2016 EIR Agreement

Identity of the Parties

- **OSE** - ED of OSE or any agents or assigns; OSE, 909 SW Willow Rd Maysville MO 64469 USA. marcin@opensourceecology.org
- **EIR** - Alec Higgins 1036 Tivoli Lane, Naples, FL 34104 USA. higginsalec@gmail.com

Program Overview

EIR is an immersion education program, consistent with OSE's education and public service mission.

EIR develops know-how for the benefit of all humankind, while testing the validity of the model under development by testing the actual enterprise and providing data on its outcomes.

Established Enterprise funds the EIR and their R&D program. This is relevant to the OSE Roadmap in that it provides a self-funding and therefore scalable avenue to rocket-fueling the development of any new OSE Campus.

EIR Responsibilities Overview

1. **Distributive Enterprise Development**
    a. To develop an open source replicable farm business model consisting of two parts: a Greens Enterprise and an Egg Enterprise.
    b. To produce the greens primarily using the Aquaponic Greenhouse.
    c. To produce the eggs feeding the flock from local wastes and producing a compost by-product.
    d. To manage the development of a 300-egg automated Open Source Incubator.
    e. To sell primarily through direct local marketing at accessible prices for the local population.
    f. Total weekly time budget of 38 hours is required for the baseline program to mee
2. **Financial Goals**
    a. Greens: $9,000 profit over the year on 9 hours a week, or $19 per hour.
    b. Eggs: $3200 over the year (approximately 6 months of egg production), on 12 ½ hours a week, $5 per hour, and extending to $13.76 per hour for an established

operation The goal is to finish the year with a flock and infrastructure capable of doubling this profit in the second year through year-round production.

   c. Break-even Goals (total revenue to date exceeds total costs to date):
      i. Greens: End of May 2016, based on ½ labor cost spread between 2 enterprises?
      ii. Eggs: End of September 2016
      iii. Combined: End of June 2016. Does this include 3DP in May, or self-funding?
   d. Cash Flow Positive Goals (monthly revenue exceeds monthly operating costs):
      i. Greens: May 2016
      ii. Eggs: June 2016
      iii. Combined: May 2016

3. **Bootstrap Enterprise**:
   a. To Increase replicability through low capital costs
   b. To trial the viability of the DE model by using the 3DP workshops to provide most of the initial funding
   c. To work a minimum of 6 days a week every two months on 3D Printer Workshops until the Farm Enterprise is able to cover its own costs and EIR living costs.
4. **Chores**: 4 hours per week of general chores. Hours should be documented by EIR. Work includes:
   a. Faculty House finishing
   b. driving and errands
   c. help with any non-3DP workshops
   d. cleaning and general chores
5. **Learning**: Regular Distributive Enterprise Webinar for Agriculture
   a. Every Tuesday for 20 weeks per semester
   b. EIR draws up a schedule for the month at the beginning of the month
6. **Publishing**: regular journaling of results in Work Log, and at least one blog post per month
7. **Collaborative Literacy**: Take part in OSE Collaborative Literacy Webinar one time per week, and in Agriculture related Design Sprints.
8. **Weekly project meeting**, via webinar so others can participate. Brief intro and elevator speech and Byline.
9. **Monthly Review Meeting**, first Monday of the month, 1 PM CST
10. Assistance in FeF's 2016 perennial plant-out, site planning and earthworks development.
11. Testing the first significant use case of OSE's equipment in a working enterprise by using the tractor for turning compost and moving materials, and by testing commercial production in the Aquaponics Greenhouse.

Documentation and Communications

OSE is developing a program that is intended to be continued after the EIR leaves. For reasons of continuity, all resources and knowhow must be documented. This allows OSE to find resources, as well as to assess durations and progress for organizational learning. Continuity of

communications with SMEs is important. Logs and documentation are also used by remote developers for collaboration, review, etc. To engage the wider community in the development of the Distributive Enterprise - we publish ‘early and often’ as in the motto of open source.

13. Work Log - Alec Log - daily journaling of results and progress in Work Log.
14. Ongoing Vendor Database and Agriculture Resources updating with all supplier contacts, such as hay, etc.
15. Blog post - is used to publish results on a monthly basis, for review and comment. Public commitment to the DE occurs via an initial blog post. Main results should be published: Aquaponics economics; incubator design; compost chicken operation stabilization.
16. Brief is used for an initial small-scale crowdfunder.
17. Operations Manuals for Compost Chickens and Aquaponics shall follow the OM Template
18. Schedule for DE Webinar and resulting video are published at Distributive Enterprise Webinar wiki page
19. EIR shall use the opensourceecology.org email address for all farm and EIR-related communications. The EIR shall have access to this email address for the duration of the EIR period.
20. EIR shall cc OSE on organizational emails for SME webinars
21. EIR shall categorize all their work on the wiki with category [[Category:Agriculture]]

Operations Manual shall be published as soon as operations have been stabilized: (1) aquaponics has attained ongoing and full production (~170 plants per week), (2) egg laying operation with compost production has reached full egg-laying capacity (58 dozen at the peak of ongoing production.

EIR Relationship with OSE

16. EIR receives a $600 per month stipend for living expenses, and spends any remaining revenue on development of the Farm Enterprise. All funding comes from: (1) the 3D Printer Workshops, (2) the agreed-on crowdfunding campaign, and (3) from revenue generated by the Farm Enterprise.
17. OSE provides (1)
    a. a living and working infrastructure, including use of equipment and vehicles for the enterprise
    b. the existing EIR opportunity for bootstrap funding
    c. priority access to knowhow through the ability to reach Subject Matter Experts (SMEs)
    d. access to summer interns
    e. Access to OSE's marketing capacity
    f. guidance on the project
    g. Any insurance or legal structures required by the enterprise will be carried by OSE, with the Farm Enterprise covering the additional cost for these.
18. EIR manages, executes and documents the Farm Enterprise, organizes and executes the 3D Printer Workshops, organizes weekly SME webinars and the R&D effort on the Open Source Incubator.
19. OSE keeps the infrastructure that is created in order to continue the operation in the future.
20. 50% of net revenue (after stipend and costs) is allocated to tuition paid to OSE, and 50% is allocated to the EIR as Research Assistantship (RA). This occurs after all expenses including stipend.
21. Costs shall including EIR living expenses of $50 per month for utilities (water, electricity, internet) paid to OSE on top of any vehicle fuel or propane. Farm Enterprise shall cover 50% of car costs, such as new tires or oil changes.

22. OSE guarantees the stipend via the ongoing, monthly 3D Printer Workshop opportunity in case Fram Enterprise revenue does not generate sufficient funds, including covering shortfall if the monthly the workshop does not cover costs.
23. The EIR is required to spend the required time to run the 3d Printer Workshops. The EIR has a monthly 3D Printer Workshop opportunity OR another earning opportunity like crowdfunding (one time, at the beginning of EIR).
24. If the EIR does not take the 3D Printer Workshop opportunity, the EIR is on their own for covering the expenses of the Farm Enterprise and their own living expenses from Farm Enterprise revenue or personal funds.
25. A separate OSE Farm Enterprise account is set up, and any revenue (from 3D Printer Workshops and the Farm Enterprise) beyond the $600 monthly stipend is placed in there. Stipend is taken out monthly. Costs are taken out on an ongoing basis.
26. RA and tuition are taken out only from an amount above $2400 in the account (called Runway) after tuition and costs on the last day of the month. This allows a 2 month runway at all times for planning purposes.
27. EIR gains direct access to propagation of genetic material, and can build their own equipment base at cost using the revenue from the Enterprise, but only if a minimum Tuition of $600 per month is provided to OSE.
28. When the stipend is provided by the Farm Enterprise, the stipend is withdrawn before RA and Tuition are calculated.

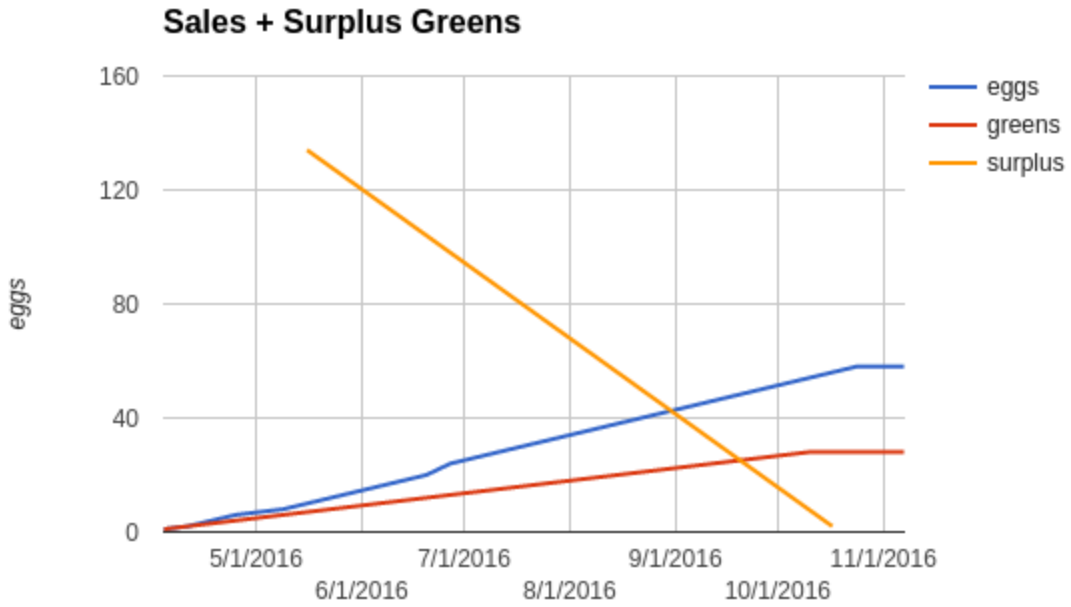
Duration, Exit, and Conflict Resolution

28. This agreement covers the period from March 14th 2016 to February 28th 2017.
29. This agreement can be terminated by either party with one month's notice. In this case, the final month will be treated as normal: stipend is withdrawn, Tuition and RA are withdrawn and $2400 are left in the Farm Enterprise Account for continued operation.
30. Contract shall be terminated if Milestones are not being met.
31. Conflict Resolution shall consist of Mediation, and if Mediation does not achieve desired results, Binding Arbitration shall be invoked.

Performance Management:

36. Milestones are evaluated on a monthly basis:
    a. **Month 1 (March 21-March 31)**: (1) Incubator build begun, (2) chickens secured, (3) compost sources identified (manure, food scraps, straw). (3) Aquaponics crop plan is drawn up, (4) aquaponic seedlings are started in perlite, (5) chicken coop is prepared. (6) Initial blog post is published. (7) bank account is set up for Farm Enterprise (8) brooder is prepared

b. **Month 2 (April 1-April 30)**: (1) incubation is in progress with 300 eggs being hatched, (2) compost production is begun, (3) new pond is prepared and 24 new aquaponic towers are hung and plumbed; (4) 8 new aquaponic towers are started each week; (5) old greenhouse is refurbished for a chicken operation: painting inside + new roof (6) crowd funder is executed for startup cash flow instead of 3DP workshop. (7) online shopping basket/ayment system is set up on website for Farm Produce (vegetable subscriptions, purchases), and is extensible to other products.
c. **Month 3 (May 1-May 31)** - (1) first 8 egg customers secured; (2) first 8 customers secured for greens. (3) greens come into full production (166 plants/ week). (4) 3D Printing workshops become unnecessary for base funding as crop revenue enters. (5) Farm stand is set up on site



d. **Month 4 (June 1-June 30)** - (1) 300 live chicks are growing out (2) compost operation is stabilized (3) ongoing customer recruitment
e. **Month 5 (July 1-July 31)** - (1) Operations Manual is written for Aquaponic Greens operation. (2) ongoing customer recruitment (3) Blog Post on aquaponic greens model results - for review and feedback
f. **Month 6 (Aug 1-Aug 31)** - (1) Build Instructions and Operating Manual is published for the Chicken Incubator. (2) ongoing customer recruitment (3) Blog post on chicken incubator.
g. **Month 7 (Sep 1-Sep 31)**: By end of month, achieve full sales of greens
    i. Greens sold in bunches of 6 for 29 customers?
    ii. What happens to surplus?

h. **Month 8 - (Nov. 1-Nov 31)** - (1) achieve full sales of eggs; (2) Compost Chicken operation workshop; (3) Incubator Workshop
i. **Month 9 - (Dec. 1-Dec 31)** - (1) Operations Manual is published for Compost Chicken Operation. Includes spaghetti diagrams, workflow, times for tasks, and process flow, etc.
j. **Month 10 - Jan 2017** - (1) planning for next year or recruiting new candidate
k. **Month 11 - Feb 2017** - (1)

37. **Production contingency plan:** If chicks are lost, new ones will be hatched to replace them, such that a flock of 150 laying chickens is available

Signed and dated:

OSE, Marcin Jakubowski

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EIR, Alec Higgins

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