

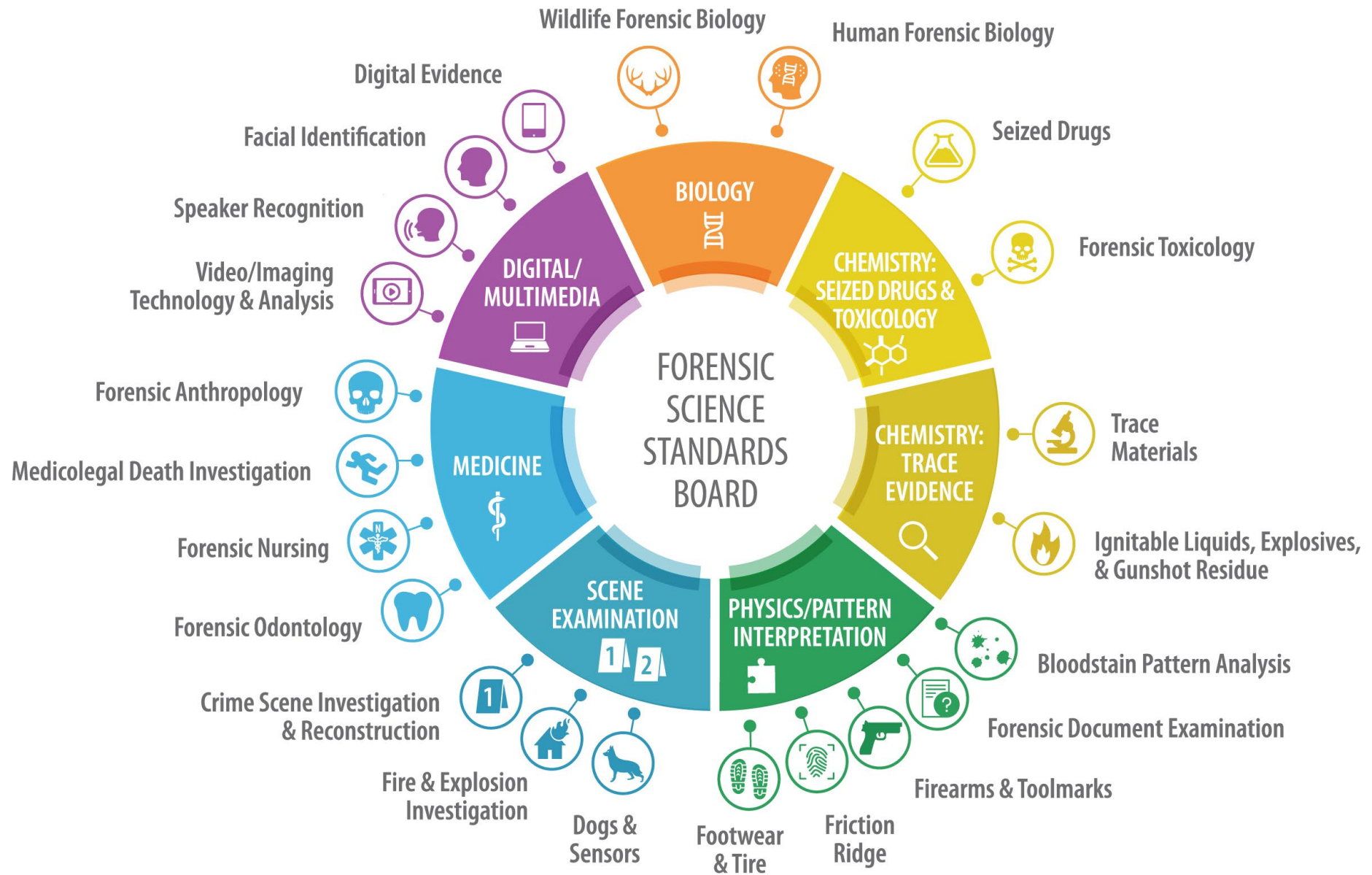


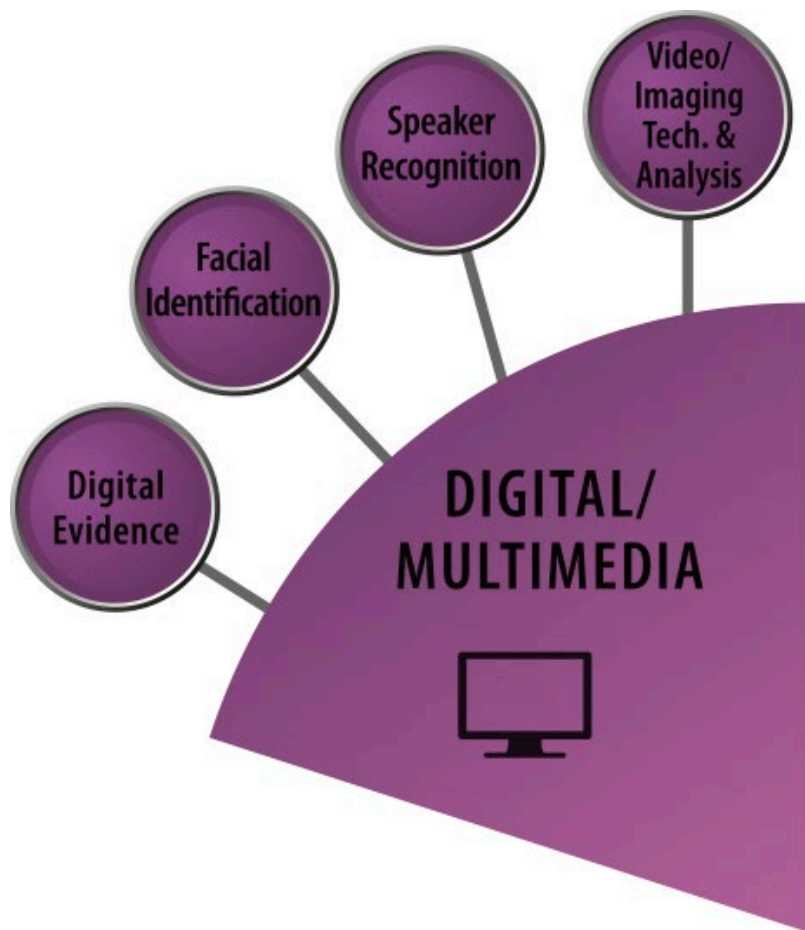
Organization of Scientific Area
Committees for Forensic Science

Video/Imaging Technology and
Analysis (VITAL) Subcommittee

Christina Malone, Chair

Who we are...





Video/Imaging Technology and Analysis (VITAL)

Focuses on standards and guidelines related to the application of methods and technologies to analyze information related to forensic imagery from a variety of systems.

This encompasses aspects of capture, storage, processing, archiving, quality assurance and training.

Task Groups:

Image Analysis

Photography

Video Analysis

Exploratory Task
Group on Gait
Analysis



Officers

Christina Malone, Subcommittee Chair, Defense Forensic Science Center (including USACIL)

Marla Carroll, Subcommittee Vice Chair, Forensic Video & Audio Associates, Inc

Patricia Mullaney, Subcommittee Executive Secretary, Virginia Department of Forensic Science

Members

Mike Baker, Sacramento District Attorney's Office

John Ellis, Law Offices of John C. Ellis, Jr. INC. ([Legal Task Group](#) representative)

Brandon Epstein, Middlesex County Prosecutor's Office

Jordan Graves, Federal Bureau of Investigation

Neil Johnson, Pacific Northwest National Laboratory

Spencer Ledesma, Houston Forensic Science Center

Abhyuday Mandal, University of Georgia ([Statistics Task Group](#) representative)

Aaron Matson, Wisconsin State Crime Laboratory

Kimberly Meline, Federal Bureau of Investigation

Michelle Montonera, Travis County Medical Examiner

Jackeline Moral, Houston Forensic Science Center ([Quality Task Group](#) representative)

Michael Piper, Target Corporation ([Human Factors Task Group](#) representative)

Matthew Steiner, New York Police Department

Rand Swartz, Anne Arundel County Police Department

Andrew D. Taravella, Houston Police Department

John Twomey, U.S. Secret Service

Jesus R. Valenzuela, Seattle Police Department

Wildlife Forensic Biology

Human Forensic Biology

Digital Evidence

Facial Identification

Speaker Recognition

Video/Imaging Technology & Analysis

Forensic Anthropology

Medicolegal Death Investigation

Forensic Nursing

Forensic Odontology

Crime Scene Investigation & Reconstruction

Fire & Explosion Investigation

Dogs & Sensors

Footwear & Tire

Friction Ridge

Firearms & Toolmarks

Forensic Document Examination

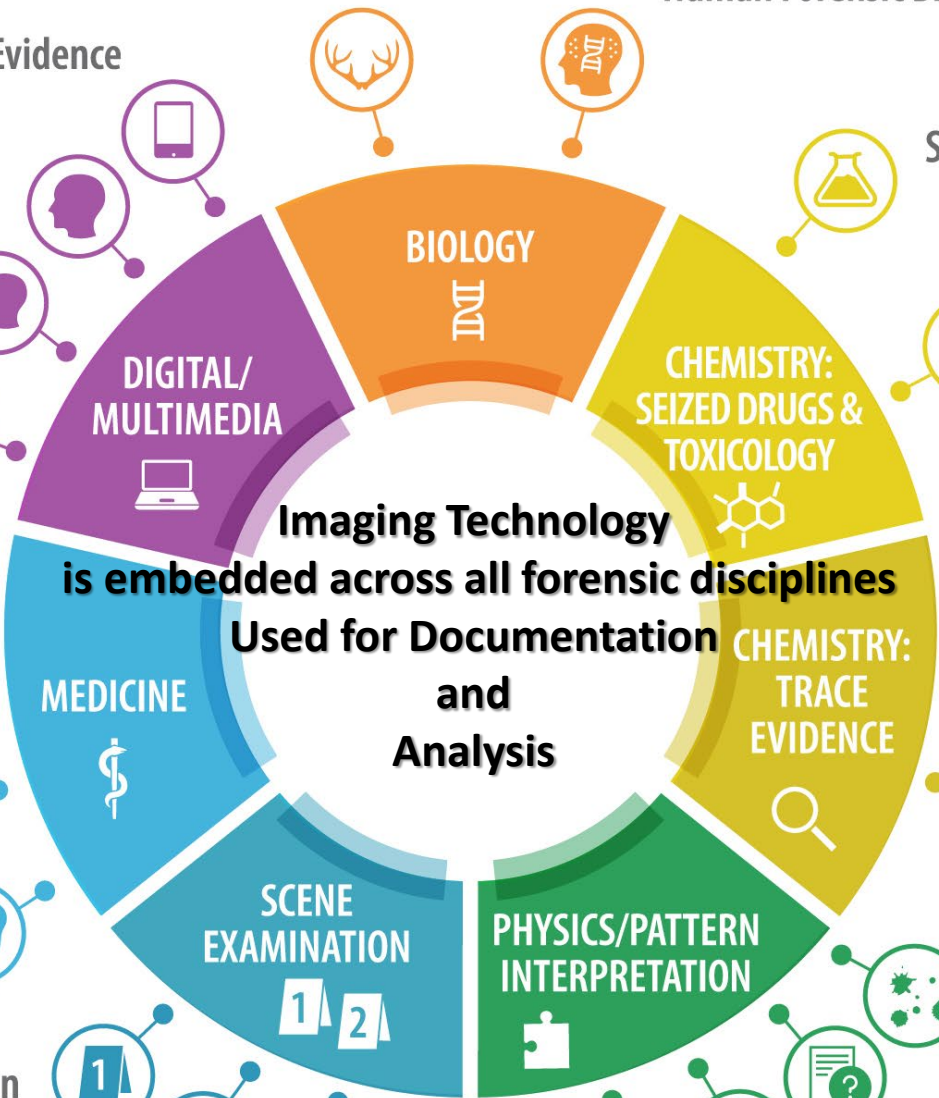
Bloodstain Pattern Analysis

Ignitable Liquids, Explosives, & Gunshot Residue

Trace Materials

Forensic Toxicology

Seized Drugs



What we're doing...

Standards - VITAL

- Related to the application of methods and technologies to analyze information related to forensic imagery from a variety of systems

Video/Imaging Technology & Analysis

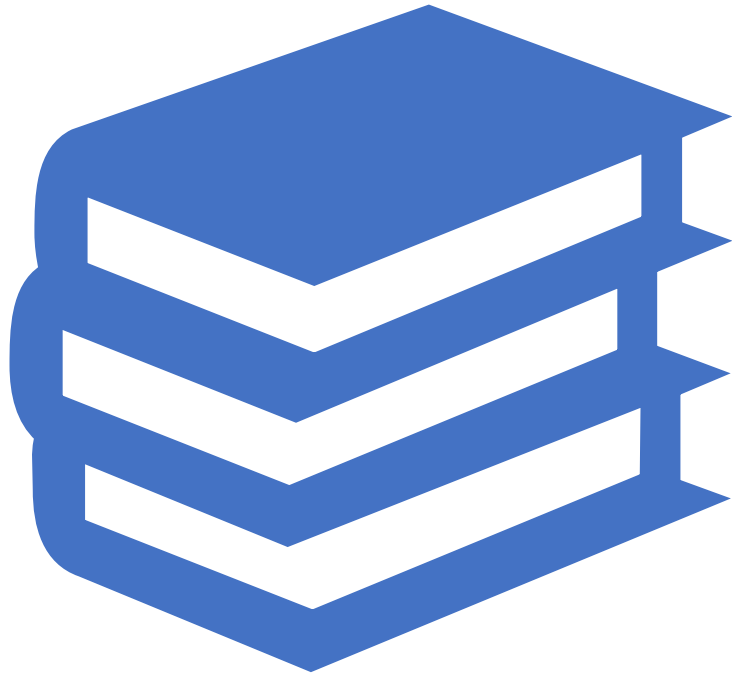
Published Standards

- [ASTM E2916-19e1 Standard Terminology for Digital and Multimedia Evidence Examination](#)[†] (drafted in collaboration with OSAC's Digital Evidence, Facial Identification, and VITAL Subcommittees and added to the Registry July 7, 2020).
- [ASTM E3235-21](#)[†] [Standard Practice for Latent Print Evidence Imaging Resolution](#)[†] (added June 7, 2022).

OSAC Proposed Standards

- [OSAC 2021-S-0013, Standard Guide for Post Mortem Examination Photography](#) (added March 1, 2022 and sent to an SDO for further development and publication).
- [OSAC 2021-S-0027, Standard Guide for Laboratory Photography](#) (added July 5, 2022 and sent to an SDO for further development and publication).

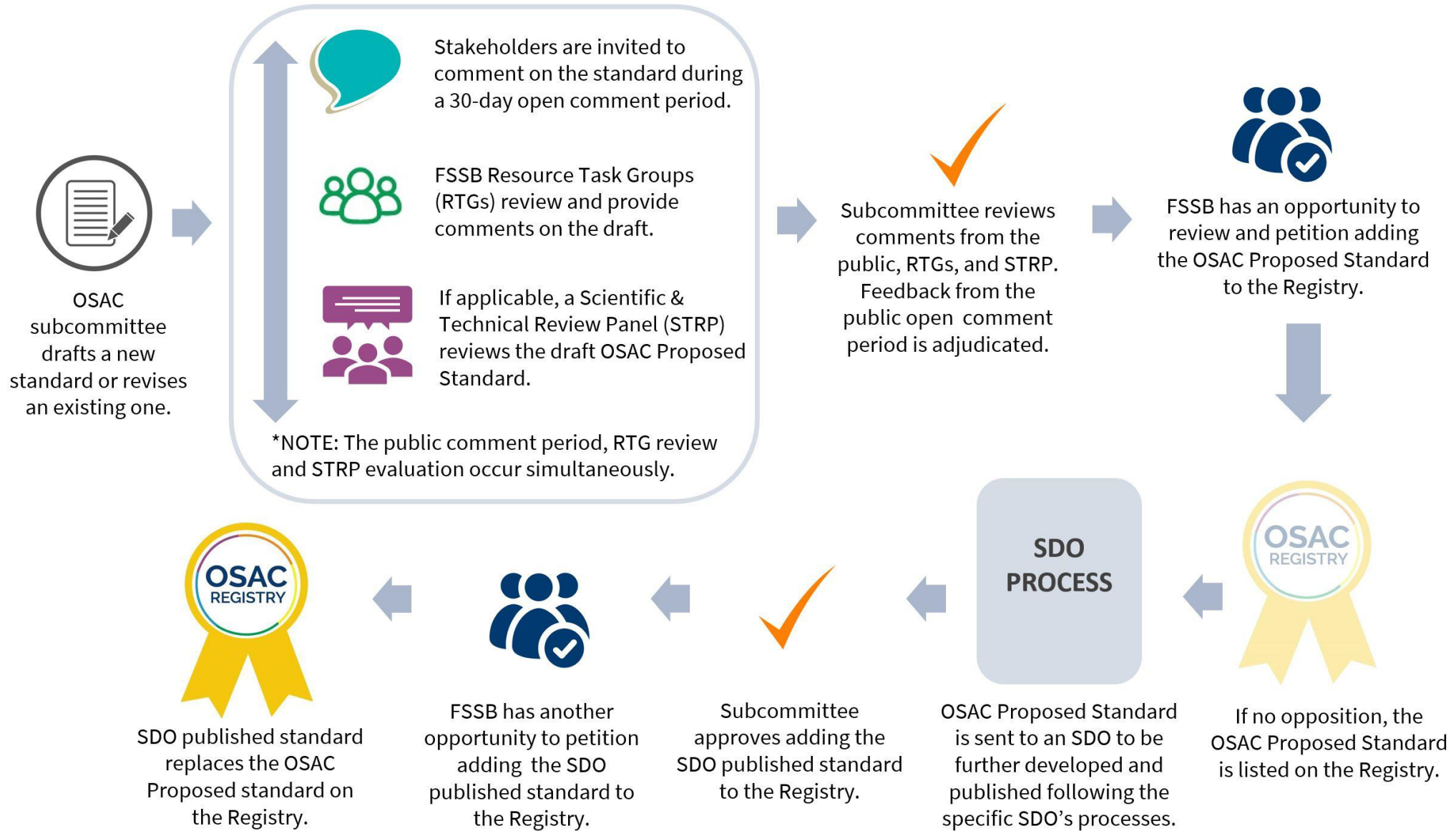




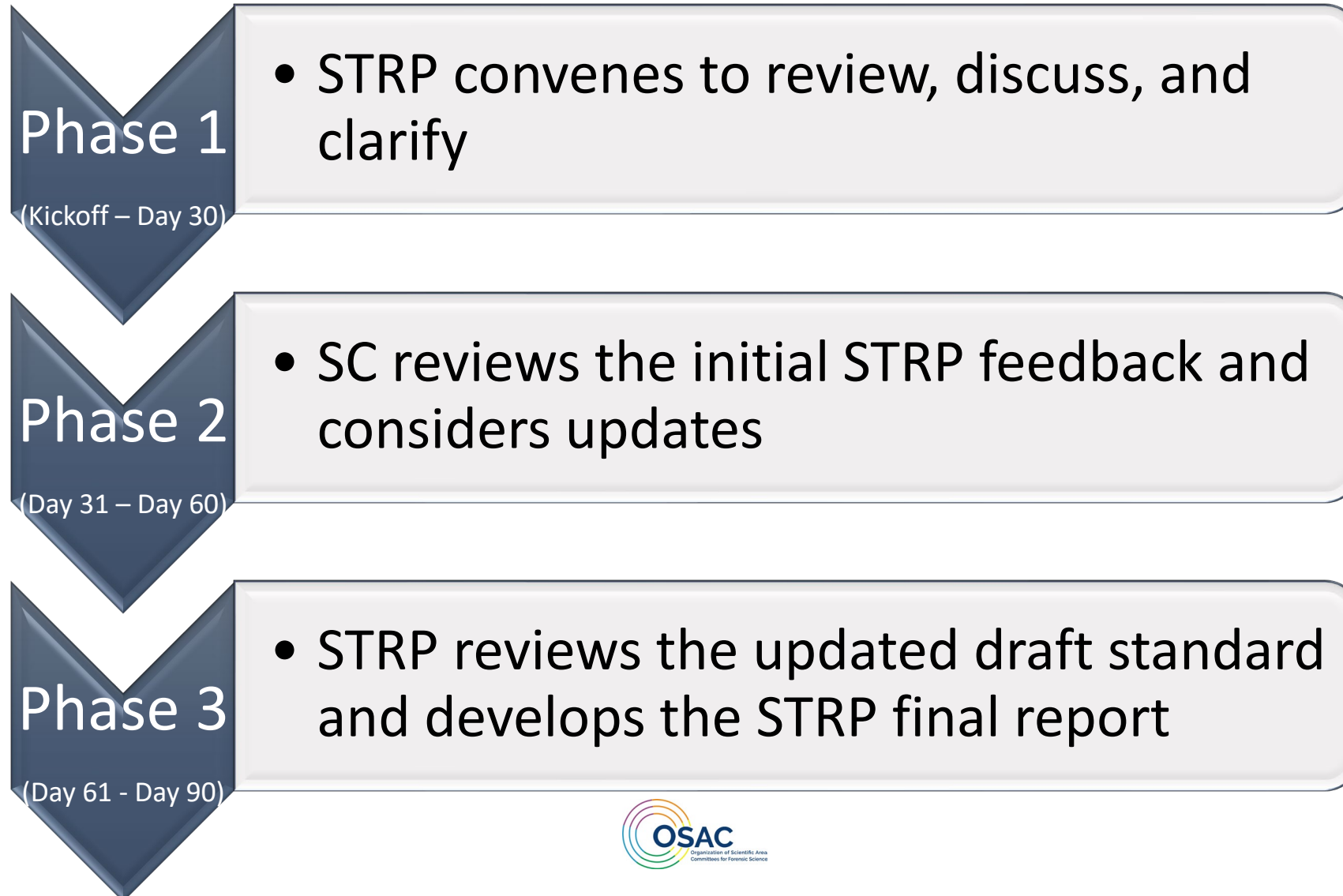
OSAC Work Products - VITAL

- Lexicon
- Research Needs
- Technical Guidance Documents
- References
- Webinars, Presentations & Training Videos
- Discipline-Specific Bibliographies and Bibliographic References

How we're doing it...

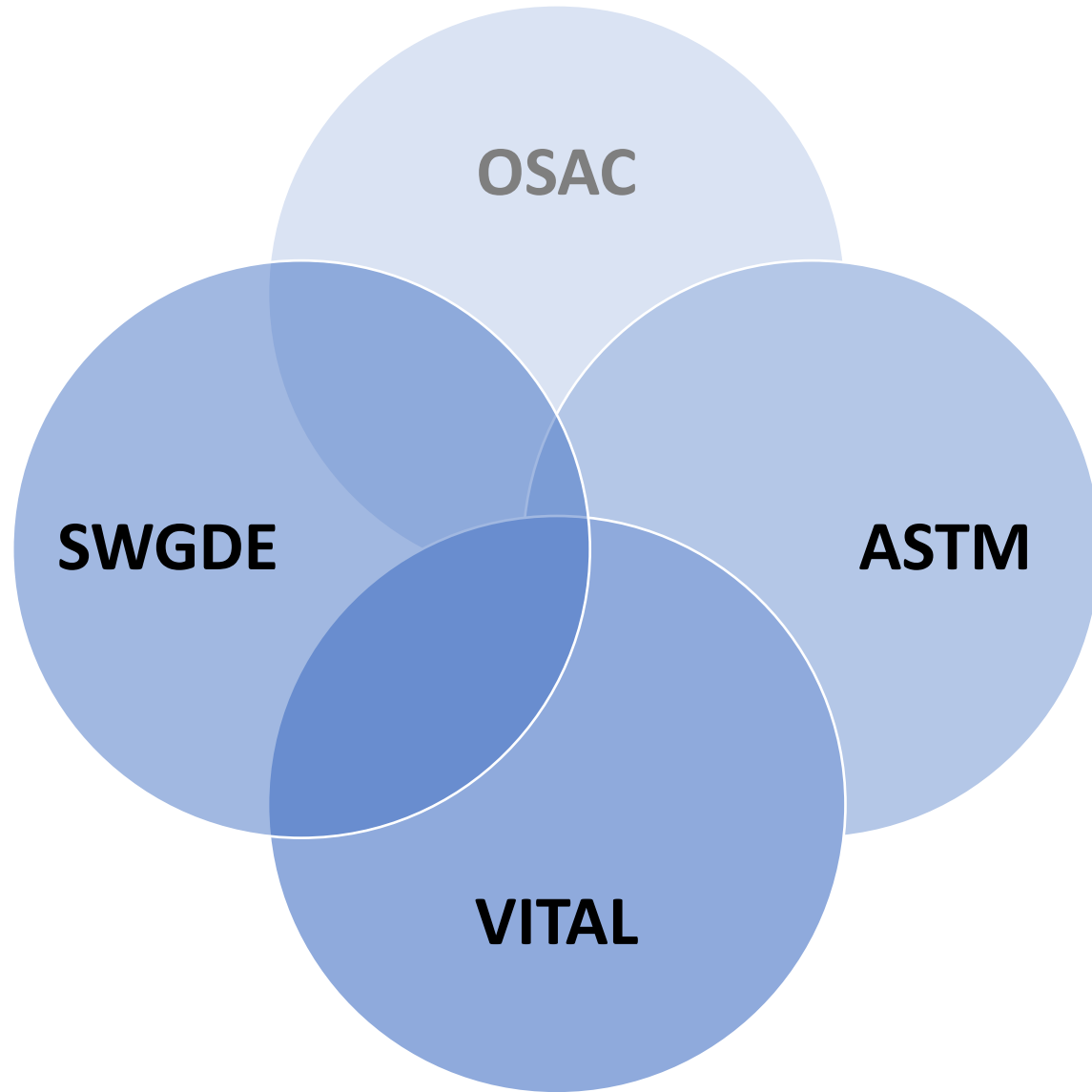


Scientific and Technical Review Panels (STRP)



Who we're working
with...

Partnerships



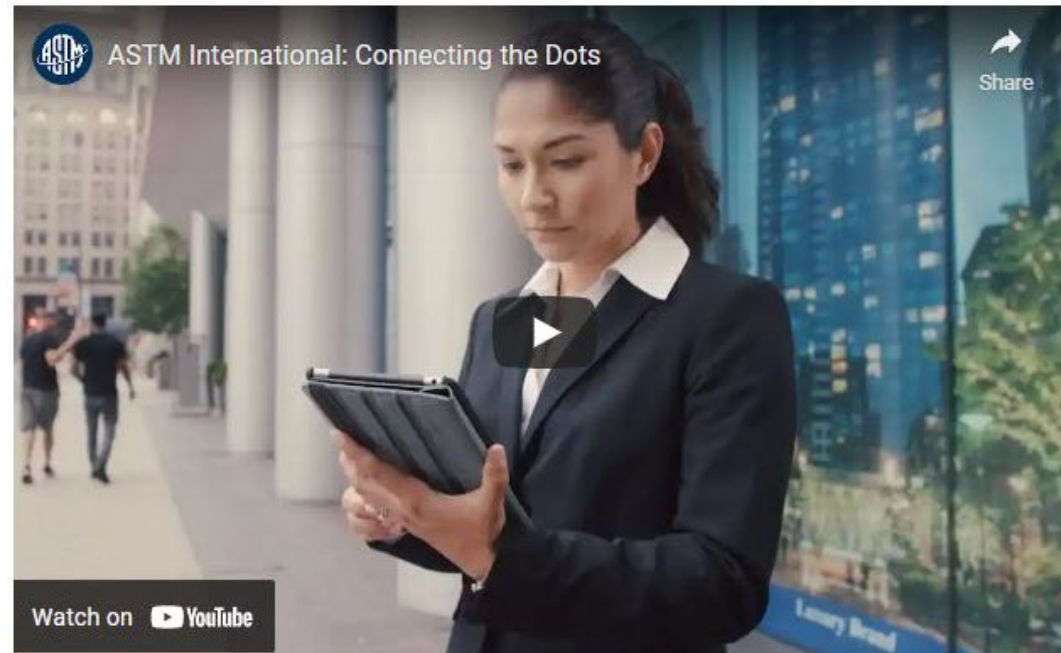
SSO and SDOs

- SSO – Standards Setting Organization
- SDO – Standards Developing Organization

About Us

Over 12,000 ASTM standards operate globally. Defined and set by us, they improve the lives of millions every day. Combined with our innovative business services, they enhance performance and help everyone have confidence in the things they buy and use.

Helping our world work better.



SWGDE

NEW!!! Subscribe to our new meeting announcement email distro under the Subscribe menu link!

SWGDE

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[Who We Are](#) ▾

[Membership](#)

[Events](#)

Scientific Working Group on Digital Evidence



The **Scientific Working Group on Digital Evidence (SWGDE)** brings together organizations actively engaged in the field of digital and multimedia evidence to foster communication and cooperation as well as to ensure quality and consistency within the forensic community.

Next scheduled in-person meeting will be held September 19-22, 2022 at the NCFTA in
Pittsburgh, PA

See the [Events](#) page for more information!

Where we're at...

Standards on the Registry - Published

- ASTM E2916-19e1 *Standard Terminology for Digital and Multimedia Examinations*
 - Drafted in collaborations with OSAC's Digital Evidence, Facial Identification, and VITAL Subcommittees
 - Compilation of terms and definitions used in the examination of digital and multimedia evidence



Standards on the Registry - Published

- ASTM E3235-21 *Standard Practice for Latent Print Evidence Imaging Resolution*
 - *Provides recommendations on the resolving power standards that enables recording of level 3 details of latent print evidence that are suitable for comparison purposes using a digital camera, a flatbed scanner, or other image capture device*



Standards on the Registry – OSAC Proposed

- OSAC 2021-S-0013 *Standard Guide for Post Mortem Examination Photography*
 - provides procedures describing specific photography and lighting techniques for documenting postmortem examinations



Standards on the Registry – OSAC Proposed

- OSAC 2021-S-0027 *Standard Guide for Laboratory Photography*
 - Provides guidelines for the photographic documentation of evidence in the laboratory or another controlled environment



Standards in Progress –

At STRP

- OSAC 2021-S-0037 *Standard Guide for Photogrammetry*
 - Provides basic information on conducting photogrammetric examinations as a part of forensic analysis

Standards in Progress –

At STRP

- OSAC 2021-S-0036 *Standard Guide for Image Authentication*
 - Provides information on the evidentiary value, methodology, and limitations when conducting an image authentication examination as a part of forensic analysis

Standards in
Progress –

Draft
complete

- *OSAC 2022-S-0031 Standard Guide for Forensic Digital Video Examination Workflow*
 - Provides a generalized workflow suitable for all digital video examinations performed to address forensic questions
 - Includes the assessment, processing, and analysis of video

Standards in
Progress –

Draft
complete

- *Standard Practice for Training in the Areas of Video Analysis, Image Analysis, and Photography*
 - Describes the minimum criteria for training-to-competency programs in technical topics related to the disciplines of forensic video analysis, image analysis, and photography

Standards in
Progress -
In draft

- *Standard Guide for Photographing Scars, Marks, and Tattoos*
 - Outlines best practices for photographing scars, marks, and tattoos on living or deceased persons to achieve high quality images and optimize database searches and manual comparisons

Standards in Progress – Collaborations

- OSAC 2022-S-0001 *Standard Guide for Image Comparison Conclusions/Opinions*
 - Defines conclusion/opinion categories that shall be reached by a practitioner performing comparisons of people, objects, or scenes captured in images (e.g., faces, vehicles, clothing, skin details), regardless of the process by which opinions are reached

Standards in Progress – Collaborations

- *Standard Guide on Process Based Quality Assurance Criteria for Digital and Multimedia Evidence*
 - Outlines minimum quality assurance and control requirements specific to examining digital and multimedia evidence (DME); which may include assessing, processing and analyzing items

Standards in Progress – at SDO

- *Standard Practice for Data Retrieval from Digital CCTV Systems (WK61709)*
- *Standard Guide for Crime Scene Photography*
- *ASTM E2825-21 Standard Guide for Forensic Digital Image Processing*



ASTM INTERNATIONAL

www.astm.org



Standards in Progress – AT SWGDE



www.swgde.org

- SWGDE Best Practices for Image Content Analysis
- SWGDE Requirements for Report Writing in Digital and Multimedia Forensics
- SWGDE Best Practices for Archiving Digital and Multimedia Evidence
- SWGDE Guidelines for Validation Testing
- SWGDE Best Practices for Photographic Comparison for All Disciplines

Research Needs

Video/Imaging Technology & Analysis

- [Authentication of PDF Documents](#)
- [Detecting Deepfakes](#)
- [Determination of the Size of the Smallest Detail Required for Tire and/or Shoe Comparisons](#)
- [Factors Affecting Image Quality When Extracting a Still from Video](#)
- [Software Validation Repository](#)
- [Vehicle Comparison Black Box and White Box Study](#)
- [Vehicle Year, Make and Model Analysis Black Box and White Box Study](#)

Other Work Products

References

- [*Guidance on Non-routine Offsite Forensic Examination of Digital/Multimedia Evidence.*](#)

Webinars, Presentations & Training Videos

- [Video/Imaging Technology and Analysis \(VITAL\) Subcommittee Updates](#), American Academy of Forensic Sciences (AAFS) Annual Scientific Meeting, February 2021.
- [Video/Imaging Technology and Analysis \(VITAL\) Subcommittee Updates](#), AAFS Annual Scientific Meeting, February 2020.
- [Video/Imaging Technology and Analysis \(VITAL\) Subcommittee Updates](#), International Association for Identification (IAI) Conference, August 2019.
- [Video/Imaging Technology and Analysis \(VITAL\) Subcommittee](#), IAI Conference, August 2018.

Get Involved:

- Apply to join OSAC
 - <https://www.nist.gov>
 - Designate VITAL
- Apply to join ASTM
- Apply to join SWGDE

THE ORGANIZATION OF SCIENTIFIC AREA COMMITTEES FOR FORENSIC SCIENCE

OSAC Newsroom +

Organizational Structure

Registry +

Implementation Plan

Standards Approval Process +

Charter, Bylaws and Terms of Reference

Lexicon

Research and Development Needs

Catalog of External Standards and Guidelines

Access to Standards

Standards and Documents: Category Descriptions

Apply to Join OSAC ←

Interdisciplinary Activities



OSAC Standards Bulletin, August 2019 Now Available



Read the Summer Edition of the OSAC Newsletter!



In Case You Missed It - Check Out the Video and Presentations from OSAC's June Public Update & Discussions Meeting

The Organization of Scientific Area Committees (OSAC) for Forensic Science works to strengthen the nation's use of forensic science by facilitating the development of technically sound forensic science standards and by promoting the adoption of those standards by the forensic science community.

These standards are written documents that define minimum requirements, best practices, standard protocols, and other guidance to help ensure that the results of forensic analysis are reliable and reproducible.

OSAC is administered by the National Institute of Standards and Technology (NIST), but the great majority of its more than 550 members are from other government agencies, academic institutions, and the private sector. These members have expertise in twenty-five specific forensic disciplines, as well as general expertise in scientific research, measurement science, statistics, law, and policy.

OSAC members work together to develop and evaluate forensic science standards via a transparent, consensus-based process that allows for participation and comment by all stakeholders.

What kind of standards does OSAC work on? Here's a recent example: [Standard for Sampling Seized Drugs Approved for OSAC Registry](#).



OSAC

Organization of Scientific Area
Committees for Forensic Science

Thank you

<https://www.nist.gov/topics/organization-scientific-area-committees-forensic-science>