

Developing a NABERS embodied carbon framework

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NABERS



The background is a solid teal color with several overlapping geometric shapes in darker shades of teal. On the right side, there is a faint, semi-transparent image of a globe with a grid pattern, tilted slightly.

Why acting on embodied emissions matters

What we mean when we say embodied emissions



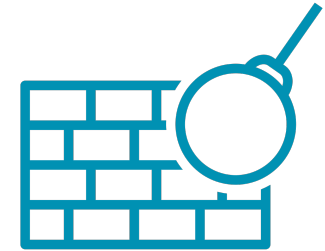
Building materials



Construction



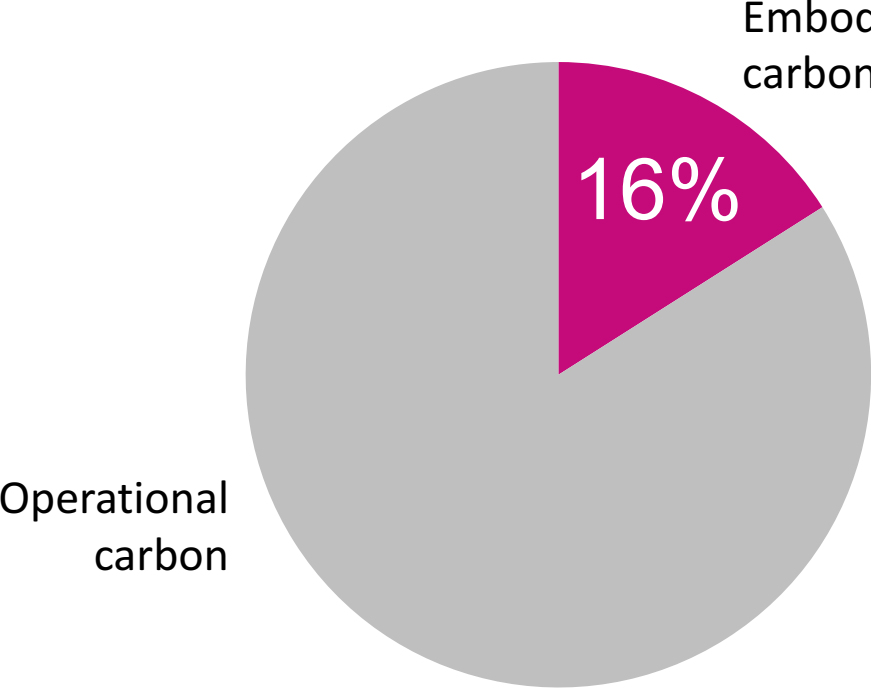
Repairing, refurbishing,
replacing



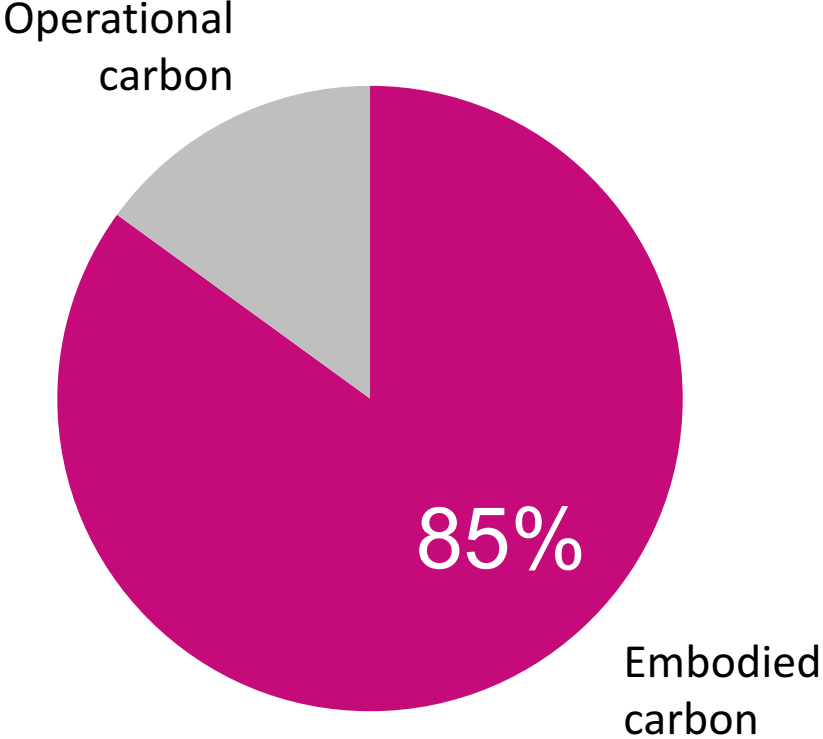
End of life



Embodied carbon emissions are on track to be the largest source of emissions in Australian buildings



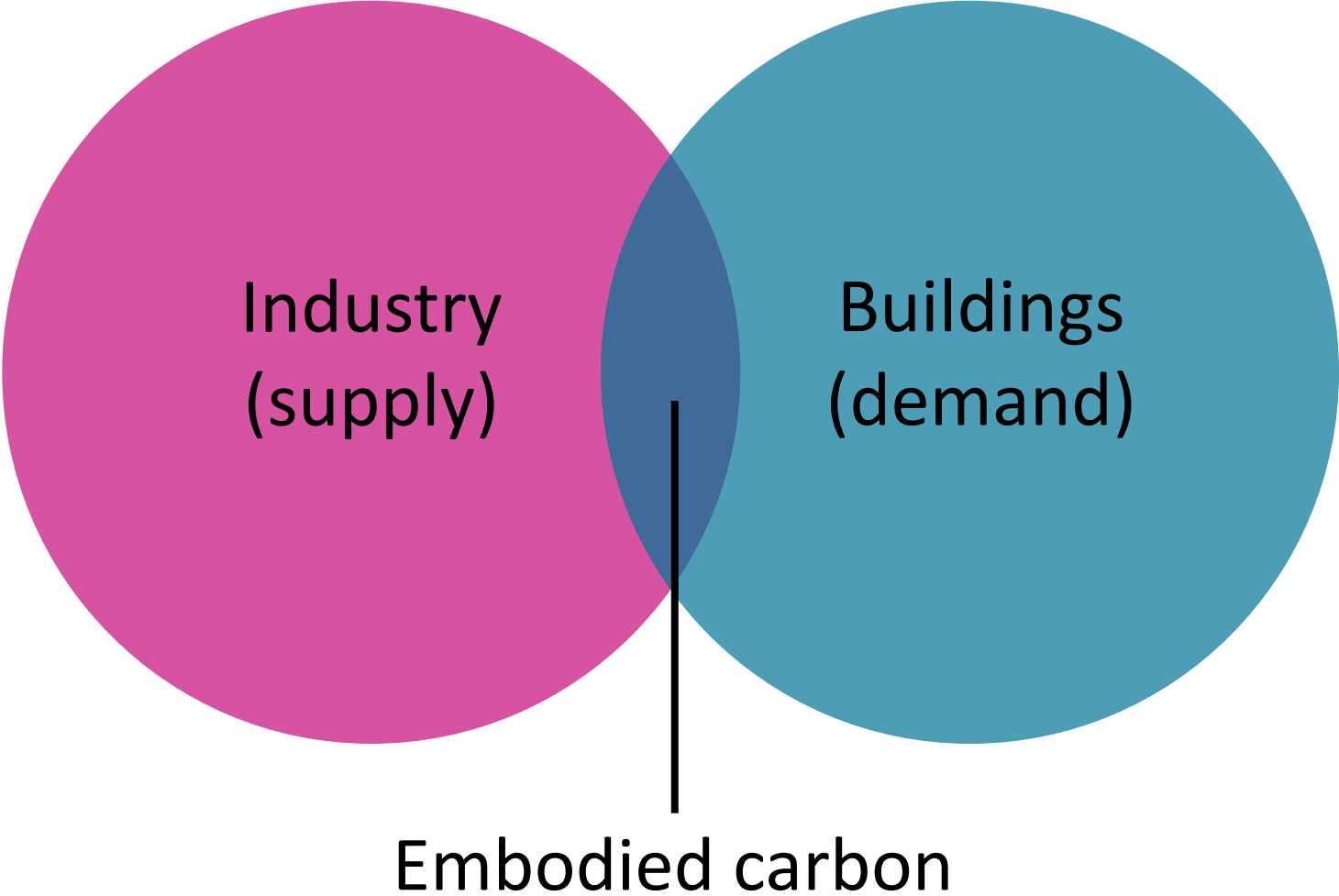
2019



2050

Source: GBCA (2021), Embodied Carbon & Embodied Energy in Australia's Buildings

Embodied carbon lies at the intersection of different sectors of the economy



The background is a solid teal color with several overlapping geometric shapes. A large, dark teal triangle is positioned in the upper left. A curved, grid-like structure resembling a globe or a modern building facade is visible in the upper right. The text is centered in the middle of the image.

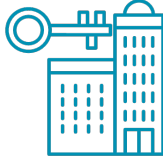
NABERS has been working on the development of a national embodied emissions standard since 2021

We started with in-depth market research



156 individuals

92 organisations



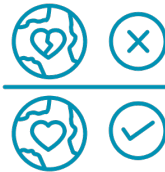
Decision makers

Developers, owners, tenants



Project team

Architects, engineers and quantity surveyors, construction, LCA experts



Influencing organisations

Policy makers, investors, industry peaks, standards bodies, academics



Supply side

Product manufacturers

Industry told us we have major problems, and no clear solutions on the horizon



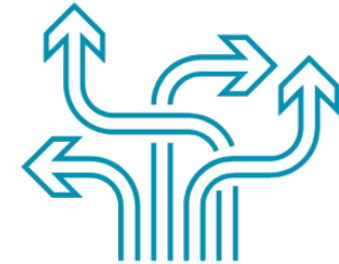
Comparability

Everyone is measuring embodied emissions in their own way



Cost, complexity

Too many decisions are required to measure



Fragmentation

Industry is fragmenting, making it hard to make progress at scale

“It's just so splintered!”

LCA Expert

“There is no publicly available agreed set of tools we can use on Planning.”

Local Council

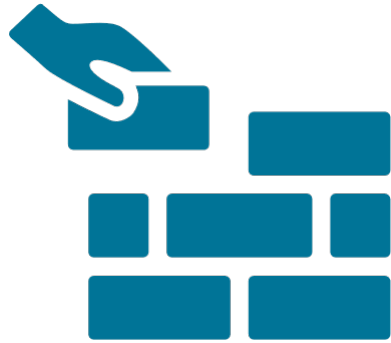
“The focus on embodied energy is suddenly HUGE. But neither the tools nor the sector are ready for it.”

Construction company

“We need the ability to compare embodied carbon against other buildings, and we currently don't have it.”

Building Owner

There was huge support for an embodied carbon framework developed by NABERS in partnership with the GBCA



Nationally consistent

NABERS and Green Star working together can make this the national framework, where buildings can be compared.



Government backed

NABERS leading this work ensures government plays an active role on embodied emissions



Scalable

Driving higher quality carbon assessments at scale, while keeping assessment costs low



NABERS Embodied Emissions Framework

Framework objectives



Drives action on **reducing embodied emissions**

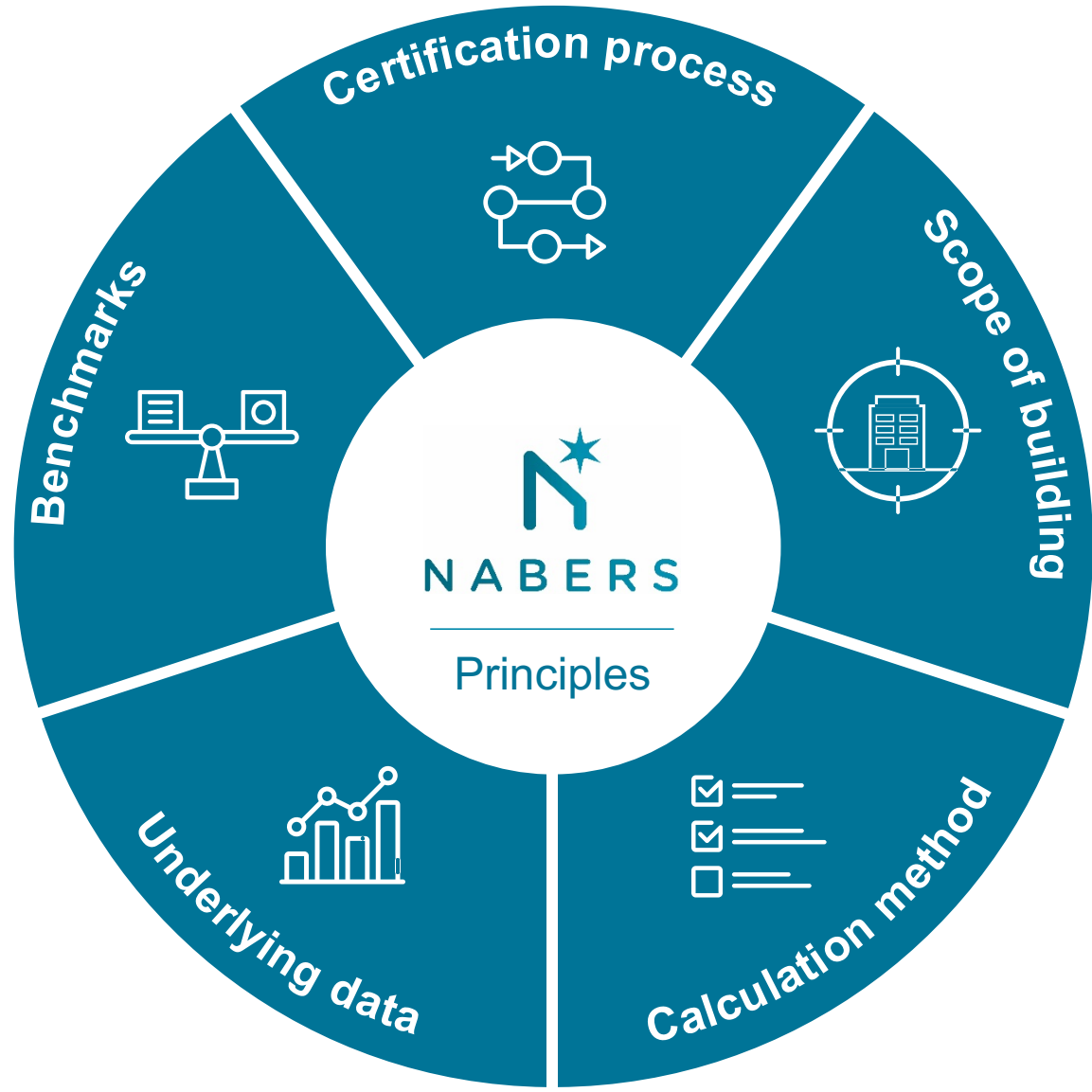


Focuses on **measuring, verifying, comparing** and **disclosing** embodied emissions



Start by **solving well-defined problems** now, rather than waiting to solve all problems in embodied carbon

A framework for embodied emissions

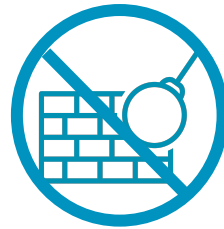


Some feedback on framework boundaries for its first iteration



Upfront carbon

Focuses on new buildings and major refurbishments (including services)



Most/all buildings

Can be used by buildings in as many sectors as possible

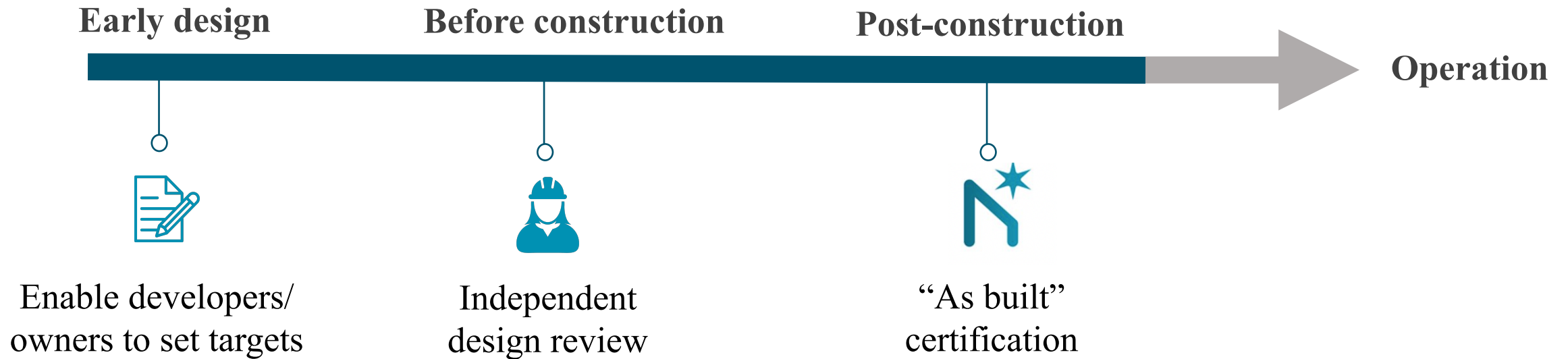


Base building

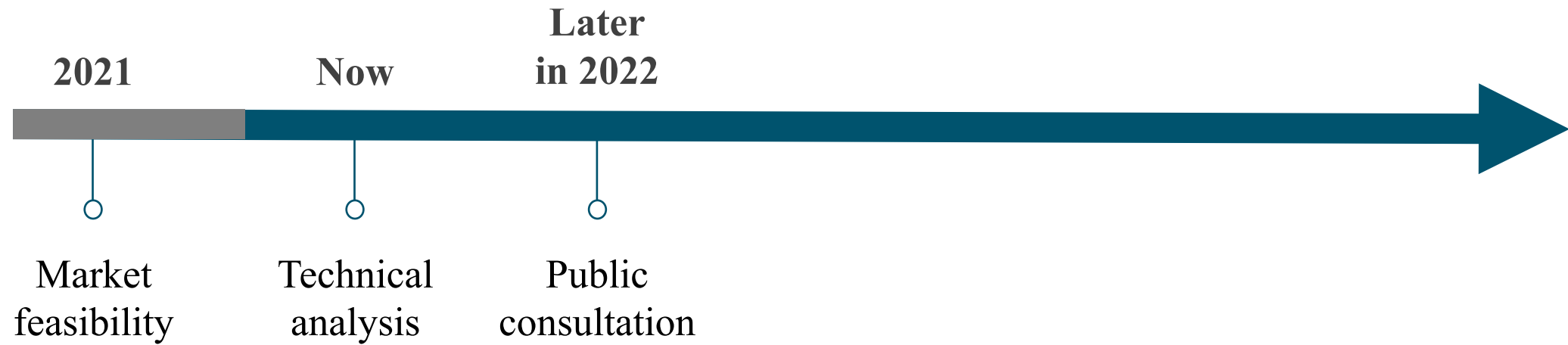
Captures the structure, HVAC services, construction, etc. (but possible not tenant fitouts)



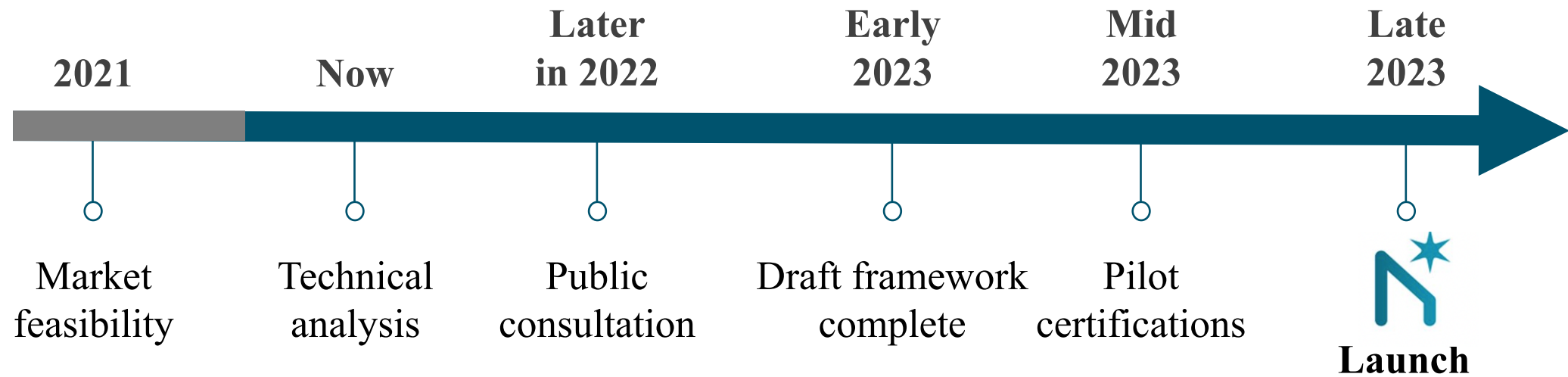
What the process might look like



Project Timeline



Project Timeline



THANK YOU

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