



# THE PROBLEM

*A wide range of preventable, diet related diseases are significantly impacted by factors related to **Metabolic Health***



Diabetes Mellitus



Dysregulated Blood Glucose



Cardiovascular disease



Polycystic ovarian disease



Progressive neurological disorders



High Blood Pressure



Lipid abnormalities



Non alcoholic fatty liver disease (NAFLD)



Cancer



Severe obesity

# THE PROBLEM

## COVID-19



Metabolic diet related disease is a key driver of Covid-19 to spiraling out of control



3 out of 4 leading risk factors affecting COVID survivability are metabolically related

## Case of



Cases of Type 2 Diabetes in children have more than doubled during Covid



Non alcoholic fatty liver disease patients represent high risk for Covid-19 patients



Most patients at risk of severe Covid-19 present with dysregulated blood glucose

# THE PROBLEM

## Middle East and North Africa (MENA)



A **diabetes epidemic** is sweeping the MENA region



Total expenditure on diabetes in the region by 2045 is **estimated to reach \$37.1 billion**



Diabetes **affects 1 in every 4** people in the Middle East



Most MENA countries need to reduce added sugar consumption by **at least 50%** to meet health guidelines



## THE SOLUTION

A **MENA multi-sector metabolic health alliance** is proposed to facilitate the paradigm shift needed to break through the challenges and barriers that put the entire MENA region at risk



# THE WORLD NEEDS A **METABOLIC** RESET

*KDD introduces a science-based “metabolic matrix” in order for foods and beverages to support our metabolic health*



**New food recipes  
are not enough**



**New ingredients  
are not enough**



**New food labels  
are not enough**

*A solution born in the middle east has the potential to change the food and beverage industry forever*

# WHAT IS “METABOLIC HEALTH”?

**THE FOUNDATION**  
of nutritional well-being

**THE KEY** to long-term  
economic security

**MARKERS OF METABOLIC HEALTH**  
including levels of blood sugar, triglycerides, high-density lipoprotein,  
cholesterol, blood pressure & waist circumference

**THE SCIENCE**  
needed to implement changes  
in the way foods and  
beverages are engineered

**THE ANSWER**  
to prevent and reverse chronic  
diet-related disease by  
rethinking the nutrition paradigm

# ADDED SUGAR & PROCESSED FOOD

*74% of all foods and beverages sold contain added sugars*

WHO recommends **no more than 10%** of total calories come from added sugars, approximately 12 teaspoons per day (there is no requirement for added sugar in the human diet)



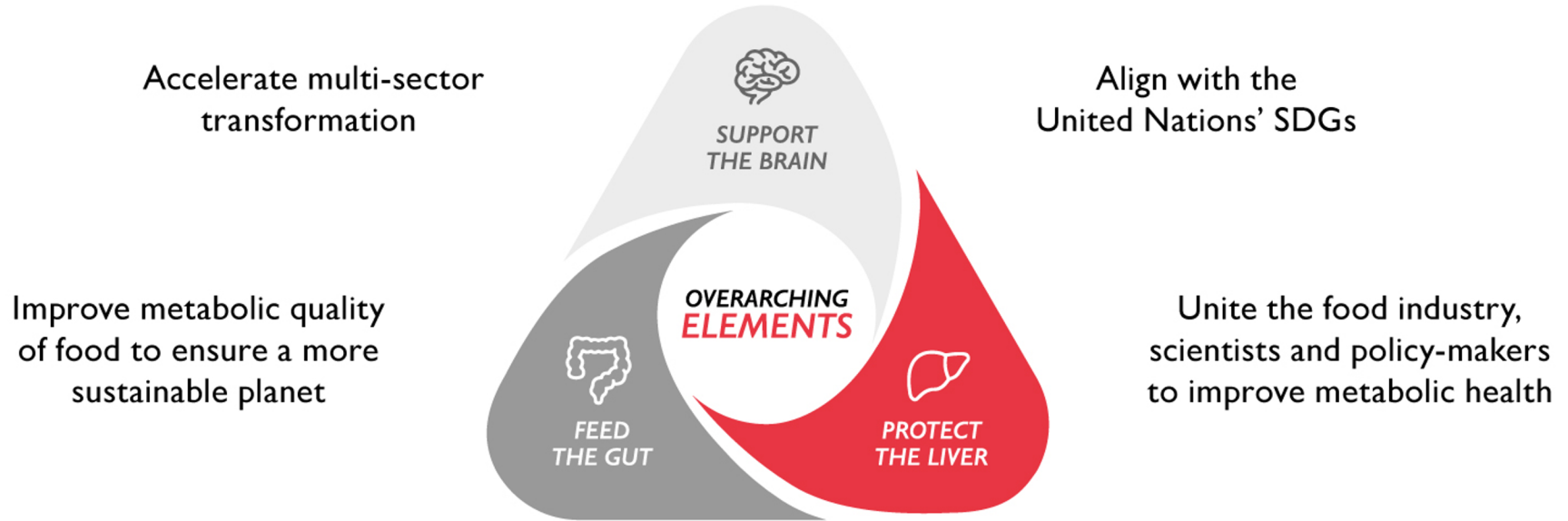
Most countries need to reduce added sugar consumption by **50% or more**



Thus far, companies have attempted reductions of **only 14-15%**

# THE METABOLIC MATRIX

*A science based paradigm shift*



The Metabolic Matrix is a replicable and scalable prototype that can be utilized by any food and beverage company

# THE METABOLIC MATRIX

## *Pillars of Metabolic Well-Being*



### FEED THE GUT

- Soluble and insoluble fiber
- Reduce processed carbohydrates
- Emphasize whole foods
- Provide prebiotic nourishment (dietary fiber)
- Provide probiotic nourishment (gut microbiota)



### SUPPORT BRAIN HEALTH

- Emphasize nutrient-dense foods
- Increase intake of healthy fats and protein



### PROTECT THE LIVER

- Reduce fructose
- Reduce total sugar intake
- Appropriate hydration
- Reduce environmental toxins
- Reduce glycemic load

# THE METABOLIC MATRIX

*Working Prototype Elements*



**Rigorous  
Science**








**Robust Stakeholders  
Engagement**



**Precise Modeling &  
Milestones**

# KDD'S MODEL

*A scalable, replicable framework being championed by KDD*

-  KDD is working with an independent, evidence-based food science advisory team.
-  KDD seeks the support of stakeholders from the Region.
-  The goal is to align food science and nutrition to make healthy and sustainable products that are tasty and marketable using the Metabolic Matrix Framework.
-  The objective is to form a MENA action group to champion this prototype and also share it globally.
-  KDD's science advisory team consists of physicians, culinary medicine specialists and PhD-level nutrition and data scientists.

# KDD SUSTAINABILITY FRAMEWORK

*By 2030, KDD aims to implement its position as a leading food & beverage company, with a holistic approach to human wellness, environmental health & a thriving society*



## PEOPLE

Be a diverse, fair and inclusive employer that empowers people and creates opportunities for communities in the region



## PLANET

Leave the smallest environmental footprint behind, while addressing the biggest sustainability challenges in the region



## NUTRITION

Be a leader in healthy food & beverages that ultimately improves metabolic well-being



# PARTNER WITH US

Chronic and acute diseases are severely affecting the region and the world.  
Our collective health and economies are at stake.



All countries involved will benefit from implementing a paradigm shift



The key to long-term nutritional and economic security is cross-sector collaboration



Millions of lives can be saved



Trillions of dollars could be redirected towards more sustainable initiatives

*JOIN WITH KDD TO CONNECT THE DOTS BETWEEN PEOPLE, PLANET, AND NUTRITION*

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