Remark 3.21:

1. We refer to the literature, e.g. Braess (2013), p. 172f, for the proof of the efficiency estimate b) !
2. Other a posteriori error estimators:
   1) Estimators based on the solution of local Dirichlet problems:
      → Babuška-Rheinboldt (1978)
   2) Estimators based on the solution of local Neumann problems:
      → Bank-Weiser (1985)
   3) Estimators based on averaging ∇u_h :
      → Zienkiewic-Zhou (ZZ) indicator (1987)
   4) Hierarchical estimators:
      → Deuflhard-Leinen-Yserentant (1990)
   5) Functional type a posteriori error estimators:
      → Repin (1997)

$$|u-v|_{1,\Omega} \le \overline{M}(v,\sigma) := \|\sigma - \nabla v\|_{0,\Omega} + \overset{\text{Friedrichs}}{c_F(\Omega)} \|f + \operatorname{div}\sigma\|_{0,\Omega}$$

$$\forall v \in \overline{V}_0 \quad \text{and} \quad \forall \sigma \in H(\operatorname{div},\Omega)$$

e.g. $\overset{\shortparallel}{u_h} \in \overline{V}_{0h} \subset \overline{V}_0 \qquad \overset{\shortparallel}{R_h}(\nabla u_h)$?

   6) Equilibrated error estimators
      → Braess-Schöberl (2008)
3. Standard literature on a priori error estimators:

[1] Verfürth R.: A review of a posteriori error estimation and adaptive mesh refinement techniques. Wiley-Teubner, 1996

[2] Repin S.: A priori error estimates for PDEs. RSCAM, de Gruyter, Berlin, 2008.

[...] ...