Examples from Helsinki – impact and scaling up

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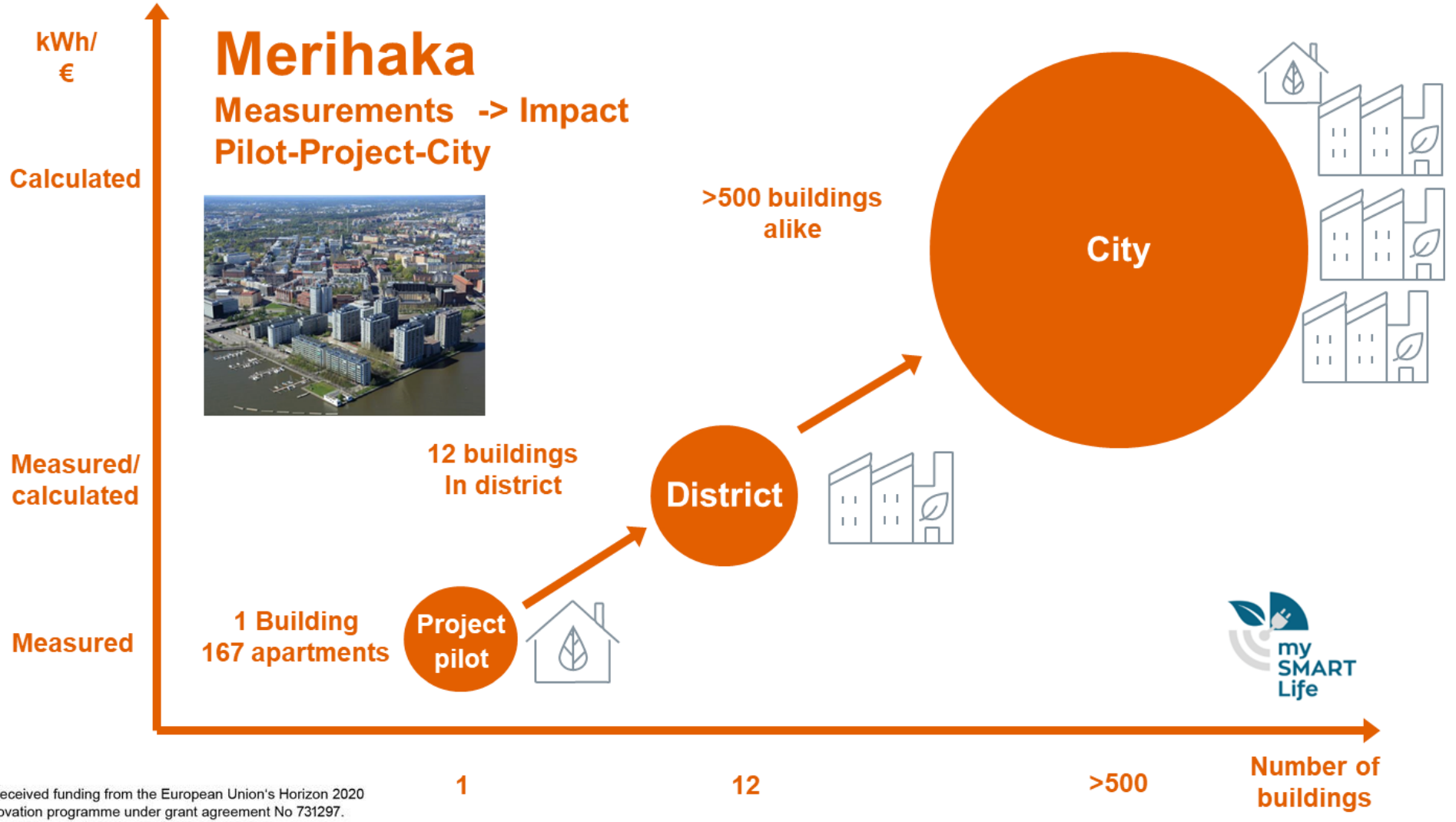
Helsinki Demo Overview – Zone 1 example

Zone 1: Merihaka

1970s residential typical construction, Retrofit of energy solutions, heat demand response

1 Building, 167 apartments, 10 113 m2
Total 12 buildings

Example of scaling up impact – Merihaka



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Covid-19 effects on human presence related energy consumption @home, Merihaka

Pre-covid **@office 50%**

During covid **@office 0%**

Pre-covid **@home 50%**

During covid **@home 100%**

COVID-19 Effect on presence related energy consumption

Measured (example) : Electricity consumption @home Pre-covid = 20,3 kWh/m2 -> During COVID = 42 kWh/m2

measured effect of inceased presense + 100%

Use the same presence related effect to DHW consumption

(estimate +100%) DHW consmption @home Standard = 39 kWh/m2 –> During COVID 78 kWh/m2

Heating energy remains as planned

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Lesson learned

- The effect of presence related energy use @home is detected in measured energy - in this example was electricity (measured)
- The same effect detected in electricity measurement can then be applied to other presence related energy use - in this example DHW (is a part of total heating energy and not directly measured)
- By using the same 100 % increase to the estimate of DHW increase results the remaining part of the total energy (= heating) to be as planned.

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Crowd of anonymous people walking on busy city street: picture by BABAROGA/Shutterstock.com

Thank you for your attention!

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