

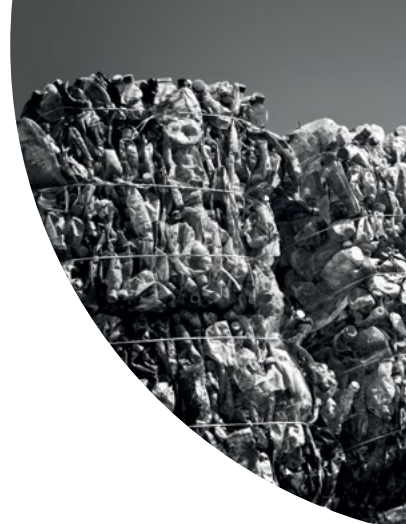
Extended Producer Responsibility in action

How cBrain's climate software is making circular economy a reality

- Full suite producer responsibility organization management
- Waste management governance with transparency and accountability
- State-of-the-art data security and integrity



Extended producer responsibility – putting value on waste



In order to bring the circular economy to life, governments across the world are introducing extended producer responsibility (EPR) regulation to make producers accountable for products and packaging in the post-consumer phase. This means that all companies that produce or import packaged goods will bear responsibility for recycling the materials used for packaging.

In many countries, such as Kenya, companies must form producer responsibility organizations (PROs) that collect monthly fees pursuant to the volumes of each company's packaging (plastic, cardboard, aluminum, glass, etc.). The fees will fund contracted recyclers who in turn make sure that the materials are collected, sorted and recycled. In other countries EPR fees and recycler subsidies are managed by government agencies.

Regardless of regulatory choices, an EPR regulation needs to be implemented and enforced to have an impact on waste reduction and recycling and to avoid free riding. cBrain's F2 platform has been deployed in Kenya to ensure an efficient and accountable EPR management with top-level data security. This solution can be copied and adopted by other PROs anywhere in the world.

Our philosophy is to make EPR compliance as easy and hassle-free as possible for those who comply by reporting and paying their dues – and make it easy for enforcers to catch those who don't.

Full suite producer responsibility organization management

The EPR ecosystem is a complex mechanism with a multitude of stakeholders and several processes tying them together. The key in this solution is to utilize the F2 platform architecture to develop a database that can be used both for registering companies and keeping track of waste volumes as well as control and reporting. The F2 platform and its EPR database form the engine of the circular economy.

The main processes in the solution are:

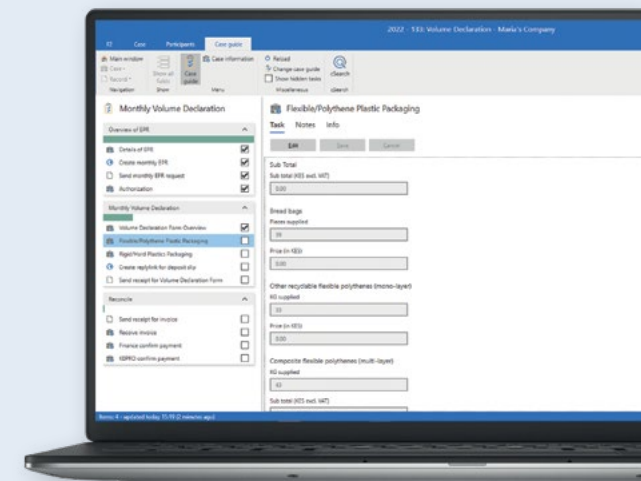
- Registration of companies involved in the packaging waste cycle. Storing information about their role, which waste streams they are involved with and other base data.
- The monthly EPR reporting, where companies submit information of packaging materials used and are issued invoices for EPR fees accordingly.
- Quota system for contracted recyclers, who report on volumes recycled to receive subsidies based on awarded contracts.

All the processes are based on the same platform with a high level of automation to ease the administrative burdens of both regulators and companies.

KEPRO Monthly Volume Declaration Form

Checklist for reporting and payment:

- Declaration and Volume Reporting
- EPR Fee Payment
- Fee and Cost Reporting
- EPR Fee Payment
- Declaration
- EPR Fee Payment





**Waste
management
governance with**

transparency & accountability

Thousands of companies, after signing up, will receive monthly calls for declarations of materials used and payment of fees. This information will be subject to audit trails. There are several options for controlling compliance.

- If companies fail to report or pay their fee and become non-compliant, they are automatically put on an observation list that impacts the issuance of their quarterly compliance certificates. Without an active certificate, producers cannot market products legally.
- At any time a list of non-compliant companies can be extracted from the system to relevant stakeholders (management, government oversight agency, etc).
- Inspectors can be connected to the database to instantly check if a company's products are properly registered and compliant.

The system can also aggregate data submissions for reporting. Comparing data on declared volumes being marketed compared to volumes being picked, sorted and recycled allows for the calculation of a circularity deficit when aggregated fraction by fraction and makes it possible to follow the progress of increased levels of recycling.

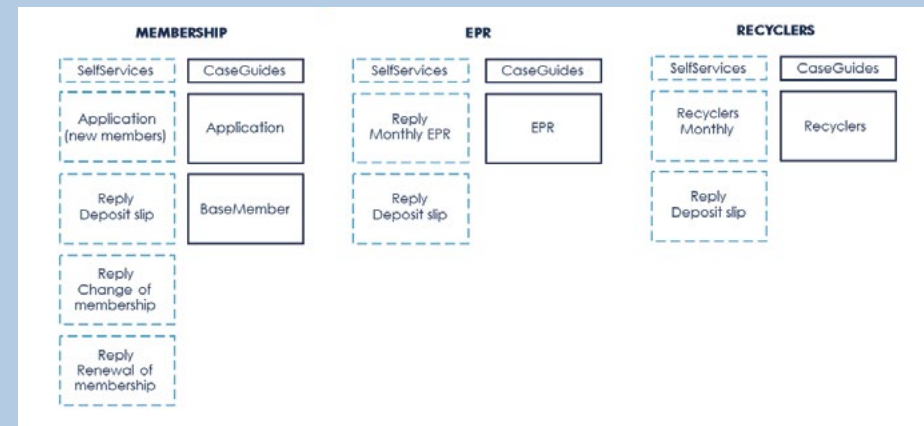
State-of-the-art data security and integrity

Companies that submit data on their packaging are disclosing sensitive business intelligence. They need reassurance that their data is well protected and only used for the intended purpose.

The F2 platform is inherently compliant with strict European GDPR regulation and privacy design functionality such as the right to be forgotten.

The F2 platform allows access to data based on roles and privileges and logs data access. These measures ensure that data is safely stored and only accessed when serving a legitimate purpose under the EPR regulation.

Elements of the digital EPR solution



Applied Climate Software for Governments

<p>F2</p>	<p>Energy Efficiency</p>	<p>Home Energy Audit Denmark</p>	<p>Energy Efficiency in Companies Egypt</p>	<p>Inflation Cash Assistance Denmark</p>	<p>Heat Pump Grant Denmark</p>
<p>Sustainable Land Use</p>	<p>Climate Lowlands Denmark</p>	<p>Sustainable Land Initiative USA</p>	<p>Climate Forest Grants Denmark</p>	<p>Protection of Biodiversity</p>	<p>Licensing of Trade Endangered Species (CITES) Denmark & Guyana</p>
<p>EU Natura 2000 Protected Areas Denmark</p>	<p>Urban Roof-top Gardening Denmark</p>	<p>Wildlife Regulation Denmark</p>	<p>Circular Economy and Waste</p>	<p>Extended Producer Responsibility Kenya</p>	<p>International Waste Export and Import Denmark</p>
<p>Protection of Nature</p>	<p>Dredging Denmark</p>	<p>Lake and Stream Restoration Denmark</p>	<p>Environmental Support in the Arctic Denmark</p>	<p>Genetic Resources</p>	<p>License and Control of Genetically Modified Organisms Denmark</p>
<p>Access Benefit Sharing Nagoya-convention Denmark</p>	<p>Clean water and air</p>	<p>Drinking Water Protection Denmark</p>	<p>Waste Water Control Denmark</p>	<p>Home Woodstove Removal Denmark</p>	

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