



# Integration of Sustainability in CAPEX Projects

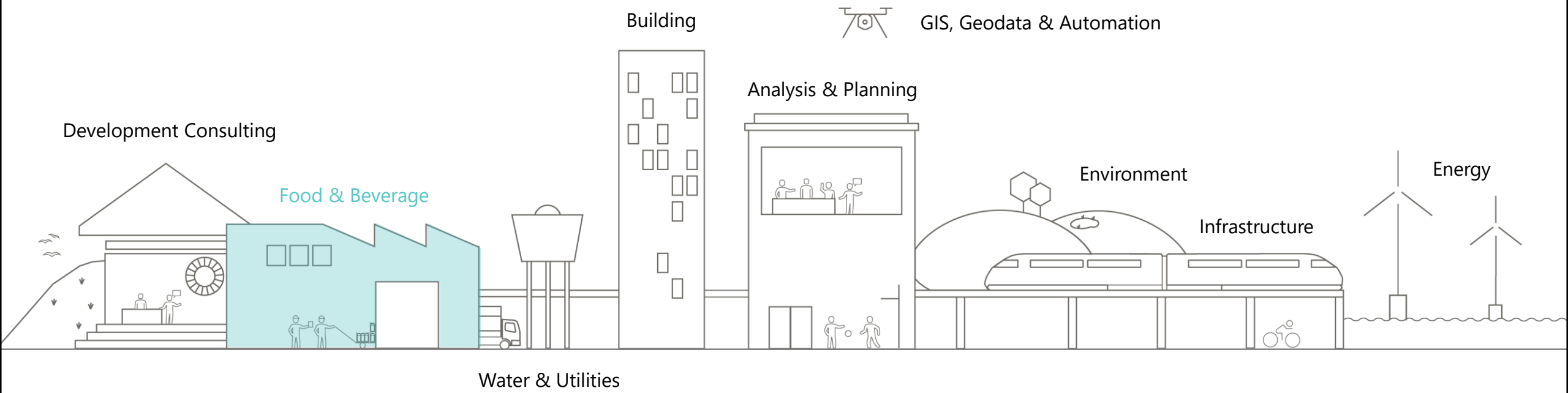
Søren Nøhr Bak

2<sup>ND</sup> JUNE 2021



NIRAS

# NIRAS delivers a broad range of services supporting the Food & Beverage business



# Our worldwide presence in numbers



31

countries



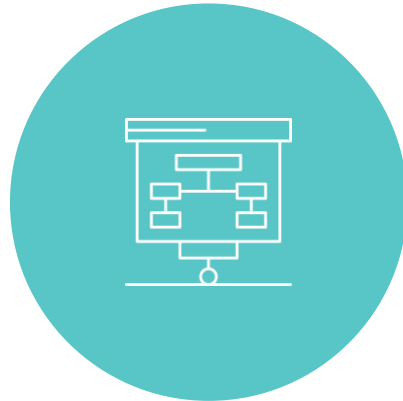
54

offices



2,300

experts



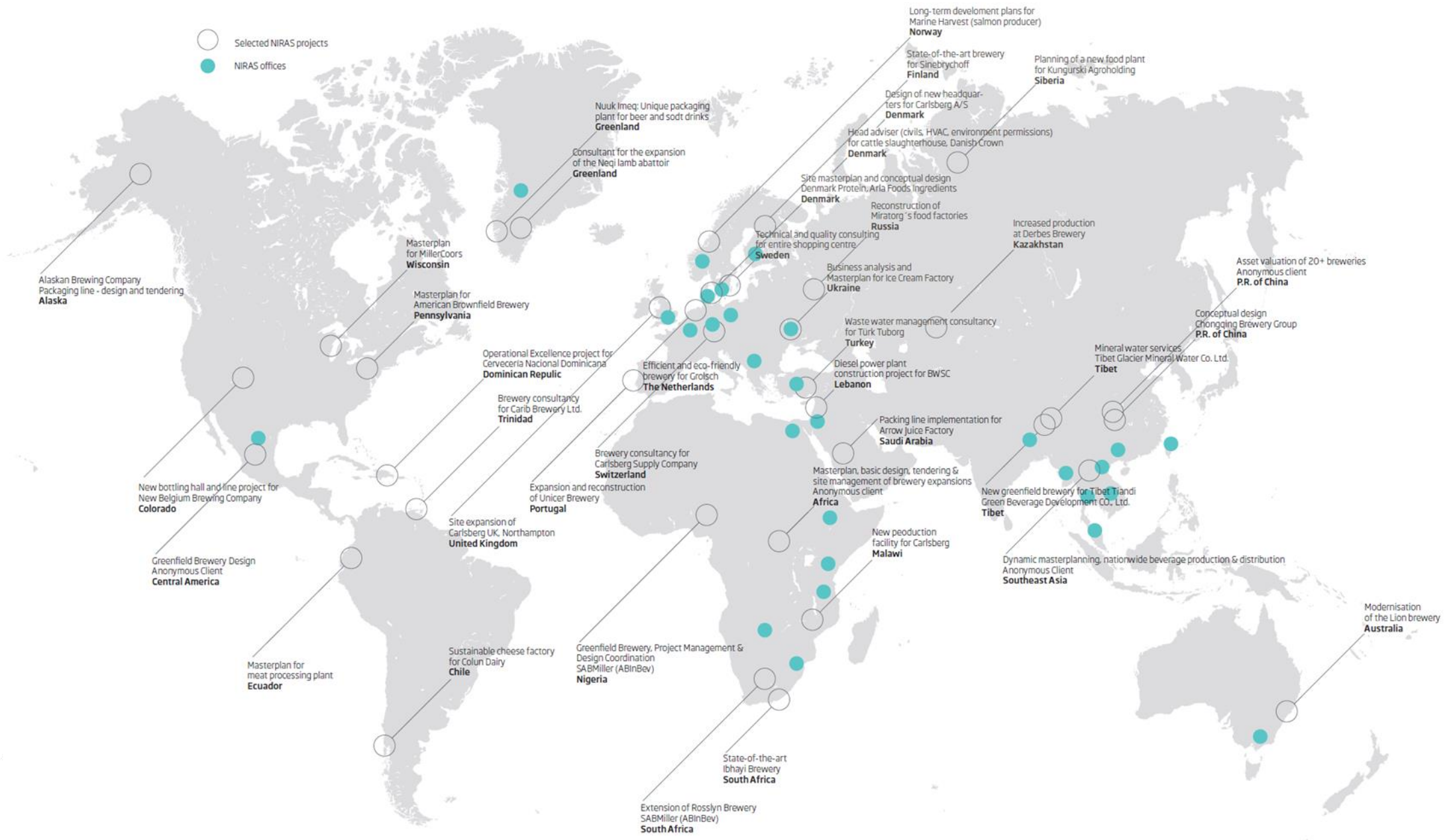
7

business sectors



7,000

projects



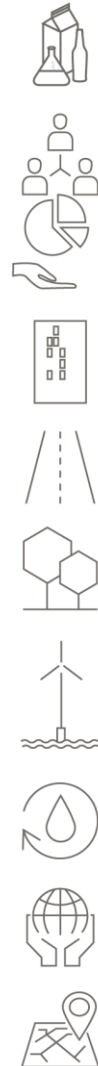
# SDG

Within NIRAS

# 500

**BILLION DKK**

*Total investment volume*



**2.5 BILLION DKK**  
*Gross Revenue*

**1.9 BILLION DKK**

*Production costs*

**0.1 BILLION DKK**  
*Profit*

**0.5 BILLION DKK**

*Rent IT Travel*

**ACTIVITY  
BASED  
SEATING**

**LIFE-CYCLE  
MANAGE-  
MENT**

**ONLINE MEETING  
AND USE OF LOCAL  
COMPETENCES**



**WAGES AND  
TAXES**

**REINVEST-  
MENT**



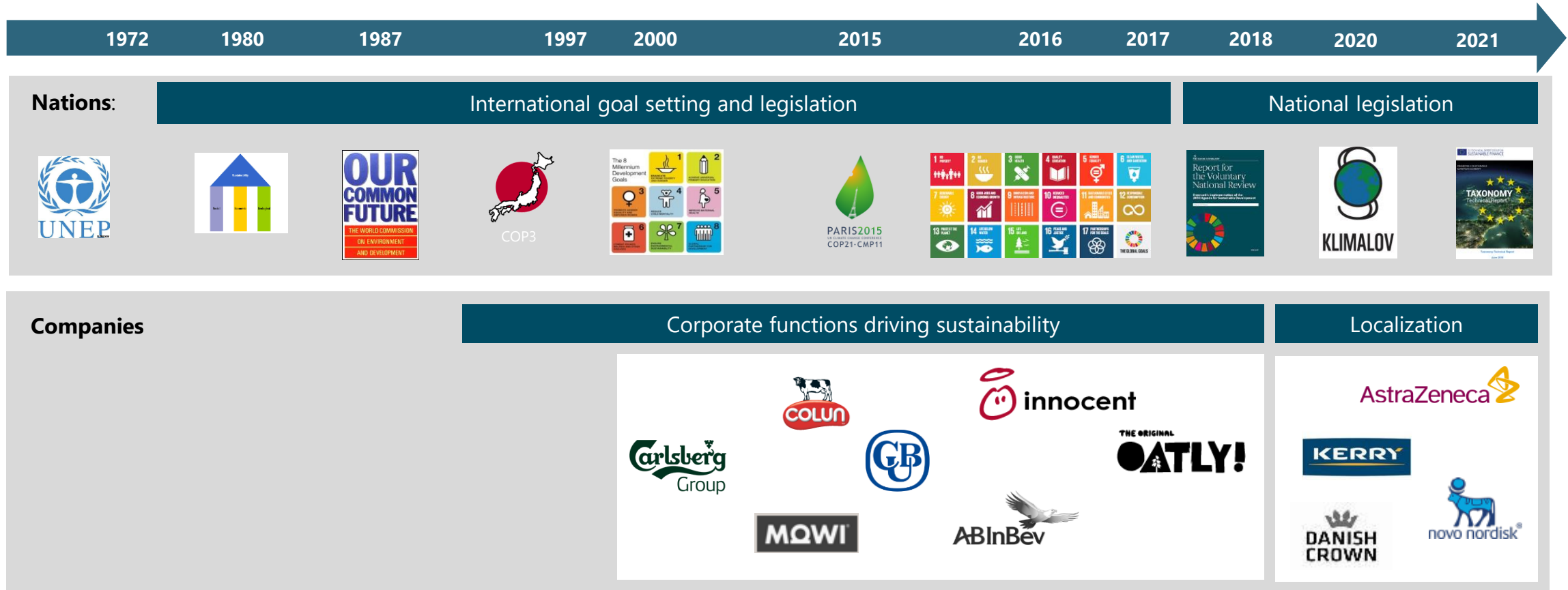
# Food & Beverage companies commit to SDG

Global dairy companies explicitly communicated their commitment to UN SDGs



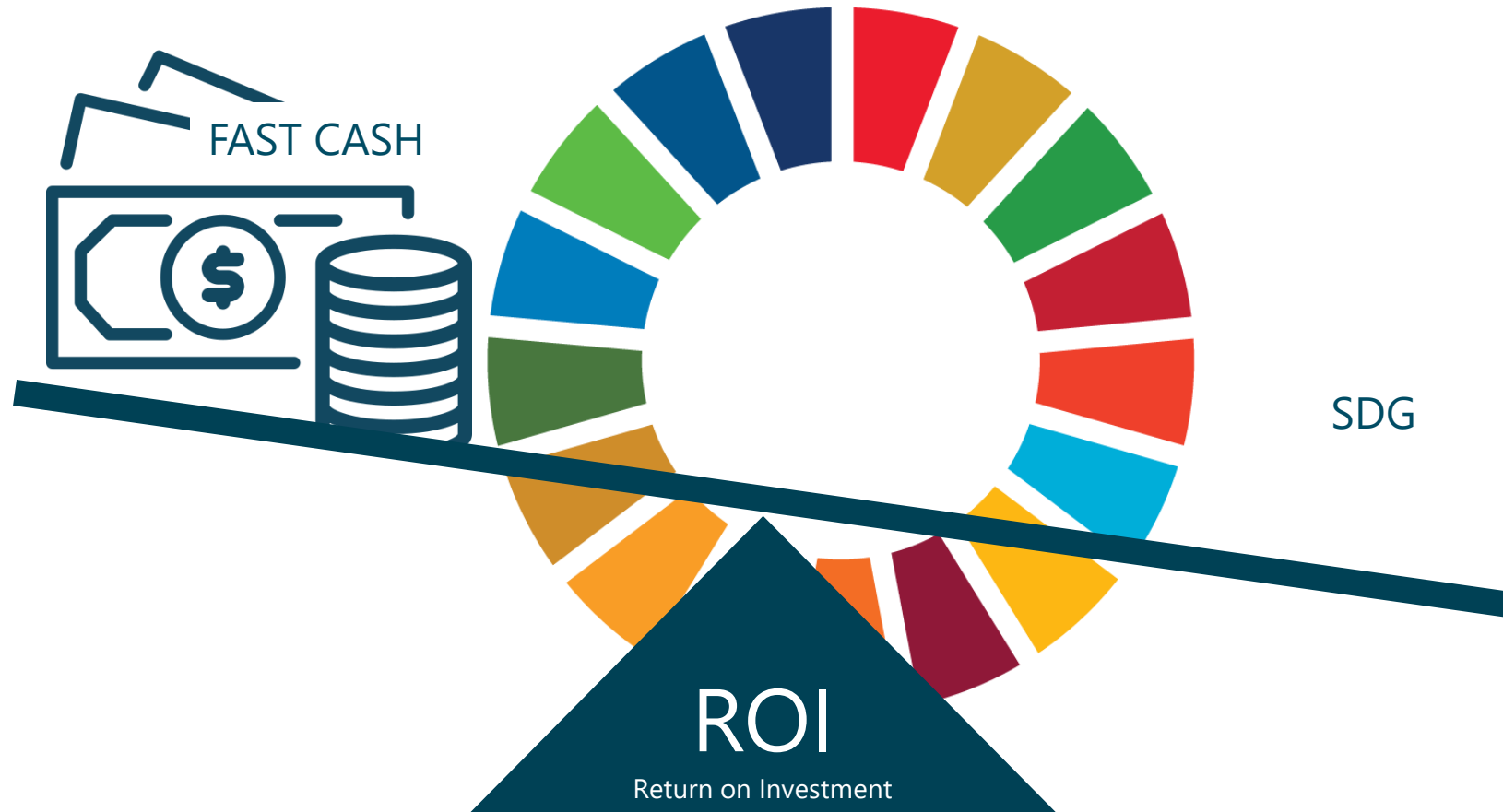
# Timeline – focus is shifting

The "Social License to Operate" discussion is becoming a hot topic



# Extending the payback period

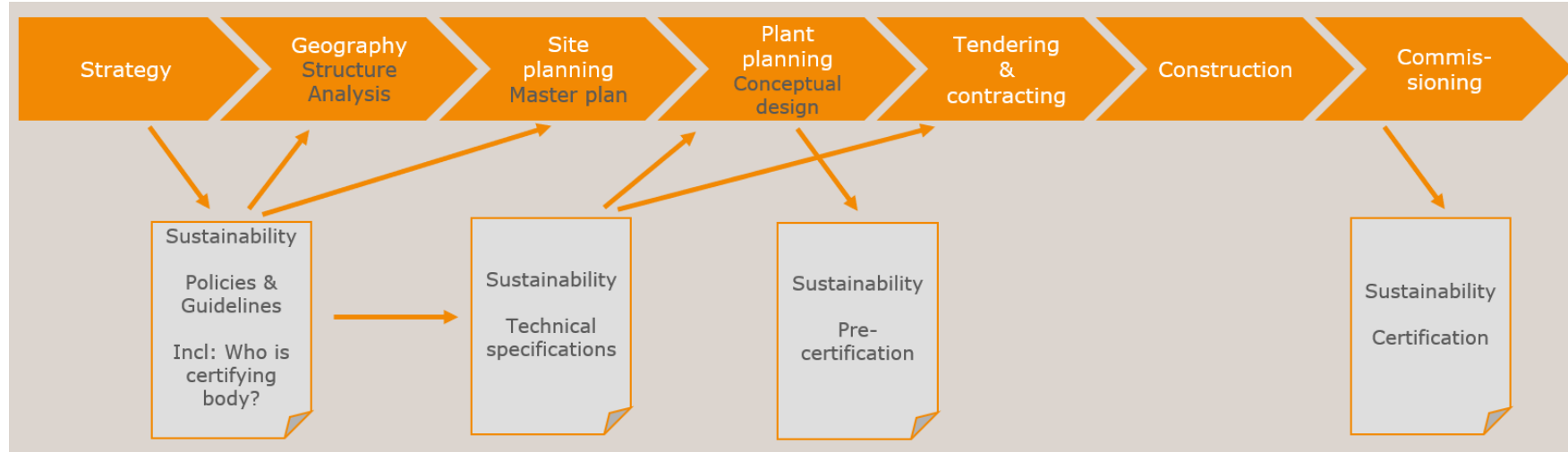
We see a shift in the view from short term to (slightly) longer term





# Sustainability Strategy

When and where to integrate in the project



## Materiality assessment:

Determine focus areas within sustainability by

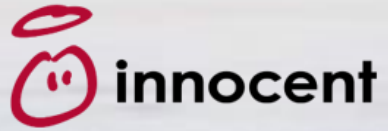
Ranging of:

- Importance to business success
- Importance to external stakeholders

What is important to the specific project.

## Actions:

- Defining the level of ambition for sustainability
- Preparing a prioritized action plan to implement
- Setting up a process for sustainable plant planning, design and establishing



## Case: Greenfield juice facility for innocent

### Period 2018-

At the port of Rotterdam innocent is now realising a carbon neutral processing facility with a CAPEX of approx. MEUR 270.

Integrated Food Projects (IFP), part of NIRAS, has been responsible for developing the sustainability strategy, master planning, design, implementation and transition.

# Clients Core Values used as basis for business case & design from first brick to first bottle and beyond

## Do our bit to keep climate change below 1,5 degrees

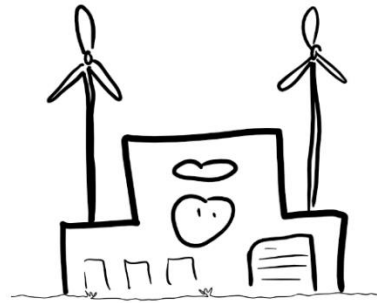
A carbon neutral factory that step changes our impact on the environment and allows us to leave things better than we found them

## Inspire wider change

A place where people come to learn, copy and ultimately improve on how to be the best factory you can be

## Sustainable business for the future

A factory that is designed to make our drinks for our drinkers, exactly how we want to, when they want them, both now and for the future



## Be a great place to work

We value the diversity of our teams and the pride they have in our factory. It's the place where people work hard but go home happy

## Transform the way we move stuff

We reduce the road miles of our drinks by at least 25% reducing our carbon footprint by 10%

# Greenfield juice facility

At the port of Rotterdam Innocent aims to realize a carbon neutral processing facility with a CAPEX of approx. GBP 240m. NIRAS / IFP is responsible for developing the sustainability strategy, master planning, design, implementation and transition.

## Environment and social objectives are:

- Carbon neutral factory
- Water independence
- Waste as a resource
- Healthy and happy people
- Built for the future
- Respect for our neighbours
- Live in harmony with others
- Inspire others



Each objective has 1 main KPI and 1-7 indicators scored monthly during design process in sustainability scope card – this trend has further developed in the last 1-2 years

# Define the ambition

Case: Specific water consumption



Defining Best in Class for juice manufacturing & bottling  
Through collection of industrial data and from production network

Result: 0.45 l/l

Define a stretched target of 0.20 l/l  
Search of innovative and water efficient technologies  
Open dialog with both known and innovative technology providers

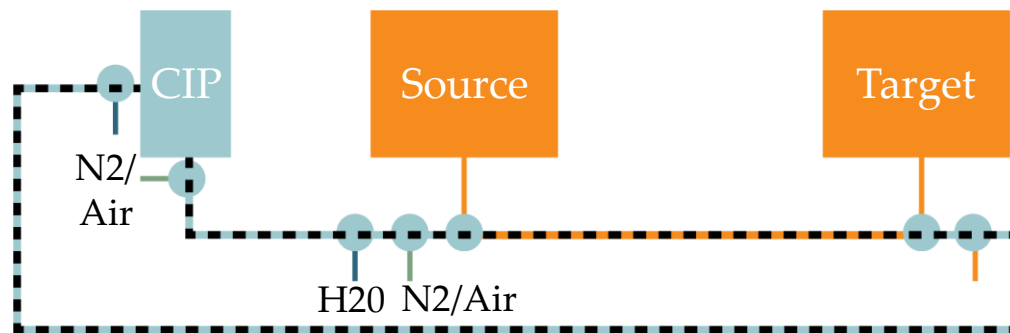
Evaluation of dialog  
Determination of project ambition

Result: 0.3 l/l

# Cleaning with less water –CIP example

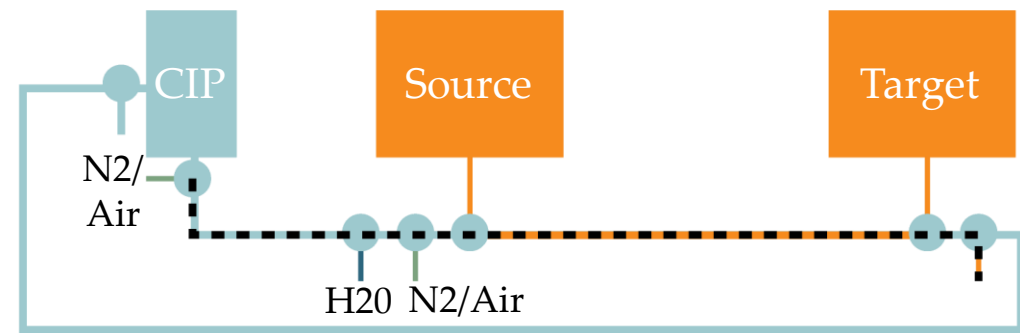
- Conditioning based cleaning of equipment
- New detergent
- Pigs or gas purges to reduce water consumption

## CIP CLASSIC



3 minutes flush: weekly water consumption: app. 915.000 Litre/week

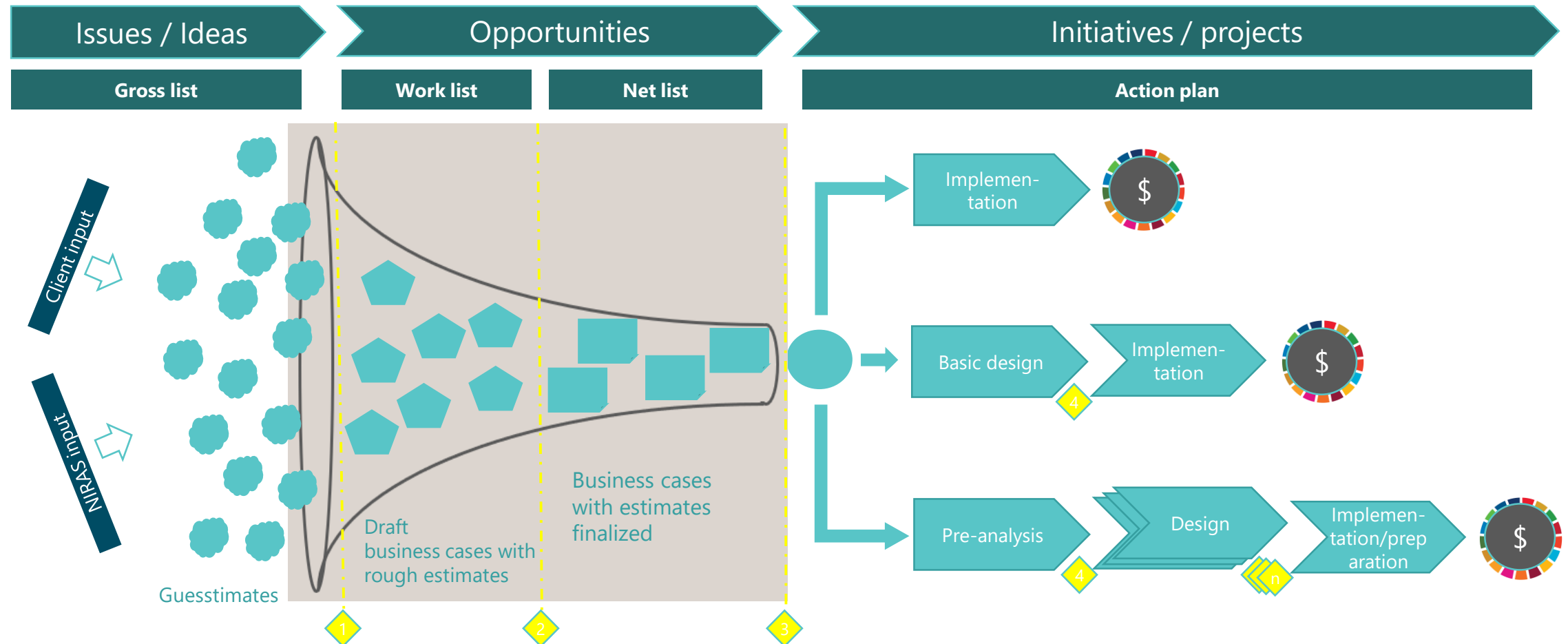
## CIP GAS PURGES



Weekly water consumption: app. 31.000 Litre/week  
Savings: 884.000 Litre/week  
Pipe empty when done – no mixing with caustic

# Innovation funnel

Ideas gets rejected and uncertainty of financial and environmental calculations gets reduced



# Work-In-Progress





# Q&A



**Søren Nøhr Bak**  
Expertise Director



SNBA@niras.dk

+45 20257033



Denmark