



# Eco-Innovation in Action: Empowering Entrepreneurs in Lake Protection and Restoration through Lean Startup and Design Thinking

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# Lean Canvas

<b>Problem</b> 	<b>Solution</b> 	<b>Unique Value Proposition</b> 	<b>Unfair Advantage</b> 	<b>Customer Segments</b> 
	<b>Key Metrics</b> 		<b>Channels</b> 	
<b>Cost Structure</b> 			<b>Revenue Streams</b> 	



# Floating solar panels deployed on lakes – Lean Canvas

## Problem

- ❖ Water quality degradation & nutrient imbalances harming biodiversity
- ❖ Loss of ecosystem services (fisheries, recreation, local livelihoods)
- ❖ Large surface areas remain underutilized for clean energy production
- ❖ High evaporation contributes to water scarcity in summer climates



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## Solution

- ❖ Floating photovoltaic (FPV) panels co-designed with ecologists
- ❖ Anchoring systems minimizing lakebed disturbance
- ❖ Integrated biodiversity habitat modules (e.g., nesting platforms)
- ❖ Environmental monitoring for transparency and compliance



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## Customer segments

- ❖ Environmental & water restoration authorities
- ❖ Local municipalities seeking economic revitalization
- ❖ Utilities needing green energy & reduced transmission losses
- ❖ Eco-tourism operators benefitting from healthier lakes
- ❖ Green investors funding climate-positive solutions



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## Unique Value Proposition

- ❖ Clean energy generation that supports lake restoration goals
- ❖ Reduced evaporation + lower thermal stress on aquatic ecosystems
- ❖ Modular systems integrated with floating wetlands for remediation
- ❖ Enhances local economy: green jobs + sustainable tourism branding



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## Key metrics

- ❖ Annual GWh generation + CO<sub>2</sub> emissions avoided
- ❖ Water temperature reduction
- ❖ Biodiversity indicators (fish return, vegetation health)
- ❖ Local economic value: jobs created, new visitors attracted
- ❖ Community satisfaction & stakeholder



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## Channels

- ❖ B2G contracts with municipalities and water authorities
- ❖ Partnerships with eco-tourism boards & national parks
- ❖ Sustainability reporting platforms
- ❖ Local community engagement hubs + live data dashboards
- ❖ Digital marketing campaigns





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## Unfair Advantage

- ❖ Dual-benefit positioning: energy + ecological restoration
- ❖ Strong regulatory alignment with EU Mission 3
- ❖ Community co-ownership models
- ❖ Scientific partnerships validating measurable environmental gains
- ❖ Replicable playbook for thousands of lakes across Europe



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## Cost structure

- ❖ FPV hardware + floating structures + ecological features
- ❖ Permitting, lake-use concession, environmental assessments
- ❖ Grid infrastructure + O&M monitoring systems
- ❖ Community benefit programs + educational outreach
- ❖ Biodiversity protection & ecological audits



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## Revenue Streams

- ❖ Renewable electricity sales via PPAs (Power Purchase Agreement) to utilities/industries
- ❖ Government restoration funding + climate resilience grants
- ❖ Carbon / water-preservation credits Lake-branded eco-tourism & educational experiences
- ❖ Technology licensing + replication to other degraded lakes



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## Examples of best practices

- ❖ <https://www.youtube.com/watch?v=2OrfeQzlt7c>
- ❖ <https://www.dw.com/en/europes-biggest-floating-solar-park/video-63941209>