

# **HISTRATE**

## **– request for interview candidates**

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**Las Palmas de Gran Canaria**

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ADVANCED COMPOSITES UNDER HIGH STRAIN RATES LOADING:  
A ROUTE TO CERTIFICATION-BY-ANALYSIS

# HISTRATE

COST Action CA21155



# Brief Summary

HISTRATE will establish the scientific and technological foundations for the **creation and implementation** of a reliable and robust framework for the **certification by analysis** of advanced composite load-bearing structures subject to high strain rate loading.

## High strain rate loading applications

Transforming the way we **discover, develop,** and **design** ultra-high-performance, durable, safe, sustainable, and novel advanced composites

## HISTRATE network

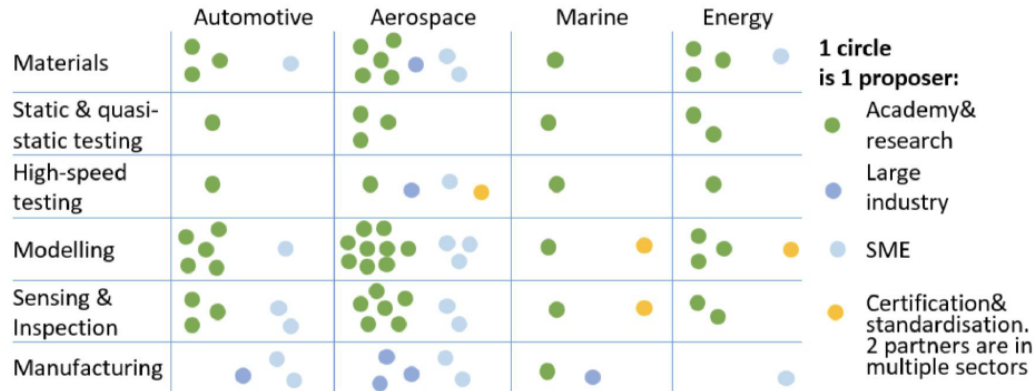
Currently with **80** European and non-European, academic and industrial **experts**

## Research Coordination Objectives

1. Improvement of the **research capabilities** of individual partners and the network as an integral entity.
2. Development of procedures for structured and efficient **collaboration between the partners**.
3. Development and improvement of **channels of communication** between universities and industrial partners, research institutes, regulatory bodies and funding organisations.
4. Implementation of the existing **state-of-the-art** across the target groups to allow meeting the **reduced carbon footprint** requirements through lightweighting, more efficient use of material resources and the development of high-performance, **hybrid structures**.
5. Establishment of a **data repository** to allow the use of data-driven approaches for all participants.

# Network Impact

HISTRATE network includes 80 individual proposers from 33 countries, including 18 Inclusiveness Target Countries (ITC) and 4 Near Neighbour Countries (NNC) and 1 European Research, Technology and Development Organisation.



## Industrial

Complete cross-sector supply chains  
of small and medium-sized  
enterprises (SME) and large  
European/world corporations  
including tier-1 material and  
equipment suppliers

## Standard & Certification

Directly contributing to the European standards associations. **EASA, DIN, ISO, NQA Global, TÜV** will be invited in year 1

## Academic & Research

European leaders in new composite materials, numerical modelling, dynamic material characterisation, smart embedded sensors and NDT

# Network Involvement

HISTRATE Action members have the mandate and obligation to identify and engage focus **groups of stakeholders** from **outside the network** and involve them in the Action based on an **open database** that will be created.

Anticipated **activities** to involve the stakeholders fall into **four categories**:

## Open Access

**Publication** to achieve and gain visibility and **involvement** across potential stakeholders from direct and **adjacent sectors**

## Consultancy

**Expertise transfer** activities from stakeholders to ECI in **training events**.

## Targeted Links

Establishing targeted links with **stakeholders** from **ITC, NNC** for cross-border interactions.

## Dissemination Activities

An online interactive composites **community hub**, **workshops** and **joint forums** aiming at a broad technology and **knowledge transfer**.



# Impact

Aiming to establish the **First European Composite** HISTRATE team to provide a **framework** with **integrated capability** based on the technology developments in the **aerospace, automotive, structural integrity, health monitoring** and **energy sectors**.

The HISTRATE Action is expected to have a significant impact at different levels

The synthesis of **state-of-the-art simulation tools**, computing big data with machine learning, as well as the **instrumentation tools**, developing validated, reliable and robust virtual/**synthetic design environments**.

Established network has the **capabilities** and proven **track-record** in the **development** of new **technology** and **know-how**

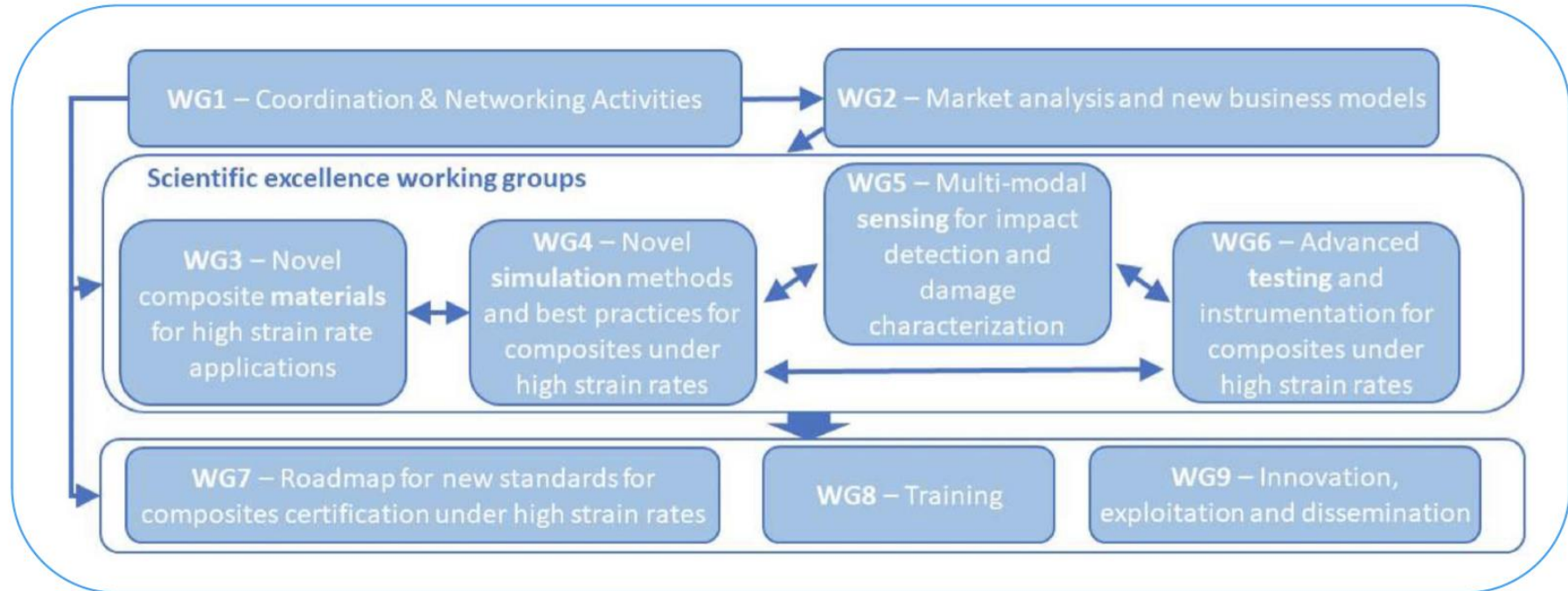
Enhancement of **research capabilities**, facilitating **certification** of lighter and safer composite materials naturally fitting within the **circular economy** of modern structures used in transport and energy applications.

The **scientific impact** will be generated presenting the research in **high impact peer-review journals**, at **conferences** and **workshops**, in the **reports** and **periodic newsletters**, and the **creation of open-access datasets**.

HISTRATE will greatly **contribute** to the wider aim of increasing **female** involvement and participation in the sector at **every level** within the EU.

# Implementation

HISTRATE is comprised of **nine working groups** (WG) to effectively deal with the challenges.



# Request for interview candidates

## Objectives of this survey

- Understand the current barriers and gaps when certifying components (including **composite materials**) that experience **impact and general transient loading**.
- Understand your tools, processes, and the challenges you face when trying to apply modelling and simulation in the certification process ( "**analysis-based certification**").

The goals of the survey are as follows:

- Identify general barriers for analysis-based certification
- Identify gaps/challenges in current simulation tools
- Identify gaps/challenges in parameter identification/calibration
- Identify business opportunities related to analysis-based certification





# Request for interview candidates

## Who can participate?

- We are interested in **companies/organisations that actively get their composite products certified** or directly assist other parties in certification.
- We are also interested if your organisation is a **certification body**.
- In addition, we are curious to learn from your experience if you have used analysis in certification of components using materials and load cases outside of our scope.



# Request for interview candidates

## Confidentiality

All knowledge inside of COST actions is public. We have therefore adapted the following procedures to protect potentially commercially sensitive knowledge and information.

- The data and information gathered in this survey will be used to compile a summary report on current gaps and barriers for the adoption of analysis in composite certification. Any data and information will be presented, organised by sector, and the **name of the company** will not be made public.
- The **name of the person** providing the information in the interview will only be known to the interviewer and hence not become part of public knowledge inside of HISTRATE.
- The **notes** taken during the interview will be sent to the interviewee by the interviewer before being shared with HISTRATE.



# Request for interview candidates

**Contact us if you can participate**

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