

18 June 2020 – RBFF webinar series

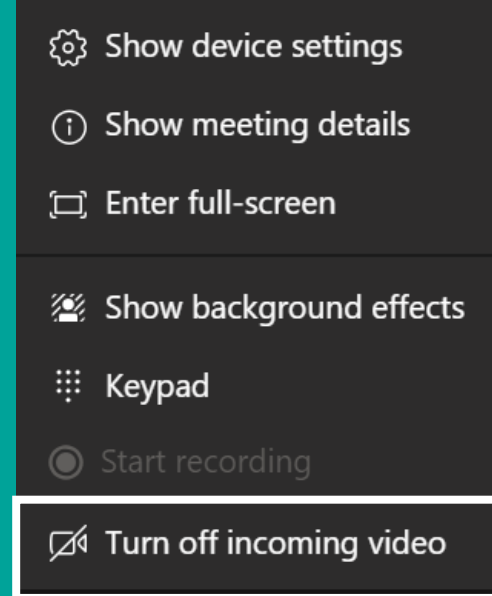
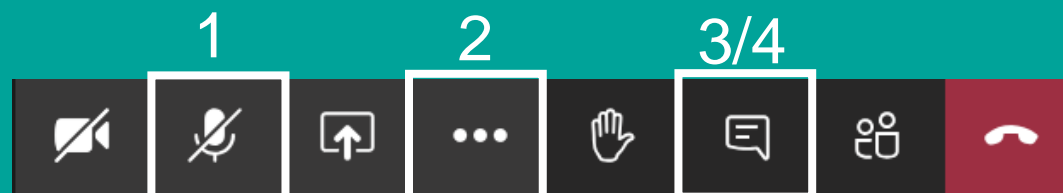
Transforming energy markets with RBF – hype or hope?



Meeting Netiquette



1. Please mute yourself
2. If your internet connection is poor, switch to audio-only call
3. Ask questions in chat box, answers provided at end
4. Please indicate name/organisation and who it is addressed to
4. For technical questions during the call, write in the chat box



Agenda

Time	Agenda item	Presenter
10:00 – 10:05	Introduction	Barbara Richard, EnDev HQ (GIZ)
10:05 – 10:15	Welcome remarks: RBF Facility at a glance and key outcomes	Philip Mann, DFID Barbara Richard, EnDev HQ (GIZ)
10:15 – 10:25	Preliminary results from Market Transformation Survey	Geert Engelsman, Particip GmbH
10:25 – 10:35	Biogas in Vietnam: from subsidy-dependency towards a market driven sector	Bastiaan Teune, SNV Cambodia
10:35 – 10:45	Market Development of PAYGO Solar in Benin	Razvan Sandru, EnDev Benin (GIZ)
10:45 – 11:00	Discussion and Conclusion	

Today's Presenters



Philip Mann
Senior Energy
Advisor, DFID
p-mann@dfid.gov.uk



**Barbara
Richard**
Team Leader
EnDev HQ, GIZ
barbara.richard@giz.de



**Geert
Engelsman**
Associate
Consultant,
Particip GmbH
gengelsman@jalo.gisch.com

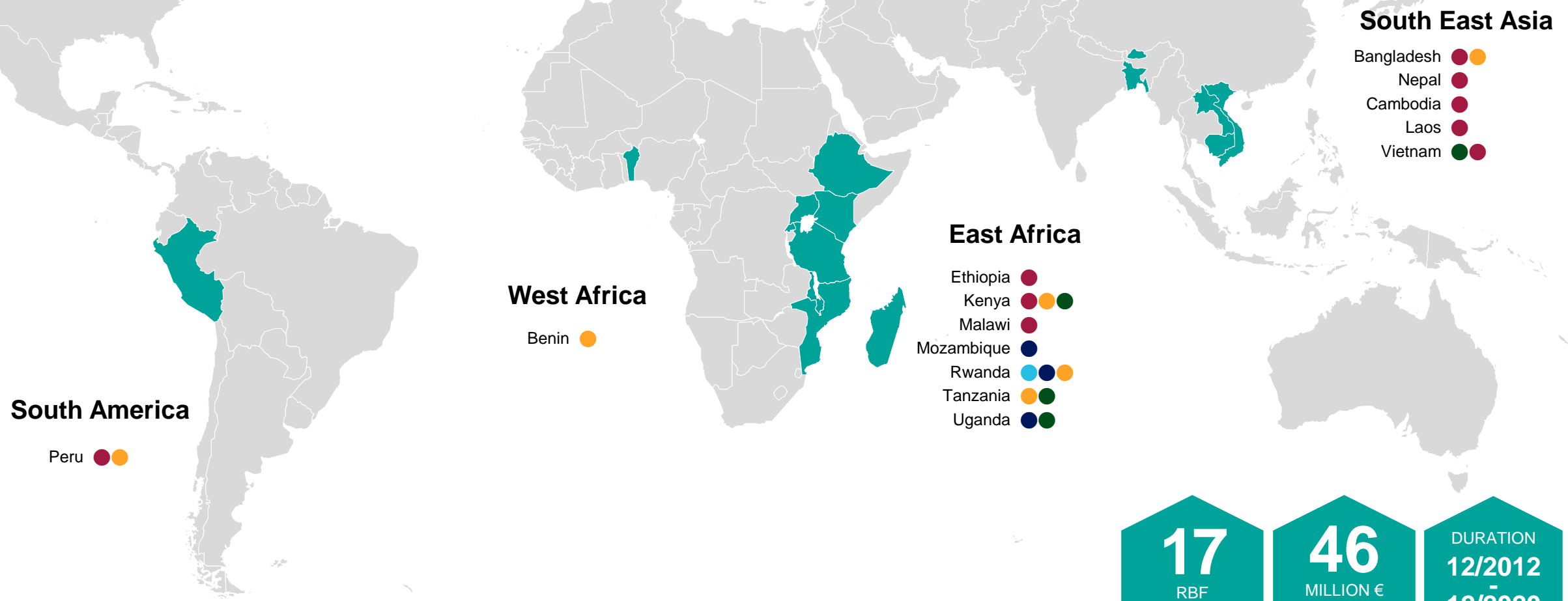


**Bastiaan
Teune**
Sector Leader
Energy, SNV
Cambodia
bteune@snv.org



**Razvan
Sandru**
Project Manager
GBE Benin
(former Solar
Component Lead
EnDev Benin,
GIZ)
razvan.sandru@giz.de

EnDev's RBF Facility financed by UK Aid at a glance



17
RBF PROJECTS

46
MILLION € VOLUME

DURATION
12/2012 - 12/2020

- Hydro
- Grid extension
- Cooking energy
- Solar
- Biogas

18 June 2020 – Geert Engelsman

Market Transformation Survey – presentation of preliminary results

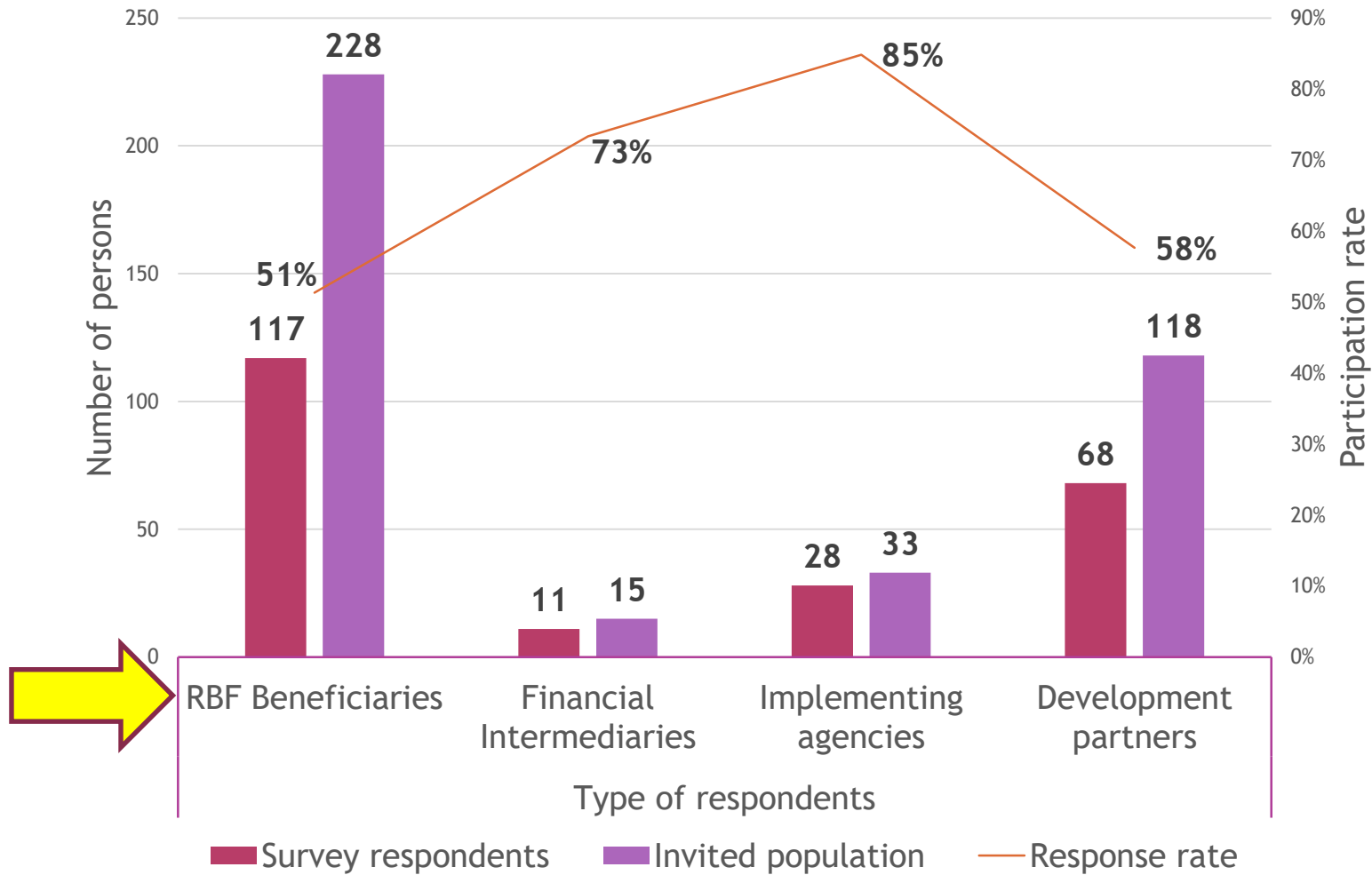


Purpose of the *online survey*

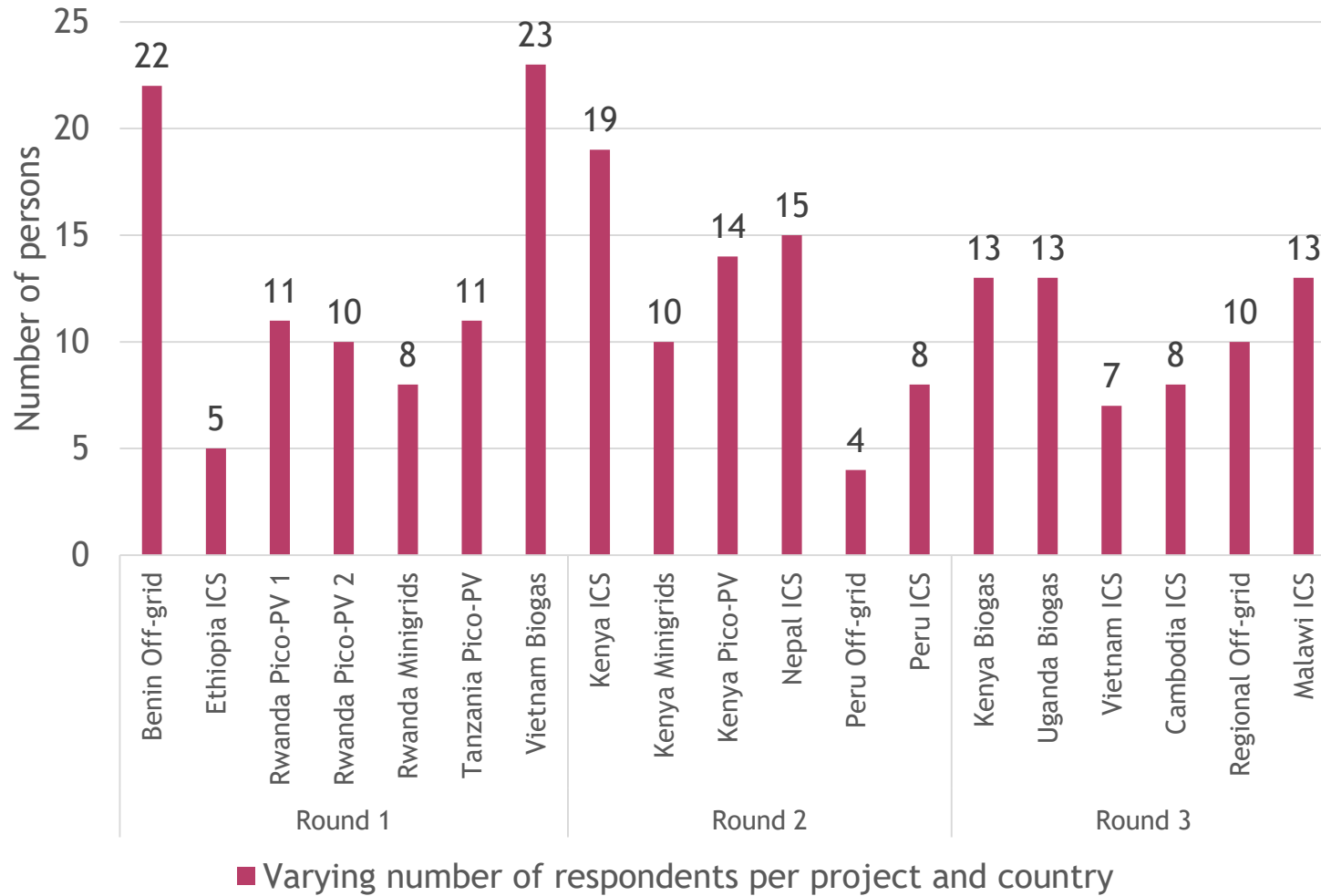
- ⦿ To help find out whether the RBF Facility accelerated the growth of commercially sustainable energy access markets for five renewable energy technologies:
 1. Improved cookstoves
 2. Biogas
 3. Pico-PV
 4. Off-grid appliances
 5. Mini-grids



Qualification: a relative insiders' view on market development and RBF ...



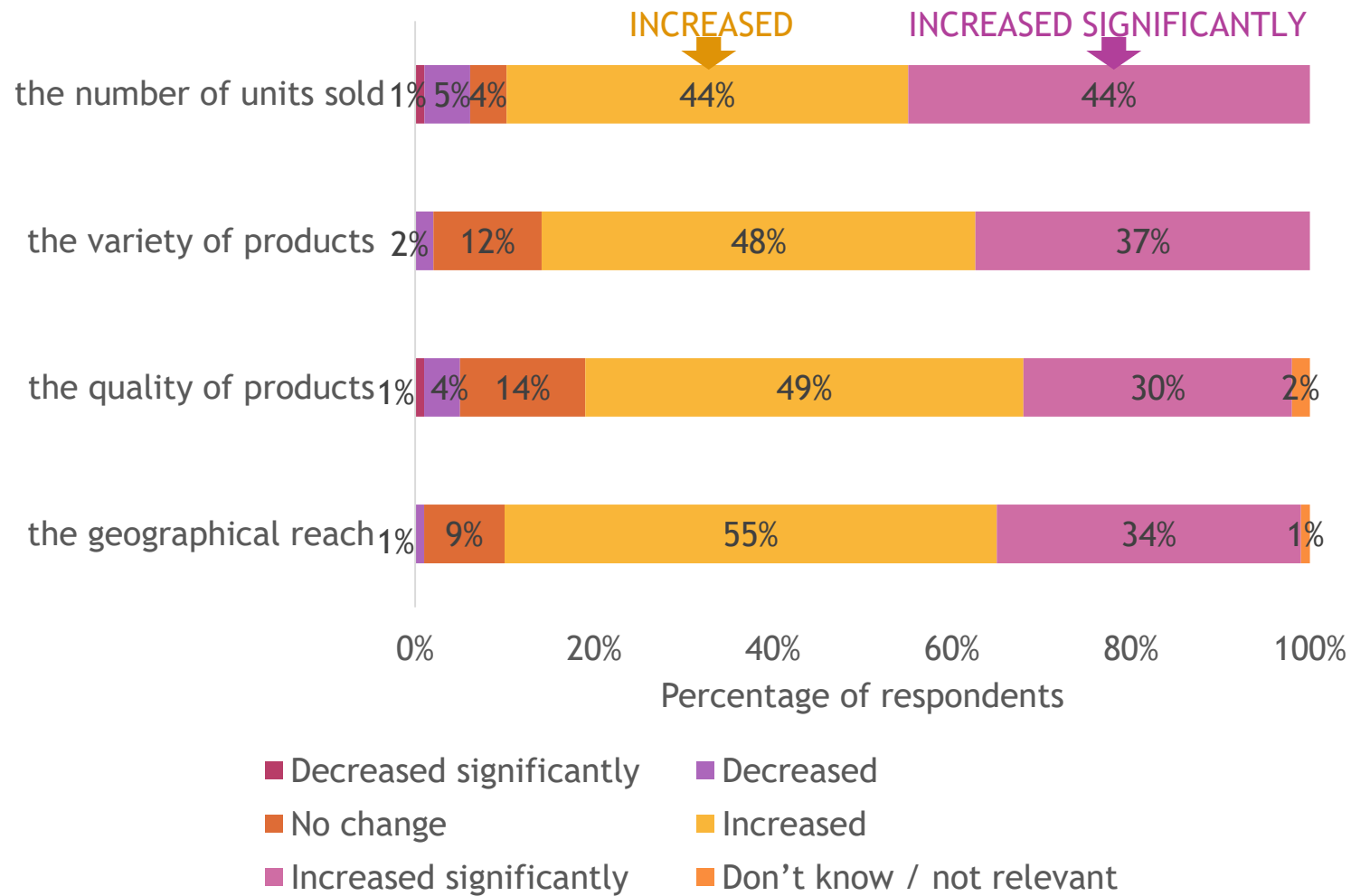
... that may not apply to each country and context.



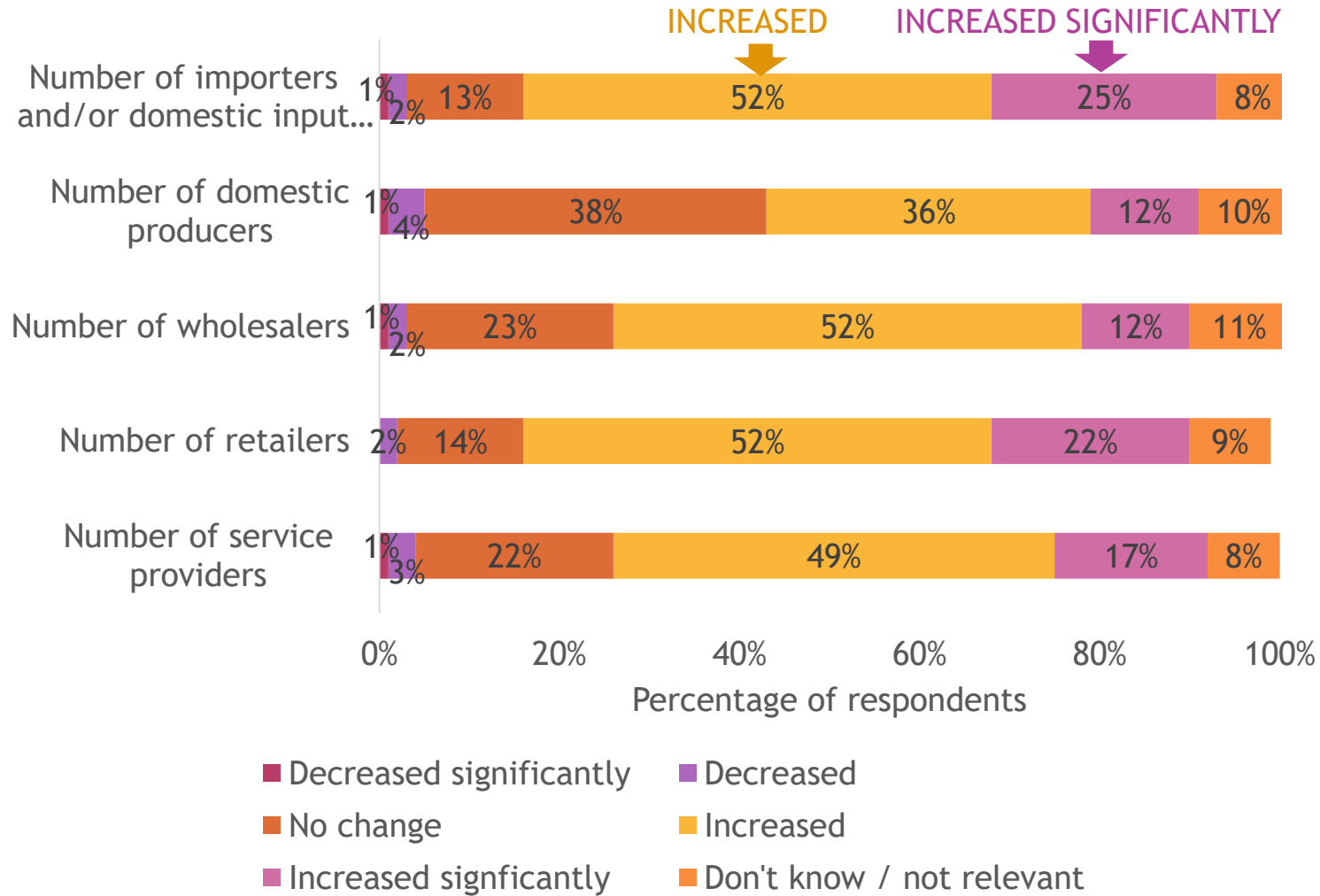
How have markets developed over the last five years irrespective of the RBF Facility's influence thereon?



Markets have expanded ...



... with an increase in market players throughout the value chain ...

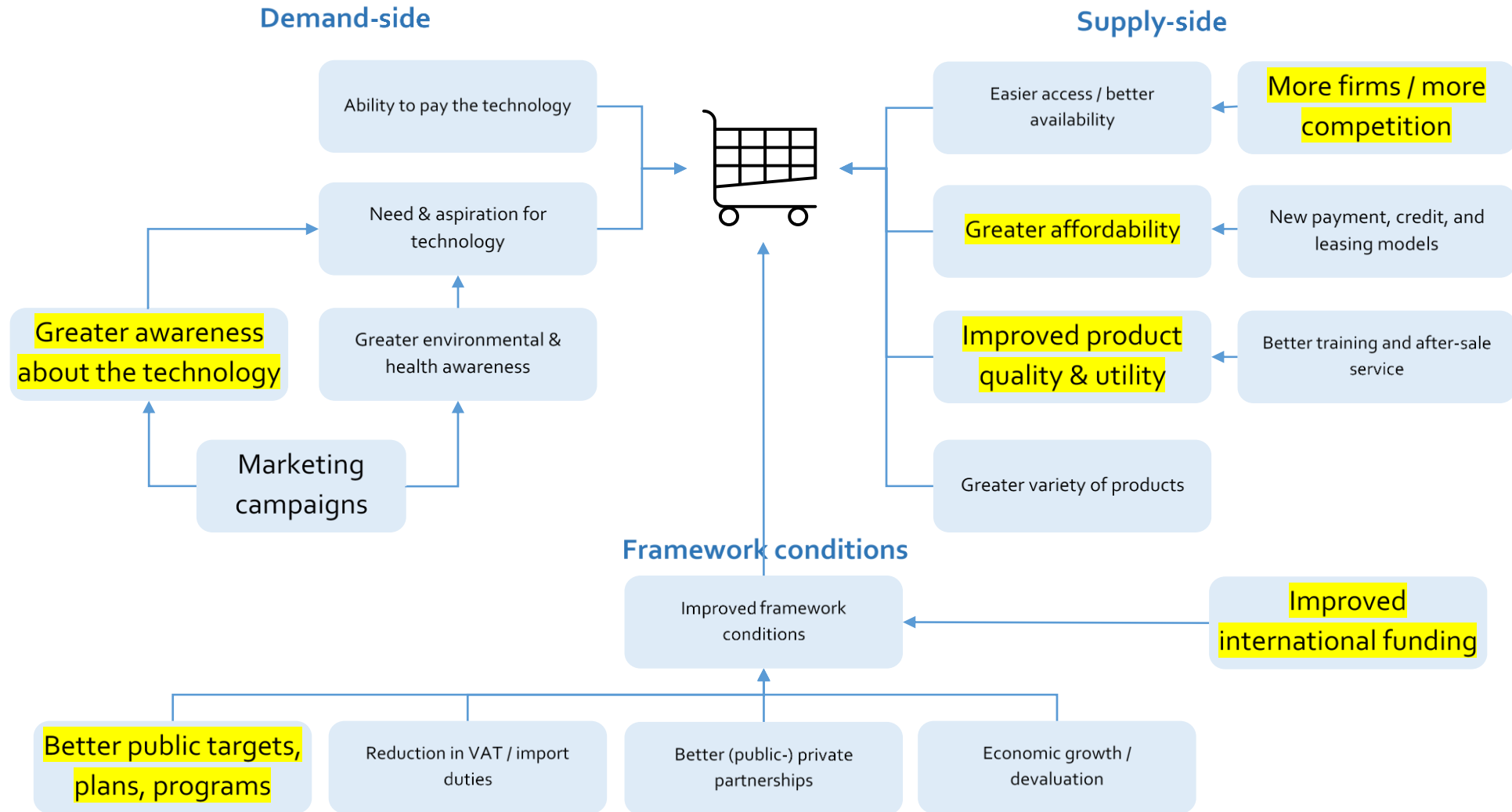


... except for domestic producers in pico-PV, off-grid appliances, and mini-grid markets.

Percentage of respondents observing a (significant) increase in:	Total	ICS	Biogas	Pico-PV	Off-grid	Mini-grid
the number of importers / domestic input suppliers	77%	73%	66%	85%	89%	76%
the number of domestic manufacturers	48%	78%	59%	6%	32%	24%
the number of wholesalers	64%	64%	59%	61%	77%	53%
the number of retailers	74%	75%	57%	83%	89%	65%
the number of service companies	66%	50%	72%	63%	89%	83%
	66%	68%	63%	60%	75%	60%



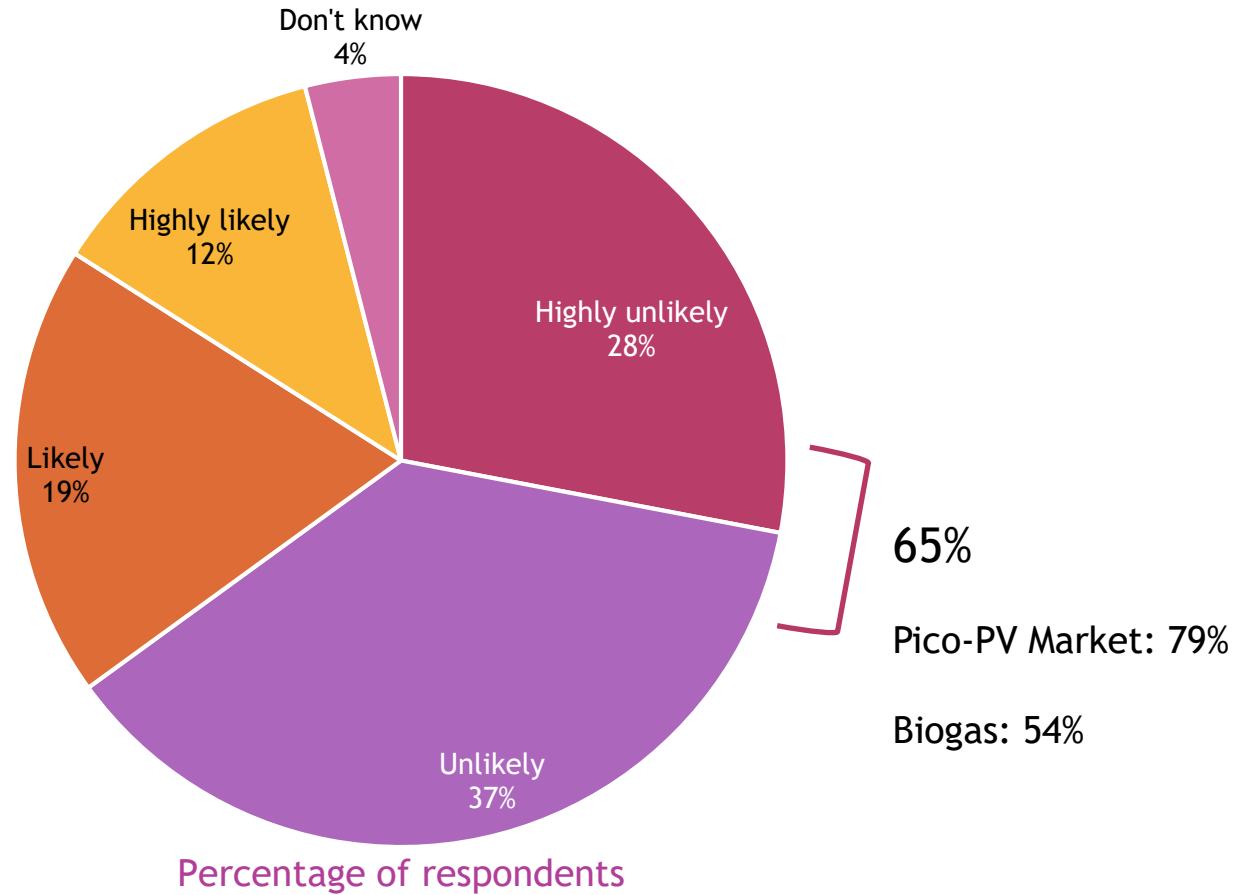
Reasons for market growth: an interplay between supply, demand and framework conditions



Note: The reasons mentioned more often are depicted in a larger font size (roughly along the scale: often, frequently, and sometimes)

Markets: not yet mature and sustainable

Can markets now grow and be sustained on their own?



Obstacles that remain

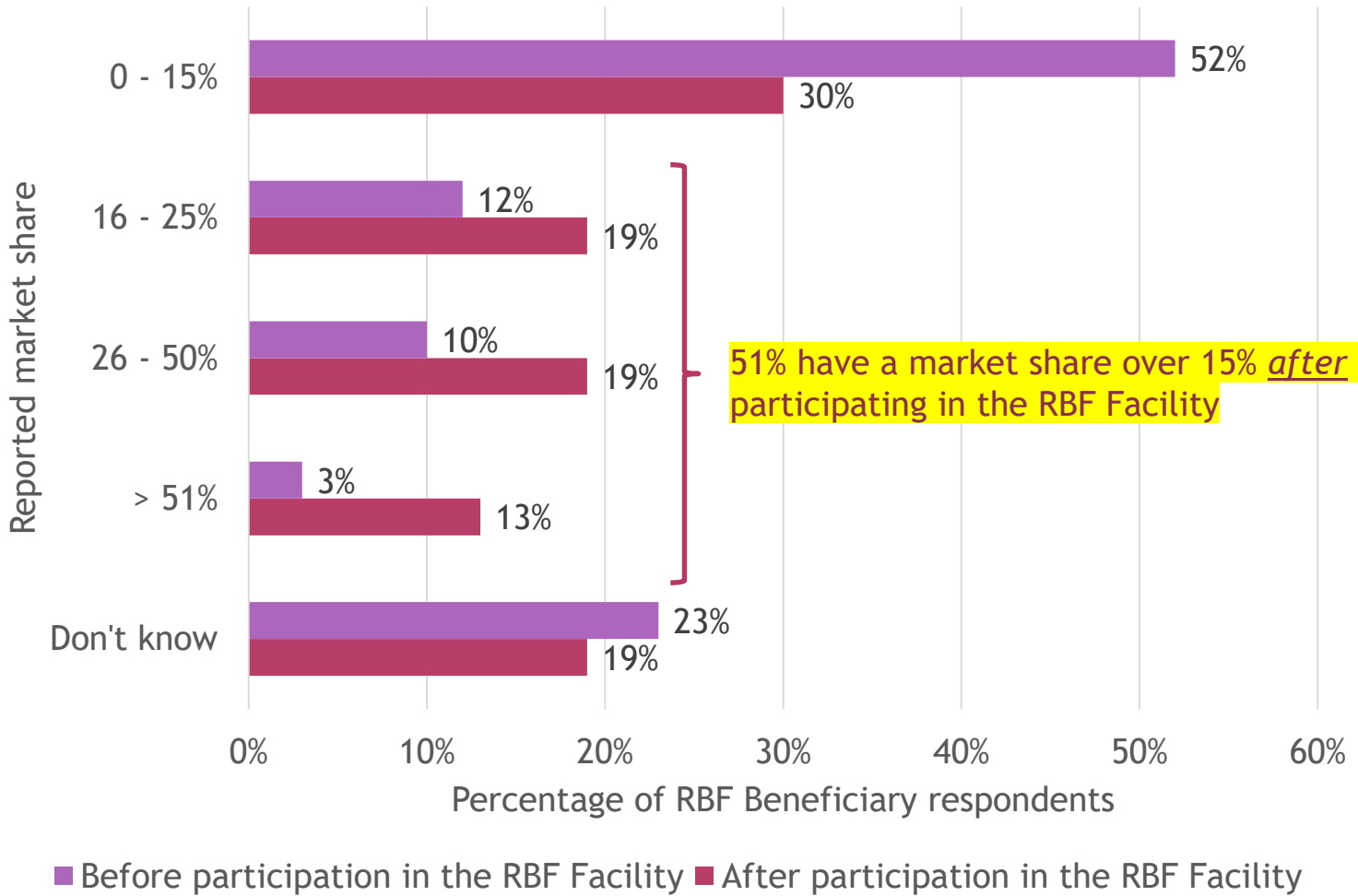
	ICS	BG	PPV	OG	MG
<i>Total number of respondents (145)</i>					
Affordability	✓	✓	✓	✓	
Product quality	✓		✓	✓	
Number of market actors	✓	✓			
Product's fit-for purposefulness	✓				
Customer awareness	✓	✓			
Environmental concerns		✓			
Regulatory Framework					✓
Access to capital	✓		✓	✓	
Market access / geographical remoteness of markets	✓		✓		
Electricity tariff					✓
Lack of productive use of electricity					✓



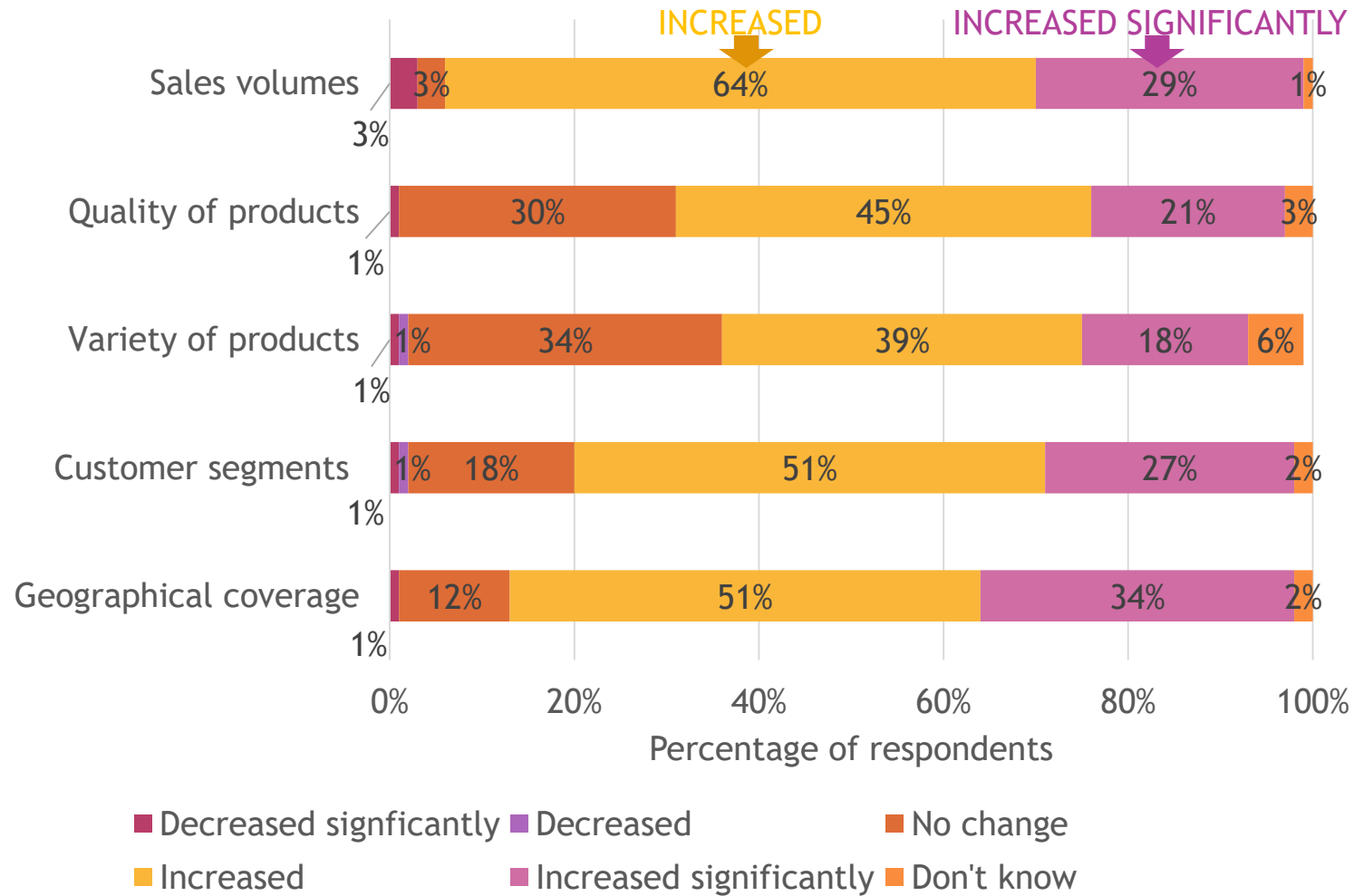
What is the RBF Facility's contribution to market expansion?

1. How have the RBF beneficiaries responded to the opportunity to earn incentive payments?
2. What affect did this have on their business?
3. Are the RBF beneficiaries big enough to make a difference in the market?

RBF beneficiaries are big enough to make a difference in the market ...



... and the RBF Facility helped them grow their business.



The RBF Facility helped beneficiaries expand operational expenditures ...

	Number of mentions
<i>Total number of respondents</i>	<i>(72)</i>
Offered additional income to pay for:	
expanding the distribution channels	22
increase marketing	11
scale production / sales	7
hold inventories	4
reduce the costs of production	2
general - no specifics provided	7
Other	
Reduce price and increase affordability of product to end-customer	9
Strengthen management, technical and marketing skills	9
Incentive sales agents and small-scale producers	7
Improve quality of products	6
Build supply chains	6
Allow for sale on credit	5
Strengthen after sales services and warranties	4



... rather than capital investments.

The RBF beneficiaries used the incentive payments to cover:	Number of mentions
<i>Total number of respondents (97)</i>	
Operational expenditures	
Marketing expenditures	34
Operational expenditures and working capital	18
Distribution and transport costs	20
Expand production, sales, and distribution network	14
Inventory and inputs	12
Price discounts for customers	8
Credit lines / PAYG modalities to retailers and customers	8
Incentives for employees, sales agents and small-scale producers	7
After sales services and warranties	7
Investment	
Scale (local) production	12
Training and capacity development	9
Product development / R&D	6
Invest in machinery and production space	6
Capital investments in mini-grid	6



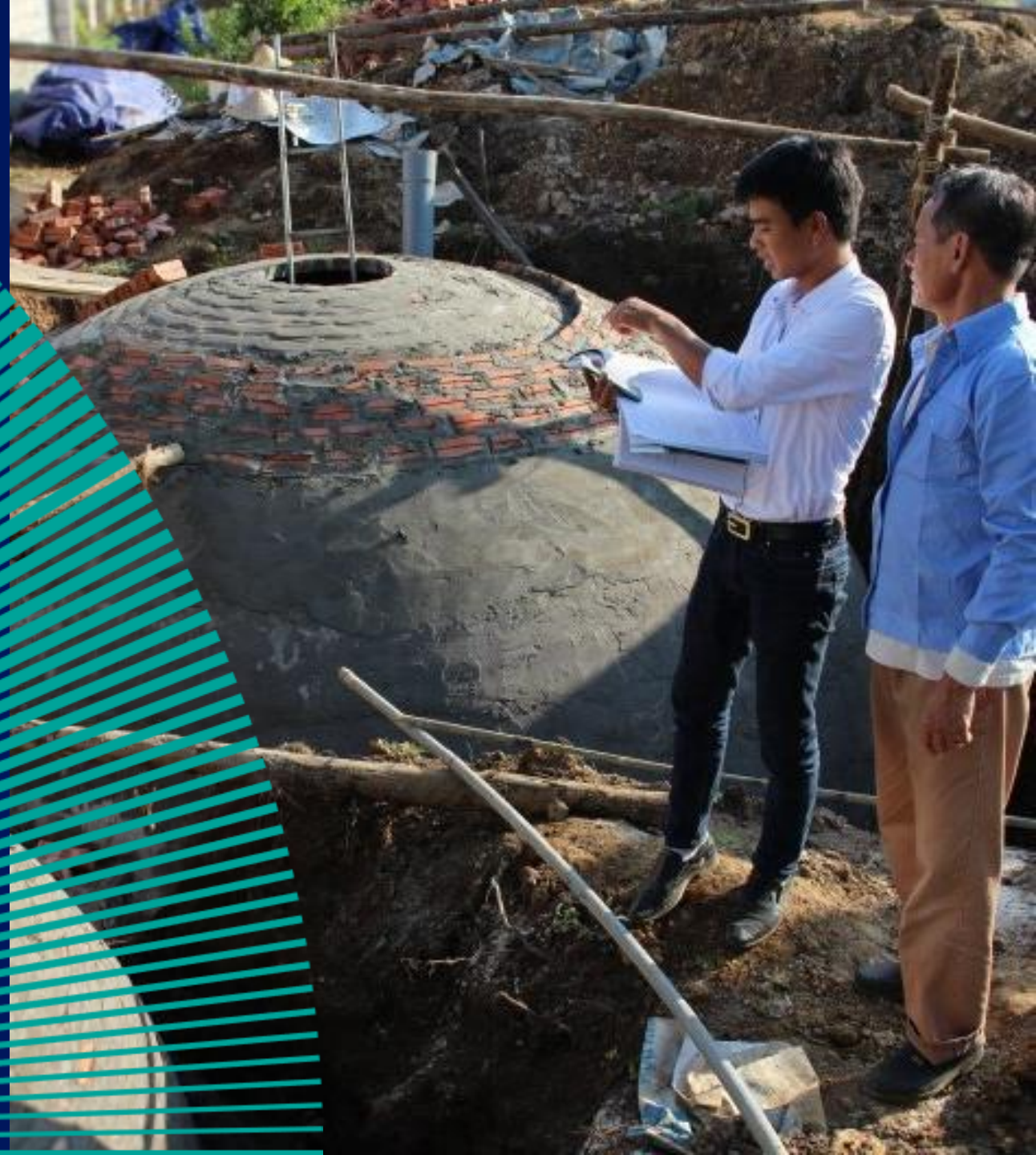
Conclusion

- ◉ *The RBF Facility contributed to business and market expansion*
- ◉ *Across the different technologies and irrespective of incentive type*
- ◉ *Market growth not yet self-perpetuating, because:*
 - *Market growth is complex, i.e. dependent on a complex interplay of demand, supply and framework conditions*
 - *The RBF Facility may not have invoked capital investments at scale and concomitant efficiency gains in production which would make the business more viable and create room for further investments*

Results-based financing: an effective but not sufficient instrument for market growth and commercially sustainable markets

18 June 2020 – Bastiaan Teune

RBF in the Biogas Market of Vietnam - Lessons Learned

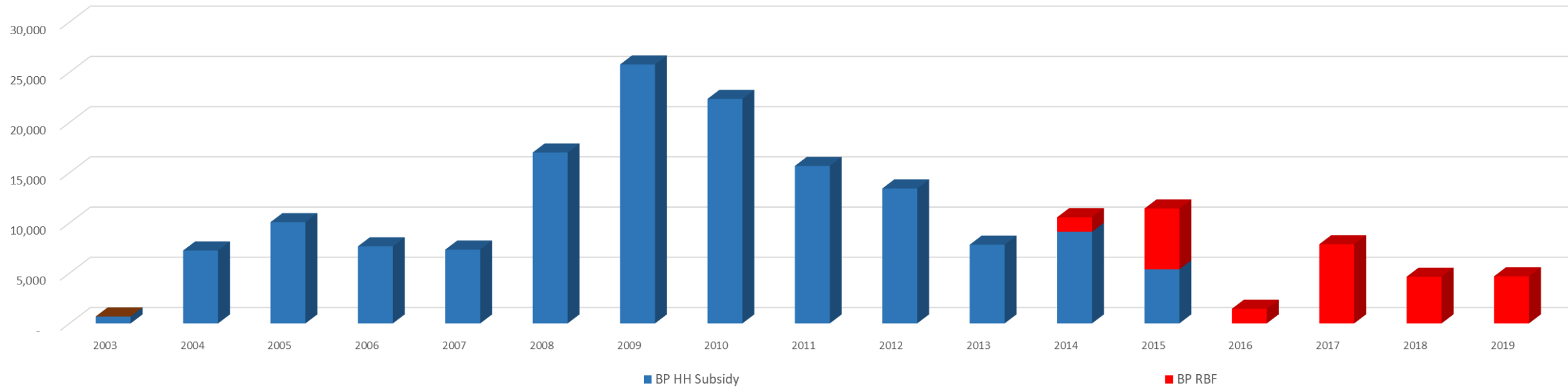


RBF Biogas Program – EnDev Vietnam

Please click [here](#) for the video

Biogas Programme Vietnam

Biodigester Sales Vietnam



Efficiency: cost after RBF

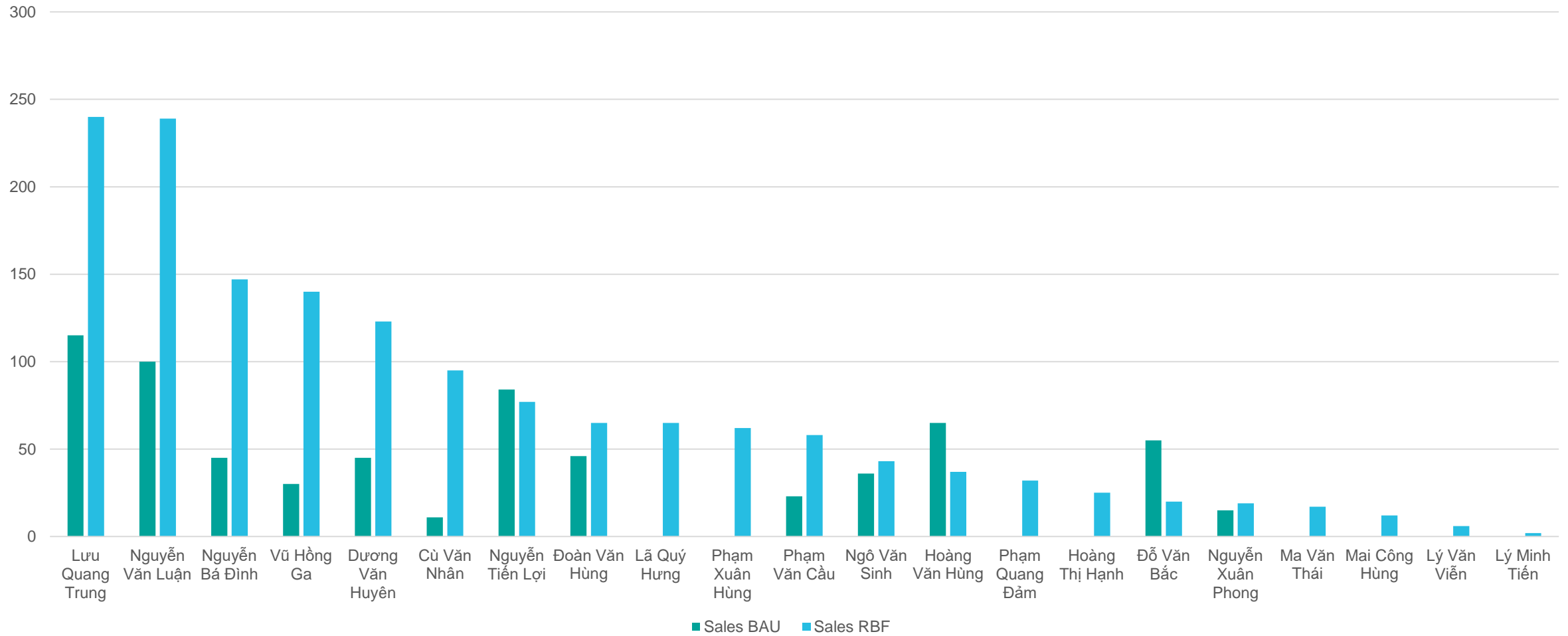
Year	2013	2017
Biodigesters sold	8,250	7,877
Subsidy vs RBF (~45 Euro)	€ 355,000	€ 367,094
Programme Costs	€ 620,000	€ 208,559
Programme Total	€ 976,000	€ 575,653
Programme Cost/digester	€ 118	€ 73
Difference		€ 45

Effectiveness: sales provinces

Province	HH Subsidy 2007 – June 2013 (6.5 years)		RBF 2014 – August 2018 (4.5 year)	
	Total	Annual	Total	Annual
Hanoi	4,280	658	4,072	905
Thai Nguyen	2,890	445	5,965	1,326
Vinh Phuc	4,266	656	2,923	650
Total	11,436	586	14,416	801

Effectiveness Business Growth: Sales Enterprises

Thai Nguyen Province



Challenges

1. Administration (PPP, Carbon Finance)
2. Low RBF incentive levels
3. Uneven distribution of RBF benefits

Opportunities

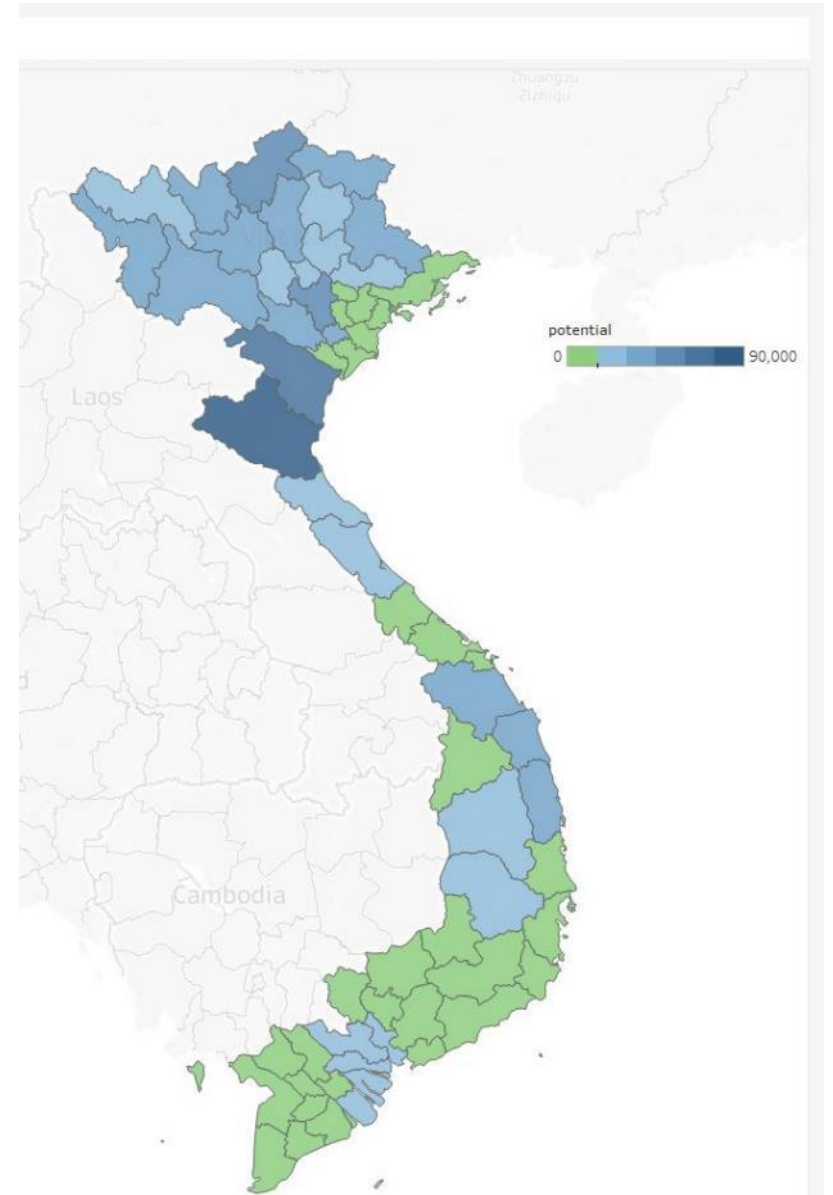
1. Feasible, Effective and Efficient
2. Scalable and Replicable
3. Technologies agnostic (as per RBF generic standards)

Hype

1. RBF is Feasible, Efficient and Effective
2. RBF Optimized Market Forces
3. RBF Regulated Quality and M&E

Hope

1. >1 mln Technical Demand
2. Market Self Propelling yet Dependent
3. Modest ODA Needed



Thank you for
your attention!

Felix ter Heegde
Sector Leader Energy
fterheegde@snv.org



Bastiaan Teune
Sector Leader Energy
bteune@snv.org

18 June 2020 – Razvan Sandru

RBF Benin Solar PicoPV Market Development



RBF as an approach for market transformation

- RBF incentives are the carrots that **nudge the private sector** into a certain direction (provided there are no other donors with competing schemes).
- Through the design of incentives, implementers can **encourage innovation / expansion / change** and partially cover the associated risks or costs:
 - Bonus incentives e.g. on credit sales, or for expanding to certain regions
 - Eligibility criteria e.g. certain quality standards, certain points of sales
- However, RBF has its **limits and prerequisites** (as it does not address the needs for technical assistance and facilitation, and it favours the strongest players).

State of the market before the RBF in Benin

- Before the onset of the RBF in 2014, the market was characterised by:
 - No international companies
 - High degree of uncertified solar products (lamps and SHS) being sold
 - Low volumes of sales
 - High percentage of sales of companies were actually to NGOs and others who distributed systems for free (non-commercial sales)
 - Mostly cash sales, no PAYGo and limited, almost informal, instalment options
 - Difficulties in importing solar systems and no tax exemptions for the sector
 - Limited interest of government actors in off-grid technologies

Adaptive rules and procedures that accompany the private sector

- Importation challenges and low financial capacities of companies -> RBF incentives paid for the importation and sale of systems
Only sales became eligible
- Non-commercial sales are a challenge for the long-term market sustainability yet important for the companies' bottom-line -> they were accepted but limited
Non-commercial sales became non-eligible
- Quality of products was a concern -> only Lighting Global certified products eligible
Certification requirement extended for SHS



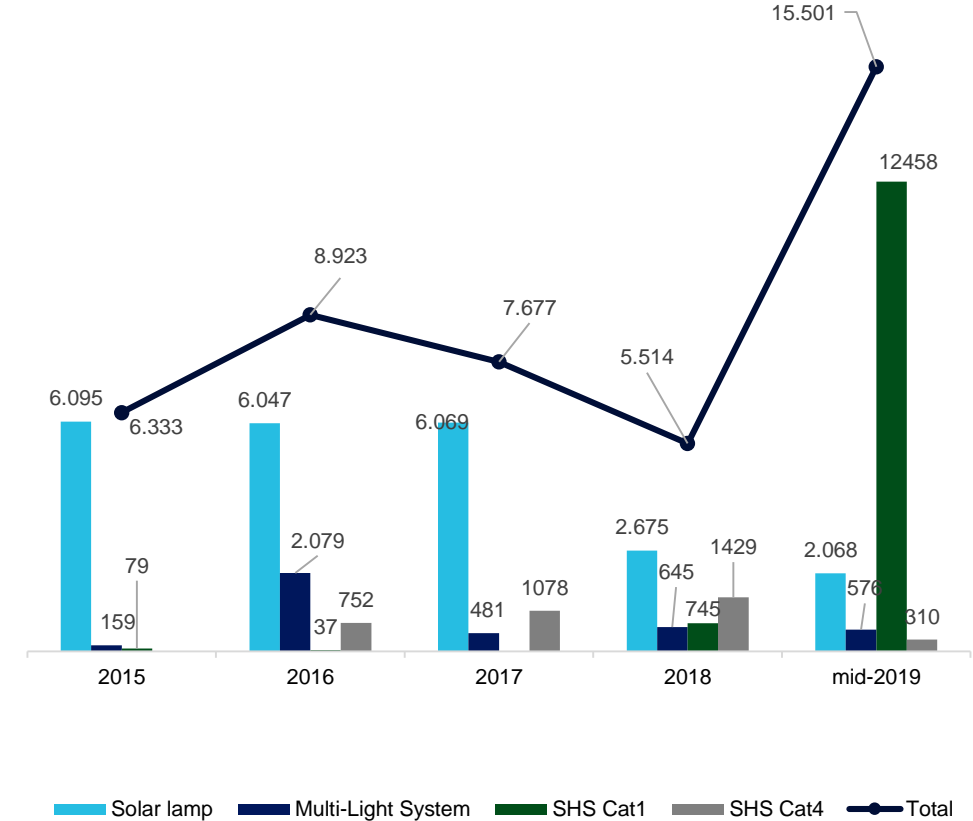
State of the market after the RBF in Benin

- As of 2019, the market was characterised by:
 - Three international companies (#1, #3 and #4 in the market)
 - Increased percentage of certified solar products (lamps and SHS) being sold
(but still hard to quantify, since EnDev only accepts certified products, therefore there is no data on the shops selling uncertified products)
 - Volumes of sales increased multiple times
(sales in 6 months of 2019 are 2.4x higher than the sales of all 2015)
 - 90% of sales are through PAYGo
 - Relative smooth importing and tax exemption for all solar equipment put in place by the government

Prerequisites for market transformation

Lessons Learned

1. The RBF should be designed as a mechanism accompanying companies.
2. The RBF needs to be simple, light, unbureaucratic. If you can't explain your RBF to your family in 30 seconds, you need to change your RBF.
3. It helps companies focus, if the RBF is the only financing mechanism available.
4. Enough competent and financially capable companies need to be on the market. It helps to have large, professional international companies with good financial backing.
5. The switch from a tender-based approach to a commercial customer-based approach takes time; and you might see a slump in sales before they go up again.



Evolution of sales under EnDev Benin for the period 2014 – mid-2019
(total : 43,949 systems)

For more information, see the upcoming publication on market development by EnDev Benin.

Encourage sustainable market transformation

- By weeding out the “grant companies” amongst the solar companies. The RBF needs to encourage companies to focus on their clients, investors and commercial funders, and not on donors.
- By reducing the need for subsidies, lowering incentives gradually and supporting the transition from grants to concessional loans
- By insisting on quality, certified products and facilitating the switch to modern approaches and technologies.



Impacts of the RBF

- RBF is an efficient subsidy mechanism with a **transfer of risks to the private sector**, therefore limited risks for the implementer (since results are first verified before incentives get paid).
- RBF puts the companies in the driver's seat on how they want to **spend their incentives** – most commonly for operational costs, paying commissions to agents or carrying out extra trainings.
- However, **local companies** with limited expertise and financial partners are forced out of the market quickly by international actors who are a perfect match for the RBF.
- **Data!** Due to the RBF verification, a wealth of data about both demand (customers, use of energy) and offer (companies) is collected and can be analysed to improve market intelligence (see upcoming publication of EnDev Benin on market development using this data).

Discussion

Transforming energy markets with RBF – **hype** or **hope**?

- Please ask questions in the chat box.
- Indicate name/organisation and who it is addressed to.

Conclusion



EnDev RBF Facility Webinar Series



#1 Transforming energy markets with RBF – hype or hope?

18 June 2020, 10:00-11:00 CET

Speakers:

- Philip Mann (DFID)
- Barbara Richard (EnDev HQ)
- Geert Engelsman (Particip GmbH)
- Bastiaan Teune (SNV Cambodia)
- Razvan Sandru (GIZ Benin)

#3 Verification in RBF projects – value for money or waste of time?

September 2020 (TBC)

Ways to design independent verification systems are manifold: from use of **digital technology** in the **Mekong** Region, to use of **Innovation** in the context of **Kenya**.

#2 Reaching the bottom of the pyramid with RBF – wishful thinking or reality?

July 2020 (TBC)

Different experiences targeting **vulnerable groups** will be shared from **Rwanda, Tanzania and Malawi** to help demystify some of the complexity around LNOB-approaches.

#4 Accelerating the off-grid appliance market with CLASP

October 2020 (TBC)

Providing energy access with the help of energy-efficient off-grid appliances: in the framework of the **Global Leap Award** from **Bangladesh to East Africa**; and with **e-cooking** in the future.



Our donors

Funded by:



Ministry of Foreign Affairs of the Netherlands



Coordinated by:



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Agency for Development
and Cooperation SDC



Netherlands Enterprise Agency



