Copenhagen Atomics

Funding the path towards scalable and affordable energy

Amsterdam, 9th of June 2022

Introduction to Copenhagen Atomics

Solution presented by Copenhagen Atomics

Timeline

Financing

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Introduction to Copenhagen Atomics

An engineering-driven approach to developing a clean, safe and abundant energy source through a Thorium-based MSR

Safe and abundant energy

Copenhagen Atomics is working on developing a **Thorium-based MSR**[1] in a 40 foot shipping container (**"Waste Burner"**)

The Waste Burner is expected to be **online in 2028**, and will run on a combination of thorium and used nuclear fuel

Business strategy is to own, operate and decommission the Waste Burners. We call it: **"Energy-as-a-Service"**

Introducing Copenhagen Atomics

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Note: 1) MSR: Molten salt reactor

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Visualisation of the Waste Burner

This is the reactor Copenhagen Atomics is developing

- Fits in a 40 foot shipping container
- Logistically easy to handle on land and sea via existing infrastructure
- Delivers 100 MWth and can be combined to achieve any required output
- Designed for mass manufacturing on a assembly line

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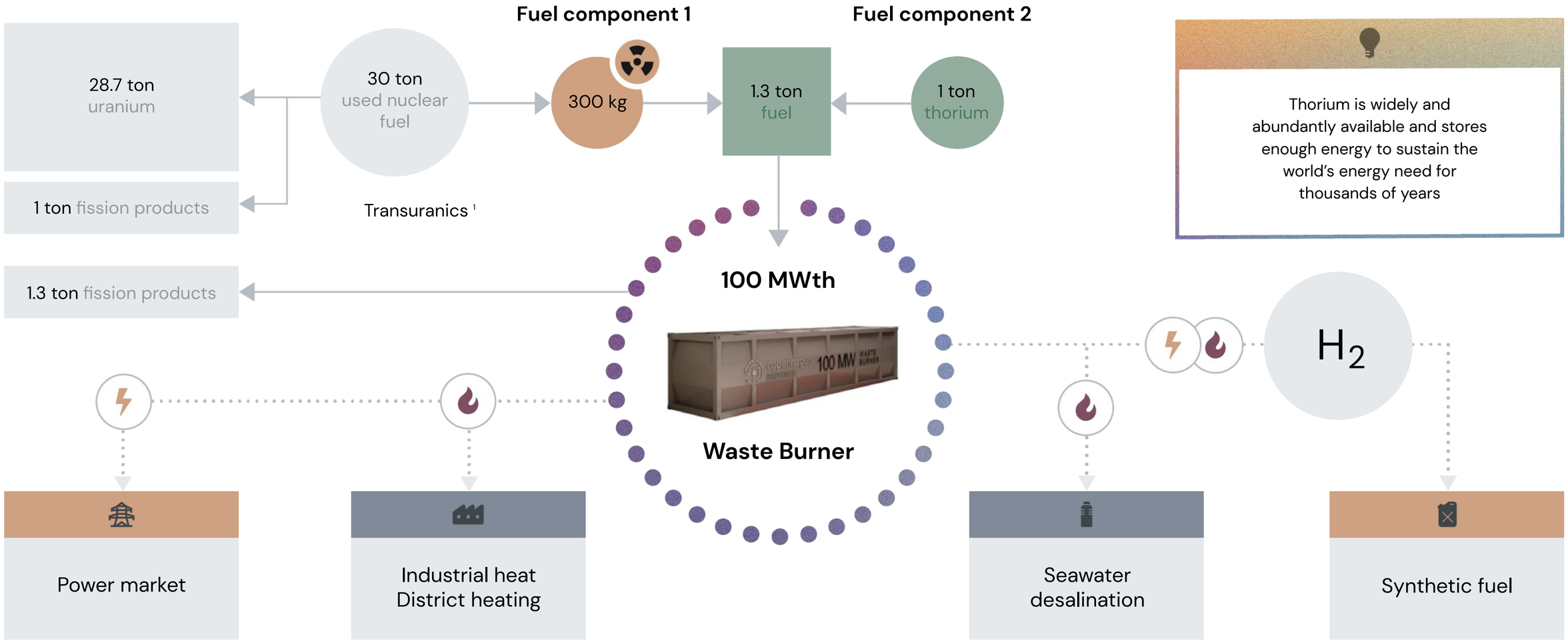
Multiple use cases for Copenhagen Atomics

The flexible and reliable design of the Waste Burner makes it suitable as a source of low emission energy in several sectors



Thorium is widely and abundantly available and stores enough energy to sustain the world's energy need for thousands of years

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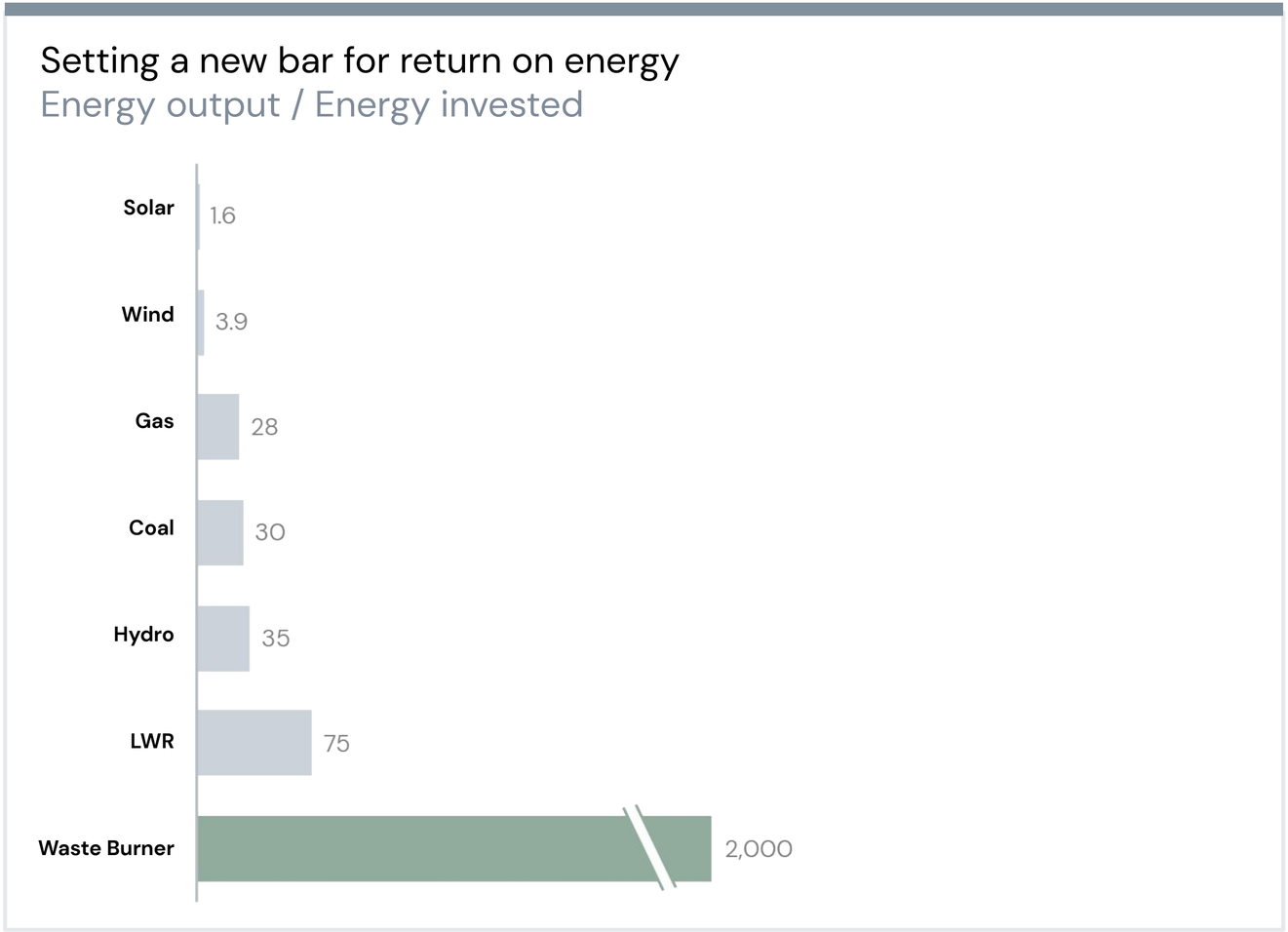
Note: 1) Transuranics need to be stored for 100,000 years if they are not used as fuel in the Waste Burner

Why we believe Thorium MSR is the best option

Thorium MSRs deliver an immense, abundant and consistent energy supply relative to its resource consumption

- Possible to make a breeder reactor in Thermal spectrum
- Makes a Waste Burner possible
- Abundant supply of fuel at low cost
- No enrichment needed
- No extra mining needed - existing mines are more than sufficient
- Much less waste



Source: https://www.forbes.com/sites/jamesconca/2015/02/11/eroi-a-tool-to-predict-the-best-energy-mix/

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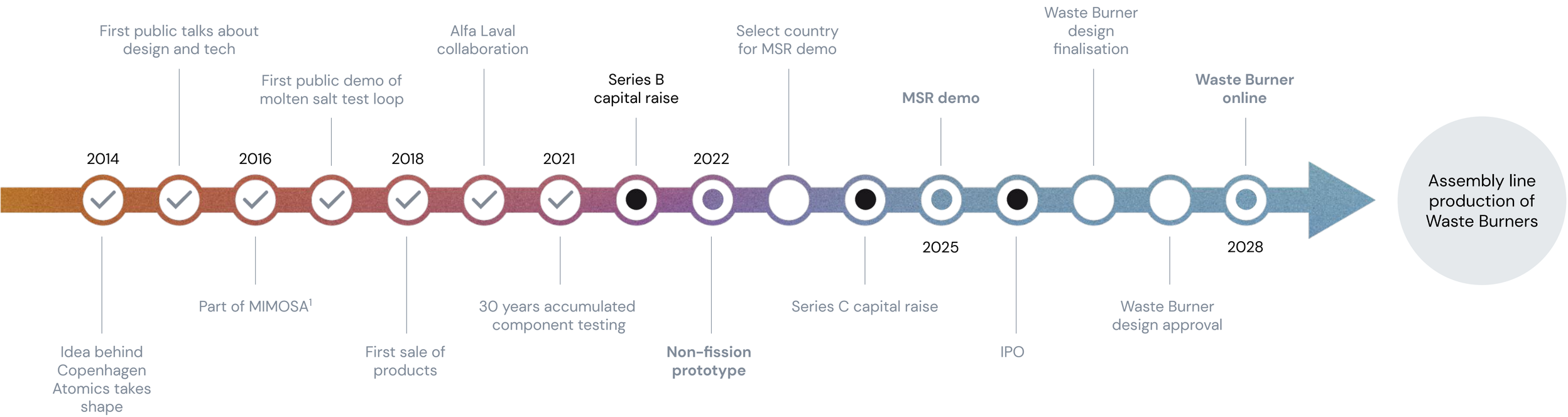
Copenhagen Atomics is moving ahead as planned

Several important milestones have already been achieved and we are on track with our non-fission prototype



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✓ Achieved milestones ● Major technical milestones ● Major financial milestones

Note: 1) European nuclear molten salt research consortium

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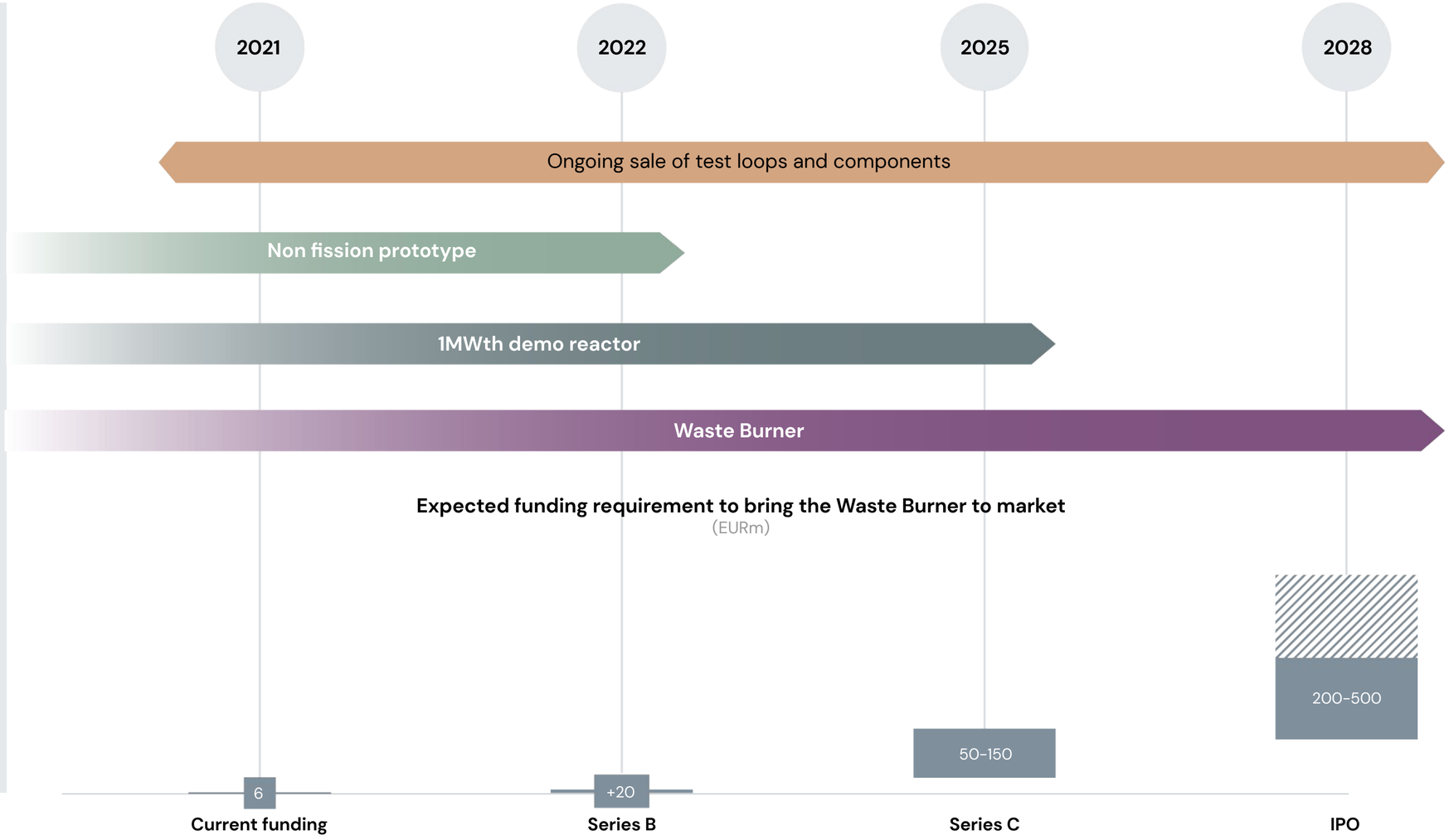
Copenhagen Atomics' path to a commercial Waste Burner

Development of both the demo reactor and the Waste Burner are well underway and done in parallel

Focus is currently on completing the development of the non fission prototype while development of the demo reactor and the Waste Burner is done in parallel.

A second funding round of 50-150m will fund approval and the demo reactor test in 2025. Subsequent IPO of €200- 500m will fund the approval and final development of the Waste Burner prototype.



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Innovation requires funding

Copenhagen Atomics have three routes to follow to ensure sufficient liquidity to reach a fully commercial Waste Burner

Assembly line production of Waste Burners

Rank			
Now	Future		
1	1		Issue new shares
2	3		Grants and other non-dilutive capital sources
3	2		Revenue

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Why not just use the stock market to raise money?

Several more disadvantages than advantages

Expensive

- Fees of 5% is not uncommon
- On top, legal and accounting fees

Time consuming

- A process up to 12 months
- This depends on which stock exchange and the availability of the FSA
- Require substantial internal resources to comply with information requirements

Share price disruptive

- Going to the listed markets on a continuous basis for financing is harmful for the share price.
- An SPO is typically done at a discounts

Inflexible

- Because of timing and costs, SPO has to be well planned and needs to include 2-3 years of expected capital need

Market sentiment

- The market sentiment changes with economic cycles and is unpredictable

Take over risk

- Using the listed markets continuously as funding source means more and more shares for sale

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Alternative to equity markets?

The capital requirement increases the financial risk substantially and new equity needs to be raised to ensure a solid capital structure

Pros	Cons
• Can be listed or privately placed • Few/no covenants • Simple documentation • Can be cost effective and efficient	• Usually, no prepayment for the first 2-3 years or with high penalty • General low flexibility • External rating, hence increases costs

• Can be with one or through a syndicate of banks • Known counterparts, hence possibility for negotiation of terms • Larger flexibility	• Strict covenant schedules with penalties if not met • Typically more expensive than bonds • Lower volume

Leverage can solve part of the need for equity financing, but only partially

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Deployment of CA Waste Burner as “Energy as a Service” faces a few issues…

… but if considered in due course can be solved

Issues

- Capital intensity, high up-front costs, lack of liquidity and a long asset life
- Strategic focus on fast deployment with assembly line production -
- CA has a ambition to own and operate the assets

Solution

- Secure large amount of equity capital from shareholders
- Have large bank facilities in place and/or issue corporate bonds
- Establish a project financing structures

Ideal for ring fenced project finance where each project is financed independently

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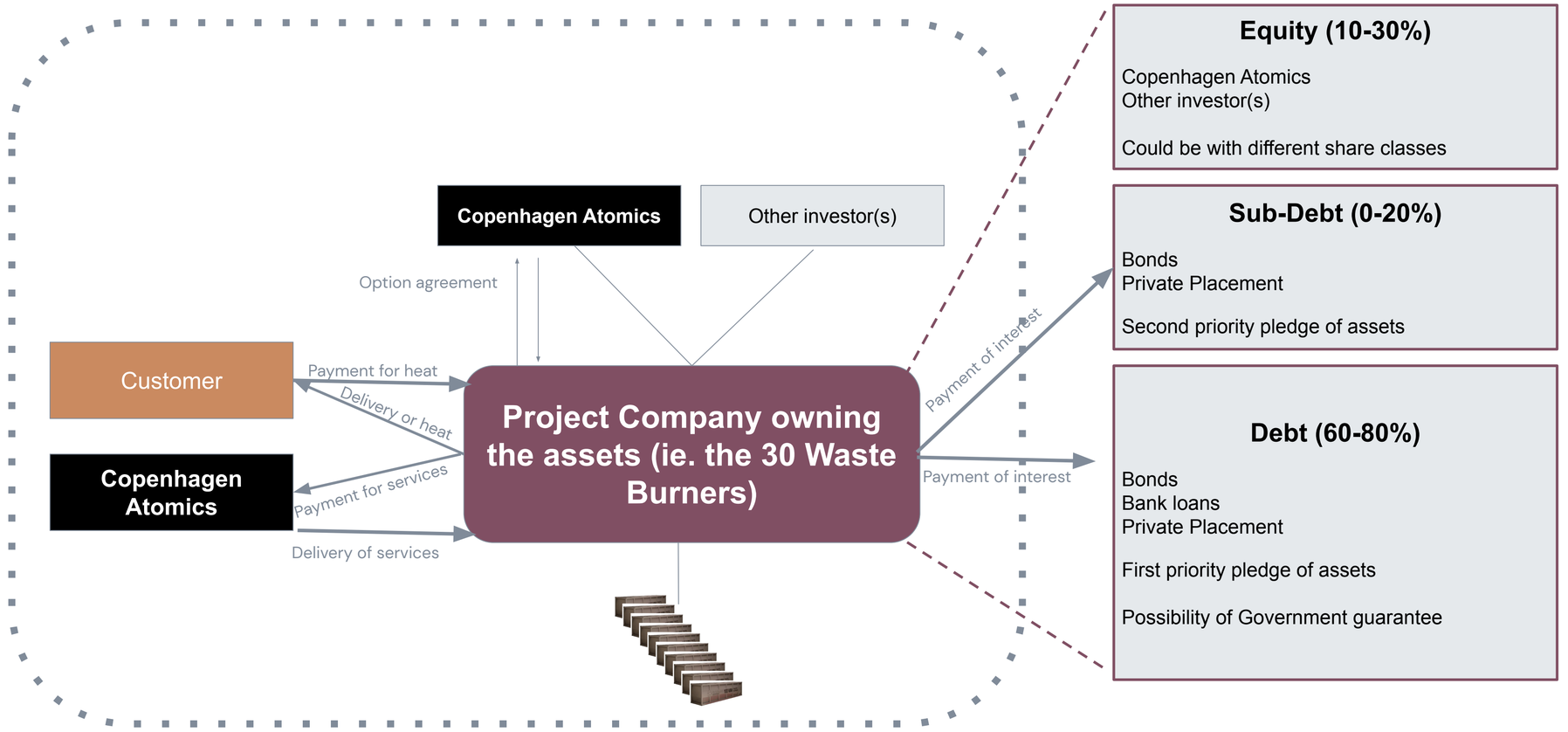
Example of legal and capital structure

Project with 30 Waste Burners

- Project Company buys the Waste Burners
- Project Company signs a operational agreement with Copenhagen Atomics for the lifetime of the project
- CA operates, maintenance, re-fuels and decommission the Waste Burners
- Project Company pays a running fee for that
- An option agreement ensures that CA has the responsibility and the cost to decommission and recycle the reactors



Advantages and weaknesses

The project finance solution has more advantages than weaknesses, hence the preference

- **Ring fenced structure allows for optimizing capital structure and costs to each project. Since both geography, purpose and customer has a large effect on the inherent risk it becomes more optimal to ring fence**
- A ring fenced structure open up for the possibility to get Government funding and/or grants in PPP structures which in turn reduces both risk and increases return
- It reduces the equity from CA substantially but gives the same benefits
- **Reduces the financial risk on CA and thereby increases the ROE for CA shareholders**
- Reduces the costly and time consuming process of SPOs

- **In case a project fails, there is the risk of legal action against CA from multiple sources instead of just one (ie. the customer)**
- Dependency on others

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