COINS):

Mission Impact: Swift and accurate identification of conflicts of interest for USITC staff ensures fair investigations. COINS was created to streamline the process of identifying potential conflicts of interest for staff involved in investigations.

TCG's Support: Prior to COINS, investigation teams had to continuously sift through data and send out questionnaires, requiring staff to supply data multiple times a year. With COINS, staff only have to update COINS once following events that could introduce new conflicts of interest (such as new stock purchases). COINS leverages the reusable Angular library designed for HTS, which cut development time significantly—the system was built from scratch within an impressive 6-month timeframe.