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قمة الصلب العربي الـ 17
و المعرض الدولي للحديد و الصلب
17th Arab Steel Summit
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Carbon Neutrality Themes in the Steel Industry Today



Carbon neutrality themes in the Steel industry today

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Prepared for



As a response to emerging global consensus on climate change, steelmakers are seeking options to embark upon a decarbonization journeys

- ▶ Most steel players have highly efficient systems to manage co-products; material efficiency reached 98% in 2023

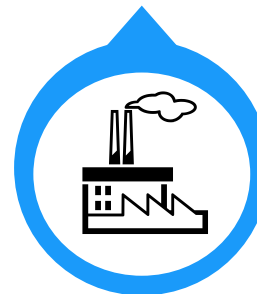
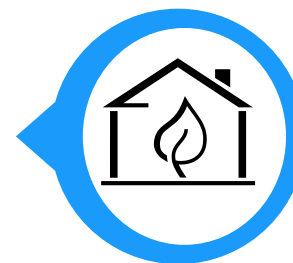
Material efficiency

- ▶ Shift from integrated plants to more efficient EAFs, using scrap as feedstock
- ▶ Scrap demand likely to grow further as EAF share increases

Circular economy



4 pillars of greener steelmaking

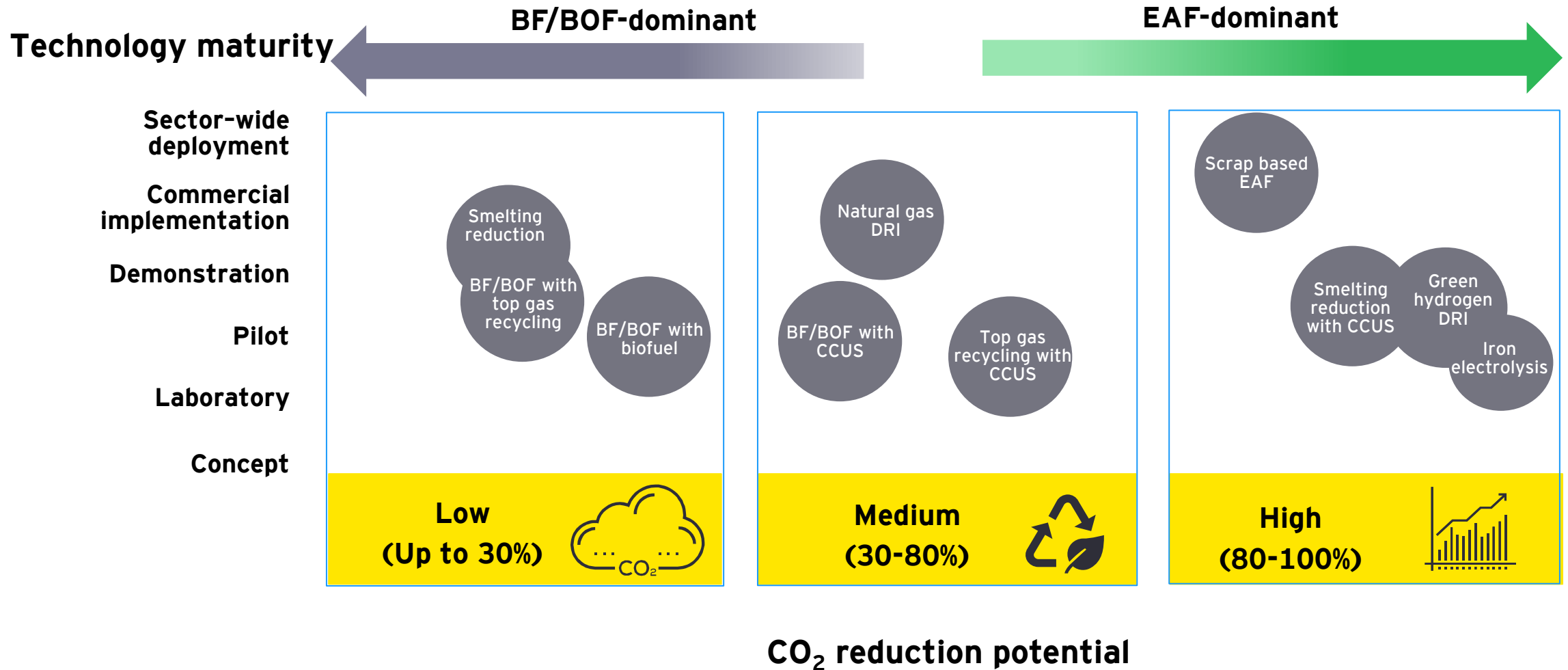


Energy intensity

- ▶ Improving energy intensity has been on the rise and intensity has decreased by 3% over the last decade
- ▶ Breakthrough technologies required for further improvement

Decarbonization

Steelmakers are evaluating different pathways to reduce emissions; CCUS and green hydrogen will play a key role in producing low carbon steel

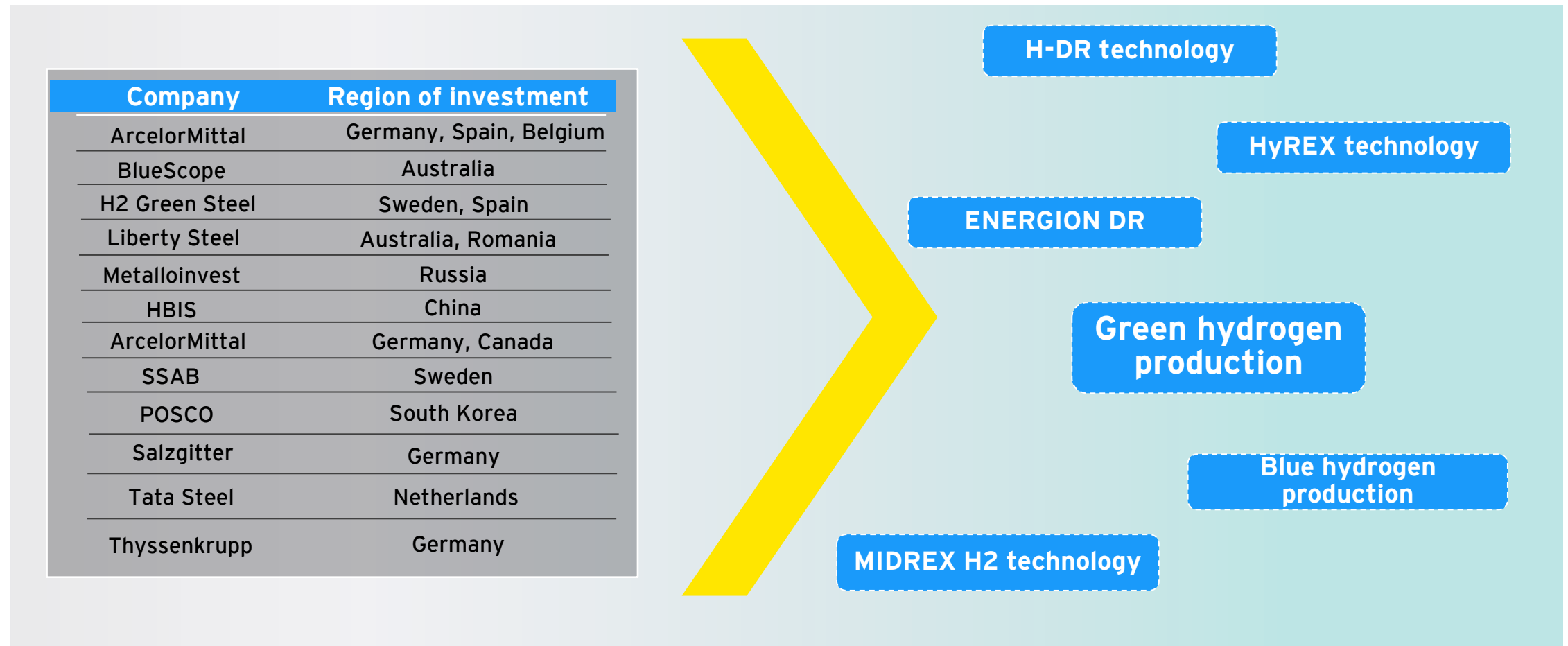


Source: Global Markets analysis of "Carbon Performance assessment of steelmakers: Discussion Paper", Transition Pathway Initiative, dated July 2023

Source: EY-Parthenon analysis

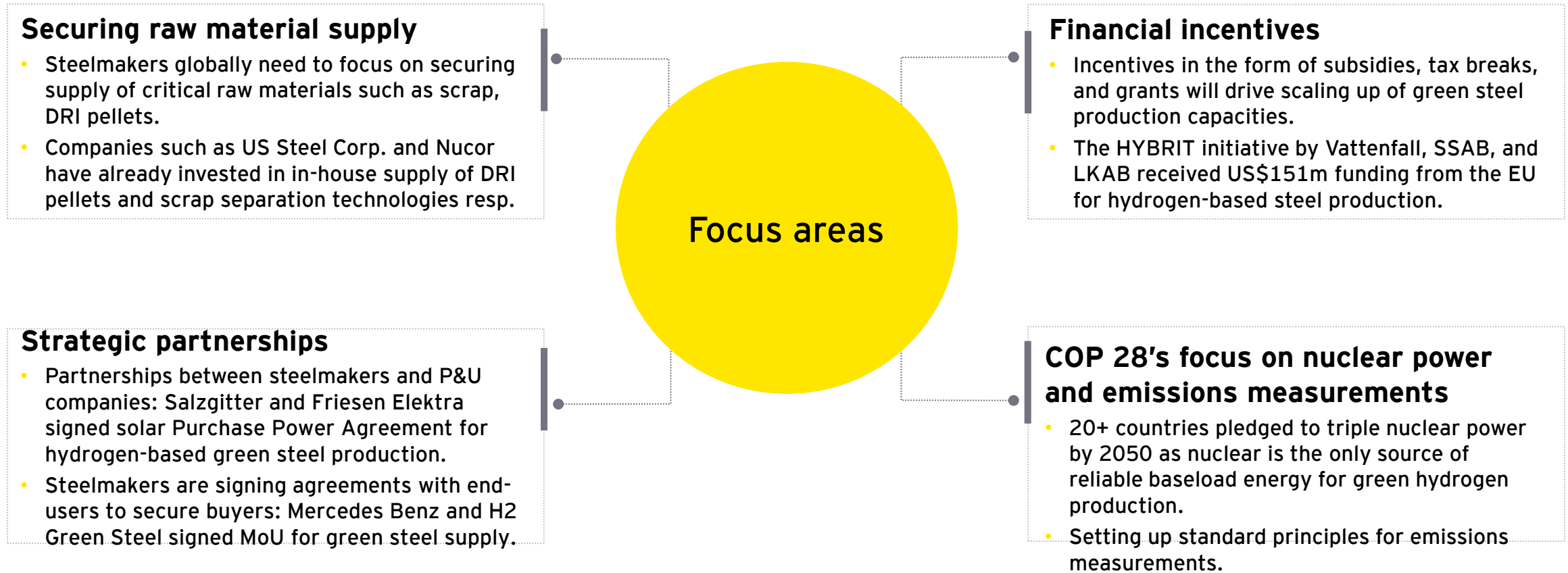
Investment in hydrogen is picking up faster than anticipated with projects amounting US\$35b planned over the next decade

Global hydrogen investments by steelmakers, for projects coming online in 2023 - 2033



Investment and collaboration across the value chain are vital in driving production of low carbon steel

Steelmakers need to focus on reducing carbon emissions. A failure to do so will impact their license to operate.



Note: Refer notes for more details on examples
Source: EY analysis of publicly available sources



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