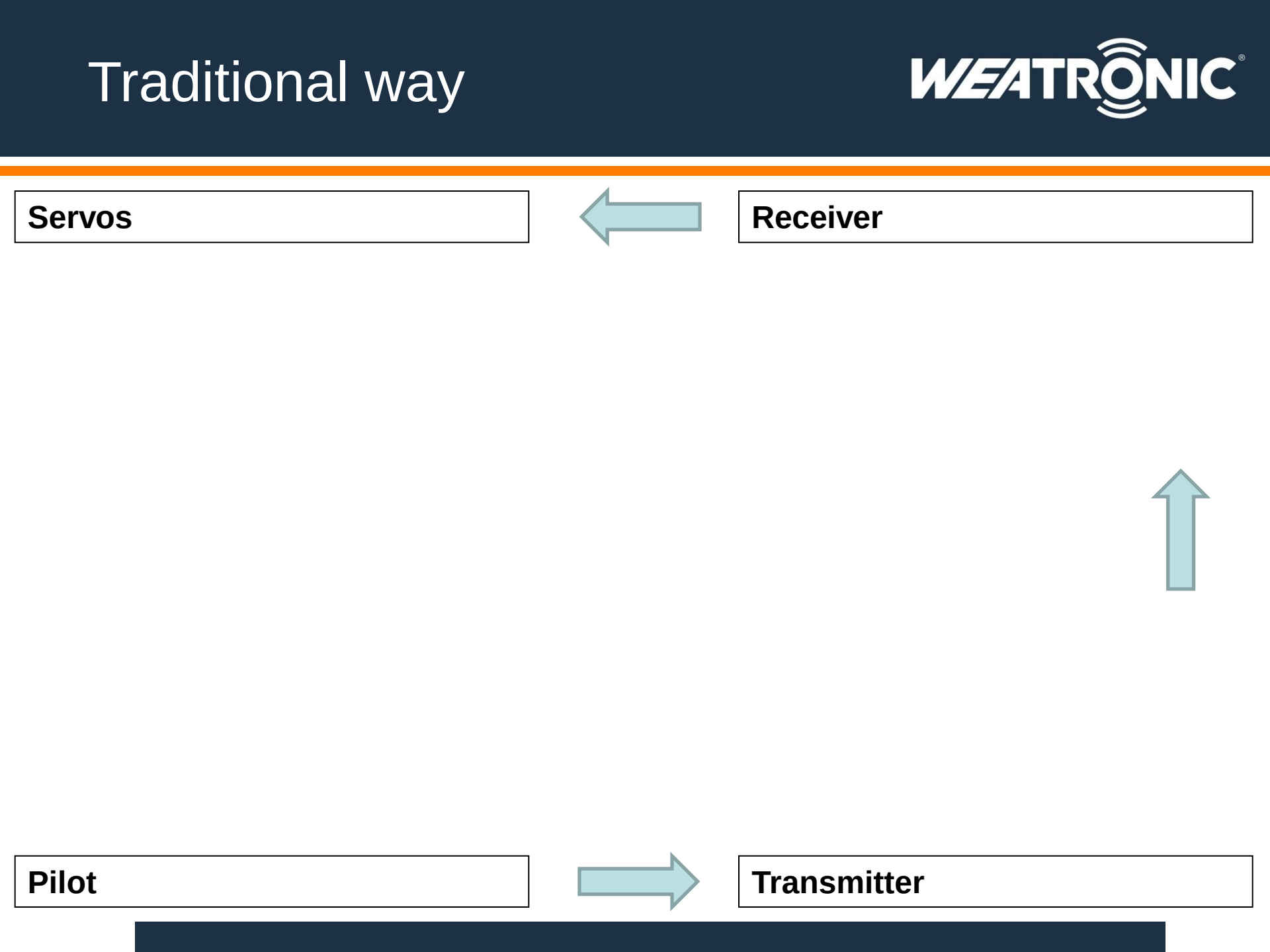
Summary of ideas of open forum discussion

about use of additional technologies on RC equipment

Traditional way



New possibilties

Servos

Additional sensor data

- System: Rx listen quality, battery voltage,…
- Flight attitude: angular rates, G-force, …
- Referencing: GPS data, magnetic heading, …
- Air data: speed, altitude, climbrate, air temperature,…

Receiver

Data logging

Pilot

Visual or acustic feedback

Transmitter

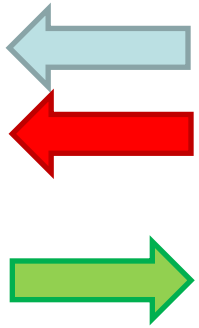
Data preparation and logging

Additional technologies

Servos

Additional sensor data

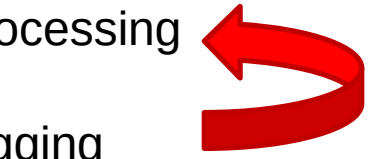
- System: Rx listen quality, battery voltage,…
- Flight attitude: angular rates, G-force, …
- Referencing: GPS data, magnetic heading, …
- Air data: speed, altitude, climbrate, air temperature,…



Receiver

Data processing

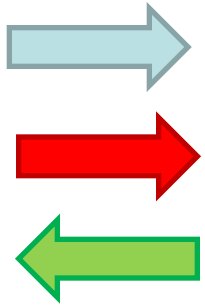
Data logging



Pilot

Control of data processing

Visual or acustic feedback



Transmitter

Control of data processing

Data preparation and logging

Solutions for FAI classes

- Avoidance of cheating
- Use of „blackbox“ as checkdevice
- Use of FAI Mode

Avoidance of cheating

Servos

Receiver

Data processing

Data logging

Additional sensor data

- System: Rx listen quality, battery voltage,…
- Flight attitude: angular rates, G-force, …
- Referencing: GPS data, magnetic heading, …
- Air data: speed, altitude, climbrate, air temperature,…

Controlling this is impossible

Pilot

Control of data processing

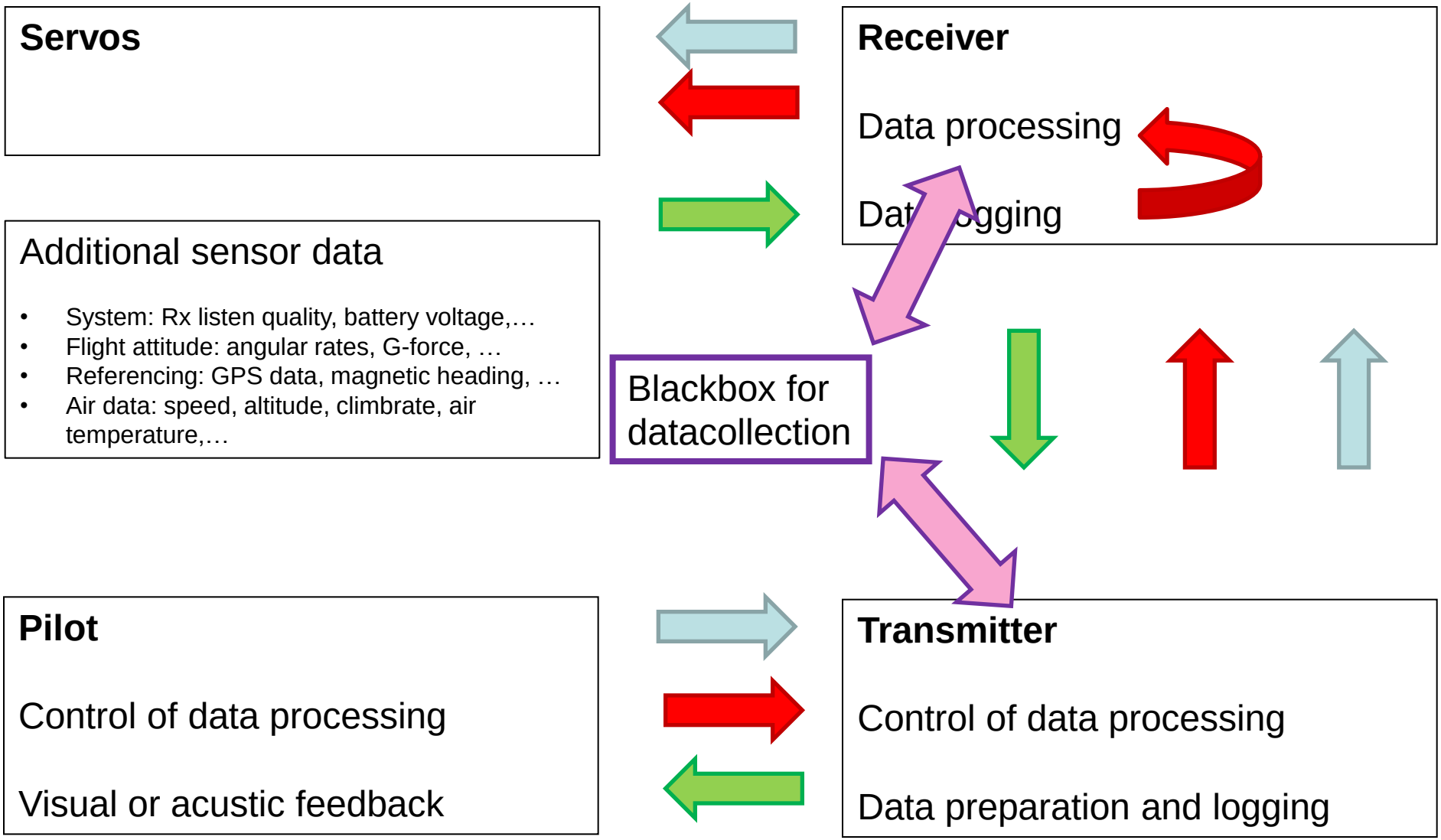
Visual or acustic feedback

Transmitter

Control of data processing

Data preparation and logging

Checkdevice



FAI Mode

Servos

Additional sensor data

- System: Rx listen quality, battery voltage,…
- Flight attitude: angular rates, G-force, …
- Referencing: GPS data, magnetic heading, …
- Air data: speed, altitude, climbrate, air temperature,…

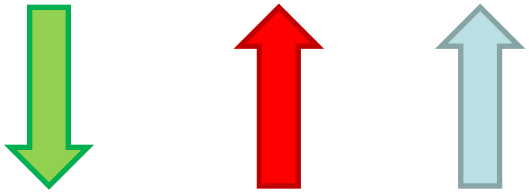
Blocked or separated

Receiver

a processing

Blocked or separated

Data logging



Pilot

Con

Can use standard equipment AND be comliant to rules

Visual or acustic feedback

Blocked or separated

Transmitter

Con

Clearly showing FAI Mode on display and logging state

Data preparation and logging

Solutions for FAI classes

- Avoidance of cheating
  - Never possible by technical solutions
  - Only sportsmenship among pilots can prevent this
- Use of „blackbox“ as checkdevice
  - A lot of work on developing software AND hardware for manufacturers
  - Not possible for all manufacturers with existing equipment
  - Additional cost for competitor
  - Who will take care of analysing the flood of data
  - This will not help the pilot to make sure that his equipment is compliant with the rules
- Use of FAI mode
  - Easy for the manufacturer to realize blocking of existing functionality via software
  - Ensuring the activity of this mode by i.e. Pin or only change when Rx off is easy
  - All data and system status can be logged on the transmitter for traceability
  - The pilots can use standard equipment and show compliance to competition rules
  - There can be different modes for different classes following different rules or requirements
  - The judges can easily check the compliance with rules

Thank you for your attention