CLAIMS

1. An automated reel changer for a tape and reel machine, the automated reel changer comprising
   - an input reel station for receiving a plurality of tape reels,
   - a reel presence sensor for detecting a presence of at least one of the plurality of tape reels,
   - a movable first elevator holder module for receiving the plurality of tape reels from the input reel station and for moving the tape reels essentially downwards to an elevator reel work position,
   - a movable spooler module for receiving the tape reel at the elevator reel work position from the first elevator holder module,
   - a tape insertion module for receiving a carrier tape from the tape and reel machine and for guiding the carrier tape,
   wherein the spooler module is further provided for positioning the tape reel to receive the carrier tape from the tape and reel machine, and for coiling the carrier tape around a hub of the tape reel to form a coiled tape reel,
   - a movable second elevator holder module for receiving the coiled tape reel from the spooler module and for moving the coiled tape reel essentially downwards to an elevator reel unloading position,
   - an output reel station for receiving the coiled tape reel from the second elevator holder module, and
   - a control unit,
   wherein the control unit is adapted to direct movement of the first elevator holder module, movement

of the spooler module, movement of the tape insertion module, and movement of the second elevator holder module.

2. The automated reel changer according to claim 1 further comprising
a sticker module for placing a sticker onto an end portion of the carrier tape that is provided for coiling around the hub of the tape reel.

3. The automated reel changer according to claim 1 further comprising
a bar code scanner for retrieving information from a bar code label of the tape reel regarding the tape reel.

4. The automated reel changer according to claim 1, wherein the control unit comprises a port for communicating with a computer server.

5. The automated reel changer according to claim 1 further comprising
a roller arm module for pressing the moving carrier tape that is provided for coiling around the hub of the tape reel.

6. A tape and reel unit comprising
a tape and reel machine,
an automated reel changer of claim 1 for receiving a carrier tape from the tape and reel machine and for coiling the carrier tape around a hub of a tape reel to form a coiled tape reel, and
an automated guided vehicle (AGV) for transporting the coiled tape reel from the automated reel changer to a pre-determined location.

7. The tape and reel unit according to claim 6, wherein the automated guided vehicle (AGV) is further adapted for transporting a plurality of tape reels to the automated reel changer.

8. A tape and reel unit comprising

a tape and reel machine,

an automated reel changer of claim 1 for receiving a carrier tape from the tape and reel machine and for coiling the carrier tape around a hub of a tape reel to form a coiled tape reel, and

a computer server comprising a first communication port for exchanging data with a control unit of the automated reel changer and a second communication port for exchanging data with a user computing device.

9. The tape and reel unit according to claim 8, wherein the first communication port and/or the second communication port comprises a wireless communication module.

10. The tape and reel unit according to claim 8, wherein the first communication port and/or the second communication port comprises a wired communication module.