



Acceptability of French coastal people on eco-engineering for Floating Wind Farms

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The article



Goals

- To gauge & quantify willingness-to-pay (WTP) for eco-engineering via electricity bills
- To explore regional trends on the WTP for the concept
- To link attitude toward Offshore Wind Energy to eco-engineering

Methods

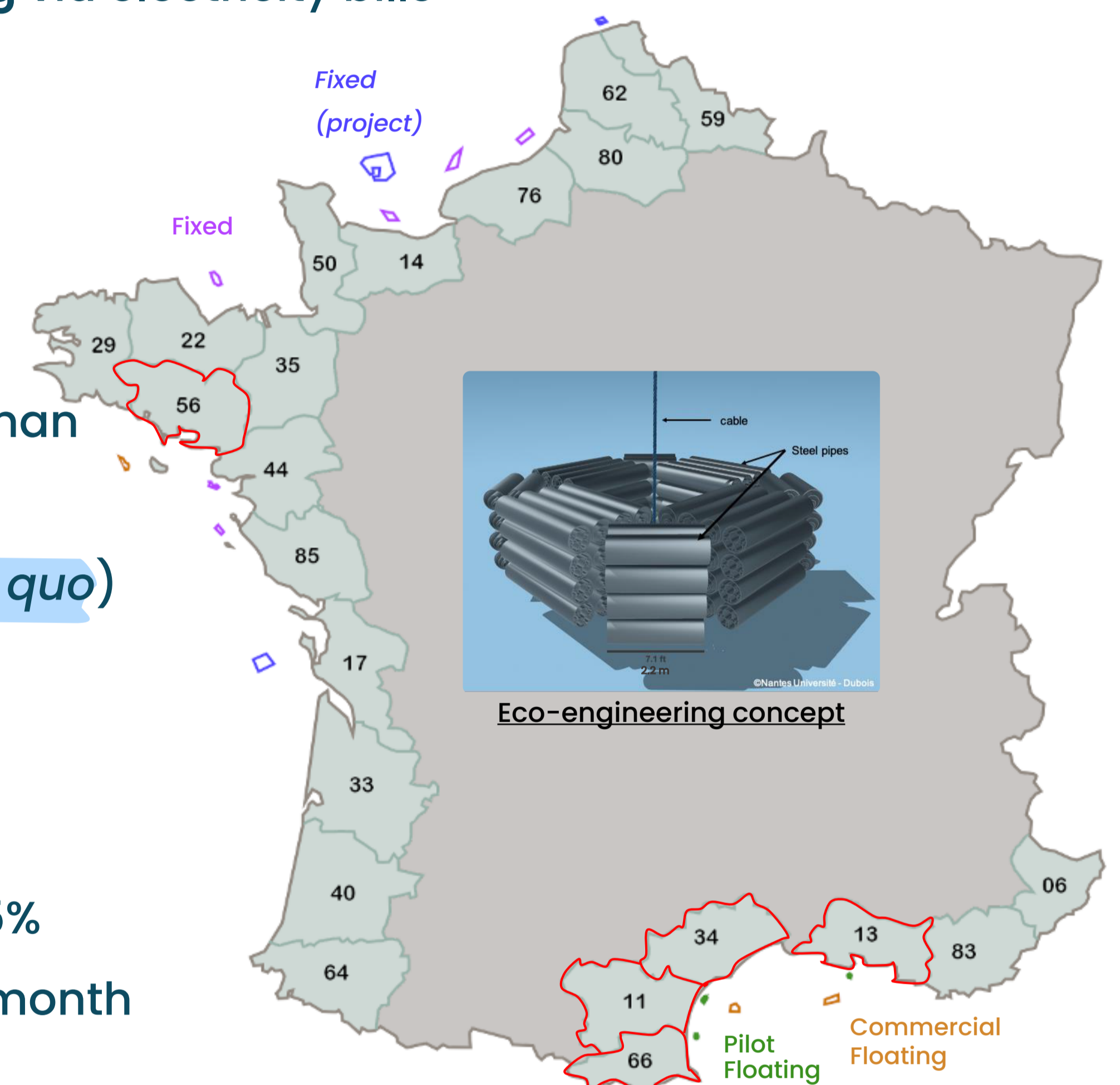
Five departments: Aude, Bouches-du-Rhône, Hérault, Pyrénées-Orientales & Morbihan

306 respondents (local people) performed a numeric survey

'Discrete Choice Experiment' : **8 choices** to perform on **3 options** (including a **status quo**)

Four attributes:

- ✂ Steel grade for the eco-engineering structure (material) : Recycled, New
- 🐛 Increase in specific richness (biodiversity) : +10, +20, +30, +40%
- € Growth in income for impacted small-scale fishermen (income) : +1, +5, +10, +15%
- 🏠 Increase in the monthly electricity bill over 20 years (cost) : +1, +2, +3, +5, +10€/month



WANT TO TEST?



Concept's cost = €750,000/Wind Turbine
= **+€0.5 to +€3.88/month** on the electricity bill



So, how much?

Option A	Option B	Option C
New Steel ✂	Recycled Steel	No structure
+40% biodiversity 🐛	+10% biodiversity	No change
+15% income €	+1% income	No change
+10€/month 🏠	+1€/month	No change



9,5% of respondents exclusively chose the Option C

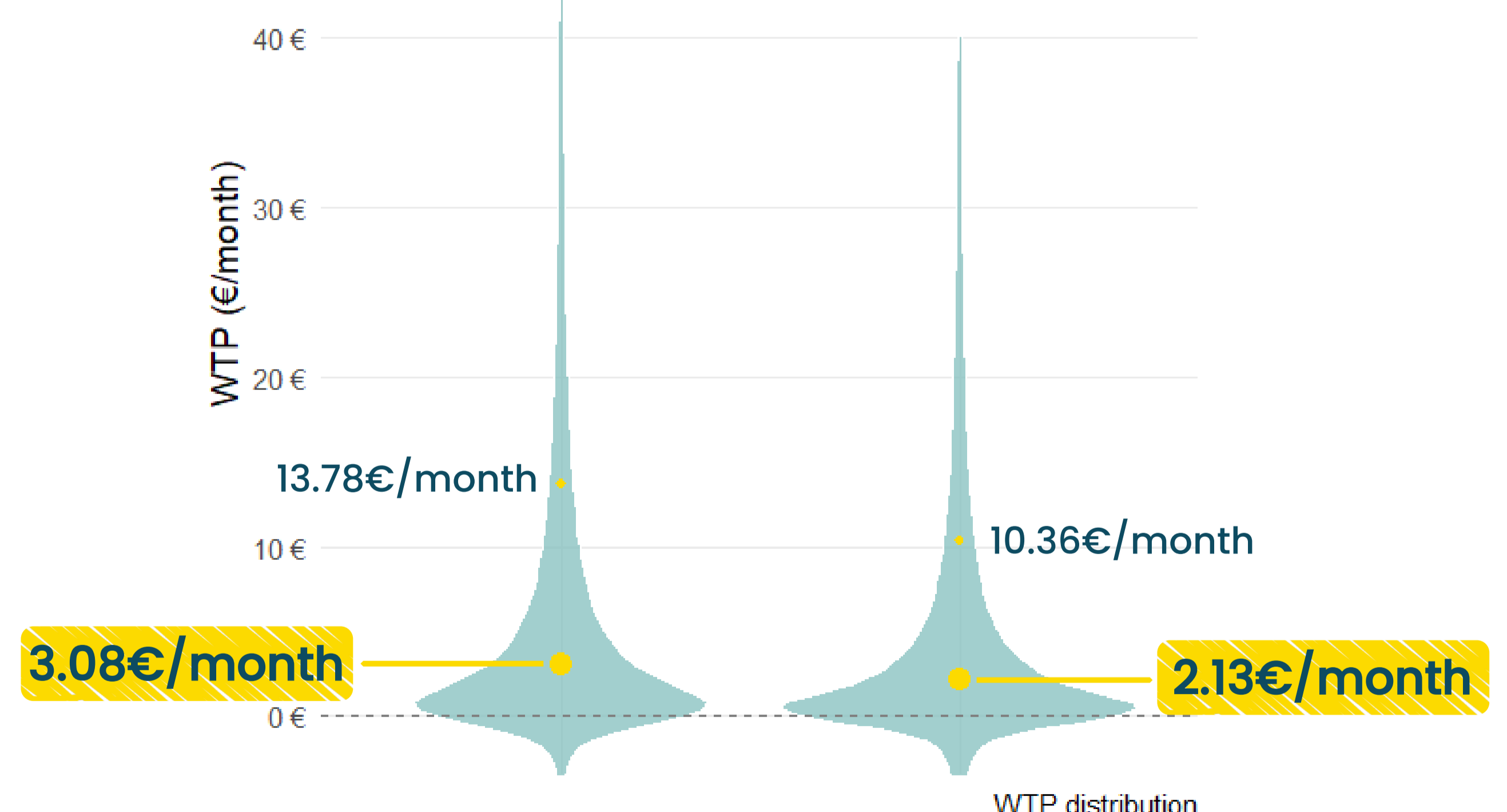
Opponents of wind power tended to choose Option C

Scenario 1 :

New steel
+30% biodiversity
+10% income

Scenario 2 :

Recycled steel
+10% biodiversity
+5% income



Bring-home message

- Major driver of choices: **attitude towards offshore wind energy**
- Exclusive *status quo* chosers: cognitive dissonance (Festinger, 1957) → **psychological shield**
- The median willingness-to-pay indicates that funding via the electricity bill could be **feasible**

True need for improvement of environmental & socio-economic integration of Floating wind farms

Eco-engineering = a genuinely feasible & promising tool

The status quo (option C) is described as a 'traditional' FOWF project, i.e. one that does not involve eco-engineering. Thus 'No change' refers to what is currently planned for future development of FOWF.