Supplementary material for Persoon et al., Is integrated transit planar portal dosimetry able to detect geometric changes in lung cancer patients treated with volumetric modulated arc therapy? Acta Oncol, 2015; 10.3109/0284186X.2015.1061213.

Supplementary Figure 1. Workflow for the comparison between planned dose (PLAN 1 CT_p) D_p and delivered dose (PLAN 1 CT_r) D_d . For ITPD the prediction model of van Elmpt et al (17) was used resulting in a planned $DEPID\ p$ and a delivered $DEPID\ d$. For the DVH analysis the dose distributions within re-delineated contours were compared to each other.

Supplementary Figure 2. In this DVH+ example the atelectasis decreased causing a slight shift in the CTV (skyblue), moving the CTV slightly out of the high dose volume and resulting in an increased dose to the mediastinum (magenta in the DVH graph), while by integration of the dose only a $P(|\gamma|>1) = 0.21\%$ for beam 1 and 1.7% for beam 2 was obtained, which is below the detection criterion. ITPD hides the inherent dose difference caused by the geometrical change..

Supplementary Figure 3. A schematic example demonstrating that for VMAT with 360° dose delivery, differences caused by geometrical changes may be negated by the integration of the dose. a) shows the measurement setup while b) shows the γ evaluations belonging to gantry angles 0° and 180° and the resulting integrated γ evaluation.