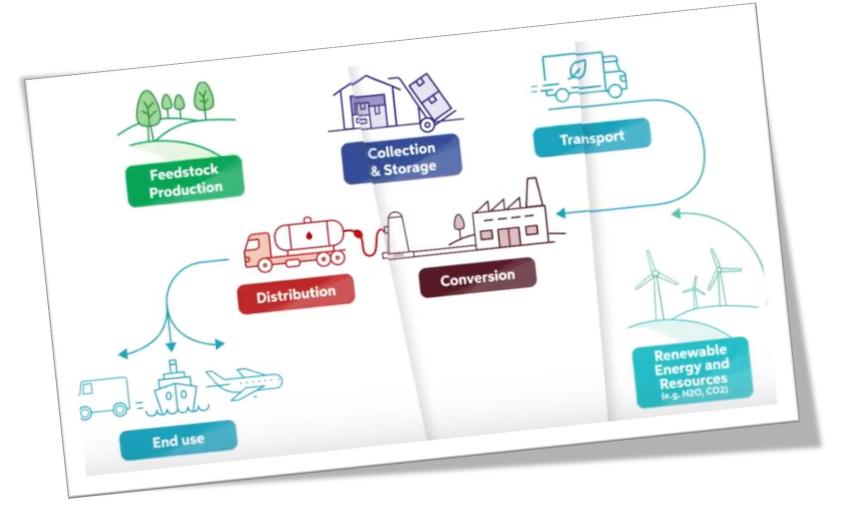


Katharina Sailer Philipp Grundmann Sonja Germer, ATB Brussels, 21.11.2018

# Upgrading value chains





Workshop questions



Q1:

What are favourable conditions when adopting innovations

Q2:

What strategies are necessary for successfully implementing those innovations?

Q3:

What is the value chain cost reduction potential of innovations?



# Workshop Session 2 Preparation



# Weeks before the workshop

- Information was extracted from published reports – as far as possible
- Additional information of innovation adoption was requested from projects

# Workshop Session 2 Questionnaire Results



#### **Lessons learned**

 Make it a co-business to supplement your acting business, so you can use already existing elements (e.g. land, machinery, workforce etc.) (FORBIO, 2018)



- Make long-term contracts for biomass feedstock supply with a biomass/ biogas/ bioethanol plant (ForBio, 2018)
- The plant should be within a radius of 50km (ForBio, 2018)
- Unexpected issues like extrem conditions must taken into account (Seemla- Greece, 2018)
- Do not expact fast results (Seemla- Ukraine, 2018)

Vineyards4heat: Prototype for doing the PRE-PRUNING with integratedshredder ning) Ukraine: Willow/poplar/ eat: paulownia on 1400 abandoned/low pranches productive land , shreds for wood chips ores them production it (Seemla) **Biomass** 

La Mancha & Fiusis: different value chains according to

size and type of pruning producers (uP\_running)

Direct cut and chip system (Seemla)

**ADVANCEFUEL** 

La Mancha: Process of cleaning inorganics from vineyards prunings (uP running) Fiusis: First known case of power production using only olive tree prunings as biomass (uP\_running)

Cultivation















Greece: Mid-term cutting every 3 instead of 10 years; final cutting every 21 instead of 50 years (Seemla)

Vineyards4heat: Public- private partnership business model (uP\_running)

Large scale miscanthus and hemp cultivation (Grace)

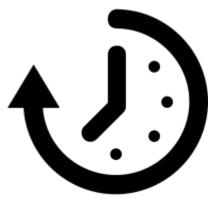


This proj

### Procedure



- 1. Tasks 1: (30 min, until 10:10)
- 2. Small survey (5min, until 10:20)
- 3. Task 2: (40 min, until 11:20)
- 4. Group presentations: 3 min/group, until 12:20



Tasks 1: (30 min, until 10:10)



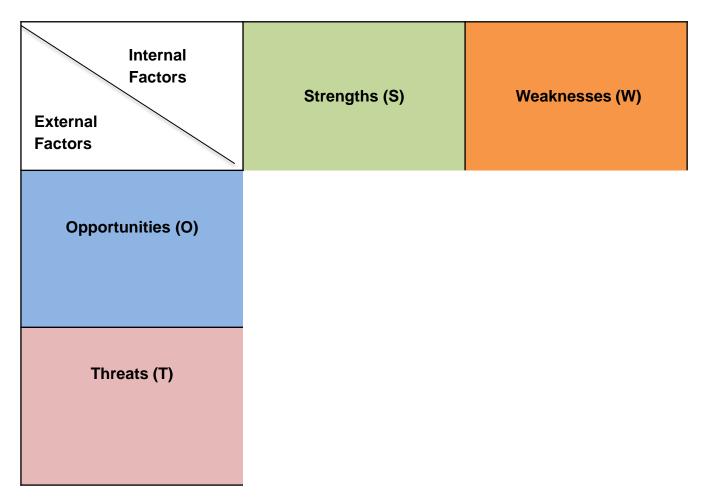
You are a farmer and you want to implement a value chain innovation. What strengths/ weaknesses/ opportunities and threats do you expect to face in the <u>process of implementing this innovation</u>?

You can use an innovation presented earlier or an innovation one of your team members is an expert on.



# Workshop Session 2 SWOT Analysis (Task 1)





Source: Rob Thomas, 2016



# Workshop Session 2 Internal Factors (SWOT)



**Strengths** 

### **Internal Factors**

Positive things about a situation, project, or activity which work well

Weaknesses

#### Internal Factors

Things which are not working well, or which could be done better

# Workshop Session 2 External Factors (SWOT)



**Opportunities** 

#### **External Factors**

Possibilities to build on strengths or overcome weaknesses

**Threats** 

### **External Factors**

Constraints which reduce the opportunities for growth or change

### Material (Task1)



- Guiding questions are available for each task
- Survey
- Cards (4 different colours)
- Blu-tack
- Poster with matrix
- Pencils

# **Guiding Questions (SWOT)**



# Strengths (S)

- What are internal success factors when implementing this innovation?
- Why should operators adopt this innovation(s)?
- What cost reduction potential does the innovation have?
   e.g. cost/ tonne of storage

# Weakness es (W)

- What are fields of improvement when adopting the respective innovation(s)?
- What are the largest expenditures?
- What are "fields of action"/ leverage points regarding innovation improvements?

# Opportuni ties (O)

- What trends or conditions may have a positive impact on the implementation of the respective innovation(s)?
- What external changes will bring optimal outcomes?
- What would be the ideal condition for the adoption of those innovations?

#### **Threats**

**(T)** 

- What are the barriers when adopting those innovations?
- Who are the competitors?
- What are the costs of resources?



# Form groups



Table Nr.	Project	Innovation
1	uP_running	Power production using only olive tree prunings
2	uP_running	Machine that shreds pruning and stores them in the deposit (modified Cobra Collina 1400).
3	uP_running	Flexi-chain depending on size and type of pruning producer
4	uP_running	Prototype for pre-pruning with integrated shredder. The branches do not touch the soil.
5	uP_running	Public-Private-Partnership Business model
6	Grace	Cultivating hemp and miscanthus on an industrial scale
7	Seemla	Cut and chip system
8	Seemla	Higher frequency of mid-term and final cutting
9	Seemla	Willow/poplar/paulownia on marginal land
10		Free option

# Workshop Session 2 SWOT Analysis Example



		ADVANCEFOEL
Internal	Strengths (S)	Weaknesses (W)
Factors	- Using of unused land	- High investments
External	- Cheap land rent	- High ROI
Factors		
Opportunities (O)		
- Subsidies		
- Monetization of		

#### Threats (T)

Not enough practical examples

know how sharing

Climate risks

Task 2: (40 min, until 11:20)



Please, identify strategies to facilitate the implementation process of the respective innovation(s)

(**TOWS analysis**). Proceed as follows: Mark the 3 most significant strengths/ weaknesses/ opportunities/ threats with a sticker and number them (e.g. strength 1, strength 2, and strength 3). Then, develop strategies according to the guiding questions below. Please, add in brackets which components you

matched (e.g. strength 2 & opportunity 3).

# Workshop Session 2 TOWS Analysis (Task 2)



Internal Factors External Factors	Strengths (S)	Weaknesses (W)
Opportunities (O)	SO Strategies	WO Strategies
	Generate strategies here that use threngths to take advantage of opportunities	Generate strategies here that take advantage of opportunities by overcoming weaknesses
Threats (T)	ST Strategies	WT Strategies
	Generate strategies here that use strengths to avoid threats	Generate strategies here to minimise any weaknesses to avoid possible threats

Source: Rob Thomas, 2016



# Workshop Session 2 Guiding Questions (TOWS)



#### Strength/Opportunity (SO).

Develop strategies to use strengths in order to exploit opportunities.

#### Weakness/Opportunity (WO).

Develop strategies to mitigate weaknesses in order to exploit opportunities.

### Strength/Threat (ST).

Develop strategies to exploit strengths in order to overcome any potential threats.

#### Weakness/Threat (WT).

Develop strategies to minimise any weaknesses to avoid possible threat.

# Workshop Session 2 TOWS Analysis Example



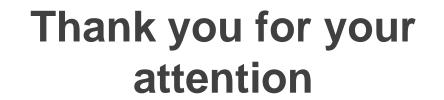
Internal	Strengths (S)	Weaknesses (W)
Factors	Using of unused land	High investments
External	Cheap land rent	High ROI
Factors		
Opportunities (O)	SO Strategies	WO Strategies
<ul><li>Subsidies</li><li>Monetization of know how sharing</li></ul>	<ul> <li>Improving marginal land cultivation by introducing professional guidance</li> </ul>	Engage in public debate
Threats (T)	ST Strategies	WT Strategies
<ul> <li>Not enough practical examples</li> </ul>	<ul> <li>Establish information channels with experts</li> </ul>	Form public-private partnerships
Climate risks	Share success stories	

Final Task: (1h), until 12:20



Present your results to the audience.







#### References

AGROinLOG, 2018, <a href="http://agroinlog-h2020.eu/en/home/">http://agroinlog-h2020.eu/en/home/</a>

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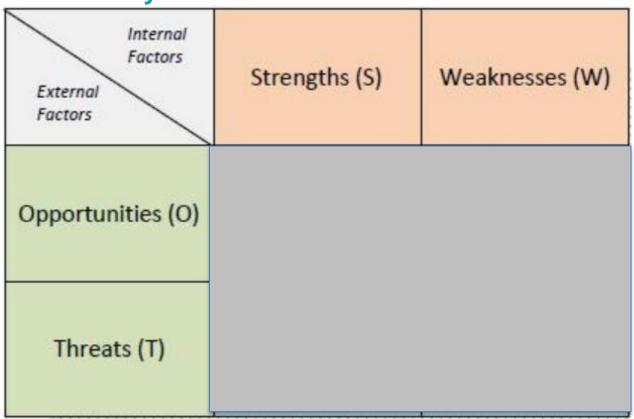


### **Session 2**

### 1. Task



### **SWOT Analysis**



Source: Rob Thomas, 2016



### **ADVANCEFUEL WORKSHOP**

# Presentations of study cases





Highlights from **uP\_running** project

**Project duration:** 04/ 2016- 06/ 2019

Speaker: Adeline Rezeau



Highlights from **Grace** project

**Project duration:** 06/ 2017- 05/ 2022

**Speaker: Moritz Wagner** 

### **Session 2**

### 2. Task



### **TOWS Analysis**

Internal Factors External Factors	Strengths (S)	Weaknesses (W)
Opportunities (O)	SO Strategies Generate strategies here that use strengths to take advantage of opportunities	WO Strategies Generate strategies here that take advantage of opportunities by overcoming weaknesses
Threats (T)	ST Strategies Generate strategies here that use strengths to avoid threats	WT Strategies Generate strategies here that use minimize weaknesses and avoid threats

Source: Rob Thomas, 2016



# **ADVANCEFUEL WORKSHOP Session 2**



#### **After the presentations:**

Please, form groups (á 3-4 persons)

Tasks 1: (40 min, until 10:20)

 Conduct a SWOT analysis on a promising value chain innovation. Hereby you can use an innovation presented earlier or an innovation one of your team members is an expert on.

### Task 2: (40 min, until 11:20)

 Conduct a TOWS analysis. Derive upgrading strategies for the value chain from the SWOT analysis.

#### Task 3: (1h), until 12:20

- Present your results to the audience



### **Session 2**



### **TOWS Analysis- Example**

Internal Factors	Strengths (S)	Weaknesses (W)
External	- High brand recognition	- Lack of skills/
Factors		experience
Opportunities (O)	SO Strategies	WO Strategies
-Enter new market	-Offer a wide product	- Outsource some
	range to react flexible to	aspects of the business
	market prices	operations
Threats (T)	ST Strategies	WT Strategies
<ul> <li>Market competition</li> </ul>	-compare product head-	- Develop strategic
	to-head to competitors to illustrate benefits	alliances



# **ADVANCEFUEL WORKSHOP**

**Up\_running: Innovation Screening** 



Fiusis: First known case of power production using only olive tree prunings as fuel

Vineyards4h
eat: Cobra
Collina 1400
machine that
cuts the
branch and
push the
biomass to
the container
without
touching the
soil

La Mancha:
Process of
cleaning
inorganics
from
vineyards
prunings

La Mancha:
Biomass-tomarket
business
model, direct
marketing,
continous
search for
clients and
new markets

Vineyards4h eat: Boiler that burns forestry woodchips and vineyard prunings

Biomass Cultivation





Logistic Chain



Processing



Marketing



Vinehyards4pruning: Public- private partnership business model between the COVIDES farmers association (50 farmers), gardening service social cooperative (NOU VERD), the municipal water company of Vilafranca (EMAVSA), and the Cavas Vilarnau windery La Mancha: Largest wood pelleting plant Ukraine:
Cropping on
abandoned/low
productive land
(Seemla)

# **ADVANCEFUEL WORKSHOP Session 2**



Italy: Sun hemp, kenaf, hemp, sorghum, crop residues, giant reed(BeCool)

chip system (Seemla)

Biomass Cultivation

Harvesting

Logistic Chain

Processing Marketing

End use

Greece: Fertilization (Seemla) Greece: Midterm cutting (Seemla)

Ukraine: Bioethanol production from willow (ForBio, 2018)



**Italy: Sun** hemp, kenaf, hemp, sorghum, crop residues, giant reed(BeCool) Ukraine: Willow/poplar/ paulownia on abandoned/low productive land

### **ADVANCEFUEL WORKSHOP**

**Up\_running: Innovation Screening** 



Vineyards4h eat: Cobra Collina 1400 machine that uts the anch and ush the omass to

> e container Direct cut and chip system uching the (Seemla)

> > Chain

La Mancha: Process of cleaning inorganics from vineyards prunings

Biomass-tomarket business model, direct marketing, continous search for clients and new markets

764799.

La Mancha:

Vineyards4h eat: Boiler that burns forestry woodchips and vineyard prunings

Biomass Cultivation

for wood chips

production

(Seemla)

Harvesting

Sil



**Processing** 



Marketing

End use

Greece:

Fertilization (Seemla)

Greece: Midterm cutting (Seemla)

ithout

Ukraine: Bioethanol production from willow (ForBio, 2018)

Vinehyards4pruning: Public- private partnership business model

Largest wood pelleting plant

La Mancha:

### **ADVANCEFUEL WORKSHOP**

### **Questionnaire Results**



