APPENDIX 3: MORE RESEARCH IS NEEDED

The development of frame creation from the level of a proof of concept for a core process model to a true design-based methodology that can be applied in organizations is a daunting task, because a methodology sits between the worlds of academic discussion and real-world practice. Thus, it should be assessed on criteria that range from internal coherence and integration to external validity (for the proposed application area), but at the same time it should also be practical. "Practicality" means that the methodology should be actionable and work within the constraints of practice, be applicable with relative ease, be effective (do what it promises), and be efficient (deliver this in a timely and resource-lean manner). Not only should it be internally consistent (free of inner contradictions) on a theoretical level, but it should not lead to absurdities or morally unacceptable outcomes in the real world. For a methodology to be taken up in practice, it is important for it to be perceived as useful relative to contemporary challenges and a valid way of approaching these challenges. Academic standards, on the other hand, require that a methodology have some novelty relative to the academic discussion—that is, it should further the discussion in the field of research and spawn new, fruitful avenues of research. To deliver on the academic criteria, the methodology must have explicit and clear assumptions, goal, and scope, and the nature and scope of its contribution to the field must be carefully articulated. In a mature academic field like design research, we expect a methodology to be both theoretically and empirically grounded. We seek to achieve this formidable balancing act by placing the frame creation methodology development program squarely between academia and practice, and building it up in steps that generate academic, methodological, and real-world innovations along the way.

At the end of every academic paper, the author tries to convince the reader that "more research (and funding) is needed." In this case, it is true: while