

Role of Nutrition Science in Emerging India

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Goals in Nutrition Science 2020-2025

- Food and nutrition science experience a renaissance for a number of years.
- This change in recognition is built upon insights from epidemiological, clinical, and physiological studies as well as technological, environmental, and policy-based advancements alike.
- Personal and planetary health are taking centre stage in this development.
- Hence - **health and sustainability**.

1. Health Goals in Nutrition Science

- ❑ Functional Food for Health
- ❑ Strengthening Human-Based Evidence
- ❑ Focusing on “Real Life” Settings
- ❑ Nutri-genomics and Personalized Nutrition
- ❑ Nutritional Immunology
- ❑ Performance Nutrition
- ❑ Managing the Obesity Pandemic
- ❑ Nutrition and the Human Gut Microbiome
- ❑ Clinical Nutrition at a Crossroads

2. Sustainability Goals in Nutrition Science

- ❑ Attaining Sustainable Food Systems
- ❑ Future Food Technologies
- ❑ Resilience of Food Systems
- ❑ Healthy and Sustainable Protein
- ❑ Food Integrity and Food Safety



Back to Basics

- As the conversation about body positivity is advancing, many people are no longer aiming to fit into a certain weight scale as maintaining good health has become the utmost priority.
- Eating all kinds of food in moderation for a balanced diet will become a positive diet trend of 2021.

TIME LINE: Pre-covid to present

- Covid-19 has changed the thinking of consumers.
- Food systems need to be strengthened for the future.
- The desire for healthier foods and snacks, demand for companies to adhere to sustainable practices.
- Avoidance of sugars and artificial ingredients are already well entrenched in the mindset of the global consumer.

Nutrition Trends before Covid-19



Top 5 Nutrition Trends in 2020

- ❑ Sustainable nutrition
- ❑ Immunity Booster
- ❑ Mood & mental wellness
- ❑ Healthy Snacks
- ❑ Sugar



1. Sustainable Nutrition

- ❑ key to the future of the planet and part of the solution for many companies in the food and beverage industry
- ❑ increased focus on sustainable farming and sourcing practices, closed-loop supply chains, finding health and nutrition value in waste streams, as well as development of solutions to feed populations in need.



Immunity boosters

people are now aware that a healthy immune system could prevent them from certain illnesses, they are leaning towards immunity-boosting food items and health supplements as a precautionary measure. Thus, consumption of immunity boosters will continue in 2021.

Alternative remedies such as herbal supplements have also come in the spotlight and become one of the top-selling commodities.



Mood & mental wellness

Food has long been associated with emotional well-being
Botanical ingredients like herbs have strong health halos for mood

Science is still emerging in the area of mood – pair health halos with scientifically supported solutions.



4. Healthy Snacks *(Required?)*

- ❑ Consumers are now seeking has ultimately shifted towards healthier alternatives with functional benefits.
- ❑ With busy lifestyles, however, snacking needs to be convenient,



Sugar

Is this sugar really needed?" Think about the type of product when determining sweetness level.

People can be more forgiving with sweetness in health-focused foods than indulgent ones.

The answer to the question 'what is the best solution?' is continually being explored.

Guilt-free dessert- Health-conscious brands, including many confectionery brands, are promoting indulgence by lowering the amount of sugar products



Trends in Food Industry



Top 5 Trends in 2020?



The top 5 trends for the agrifood industry 2021



1

Health

Consumers will be more conscious of their health, tailoring diets and lifestyles to meet their personal needs.



2

Convenience & technology

Online capacity has increased as a result of COVID-19 and direct-to-consumer agrifood services will continue to rise in popularity across Europe.



3

Alternative proteins

Plant-based foods and alternative proteins keep gaining grounds among consumers preferences, increasing opportunities for existing and new businesses.



4

Sustainability & reducing waste

The term 'waste' is being replaced with 'side-streams', ensuring all excess food enters into the circular economy. Other trends include buying locally and increased focus on sustainable, intelligent packaging.



5

New flavours & experiences

Consumers will seek foreign flavours and experiences in 2021 after a year of reduced travel and restrictions.



Funded by the
European Union

The top 5 trends for the agrifood industry 2021



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4

What's New in 2021

Nutrigenomics

Personalized Nutrition

Nutritional Immunology

Designer Food

Nanotechnology in food science

Nutrigenomics

how the nutrients alter the gene expression”



Nutrition is as a major environmental factor able to affect health



Nutrigenetics and nutrigenomics represent the future of personalized nutrition

Modern Technologies used in Nutrigenomics

Metabolomics-provides functional information of cellular biochemistry.

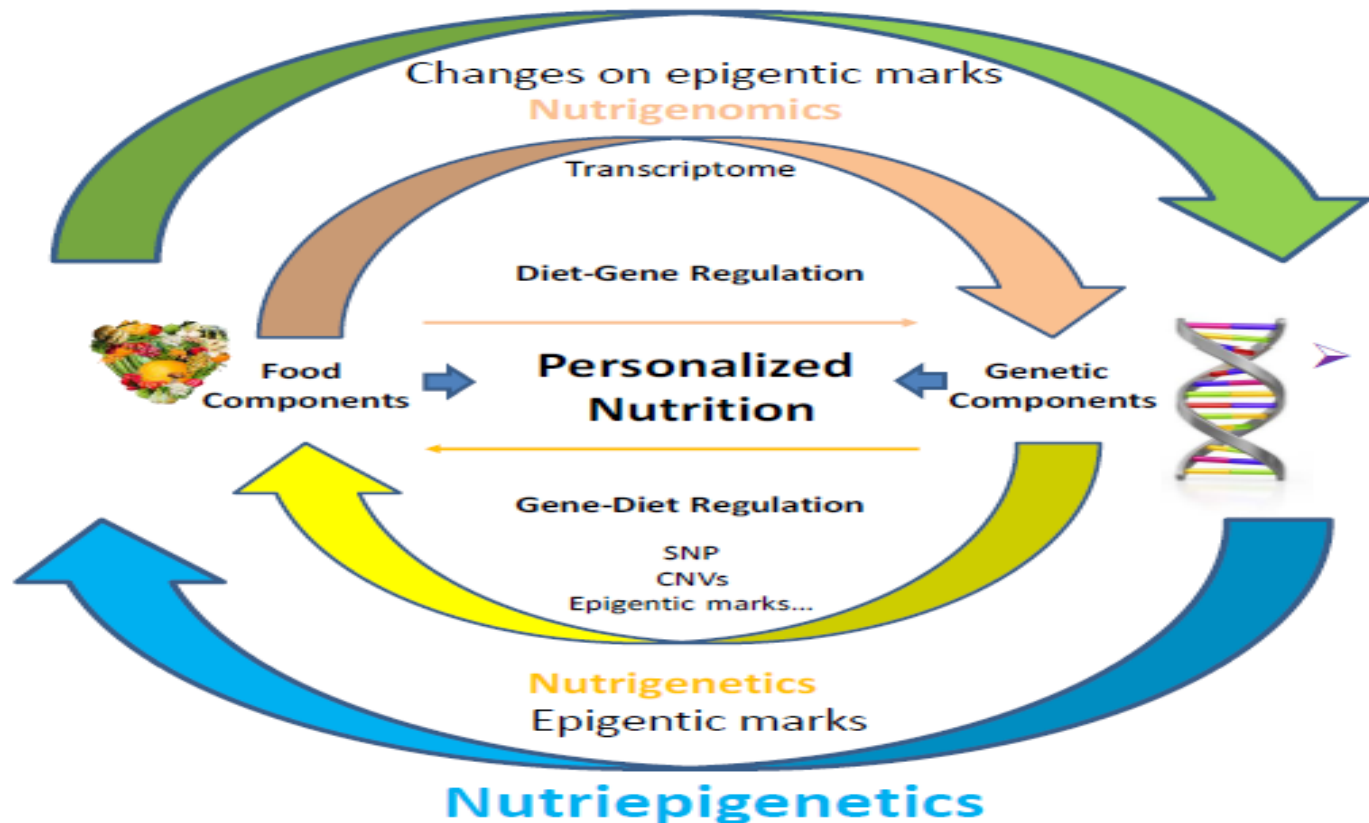
allowing early signs of disease processes to be identified, and targeted remedies, including tailored diets, to be developed

Personalised nutrition

lifestyle-specific customisable nutrition services are gaining traction, personalised nutrition shall remain one of the top trends of 2021.

Personalized nutrition may tailor dietary interventions or recommendations to one or a combination of an individual's genetic makeup, metabolic profile, microbiome, and environmental exposures

Nutrieigenomics



Nutritional Immunology

Nutritional or metabolic changes can be channeled as information processing systems, through central regulatory hubs at the interface of immunity and metabolism.

Nutritional Immunology field has undergone a substantial transformation during the last 5 years

DESIGNER FOOD

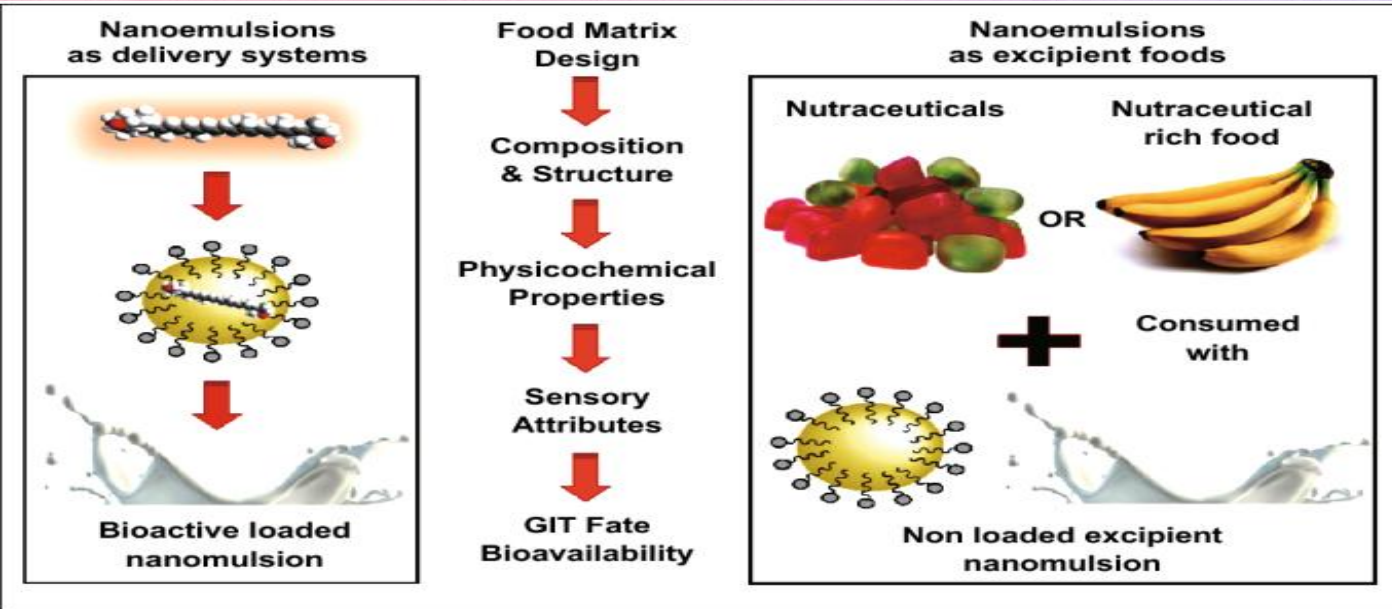


Designer foods are normal foods fortified with health promoting ingredients and are consumed regularly as a part of diet.

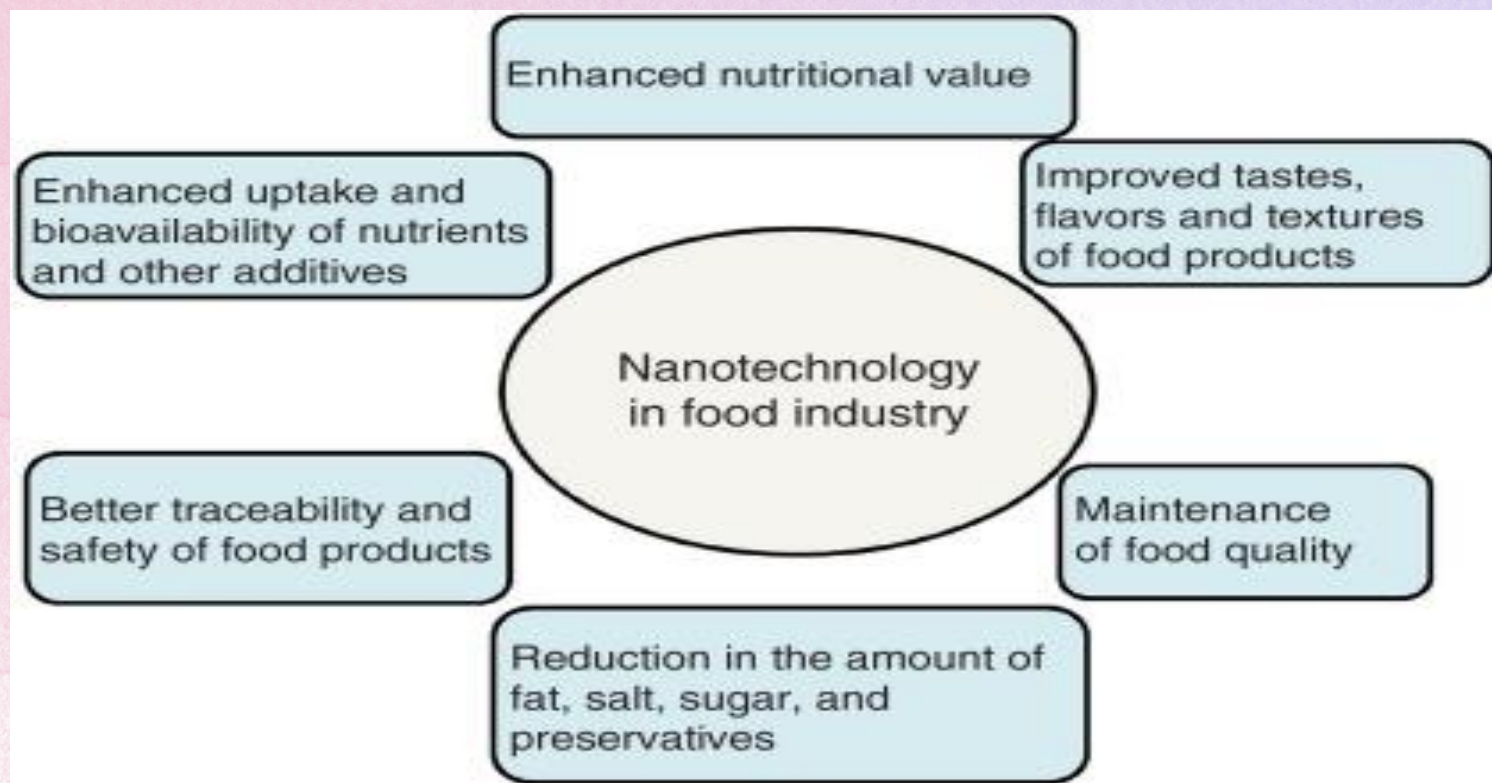
Designer foods are produced by the process of fortification or nutrification.

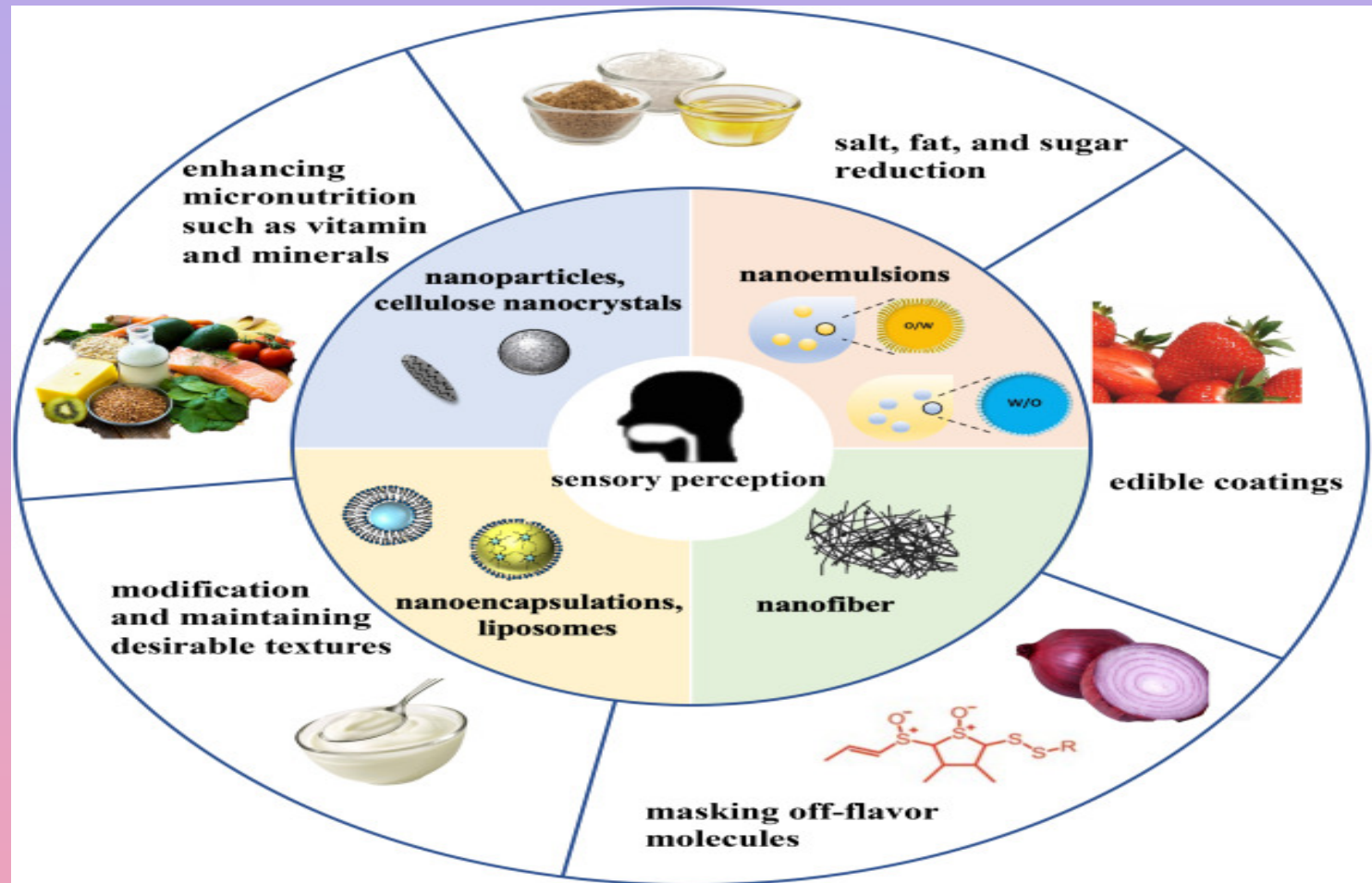
Includes designer egg, designer milk, designer grains, probiotics, designer foods enriched with micro and macronutrients and designer proteins

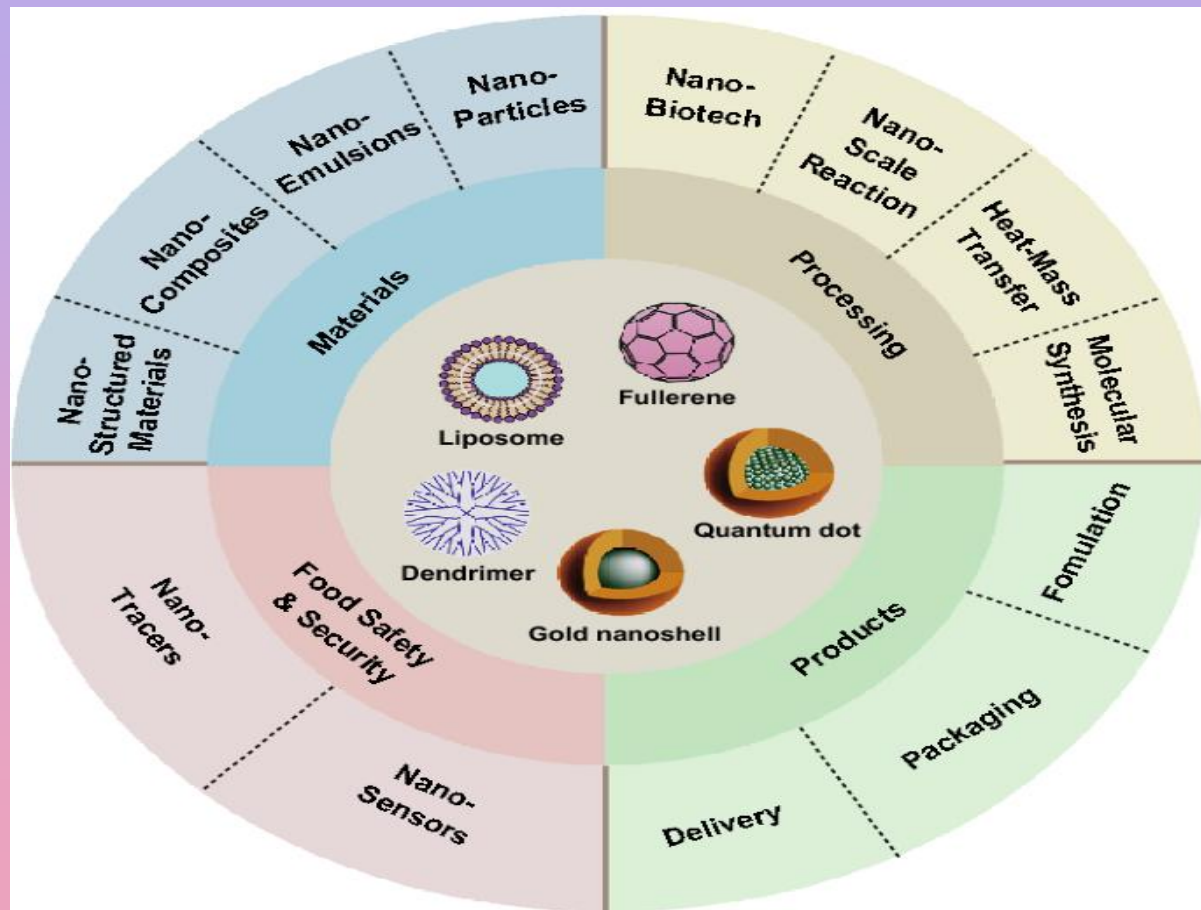
Nanotechnologies in Food Science

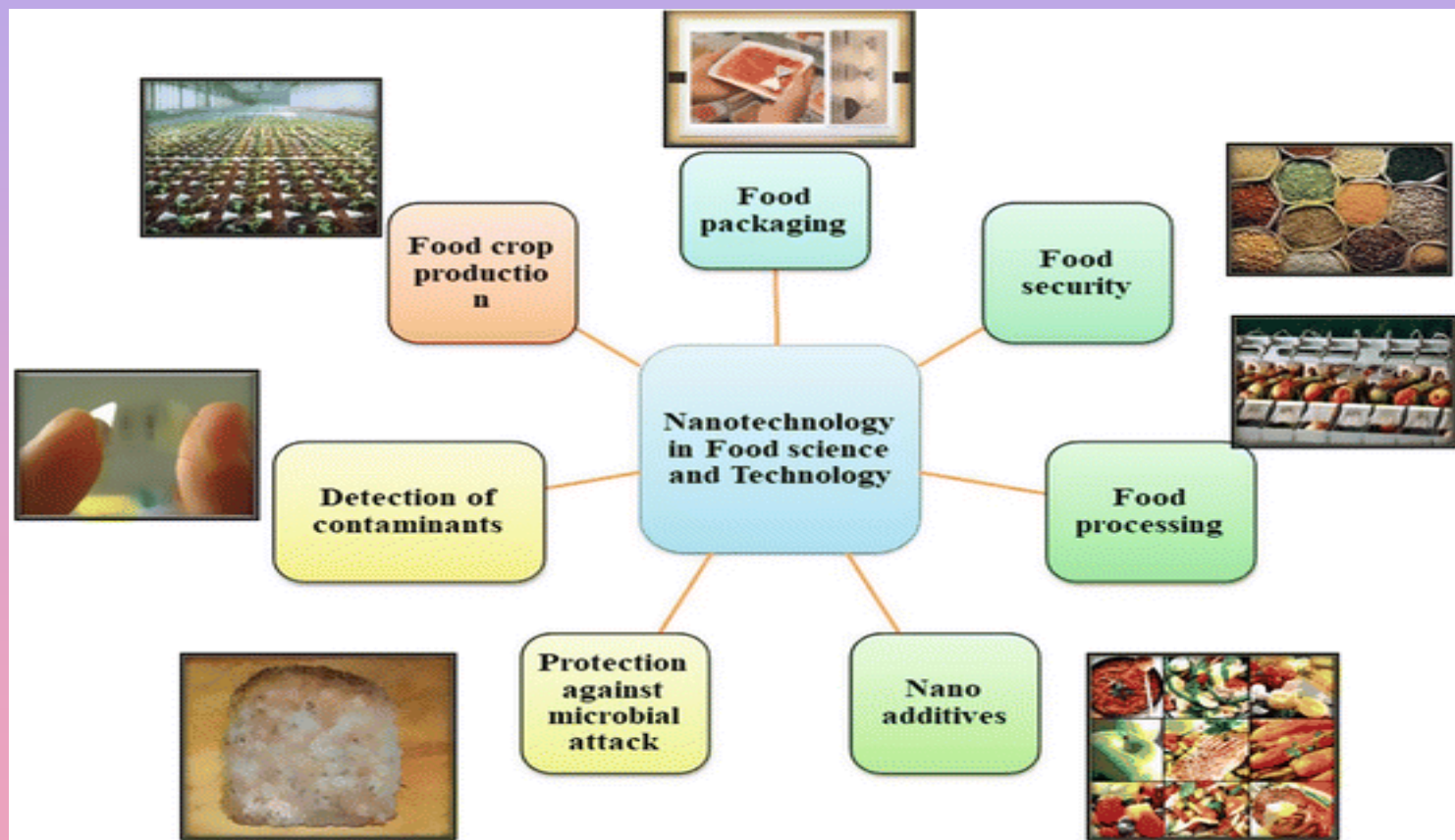


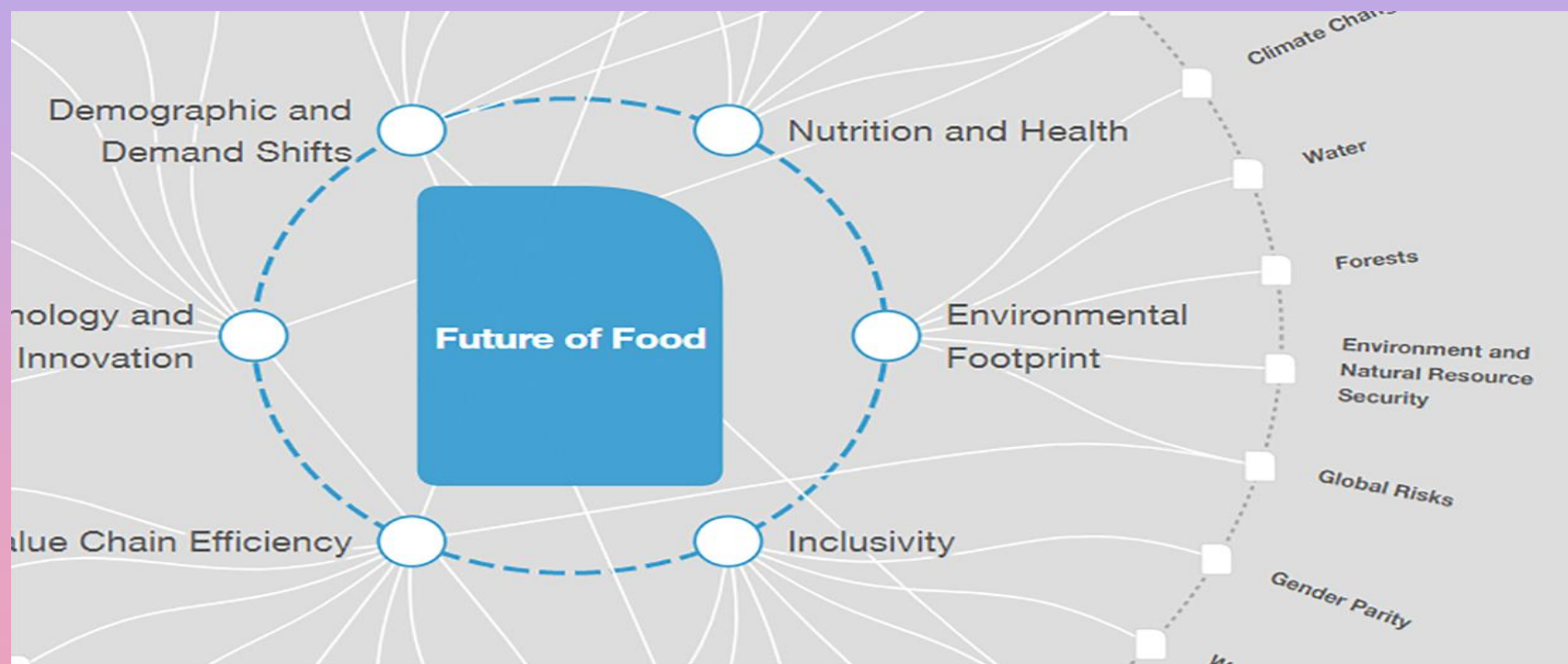
- enhance the food bioavailability, taste, texture, and consistency,
- modification of particle size, possible, cluster formation and surface charge of food nanomaterials











Thank you



EVERY TIME
you eat or drink
you are either
feeding disease
OR FIGHTING IT



Thank You!

Any questions?