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Purpose	“
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OFDMA Data mapping correction for DL

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1. Motivation

In 8.4.3.4 the data mapping in the DL is defined as time-first mapping to slots. This ordering seems to be wrong technically and contradict the intention of FEC block concatenation defined in 8.4.9.2, and we suggest to return to frequency-first order, as defined in version D3.

The reasons current definition is wrong are:
(1) FEC blocks concatenation is done in frequency domain (between subchannels in the same symbol/symbol couple), therefore one FEC block would include non contiguous parts of the original data burst, which seems to contradict the intention.

(2) When a FEC block fails, the effect will spread across the data burst, thus potentially causing errors to several concatenated PDUs in the burst, whereas if the FEC block included continguous parts of the burst, the chances are that less PDUs would be affected. Recovery of subsequent PDUs (after the failed PDUs) can be attempted by searching for GMH using HCS correlation.

(3) the current allocation forces the transmitter and the receiver to buffer the entire data, whereas frequency-first allocation would allow the PHY to store only chunks of data suitable for one symbol transmission/reception.

Current data mapping and concatenation:

```
--+--+--+--+--+
1 | 2 | 3 | 4 | 5 |
6 | 7 | 8 | 9 | a |
b | c | d | e | f  |
--+--+--+--+--+
```

First FEC block includes chunks 1,6,11 of the original data.

Suggested mapping with concat:

```
--+--+--+--+--+
1 | 4 | 7 | a | d |
2 | 5 | 8 | b | e |
3 | 6 | 9 | c | f |
--+--+--+--+--+
```

2. Changes summary

[Modify the text 8.4.3.4 "OFDMA data mapping" downlink part as follows:]

Continue the mapping such that the ~~OFDMA symbol index~~ subchannel number is increased. When the edge of the
Data Region is reached, continue the mapping from the lowest numbered ~~OFDMA symbol~~ subchannel in the next ~~subchannel~~ OFDMA symbol.

Change Fig.216 accordingly.