

Global warming



BMSERVICE



**NATIONAL UNIVERSITY
OF FOOD TECHNOLOGIES**
Educational and Scientific
Institute of Technical
Engineering by name of
academician I.S. Hulyi

Business Description

- Step I - Energy program 2015-2020
Auchan France
- Step II - Development of energy efficient projects
- Step III - **Heat pump the first in Ukraine:**
 - ✓ free heat 1 HW/year
 - ✓ the net reduction of greenhouse gas emissions 100 tons/year
 - ✓ the net reduction of electricity consumption 15%
 - ✓ the net reduction of natural gas consumption 110 K m³/year
 - ✓ > 7000 customers in Ukraine
 - ✓ > 1,5 M customers in the World



Problem

- One hypermarket
 - heating costs
3 million UAH
 - heat emissions in air
1,5 million UAH
 - greenhouse gas emissions
200 tons/year



Problem solving



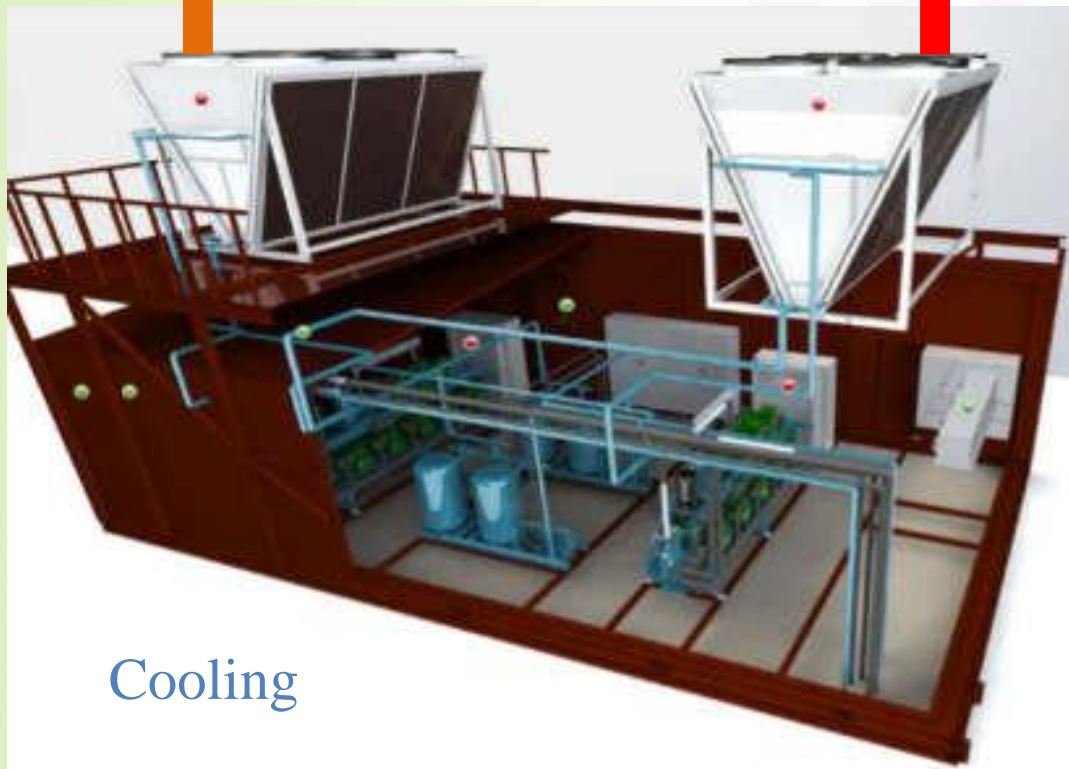
Heat emissions in air



Gas boiler room



Heating system



Cooling

The obtainable market size in Ukraine



> 2500 Retail

First
customer



> 30 (Ukraine)
> 1200 (World)

Next customer



> 550



> 7



> 50



> 1050



> 30 (Ukraine)
> 700 World)



> 300

Logistics terminals



>1000

Fruit and vegetable
cold rooms



> 2000

Food industry






Market entry plan

- ✓ **Step I** - development BMSERVICE
- ✓ **Step II** - development, validation, sale, service of the first product
- ✓ **Step III** - cooperation agreement Team-Other customers
> 100 business meetings were held
- ✓ **Step IV** - cooperation agreement Team-Auchan France
> 1200 customers in the World
- ✓ **Step V** - cooperation agreement Team-Other customers
> 1,5 M customers in the World



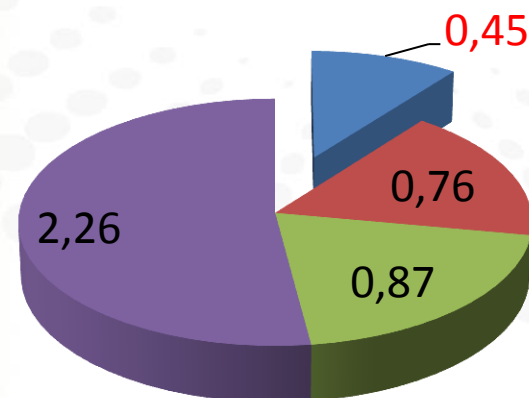
Competition






Direct competitors

Manufacturer	Refrigerant-water	Price	Service
BMSERVICE			
Senco	-	+	+
VDE	-	+	+
Geosun	-	+	+
Viessmann	-	-	+
Nibe	-	-	+
Buderus	-	-	+
Daikin	-	-	+
Octopus	-	-	+

Indirect competitors

The cost of thermal energy,
UAH / kW

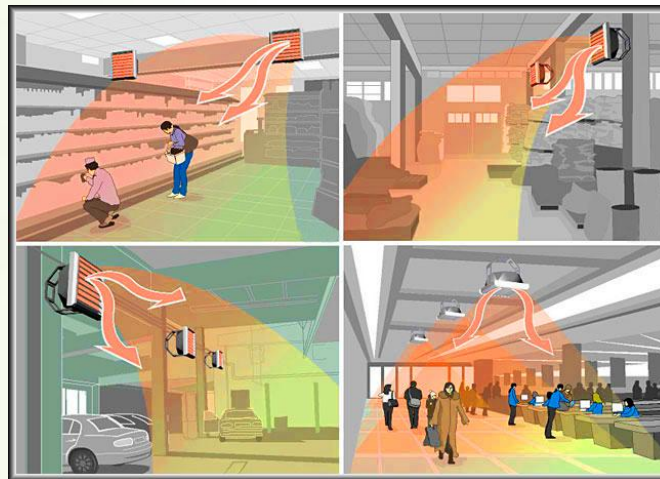


-  Heat pump
-  BMSERVICE
-  Pellet boiler
-  Gas boiler
-  Electric boiler



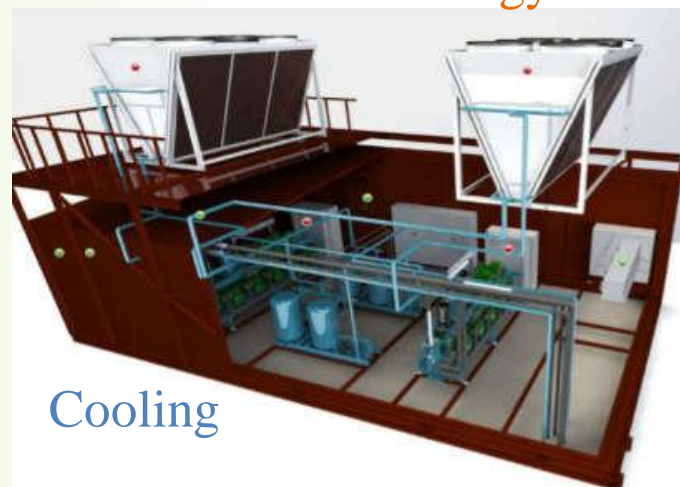
Product

Heat pump (the first in Ukraine)



Heating system

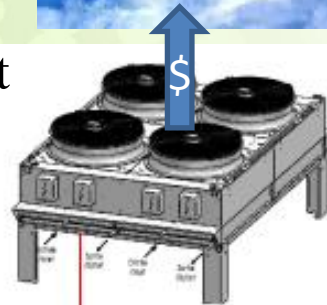
Thermal energy



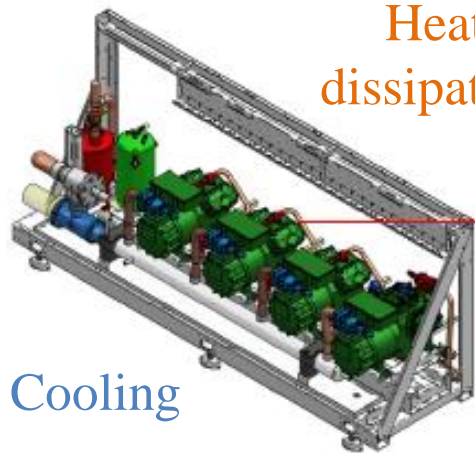
Cooling

Technology

- ✓ the first in Ukraine
- ✓ verify technology
- ✓ free heat
- ✓ implemented project
- ✓ the technology is ready for scaling

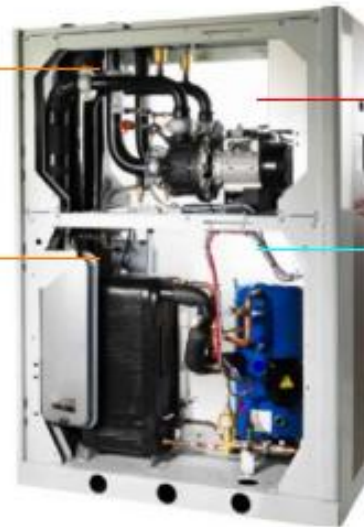


Heat
dissipation

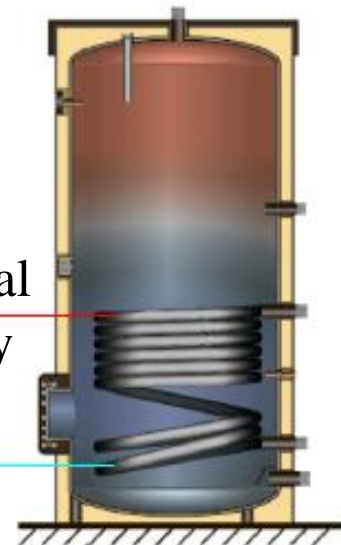


Cooling

Heat pump



Thermal
energy



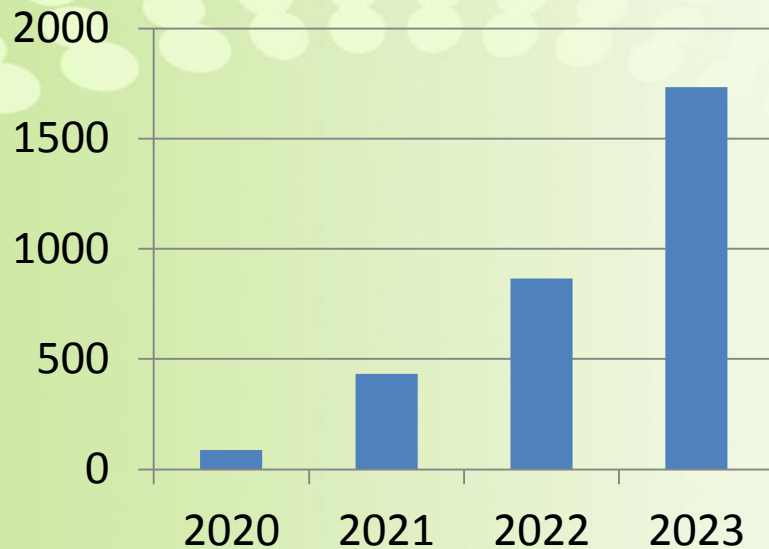
Heating system



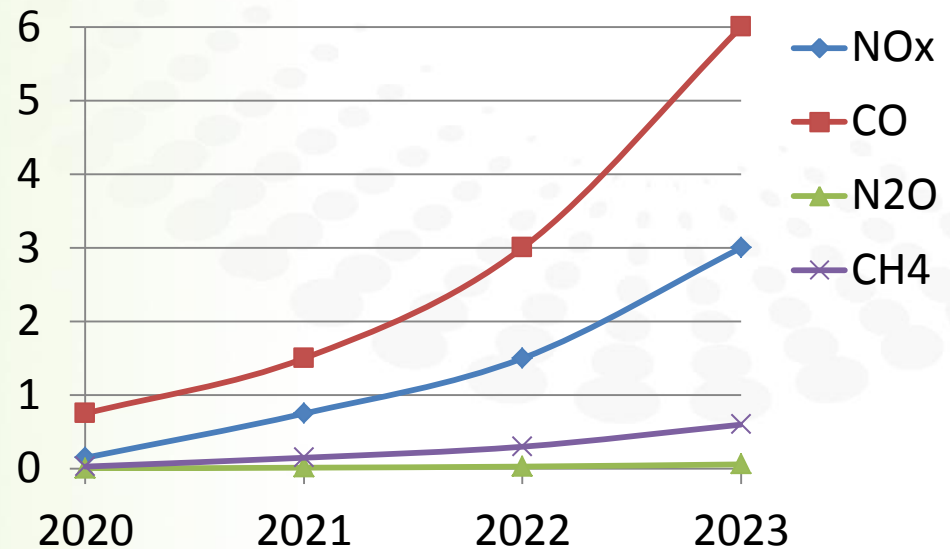
Sustainability and environmental impact

The net reduction of greenhouse gas emissions, tons/year

CO₂



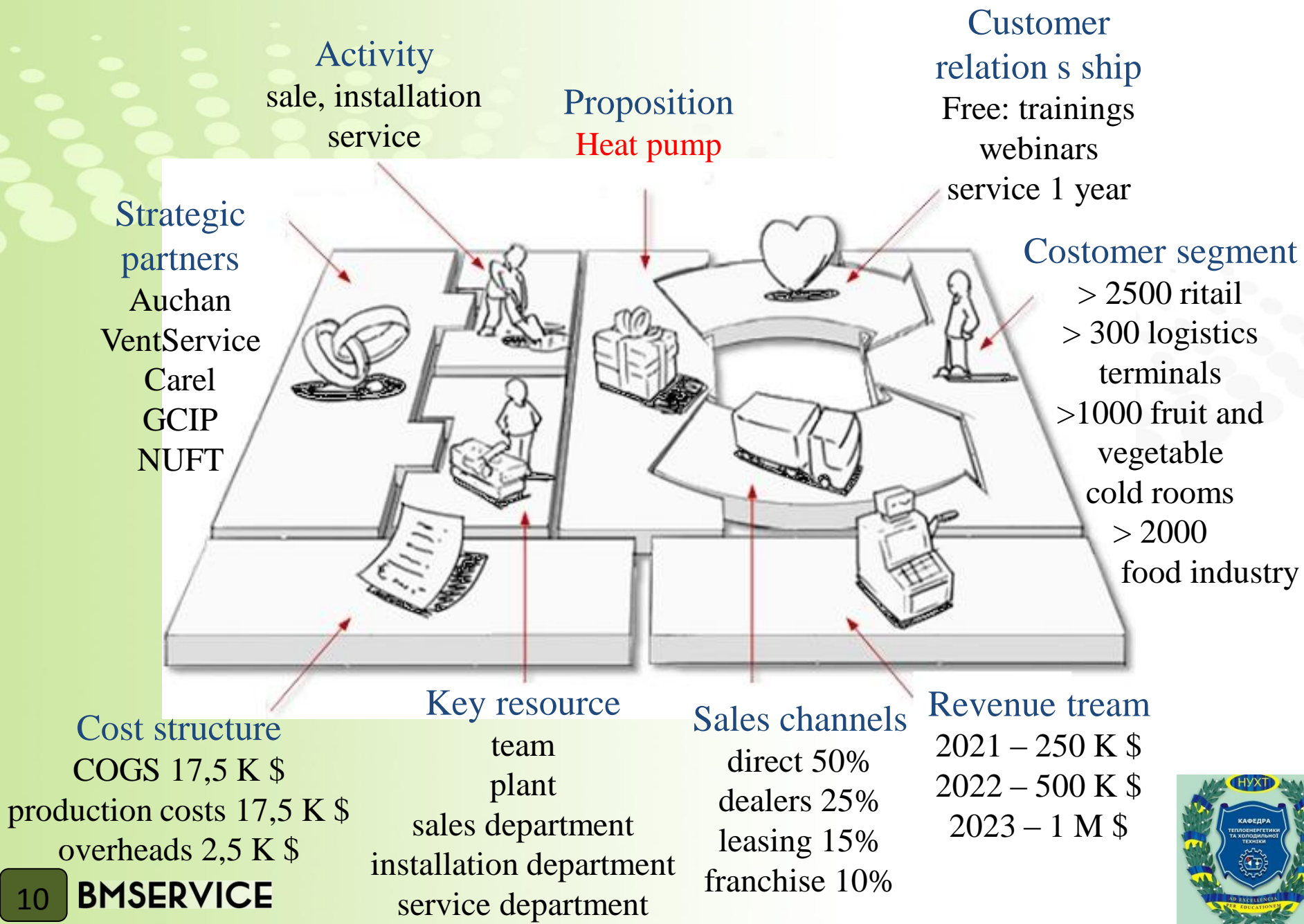
Others emissions



- ✓ The Paris Climate Agreement 2015
- ✓ The Green Climate Fund
- ✓ Strategy on Low Emission Development of Ukraine up to 2050



Business model



Funding strategy

2019-2021 year

Step I - 55 000\$ Project team - Project development

Step II - 50 000\$ Auchan (first customer) - Assembling

Step III - 250 000\$ Auchan 5 Heat pump

2022-2023 year

Step IV - 1 500 000\$ Profit + customers + investors - Industrial production

Financials and cost structure

Projection	2019-2020	2021	2022	2023
Revenue, \$	50 000	250 000	500 000	1 000 000
COGS, \$	25 000	87 500	175 000	350 000
Production costs, \$	25 000	87 500	175 000	350 000
Overheads, \$	5 000	12 500	25 000	50 000
Net Profit, \$	-5 000	62 500	125 000	250 000



Critical milestones

2021

Going to Market
250 000 \$



2020

Assembling
50 000 \$



2020

Approbation
25 000 \$



2019

Production
25 000 \$



2019

Project development
5 000 \$



2019

START UP



Going to Market

- International exhibition
- Trainings, webinars
- Conference's

- Website

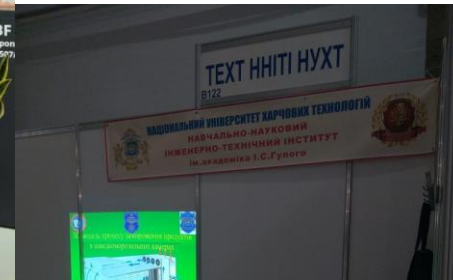
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86
 International scientific conference
 of young scientist and students

"Youth scientific achievements
 to the 21st century nutrition
 problem solution"



Проектирование и производство холодильных централей и агрегатов	
Завка на централ	Завка на агрегат
на базе винтовых компрессоров	на базе винтового компрессора
на базе поршневых компрессоров	на базе поршневого компрессора
на базе спиральных компрессоров	на базе спирального компрессора
NEW сателитная холодильная централь	

Галерея изображений



Channels of distribution and strategic partners



Project team



Valentyna Bondarenko
design engineer
technical expert



Pavlo Subbotenko
power engineer
technical expert



Olexandr Davydenko
chief engineer
project manager



Olexandr Riabchuk
PhD, chief power engineer
project manager



Mariia Myroshnyk
PhD, power engineer
technical expert

Volodymyr Pavlichenko
automation engineer
technical expert

> 15 years experience in implementing energy efficient projects



All team



Thank you!

Contacts

Olexandr Riabchuk

email: riabchukom@gmail.com

tel: +38 063 239 70 79

