

THE ABS  
CAPACITY  
DEVELOPMENT  
INITIATIVE



L'INITIATIVE DE  
RENFORCEMENT  
DES CAPACITES  
POUR L'APA

# 1<sup>st</sup> Regional Workshop on Marula Sector Development

## Setting the Scene

4<sup>th</sup> November 2019

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ABioSA project advisor

funded by



Federal Ministry  
for Economic Cooperation  
and Development



Schweizerische Eidgenossenschaft  
Confédération suisse  
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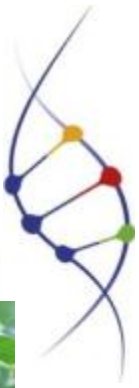
Swiss Confederation

Federal Department of Economic Affairs,  
Education and Research FAER  
State Secretariat for Economic Affairs SECO

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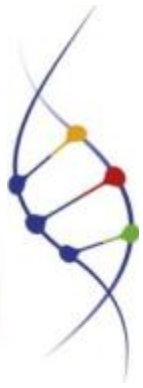
# Reflections on 1<sup>st</sup> National Marula Workshop In Pretoria, South Africa, 2<sup>nd</sup> July 2019



- Stakeholders: South Africa, research institutions, BSOs, SMEs, programmes and projects, government, plus representation from Namibia and Botswana
- Initial focus – sustainable supply chains, conservation, BMPs, resource assessments
- SDP was seen as critical
- Brainstorming on elements of a SDP
- “Wild harvesting” vs cultivation
- M&E, baselines, jobs, volumes and values, essential for a plan especially for funding a plan!



# Reflections on 1<sup>st</sup> National Marula Workshop In Pretoria, South Africa, 2<sup>nd</sup> July 2019



## Principles of a SDP

- *Charta of standards - sustainability*
- *Baseline and Targets, measure, achieve*
- *Under Southern African control*
- *Ensure ABS and other regulations/legislation compliance*
- *Poverty alleviation*
- *Empowerment*

## Issues to consider as part of the SDP goals

- Explicit reference to Nagoya Article 11
- Sustainable sector
- Enabling environment
- Push the sector development plan through BioPANZA
- Lead entities/organisation to sign off on the plan

## Objectives of a SDP

- Umbrella plan coordination
- Creation of a Marula industry association?
- Data collection and databases (baselines)
- Monitoring and evaluation

## Product innovation

- Product/Market diversification
- TL/IP
- Integration of communities
- Economies of scale (growth)

## Sustainable harvesting schemes

- Sustainable harvesting schemes
- Cultivation
- Of all marula tree “products”



## Activities related to the marula SDP

- Market research on product positioning
- Leveraging investments
- List of concrete activities

## Actors in the value chain

- Producers/Collectors
- Producers
- Users
- Technical supporters
  - Industry association (other)
  - Research technology producers
  - Technical quality infrastructure availability
- Government
  - Department of Trade and Industry
  - Department of Environmental, Forestry and Fishery
  - Department of Science and Technology
  - Government structure at regional level
  - Sub national structures
  - Agriculture rural development land affairs

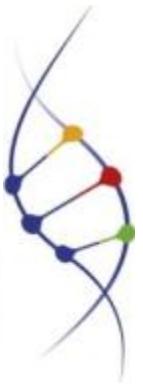
Bankable business plans

Funding agencies

Positioning branding

Marketing strategy

# Updates on EU market access work by ABioSA project, Component 1.1



- Cosmetic ingredients and products: gap analysis for compliance with REACH, CLP, EU Cosmetics – seed oils including marula
- Notes, South Africa soon to implement it's own regulatory scheme mirroring EU Cosmetics
- Regulatory experts presented findings last week

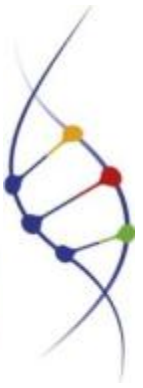


# Updates on EU market access work by ABioSA project, Component 1.1



- High levels of non-compliance, examples
- Now to develop plan to close gaps
- How to do this to create a sector-level impact instead on only a few SMEs
- Experts to suggest ideas, potentially to be incorporated into a sector development plan

# Updates on EU market access work by ABioSA project, Component 1.1



- Food ingredients: EU Novel Foods > USA FDA GRAS > China
- New regulation: (EU) No 2015/2283 – category for Traditional Food from a Third Country, documented history of safe use 25 years + including formal market trade data
- Marula fruit and nut/oil/press cake are the focus
- Specially tailored surveys three provinces in SA by UJ

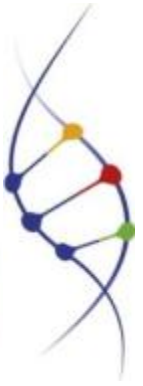
# Updates on EU market access work by ABioSA project, Component 1.1



- 360 scientific publications + reviewed by UJ and ABioSA
- 60 + general annotation on food use
- 25 specifically reviewed and annotated – chemistry and compounds of interest, safety, toxicity, anti-nutrients, animal studies, LD50s
- Selected, summarised, prioritised for expert



# Updates on EU market access work by ABioSA project, Component 1.1



- Good news, excellent supporting data on apparently safe traditional ethnobotanical uses, interesting chemistry for health applications
- Animal feed trails for cake and by-products contribute to assessment of safety





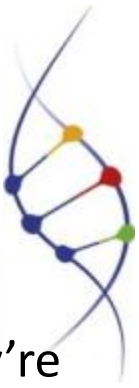
# Updates on EU market access work by ABioSA project, Component 1.1



- Less good news: some applications and levels of use in EU may exceed traditional use levels, LD50s may become relevant, also phytates, oxalates, hydrocyanic acid, tannins, nitrate,
- Traditional use of fruit mostly beer/cider, may not be sufficiently similar to new / intended uses
- Formal market trade data going back 25 years less easy to obtain, but work in progress
- Mention of “cyclo fatty acid” in fruit
- Possible toxic volatile compounds in skins, further expert opinion required



# Updates on EU market access work by ABioSA project, Component 1.1



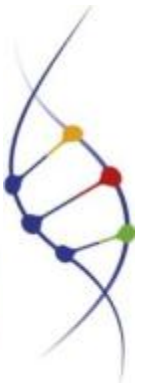
- Review of relevant EFSA technical reports and opinions, how they're interpreting new legislations and regulations
- EU Novel Foods Catalogue, anomaly, NCA UK, Austria, DG SANTE, other experts
- Yes, TF3C still looking possible, but also “not novel”, “substantial equivalence” and modified “full” application
- As with cosmetics, seeking sector level approach, next stage will include deeper engagement with producer groups, SMEs and industry

Meeting with consultant, potential plan being drafted now, 15<sup>th</sup> November 2019

Sector engagement including EU industry



# EU Novel Foods Catalogue



## *Sclerocarya birrea*

Common Names: Amarula, balsanowiec błękitnawy (PL), marula (FI) (CZ), Marulabaum (DE), maruula-elevandiõunapuu (ET), klanopraška čínská (CZ), Marula-fa (HU), Marula (LV), kaffirmarula (SE):

The Marula tree (member of the Anacardiaceae Family), grows mainly in the warm, frost-free regions of subequatorial Africa, and, with minimal rainfall, normally brings forth an abundant crop. Found at medium-low altitudes, in open woodlands and bush, this average-sized tree can be up to 10 metres tall.

**Only the use of the berries of *Sclerocarya birrea* as food or food ingredient is established in the EU.**

Status



[What does it mean?](#)

This product was on the market as a food or food ingredient and consumed to a significant degree before 15 May 1997. Thus its access to the market is not subject to the Novel Food Regulation (EC) No. 258/97. However, other specific legislation may restrict the placing on the market of this product as a food or food ingredient in some Member States. Therefore, it is recommended to check with the national competent authorities.

# Rationale for a Marula Sector Development Approach

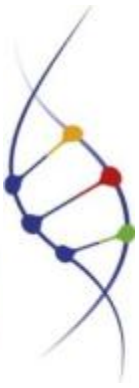


- Broader context: TMOP project 1990's, EWC, Southern African Marula Oil Producers' Network 2000, PhytoTrade Africa 2001-, Vision 2030 for the Namibia Marula Sector 2012, BioPANZA and other national efforts in South Africa current, NANCi, Botswana NPG, BIZ, but currently not coordinated strategy or plan focussed on marula – nationally or regionally
- Can a sector be efficiently developed to reach full potential without a sector development plan?
- Who would fund the development of a sector without a plan?

How would numerous small businesses, cooperatives address multiple and expensive hurdles without support and resources?



# Rationale for a Marula Sector Development Approach



- Positive examples: SA automotive sector, Macadamia, Almonds in USA, SA Olives
- Plans and strategies are easy: but are they executable? Do they have achievable targets? What instruments and modalities (RA, BMP, BCP, BSO, Hubs, Incubators, grants, TA) are best suited to implement the plan or strategy?
- Who, How, When?



# ABioSA species/products for cosmetic applications



Value chains / products	REACH EC 1907/200 6	CLP EC 1272/200 8	EU Cosmetics EC 1223/2009	China REACH	China 2015 IECIC	FDA GHS
Marula seed oil – refined and crude						
Baobab seed oil – refined and crude						
Mongongo seed oil – refined and crude						
Kalahari melon seed oil – refined and crude						
Ximения seed oil ( <i>X. americana</i> ) refined and crude						
Ximения seed oil ( <i>X. caffra</i> ) refined and crude						
Mafura butter ( <i>Trichilia emetica</i> ) – refined and crude						
Mafura oil ( <i>Trichilia emteica</i> ) – refined and crude						
<i>Lippia javanica</i> essential oil						
Rose geranium essential oil						
Helichrysum essential oil						
Buchu essential oil						
Cape camomile essential oil						
Rose geranium essential oil – folded or specific fractions						
Rose geranium infused water as by-product						
Rose geranium essential oil from other <i>Pelargonium</i> spp.						
Aloe ferox – crystals/powder						
Aloe ferox – leaf gel						
Aloe ferox – other products (tbc)						
Moringa seed oil (crude and refined)						
Buchu essential oil derivatives						

# ABioSA species/products for foods and beverages



Product	EU Novel Foods	FDA GRAS	China New Food RM
Marula fruit juice/extract	Defining standardized and stable product, overcome Muhammad et al, 2014.	If OK for EU NF then should be OK for FDA, expert panel opinion required	If EU Novel Foods OK then "only" acute toxicity /pathogenicity test, 2 X genetic toxicity tests and 28 day oral toxicity test required
Marula oil	Should be achievable	If OK for EU NF then should be OK for FDA, expert panel opinion required	If EU Novel Foods OK then "only" acute toxicity /pathogenicity test, 2 X genetic toxicity tests and 28 day oral toxicity test required
Kalahari melon oil	Should be achievable (but need to differentiate from "melon oil")	If OK for EU NF then should be OK for FDA, expert panel opinion required	Need to compare specification to other melon oils approved in China, and if EU Novel Foods OK then "only" acute toxicity /pathogenicity test, 2 X genetic toxicity tests and 28 day oral toxicity test required
Baobab seed oil	Would need to be refined oil to remove specific fatty acid	Would need to be refined oil to remove specific fatty acid	Same
Mongongo oil	Contains eleostearic acid, may present issues	Contains eleostearic acid, may present issues, but if OK with EU NF should be OK for FDA subject to opinion of expert panel	Same
Ximenia oil	Unusual fatty acids and limited traditional use may present too many challenges	Unusual fatty acids and limited traditional use may present too many challenges	Same
Mafura oil	If specific compounds are absent in oil then should be achievable, other may need to be refined	If OK with EU NF should be OK for FDA subject to opinion of expert panel	Same
Moringa oil	Need to confirm status	Need to confirm status	Same
Baobab fruit	Done	Done	"Only" acute toxicity /pathogenicity test, 2 X genetic toxicity tests and 28 day oral toxicity test required

**Thank you**

