SUMMARY

[1] One non-limiting and exemplary exampleembodiment facilitates providing communication apparatuses and methods for enhancing UL transmission with multiple beams.

[2] In onea first aspect, the present disclosure refers to provides a communication apparatus comprising: a transceiver, which in operation, receives control information indicating two or more beams for uplink transmissions; and circuitry, which in operation, uses the two or more beams for a plurality of uplink transmission occasions in response to meeting at least one condition for beam switching based on the control information and based on at least one conodition for beam switching.

[3] In anothera second aspect, the present disclosure refers toprovides a communication method, comprising: receiving control information indicating two or more beams for uplink transmissions; and using the two or more beams for a plurality of uplink transmission occasions in response to meeting at least one condition for beam switching based on the control information and based on at least one condition for beam switching.

[3a] In yet another aspect, the present disclosure refers to a base communication apparatus, comprising: circuitry, which, in operation, generates control information indicating two or more beams for uplink transmissions, wherein at least one condition for beam switching is met; and a transmitter, which, in operation, transmits the control information.

[3b] In yet another aspect, the present disclosure refers to a communication method, comprising: generating control information indicating two or more beams for uplink transmissions, wherein at least one condition for beam switching is met; and transmitting the control information.

[3c] In yet another aspect, the present disclosure refers to an integrated circuit configured to control a process of a communication apparatus, the process comprising: receiving control information indicating two or more beams for uplink transmissions;

and using the two or more beams for a plurality of uplink transmission occasions based on the control information and based on at least one condition for beam switching.

[3d] In yet another aspect, the present disclosure refers to an integrated circuit configured to control a process of a base communication apparatus, the process comprising: generating control information indicating two or more beams for uplink transmissions, wherein at least one condition for beam switching is met; and transmitting the control information.

[4] It should be noted that general or specific examples ~~embodiments~~ may be implemented as a system, a method, an integrated circuit, a computer program, a storage medium, or any selective combination thereof.

[5] Additional benefits and advantages of the disclosed examples~~embodiments~~ will become apparent from the specification and drawings. The benefits and/or advantages may be individually obtained by the various embodiments and features of the specification and drawings, which need not all be provided in order to obtain one or more of such benefits and/or advantages.