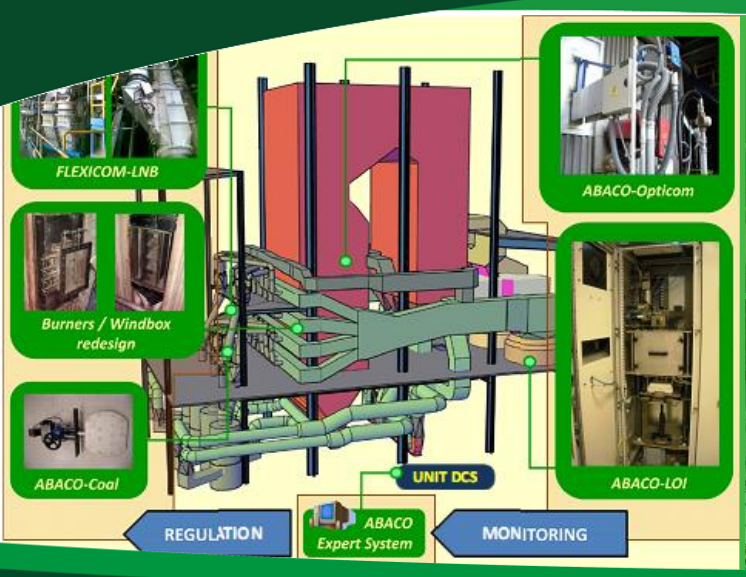

ABACO Combustion Optimization System

Global combustion process optimization (balancing; efficiency; carbon-in-ash; NO_x, CO_2, CO, SO_x emissions, particles, etc.; new fuel blends consumption; fouling; slagging; corrosion) in industrial boilers and furnaces. ABACO relies on the integration of advanced technologies (monitoring, novel regulation and Expert System combustion control) to achieve closed-loop control of local combustion conditions.

Results:

- **Boiler unit efficiency improvement (0.5% - 1.5%)**
- **Simultaneous NO_x reductions in the range of 15% - 40%**
- **Operational problems control (unburnt carbon-in-ash, CO)**
- **Possibility to efficiently burn lower quality or lower priced fuels**
- **Minimization of maintenance needs and in-furnace problems appearance: corrosion, deposits**
- **Significant cost-effective ratio improvements**
- **Fully reversible with minimum boiler modifications**
- **Efficiency improvement of complementary solutions concerning design modifications (burners, OFA, windbox re-design, etc.)**
- **Applicable for any boiler and furnace configuration or fuel nature (coal, oil, gas, biofuels)**
- **Improvement of reliability and safety**