# Air Quality Services

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WKC


WKC Group is an award-winning, international
**Environmental Consultancy Firm**
Through specialist, science-based study we advise clients in various sectors including;

- Oil & Gas
- Chemicals
- Mining & Metals
- Manufacturing & Pharmaceutical
- Infrastructure & Development
- Power & Water

We operate out of strategically located offices in the Middle East, Africa and Europe.

**Our services are broadly categorised as follows;**

- Air Quality
- Noise & Vibration
- Hydrodynamic Modelling
- Ecology (Marine and Terrestrial)
- Environmental and Social Impact Assessment
- Assurance
- Sustainability Reporting
- Geospatial Solutions

While supporting developments that make our lives stronger, safer and richer, our mission is to promote a healthy future for our world and all of us that call it home.

10 YEARS OF SERVICE EXCELLENCE

# Air Quality Services

WKC Group has extensive experience in air quality services, through the use of internationally recognised methods, such as:

- Air Quality Impact Assessment
- Baseline Air Quality Monitoring
- Air Dispersion Modelling
- Greenhouse Gas Inventories and Carbon Strategies
- Best Available Techniques (BAT) assessment
- Bespoke Air Quality Training Courses

WKC Group is committed to knowledge sharing in this scientific area which is continuously evolving. We actively participate in several professional bodies which include:

IAQM Institute of Air Quality Management

NACA

ies

IAIA International Association for Impact Assessment

SACNASP South African Council for Natural Scientific Professions

SPE International

# Air Quality Impact Assessment

An air quality assessment aims to assess the impact of atmospheric emissions from a facility on the receiving environment, usually at the planning phase prior to the facility's construction.

The assessment of air quality impacts requires the use of model predicted results (Air Dispersion Modelling), as well as recognised impact assessment methodology.

At WKC, we have successfully permitted over 80 bank financed projects since our inception.

# Air Dispersion Modelling

One way to establish airborne pollutant concentrations arising from industrial facilities would be to measure the levels of pollutants emitted to the surrounding environment.

Air quality impact evaluations are unique to each project and require case-by-case consideration by the specialist consultant and local regulator.

A classical tiered approach is used in the selection of an appropriate air dispersion model which is outlined below:

- Level 1 assessment provides an estimate of the worst-case air quality impacts using screening models.
- Level 2 assessment is used for air quality impact assessment in standard/generic licence or amendment processes, and usually requires the use of US EPA models such as AERMOD and CALPUFF.
- The aim of a Level 3 assessment is to provide reasonably accurate estimates and a detailed assessment of the likely air quality impacts associated with a project. These models require detailed meteorological, geophysical and source input.

Our team has collectively completed in excess of 150 air dispersion modelling studies since inception.

# Baseline Air Quality Monitoring

The objectives of baseline ambient air quality monitoring are to provide data on:

- Existing conditions within the study area.
- The areas where the highest concentrations of pollutants occur, to which people are likely to be directly or indirectly exposed,
- Pollutant concentrations to which the general population and ecological systems are exposed, in order to determine impacts.
- Transboundary pollution and resultant effects.

Our teams regularly collect ambient air quality data for air quality impact assessment purposes, and have successfully undertaken baseline air quality monitoring campaigns in over 20 countries including Saudi Arabia, UAE, Iraq, Nigeria, Ghana, Guinea, Rwanda, South Africa and Mongolia.

# Green House Gas Inventories

A greenhouse gas (GHG) inventory is a list of emission sources and the associated emissions quantified using standardised methods. Organisations develop GHG inventories for a variety of reasons, including:

- Managing GHG risks and identifying reduction opportunities.
- Participating in voluntary or mandatory GHG programs.
- Participating in GHG markets.
- Achieving recognition for early voluntary action.

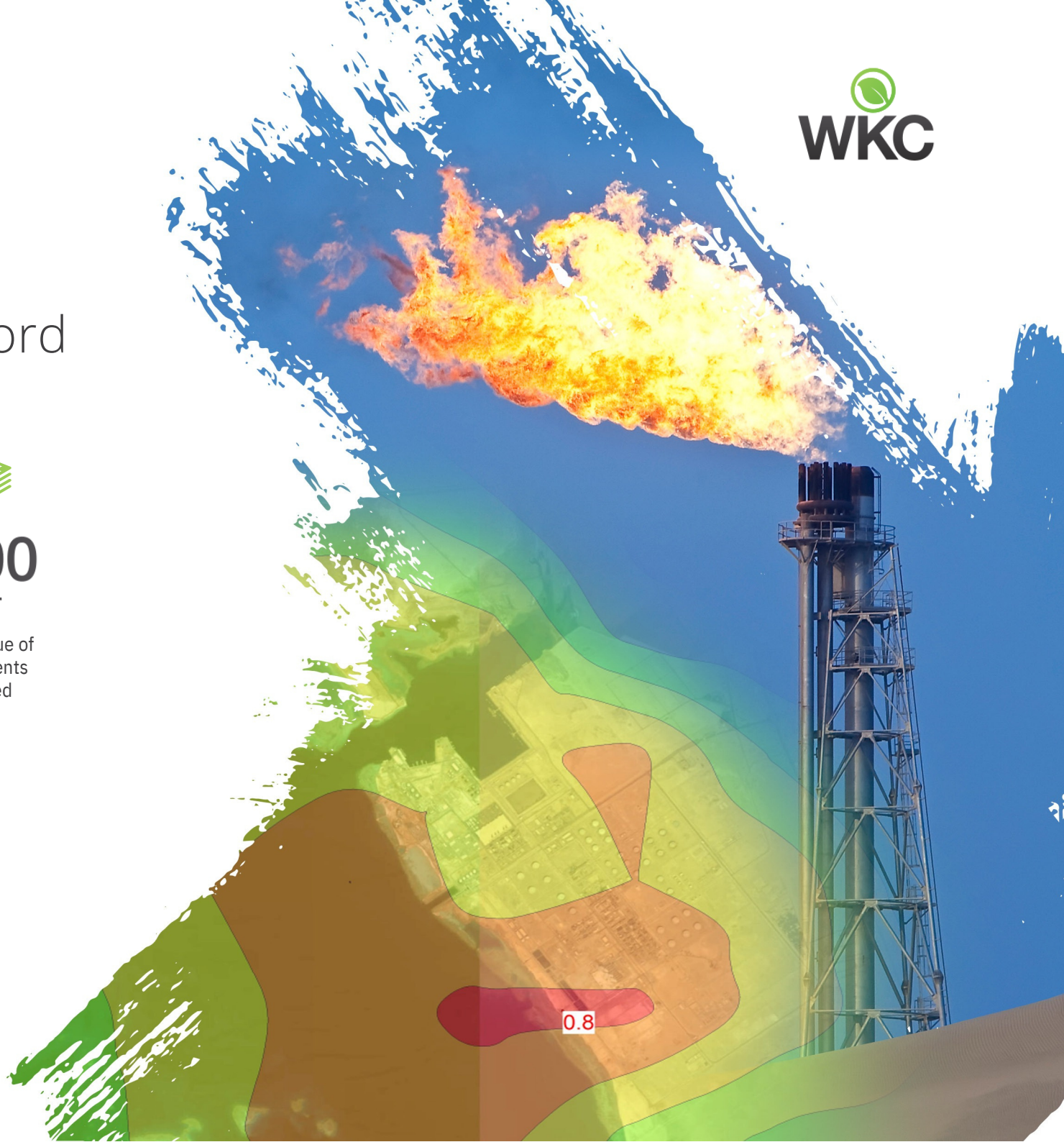
Our consultants at WKC specialise in inventory preparation using internationally recognised standards and protocols, through the use of measured data (emissions monitoring data), stoichiometry (for bespoke fuel usage) and emission factors for sources where detailed data is not available.

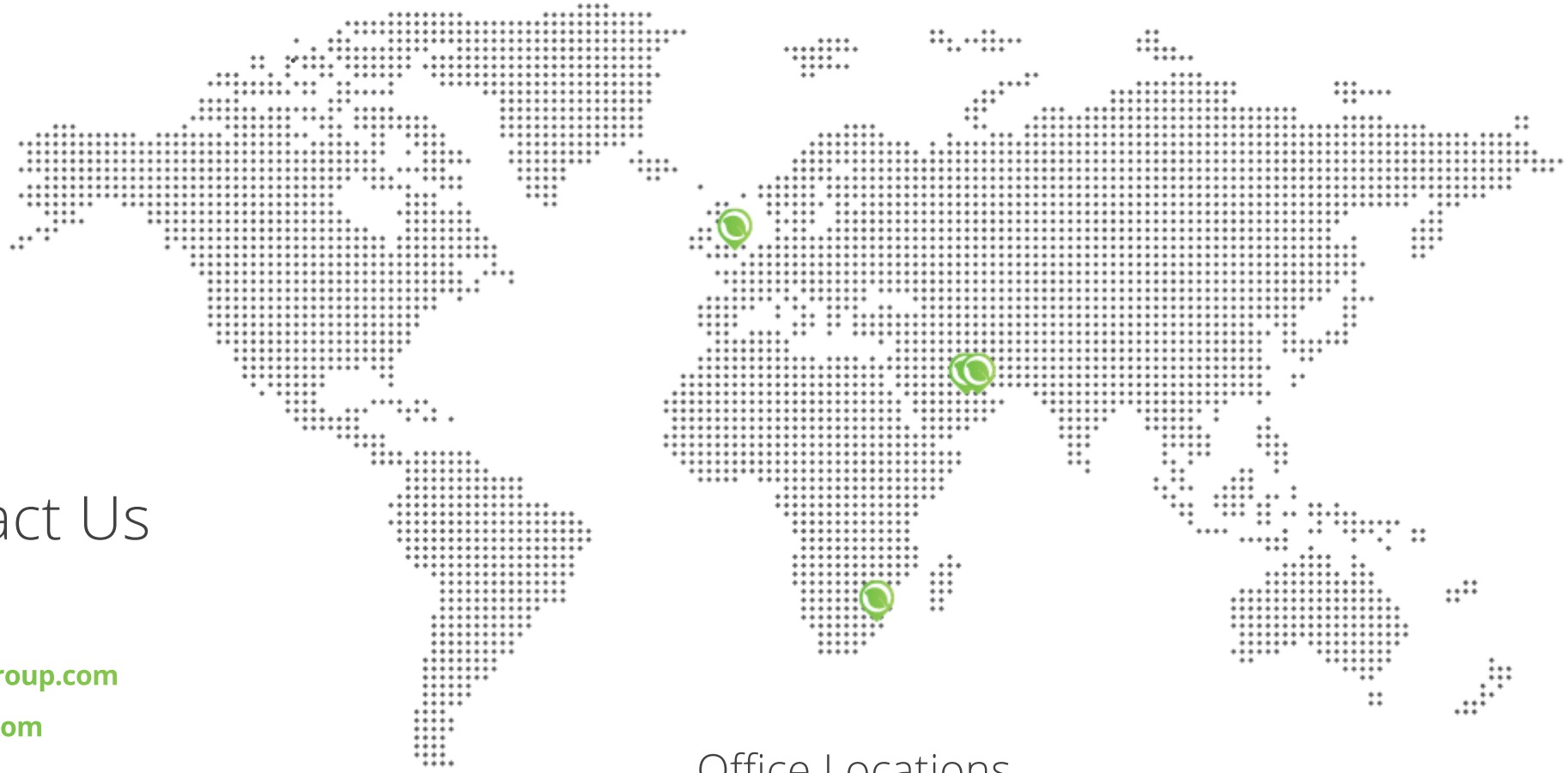
# Enviable Track Record

**200+**
Air Quality projects worked on

**40+**
Countries advised in

**$100Bn+**
Capital Value of developments supported





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WKC Group


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