

TEXTILE GASIFICATION

HERAKLION 2019

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TEXTILE



12%
cascaded
recycling²



105 Mt produced in 2017 ⁽¹⁾ →

TEXTILE RECYCLING



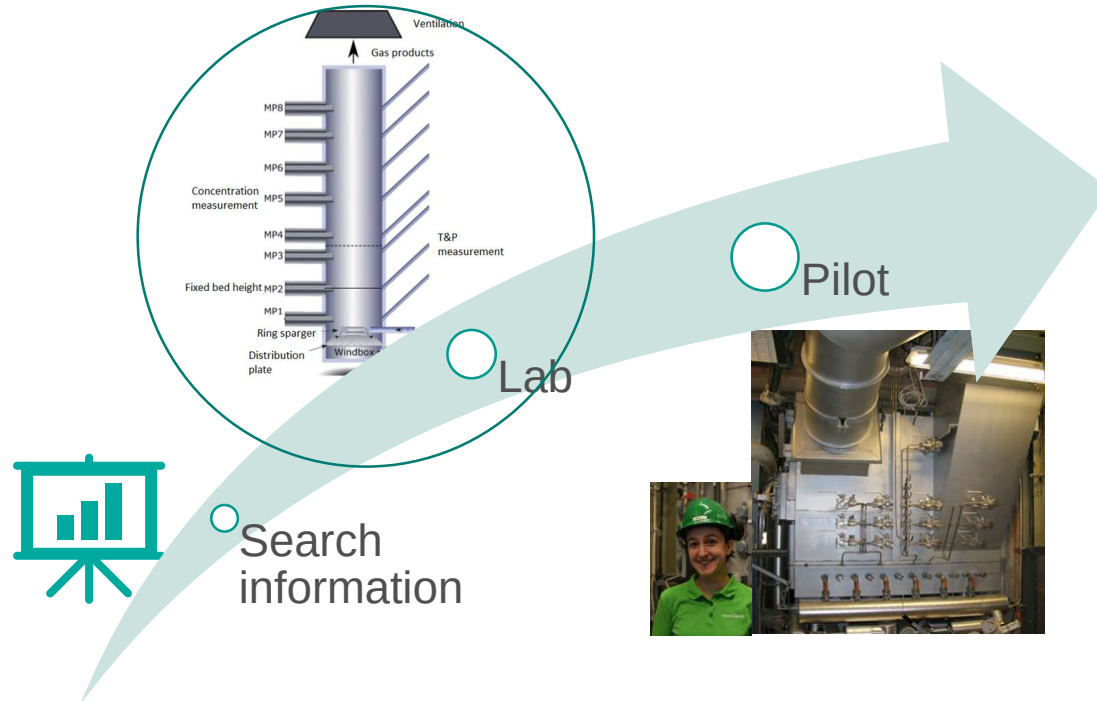
Challenge → Different polymers & blends
→ dyes, trims, others (e.i. zips, ...)



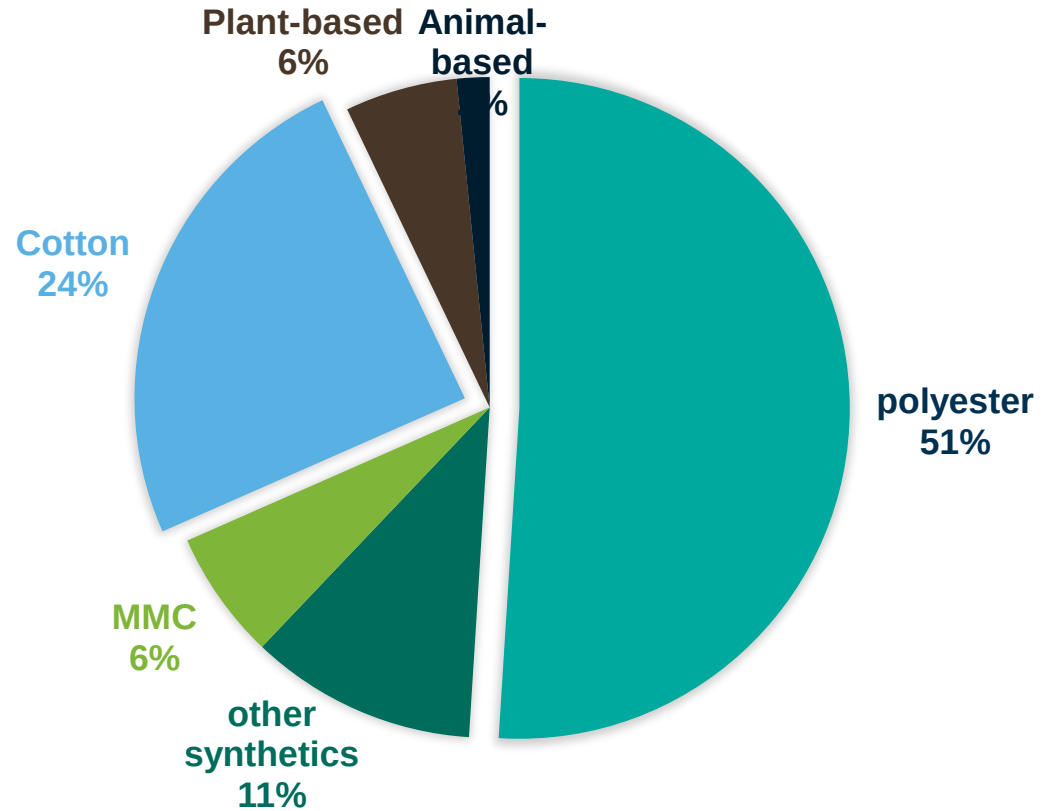
Gasification in FB
Mix & ash → Influence yields

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Steam gasification in FB



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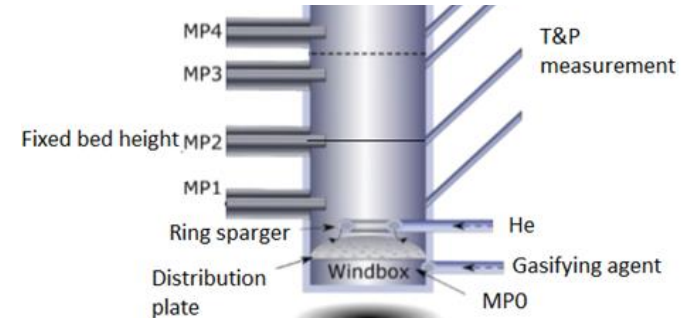
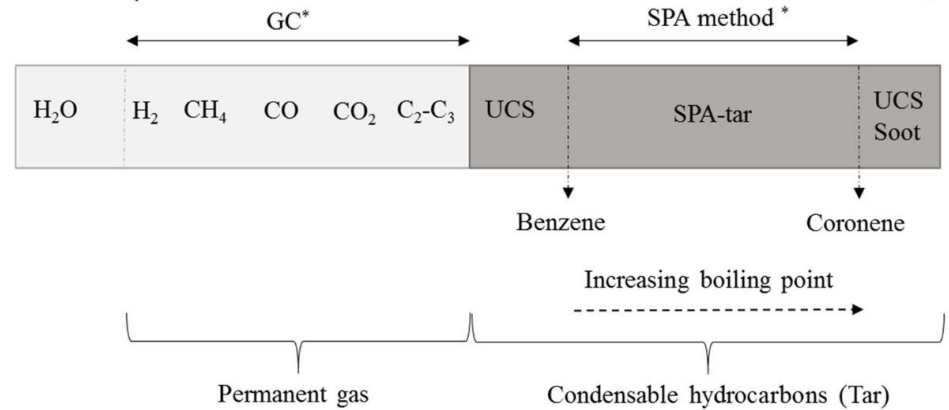
Global fiber production report 2018

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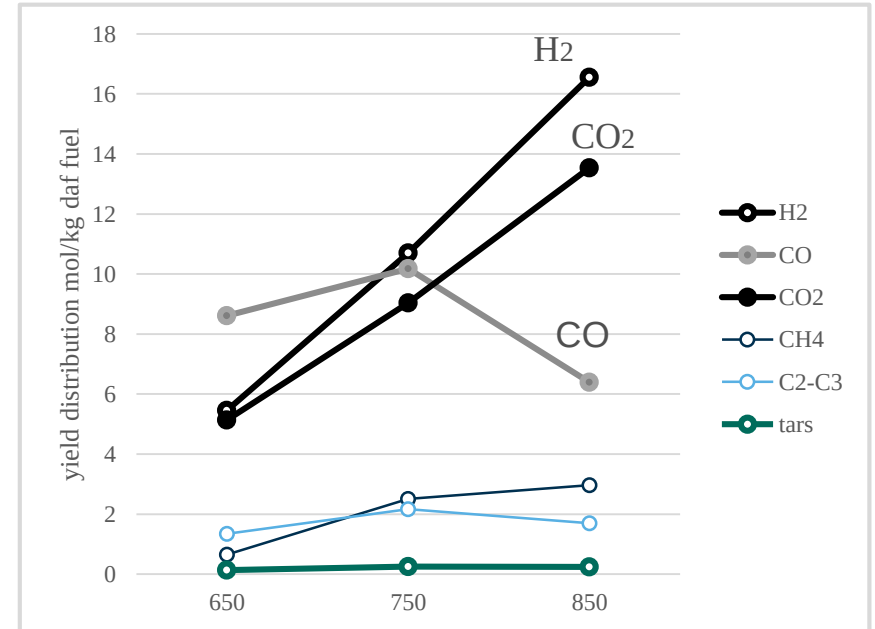
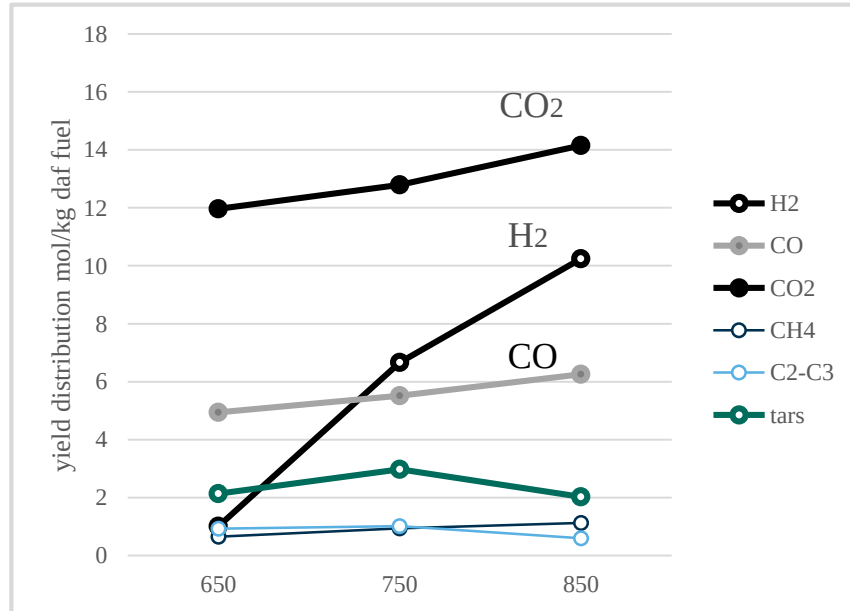
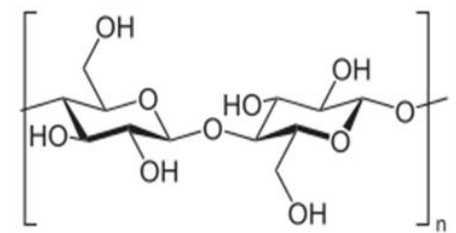
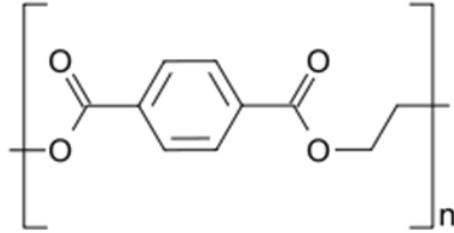
METHOD

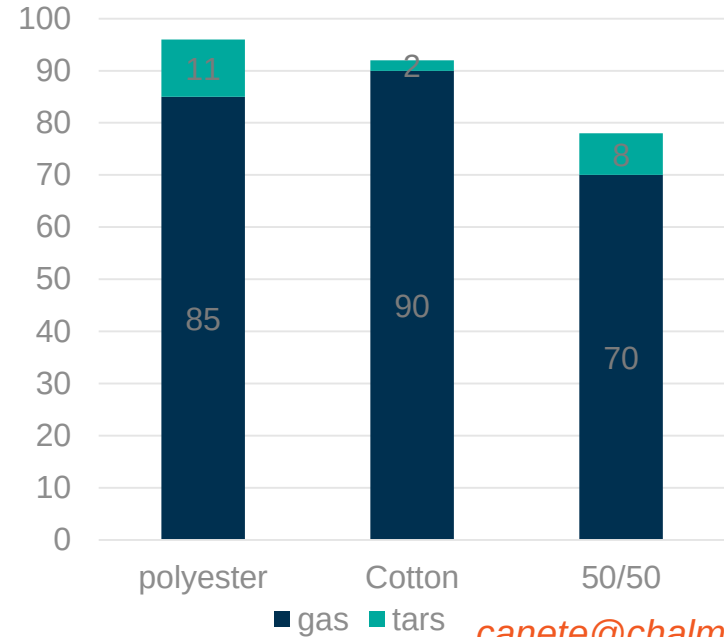
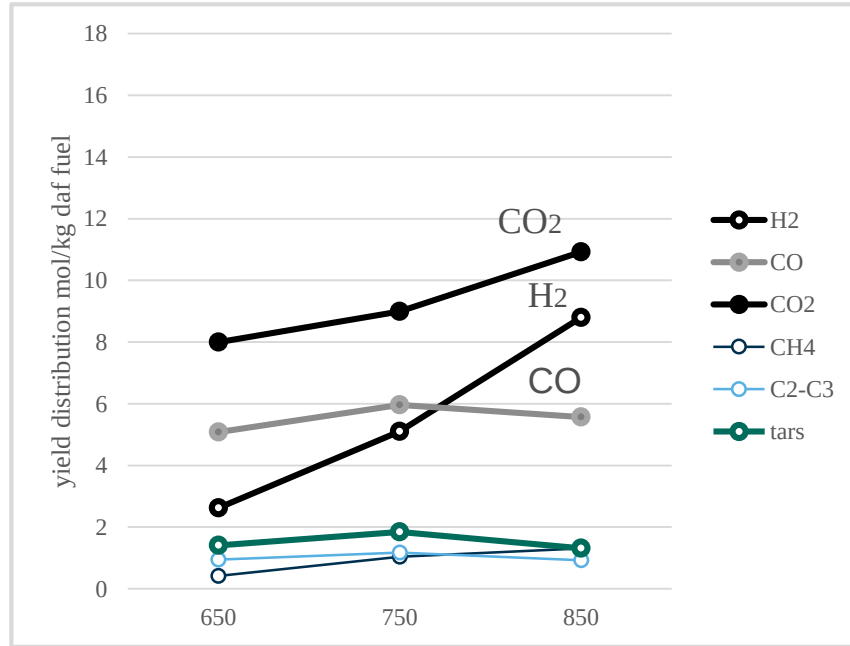
- Steam
- FB gasifier
- Olivine

	Ash (%dry)	Vol (%dry)	FC (%dry)
Cotton	0.4	90.8	8.8
50/50	0.4	85.5	14.0
PES	0.2	91.3	8.5



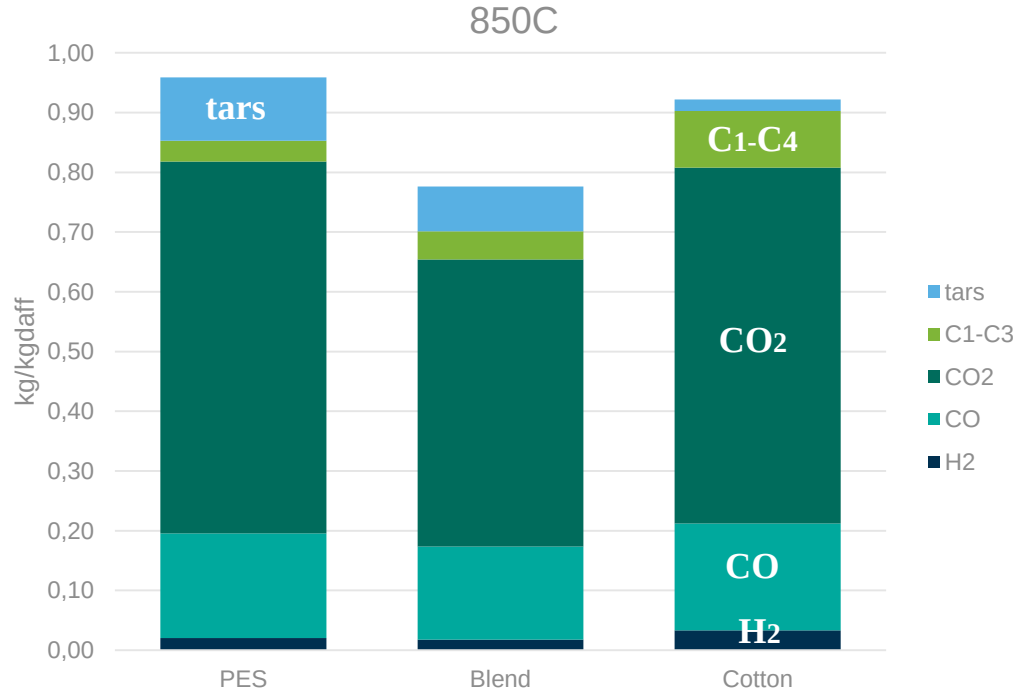
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CONCLUSION



Blended textile

Use

- Syngas
- Aromatics

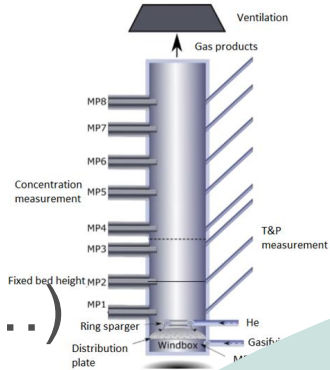
But...

- CO₂

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NEXT

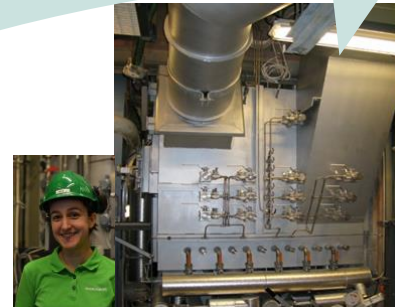
- Real mix textile
- Parameters operation (RT, SFR, sand...)
- ...



Search information

Lab

Pilot



- If you have a few tons...

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QUESTIONS?