



IMPACTPAPE REC

— Boosting separate paper collection —

Boosting separate collection of paper and board for recycling

ACR+ webinar, 15 February 2018, Brussels



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 690182

Outline of the webinar



IMPACTPAPE REC

Boosting separate paper collection

- The project IMPACTPapeRec in a nutshell
- The Good and Best Practices Handbook
- Key performance indicators (KPI) tool
- Selection tree
- eLearning modules



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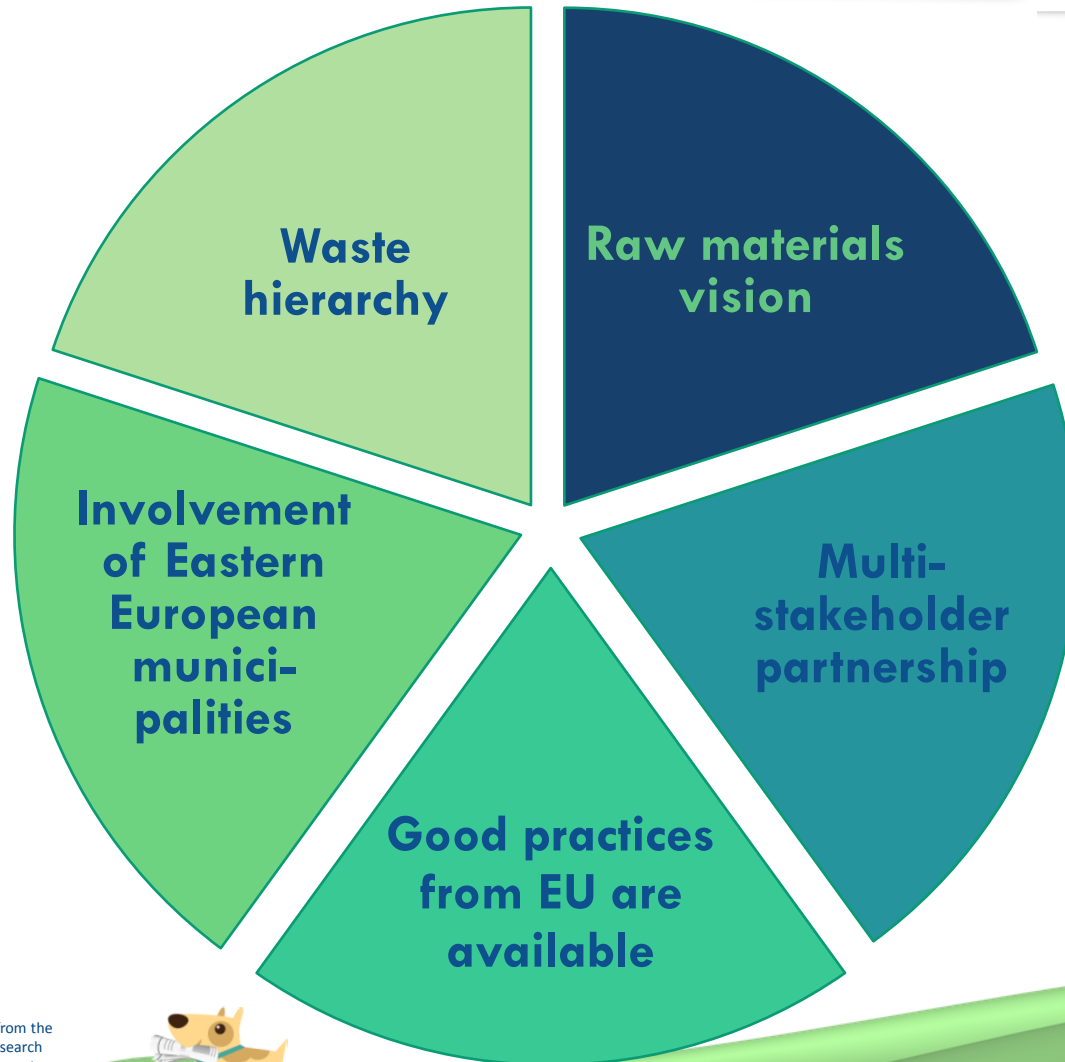


The vision behind the IMPACTPaperRec project



IMPACTPAPE**REC**

Boosting separate paper collection



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Project objective



IMPACTPAPE REC

Boosting separate paper collection

- **Boost the Circular Economy**

- Increasing separate collection of paper and board for recycling
- Promoting best practices in collection
- Promoting appropriate waste collection and management schemes to avoid landfilling and incineration



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Project focus



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Boosting separate paper collection

- **Focus on...**

- Municipalities in countries with low recycling rates or with commingled collection
- The municipal waste stream: greatest potential & most difficult to manage and improve

- **... To address the two main issues**

- **Quantity:** 71.5 %* average paper & board recycling rate in EU, but with differences and low rates in some countries/ regions
- **Quality:** Bad quality of collected material, contamination and impurities

* Data from 2015. Source: CEPI



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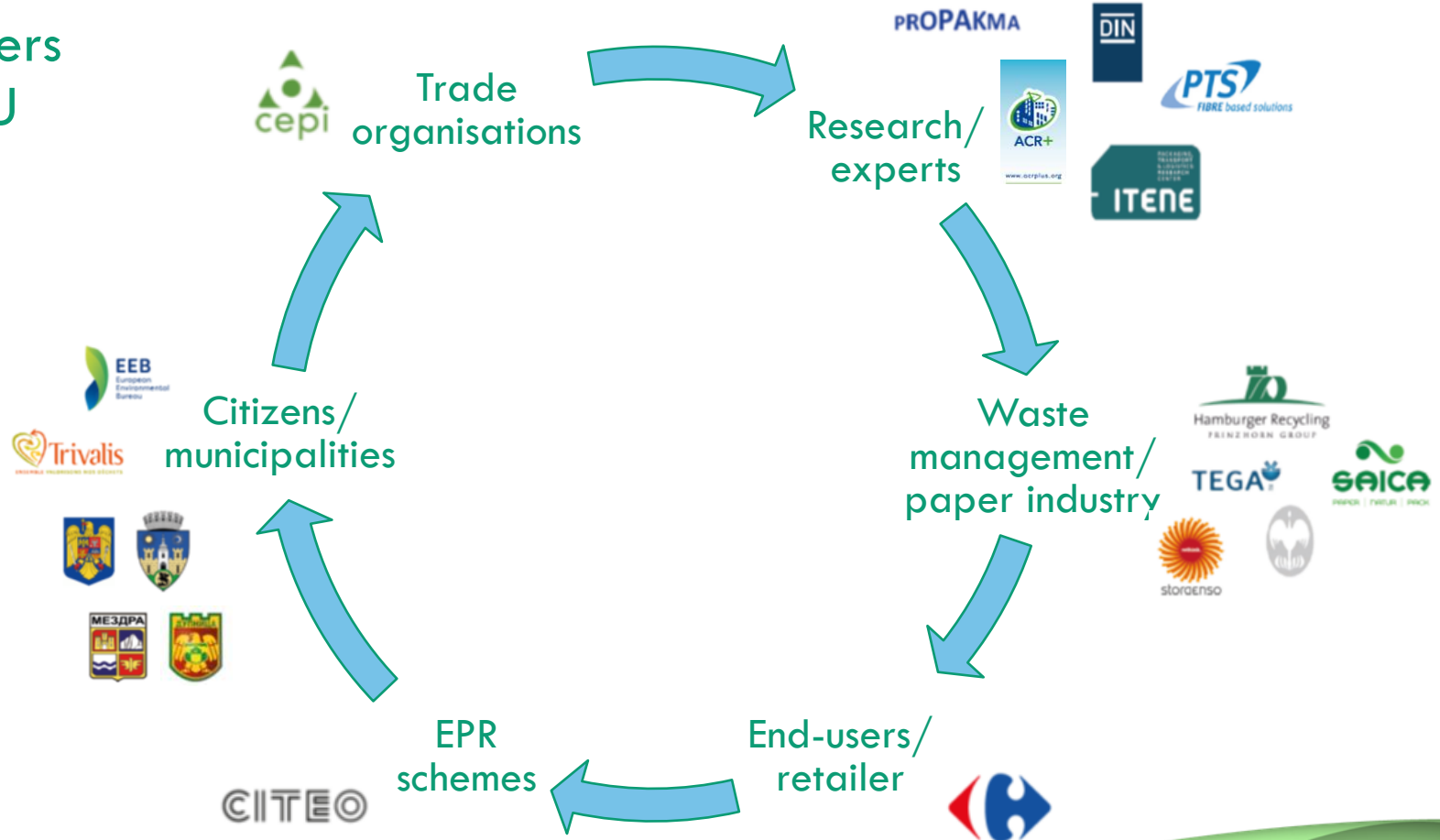
Project partners



IMPACTPAPE REC

Boosting separate paper collection

19 partners
from 8 EU
countries



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Project approach



IMPACTPAPE REC

Boosting separate paper collection



Site visits

Guided tours

Presentations

Workshops

Meetings

Conferences



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Main outcome of the project



IMPACTPAPE REC

Boosting separate paper collection



Objective:

Support European municipalities, cities and regions in the implementation of good collection systems and in the improvement of existing systems



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Good and Best Practices



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Boosting separate paper collection



- Crucial for the success
- AND
- Positive impact on performances
- AND
- Possible to be implemented everywhere

- Not crucial for success
- OR
- Contributes to improve performances
- OR
- Implementation under certain conditions/ specific context



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Good and Best Practices Handbook



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Boosting separate paper collection



Good and Best Practices Handbook Manual Version



Best practice handbook

- Introduction: Objectives of the handbook
- Legislation, standardization & incentives
- Collection systems for Paper for Recycling
- Good and best practices for Paper for Recycling collection
- Evaluation of your performance in Paper for Recycling collection
- Selection tree
- Background & more information

HOW TO IDENTIFY A GOOD AND BEST PRACTICE

Best practice
 Good practice is an implemented practice that should be implemented everywhere. It has a positive impact and it is cost-effective. Good practice is a practice that brings further benefits, impacts that might not be possible to be implemented elsewhere. It is a good practice that may require certain conditions in order to be successful.

Good practice
 Good practice is a practice that brings further benefits, impacts that might not be possible to be implemented elsewhere. It is a good practice that may require certain conditions in order to be successful.

HOW TO IDENTIFY A GOOD AND BEST PRACTICE

1. IDENTIFY RELEVANT PRACTICES

2. IDENTIFY APPLICABLE SOCIAL PRACTICES

3. IDENTIFY APPLICABLE TECHNICAL PRACTICES

4. IDENTIFY APPLICABLE ECONOMIC PRACTICES

5. IDENTIFY APPLICABLE ENVIRONMENTAL PRACTICES

6. IDENTIFY APPLICABLE POLITICAL PRACTICES

7. IDENTIFY APPLICABLE LEGISLATIVE PRACTICES

8. IDENTIFY APPLICABLE REGULATORY PRACTICES

9. IDENTIFY APPLICABLE STANDARDIZATION PRACTICES

10. IDENTIFY APPLICABLE INCENTIVE PRACTICES

11. IDENTIFY APPLICABLE INFORMATION PRACTICES

12. IDENTIFY APPLICABLE COMMUNICATION PRACTICES

13. IDENTIFY APPLICABLE EDUCATION PRACTICES

14. IDENTIFY APPLICABLE RESEARCH PRACTICES

15. IDENTIFY APPLICABLE INNOVATION PRACTICES

16. IDENTIFY APPLICABLE POLICY PRACTICES

17. IDENTIFY APPLICABLE STRATEGY PRACTICES

18. IDENTIFY APPLICABLE GOVERNANCE PRACTICES

19. IDENTIFY APPLICABLE LEADERSHIP PRACTICES

20. IDENTIFY APPLICABLE NETWORKING PRACTICES

21. IDENTIFY APPLICABLE PARTNERSHIP PRACTICES

22. IDENTIFY APPLICABLE COOPERATION PRACTICES

23. IDENTIFY APPLICABLE COLLABORATION PRACTICES

24. IDENTIFY APPLICABLE INTEGRATION PRACTICES

25. IDENTIFY APPLICABLE ALIGNMENT PRACTICES

26. IDENTIFY APPLICABLE COORDINATION PRACTICES

27. IDENTIFY APPLICABLE COHERENCE PRACTICES

28. IDENTIFY APPLICABLE CONSISTENCY PRACTICES

29. IDENTIFY APPLICABLE COMPLEMENTARITY PRACTICES

30. IDENTIFY APPLICABLE SYNERGY PRACTICES

31. IDENTIFY APPLICABLE MULTIPLY PRACTICES

32. IDENTIFY APPLICABLE ACCELERATE PRACTICES

33. IDENTIFY APPLICABLE SUSTAIN PRACTICES

34. IDENTIFY APPLICABLE REINFORCE PRACTICES

35. IDENTIFY APPLICABLE STRENGTHEN PRACTICES

36. IDENTIFY APPLICABLE SUPPORT PRACTICES

37. IDENTIFY APPLICABLE FACILITATE PRACTICES

38. IDENTIFY APPLICABLE ENABLE PRACTICES

39. IDENTIFY APPLICABLE EMPOWER PRACTICES

40. IDENTIFY APPLICABLE ENLIGHTEN PRACTICES

41. IDENTIFY APPLICABLE INSPIRE PRACTICES

42. IDENTIFY APPLICABLE MOTIVATE PRACTICES

43. IDENTIFY APPLICABLE ENCOURAGE PRACTICES

44. IDENTIFY APPLICABLE REASSURE PRACTICES

45. IDENTIFY APPLICABLE CALM PRACTICES

46. IDENTIFY APPLICABLE RECONCILE PRACTICES

47. IDENTIFY APPLICABLE RESTORE PRACTICES

48. IDENTIFY APPLICABLE REVIVE PRACTICES

49. IDENTIFY APPLICABLE RESURRECT PRACTICES

50. IDENTIFY APPLICABLE REGENERATE PRACTICES

51. IDENTIFY APPLICABLE REFORM PRACTICES

52. IDENTIFY APPLICABLE RESTRUCTURE PRACTICES

53. IDENTIFY APPLICABLE REORGANIZE PRACTICES

54. IDENTIFY APPLICABLE REDESIGN PRACTICES

55. IDENTIFY APPLICABLE REINVENT PRACTICES

56. IDENTIFY APPLICABLE REIMAGINE PRACTICES

57. IDENTIFY APPLICABLE RECONSTRUCT PRACTICES

58. IDENTIFY APPLICABLE RECONSTITUTE PRACTICES

59. IDENTIFY APPLICABLE RECONSTITUTE PRACTICES

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Best practice handbook

- Introduction: Objectives of the handbook
- Legislation, standardization & incentives
- Collection systems for Paper for Recycling
- Good and best practices for Paper for Recycling collection
- Evaluation of your performance in Paper for Recycling collection
- Selection tree
- Background & more information

The selection tree will guide you through a step-by-step process that will help you determine which solutions are best for your municipality. There are five steps:

1. Needs - which aspects you would like to focus your efforts on or you would like to improve
 2. Challenges - which specific aspects you would like to improve
 3. Areas of interest - what kind of solutions you are looking for
 4. Potential solutions - which systems could be more suitable for your municipality
 5. Relevant factors - download detailed explanations of each solution including current examples, background information, implementation advice etc.
- After you click the boxes relevant to you in each step, click on 'next' to move ahead. If you wish to start from the beginning, please refresh your page.

SELECT WHICH OF THE FOLLOWING ASPECTS YOU WOULD LIKE TO FOCUS YOUR EFFORTS ON OR YOU WOULD LIKE TO IMPROVE.

- Collection rate of paper and board
- Social issues associated to vandalism, waste pickers and inadequate use of information and communication channels
- System planning (containers, collection routes, storage plans, etc.)
- Quality of paper for recycling
- Economic issues (cost of collection and cost coverage)
- Standardization and guidelines

Next

Additional tools: Selection tree, KPI tool



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Structure of the Handbook



IMPACTPAPE REC

Boosting separate paper collection

1. Introduction

2. Legislation, Standardisation, Incentives & Policy Measures

3. Collection System for paper and board

- Distance to collection point (Bring Banks, Door-to-Door, Recycling Yards)
- Collected Material (Separate, Selective and Co-mingled)

4. The Good and Best Practices

- Classified into 4 categories (operational; policy, legislation and economic aspects; monitoring and control; information and communication)
- One factsheet for each good and best practice identified



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The Good and Best practices factsheets



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BEST PRACTICE

SEPARATE COLLECTION SYSTEM FOR PAPER AND BOARD

Background (REF: 1,2)



Today there are over 60 recognised grades of recovered paper in Europe (EN 643), categorised into five main groups by the Confederation of European Paper Industries (CEPI), and the Bureau of International Recycling (BIR), divided into: Ordinary grades, Medium grades, High grades, Kraft grades and Special grades.

It is important to keep paper and board separated from the rest of municipal waste streams due to several reasons:

- Paper is the one of the biggest fractions (according to volume) in the dry recyclables mix; hence it has a big potential as a resource.
- If quality is good, can be recycled up to 6-7 times (average of 3,5 times) → closing the loop.
- Vulnerable to impurities → should be collected separately from other fractions.
- Separation at the source minimises the need for subsequent sorting operations.

ACTION

Introduce a separate collection system for paper and board to offer citizens the possibility to separate it from their residual waste and other recyclables

Example of best practice implemented

Selective Collection of Paper and Board in Berlin (Germany)

(REF: 4)



Figure 1- Selective collection containers in Berlin

Berlin has almost 100% coverage of separate door-to-door collection for the source separated collection of paper and board, glass and bio-waste.

For the case of Paper and Board, the selective collection system covers the whole city. Materials collected by this system are: newspapers, magazines, catalogues, office paper, packaging paper, cardboard and cards. A door-to-door collection system is used (blue wheelie bins). The service is given by several organizations. Additionally, bring banks are also present throughout the city.

Some indicators about paper and board collection are shown below:

Collection Coverage	Household nearly 100% and businesses 100%
Annual Collected Quantities	160,574 t: 47.2 kg/cap
Source Fundings	BSR (municipal collection service) finances itself from the collection fees and other charges for services but it does not generate profits. Then, cost reductions directly benefit fee-payers



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The Good and Best practices factsheets



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SEPARATE COLLECTION SYSTEM FOR PAPER AND BOARD



Keep in mind that...

Related BP: "Specific collection system adapted to the real needs"

- ▲ Characteristics of a territory and its socio-demographic characteristics define the type of collection scheme.
- ▲ Regarding the technical issues, it is necessary to develop an accurate system, adapting type and size of collection containers, establishing an adequate frequency for the collection.
- ▲ The whole process of collection – transport – sorting – recycling should be considered when defining the collection system.

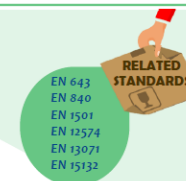
How to start? (REF. 4)

- ✓ Define properly the specific characteristics of the fraction(s) to be collected (graphic paper-cardboard, paper and board, etc.).
- ✓ Size the system: make an estimation of the amount of waste and resources (including identification of potential grades) generated.
- ✓ Select the adequate and most promising collection system for your territory.
- ✓ Conduct an information campaign addressed to citizens, providing them with accurate and easy-to-understand information.
- ✓ Monitoring performance of separate collection system.

Potential benefits



Increased cost efficiency, getting a higher benefit from PFR, which would balance the investment needed	●	●	●
Better quality of collected material, reducing therefore sorting costs	●		
Paper for Recycling by separate collection motivates citizens and make them aware of their participation in the recycling process	●	●	●
Potential use of PFR for "added-value applications"	●		●



EN 643
EN 840
EN 1501
EN 12574
EN 13071
EN 15132



References:

1. CEPI KEY STATISTICS (2014)
2. PAPER.ORG (2013): Recovery and recycling of paper and board (Factsheet)
3. Waste Framework Directive 2008/98/EC
4. KOMMUNAL SERVICE JENA (2014): Separated waste collection system in Jena (Germany)
5. EUROPEAN COMMISSION (2015): Assessment of separate collection schemes in the 28 capitals of the EU



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5. Evaluation of performance in paper and board collection

- Downloadable Excel File
- Helps to monitor performance of GP/BP application and can also serve as benchmark with other territories over time



KPI calculation section



Performance comparison with other territories



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Selection tree

6. Selection tree

Interactive tool to identify relevant practices and corresponding factsheets

The screenshot displays the 'Selection tree' interface, which is a step-by-step process to identify relevant practices and factsheets. The process consists of five main stages, each represented by a chevron-shaped button:

- 1. Needs**
- 2. Challenges**
- 3. Areas of interest**
- 4. Potential solutions**
- 5. Relevant factsheets**

The interface shows the '5. Relevant factsheets' step is currently active. It includes a progress bar at the top with tabs for each step. The main content area lists various social issues and system planning options, such as 'Social issues associated to vandalism, waste pickers and inadequate use of information and communication channels' and 'System planning (containers, collection routes, strategic plan, etc.)'. Below this, there is a list of 'YOUR FACTSHEETS' with numbered items like '1.5. Selective collection system for graphic paper' and '4.12. Involving celebrities in the awareness raising campaign'. Navigation buttons for 'Previous' and 'Next' are visible at the bottom.



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eLearning modules

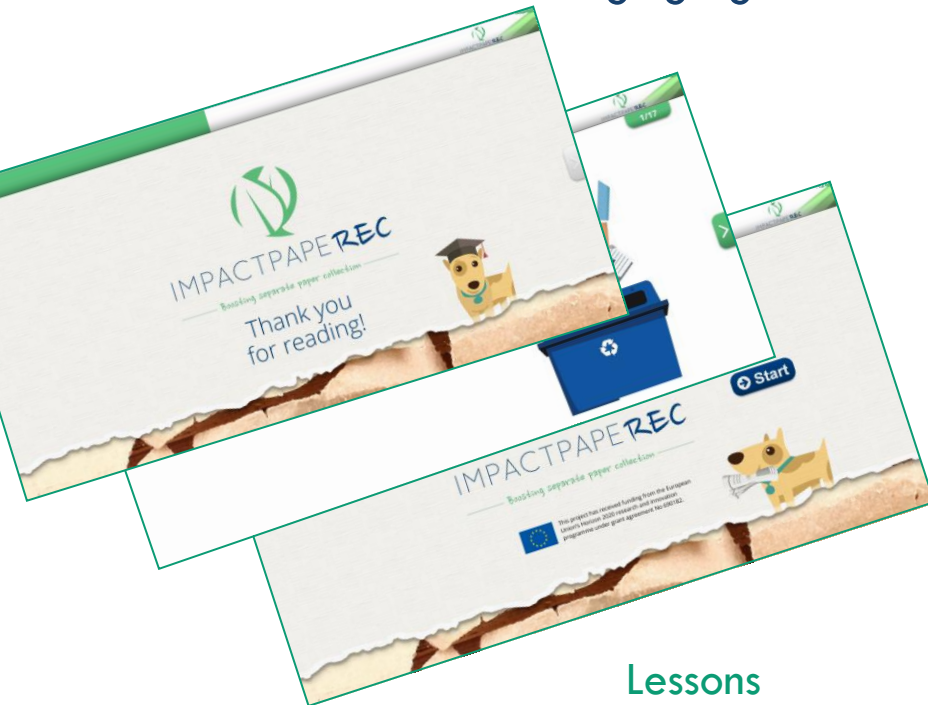


IMPACTPAPERREC

Boosting separate paper collection

- “Separate collection” and “Recycling”

- Largely based on the Handbook contents
- Practical and engaging



Lessons



Quizzes



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Thank you very much!



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Boosting separate paper collection



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