



FUTURE CARDS – FOOD PRODUCTION 2100

Let's think about what year 2100 could look like from the perspective of food production. The purpose of these future cards is to highlight different things, and even trends, that will have an impact on what life will look like in 2100.

They offer a fun activity for small gatherings, coffee breaks at the workplace or variation for your studies and school days.



FUTURE CARD TASKS - FOOD PRODUCTION 2100

ORDER OF IMPORTANCE

Randomly select five cards and decide which three will be the most important for food production in 2100. What thoughts come up? Are they familiar, surprising, important, meaningless, mainstream or a thing of the past? Or something else entirely?

Arrange the selected three cards in an order of importance, taking into account:

- The impact of food on human well-being and
- The impacts of food production and consumption on the well-being of the planet

STORY

Using the selected three cards, tell a story about what future eating habits will look like in 2100 – what, how, when and with whom? What about the planet's well-being?

BACKGROUND OF THE STORY

Please continue the STORY in the previous section by describing how things got to this point. Come back to 2075, then 2050 and finally today. What kind of things and changes guided your 2100 story?

TOOLS

You can use various tools such as pens, paper, magazines, news pictures, screen captures, power point presentations (or similar)

SUMMARY

Describe to each other three of the most important food related things that will increase the well-being of humans and the planet in 2100. What will eating habits look like, what will the state of the planet be and how things turned out that way? Use a maximum of 10 minutes to present the summary to others.



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AN AGEING POPULATION

People live longer and the population structure is getting older. The challenges of ageing must also be taken into account in food production as nutrition has been shown to have a clear impact on the occurrence of age-related diseases. It is also important to take into consideration the specific nutritional recommendations for older people, which differ from those given to people in working age. In the future, your functional capacity may be a factor that defines you more than your age. How can food affect older people's ability to remain active for as long as possible?



URBANISATION AND FOOD PRODUCTION

Urbanisation alienates consumers from food production. A large proportion of people have nothing to do with food production, which determines their relationship with food and hinders their ability to make informed decisions and form their own values. Where will fresh food be produced in the future, so that food production can remain a part of people's everyday lives? How will food be produced so that it could be part of the city?



GLOBAL VS. LOCAL FOOD PRODUCTION

Globalisation is progressing at a great pace. Food production is also increasingly dependent on the rest of the world. There are major differences between states regarding their self-sufficiency in food. On the other hand, appreciation of locally produced food is on the rise. This is also driven by sustainable development practices. Where and how will future food be produced so that the well-being of both people and the planet is guaranteed?

IMPACT OF FOOD PRODUCTION ON EARTH'S CARRYING CAPACITY

The acute environmental crisis is one of the most important drivers in the food chain. Climate change and the limited carrying capacity of nature together with a growing population will force us to develop sustainable food production solutions. More sustainable food production methods are necessary to produce high-quality food for the growing population in an environmentally friendly way, ensuring that there is enough for everyone. How can food be produced sustainably?





FOOD AND THE STATUS OF WOMEN

The status of girls and women will be strengthened and improved as the level of education increases. The way time is used in everyday life will change as women increasingly shift to working outside the home, also in developing countries. What impact will this have on our food systems and food culture? What kind of new services will be created?

FOOD AND TECHNOLOGY

The rapid development of technology will result in technological inequalities between people. On the one hand, technology is available to everyone and, on the other, only to a few. The young use different food related applications than older people, and wealthier people have the opportunity to utilise technology more diversely on different devices than those living in more modest conditions. There is no longer one solution that fits everyone. How will technological inequality be reflected in food production and consumption?





ENOUGH FOOD FOR EVERYONE – FOOD IS A FUNDAMENTAL RIGHT

Currently, in the 2020s, approximately 900 million people suffer from malnutrition, either due to too little food or food with poor nutritional value.

At the same time, millions of people are battling obesity as a result of bad eating habits and lifestyles. How can we fix this? Will transitioning to a plant based diet be enough to guarantee that there will be sufficient amounts of healthy food for everyone? How can we prevent increasing inequalities? How can we eradicate hunger on the one hand and enormous abundance on the other?



FOOD IS KEY TO A LONG LIFE

Life expectancy is rising and people wish to be healthier throughout their long lives. This is something they are prepared to invest in. New services are constantly emerging that ensure optimal and healthy nutrition for people. Will health and long life become a measure of human well-being that only the wealthiest can afford?

GOOD FOOD AND HIGH-QUALITY SERVICES

The popularity of environmentally friendly and responsible consumption is growing. This makes it possible to bring to the market smarter products of a better quality that are competitive regarding the interest they attract. For example, when purchasing a protein source, you have easy access to a wide selection of products that include a versatile range of animal and plant based products. Technology makes it easy to use food related services. The ease of use and the user's perspective are emphasised. How can user needs be taken into account in the development of new products and services?



SUSTAINABLY PRODUCED FOOD

In the 2020s, food production is currently responsible for about 25% of greenhouse gas emissions and consumes about 75% of our water resources. Consequently, we need new ways of producing food that are in line with sustainable development. One option is cellular agriculture, where we harness fermentors (closed tanks) to produce food using microbes and plant cells, in the same way as beer is produced in breweries. What are the things that we need to take into account in sustainable food production?



FOOD PRODUCTION AT THE MERCY OF CLIMATE CHANGE

As climate change advances, weather conditions will vary more and more. Lands that used to be fertile suffer from drought, while elsewhere crops are drowning in rain. There is less and less arable land and, when combined with the rapidly increased need for food, the equation becomes even more difficult to solve. In addition, biodiversity is increasingly at risk. Is traditional agriculture enough, or will new forms of food production be needed?



FOOD IN CIRCULAR ECONOMY

In an efficient circular economy, no food is wasted at any stage of the food chain from field to fork. In the cultivation and processing of plants, for example, uses for the entire biomass of a plant and the side streams of processing must be considered. Household food waste accounts for approximately 50% of total food waste in the EU and ca. 30% in Finland. What is your track record like in using all the food you buy?



INCREASE IN FOOD RELATED DATA AND DIGITALISATION

Digitalisation is a strong force that pushes change forward, both giving momentum to globalisation and strengthening the consumer's role in the food chain. Connecting real-world devices and machines to the internet and to each other makes it possible to develop new types of smart products and services, in which enormous amounts of data can be collected and utilised. Ownership of or access to data and the ability to utilise it enable new business models but also require expertise in safe ways of sharing data. What kind of services could data make possible? What kind of ethical questions are involved in the utilisation of data?

BETTER FOOD THROUGH GENE TECHNOLOGY

The possibilities to shape plants, microbes and even animals to produce better food offered by gene technology are revolutionising our ability to respond to the challenges of food production. For example, the genome of a cultivated plant can be edited, making the plant more drought tolerant and enabling it to produce a very high yield even in difficult conditions. A microbe can be made to produce egg white, eliminating the need to keep chickens to produce this protein, large quantities of which are used in the food industry. Chicken eggs can be reserved for breakfast. What kinds of opportunities and realistic threats do you see in the utilisation of gene technology in food production?