Using MetaGPT for Product Innovation - Product Innovation Task Brief Template

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The aim of this experiment is to investigate how well the GPT-4 LLM supported by a meta-framework performs at product innovation and evaluation. We cannot evaluate the quality of the ideas generated and the evaluations performed without a baseline for comparison. This is why we have asked you, as an expert in your field, to fill in this brief template; choosing a topic and context in which you would like to seen innovation ideas. We will then provide the resulting brief to an AI-based system and design students, and ask you to evaluate the resulting ideas.

When you press next page, you will be presented with an example of a completed brief. Press next page again and you will be presented with the first section of the brief template for you to fill in. There are three sections of the brief in total, with a mixture of optional and non-optional questions. All the non-optional questions must be answered for the brief to be used, and we highly encourage you to answer the optional questions.

There is not time limit on the completion of the brief. You can go back and review the example or change your answers at any point. If you have any questions or require any additional information, please direct an email to 2469113f@student.gla.ac.uk. Please remember that it is the system, not your choice of topic or expertise, that is being tested. While completion of the entire brief is required for it to be used, you are welcome to withdraw from the experiment at any time.

Do you agree to taking part in this experiment? If so please sign below:



Example Brief

Company Background

Company Name: Scarpa

Company Profile: Scarpa, an esteemed Italian company founded in 1938, specializes in high-quality outdoor footwear. Initially focused on handcrafted shoes, it has expanded into mountaineering, skiing, rock climbing, and hiking footwear. Known for blending innovation, quality, and performance, Scarpa caters to both professional athletes and outdoor enthusiasts. The brand is globally recognized for its craftsmanship and advanced footwear technology, maintaining a strong position in the technical outdoor footwear market.

Company Mission: Scarpa's mission centres on inspiring a connection with nature through innovative and quality footwear. Emphasizing Italian craftsmanship and technological advancement, Scarpa aims to enhance outdoor performance, comfort, and safety, encouraging exploration and enjoyment of the natural world.

Current Product Range: Scarpa's product range includes mountaineering boots, ski boots, rock climbing shoes, and hiking footwear. Tailored

for various expertise levels and terrains, their products range from lightweight approach shoes to advanced boots for extreme conditions.

Product Details

Original Product(s)/Category of Products: Climbing shoes

Target Audiences: Outdoor boulderers who live in cold weather climates and want to be able to climb in challenging conditions

Suggested Features: The idea should combat struggles that come with climbing in the cold, such as numb limbs or loss of comfort due to shoe rigidity.

Requirements: The shoe must not lose any technicality compared to the market leaders

Constraints

Budget: £300000 research and development budget

Timeframe: 3 years for first prototype

Technical and Legal Constraints: The product must be in agreement with respective safety laws and guidelines

Company Background

. Company Name (The name of the company the idea is being generated for. It is fine for the company to be fictional or unpopular, but if the company is known to GPT-4 its background knowledge will influence it's responses):

Portabread

Company Profile (A brief description of the company. This could include its history, values, market position, orimary products or services, and target customer base):
Portabread is a prosict design brand which specialises in produces kitchen appliances which can be used within the customers kitchen or on the go whether that is out on an adventure or travelling to work. The brand has many product avenues but the most advanced products are within the toaster, kettle and microwave product industries.
Company Mission (The company's mission or vision statement) [Optional]:
Portabreads mossion is to give its customers the ability to choose how and where they make their breakfast whether that is at home or on the road. We wont be held back by cords
Current Product Range (The existing products or services offered by the company) [Optional]:
Portable toasters, microwaves and kettles
Product Details
Original Product(s)/Category of Products (Product or category of products to be improved. This could be a specific type of product, a category of products, or a broader scope you wish to explore):
Portabread would like to explore and reimagine the original vegetable hand peeler which can be time consuming, messy and occasionally leads to accidents when used for long periods of time.
Target Audience (The intended users or consumers of the product. This could include demographic information, user preferences, and any relevant behavioural insights) [Optional]:
Intended consumer group would be an avid cook and love spending time in the kitchen but loves sharing that time with friends and family aswell

. Suggested Features (Any suggested features or direction you want to give the innovation. requirements that the product must have. This could include size, functionality, materials, sustainability considerations, etc) [Optional]
Potential features could range from hands free to vegetable scale sensing. Ideally, all concepts should have an end of life consideration whether that be remanufacturability or recyclability. An added bonus would be if the product could be scaled up for industrial level food preparation.
. Requirements (Any essential requirements that the product must have. This could include size, functionality, materials, sustainability considerations, etc) [Optional]
The product must have some kind of safety festu5re which prevents accidents
Constraints
. Budget (Specify the budget for designing the product. This could include any limitations on development costs, production costs, or other financial constraints):
The budget for the initial development of the project must not exceed £15,000. Labour and manufacturing costs can be excluded from budget for now.
. Timeframe (Provided a timeframe in which the product should be able to be fully developed and ready for market):
Timeframe for the project will be 6 months from concept generation to manufacturing and then onto the shelf.
. Technical and Legal Constraints (Any technical limitations, legal considerations, or industry regulations that must be adhered to in the design of the product) [Optional]:

Any design or product must not infinge on patents or copy from existing products in this category already on the market.

