AEROINFRA

IN PARTNERSHIP WITH TERRAFLY INC
PROJECT LEAD: JAIME BORRAS

- **Business**
  - Visionary, decisive, results-driven leader
  - Founded and ran several technology-based companies
  - Co-creator of $ multi-billion, Motorola IDEN Mobile Devices business

- **Technology**
  - Pioneer in the Wireless and Communications Industry
  - Served as Senior Fellow and SVP, Motorola
  - First to market with Wi-Fi, GPS, Bluetooth in Motorola products
  - Innovative consultant solutions to the IoT and Mobile Health markets
  - Master Innovator with 49 granted utility patents and 24 pending
  - Recipient of three “Patent of the Year” awards
TERRAFLY/AEROINFRA

- Specific for UAV

- Focused on Algorithms, Applications & Video Analytics

- Direction
  - Development of algorithms: Autopilot, Indoor navigation, etc.
  - Development of applications: Data fetching, Traffic analysis, etc.
  - Development of video analytics: Privacy protection, Construction zone, etc.
DRONE ALGORITHMS (In development)

- Autopilot
  - Controls flight controller for guidance
  - Programmable Geo-locations destinations
  - Auto take-off and landing
  - Software switchable to remote control

- Indoor Navigation (Work in Progress)
  - Obstacle avoidance with LIDAR in place
  - Altitude hold is under test
  - Indoor stability under development
**DRONE APPLICATIONS** (In development)

- Data fetching from remote locations
  - Autonomous & secure capability
  - Flight time + data extraction calculations
  - Data transfer from local storage to drone
  - Drone returns to send fetched data to Cloud

- Traffic Condition Diagrams
  - Automatic generation of roadway signs
  - Facilitates traffic studies
  - Editable and exportable to CAD tools
VIDEO ANALYTICS (In development)

- Police video recording privacy protection
  - Skin tone detector scrambles face & other body parts
  - Secure pixel encryption stronger than AES 256
  - Water mark to identify de-encrypted video
  - Data reduction for lower storage cost

- Construction Zone Traffic Analysis
  - Multiple monitoring stationary cameras
  - Measures number of vehicles & pedestrians
  - In a given period of time or after special event