

## ***SUR+ Case Study***

**Project Name:** SUR+  
**FIWARE Accelerator:** Flnish  
**Grant Funding:** March 2015 – May 2016  
**Level of Grant funding secured:** €130,000  
**Target Sector:** AgriFood

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### ***Vision and Market Need***

Initiated as a result of a hackathon, the SUR+ web application helps fruit and vegetable producers report surplus stock to local and regional food banks. It also provides insights into food waste in the agricultural sector, creating opportunities to predict and reduce food wastage. It encourages growers, farmers, producers and supermarkets to provide food surpluses on a voluntary to food banks.

While a third of all food in The Netherlands is wasted, only 0.5% of this food reaches the 162 members of the Food Bank Association [Voedselbanken Nederland, Feiten en cijfers Voedselbanken Nederland, 2015]. This percentage alone makes it possible to assist 7% of the 1.3 million people living below the poverty line in the Netherlands [Voedselbanken Nederland, Armoede feiten en cijfers, 2015]. The objective of the SUR+ platform is to increase the amount of surplus food donated to food banks and improve the quantity and quality of available healthy food packages they can provide.

The market need was validated in association with the Dutch Food Bank Association based on their internal statistics on food poverty, figures on food waste from Wageningen University and figures on the size of the agricultural sector from ZLTO (which represents farmers from the South). In depth interviews were undertaken with 10 farmers during the research phase (April – May 2015), short interviews with 40 farmers during the pilot phase (September – October 2015) and 47 farmers completed questionnaires (November 2015). All respondents were from the South of the Netherlands, but otherwise were diverse, representing both small and larger farmers growing different produce.

The biggest shortage for food banks is a lack of fresh fruits and vegetables. The number of requests for support from food banks in the Netherlands is growing every year by 10% [Voedselbanken Nederland, Feiten en cijfers Voedselbanken Nederland, 2015].

SUR+ offers farmers an efficient and meaningful opportunity to assist in reducing food poverty by contributing surplus food and at the same time improving the local image and reputation of their farm.

During the pilot phase (September – October 2015), SUR+ connected Dutch Food Banks with 2 farmers in the South of the Netherlands.

### ***Target Market and Revenue Streams***

SUR+ is initially matching food banks and fruit and vegetable farmers in the Netherlands.

The Netherlands has 30,622 fruit and vegetable farms, including indoor, outdoor and biological. In addition to normal activities including harvesting, land preparation, administration, storage and communication, all farmers need to deal with waste disposal and surplus food. While the total amount of all foodstuff contributed to food banks in the Netherlands is known, the number of farmers that donate waste food to the food banks is not known. It is estimated that €2 billion in food is wasted (out of a total of €4.6 billion) in the Dutch supply chain. The specific amount of food wasted at farm-level is unknown: there is no data available since measurements only start when fruit and vegetables are harvested, which is often not the case with surplus food. [NCDO Factsheet voedselverspilling, 2013]

Operating revenues will be secured through a variety of mechanisms. While the current focus is primarily on securing grants during this pilot phase, over time other funding mechanisms will include securing sponsorship from organisations involved in the agricultural supply chain.

SUR+ can also provide valuable data over time on the availability of surplus food. This will provide organisations like ZLTO with insight into the ratio between sold and surplus food. This could eventually lead to innovations in the field of food processing and a more systemic approach to food waste management.

### ***Competitive Positioning***

Surplus food donation platforms already exist in Europe (e.g. FoodWE in Belgium, FoodCloud in Ireland and PlanZheroes in the UK).

FoodWE in Belgium is a platform that combines donating surplus food and selling surplus food for a lower price. This makes it possible for farmers to earn some money from their surplus, but puts charities in a second-rate position. FoodWE focuses on all kinds of suppliers of food surplus and all kinds of receivers. Instead, SUR+ has a very clear focus on farmers that are willing to donate and offers them visibility in return. Secondly, SUR+ at this point solely cooperates with the food banks, making use of their professional infrastructure and logistics, making SUR+ easier to scale than FoodWE.

FoodCloud in Ireland has partnered with supermarket Tesco and does not really focus on surplus at farm level. Secondly, charities are more diverse and separated in Ireland, thus unlike SUR+ they cannot make use of the national infrastructure and logistics.

PlanZheroes in the UK is a platform that allows a wide range of suppliers and demanders of surplus food, all different kinds of supermarkets, producers, restaurants and many different charities and shelters. This allows for many different beneficiaries at local level, but makes it extremely hard to scale.

Other indirect competitors include initiatives that pay farmers a small amount for surplus produce to create other products such as soup or jam (e.g. Kromkommer and De Verspillingsfabriek in the Netherlands).

The SUR+ Unique Selling Proposition is two-pronged. SUR+ apps make a seamless fit with the Dutch food banks, their way of working, infrastructure and logistics, this makes it easier to scale throughout the entire country and also towards countries that have other nationally organized charities (such as Germany). SUR+ focuses

specifically on surplus at farm level. This makes it possible to deal with the problem of food waste at the start of the food chain, tackling food waste as early as possible in the chain. Secondly, the focus on fruit and vegetables fulfills the biggest wish / demand at charities to provide their 'clients' with healthy food, whereas now they often receive processed food.

SUR+ provides an alternative of donating surplus fruit and vegetables to food banks. SUR+ provides farmers with the 'I own surplus' app which supports:

- farm profile with location, contacts and produce grown
- choosing a preferred food bank in your local area
- sending a notification to the most relevant food bank(s) about a produce donation
- seeing an overview of previous produce donations (downloadable)

SUR+ provides food banks with the 'I want a surplus' app which supports:

- food bank profile with location, contacts and size (amount of packages)
- receiving notifications from farmers about donations
- If a specific food bank or food banks were nominated to receive a donation, they can either accept or reject
- If they accept, the food bank and farmer are put in touch
- If they reject, other food banks have the opportunity to accept the donation
- viewing previous donations and which food banks received these donations

### ***Enabling Technology***

Both apps are cloud based and will be available as web-application (a website that looks and feels like an app) as well as in the app stores.

The FIWARE Accelerator programme provides access to grant funding, technology and business support. The FIWARE Enablers and FISpace platform facilitated quicker product development. Enablers leveraged include:

- Keyrock for user management on the SUR+ Platform - registration, log in, roles etc
- SpagioBI to support insights into long term donation trends
- CKAN to make donation data available publicly

Diagrams 1 - 4 below provide insight into the functionality of claim donations and diagrams 5 - 8 the functionality to make a donation.

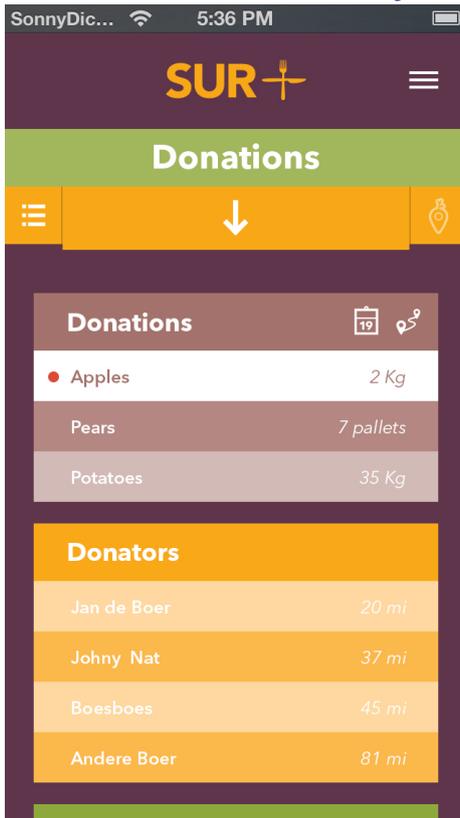


Diagram 1: SUR+ Donations List

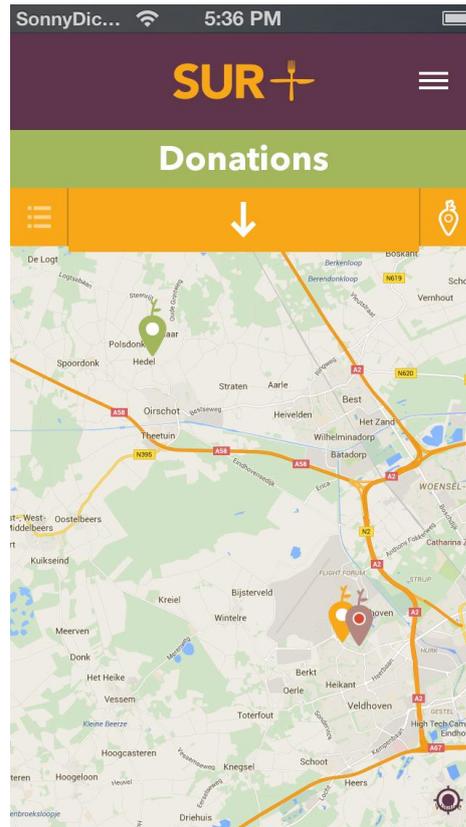


Diagram 2: SUR+ Donations Map



Diagram 3: SUR+ Donations Product Details



Diagram 4: SUR+ Donations Claim

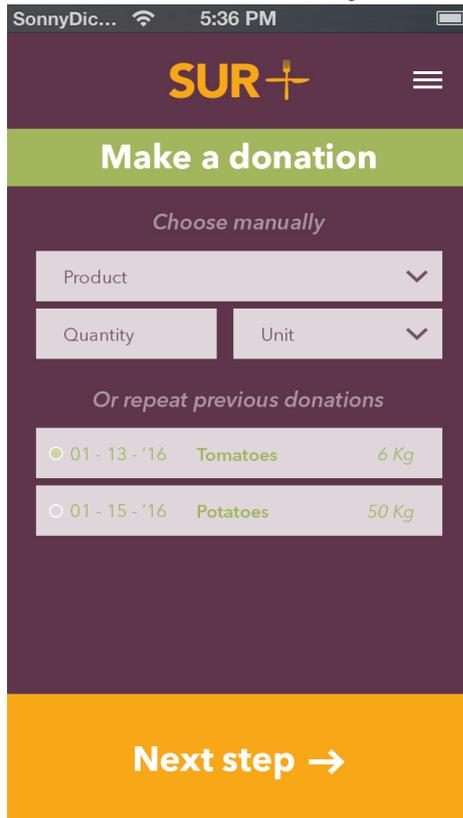


Diagram 5: SUR+ Make a Donation



Diagram 6: SUR+ Make a donation - Date

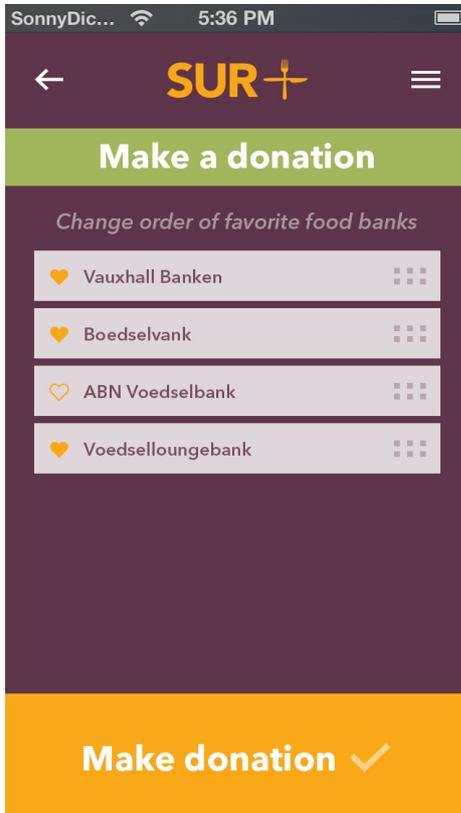


Diagram 7: SUR+ Make a Donation - Food Bank



Diagram 8: SUR+ Donation submitted

## Progress to date

Following a hackaton, SUR+ commenced activities in March 2015, having secured a FIWARE Grant under the FInish Accelerator as part of the FI-PPP Phase 3 Programme to develop the application.

Over the past 12 months, two prototype apps were developed and tested. A regional pilot in the Netherlands was undertaken in Autumn 2015. 40 farmers and 10 food bank were consulted, of which two farmers and all ten food banks agreed to participate. By June 2016, additional functionality will be available for testing.

From July 2016 – July 2017, SUR+ aims to carry out four regional pilots in the Netherlands and one regional pilot in Germany. Sur+ will leverage the participation of fruit and vegetable auctions and farmer cooperatives (and later agricultural magazines to raise wider awareness). This will contribute to local adoption of the software and make use of existing local networks to distribute the application

To date SUR+ has secured wide recognition including:

- Finalist of Radical Innovators 2016 of The Netherlands (January 2016)
- Finalist of Ambition2020 Challenge of MVO Nederland (MVO = CSR in Dutch) (January 2016)
- Finish Zukunftspreise received at Fruit Logistica in Berlin (February 2016)
- TED talk at TEDx Maastricht event (October 2015)
- numerous articles in national and regional newspapers and magazines
- interview in Dutch SPAM! talkshow
- broadcast on regional television

SUR+ is currently raising €65,000 in sponsorship or other contributions to cover costs associated with the regional pilots in the Netherlands and Germany and invest in further adapting the application based on end-user feedback.