



Natural Rubber

challenges in delivering a sustainable global rubber industry going forward

Fazilet Cinaralp,
Secretary General, ETRMA

Wageningen

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OVERVIEW

- 1. DEMAND trends & evolution of the tyre market**
- 2. Impact on Natural rubber supply;**
- 3. Sustainability Challenges of natural rubber**



LEADING VOICE OF THE EUROPEAN TYRE & RUBBER MANUFACTURERS

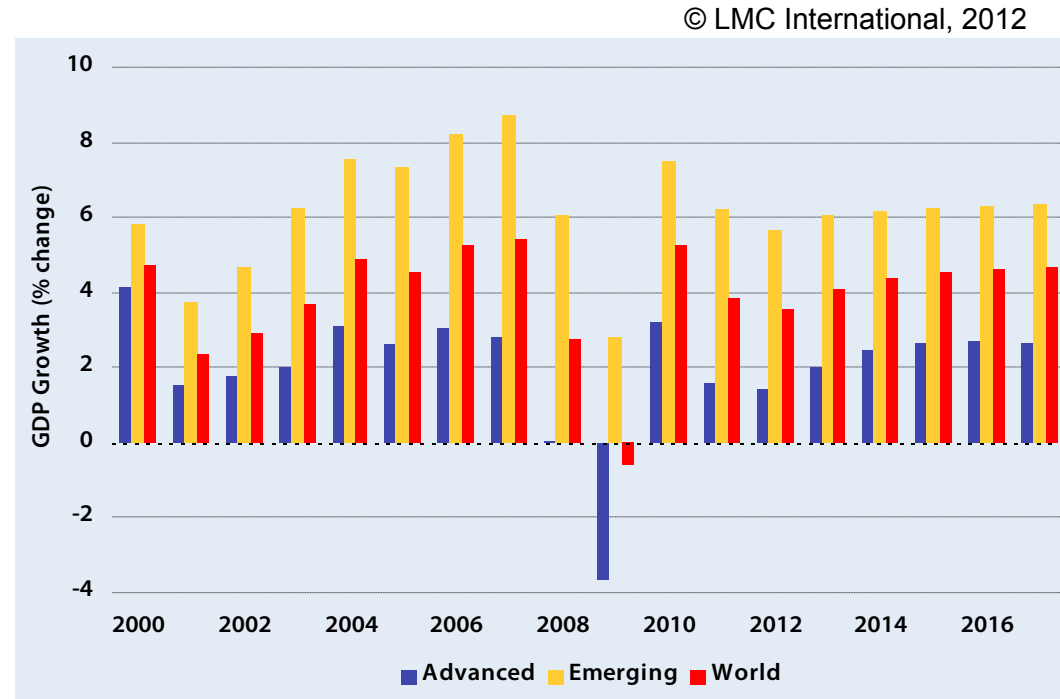
TYRE CORPORATE members are



- ~4200 companies, 12 Tyre Corporate HQs, 91 tyre plants, 15 R&D centers
- In 2011, turnover close to €50 bn of which tyre companies € 29 bn
- Employing 374,000 persons
- 6 out of top 10 global tyre companies are ETRMA members, realizing 65 % of the world tyre industry turnover (2011 ranking)

- **Driven by the tyre industry** consuming ~ 70 % of the NR produced.
- **General rubber goods** include: non-tyre automotive applications, shoes, hoses and belts. **Shoes** take up around a third of this segment.
- **Natural rubber latex** (12% of natural rubber demand) is used for gloves, threads, foam, adhesives and sealants, catheters, carpet backing and condoms. **Gloves** (primarily for medical use) take more than half of global latex.

- **GDP is the main driver of vehicle and tyre demand**
- Recession in 2009 caused a serious dip in vehicle demand in mature markets, but emerging markets continue to prosper at lower rates.



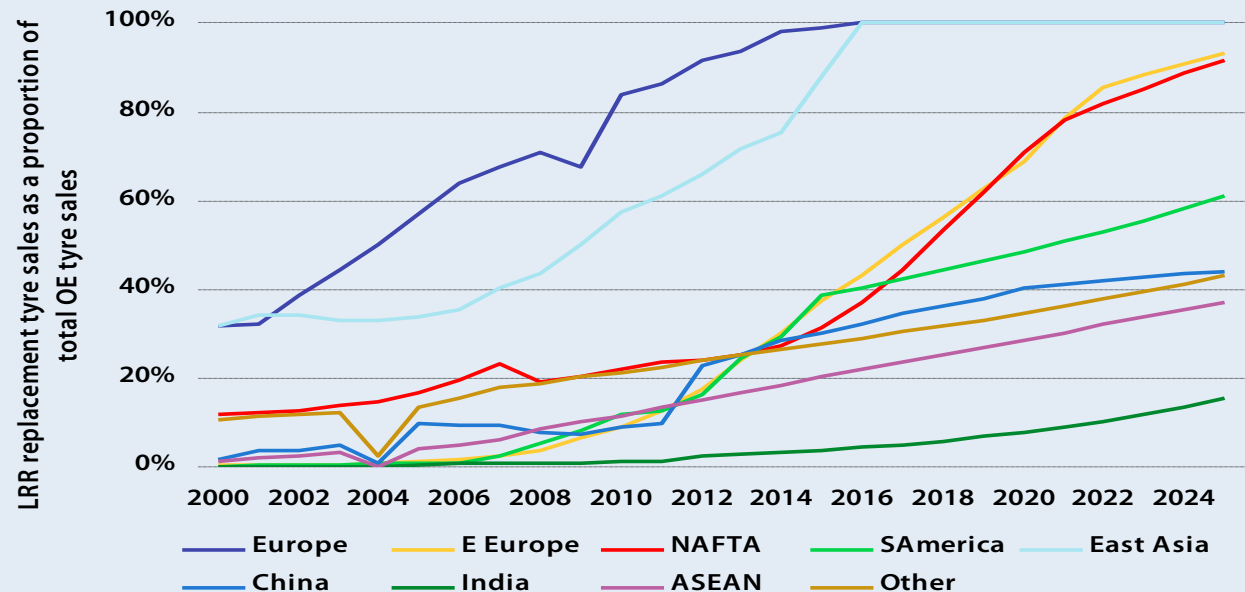
- Global GDP grew by 5.3% in 2010 and 2.9% in 2011, with growth slowing down during the second half of the year. Growth has remained weak in 2012 as the Eurozone crisis continues
- Light vehicle production expected to grow over 120 million units, with emerging markets accounting for 69% (LMC International)

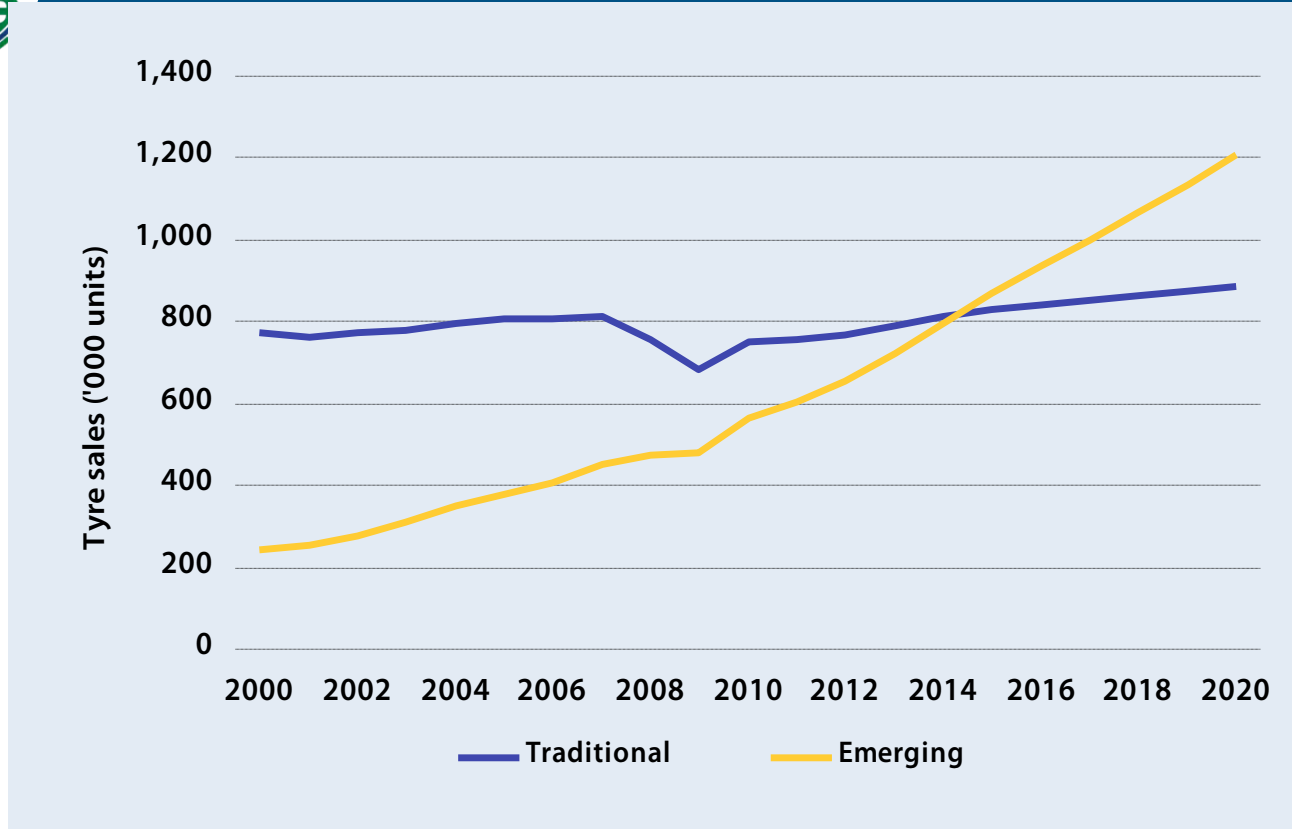
- A major evolution in the tyre sector : multiplication of regulations, mainly regarding environment protection and safety.
- Starting November 2012, **mandatory labeling of tyres** in the EU; inform end-customers on three performances: energy efficiency, wet grip and rolling noise.
Additionally, there will be **minimum compliance thresholds** in order for tyres to be sold – that will be introduced gradually >>2020.
- Similar regulations already exist in Japan and will be implemented in South Korea, the USA and Brazil and are announced in China ...

In other words,
demand for low rolling
resistance tyres is
increasing

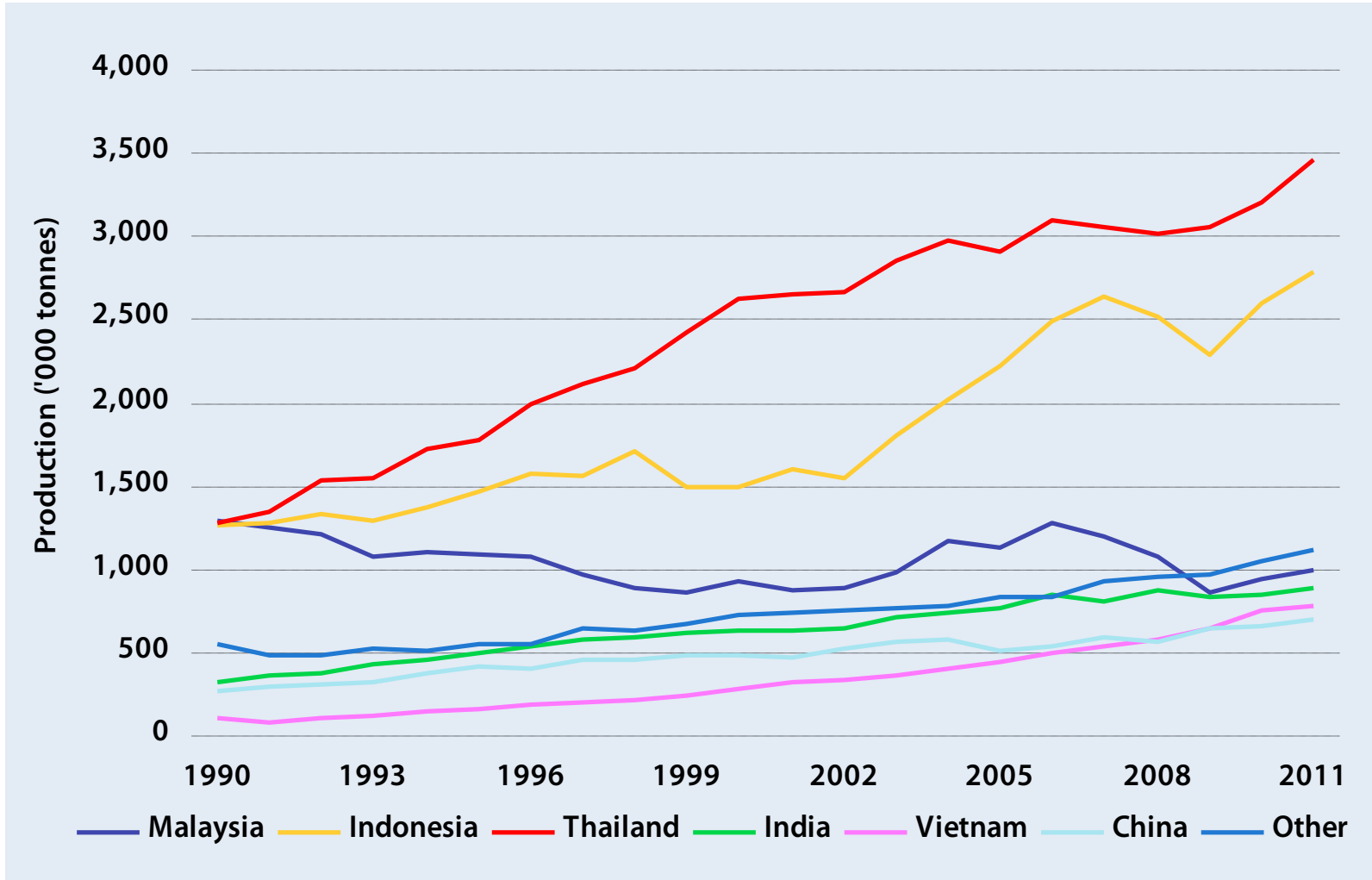


Changes raw material
demands in tyre





- Today, there are about 1.2 billion tyres for passenger cars and light trucks sold in the world every year. This figure should grow to more than 2 billion in 2020.
- For trucks and buses, there are about 120 million tyres sold throughout the world every year. This figure will grow to 200 million by 2020.
- **With rising vehicle sales and a larger vehicle parc, the emerging markets have become the engines of tyre demand growth**





NATURAL RUBBER

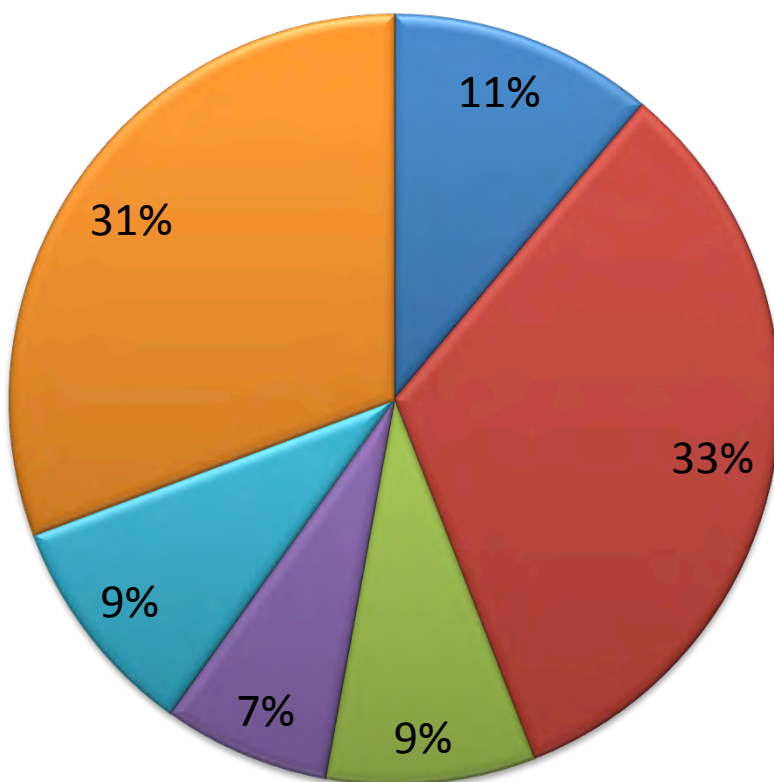
- Natural rubber's specific chemical characteristics have made it the source of choice in many specialized applications . Almost all natural rubber is extracted from one biological source: the Brazilian rubber tree (*Hevea brasiliensis*)
- As prices rose in the 2000s so did the intensity of tapping and production. This is linked to government funded planting programmes (mainly in Thailand and Indonesia)
- Malaysian rubber production is among the highest cost and hence the most price sensitive. Replanting levels have picked up with higher prices. The government is committed to increasing the rubber area.
- Vietnamese natural rubber area has risen to 830,000 hectares; this is already above the government target of 800,000 ha by 2020. This increase in area will lead to higher production. With land constraints, estates are investing in neighbouring countries
- **Global production is expected to reach 16 mn tonnes by 2025**



2011- NATURAL RUBBER CONSUMPTION

	EU 27	China	India	Japan	USA	Rest of the world
2011	1215,4	3602,7	957,2	765,1	1029,3	3354,2

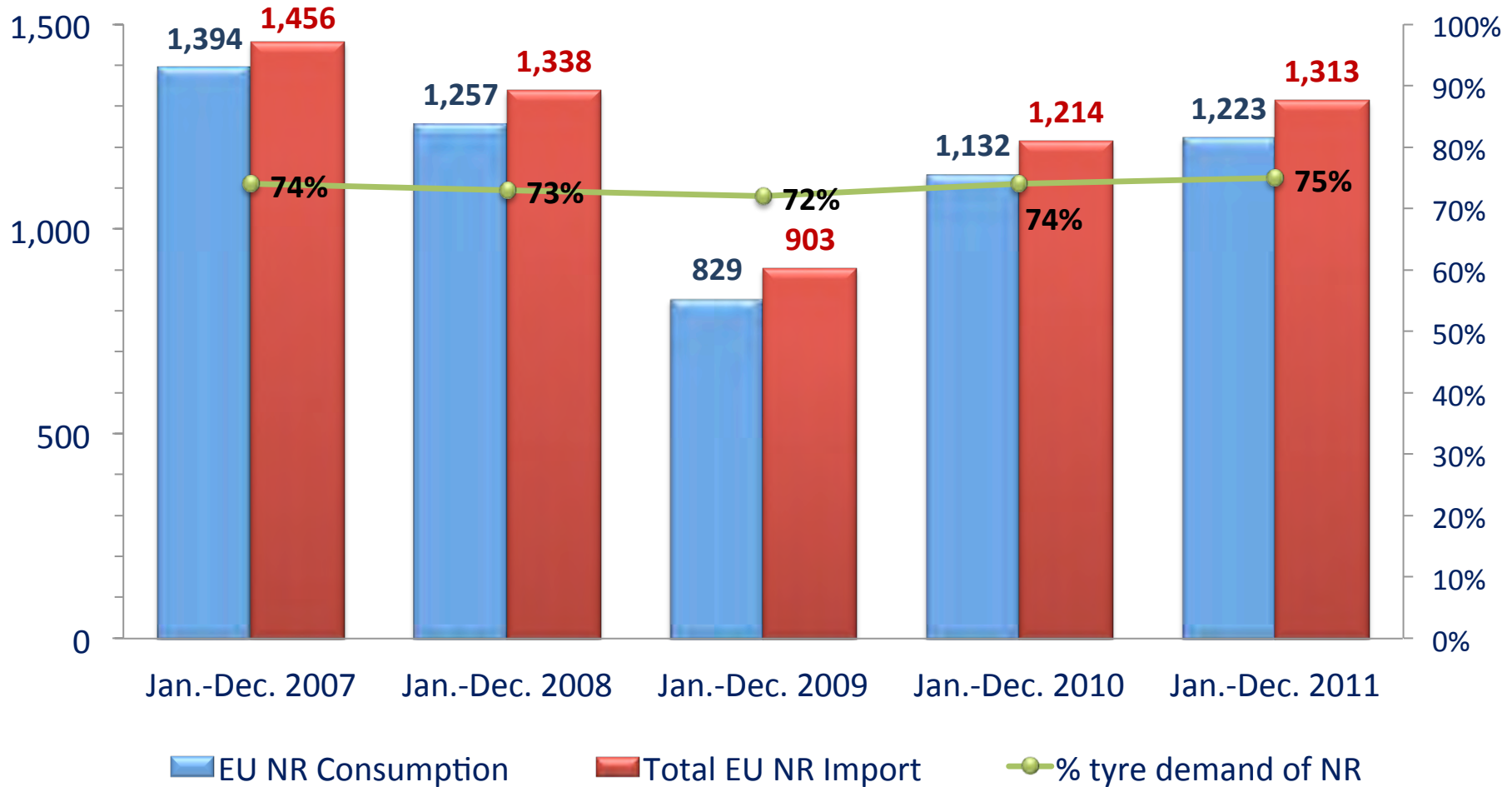
in 000 tonnes



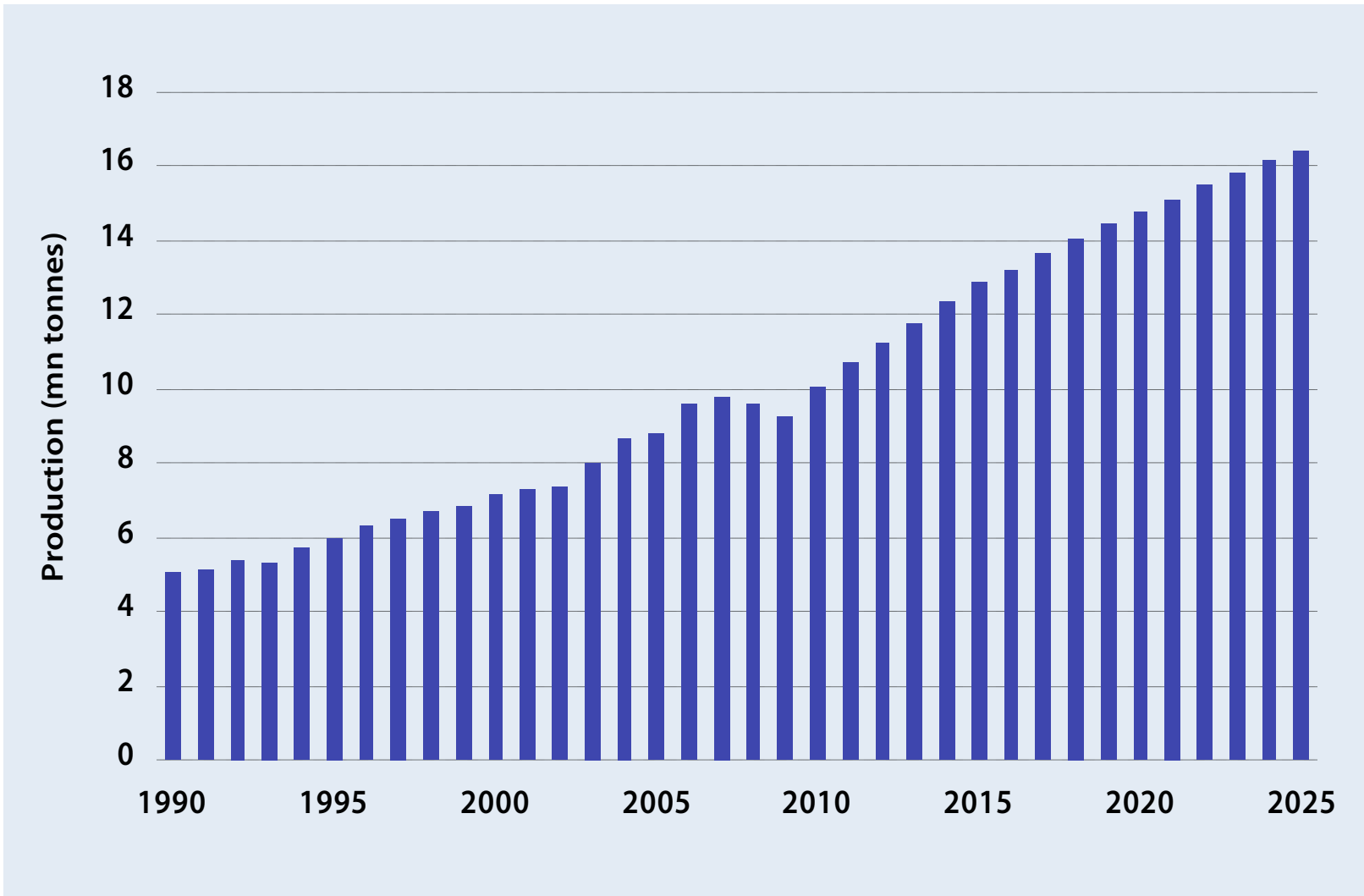
- EU 27
- China
- India
- Japan
- USA
- Rest of the world

EU- NATURAL RUBBER CONSUMPTION

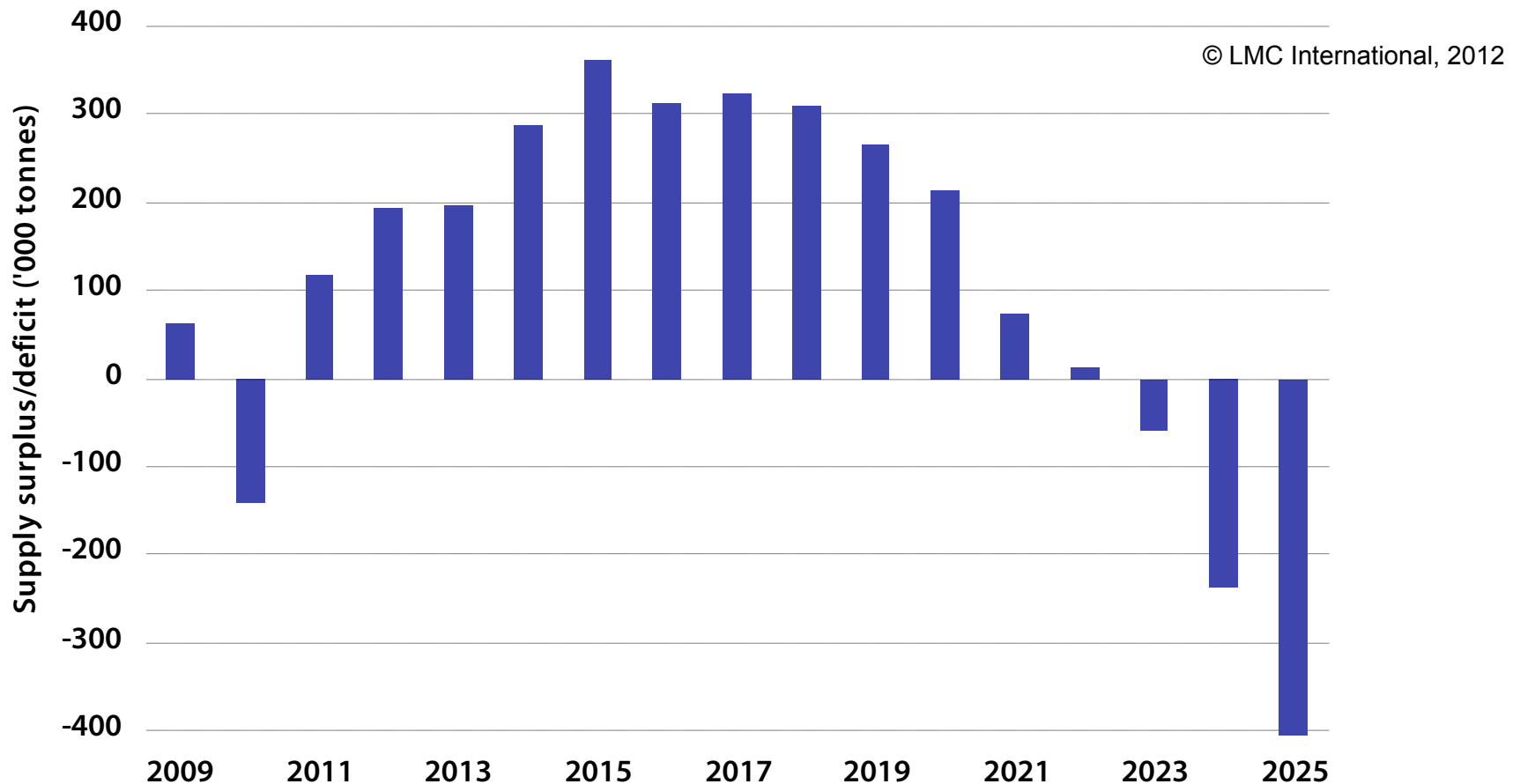
in 000 tonnes



WORLD NR PRODUCTION...



Combining demand and supply forecasts suggests the market will move to a deficit in 2023.





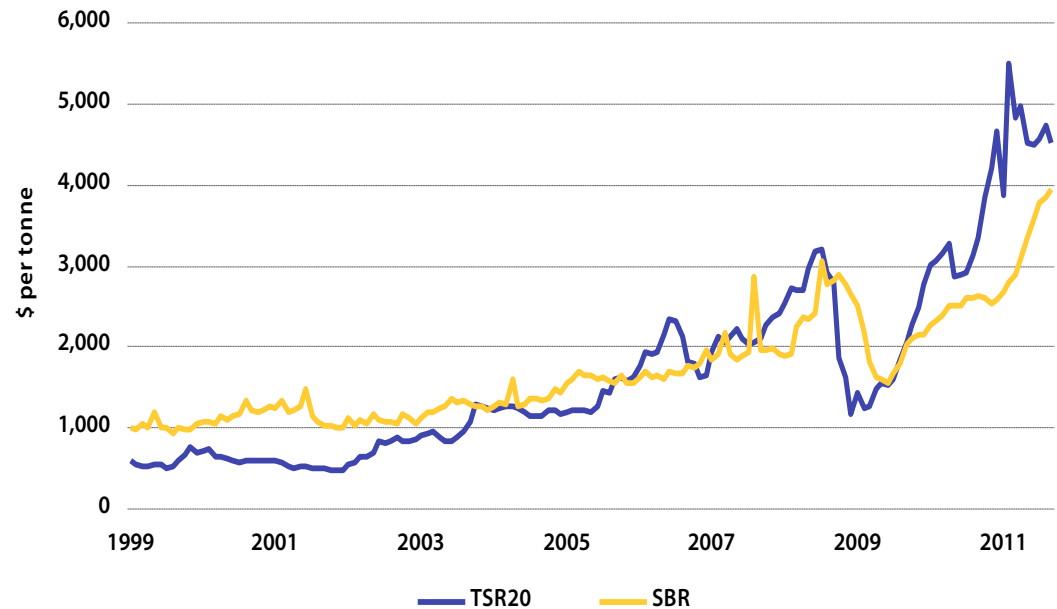
CHALLENGE : 1

SUBSTITUTION BETWEEN NR AND SR = limited by technical factors.

Even if, with the rise in natural rubber prices, switching has occurred in emerging markets, in less technically demanding applications

Substitutability of natural and synthetic rubber has neither increased nor decreased over the last twenty years

(ETRMA-Steptoe/LMC study on influencing factors on price volatility, 2011)





CHALLENGE : 2

SUSTAINABILITY OF NATURAL RUBBER

- As a renewable resource, the natural rubber sector is well placed to play an important role in lowering the environmental impact of road transport and contributing to sustainable agricultural development.
- Apart from the monopoly problem, world production of natural rubber, is facing a number of threats: high price volatility, surge of demand in the emerging countries, the vulnerability of the rubber tree to pests and diseases; its cultivation in tropical climates close to the equator; the latex allergy it can cause...
- In order to take advantage of the opportunities, natural rubber producing and consuming countries need to develop a globally credible and accepted framework for defining and implementing sustainable natural rubber production



CHALLENGE : 3

ALTERNATIVES TO NR FROM RUBBER TREES

- ? Uncertainty of access – security of supply
- ? Price volatility → 2.5 times over two-year window!
- ? Reliance of industry over certain parts of the world
- ? limited growing area restricted to tropical climates close to the equator

Have prompted industry majors to look for alternatives to rubber trees

→ Guayule

→ Russian Dandelion



CONCLUSION

Industry long-term goal to contribute to a fully sustainable tyre and rubber industry

There is need to optimize the agronomic and processing technologies necessary to produce tyre-grade rubber in adequate quantities for manufacturing purposes

Efforts towards substitution in other industrial applications than in tyres need be pursued

ETRMA remains supportive of collective efforts towards stable supply and sustainability of raw materials.



Thank you

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