



Brainstorming takes place through the presentation of a Problem (Scenario) and the collection of ideas that may solve it. The process is divided into a series of phases in which the transition from one to another is handled by a moderator.

Step ONE: collection of proposals

In this phase, each participant can submit an arbitrary number of ideas that are not initially visible to other participants. Only during this phase can also edit and delete them if necessary. Once the moderator has declared the end of the phase, you will go to the evaluation of ideas.

Step Two: Evaluation of ideas

All participants may assign a score to each idea, including her own. At this stage, the author of an idea is not visible.

Step Three: Calculation of the most popular ideas

During the calculation the most appreciated ideas are selected. The selection is done by calculating the Pareto Front of all the ideas. The ideas that become part of the Pareto Front are:

- Top rated ones
- but also those that represent the preferences of minorities (in fact, if, for example, a participant evaluates only an idea, it definitely will be selected)

The authors of the ideas and the individual evaluations (including authors) are made public immediately after the conclusion of the calculation.

If you have reached a consensus (ie, only one idea has been selected), the moderator can close the Scenario. Otherwise, you can repeat steps (iteration) starting from a new phase of gathering ideas, taking as a basis the ones proposed in the previous iteration.

The definition of Pareto Front used is the following:

Every idea has an associated vector V with the feedback of the participants

An Idea a Idea **dominates** b if $V_a \neq V_b$ and for each participant p $V_a(p) \neq V_b(p)$

Ideas not dominated by any other become part of the Pareto Front.

This definition of domination is inspired by the method described in the following article:
Speroni di Fenizio , P., Paterson , D. (2010) Do not Vote , Evolve ! Proc of the Second international conference on eParticipation (ePart 2010), LNCS, 2010 Lausanne (Switzerland), August 2010.