Prospective Assessment of the Economic Implications of Automating Chemotherapy Preparation in a Comprehensive Cancer Center

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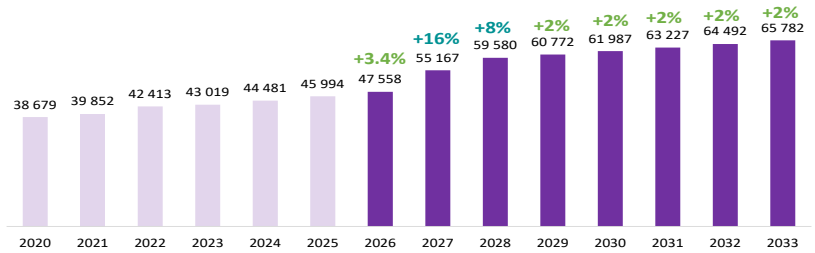
Context and objective

CCC expansion project:

- +30% increase in activity over 5 yaers
- CCPU: deployment of an APOTECAchemo® robot in early 2026
- **Objective**: evaluate the economic implications of this installation



Methods

- Prospective economic analysis in collaboration with the financial management and medical information departments
- 2 scenarios analyzed:
  - « WITH ROBOT »: 2 double-station isolators + 1 robot
  - « WITHOUT ROBOT »: 3 double-station isolators

Variable costs
- Employees
- Supplies

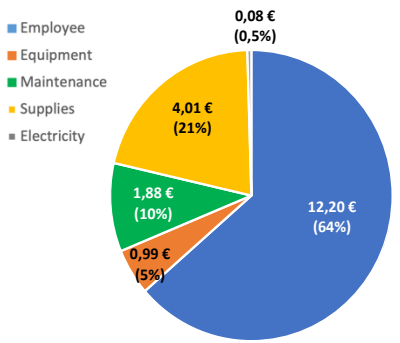
+

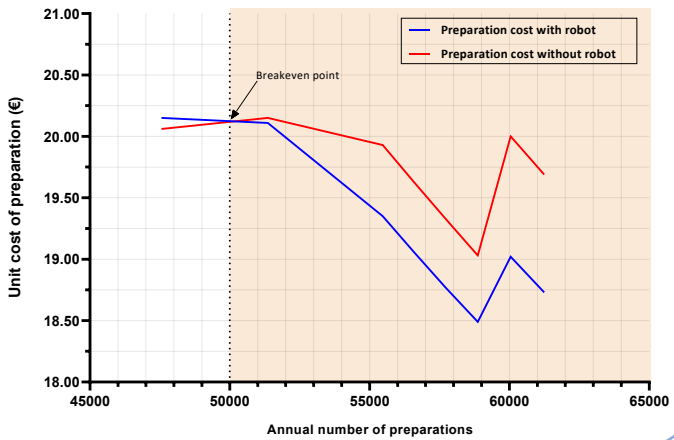
Fixed costs
- Equipment
- Maintenance
- Electricity

→ Average cost per preparation
→ Return On Investment
→ Breakeven point

Results

Cumulative costs over 8 years	Average cost per preparation	Return On Investment (ROI)	Breakeven point
244 659 € favoring robot	19.21 €	5.8 ans	50 000 prep./an





Discussion - Conclusion

- Significant part of the supplies cost– Captive medical device issues
- Positive economic impacr but lower than data from literature (breakeven point of 34 000 preparations/year for Masini et coll.) → local factors to be considered
- Investment to be considered as a whole: risk of error, chemical contamination, MSDs