1. Starting point

- The experience of the last century in Germany teaches that
  - laws,
  - waste management plans,
  - project realisations ...
  - collapses, in cases of a missing long-term financing.

- Financing must be secured at all levels. That means
  - at national level,
  - at county or municipal level,
  - at enterprise level.
2. Institutional setting

- Prussian community charges act from 14.07.1893
  - Legal basis to charge fees for street-cleaning and garbage removal
  - Starting point of financing securing on municipal service tasks in Germany

- Principles of the German license fee
  - Cost covering principle
  - Polluter-pays principle
  - Equivalence principle
  - Transparency principle
3. Approach

- Establishment of a SMW fee system on municipal level
  - Cost and performance accounting
  - Forecast budget planning
  - Charging system

- Establishment on an accounts receivable accounting system
  - Debtor is each property owner
  - The ownership of each property is known by the German cadaster - the whole country is registered
  - Apportionment of the waste fees on each property by owner
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4. Outputs

- **Typical municipal waste fees** (exemplary calculation)

<table>
<thead>
<tr>
<th>Type of waste</th>
<th>Type of collection</th>
<th>Fee</th>
<th>Costs/hab. a.</th>
<th>Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overhead administration, information</td>
<td>no individual fee</td>
<td>10,00 €/a</td>
<td></td>
<td>effective and efficient</td>
</tr>
<tr>
<td>Glass</td>
<td>central collection point</td>
<td>no individual fee</td>
<td>2,50 €/a</td>
<td>high recycling quote</td>
</tr>
<tr>
<td>Paper, cardboard</td>
<td>central collection point</td>
<td>no individual fee</td>
<td>9,45 €/a</td>
<td>high recycling quote</td>
</tr>
<tr>
<td></td>
<td>household bin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recycables</td>
<td>household bin</td>
<td>fee paid by shops</td>
<td>27,00 €/a</td>
<td>high recycling quote</td>
</tr>
<tr>
<td>Biowaste</td>
<td>household bin</td>
<td>Fee/a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>60 l bin</td>
<td>35,00 €</td>
<td>18,00 €/a</td>
<td>economic incentive to separate cost covering</td>
<td></td>
</tr>
<tr>
<td>80 l bin</td>
<td>45,00 €</td>
<td></td>
<td>equivalence principle</td>
<td></td>
</tr>
<tr>
<td>120 l bin</td>
<td>70,00 €</td>
<td></td>
<td>standing and variable charges</td>
<td></td>
</tr>
<tr>
<td>240 l bin</td>
<td>140,00 €</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residuales</td>
<td>household bin</td>
<td>Fee/a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>60 l bin</td>
<td>50,00 €</td>
<td>46,13 €/a</td>
<td>high recycling quote/less residuals</td>
<td></td>
</tr>
<tr>
<td>80 l bin</td>
<td>63,00 €</td>
<td></td>
<td>economic incentive to separate cost covering</td>
<td></td>
</tr>
<tr>
<td>120 l bin</td>
<td>88,00 €</td>
<td></td>
<td>equivalence principle</td>
<td></td>
</tr>
<tr>
<td>240 l bin</td>
<td>167,00 €</td>
<td></td>
<td>standing and variable charges</td>
<td></td>
</tr>
<tr>
<td>1,100 l bin</td>
<td>800,00 €</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hazardous</td>
<td>central collection point</td>
<td>no individual fee</td>
<td>2,00 €/a</td>
<td>high capture rate</td>
</tr>
</tbody>
</table>

- In Cologne, all SMW costs are covered by the residual bin: 2017: 60 l bin 296 €, 120 l bin 470 €, 240 l bin 824 €
5. Lessons

- Ensuring of financing by a legal system is obligatory.

- Know how in SMW technologies is important, but only one element in addition to
  - Management and leadership
  - Personal and organization
  - Budget planning and cost control
  - Financing of the SMW system and cost recovery

- All SMW activities must be (re)financed on long terms.

- A financing system must be developed and established.
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6. Transfer

- Find out good solutions and lessons learned in other countries and municipalities.

- Analyzing of its own situation and possibilities.

- Adapt the best solutions and make it to your own.

- Take make or buy decisions in SMW activities for your own municipality
  - In-house operation
  - Public private partnership (PPP)
  - Outsourcing
  - Mixed system

- Put your thoughts and ideas into practice.