6. The WTRU of claim 1 wherein H-ARQ operation is synchronous between the WTRU and a Node-B.

7. A method for supporting enhanced uplink (EU) transmissions implemented by a wireless transmit/receive unit (WTRU), the method comprising:

providing hybrid automatic repeat request (H-ARQ) processes for supporting transmission over an EU channel;

receiving configuration information, wherein the configuration information indicates which H-ARQ processes are associated with a particular dedicated channel medium access control (MAC-d) flow, wherein the association indicates that data from the particular MAC-d flow may be transmitted using an associated H-ARQ process;

for a transmission time interval (TTI), allocating an H-ARQ process ~~processes~~ for transmission of data from the MAC-d flow, wherein the allocated H-ARQ process is from one of the associated H-ARQ processes; and

transmitting data from the MAC-d flow over the EU channel using the allocated H-ARQ process.

8. The method of claim 7 wherein configuration information is received for each MAC-d flow configured for the WTRU.

9. The method of claim 7 wherein the configuration information is received via radio resource control (RRC) signaling.

10. The method of claim 7 wherein the configuration information is received from a radio network controller (RNC).