

Ecosystem services in value chains: Our strategy for the preservation of orchard meadows

International Agroforestry Conference
Plenary 4: Agroforestry markets, products, added value



Our mission: Preservation through cultivation

- More awareness for orchard meadows
- More awareness for orchard meadow products
- More consumer-oriented products as a result
- More value creation for farmers
- NEW sources of value creation





















Orchard meadows in Europe: worth preserving?

Graphics: fullnessdesign, C.A. Klemisch, Korbinian Fleischer



Orchard meadow: traditional, cultural, diverse

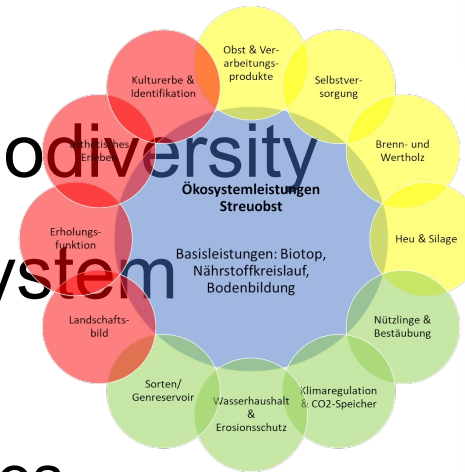
Arable crop mit wheat and maize		Modern agroforestry system (ASF) Nut trees for timber production and arable farming		Traditional AFS (orchard meadow) High-stemmed cherry trees	
					
	7.25		11.28		17.71
	4.96		5.67		12.90
	8.17		9.90		17.10
	7.83		9.60		16.00
	4.81		12.52		16.25
	4.68		5.98		18.75
	4.68		5.87		18.75
	3.23		6.11		14.49
	4.87		7.39		19.81
	1.79		2.41		5.66
	1.67		1.67		4.60
	5.55		6.79		21.19
	5.38		6.64		19.31
	2.37		2.73		5.75
	0.00		0.00		0.00
Total species occurrence					
6.54		7.98		13.10	



Source: Kay et al. (2019)

Orchard meadows are worth preserving. Therefore.

- Orchard meadows are already there in European landscape
- It is living diversity: high level of biodiversity
- It creates values for people: ecosystem services
 - Strongly pronounced: cultural services
 - It is (intangible) cultural heritage
 - Which modern agroforestry system already offers this today?



Graphic: C. A. Klemisch

What's the challenge?

Many ecosystem services and
biodiversity
VS.
low profitability

**What are ways to monetarize
ecosystem services from orchard
meadows in practice?**



Graphic: Korbinian Fleischer

Four ways of rewarding for cultivation

- Via state funding programs (agri-environmental)
 - Ecosystem services for society
 - Via product sales (food, services)
 - Traditional (conventional) market
 - Premium market
 - Via sale of ecosystem services certificates
- Combinations also possible

public
funding

„conventio
nal“ market

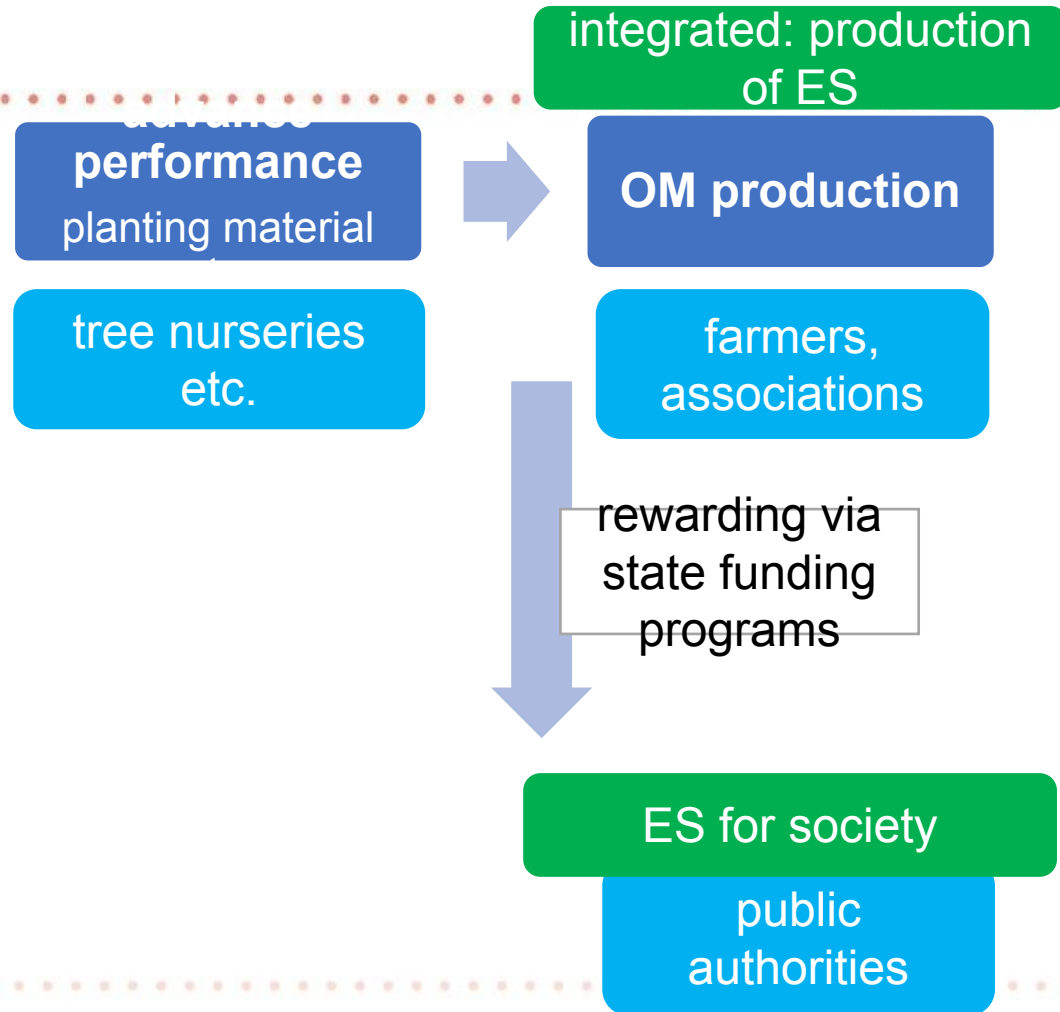
„premium“
market

market for
ES
certificates

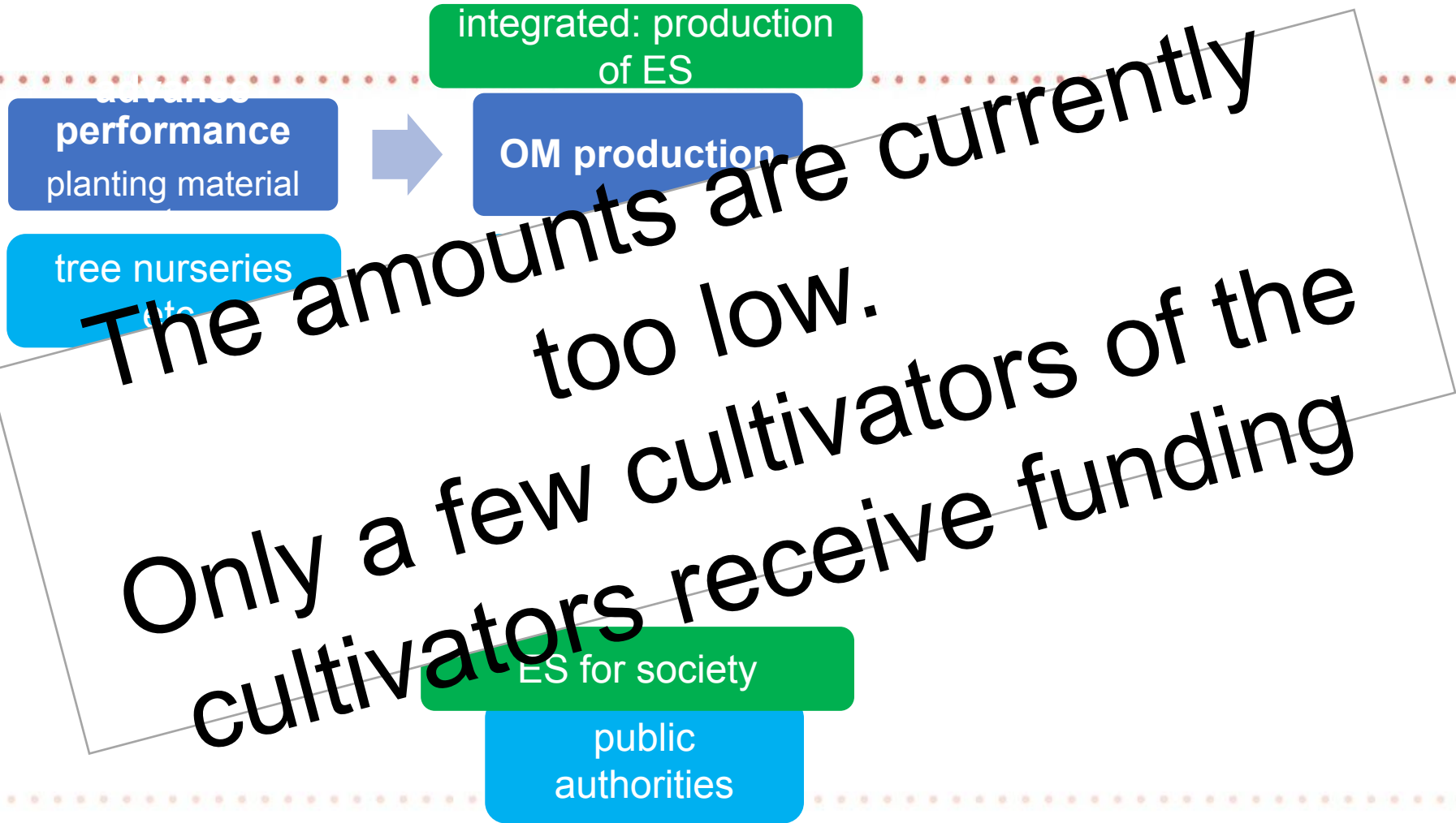


Bilder: Korbinian Fleischer

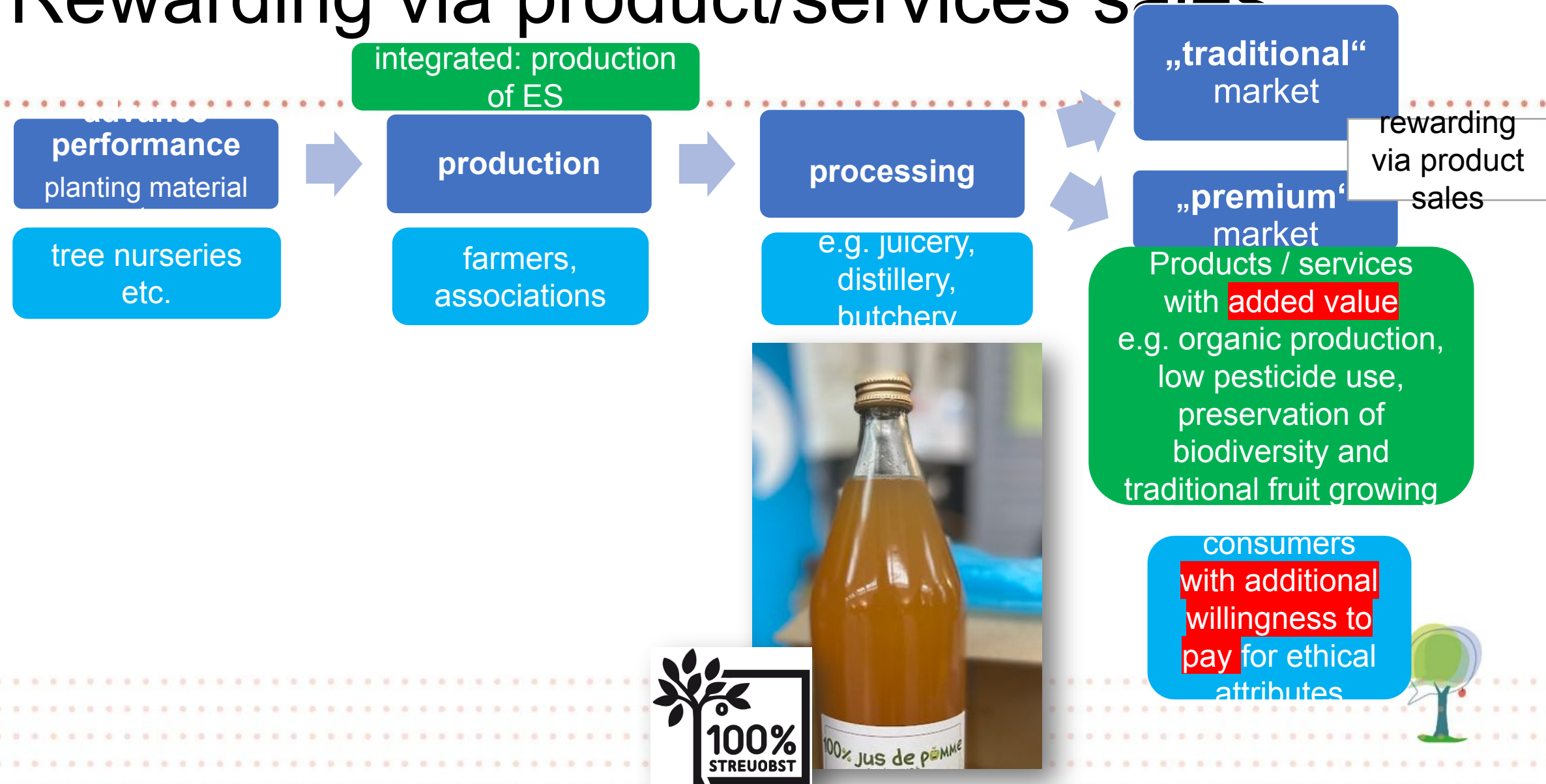
Rewarding via state funding programs



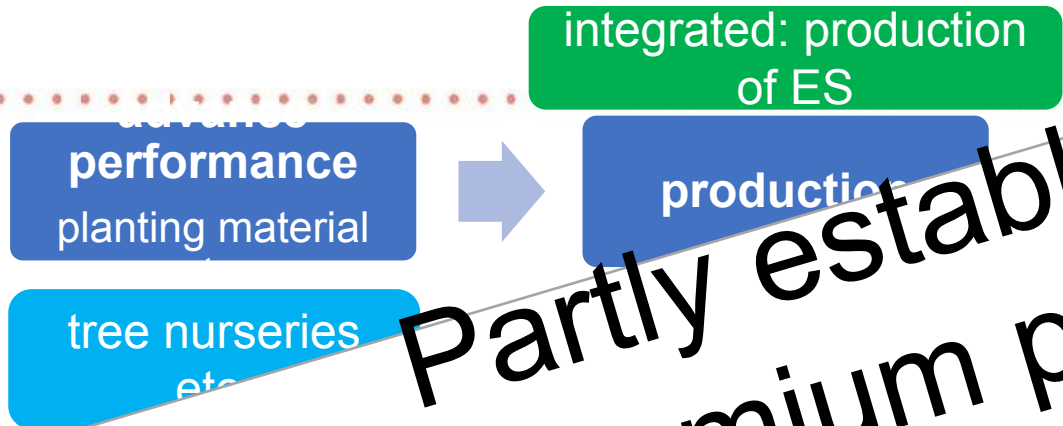
Rewarding via state funding programs



Rewarding via product/services sales



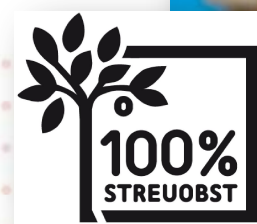
Rewarding via product/services sold



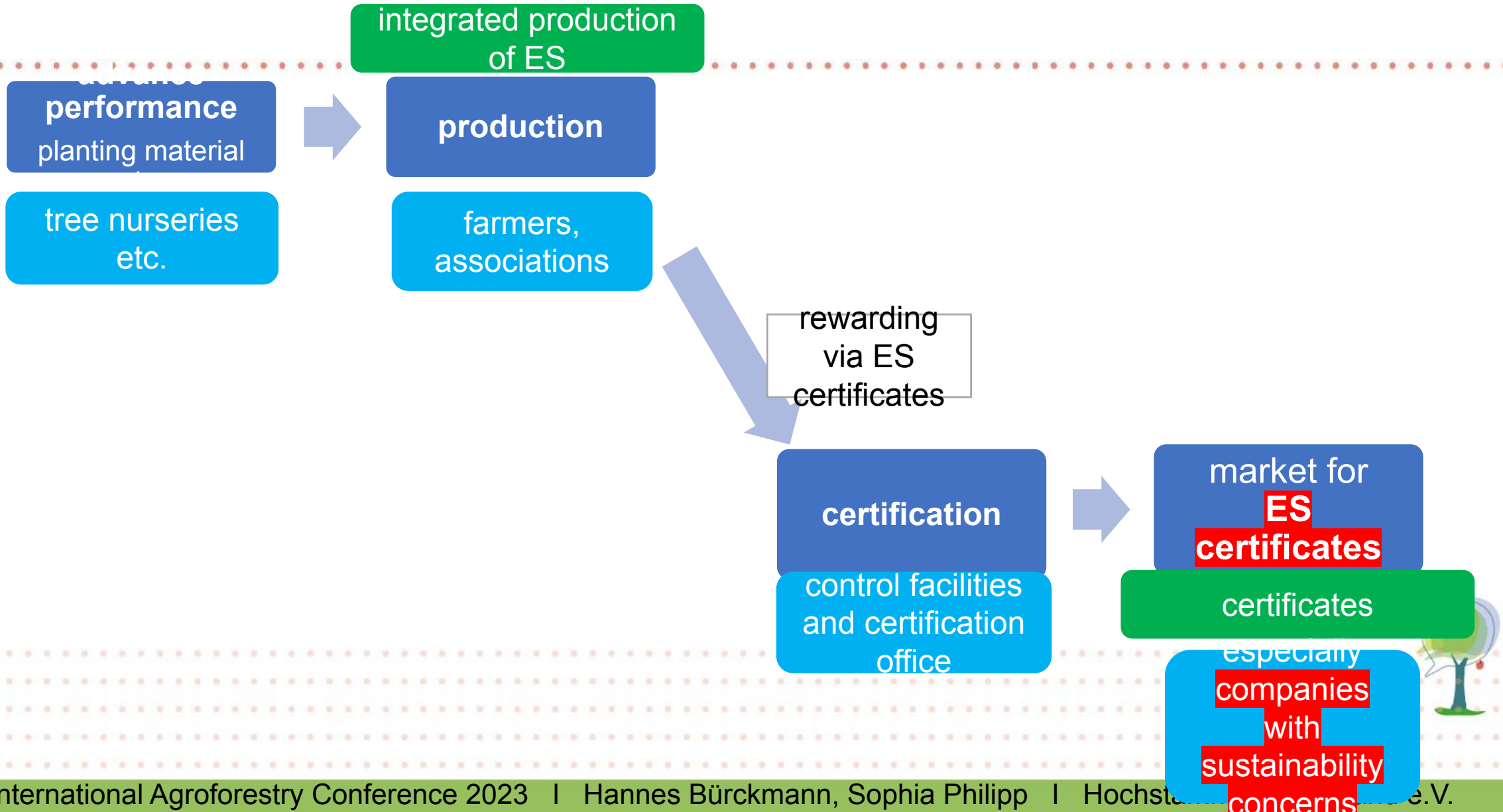
- Partly established, but:
 - for premium prices: marketing knowledge required
 - limited share of consumers with additional willingness to pay

... of biodiversity and traditional fruit growing

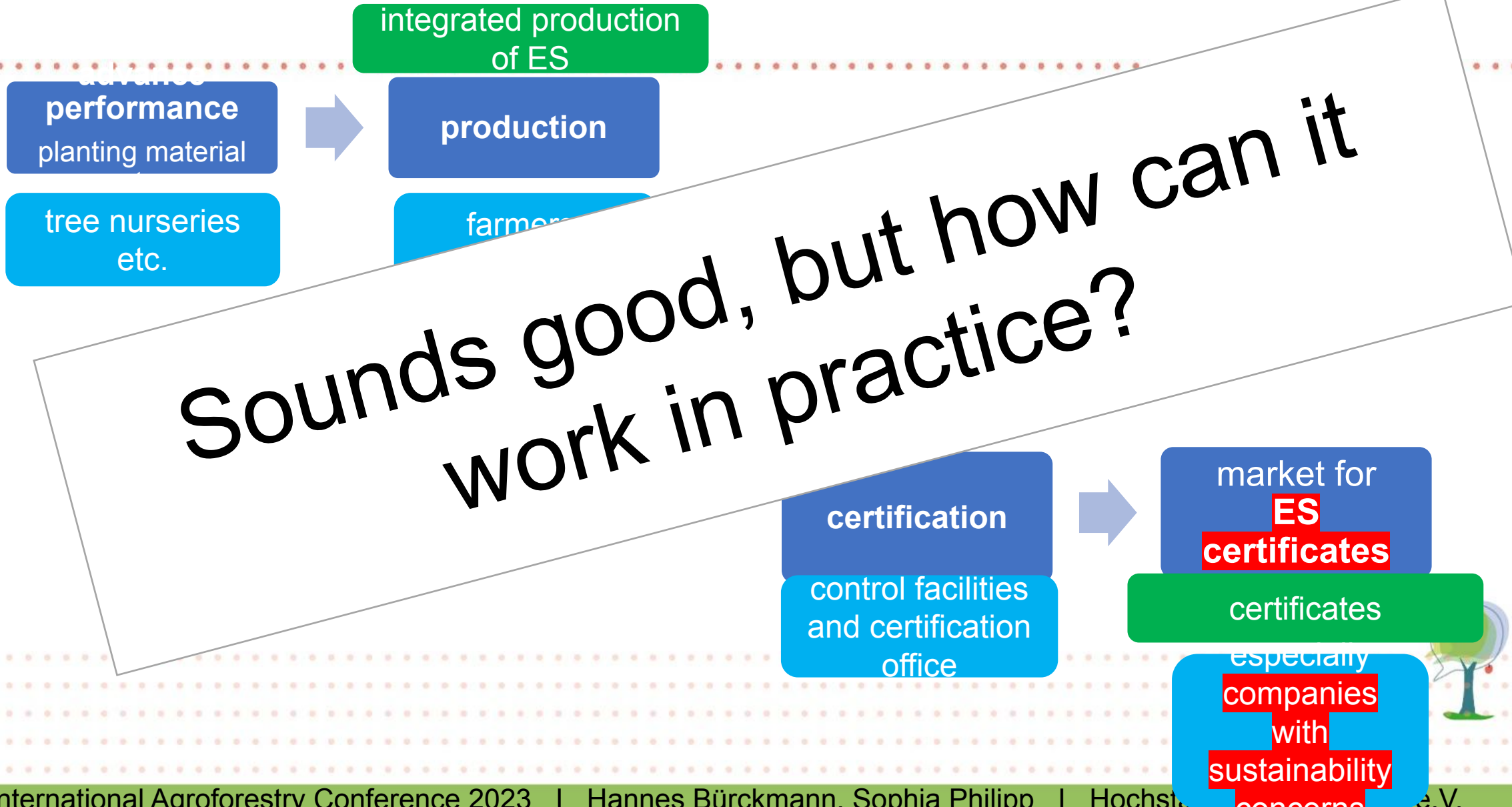
consumers with additional willingness to pay for ethical attributes



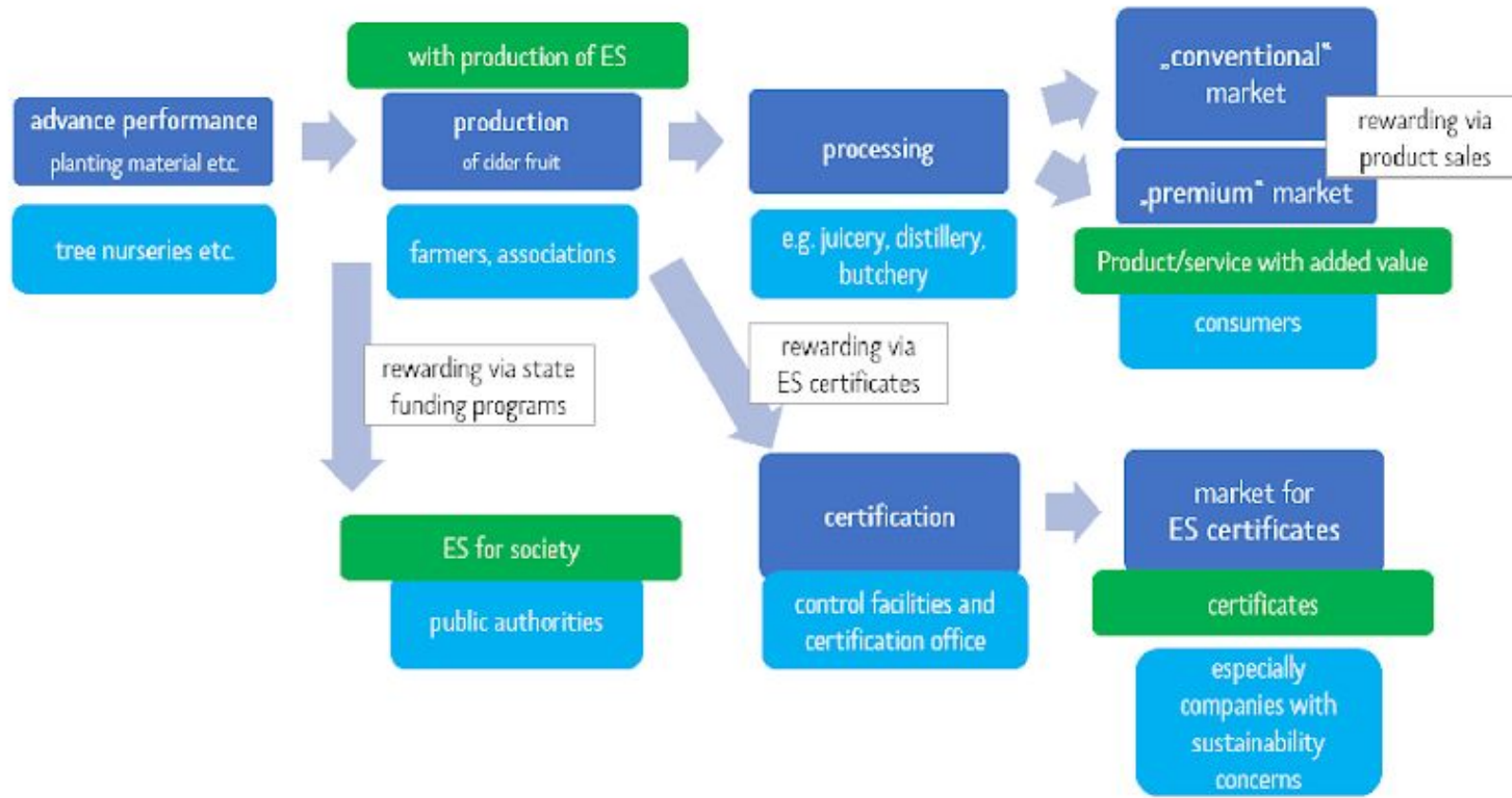
Rewarding via sales of ES certification



Rewarding via sales of ES certification



Ecosystem services in value chains: Advantages and disadvantages of each approach



On the road to ES certificates

Professional cultivation of orchard meadows (ES production)

- Cultivation guideline

Evaluation & certification of ES

Marketing of ES certificates

- Local companies with concern for sustainability

Existing best practice

„Black Box“

Analysis of target groups



ways of certification

- Compliance with the directive
- Species and variety monitoring
- Assessment of the "quality" of the ES

Instruments: Organic control, FSC, monitoring

Existing interest and demand

Starting in 2024: "Sustainability" reporting obligation in the EU

Take home messages

- Orchard meadows = traditional cultural agroforestry system in Europe
 - special strength: Biodiversity and ecosystem services (especially cultural services)
- Ecosystem services as a component of value chain as a direct monetary reward for farmers
 - Products/services with additional benefits for consumers
 - ES certificates
- Potential of ES certificates: great, politically "opportune"
 - Transferability to other AFS



Bilder: Korbinian Fleischer



Thank you for your
commitment.

We look forward to seeing
you

on the **European
Orchard Day**

April 26-28, 2024



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Ecosystem services in value chains: Advantages and disadvantages of each approach

State funding

- + Society pays for its "added value"
- The amounts are too low
- It obviously hasn't worked so far



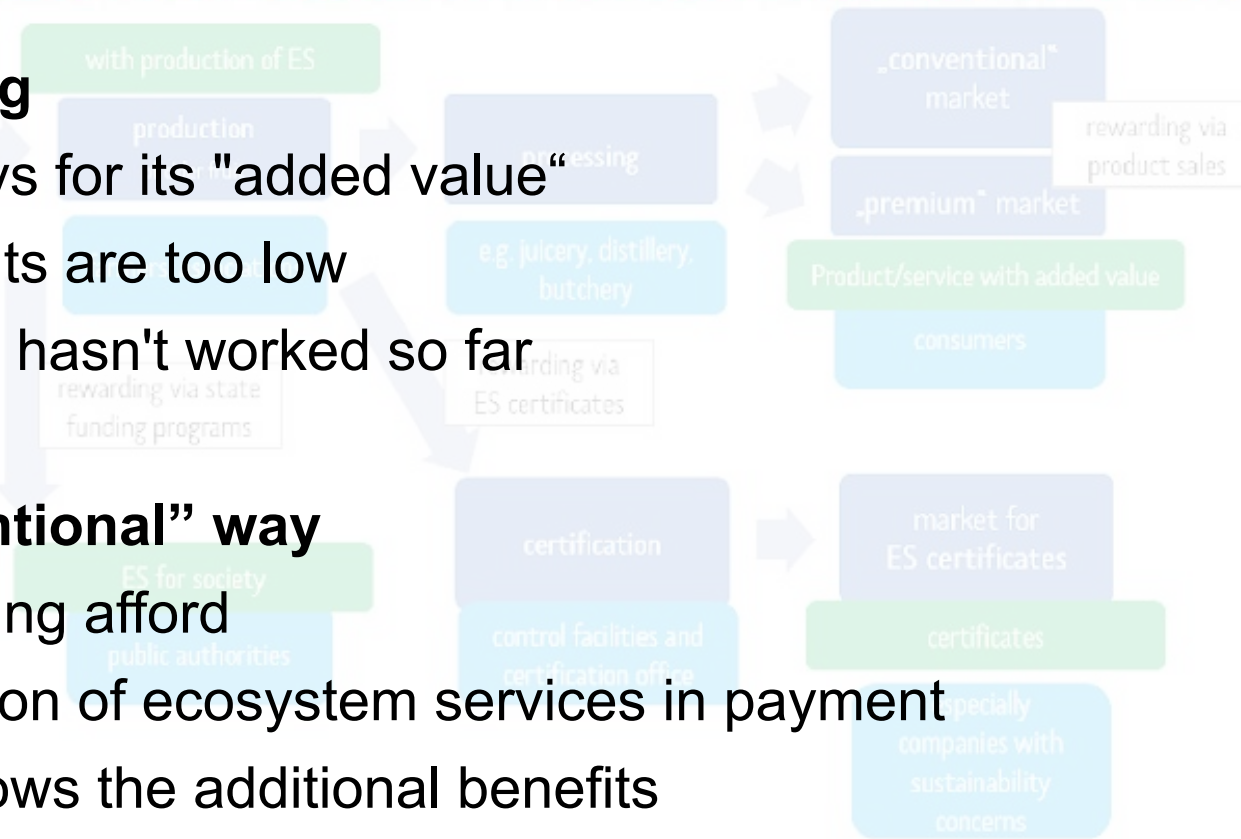
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- no integration of ecosystem services in payment
- nobody knows the additional benefits



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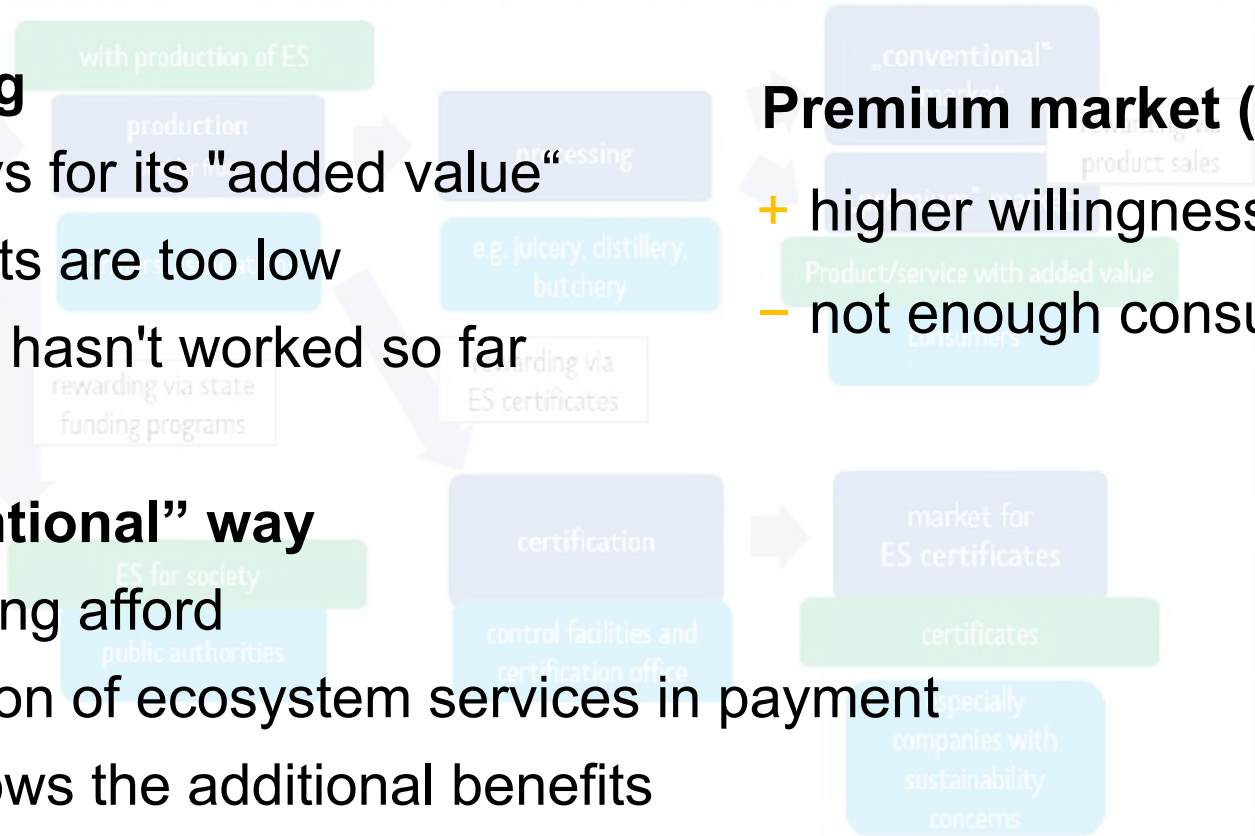
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- not enough consumers with high willingness to



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Ecosystem services certificates

- + high demand of companies
- ? certification costs
- ? system still needs to be established



References and links

- Kay, S.; Jeanneret, P.; Herzog, F. (2019): Umweltleistungen: Traditionelle Agroforstsysteme sind Biodiversitäts-Hotspot – gilt dies auch für moderne Systeme? Agroscope. Forschungsgruppe Agrarlandschaft und Biodiversität, Schweiz.
- Kay, S.; Crous-Duran, J.; Garcia de Jalon, S.; Graves, A.; Palma, J.; Roces-Diaz, J.; Szerencsits, E.; Weibel, R.; Herzog, F. (2017): Landscape-scale modelling of agroforestry ecosystems services in Swiss orchards: a methodological approach. Landscape Ecology 33: 1633-1644.
- Pilot project Orchard meadow 2030:
<https://www.hochstamm-deutschland.de/streuobst-bewahren/erhalt-durch-nutzung>
- European Orchard Day: <https://orchardseverywhere.com/>

