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## New strategies for the construction and management of pond production systems for sustainable fish farming

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## New strategies for the construction and management of pond production systems for sustainable fish farming

Contributing to a necessary revision of production systems that must be **efficient, profitable, respectful of the environment and integrated into the territories**

### Program objectives

#### To propose new practices for pond fish farming

- A central theme: Defining the composition of the polyculture
- To produce in a more **sustainable way**
- Adapted to the **diversity of the contexts** (modalities of realization of the polycultures)
- Taking into account **all the biological compartments** of the ecosystem

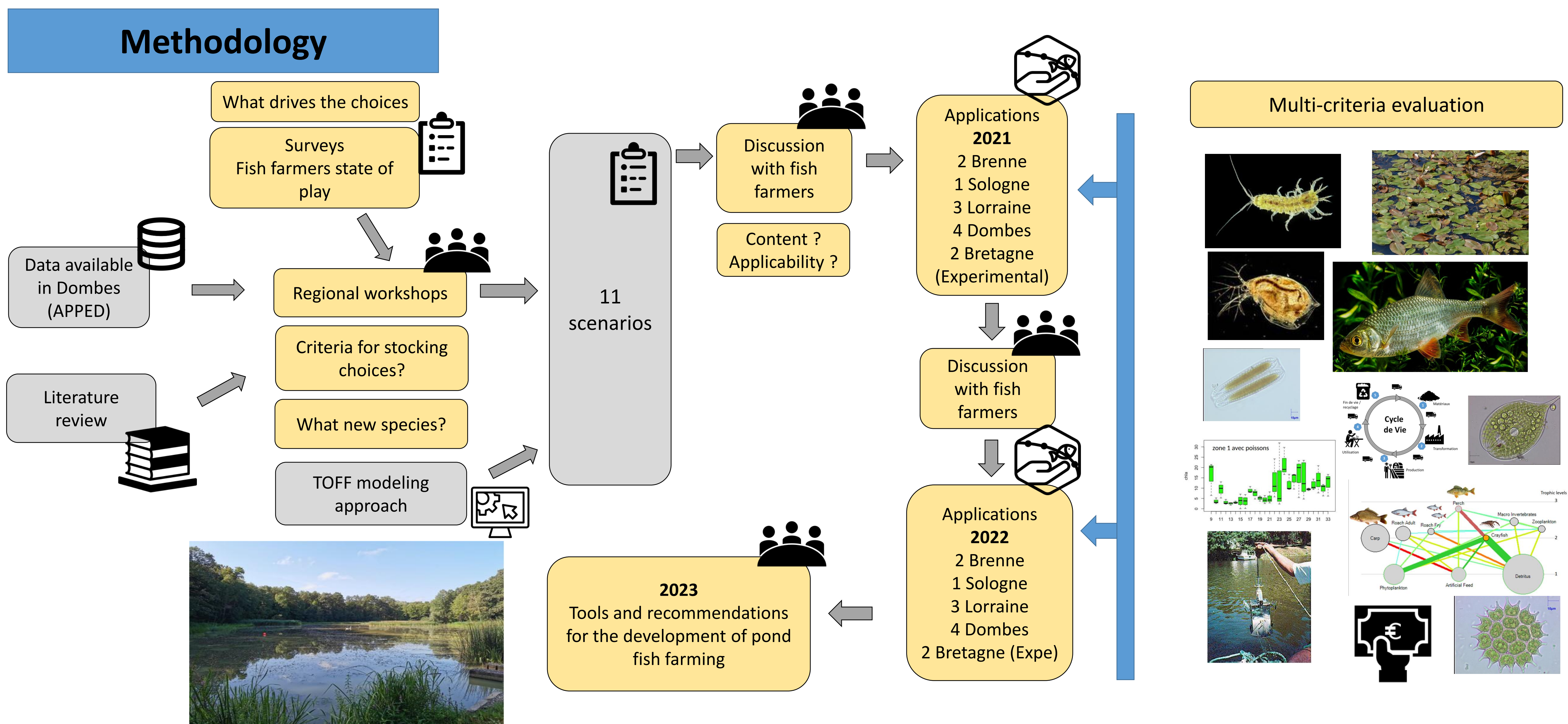
### Our working method

#### A work of co-construction with the actors of the sector

- A **multidisciplinary approach** to address the complexity of interactions between pond compartments
- The introduction of the notion of **ecosystem services** to discuss the vocation of fishponds
- The explicit consideration of **biodiversity** in the functioning of fishponds
- To help build new solutions, **modeling approaches**

### Program ambition:

To go as far as **recommendations and practical tools** for fish farmers.



### First results

| Sites | Surface (ha) | Fish polyculture scenarios                                    | Stocking (kg/ha) | Yield (kg/ha) |
|-------|--------------|---|------------------|---------------|
| S01   | 2.2          | C. Carp - Orfe - Pike   | 110              | 30            |
| L04   | 2.1          | Roach - Rudd - Pikeperch                                      | 80               | 86            |
| D02*  | 9.4          | Roach - Tench - Pikeperch - <b>White Sturgeon</b>             | 76               | 145           |
| L01   | 1.4          | C. Carp - Tench - Roach                                       | 100              | 197           |
| L03   | 4.1          | Roach - C. Carp - Grass Carp                                  | 266              | 295           |
| B01   | 12           | Tench - C. Carp - Pikeperch                                   | 91               | 336           |
| D01*  | 3.4          | White Fish - Tench - <b>Black Bass</b>                        | 76               | 336           |
| Bx1   | 0.1          | C. Carp - Roach - Tench - Pikeperch (claustration)            | 115              | 404           |
| Bx2   | 0.1          | C. Carp - Roach - Tench - Pikeperch (open)                    | 115              | 410           |
| B02   | 0.8          | Roach - C. Carp - Grass Carp - <b>Black Bass</b>              | 74               | 435           |
| D04*  | 6            | White Fish - Tench - C. Carp - Grass Carp - <b>Black Bass</b> | 156              | 542           |
| D03*  | 3            | White Fish - C. Carp - Grass Carp - <b>White Sturgeon</b>     | 272              | 625           |

Feeding Without feeding \* Fertilization : Limit of 200 kg/ha

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