

# Structural Asset Integrity

A structural asset-integrity service identifies structural damage within and carries out structural audits on any kind of structure and foundation. These services support clients to optimise their investments in refurbishment and improvements.



## THE Applus+ SOLUTION

Our extensive experience in this field comes from many years of providing 'ad hoc' solutions to customers in a range of facilities all around the world.

We offer a comprehensive asset-integrity service broken down into the following phases:

1. Initial inspection and data collection
2. Study of existing documentation
3. Trials and testing
4. Analysis of the pathology
5. Proposal of solutions
6. Budget estimate for repairs
7. Supervision of repairs
8. Drafting and delivery of a final report

Our specialist tools for field inspections allow us to be both timely and cost effective. These include our field inspection tool, SICE, which allows us to produce more accurate information in less time.

Our services include:

- Structural evaluation of existing edifications, preparation of current-state and pre-diagnosis reports

- Structural pathology studies for rehabilitation of existing buildings and structural design supervision
- Cracks protocol; structures monitoring; and enclosures thermography
- 'Due Diligence' audits on existing buildings
- Load tests
- Integrity testing on piles
- Stress tests: supervision of anchors on piling walls and of post-tensioning on reinforcements
- Auscultation of reinforced concrete structures (ultrasound, schmidt rebound hammer test and rebar detection system)
- Technical supervision of testing works as a third party

## Target customers

This service is aimed at public organisations, building developers, architects and building owners with a view to helping them to plan cost-effective predictive and preventive maintenance programmes, and therefore to extend the life-cycle of a facility, while complying with international standards throughout.

An asset integrity study may be performed:

- When there is evidence of cracking to columns, beams, top slabs, facades, interior partitions walls, roofs, etc.
- On old structures, whose utility has changed
- On structures exposed to environmental damage such as corrosion and rusting
- On structures modified without initial study
- On structures reaching the end of their operational life
- As part of the technical inspection of a building

## Key customer benefits

Applus+ asset-integrity services help our clients to:

- Restore the tolerance and danger limits of structures
- Increase the operational life of structures
- Understand the condition of a structure and the structure limits established by present-day standards
- Identify solutions to cracking problems in different elements