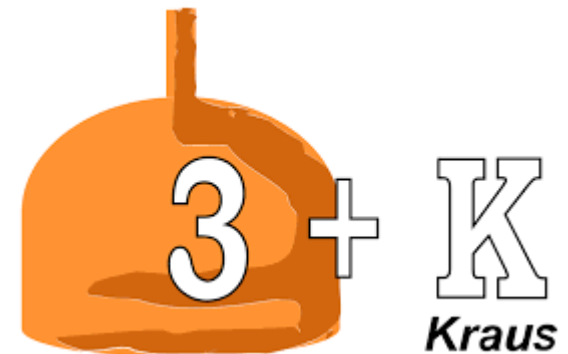


BREWERY RESOURCE EFFICIENCY 3+K KRAUS

VIDA webinars

15.1.2019



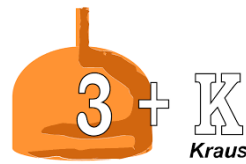
3+K Kraus – Brief introduction

- Czech Republic SME
- Over 25 years of tradition
- Own construction of most brewing technology
- Over 38 build microbreweries

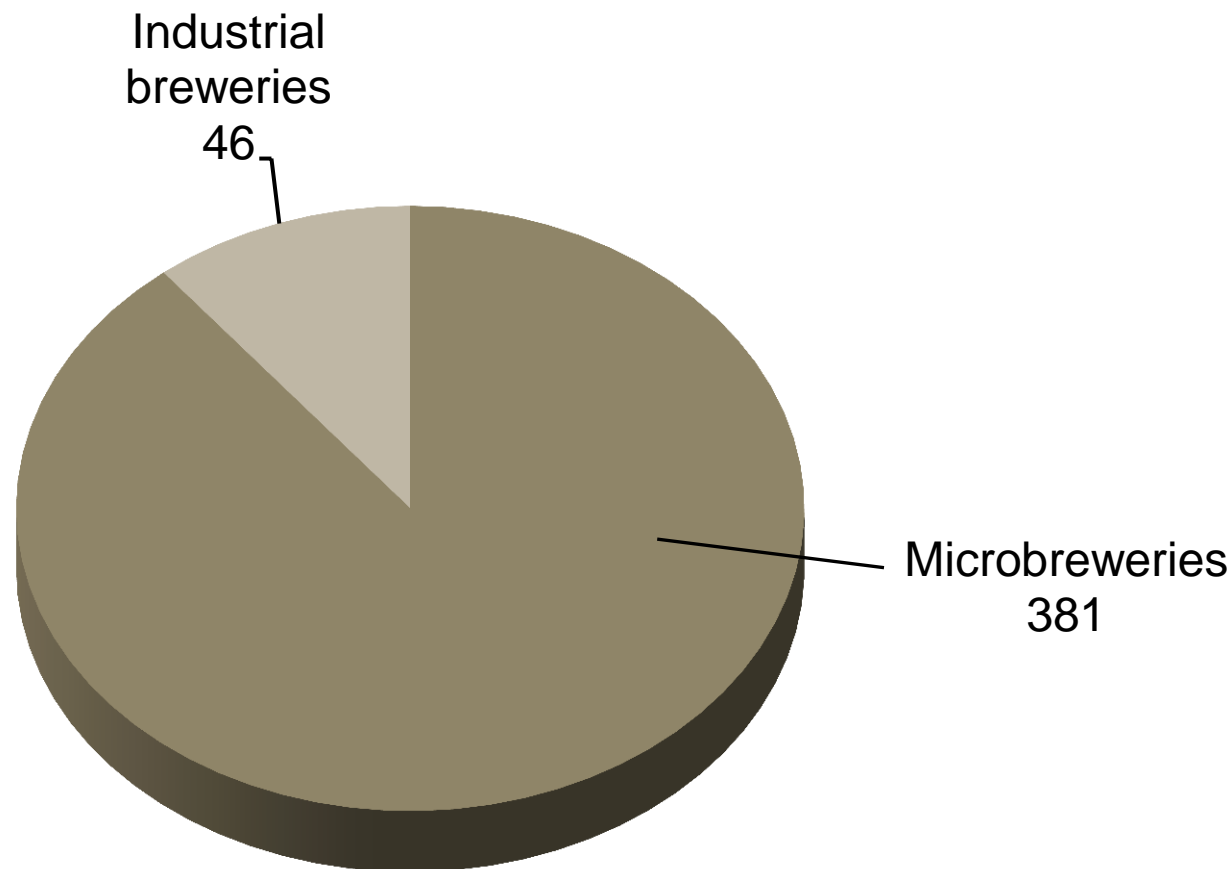


Czech beer market – Brief characterization

- Beer consumption per citizen - 138 l
- Region with a rich tradition of beer production
- Annual productivity of beer – 20,5 mil. Hl
- 427 breweries in Czech Republic

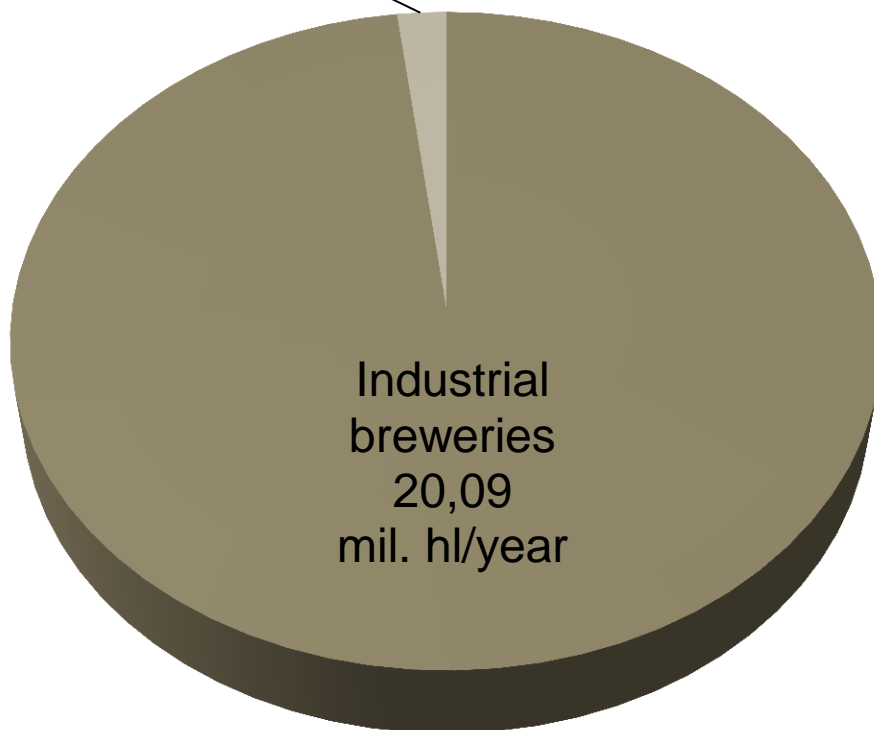


Czech beer market – Brief characterization

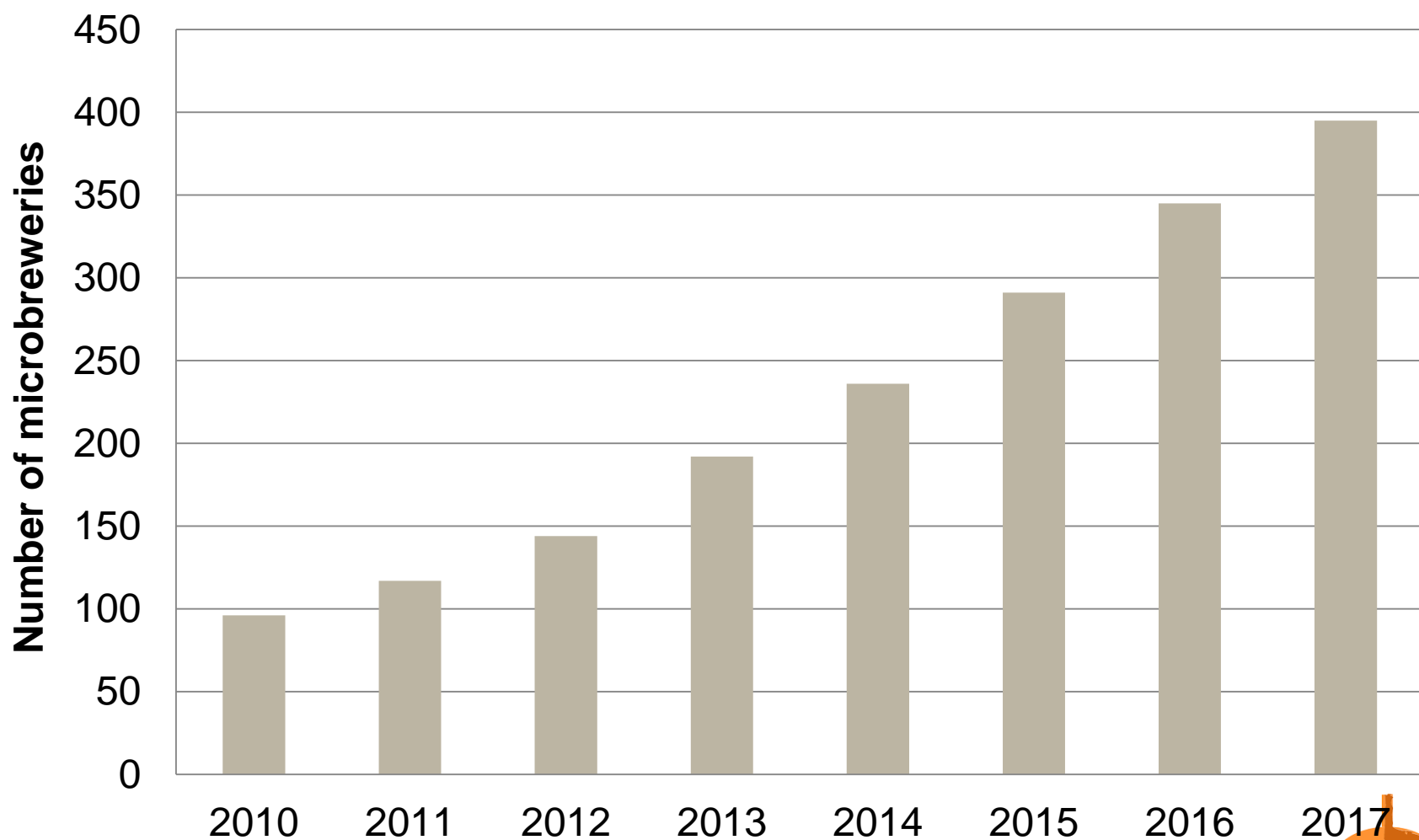


Czech beer market – Brief characterization

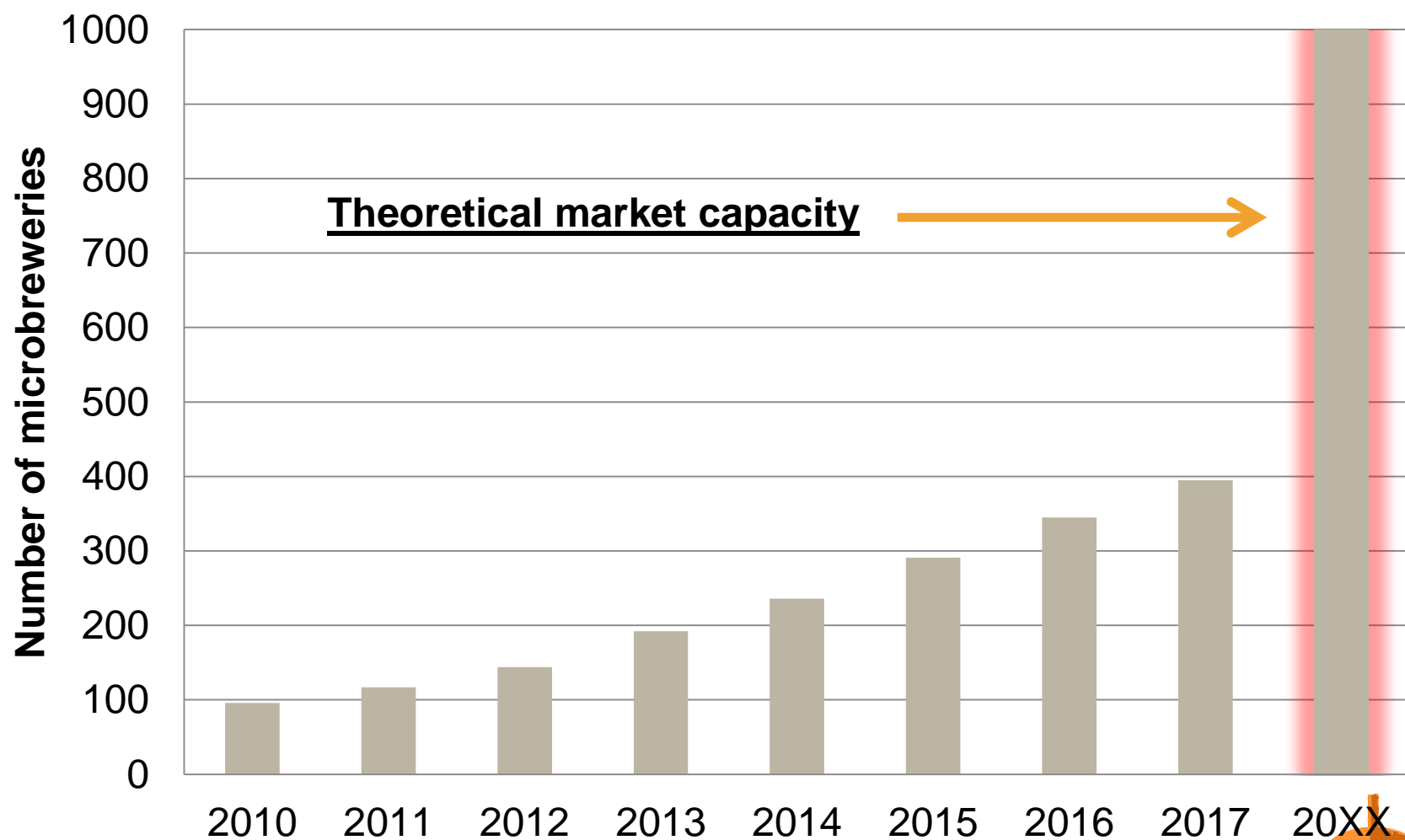
Microbreweries
0,41
mil. hl/year



Czech beer market – Brief characterization

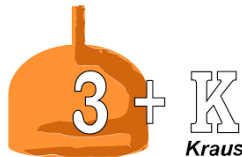


Czech beer market – Brief characterization



What we are looking for?

- Energy and water efficiency in microbrewery scale
- Commercial subject for R&D activities
- Solutions for individual technological steps
- Individual solutions must show a real return on investment for the final customer



What we are looking for?

- **Technological problems**
 - **Water consumption – 5-6 hl water per l produced beer**
 - **Electricity consumption**
 - **Non-use of residual heat**

Example of project what we build

- Brew capacity 1 000 – 2 000 liters
- Annual production up to 10 000 hl
- Technology for decoction and infusion technology – steam and electricity heating
- Complete water management – hot and cold water reservoirs
- Fermentation is realized in cylindroconical tanks – duplicator cooled
- Packaging ratio – 70 % keg, 30 % bottles
- Keg cleaning – alkali, steam, water
- Bottle cleaning – warm water



Thank you for your attention

