

Policy Brief:
**Achieving National Goals Through Competition And Collaboration:
Innovations in 21st Century Government Innovation Prizes**

Luciano Kay
University of California Santa Barbara

Our synthesis of empirical evidence on innovation prizes and their use in government characterizes prizes as exploratory, experimental policy instruments. Moreover, the literature, we believe, reflects the uncertainty and lack of more robust research-based advice that practitioners face when they design, manage or evaluate competitions. Still, prizes can play a significant role in promoting science and technology to achieve goals such as national health, environmental sustainability and development. This policy brief outlines actions to further develop government prizes as a means to achieve such goals through competition and collaboration.

Policy actions should aim to further develop synergies, pursue existing opportunities and reduce the uncertainty inherent to the prize mechanism. The current prize authority draws on the Challenge.gov platform to promote prizes and sets some reporting requirements. Our synthesis shows that a lack of more academic research on this topic in general and about the Challenge.gov program in particular suggests that much can still be learned about the impact of the program, the efficacy of each prize and the potential of this mechanism. Moreover, a lack of uniform conceptual definitions (such as, for example, types of prizes and participants) makes cross-prize comparisons more difficult and impedes adopting a portfolio perspective. Finally, a lack of a stronger prize evaluation component, as shown by the little attention this theme has received in recent empirical research, highlights the need for more systematic data collection to conduct proper evaluations.

Innovation policy should:

- **Promote coordination in the establishment of prize targets and the development of the national portfolio of innovation prizes.** This can prevent prize target overlaps and competition between prize initiatives. Moreover, collaborations and integration with academic and industry groups that monitor technological, economic and social trends can help determine priorities and optimal prize use opportunities to tackle critical policy issues.
- **Promote increasing exploitation of the outcomes of the prize ecosystem.** For example, through a central, searchable repository of prize data, Challenge.gov can increase access to technologies and knowledge developed by prize participants, creating opportunities for agencies (including those that do not sponsor prizes) to source ideas, talent and technologies from a national portfolio of prize competitions. On the other hand, collaborations with the U.S. Patent Office (or other players in the intellectual property arena) can support prize participants that are interested in pursuing patent applications for their technologies.
- **Promote prize research and more robust and uniform data collection procedures.** A more systematic data collection component informed by more robust empirical research could help determine common evaluation metrics and points of evaluation along the prize timeline. This can also help reduce uncertainty and enable benchmarking and determination of actual rate of success and efficiency of prize programs. Partnerships between government agencies and research organizations to exploit newly created datasets can uncover new opportunities to use prizes and lessons to make prize programs more efficient.

Overall, these policy changes can lead to a more efficient use of resources under the prize authority and to increasing accountability. These changes can also lead to more effective prizes and the accomplishment of objectives aligned with the mission of government agencies.