Webinar

Digital global Biogas Cooperation

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Overview on European biogas technologies and adaptations to emerging/developing markets

Adaptations of European technologies (Insights from South Africa)

Webinar
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Alberto Borello – Fountain Green Energy

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About me

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Working for 17 years in the renewable energy market, climate change and waste industry for global engineering companies, currently leading an engineering firm in South Africa for the development of renewable energy projects and the reduction of greenhouse gases.

From 2017 Alberto serves as secretary general of SABIA and from May 2020 in the Council of the World Biogas Association.

SABIA
SOUTHERN AFRICAN BIOGAS INDUSTRY ASSOCIATION

WORLD BIOGAS ASSOCIATION

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Biogas plant in SA

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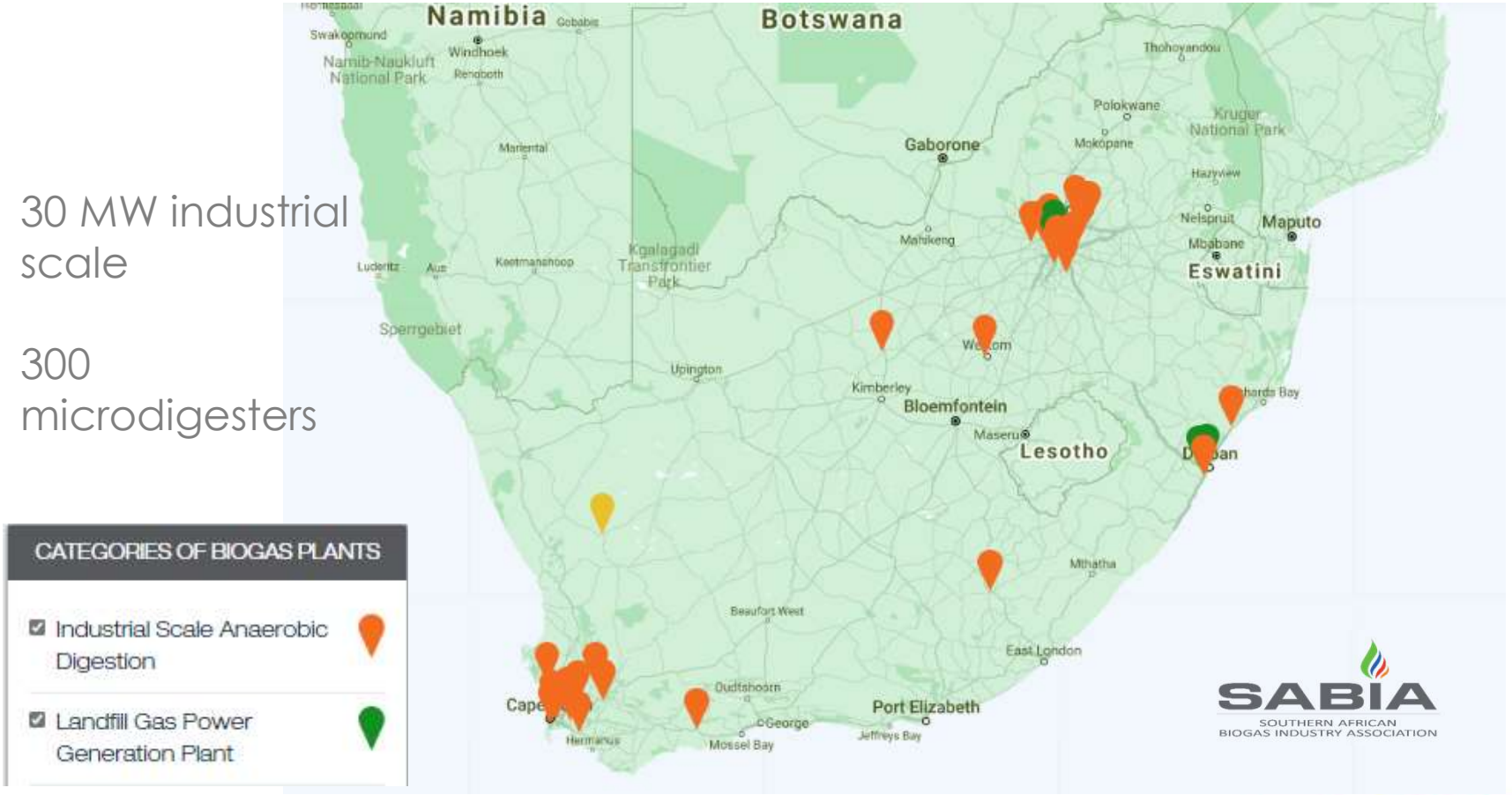
30 MW industrial scale

300 microdigesters



Source SABIA website, access on 20/7/2020

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Biogas plant in SA

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South Africa has been one of the leading countries in the world in the late 1970's and early 1980's for biogas digesters built at municipal Waste Water Treatment Works.

In 2006 first landfill gas to electricity project in Durban. 1st CDM project in Africa.

In 2014 a digesters at a WWTW in Johannesburg were refurbished and a 1.1MW biogas plant commissioned.

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Biogas projects – Microdigesters

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In-situ cast
Puxin Digester

Brick & Mortar fixed dome digester

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Biogas projects – Commercial

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AGRICULTURAL/INDUSTRIAL DIGESTERS:

- Lagoon Digester
- Plug Flow digester
- Complete Mix Digesters (CSTR)
- Up-flow Sludge Blanket Digester (UASB)

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Biogas projects – Commercial

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Anaerobic digestion from Municipal Solid Waste (MSW), agricultural waste products and waste water for the production of:

- Electricity
- Biomethane and CO_2

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Technologies (Insights from South Africa)

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Challenges

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Technology is available but is it applicable in a project in a developing country?

Is the local industry ready for that technology?

The latest technology is not always the solution

Accessibility of spare parts (time and costs)

Keep it simple!!

Must be flexible! (i.e. change in legislation)

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Challenges

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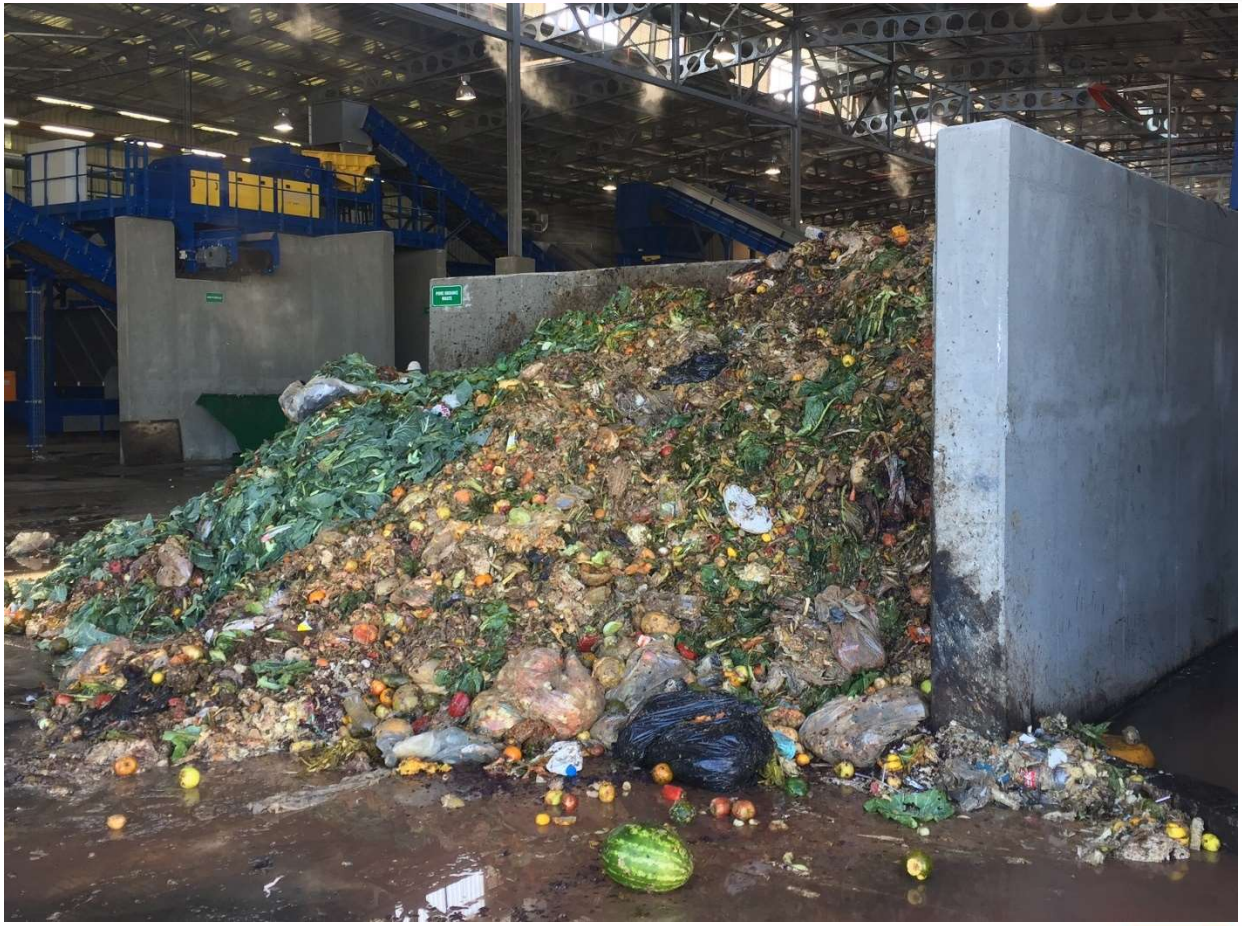

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Challenges

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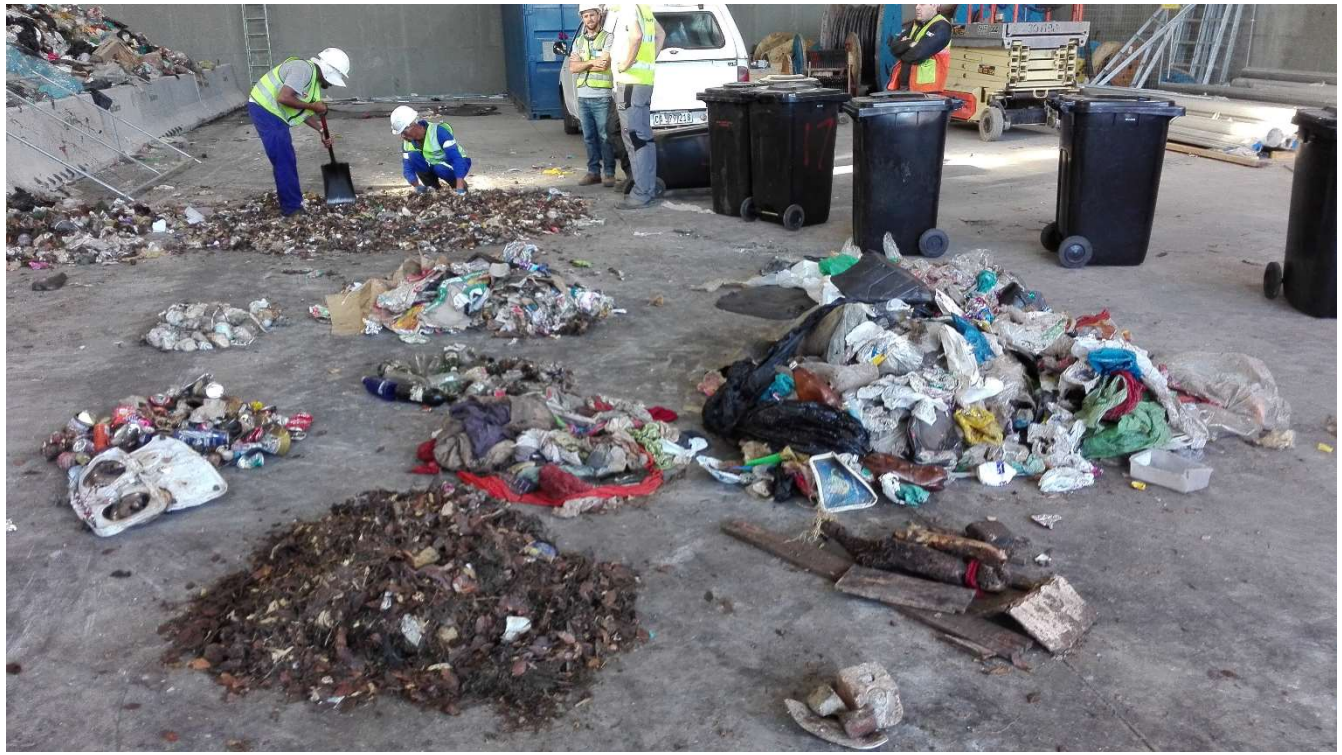

Will the content in % of organic change during the years?

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Challenges

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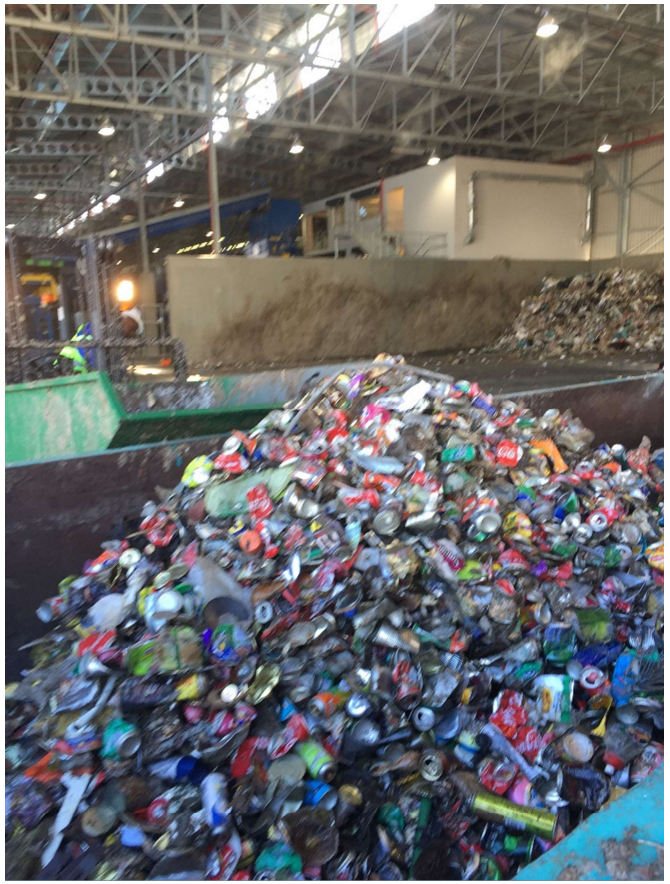
Who is responsible to choose the right technology?

Investor?
Developer?
EPC?
Plant owner?
The O&M team?

Who has the skills and the experience?

How and for how long the O&M team has been trained?

H&S, no shorcut!



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Challenges

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Recommendations

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The biogas technology is proven. It is important to create confidence and credibility to the investors.

No shortcuts during the development stage. Every problem can be fixed during the construction and during the operation, but at what cost?

The technology supplier must guarantee a local presence beyond the construction, through local partnerships.

The technology supplier is responsible as much as the client to the success of the project

The reputation damage due to an unsuccesful project is for everyone and for the whole biogas sector.

The technology supplier must offer training to transfer the skills to the O&M team, for a successull industry.

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albertob@fountain.co.za

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