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Rijkswaterstaat

Textiles from businesses and  
public entities



Project supported by LIFE funding

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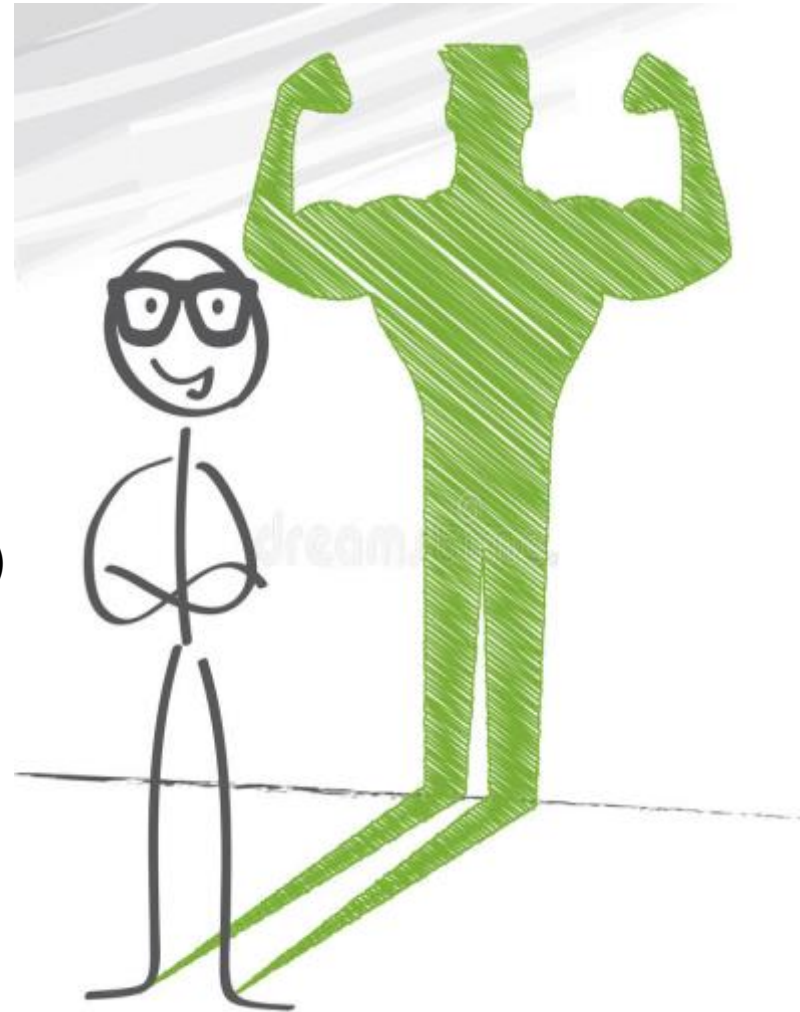


# The power of (public) procurement

- Buying power
- Promote circular innovation
- Set an example; launching customer
- Decrease environmental impact
- Pay attention to full life cycle (incl. end of life)



Source: Aalborg University / Interreg BSR Circular Public Procurement



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# Several options for procurer

- Organise return flow
- Leasing instead of buying workwear
- Service models
- Use of recycled fibres



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# Organising a return flow

## Benefits:

- A system is needed for registration and issuance of uniforms/workwear
- No expenses on incineration
- Re-use of clothing
- Revenues of selling not re-usable clothing
- Sorting process creates jobs and can contribute to social return

## Costs:

- Laundry, logistics, repairing



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# Organising a return flow

## Collection in the Dutch army

### What did they change?

- Traditionally discarded workwear and uniforms were incinerated for security reasons
- And later on collected and sorted for reuse by Salvation Army



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# Organising a return flow

## What did Dutch army do?

- Ministry of Defence started collecting discarded workwear at army barracks
- Sorting for reuse at social enterprise for people with distance to labor market
  - What can be reused immediately?
  - What can be repaired and reused?
- Investigation in what can be collected for recycling: How can we make it even more circular by sorting for recycling?



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# Organising a return flow

## What did we get?

- A contract for the collection and sorting of 750.000 end-of-life items per year
- Awarded to Biga group, social enterprise
- Social, economic and environmental benefits
- Costs: € 1,5 million / year
- Avoided costs : € 10 million / year

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# Leasing workwear

## Pilot: Lock stewards Rijkswaterstaat

### What did we ask supplier Dutch Awearness?

- Can we find closed loop clothing?
- Can we lease instead of buy workwear?

Yes, it can!

Yes, it can!



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# Leasing workwear

## Pilot: Lock stewards Rijkswaterstaat



### What did we do?

- First lease contract for textiles; after 1st year: everything collected and used for new workwear next year
- Designed according to C2C principles
- Track & Trace system
- Volumes are an issue
- 3'd year: also washing & repairing, recycling only if end of life

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# Service of linen

## ECAP F2F pilot: Blycolin Reborn bed linen

In the Reborn recycling process new fibres are made from old bed sheets being collected from customers. These recycled fibres are woven into yarns being utilised for new bed linen.



[Reborn process video](#)

- Blycolin is a service company for linen in hotels, restaurants and wellness.
- Development of new bed linen made from fibres of recycled linen
- Composition of the yarn and fabric: 15% post-consumer cotton from collected bed linen, 35% industrial textile waste (cotton), 20% virgin cotton and 30% PES

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# Use of recycled fibres

## ECAP F2F pilot Schijvens

- Aim of the pilot: 'Learn how to develop a new production line based on the use of recycled post-consumer material'.
- Challenges:
  - find new producers of cloth with recycled post consumer material
  - find the right mixture of recycled post consumer material with the same quality and comfort as usual.
  - high transport costs and import duties
  - how to compensate the higher costs?
  - how to develop a new business model
  - how to organize an effective logistic system for the return flow



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# Use of recycled fibres

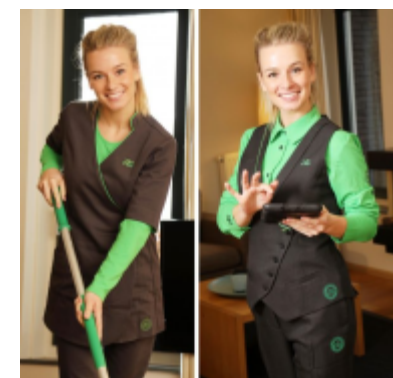
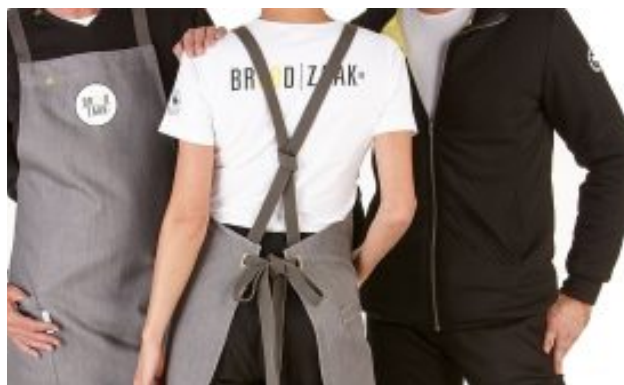
## ECAP F2F pilot Schijvens

### Results:

- First customer Stayokay: 50% post consumer + 50% recycled pet
- Already 12 customers for workwear with recycled content
- New business model with new services as organising the return flow

[Stayokay video](#)

[Schijvens projects](#)



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# Recycled fibres workwear Dutch army

## What did we ask for?

- Agreement for four years
- Delivery of overalls, towels, wash clothes, handkerchiefs and shawls
- Containing recycled cellulosis textiles material (recycled cotton)



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# Recycled fibres workwear Dutch army

## What did we do?

- Market consultations with suppliers
- Request for Information
- Tender requirements:
  - 10% Recycled post consumer textiles content (knock-out criterion)
  - 40 points price / 20 points recycled content / 20 points certificate / 10 points quality and material demand (total 90 points)
  - 30% recycled content + 10 points / >50% + 20 points (award criterion)
- No technical requirements in detail (like pilling)



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# Recycled fibres workwear Dutch army

## What did we get?

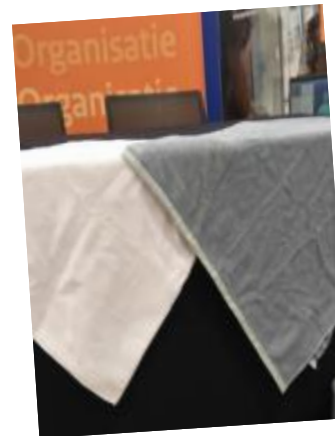
### ➤ Towels and washcloths

- Two offers and a contract for the supply of 100.000 towels and 10.000 washcloths
- Jules Clarysse (B)
- containing 36% recycled post-consumer textiles fibres

### ➤ Overalls

- Three offers and a contract for the supply of 53.000 overalls
- Seyntex (B)
- containing 14% recycled post-consumer textiles fibres

### ➤ Next: Focus on recycled cotton and if not then organic.



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## Contact ECAP

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