

| Presen   | tation outline                                       |           |
|--|--|-----------|
|  | Problem statement                                    |           |
| Problems<br>man colution<br>man colution<br>man colution<br>man colution<br>man colution<br>man colution<br>man colution | Objectives   |           |
| An estren est  | Model development and validation                     |           |
|  | Global sensitivity analysis and process optimization |           |
|  | Conclusions and recommendations                      |           |
|  | 2<br>Primodal  | modelEAII |











































| <ul> <li>Expe</li> </ul> | erimental v                               | vs. simulatio                                 | n results (a                     | after 12h)                   |                     |
|--------------------------|---|---|----------------------------------|------------------------------|---------------------|
| Mg:P                     |   | Digestate 1<br>% P-recovery                   |                                  | Digestate 2<br>% P-recovery  |                     |
|                          | Experim.                                  | Original<br>PHREEQC                           | Extended<br>PHREEQC              | Experim.                     | Extended<br>PHREEQC |
| 1:1                      | 41  | 95.60   | 41.32                            | 28                           | 27.76               |
| 2:1                      | 44  | 97.91   | 43.62                            | 29                           | 29.29               |
| ⇒ Go<br>⇒ Im<br>inț      | ood agreem<br>portance of<br>out characte | ent with exper<br>a detailed che<br>rization! | imental result<br>emical solutio | ts at steady<br>n speciatior | state<br>and        |



























