VASA Final Meeting Report

WG3: Nature Conservation

Peyresq 13/09/2007

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Outline

- Introduction
- Methods
- Results
- Conclusion

Introduction

Trends in nature conservation - how to conserve what for whom?

reduce vulnerability

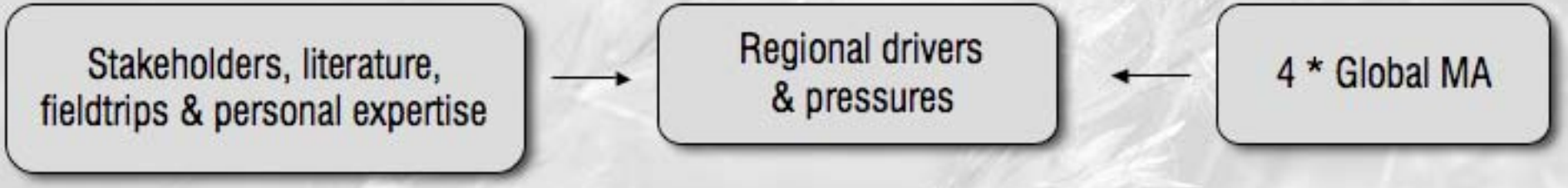
for who?

Develop adaptation strategy

for what?

... and how?

Method: From drivers & pressures to impacts and vulnerability



Identification of local drivers

Example [Policy & Administration], how one main driver was assessed

	OS		TG		GO		AM	
Policy and Administration	**R**	**T**	**R**	**T**	**R**	**T**	**R**	**T**
Subsidies	1	↑	2	↓	1	↑	1	↑
Spatial planning	1	↑	1	↑	2	↑↓	1	↑
Legislation	1	↑	2	→	1/2	↑↓	1	↑

Legend for R (Relevance)

1 = high relevance for given scenario

2 = low relevance for given scenario

Legend for T (Tendencies)

↑ = significant increase of the driver in given scenario

→ = no significant trend of the driver in given scenario

↓ = significant decrease of the driver in given scenario

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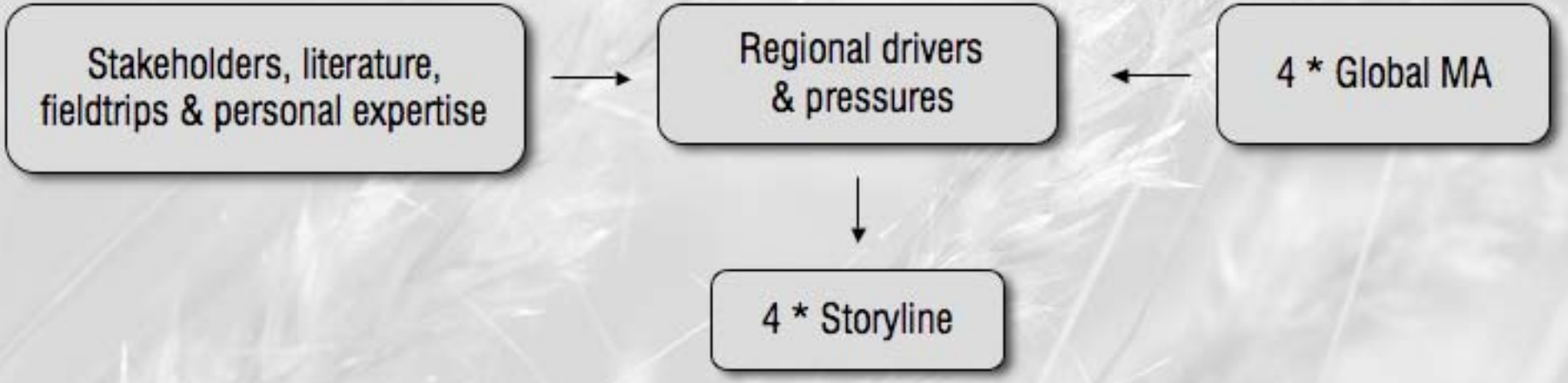

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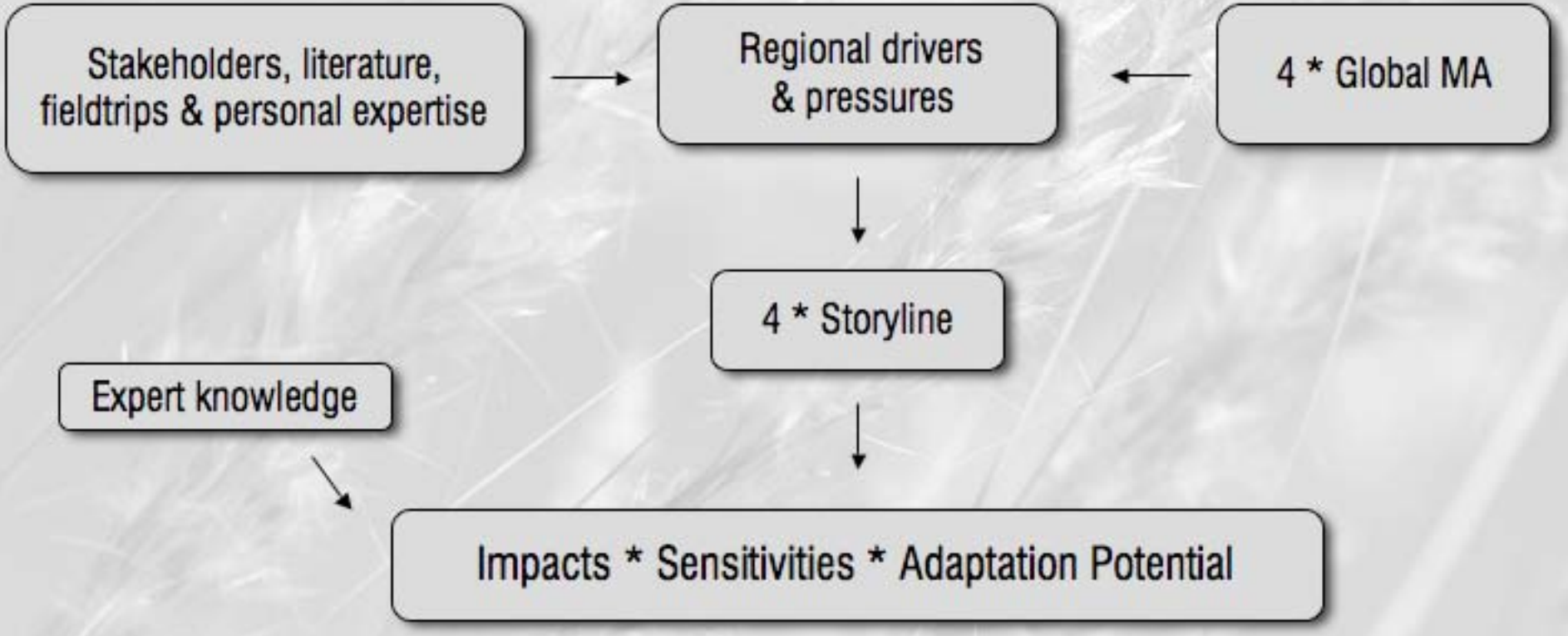

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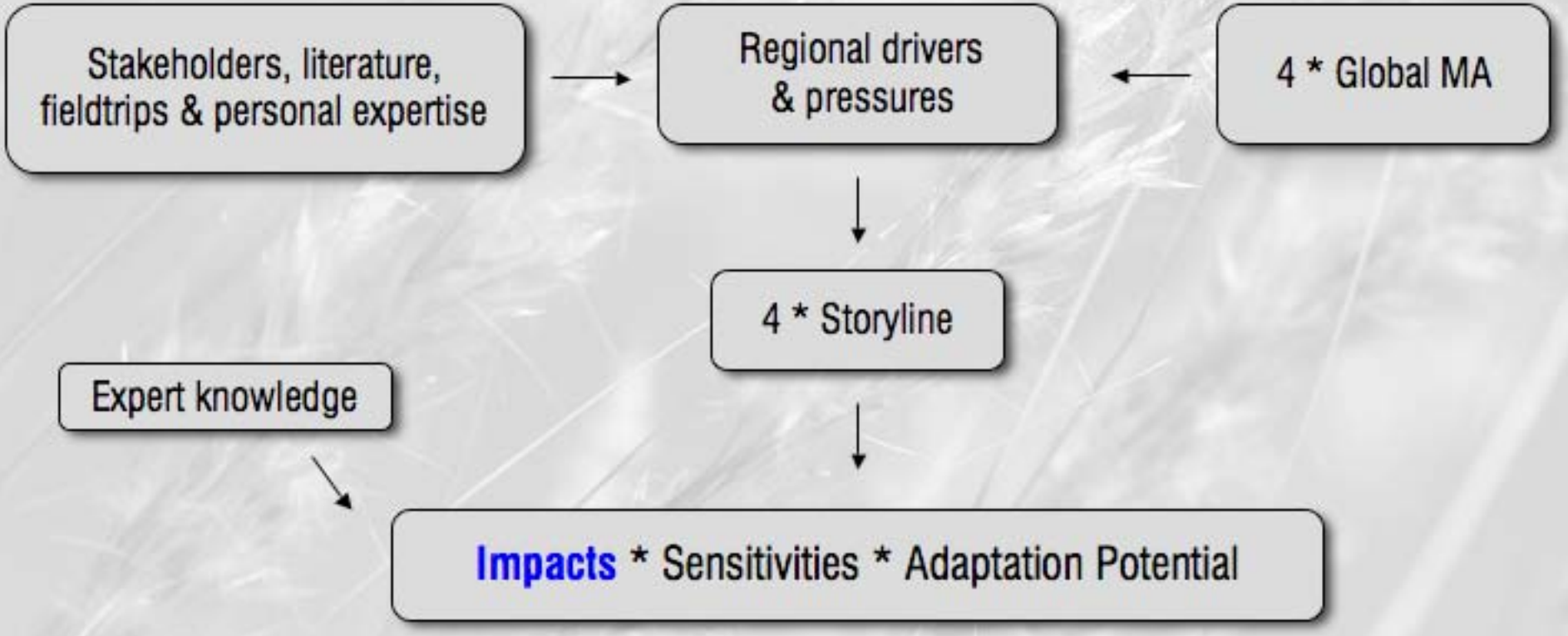
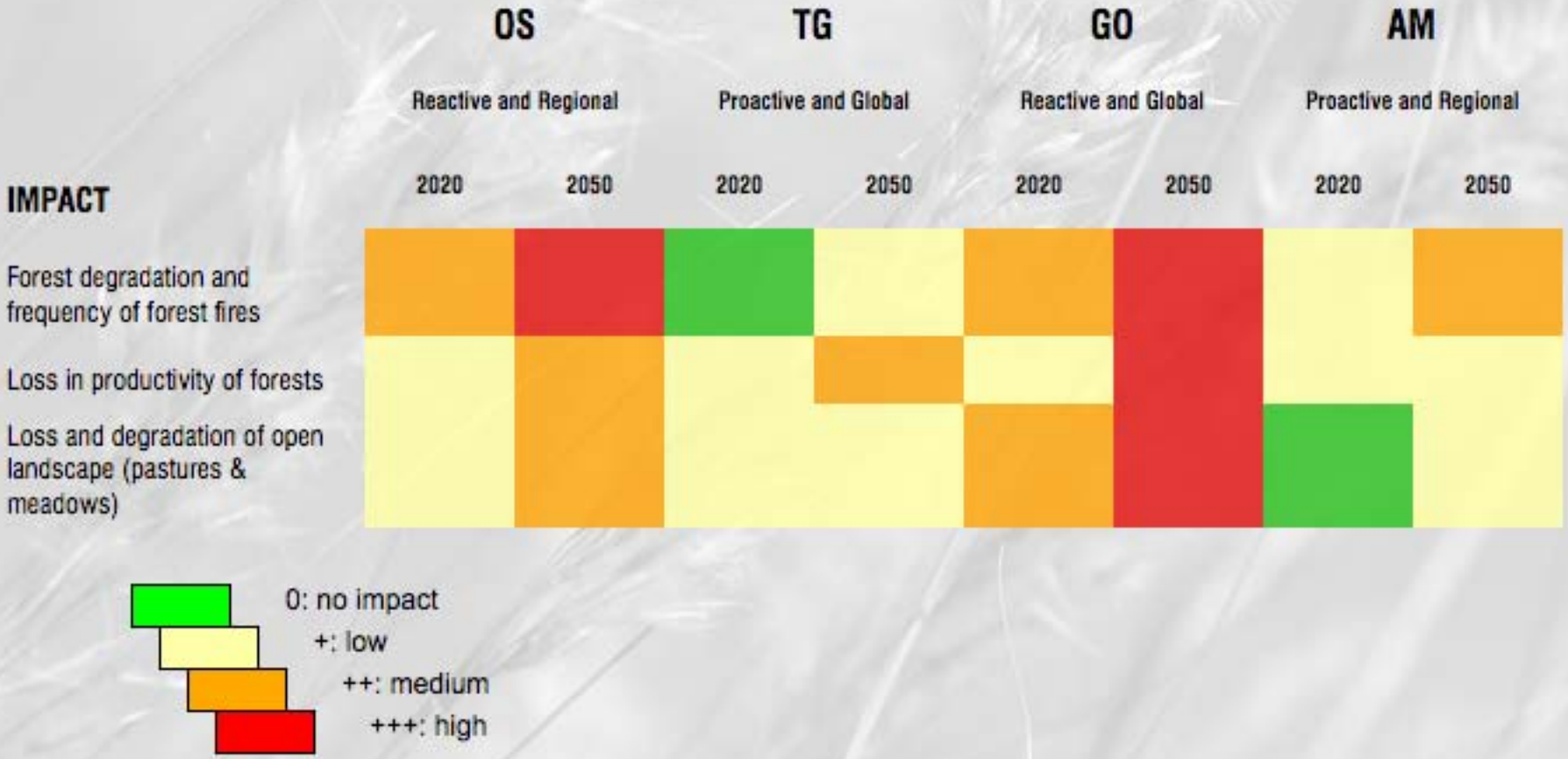


Impacts on ecosystem services

Example: how impacts are assessed, overall 16 different impacts are identified



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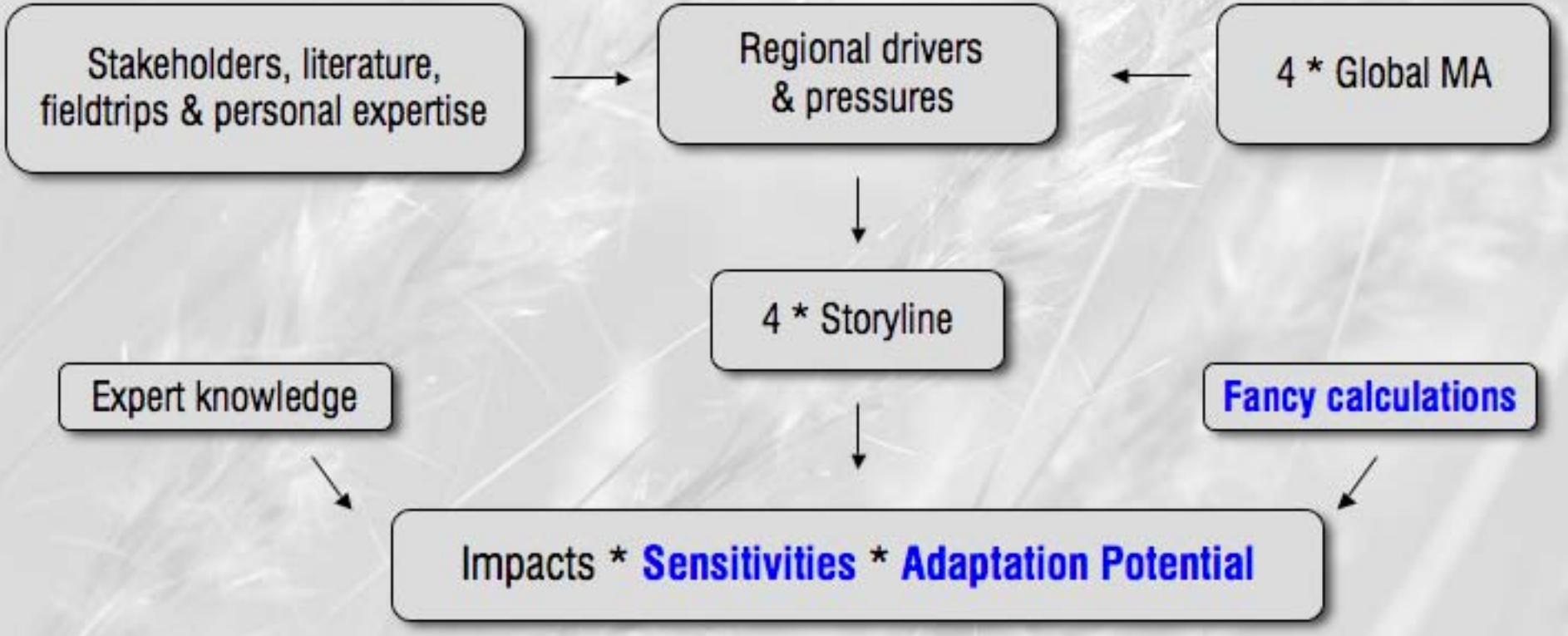


Method to assess sensitivities and adaptation potential

RISK

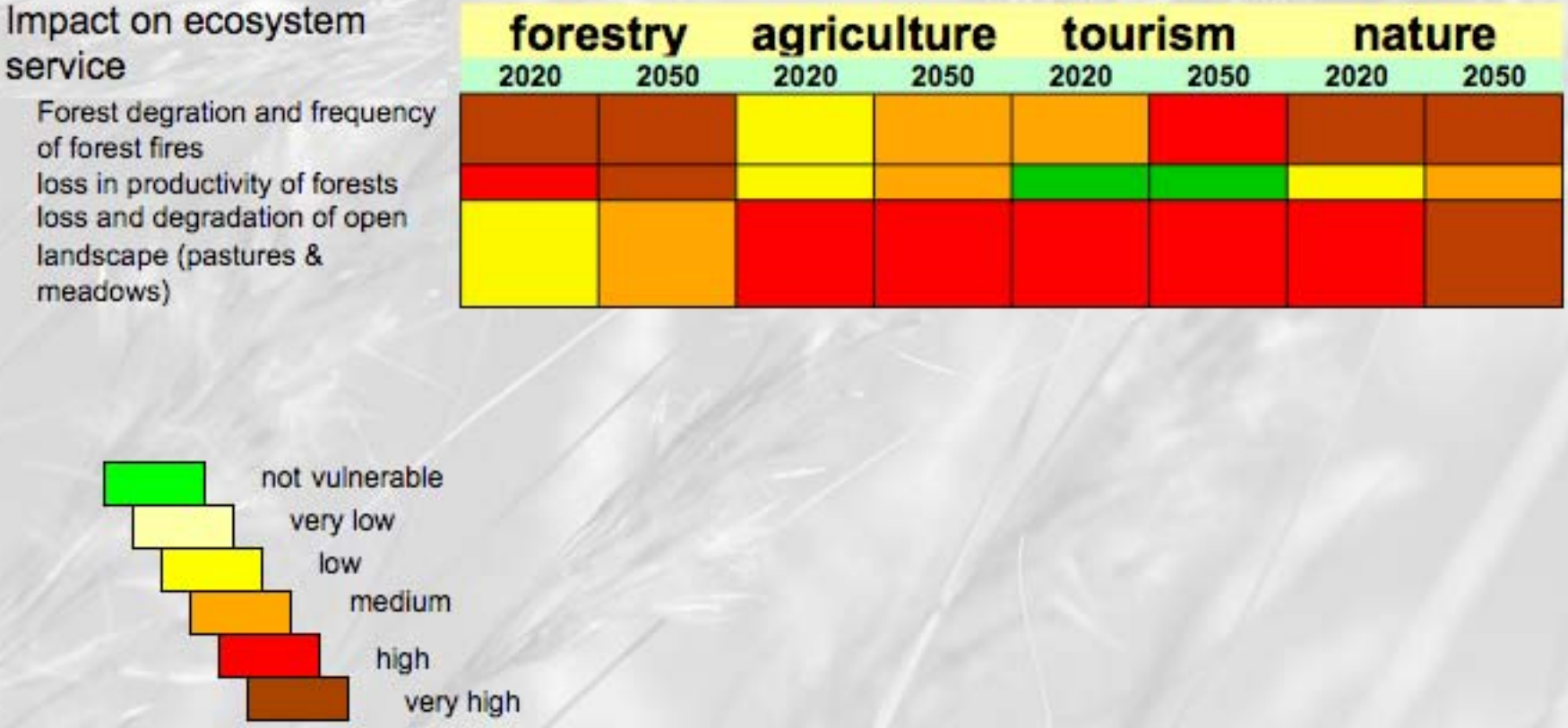
		Impact			
		0	+	++	+++
Sensitivity	0	no	no	no	no
	+	no	low	low	medium
	++	no	low	medium	high
	+++	no	medium	high	high

VULNERABILITY

		Adaptation potential		
		+	++	+++
Risk	no	no	no	no
	low	medium	low	very low
	medium	high	medium	low
	high	very high	high	medium

Assessment of the vulnerability

Example: Resulting vulnerabilities of each stakeholder to changes in different ecosystem services, Global Orchestration



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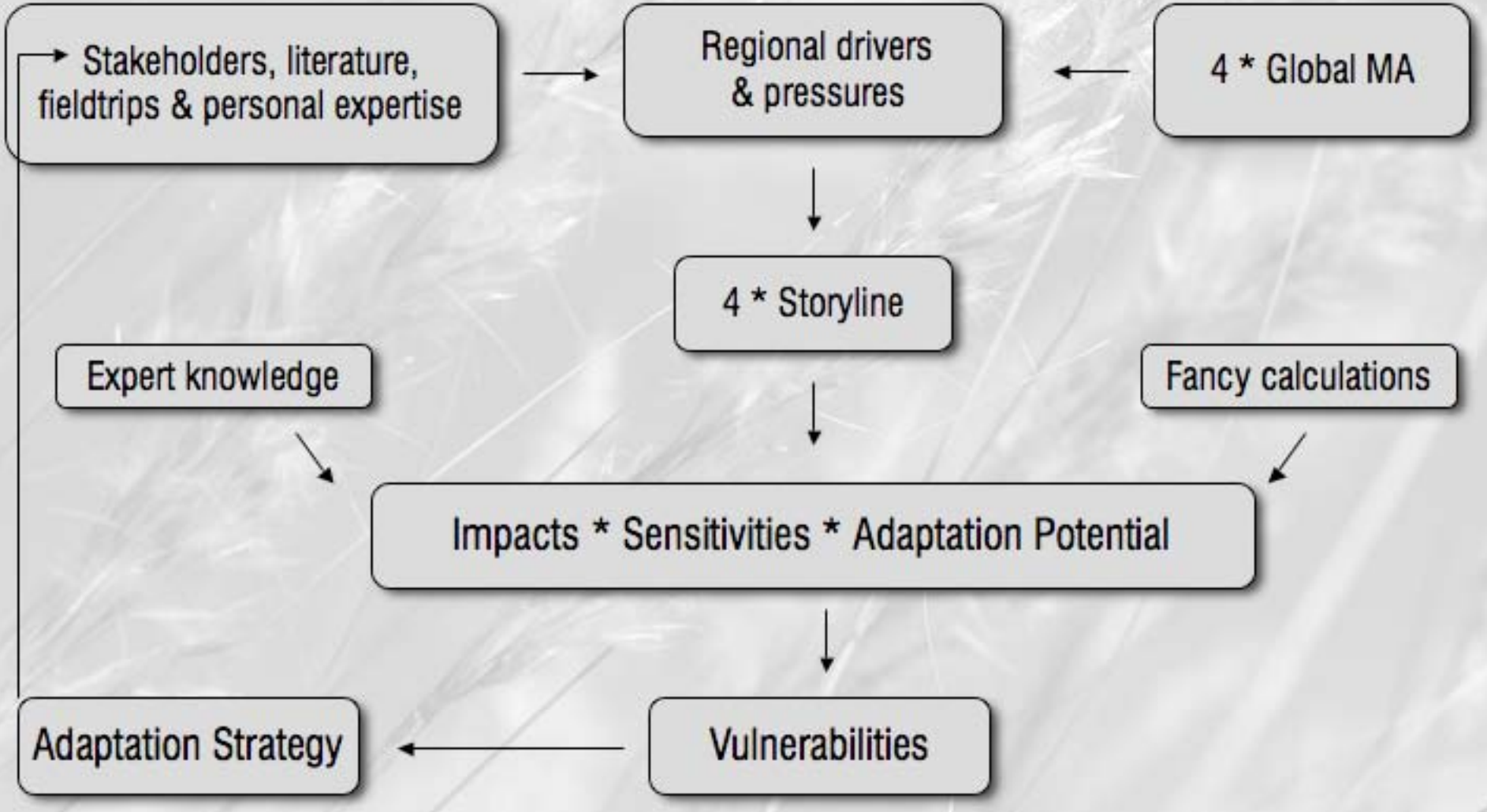


Adaptation strategies

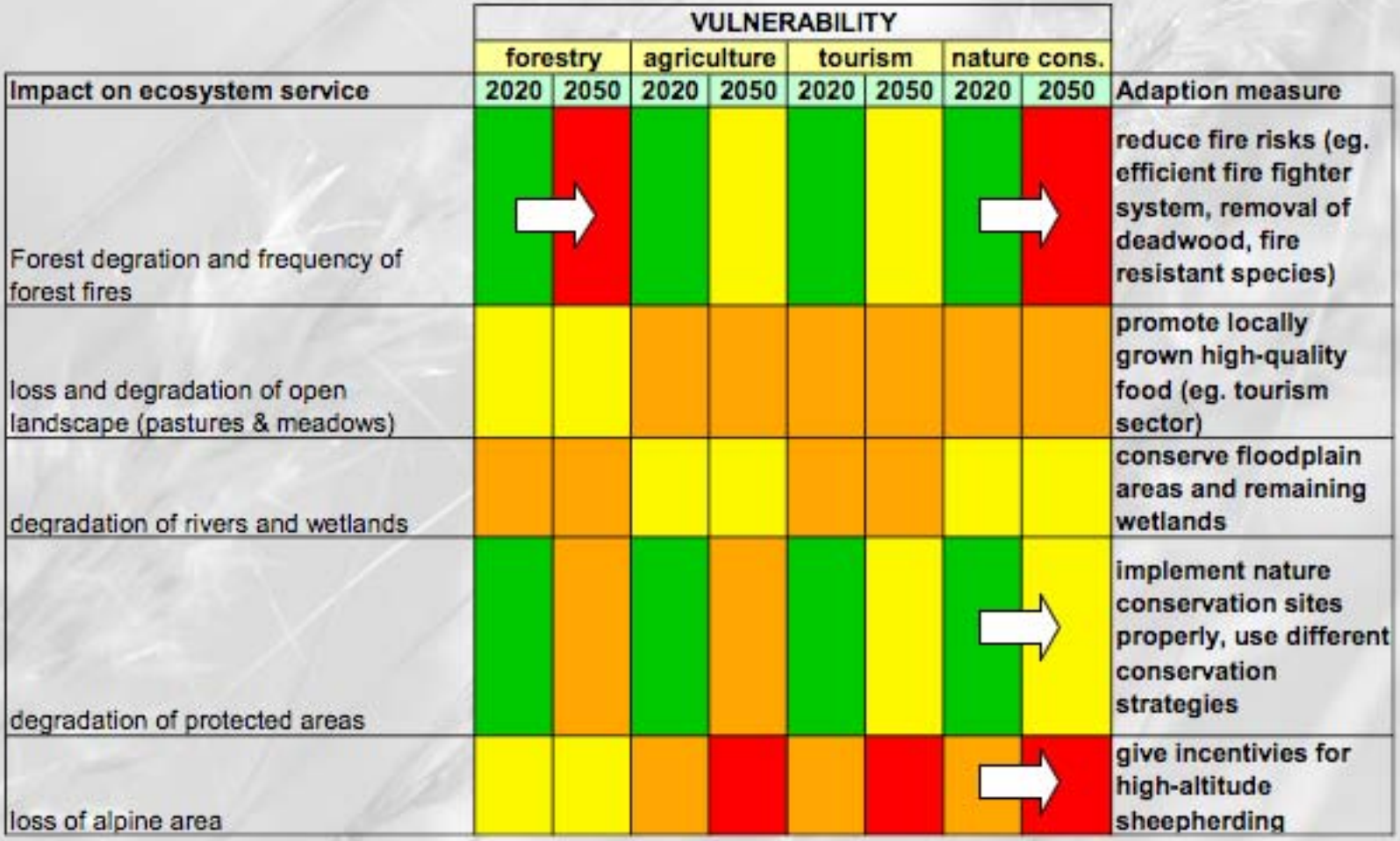
Example: Adaptation strategies for the forest sector under Global Orchestration

Impact on ecosystem service	Management activity	Stakeholder	Urgency
Forest degradation and frequency of forest fires	strengthening of fire fighter system	local authorities, inhabitants, forestry	HIGH
	forest management which aims to reduce fire risks (eg. removal of deadwood, fire resistant species)	forestry, inhabitants	HIGH
Loss in productivity of forests	planting of warm-climate, drought and fire-adapted tree species	forestry, inhabitants	MEDIUM

Main results: Adaption strategy

		VULNERABILITY				
Impact on ecosystem service	**stakeholder**	**GO 2050**	**OfS 2050**	**AM 2050**	**TG 2050**	**Adaption measure**
Forest degration and frequency of forest fires	forestry, inhabitants					**reduce fire risks (eg. efficient fire fighter system, removal of deadwood, fire resistant species)**
loss and degradation of open landscape (pastures & meadows)	local authorities, agriculture					**promote locally grown high-quality food (eg. tourism sector)**
degradation of rivers and wetlands	local authorities, agriculture					**conserve floodplain areas and remaining wetlands**
degradation of protected areas	agriculture, nature conservation, forestry					**implement nature conservation sites properly, use different conservation strategies**
loss of alpine area	agriculture, nature conservation					**give incentivies for high-altitude sheepherding**

Main results: Temporal changes



Techno Garden

Conclusion

Strong impacts on ecosystems in all four scenarios

- Main drivers: Climate change and related effects (Fire!)
- Land use change: abandonment & loss of open landscape

BUT

- proactive scenarios reduce risks significantly
- regionalized scenarios reduce risks from land use change

➡ implement proactive management!

➡ local decisions make a difference!

Thank you!