Jacques Vernier has spent his entire career defending the environment in France: as head of the Artois-Picardie regional water agency and president of ADEME (French Agency for Ecological Transition) then INERIS (French National Institute for Industrial Environment and Risks). He currently heads both the High Council for Prevention of Technological Risks and the Extended Producer Responsibility Waste Schemes Commission. As a member of the National Assembly, he presented the reports on the “Environmental law” and “Air protection” law in the early 1990s.

Extended Producer Responsibility (EPR) has been voted in France since 1975. The law states that producers, importers and distributors may be required to contribute to the disposal of waste from their products. It was only in 1992 that this law was applied for the first time to household waste and the number of EPR channels has only increased since then in France and in Europe. The efficiency of these channels is indisputable: in 20 years the collection rate of batteries has reached 80%, whereas they were not collected before.

Thanks to the law on the circular economy passed in 2020, this system is developing even further and has modified and strengthened the EPR system with 10 new channels. In addition, there is a stronger incentive for eco-modulation, funds dedicated to repair, reuse, and many other proposals favorable to the evolution of consumption patterns.
As head of the Extended Producer Responsibility Waste Schemes Commission since 2016, you are involved in creating and developing these schemes in France. Can you talk us through the emergence of this waste management model?

Jacques Vernier: On July 15, 1975, a French law and an EU directive formalized the principle of producers being responsible for managing waste generated by their products. The law said almost all there was to say on the subject: “Producers, importers and distributors of these products or the elements and materials used for their manufacture may be obliged to pay for or contribute to the disposal of the waste generated by them.” The wording in the current Environmental Code (Article L541-10) has barely changed.

But it was not until almost twenty years later, in 1992, that this principle was first applied to household packaging waste.

For the next 28 years, France’s extended producer responsibility schemes expanded considerably, to the extent that there are now 12 mandatory schemes (shortly to rise to 22), whereas until recently there were only three across the European Union. The 12 mandatory schemes concern:

1. batteries
2. electrical and electronic equipment* (WEEE)
3. end-of-life vehicles*
4. household packaging
5. unused medicines
6. vehicle tires
7. writing paper
8. textiles and footwear
9. household chemicals
10. furniture
11. end-of-life boats
12. sharp self-administration medical devices used by patients

*European scheme

In practical terms, what do the EPR mechanisms consist of, and what results do they deliver in terms of recycling and reducing waste volumes?

JV: The EPR system is designed to ensure that producers pay for or contribute to waste management. Specifically, this means that producers can deal with their waste themselves, running an individual system, but this is extremely rare. Or they can delegate the task to a collective body, called a PRO (Producers Responsibility Organisation) to which they contribute (by paying an eco-contribution). This eco-contribution can be modulated, increased or decreased, according to how difficult it is to manage waste created by the product: in theory, this eco-modulation is intended to foster the eco-design of products. However, this encouragement is limited, as we will see below.

In France, PROs are private companies with a public service purpose. They have to follow terms of reference imposed by the State. Some schemes have only one PRO (packaging, paper, boats, etc.), but there can be more than one (two for WEEE, batteries, furniture, etc.) if producers have decided not to “put all their eggs in the same basket”.

PROs can contract with operators for collection, transport, sorting and processing. In these cases, we designate the schemes as “operational”.

But for certain types of waste that are already collected, possibly also sorted and processed by local authorities, rather than dealing with their own waste in collaboration with operators, producers and PROs may choose to use (and therefore finance) all or part of the municipal system:

• municipal waste collection services (because they already collect waste packaging and paper);
• municipal garbage dumps (because they already handle WEEE, furniture, household chemicals, etc.);
• municipal waste sorting centers.

In these cases, we designate the schemes as “financial”, the most important factor being that producers finance the local authorities that already do the work.

There can be no arguing with the impressive efficiency of the EPR approach. The figures speak for themselves:

• in the past 28 years, the recycling rate* for household packaging waste has risen from 18% to 70%;
• in the past 13 years, the collection rate* for household WEEE has risen from almost nothing to 53%, and 74% of waste collected is recycled into new materials or reused;
• in the past 20 years, the collection rate for batteries has risen from almost nothing to 49%, and 80% of waste collected is recycled into new materials.

*Caution! The rates claimed by the various schemes can be misleading. As we have shown above, recycling or recovery rates for material collected can be very impressive (WEEE, batteries, end-of-life vehicles, textiles, etc.). However, collection rates (relative to the quantity of a product sold in any given year) can be low: under 40% for furniture, around 50% (see above) for WEEE and batteries. We can only make a vague estimate for end-of-life vehicles as it is thought that between one-in-two and one-in-three cars never enter the compulsory collection scheme! In summary:

• R (effective recycling rate) = R¹ (collection rate) x R² (recycling rate for the material collected).
• When the vehicle scheme claims a recycling rate of 87%, this is merely an R¹.
• When the packaging scheme claims a recycling rate of 70%, this is the effective rate, R.

1 As a reminder, “recovery” includes “recycling” material and recovering energy.
A new law on the circular economy was adopted on February 10, 2020. What progress has been made in terms of EPR?

JV: The law introduces sweeping changes to the EPR regime, including:

1. **10 new EPR schemes** (Article L541-10-1 of the Environmental Code)
   - From 2021 to 2025, 10 new EPR schemes will be added to the 12 existing ones:
     1. building construction products and materials
     2. commercial packaging*
     3. toys
     4. sports and leisure items
     5. DIY and gardening items
     6. motor oils
     7. plastic-tipped tobacco products*
     8. synthetic chewing gum
     9. single-use sanitary textiles, including pre-soaked wipes*
     10. fishing gear that contains plastics*

   *European schemes

   And the scope of certain existing ERP sectors will be extended: for example, the EPR scheme for vehicles will now include two-wheelers.

   The cigarette butt EPR will be the first of the new EPR schemes to be set up, as of mid-2021.

2. **Much bigger eco-modulations** (Article L541-10-3)
   - The following table shows that eco-contributions sometimes account for a tiny amount of the overall price of the product. Previously, even where the eco-contribution was modulated to double in value, it would still represent an infinitesimally small amount, doing nothing to encourage eco-design.

<table>
<thead>
<tr>
<th>Items</th>
<th>Eco-contribution</th>
<th>Average product price</th>
<th>Percentage contribution/price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Textiles</td>
<td>€0.007</td>
<td>€18</td>
<td>0.04%</td>
</tr>
<tr>
<td>Smartphones</td>
<td>€0.02 to €0.04</td>
<td>€280</td>
<td>0.007%</td>
</tr>
<tr>
<td>1.5-liter bottle of water</td>
<td>€0.01</td>
<td>€0.62</td>
<td>1.6%</td>
</tr>
<tr>
<td>Car tires</td>
<td>€1.25</td>
<td>€70</td>
<td>1.8%</td>
</tr>
<tr>
<td>Refrigerators</td>
<td>€20</td>
<td>€440</td>
<td>4.5%</td>
</tr>
<tr>
<td>Washing machines</td>
<td>€10</td>
<td>€370</td>
<td>3.2%</td>
</tr>
</tbody>
</table>

   Amount of the eco-contribution compared to the price of the product (by the author, 2018)

   The new law introduces two major modifications to correct this failure. No longer will eco-modulations be calculated solely according to the difficulty of processing the waste (the end-of-life approach), but according to a wide range of criteria based on the product’s environmental performance (the lifecycle approach): “quantity of material used, incorporation of recycled material, use of renewable resources, durability, repairability, possibility of being reused, etc.”

   Modulations, whether up or down, can now exceed the eco-contribution paid by producers, amounting for as much as 20% of retail price.

   ► These two modifications will be applied for the first time in 2021, to the household packaging scheme. Eco-modulation now makes it possible to reward manufacturers of plastic packaging that incorporate recycled raw materials, and the bonus applied can exceed the amount of the eco-contribution paid by the producer.
3. **Repair funds** (Article L541-10-4)
The new law places great emphasis on the repairability of certain products and it states that in a number of EPR schemes (such as WEEE, furniture, textiles, toys, sports and leisure items, DIY and gardening items), PROs will have to finance a repair fund. However, the law fails to set an exact amount.

4. **Reuse and reemploy funds** (Article L541-10-5)
Reemploying or reusing a product is far better than creating waste, even when materials are recycled. This is why the new law stipulates that in some EPR schemes (those cited in point 3, above) 5% of PROs’ budgets must be used to finance a reuse and reemploy fund.
The State was already able to set minimum reuse thresholds in the PROs’ terms of reference. This mechanism was little used in the past but will likely be more widespread in future. The law also specifically requires that 5% of packaging must be reused by 2023, 10% by 2027 (Article L541-1).

5. **Retailers required to take back certain products** (Article L541-10-8)
Retailers of electrical equipment, household appliances, electronics and bottled gas were already required to take back used products at no cost. The new law will extend this obligation to other schemes: household chemicals, furniture, toys, sports and leisure items, DIY and gardening items.

6. **Distance-selling electronic marketplaces are now subject to EPR** (Article L541-10-9)
The law now states that if an organisation acts as intermediary in the sale of goods to a third party, it is the organisation that is subject to EPR, unless the organisation can show that the third party has already fulfilled its EPR obligations.

7. **Sanctions, specifically in the event of failure to meet targets** (Article L541-9-6)
One of the key criticisms levelled at existing EPR schemes is that there are barely any sanctions if PROs fail to hit the targets set out in their terms of reference, such as for minimum collection or recycling rates. In future, the new law states that if a PRO fails to meet one of its targets, it may be required to put forward an adjustment plan, funded according to budget minimums set out by law. Finally, if it fails to deliver its plan, or in the event of other breaches of its terms of reference, it can be fined a significant amount (10% of its budget, which could amount to several million euros) or have to pay a daily fine (€20,000 per day).

However, there are two impending challenges:
- in financial schemes,1 PROs do not intervene directly; rather, they subsidise local authorities that do the actual work. Some PROs have already stated that under these conditions they cannot accept responsibility;
- the sanctions described above apply to PROs. But what happens if producers (perhaps in one of the new schemes) have not created a PRO? The sanctions regime for infringing producers created by the former law (unmodified by the new law) has been shown to have limited effect.

8. **Producers required to present five-year waste prevention plans** (Article L541-10-12)
Following the Belgian example, every five years producers will be required to present a plan for the eco-design of their products, reducing and improving the recyclability of their waste, increasing the use of recycled raw materials, etc. Producers can do this by themselves or collectively, for example, by asking a PRO to do it on their behalf.

9. **Waste management contracts agreed by ecobodies** (Article L541-10-6)
One of the main criticisms of the EPR system is that in operational schemes2 it grants a monopoly (sometimes an oligopoly) to a PRO that is responsible for managing waste for the entire scheme. This means that it, and it alone, agrees all the contracts with operators that collect, transport, sort and recycle the waste. This creates a situation of dominance that operators sometimes complain of.

The new law establishes a number of safeguards: non-discrimination clauses for tenders, more separate lots to encourage greater competition and to allow SME to bid, processing to take place locally, employment opportunities for people on job integration schemes, etc. Specifically, under the new law it will be the PROs (and by extension the producers) that will have to absorb fluctuations in raw material prices, not the waste processing operators.

10. **Substituting a PRO in the case of failure by another PRO** (Article L541-10-7)
As described above, EPR schemes contribute to financing a portion of local authorities’ waste management costs.3 In the past, failures on the part of a PRO have deprived local authorities of the corresponding revenue. In the future, the new law stipulates that in such situations the state can nominate an existing PRO to take over from the failing PRO.

11. **Mediation**
In the event of a dispute between a PRO and a stakeholder, the parties can turn to the Business Mediator.4 This system will be trialed for three years.

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1 See above for an explanation of the difference between financial and operational schemes.
2 Ibid
3 Ibid
4 France’s Business Mediator was established a dozen years ago to provide mediation between private bodies, or between private and public bodies.