

Review of Crowdfunding for Development Initiatives



Oliver Gajda and James Walton

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Methodology

This research was executed adhoc and draws on existing published work. Sources include crowdfunding and information websites of different nature and providence, of published research and analysis of crowdfunding and of reviews of other publicly available material. General information has been drawn on existing research and a general review of public information in order to identify specific knowledge or the lack thereof. This research might be more extensive than the sources listed. No interviews or other surveys were conducted for this paper. The research was adapted to particular requirements and took a wide-variety of information into account. Where quantitative data was needed, existing research was consulted and adjusted with relevant additional data researched.



Executive Summary

This study provides a summary of crowdfunding initiatives that support developing country entrepreneurs. The purpose of the paper is to present an overview of the crowdfunding industry to help DFID assess the need and value of supporting such initiatives – particularly for climate and environment innovations.

The desk-based research approach undertaken for this study involved qualitative and quantitative analysis of information sourced from academic literature and the web. This study provides an overview of the main concepts of crowdfunding and the role of crowdfunding in the development sector. It also provides an outline of the different crowdfunding models including donation-based, reward-based, social lending, lending and equity. For each model, we describe the types of projects supported, average funding amount, frequency, financing arrangements, fees, funders, due diligence processes and rates of success. We also provide examples of relevant platforms, generic platforms and projects for each model. Lastly, this paper presents a range of examples of crowdfunded projects with a focus on pro-poor energy technology.

We conclude that crowdfunding can positively support development programmes through a number of applications. It can improve access to capital, help manage supply and demand, drive innovation and efficiency and fund new markets. Through crowdfunding, entrepreneurs can also benefit from aggregating and understanding demand for a given product or service and from an assessment of a proposed pricing.

We suggest that co-operations can be struck between the development sector and specific crowdfunding platforms for co-funding strategies that are aligned with the development agencies goals.

Pre-sales – as a form of reward-based crowdfunding – has significant potential for the development of customer facing products and services. Here we see significant potential for supporting entrepreneurs from developing countries with additional institutional lending. Furthermore, this paper suggests that recoverable grant making can be facilitated for micro-lending. Similarly, debt crowdfunding can be used to support lending schemes in the development sector. Although equity crowdfunding is currently subject to strict regulation, we conclude that it can also be used to support businesses and innovations in the developing world.

Lastly, we conclude that despite the fact that development focused crowdfunding platforms do not yet exist in significant numbers and across crowdfunding models, with the exception of micro-lending and very few renewable energy focused crowdfunding platforms, we think that a strategic partnership with crowdfunding platforms can create positive synergies and create opportunities for crowdfunding platforms to enter into a new market.

We recommend further study in this area. We believe that research with a focus on the design and viability of development-focused hybrid crowdfunding initiatives would be particularly beneficial. We also identified a lack of information related to M&E and Due Diligence processes of crowdfunded projects. An analysis of primary and secondary sources through interviews, in-depth assessments of live projects and statistical analysis could provide more insight on these processes and how to make crowdfunding more accessible to entrepreneurs in the developing world.



SECTION 1

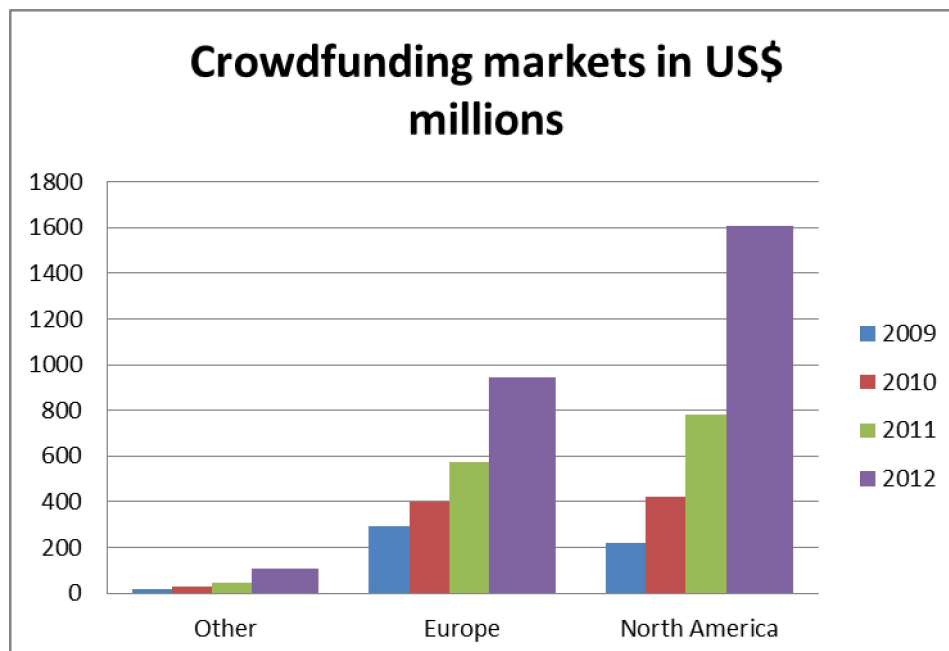
Main Concepts of Crowdfunding

Crowdfunding is a collective effort of many individuals who openly network and pool their resources to support efforts initiated by other people or organisations. This is usually done via or with the help of the Internet. Individual projects and businesses are financed with small contributions from a large number of individuals, allowing innovators, entrepreneurs and business owners to utilise their social networks to raise capital.

Lack of data makes an analysis of the market difficult. However, there are estimates and extrapolations available based on surveys by the research firm Massolutions¹ that put the worldwide crowdfunding market in 2012 at a volume of USD \$2.7bn raised by over 1.1m campaigns. This indicates a significant growth of 81% year on year and an increase in the growth rate from the prior 64%.

In 2012, according to the same data, North American platforms are estimated to have raised over USD \$1.6bn – a 105% increase year on year (up from 86%). European platforms are estimated to have raised close to USD \$945m – a 65% increase year on year (up from 42%). Both continents together account for the vast majority of the market captured through the Massolution’s survey, reaching more than 95% of the total market. Crowdfunding in Asia and Oceania, however, reached aggregate volumes of below USD \$30m and USD \$70m in 2012 respectively. Records of South American and African activity began in 2012.

Figure 1 Crowdfunding markets in US\$ millions by geographic distributions (Massolutions)



¹ Massolutions (2012): Crowdfunding Industry Report 2012

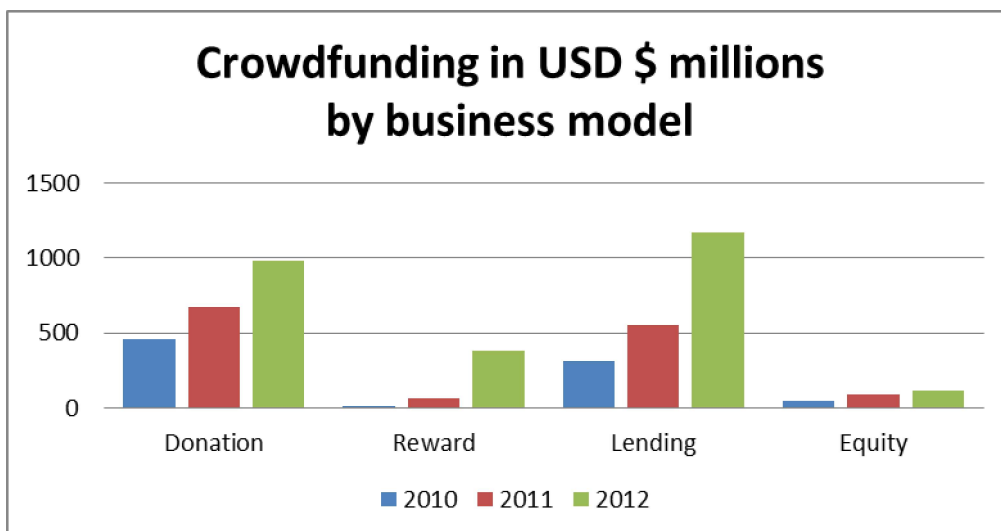
While collaborative finance is not a new concept or activity, the rise of the crowdfunding industry in recent years is directly linked to the advancement and availability of web and mobile-based applications and services as well as the failure of the financial services industry to answer demand for small business and project financing. Through crowdfunding, entrepreneurs and businesses can now more easily utilise the crowd to obtain ideas, collect money, and solicit input on the product – fostering an environment of collective decision-making and allowing businesses to connect with potential customers.

The main advantage of crowdfunding is that the funders are also potential customers and ambassadors of the project or business they support and they help to promote it through their own networks. The funder usually identifies with the project, has a mind for change and is happy to help provide the social proof of concept. The risk of failure does not necessarily translate into risk of loss of capital, because success for the funder is usually not defined through financial return alone. While multiple funders share the financial risk and therefore limit the extent of a potential financial loss to individuals, the actual perceived loss is not necessarily financial but linked to expectations of funders and thus correlated to their motivations. In a case of failure, the perceived loss of the funder may therefore be the disappointment with regard to non-financial rewards, including intrinsic rewards. The different crowdfunding models correspond to slightly different funder motivations – though they all are to some degree intrinsic motivations. One can break the business models down into many different forms, but there are four basic types of crowdfunding:

- Donation: a donor contract without existential reward
- Reward: purchase contract for some type of product or service
- Lending: credit contract, the principle is being repaid usually plus interest
- Equity: shareholding contract, shares, equity-like instruments or revenue sharing with a potential up-side at exit

These different business models address different types of business or project needs and are therefore also subject to different growth rates. From the same report, for donations and reward based crowdfunding the estimated year on year growth for 2012 reached 85% (amounting to USD \$1.4bn) whereas lending-based crowdfunding (including consumer and business loans) is said to have reached a year on year growth of 111% (amounting to USD \$1.2bn). Equity-based crowdfunding is thought to have grown year on year by 30% to USD \$116m. The lower growth rate for equity-based crowdfunding is partially caused by the legal restrictions that govern this type of financing.

Figure 2 Crowdfunding in USD \$ millions by business model (Massolutions)





The survey data suggests that the total volume of successful campaigns across all business models has remained relatively unchanged. However, the total value of campaigns has increased nearly twofold. After years of expansion in the crowdfunding market via new platforms offering a high number of small ticket campaigns, the industry is now reaching a point where larger transactions are attracting sufficient backers. In particular, equity and debt based crowdfunding models have reached above average transaction sizes for start-ups and SMEs compared to the typical donations or reward-based crowdfunding campaigns. Nevertheless, there are a number of cases where reward-based models have reached multi-million US Dollar or Euro amounts. To date, projects with a declared social cause are the most popular with funders and make up nearly 30% of all crowdfunding activity.

“The industry is now reaching a point where larger transactions are attracting sufficient backers.”



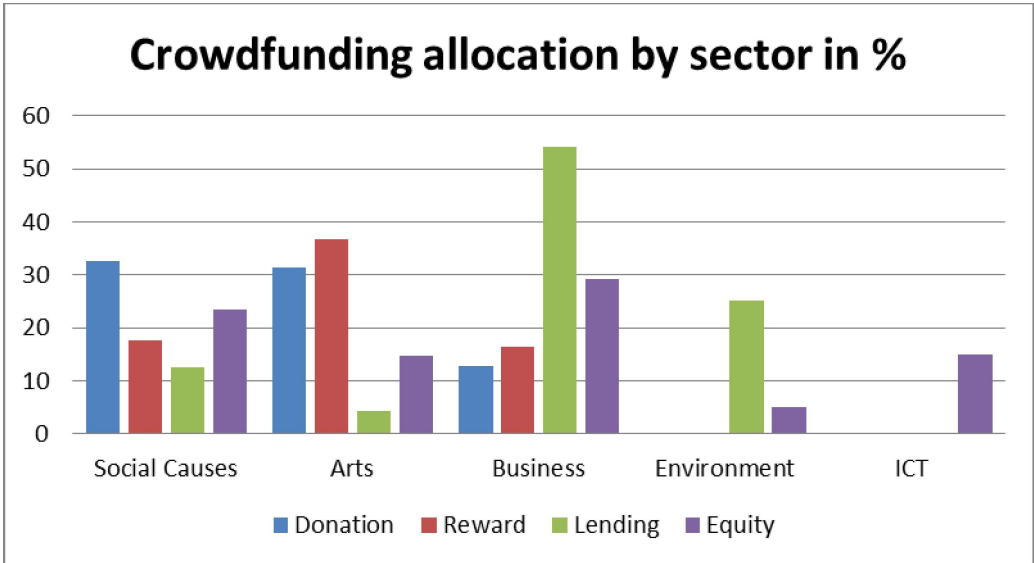
SECTION 2

Role of Crowdfunding for the Development Sector

The crowdfunding sector is rapidly growing into new areas. For the development sector, social and micro-lending has been a key source of funding (e.g. via platforms such as kiva.org and babyloan.org). In addition, financial support for development projects often comes from donations or reward-schemes (via platforms such as pifworld.org).

In 2011, the focus of equity and lending based crowdfunding (i.e. those with a focus on financial return) differed significantly in terms of target sectors in comparison with donation and reward-based schemes. While development issues are an integral part of the latter, the former does not focus on this to the same degree (see Figure 3).

Figure 3 Crowdfunding allocation by sector in % of total in 2012 (Massolutions)



Anecdotal evidence suggests that development-focused innovative technology and services projects are not common. A review of existing crowdfunding platforms also suggests that niche platforms do not have a focus on this particular sector. However, market fragmentation and differentiation are expected to foster niche approaches (industry, regional or sector orientated) and are also likely to result in development focused crowdfunding platforms.

This trend will result in platforms operating as hybrids that combine several crowdfunding models in order to better serve the project owners' interests and to cover a more significant area of the project lifecycle. Anecdotal evidence suggests that large international enterprises are exploring crowdfunding for their needs. For example, Canonical are executing a pre-sales campaign to finance hardware production of its Ubuntu Edge phone to the value of more than USD \$32m.



There is notable interest from national and international institutions to leverage crowdfunding for economic development despite the relatively short track record in this area. The World Bank recently tendered a research project titled "Crowdfunding: Unlocking early-stage financing for innovative developing country entrepreneurs" and at the World Bank's Annual Sustainable Development Forum in 2013 a "Crowdfunding for Development" workshop was carried out to discuss how crowdfunding can integrate with existing development initiatives. For now, crowdfunding's strong connections to social lending and micro-finance have been the main drivers for its link to development issues – particularly in the renewable energy sector.

“There is notable interest from national and international institutions to leverage crowdfunding for economic development.”

Crowdfunding can support development programmes through a number of ways including fostering access to capital, managing supply and demand, driving innovation and efficiency and funding new or blue ocean markets. For example, crowdfunding can be used to increase access to capital for entrepreneurs and SMEs. Combining crowdfunders with institutional co-investment can reduce due diligence and transaction costs (by avoiding duplication of efforts and by adding a new layer of crowd approval) whilst diversifying risk. This can ultimately increase the investment capacity of a particular institutional lender or investment facility. For example, the British Government's Business Finance Partnership (administered by Her Majesty's Treasury) co-lends a total of GBP £20m via the UK crowdfunding platform Funding Circle. This format can increase the number and size of loans as the due diligence and operational costs are left with the crowdfunding platform, not the government agency. Similarly, Goteo.org in Spain manages a social investment fund with contributions from public and private institutions, businesses and individuals co-investing on its crowdfunding platform.


Demand and supply are managed through a number of mechanisms such as access to capital. As such crowdfunding can act as an open market for matching offer and demand. Through crowdfunding, entrepreneurs can benefit from aggregating and understanding demand for a given product or service and from an assessment of a proposed pricing. The volume and scale of investments are an indication of the perceived demand, feasibility and impact of the project. Mechanics of the more advanced crowdfunding platforms can allow for open collaboration among funders to help determine which supply option has the highest collective demand, identify and communicate product improvements and support marketing and customer acquisition.

“Crowdfunding can act as an open market for matching offer and demand.”

For many organisations, including development organisations, unused resources, ideas and capital are common. The difficulty arises in establishing how to best mobilise and use these within the core strategic goals of the organisation. Again, crowdfunding can be applied to assess internal projects with regard to demand, fundability and cost. Crowdfunding can be used either in a closed internal process (if the organisation happens to employ a large and diverse enough crowd) or through open innovation with external crowds. Successful projects from this process could then be co-funded with the available unused resources and capital.

“Crowdfunding can be applied to assess internal projects with regard to demand, fundability and cost.”

In some cases, uncertainties about the development of technologies can keep project implementations on hold in some markets. This is especially true for blue ocean strategies, where no knowledge about supply and demand can be obtained. In many cases where the development of a potential project is uncertain, start-up funding can be difficult to mobilize



from traditional development sources. Crowdfunding can help overcome these barriers not only by establishing demand, pricing and potential product or service features, but also by raising funds. This may be particularly interesting for products that link social impact to demand, such as with renewable energy products where increased use leads to environmental benefits. Crowdfunding is, of course, not without its limitations. One of which is scale. Successfully crowdfunded projects tend to be very simple and small: for donation projects the average project funding is around USD \$1,500, for rewards and lending around USD \$5,000 and for equity USD \$150,000.

Complex projects may seem beyond the possibilities of a 90-second visual pitch and are believed to not fare well with crowdfunding. But since crowdfunding is not only about securing capital and can offer a large amount of data, a failed crowdfunding campaign can be used to assess market demand, pricing and features. For large game-changing initiatives, crowdfunding might not be the right solution to finance the whole project but a very good tool to extract otherwise hard to get market information.

“Since crowdfunding is not only about securing capital and can offer a large amount of data, a failed crowdfunding campaign can be used to assess market demand, pricing and features.”



SECTION 3

Crowdfunding Models and potential of Crowdfunding Investments

The initial review of crowdfunding platforms did not reveal any crowdfunding platforms dedicated fully to developing country entrepreneurs. However, there are crowdfunding platforms that are accessible to the development focused entrepreneurs in both developing and developed countries. Furthermore, there are platforms specifically focused on renewable energy or climate issues in developed countries. The conclusions in this section are therefore based on a general review of relevant platforms and a small sample of specific platforms.

In addition to the practical application of crowdfunding, the potential of existing development funding schemes becomes obvious when comparing crowdfunding business models to standard development tools, such as grant making and recoverable grant making, debt lending or investment. A simple measure of assessing the potential impact of crowdfunding is the total number of crowdfunding campaigns versus those that have been ultimately successful in raising funds. However, data on successfully executed projects following crowdfunding campaigns is limited.

Figure 4 Probability of success by crowdfunding model in % of total in 2012 (Massolutions)
* Lending includes large amounts of social lending, especially micro-loans that skew the results

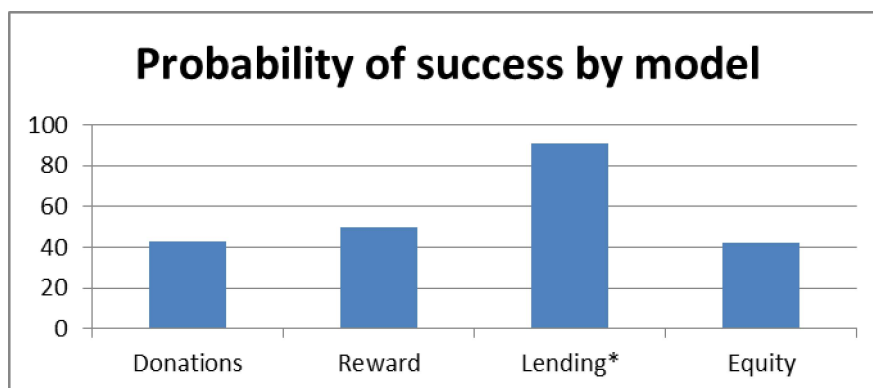
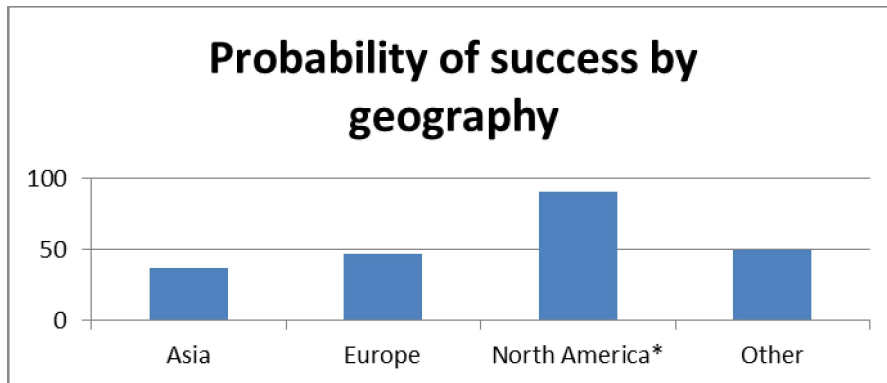


Figure 5 Probability of success by geography in % of total (Massolutions)

*The figure for North America is biased due to a large amount of lending and social lending represented by US-based platforms in the sample, which shows in Figure 4 a very high success rate.



3.1 Donation-based crowdfunding

NGO's have been using the donation-based crowdfunding model to attract donations for more than ten years. The difference between donation-based crowdfunding and traditional fundraising is that donations are collected and ear-marked for a dedicated project. This helps raise higher amounts per donor, because funders know that their money will be used on a specific project. Such donors also tend to give recurring donations if the NGO keeps them updated about the progress of the project.

Grant making is similar to donation funding and some forms of reward-based crowdfunding, where individuals or projects pitch their ideas through compelling storytelling to secure funding without financial or significant material return. The motivation for the funding is social return. In these cases, the funders are already satisfied when they see that a project can be realised, their motivation is intrinsic.

- Types of projects supported: Non-governmental and non-profit initiatives, disaster relief, cultural, religious and private matters
- Average funding amount (per project): +/- US\$ 1,500
- Frequency: Usually one off, but long-term support and recurring funding is possible
- Financing arrangements: Crowdfunding platforms operate as an intermediary, leaving the details of the funding up to the project owners.
- Fees: +/- 2-5%, some platforms have more complex fee structures, plus payment fees via third party operators, some are free of charge
- Funders: Mostly individuals
- Due diligence: Pre-set criteria on platform
- Monitoring & evaluation: Generally not a responsibility of the crowdfunding platform, which acts as an intermediary in bringing two parties together
- Rate of success: +/- 43% for raising funds
- Climate or environment proposals: marginal

Examples of relevant platforms:

- Development: <http://www.justgiving.com/>, <http://www.startme.co.za/>, <http://changa.co.ke>,
- Climate and energy: n/a

Examples of generic platforms: <http://www.pifworld.org>,



Examples of projects (see Case Studies in Section 6): Pollinate Energy India, Microchip and Nexus Water Turbine

3.2 Reward-based crowdfunding

This business model is used by project owners who want to collect donations for a specific project and can give (often small) non-financial rewards in return. The rewards are of a symbolic value and provided by the investee. A reward in this context should not be understood as a token of appreciation. In general, the parties do not consider it a legally binding obligation to provide the goods and do not classify it as a sale.

Nevertheless, reward based crowdfunding is increasingly being used as a means of pre-selling products and therefore generating revenues for the business. This form of reward-based crowdfunding has significant potential for the development of customer facing products and services. When the different reward-levels are chosen wisely, it is possible to receive a much higher average donation than with a pure donation-based approach.

- Types of projects supported: Non-governmental and non-profit initiatives and small and medium sized enterprises, commercial pre-sales of products as well as creative and cultural projects
- Average funding amount (per project): +/- US\$ 5,000, a large variety exist with many small campaigns and some exceedingly large multi-million US\$ pre-sales offers.
- Frequency: Usually one off, but long-term support and recurring funding is possible
- Financing arrangements: Crowdfunding platforms operate as an intermediary, leaving the details of the funding up to the project owners.
- Fees: +/- 3-5% plus payment fees via third party operators
- Funders: Mostly individuals
- Due diligence: Pre-set criteria on platform, some use a threshold-pledge system that returns all funds to funders if a pre-set minimum threshold should not be reached within a certain amount of time
- Monitoring and Evaluation: Generally not a responsibility of the crowdfunding platform, which acts as an intermediary in bringing two parties together. In threshold pledge systems monitoring happens via fundraising amounts.
- Rate of success: +/- 50% for raising funds
- Climate or environment proposals: marginal

Examples of relevant platforms:

- Development: <http://www.fundfind.co.za>, <https://www.thundafund.com>
- Climate and energy: n/a

Examples of generic platforms: <http://www.kickstarter.com>, <http://www.indigogo.com>, <http://www.startnext.de>, <http://www.starteed.it>

Examples of projects (see Case Studies in Section 6): BRCK

3.3 Social lending crowdfunding

Social lending, as offered on crowdfunding sites, relates to interest free loans. The motivation from the lender side is very similar to donation-based crowdfunding – positive social return. This form of crowdfunding combines the collective interest in social change and the financial needs of the target group. It is very similar to recoverable grant making in the development sectors. It is already used extensively for micro-businesses in developing countries for micro-financing without any interest being paid to the lending party.



- Types of projects supported: Micro-loans, development or social aid
- Average funding amount (per project): approx. \$420
- Frequency: Usually one off
- Financing arrangements: Crowdfunding platforms operate as an intermediary, leaving the details of the funding up to the project owners or field partners. No interest is paid on the principle; some platforms offer non-financial bonus points that can be re-invested. In some cases, the lending amount can be withdrawn if not already tied to the project.
- Fees: +/- 0%
- Funders: Mostly individuals
- Due diligence: Pre-set criteria on a platform or field partner assessment, such as partner Microfinance Institutions, which will execute their own due diligence prior to listing projects online
- Monitoring and Evaluation: Generally not a responsibility of the crowdfunding platform, which acts as an intermediary in bringing two parties together. In social lending of micro-credit, local microfinance institutions will assume M&E activities as part of their partnership.
- Rate of success: +/- 90%
- Climate or environment proposals: marginal

Examples of relevant platforms:

- Development: <http://www.kiva.org> , <http://www.babyloan.org>, <http://www.crowdseed.co.za/>
- Climate and energy: <http://www.sunfunder.com>, <http://www.energyincommon.org/>

3.4 Lending crowdfunding

With lending-based crowdfunding, a company will borrow money from a group of people instead of a bank. The role of the platforms can be diverse. Some of the platforms will act as middle-men and make the repayments to the lenders, whereas other platforms act only as match-makers and the borrower and lenders will be connected when the deal is closed. The main motivation for the funder is a (higher) financial return. The interest-rates in general are based on the risk-factor, which is calculated based on financial data and personal securities.

This model is used by borrowers who are looking for a loan with a lower interest rate than the one they can get from a bank. It can also be used by borrowers who can offer fewer securities. Lenders will though receive a higher interest payment than they would receive on a savings account or similar banking products. Existing data shows that default rates for consumer lending in Europe on average are below 1%, in business crowd lending it is a little higher at around 2%.

Debt crowdfunding is similar in structure to traditional private market financial services and lending schemes available for the development sector. Lenders offer a principle with an expectation of receiving financial gain. Risk is mitigated according to portfolio theory by providing very small amounts of finance to any given project and therefore distributing the total crowdfunding allocation over a large number of projects.

- Types of projects supported: Small business loans, consumer lending, project finance
- Average funding amount (per project): +/- US\$5,000
- Frequency: Usually one off, but long-term support and recurring funding can be created
- Financing arrangements: Crowdfunding platforms operate as an intermediary, leaving the details of the funding up to the project owners. Direct lending is also possible, where the borrower organises the lending without the help of a third party platform. Interest payments are paid out in frequent instalments, for example monthly.



- Fees: +/- 3-5%
- Funders: Individuals, institutional investors (consumer loans)
- Due diligence: Credit checks where available, other background checks
- Monitoring and Evaluation: Crowdfunding platform generally will keep lenders updated with progress on loans via comments or similar functions and might collaborate with collection agencies. M&E is however generally not a responsibility of the crowdfunding platform
- Rate of success: +/- 50%
- Climate or environment proposals: Marginal. However, some financing for renewable energy developments (e.g. solar parks) has been raised via crowdfunding.

Examples of relevant platforms:

- Development: n/a
- Climate and energy: <http://joinmosaic.com>, <http://www.greencrowding.com>, <https://www.lumo-france.com/>, <http://abundancegeneration.com/>

Examples of generic non-development lending platforms: <http://www.lendingclub.com/>, <http://www.prosper.com/>, <https://www.fundingcircle.com/>, <https://banktothefuture.com/>, <https://www.fundingknight.com/>

Examples of projects (see Case Studies in Section 6): Sunny Money Zambia and Angaza Pay-As-You-Go Solar Technology Tanzania

3.5 Equity crowdfunding

Equity crowdfunding is similar in structure to traditional private market financial services and investment and lending schemes available for the development sector. Equity crowdfunding or crowd investing is when an entrepreneur or business wants to attract an investment from a group of people instead of from a business angel or another private investor. Equity crowdfunding is usually subject to capital markets and banking regulation and is therefore restricted in terms of funding size, geography and marketing possibilities. This may limit the possibility of development initiatives being funded via equity crowdfunding.

Some funders are primarily interested in investing in projects that share their own values, that are locally engaging or that create jobs in their community. Others have a real knowledge of what the market, project, or company is addressing and seek to bring funds and expertise to the success of the project. Equity crowdfunding generally includes equity-like arrangements: offering the same payoff as equity (shares) and the funder is a creditor who has a contractual right to receive that payoff.

As with debt crowdfunding, risk is mitigated according to portfolio theory by provided very small amounts of finance to any given project and therefore distributing the total crowdfunding allocation over a large number of projects. Still, the risk is usually diversified between financial and emotional motivations. Equity crowdfunding platforms generally exercise a basic business plan screening and legal and financial due diligence in a process derived from what business angels or venture capitalists would normally carry out. The extent and professionalism to which this is done can vary from platform to platform.

- Types of projects supported: Small and medium sized enterprises
- Average funding amount (per project): +/- US\$ 150,000
- Frequency: Usually one off, but repetitive funding is possible
- Financing arrangements: Crowdfunding platforms operate as an intermediary. Valuations are proposed by the entrepreneur and checked by the platform
- Fees: +/- 5% listing fees, +/- 3-5% transaction fees, fixed due diligence fees



- Funders: Mostly individuals
- Due diligence: due diligence procedures derived from the venture capital industry on finances, business plan, staffing and technology. Some platforms include compulsory professional fees.
- Monitoring and Evaluation: Equity crowdfunding platforms take generally a vested interest in the businesses they offer for investment; as a result they also monitor and evaluate the business progress of an investment in order increase the potential for an exit. Otherwise M&E is generally not a responsibility of the crowdfunding platform.
- Rate of success: +/- 40%
- Climate or environment proposals: Marginal, but some climate focused businesses have used equity crowdfunding

Examples of relevant platforms:

- Development: n/a
- Climate and energy: n/a

Examples of generic platforms: <http://www.symbid.com>, <http://www.fundedbyme.com>, <http://www.crowdcube.com>, <http://www.wiseed.com>, <http://www.innvestment.com>

Examples of projects (see Case Studies in Section 6): WakaWaka Light



SECTION 4

Conclusion

As a conclusion, we argue that crowdfunding can positively support development programmes through a number of applications. It can improve access to capital, help manage supply and demand, drive innovation and efficiency and fund new markets. Through crowdfunding, entrepreneurs can benefit from aggregating and understanding demand for a given product or service and from an assessment of a proposed pricing.

We argue that grant making as used in the development sector might indeed be quite similar to how donation and some forms of reward-based crowdfunding operate. Funding is provided without financial or significant material return. The motivation for the funding is social return, the funders are already satisfied when they see that a project can be realised, their motivation is intrinsic. We believe that co-operations can be struck between the development sector and specific crowdfunding platforms for co-funding strategies that are aligned with the development agencies goals. For example, the cases of the Nexus Water Turbine by Safrema Energy, the MicroPower semiconductor chip for waste heat and the Pollinate Energy project of solar-light micro-franchises in India (see Case Studies in Section 6).

“We believe that co-operations can be struck between the development sector and specific crowdfunding platforms for co-funding strategies that are aligned with the development agencies goals.”

Pre-sales as a form of reward-based crowdfunding has significant potential for the development of customer facing products and services. As shown in the BRCK case study, it can be used to pre-finance the production or development of innovative impact products. Alternatively, as shown in the Thanksgiving Coffee Company example, it can be used to increase revenues and profits for reinvestment. Here we see significant potential for supporting entrepreneurs from developing countries with additional institutional lending when reaching a certain threshold.

Recoverable grant making as used in the development sectors could be facilitated for micro-lending. Social and micro lending as offered on crowdfunding sites can ensure financing for micro and small entrepreneurs who otherwise might not have this access. A joint venture with relevant platforms already operating in the focus geographies could address specific goals of the development organisation while mobilising additional public support for the issue. Similarly, debt crowdfunding could be used to support lending schemes in the development sector. In particular, renewable energy and climate focused projects are attracting crowdfunders and could be used to support existing development activities as shown in the cases of Sunny Money, Resilient Energy and Brighter Schools shown in this report.

Equity crowdfunding is currently subject to strict regulation. In general, the financial services regulatory regimes for corporate finance business and investment funds both tend to shape the structure of equity-based crowdfunding platforms. However, as both regimes generally only cater for professional investors, it appears likely that a new regulatory regime will be specifically designed for equity crowdfunding (separately from a regime for the Lending Model, which falls more under regulatory regimes for the banking sector). For example, in



the UK some platform operators make use of exemptions from the regulatory regime, whilst others have obtained authorisation from the UK's competent authority, the Financial Conduct Authority or its predecessor, the Financial Services Authority. A more consistent approach is expected to emerge as the FCA and the UK Government develop a regulatory strategy. There are similar trends in other countries across Europe. Equity crowdfunding is generally restricted to investment opportunities within the same country and is limited in terms of the investment amount. Nevertheless, it can be used to support businesses and innovations that have impact in the developing world, such as the presented case of WakaWaka.

Despite the fact that development focused crowdfunding platforms do not yet exist in significant numbers and across crowdfunding models, with the exception of micro-lending and very few renewable energy focused crowdfunding platforms, we think that a strategic partnership with crowdfunding platforms can create positive synergies and create opportunities for crowdfunding platforms to enter into a new market.

We recommend further study in this area. We believe that research with a focus on the design and viability of development-focused hybrid crowdfunding initiatives would be particularly beneficial. We also identified a lack of information related to M&E and Due Diligence processes of crowdfunded projects. An analysis of primary and secondary sources through interviews, in-depth assessments of live projects and statistical analysis could provide more insight on these processes and how to make crowdfunding more accessible to entrepreneurs in the developing world.

ANNEX 1

Case-studies on crowd-funding for development and energy

WakaWaka Light



In 2012, the Dutch solar energy developer Off-Grid Solutions raised USD \$100,000.00 for their WakaWaka Solar Light technology via Symbid, an equity-based crowdfunding platform.

Through the Symbid platform, 320 investors from around the world were attracted as equity holders; the investors receive returns in the form of dividends. The initiative has enabled the company to develop, manufacture and market high-tech low-cost solar powered lamps and chargers worldwide.

Company	Off-Grid Solutions (Netherlands)
Project Product	WakaWaka Light Low-cost high-tech solar powered technology
Project Location	Worldwide (esp. Developing World)
Crowdfunding Platform	Symbid
Type	Equity
Total Investment	USD \$100,000
Number of Investors	320
Web	http://waka-waka.com/

Following the success of the WakaWaka Light initiative, the company has launched a buy one/give one “Let’s Light Up Haiti” campaign using the Kickstarter and OnePlanetCrowd crowdfunding platforms. The objective of the initiative was to raise money to construct an assembly plant in Haiti. The initiative has now raised USD \$700,000 from 7000 investors around the world. As a result, 10,000 WakaWaka’s will be distributed in Haiti providing renewable energy for 50,000 people.

Sunny Money Zambia



Sunny Money is a low-cost high-tech solar powered technology provider in Zambia. The USD \$20,000 loan crowdfunded via US based SunFunder will be used to sell 1,232 solar-powered lights to families in the Copperbelt region of Zambia, impacting over 6,776 people’s lives. Sunny Money’s solar schools campaign will sell the solar lights to students and their families.

The expected annual number of people benefiting from solar energy from this project is 6,776. The expected average time to break even for the customers would be 7 weeks for the “d.light S.1” unit and 18 weeks for the “Greenlight Planet SunKing Pro”.

Company Project	Sunny Money (UK) Solar lighting and cell phone charging in Zambia
Product	Low-cost high-tech solar powered technology (d.light S.1 and Green Light Planet SunKing Pro)
Project Location	Zambia
Crowdfunding Platform	SunFunder
Type	Loan (3.5% annual interest)
Total Investment	USD \$20,000
Number of Investors	128
Web	http://www.sunnymoney.org/

This would result in an expected USD \$149,072 in total energy cost savings (USD \$121 per family) and a 12% increase in disposable income.

Angaza Pay-As-You-Go Solar Energy in Tanzania



Angaza has raised USD \$15,000 via the SunFunder crowdfunding platform to facilitate the manufacturing and sales of 1000 Solar Home Systems in the Mwanza region of Tanzania. The Pay-As-You-Go solar technology allows customers to pay for clean energy at their own pace by using mobile money platforms. Following a top-up via the mobile money platform, the solar unit is activated for a proportional amount of energy output. Once the full price of the product has been paid off, the unit becomes permanently unlocked and customers get free, clean and reliable energy for the life of the unit.

Company	Angaza (USA)
Project	Pay-as-you-go solar energy
Product	Solar Home Systems
Project Location	Tanzania
Crowdfunding Platform	SunFunder
Type	Loan (3.5% annual interest)
Total Investment	USD \$15,000
Number of Investors	91
Web	http://www.angazadesign.com/

The expected annual number of people benefiting from the project is 4,800. The expected total household savings on energy is USD \$5,000 in year one and USD \$75,000 between years 2 and 5 (\$5 per family in year one and \$75 per family between years 2 and 5 – a 30% increase in disposable income). The project is expected to avoid a total 100,000 kg of CO₂ emissions (100 kg per family).

Pollinate Energy India



Pollinate Energy is a non-profit social enterprise that aims to provide access to affordable clean energy to improve the livelihoods of poor people living in slums in India.

Pollinate Energy raised USD \$10,500 via the crowdfunding platform Chipin (closed operations on 7 March 2013) to finance the establishment of solar light micro-franchises run by 5 local Indian

entrepreneurs. The entrepreneurs, or “pollinators”, also received management training under the scheme. The micro-franchises are located in 5 different regions around Bangalore and serve 100 communities and over 5000 individuals.

Company	Pollinate Energy (India)
Project	Renewable energy micro-franchising
Product	Solar lights
Project Location	India
Crowdfunding Platform	Chipin
Type	Donation
Total Investment	USD \$10,500
Number of Investors	Approx. 120
Web	http://pollinateenergy.org/



Resilient Energy Great Dunkilns, UK



Resilient Energy Great Dunkilns is a 0.5MW wind project funded by a GBP £1.4 million investment raised via the crowdfunding platform Abundance Generation.

The turbine has been fully operational since October 2012. Buyers of the debentures receive an estimated rate of return of 6.75% to 8.0% across the 20 year

life of the project. The project provides a donation of between GBP £14,000 and £18,000 per year of operation to develop local infrastructure and community services.

Company
Project
Product
Project Location
Crowdfunding Platform
Type
Total Investment
Number of Investors
Web

Resilient Energy (UK)
Wind energy
0.5MW turbine
England
Abundance Generation

Debenture
GBP £1.4 million
425

<http://www.resilientenergy.co.uk/>

MicroPower Chip



MicroPower are raising funds to create the world's most efficient semiconductor chip that converts waste heat directly to electricity three times more efficiently. The chip helps reduce waste heat, save energy, reduce harmful emissions and conserve natural resources. Every year approximately USD \$4 trillion is

spent burning coal, oil and gas to produce energy. On average, half of this amount is lost – resulting in USD \$2 trillion worth of heat waste escaping into the environment every year. MicroPower is seeking to raise USD \$250,000 in donations via the crowdfunding site Kickstarter to develop 100,000 chips for distribution to industry for evaluation.

Company
Project

Product
Project Location
Crowdfunding Platform
Type
Total Investment
Web

MicroPower (USA)
Affordable, efficient and energy saving semiconductor chip
MicroPower Chip
Worldwide
Kickstarter

Donation
Currently raising USD \$250,000
<http://micropower-global.com/>

Nexus Water Turbine



Safrema Energy is currently raising USD \$250,000 to build a prototype of the Nexus Water Turbine. The turbine is designed to extract hydropower from wave power, tidal power and ocean thermal power to produce cost effectively sustainable renewable energy. The primary benefits of the turbine

include: zero pollution, efficient renewable energy, low capital and operating cost, long term potential, continuous flowing water that provides uninterrupted energy, minimal maintenance and minimal environmental impact.

Company
Project
Product
Project Location
Crowdfunding Platform
Type
Total Investment
Web

Safrema Energy (USA)
Clean energy water turbine
Nexus Water Turbine
Worldwide
Kickstarter

Donation
Currently raising USD \$250,000
<http://www.safremaenergy.com/>



Brighter Schools, UK



wunderENERGY

Wunderenergy has raised GBP £216,000 via the debenture-based crowdfunding platform Abundance Generation to fund the installation of solar PV systems on schools across the UK.

The project has an estimated rate of return of 7.2-8.3% over the 20 year investment period. The project seeks to reduce the schools' expenditure on energy, reduce impact on the environment and provide an opportunity to educate pupils on renewable energy and sustainability.

Company Project

Product Project Location Crowdfunding Platform

Type Total Investment Number of Investors Web

Wunderenergy (Spain) Solar energy for schools across the UK 0.18-0.57MW Solar PV Systems UK Abundance Generation

Debenture GBP £216,000 155 <http://www.wunderenergy.com/en/>

The funds raised via crowdfunding will be used to pay for the installations. A tariff and the money received from the schools for electricity repay the investors and provide the investment return.

Thanksgiving Coffee Company



Thanksgiving Coffee Company tried crowdfunding USD \$150,000 using coffee as a reward in order to purchase wind-powered freight boats.

Carrotmob itself is a type of local crowdfunding platform that rewards businesses by providing them with customers

– directing so many customers their way that they can afford to implement more responsible and sustainable practices (particularly in embracing renewable energy technologies). The fundraising for Thanksgiving Coffee Company was a first attempt on this platform to run an international campaign.

Thanksgiving Coffee Company failed to raise the amount of USD \$150,000 but used the raised USD \$31,462 to support climate change adaption and provide clean cook-stoves to their coffee farming partners in Uganda at the Peace Kawomera Cooperative instead.

Company Project

Project Location Crowdfunding Platform Type

Total Investment Web

Carrotmob (USA) Coffee shipping by wind-powered boats Worldwide Carrotmob

Purchase of coffee = use of wind powered boats USD \$31,462 <http://www.thanksgivingcoffee.com/>





BRCK



Ushahidi successfully over-crowdfunded the production cost of USD \$150,000 from more than 1,000 backers of an innovative mobile internet router and connectivity device that works even without electricity connection. The BRCK works much the way a cell phone does, by

intelligently and seamlessly switching between Ethernet, Wifi, and 3G or 4G mobile phone networks. It is operated by plugging in a SIM card or connecting to a wired or wireless Ethernet connection and the BRCK will automatically get online. If the AC power fails, as it does frequently in the developing world, BRCK falls back on an 8-hour battery without needing to be told.

Company
Project
Project Location
Crowdfunding Platform
Type

Ushahidi (USA)
Mobile internet router
Nairobi, Kenya
Kickstarter
Ushahidi
Reward-based pre-sales campaign to finance the production cost of the BRCK device
USD \$172,107
<http://brck.com/>

Total Investment
Web





ANNEX 2

Matrix of crowdfunding business model attributes

Crowdfunding Model	Types of Projects	Average Funding	Frequency	Financing Arrangements	Fees	Funders	Due Diligence	M&E	Success Rate
Donation Based	NGO, Non-Profit, Disaster Relief, Cultural, Religious	Approx. USD \$1,500	Usually one off, but long-term support and recurring funding is possible through community building	Crowdfunding platforms operate as an intermediary, leaving the details of the funding up to the project owners	Approx. 2-5%. Some platforms have more complex fee structures, plus payment fees via third party operators, some are free of charge	Mostly individuals	Pre-set criteria on platform	Generally not a responsibility of the crowdfunding platform, which acts as an intermediary in bringing two parties together	Approx. 43% for raising funds
Reward Based	Tech Start-Up, NGO, Social, Environment	Approx. USD \$ 5,000. A large variety exist with many small campaigns and some exceedingly large multi-million US\$ pre-sales offers	Usually one off, but long-term support and recurring funding is possible	Crowdfunding platforms operate as an intermediary, leaving the details of the funding up to the project owners	Approx. 3-5% plus payment fees via third party operators	Mostly individuals	Pre-set criteria on platform, some use a threshold-pledge system that returns all funds to funders if a pre-set minimum threshold should not be reached within a certain amount of time	Generally not a responsibility of the crowdfunding platform. In threshold pledge systems monitoring happens via fundraising amounts.	Approx. 50% for raising funds
Social Lending Based	Micro-loans, development or social aid	Approx. less than USD \$100	Usually one off	Platforms operate as intermediaries, leaving the details of the funding up to the project owners. No interest is paid on the principle; in cases non-financial bonus points are given that can be re-invested	0%	Mostly individuals	Pre-set criteria on a platform or field partner assessment	Generally not a responsibility of the crowdfunding platform. In social lending of micro-credit local microfinance institutions will assume M&E activities as part of their partnership.	Approx. 90%
Lending Based	Small business, consumer lending,	Approx. USD \$5,000	Usually one off, but long-term support	Platforms operate as intermediaries. Direct	Approx. 3-5%	Individuals, institutional	Credit checks where available, other	Crowdfunding platform generally will keep	Approx. 50%



Crowdfunding Model	Types of Projects	Average Funding	Frequency	Financing Arrangements	Fees	Funders	Due Diligence	M&E	Success Rate
	project finance		and recurring funding can be created	lending is possible. Interest payments higher than bank rates and paid out in frequent instalments		investors (consumer loans)	background checks	lenders updated with progress on loans via comments or similar functions and might collaborate with collection agencies.	
Equity Based	SME's	Approx. USD \$150,000	Usually one off, but repetitive funding is possible	Platforms operate as an intermediary. Valuations are proposed by the entrepreneur and checked by the platform	Approx. 5% listing fees, 3-5% transaction fees, fixed due diligence fees	Mostly individuals	Due diligence procedures derived from the venture capital industry on finances, business plan, staffing and technology	If vested into the business, platforms generally monitor and evaluate the business progress of an investment in order to increase the potential for an exit.	Approx. 40%



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About the authors

Oliver Gajda



Oliver works as a hands-on operational and strategic consultant on sustainable, innovative and open businesses and non-profits. He is the founding Chairman and Executive Director of the European Crowdfunding Network AISBL and an Executive Committee Member at CF50 Inc, the global think tank on crowdfunding.

The past decade, Oliver has worked with venture capital, microfinance, technology and social entrepreneurship in both commercial and non-profit settings in Europe and the USA. A former journalist, he started his career in the early 1990s in the publishing and business information industries. Oliver holds Masters degrees from Solvay Business School and from the University of Hamburg and studied at SEESS (UCL) in London.

James Walton



James is a Senior Consultant in Finance and Economics at IMC Worldwide, a leading development, management and infrastructure consulting firm based in the UK. He provides financial and economic planning, evaluation and management advisory services with a development focus to donor banks, governments and private sector organisations throughout the developing world. James has a background in consumer and commercial banking, microfinance and development in Europe, Middle East, Africa and Southeast Asia. He holds a Master's degree in Management from the University of St Andrews in Scotland and is an alumnus of General Electric Capital's Financial Management Leadership Program.