Extrinsic surgeries for positive scalar curvature

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In this joint work with B. Hanke we extend the Gromov-Lawson Theorem about surgeries for positive scalar curvature (PSC). We show that the space of compact Euclidean n-dimensional submanifolds with PSC is closed under surgeries of codimension $k \geq 3$, provided that the codimension is greater than $n - k + 1$. As an easy consequence we obtain a Whitney type theorem for PSC: Every compact non-spin n-dimensional Riemannian manifold admits an immersion with PSC in R^{2n+7}.