

# InnoCentive For Crowdsourcing

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## Abstract

*Crowdsourcing is a process that involves outsourcing tasks to a distributed group of people. This process can occur both online and offline. The difference among Crowdsourcing and ordinary outsourcing is that a task or problem is outsourced to an undefined public rather than a specific body, such as paid employees. Crowdsourcing is a distributed problem-solving and production model. In the classic use of the term, problems are broadcast to an unknown group of solvers as an open call for solutions. Users known as the crowd submit solutions. Solutions are then owned by the entity that broadcast the problem in the first place the crowdsourcer. The contributor of the solution is, sometimes, compensated either monetarily, with prizes, or with recognition.*

## Keywords

*InnoCentive, Crowdsourcing.*

## I. Introduction

Crowdsourcing is not limited to the creative and design industries. The company InnoCentive is a crowdsourcing platform for corporate research and development where difficult scientific problems are posted for crowds of solvers to discover the answer and win a cash prize, which can range from \$10,000 to \$100,000 per challenge. IdeaConnection.com challenges people to come up with new inventions and innovations and Ninesigma.com connects clients with experts in various fields. Potential solvers need only to register for free at InnoCentive, supplying contact information and checking off categories for degrees earned, areas of research interest and so on, though each of these questions required for registration includes an 'other' option, meaning solvers need not be professional scientists or scholars. Submitting solutions is simple, also, requiring only the uploading of a word-processed solution written into a downloadable template usually.

InnoCentive is the open innovation and crowdsourcing pioneer that enables organizations to solve their key problems by connecting them to diverse sources of innovation including employees, customers, partners, and the world's largest problem solving marketplace. InnoCentive's proven Challenge Driven Innovation methodology, network of millions of problem Solvers, and cloud-based technology platform combine to transform fundamentally the economics of innovation and R&D through rapid solution delivery and the development of sustainable open innovation programs.

## II. InnoCentive work in a way

InnoCentive specializes in connecting solution Seekers – commercial enterprises, public sector agencies, and nonprofit organizations – to problem Solvers to help solve their most pressing problems and innovate faster and better. Put simply, we enable prize-based competitions whereby organizations can post their toughest Challenges to diverse audiences - employees, partners/customers, or our global community 250,000 + InnoCentive problem Solvers - who try to solve them. Depending on the audience, Challenges often carry financial incentives to generate Solver interest and participation, and the management of intellectual property treatments is of paramount importance.

### A. InnoCentive Seeker

InnoCentive Seekers are progressive, innovation-driven companies, government agencies, and nonprofit organizations with tough business and R&D problems that need solutions. Seekers leverage Challenge Platform, tools, methodologies, and

expert services to identify needs and ideas, create Challenges, and post these Challenges to diverse and creative problem Solvers for rapidly solving them and innovating faster and better than ever before possible.

### B. InnoCentive Ideation Challenge

A global brainstorm for producing a breakthrough idea. This could include ideas for a new product line, creative solutions to technical problems, a new commercial application for a current product, or even a viral marketing idea for recruiting new customers. Ideation Challenges guarantee that at least one Solver will win an award. Additionally, the posting period is typically shorter than with other Challenge types, resulting in quicker time-to-solution. Ideation Challenges involve intellectual property licensing; a Solver grants the seeking organization a non-exclusive license to use any IP on submission.

### C. InnoCentive Theoretical Challenge

A feasible design that may not yet be reduced to practice. A solution to a Theoretical Challenge will solidify the Solver's concept with detailed descriptions, specifications, supporting precedents, and requirements necessary to bringing a good idea closer to becoming an actual product, technical solution, or service. A Solver can expect a substantial financial reward if their submission is chosen as the winning solution by the seeking organization, but an award need only be made if all the Challenge criteria are met. Depending on the Challenge requirements, Solvers will be required to either transfer or license the IP in their solutions to the seeking organization.

### D. InnoCentive RTP Challenge

A prototype that shows an idea in actual practice (though on a non-commercial scale). In a RTP Challenge, besides a detailed description, Solvers are asked to present physical evidence that proves their solution will work within the seeking organization's specific needs, decision criteria, or manufacturing parameters. Solvers are given more time to generate data needed to support their proposals and prepare a response, and the financial awards are typically larger to reward the greater commitment required to work on these Challenges. Like the Theoretical Challenge, an award need only be made if all the Challenge criteria are met. Depending on the Challenge requirements, Solvers will be required to either transfer or license the IP in their solutions to the seeking organization.

### E. InnoCentive eRFP Challenge

A request for a partner or supplier to provide materials or expertise to help solve a business Challenge. Seeking organizations use the InnoCentive marketplace to find businesses or consultants that have already developed the technology they need or have the experience to help them develop it. Unlike other Challenges where a cash award is granted for the winning solution, eRFP winners typically negotiate the terms of the contract directly with the seeking organization.

### F. My InnoCentive

My InnoCentive is the secure area of our web site for Solver interactions with InnoCentive. My InnoCentive is created when a Solver registers with InnoCentive. My InnoCentive provides links to Solver's open (in progress) and closed Challenges. The Solver can edit his interests, public profile, and account details at My InnoCentive.

### G. Deadline for submitting Challenges

Seekers can establish a deadline for receiving proposed solutions. Be sure you submit your solution proposal as soon as possible, even if it is before the deadline. When choosing among solutions of similar quality, the earlier submission is likely to be preferred. If Seekers receive a solution proposal they want to accept, they reserve the right to award a Challenge before the deadline. InnoCentive recommends that you submit your solution proposals on completion without waiting until the deadline date.

### III. Adding Value to Stage-Gate Through the Use of Challenges (InnoCentive)

Companies with lengthy or complex product development cycles typically employ a wide-variety of structured methodologies, processes, and tools to more efficiently manage these cycles, reduce risk, and accelerate time-to-market for new products or services. Product lifecycle management (PLM), Stage-Gate1, new product development and introduction (NPDI), lean manufacturing, Six Sigma2.

Each of these approaches has the specific desired outcomes: issue resolution in PLM, failure management in Stage-Gate, quality improvement in TQM, waste elimination in lean, and so on.

In this paper we explore one such method, specifically the use of prize-based "Challenges" – enabled via open innovation and crowdsourcing – to accelerate innovation outcomes and improve business performance through integration to existing processes. Stage-Gate, a popular program and project management framework, will be assumed to already be in practice, the facts true within a vast majority of innovation practices.

In the InnoCentive nomenclature, a Challenge is a well-formed problem whose solution has value to a company. Challenges come in a variety of forms, from pure ideation – a broad question

formulated to obtain access to new ideas – to those that require more rigor. By definition, Challenges are specific, detailed, and actionable. Via rigorous methodology, Challenges are formulated, ranked, posted to an audience/channel, tracked, and the resultant solutions evaluated and awarded.

Once a problem – or idea, issue, or opportunity for that matter – is defined with a sufficient level of precision, they are articulated as Challenges that may then be distributed to an appropriate channel for innovating. Such channels include traditional inside innovation as well as a host of open innovation approaches including contracted engagements, university grants, joint development ventures, and crowdsourcing. Within the narrower spectrum of crowdsourced approaches, the channel may even be configured for more specific channels, defined by the nature of the "crowd" or audience to which the problem is addressed.

We can divided these challenges into three Challenge archetypes that are defined by their crowdsourced innovation channel:

- Internal Challenges that reach all employees or select groups of employees
- Invitational Challenges that reach selects groups of partners, suppliers, customers or retirees/alumni
- External Challenges that reach open and public communities of problem solvers.

### IV. Challenge Scenarios in the Context of Stage-Gate Practices

Challenges can intersect the usually practiced Stage-Gate at several points in the process.

#### Scenario #1

In this scenario, Challenges front-end the process by feeding the discovery pipeline. A type of Challenge called a Ideation Challenge (in the InnoCentive nomenclature) is particularly relevant in this scenario.

#### Scenario #2

Challenges in this scenarios are designed to clarify and rectify problems within a stage to improve decision making capability at the subsequent gate. When used within earlier stages, Challenges confirm project direction, address viability concerns, and prove/disprove core assumptions. They can also reveal structural impediments such as process inefficiencies and productivity issues that must be addressed.

#### Scenario #3

Projects can come to a screeching halt at any time and for a variety of reasons, which increases both cost and the risk of failure. As such, Challenges are a viable mitigation mechanism. In this scenario, a project team well into product development may

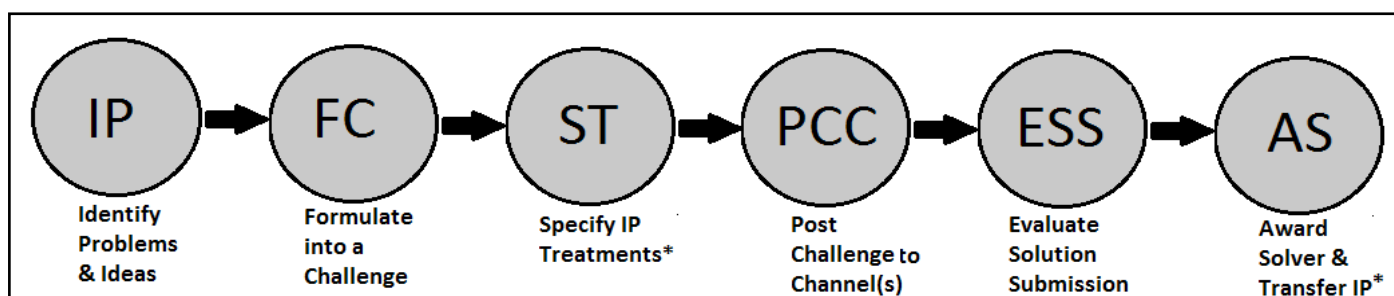
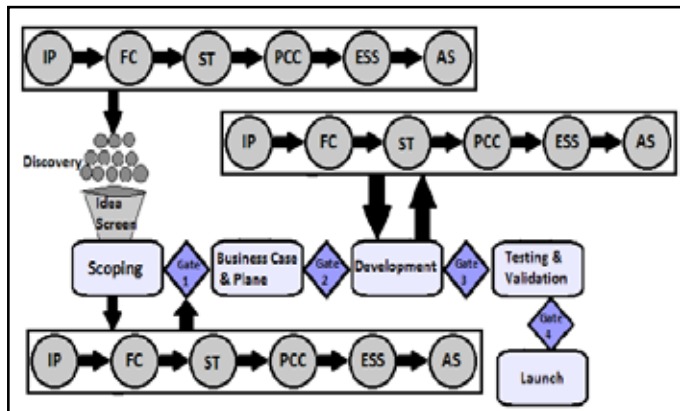


Fig. 1: End-to-End Challenge Process

realize that a material it thought would suffice was not sufficient, that the production of the material would be too costly, and so on. Challenges become a valuable tool to help the project teams expand beyond its core expertise to not only resolve these barriers but also develop innovative solutions previously tried (and failed) or not even considered.



## V. Conclusion

All companies face dozens if not hundreds of problems, issues, and barriers during a typical product development cycle. The inability to solve rapidly these problems can result in project failure and excessive development costs to the company. While management frameworks such as Stage-Gate have historically provided much needed structure, they do not and were not intended to address open methods and channels for actually solving problems.

## VI. Acknowledgment

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## References

- [1] Fig 1 by InnoCentive, Inc.
- [2] Fig 2 by InnoCentive, Inc. overlay of remix diagram produced by Mario Vellandi/Melodies in Marketing.
- [3] InnoCentive executive white paper
- [4] Stage-Gate is a registered trademark of Product Development Institute, Inc.
- [5] Six Sigma is a registered trademark of Motorola, Inc.

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