

THE SECOND GE³LS DELPHI SURVEY AND FORESIGHT SCENARIOS



Event

The Delphi method is an innovative survey-based tool that is being used by VALGEN to solicit thoughts and judgments on applied genomics for bioproducts and crops from a selected expert panel. The second round of the iterative Delphi survey has recently been completed and the results are being used to prepare the groundwork for scenario-based foresight exercises.

Significance

The purpose of the second Delphi, completed in May 2010, was to validate and further delineate the findings of the first Delphi, conducted December 2009 – January 2010. In the first Delphi participants were asked to share their views about GE³LS research in the context of the Genome Canada competition in Applied Genomics in Bioproducts and Crops (ABC). The first round focused on three themes: The current state of GE³LS research; specific GE³LS issues in ABC including the integration of GE³LS researchers; and future prospects for integrated GE³LS. The second round tackled the same themes, but began to delineate them further. Thematic consistency between rounds, and the deepening of insight into the obstacles facing innovation in the ABC context, are important findings with respect to VALGEN's plans for scenario-based foresight exercises. Delphi surveys are an important environmental scanning tool, particularly in the disaggregated policy format used in VALGEN, and are widely used in the preparatory phase of foresight exercises,

Analysis

To better anticipate potential areas of research activity, a multi-round Delphi exercise has been undertaken to gather information regarding ideas and issues as they pertain to GE³LS research and GE³LS integration in ABC projects. More information about this approach is available at <http://www.valgen.ca/wp-content/uploads/2009/09/Policy-Brief-6-March-20101.pdf>

In the second round of the Delphi survey, 67% of participants from the first round chose to participate again. This decrease in participation was expected and is consistent with patterns reported in the literature. The methodology of round two was consistent with round one; the surveys were anonymous and completed online via Survey Monkey. Furthermore, participants were given the results of round one for reference as they completed round two of the survey.

In this iteration of the Delphi, the number of questions was streamlined in hopes of encouraging participants to spend more time per question. Accordingly, the themes from round one were collapsed into three more directed themes in round two: Applied Genomics in Bioproducts and Crops; GE³LS Integration; and GE³LS in the Future. Each theme had two questions – one multiple choice and another open-ended question in which participants were asked to provide a reasons for their response. This approach allowed participants to both 'self-code' their responses while still allowing for the introduction of new topics and ideas.

While the findings from this survey confirmed the results of round one, this method has continued to provide an access point to cross-project information that is otherwise unavailable via more conventional forms of analysis. For example, this survey asked the participants to identify what would be the most influential, but uncertain, driver of change in GE³LS research over the next 10-15 years. The top three responses were *environment* (21%), *public perception* (17%), and *regulation* (17%). This type of data, of which there is much more generated by the Delphis surveys, will be extremely useful when structuring scenario-based foresight activities that involve determining drivers of change.

Conclusion

The second round of the Delphi survey validates and further delineates the results from round one. A third round of the Delphi will be conducted in 2011 to extend and deepen the analysis. The amalgamation of the results from the Delphi surveys will directly inform the planned scenarios-based foresight exercises by providing insight into the key sources of uncertainty, as well the identification of potentially high-impact drivers of change.