

## CHELEM International Trade Sectoral Classification: the 4 technological levels

The manufactures (MA) are decomposed in 4 technological levels (HI, IH, IL and LO), each constituted of technological branches.

The non-manufactured products (NM) is a full aggregate.

The sum MA+NM represents the total of the products.

CHELEM Code	Technological branch	Composition (CHELEM and ISIC codes)
<b>HI</b>	<b>High-technology products</b>	<b>HI1+HI2+HI3+HI4+HI5</b>
HI1	Medical and precision instruments	33
HI2	Pharmaceuticals	2423
HI3	Radio, TV and communication	32
HI4	Office, accounting & computing	30
HI5	Aircraft and spacecraft	353
<b>IH</b>	<b>Medium-high-technology products</b>	<b>IH1+IH2+IH3+IH4+IH5</b>
IH1	Railroad & other transport equipment	352+359
IH2	Motor vehicles, trailers	34
IH3	Oth. electrical machines & apparatus	31
IH4	Machinery and equipment n.e.c.	29
IH5	Chemicals excl. pharmaceuticals	241+2421+2422+2424+2429+243
<b>IL</b>	<b>Medium-low-technology products</b>	<b>IL1+IL2+IL3+IL4+IL5+IL6+IL7+IL8</b>
IL1	Rubber and plastic products	25
IL2	Ships and boats	351
IL3	Basic & cast non-ferrous metals	272
IL4	Other non-metallic mineral products	26
IL5	Manufacturing n.e.c. & recycled products	36+37
IL6	Fabricated metal products, except machinery	28
IL7	Basic & cast iron and steel	271
IL8	Coke, refined petroleum products, nuclear fuel	23
<b>LO</b>	<b>Low-technology products</b>	<b>LO1+LO2+LO3+LO4</b>
LO1	Paper and printed products	21+22
LO2	Textiles, leather and footwear	17+18+19
LO3	Food products, beverages & tobacco	15+16
LO4	Wood & wood products excluding furniture; straw	20
<b>MA</b>	<b>Manufactures</b>	<b>HI+IH+IL+LO</b>
<b>NM</b>	<b>Non manufactured products</b>	<b>01+02+05+10+11+12+13+14 +40+74+92+93+Nv</b>
<b>TT</b>	<b>Total</b>	<b>MA+NM</b>

Source: European Commission, JRC (Alexander Loschky)

*Reviewing the nomenclature for high-technology trade - The sectoral approach*,  
STD/SES/WPTGS(2008)9 (OECD)

Criterion: direct and indirect R&D intensities in 2000

HI below 1.0%

IH between 1.0% and 2.5%

IL between 2.5% and 7%

LO higher than 7%