

Packaging in 2040 – 4 future scenarios

TOWARDS A FUTURE-ROBUST VISION

In 2014 the Netherlands Institute for Sustainable Packaging (KIDV) worked on a Future Vision 2040. With this Future Vision 2040, the KIDV wants to work towards an ambitious, compelling and achievable horizon. The vision is designed to make the entire packaging chain as sustainable and ambitious as possible, and thus ensure a transition to a circular economy.

2040 is a long way off, and that makes developing a future vision for this timeline both interesting and challenging. If you're wanting to look ahead 25 years, relying on predictions is risky. They tend to be more about the past than the future. Future scenarios as how the world might look are a more useful tool.

Future scenarios are radical yet plausible stories about the future. They describe the future reality and how it may be arrived at. Scenarios are made up of definite developments (trends) and uncertain developments. The most important uncertain developments determine the differences between the scenarios, while the trends have a place in every scenario. Therefore scenarios are 'what-if' stories that contain interesting elements for a strategic discussion.

Scenario development: outside in

The KIDV scenarios are developed in collaboration with experts and stakeholders. Based on desk research, six expert interviews and a consumer survey, Future Consults developed a trend report. In a workshop with representatives from KIDV's network, the broad features of the scenarios were outlined. These outlines were reviewed and enriched in a discussion with the KIDV Advisory Board. Based on all the available material, we then developed four plausible yet radical scenarios.

Future scenarios

In developing and describing the scenarios, we have used three levels of analysis:

1. Macro-developments in the areas of demography, economy, technology, socio-cultural values, ecology and politics;
2. Developments specific to the Netherlands and the Dutch consumer;
3. Developments in the packaging chain.



SCENARIO A: GOING CONCERNS

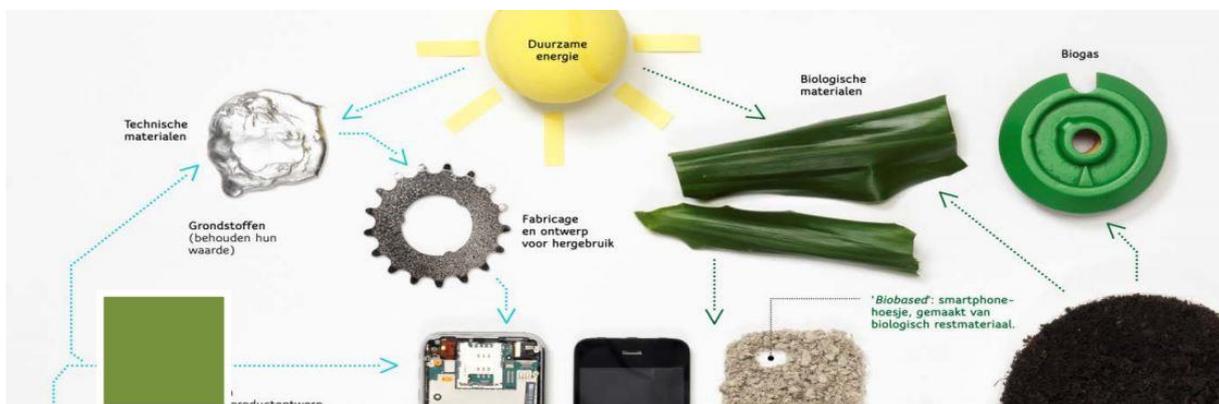
The biggest challenge for 2040 is the shortage of food and water due to the growing global population and rising prosperity. The extreme weather conditions caused by climate change make harvests changeable and unpredictable. Packaging plays a crucial role in preventing food waste. Food is transported over long distances and must stay fresh longer than previously. A new generation of RFID makes it possible to monitor the quality of primary products in real time. Packaging also

contributes to the efficient use of food. The online economy has changed the role of packaging. Seducing consumers and providing product information happens online. The aesthetics of the packaging only plays a role once the customer unpacks the delivered product.



SCENARIO B: LOCAL, PLEASE

In the local economy, the emphasis is on recycling. Waste is processed locally as much as possible, for example by composting. Packaging is either reusable or biodegradable. Because packaging has the reputation of being wasteful, many producers avoid using it. Supermarkets have switched to 'self-dispensing' and electronics are delivered in special cases that are then taken away again by the manufacturer. Innovation in materials is mainly focused on adapting various raw materials for use as packaging that is afterwards biodegradable. Use of materials is highly dependent on local availability, with big variations between regions.



SCENARIO C: FORTRESS EUROPE

In 2040, the European circular economy is a reality. Packaging has much the same function as before. However, in design much more account is taken of reuse and recyclability. Such designs do not always match neatly with consumer perceptions. The use of 'single material' packaging is standard. The lease economy has significantly reduced the use of packaging. Thanks to modular-based products, components can be easily reused. The availability of almost-free electricity means food can be frozen immediately after production and kept frozen until the moment of consumption. Making the use of protective packaging largely superfluous.



SCENARIO D: ICREATE

The breakthrough of the 3D printer has fundamentally changed supply chains. Consumers have become prosumers, and production takes place on a very small scale in or close to people's homes. Transportation is limited to the transport of raw materials for the 3D printer. Food is partly printed and partly grown by people themselves in climate-controlled mini-greenhouses. Thanks to technology, households are almost totally self-sufficient. Packaging is hardly necessary. In this scenario, the 3D printer becomes a metaphor for 'disruptive technology', which also includes the 'smart computer' and 'self-steering car'.

Click [here](#) for the complete scenario document in Dutch.

Click [here](#) to see films of the four future scenarios in Dutch.