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# MCDA methods supporting transparency and public involvement in EIA

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# IMPERIA -project

Improving environmental assessment by adopting good practices and tools of multi-criteria decision analysis

Aims to develop systematic, transparent and participatory practices and procedures by integrating principles and practices of MCDA into the EIA .

Pilot project: Piiparinmäki-Lammaslamminkangas wind farm EIA

Project proponent - Metsähallitus / Laatumaa

EIA-consult - Pöyry Finland Ltd

-> [http://www.ymparisto.fi/fi-FI/Asiointi\\_ja\\_luvat/Ymparistovaikutusten\\_arviointi/YVAhankkeet/PiiparinmaenLammaslamminkankaan\\_tuulivoimapuisto\\_Pyhanta\\_Siikalatva\\_Kajaani\\_Vierema](http://www.ymparisto.fi/fi-FI/Asiointi_ja_luvat/Ymparistovaikutusten_arviointi/YVAhankkeet/PiiparinmaenLammaslamminkankaan_tuulivoimapuisto_Pyhanta_Siikalatva_Kajaani_Vierema)



# MCDA approach in Finnish EIA

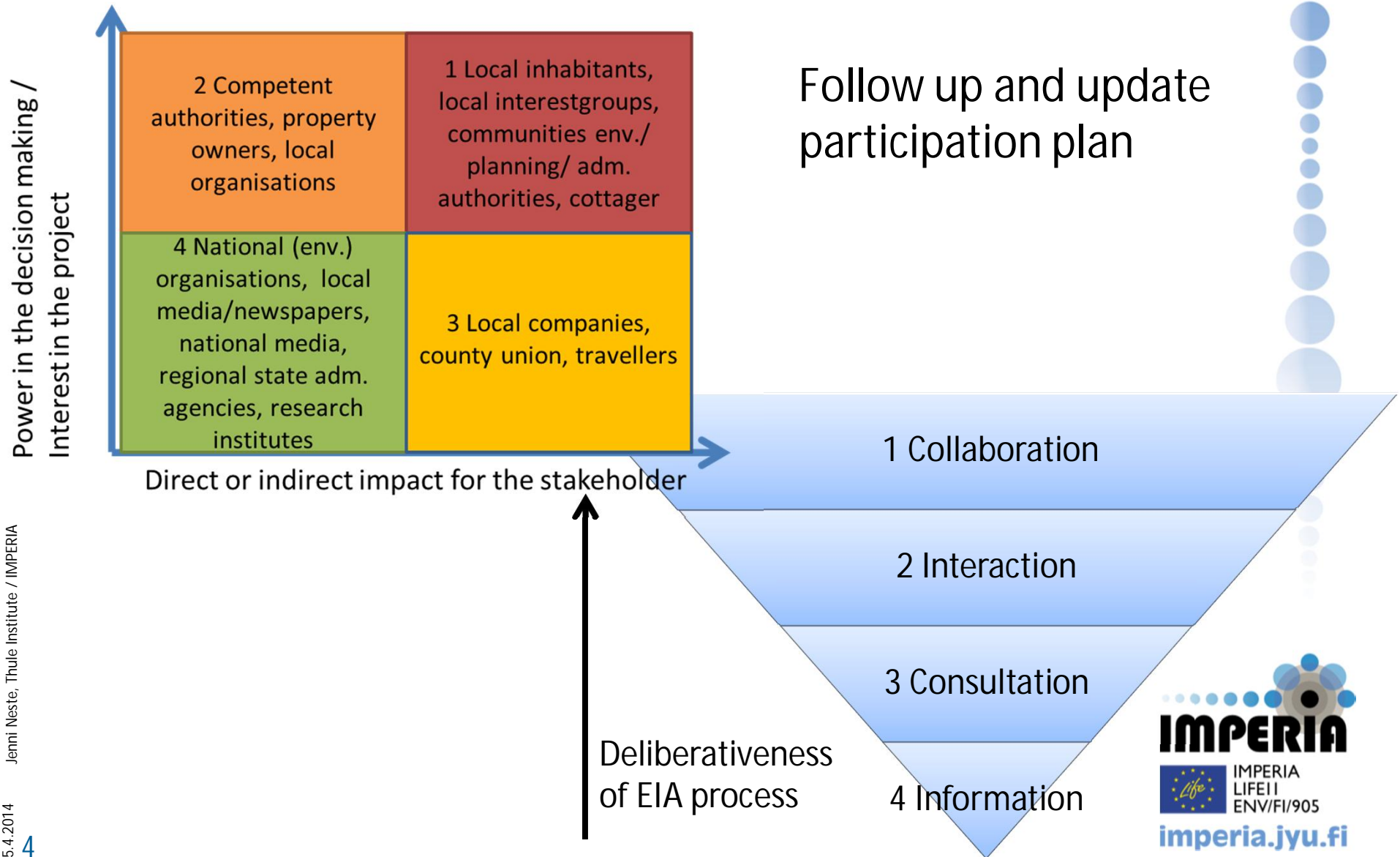
## SCOPING PHASE

- Stakeholder analyses
- Assessment group
- Preliminary impact significance
- Objectives hierarchy
- Significance framework

## ASSESSMENT PHASE

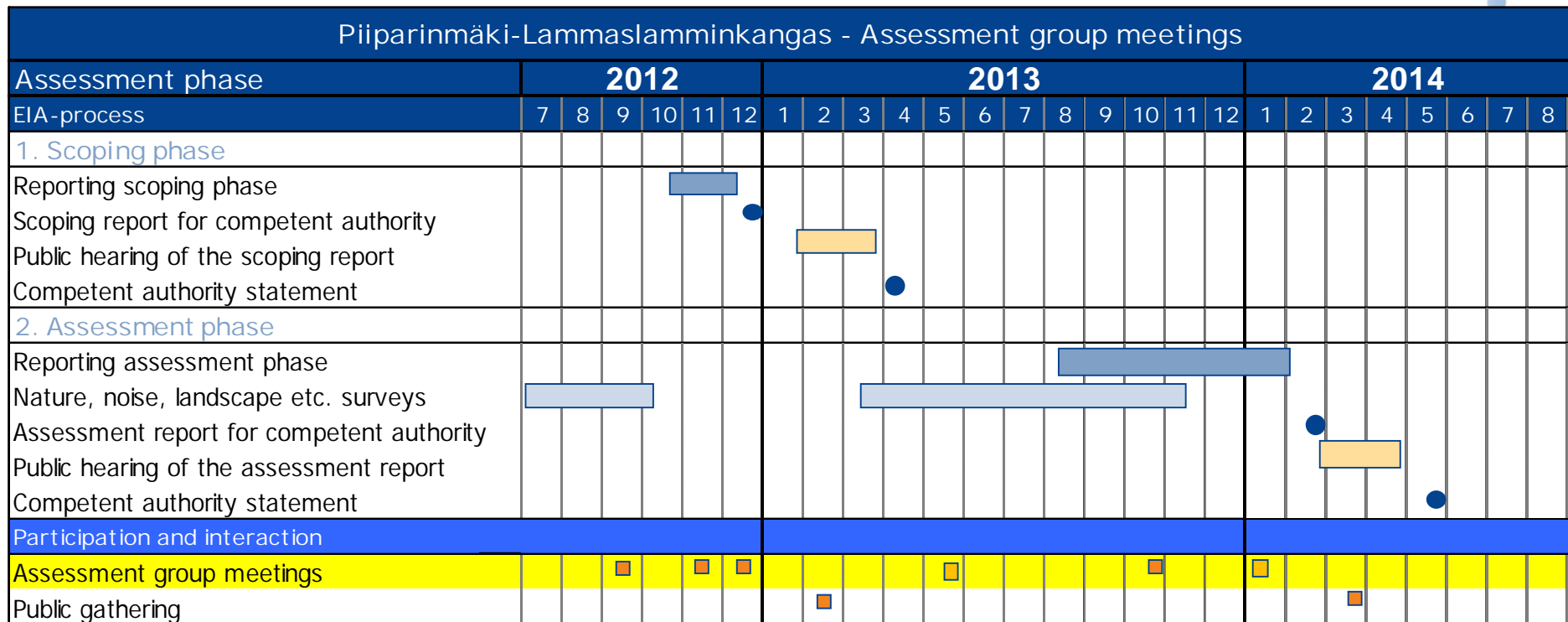
- Impact significance
- Impact significance tool
- Public involvement
- Extended summary
- Revised EIA -report

# 1 Stakeholder analysis



# 2 Assessment group

Helping in assessing the sensitive objects in the project area and (preliminary) impact significance, deliver information, commenting draft reports, etc.



"In the assessment group there has come out helpful information for all. Conversation has been open-minded."



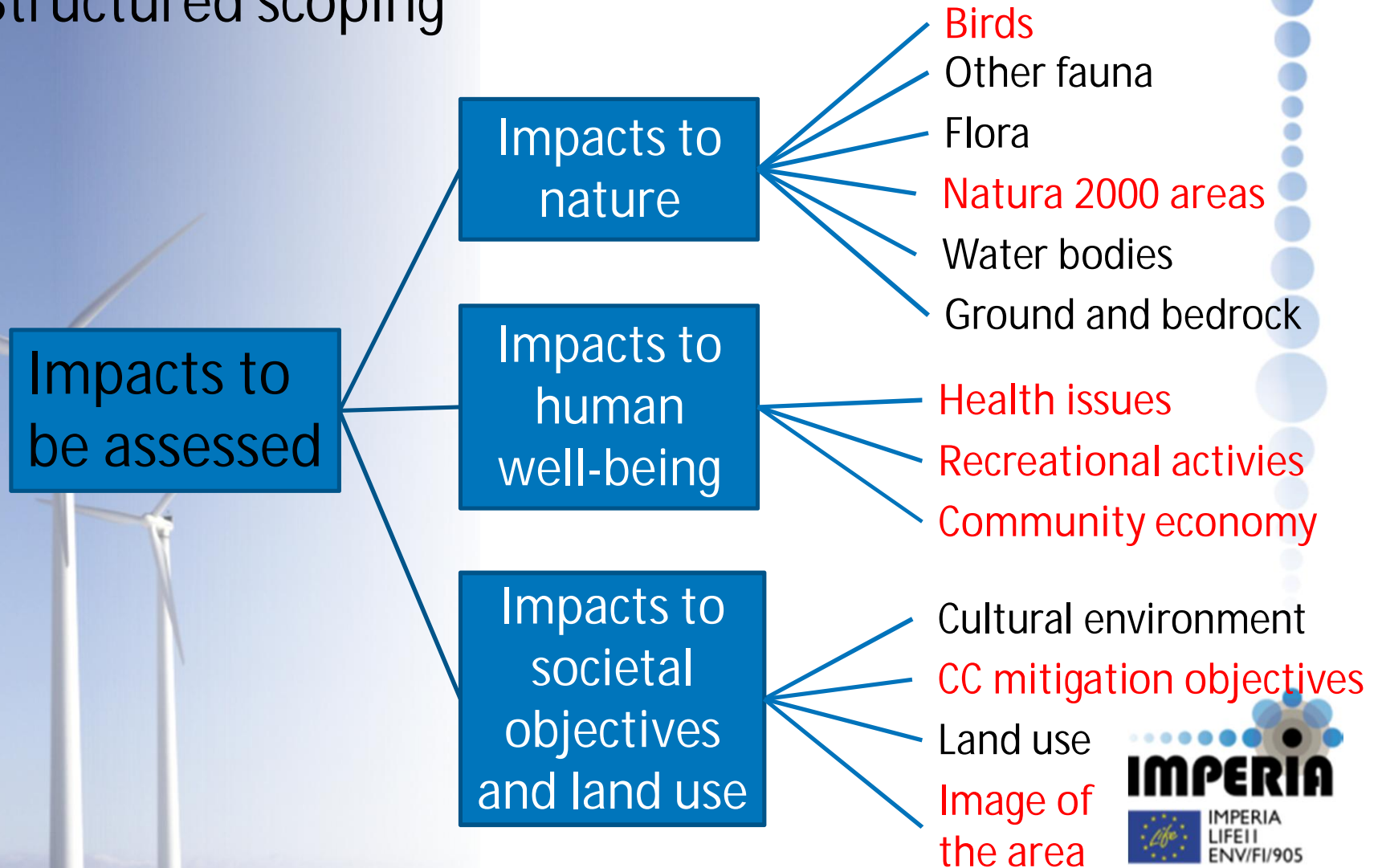
# 3 Preliminary impact significance

- Scoping the EIA
- General view of the impacts significances already in the scoping phase

Criteria	SIGNIFICANCE ASSESSMENT	
	Experts	Stakeholders
Birds	Moderate	Moderate
Other fauna	Low	Low
Flora	Low	Low
Natura 2000 areas	Moderate	Low
Water bodies	Low	Low
Ground and bedrock	Low	Low
Noise	Moderate	Moderate/Low
Landscape	Moderate	Moderate/Low
Blinking	Moderate	Low
Hunting	Low	Moderate/Low
Berrypicking	Low	Moderate/Low
.....	....	

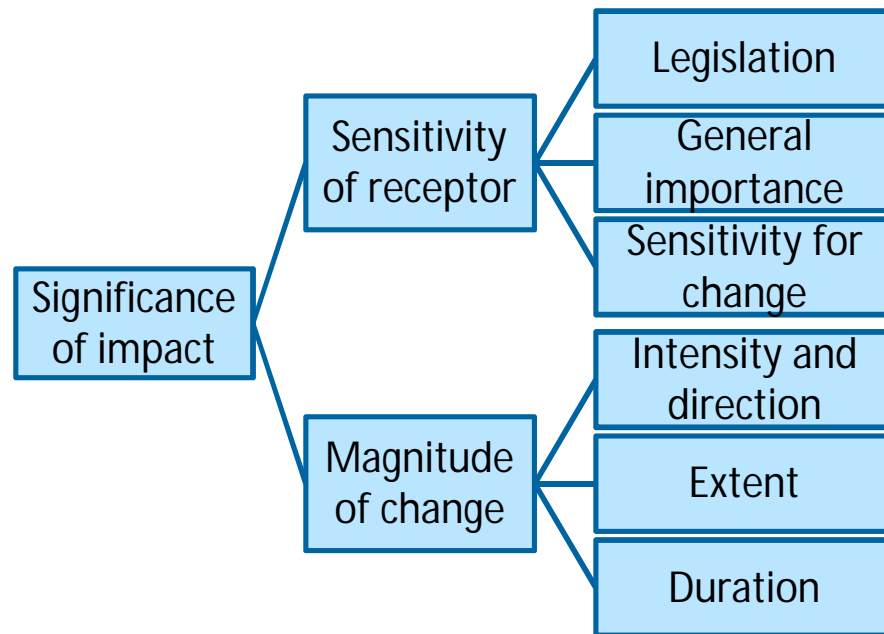
# 4 Objectives hierarchy

## Structured scoping



# 5 Significance framework

- Systematizes the reasoning of the impact assessment
- Stakeholder participation has essential role in significance assessment



		Impact magnitude						
		Major	Moderate	Minor	NO IMPACT	Minor	Moderate	Major
Sensitivity/ importance	No sensitive	Not at all	Not at all	Not at all	Not at all	Not at all	Not at all	Not at all
	Minor	Moderate	Minor	Minor	Not at all	Minor	Minor	Moderate
	Moderate	Major	Moderate	Minor	Not at all	Minor	Moderate	Major
	Major	Major	Major	Moderate	Not at all	Moderate	Major	Major



# 6 Impact significance

## Sensitivity of receptor - LANDSCAPE

	Sensitivity / Importance			Sensitivity of receptor
	Legislation	General importance	Sensitivity for change	
WIND FARM	Programs	Moderate	Major	Moderate

## Magnitude of change- LANDSCAPE

	Magnitude and direction			Magnitude of change
	Intensity and direction	Extent	Duration	
WIND FARM	Moderate --	Regional	Operation period	Moderate --

## Summary of impact significance – LANDSCAPE

W = Wind farm

		Magnitude		
		Minor	Moderate	Major
Sensitivity	Minor			
	Moderate		W	
	Major			
Significance frame				

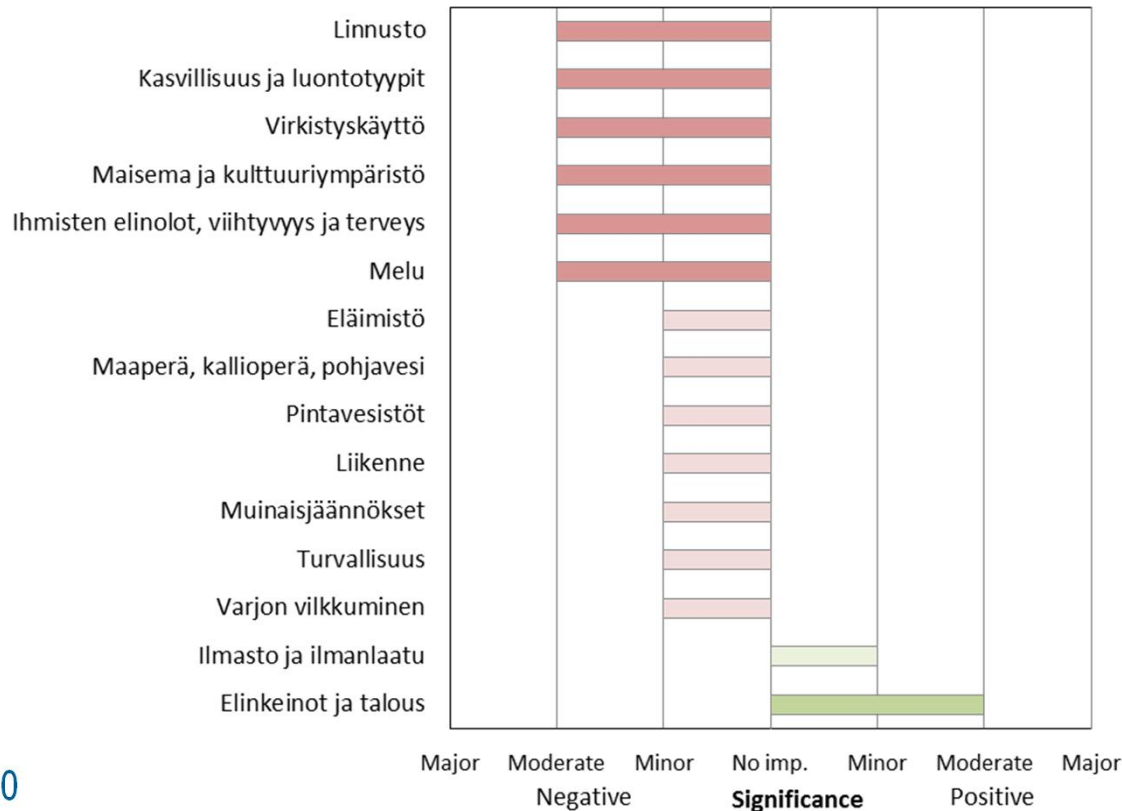
= Minor  
 = Moderate  
 = Major

# 7 Impact significance -tool

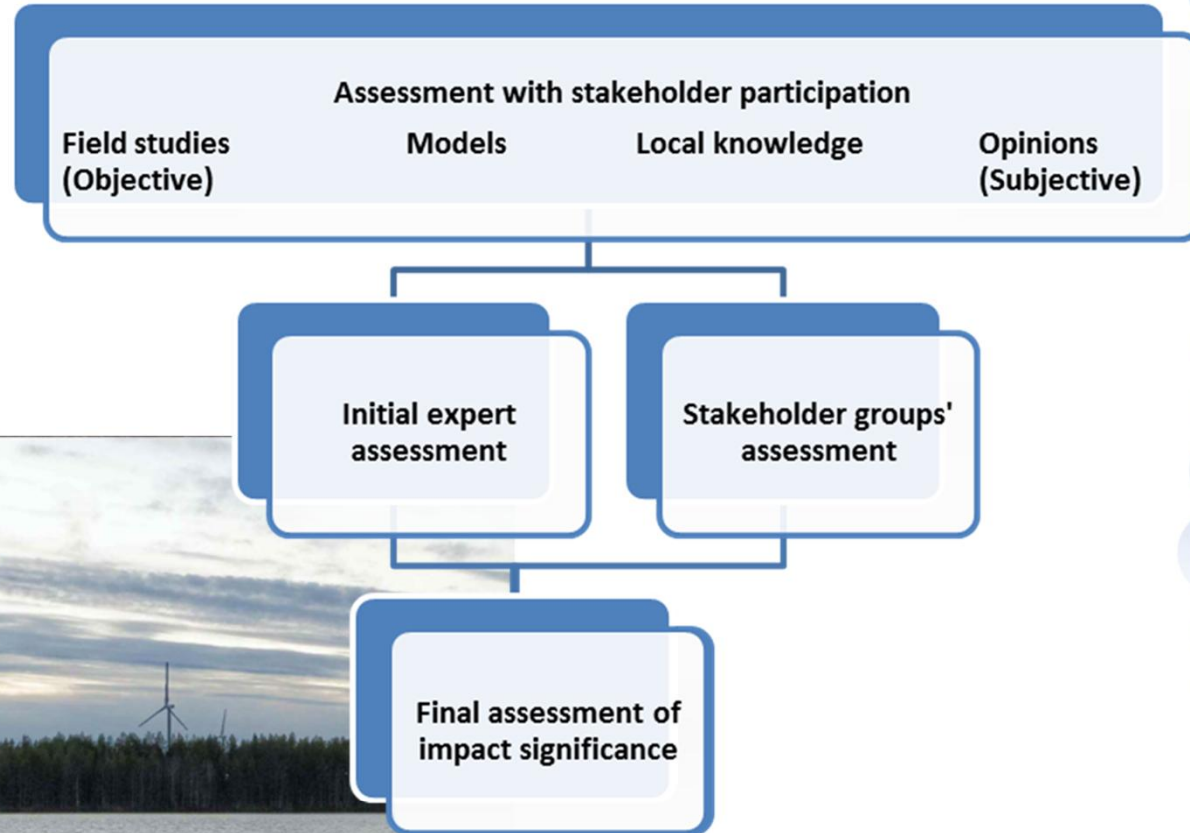
- Excel -based tool for EIA-consults and other EIA-actors
- First version available soon: <http://imperiam.jyu.fi/english>

ALT. 1 wind farm – EIA expert assessment

## Impact significance



# 8 Public involvement



Kuva 5-22. Kuvassovite (D) Saaresjärven rannalta kohti hankealuetta (yläkuva 16 mm, alakuva 50 mm). Etäisyys lähimpiin tuulivoimaloihin on noin 2 kilometriä.

# 9 Extended summary

30 pages vs. 300 pages (+ 11 annexes)



# 10 Revised EIA-report

- Systematical approach of impact assessment
- Transparency of reasoning
- Continual public involvement implemented and stated
- Demonstration in EIA-report (tables, pictures,..)



# Conclusions

- More adaptive and deliberative EIA
  - More collaborative and structured scoping phase increases relevancy and legitimacy of the assessment
  - Focus on key issues and impacts in the early phase
  - Systematic process and reasoning e.g. with help of the impact significance framework
  - Continuous interaction with same stakeholder representatives (e.g. assessment group) supports collaboration



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# Thank You! Gracias! Kiitos!

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