

Key points and case recommendations for each of the elements of the Pentathlon

Element of the Pentathlon	Suggestions on the appropriate teaching mix	Possible cases	Our comments/suggestions on these cases
1. Ideas: managing creativity and knowledge	<ul style="list-style-type: none"> Use lecture to introduce creativity theory A creativity exercise helps create interest and demonstrate key issues Show and discuss videos on innovation and ethnographic market research 	Marketing Research at P&G (503-121-1)	<ul style="list-style-type: none"> Proctor and Gamble is a world-leading FMCG manufacturer with a long tradition of market research Good case to show the role of market research in product innovation Case can be used to show the need for new approaches such as ethnographic market research
		Innovation at 3M Corp. (A) (9-699-012)	<ul style="list-style-type: none"> 3M is legendary for its approach to innovation and a range of products that includes the ubiquitous Post-It Describes the use of lead-user technique for generating novel product concepts Can be used to stimulate discussions on the 'voice of the customer'
		Bang & Olufsen: Design Driven Innovation (9-607-016)	<ul style="list-style-type: none"> World famous manufacturer of audio systems Discusses how to generate insights that will excite customers Focuses on the role of the creative designer in product development
2. Prioritization: selecting and managing the portfolio	<ul style="list-style-type: none"> Can be a dry topic – concentrate on the principles rather than details Lecture on the financial evaluation tools (eg. NPV, IRR, etc.) and how they must be enhanced to include risk A group exercise to construct a "scoring system" is ideal 	Head: Skiboats Division (305-301-0)	<ul style="list-style-type: none"> Brand new case that we have not yet taught but it looks very promising Includes a spreadsheet exercise
		Vertex Pharmaceuticals: R&D Portfolio Management (A) (9-604-101)	<ul style="list-style-type: none"> Describes how a pharmaceutical company makes its portfolio management choices Covers financial, risk assessment mechanisms, and criteria for the medical and scientific merit of drug developments
		AXA (Chapter 3, Goffin and Mitchell, 2005 ¹)	<ul style="list-style-type: none"> This case may be introduced quite early in the session as a means of establishing that project selection involves more than prioritizing projects in terms of value We find it helpful to present the case in verbal, or better, in written form up to the point when the Madhouse generated a large number of ideas for Catherine Whelan to sift through and select. The class is asked to consider what problems this gives her and how she might best overcome them.
3. Implementation (new product development – NPD, etc.)	<ul style="list-style-type: none"> Basic project management knowledge must be assumed Lecture should focus on the specific issues with innovation projects - fuzzy front ends, Stage Gate and cross-functional teams Have students apply the concepts of risk assessment to a case study Simulations greatly enhance the understanding of NPD 	Britannia (Chapter 6, Goffin and Mitchell, 2005 ¹)	<ul style="list-style-type: none"> This case provides a contrast to AXA because in the first instance innovation was targeted on a small sector and ideas were expected to come from a small group of people Tight control by the Board was appropriate: they were consciously going through a learning process As the innovation process became better-established, the selection task to a sub-committee Shows how a 'data driven' company recognized the need for a scoring system that added broader considerations
		New Product Development at Schwan Food Company: Innovation through Communication (504-011-1)	<ul style="list-style-type: none"> Case discusses the US company Schwan's introduction of a pizza that can be prepared in a microwave Case can be used to discuss what the key features of the new product and to apply the Kano Model (which is also covered in Chapter 4¹)
		Bosch Power Tools (A) (IMD-3-0570)	<ul style="list-style-type: none"> Describes the Bosch do-it-yourself power sanding device product development Very good decision case which can work well with groups of students role-playing different departments. Always well received by students. The Pentathlon Framework can be used to analyze Bosch's approach to innovation
		Wingspanbank.com (A) (9-600-035)	<ul style="list-style-type: none"> Service sector case and so particularly useful Includes a very good description of how to build a cross-functional team Good case discussions around the decision of whether to release the new service

Key points and case recommendations for each of the elements of the Pentathlon (continued)

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4. Developing an innovation strategy	<ul style="list-style-type: none"> Lecture should cover S-curves and disruptive technology and visualisation aids such as Kano and road-mapping Useful class exercise is to draw a product-technology roadmap for a small company 	Domino Printing Sciences (A): Technology Development or Acquisition? (602-031-1)	<ul style="list-style-type: none"> One of our own cases Describes how technology maturity forced the company into diversification and the issues faced in acquiring a new technology Case involves a key decision: which company to acquire?
		Monsanto's March into Biotechnology (A) (9-690-009)	<ul style="list-style-type: none"> This case documents Monsanto's strategic decision to invest in biotechnology in the face of the expected long-term decline in margins in their bulk chemicals business. It is a very good example of a company taking a strategic innovation decision in response to a long-term threat.
		BMW's Innovation Strategies (303-190-1)	<ul style="list-style-type: none"> Describes the German car manufacturer's innovation processes, including strategy. Gives details of how BMW perceives the role of innovation
5. People, organization and innovation	<ul style="list-style-type: none"> Lecture should cover key concepts (eg. cultural web and Michael Tushman's work) Cultural web provides a good exercise (eg. applied to IDEO video) 	Creating a Culture of Innovation at AXA Ireland (to be confirmed)	<ul style="list-style-type: none"> Describes AXA's journey to innovation from 2000-2006 and the key challenges in innovation Brand new case that we will be submitting to ecch soon (preliminary copies available from the authors)
		Herman Miller (A): Innovation by Design (9-602-023)	<ul style="list-style-type: none"> Looks at the culture of a furniture manufacturing company and the role of a new CEO
		Siemens Premium-on-Top: Measuring Knowledge Management with a Bonus System for Fostering Innovation (902-012-1)	<ul style="list-style-type: none"> Discusses the German high-tech giant's approach to knowledge management Raises interesting issues about reward and recognition
		Innovation and Renovation: The Nespresso Story (IMD-5-0543)	<ul style="list-style-type: none"> Focuses on the development of the well-known Nespresso range of coffee products Looks at the entrepreneurial spirit that was required to drive successful product innovations

This table accompanies the article "Cases and the challenge of teaching innovation management" by Keith Goffin and Rick Mitchell that appeared in ECCHO issue 36, Autumn 2006, www.ecch.com/ECCHO36

¹ Goffin, K and Mitchell, R *Innovation Management: Strategy and Implementation Using the Pentathlon Framework*, Palgrave MacMillan, 2005 (ISBN 1-4039-1260-2).