



## **Casos de estudio - Cables**

Quito, mayo 2015

Industrias de Transformación Intermedias y Finales –  
Productos 8, 12 y 14

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# Cables y hilos segment

Equipamiento Eléctrico

Segmentos

## Equipamiento Eléctrico



**Motores**



**Generadores**



**Transformadores**



**Paneles Eléctricos**



**Cables y hilos**



**Iluminación**



**Otros equip. elect.**



# Cables and wires were divided into 4 categories

**ILLUSTRATIVE**

## **TRANSMISSION & DISTRIBUTION (T&D)**



- Connection between power plant-substation (transmission) and substation-end user (distribution)
- Voltage range 1-69kV (distribution) and >69kV (transmission)
- Mostly aluminum, some copper

## **BUILDING LOW VOLTAGE (LV)**



- In buildings and to connect buildings to the grid
- Voltage range <1kV
- Mostly copper

## **TELECOM**



- Optical fiber and copper wire
- Used to transmit data

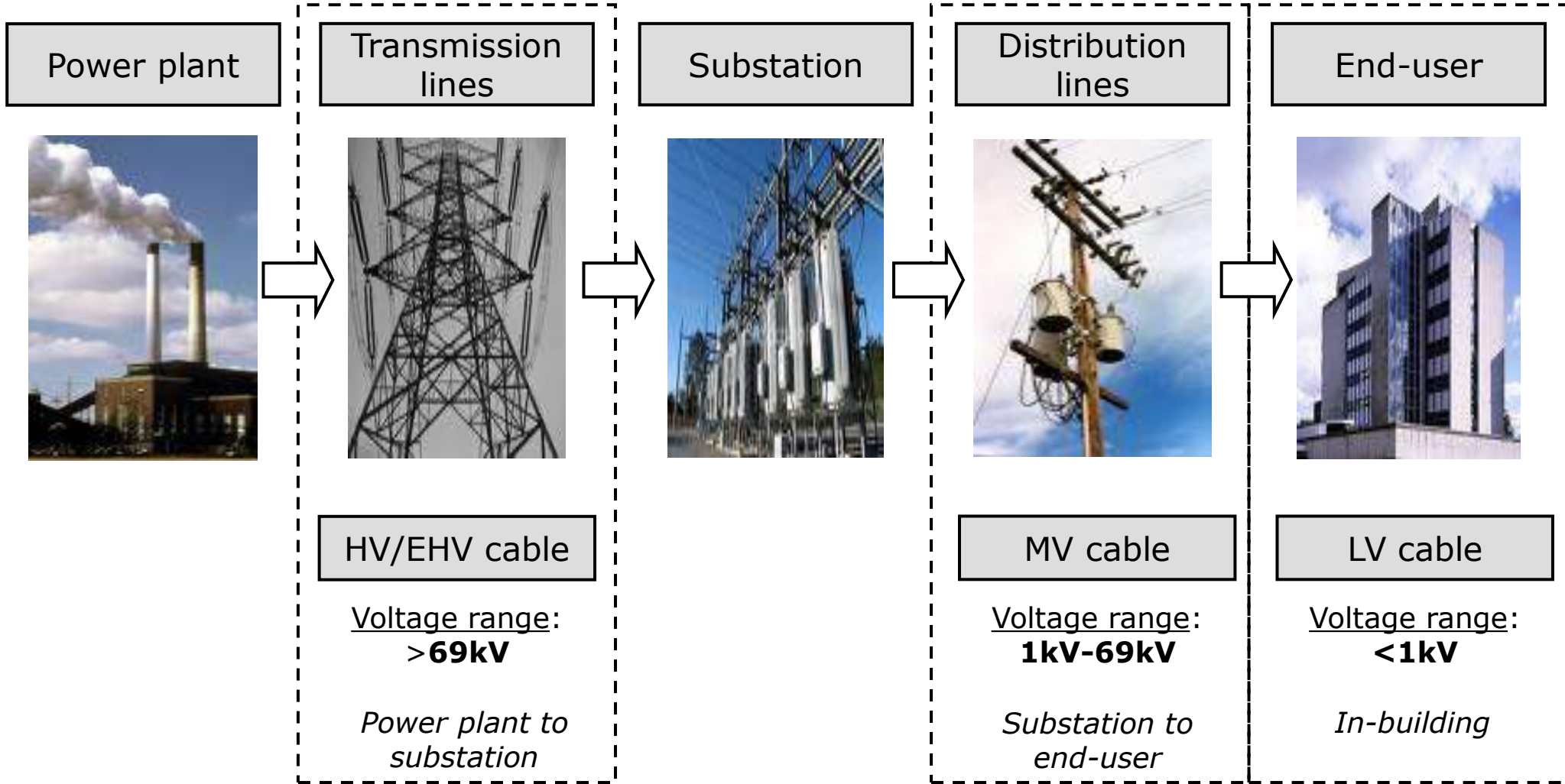
## **WINDING WIRES**



- Used on transformers coil and motors
- Mostly copper



# HV/EHV and MV cables are both used in the power grid, but in different roles; LV cable is mostly used in buildings



Note: There is HV/EHV and MV power cable not used in the power grid, such as industrial cable used in mining, oil drilling, and on ships  
Source: Lit Search

# Cables and wires global market reached ~U\$230B in 2014, T&D and LV represent ~70%

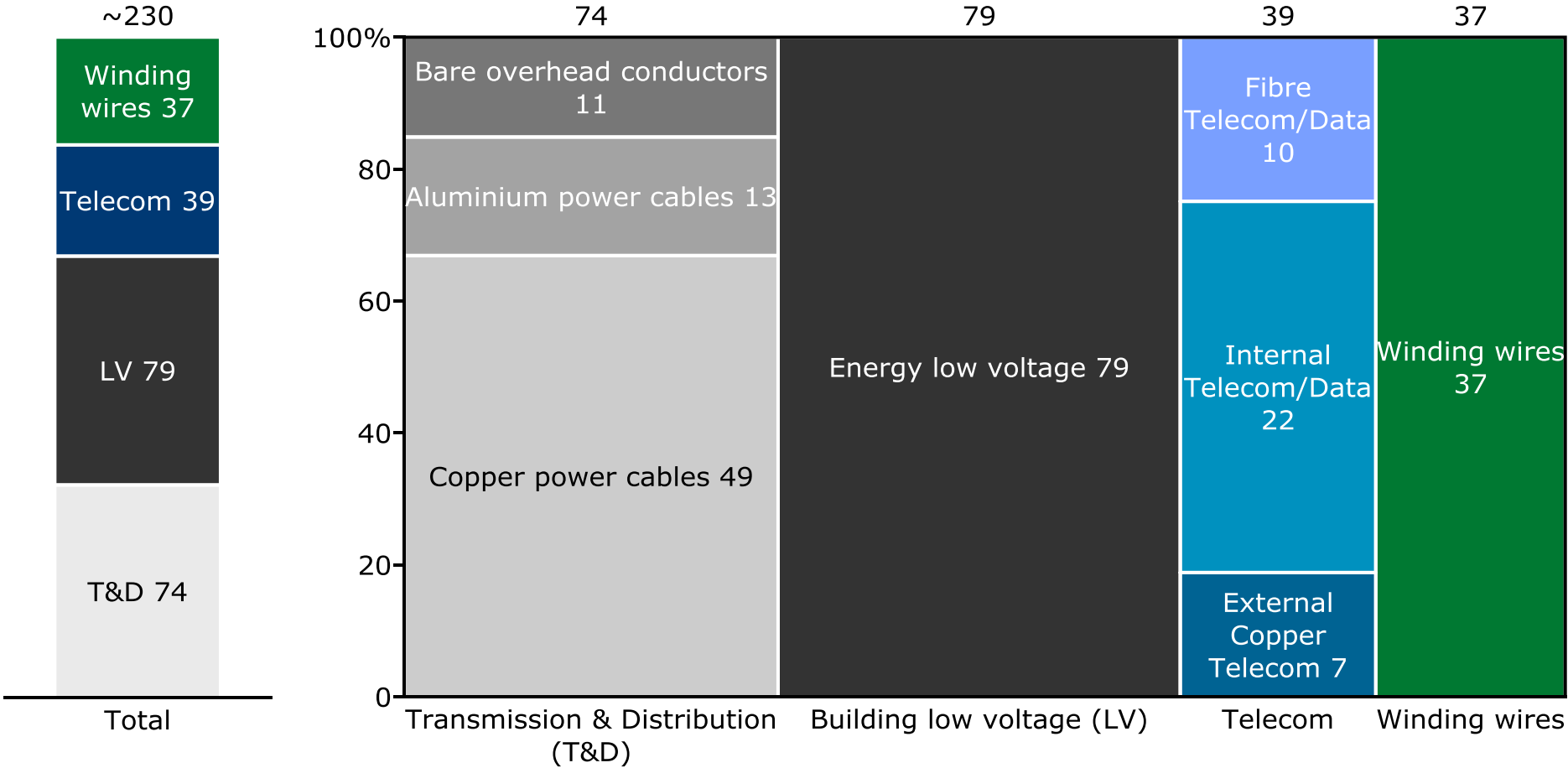
Cables y hilos

Global

## Consumo mundial de cables y hilos

(2014 - U\$B)

Total = ~230



Source: Analyst reports, CRU, analysis Bain

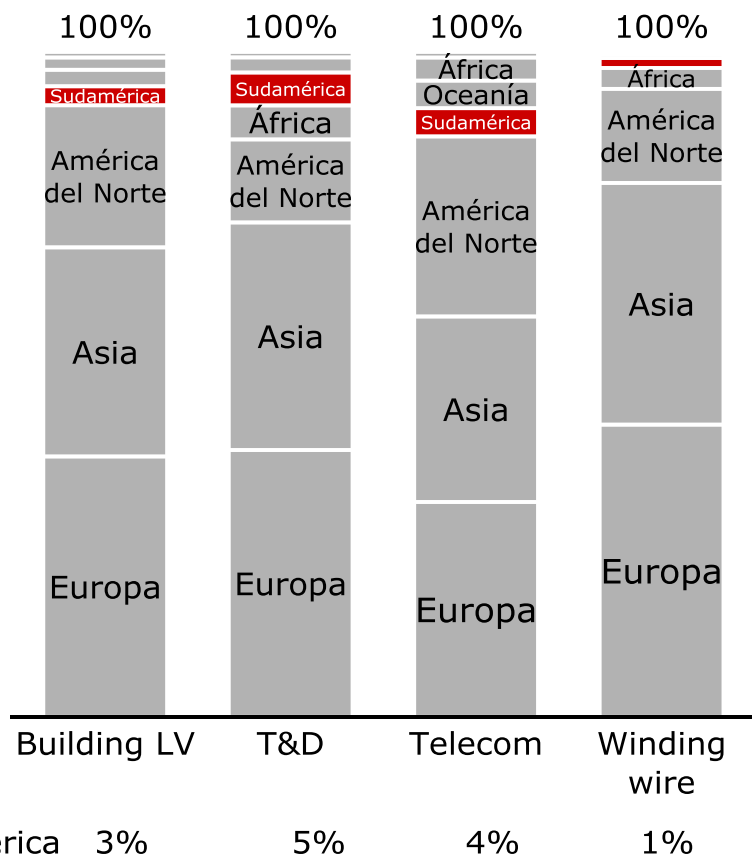
In average, SA accounts for less than 3% of global imports across all categories. China and US are the main origins of SA imports

Cables y hilos

Sudamérica

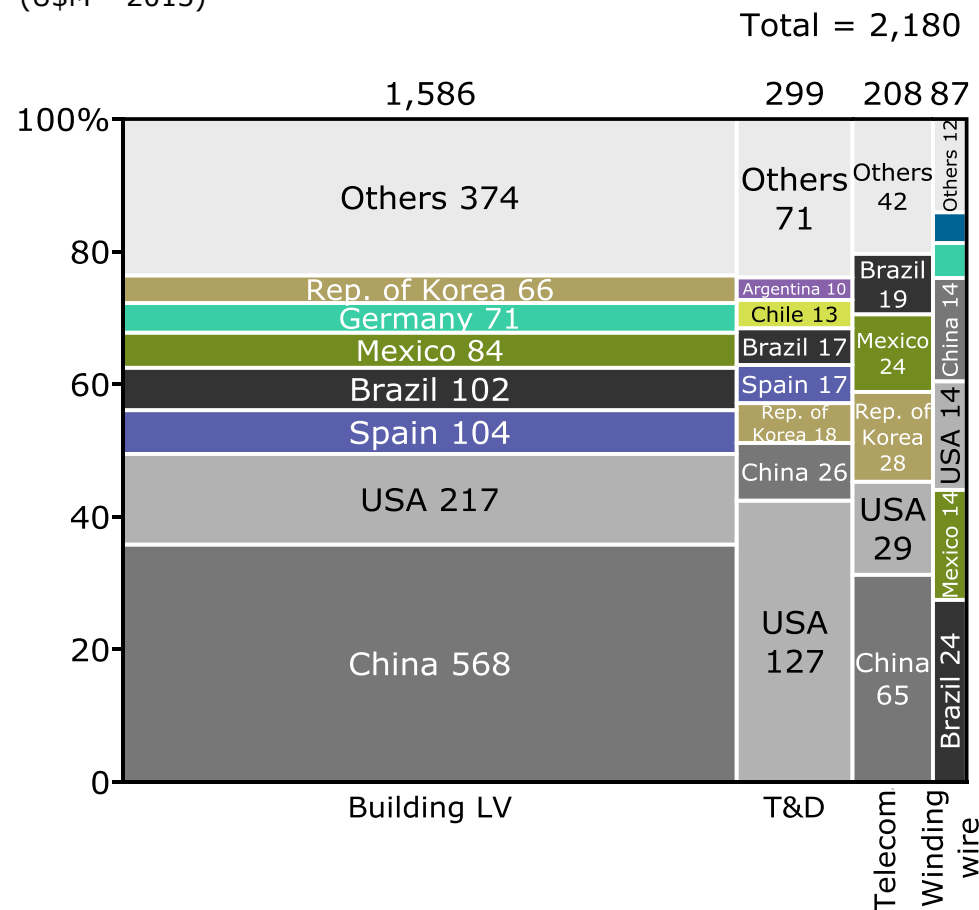
### SA IS A SMALL MARKET FOR IMPORTS COMPARED WITH OTHER REGIONS

World imports by category and final destination (2013)



### CHINA AND US PROVIDE ~50% OF SA IMPORTS

Sudamérica imports by category and origin (U\$M - 2013)



Fuente: UN Comtrade; Análisis Bain



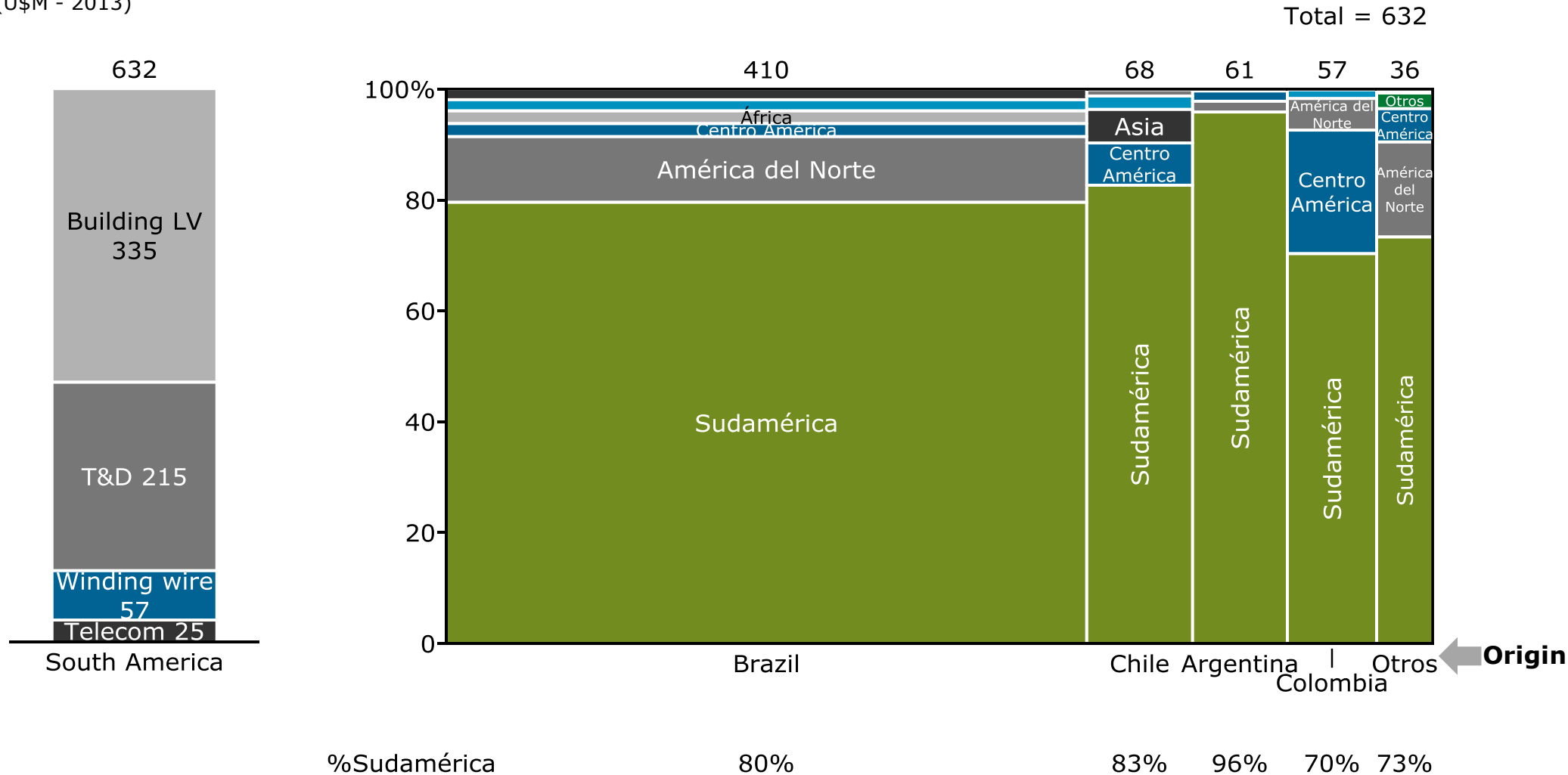
# SA exports ~U\$630M, ~80% within SA. Brazil, Chile, Argentina and Colombia represent ~95% of total exports

Cables y hilos

Sudamérica

## South America exports by category and final destination

(U\$M - 2013)



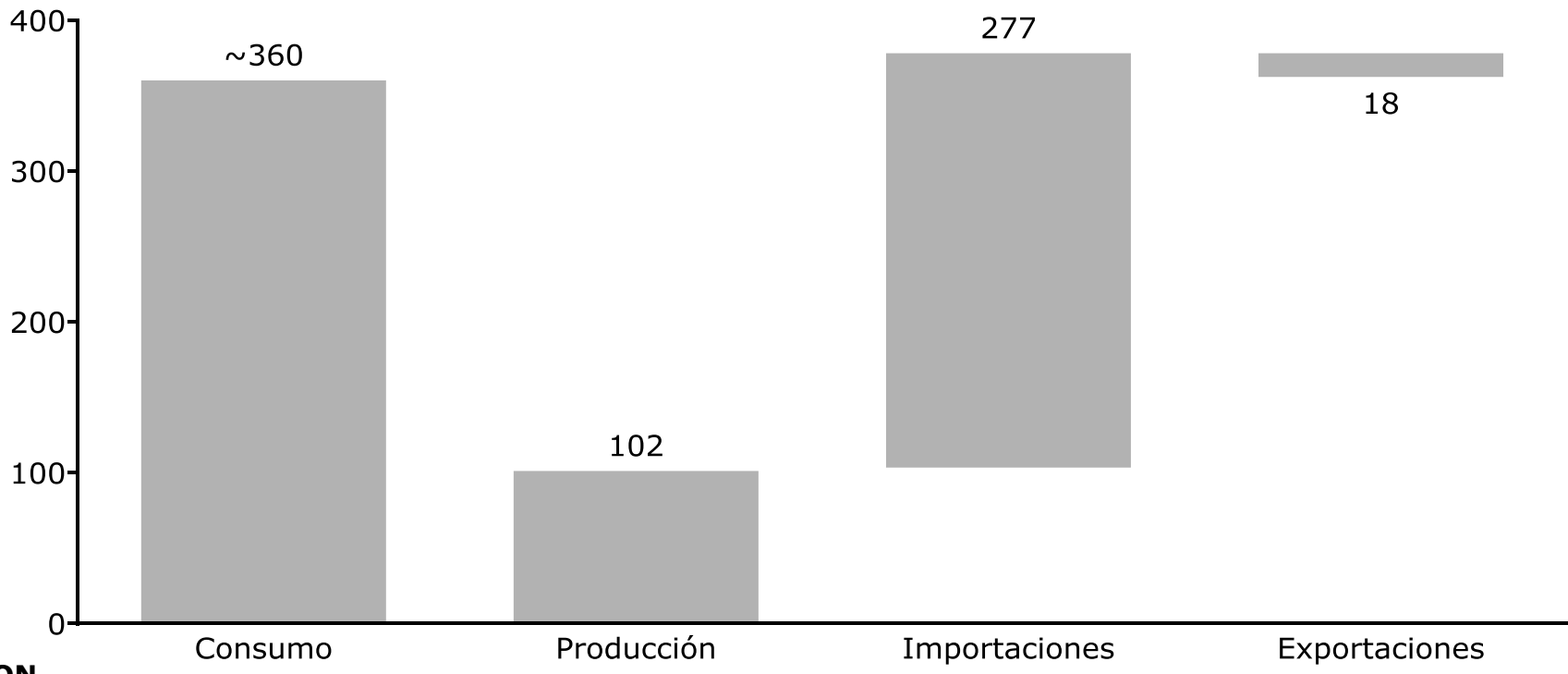
Fuente: UN Comtrade; Análisis Bain

# Ecuador consumes ~U\$360M, almost ~80% is imported. Production is lower than SA countries levels

Cables y hilos

Ecuador

**Mercado de cables y hilos en Ecuador**  
(2013 - U\$M)



**AS % OF CONSUMPTION**

	Consumo	Producción	Importaciones	Exportaciones
Ecuador		28%	77%	5%
Brasil		94%	12%	60%
Colombia		70%	40%	10%
Peru		75%	28%	2%

Fuente: Datos SRI; SENAE; UN Comtrade; Crisil Resersh; Euromonitor, Análisis Bain



# La producción se ha mantenido constante alrededor de ~100U\$M, 70% producido por Electrocables

Cables y hilos

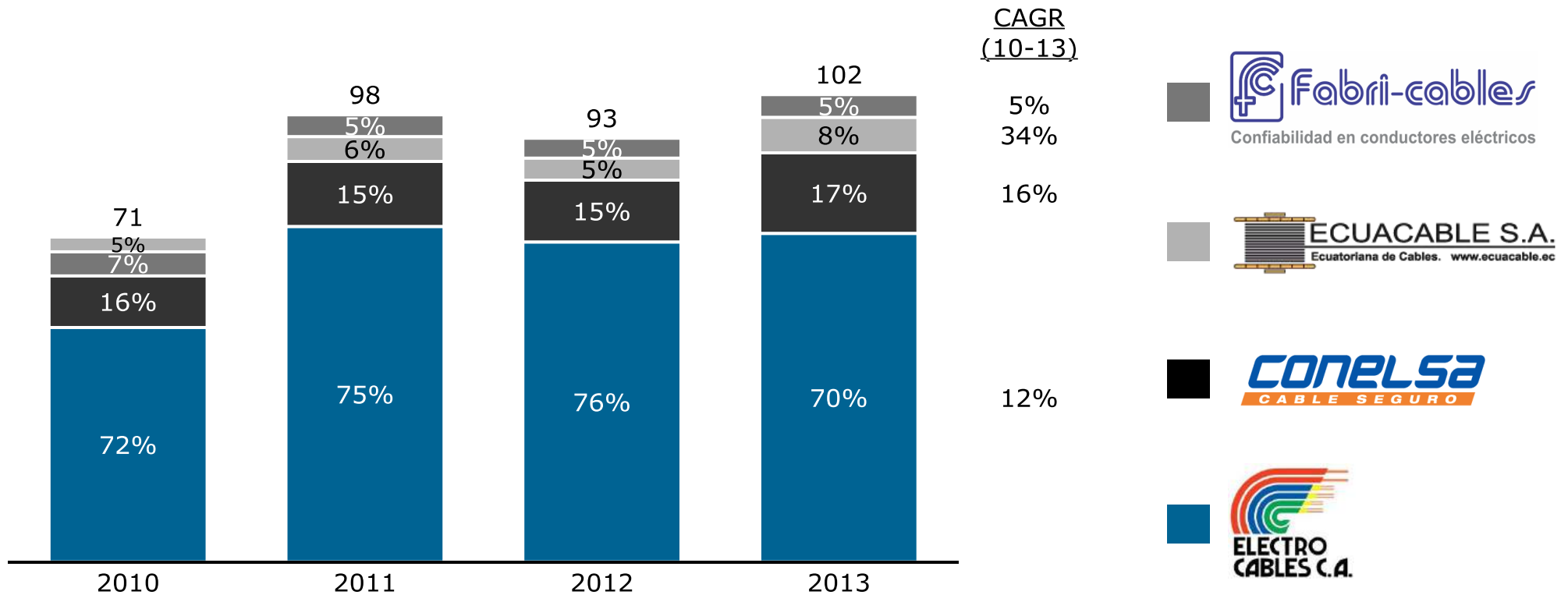
Ecuador

Producción

**PRELIMINAR**

## EVOLUCIÓN DE LA PRODUCCIÓN ECUATORIANA

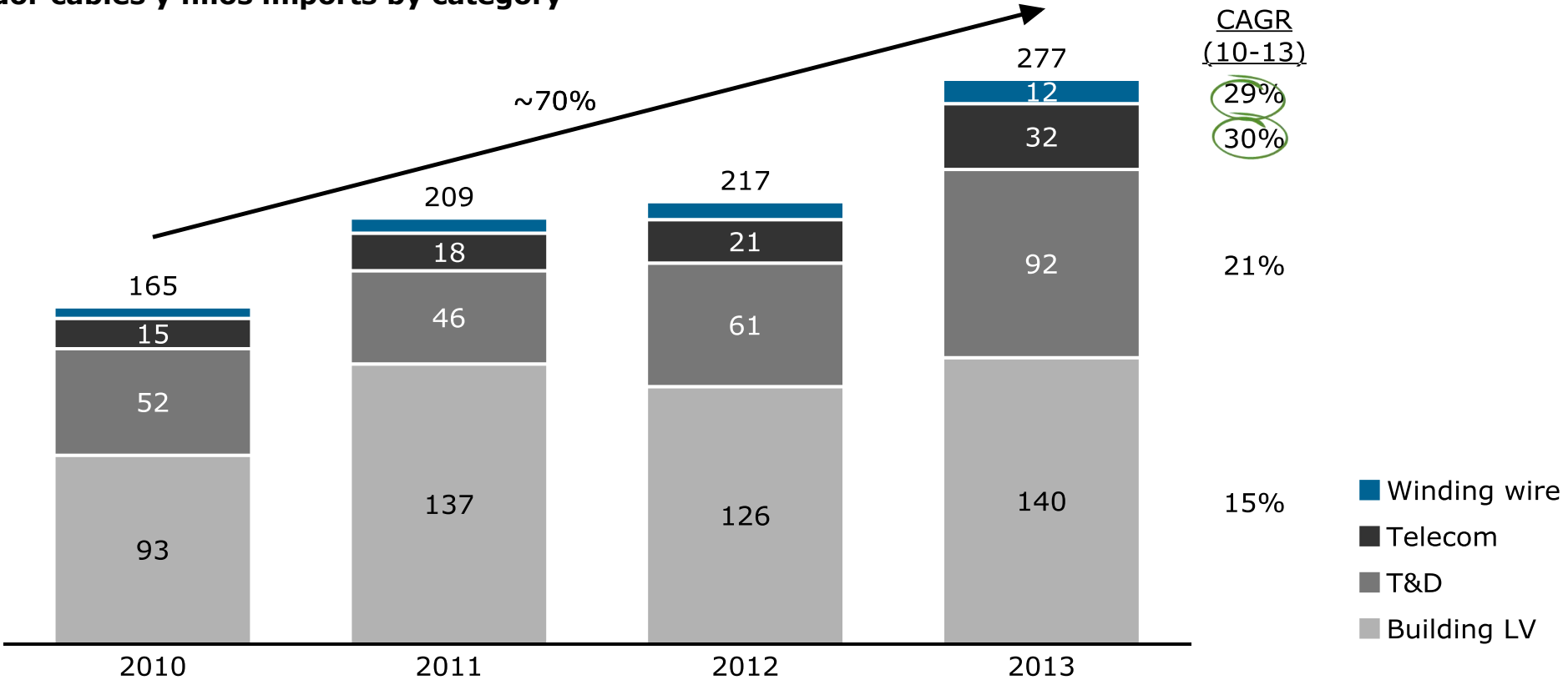
Producción de cables y hilos en Ecuador (U\$M)



Fuente: Superintendencia de Compañías; SRI; Análises Bain

# Imports have been growing since 2010 reaching ~U\$280M. All segments presented a double digit CAGR growth

**Ecuador cables y hilos imports by category (U\$M)**



Fuente: UN Comtrade; analysis Bain

# USA and China are the origin of more than 50% of Ecuadorian imports

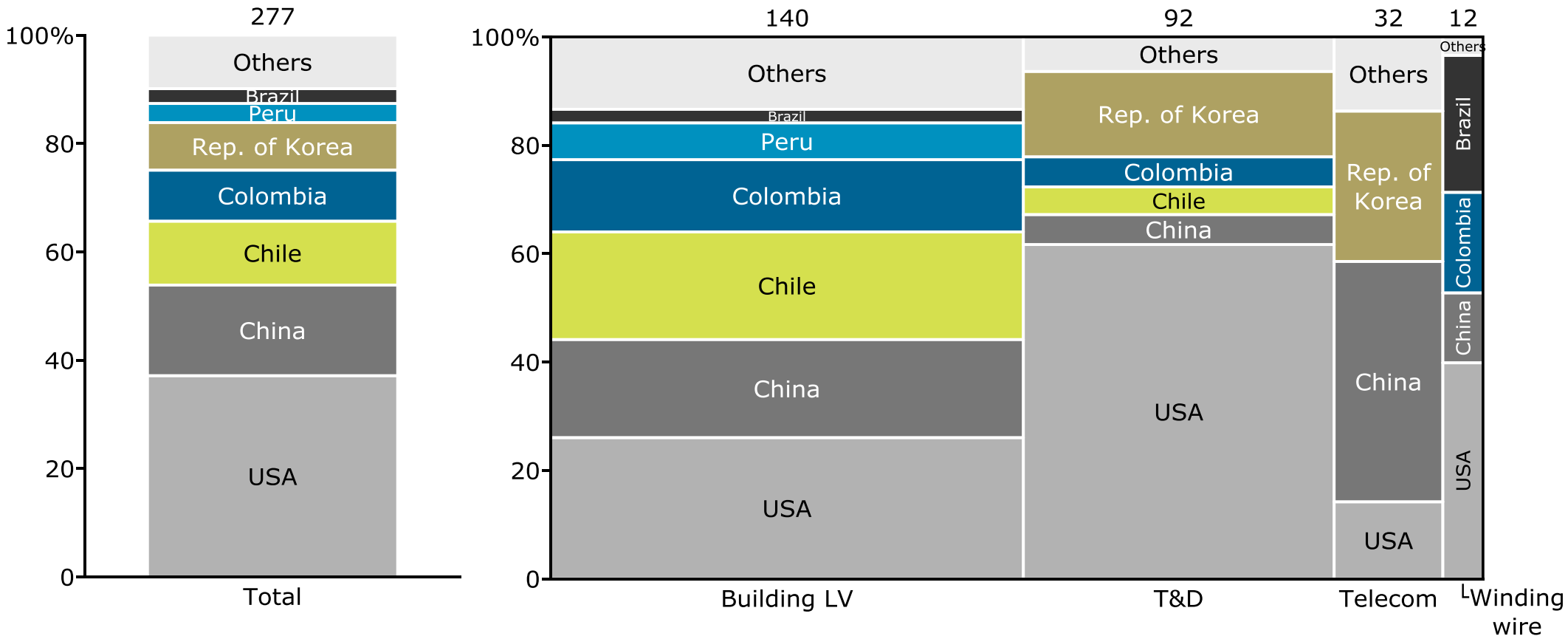
Cables y hilos

Ecuador

Importaciones

**Importación en Ecuador**  
(U\$M - 2013)

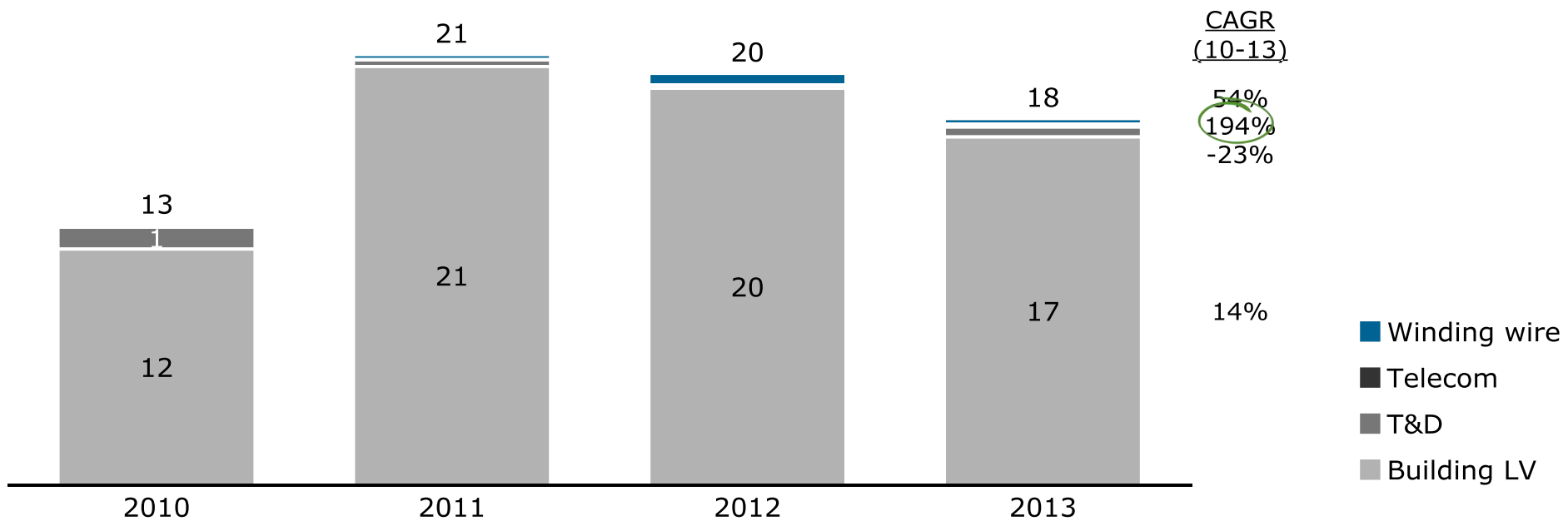
Total = 277



Fuente: UN Comtrade; analysis Bain

# Exports have been flat around U\$20M. LV segment accounts for almost all exports and have been growing at 14% CAGR

**Ecuador cables y hilos exports by category (U\$M)**

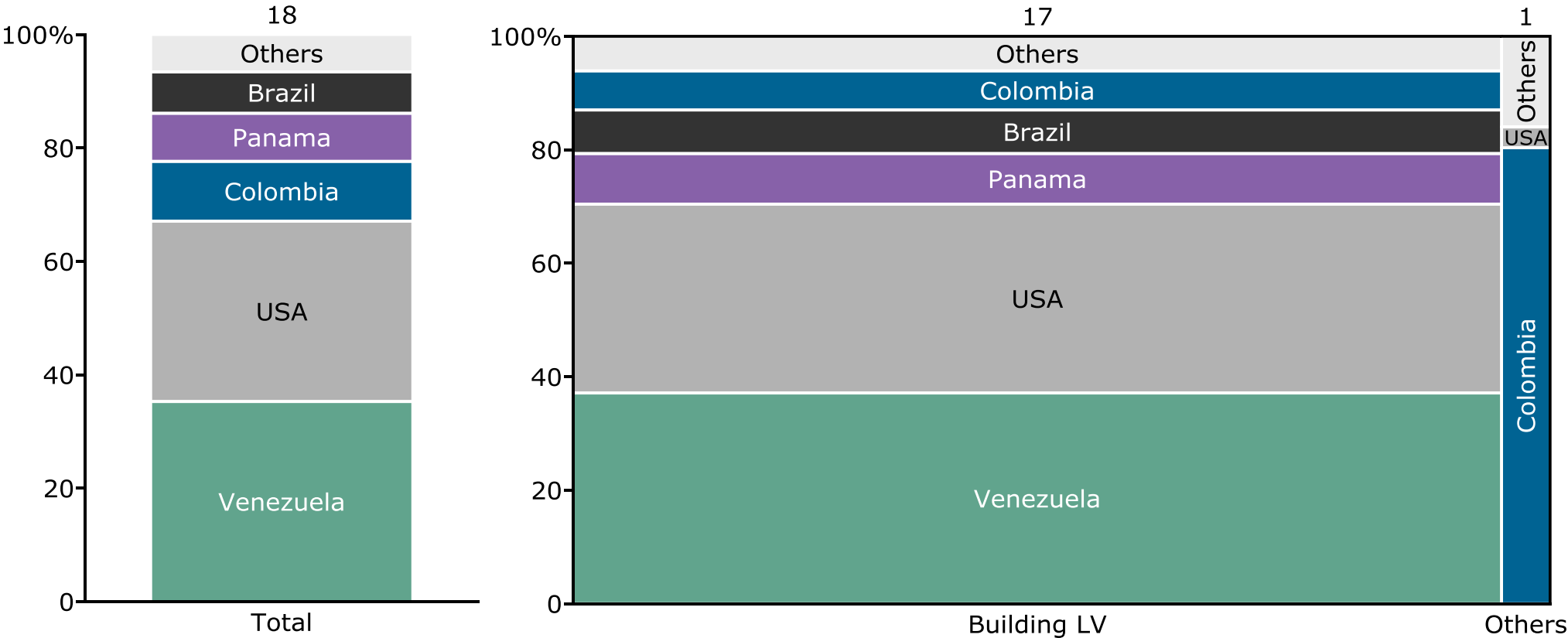


Fuente: UN Comtrade; analysis Bain

# Venezuela and USA are the destination of more than 65% of Ecuadorian exports

**Exportación en Ecuador**  
(U\$M - 2013)

Total = 18



Fuente: UN Comtrade; analysis Bain

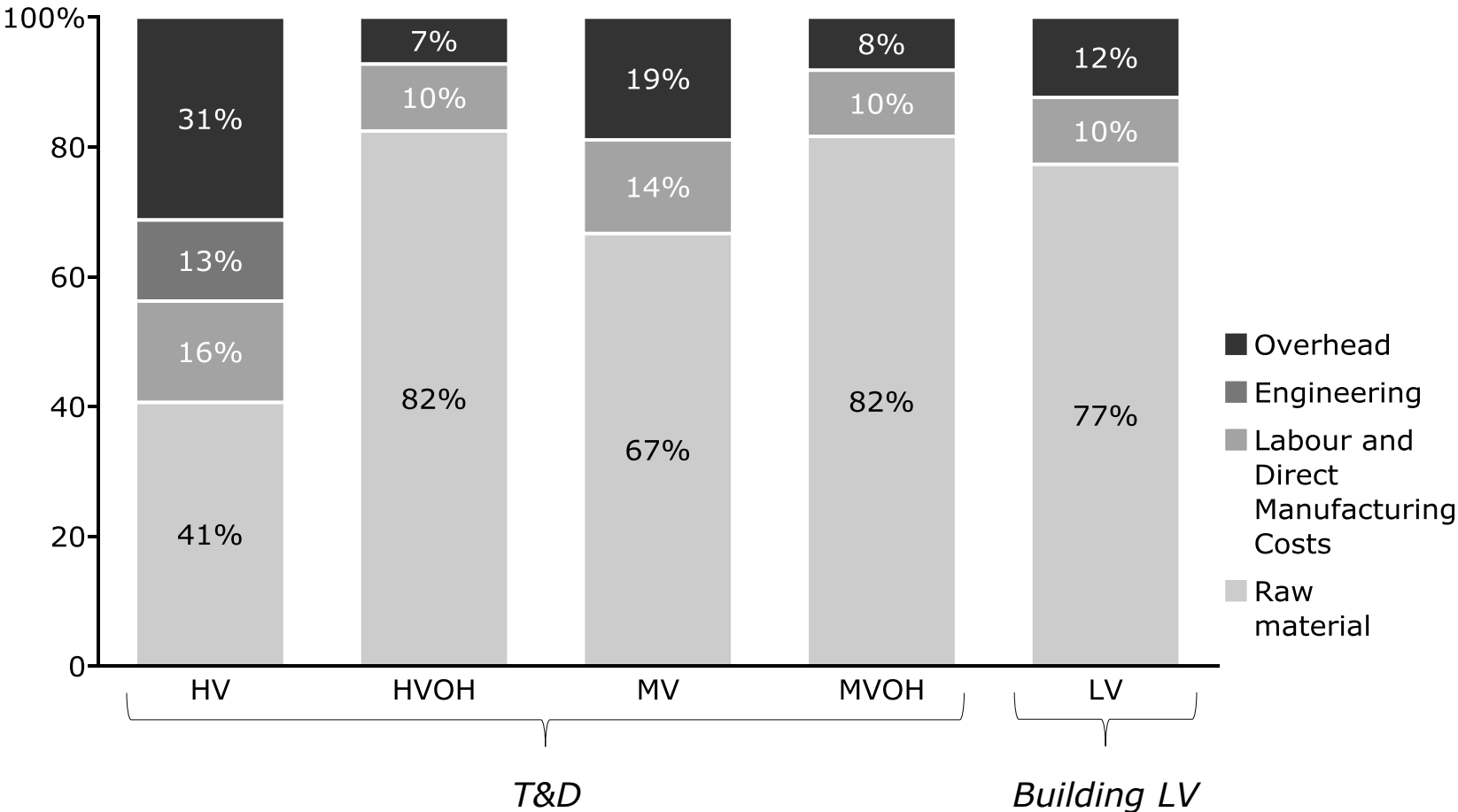
# Productivity and assets utilization are key profitability drivers in the industry, as raw material is transparent

Cables y hilos

Competitividad

**INDUSTRY AVERAGES**

**Estructura de costo promedio de la industria**  
(Estimado)



***"Plant efficiency, scrap rate, personnel productivity and utilization rates are the key KPI's to control"***

**Industry expert**

***"For low value added products such as LV, plant location close to the market is key to avoid logistic and sales costs"***

**Industry expert**

Source: Bain interviews; Analyst reports

**BAIN & COMPANY** 