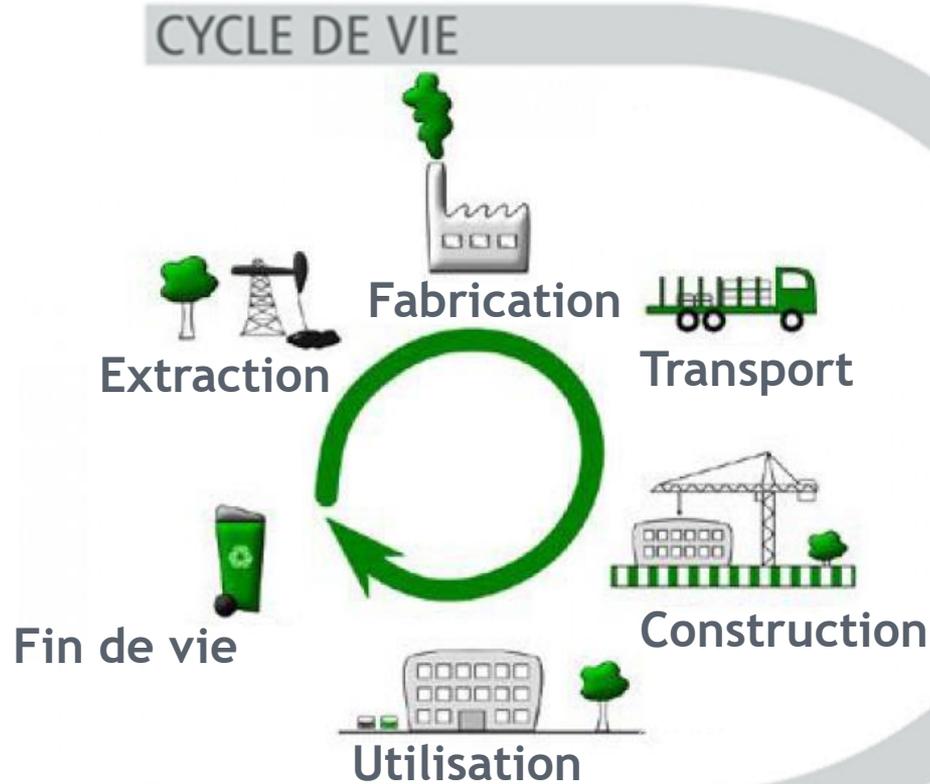


# Réponses technologiques aux interrogations environnementales



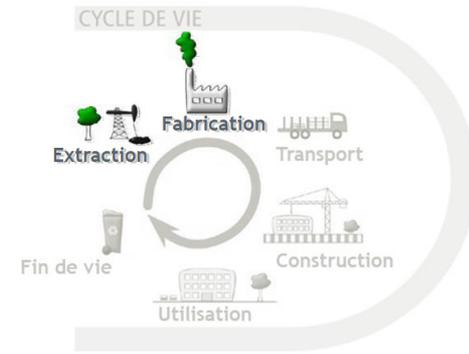
# Photovoltaïque flottant



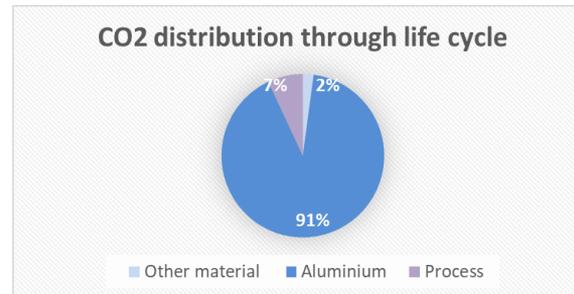
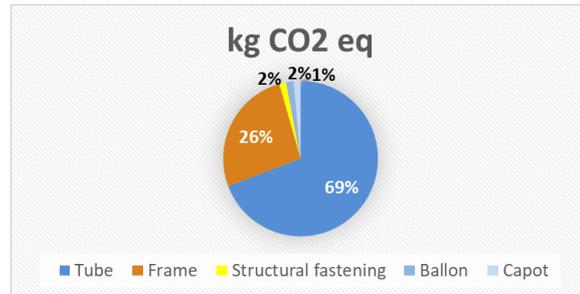
# Photovoltaïque flottant

## Calcul impact environnemental

- Analyse de l'impact des matières,
- Analyse des procédés de fabrication,
- Logiciel de calcul SIMAPRO.



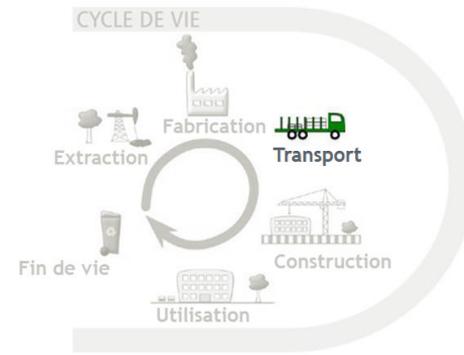
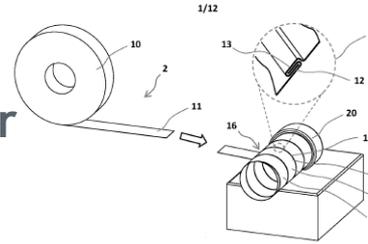
	AR F-H2O	AR F-H2O Alu 100% recyclé
GES ( $kCO_2/kWp$ )	<b>130</b>	<b>30</b>



# Photovoltaïque flottant

## Volume transporté

- Objectif: Limiter le transport d'air
  - Fabrication sur place



- Gonflage sur place



➔ Bilan : ~ 150 m<sup>3</sup>/MWc

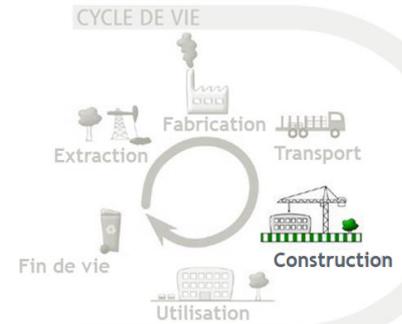


# Photovoltaïque flottant

## Impacts sur les berges

➤ Objectif : limiter la préparation des berges

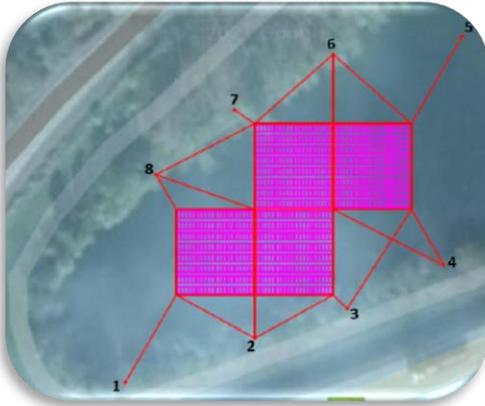
→ Déploiement d'une micro factory mobile « plug & play »,  
espace au sol 20m x 20m



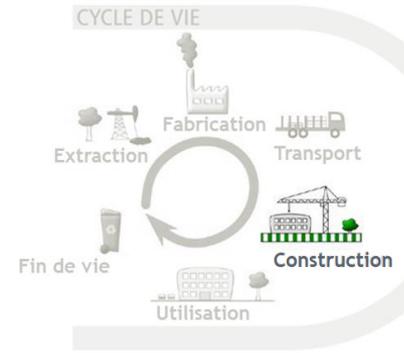
# Photovoltaïque flottant

## Impacts sur les berges / Ancrage

Centrale pilote de 250kW:



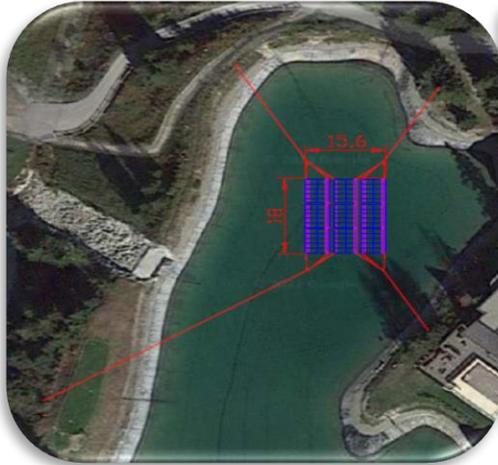
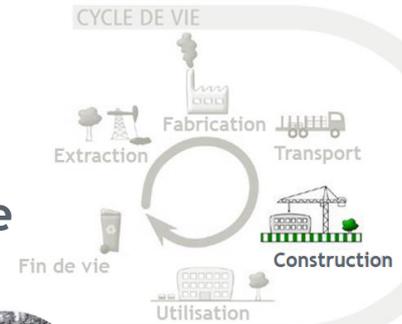
7 points d'ancrage par vis sur les berges  
+ 1 point d'ancrage au fond du bassin



# Photovoltaïque flottant

## Impacts sur les berges / Ancrage

Démonstrateur expérimental sur une retenue collinaire située à 1850m d'altitude:



➔ 4 points d'ancrage sur les berges du bassin

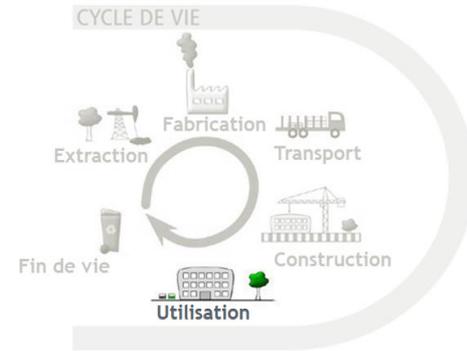
Projets de grandes centrales : <10 ancrages / MWc

# Photovoltaïque flottant

## Impacts sur l'eau

### ➤ Création d'ombrage

- Réduction de l'évaporation,
- Oxygénation de l'eau,
- Exposition UV,
- Impact sur la température de l'eau,
- Impact sur la biodiversité.

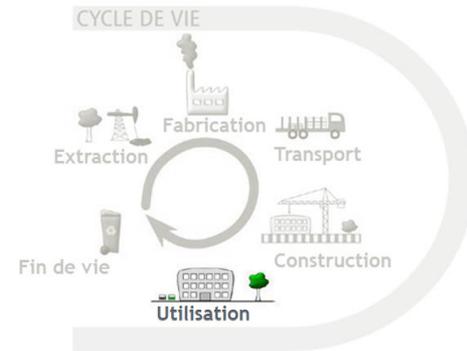


# Photovoltaïque flottant

## Impacts sur l'eau

Objectif: minimiser la migration de particules

- Choix de la matière des flotteurs:
  - Plastique PEHD,
  - Aluminium.
- Minimiser la surface de contact:
  - Ouverture des flotteurs
  - Réduction au strict minimum



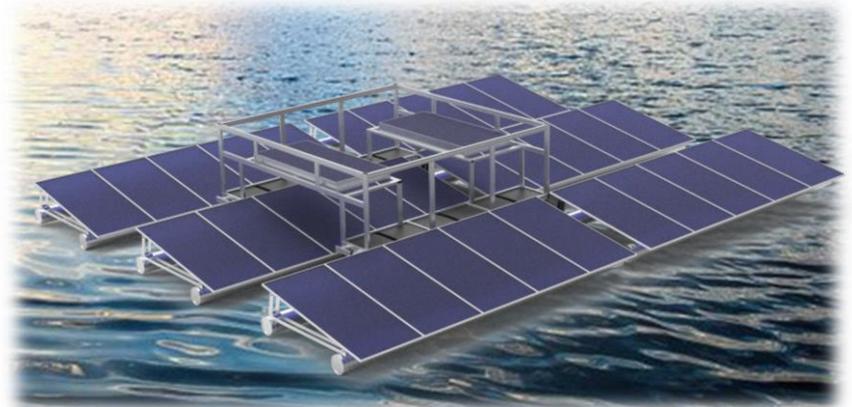
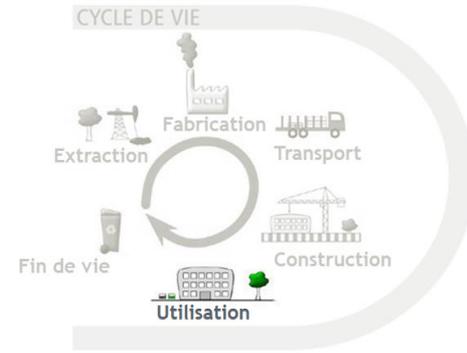
# Photovoltaïque flottant

## Impacts sur l'eau

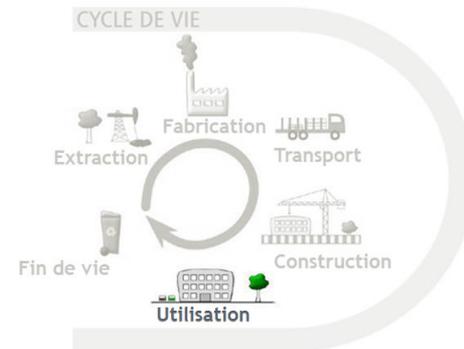
En chiffre:

→ Taux d'ombrage ~55%

→ Surface en contact avec l'eau ~1.600m<sup>2</sup>/MWc



# Photovoltaïque flottant Cohabitation d'activités

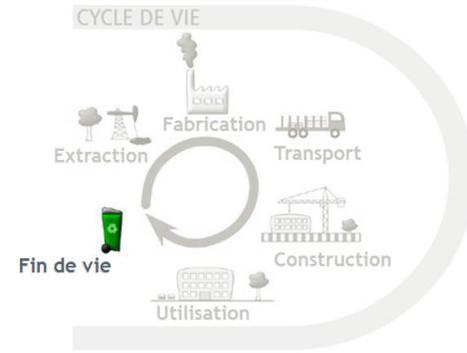


Base de loisir nautique

# Photovoltaïque flottant

## Fin de vie - recyclage

- Utilisation aluminium,
- Démontage facilité.



# THANK YOU

— UNTIL NEXT TIME



YOUR CONTACT

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