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CAPITAL

LIFE PureAgroH2O conference:

# Developing water treatment investment opportunities

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## What I like to discuss with you today:

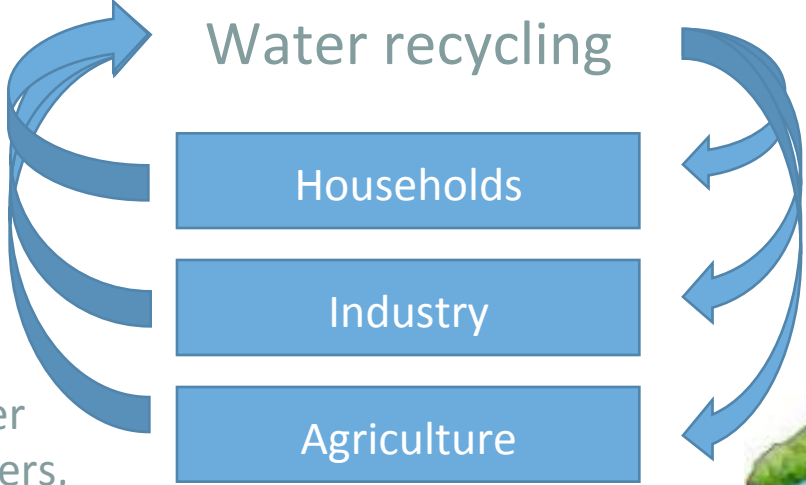
1. Drivers behind the water (re-use) market
2. Looking through the eyes of capital, and
3. Connecting technology, science, projects and capital by translating innovative technology into tangible “win-win” business cases

# Urbanization: water re-use is essential

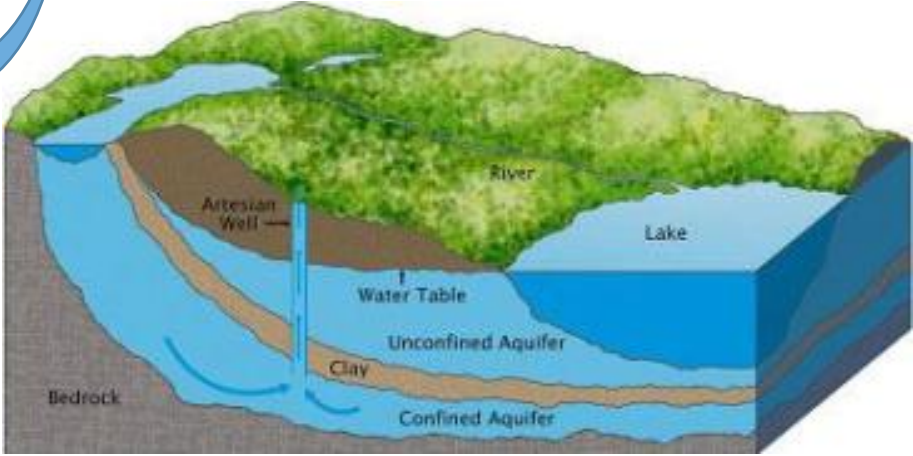
Densely populated urban and industrial areas : urban population growing with 60mln per year



Less and cleaner discharge into rivers, seas, and lands

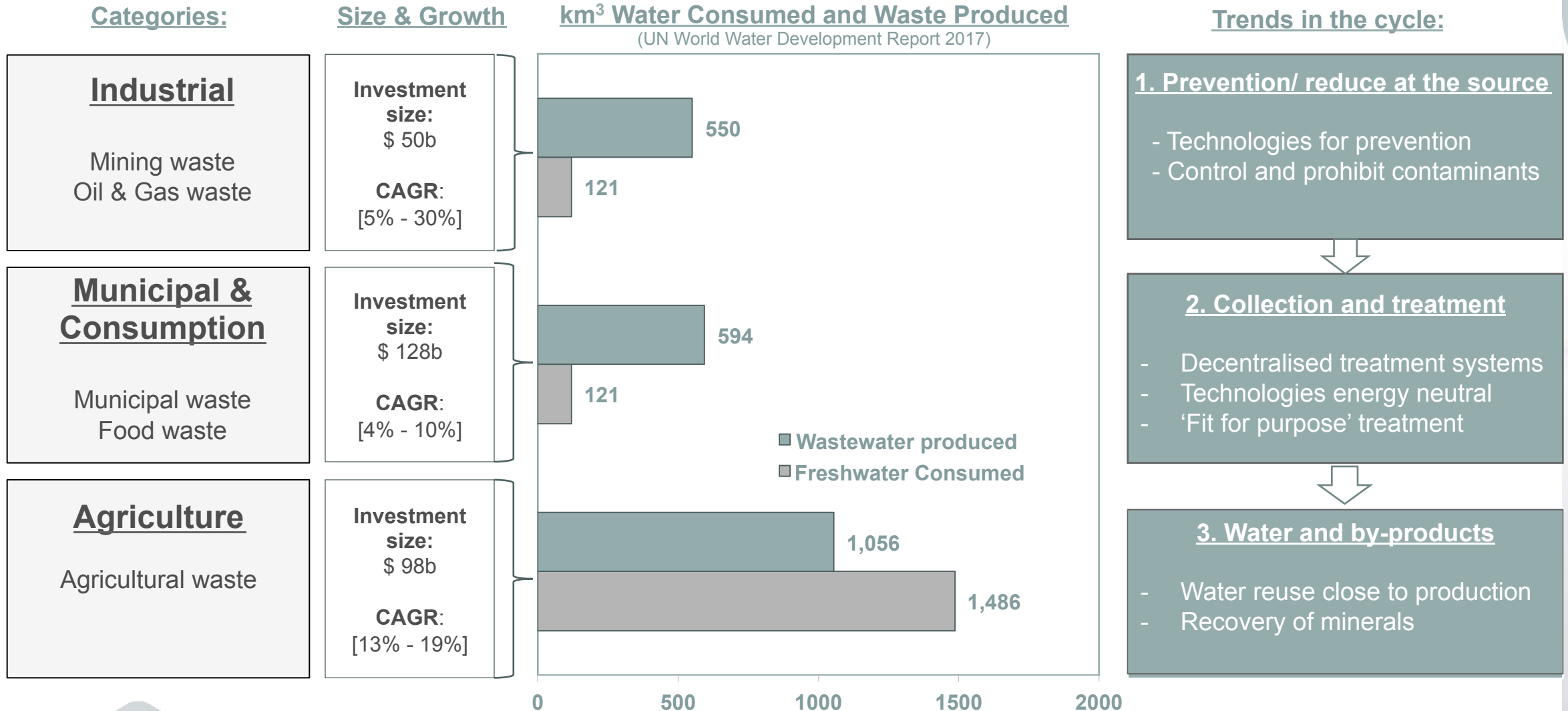


Less stress on natural resources due to reduced fresh water sourcing from rivers, lakes, and groundwater aquifers



# Size of wastewater treatment : €276bn annually

Fragmented markets with diverse technological advancements



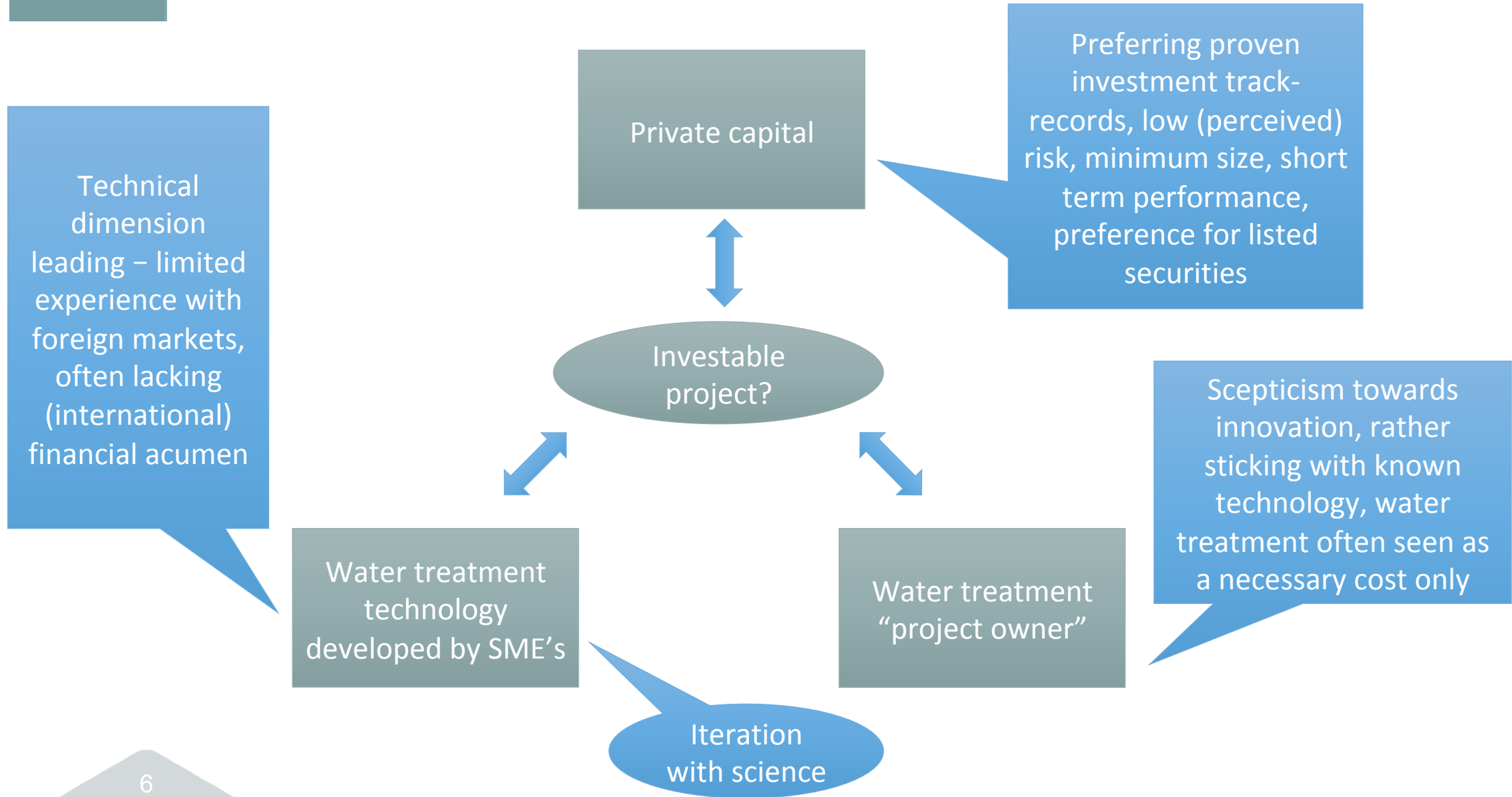


----THERE IS A LOT OF UNEXPLOITED VALUE OUT THERE-----

Value created by taking initiative to develop water projects!

➡ Connecting different worlds by translating innovative water technology into cost savings

# Capital & water: connecting different worlds





# Capital and its deployment hurdles

Pension funds and insurance companies

Benchmark, Track record, liquidity, "investment bucket"

(fund of) funds run by asset managers

Covered by analysts? Market cap, liquidity etc

Companies

Sector, growth or value, management engagement? etc

Projects - transactions

Market experience, similar to previous transactions? etc

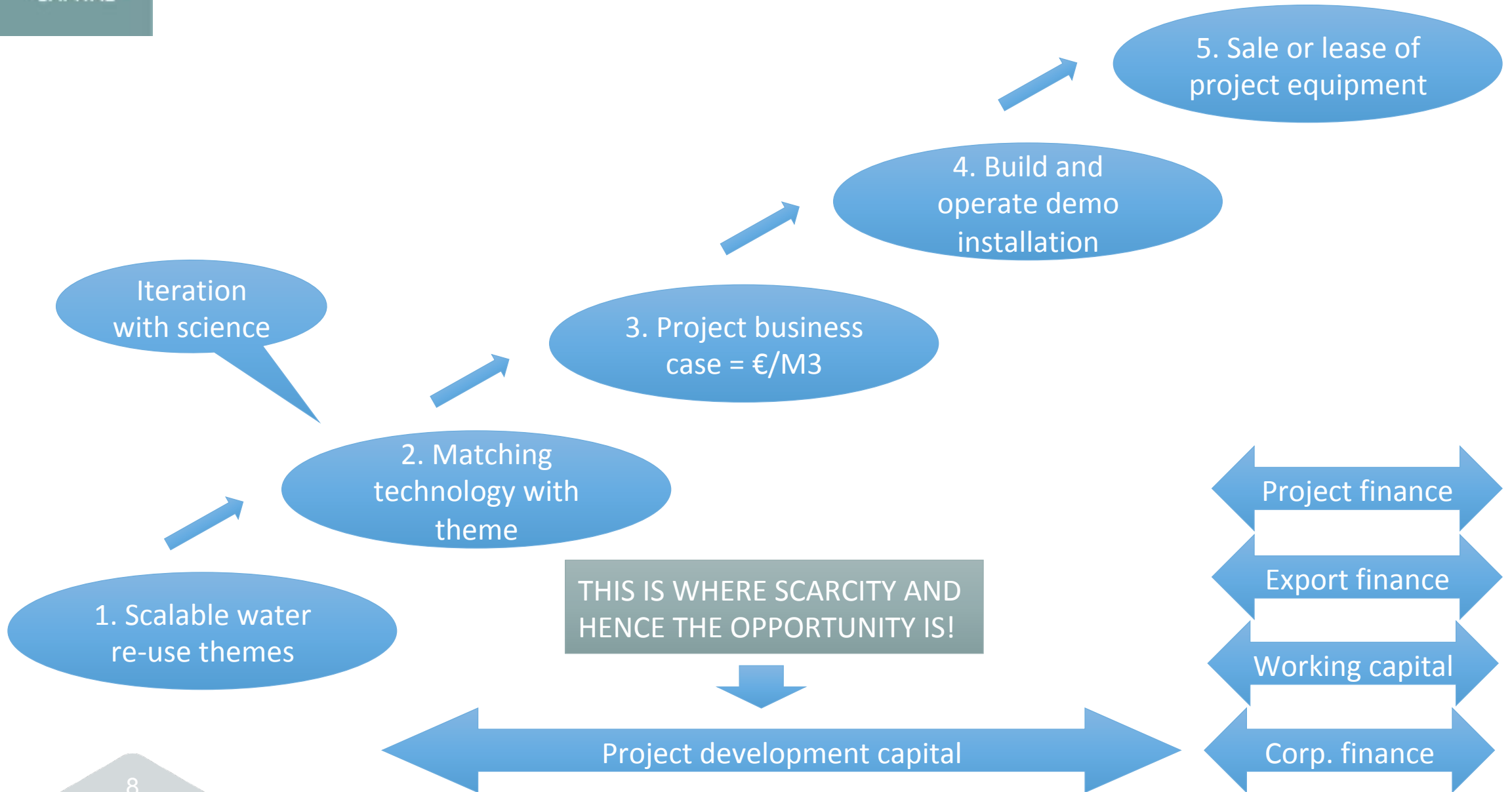


This is a model designed to select by EXCLUDING from an abundance of alternatives

.....

It is not suitable for non listed innovative water re-use projects  
Which should be pro-actively sought

# Project development phases and capital







# Three “life” cases and (the scarcity of) capital....



1. Decentralized sewage treatment for re-use

# Business case on equipment level

Could be financed by for example 10y annuity

Long term pre agreed processing volume & costs per M3 (BOO) plus market benchmarking



Daily supply of #M3 of Input water according to pre agreed specifications



Delivery of output water according to pre agreed specs

**LONG TERM SERVICE CONTRACT : PROCESSING SEWAGE AT A PRE AGREED PRICE PER M3**

Provide financiers  
ACCESS TO PROJECTS

Use finance to convert  
equipment into SERVICE

ORGANIZE LOCAL  
PRODUCTION



2. Textile industry: water re-use + ZLD



### 3. Sewage sludge 'recycling' - Europe



Converting sludge into bio coal  
(after biogas production)





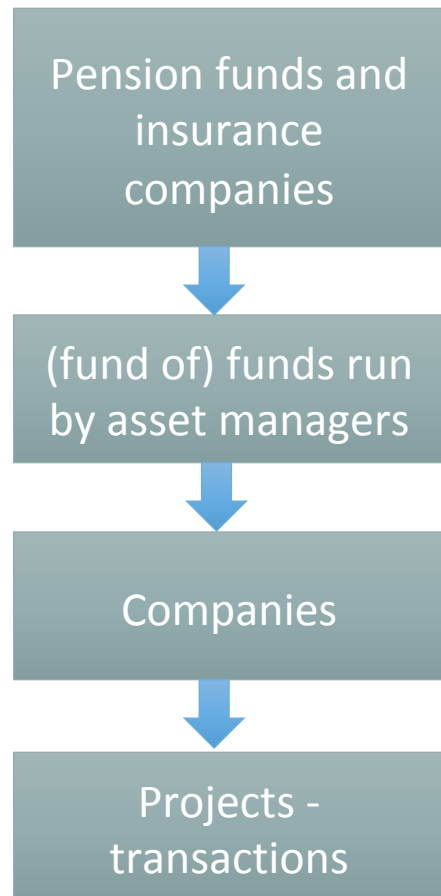
Swiss Waste Water Treatment Plant  
Summer 2019



Demo at Waste Water Treatment Plant  
Summer 2019



# What are limiting beliefs-drivers of investors?



*“A €25mIn investment? That is too small for us...”  
Does this mean that the monitoring costs are so high? Shouldn't these be related to the (expected) risk-return? May be investments with an expected return of >5% should justify consideration If it is a scalable and repeatable investment you want to start “small” and “grow into it”*

Private capital funds: They are incentivised to do larger transactions as the due diligence and monitoring costs can be spread out over a larger investment ticket. The more capital raised for their fund the larger the minimum ticket size. *Successful Infra fund: “we now only do equity transactions with a minimum size of ISD 100mIn”...*

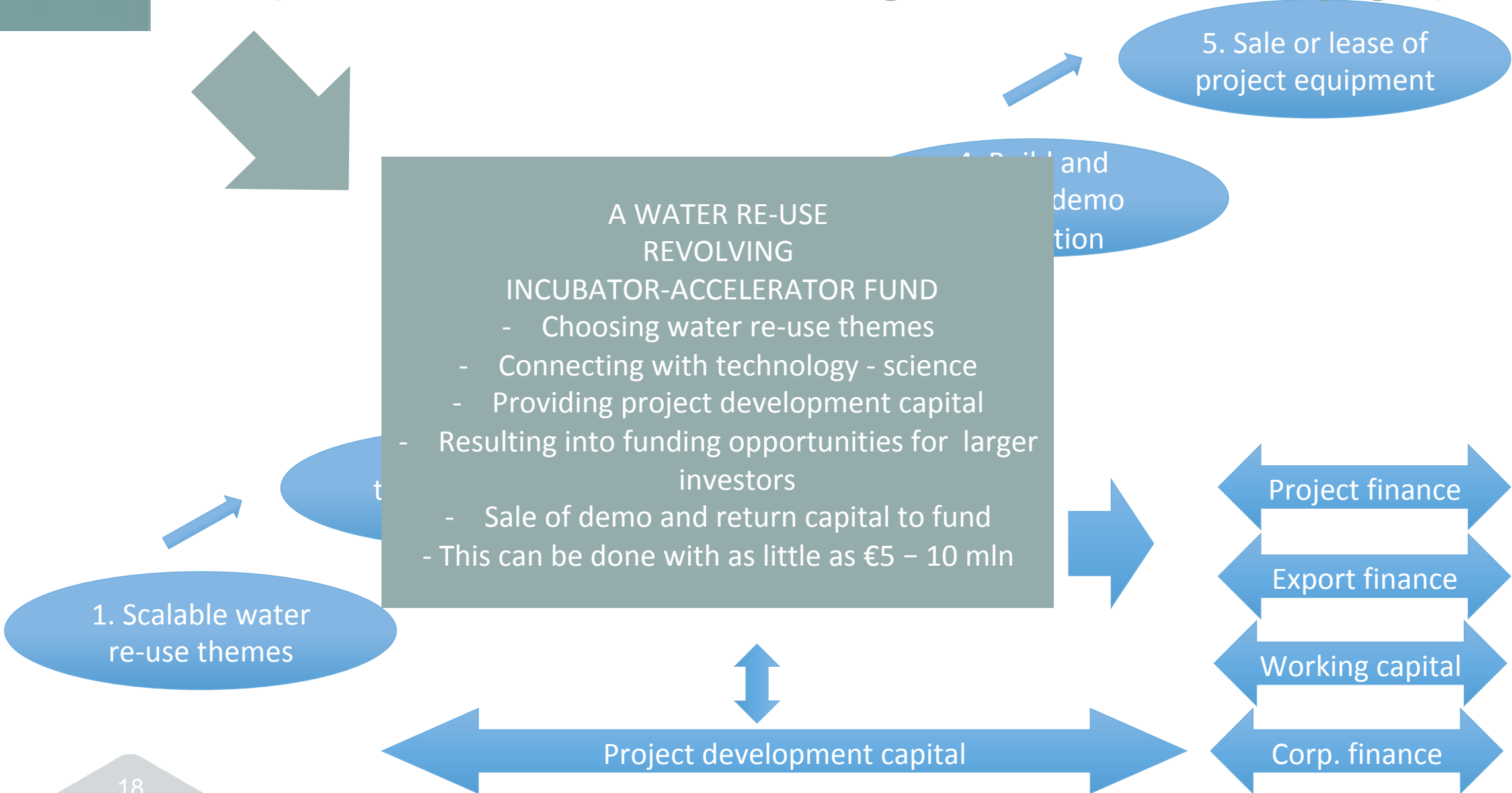




# Recommendations to enhance financing

Party	Recommendation
Capital	<p>Look at scalability (repeatability) of theme of water re-use solution, NOT at initial investment size.</p> <p>Take an active role and get in early: start even smaller with providing development capital (demo-&gt; project -&gt; corporate finance) first before investing in projects possibly complemented by some corporate finance</p>
SME water re-use technology provider	<p>Technology should have a clear “business case USP” AND should provide a total solution to a (scalable) water re-use theme.</p> <p>Build your solution in a modular fashion while it preferably would be transportable</p>
Project Owners	<p>Formulate tenders based on performance-outcome and NOT based on a pre-described technology.</p> <p>Make selection based on business case evaluation and use the “demo” not only as a proof of technology but also as a proof of the business case (like in a BOO)</p>

# Proposed solution to bridge water funding gap





# Summary

1. Urbanization is a major driver of water re-use where the linear model becomes too risky
2. Water Re-use deserves an important part in a Sustainable Development Investment Portfolio and it can absorb large amounts of capital. Agri is most important sector with 70% of total fresh water consumption.
3. Capital, technology, science and projects are quite different worlds and can be connected by building project specific (but repeatable) business cases translating into project savings.
4. Project Development Capital produce project investment opportunities
5. Project specific business cases in itself provide different short and/or long term financing-investment combinations
6. Project Development Capital can be provided through a new water project incubator-accelerator (revolving) fund with a focus on for example agriculture – food production.
7. This can already be done with as little as €5-10mln while generating scalable business cases benefiting both technology providers, science, capital and project owners like the agriculture and food industry / governments aiming to secure a steady and safe production of food.



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# Questions?

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