



IMPACTPAPE REC

—— Boosting separate paper collection ——

Good and Best Practices Handbook

Informative meeting IMPACTPapeRec project, 18 October 2017, 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 presentation



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Boosting separate paper collection

- Initial ideas
- The process
- The Handbook
- Practical relevance and use



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Initial ideas



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Boosting separate paper collection

The Best Practice Handbook will aim to provide:

- *A knowledge database on current strategies, concepts and activities in best performing municipalities and regions in Europe*
- *A synthesis of best practices in the collection of paper for recycling*
- *Conclusions and recommendations relating to the creation and implementation of best practices*
- *Contacts for further information*

Grant
Agreement



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Process

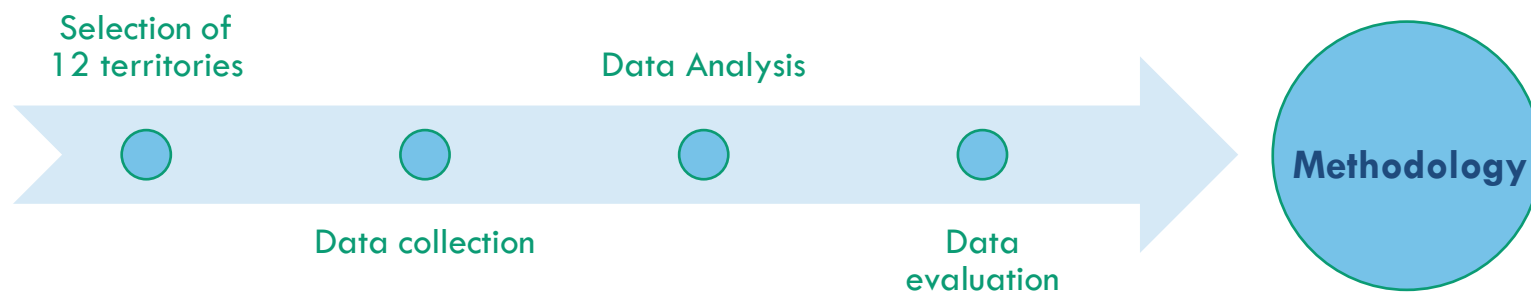


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Boosting separate paper collection

Work package dedicated to:

- Identify and evaluate best performing territories
- Investigate and analyse best practice solutions



→ Methodological framework on how to identify, analyse and evaluate the performance of a territory, including tools and templates for data collection and analysis



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Process



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Boosting separate paper collection

Comprehensive approach, engaging:

- ALL project partners (= the whole paper value chain)
- External experts (various stakeholders, different countries)

Best Practice Working Groups

Paper collection
systems and
equipment

New policies
and standards

Other collection
systems

Paper quality and
processes

Citizen
involvement

Operational
aspects

Policy, legislation
and economic
aspects

Monitoring and
control

Information and
communication

- Discussions
- Feedback rounds



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Process

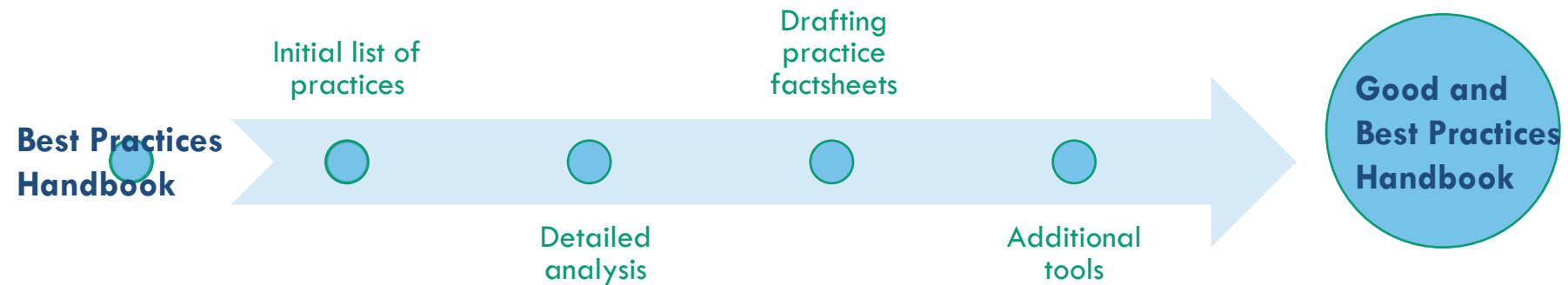


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Boosting separate paper collection

Handbook development:

- Building on previous and ongoing tasks within the project
- Feedback loops



→ Local context is very specific



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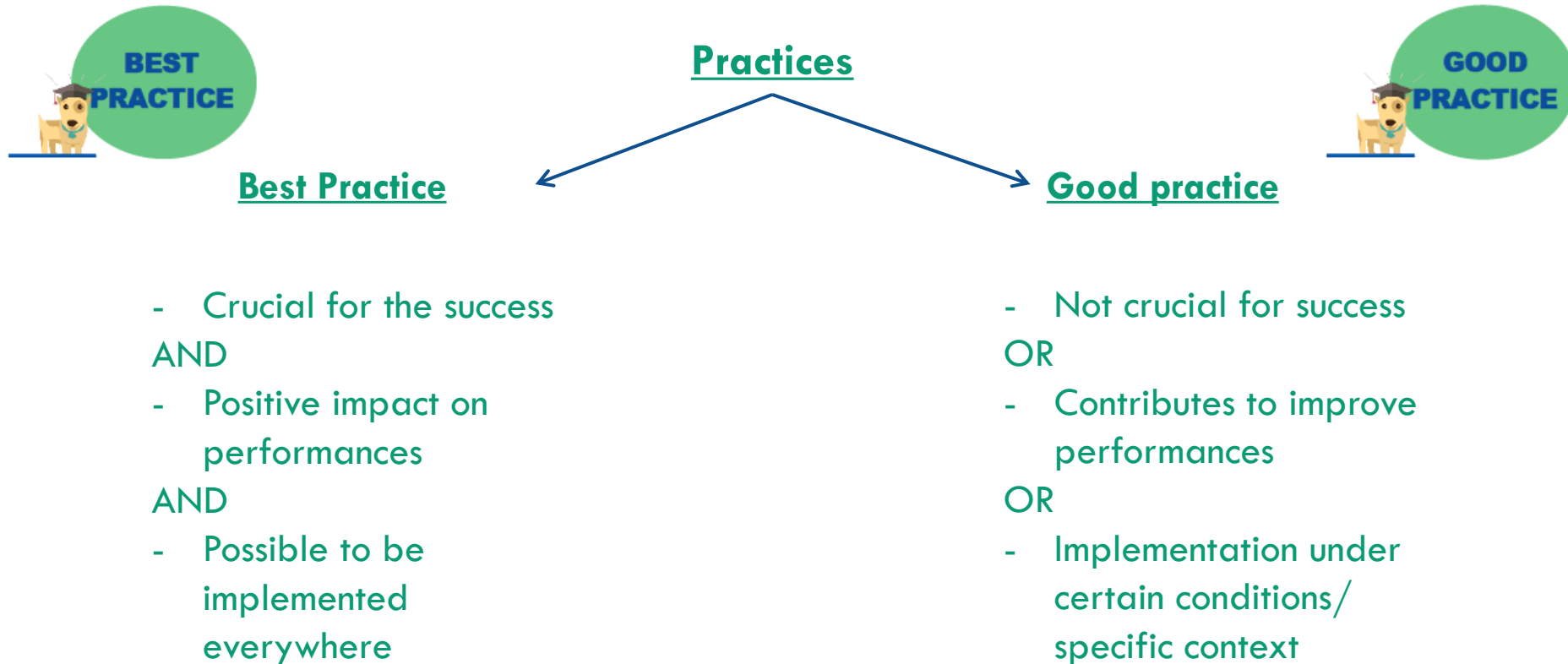


Good and Best Practices



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Boosting separate paper collection



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Good and Best Practices Handbook

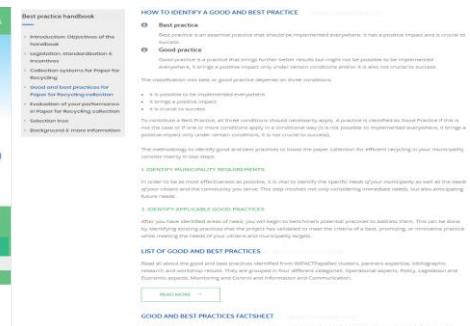


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Good and Best Practices Handbook Manual Version



Additional tools: Selection tree, KPI tool



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Structure of the Handbook



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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, D-t-D, Recycling Yards)
 - Collected Material (Separate Collection, Selective Collection, Co-mingled Collection)



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Structure of the Handbook



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Boosting separate paper collection

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

SPECIFIC COLLECTION SYSTEM ADAPTED TO THE REAL NEEDS

Background

The selection of a well-performing waste and recyclables collection system is the basis for proper recycling. Waste and recyclables collection systems commonly applied in Europe can be classified by:

- Type of container: container (surface underground), bin, bag (public), etc.
- Collection system: Pick-up (door-to-door, kerbside) and drop-off system (bring banks and recycling points).
- Type of facilities: collecting separate and separate collection (only one material fractions, mixed (all fractions together) or co-mingled (all recyclables together)). Five fractions, including paper & board, are obligatory to be collected separately according to the EU framework. However, while EU legislation does allow co-mingled separate, but also co-mingled collection, research shows that separate collection of paper & board is essential for achieving good results in paper & board recycling.
- Frequency: daily, weekly, fortnightly, monthly, bi-monthly, etc.

Each collection system is a combination of the elements above, and should be decided according to the characteristics and preferences of each territory.

ACTION

Select the best collection system for each area of the municipality by taking into account its specific characteristics and needs: climate, type of urbanisation (buildings, density of population), demographics, infrastructure, etc.

Examples of best practice implemented

Household waste collection in Barcelona (Spain) as a BEST PRACTICE

Barcelona has an extensive municipal service for the daily collection of household waste according to the characteristics of each urban district.

- Blue containers for paper and cardboard: All citizens have recycling collection containers located less than 100 metres from their home.
- Manual bag collection service: Door-to-door waste collection of different types of waste and recyclables in specific zones including the old part of the city, where it is especially difficult to place containers or access with vehicles.
- Recycling yards: Used to get rid of municipal waste fractions which can't be thrown into street containers.

Waste management plan 2018 in Copenhagen (Denmark) as a BEST PRACTICE

In the Waste Management Plan 2018, the efforts of the City for a more resource efficient waste management system fall under four topics each with a specific target and a number of measures and concrete initiatives. Each topic furthermore contains a flagpole project.

Under the topic "Facilitate separation among citizens and businesses", the goal of the City of Copenhagen must have access to separation of the most ordinary types of waste near their home, and all institutions of the City will ensure separate their waste. Those measures directly related with paper and board collection are:

Measures	Integration of innovative waste solutions in the urban space
1. Better separation options in blocks of flats	2. More separation in the business community
3. More options for separation in large family houses	4. More separation in the business community

SPECIFIC COLLECTION SYSTEM ADAPTED TO THE REAL NEEDS

Keep in mind that...

- Characteristics of the territory and its socio-demographic characteristics define the type of collection scheme.
- All stakeholders should be engaged in the process.
- Some commercial/retailer/offices could have service contracts with traders of PR or container service companies and do not participate at the municipal collection system.

How to start?

- Define the baseline:** Collecting reliable data and other information on the existing waste and recyclables situation is a critical first step. The aim of gathering this background information is to provide a realistic and quantitative basis for the development of the plan, based on actual data and prioritized requirements and needs.
- Identify the roles & responsibilities of key stakeholders.**
- Identify the strong & weak points of the current Solid Waste Management (SWM) system.** Problems may be characterized as either: Internal to the SWM such as lack of equipment or planning capacity; Both internal & external like accelerated waste generation, lack of co-ordination etc.; and External problems such as uncontrolled urbanisation, population explosions etc. will generally have to be accepted and adapted.
- Prepare the appropriate SWM action plans:** It is the core of the planning procedure, as it defines the actions to be implemented and which will establish the new SWM system.
- Provide guidelines on how to pass from the planning phase to the implementation phase.**
- Control of technological measures:** An outline of waste and recyclables measures identification of areas in which technological measures should be taken to eliminate or minimize certain types of waste.

Outline of governance requirements: SWM plans make way for statement of financial, institutional and social requirements. On this basis, the need for future actions, such as investments in SWM plans, public awareness campaigns, training courses for the relevant authorities and etc., may be determined.

Monitoring & review: constitute an essential and integral part of the planning process, ensuring both that the plan remains relevant to its goals and objectives over time. The simplest and most common monitoring tools are visual observations, general feedback from the workforce and customer complaints. Nevertheless, it is requested a more detailed and formal analysis such as definitions of KPIs.

Potential benefits

	Cost reduction	Environmental benefits	Social benefits
It could result in a lower cost of overall waste and recyclables management	+	+	+
Less environmental pollution	+	+	+
Conservation of raw materials	+	+	+
Conservation of resources, since appropriate planning does not allow inappropriate investments	+	+	+
Better coordination between urban services	+	+	+
People is more satisfied with the service provided	+	+	+
Better cost management and higher cost recovery	+	+	+

References:

- ACH (2009) - Municipal Waste in Europe - Towards a European Recycling Society, Chapter 7 "Separating collection"
- IMPACTPAPE REC 7.5 Deliverable 3.2
- 2018 WASTE COUNCIL - Low-carbon 2018 WASTE municipality
- AUTONUM DE BARCELONA (2018). Ecology, Urban Planning and Mobility
- LYNCOPE (2018) How Copenhagen turned itself into Europe's "green capital"
- CITY OF COPENHAGEN. Resource and Waste Management Plan 2018
- ENEA. Solid Waste. Guidelines for successful planning



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Structure of the Handbook



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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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Structure of the Handbook



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Boosting separate paper collection

6. Selection tree

Interactive tool to identify relevant practices and corresponding factsheets

1. Needs

2. Challenges

3. Areas of interest

4. Potential solutions

5. Relevant factsheets

SELECT WHICH OF THE FOLLOWING ASPECTS YOU WOULD LIKE TO IMPROVE

Social issues associated with vandalism, waste pickers and inadequate use of information and communication channels

☒ Reduce vandalism (excluded theft of paper for recycling)

☒ Reduce waste picking/ scavenging

☐ Information and communication channels between citizens (or stakeholders) and council

System planning (containers, collection routes, strategic plan, etc.)

☒ Technical design of containers

☒ Collection routes

WHAT KIND OF SOLUTIONS ARE YOU LOOKING FOR?

Social issues associated with vandalism, waste pickers and inadequate use of information and communication channels

No further selection needed here, go straight to the next step!

System planning (containers, collection routes, strategic plan...)

☒ Technical design of containers

No further selection needed here, go straight to the next step!

☒ Collection routes

No further selection needed here, go straight to the next step!

Economic issues (cost of collection and cost-coverage)

☒ Cost associated to the collection of paper for recycling

☒ Technical improvements

☒ Strategic management plan

Previous

Next

through a step-by-step process that will help you determine the most relevant aspects you would like to improve and the most suitable solutions you are looking for. The tool will provide you with explanations of each solution including current existing practices and corresponding factsheets.

to you in each step, click on 'next' to move ahead. If you have already selected a solution, click on 'previous' to go back to the previous step.

1. Needs

2. Challenges

3. Areas of interest

4. Potential solutions

5. Relevant factsheets

WHICH OF THE FOLLOWING OPTION(S) DO YOU THINK IS MORE SUITABLE FOR YOUR MUNICIPALITY?

Social issues associated with vandalism, waste pickers and inadequate use of information and communication channels

☒ Reduce vandalism (excluded theft of paper for recycling)

☒ Reduce waste picking/ scavenging

☐ Underground containers in higher population density areas

☐ Involvement of celebrities in awareness campaigns

☐ Underground containers in higher population density areas

☐ Container opening adapted to paper and board

☐ User friendly collection containers

☐ Control measures against the theft of paper

System planning (containers, collection routes, strategic plan...)

☒ Technical design of containers

☐ Separate collection of paper and board

☐ Underground containers in higher population density areas

☐ Container opening adapted to paper and board

☐ Constant technological innovation in paper and board collection

☐ User friendly collection containers

☐ Control measures against the theft of paper

Cost associated to the collection of paper for recycling

Technical improvements

Previous

Next

1. Needs

2. Challenges

3. Areas of interest

4. Potential solutions

5. Relevant factsheets

YOUR FACTSHEETS

☒ 1.5. Selective collection system for graphic paper

☒ 1.6. Compacting collection trucks

☒ 1.7. Container opening system adapted to paper and board

☒ 1.8. Constant technological innovation on paper and board recycling

☒ 1.9. User-friendly collection containers

☒ 3.3. Control measures against theft of paper

☒ 3.4. Software on optimization of collection routes

☒ 3.5. Control of the filling level of containers

☒ 4.12. Involving celebrities in the awareness raising campaign

Previous

Next



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Future of the Handbook



IMPACTPAPE **REC**

Boosting separate paper collection

- Already available on the IMPACTPapeRec website
 - Updated until the end of the project (January 2018)
 - Will be available online after the project end
- Development of eLearning modules
 - „Separate Collection“ and „Recycling“
 - Largely based on the Handbook contents
 - Available online 2 years after the project end
- Dissemination activities
 - Final conference: **23 January 2018, Committee of the Regions** (tentative date)
 - European workshop for municipalities not involved in the project



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Thank you very much!



IMPACTPAPE **REC**

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IMPACTPapeRec project:

19 partners representing the whole paper value chain



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