

Glossary

Technical terms related to innovation, with square brackets to indicate discipline area in which the term is most often used.

Beyond boundaries innovation: Building capacity in radical discontinuous innovation by ‘doing differently’ and beyond steady state innovation [innovation management]

Capitalist: Persons, groups or corporate boards who make investment decisions on means of production (or capital goods) to produce goods/services that diffuse prior innovations [economics]

Closed innovation: Internal systems to the firm to acquire knowledge and technologies [innovation management]

Containment: Social conditioning that limits human action by the institutions of society, as human agents learn that cooperation with rules and routines is in their best interest [entrepreneurship]

Contingency: Human action that is unlimited and free, maximizing spontaneous responses to economic and social conditions in order to find discrepancies and gaps in the marketplace [entrepreneurship]

Continuous (or ‘Kaizen’) innovation: Form of innovation that occurs daily at the workplace by minor organizational changes [innovation management]

Creative destruction: Innovation that alters industry structure by eliminating dominant established firms and industries [entrepreneurship]

Cumulative causation: System exhibiting positive feedback in response to perturbation and characterized by increasing returns to scale arising from learning about the application of the innovation [economics]

Deductive reasoning: Form of reasoning by which generalizations are derived from a set of logical premises or hypotheses [economics]

Eco-innovation (or Ecological innovation): Environment-informed and -driven improvements and innovations in products, services and processes that deliver increased value to producers and/or consumers while progressively reducing net environmental impacts [sustainable development]

Entrepreneur: Capitalist who directs and invests in the innovation process from incubation to commercialization in specific product or process innovations [entrepreneurship]

Evasive innovation: Change that supports and enhances the current technology path, even if the innovation is radical. Such innovation is fixed to the current technological trajectory; for example, hybrid petrol/electric cars and carbon capture energy generation [economics]

Financial predation: Speculative short-term gains from financial investment that removes capital funds from long-term productive investment [entrepreneurship]

General purpose technology: Innovation in a technical field that spreads through society and drastically alters the way life is engaged and alters the structures of society [innovation management]

Incremental innovation: Form of innovation that is based on closed (e.g. R&D) or open (e.g. user-led) minor changes and adaptations [innovation management]

Inductive reasoning: Form of reasoning by which hypotheses or generalizations are constructed based on empirical patterns identified [economics]

Innovation systems: Within a specified bounded area (nation, region, sector) the institutional and cultural characteristics that interact in the production, diffusion and use of new knowledge [economics]

Intangible investment: Reorganization of the production of output on the factory floor, office or shop without involving heavy investment [economics]

Intellectual property rights (IPRs): Knowledge that is rival and where there are rights attached to it by the person who possesses this knowledge in the form of patents, copyrights, trademarks or plant breeds [economics and innovation management]

Knowledge spillovers: Knowledge that is non-rival where there are no rights attached to it by the person who possesses this knowledge; thus it passes on to neighbours physically or in cyberspace [economics and innovation management]

Long period: The length of time (or lifecycle) in which an innovation unfolds from invention to decline and decay [economics]

New product development: Consists of new packaging or styling for the same product, new improved version of a product, and new adaptations of previous products [marketing]

Non-technological (or organizational) innovation: The creative application through intangible investment of human resources management and marketing knowledge [innovation management]

Open innovation: Distributed innovation process that leverages knowledge from a broad variety of external sources to the firm, e.g. university research, contracting research from 'centres of excellence', joint venture consortiums, acquiring entrepreneurial firms and licensing of innovations [innovation management]

Paradigm shift: Significant structural change in technological and organizational structure that transform current production systems [economics]

Procedural rationality (or bounded rationality): Individuals have limited information and cognition of future infinite ends, thus making judgments is bounded and requires satisficing behaviour using adaptive (non-optimal) conventions and rules [economics]

Process innovation: Creative application of knowledge in a new form to increase the set of techniques commercially available [innovation management]

Product innovation: Creative application of knowledge in a new form to increase the set of available goods and services commercially available [innovation management]

Radical discontinuous innovation: Changes in systems, processes or products that alter the nature of production [innovation management]

R&D (research and development): Formal research, design and development conducted by universities and research centres at the basic research end of R&D, and by large corporations' own R&D divisions at the applied research end of R&D [innovation management]

Short period: The period over which planned investment is expected to provide financial returns, which varies in length by industry depending on the period it takes to bring investment on line [economics]

Social learning: Development of understanding through collaborations, interactions and relationships with other people in society [entrepreneurship]

Steady state economy: Optimal equilibrium scale of production where there is a balance of material-energy throughputs into the economy that maintains the flows from the ecosystem at a constant sustainable level [sustainable development and economics]

Steady-state innovation: Building capacity in incremental innovation by 'doing what we do, but better' [innovation management]

Substantive rationality (as 'rational economic man'): Individuals optimize narrow self-interest by making judgments toward their subjective ends that are well defined by their utility [economics]

Techno-economic paradigm: Forms of innovation that result in regime change due to major structural change; for example, steam engine and information technology [economics]

Technological innovation: The commercial implementation through tangible investment of new technical knowledge [economics]

Technological systems change: Forms of innovation based on a cluster of innovations that change the system of operation of an industry or sector; for example, electronic gaming or the wine industry [economics]

Transformative innovation: Change that significantly alters the current technology path [economics]

User-led innovation: Understanding the needs of customers or users and adapting products or processes to meet their requirements or desires [innovation management]

