# Project: Digital Naturalist- AI Enabled tools for Biodiversity Researchers

## Problem-Solution Fit canvas

Purpose / Vision

Version:

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### 1. CUSTOMER SEGMENT(S) — CS

*Who is your customer?*
*eg. working parents of 0-5 y.o. kids*

Naturalists, archaeologists, ecologists, biologist, Researchers, students, and members of scientific societies

*Define CS, fit into CL*

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### 6. CUSTOMER LIMITATIONS — EG. BUDGET, DEVICES — CL

*What limits your customers to act when problem occurs?*
*Spending power, budget, no cash in the pocket? Network connection? Available devices?*

No internet access in forest, Identifying species which may cause harm.

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### 5. AVAILABLE SOLUTIONS — PLUSES & MINUSES — AS

*Which solutions are available to the customer when he/she is facing the problem? What had he/she tried in the past? Pluses & minuses?*

Traditional classification of species.

*Explore AS, differentiate*

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### 2. PROBLEMS / PAINS + ITS FREQUENCY — PR

*Which problem do you solve for your customer? There could be more than one, explore different sides. eg. existing solar solutions for private houses are not considered a good investment (1).*

How often does this problem occur?

Too many species to keep track of, unknown species which are hard to identify and classify

*Focus on PR, tap into BE, understand RC*

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### 9. PROBLEM ROOT / CAUSE — RC

*What is the root of every problem from the list? eg. People think that solar panels are bad investment right now, because they are too expensive (1.1), and possible changes to the law might influence the return of investment significantly and diminish the benefits (1.2).*

Nature provides innumerable species whereas the human brain is limited identifying only a small portion of them, lack of technological resources to record and classify different species, lack of funding in research institutions and labs.

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### 7. BEHAVIOR + ITS INTENSITY — BE

*What does your customer do about / around / directly or indirectly related to the problem? eg. directly related: tries different "green energy" calculators in search for the best deal (1.1), usually chooses for 100% green provider (1.2). indirectly related: volunteering work (Greenpeace etc)*

How often does this related behavior happen?

Exploring latest technologies for storing massive data, trying to get financial backing to obtain the most accurate results.

*Focus on PR, tap into BE, understand RC*

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### 3. TRIGGERS TO ACT — TR

*What triggers customer to act? eg. seeing their neighbor installing solar panels (1.1), reading about innovative, more beautiful and efficient solution (1.2)*

Current trends in AI and CNN, studying and observing rare species, climate change.

*Identify strong TR & EM*

### 4. EMOTIONS — BEFORE / AFTER — EM

*Which emotions do people feel before/after this problem is solved? Use it in your communication strategy. eg. frustration, blocking (can't afford it) > boost, feeling smart, be an example for others (made a smart purchase)*

Before- Urgency, frustration, After- relief, joy due to easy identification and resource sharing.

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### 10. YOUR SOLUTION — SL

*If you are working on existing business - write down existing solution first, fill in the canvas and check how much does it fit reality.*

*If you are working on a new business proposition then keep it blank until you fill in the canvas and come up with a solution that fits within customer limitations, solves a problem and matches customer behaviour .*

Build an application using CNN to classify different species of biodiversity. Webapp with simple UI to explore various species in nature.

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### 8. CHANNELS of BEHAVIOR — CH

**ONLINE**
*Extract channels from Behavior block*

Uploading picture of newly recognized species, checking financial resources spent on the project.

**OFFLINE**
*Extract channels from Behavior block and use for customer development*

Taking pictures of the species

*Extract online & offline CH of BE*

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