



VIETNAM OIL AND GAS GROUP
VIETNAM PETROCHEMICAL AND TEXTILE FIBER JSC

Add: Lot CN 5.5A, Dinhvu Industrial Zone,
Dong Hai 2 ward, Hai An district, Haiphong City, Vietnam
Tel: (84-225) 3 614 615 Fax: (84-225) 3 614 623





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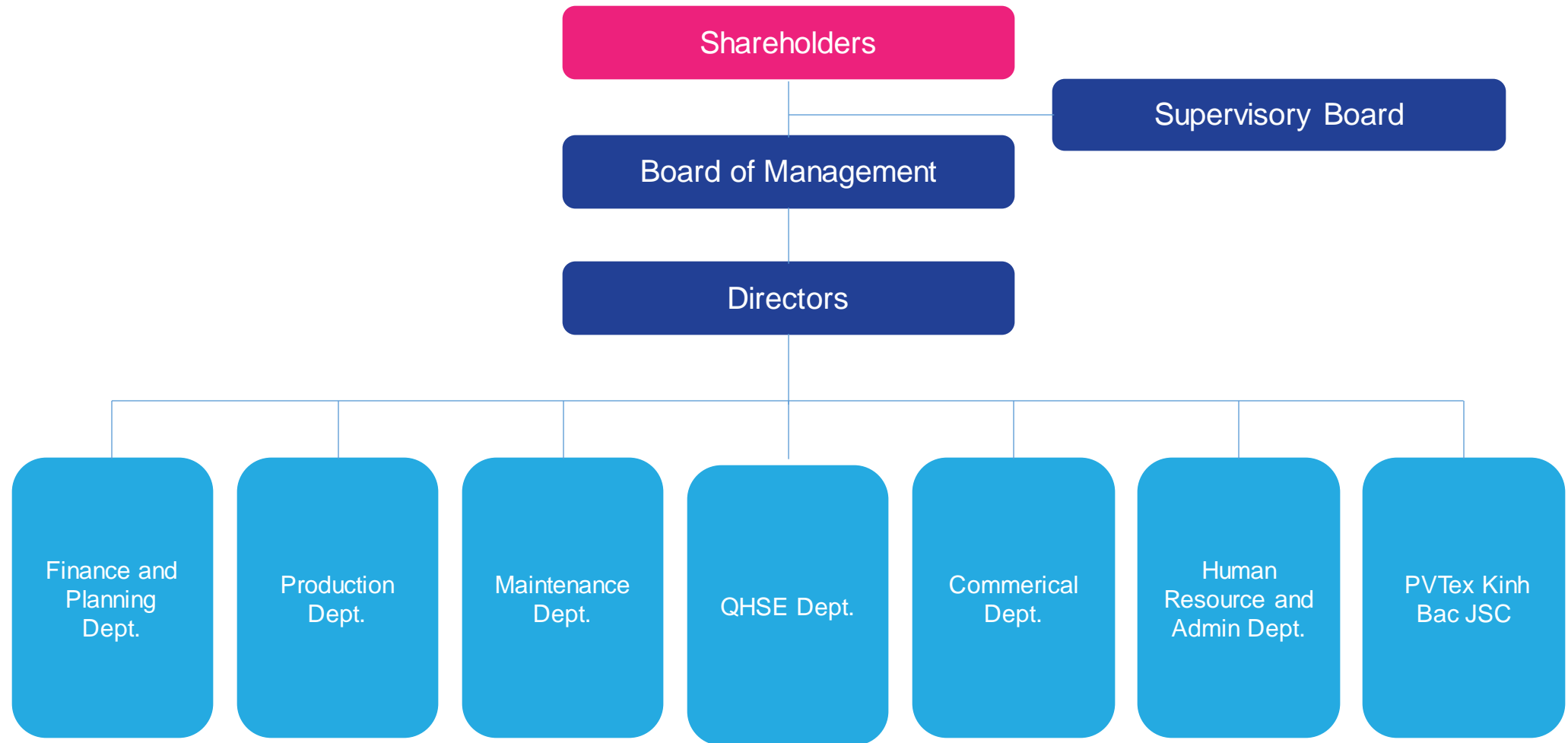
Part V: Vietnam Market Description;

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Part I: Company Description

Organization Chart





Part I: Company Description

Main Shareholders



Vietnam National Oil and Gas Group (PVN): 74.5%

- ❖ Total assets to first half 2021: 515,000 billion VND (22 billion USD)
- ❖ Total revenue first half of 2021: 53,110 billion VND (2.3 billion USD)
- ❖ Total profit first half of 2021 : 13,000 billion VND (0.55 billion USD)



Petrovietnam Fertilizer and Chemicals Corporation (PVFCCo): 25.5% (a subsidiary of PVN)

- ❖ Total assets Total assets first half 2021: 11,960 billion VND (0.513 billion USD)
- ❖ Total revenue first half 2021: 2.979 billion VND (127 million USD)
- ❖ Total profit of last year: 684 billion VND (29 million USD)

Part I: Company Description

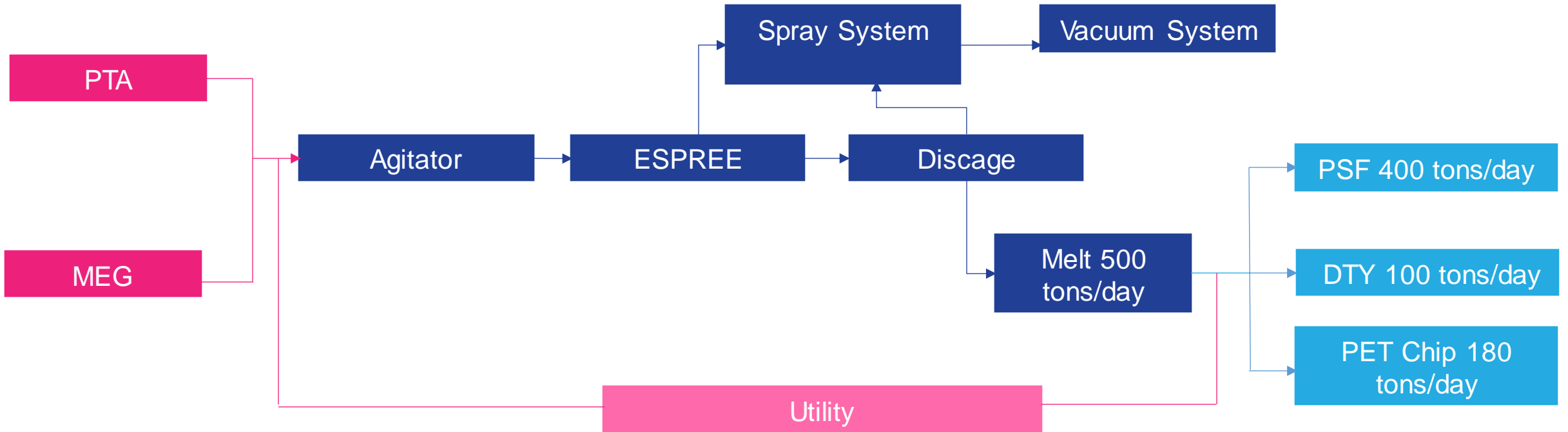
Plant Overview





Part II: Processing Description

Overall Process Diagram

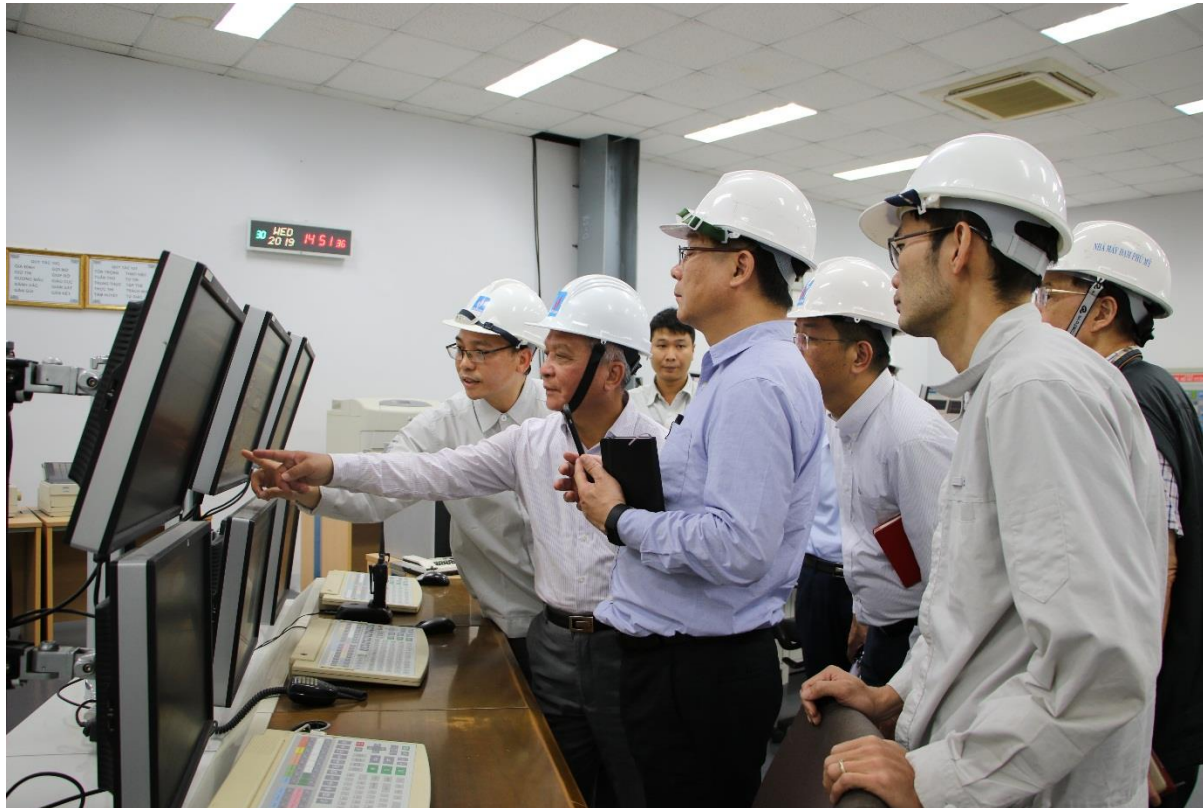


- ❖ The Plant is equipped with state-of-the-art technology from Uhde Inventa Fischer, Neumag and Barmag (Germany).
- ❖ The Plant consists of three main process units:
 - ✓ Polycondensation Unit
 - ✓ Polyester staple fiber Unit
 - ✓ Filament Unit



Part II: Processing Description Polycondensation Unit

- ❖ Licensor: Uhde Inventa Fischer (Switzerland)
- ❖ Capacity: 500 tons/day
- ❖ Function: Implement the esterification and polycondensation reaction to produce melt polymer from the raw materials for supplying PSF, Filament unit, Chip system.





Part II: Processing Description Polyester Staple Fiber Unit

Spinning, quenching,
oiling, partial drawing,
arrange into can

String up and
guide the tow into
the drawing line

Drawing, heating,
oiling, shaping

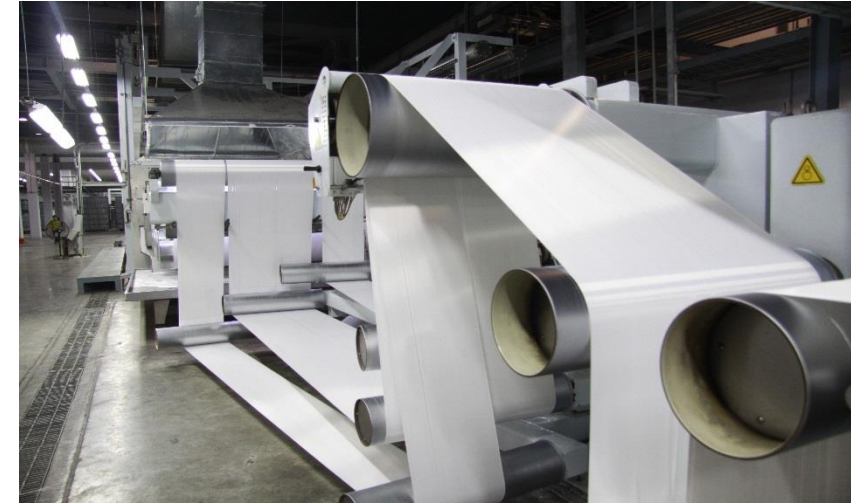
Crimping

Drying

Cutting

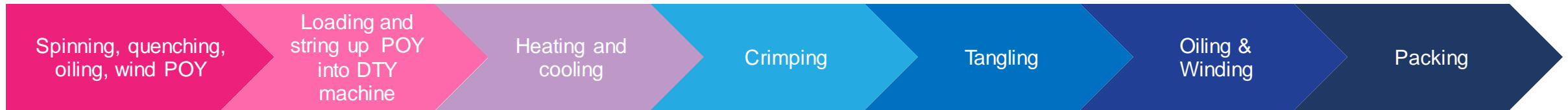
Baling

- ❖ Vendor: Neumag (Germany)
- ❖ Total capacity: 400 PSF tons/day with 02 production lines
- ❖ Function: receive directly Melt from Poly Unit to produce PSF 1.2;1.3;1.4 Den with cut length 38/44/51 mm
- ❖ System including: Melt Conveying System, Melt Distribution and Spinning System, Draw-off wall and canning system, Drawing line, Spin finish preparation





Part II: Processing Description POY/DTY Production Unit



POY/DTY Process Diagram

- ❖ Total capacity: 100 DTY tons/day with 03 production lines
- ❖ Function: receive directly Melt from Poly Unit to produce Filament 75D, 100D, 150 D
- ❖ System including: Melt Conveying System, Melt Distribution, POY System, DTY Machine



POY manufacturing system including 3 lines:

- ❖ Vendor: Barmag (Germany)
- ❖ Line 51: 20 ton/day, manufacturing 75D/36F, 75D/72F, 75D/92F, 75D/144F, 50D/36F, 100D/96F
- ❖ Line 52, 53: 40 ton/day/line, manufacturing 150D/48F, 150D/96F, 150D/144F, 75D/36F, 100D/96F, 100D/36F



Part II: Processing Description POY/DTY Production Unit

DTY machine system including 29 machines:

- ❖ Standard machine: 20 machines, produce 300 (ply), 150, 100, 75 den
- ❖ Cool Flex machine: 9 machines, produce 100, 75, 50 den





Part II: Processing Description Utility and Offsites

Utility: supply the consumable energy & utility for the technology process of plant, including main systems:




- ✓ MEG tank
- ✓ Water supplying system: Cooling water, Chilling water, Demineralized water, portable water, fire water,...
- ✓ Wastewater treatment system
- ✓ Substation system
- ✓ Nitrogen, air compressor system
- ✓ Boiler
- ✓ LPG supplying system





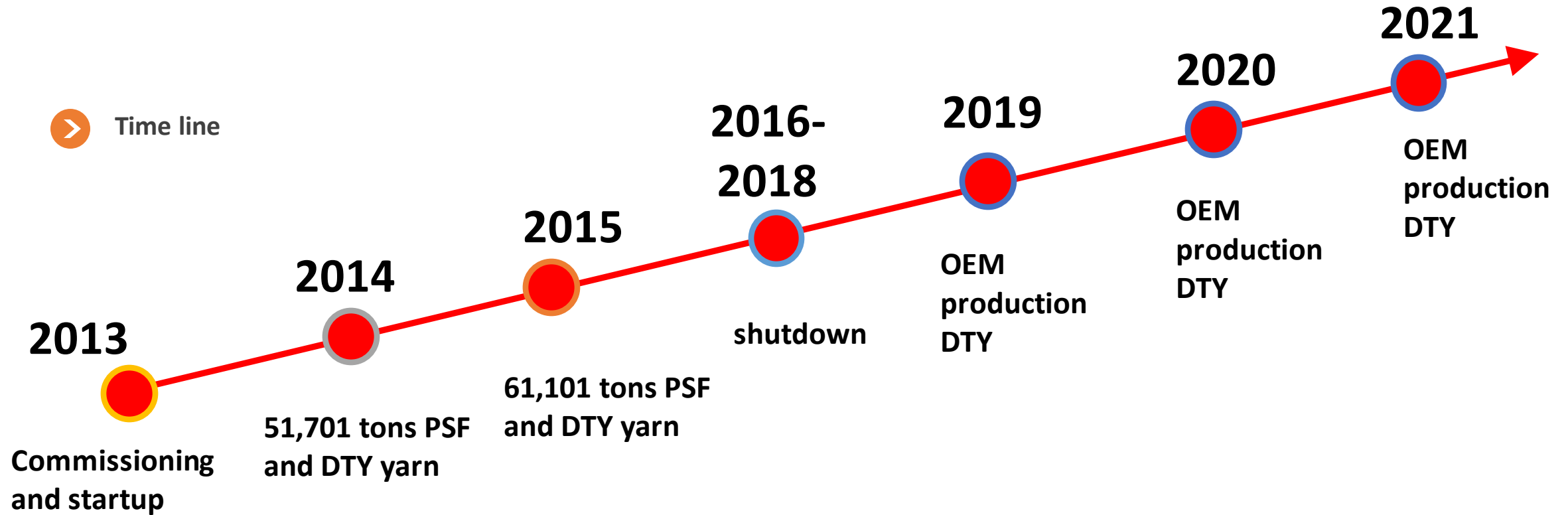
Part II: Processing Description

Main Products

Name	Specification		Packing	Picture
	Denier	Cut Length (mm)		
PSF	1.2 D	38/44/51	Bale dimension (L x W x H mm): 1140 x 720 x 1100 Weigh: 380 kg/bale	
	1.3 D	38/44/51		
	1.4 D	38/44/51		
DTY	50 D	36F	Box dimension (L x W x H mm): 660 x 450 x 290 Number of bobbin in box: 6 bobbins Bobbin weight: 5,5kg/ bobbin HDPE moisture proof bag	
	75 D	36F, 72F, 96F, 144F		
	100 D	36F, 96F		
	150 D	48F, 96F, 144F		
PET Chip	180 tons/day			
Total Capacity	(175.000 tons/year)			



Part III: Production and Quality History





Part III: Production and Quality History Vnpoly customers and partners

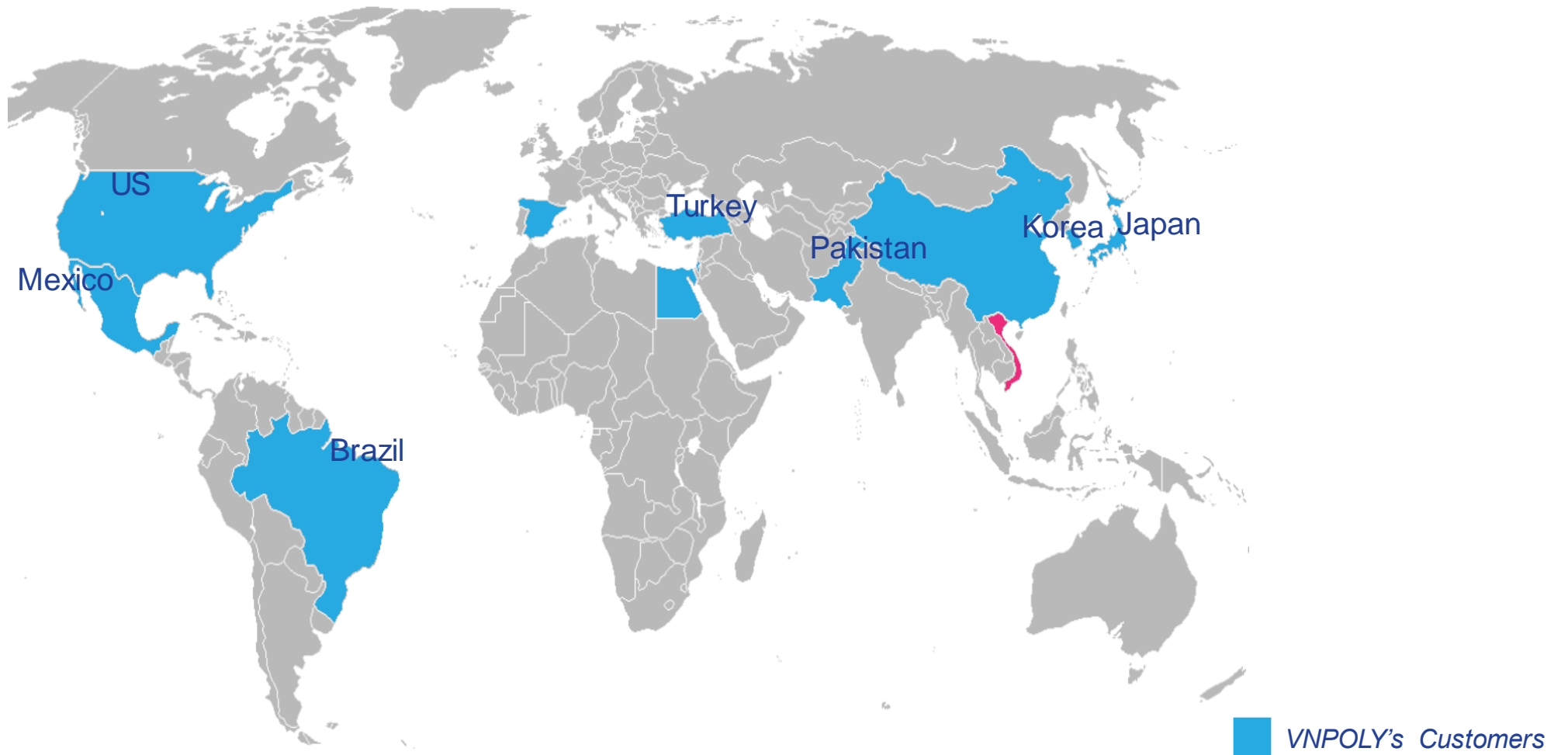


VNPOLY has good relationships with local customers. Many of them signed offtake agreements with VNPOLY.

The total quantity of offtake agreements is about 98,120 tons/year (accounting for 70% of total capacity of the Plant)

-  VNPOLY's market share in North of Vietnam: 58%
-  VNPOLY's market share in Central of Vietnam: 28%
-  VNPOLY's market share in South of Vietnam: 19%

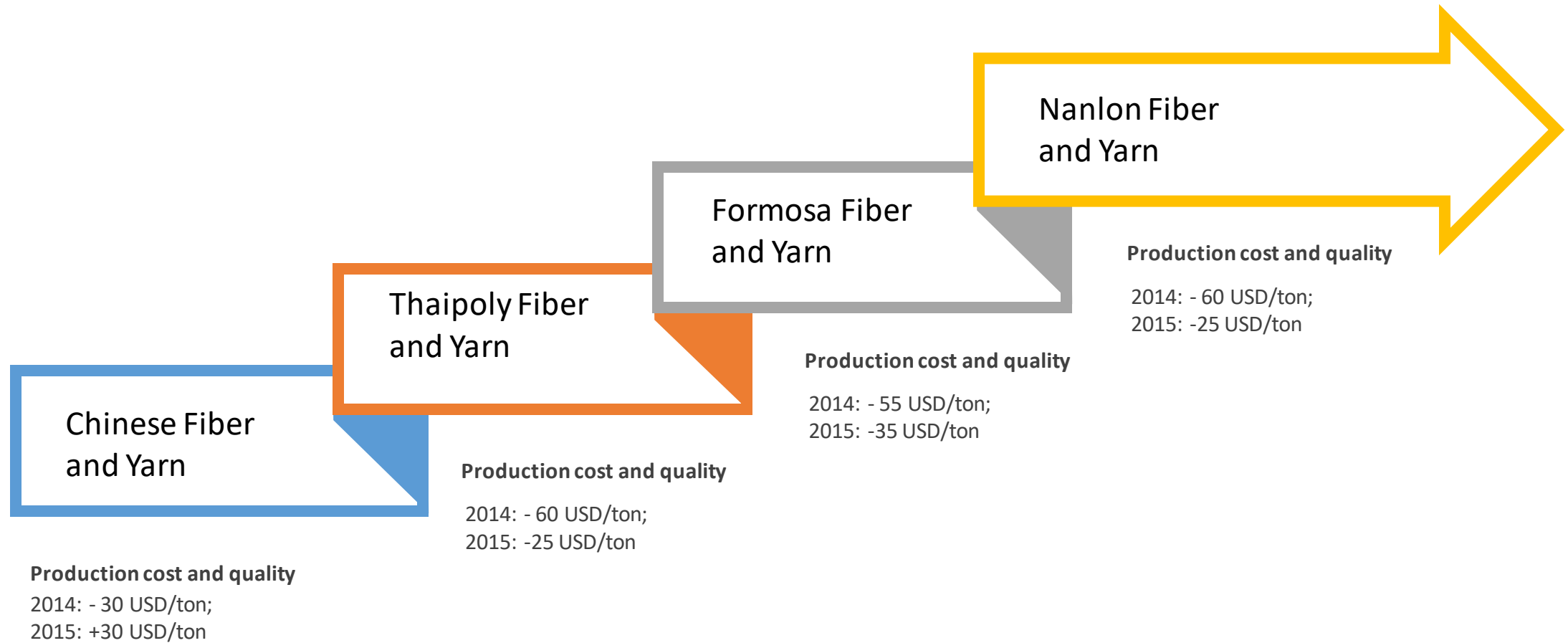
VNPOLY's Global Customers



❖ VNPOLY has been mostly exporting PSF and DTY to many countries in the world, including: US, Japan, Korea, Turkey, Mexico..

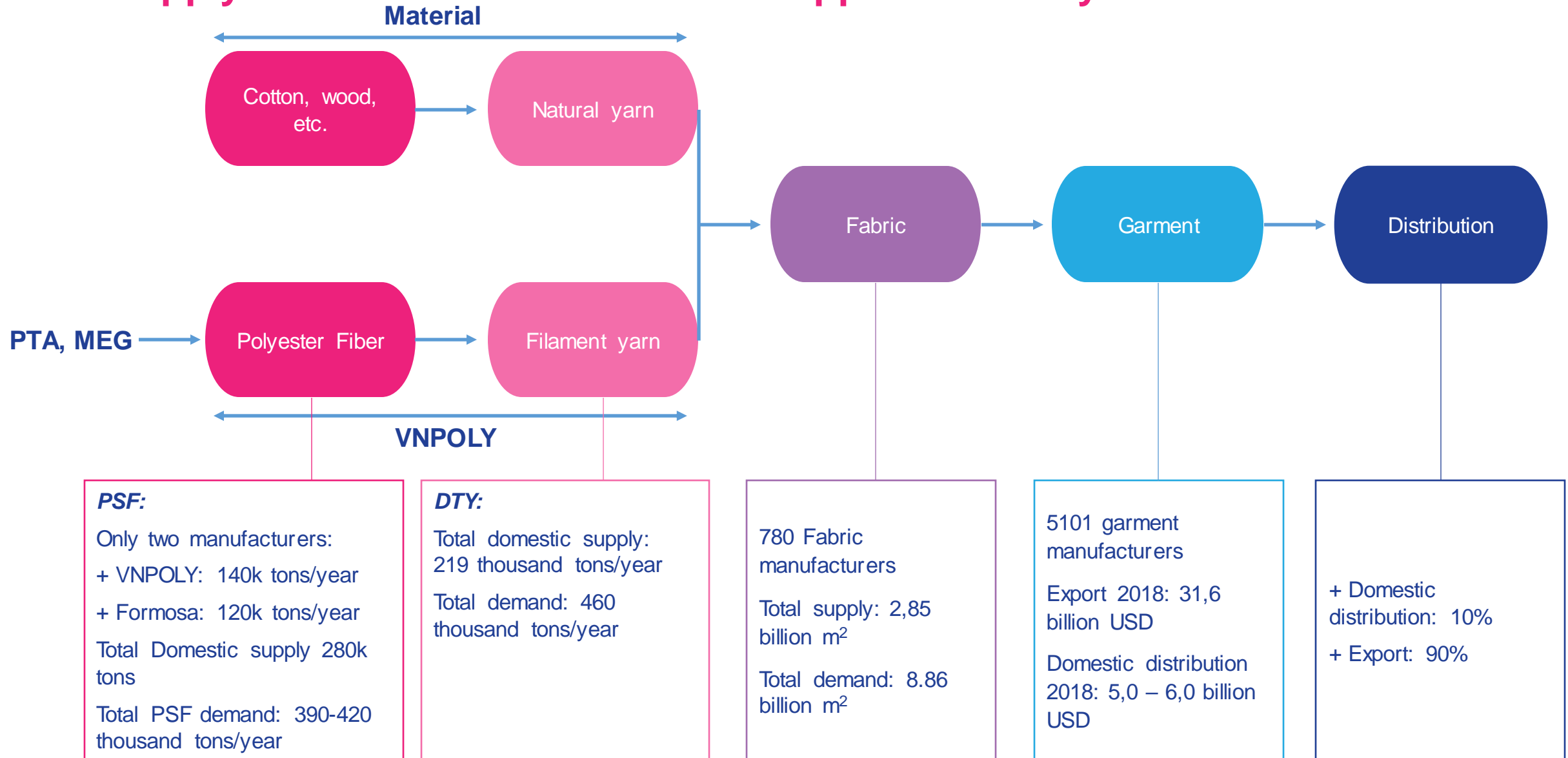
Part IV: Production Cost;

- Selling PSF price vs other suppliers on market during 2014-2015





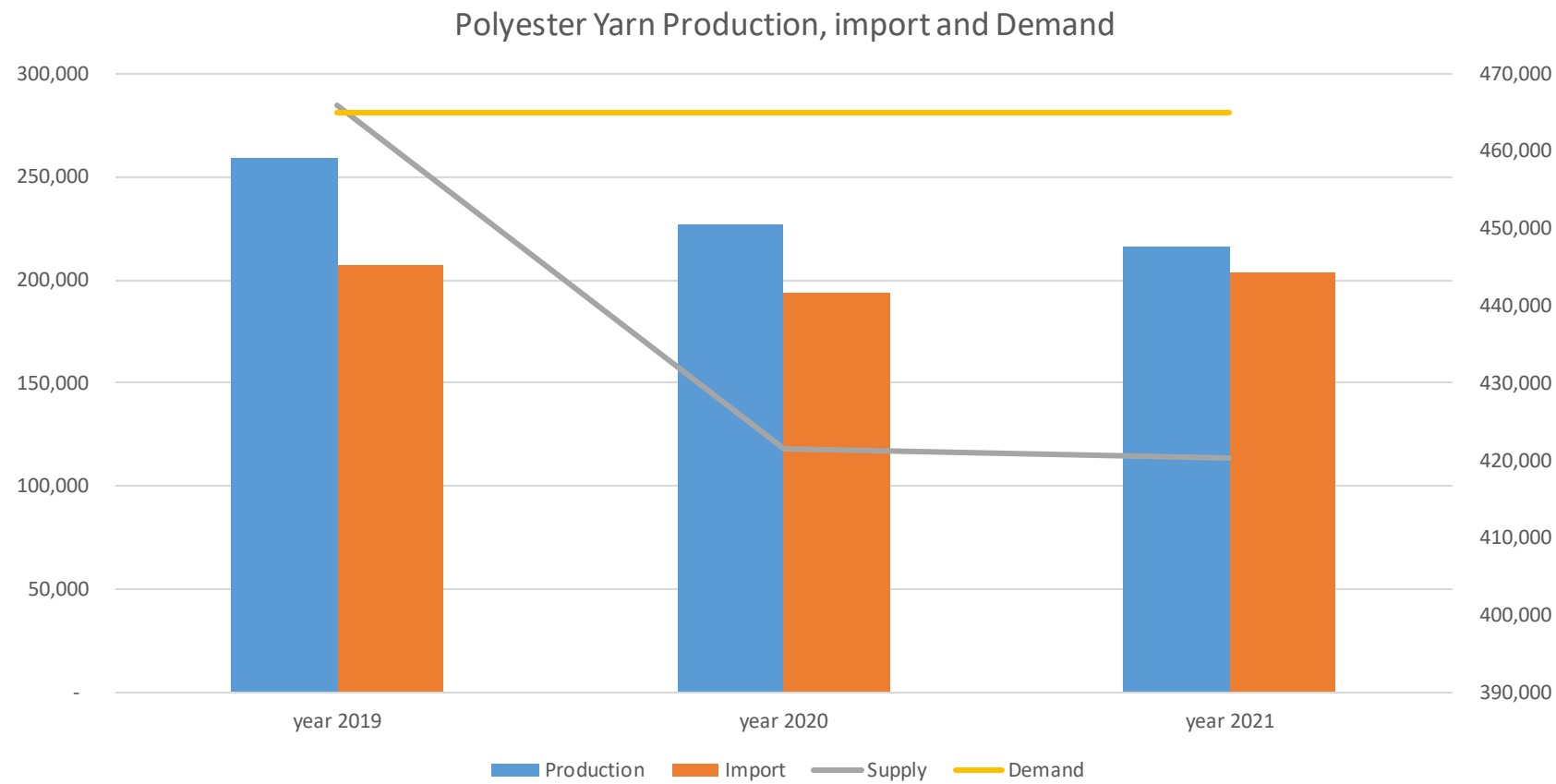
Part V: Vietnam Market Description; Supply Chain of Vietnam textile and apparel industry





Part V: Vietnam Market Description

Supply and Demand of Polyester Yarn in Vietnam

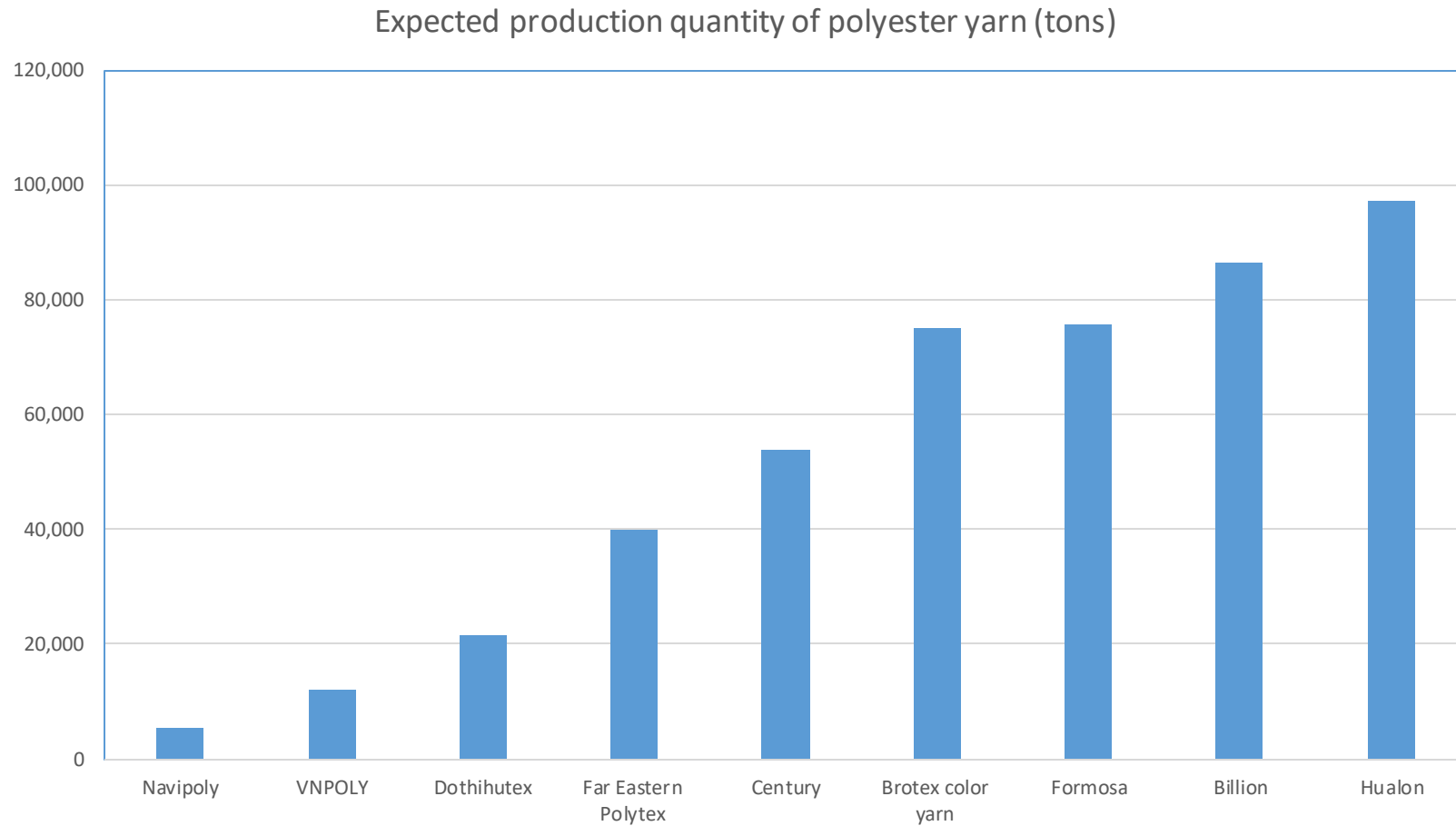


Nguồn: TCHQ, VPI 2021



Part V: Vietnam Market Description

Polyester Yarn

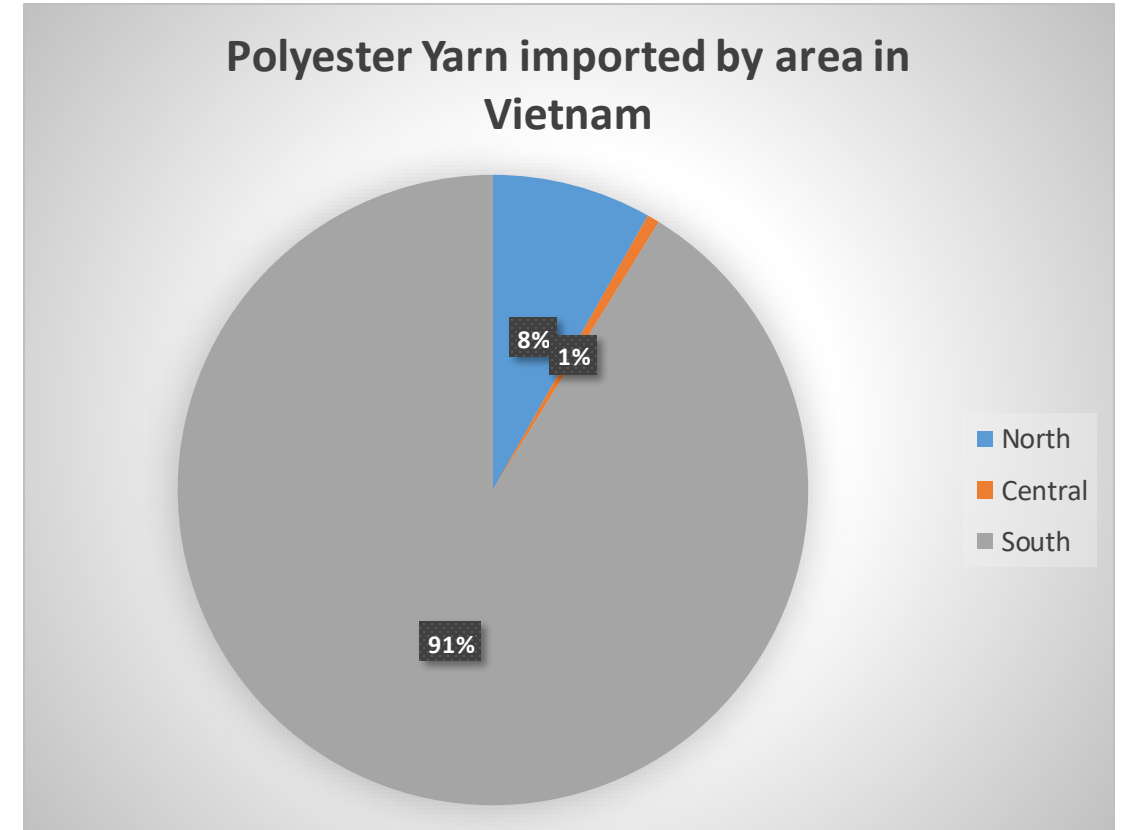
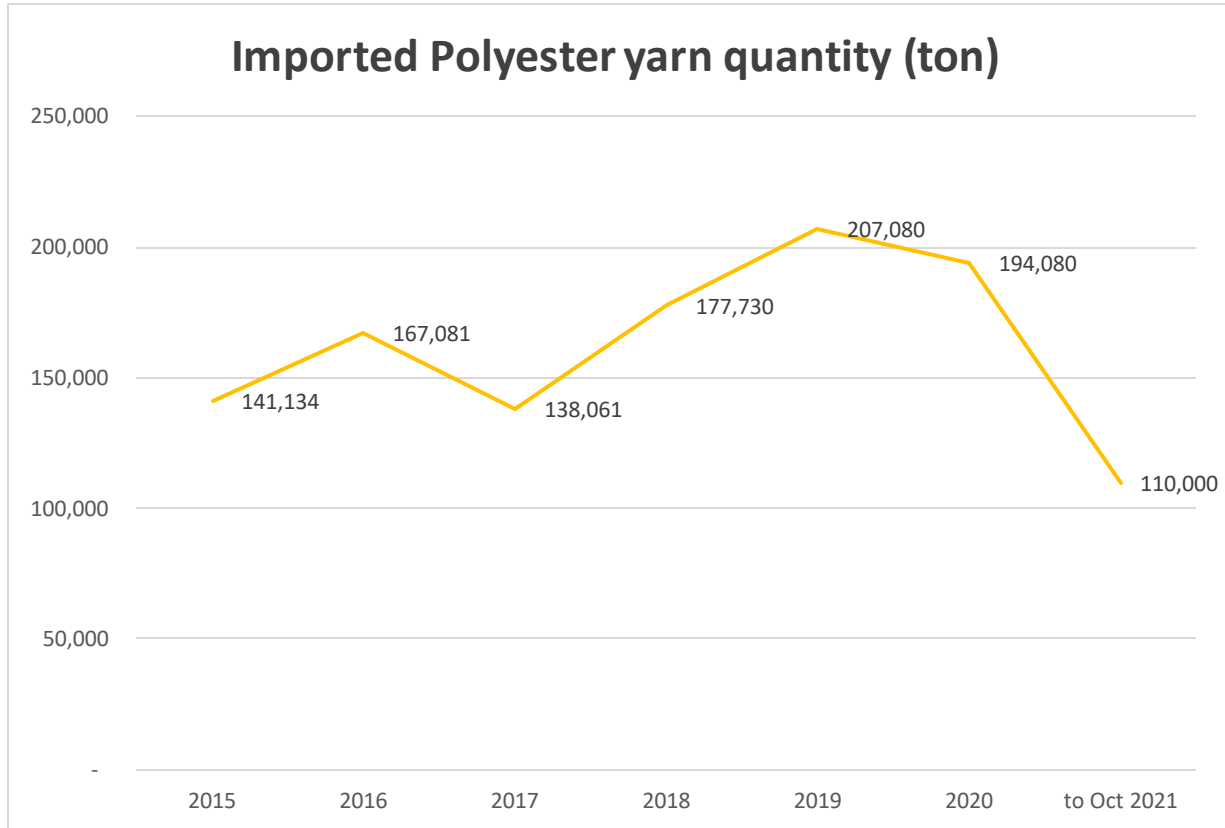


Total production quantity by 385,351 tons in 2021



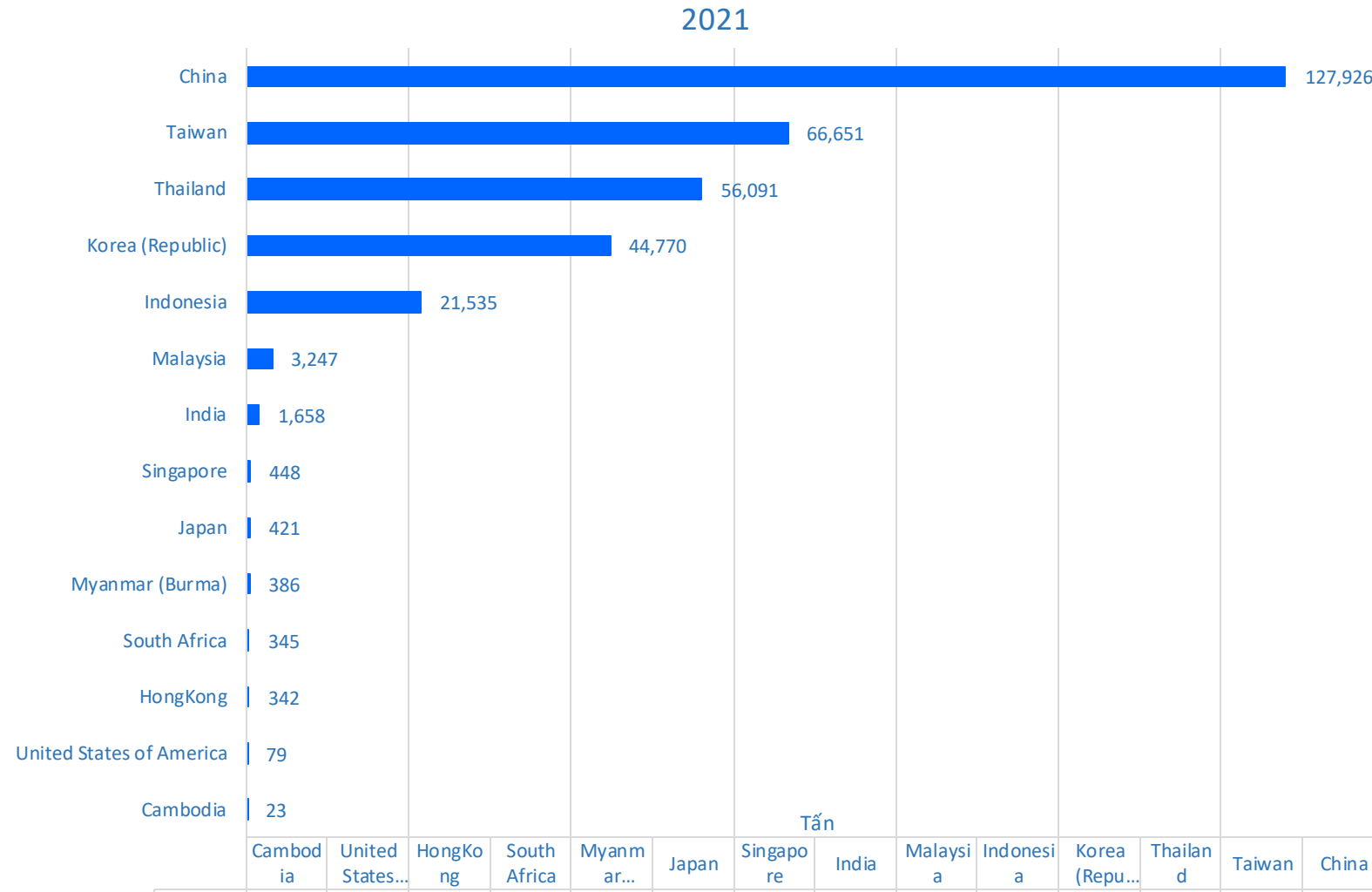
Part V: Vietnam Market Description

Polyester Yarn



Part V: Vietnam Market Description

- Polyester yarn imported from Countries

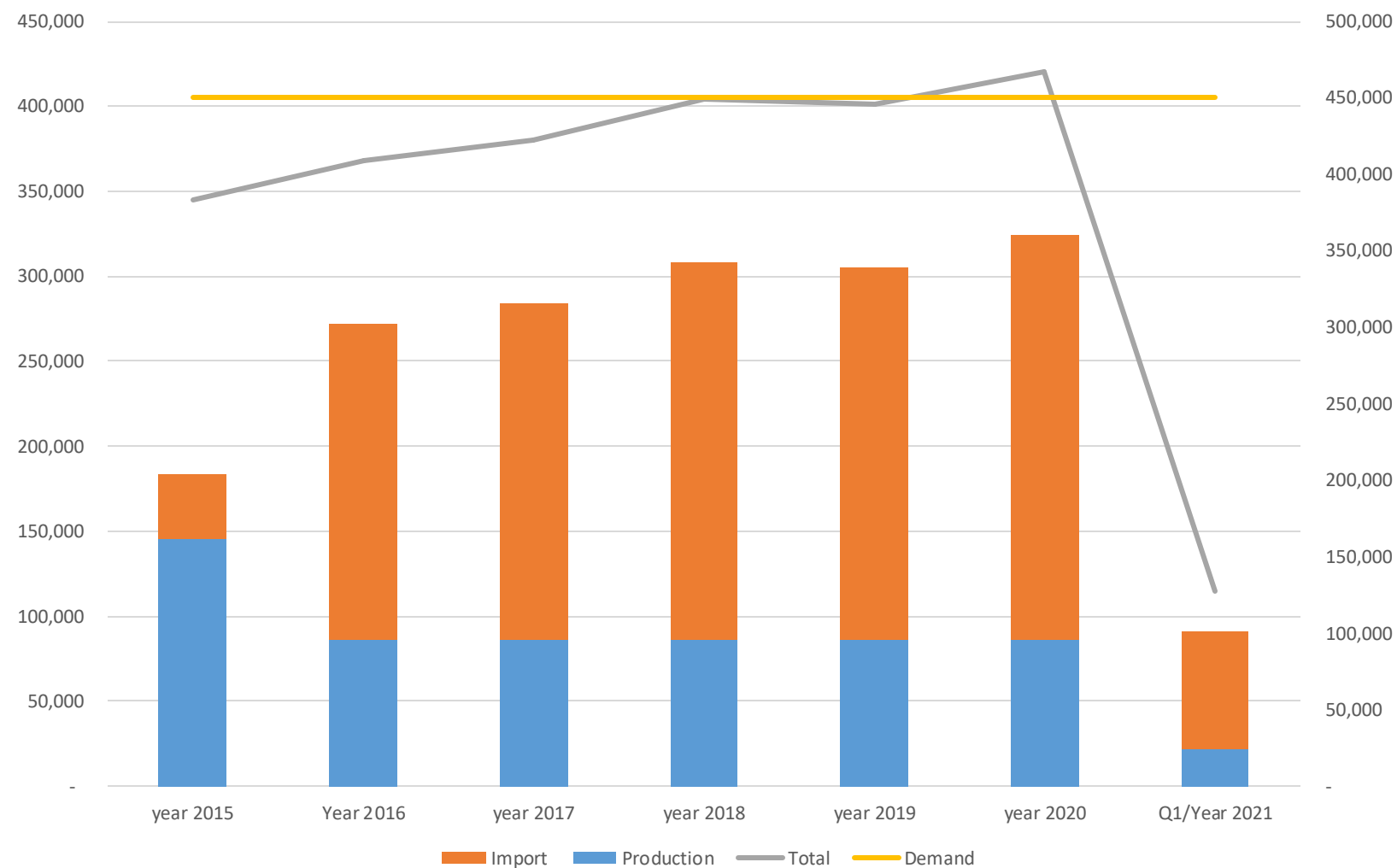


Source: TCHQ, VPI 2021



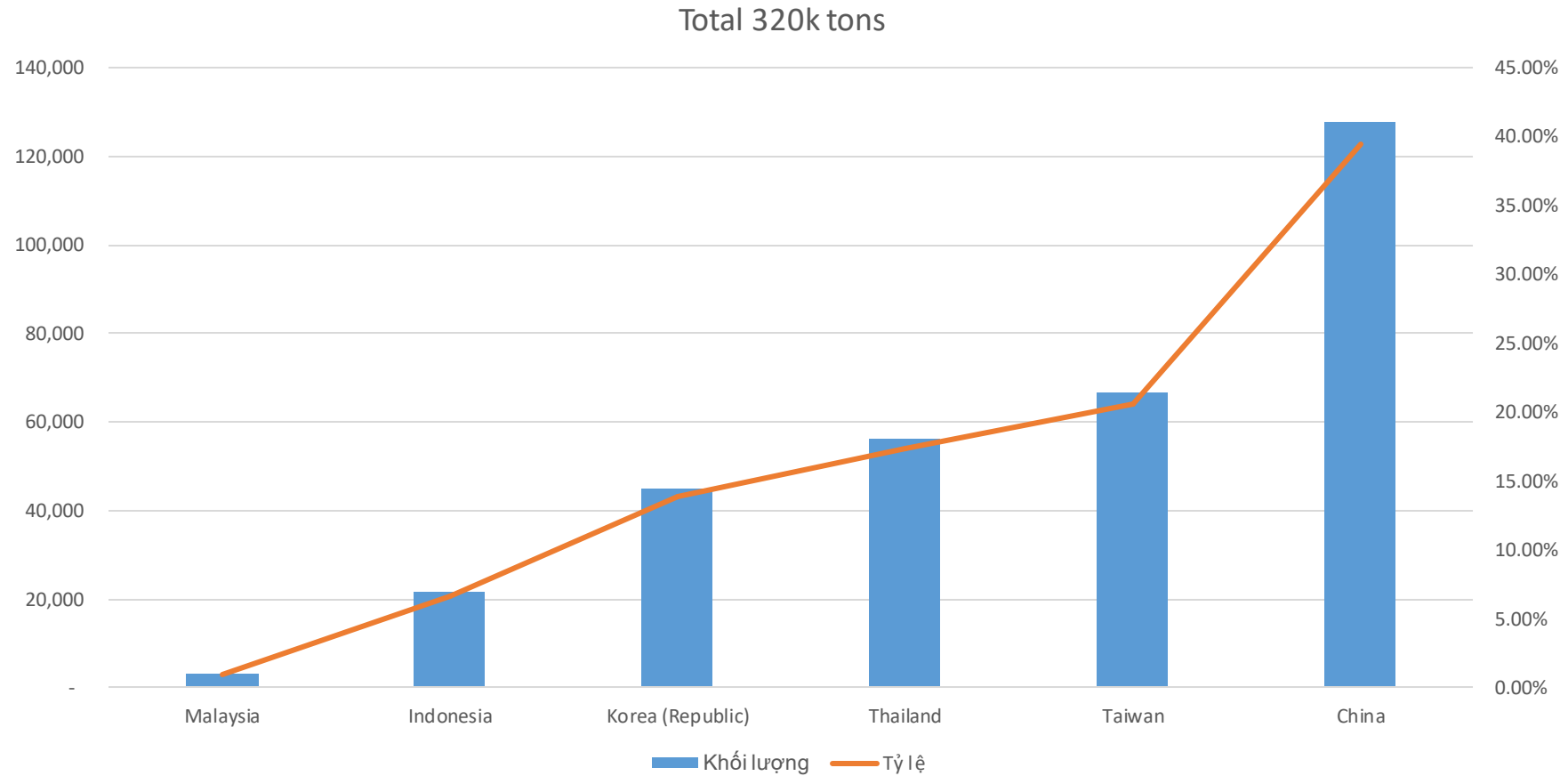
Part V: Vietnam Market Description

Production and Demand for PSF for spinning



Part V: Vietnam Market Description

• Imported Polyester Staple Fiber for Spinning (tons)



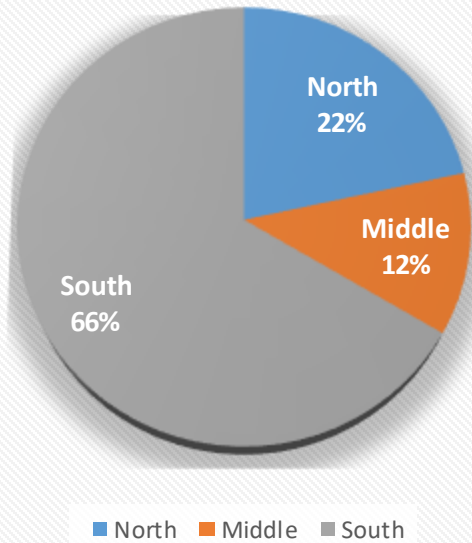
Source: TCHQ, VPI 2021



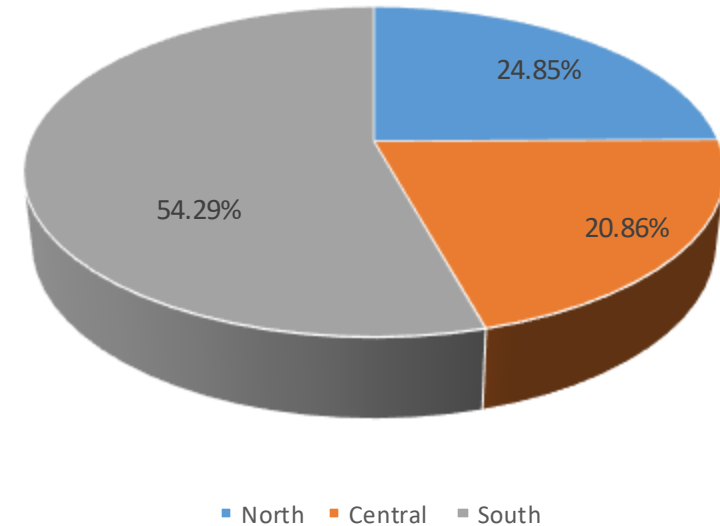
Part V: Vietnam Market Description

PSF Fiber Demand for Spinning In Vietnam

Imported data by Area in Vietnam



PSF demand by area in Vietnam



- Total of PSF demand : more than 420.000 tons/year
- Main season for PSF demand drop in the Autumn and Winter from Aug to December
- Compound Annual Growth Rate at 4%/year,

THANK YOU!