



# SERVICES AND CAPABILITIES

**ENVISTA**  
FORENSICS

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PROVIDING CERTAINTY IN AN UNCERTAIN WORLD

Envista Forensics is the global leader in providing full-service forensic consulting services. Our goal is to provide clients with certainty, when they need it most. Clients trust our experts, engineers and consultants to provide assistance such as expertise, investigation, project management and multi-disciplinary analysis following any type of incident or disaster, no matter where in the world those services are needed.





## WHAT WE DO

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With hundreds of experts around the world, Envista's global presence allows our experts and engineers to collaborate with some of the top minds in the industry, from all backgrounds and specialties, to meet our clients' needs no matter the size or location of the loss.

Envista's team proactively looks to understand, focus, and assess the rapidly evolving risks our clients face in the post-incident environment. We understand the need for a quick, responsive, and technical approach to the work we undertake, as well as the need for support, advice, and ongoing communication.

We're there to be the face of certainty for our clients when they need it most. From the most common routine requests that require local assistance, to complex losses that require the need for multi-disciplinary management and experience, to rarer and more unusual cases that need a highly specialized, niche industry expert —our passion lies in the science behind the why. This is who Envista is, and what you'll get with an Envista expert.

# OUR GLOBAL LOCATIONS

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CIVIL/STRUCTURAL



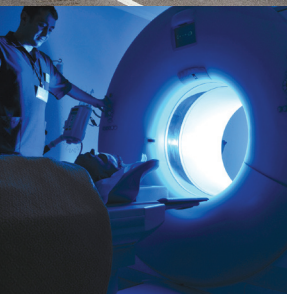
MECHANICAL



To submit an assignment, please visit [envistaforensics.com](https://www.envistaforensics.com)



ELECTRICAL



DIGITAL



FIRE



EQUIPMENT LOSS

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## INDUSTRIES AND CLIENTS ENVISTA SERVES

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Our job is to solve complex problems for our clients in the face of a disaster. Our client portfolio is diverse, from insurers, loss adjusters, and legal professionals, to owners and developers, risk managers, and self-insureds. We serve clients, small and large, no matter where they are in the world, and no matter what problem they are facing.

Envista satisfies the growing demand by insurance claims and legal professionals for a global, multi-disciplinary and highly skilled, forensic engineering partner. Our identity is rooted in our strength in investigation and our ability to properly communicate findings. Regardless of the industry, our technical expertise and support has provided clarity and assisted clients around the world.

### We serve various industries including:

- Chemicals and Gas
- Construction
- Financial
- Government
- Healthcare
- Heavy Industry
- Hospitality and Retail
- Infrastructure
- Insurance
- Manufacturing
- Marine
- Petroleum
- Power and Energy
- Semiconductors
- Transportation

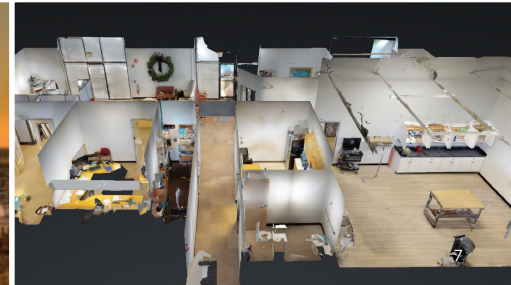


## TECHNOLOGY

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When you choose a company or expert to help you with a case, it's because you believe they will offer you trusted solutions. And because of that, we take pride in our commitment to providing the very best—including the use of technological tools and enhancements for the benefit of our clients. We work to be a leader when it comes to developing trends in the market, because we know if we don't, we are doing a disservice to our clients.

That's why we make sure our forensics labs use the latest, state-of-the-art equipment. We utilize 3D imaging for onsite modeling. Our engineers work with forms of AI, UAV and virtual reality to provide the quickest and most accurate forms of analysis. Technology is at the heart and soul of our world, and honestly the world we live in today. We may have been around for over 35 years, but our integrated and forward-thinking approach is what keeps propelling us into the future.



## Construction Consulting

Envista's construction consultants are comprised of subject matter experts and forensic engineers with vast backgrounds across all areas of the construction process. As former designers, architects, engineers, builders or contractors, our experts have the inherent knowledge and skills needed, while also understanding the inner workings, the context, the codes, the design, and the materials.

Envista's global presence allows our experts and engineers to collaborate with top experts in their respective fields, no matter where they're located. Clients receive reliable and expedited answers through our immense team of consultants and industry-leaders.

### Who We Serve

Incidents involving new or established construction can be catastrophic and complex. We are here to support you every step of the way, regardless of the size of event or what sector you serve. Envista's unbiased approach enhances our trust in the industry and leverages our expertise to fully understand any incident in its entirety and determine the true cause.

#### Our Services Include:

- Building Consulting
- Building Forensics
- Builder's Risk
- Construction Accident
- Construction Dispute
- Construction Defect
- Expert Witness
- Scheduling and Delay
- Major Loss
- Quantity Surveying





## Civil and Structural Investigation

Envista's civil and structural engineering experts specialize in the investigation of complex structures. Our engineers and forensic experts come from various disciplines, and work to uncover, quickly and cost-effectively, the origin, cause and extent of incidents and failures. Our team has worked on some of the largest structure failures across the globe, as well as some of the most devastating disasters our clients have handled.



### Structural Failure

Assessing building structural failures can be a daunting task as there are many potential contributing factors. Envista's experienced structural engineers have the ability to sift through the facts to pinpoint the root cause of a structural failure and extent of the related damage. Our engineers investigate anything from soil conditions, to design error, to the type of materials used, to vibration or weather-related contributions.



### Civil Failure

When civil engineering projects are damaged because of structural disasters, complex technical issues must be considered and the immediate concern for life and safety is paramount. At the same time, any evidence that helps identify the cause of the incident must be carefully documented and preserved. Envista's team of engineers have the ability to assess the entire structure and determine the underlying cause. These results are explained to you and your clients in a clear and concise manner.



### Geo-Technical Engineering

Structural damage is often related to soil conditions, and those claims need an experienced civil engineer with geo-technical and structural experience. Our engineers and geologists can help determine the underlying cause of the damage, and what could have contributed to the soil failure. We assess and test soil samples to find underlying causes, and then analyze how that impacted the structure. Our team presents our comprehensive findings and plainly communicates our scientific process as well as the failure analysis.

Our team is equipped to handle structure defect analysis, impact assessments following incidents or accidents, and CAT response.

### Our full list of services includes:

- Building envelope
- Building systems
- Civil engineering
- Concrete damage assessment
- Construction and defect
- Drone/UAS investigations
- Infrastructure failure
- Soil/geo-technical engineering
- Storm damage
- Structural failure analysis

## Electrical Analysis and Investigation

When incidents or failures to critical electrical systems, equipment or components occur, you need a skilled expert to assess the damage, determine possible cause, and provide mitigation options so recovery occurs quickly and cost-effectively.

### Our engineers and experts are skilled in the areas of:

- Electrical accident investigation
- Electrical failure analysis
- Electronics and electrical systems investigation

### Common assessments for our licensed electrical engineers and master electricians include:

- Electrical systems and wiring analysis
- Power surge or power quality assessments
- Smart home and IoT device evaluations



## Energy

From power generation and petrochemical processing, to offshore and renewable, energy systems across the globe keep businesses running. Our skilled energy experts and engineers have specialized knowledge and experience responding to failures involving business critical components such as turbines, pressure vessels, generators, control systems, boilers and switchgear.

### We investigate all types of equipment and facilities damage, especially those related to:

- **Power generation and distribution** – Our global experience spans design, installation, operations and maintenance for all types of power generation plants and facilities.
- **Offshore** – Our experts are skilled in all aspects of drilling, exploration and production of rigs, fracking, deep water, offshore platforms and ancillary equipment and have consulted for some of the largest producers in the world.
- **Renewable** – From solar panels to wind, to geothermal or biofuel, we have experts in all corners of the world, including industry-leading providers of damage assessment, failure analysis, origin and cause, and reinstatement viability.
- **Petrochemical** – With experts in the operation and design of refineries, as well as pipelines and storage terminals, we handle all aspects of the oil and gas market for cause, cost and downtime solutions. We answer our clients' questions regarding corrosion, process, execution plans, schedules and an array of other facets in the industry. We strive to provide the best technical expertise for the widest range of solutions.

## Equipment Loss Consulting

Property damage claims involving technical equipment can be catastrophic for policyholders and extremely complicated for insurers to navigate. The equipment loss engineers and consultants at Envista Forensics are industry leaders with more than 35 years of experience providing comprehensive post-loss assessments that enable claim expenses to be reduced and business interruption to be minimized.

Our equipment loss experts determine the scope and extent of the damage, verify the cause, and then provide reinstatement cost estimates. Our specialists can help with vendor coordination and warranty options, and have extensive experience serving as expert witnesses.

### Our areas of equipment expertise include:

- Building Systems
- Commercial Equipment
- Data Loss Consulting
- Electrical Power Equipment
- Electronics
- Heavy Equipment
- HVAC and Boilers
- Industrial
- Information Technology
- Mechanical
- Medical equipment
- Pharmaceutical/  
Scientific/Laboratory
- Telecom





## SERVICES

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### Marine Losses

Envista's Marine experts provide complete global solutions for in-depth technical investigation of multi-disciplinary, complex claims occurring on land and sea, and across all marine business lines. Our marine team, comprised of diversified experts and Professional Engineers, including career Naval Architects, Marine Engineers, and marine surveyors, have aided claims adjusters, legal professionals, safety and risk managers and brokers with mitigating all types of claims related to the global transportation system.

#### Our marine expertise can assist with claims related to:

- Cargo
- Civil Structural
- Cyber Claims
- Electronics
- Engineering/Electrical
- Equipment Loss Mitigation
- Fires & Explosions
- Inland Marine
- Subsea/Offshore Energy
- Vessel Compliance with Standards
- Vessel Docking
- Vessel Hull & Deck Equipment
- Vessel Machinery & Vital System Automation
- Vessel Marine Casualties or Accidents
- Vessel Pollution Prevention
- Vessel Seaworthiness
- Vessel Stability
- Vessel Structural Design & Damage/Failure

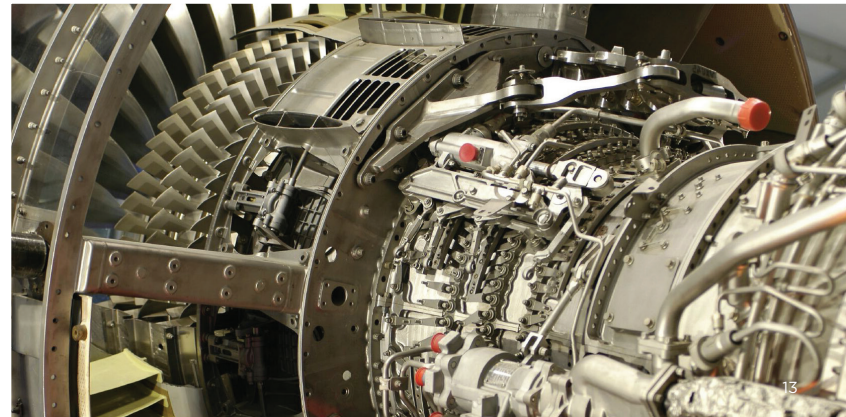
## Mechanical Failure Analysis

Envista's forensic engineers and experts use a structured, scientific approach in their investigation of mechanical failures to determine the origin and cause—identifying the factors that contributed to the failure—who may be responsible, as well as the necessary steps to mitigate the issue.

Our licensed mechanical, metallurgical, materials engineers and equipment experts have the experience to quickly and effectively diagnose problems and determine appropriate next steps.

### Envista has conducted analysis in many areas, including:

- Elevators and escalators
- Fire protection and suppression systems
- Heavy equipment
- HVAC and boiler systems
- Manufacturing, industrial and food processing plants
- Material failure
- Pipe ruptures
- Plumbing and complex MEP systems
- Product design
- Refineries and petrochemical processing
- Rotating machinery
- Vehicle accidents



## Digital Forensics

An entire case can often hinge upon a single document such as a text message, spreadsheet, or database containing trade secret information. At Envista, our Digital Forensics division anticipates future complexities so we can meet tomorrow's challenges. At the core, our strength is in our experts. They possess extensive training, certifications, and experience, combined with access to cutting-edge forensic software and hardware. Our team is dedicated to assisting our clients with actionable and accurate results, often under strict guidelines and tight deadlines.



### Our Services

#### Computer Forensics

The investigation and analysis of data recovered, including deleted data, from computers, networks, servers, and electronic storage devices.

#### Cellular Location Analysis

Using Call Detail Records (CDRs), a mobile phone's historic location activity can be analyzed. These records are obtained from cellular service providers. Our team can also perform Radio Frequency Verification Surveys (Drive Testing) to determine a cell tower's coverage area.

#### Video Surveillance Data Recovery

Using forensic methodology and tools, we can recover video surveillance footage from damaged or corrupted systems. Our data collections meet digital forensic best practices and will stand up in the court of law.

#### Mobile Phone Forensics

The examination of cell phones, tablets, and other mobile devices for location evidence, text messages, call history, emails, search history, emails, and much more.

#### GPS Forensics

Analysis of location data from Global Positioning System (GPS) devices found in automotive, freight, land, and air vehicles. This evidence can recover track-logs and track-points to determine locations and travel history.

#### In-Vehicle Infotainment Forensics

The recovery and analysis of data obtained from the vehicle's infotainment system, which is rich with content, including navigation history, social media feeds, text messages, call activity, and data about driver activity.

## Fire and Explosions

Large fire and explosion losses, in particular, pose a number of challenges. That's when years of experience, access to numerous experts that can arrive on-scene quickly, and the knowledge to manage extremely high levels of evidence is most vital. All of our experts are highly experienced, with at least 20 years in the industry, and can provide expert court witness testimony for any issue.

Our multi-disciplinary team has worked massive origin and cause investigations, from multi-million dollar cases to \$500M cases, from manufacturing facilities, to warehouses, power production, refineries and more. From loss of life to loss of business, we've been there for our clients and their clients to help them through the worst of times.

### International Capabilities

Our experts have worked with companies around the world, including some of the most well-known Fortune 500 companies. We've conducted investigations for the U.S. Navy, and led investigations for two of the largest wildfires documented in the western hemisphere. We've been to Columbia, to Haiti, to Croatia. We've traveled from Georgia to France, from St. John to the UK. We are here to assist with cases no matter where in the world those services are needed.

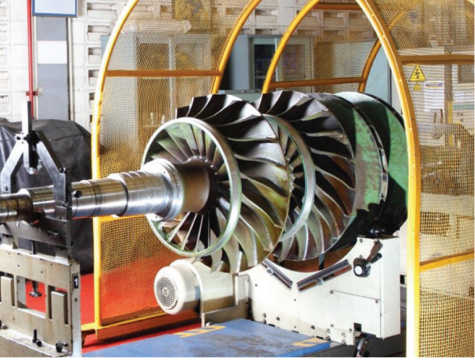
### Our multi-disciplinary team handles fire and explosion investigations involving:

- Correctional facilities
- Energy (power production/refineries)
- Healthcare
- Heavy machinery/equipment
- Manufacturing
- Marine
- Multi-occupancy residential
- Product liability
- Warehousing
- Wildland

### Service features we offer include:

- Drone documentation
- Evidence handling
- Fire and explosion complex scene management
- Fire spread identification
- Fraud investigation
- Subrogation identification
- 3D scene image documentation





## SERVICES

### Subrogation and Litigation Support

Given the nuances and unique needs of Subrogation matters, Envista proactively established the first-known dedicated Subrogation Practice of any engineering firm. We recognize the fact that Subrogation cases are won and lost within the first 24 hours and focus on providing immediate response, proper expert match and expense management.

Having the right technical expert can make or break your case. Experts need to know the technical topic well, understand the big picture, but also understand the smallest technical details, while being able to easily explain the findings.

In addition, we can also address specialty losses for just about anything you encounter, and are equipped with the latest technology such as 3D imaging, UAV, thermal imagery, and advanced digital forensics software.

At Envista, our experts have worked on a wide variety of cases and types of litigation including:

- Accident Reconstruction
- Construction
- Electrical and Mechanical Failures
- Energy
- Fires and Explosions
- Fire Protection
- Machine Guarding
- Marine
- Material Failures
- Natural Catastrophes
- Roofing
- Structural Incidents
- Transportation and Trucking
- Water
- Work-Related Injuries



## Meeting Our Client's Unique Needs

Having access to the right expert, at the right time, in the right location takes an established, experienced network, and that is just what we have at Envista. In addition to our excellent full-time staff, our Specialty Experts group was created to provide clients with a complete global forensics engineering solution covering a wide variety of technical and unique specialties. In brief, Envista can provide everything you need for those complex losses.

From the rarest, to the most unique of needs, from the most complex, to the most terrifying major catastrophes, our network of more than 500 additional experts and specialists are waiting to help you. All assignments are project managed by an Envista engineer whose focus is to deliver answers for your highly technical, and sometimes even strange, claims in a timely and cost effective manner.



### Who are the Specialty Experts?

1. Envista can't be everywhere, so we use the Specialty Experts to augment the capabilities for local support.
2. We add the best of the best to enhance our already amazing team.
3. Our clients have needs that go beyond the regular scope of our practice areas.
4. All of our Specialty Experts are known experts in their chosen fields, with most having senior-level and court testimony experience.

## Out of the Ordinary Needs, Matched with Extraordinary People

If you have a claim need, Envista's has Specialty Experts for it:

- Aircraft
- Beer, wine, spirits production and shipment/storage
- Ceramics
- Cryogenics
- Entomology
- Environmental sciences
- Firearms
- Handwriting, paper and ink analysis
- Industrial hygiene
- Mycology
- Railroad equipment
- Rare art
- Toxicology
- Zoology
- Wood, sand, fabrics, feathers...

[Starting to get the picture?](#)

## Specialty Experts in Action

Here are a few technical cases that illustrate the expertise that lies within this amazing network:

- Our Ceramics and Glass expert assisted with a Ballistic Grade Level 5 Clad Polycarbonate pane examining the integrity of the glass and rendered an opinion as to the cause of breakage.
- After a bug infestation in a lumber yard, our entomologist identified the type insect, how the infestation and migration of insects occurred and provided a pest control protocol to eliminate infestation.
- A facility had a cryogenic pipe rupture resulting in personal injuries. Our cryogenic expert was able to determine why the pipe ruptured and how to restore operations of the system.



## ENVISTA IN ACTION

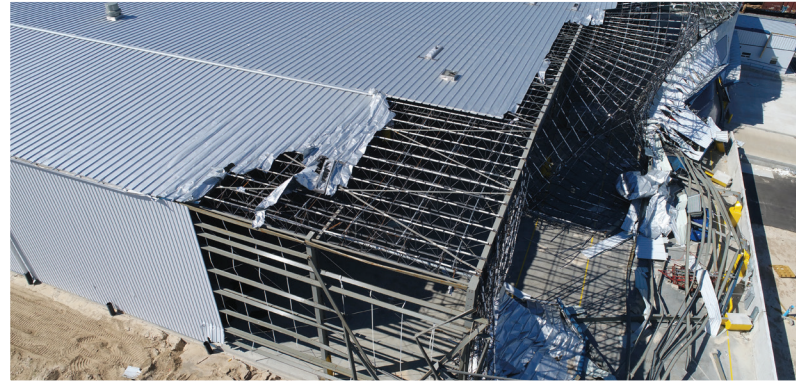
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It's not uncommon for our clients to come to us with a loss that involves more than one discipline. In fact, we find that it happens all too often. And that's because of the complex nature of the matters that come through our doors. But for us, this multi-disciplinary approach is second nature, and it allows us to provide immediate help and response to insureds and clients alike, all while offering one, easy point of contact—the project manager—to lead the charge.

Take for example a major port and shipping hub in the southeast United States that experienced catastrophic wind and water damage following Hurricane Harvey. Envista was called on-scene to investigate more than 21 buildings, high-tech equipment and specialized cranes, which were integral to the port's operations. We were hired to help determine the extent of damage and cost of repairs. Total damages for this claim totaled approximately \$16M USD.

## Highlights

- Our engineering team along with our building experts responded first.
- Later, AREPA, our equipment restoration division was engaged to work on the decontamination and restoration of computer equipment and servers (essentially, the heart and soul of the port's operation). These systems needed to get back up and running as soon as possible to not hinder the continuation of ship traffic.
- Our mechanical engineering team was retained to assess the cranes, and was able to assist in identifying the damaged components and limit the damages to under \$100,000 USD.
- Our civil engineering team worked with the port's identified contractor and were able to develop a repair plan, for one building in particular, that saved an estimated \$6M USD.



The joint efforts of our structural, mechanical, restoration and building teams were able to bring a large claim to an unprecedented closure efficiently, cost effectively, and within a quick timeframe.



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