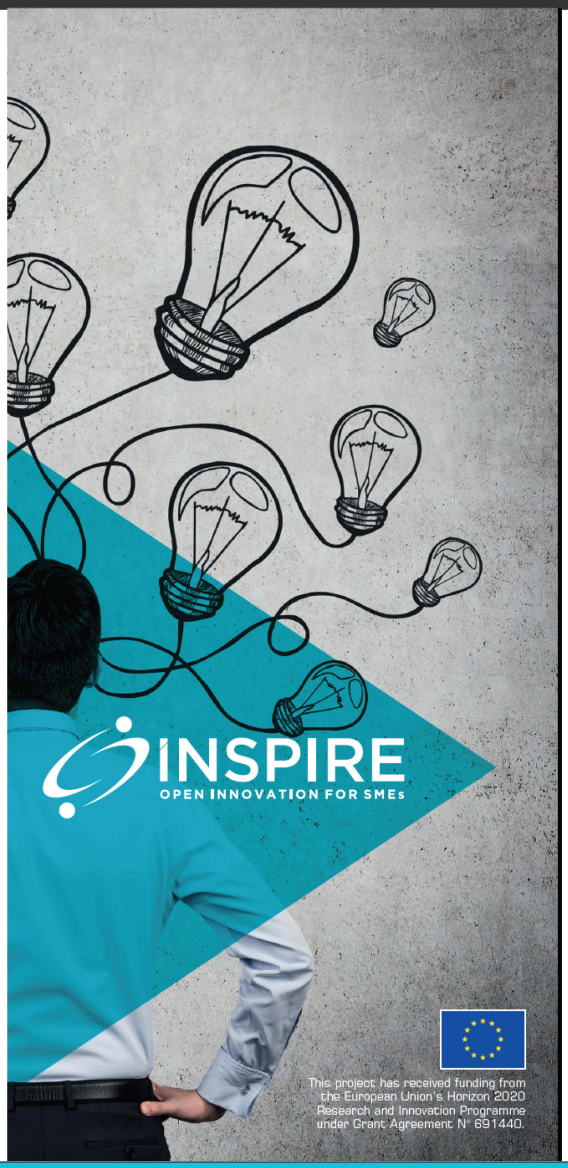

ECOMETRICA

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Together with a group of partners, an SME applied to a government funding programme to carry out a feasibility study for a product which addressed an acute need in the target market (public sector) and at the same time offered a new business/market opportunity for the company

Executive Summary

This is a case study of an SME which was looking to expand into a new market (public sector) and used a clever open innovation strategy to achieve market entry. It successfully applied for government seed funding to run a feasibility study on a new product addressing a key environmental concern at the time, which was built as an added feature to their existing cloud-based platform software. The company collaborated with public research organizations and government agencies to both calibrate and validate the product, and began to build an inter-organizational consortium to promote its capabilities in the SME segment of the Earth Observation sector and access the public sector market.

CASE N°: UKI12

SECTOR: ENVIRONMENTAL MONITORING

TECH INTENSITY: HIGH-TECH

LIFE CYCLE STAGE: SCALE-UP

INNOVATION VECTORS: PRODUCT, CUSTOMERS & MARKETING, ORGANISATIONAL, DISTRIBUTION CHANNELS

01 PARTNERS: PSR, LEAD CUSTOMERS & USERS

KEYWORDS: Public-private partnership, public sector market, earth observation, software, platform solution, cloud computing, open data, Sentinel, export

- BACKGROUND FRAMEWORK
- INNOVATION CHALLENGE & MARKET OPPORTUNITIES
- OI TRAJECTORY
- BUSINESS IMPACT
- LESSONS LEARNED

BACKGROUND

The company was founded in 2008 by Richard, Gary and Burt, researchers and consultants at a major UK university, who were initially working in greenhouse gas reporting. The main objective of the company creation was to develop a new, more transparent, easier-to-use platform and cloud-based data management capability for environmental reporting. This was then enhanced with new mapping tools, and powered by the growing Earth Observation sector by opening new (free) data streams from European space assets. It then grew into a total sustainability management platform with analytic, management and reporting capability with the company winning major industry contracts.

Their future plans evolve around incrementally improving the efficiency and scope of the platform offering (to ease data analysis and distribution bottle-neck) and reaching new markets and customers, in particular through exports. Overall, the company is facilitating a transition towards a "software as a service" business model, moving away from their more hands-on consultancy work of the past.

INNOVATION CHALLENGE & MARKET OPPORTUNITIES

The company was looking for new ways to expand their mapping capabilities and reach new markets. However, this project turned out to be more of a (government subsidized) growth opportunity/ feasibility study for an already strong business, rather than addressing a particular challenge.

The project in question (which is not the company's only R&D effort at present}, was triggered by a host of factors:

1. Flooding is a big societal issue and an acute problem.
2. The European Space Agency (ESA), the UK Space Agency and the Satellite Applications Catapult are eager to invest in R&D to exploit Sentinel data.
3. UK government is supportive of the commercial exploitation of (publicly funded) space assets and data.
4. There are specific challenges once flooding is linked with pollution (key interest in the company).

These combined factors presented a unique opportunity to explore new (additional) possibilities for using the company's software platform and integrating new datasets, with a view to addressing a relatively clear public sector need. Government funding through the Space for Smarter Government Programme was seen as a perfect opportunity to do so. Given the low TRL of this project, the full market opportunity has not been analyzed yet, but a core need, as stated above, was sufficiently significant to warrant the commencement of the project.

OPEN INNOVATION TRAJECTORY

Concept development

The main concept was driven by the CEO's interest in expanding the existing platform and shaped by conversations with lead users and (academic) researchers. In particular the UK Department for Environment, Food and Rural Affairs was looking at flood protection and compensation payments respectively. This was an acute issue at the time, due to several large-scale flooding incidents in the UK.

The development process, IPR and competition strategy

The development process started with the recruitment of two key partners, the James Hutton Institute and the Scottish Rural University College (SRUC). The gist of the project was to use radar data to analyze soil moisture to identify areas with a risk of flooding, addressing both a political agenda to use open space data for new solutions and a current acute need for environmental protection and management.

With the help of the partners, they developed a research proposal which centred around 3 sites required for validating the space data analytics and was based on using new Sentinel-1 SAR (synthetic aperture radar) open data.

One of the key issues was to obtain the data of the ground segment and import it into the platform. This caused a real bottleneck, and as not enough data was available it became necessary to compensate by buying more data to bring into the project.

Due to the multitude of external partners, project

management was a particular concern and the company developed a careful strategy to coordinate partners. The learning associated with that helped with future projects.

Only one small change was made to the main objective of the project (i.e. it was only possible to look at extremes, not the whole range as initially envisaged). This will likely have an impact on the business model down the line, which is not yet fully understood.

As this is a niche area and the project is at a low Technology Readiness Level (TRL), little attention was given to developing a competition strategy. Overall, the company is a regional prime in related areas of expertise and is a cornerstone of an emerging industry consortium with a strategy to protect its leading status.

There is currently a challenge to the (continuation of the) project, as some of the interest for this solution was motivated by the European Common Agricultural Policy, the future of which is uncertain in the UK, due to Brexit.

Commercialization and follow-up

The company's objective was always to market and sell this service as part of a bigger product for the UK government and they have used the feasibility study as an opportunity to size up the public sector market. They are particularly aware of the uncertainties of this market and have developed a set of strategies to deal with them.

It required some HR management due to the growth in the analytics and developments teams. Key organizational developments were in external organizational structuring.

Given that the project is predominantly addressing public sector needs, it is very vulnerable to political uncertainty, such as a change to the regulatory environment caused, for instance, by the UK leaving the EU. The company has responded to the challenges of this environment by trying to bring together a consortium/group (of SM Es and research agencies with related, but distinct products) to provide a variety of solutions to the UK government.

Importantly, they are in regular contact with government departments and have included key government agencies and research establishments in the R&D process (Rothersam, NIAB, CEH), as a gateway for forming strategic partnerships and easing their entry into the public sector market (via access and exposure to future clients).

The company aims to pitch itself as a leader in the consortia it is involved in, which is built on a track record of successful products/services and project management. The company is developing its skills in this area by putting forward its own vision of a collaborative partnership framework for these consortia, in particular by having a light-touch contracting regime, but more structured project management and clear responsibilities.

The company wants to establish itself in the agriculture sector, but this is a challenging pitch to make, as although the service is funded by public money, it needs to win buy-in by the farmers to succeed. This requires access to a very dispersed and diverse user constituency and a careful translation of the (quite abstract) value proposition.

The feasibility study is being followed by an in-situ validation project involving the current and new partners, which will be taking place in the summer of 2017.

BUSINESS IMPACT

The key outcome was the ability to propose a business case for entry into the public sector market in general, and agri-food market in particular. This was successfully completed and new opportunities are being explored. The company is particularly valuing the partnerships (consortium) established through this project, as well as the contacts with and access to potential new public sector customers.

The company developed their upstream data processing capability, which also had some positive impact on success in other areas of the company's product development. The company developed its technical capability in using radar data. It has improved its project management capability and inter-organizational networking, in particular related to organizing and harmonizing a consortium of interests.

The success of this project can be seen through a subsequent Innovate UK grant for "Satellites for Agri-food" (-£1 S0k) and company growth (experienced at the moment). The product has not yet reached the market (still in development).

LESSONS LEARNED

This case demonstrates the strategic use of open innovation projects in order to develop an SM E's business case and facilitate company growth. The SME in the study was creative in applying for a

funding programme with a feasibility study for a product, which was addressing an acute need in the target market at the time (public sector) and was tapping into a specific interest by the same stakeholders (i.e. government).

They attracted several key partners and users to the project and are in the process of establishing a "consortium" of SMEs and research organizations with related complimentary products. In particular, the key partnerships established here are seen as a key "breakthrough" to access the target market as well as a means to reach end users (i.e. farmers). The company considers that further buy-in is needed by these stakeholders before roll-out (including product validation, which is currently in progress).

Though the product at the centre of this study has not yet reached the market, the company benefited from further investment and experienced a reasonable amount of growth on the back of it.

Main lessons learned:

1. This SME made clever use of seed funding to scope a new (public sector) market, by bidding for a feasibility study on a product which "ticks multiple boxes" (a current political issue in environment protection and advanced technology development).
2. In order to gain an entry into this market, the SME decided to build a consortium of interest based on open innovation powered R&D at low TLR.
3. At a low TLR level (and low investment), partnerships can be very open and constructive, but require a substantial amount of project management.
4. In order to roll-out the project a buy-in from the end users was needed, hence the pursuit of further partnerships with organizations who can "help get the USP message across".