



Business Plan – May 2015





Table of Contents

1. Confidentiality Agreement.....	3
2. Executive Summary.....	4
3. Company Description.....	5
3.1. Business Details.....	5
3.2. Promoters and Shareholders.....	5
3.3. Advisors.....	6
4. Products & Services.....	7
4.1. Services delivered at launch.....	7
4.2. Services delivered after launch.....	7
4.3. Long Term Aim of the Business.....	8
4.4. 5 Year Plan.....	9
4.5. SWOT Analysis.....	10
5. Market Analysis.....	12
5.1. Target Market.....	12
5.2. Total Market Valuation.....	12
5.3. Market Trends.....	12
5.4. Profile of Competitors.....	14
5.5. Benefits to Clients.....	16
6. Marketing/Sales Strategy.....	17
6.1. Marketing Strategy.....	17
6.2. Sales Strategy.....	17
6.3. Promotional plan.....	18
7. Investment & Expenditure.....	20
7.1. Investments.....	20
7.2. Revenue expenditure.....	20
8. Pricing.....	22
8.1. Pricing Secondary research.....	23
8.2. Pricing Primary research.....	23
9. Research and Development.....	24
9.1. Technology Roadmap.....	24
9.2. IP, Patents, Copyrights, Brands.....	24



9.3.	Legal and Operational Risks.....	24
10.	Management Organisation.....	26
10.1.	Management (including Board) Organisation Chart.....	26
10.2.	Staffing.....	27
10.3.	Operations.....	28
11.	Financial Projections.....	29
11.1.	Financial Risks and Actions.....	29
11.2.	Breakeven.....	31
12.	Appendices.....	33



1. Confidentiality Agreement

The undersigned reader acknowledges that the information provided in this business plan is confidential; therefore, the reader agrees not to disclose it without the express written permission of PapaMikeWhiskey.

It is acknowledged by the reader that information to be furnished in this business plan is in all respects confidential in nature, other than information that is in the public domain through other means, and that any disclosure or use of this confidential information by the reader may cause serious harm or damage to PapaMikeWhiskey

Upon request, this document is to be immediately returned to PapaMikeWhiskey

Signature

Name (printed)

____/____/_____
Date

This is a business plan. It does not imply offering of securities.



2. Executive Summary

We are PapaMikeWhiskey, started by Paul Shields, Michael Callaghan, and William Seaton. We are writing this business plan to inform investors of the base idea for our product. We also detail how we will develop it further in the next five years, and discuss the initial market we intend to enter.

Our idea is to develop a recipe app that allows the user to scan in their food items using the barcode. This app will then keep track of these items and suggest recipes based on what the user has access to. It will also allow the user to build a shopping list from the ingredients of a recipe the user wishes to experiment with. Later features will include an OCR scanner so the user can scan in recipes from print and the ability for multiple users to link in their accounts so they have a shared database for a household.

We initially plan to deploy our app on Android, aiming for the family market in the UK (ages 30-44). Afterwards, we will expand out to iPhone and Windows Phones. Once we've covered the three widely used smartphones we will start targeting more markets, as well as try approaching at least one major supermarket chain to discuss about the feasibility of expanding our initial shopping list into being an quick way to purchase the items online. Finally we will begin expanding out globally, localising our app for other countries.

Our initial target market will be families, in the age range of 30-44, currently residing in the UK. The market segment is large, with the market estimated at being in the 3+ million people range, but it's still specialised so we will be able to focus our app and its features for this customer segment. From our primary research, we see that our product is a something that people would want, as our survey shows.



3. Company Description

3.1. Business Details

Business name:	PapaMikeWhiskey
Business address:	
Telephone:	
Email:	papamikewhiskey@muzene.com
Web address:	http://papamikewhiskey.muzene.com/
Proposed start date:	01/09/15
Legal status:	Limited Company
Full-time/Part-time:	Full time
VAT registered:	Yes
Bank:	Ulster Bank

3.2. Promoters and Shareholders

The only promoters for the foreseeable future will be all the members of the team.

Member 1: Paul Shields

Role: Chief Technical Officer & Developer

Email: pshields09@qub.ac.uk

Member 2: Michael Callaghan

Role: Chief Finance Officer & Developer

Email: mcallaghan08@qub.ac.uk

Member 3: William Seaton

Role: Chief Marketing Officer & Developer

Email: wseaton01@qub.ac.uk

Each individual team member has a specific role in the company, as defined above. However, there will be crossover between roles in the company for various business and development operations. The shareholders currently are the same as the contributors to the business. Our initial idea is currently in the stage of idea analysis, research and development and market research. We are currently in the process of looking for funding to purchase the rights and information required for the idea, as well as finish development. These costs are outlined in section 7. Each individual will have an equal share in the business, as it was decided that an individual's contribution should be the measure for share percentage.



3.3. Advisors

As part of the Citi “upstart” scheme, our team was allocated a member of Citi staff who could give us general guidance and advice based on their experiences. This has included providing support with developing initial business proposals for aspects such as marketing, pricing, hidden costs and resources required to look out for and general guidance for certain customer segments. As none of the team members have had significant first hand business experience, this source of information has proved to be beneficial in shaping a cohesive business strategy.

4. Products & Services

Elevator Pitch: “Our product, FooDIY, helps users in making new and tasty recipes with ingredients they already have. Being able to scan food into the app takes all the fuss out of the traditional flicking through of recipes to find one which you can make. The date-tracking functionality of the items you have allows for food wastage to be reduced. Every month, users will be presented with even more recipes, from their chosen recipe packs, making the options practically endless.”

4.1. Services delivered at launch

Service: The business idea proposed is based around a recipe app. The user will be able to scan in food items from their cupboards or fridge. This information is then stored in a “virtual pantry” database. From this database, our app can then suggest recipes.

Selling point: Recipes can be automatically filtered to only show the recipes you can make using food items in the virtual pantry. This removes the need for the user to manually check any recipe they want to make against what food items are currently in their kitchen.

Selling point: The user will also be able to widen the search for recipes that require ingredients not in their virtual pantry; from which these required food items can then be pushed to a shopping list.

Service: The virtual pantry will have the capability to store expiration dates of the food items. They can be removed automatically or manually by the user when they exceed the expiry date.

Selling point: This aids in the management of food items in the household to be used optimally in date and prevent food wastage.

Service: Food items in the virtual pantry can be removed manually from being used in recipes searches, for any special case.

Selling point: This means that users sharing food items in a household virtual pantry can accommodate any allergies which may be caused by food items.

Selling point: This means that users in a sharing food items in a household virtual pantry can accommodate any general eating habits.

4.2. Services delivered after launch

Service: User accounts can be linked together, allowing multiple users in a house to have a section of their virtual pantry defined as shared among all linked users.

Selling point: This avoids any duplication in user input through unnecessary rescanning of food items. It also allows for a food item used by another linked user to have its status updated for all linked to the shared virtual pantry.

Service: Nutritional information of these recipes can be used to track the user’s eating habits.



Selling point: This allows for more health conscious users to track their nutritional intake.

Service: OCR can be used for the user to scan in recipes from recipe books.

Selling point: This allows for a user to make use of recipes from a physical recipe book, from which the recipe can make use of the unique functionality of the app.

Future development of the app will be based on the overall 5 year plan. When we target a country where English is not the major language, we will have to ensure that any required character sets are compatible with the functionality and usability of the app. The user interface may have to be altered in order to accommodate these character sets.

As more recipe suppliers are employed on a license fee basis, more recipe categories will be added to the collection of recipes available. The ability for users to switch recipe categories for a small processing charge would be an option.

4.3. Long Term Aim of the Business

Summary

- We will develop a product that is desirable to our target customer base, while also successfully capturing a large number of the existing customer base from other recipe apps.
- We want to ensure these customers are loyal for a long period of time using the subscription plan with the freemium base option. By offering value for money, it will be comparable in value both in monetary and time to usage of a conventional recipe book. The free base option allows us to achieve a large customer base initially.
- A high-quality service should be maintained in the long term (2-5 years) as we expand our product to similar markets into the EU.
- In the longer term (>5 years), countries outside of the EU will require more specialised sources of recipes to be provided and translation costs considered.

We intend to make this business our main source of income. To facilitate this, part of our plan is to market it differently to different groups i.e. families, young professionals etc.

Short term

- Certain resources will be obtained from external sources, such as recipes.
- These will be obtained from sources such as culinary graduates from college, who could see this as a freelance opportunity. This allows for costs initially in recipe acquisition to be kept to a minimum.

Medium term

- Our goal will to bring on chefs based on the market demographic we have accurately determined through growth-hacking. We will require a sales representative to negotiate with the chef's agents.

Long term

- We will move to markets that in some cases use recipes and languages that we are unfamiliar with and require special considerations. This will require overseas connections to a sales representative in the food market.



4.4. 5 Year Plan

Year 1

- Develop a significant customer base within our initial customer segment of families, within the UK, using the freemium model as a means to allow customers to try out the product and the unique value offered.
- We will establish connections with multiple recipe suppliers, who can provide our product with recipes of a range to suit everyone within our initial target customer segment.

Year 2

- Once we have firmly established our product within the UK, with an effective cash flow from the current subscription pricing model, plans will be made to develop a solution for another customer segment, perhaps professionals with more disposable income.
- This will be informed from using the growth hacking model.
- We will continue to refine the features and the promotion of the app, based on the feedback we obtain from our userbase.

Year 3:

- Once we have clear data showing the successful financial and marketing strategy for the app in a market we are native to, we will begin to approach major supermarket retailers to integrate their online shopping functionality into the shopping cart feature in our app.
- More connections with more renowned recipe suppliers will be established using sales representatives to negotiate on our behalf. This will provide the app with more recipes to suit each customer segment more comprehensively, in terms of quality and style of recipe.

Year 4:

- We will expand into other countries within the EU. We will hire sales representatives, local to the country, on a contractual basis to acquire and communicate with recipe suppliers.
- As we are expanding to some countries where English is not the spoken language, we will integrate multiple language support and language character sets into the application.

Year 5:

- Voice integration into the app. The development of this technology in 5 years should be of a quality that can easily process commands from users via voice input.
- Constant expansion into further markets.
- Any further changes made to the app informed from the growth hacking and feedback from our userbase.

4.5. SWOT Analysis

Strengths	Weaknesses
<ul style="list-style-type: none"> • Our app will help manage any ingredients in the user’s possession by keeping track of the ingredients use by dates and allowing the user to adjust the amount they have. • Our app suggests to the user recipes based on what ingredients are stored in their database. The user will not need to have all the ingredients available to them as we will so them what they need for the suggested recipe. • The user will be able to construct a shopping list from the recipes they browse or are suggested to them. The user can include or exclude any item in case they wish to acquire more of a particular ingredient. • The user can exclude recipes based on individual ingredients either temporarily or permanently, if they do not wish to use an ingredient, and to account for allergies or dislikes. • When we implement an OCR algorithm, we will allow the user to scan in recipes from actual recipe books they have and use them with the rest of the features of our app, which are stored locally. This is pending further research into the legality involved in using OCR to scan in from a published source. • Further on, our app will allow multiple users to link their copies of their apps together so they have one collective “pantry”. This allows for a larger household to easily manage their ingredients. 	<ul style="list-style-type: none"> • We are a new start up and as such relatively inexperienced business-wise. • While enough research has been done to determine our pricing mode, more market research has to be done in this regard to fine tune it. • We need to determine the exact sources of our licensed recipes and for what price. • Similarly, we need to determine what we can include legally if we use any open source recipes • We need to determine the cost of using copyrighted recipes within are app. This is in regard to the OCR and any agreements with celebrity chefs to use their recipes. • We will need to standardise the format of the recipes we acquire so our app can reliably suggest them. The biggest concern of which will be the use of OCR.

Opportunities	Threats
<ul style="list-style-type: none"> • According to the Food Tech Connect article “2011 Trends: Recipe Websites, Apps, & Publishing”, recipe books are updated roughly every two years. Our app will be updated monthly with new recipes. • While some of our competitors also implement the recipe suggestion feature, these are based on the information that the user manually inputs through text. They do not create a database of the ingredients which the user currently owns and use that to suggest recipes. • Most recipe apps deliver the entire set of recipes in one package. They are not introduced to the recipes in a personalised way through the adding of new recipes to their chosen categories, through a subscription service. It allows for gradual discovery of different categories. 	<ul style="list-style-type: none"> • Targeting families initially could provide erroneous market strategy results for when we move to other markets, such as the upper market customer segments. • Since we are a new start up, development time needed for our app may be infringed upon by items on the business management side of things because of our inexperience. • Customers may not see the advantages that our app provides in comparison to our competitors simpler apps. • Customers may see the act of entering the ingredient information not worth the added value of having recipes suggested to them, they already know what ingredients they need for certain recipes.

5. Market Analysis

5.1. Target Market

Our intended core initial target market will be families, in the age range of 30-44, currently residing in the UK. The market segment is large, with the number of people in the 30-44 age demographic being estimated at 13 million, according to the 2011 census. The number of families in the UK is also estimated as 18.6 million, giving us a large potential target market to work with. From the primary research we have done as part of our survey, we see that our product is a something that families would want, however with this age range there is a technical hurdle that we will need to overcome, as many people still are unfamiliar with smartphones and apps.

Using growth-hacking, a method of gauging various markets initially in a controlled test release, the satellite markets that would be interested in our app can be identified and decisions for the future of the app's development to be adjusted accordingly. For example, if a number of those tested would fall into the student category, a future enhancement to the app could be that we would provide more budget-oriented recipe categories.

For our recipes, we need to ensure that the recipes we have initially in the app are focused on the family market. Families have to be more aware of budget constraints, so they are more functional in their food needs. However, families still want to eat good tasty meals, so we will provide recipes that can be prepared at a low cost.

5.2. Total Market Valuation

Researching our current target market of families, it has been found that around 28% of their sales of recipe books come from people between the age of 30 and 44. They are the most significant contributor of the market overall.

Another significant figure from the publisher was that 29% of the sales were from a digital outlet. Sales from traditional bookstores were marginally more, at 31%. However as tablet devices with large screen sizes are becoming cheaper, the alternative to the physical cook book in a digital representation becomes all the more appealing. Digital sales should take over in the next years as large companies such as Amazon produce more devices specifically for digitised books.

5.3. Market Trends

A summary of some of the key findings of research is provided below.

- The sales of e-books, recipe e-books in particular have been increasing significantly over the past 5 years.
- The majority of the target market of families or young professionals already owns a smartphone with the hardware requirements for the app.

- An increase in the number of television program related to cooking, home-cooking especially have made cooking from a recipe more accessible and less intimidating.
- Food wastage is a critical issue when it comes to the purchase and usage of food.

Family Food Trends

Trend: Studying the food trends of families in recent years, it appears that families are more aware of food & drink expenditure compared to previous years. According to Family Food 2013 review, expenditure overall has reduced from 2012 by over 1.5%, and 3.9% from 2010. Typical food expenditure per household in the UK & Ireland per person, per year is £2,200.

Impact: With our app, we have the opportunity to market directly to families and help make this want of preparing interesting and new recipes on a budget a reality. We will adapt our marketing of the app to effectively convey this as the primary reason to use our app.

Trend: According to the charity Love Food Hate Waste, 7 million tonnes of food is thrown away from UK homes every year. This is something that families in recent years have been more attentive of, as this equates to each family throwing away around £60, or 24 meals, each month.

Impact: We have taken this into account when creating FooDIY. When the user scans food into the app, the app records an estimated use by date. The app then takes this into account when suggesting recipes to the user, ensuring the food gets used optimally, minimising wastage. The app will also notify the user of any food about to expire, if it isn't going to be used in a recipe.

Recipe Trends

Trend: Food Tech Connect, in a recent trend report, detailed two major trends that have affected FooDIY. After being “spoiled by Netflix and Amazon”, it's been shown that people now want more curated and personalized content in many different aspects of their lives, including with recipes.

Impact: A number of different websites are available, like Gojee, who features hand-curated recipes from top bloggers, and Punchfork, who leverage social data to suggest personalised recipes, which try to provide this personalised service, however none of these take the food that you currently have into account. This is where our app, FooDIY, differentiates itself, by providing this service.

Trend: The same source, Food Tech Connect, also states that recipe publishers are beginning to focus more on digital distribution recently. This has been due to the growth of user reviews and social media, the publishers are starting to believe that simply having a website to sell cookbooks on is no longer enough.

Impact: This change in direction shows that digital recipes is a market that is rapidly expanding with more major recipe publishers embracing the digital platforms. From this, as a small upstart app, this means that we will have to analyse how our competitors are currently marketing their recipes to customers and ensure that, with our advertising, we are effectively reaching our target market and ensuring they know about our unique features.

5.4. Profile of Competitors

Through our research and knowledge of the current market, we have identified 3 different types of competitor:

Secondary Research Undertaken: Analysis of and Downloads for recipe apps

Findings of Secondary Research:

- Larger general apps include Epicurious and AllRecipes.
- Each app generates around 100,000 to 500,000 downloads each.
- Lack of apps currently focused on families.

Action to be taken:

- Differentiate ourselves from the body of the recipe app market, through focus on marketing on USP's.
- Provide a high quality app aimed at the family user base that will provide recipes and food management facilities.

Source:

- Google Play Store
- iTunes Store

Secondary Research Undertaken: Recipe books/magazines

Findings of Secondary Research:

- Physical book sales in the first three months of 2012 were down 11%, or £39M, compared with the same period in 2011
- Sales of eBooks have increased by 366% in 2011.
- Within the book market, food & drink has proven to be one of the most reliably popular sectors. In 2011, around 87 million pounds was spent on food & drink titles. This is worth 20 million more than what it was in 2006.

Action to Be Taken:

- The main difference in opinion between recipe apps and recipe books is that recipe apps tend to be more practical, when done correctly. However, the book market appeals to customers who want the recipe and its instructions more clearly presented, and benefits from not being reliant on varying screen sizes and the associated formatting problems.
- This makes it important that a user can easily navigate the app and make use of all the USP features our app provides.

Source: The Bookseller

Secondary Research Undertaken: Free recipe resources

Findings of Secondary Research:

- With the rise of cookery shows on television, such as the Great British Bake Off and Masterchef, online resources with the recipes they showed in the programme are increasingly being published online for customers to use, free of charge.
- Recipes made during the broadcast of the show are the recipes with the highest viewing figures.
- Viewing figures for the final episode of the Great British Bake Off in 2014 were higher than the broadcasting of the world cup that year in the summer.
- Apart from the license fee aspect of cash flow for the online recipes to be profitable, a number of recipes are created & owned by the hosts of the show. It can be seen as a form of advertising for a recipe book(s) that will inevitably come out after a show.

Action to Be Taken:

- Account for the consumer's usage of these open sources of recipes by integrating support into the app.
- These recipes will be provided to the user with the functionality of the app free of charge. However there will be no guarantee that the conversion into a format usable by the app will always be successful, due to the variance in quality.
- There is the possibility that we could tie in these broadcast recipes into a pack for one of the categories along with the airing of one of the shows. This could be on the same day and could be seen as a beneficial form of promotion for the show.

Source: BBC Food Website.

Competitive Advantage

Our main advantage compared to our competitors is our unique features:

- Our app will allow the user to store what food items they have on hand. This will allow the user to keep track of what they have.
- It will also notify the user of any items past their expiration date, and highlight recipes that will use these items.
- Our competitors provide a static list of recipes; at most suggestions are limited by time of year and seasonal dishes in the case of other recipe apps or websites. Ours will suggest based on the items the user has.
- Our app will allow the user to quickly construct a shopping list based on any recipe they wish to prepare and allow the user to exclude the items they have on hand.
- Excluding recipes that use items the user is allergic to or does not wish to use at the moment.

At a later date, we will add these features which will continue to give us an advantage:

- The user will be able to scan in recipes that have been printed.
- Linking accounts to a shared pantry, allowing a household to keep track of their combined stock, as well as individual items.
- Going a step further and allowing the user to order their shopping list online.

5.5. Benefits to Clients

An app that suggests recipes based on what's been scanned in and stored will allow a user to save money, due to the fact that the recipes being suggested will be using the existing ingredients in the user's cupboard. Being able to store expiration dates of the food items within the app and being notified of an ingredient about to go out of date, a user can then make use of that ingredient in a suggested recipe. This should minimise food waste as the customer will always be provided with many new ways to use their existing ingredients. The reduction of food waste will correlate to a reduction in food costs.

As it is possible for the user to exclude specific ingredients, perhaps when they are cooking for a friend with nut allergies, they can reduce the chance of error that the user would use ingredients with nuts or traces of nut in it.

Nutritional information of these recipes can be used to track the user's eating habits, allowing them to be more health conscious but also save time on tracking this information. Most recipes apps do not have this functionality integrated.

The act of finding a recipe that only uses ingredients in your cupboard can be a very manual process. This app should go some way in reducing that, with recipes being suggested based on your ingredients you have scanned in. Also, time can be reduced by the app having the functionality to do the reverse of the process above.

6. Marketing/Sales Strategy

6.1. Marketing Strategy

We will initially be targeting families and young professionals, but we will be flexible enough to modify our target market after launch through growth hacking. We have conducted research on this market segment and have seen that the demographic is interested in a product such as this. People these days tend to be more technology focused, which means they have tended to be interested in our unique selling point of scanning their food into the app and using this information to suggest recipes. The market segment is also likely to have a smartphone in their pocket, with 85% of people having a smartphone.

In terms of marketing, we will market the unique flow of the usage of our app, just how quick we can scan in the user's foods, add them to the app pantry and suggest recipes to cook from that. We would like to market it through word of mouth and social media. This decision was made with our potential market segment in mind. We will try to encourage people talking on social media about us through competitions, such as winning a year's Full subscription through tweeting about us, and having company interaction with our users. A trend in recent years is for social media to be used as a primary promotional and communication medium, as is shown with the current growth of multinational companies on Twitter.

Advertising locally, through shops and restaurants, possibly restaurants who we license recipes from, is an area of advertising we are targeting, however we are still researching the availability and interest of this with the shops and restaurants themselves.

6.2. Sales Strategy

We will be selling the app directly, using a freemium model detailed in Pricing, through the various mobile app stores, starting with the Google Play Store and the Amazon App Store. The subscriptions will be sold as recurring in app purchases.

The app stores themselves are vast and overwhelming for most people, so we cannot rely on them for marketing or the positioning of our app initially. Once our app is more successful, our positioning within the Top Apps charts should help our long term growth. For pricing, we would retain complete control over how much we charge for the subscriptions; however the stores will take a 30% cut off all subscriptions, so we will need to factor that into our potential income.

For integration within the marketing strategy, the app store provides a quick method for users to download apps, so we will be able to use this to our advantage. As the app is freemium, we can provide a search term to that will show our app as the first result and provide short links to allow the user to get straight to the app in one click.

6.3. Promotional plan

The promotional plan for the business in year 1 is set out in the table below. A similar promotional approach will be adopted in year 2 and the marketing budget will be £182.

Table: Promotional plan			
Promotional Method	Details	Timescale	Cost
Business cards	Given to potential recipe suppliers, chefs/ restaurateurs. Allows them to not have to make an instant decision based on the initial pitch of your idea, can get in contact for more information.	First 6 months	£50 for high quality business cards x 200.
Flyers	Distributed to local restaurants or cafes likely to have target market clientele. QR code to link to store page.	First 6 months	£56 for high quality A6 leaflets x 2000.
Advertisements	Advertised at places where people conscious of food or budget wastage could be. For example, in local environment recycling centres or in local supermarkets.	First 6 months	£56 for high quality A6 leaflets x 2000.
Website	Website for product outlining subscription plans, value they offer. Facts and figures to show money and food that can be saved using the app.	6 months – 1 year	Developed in-house.

Facebook/Twitter	Overall company profile with new app release promotions. 10% off subscriptions with special code for example. We will try to encourage people talking on social media about us through competitions, such as winning a year's Full subscription through tweeting about us, and having company interaction with our users. A trend in recent years is for social media to be used as a primary promotional and communication medium, as is shown with the current growth of multinational companies on Twitter.	First 6 months	None
Email	Encourage users to subscribe to mailing list for new recipes, so that when if they unsubscribe they are kept up to date of the latest recipes coming out. Allows for flexibility on users side with subscription.	First 6 months	Free up to 2000 emails. £20 after that figure.
Instagram/Snapchat	Social and informal connection with users. Posts for example: "I made this using the FooDIY app. Didn't even need to go out to buy more ingredients. "Why not download to try out these amazing recipes?", along with a nice picture of one of the recipes cooked using the instructions from one of the recipes.	First 6 months	None
Total			£182

7. Investment & Expenditure

7.1. Investments

Initially we are applying for the InvestNI Proof of Concept fund, which has a potential investment of £10,000 for the company to be able to produce the initial version of our app, to be launched on Android.

In addition to this, once we have an initial prototype, we will be applying to various entrepreneur competitions, such as INVENT 2015 and the Student Entrepreneur Awards, which have a potential investment value of £33,000 and €10,000 respectively for the winner.

For our second round of investment, at month 8, we will start applying to various additional funds, including the Queens University of Belfast Innovation fund. At this point in time of development in terms of the marketing strategy, this will be more informed from direct experience interacting with our target audience. Any instability in functionality at this point will be fully resolved.

Furthermore, in the future once the sales coming in via subscription fees exceed the costs associated, we will start looking into loan investments. An example of this would be the Small Business Loan Fund, which offers loans from £1,000 to £50,000.

7.2. Revenue expenditure

We intend to use the Tesseract OCR for our recipe scanning. This has the advantage of being free with the inclusion of the Apache License 2.0. For the image recognition software for the quick scanning of foods, we will be using the CamFind API, which is also free.

Typically an author of a book from an established publisher will be given 10-15% of the wholesale value for each book sold, assuming the agreement is on a license basis. In our case, the added value given by the app and any processing charges of the raw material given by the author can be seen as equivalent to the added value given by a retailer.

The retention figure for subscription has to be factored as a cost as well. The typical churn rate for subscription based services is 20%.

In terms of production costs, the acquisition of the recipes is one of the main outgoing sources of capital for the app. The recipes will be acquired from recipe suppliers on a licensed basis as a rule; however this could change in the longer term when we have a greater cash flow and buying power. It could also depend on the recipe supplier as well, the power their name demands in terms of prices for the recipes etc.

For one year to support 7 categories in terms of subscription recipe additions to the base number, a total of 1190 recipes will be required. This is composed of 50 recipes initially for each of the 7 categories to be provided at launch totalling 350. Additionally 10 recipes



will be added to each category per month totalling 70 recipes and for the year a total of 840 recipes.

A backlog of 3 month's equivalent of subscription recipe additions will be obtained prior to the release of the app. This is to avoid any logistical problems that could occur in certain months where the required recipes could not be provided by a recipe supplier.

The first 3 months of additional 210 recipes will be paid for upfront, based on the predicted sales figures for these months at the rate of 15% of total sales capital. This equates to £510. The initial 350 recipes for the categories to be provided at launch will also be paid for in this manner. However the equivalent of the first 5 predicted months of sales will be used. This equates to £945, using the 15% rate for sales made.

In year 1 the subscription license paid to recipe suppliers will be approximately £120 per month, depending on the sales figure in a particular month.

The cloud service required for storage of the user data will initially be free in the first year. The Amazon EC2 cloud service offers new customers the first year, free of charge. After this the amount of storage required will increase, so the cost will proportionally increase.

To ensure that the application runs across a range of devices, it will have to be tested using physical hardware, as issues can arise which cannot be seen on a software emulator. The number of target device will increase from 6 to 10 from year 1 to year 2.

A monthly fee for electronic cash transfer and other bank processing charges will apply. This is free with most banks for the first year. For a business account, there will be specific charges for transactions and other processing operations.

A data handling insurance policy will be acquired, to allow for any reimbursements that may be required to give to customers if data is lost or mishandled in any way.

A fee will have to be paid for any legal issues that may require consultation, such as the issue of using OCR technology to generate and use recipes within the app.

In order for local chefs to be aware of our business idea, along with establishing our initial customer base, various materials will have to be produced in order to market and promote our idea. This will include leaflets for local businesses relevant to our initial target audience and business cards for any communication with chefs when we deal with them in acquiring recipes for the app.

Typical internet access costs will be required for the business.

8. Pricing

Our proposition for a pricing model is to have a subscription based model with a freemium base plan. This makes the use and access of our app attractive and flexible to customers, yet allows for it to be a constant source of cash flow, due to the periodic payments for the subscription. The free plan would allow for a wide user base to be established, allowing us to easily adapt to the audience. We can then encourage these customers into opting in for one of the paid subscription tiers, via design considerations within the app. All features will be accessible to the user, to give them a proper feel for the full product before they opt in to any paid plans.

An example of a design consideration would be to have all visible recipe items on the screen usable, but only when you scroll down through the list of recipes available, you'll see that you have to pay for a subscription to gain full access to that category. The premium plans will be split into a number of tiers: Lite, Medium & Deluxe. Each tier will allow the user to select an increasing number of recipe categories. These categories will be updated monthly. An initial plan for one category is to charge £1.99 per month. This is based on the average number of recipes in a standard cookbook and the addition of 10 recipes per month for a year, on top of an initial 50 recipes. The number was rounded down, for behavioural economic reasons, principally the fact that the main number has been reduced by 1. This has been shown to have a significant impact on sales. The customer associates the price with £1, as opposed to £2. A small addition to the cost was added for the services provided by the application.

The Deluxe tier will be made significantly more attractive in terms of offering all of the recipe categories, compared to medium for the same price increment from Lite to Medium.

From this we can then derive the cash flow that would be generated by that pricing model if it were to be released with the product. The volume of sales will be based on the secondary research of the size of the market and the percentage share of that market partially based on the general consensus from the survey, which from our initial findings has shown that they would be interested in the functionality and the use of the app.

The price list, which is informed from the results of the questionnaire outlined in the primary research section, is provided below:

Product/service	No' of recipe categories	Price
Lite Tier	1	£1.99
Medium Tier	3	£3.99
Deluxe Tier	all	£7.99

8.1. Pricing Secondary research

A summary of the secondary research undertaken and results are:

- From those tested in the research, 55% owned a phone using the launch platform OS of Android which we intend to use. To refine these figures at a later date, A/B split testing can then be used to focus our initial findings from the pricing and tier preferences from the questionnaire.
- The average recipe book contains around 100 recipes and depending on the production values can vary between 10-15 pounds.

However if we compare this to the number of recipes they would get for an equivalent Lite tier, which would give them the choice of 1 category (could be compared to having a dynamically expanding recipe book), they would receive the same number of recipes after 5 months of subscription at £1.99, with each category initially has 50 recipes. This would equate to the cost of a physical recipe book, without of course the features our app can provide.

8.2. Pricing Primary research

A summary of the primary research undertaken and results are:

- Questionnaire showing market confirmation, along with preferences in gaps in pricing between the 3 tiers (Lite, Medium, Deluxe) of the subscription plan; based in terms of what categories they are offered for that subscription amount per month.
 - From our initial findings of the survey, we have found that of all the people surveyed 73% produced the most cash flow from subscriptions. This was based on them choosing the £1.99, £3.99, £7.99 plan where 84% chose the Lite tier and 16% chose the medium tier.
 - However an interesting fact is that 18% of the people who chose the £2.99, £4.99, and £6.99 plan generated 66% of the cash flow that the previous plan did, with 50% choosing medium and 50% choosing the full tier.
 - The other tier was testing how much we could push the price of the upper tiers, and was pretty unsuccessful in uptake, with only 9% choosing this option.

Along with the tier price calculations, a more subjective approach in the form of a group study will be used. A/B split testing would be ideal in our case, if we want to test out pricing. It would allow us to realistically test people's reactions to the pricing model, within some prototype that accurately represented the scenario of purchasing one of the tiers.

9. Research and Development

9.1. Technology Roadmap

For the initial release of the app, we intend to release on the Android platform, however we will be developing the app in C# using Xamarin, a cross platform app development toolkit, so we should be able to launch the app across multiple devices soon after launch. The three members of the team are all developers and as such will all be developing this app using an agile approach, with a Kanban board.

The features we plan to have included at launch are:

- Basic access to the recipes and ingredients
- Ability to scan in food items via image recognition (CamFind), Barcode scanning and manual food search
- Suggestions of recipes based on what you have entered into the app
- Ability to quickly build a shopping list using ingredients from a recipe, with the ability to exclude those currently in the users possession

After deployment we will then focus expanding first to iOS. After which we will implement our planned OCR reader. Afterwards we will expand to more market segments through development of different recipe packs aimed at said segment, the specific recipes displayed being tailored to the segment. Once implemented, we will then deploy on Windows Phone. Once deployed, we will begin expanding out into other regional markets, requiring localisation for our app for said market. How we expand will be determined based on difficulty on localising the app.

9.2. IP, Patents, Copyrights, Brands

From our research, a trademark for the word “FooDIY” does not exist in the UK, so we will be able to use the name without issues within the UK and we should be able to trademark it ourselves. Likewise research we’ve carried out indicates there is essentially nothing related to recipe apps in terms of copyright.

The brand image we wish to build up is a convenient recipe app that intends to take some of the hassle out of cooking to a recipe, a quality service in the vein of Netflix.

9.3. Legal and Operational Risks

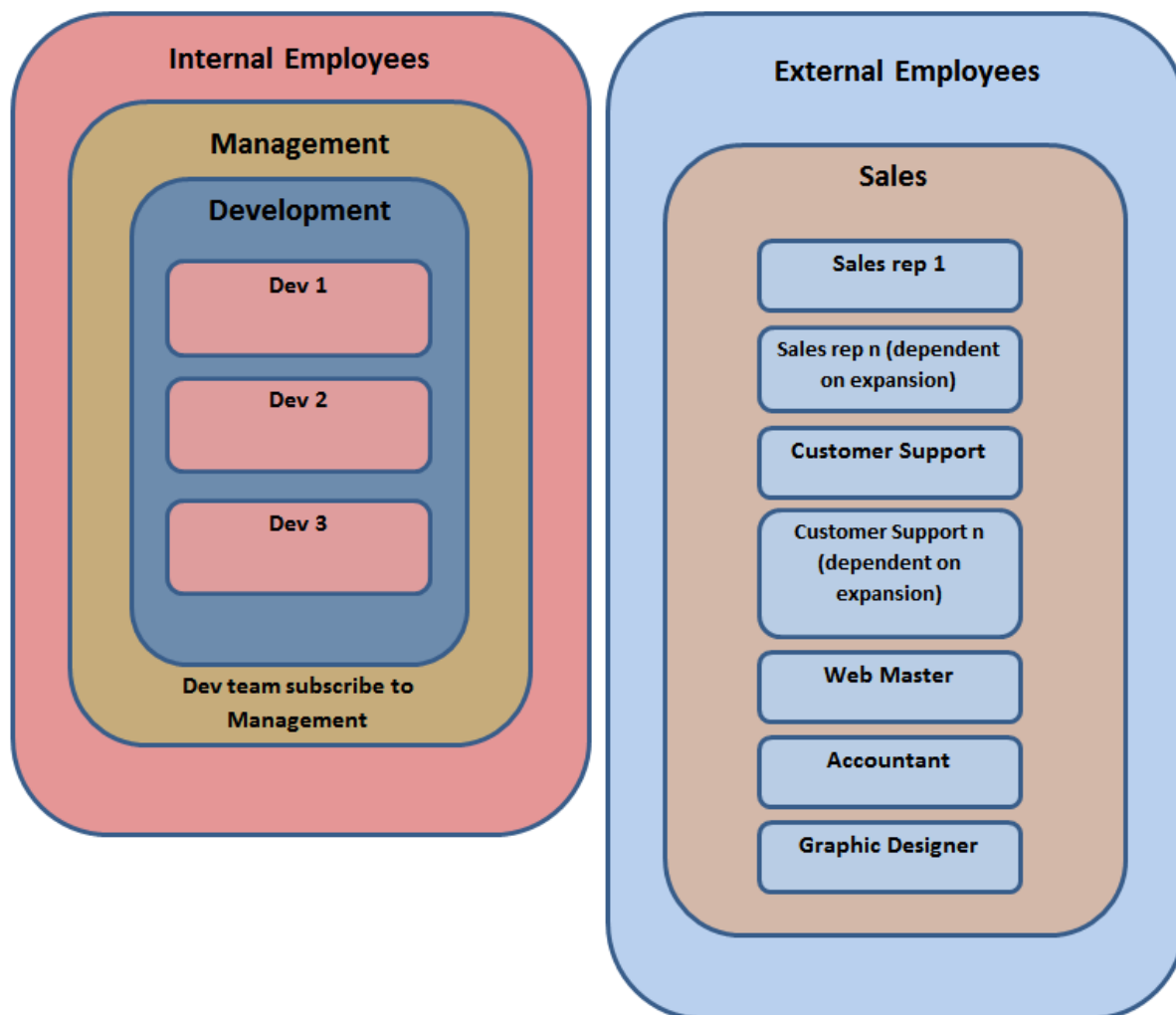
Table: Legal and Operational risks	
Potential risks	Risk management actions/strategies
OCR Licensing	<ul style="list-style-type: none"> • Tesseract OCR is open source under the Apache 2.0 license
Barcode Scanner Licensing	<ul style="list-style-type: none"> • ZXing is open source under the Apache 2.0 license
Food item database	<ul style="list-style-type: none"> • Use of The Open Food Facts database is under the Open Database License

OCR Scanning in published recipes	<ul style="list-style-type: none"> • Perform research to ensure that this is legal. Since we are not storing this information on the cloud nor are we distributing it, we believe it is legal. • If it is not we will need to either remove the feature or create a blacklist of recipes which cannot be used with the application.
Requirements for providing nutritional information and tracking	<ul style="list-style-type: none"> • No requirements are needed in the UK to provide nutritional information and for our application to serve as a nutritional tracker based on the recommended intake for an adult.
Recipe Licensing	<ul style="list-style-type: none"> • Handle the acquiring of our recipes from recipe suppliers on a case by case basis. • Determine if open source licenses for recipes meets the necessary requirements for use of said recipe within the app.
Losing client data	<ul style="list-style-type: none"> • IT backup, regular maintenance
Technical failure	<ul style="list-style-type: none"> • IT backup, regular maintenance
Sickness	<ul style="list-style-type: none"> • Engage the services of temporary staffing agency
Theft, flood, fire	<ul style="list-style-type: none"> • Have an effective security system • Ensure all data files are backed up and stored off premises • Ensure appropriate insurances are in place
Non-compliance with regulations and legal requirements	<ul style="list-style-type: none"> • Ensure all relevant legislation is adhered to e.g. planning permission, trading regulations, data protection policies are in place, IP protection is implemented and employment legislation is met

- The use of OCR and barcode scanning code in our application is open source, allowing us to redistribute it as long as we follow the license requirements. Likewise the use of the Open Food Facts database is free.
- The use of OCR to scan in published recipes from copyrighted books is a potential issue. Preliminary research indicates that it is legal, as we are not storing the scanned in recipes on our cloud based server, nor are we distributing it. The data is used on a personal basis and there is no functionality which would require another users data to be used outside of internal functionality of the app. Further research will be required to ensure that this is the case. If we are wrong we will perform one of two actions. Either we will remove the feature entirely, by far the simplest solution, or we can create a blacklist of recipes which cannot be stored and used with our application. This second action is much more difficult to implement and maintain however.
- Since one of the planned later features for our application is a nutritional tracker for helping the user keep track of what they have eaten, we have determined that there are no requirements needed to be met in the UK to provide this feature, or to provide information based on the recommended amount for an adult.
- Licensing of any recipes we use in our application will need to be handled on a case by case basis. Any use of open source recipes within our application will need to meet the necessary requirements for us to distribute them.
- Since initially we are the only ones developing the app, there will be no need to use a temporary staffing agency if one of us falls ill. Once we have expanded however this will become a concern.

10. Management Organisation

10.1. Management (including Board) Organisation Chart



Key:

- Dev 1: Michael Callaghan
- Dev 2: William Seaton
- Dev 3: Paul Shields

10.2. Staffing

Table: Additional staff roles and responsibilities			
Role	Main responsibilities	Staff costs (Year 1)	Staff costs (Year 2)
Permanent Position			
Developer	<ul style="list-style-type: none"> Develop code for the application. Maintain usability of the application. Development resources will be from the shareholders of business, who have suitable software development experience. 	£0	£0
Customer Support	<ul style="list-style-type: none"> Provide support to customers in regards to difficulties they are having with the application. 	£0	£10,140
Web Master	<ul style="list-style-type: none"> Maintain the website providing information about the application. 	£0	£0
Contract Position			
Sales Representative	<ul style="list-style-type: none"> Help us secure recipes for our application. Provide a channel between recipe suppliers and the company to consistently acquire recipes for the application. 	£0	£0
Accountants	<ul style="list-style-type: none"> Manage finances of the company. 	£250	£100
Legal	<ul style="list-style-type: none"> Handle any issues regarding ownership of content or third party licenses 	£250	£100
Graphic Designer	<ul style="list-style-type: none"> Design a layout for the application, its offshoots and the website. 	£0	£0
Training and recruitment costs		£0	£0
Total costs		£500	£10,340

- We do not foresee any required growth in the development team for the application initially, so the management of the individual team members can be done on a democratic basis, without any manager directing activities.
- At a later date when we expand into more countries, Sales Representatives will be needed. Their responsibilities will be to source recipes specific to the region for the application, acting as a channel between the recipe suppliers and the company. This coincides with the subscription model of our application.
- When the customer base reaches a certain size to where the developers cannot handle requests, Customer Support will be needed. This is most likely to correlate when we launch our application in a new country.
- While staff will not be needed to manage any servers, because of our decision to use a cloud based hosting service, a Web Master will be needed to manage the website for our application. This website will provide relative information for our application, as well as an FAQ to try and help with common problems or repeated questions about our application.



- Graphic Designers will be for designing the user interface for the application, and any specific redesigns needing developed for other markets. They will also work with the Web Master to design the website layout.

10.3. Operations

- As we are a small start-up, we won't require a permanent premise initially. We will however need to occasionally rent a temporary one for any meetings. Once we have an established cash flow, acquiring a premise will become more of a priority.
- Initially we will not require extra internal employees as we will be focusing on development of the app. We will at a later date require to make additions to the team once managing aspects of the company starts detracting too much time away from development.
- Our acquisition of recipes from suppliers is intended to be on a contractual basis, going through sales representatives local to the region, once we have begun expansion into other countries.
- Currently our own hardware is up to date, but is a limited pool. Additional hardware will be required to account for the differences in versions of Android. Later we will also need more hardware for expanding into the other operating systems.

11. Financial Projections

11.1. Financial Risks and Actions

For the figures specified in the cashflow spreadsheet, the risks below have been taken into consideration for any incoming cash flow figures stated.

Table: Financial risks	
Financial risks	Risk management actions/strategies
Poor cash flow from Low customer Subscription retention rate	<ul style="list-style-type: none"> • Ensure quality of delivery of service in terms of recipe content & app stability are maintained at a high level; • Initial retention rate will be low due to app only having established a customer base, wide range of loyalty; • Have a promotional strategy which accounts for drop off due to season or customers who have had prolonged subscription and might take a break for a few months; • Promote upcoming recipes through notifications, email lists etc. • Regularly monitor and review budgets.
Unsuccessful acquisition of funding	<ul style="list-style-type: none"> • Have backup sources of funding that can be used; • Apply for more funding than required to accommodate any unsuccessful applications.
Decrease in the net profit margin (NPM)	<ul style="list-style-type: none"> • Monitor and review revenue expenditure and negotiate costs savings where possible.
Loss of credit facilities with suppliers	<ul style="list-style-type: none"> • Make payments in accordance with the credit terms; • Develop good working relationships with recipe suppliers.
Tax related fines or penalties	<ul style="list-style-type: none"> • Register for tax, NIC, PAYE and VAT in accordance with the rules and regulations; • Submit returns on time and make payments on time.

I. Profit and Loss Accounts

	Year 1 (£)	Year 2 (£)	Year 3 (£)
Total expected sales	11,880	33,000	70,000
Less variable costs	3,564	7,380	9,504
Gross profit (sales less variable costs) =	8,316	25,620	60,496
Calculate your gross profit margin % (gross profit divided by total sales x 100) (A)	1	1	1
Salaries/wages (survival income + any staff)	25,000	35,140	35,140
Premises (including rent, rates, utilities)	0	0	0
Telephone and broadband	360	360	360
Printing, post and stationery	0	0	0
Advertising and promotion	200	500	1,000
Bank charges	30	30	30
Professional fees	500	200	1,000
Insurances	100	300	1,000
Bank/HP/Interest (payable to your bank)	0	60	120
Stock (Recipes)	2,625	1,440	6,879
Consumables	200	250	500
Equipment	1,800	3,000	3,000
Subscription loyalty factor	2,625	1,440	4,500
Software Service	1,905	3,810	3,810
Cloud Servers	0	1,000	3,000
Total fixed costs	35,315	47,530	60,339
Net profit (gross profit less fixed cost)	-27,029	-21,910	15,7
Calculate your net profit margin (net profit divided by total sales x 100)	-2	-66	0
Calculate your break even	Year 1 (£)	Year 2 (£)	Year 3 (£)
Total variable costs + total fixed costs (B)	38,909	54,910	69,843
Break even (B) divided by (A)	55,584	70,727	69,843

11.2. Breakeven

The breakeven sales are provided in the table below. These are based on 48 weeks x 5 days per week. These figures are based on increasing the cashflow via funding, or sales made in from in-app subscription charges. Also, any increases in server costs or promotional material for example are taken into consideration.

In order to successfully breakeven, we will require additional funding. As the normal practice for funding application is to request more than required, this will be covered by the additional funding figure stated. The increased sales figures are achievable as the market share percentage used of 1.5% in year 1, 2% in year 2 and 3% in year 3 to calculate a conservative and worst case success sales total for each year will be more than achievable.

	Year 1 (£)	Year 2 (£)
Breakeven figure total	38,909	54,910
Breakeven sales	23,909	29,910
Extra funding requirement	15,000	25,000
Average monthly breakeven sales	2,017	2,534



II. Cash Flow

<i>Cash Flow Forecast - 12 Months</i>														
Month:	Re-Start	1	2	3	4	5	6	7	8	9	10	11	12	Totals
Receipts														
Cash sales		1,300	1,100	1,000	950	950	1,000	1,000	700	800	800	800	1,400	11,800
Collections from creditsales	0	390	390	300	285	285	300	300	210	240	240	240	420	3,640
New equity inflow	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Loans received	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Investment	15,000	0	0	0	0	0	0	0	10,000	0	0	0	0	25,000
Total Receipts	15,000	1,690	1,490	1,300	1,235	1,235	1,300	1,300	10,910	1,040	1,040	1,040	1,820	40,340
Payments														
Cash purchases	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Payments to creditors	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Salaries and wages	0	2,083	2,083	2,083	2,083	2,083	2,083	2,083	2,083	2,083	2,083	2,083	2,083	24,898
Employee benefits	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Payroll taxes	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rent	0	600	600	600	600	600	600	600	600	600	600	600	600	7,200
Utilities	0	30	30	30	30	30	30	30	30	30	30	30	30	360
Repairs and maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Insurance	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Travel	0	40	40	40	40	40	40	40	40	40	40	40	40	480
Telephone/Broadband	0	30	30	30	30	30	30	30	30	30	30	30	30	360
Postage	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Office supplies	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Marketing/promotion	0	250	0	0	0	0	0	0	0	0	0	250	0	600
Professional fees	500	0	0	0	0	0	0	0	0	0	0	0	0	600
Bank charges	0	3	3	3	3	3	3	3	3	3	3	3	3	36
Stock (Recipes)	1,465	0	0	0	120	120	120	120	120	120	120	120	210	2,628
Cloud Servers	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subscription loyalty factor	0	300	250	250	220	200	150	120	100	120	150	180	150	2,220
Total Payments	1,965	3,098	2,798	2,798	2,808	2,808	2,808	2,808	2,808	2,808	2,808	3,168	2,898	37,057
Cashflow Surplus/Deficit (-)	13,045	-1,348	-1,308	-1,498	-1,571	-1,571	-1,508	-1,508	8,004	-1,898	-1,898	-2,118	-1,178	3,283
Opening Cash Balance	0	13,045	11,698	10,343	8,957	7,198	5,516	3,908	2,903	10,307	8,441	6,575	4,459	82,839
Closing Cash Balance	13,045	11,698	10,343	8,957	7,198	5,516	3,908	2,903	10,307	8,441	6,575	4,459	3,283	86,822

12. Appendices

Estimated expenditure	£
Mortgage and/or rent	2,400
Council tax	0
Utilities (gas, electricity, water etc)	360
Personal and property insurance	0
General housekeeping expenses (food etc)	1,500
Phone and internet	360
Car tax and insurance	0
Car running expenses	0
HP repayments	0
Hire charges	0
Subscriptions to journals, professional bodies, etc	40
Savings plans & pension contributions	0
Contingencies	0
Tax	2,800
National Insurance	1,000
Other: please specify	0
	0
Total personal expenditure	8,460
Estimated personal income (after tax)	
Income from family, partner (total)	0
Other income (specify the source)	0
Total personal income	0
Total survival income required from the business	8,460
Current income	14,000

	£
Start-up costs	20,500
Personal start-up contributions	0
Other start-up contributions	
Total required	20,500
The assets you have available as security	
	2,000

First year costs	£
Salaries/wages (survival income + any staff)	25,000
Premises (including rent, rates, utilities)	0
Telephone and broadband	360
Printing, post and stationery	0
Advertising and promotion	500
Bank charges	30
Professional fees	250
Insurances	100
Bank/HP/Interest (payable to your bank)	0
Stock (Recipes)	2,625
Consumables	200
Equipment	1,800
Subscription loyalty factor	2,625
Software Service	1,905
Cloud Servers	0
TOTAL £	35,395