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Insights from RE100 Data and the 2022 RE100 Technical Criteria Update

RE Users Summit 2023

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ABOUT CDP



CDP is a global environmental impact non-profit working to secure a thriving economy that works for people and planet.



CDP runs the global disclosure system that enables companies, cities, states and regions to measure and manage their environmental impacts.



With the world's most comprehensive collection of self reported data, the world's economy looks to CDP as the gold standard of environmental reporting.



CDP's network of investors, purchasers and policymakers around the globe, use CDP data and insights to make better-informed decisions.

Learn more about CDP here: <https://www.cdp.net/en>

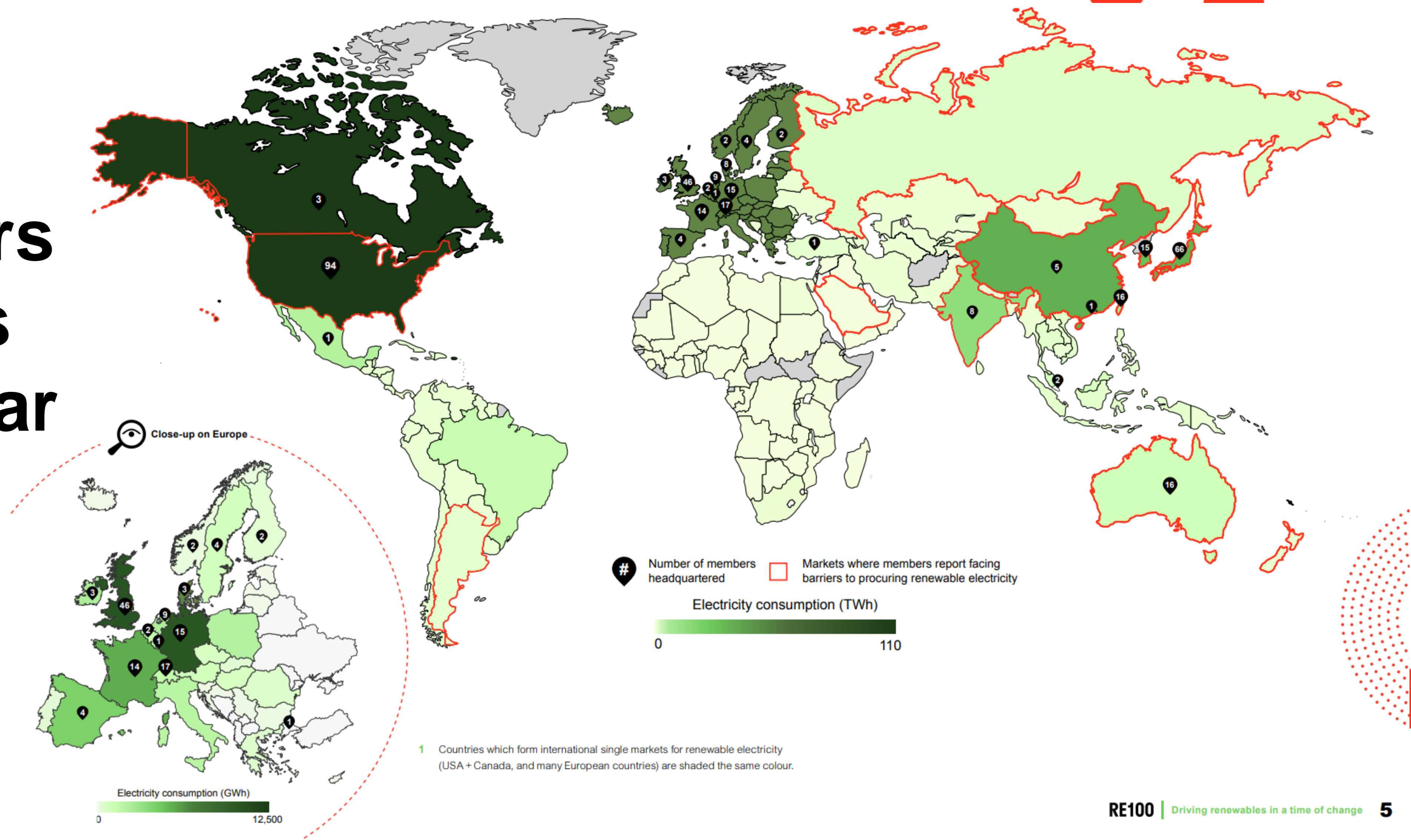
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ABOUT RE100

400+ members
175+ markets
420+ TWh/year



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Headline insights

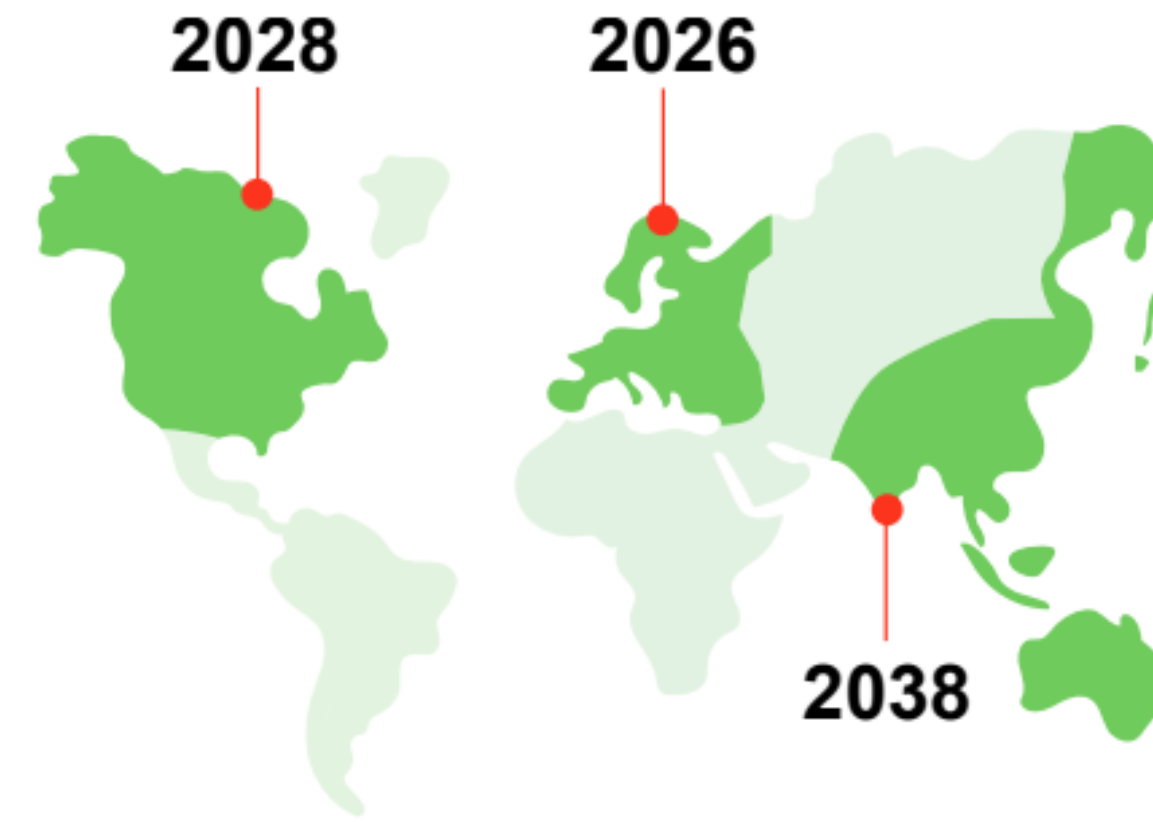
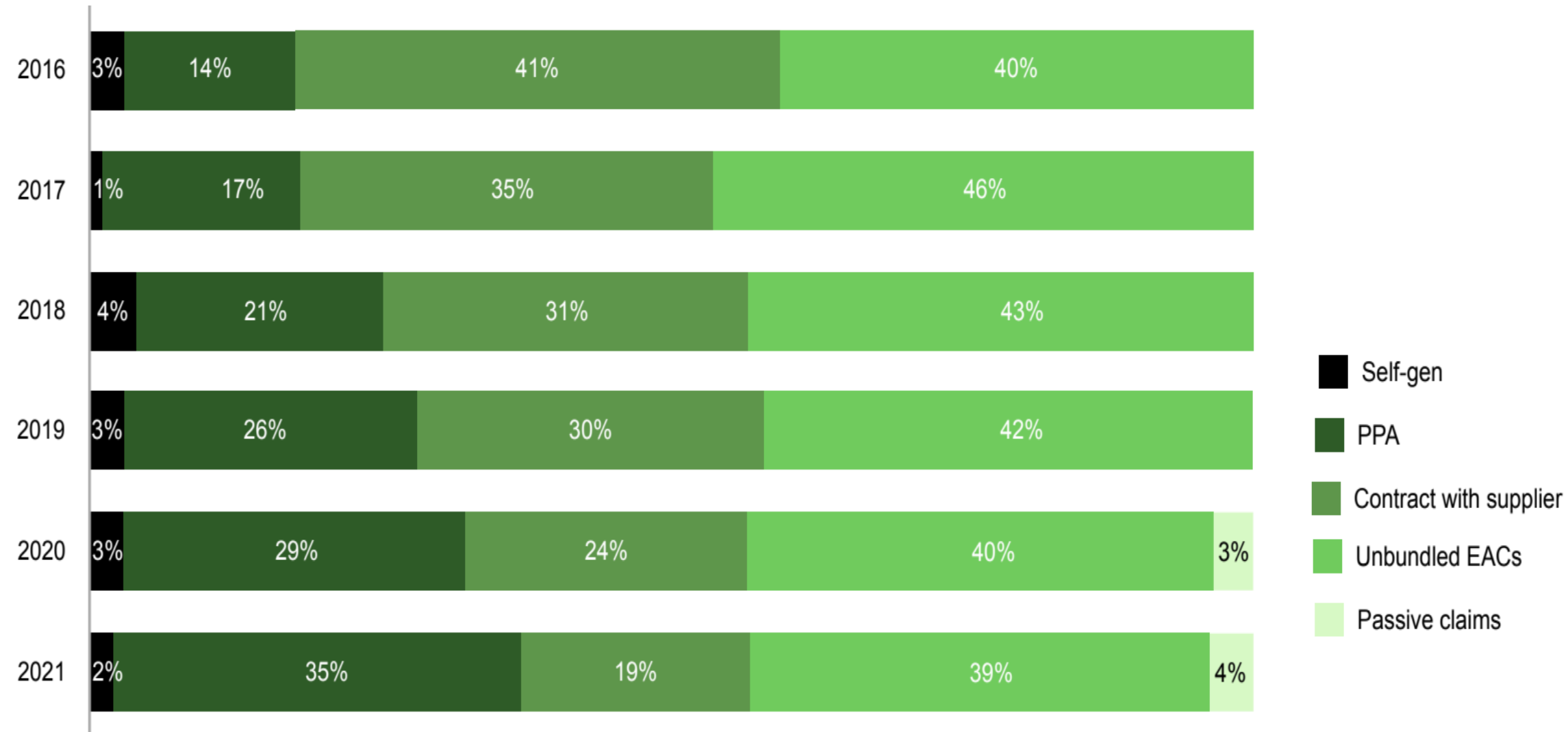
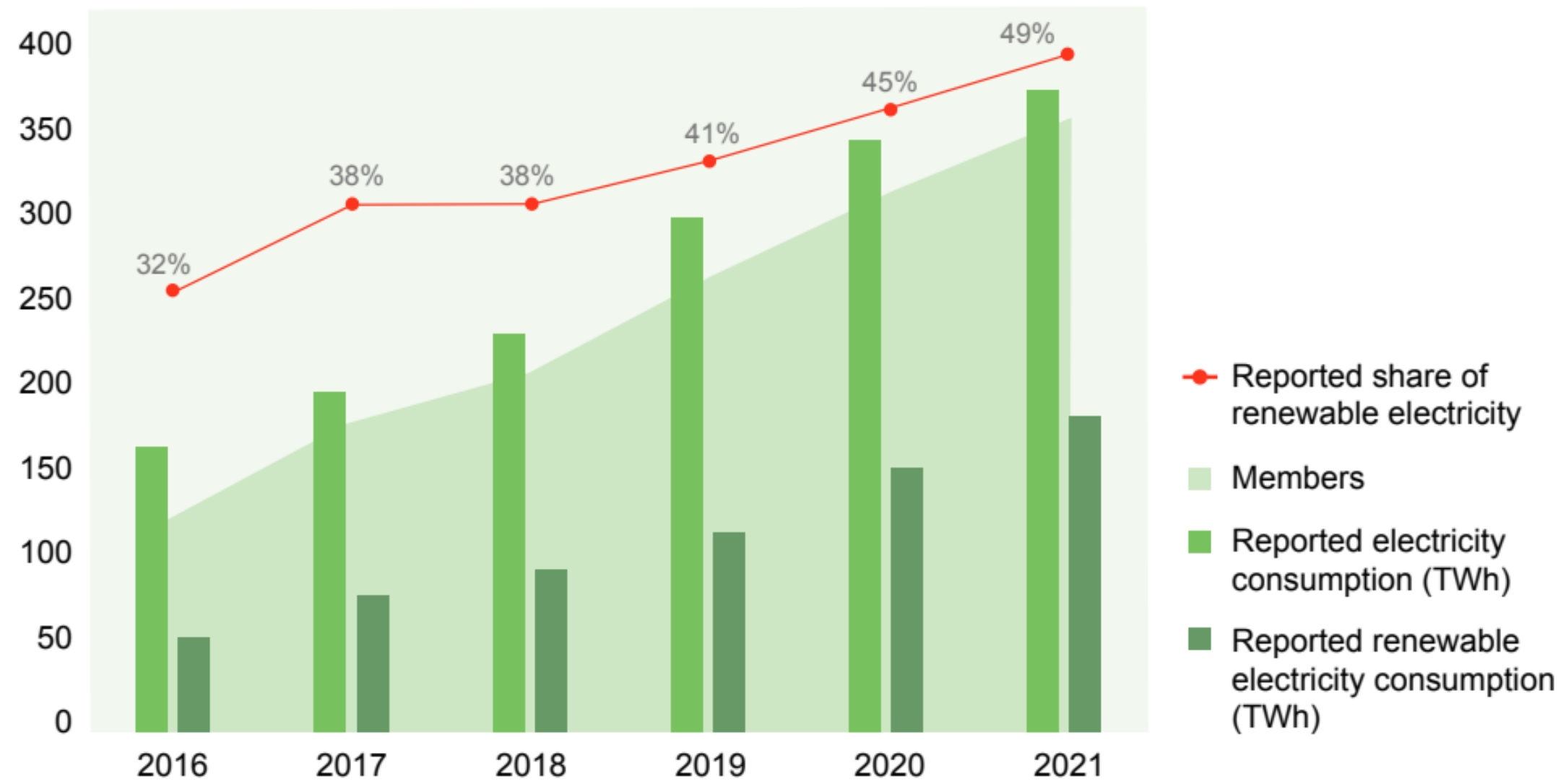


FIGURE 12: PURCHASING IN EUROPE

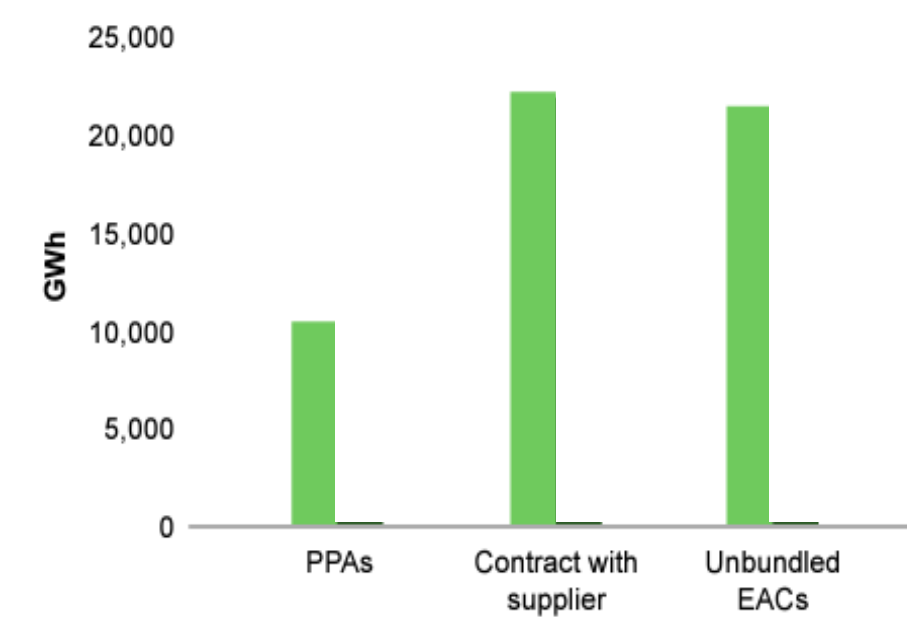


FIGURE 13: PURCHASING IN NORTH AMERICA

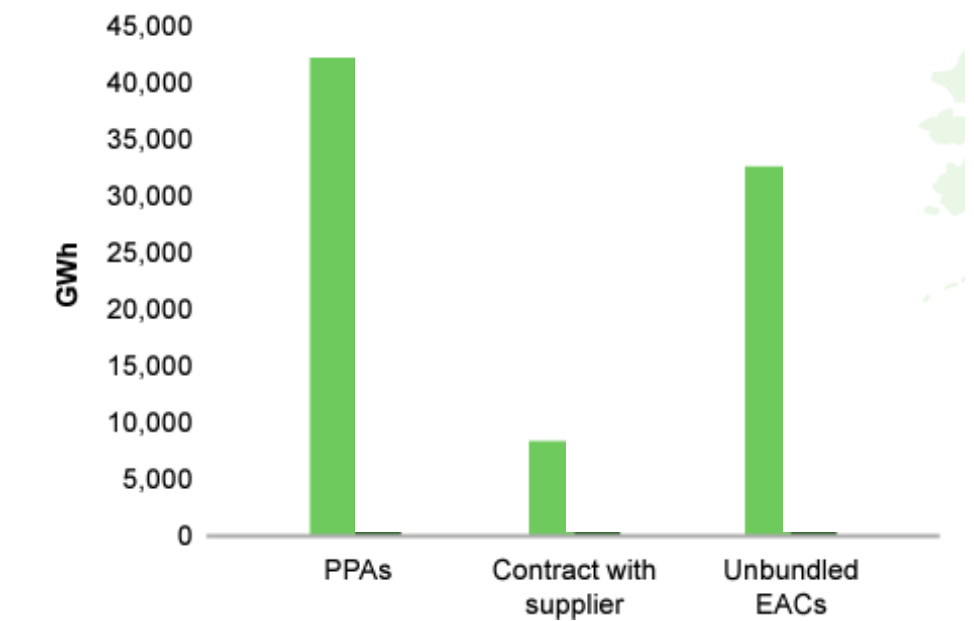
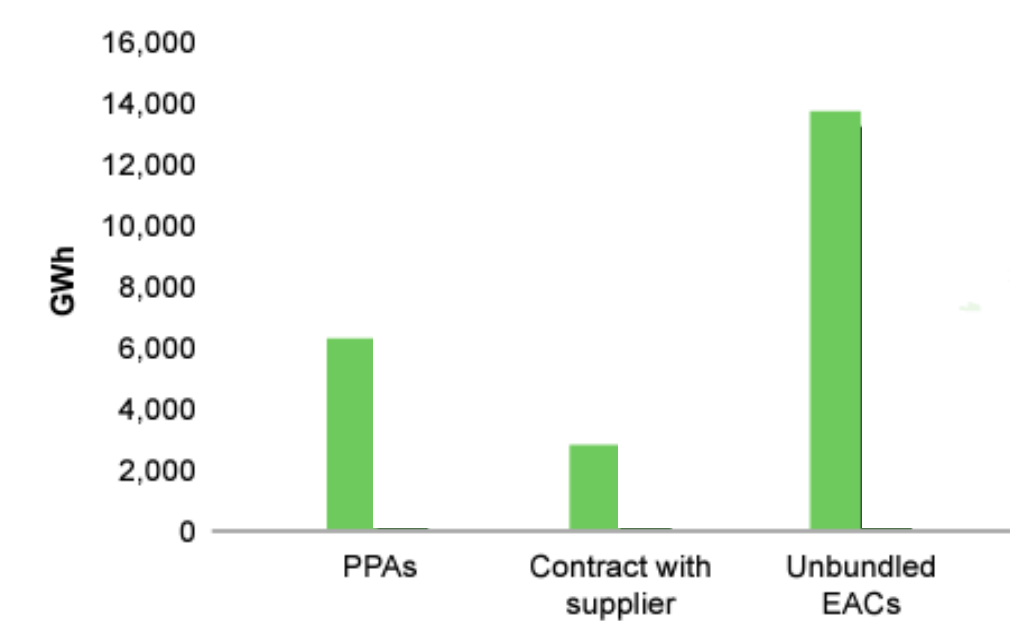


FIGURE 14: PURCHASING IN ASIA



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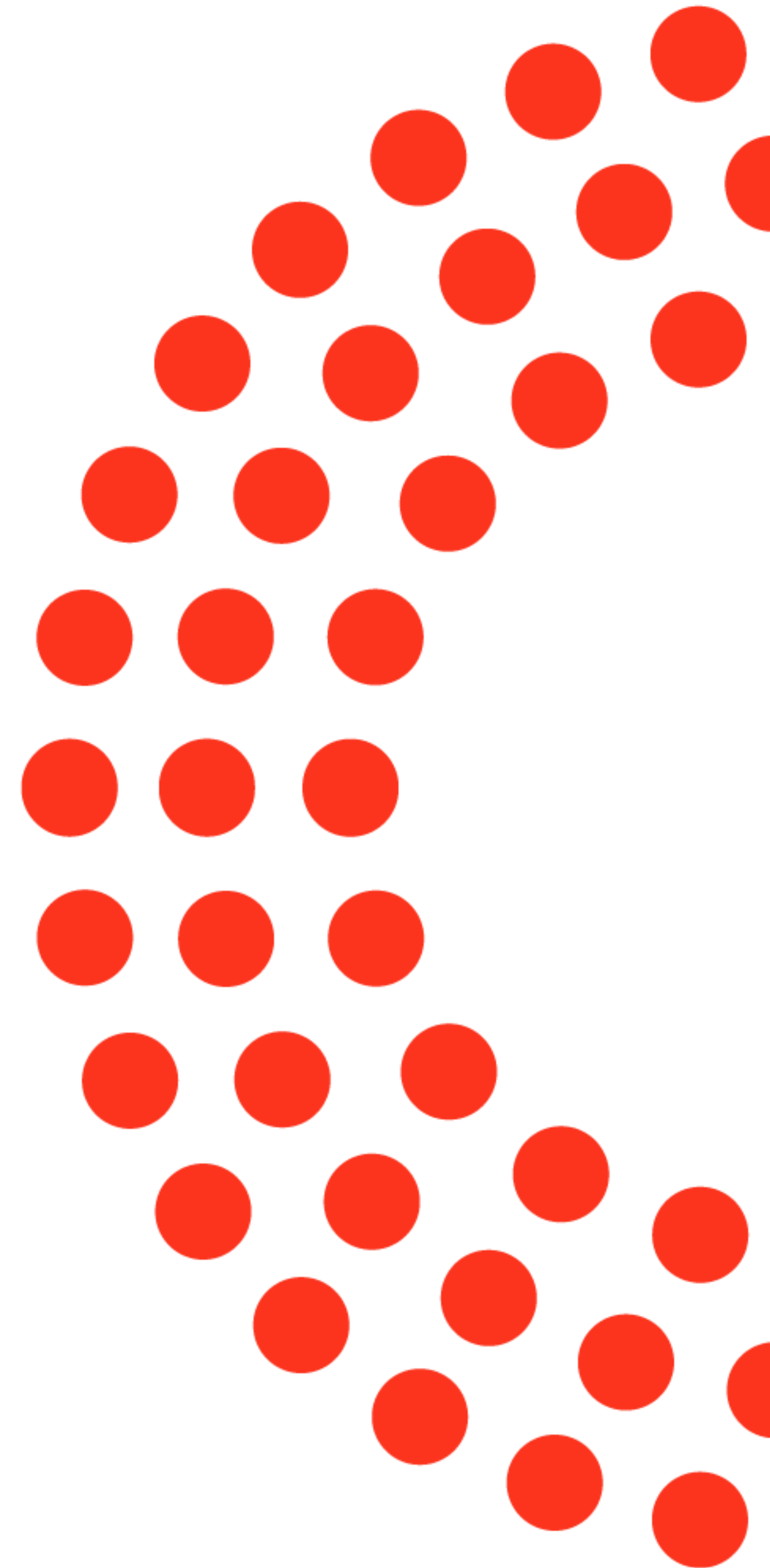


RE100 market boundaries

A market for renewable electricity refers to an area in which:

- The laws and regulatory framework governing the electricity sector are consistent between the areas of production and consumption;
- Utilities/suppliers recognize each other's energy attributes and account for them in their trade of energy and energy attributes; and
- Electricity grids are substantially interconnected, indicating a level of system-wide coordination.

RE100 and CDP recognize almost all countries, including all of those in Asia, as independent markets for renewables



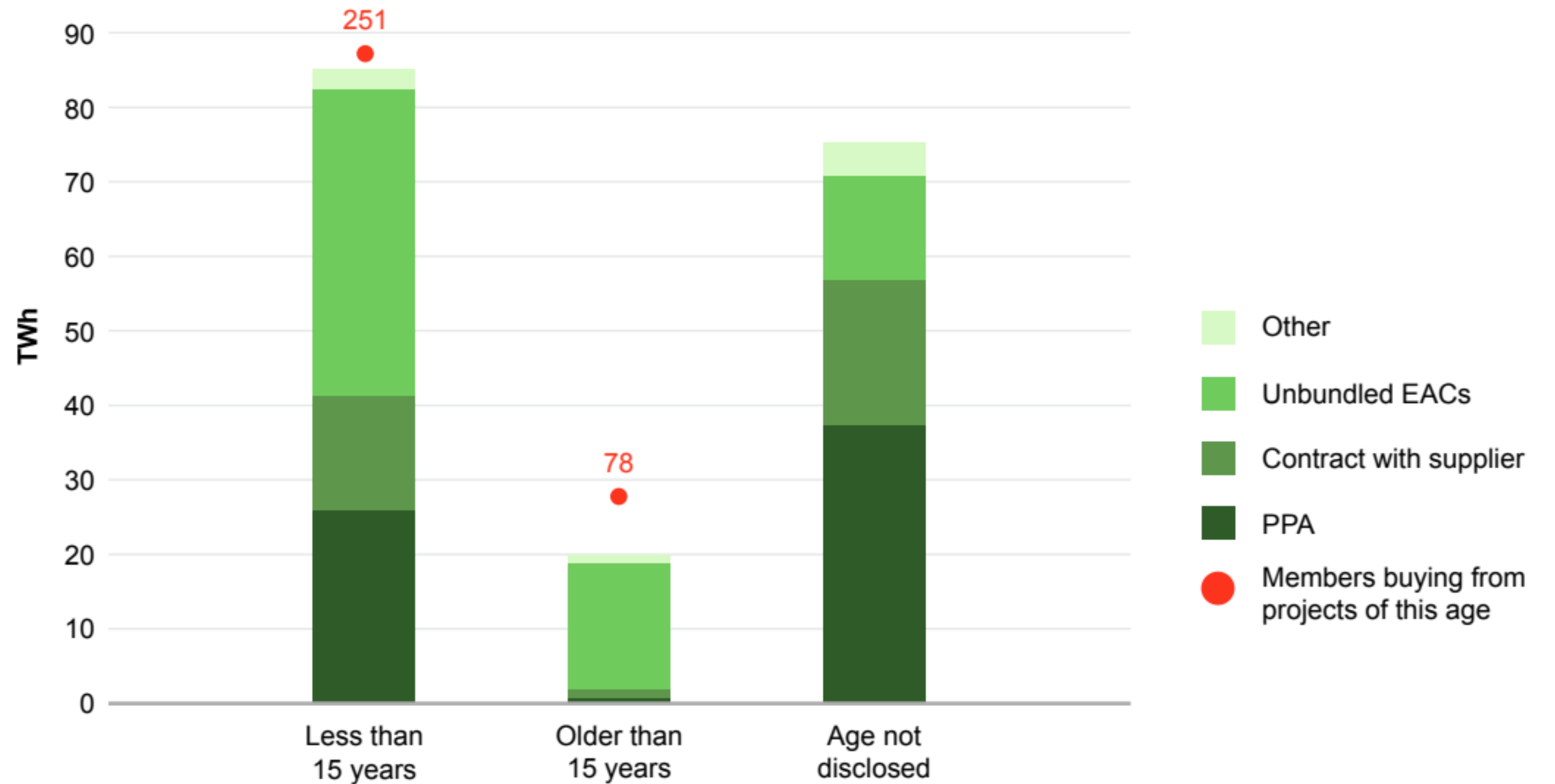
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How old are the facilities RE100 companies buy from?

At least half all purchasing is from facilities commissioned in the past fifteen years



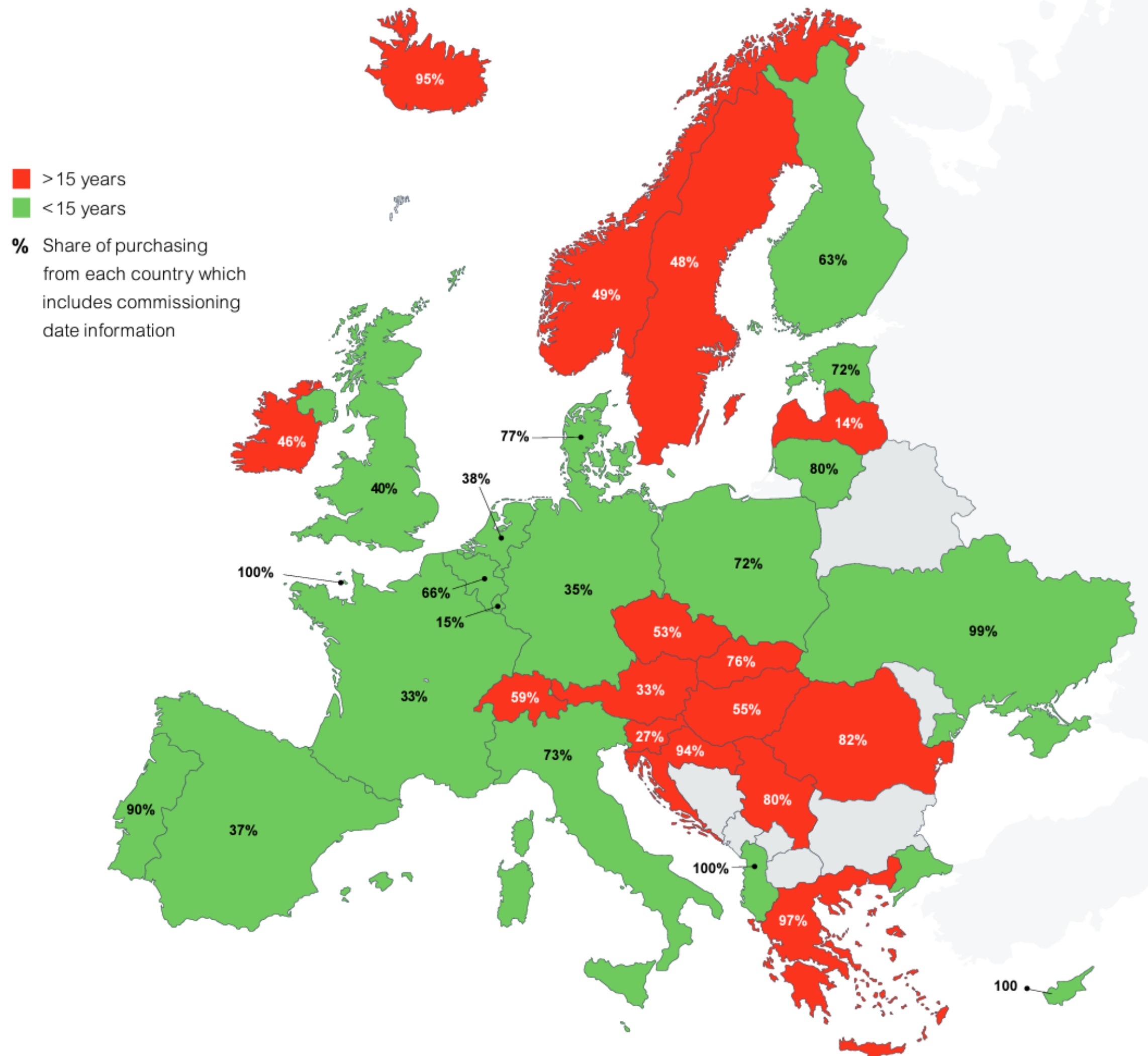
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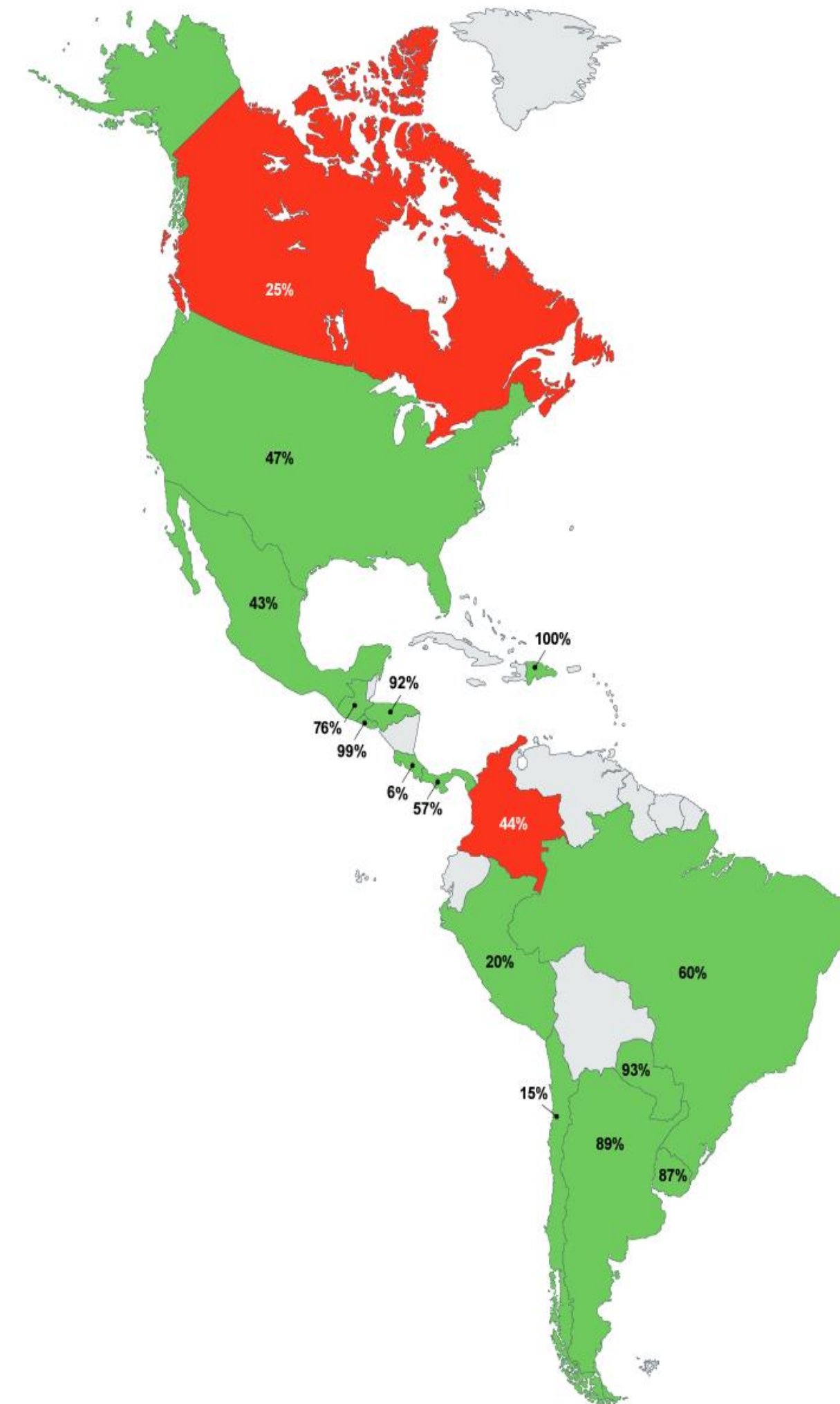


How old are the facilities RE100 companies buy from?

> FIGURE 26: AVERAGE PROJECT AGE IN EUROPE



> FIGURE 28: AVERAGE PROJECT AGE IN NORTH & SOUTH AMERICA



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> FIGURE 27: AVERAGE PROJECT AGE IN ASIA

How old are the facilities RE100 companies buy from?

RE100 will soon begin enforcing a fifteen-year facility age limit.

- Globally-relevant principle
- Gives a more specific and relevant price signal for the energy transition: companies should not just demand renewable energy, but demand renewable energy from newly commissioned or re-powered facilities
- Some procurement is exempt from the facility age limit:
 - Self-generation
 - On-site purchases or purchases through a private wire
 - Project-specific contracts held as the original off-taker (e.g. PPA with a new generator)
 - Passive claims



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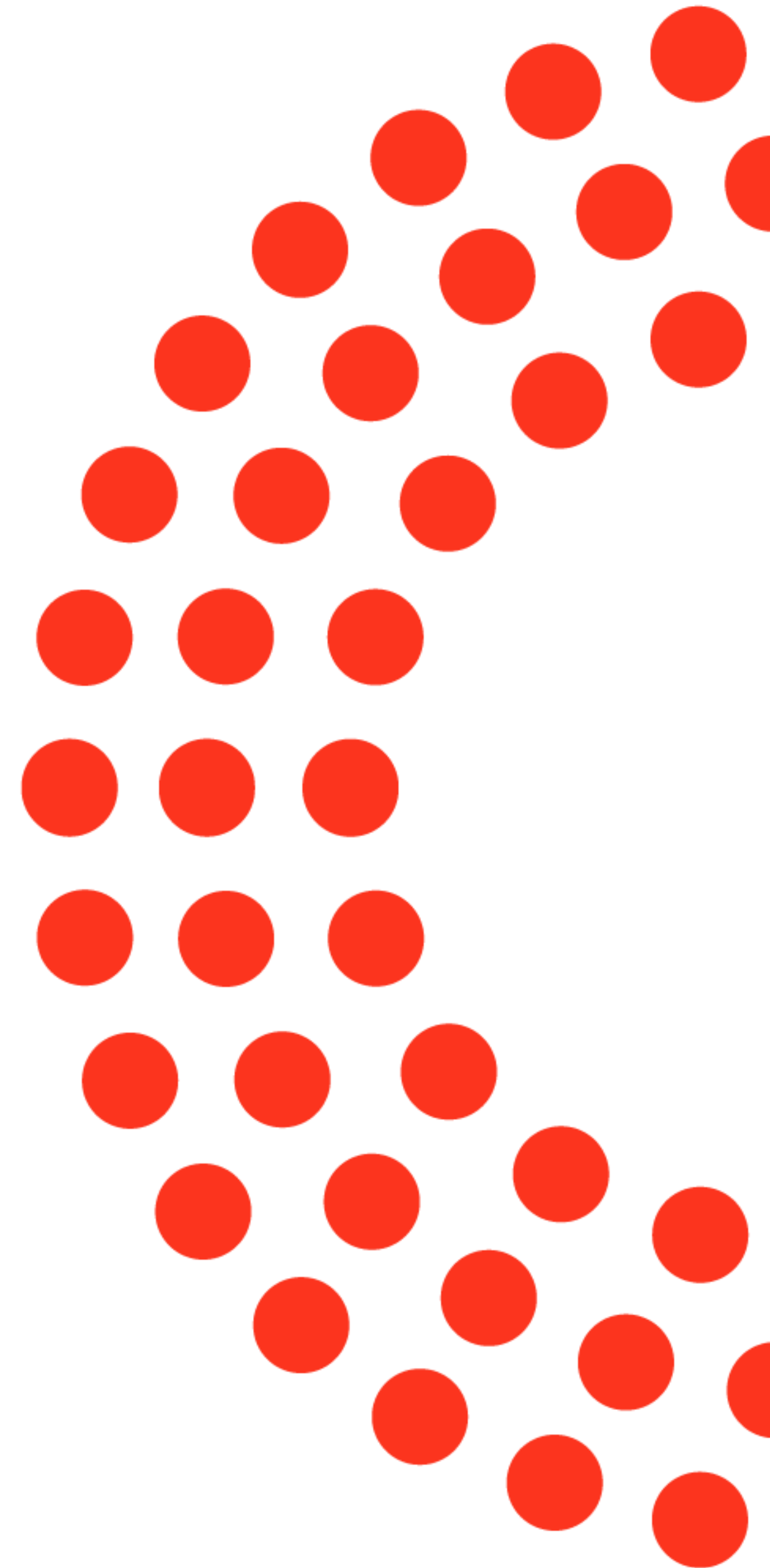
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Drivers of criteria change

RE100 has a mission to accelerate the change to carbon-free grids by 2040 using the voluntary market. The technical criteria are core to this mission.

- 2021 criteria are a framework for claiming use of renewable electricity, but without a mechanism to drive collective change through claims.
- **2022 facility age limit directly supports this.**
- 2021 criteria are not rigorous on market boundaries in Europe and undermine market boundary discussions elsewhere.
- **2022 market boundary change directly addresses this.**
- RE100 also strengthened its call on third-party certification standards to drive transparency in claims from hydropower and biomass, which must prove their sustainability.



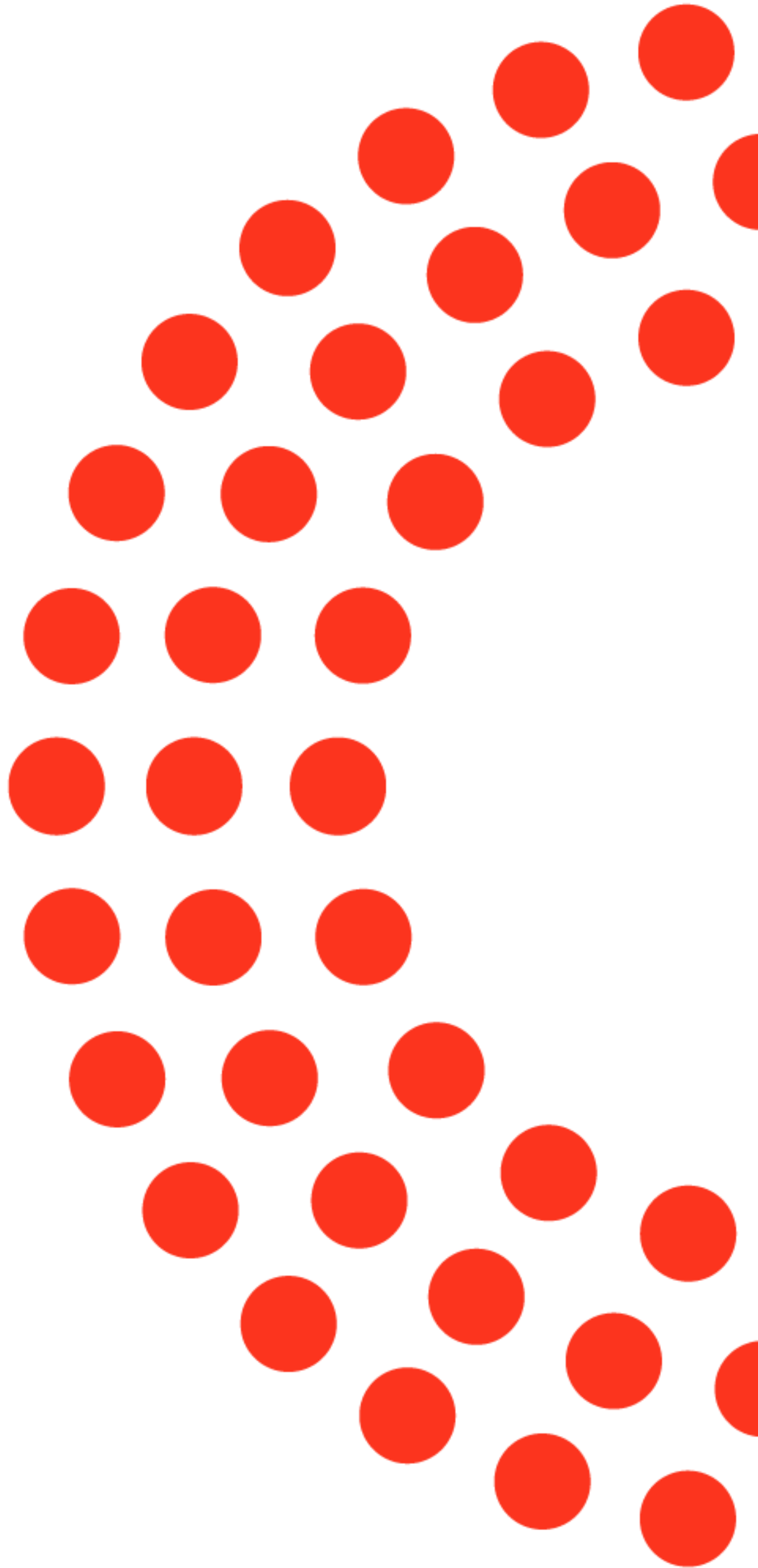
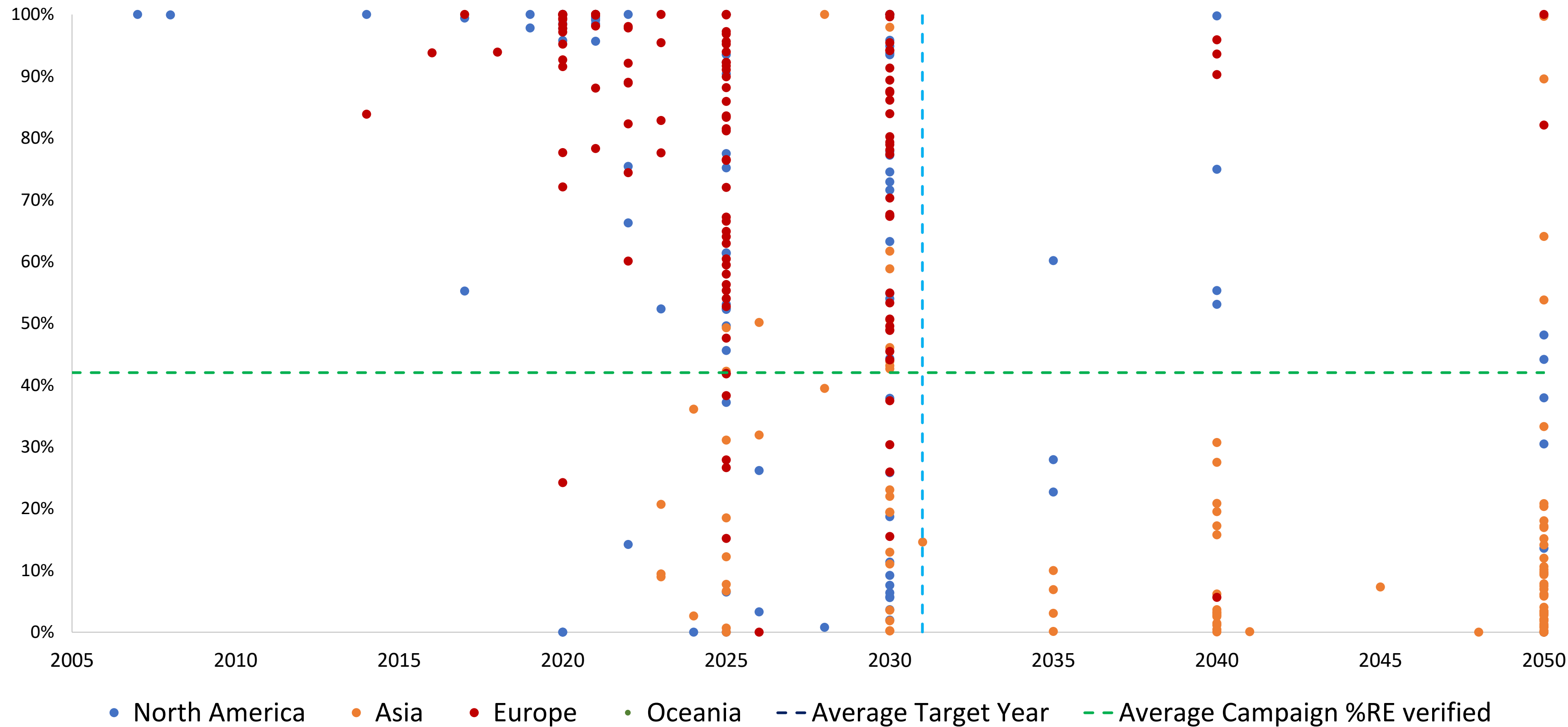
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RE100 Member Progress and Target years

%RE Verified vs Target Year, by region of headquarters



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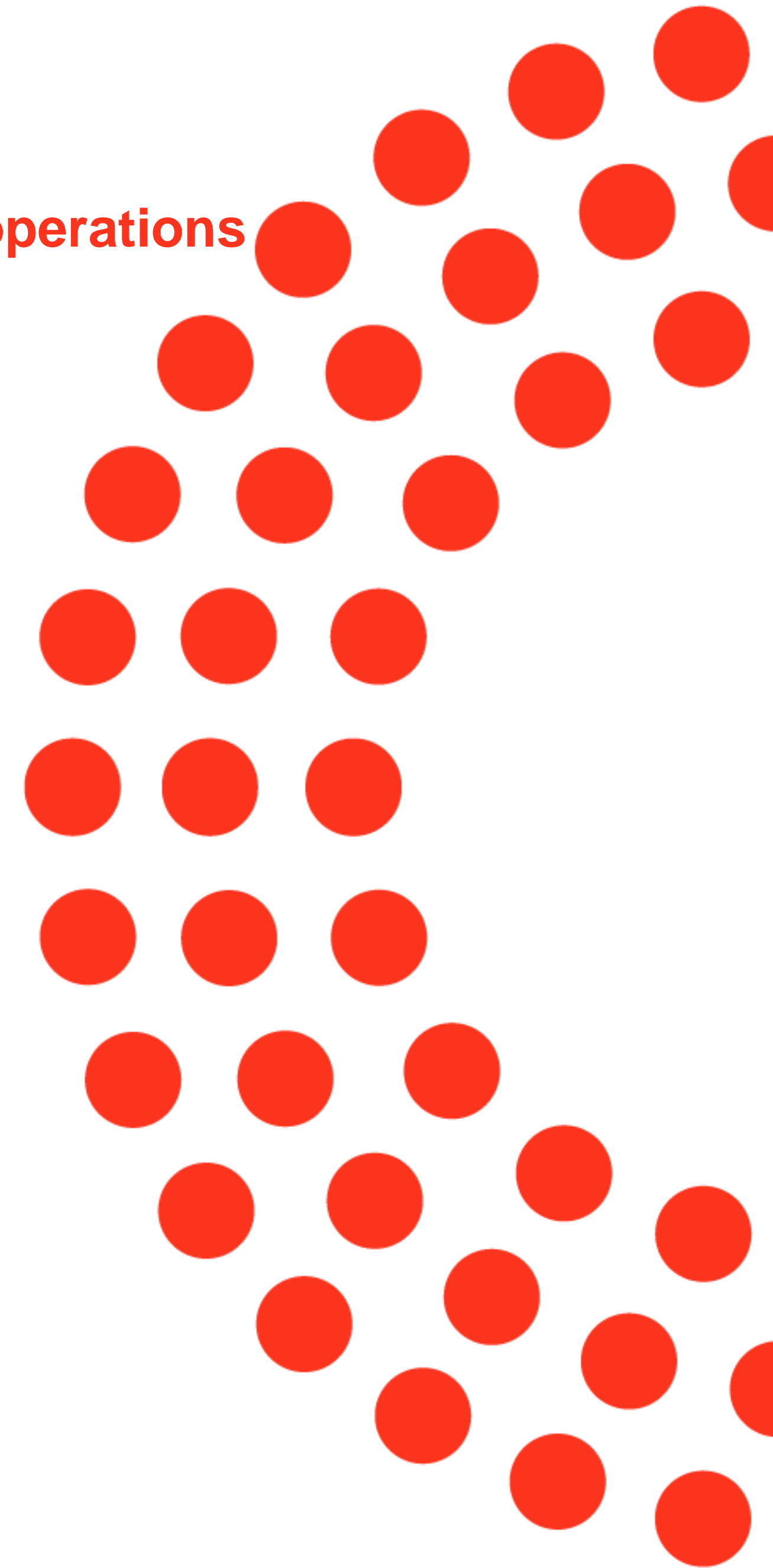


Top 10 RE100 Markets by members with operations

Market	Number of members with HQ in market	Number of members with operations in market	RE100 Member Demand (GWh)	Total procurement of renewable electricity - market (GWh) by RE100	Share of renewable electricity – market by RE100	% Renewable Generation in market (Source: IEA)
European single market	127	226	59672	50990	85%	43%
North American single market	97	224	109024	71466	66%	26%
China	6	211	30456	9755	32%	29%
Japan	66 3rd	173 4th	27762 4th	4067 5th	15% 9th	22%
India	8	156	11977	2213	18%	21%
Singapore	2	150	2281	582	26%	1%
Australia	16	136	5158	1119	22%	27%
Mexico	1	127	8123	4605	57%	23%
Brazil	0	125	6140	3812	62%	84%
Republic of Korea	15	119	20981	400	2%	7%

* Renewable generation in market data sourced from IEA. Waste generation assumed to be non-renewable in all markets.

* Europe market % renewable generation approximated using IEA's Europe region data.

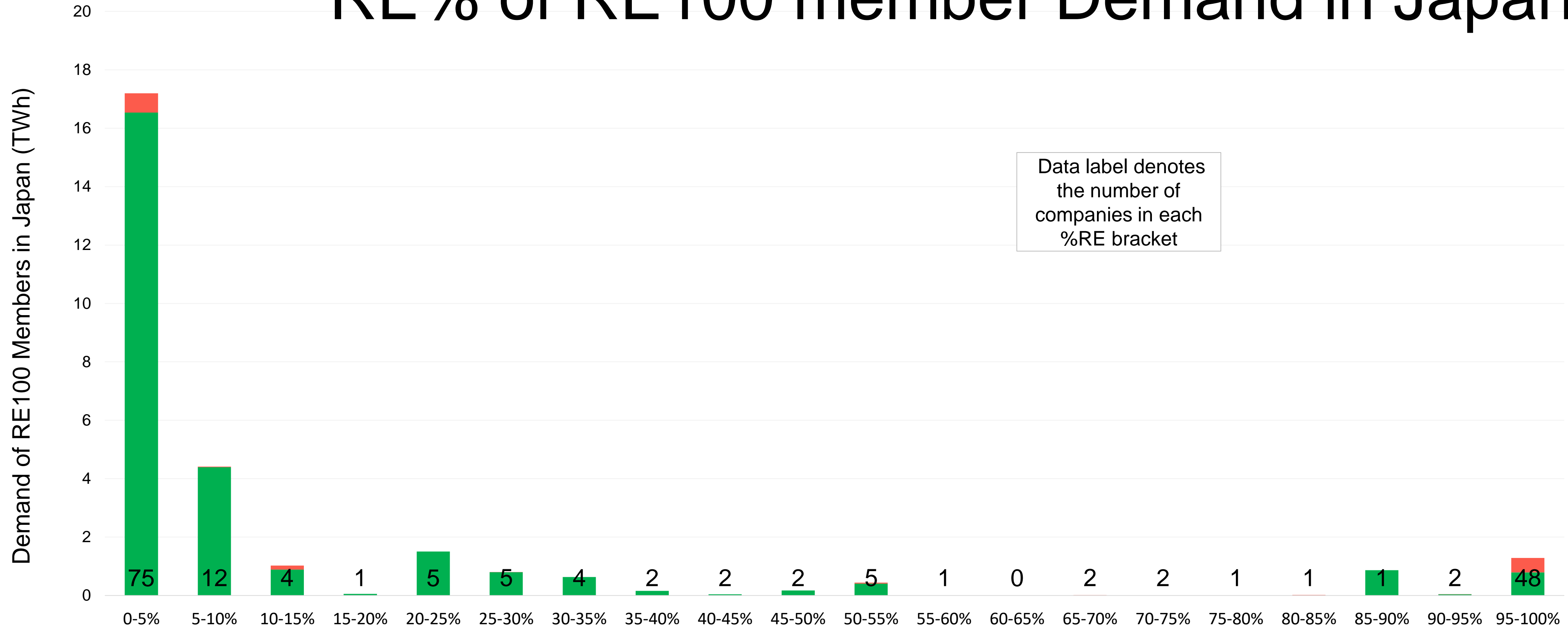


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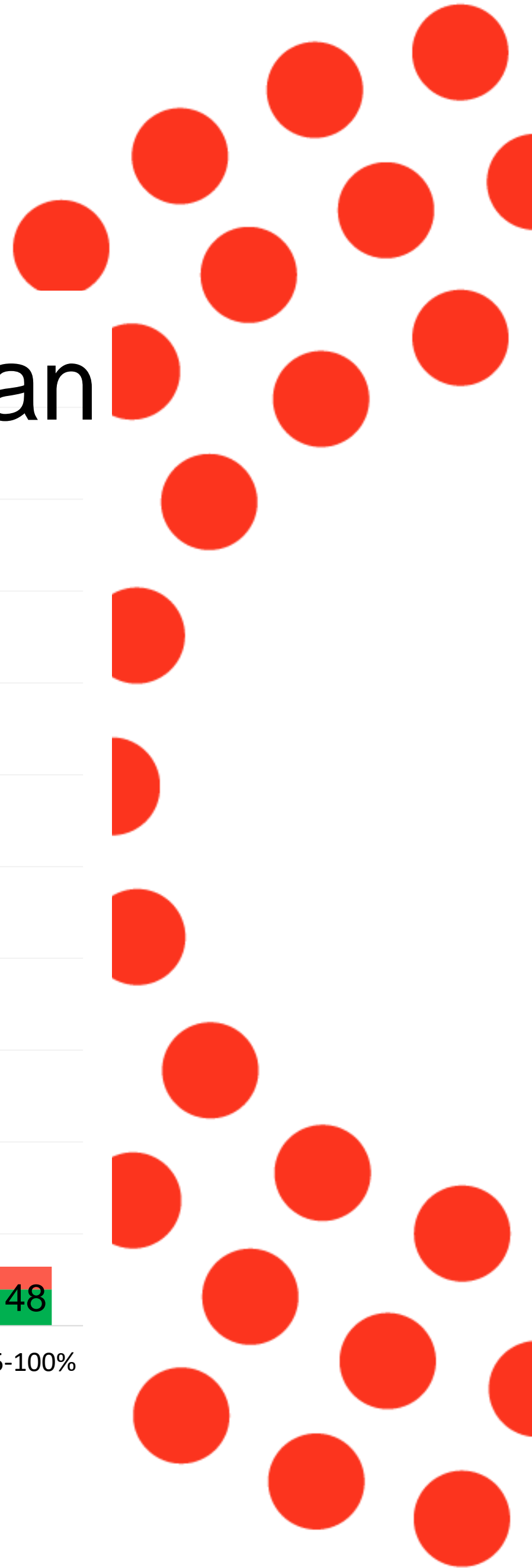
RE% of RE100 member Demand in Japan



Data label denotes the number of companies in each %RE bracket

Corresponding Renewable % of Corporate Demand in Japan
i.e. Approx. 18 TWh of RE100 member corporate demand in Japan is from organizations that procured between 0-5% of their demand in that market from renewables.

■ Japanese Companies (TWh) ■ Non-Japanese Companies (TWh)



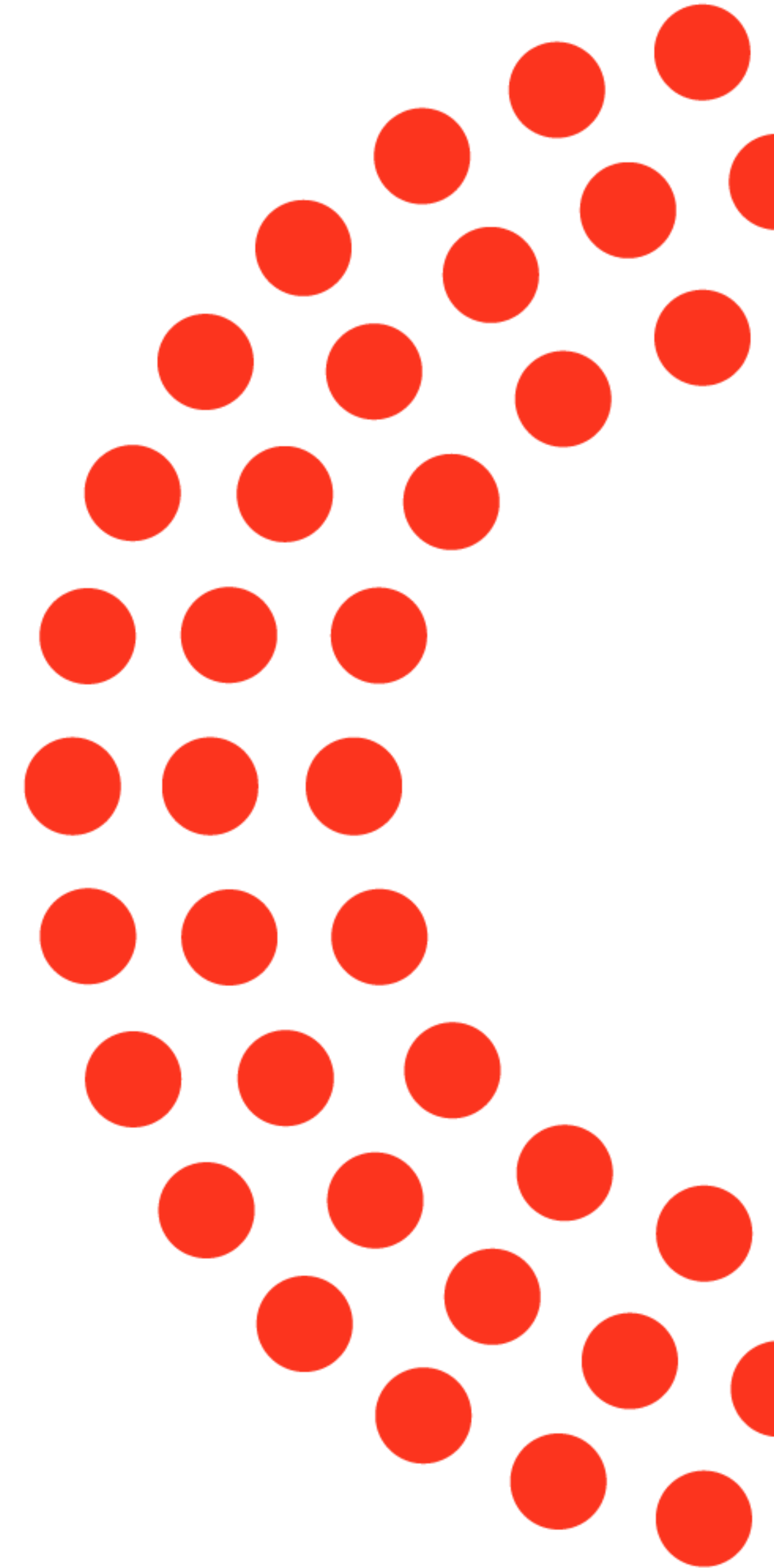
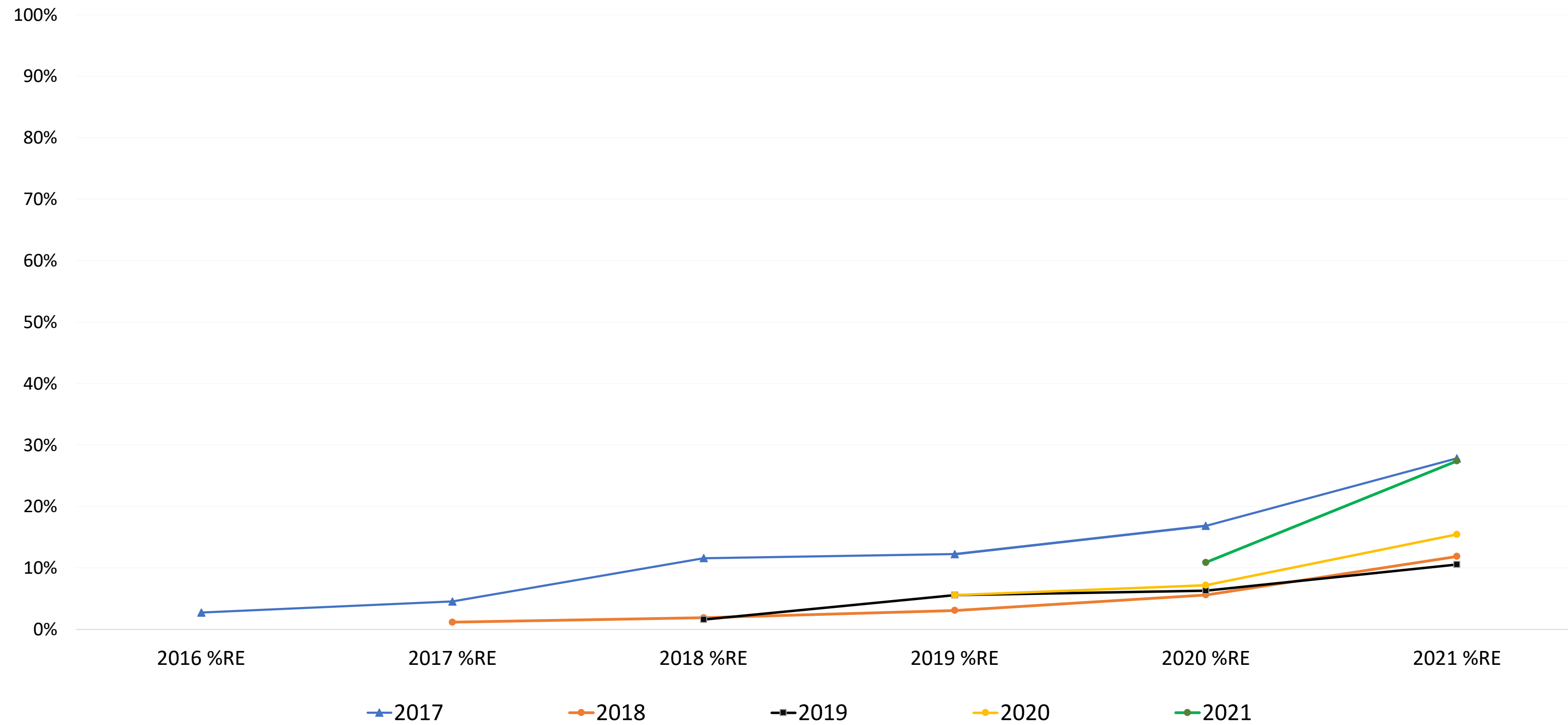
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RE100 Japanese Member progress over time

Average 2021 Demand Weighted %RE Self Reported
Japanese Members - Tracked from Joining Year



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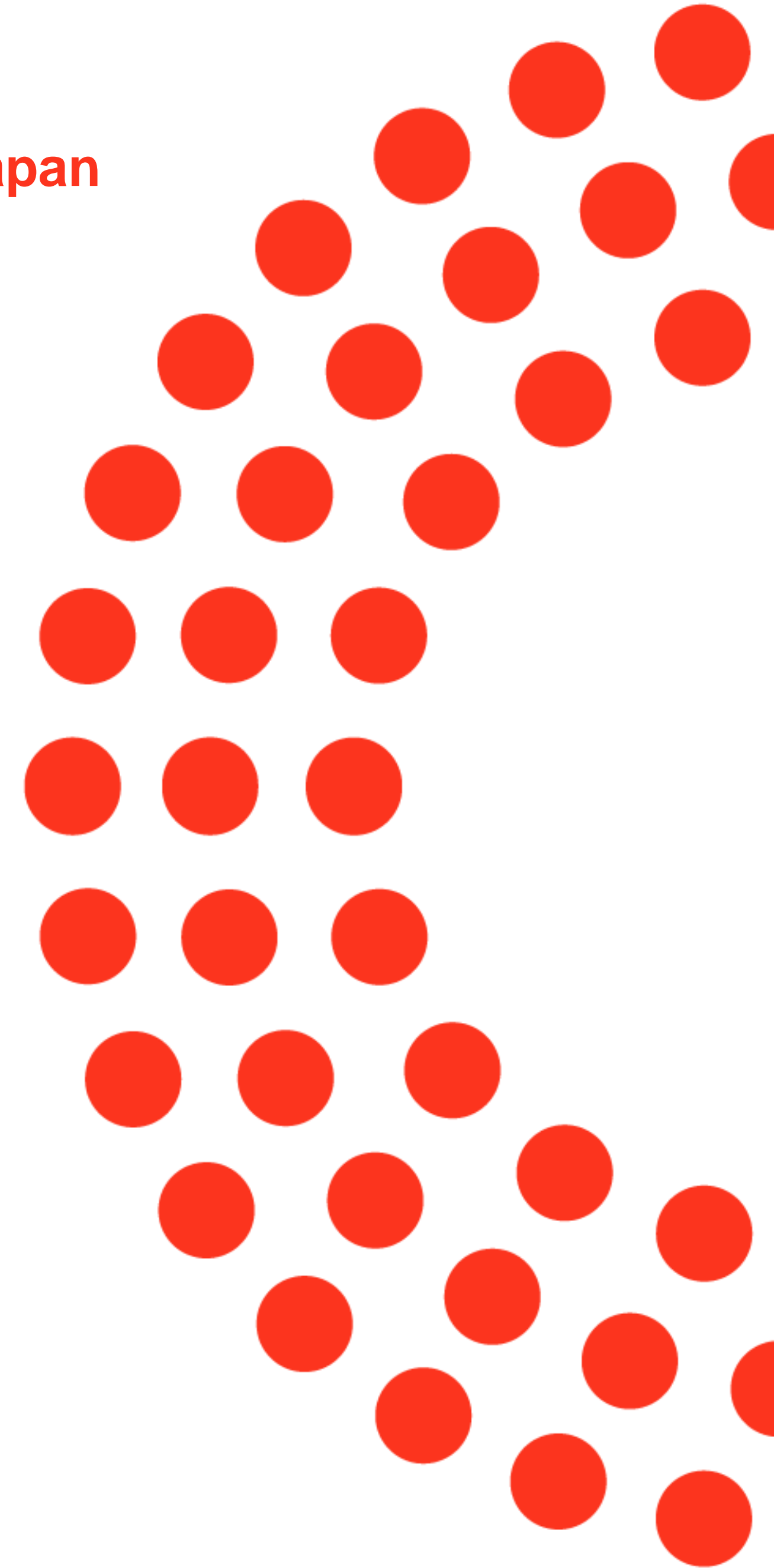


Market barriers and country progress in Japan

> TABLE 8: TOP 10 CHALLENGING MARKETS

	Japan	Republic of Korea	Singapore	China	Taiwan, China	United States of America	Australia	India	Russian Federation	Saudi Arabia
Members citing barriers	44	39	38	27	27	23	18	14	12	12
Members reporting operations	171	108	148	199	102	218	133	154	90	51
High cost or limited supply	26	12	26	5	21	5	12	4	4	4
Lack of procurement options	13	22	7	19	5	4	0	8	7	6
Frictions or inefficiencies	16	11	10	5	3	9	6	6	0	4
Regulatory barriers	7	4	0	6	0	3	0	7	3	0
Credibility concerns	1	3	0	4	0	2	1	1	0	0
Internal reasons	2	1	3	0	4	2	0	0	0	0
Lack of data	1	3	1	1	2	0	0	0	0	0

RE100 companies report facing a broad range of barriers to procurement



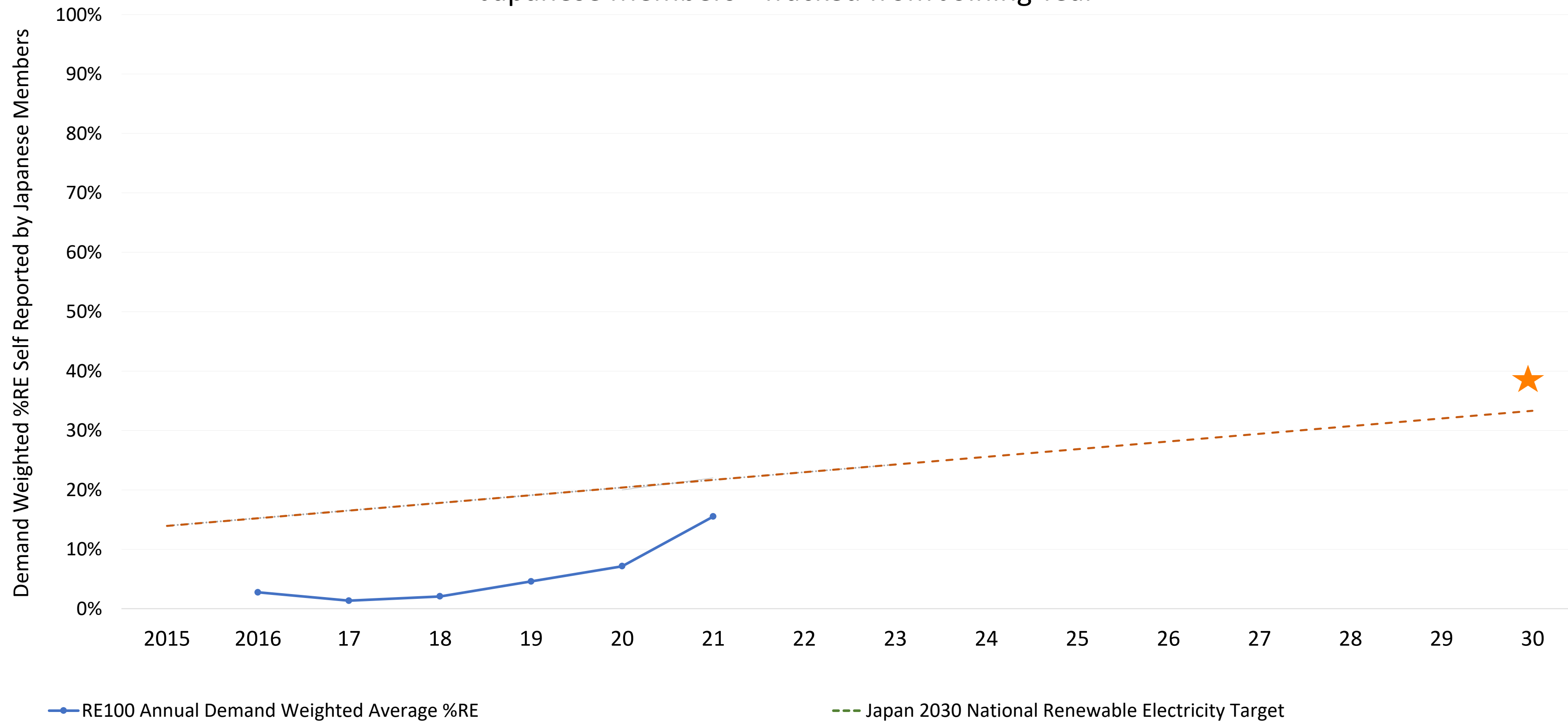
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Outlook

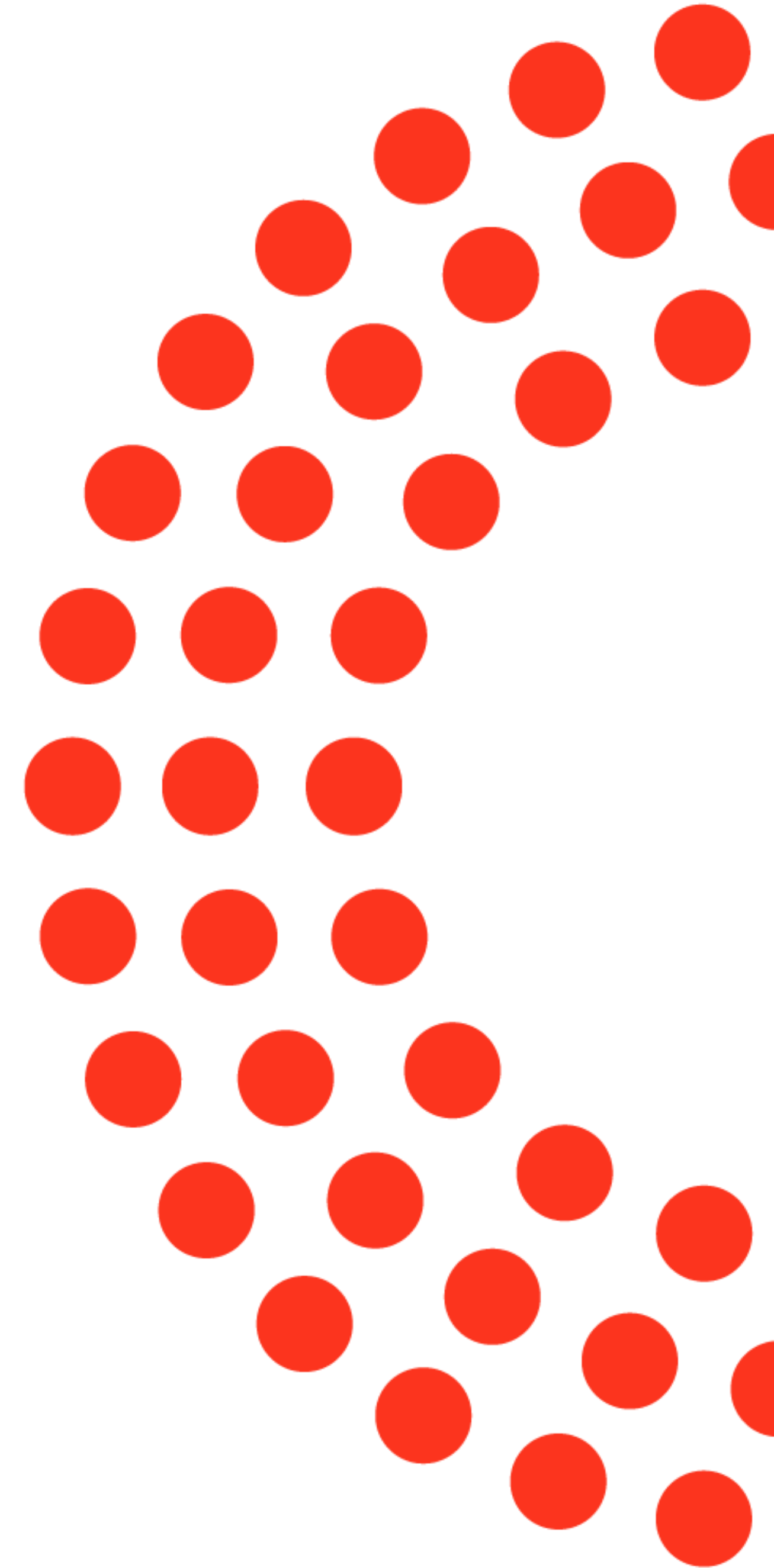
Average Demand Weighted %RE Self Reported
Japanese Members - Tracked from Joining Year



RE100 Annual Demand Weighted Average %RE

Japan 2030 National Renewable Electricity Target

★ 線形 (Projected Renewable Generation % in Japan (Based on IEA Renewables Data))



Thank you!

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