ACCOUNTING CLUB

SUNTORY PEPSICO
Suntory PepsiCo Vietnam Beverage

RMIT Business Analyst Champion
Season 2

ROUND 2
CASE STUDY

Team: Counting Stars

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SP Co. should focus on reducing transportation costs and upgrading the production line for more robust growth

Situation

- SP Co. uses Sea as the company's major transportation mode
- SP. Co is planning to launch a new product: CAN HF in the North

Issue

- The primary transportation cost was too high
- The production capacity of CAN HF in the North is insufficient

Questions

How can SP Co. optimize the current primary cost?
What is the best solution for SP Co. to successfully launch a new product in the North?

Recommendations

- Utilize other transportation routes, from excessive supply of other regions, to offset the insufficient regions
- Upgrade the CAN HF production line in the North to enhance production capacity to meet the future demand and improve profit margin

Goals

Optimize primary transportation cost and successfully launch new product in the North by upgrading production line

01 Primary Cost Overview

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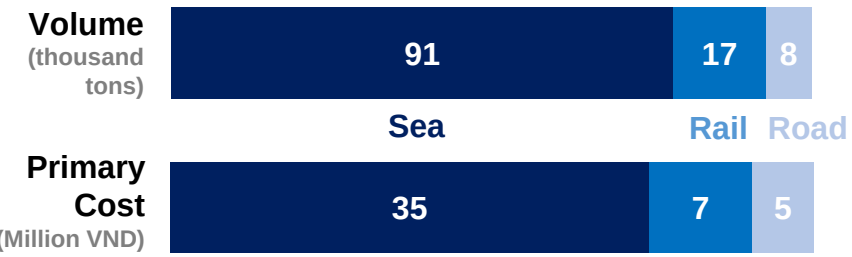
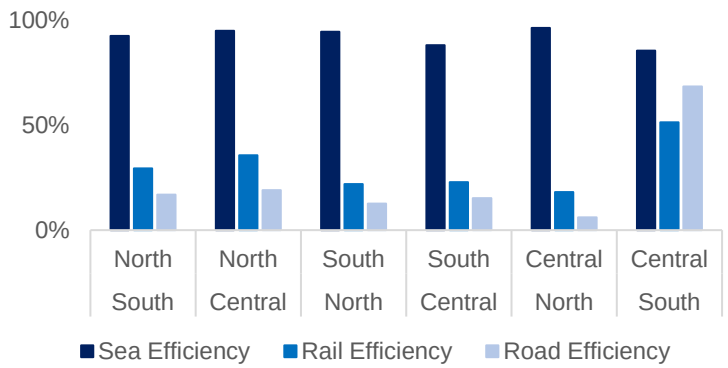
Sea transportation's low cost created opportunities for SP Co. to deal with the high demand in Southern region

Sea was the most-used transportation mode with the highest efficiency

Primary Volume and Cost by transportation mode, Thousand Tons / million VND, Year 0

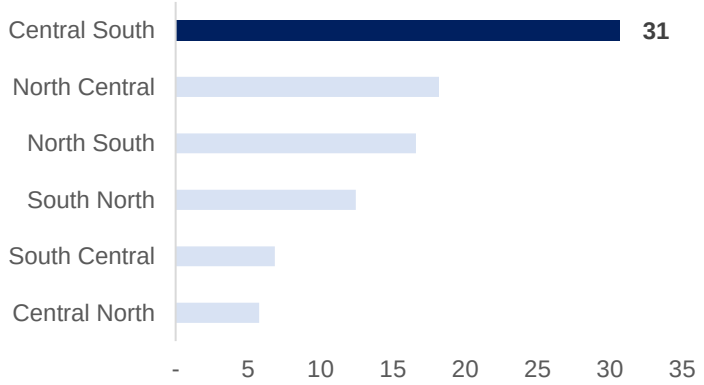


Transportation efficiency, transportation volume over capacity (%), Year 0

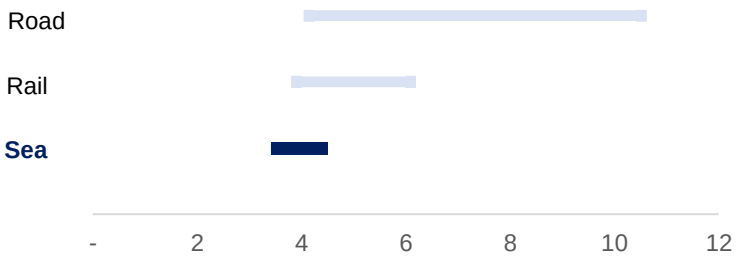


All routes exploited sea mode's cheap price, especially the Central – South one…

Primary Volume transported by sea by route, Thousand Tons, Year 0

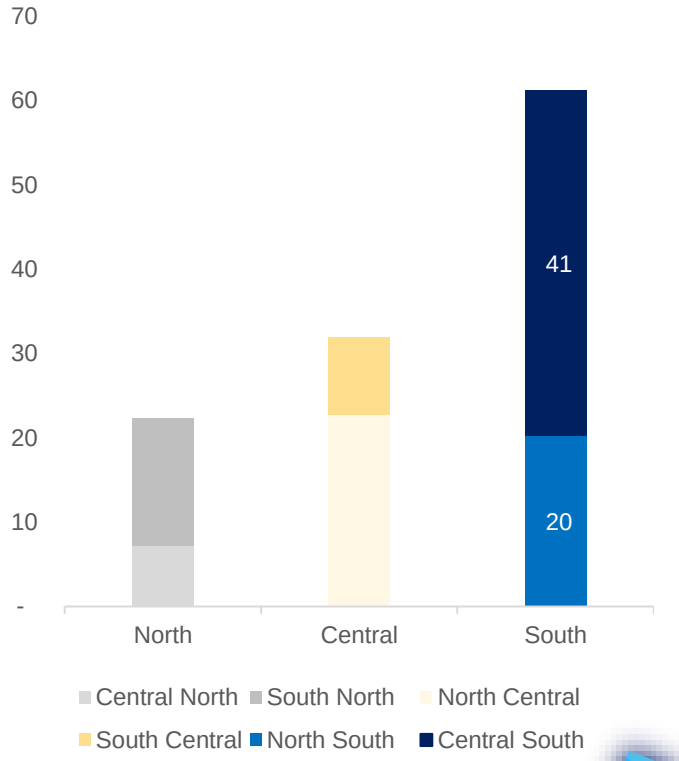


Price range per ton by transportation mode, Hundred thousand VND, Year 0



… making South to be the most-received region in the chain

Primary Volume by routes, Thousand Tons, Year 0



02 Operational Analysis & Recommendations

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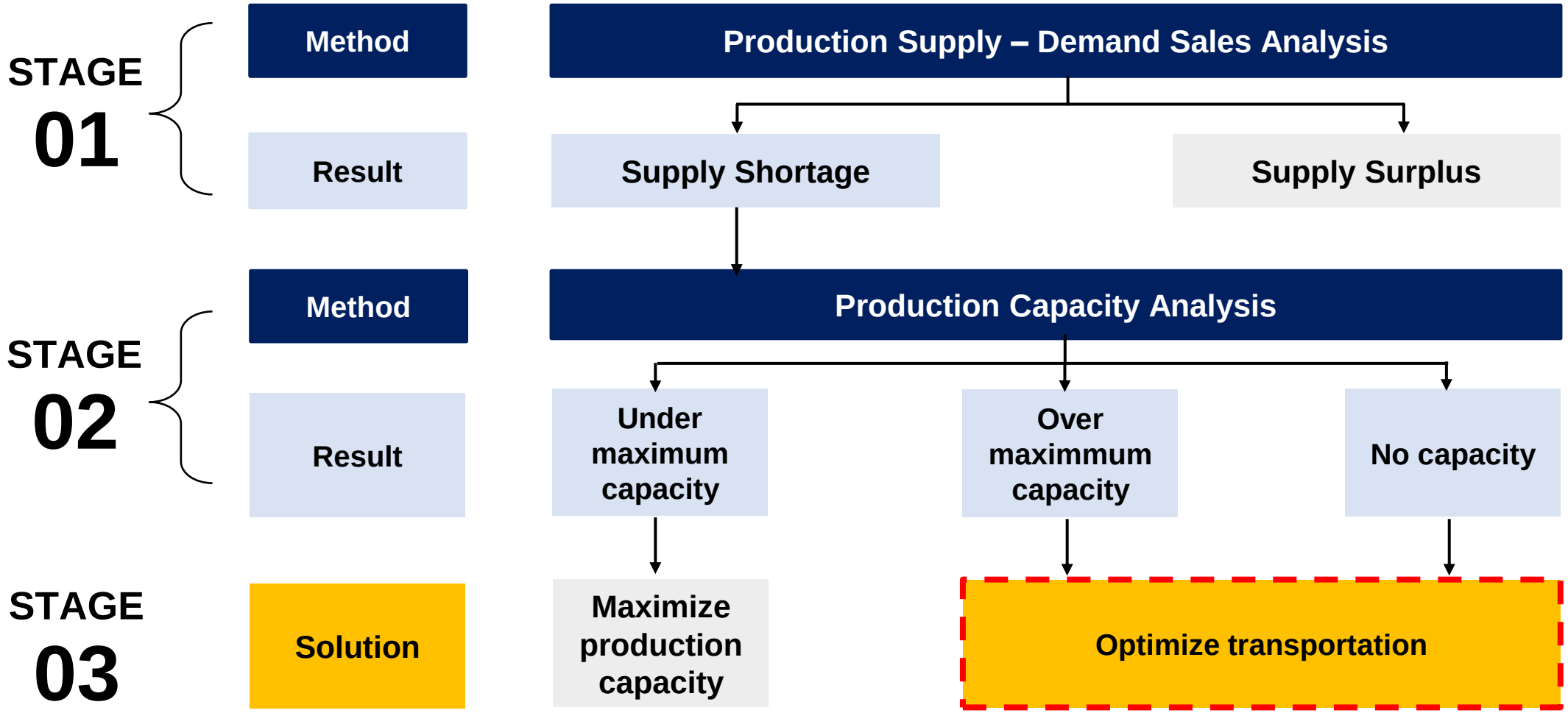
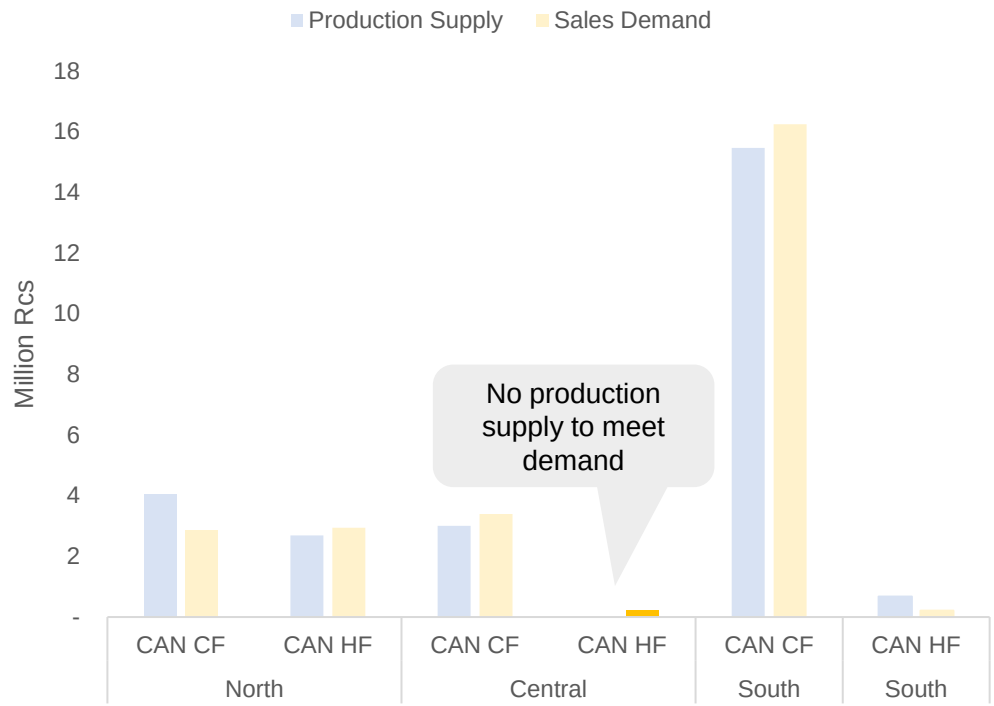
A 3-stage process is conducted to evaluate and optimize the primary transportation cost



Better production plans should be applied to meet the excessive demand of CAN products

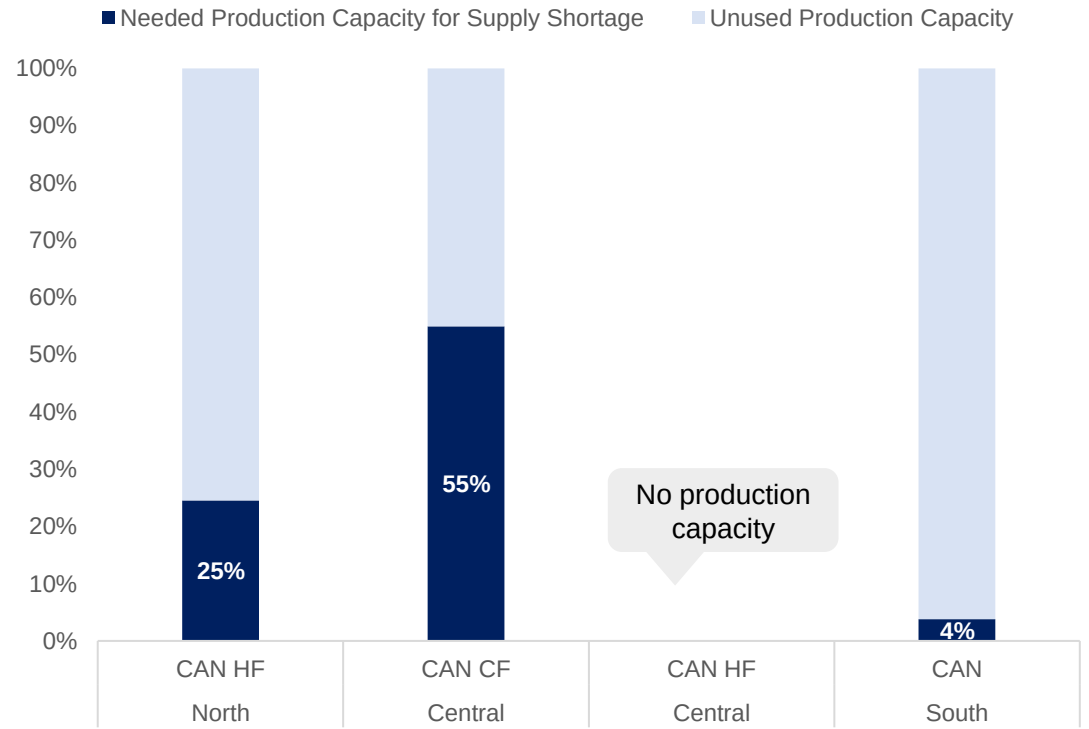
The sales demand for CAN HF in the Central region could not be met…

CAN products' demand and supply by region, Million Rcs, Year 0



… since there is no production capacity for this product line in the Central

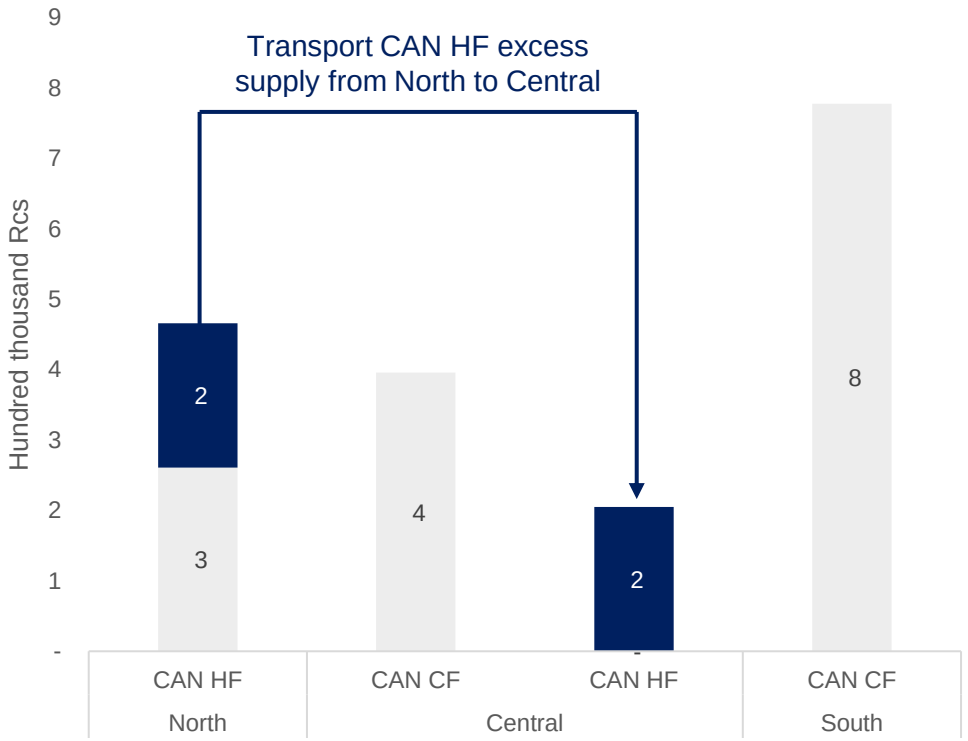
CAN product lines' needed production capacity for supply shortage, % of unused production capacity, Year 0



SP Co. can save a sufficient amount of transportation cost by transferring CAN HF on the North – Central route

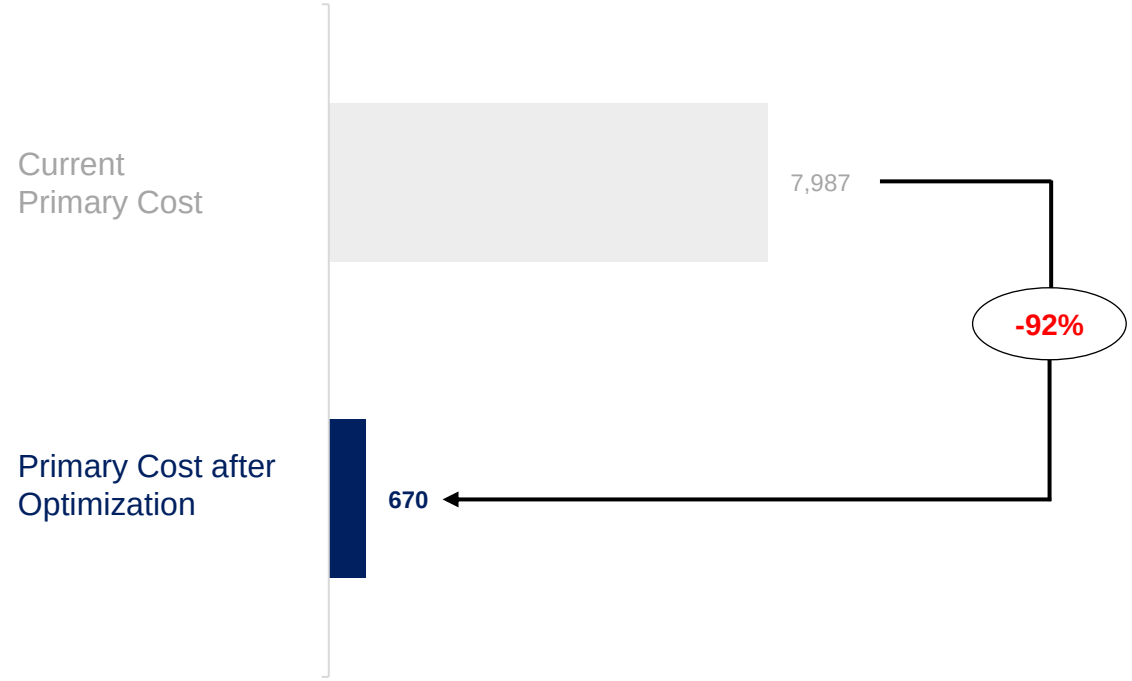
SP Co. can make use of North – Central route for CAN HF transportation to meet the supply shortage in Central

CAN products' net change supply after optimization,
Hundred thousand Rcs, Year 0



The new transportation recommendation can help SP Co. to save approximate 92% of the current primary cost

CAN products' total primary cost before and after optimization,
Million VND, Year 0



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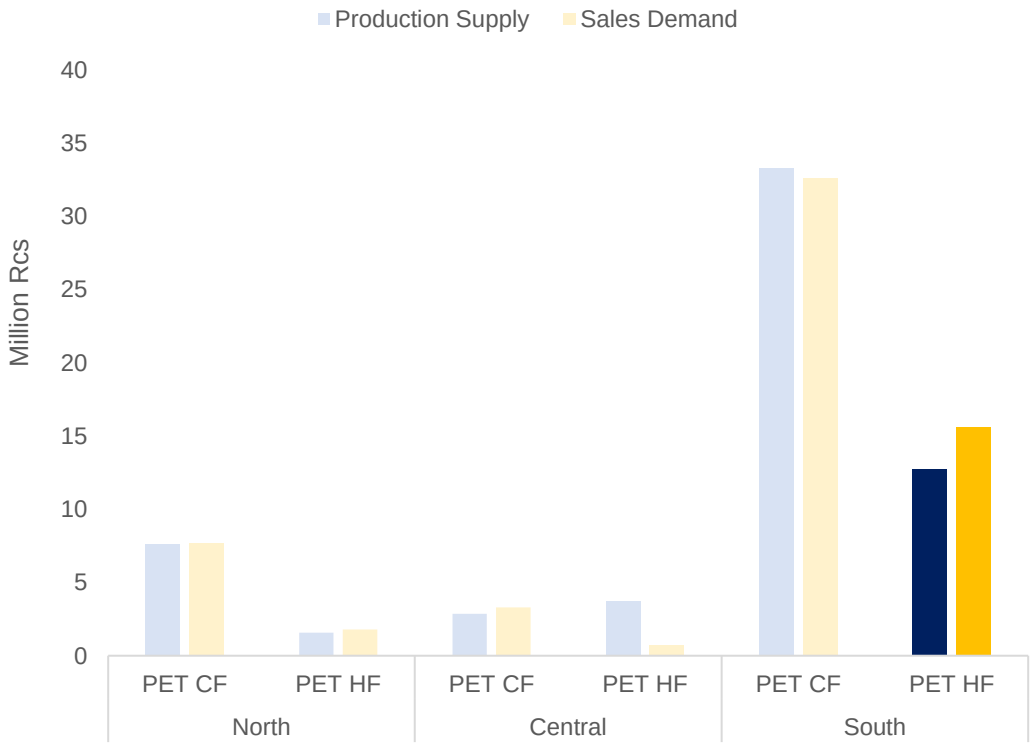
The supply shortage of PET HF in the South deprived from its reach of maximized production capacity

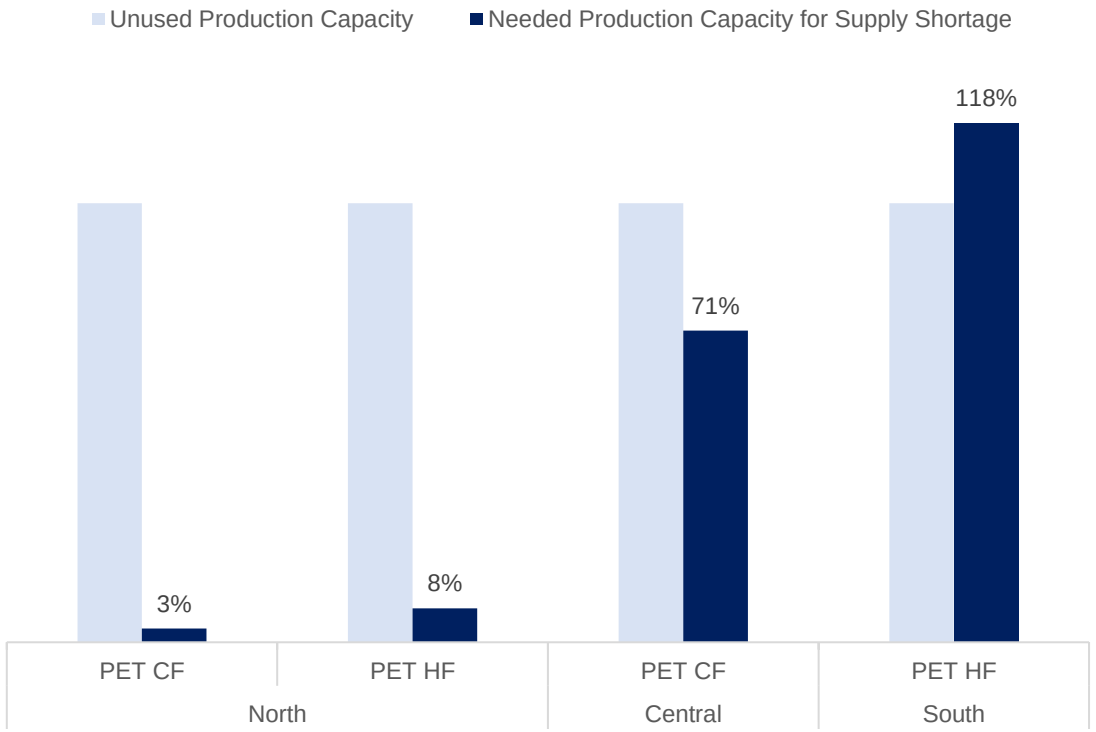
PET HF supply in the Southern region could not satisfy the sales demand

PET product lines' demand and supply by region, Million Rcs, Year 0



However, Y0's production capacity of PET HF in the South already reached its maximum

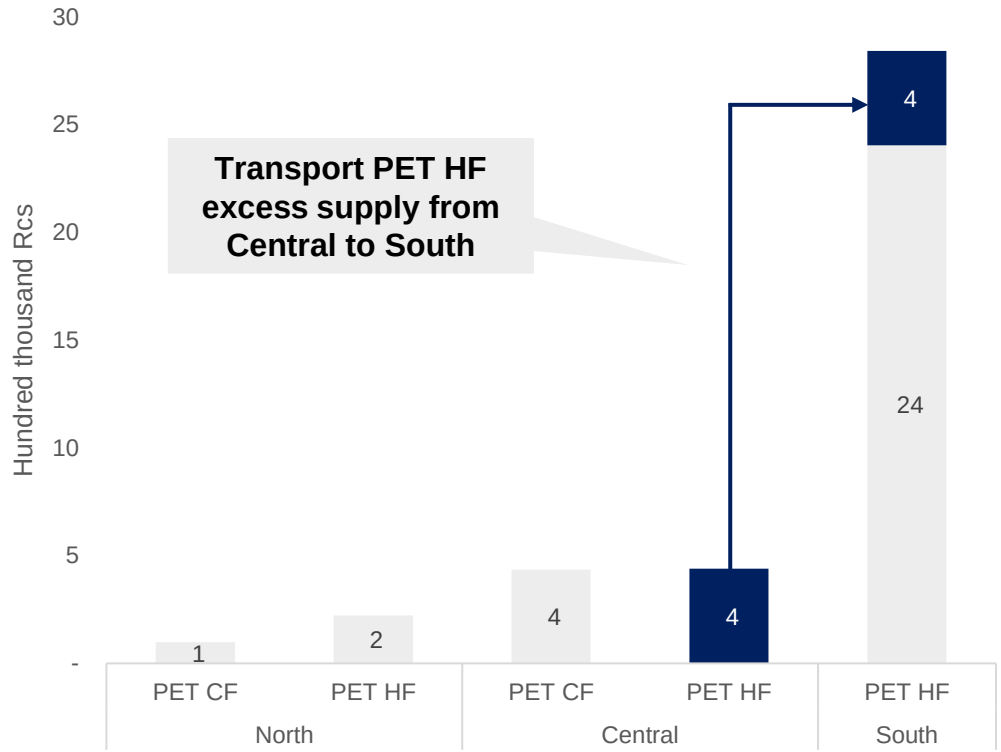
PET product lines' needed production capacity for supply shortage, % of unused production capacity, Year 0



PET HF's supply deficiency in the South can be solved through the transportation of those in the Central

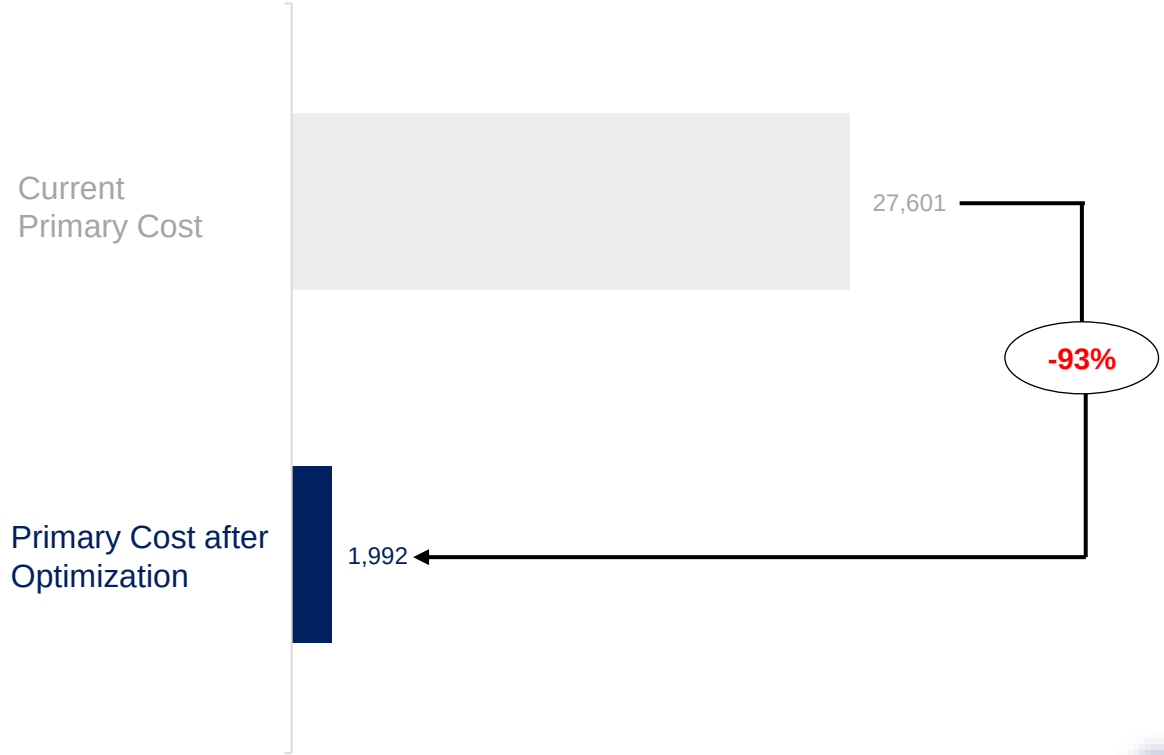
The excessive production supply of PET HF in the Central could be transported to the South

PET products' net change in supply after optimization, Hundred thousand RCS, Year 0



By applying the recommendation, SP Co. can effectively reduce the current primary cost by 93%

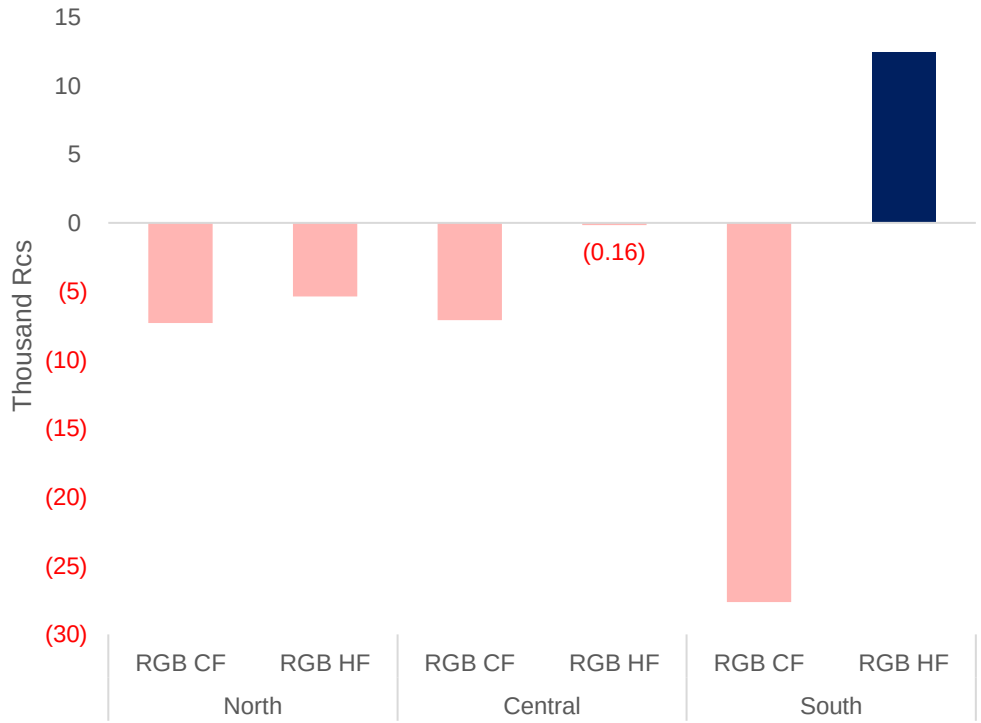
PET products' primary cost before and after optimization, Million VND, Year 0



The Southern demand for RGB CF could be satisfied by using the excessive amount from other regions

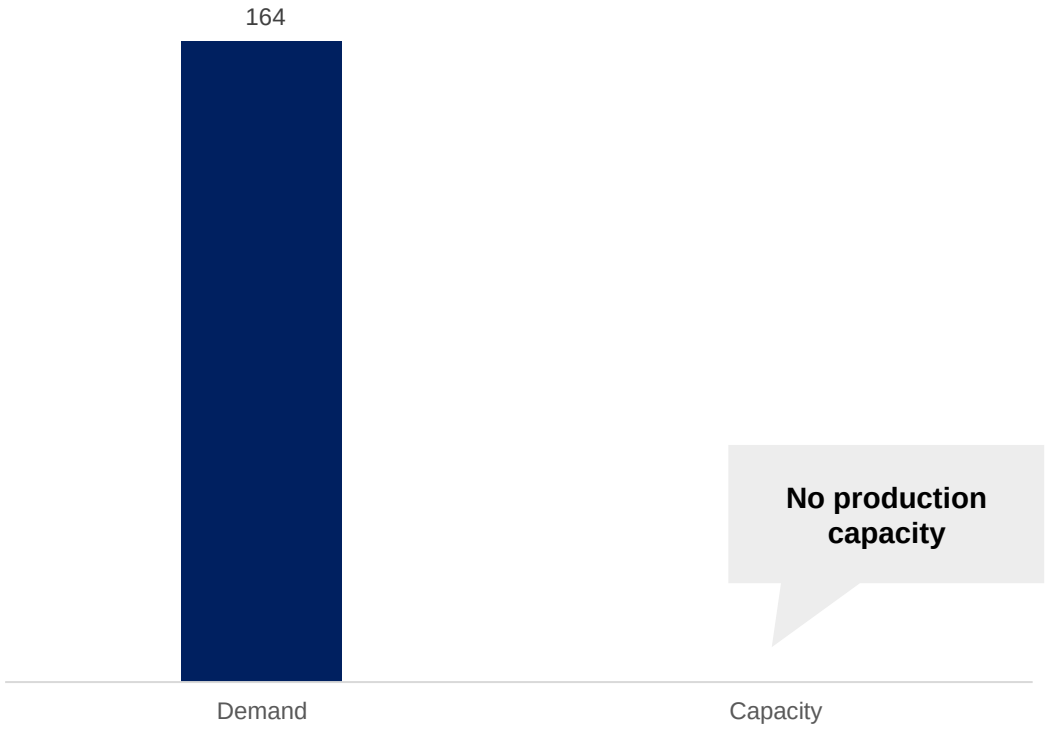
The production supply of RGB HF did not meet the Central region's demand,…

RGB products' net changes between supply and demand by region, Thousand Rcs, Year 0



which was due to not having a production manufacturer in the Central

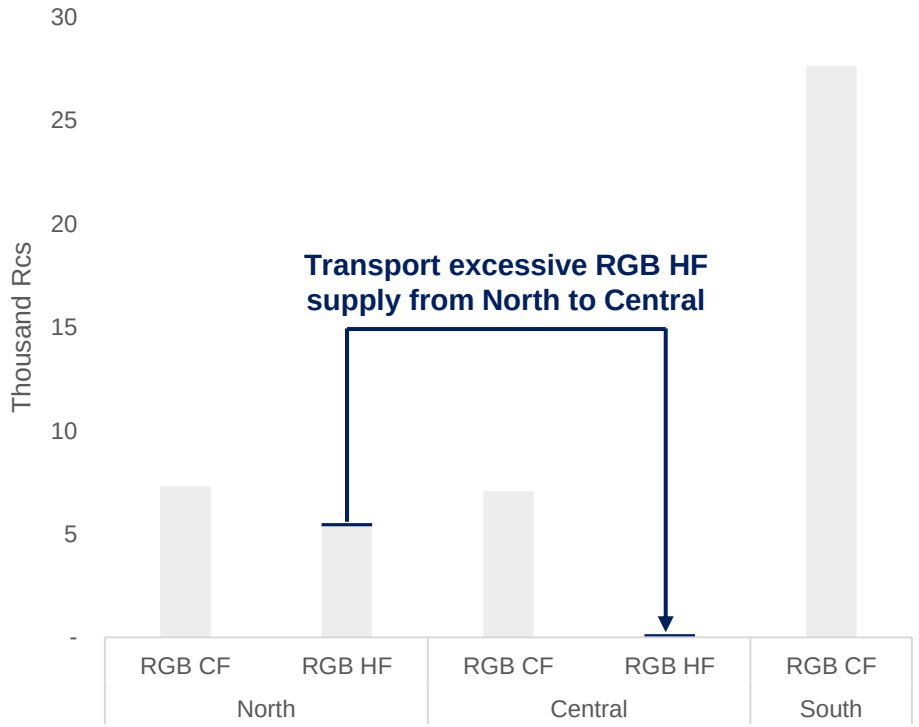
RGB HF's demand and capacity in the Central, Rcs, Year 0



The Southern demand for RGB CF can be satisfied by using the excessive amount from other regions

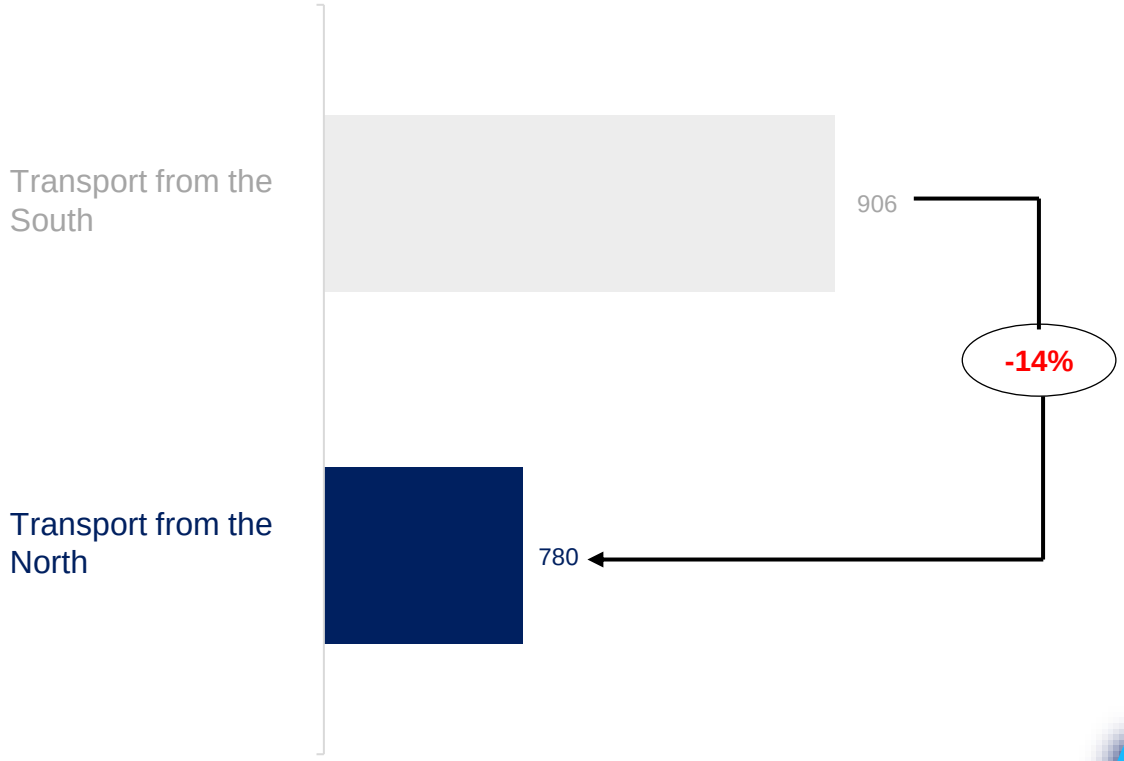
Moving the remaining amount of RGB HF from the North to the Central…

RGB products' net change in supply after optimization, Thousand RCS, Year 0



… could help SP Co. save approximate 14% of the current transportation cost

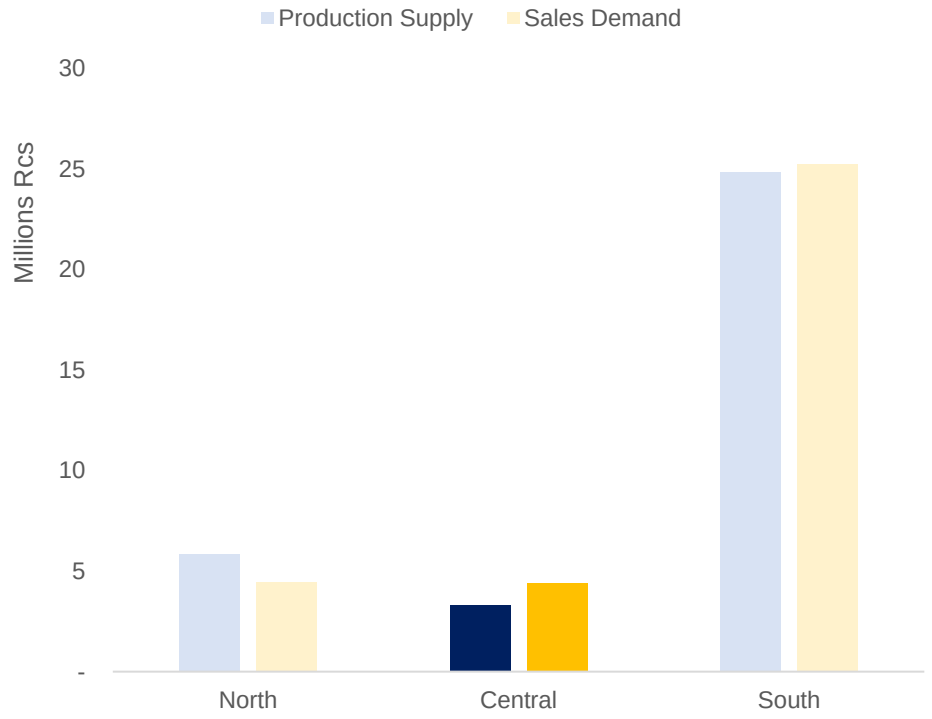
RGB HF's cost of transportation from North and South to Central, Thousand VND, Year 0



The main cause of the WATER supply shortage in the North lied in the production line's capacity

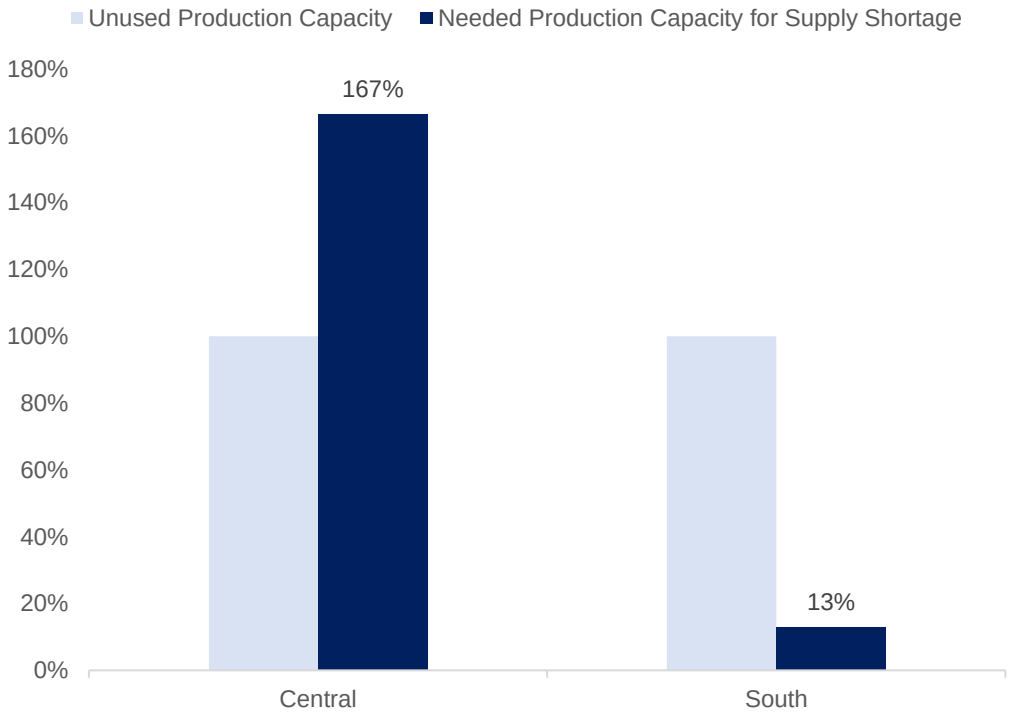
The WATER's production supply in both Central and South did not satisfy the sales demand

WATER products' demand and supply by region, Million Rcs, Year 0



The production capacity for WATER in the Central reached its maximum

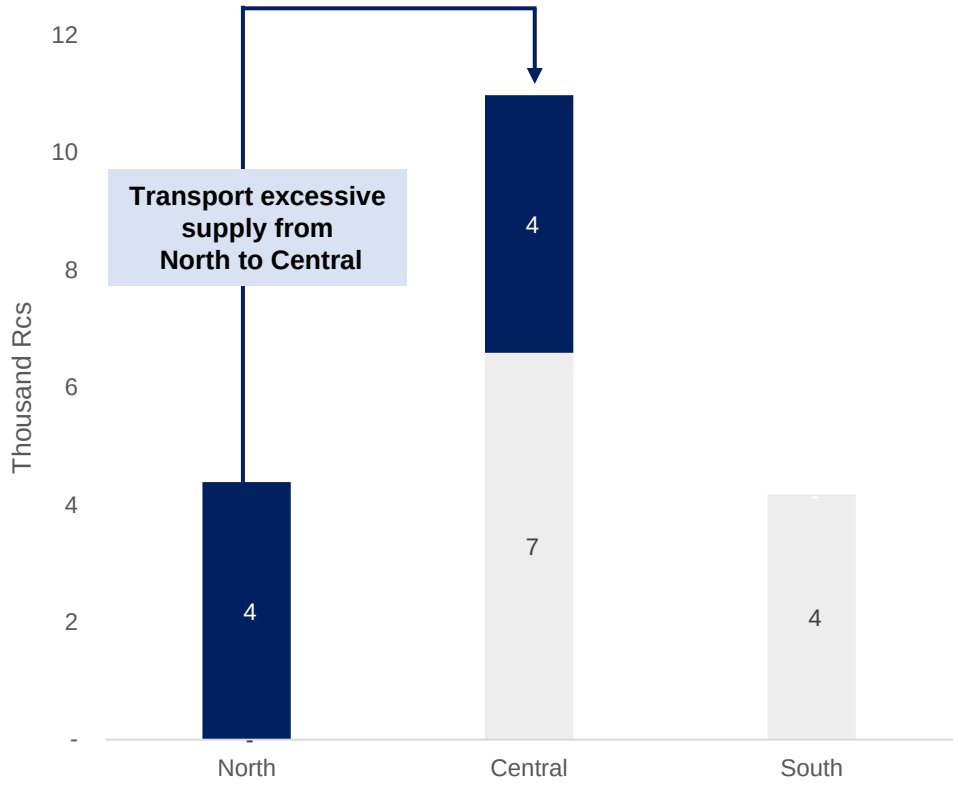
WATER product lines' supply needed to meet region demand, % of unused production capacity, Year 0



The insufficient supply in the Central would be offset from the amount in the North

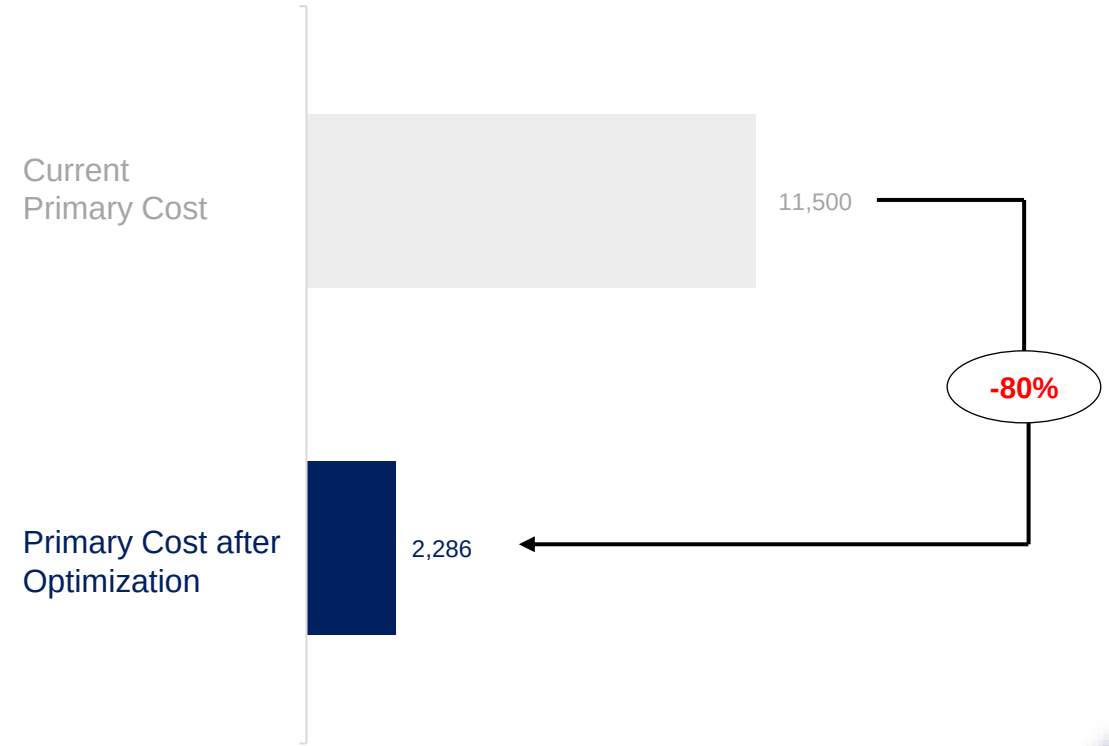
Transporting Water with North – Central route can solve the under-supply problem in the Central region

Water supply increased after optimization, Thousand RCS, Year 0



Thus, the current transportation cost could save up to 80%

Water products' primary cost before and after optimization, Million VND, Year 0



The according problems and recommendations analysis would allow SP Co. to reduce the primary cost by 89%

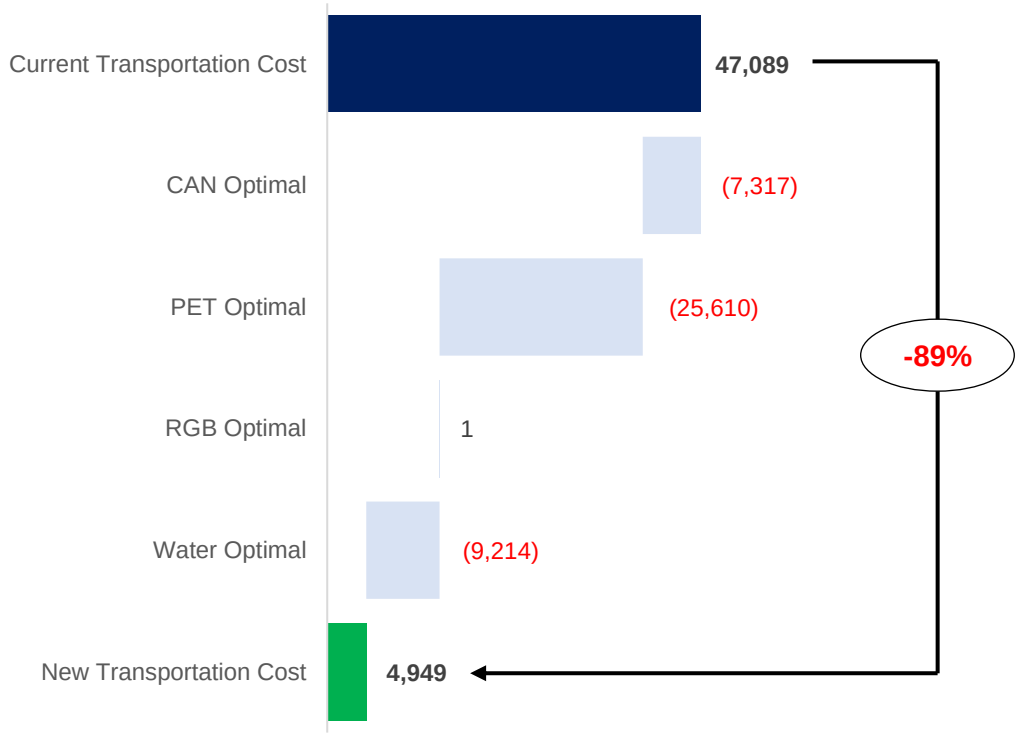
Problems	Recommendations
01 Shortage in supply for **CAN HF** in the Central due to the absence of the according production line in the region	➢ Use North-Central route
02 Excessive demand for **PET HF** in the South although the production line was maximized	➢ Use Central-South route
03 Shortage in supply for **RGB HF** in the Central due to the absence of the according production line in the region	➢ Use North-Central route
04 Excessive demand for **WATER** in the South although the production line was maximized	➢ Use North-Central route

V

Utilize excessive supply from other region to **offset** the insufficient one

Impacts

Primary cost changes after optimization, Million VND, Year 0



03 New Product Launch Planning

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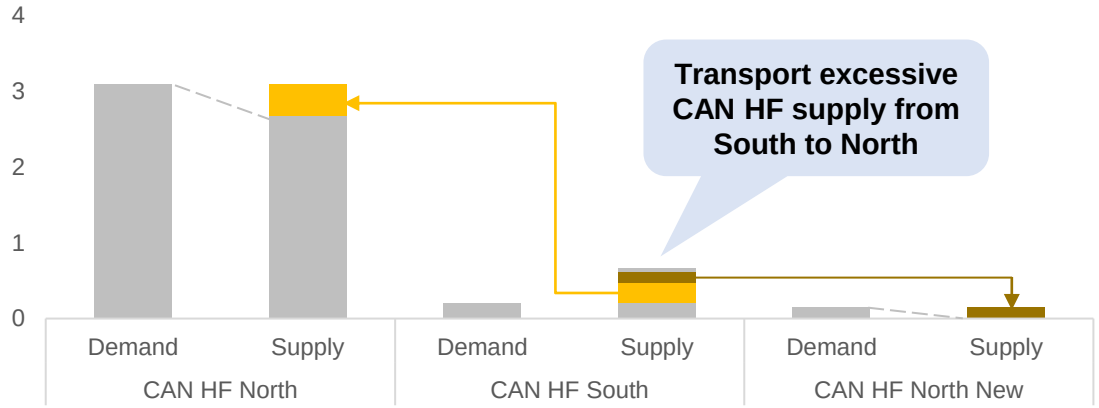
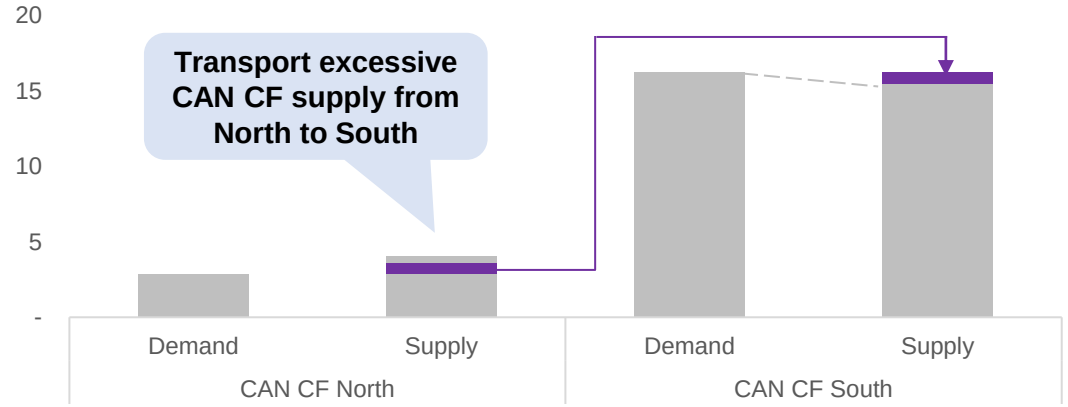
OPTIONS ANALYSIS

OPTION 1: TRANSFER CAN HF FROM SOUTH TO NORTH AND CAN CF FROM NORTH TO SOUTH

Production optimizing plan to supply CAN HF and CAN HF New in the North, Million VND, Year 1



Production optimizing plan to transport CAN CF from North to South, Million VND, Year 1



Primary Volume (Rcs)

From	To	CAN HF	CAN CF
North	South		777,434
South	North	410,813	

Warehouse Rental in the South (million VND)	**329**

Primary Volume (Tons)

From	To	CAN HF	CAN CF
North	South		88
South	North	48	

Transportation Cost (Million VND)

From	To	CAN HF	CAN CF
North	South		40
South	North	23	

Transportation Cost (Million VND)	**63**

Total cost of Option 1 (million VND)	**392**

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OPTIONS ANALYSIS

OPTION 2 ANALYSIS: HIRE A CO-PACKING SERVICE FOR CAN HF (NEW) IN THE NORTH

CAN HF cost breakdowns per rcs	
Co-packing fee	22,000
Primary Cost from the Co-packer	1,000
Total cost per raw case (VND/Rcs)	**23,000**

Unit cost

23,000
VND/Rcs
(constant)

×

Total Sales Demand

150,000
Rcs
(varied)

=

Total cost

3,450,000,000
VND
(varied by sales demand)

OPTION 3 ANALYSIS: UPGRADE PRODUCTION LINE IN THE NORTH

Initial investment structure

CAPEX	70%	**Maintainance**	2.50% OPEX	**WACC**	9%	
OPEX	30%	**Life cycle**	7 years	**Inflation**	4%	

Year	0	1	2	3	4	5	6	7
Initial investment	1,000,000							
Maintenance Cost		17,500	18,200	18,928	19,685	20,473	21,291	22,143
Total cost	1,000,000	17,500	18,200	18,928	19,685	20,473	21,291	22,143
Present Value of Cost	1,000,000	16,055	15,319	14,616	13,945	13,306	12,695	12,113

Net Present Value of Cost (USD)	**$**	**1,098,049**

PRODUCT LAUNCH STRATEGY COMPARISON

Carefully evaluate the advantages and disadvantages of each option supports the decision-making process

Option	1 Transfer CAN products	2 Hire a co-packing service	3 Upgrade production line
Pros	Satisfies immediate demand	Benefits from the efficiency and expertise of the 3rd party	More responsive to unexpected demand
	Does not require investment in machinery and labors	Saves time and focuses on other production activities	Zero primary transportation cost
		Saves machinery and labor cost	Increases production capacity by 67% to meet future demand
			Economies of scale
Cons	Easily subject to disruptions, supply chain becomes less responsive	Incurs the most expensive cost	Requires a large amount of initial outlay and 7-year commitment
	Transportation cost is highly varied by sales demand	Loses control of packing quality and production process	Might incur serious loss when CAN HF new does not perform well
	Unable to scale up production capacity when demands unexpectedly soar	Costs are highly varied by sales demand	
	Inaccurate supply/demand planning might incur serious financial and inventory loss	Bounded by outsourcing contracts	

To successfully launch the new product, Option 3 is the optimal strategy for SP Co., with the utilization of Option 1 while waiting for production line upgrade

Option	1 Transfer CAN products	2 Hire a co-packing service	3 Upgrade production line
Evaluation	Despite being less responsive, Option 1 can provide immediate supply to meet current demand if sufficient planning effort is made	The efficiency of co-packing service cannot compensate for the high cost of outsourcing	Although a huge investment outlay is required, upgrading production line will allow SP Co. to scale up production capacity to meet future demand and improve profit margin thanks to economies of scale
	SHORT-TERM STRATEGY	DROPPED	LONG-TERM STRATEGY

Execution