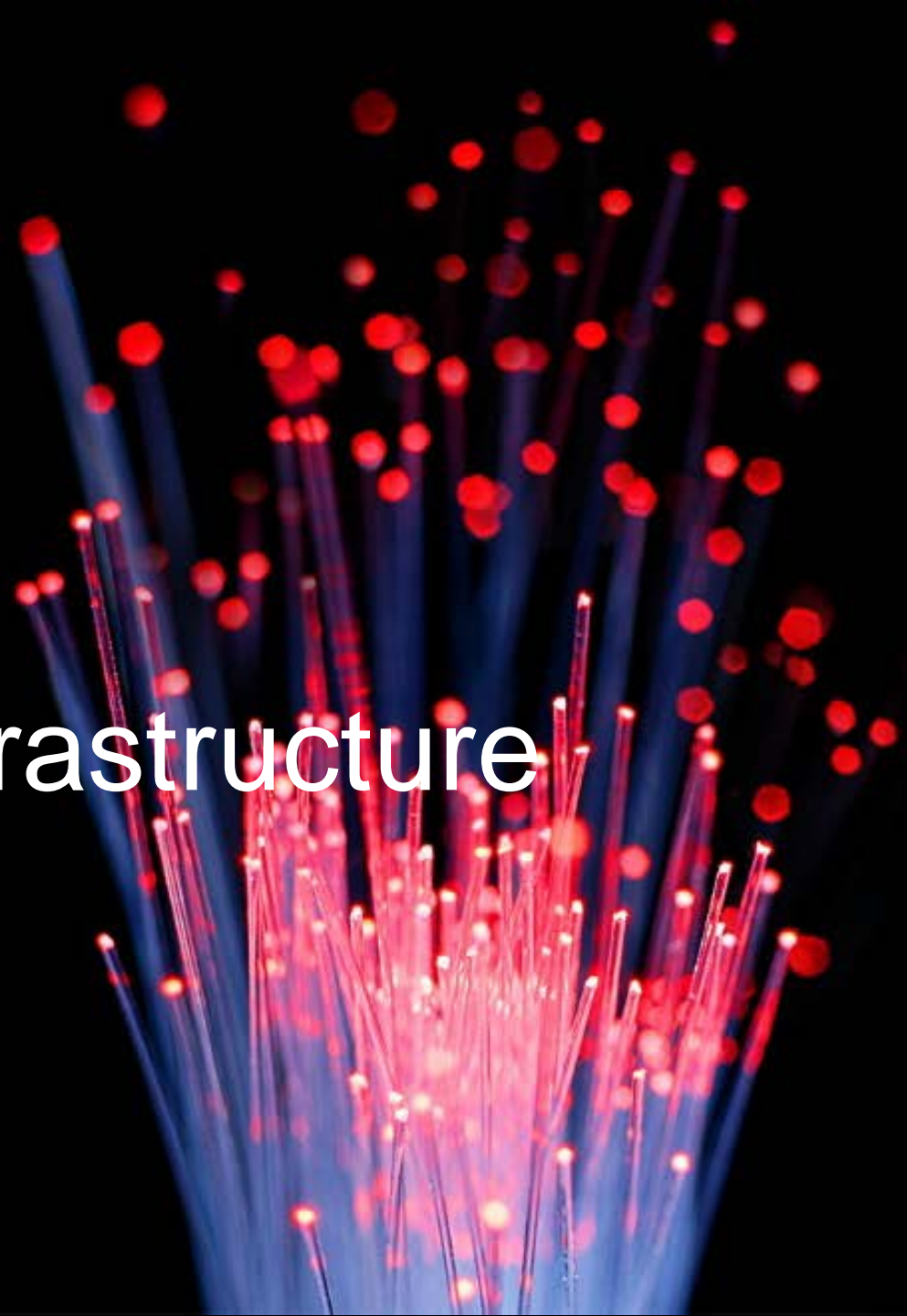
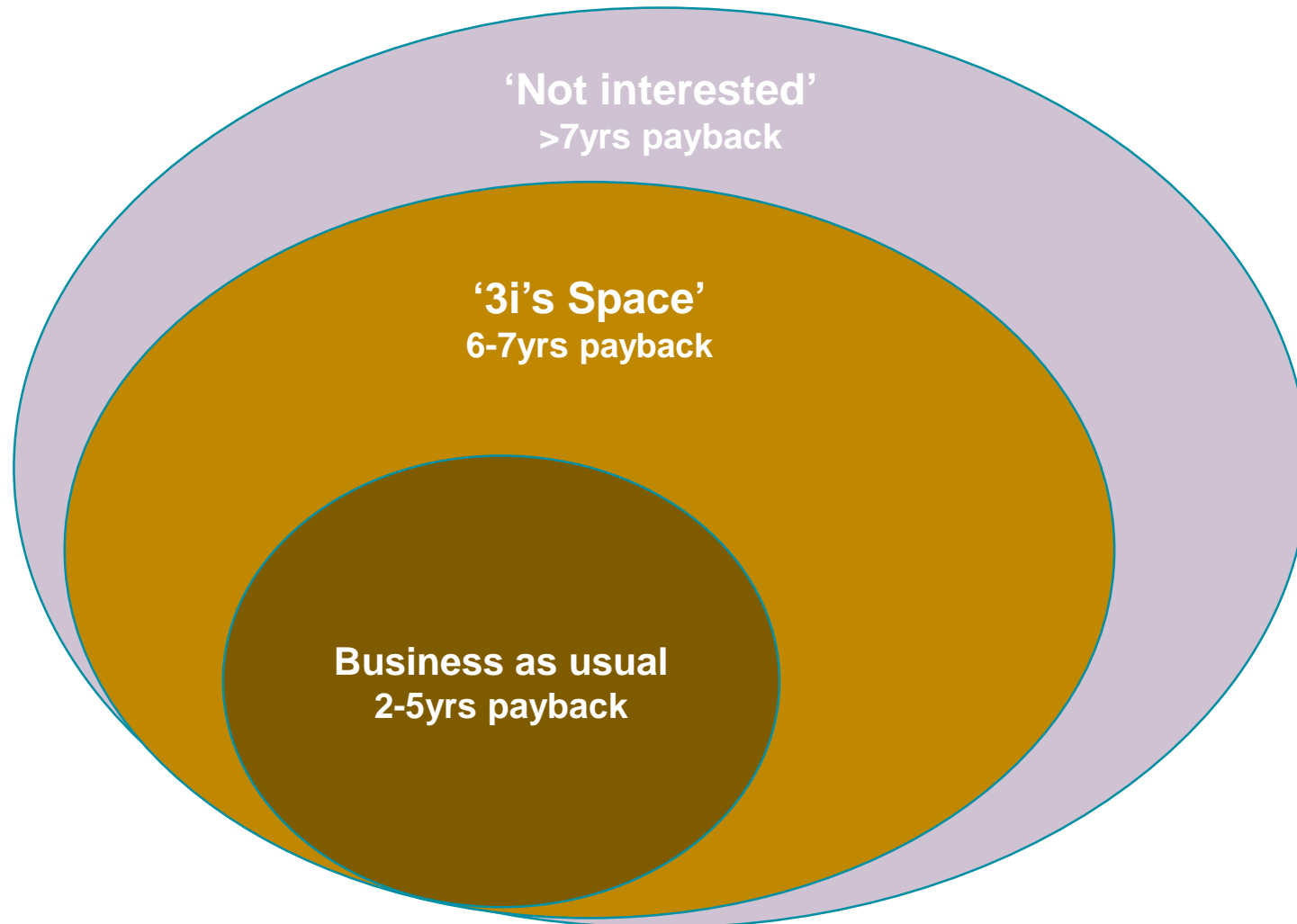


3i: Investing In Infrastructure (Cambodia)

February 2020



What is viability gap financing (VGF)?



How does it work?

- **Context** is important: *Water in Cambodia*

Season	\$/m3	Truck water	Piped water
Dry		2.58	0.59
Wet		2.31	0.54

- **Detailed ‘market’ analysis – demand and supply of water:**
 - *ability of consumers to pay for water, cost of alternative water sources,*
 - *investment costs and ongoing operations and maintenance costs for water operators; informal costs of getting and keeping a licence; other business returns available in rural areas – how ‘good’ does a water investment need to be to attract investment*
- **Rockstar team** – *knows water business better than business; clever output-based contracts to eliminate fraud risk; spot a ‘dodgy’ business*
- **Trial and error** – *use IRR or payback period; how do you find the ‘edge of 3i’s space’*
- **Safeguards** – *Environmental, WH&S, UXO, Child Labour*





Expected Date	Output	Description	Amount of grant																								
31 July 2018	1.1 Permit	<ul style="list-style-type: none"> 20 years' Permit from Ministry of Industry and Handicraft 	10,000 USD																								
	1.2 Treatment plant	<ul style="list-style-type: none"> Capacity: at least 30 m³/hr The plant must have the following components: <table border="1"> <thead> <tr> <th>Component</th> <th>Volume</th> </tr> </thead> <tbody> <tr> <td>Coagulation</td> <td>0.5 m³</td> </tr> <tr> <td>Flocculation</td> <td>15 m³</td> </tr> <tr> <td>Sedimentation</td> <td>90 m³</td> </tr> <tr> <td>Filtration</td> <td>8.57 m²</td> </tr> </tbody> </table> <ul style="list-style-type: none"> Size should be at least 95% of the above listed sizes. There is no leakage of water from the plant when tested A sludge storage system needs to be in place. 		Component	Volume	Coagulation	0.5 m ³	Flocculation	15 m ³	Sedimentation	90 m ³	Filtration	8.57 m ²														
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1.3 Storage tank	<ul style="list-style-type: none"> Capacity: at least 230 m³ There is no leakage of water from the tank when tested. 	18,000 USD																									
1.5 Structural design and drawing	Based on actual invoice, maximum 7,000 USD	5,000 USD																									
31 December 2018	2. Raw pipe and main pipe from treatment plant to 8 villages in the service area: 1-Svay 2-Angk Doun Tei 3-Sla 4-Srae Moan 5-Ou Ta Vam	<table border="1"> <thead> <tr> <th>Pipe diameter</th> <th>Total length</th> <th>Specification</th> <th>Depth</th> </tr> </thead> <tbody> <tr> <td>Ø160</td> <td>365</td> <td>PE 100, PN 8</td> <td>35 cm</td> </tr> <tr> <td>Ø125</td> <td>3,800</td> <td>PE 100, PN 8</td> <td>35 cm</td> </tr> <tr> <td>Ø110</td> <td>1,714</td> <td>PE 100, PN 8</td> <td>35 cm</td> </tr> <tr> <td>Ø90</td> <td>287</td> <td>PE 100, PN 10</td> <td>35 cm</td> </tr> <tr> <td>Total</td> <td>6,166 m</td> <td></td> <td></td> </tr> </tbody> </table> <ul style="list-style-type: none"> Pipe material needs to be HDPE. The pipes size needs to be equal or bigger than in the above table. A 5% variation in the total length is acceptable. 	Pipe diameter	Total length	Specification	Depth	Ø160	365	PE 100, PN 8	35 cm	Ø125	3,800	PE 100, PN 8	35 cm	Ø110	1,714	PE 100, PN 8	35 cm	Ø90	287	PE 100, PN 10	35 cm	Total	6,166 m			46,000 USD
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Total	6,166 m																										
3. Connections of poor households and public institutions	<ul style="list-style-type: none"> Payment of 25 USD per poor household connected as per annex A1 conditions with a maximum of 419 households in 16 villages in Srang Commune Payment of 75 USD per connection for maximum of 5 schools 	10,850 USD																									
Total			89,850 USD																								

Results

- *US\$16m co-invested in 96 businesses*
- *US\$24.8m additional investment by those businesses*
- *252,738 additional connections, \$1.13m people getting connected*

Where next?

- *RGC ownership and policy changes – tariffs, bulk water, ‘VGF potential’ studies*
- *Embedding VGF in ‘the system’*
- *Wider implications and opportunities...Pacific, Southeast Asia*

THANK YOU

Investments, costs and income

