

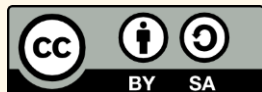
Open Catalogue of Business Models

Deliverable 1.1

Compiled by Anna Sera Lowe, Martin Oloo, and Gertrude Mawuena Goh

MAKE

makeafricaeu.org



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This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No 101016858.

MAKE



Welcome

to the Open Catalogue of Business Models.

This has been developed by the MAKE project to contribute to the financial sustainability of makerspaces and support the creation of a decentralized production ecosystem.

How to use the catalogue



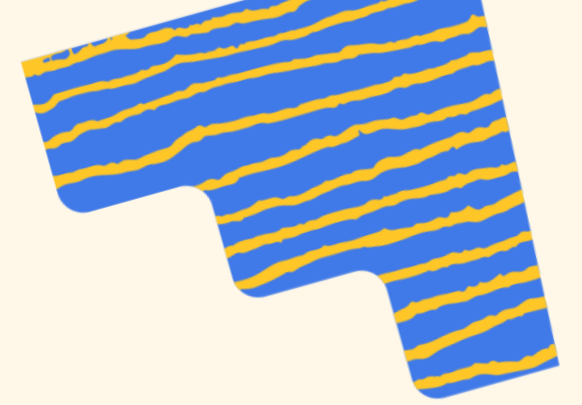
This catalogue is intended to be a source of inspiration. It cannot tell you what business models will work in your community, but it can give you ideas and guidance on what might work.

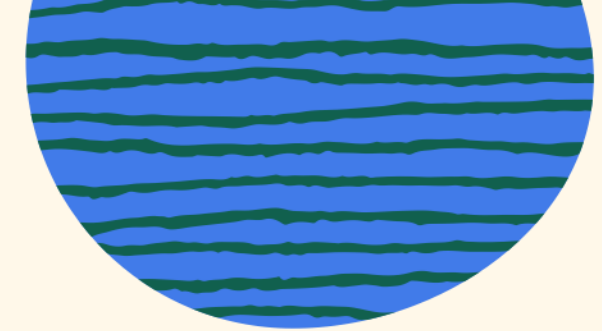


The elements in the catalogue are designed to be used like building blocks – you can choose a few and combine them in your own way to create a unique model for your space.



You will need to adapt each element to your environment and experiment to find out which variations work best in your own community.





Contents of each model

Page 1: Overview

MAKE Name of Model

DESCRIPTION

POTENTIAL IMPACTS

MAJOR VARIATIONS

ADVANTAGES

CHALLENGES

COMPLEMENTARY MODELS

Variants included within the same model

Reasons why a makerspace may wish to implement this

Pitfalls and things to watch out for

Suggestions of other models that can work well with this one

Ways in which this model can benefit society

Page 2: Business Model Canvas

MAKE Name of Model

| | | | | |
|----------------|----------------|--------------------|------------------------|-------------------|
| KEY PARTNERS | KEY ACTIVITIES | VALUE PROPOSITIONS | CUSTOMER RELATIONSHIPS | CUSTOMER SEGMENTS |
| | KEY RESOURCES | | CHANNELS | |
| COST STRUCTURE | | REVENUE STREAMS | | |

To learn more about this format for documenting business models, visit the [Strategyzer](https://www.strategyzer.com/) web site

The models are arranged in three groups

01

Expertise Sharing

Sharing knowledge or skills with others, using what you know how to do to create something of value for others.

02

Asset Sharing

Providing access to some asset that would be difficult for everyone to have by themselves.

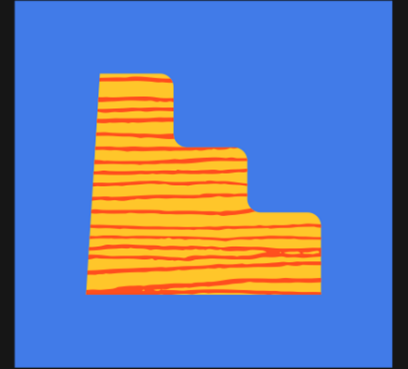
03

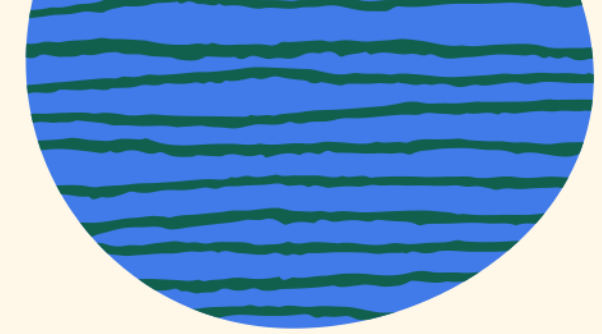
Product Life Cycle

Creating value by playing a role in the product life cycle.

MAKE

The Models





Group 1: Expertise Sharing



Training

Supporting others to develop knowledge and skills with the focus on education and certification



Events & Edutainment

Organising events and fun activities where the focus is on the experience, and learning happens along the way



Consultancy

Using your expertise to solve problems or deliver outcomes for others



Business Services

Using your expertise to perform tasks that deliver a service for others



Startup Support

Supporting new business creation and growth via a combined package

MAKE Training



DESCRIPTION

Sharing knowledge and supporting others to develop skills, ranging from hands-on machine usage to soft skills like CV writing

MAJOR VARIATIONS

Offering training in-person versus online; offering use of equipment as well as training (whether just for class time or also for practice time)

ADVANTAGES

- The potential customer base is broad, including government, NGOs, and businesses as well as individuals; and it is common to find donors (or less commonly, government entities) who will contribute to training costs for those who can't afford it

CHALLENGES

- Developing good training material can be difficult – but for many topics there are lots of examples or open materials online
- Not everyone who possesses certain knowledge or skills is good at sharing it with others – teaching is a skillset in its own right
- For donors to pay for training, you may need to also be good at grant writing and collecting impact metrics

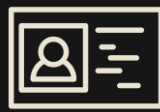
POTENTIAL IMPACTS

- Improving skills – enabling people to learn how to use equipment or do things can enhance their opportunities
- Supporting businesses – making it easier for companies to access the skills they need to be competitive
- Making a location more attractive to investment – ensuring a supply of skilled workers can make it easier for organisations to work there
- Improving quality of locally made products (because the people making them are more skilled)

COMPLEMENTARY MODELS



Machine Access / Membership
More trained people can mean more people paying to use your space



Space Hire
[for when you are not using your training space]



Marketplace
Adding trainees to database for placement fees or commission on work



| | | | | |
|--|---|---|---|---|
| <p>KEY PARTNERS</p> <ul style="list-style-type: none"> • Government e.g. Dept. of skills & industry; local government • Companies in industries that need more skilled workers • Recognised training or certification bodies • TVET institutes • Open knowledge orgs | <p>KEY ACTIVITIES</p> <ul style="list-style-type: none"> • Connecting with those who need & can pay for training • Developing content • Delivering training | <p>VALUE PROPOSITIONS</p> <ul style="list-style-type: none"> • Learn new skills or improve existing ones • Prove skills levels (certification) • [To companies] More skilled workforce • [To governments / donors] – improve skills of population / support particular industries | <p>CUSTOMER RELATIONSHIPS</p> <ul style="list-style-type: none"> • Personal service (deliver training) • Co-creation (skills development) • Self-service (online on-demand) | <p>CUSTOMER SEGMENTS</p> <ul style="list-style-type: none"> • Individuals who want to learn or to prove what they know • Organisations who want to hire more skilled workers • Organisations who want their workers to learn new skills • Government or donor organisations who may pay for skills development |
| <p>COST STRUCTURE</p> <ul style="list-style-type: none"> • Time to deliver training • Time to develop content, market the course • Space [if delivered in person] • Equipment or materials • Donor funding costs | | <p>REVENUE STREAMS</p> <ul style="list-style-type: none"> • Charge those who attend a training course • Charge companies to train their workers • Charge for certificates • Have course paid for by govt or donors who want to improve skills • Blended models where individuals pay part of the cost and companies / govt / donors pay the rest • Success fees for job placements | | |





DESCRIPTION

Organising events and fun activities where the focus is on the experience, and learning happens along the way.

MAJOR VARIATIONS

Periodic bespoke events such as hackathons versus repeat activities such as fun educational classes for children; participants paying to take part versus other entities paying the associated costs.

ADVANTAGES

- This can be an excellent way to generate interest in technology, innovation, or related subjects. The combination of educational content with fun activities is something many people are prepared to pay for.

CHALLENGES

- It can be difficult to do well – effort & creativity is needed to develop engaging content (though there is lots of inspiration online)
- One-off events may generate excitement but not create lasting impact – you need to think in advance about how you can support participants beyond a single interaction

POTENTIAL IMPACTS

- Inspiration – getting more people excited about STEAM subjects (Science, Technology, Engineering, Art, Maths) and innovative approaches to problem solving
- Improving skills of participants (both technical skills and soft skills such as working together) – can help to improve their opportunities
- Catalysing the formation of startup businesses or social ventures by bringing people together to solve challenging problems

COMPLEMENTARY MODELS



Sale of Materials

Selling kits that people can use for fun activities by themselves or materials to use in events



Startup Support

A way to take forward ideas and solutions that emerge from events



Training

Feeding participants onto more formal training courses





| | | | | |
|---|--|---|---|---|
| <p>KEY PARTNERS</p> <ul style="list-style-type: none"> • Schools, colleges, universities or other education bodies • Organisations with an interest in generating solutions to challenges e.g. finding uses for waste • Organisations looking to support the growth of new businesses • Organisations looking for innovative entertainment options | <p>KEY ACTIVITIES</p> <ul style="list-style-type: none"> • Connecting with customers • Developing content • Running events & activities • Follow-up support | <p>VALUE PROPOSITIONS</p> <ul style="list-style-type: none"> • Taking part in a fun & educational experience • Childcare can be part of value proposition for events aimed at children • [To companies] Chance to engage customers or potential workers in a different way • Potential to create innovative solutions to challenges | <p>CUSTOMER RELATIONSHIPS</p> <ul style="list-style-type: none"> • May be one-off or repeat interactions • Often based around co-creation - you providing a framework, customers making their own experience from that | <p>CUSTOMER SEGMENTS</p> <ul style="list-style-type: none"> • Children • Adults who want to enjoy themselves while learning • Young people who want to gain experience relevant for work • Those who want to meet others with similar interests or form teams to tackle challenges |
| <p>COST STRUCTURE</p> <ul style="list-style-type: none"> • Time to develop ideas and content • Time to run events • Space [if delivered in person] • Equipment or materials • Marketing | | <p>REVENUE STREAMS</p> <ul style="list-style-type: none"> • Fees to participants • Charge organisations who need solutions to problems • Sell kits for people to do activities by themselves • Sponsorship of events by companies as a CSR* initiative, a marketing initiative, or to help them hire good candidates • Blended models where individuals pay part of the cost and companies / govt / donors pay the rest | | |

* Corporate Social Responsibility





DESCRIPTION

Using your expertise to solve problems or deliver outcomes for others

MAJOR VARIATIONS

In person versus remote. Advisory versus taking on responsibility to deliver a project or result. Commercial contracts versus donor funded work to deliver social impact.

ADVANTAGES

- People who run makerspaces tend to have a range of skills that often lends itself well to consultancy, and there are opportunities for it almost everywhere.

CHALLENGES

- The sales cycle can be long, particularly with donor funded projects, and there is often uncertainty over project timings making resource planning difficult.
- High levels of expertise are needed as well as soft skills to ensure high quality delivery and good client relationships.

POTENTIAL IMPACTS

- Helping to increase your impact e.g. supporting the creation of new makerspaces
- Supporting industry and other organisations to maximise their effectiveness
- Using your skills to deliver social impact in a variety of ways leveraging donor funding

COMPLEMENTARY MODELS



Product Development

Using technical skills to design and prototype products for others



Business Services

You may be able to cross-sell other business services to the same clients



Marketplace

You may be able to expand your service offering by drawing on a pool of experts



| | | | | |
|---|--|--|--|--|
| <p>KEY PARTNERS</p> <ul style="list-style-type: none"> • Other consultancies, particularly established ones with good client relations but lacking in some technical skills • Networks of peers to enable you to find solutions and identify other experts • Government and charities that want to support local industry | <p>KEY ACTIVITIES</p> <ul style="list-style-type: none"> • Attracting clients • Developing your expertise • Advisory or project delivery | <p>VALUE PROPOSITIONS</p> <ul style="list-style-type: none"> • Expert Guidance • Delivery of better solutions than the client could get by themselves • Proven methodologies or a track record of good results • Ability to bring a group of experts together with the right mix of skills | <p>CUSTOMER RELATIONSHIPS</p> <ul style="list-style-type: none"> • Personal service to develop customised advice and solutions • Trust based relations • Ongoing support | <p>CUSTOMER SEGMENTS</p> <ul style="list-style-type: none"> • Entrepreneurs, startups, and businesses that need advice on product development • Humanitarian and development projects that need delivery expertise • Businesses, NGOs or government institutions that need advice or support with their own operations |
| <p>COST STRUCTURE</p> <ul style="list-style-type: none"> • Cost of time spent on the specific consultancy project • Cost of time spent in learning and skill development • Travel or other incurred costs • Any equipment or materials • Marketing or advertising costs | | <p>REVENUE STREAMS</p> <ul style="list-style-type: none"> • Charge those who have a challenge they want help with – either in the form of time and materials (a daily fee plus any direct costs incurred) or a fixed fee for a project. • Public, development, or humanitarian funding to pay for activities with positive social and economic impact | | |





DESCRIPTION

Using your expertise to perform tasks that deliver a service for others (e.g. building web sites)

MAJOR VARIATIONS

Offering services in person versus online. Standardised versus personalised services. One-off delivery of a service versus ongoing provision.

ADVANTAGES

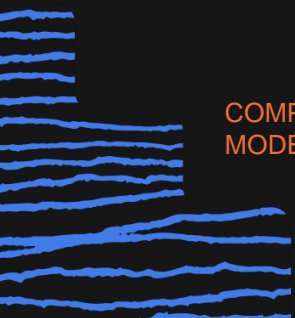
- This can allow you to use technical or business skills you have available in your team or community to earn additional revenue

CHALLENGES

- Managing customer relationships, understanding their requirements, and project management for on-time delivery and profitability are all important aspects of this as well as being good at delivering the service itself.
- The market can be very competitive, particularly for services offered online for the global market.

POTENTIAL IMPACTS

- Support businesses in your community by making it easier for them to focus on their core operations
- Introduce technical or business skills not readily available locally to make local industry more competitive
- Providing employment and livelihoods to the people performing the services



COMPLEMENTARY MODELS



Training

There may be a market for more people to learn how to perform the services you offer



Startup Support / Membership

You may offer services as add-ons for people or organizations already using your space



Marketplace

You may be able to extend the range of services you can offer by drawing on a pool of skills

Business Services

| | | | | |
|---|--|--|---|--|
| <p>KEY PARTNERS</p> <ul style="list-style-type: none"> • Other organisations providing services to your target market • Others providing similar services – you may be able to join forces or sub-contract each other • Technical colleges or other educational institutes who provide training in the type of services you offer | <p>KEY ACTIVITIES</p> <ul style="list-style-type: none"> • Attracting customers • Understanding customer requirements • Performing the service | <p>VALUE PROPOSITIONS</p> <ul style="list-style-type: none"> • Good quality outcomes • For local clients – offering understanding of the local context • For remote clients – the ratio of quality to price will be important as you will be competing globally • Offer a personal touch for services not readily available locally | <p>CUSTOMER RELATIONSHIPS</p> <ul style="list-style-type: none"> • Mainly personal service • Some co-creation with clients | <p>CUSTOMER SEGMENTS</p> <ul style="list-style-type: none"> • Those in your community who need the service in question (it may not only be businesses) • Those elsewhere in the world who want remote services • Government or donor organisations who may subsidise provision of services to certain groups |
| <p>COST STRUCTURE</p> <ul style="list-style-type: none"> • Time spent and materials used in performing the service • Advertising & marketing costs • Cost of any machinery or equipment used in performing the service, e.g. computers, printers | | <p>REVENUE STREAMS</p> <ul style="list-style-type: none"> • Charge for time and materials (any direct costs) in performing the service • Fixed fee for the project or service outcome • Ongoing charges for repeat services or maintenance • Funding from government or charities for marginalised groups to get access to services, e.g. marketing services for informal sector artisans | | |

Startup Support



DESCRIPTION

Supporting new business creation and growth via a combined package

MAJOR VARIATIONS

Massive difference in risk profile of models where you are paid to deliver support versus models where you are betting on the success of the startups.

ADVANTAGES

- Supporting startups around the creation of new products is a core objective for many makerspaces

CHALLENGES

- For this model to work it is necessary to build a pipeline of the right kind of startups that you can help, and of the mentors, industry experts, and investors who they will need to connect to.
- Fewer investors are interested in hardware startups and in environments where there is a severe lack of startup funding it can be incredibly difficult to help startups to find appropriate funding to enable growth.

POTENTIAL IMPACTS

- Giving startups access to shared resources that lower their costs, alongside expert guidance and tailored support can greatly increase their chances of success
- Job creation, local production, and economic diversification can contribute to reducing brain drain and making communities more sustainable
- Creation of innovative solutions to local challenges

COMPLEMENTARY MODELS



Machine Access

Access to prototyping and manufacturing equipment is a key need for hardware startups



Business Services

Services offered as part of a startup support package may also be of value to other organisations



Space Rental

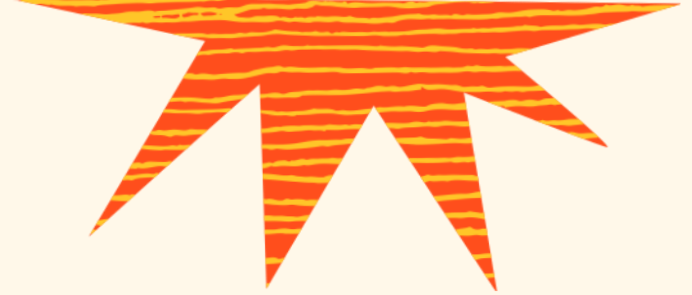
As startups grow, they may appreciate flexible workspace options








Startup Support

| | | | | |
|---|--|--|---|--|
| <p>KEY PARTNERS</p> <ul style="list-style-type: none"> • Local businesses and industry experts and experienced mentors for specialized support. • Investors or venture capital firms to connect startups with funding opportunities. • Academic institutions or other organizations to foster innovation and skill development. | <p>KEY ACTIVITIES</p> <ul style="list-style-type: none"> • Finding and attracting appropriate startups • Building the skills of the entrepreneurs • Connecting them with appropriate resources | <p>VALUE PROPOSITIONS</p> <ul style="list-style-type: none"> • Expert mentorship and guidance from experienced professionals • Access to a makerspace for prototyping and production • Networking opportunities and access to funding. • Community and collaboration with peers | <p>CUSTOMER RELATIONSHIPS</p> <ul style="list-style-type: none"> • Personalized guidance even if following a standard curriculum. • Building a strong and supportive community to foster lasting relationships | <p>CUSTOMER SEGMENTS</p> <ul style="list-style-type: none"> • Entrepreneurs and newly formed startups developing their product • Young businesses growing their market and scaling up operations • Private sector, government entities, or NGOs that want to support the creation and growth of startups |
| <p>COST STRUCTURE</p> <ul style="list-style-type: none"> • Cost of staff time working to support the startups • Equipment and facility maintenance costs. • Marketing and promotional costs including running networking events • Seed funding for startups if this is part of the model | | <p>REVENUE STREAMS</p> <ul style="list-style-type: none"> • Service or membership fees: Charging startups directly for the services you offer • Running support programs funded by other organizations that want to support startups • Equity or profit-sharing agreements with startups in exchange for support | | |





Group 2: Asset Sharing

| | |
|--|--|
|  Space Rental | Renting out space for long term use |
|  Space Hire | Hiring out space for short term use |
|  Machine Access | Providing access to machines, tools, or other equipment for individuals or businesses to use |
|  Membership | Creating shared access to a community and/or other assets (space and equipment) |
|  Marketplace | Creating a mechanism for many buyers and sellers to find each other |



DESCRIPTION

Renting out or subletting part of a larger unit to tenants, whether they are independent or part of your community

MAJOR VARIATIONS

Offering seats in a communal space (co-working) versus renting out rooms/workshops for exclusive use.

ADVANTAGES

- This can be an excellent way to offset part of the rent cost or to earn revenue. It can also be a way to build community or ensure you have access to certain skills, e.g. offering reduced rent to someone who can maintain machines in your makerspace or contribute to the community in other ways.

CHALLENGES

- Assuming the whole unit is rented, the makerspace still has the liability for the full rent, so there are risks to relying on others to help pay it – if there is not enough demand for the sublets, or if tenants are short of cash (as startup companies often are)

POTENTIAL IMPACTS

- Offering flexible terms to rent space can be a huge enabler for entrepreneurs and small businesses, who may not be able to pay large deposits or take on long term rentals but need somewhere to work
- In many places it is particularly difficult to find small units for light industrial use, making it hard for manufacturing companies to start – this can help them to do that
- Enabling small businesses to co-locate with an equipped makerspace can make it feasible for more experimentation without them having to invest in buying all the machines themselves

COMPLEMENTARY MODELS



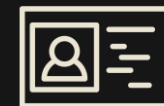
Startup Support

Workspace rental can sit alongside other forms of startup support



Events & Edutainment

Running events such as hackathons can be a way to find new startups



Membership

Co-working and priority access to available units can be perks for members



Space Rental

| | | | | |
|--|--|---|--|--|
| <p>KEY PARTNERS</p> <ul style="list-style-type: none"> • Organizations that want to target the kind of tenants you have • Tenants that provide a service to other tenants e.g. a café • Organizations willing to become long term “anchor” tenants | <p>KEY ACTIVITIES</p> <ul style="list-style-type: none"> • Attracting tenants • Space maintenance • Managing tenancies & any additional services | <p>VALUE PROPOSITIONS</p> <ul style="list-style-type: none"> • Flexible rental of small areas suitable for industrial/creative use • Being onsite with access to facilities e.g. makerspace machines or workshop space • Co-location with/ access to your makerspace community • Association with your brand – innovative & creative | <p>CUSTOMER RELATIONSHIPS</p> <ul style="list-style-type: none"> • Long term relationships • Customers may graduate through different offerings e.g. co-working space to small unit to larger unit as they grow | <p>CUSTOMER SEGMENTS</p> <ul style="list-style-type: none"> • Individuals and freelancers who want somewhere to work • Startup companies often particularly value flexibility to allow for growth uncertainty • Existing small orgs who want access to makerspace assets • Local branches of larger organizations (companies or NGOs) |
| <p>COST STRUCTURE</p> <ul style="list-style-type: none"> • Space • Maintenance & cleaning • Time to manage tenancies and provide any additional services | | <p>REVENUE STREAMS</p> <ul style="list-style-type: none"> • Co-working space fees • Rental charge for exclusive units • Add on services e.g. receptionist, registered office address • Access to workshops / makerspace / meeting rooms at additional cost • Revenue sharing arrangements with growing businesses | | |





DESCRIPTION

Hiring out use of your space (or part of it) to others for events

MAJOR VARIATIONS

Offering space hire only, or with additional equipment and/or services

ADVANTAGES

- This is a relatively easy way to earn additional revenue from a space that you use most of the time. Finding paying customers is usually the most difficult part for space hire

CHALLENGES

- In many places this could be an infrequent or unreliable revenue source. Try to identify customers who might use the space on a regular basis and build relationships with them. Think creatively about what organizations may like to be associated with an innovative brand such as yours.

POTENTIAL IMPACTS

- This model is primarily used to earn revenue to support other activities, although there can be beneficial impact from enabling types of event that would otherwise not take place.
- Hosting events at your space may bring awareness of what your space offers to a wider range of people

COMPLEMENTARY MODELS



Machine Access

Hiring machines or e.g. audiovisual equipment alongside the space



Consultancy

Skill-based work such as event management



Membership

Ability to hold events in your space could be offered as part of a package



| | | | | |
|--|--|--|---|---|
| <p>KEY PARTNERS</p> <ul style="list-style-type: none"> • Space rental agencies or event management companies • Local companies providing complementary services e.g. catering • Entrepreneurs and local businesses who want to share risk and share revenue for events they organise | <p>KEY ACTIVITIES</p> <ul style="list-style-type: none"> • Advertising • Managing bookings • Any additional services e.g. event management | <p>VALUE PROPOSITIONS</p> <ul style="list-style-type: none"> • Location and/or characteristics of the space (e.g. classroom for x people) • Brand association with yours • Convenience & package of services (e.g. if audio-visual equipment or catering can be booked along with venue) • Risk-sharing | <p>CUSTOMER RELATIONSHIPS</p> <ul style="list-style-type: none"> • Long term relationships with repeat customers • Personal service to help them manage the event • May involve self-service elements e.g. setting up | <p>CUSTOMER SEGMENTS</p> <ul style="list-style-type: none"> • Organisations who want to host events or trainings • Entrepreneurs who want to use the space to generate revenue • Individuals/families who need a bigger space than their home |
| <p>KEY RESOURCES</p> <ul style="list-style-type: none"> • Space • Furniture, audio-visual equipment etc | | | <p>CHANNELS</p> <ul style="list-style-type: none"> • Build relationships with organisations • Local advertising • Via partnerships | |
| <p>COST STRUCTURE</p> <ul style="list-style-type: none"> • Space • Setup and/or cleaning • Time to manage bookings and provide any additional services • Equipment or materials | | <p>REVENUE STREAMS</p> <ul style="list-style-type: none"> • Charge per hour / day for use of the space • Charge for additional equipment (chairs, projector, etc) or services (event management, catering) • Revenue sharing if renting the space out for business purposes - e.g. for someone to run a training course there you could charge according to how many people sign up for the course | | |



DESCRIPTION

Providing access to machines, tools, or other equipment for people and businesses to use

MAJOR VARIATIONS

Offering a space where people can come and use equipment, versus allowing people to take it away (tool hire – more practical for smaller items)

ADVANTAGES

- If you have machines and other equipment it can make sense to maximise use of these assets

CHALLENGES

- High Startup Costs – buying the equipment is expensive. Some options are to seek donors or sponsorship; partner with equipment manufacturers, share machines with others or build your own machines.
- Maintenance – Find local maintenance expertise or learn how to do it yourself; consider keeping stock of critical spare parts
- Health & Safety – This is very important, you should consider training, monitoring, risk assessment, and accident planning

POTENTIAL IMPACTS

- Improving skills – enabling people to learn how to use equipment
- Enabling start-ups – they can test the market for product ideas without having to buy all the equipment first
- Reducing costs for existing businesses – they can access different machines without having to buy them
- Improving quality of locally made products – by providing access to better quality or higher precision tools

COMPLEMENTARY MODELS



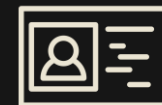
Training

Ensuring safe and effective use of the machines



Sale of materials

for use with the machines



Membership

providing machine access as part of a package with other services



| | | | | |
|---|---|--|--|--|
| <p>KEY PARTNERS</p> <ul style="list-style-type: none"> • Machine Manufacturers / Resellers • Materials Suppliers • Government or NGOs who want to support local industry • Businesses who use these types of machine | <p>KEY ACTIVITIES</p> <ul style="list-style-type: none"> • Attracting customers • Machine Maintenance • Managing Access | <p>VALUE PROPOSITIONS</p> <ul style="list-style-type: none"> • Ability to learn skills • Offering the capability of the machines at a lower cost or lower hassle than buying them • Ability to test new ideas, products, or processes • Improved efficiency of production processes | <p>CUSTOMER RELATIONSHIPS</p> <ul style="list-style-type: none"> • Long term relationships with community members • Partnerships with those who use your machines in their production process | <p>CUSTOMER SEGMENTS</p> <ul style="list-style-type: none"> • People who want to learn • Startup businesses who want to prototype and experiment • Established businesses who use machines in their work (or could do) • Entrepreneurs who can use the machines to make money e.g. offer training courses |
| <p>KEY RESOURCES</p> <ul style="list-style-type: none"> • The machines / tools / equipment • An accessible location with power | | | <p>CHANNELS</p> <ul style="list-style-type: none"> • Cross-selling from training • Co-location: put machines next to businesses who will use them • Referrals – word of mouth can be powerful among artisan communities | |
| <p>COST STRUCTURE</p> <ul style="list-style-type: none"> • Machine purchase cost • Maintenance costs • Location & power • Advertising • Oversight personnel • Materials & consumables | | | <p>REVENUE STREAMS</p> <ul style="list-style-type: none"> • Hourly charge for machine use • Membership-type access fees including a certain amount of machine time • Revenue sharing agreements with people who use the machines to offer paid classes or make products for sale • Cross-selling opportunities to sell training, materials, or other services | |



DESCRIPTION

Regular users pay for access to your space and a package of access to assets and services

MAJOR VARIATIONS

Limited access or a variety of different levels of access for different membership packages versus unlimited access to all resources.

ADVANTAGES

- This gives a regular and fairly predictable income stream and enables people to access the resources you provide in a manner that suits them

CHALLENGES

- In some places, the people you most want to work with may not be able to afford membership
- Balancing the demands of different members can be difficult without proper policies
- It can be difficult to find the right price points and access levels. Some people will use the services or assets more than others.

POTENTIAL IMPACTS

- Making space, tools, machines, and skills to people in your community for them to be able to solve problems and generate positive impacts
- Creation and growth of a community of people and organisations with shared interests - this can give rise to all kinds of benefits including generating new ideas or organisations

COMPLEMENTARY MODELS



Training

Ensuring safe and effective use of the machines



Machine Access / Sale of Materials

People may need to buy materials or additional time on machines beyond what is included in membership



Space rental

Some members may value being able to rent private space on your premises



| | | | | |
|--|---|--|---|--|
| <p>KEY PARTNERS</p> <ul style="list-style-type: none"> • Sources of new members like education institutes or craft associations • Machine Manufacturers / Resellers • Businesses or NGOs that target your members • Government or NGOs who want to support local industry | <p>KEY ACTIVITIES</p> <ul style="list-style-type: none"> • Attracting customers • Balancing price, access and usage levels • Community management • Providing services | <p>VALUE PROPOSITIONS</p> <ul style="list-style-type: none"> • Access to a community • Ability to test new ideas, products, or processes • Access to machines and tools • Opportunity to work on personal projects and develop new skills | <p>CUSTOMER RELATIONSHIPS</p> <ul style="list-style-type: none"> • Long term relationships with community members | <p>CUSTOMER SEGMENTS</p> <ul style="list-style-type: none"> • People who want to learn including schools • Startup businesses who want to prototype and experiment • Established businesses who use machines in their work (or could do) • Entrepreneurs who can use the machines to make money or need certain services on a regular basis |
| <p>COST STRUCTURE</p> <ul style="list-style-type: none"> • Cost of staff • Rent or cost of facility • Cost of machines & equipment, including maintenance • Cost of providing any services included in membership packages • Advertising and marketing costs | | | <p>REVENUE STREAMS</p> <ul style="list-style-type: none"> • Membership fees per time period e.g. monthly subscription. There may be different levels of membership for different charges, offering different access (e.g. full time versus part time, or off-peak times only) • Some spaces charge a one-off joining fee in addition • Add-on charges for things not included in membership package such as extra machine hours | |





DESCRIPTION

Creating a place where buyers and sellers can meet and find what they are looking for

MAJOR VARIATIONS

Online versus physical. Enabling the sale of physical products versus services or skills. Bringing buyers and sellers together so they can contract with each other, versus taking a contractual role.

ADVANTAGES

- Many makerspaces naturally act as a hub, with community members who make many different things or have a range of skills, so this model can work well if the hub gets good at attracting buyers.

CHALLENGES

- A marketplace model exhibits ‘network effects’ – it won’t usually work with just a few buyers and a few sellers, you have to have a reasonable number of both before it will be successful. You need to think about your value propositions to both sides.
- Think carefully about how to manage quality, as poor quality items or services will reflect badly on the marketplace. If you are acting as an intermediary to contracts between others, be careful with liability issues. If a product fails or service is performed badly, who is liable?

COMPLEMENTARY MODELS



Training

If you offer training it can be good to help those trained to find work










Business Services / Consultancy

You may be able to extend the range of services or topics offered by drawing on a pool of experts in a marketplace



| | | | | |
|--|---|---|---|---|
| <p>KEY PARTNERS</p> <ul style="list-style-type: none"> • Anyone who already has the attention of the buyers and sellers you wish to attract, e.g. a shopping mall where you could have a market, or an artisans' association • Local government or municipality that wants to support commerce • Orgs that want to target or support businesses you work with | <p>KEY ACTIVITIES</p> <ul style="list-style-type: none"> • Attracting buyers • Ensuring an adequate range of goods/services/skills is available • Matching buyers & sellers | <p>VALUE PROPOSITIONS</p> <ul style="list-style-type: none"> • Allow buyers to go to one place (physical or virtual) to access a range of products or skills to meet their needs • Enable sellers to access buyers they would otherwise have difficulty reaching, or make the transactions easier in some way. | <p>CUSTOMER RELATIONSHIPS</p> <ul style="list-style-type: none"> • Depending on the type of marketplace you may be facilitating different types of customer relationships including personal service, co-creation, and self-service | <p>CUSTOMER SEGMENTS</p> <ul style="list-style-type: none"> • You may have almost any kind of customer segments for a marketplace, what is important is the match between what the buyers want and what the sellers are offering. |
| <p>KEY RESOURCES</p> <ul style="list-style-type: none"> • Pool of willing buyers and sellers • A location or mechanism that enables them to trade with each other | | | <p>CHANNELS</p> <ul style="list-style-type: none"> • Social media & local advertising • Build relationships with sellers & repeat buyers • Referrals and word of mouth | |
| <p>COST STRUCTURE</p> <ul style="list-style-type: none"> • Space (for a physical market) or website & internet costs (for an online one) • Advertising, marketing, and vetting costs • Costs of subcontractors if you are managing the work • Cost of any contract management activities you are performing such as project management or quality control | | <p>REVENUE STREAMS</p> <ul style="list-style-type: none"> • Charge a commission on completed deals • Sell the products/services to the buyer, and subcontract • Charge for access to the marketplace (e.g. a monthly fee to sellers that enables them to sell as much as they want, or a charging rent for a stall in a physical market) • Charge for listing or advertising a particular want or need | | |

Group 3: Product Life Cycle

| | |
|--|--|
|  Sale of Materials | Selling materials that others can use to make products |
|  Product Development | Designing and prototyping new or custom products |
|  Product Manufacturing | Manufacturing and selling products, including machines, in your own name |
|  Manufacturing as a Service | Manufacturing products at the request of others |
|  Quality Control | Ensuring the quality of products made by others |
|  Repair | Maintaining products or returning them to use |
|  Recycling | Processing end-of-life products or industrial waste so it can be returned to the value chain |

Sale of Materials



DESCRIPTION

Selling components or materials that others can use to make products or learn skills

MAJOR VARIATIONS

Selling individual items versus selling kits; buying the materials for sale versus being a collection & distribution hub for reclaimed or donated items.

ADVANTAGES

- If the technologies you have in your makerspace are not widely available in the community, the materials to use with them also may not be. You can help people to gain access to materials they need and earn some revenue from it.

CHALLENGES

- It can be difficult to set up supply chains for items not readily available – you may need to buy in bulk, which requires more working capital
- Import & currency issues – where you are buying the materials from outside the country, you may need to deal with import procedures, manage lead time uncertainty, or take risk on currency movements.

POTENTIAL IMPACTS

- Providing access to materials can be an enabler for other impacts you wish to have such as improving skills, enabling businesses, improving quality of locally made items
- Becoming a hub for material re-use and recycling can have significant environmental benefits as well as helping those who need them to access materials at low cost



COMPLEMENTARY MODELS



Machine Access

Making materials available for use with your machines



Marketplace

Selling materials for use in products sold through the marketplace



Events & Edutainment

Making and selling kits so people can do fun activities at home



Repair

Spare parts can be sold for use alongside repair services

Sale of Materials

| | | | | |
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| <p>KEY PARTNERS</p> <ul style="list-style-type: none"> • Manufacturers & suppliers of materials • Organisations with waste materials to donate • Others who buy similar materials in significant quantities – there may be an opportunity to lower costs by forming ‘buyers clubs’ with them | <p>KEY ACTIVITIES</p> <ul style="list-style-type: none"> • Procurement • Inventory management • Advertising / Sales | <p>VALUE PROPOSITIONS</p> <ul style="list-style-type: none"> • Availability – giving people access to items they cannot easily get elsewhere • Convenience – materials available where the machines are • Price – recycled materials or direct imports may be cheaper than competition | <p>CUSTOMER RELATIONSHIPS</p> <ul style="list-style-type: none"> • Long term relationships with repeat customers who may be members of your community • Reciprocal relations with marketplace partners | <p>CUSTOMER SEGMENTS</p> <ul style="list-style-type: none"> • Individuals and freelancers who need things for projects or learning • Businesses who need the items for their operations • Possibility to sell wholesale to other makerspaces or businesses that will sell them on to their customers |
| <p>COST STRUCTURE</p> <ul style="list-style-type: none"> • Material purchase cost • Inward shipping & import duties • Delivery cost if not collected • Inventory carrying costs such as storage space, cost of capital, insurance, administration time [these also apply in the case of donated items] | | <p>REVENUE STREAMS</p> <ul style="list-style-type: none"> • The most common is to charge for the materials or components • Revenue sharing may be possible with people who use the materials to make things to sell • Being a collection & distribution hub for recycled materials can enable you to charge for materials that are given for free • In some cases you may provide materials as part of a package that is paid for as a whole, such as training or machine access | | |



DESCRIPTION

Designing products, including prototyping and test manufacture or making one-off products

MAJOR VARIATIONS

Designing and making one-off/custom products, versus developing a product that is to be made repeatedly. Consumer products versus industrial products such as designing a machine.

ADVANTAGES

- This work is often well suited to those who enjoy makerspaces – it is creative, involves prototyping and technical problem solving

CHALLENGES

- Demand can be unpredictable, making it difficult to build a sustainable business around it.
- May require a large range of skills & expertise (which is why it can usefully be combined with something like XXX, allowing you to draw on skills available in your community)
- Project management and business skills are needed to ensure products can be delivered on time, to budget, and with a profit being made.

POTENTIAL IMPACTS

- Solving problems that need a bespoke solution
- Designing products to be manufactured locally will have long term economic benefits
- Promoting local culture and industry by making all kinds of one-off items like film sets, parade floats
- Supporting local employment including skilled trades

COMPLEMENTARY MODELS



Consultancy

You may also be able to advise others on their product development processes



Membership

Giving others access to space and equipment to design and make their own things



Marketplace

Enabling you to draw on a pool of skilled people for different jobs



| | | | | |
|--|---|---|---|---|
| <p>KEY PARTNERS</p> <ul style="list-style-type: none"> • Suppliers of materials & components • Open source hardware & software communities • Local events, forums, and industry associations • Other organisations doing product development - you may join forces or sub-contract each other | <p>KEY ACTIVITIES</p> <ul style="list-style-type: none"> • Product design • Prototyping • Design for manufacture • Advertising / Sales | <p>VALUE PROPOSITIONS</p> <ul style="list-style-type: none"> • Creative or unique solutions • Convenience of being able to bring multiple skill sets together to create an output • Delivery speed may often be a concern • You may be able to develop expertise in a particular area e.g. in making a certain type of machinery | <p>CUSTOMER RELATIONSHIPS</p> <ul style="list-style-type: none"> • Long term relationships which likely involve a degree of co-creation | <p>CUSTOMER SEGMENTS</p> <ul style="list-style-type: none"> • People who want help to design a product for large scale production • Those who want one-off creations such as film sets, parade floats, or artworks • Organizations that have a particular problem that needs a bespoke solution |
| <p>COST STRUCTURE</p> <ul style="list-style-type: none"> • Time • Materials & components • Machine usage • Space where work is done | | <p>REVENUE STREAMS</p> <ul style="list-style-type: none"> • Fixed fee for a project (or for the product you make) • Time & materials fees (charging for the time you spend and other costs incurred) • Revenue sharing agreements for products that are to be manufactured in bulk | | |





DESCRIPTION

Repeat manufacturing of products that are sold under your own name or brand

MAJOR VARIATIONS

Making open source design products versus proprietary ones. Consumer products versus industrial. Producing to order versus to stock.

ADVANTAGES

- If you are good at making products for which there is consistent demand, this can be a fairly stable source of revenue

CHALLENGES

- Unlike when manufacturing is offered as a service, under this model you carry the financial risk if the products do not sell – so you need to make sure you are making products that the market wants.
- Standardised processes and quality control tend to be very important for product manufacturing, and these may not come easily to makerspaces which are typically more used to operating as prototyping and experimentation spaces.

POTENTIAL IMPACTS

- Making products that meet a local need or are not readily available
- Designing and making machines at a lower cost than importing them can introduce new capabilities and thus increase local production
- Making any products locally saves on transport and supports the local economy
- By making products close to the end user you may be able to offer customization options

COMPLEMENTARY MODELS



Marketplace

You may be able to sell other products to the same customers



Training /Consultancy

For some types of product there is a market for teaching people how to use it



Quality Control

If you establish good QC for your own products, you probably have the skills to offer it separately



Product Manufacturing

| | | | | |
|---|---|---|--|---|
| <p>KEY PARTNERS</p> <ul style="list-style-type: none"> • Suppliers of materials & components • Open source hardware communities • Government or NGOs who want to support local industry • Installation or maintenance services • Suppliers of complementary products | <p>KEY ACTIVITIES</p> <ul style="list-style-type: none"> • Product design • Manufacturing • Marketing | <p>VALUE PROPOSITIONS</p> <ul style="list-style-type: none"> • Products not available locally • Products tailored to local tastes or conditions • Made to order/ customized products • Cheaper or better versions of imported products • Products with local maintenance or support options | <p>CUSTOMER RELATIONSHIPS</p> <ul style="list-style-type: none"> • Long term relationships with resellers and repeat buyers • Transactional relationships with one-off buyers | <p>CUSTOMER SEGMENTS</p> <p>Depending on the actual product, customers can be of almost any type:</p> <ul style="list-style-type: none"> • Individual consumers • Institutional consumers • Resellers |
| <p>COST STRUCTURE</p> <ul style="list-style-type: none"> • Materials & components • Machine usage and other direct production costs (labour, electricity, etc) • Inventory carrying costs • Market research • Product design & development • Marketing & costs of sales channels | | <p>REVENUE STREAMS</p> <ul style="list-style-type: none"> • Per unit sales price of the product • In some cases, the product may be sold as part of a package • For durable products, there may be ongoing revenue from spare parts or consumable items | | |



DESCRIPTION

Manufacturing items at the request of others (and at their risk)

MAJOR VARIATIONS

Performing some manufacturing steps (e.g. laser cutting shapes that are then finished by hand) versus manufacturing complete products.

ADVANTAGES

- Can be a good way to earn revenue using assets you already own and people who already work for you

CHALLENGES

- Most orders are likely to be for small volumes, and you need to ensure you are making enough money to cover the engineering time needed to set up the production run. Charging properly for this can make the order unattractive to customers.
- This tends to be quite a price sensitive market so margins may be slim

POTENTIAL IMPACTS

- Enabling people who want to have products made to source them locally – creating benefits for the local economy
- Making advanced manufacturing technologies (such as digital fabrication techniques) available as a service in locations where there is a lot of analogue manufacturing can have a big impact on productivity and quality, thus making existing industry more competitive.

COMPLEMENTARY MODELS



Product Development

It can be useful to separate design and engineering out as a separate service



Quality Control

This will be an essential part of manufacturing as a service so you may also be able to offer it separately



Machine Access

Some people have the skills and willingness to make the items themselves



Manufacturing as a Service

| | | | | |
|--|---|---|---|--|
| <p>KEY PARTNERS</p> <ul style="list-style-type: none"> • Suppliers of materials & components • Manufacturers with complementary capabilities to you • Government or NGOs who want to support local industry • Manufacturers Associations or similar | <p>KEY ACTIVITIES</p> <ul style="list-style-type: none"> • Connecting with clients • Design for manufacture • Manufacturing | <p>VALUE PROPOSITIONS</p> <ul style="list-style-type: none"> • Flexible, fast production of a wide variety of items • Availability of specific manufacturing technologies not commonly found locally • Faster, more accurate, or more efficient ways to produce things • Ability to produce shapes that cannot otherwise be made | <p>CUSTOMER RELATIONSHIPS</p> <ul style="list-style-type: none"> • Long term relationships with repeat customers • Occasional transactional one-off clients • Trust / reputation important | <p>CUSTOMER SEGMENTS</p> <ul style="list-style-type: none"> • Local manufacturers or artisans who lack some technologies • Manufacturers who wish to buy in a component rather than make it • Organisations that provide a product it is not their core business to make • Institutional consumers: healthcare facilities, schools, etc |
| <p>COST STRUCTURE</p> <ul style="list-style-type: none"> • Materials & components (unless customer supplies) • Machine usage and other direct production costs (labour, electricity, etc) • Engineering time - it is essential to price this in, as in most situations it is rare for customers to bring designs that really are manufacturing ready | | | <p>REVENUE STREAMS</p> <ul style="list-style-type: none"> • Typically a price is charged per unit manufactured • Setup costs or engineering time may be charged as a separate item rather than included as part of the per unit price (this can make it clearer why price will vary according to the number of units produced) | |



This business model element is under development – it is currently being tested with nine makerspaces across Ghana, Kenya, and South Africa under the Innovative Manufacturing in Africa project. The information provided will be updated towards the end of 2023 with the outcomes of that trial.

DESCRIPTION

Earning fees for checking the quality of products made by others, to ensure they meet customer requirements or independent standards

POTENTIAL IMPACTS

- Improving local access to good quality products, components, and spare parts
- Increasing local production due to increased trust in the quality

ADVANTAGES

- This could be a good way to earn some revenue at the same time as increasing livelihoods opportunities in the community

CHALLENGES

- Will likely require high levels of technical skill as well as process control and attention to detail
- Contracting may be complex and liability in the event of inadequate product quality may prove to be an issue

COMPLEMENTARY MODELS



Machine Access

Products can be made using your machines



Sale of Materials

Ensure known quality of inputs to production process



Marketplace

Checking quality of products sold in a marketplace can increase competitiveness

Quality Control

| | | | | |
|--|---|---|--|---|
| <p>KEY PARTNERS</p> <ul style="list-style-type: none"> • National standards bodies • Universities or test labs with specialised equipment | <p>KEY ACTIVITIES</p> <ul style="list-style-type: none"> • Quality control: checking what standards products should meet and verifying they meet them • Contract & risk management | <p>VALUE PROPOSITIONS</p> <ul style="list-style-type: none"> • Higher quality products • Risk reduction to buyers and sellers as a result of improved product compliance | <p>CUSTOMER RELATIONSHIPS</p> <ul style="list-style-type: none"> • Trust-based – built on reputation and/or repeated interaction | <p>CUSTOMER SEGMENTS</p> <ul style="list-style-type: none"> • Organisations who want to buy locally made products • Manufacturing organisations who want to ensure the quality of inputs they buy • NGOs running livelihoods programs |
| <p>KEY RESOURCES</p> <ul style="list-style-type: none"> • Manufacturing Engineering expertise • Appropriate test equipment | | | <p>CHANNELS</p> <ul style="list-style-type: none"> • Likely through partner channels | |
| <p>COST STRUCTURE</p> <ul style="list-style-type: none"> • Time spent on quality control and managing contracts • Equipment and consumables used in testing • Transport time & costs | | | <p>REVENUE STREAMS</p> <ul style="list-style-type: none"> • Percentage of sale price of items • Certification charges | |

MAKE Repair



DESCRIPTION

Getting broken items back into working order

MAJOR VARIATIONS

On-demand repairs versus maintenance contracts. Repairing items using readily available materials versus replacing specialist components only manufactured far away.

ADVANTAGES

- In most places there will be demand for the repair of some type of item, and it can benefit the community a lot to offer it

CHALLENGES

- A wide range of skills may be needed depending on how different the items brought to you for repair are.
- Some spare parts may be difficult to get hold of, and the unpredictability of demand can make keeping stock expensive.
- For some items, mass produced new equivalents can be so cheap that the labour intensive approach of repairing old ones is uneconomic.

POTENTIAL IMPACTS

- Keep items in use that would otherwise go to waste or landfill
- Enable people to keep using items that they perhaps could not afford to replace
- Keeping local industry or businesses functioning and productive – economic impacts in the community
- Reduce energy and material usage due to increasing the life span of items

COMPLEMENTARY MODELS



Training

Teaching repair skills or mentoring others as they learn



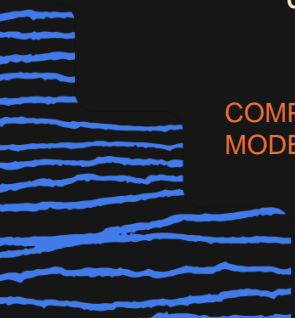
Sale of Materials

Selling spare parts used in repairs (or consumables)



Marketplace

It can be useful to be able to draw on a pool of different skills



MAKE Repair

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|---|--|---|---|--|
| <p>KEY PARTNERS</p> <ul style="list-style-type: none"> • Repair Café movement • ASK Network (open source repair toolkit) • Suppliers of components and spare parts • Look for partners who can help you with any of the items that would otherwise be costs: e.g. community centres or libraries who might let you use their space | <p>KEY ACTIVITIES</p> <ul style="list-style-type: none"> • Advertising • Repairing • Ensuring parts availability | <p>VALUE PROPOSITIONS</p> <ul style="list-style-type: none"> • Ability to use the item or device again (whether for personal use, or in income generating activities) • Cost savings over buying a new item • Reduce waste and the number of items going to landfill • Convenience – being able to get something working quickly | <p>CUSTOMER RELATIONSHIPS</p> <ul style="list-style-type: none"> • Service relationship • Co-creation – repairing things alongside the customer and transferring skills at the same time | <p>CUSTOMER SEGMENTS</p> <ul style="list-style-type: none"> • People with broken items • Organisations with broken items • Organisations who provide items to others that they want kept in good repair • Charities or other organisations that want to support device repair |
| <p>COST STRUCTURE</p> <ul style="list-style-type: none"> • Time • Components • Tools & equipment • Inventory carrying cost • Space where repairs are carried out • Advertising or marketing costs | | <p>REVENUE STREAMS</p> <ul style="list-style-type: none"> • Charge for repairs (by time spent or per item) • Charge for spare parts • Charge an annual fee for maintenance • Ask for voluntary contributions (tips / pay what you can) • Vol | | |



DESCRIPTION

Take a waste material and turn it into something that can be used or turned into new products

MAJOR VARIATIONS

For information about creating new products from the processed materials, see “Product Development” and “Product Manufacturing”

ADVANTAGES

- If you get the model right, there is the potential to earn revenue from waste products while having considerable positive impacts – an attractive proposition.

CHALLENGES

- There are a number of different steps in the chain which must all be worked on: from developing reliable sources of waste, to technical challenges of small-scale recycling, to marketing and attracting customers to ensure there is a market for what is produced.
- Machinery for small-scale recycling is not widely available commercially; there are many open source designs available online but these are often at a relatively low level of design maturity and may not be suitable for commercial use. Be prepared to spend considerable development time on the machinery and processing equipment.

POTENTIAL IMPACTS

- Use of waste that would otherwise cause litter or go to landfill.
- Reduce energy usage, by bringing materials back into use and/or by reducing transport (enabling new products to be made from waste materials collected locally)
- Raising public awareness of recycling and environmental issues; demonstrating that waste can be worth something can change people’s behaviour.

COMPLEMENTARY MODELS



Product Development

Working on ideas to turn recycled materials into new products



Sale of Materials

Selling reclaimed materials for others to use



Product Manufacturing

Repeat manufacturing of products made from recycled materials



| | | | | |
|---|---|--|---|---|
| <p>KEY PARTNERS</p> <ul style="list-style-type: none"> • Those who create, have, or collect waste – including industry, municipalities, informal sector waste collectors • Open source communities dedicated to designing equipment for recycling • Governments & NGOs who want to support recycling and local industry | <p>KEY ACTIVITIES</p> <ul style="list-style-type: none"> • Collecting waste • Processing waste (may include disassembly) • Finding markets for recycled materials | <p>VALUE PROPOSITIONS</p> <ul style="list-style-type: none"> • Reduce waste disposal costs or improve CSR for industrial waste producers • Offer reclaimed or recycled materials as inputs to other production processes – competing on cost, quality or availability with virgin inputs • Reclaimed or recycled materials as a value-added offering | <p>CUSTOMER RELATIONSHIPS</p> <ul style="list-style-type: none"> • Long term relationships with repeat customers if selling materials to industrial users • Consumer sales may be more transactional | <p>CUSTOMER SEGMENTS</p> <ul style="list-style-type: none"> • Industrial waste producers who need help to get rid of it • Local industries or artisans who need access to raw materials or reclaimed components • Consumers who attach value to products being made from recycled materials |
| <p>KEY RESOURCES</p> <ul style="list-style-type: none"> • Technical expertise • A source of waste material • Equipment for recycling | | | <p>CHANNELS</p> <ul style="list-style-type: none"> • Build personal relationships with potential commercial users • Sell through resellers or wholesalers • Marketplaces | |
| <p>COST STRUCTURE</p> <ul style="list-style-type: none"> • Waste collection • Waste processing (sorting, cleaning, disassembly etc) • Machinery used for waste processing (may include development time) • Inventory storage costs (for waste as well as processed materials) • Costs associated with finding and retaining customers | | | <p>REVENUE STREAMS</p> <ul style="list-style-type: none"> • Turn waste into items or materials that can be used by others and sell it • Charge those who need to get rid of waste, to turn it into something useful • Use waste or reclaimed materials to create new products and sell those. | |

Future Plans

For the Open Catalogue of Business Models



Web Site

We have secured additional funding from the [RISA fund](#) to turn this content into a web site, allowing easier navigation through the information



Toolkit

This catalogue will be integrated into and supported by the Open Makerspace Toolkit under development by the MAKE project (Deliverable 3.1)



Living Document

The online version of the catalogue will be a living document with ongoing updates and the potential for translation into other languages and expansion with new models

MAKE

Acknowledgements



The authors gratefully acknowledge the assistance of:

- Interviewees from makerspaces, fablabs, and community hubs of all kinds, plus social enterprises and businesses in the decentralised production ecosystem who generously shared insights into their business models
- Participants and attendees of events including Re:Publica, the Global Innovation Gathering, Africa Open Science and Hardware, Africa Makerspace Gathering who gave input to the design of this catalogue and feedback on early versions of it
- All consortium partners in the MAKE project who have contributed to the creation of this catalogue in many ways

MAKE African European Maker Innovation Ecosystem



This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No 101016858.

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