



# The Role of Citizens in Renewable Energy Communities

## Social Acceptance of Renewable Energy Technologies and Sufficiency

Forschungsgruppe Umweltpsychologie (FG-UPSY)

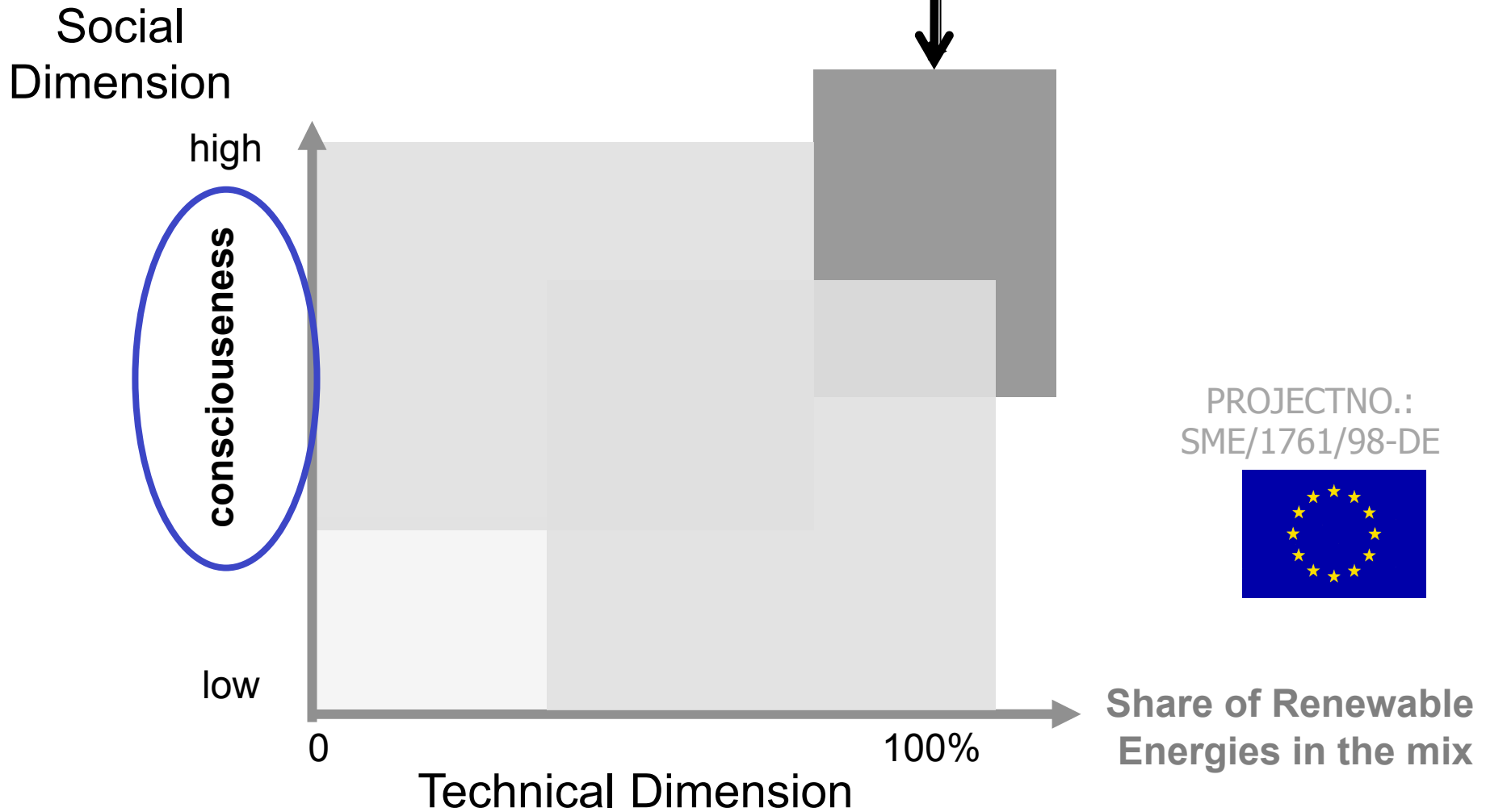
Universität des Saarlandes mit

Außenstelle an der Otto-von-Guericke-Universität Magdeburg

Prof. Dr. Petra Schweizer-Ries; [petra.schweizer-ries@fg-upsy.com](mailto:petra.schweizer-ries@fg-upsy.com)



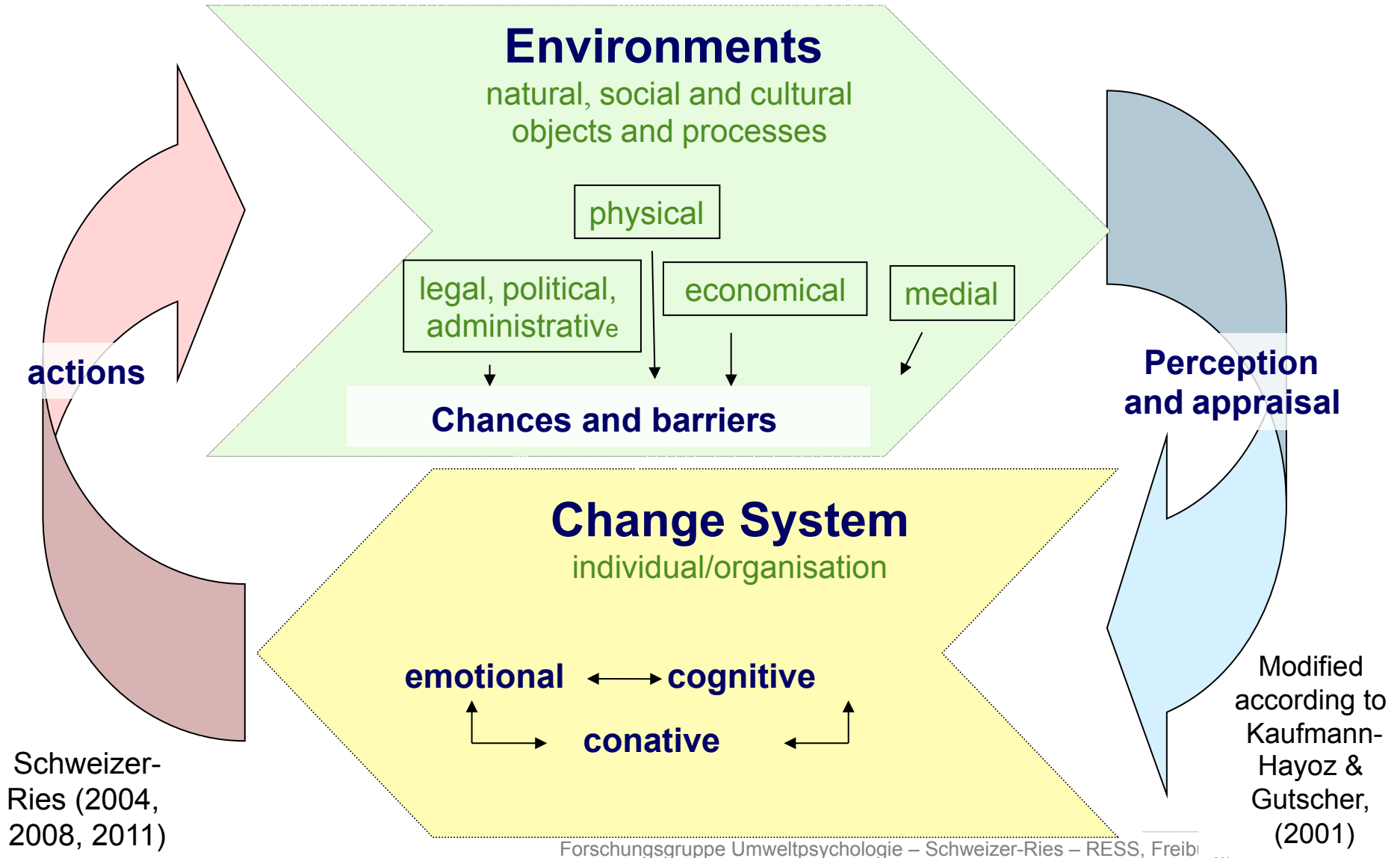
# Energy Sustainable Communities (ESC)



Schweizer-Ries (2008)



# Environmental Psychological Frame Model Simplified Model of Human Action

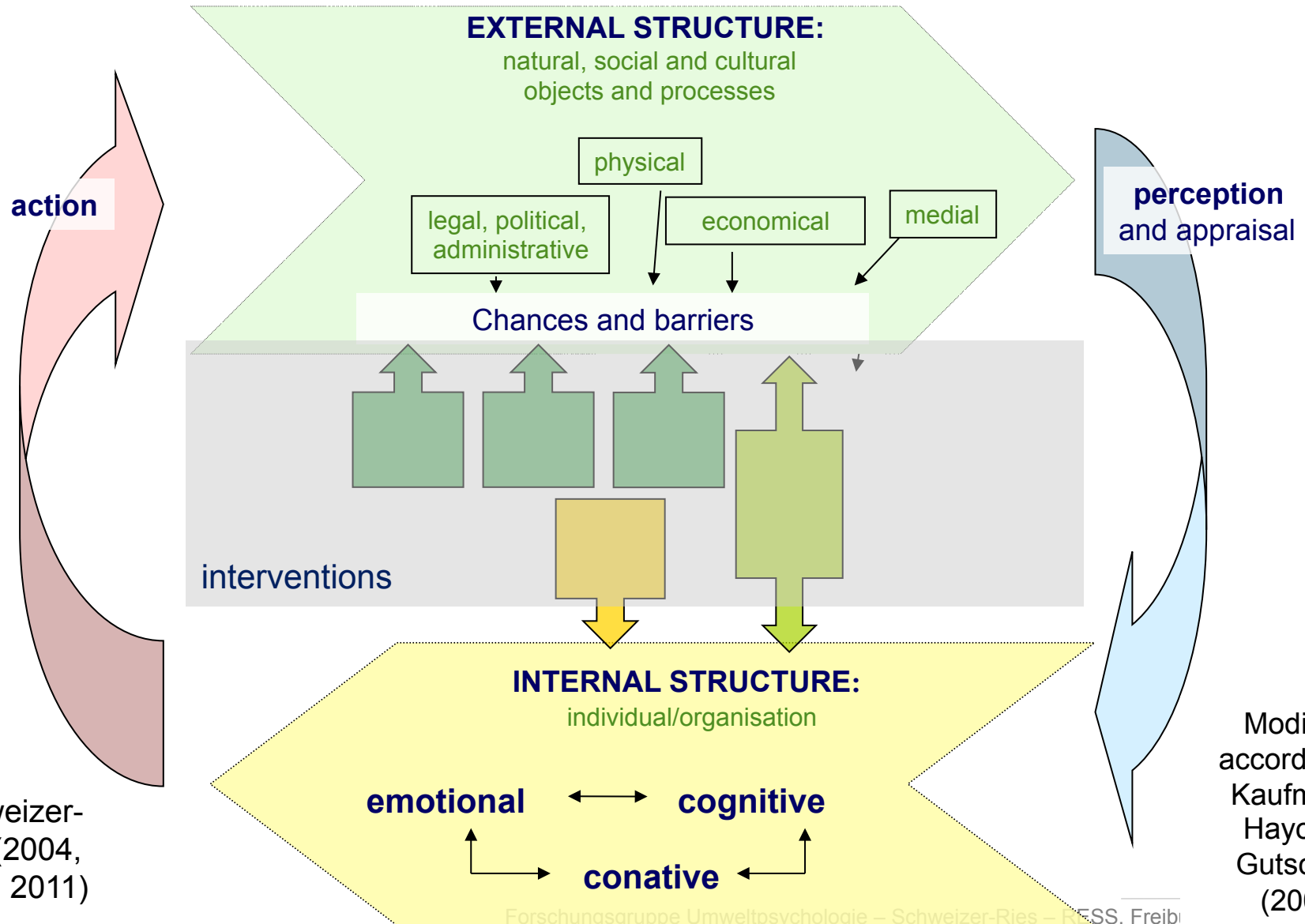


Schweizer-Ries (2004, 2008, 2011)



# Environmental Psychological Frame Model

## Simplified Model of Human Action



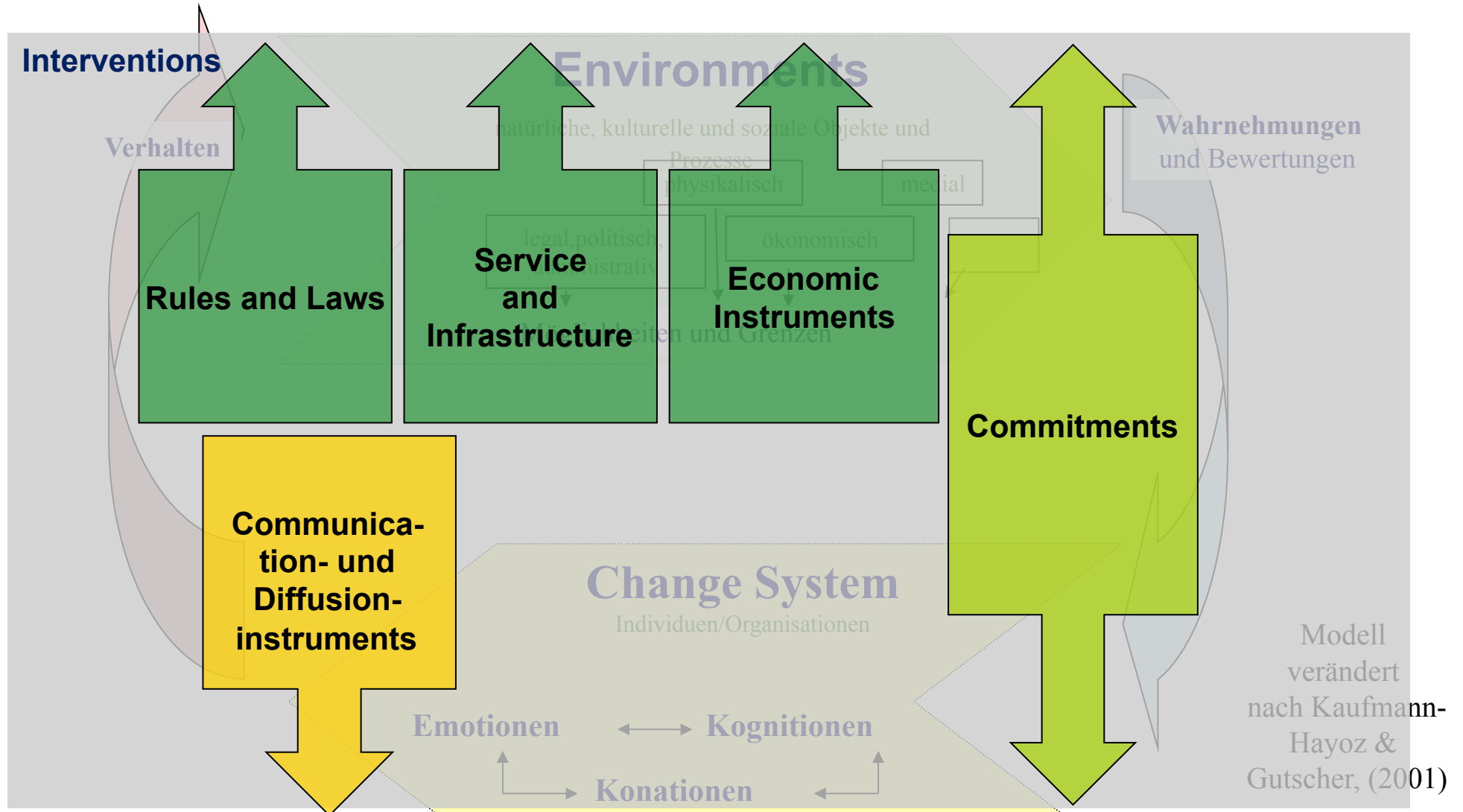
Modified according to Kaufmann-Hayoz & Gutscher, (2001)

Schweizer-Ries (2004, 2008, 2011)



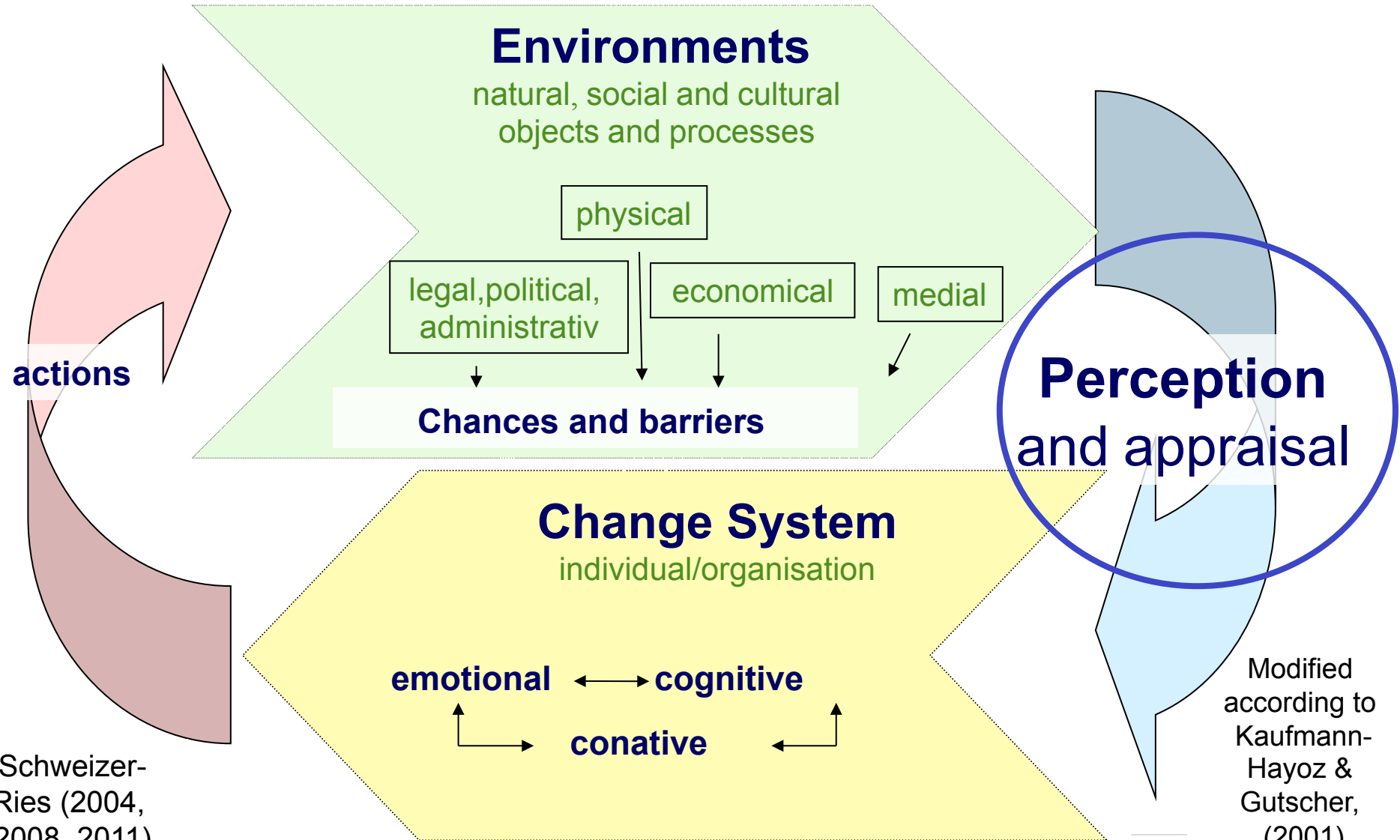
# Environmental Psychological Frame Model

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# Environmental Psychological Frame Model Simplified Model of Human Action



Schweizer-Ries (2004, 2008, 2011)

Modified according to Kaufmann-Hayoz & Gutscher, (2001)



# Acceptance of Renewable Energy in Germany (forsa, 2010)

The development and intensified use of  
renewable energy is...

- extremely important: 40 %
- very important: 40 %
- important: 15 %
- somewhat important: 2 %
- not important at all: 1 %



# Influential Factors on the Acceptance of Renewable Energy Technologies

- Local Value Creation
- Location/  
Landscape  
Evaluation
- Planning practices/Participation







## Overall Mean Values pro Scale Listed by Energy Source

	Positive Evaluation of Renew. Energy Use	Self-attributed Acceptance	Economy	Land- scape Percep- tion	Emot- ions	Risk	Justice
Wind	4,4	3,64	2,95	2,32	3,22	3,23	2,59
PV	4,5	4,24	3,50	2,86	3,87	3,21	3,10
Biomass	4,5	3,98	3,26	2,80	3,29	2,83	2,77

Classification:

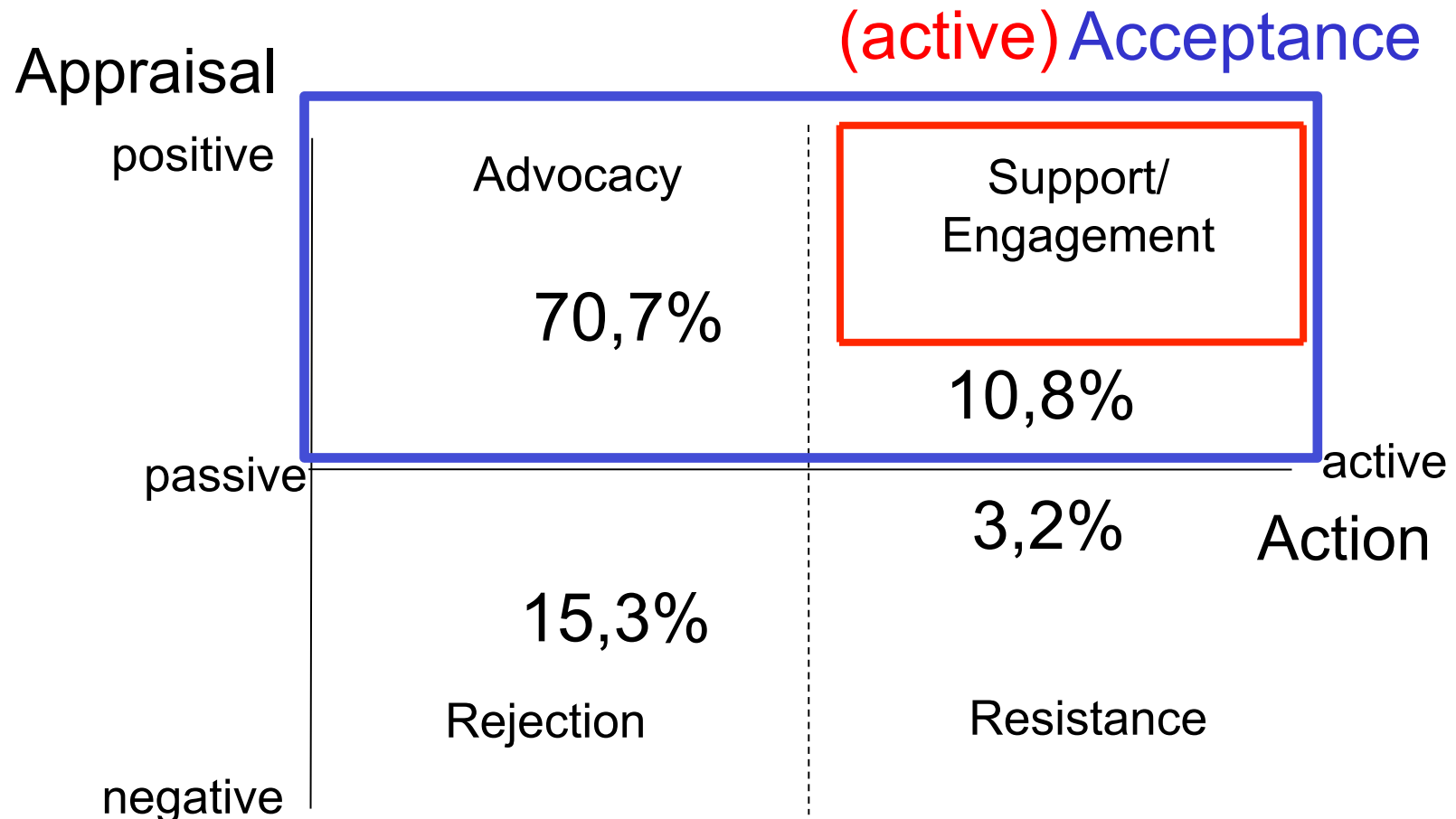
**negative** = 1 - 2,5 red

**neutral** = 2,6 - 3,6 yellow

**positive** = 3,7 - 5 green



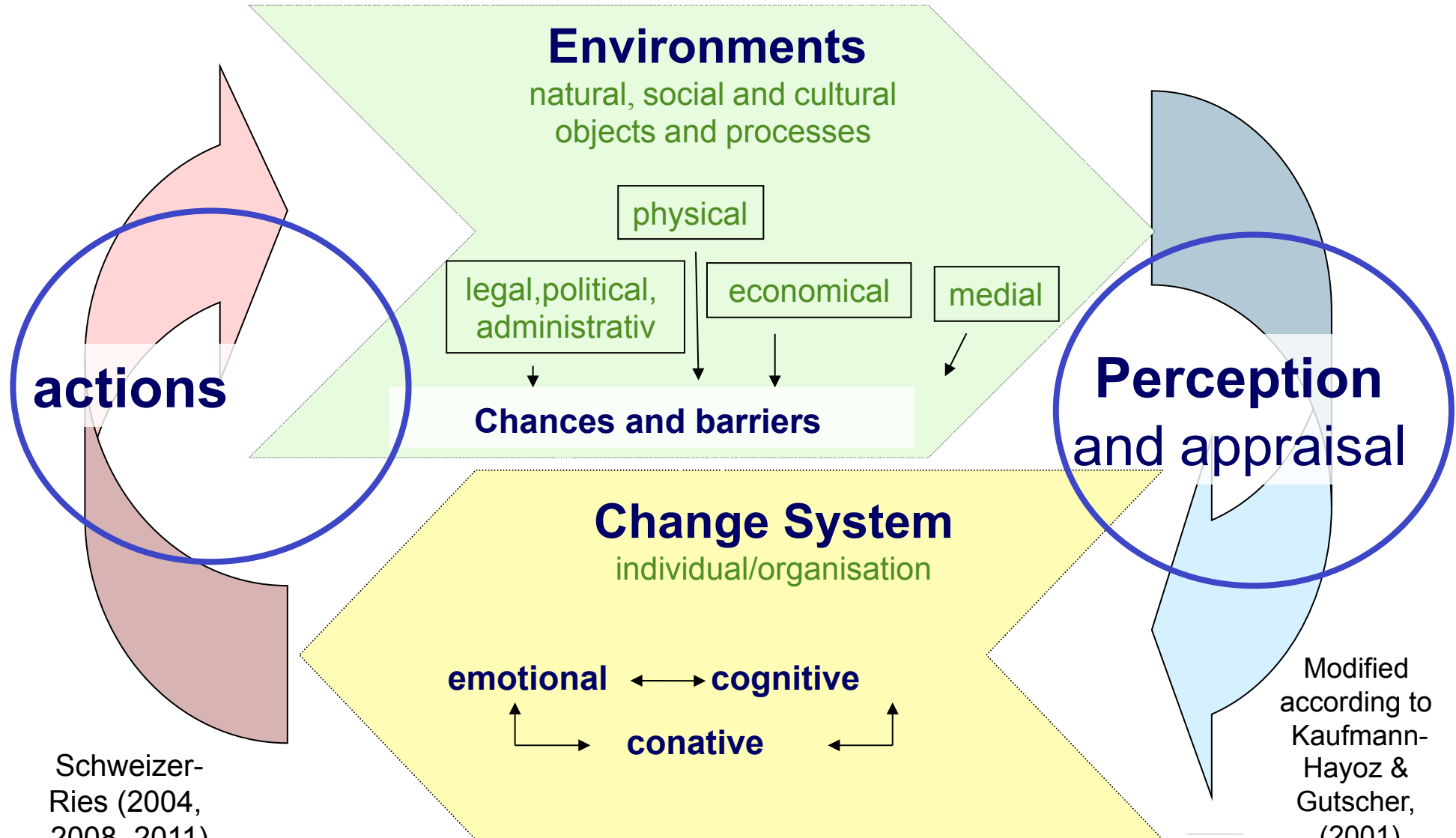
# Dimensions of Acceptance



N= 991



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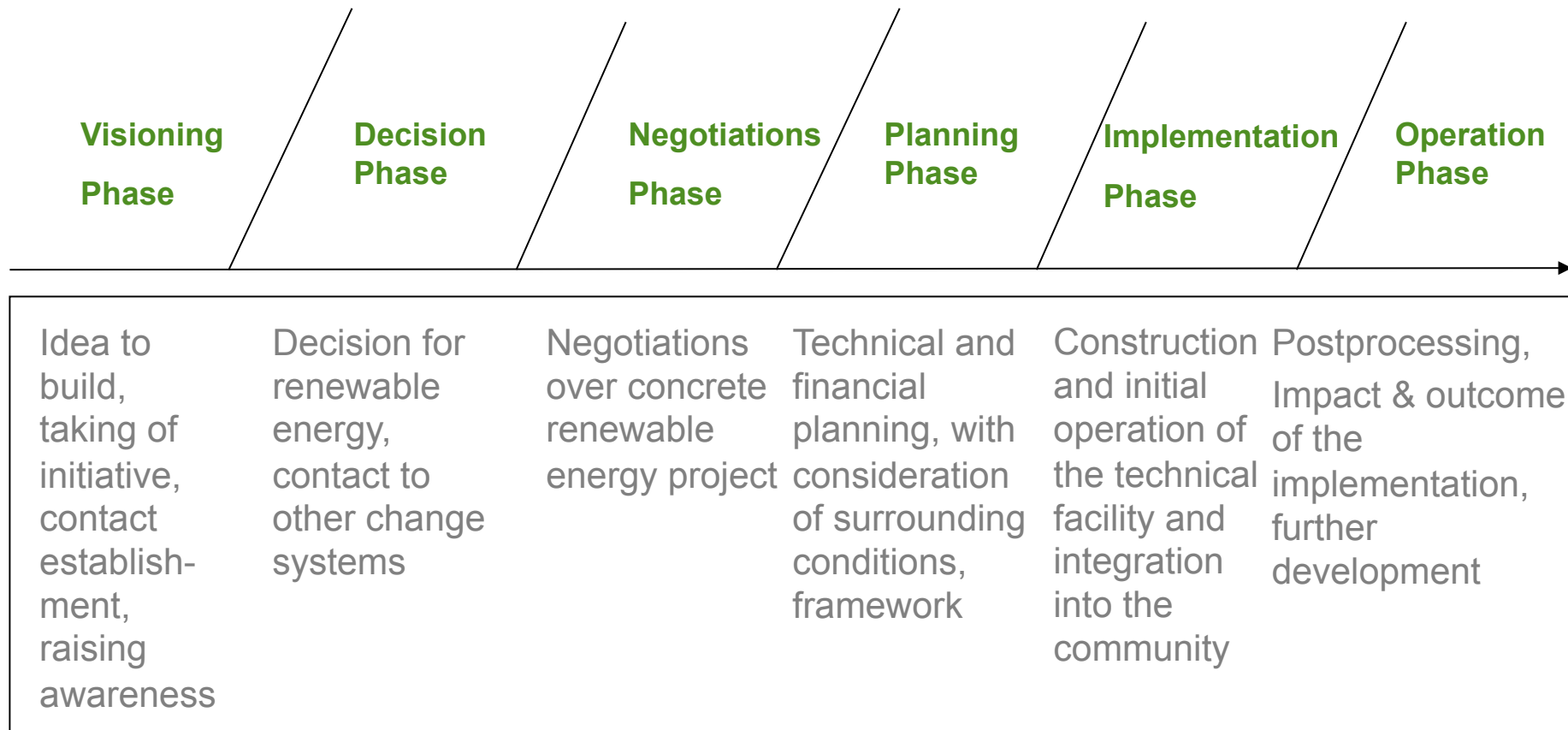


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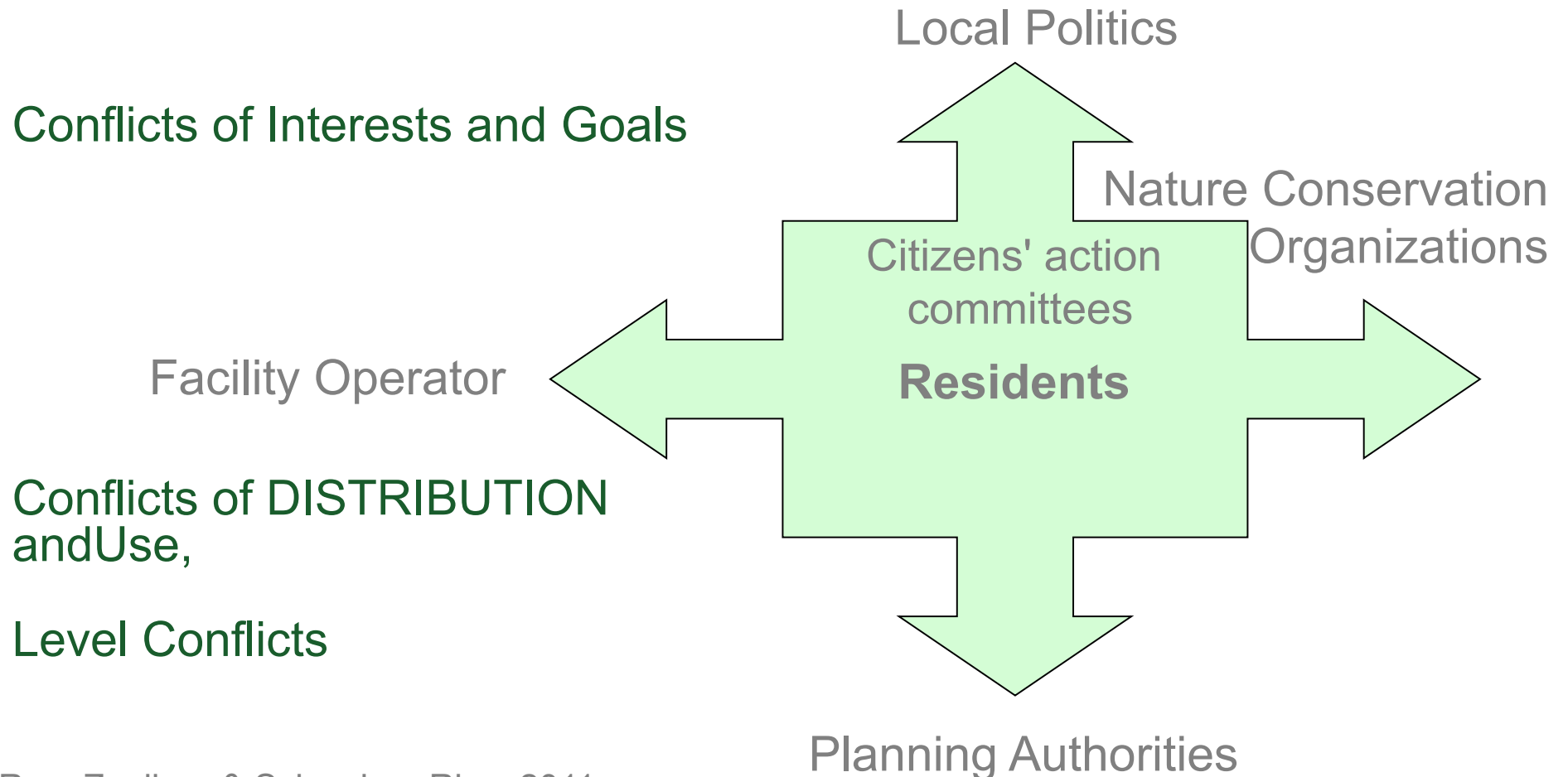


# Phases of the Planning and Decision-Making Process in a Socio-Technical Change System



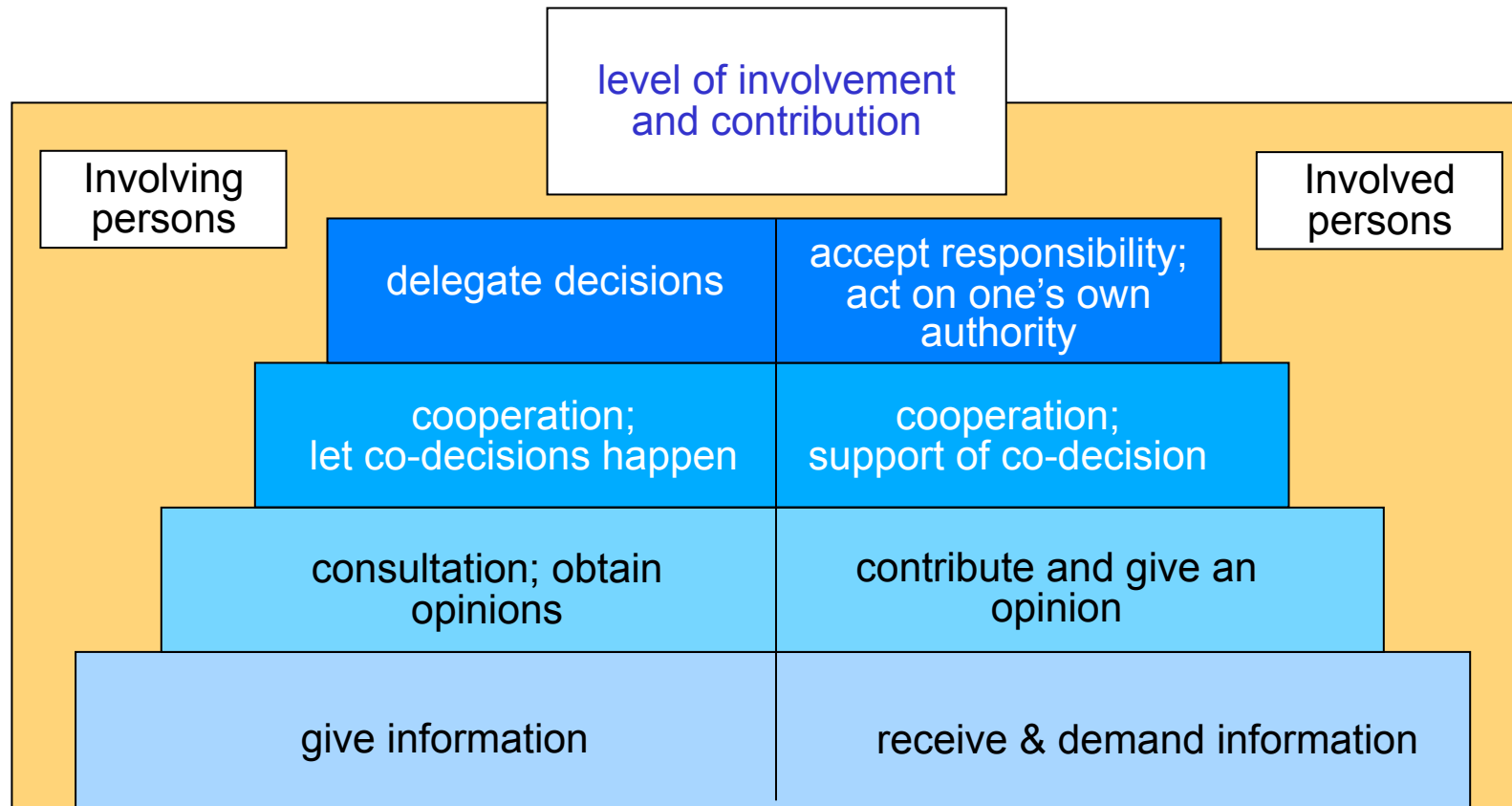


# Levels of Concern, Perspectives and Realities



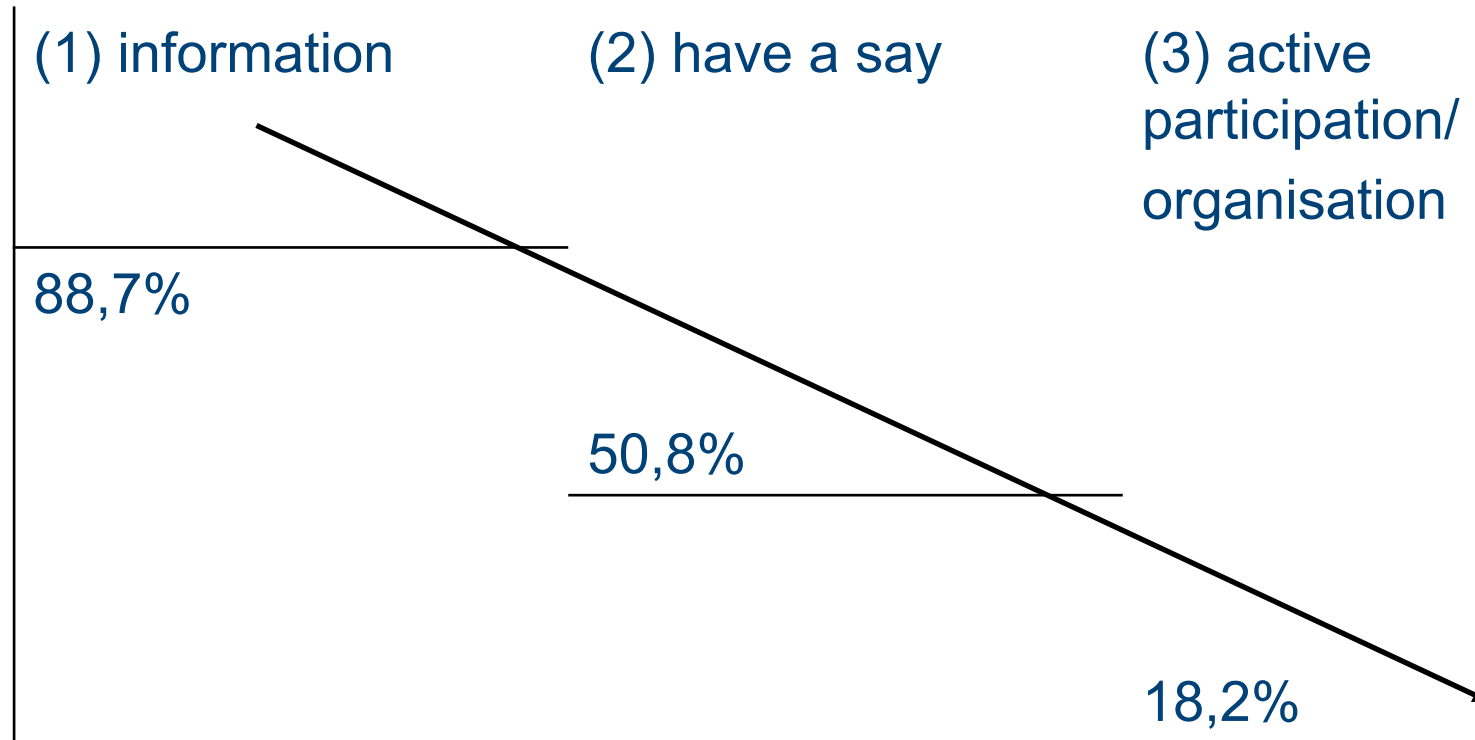


# Participation Pyramid





# Need for participation



(1) „It is very important to me to be informed precociously when RE are supposed to be constructed in my proximity.“

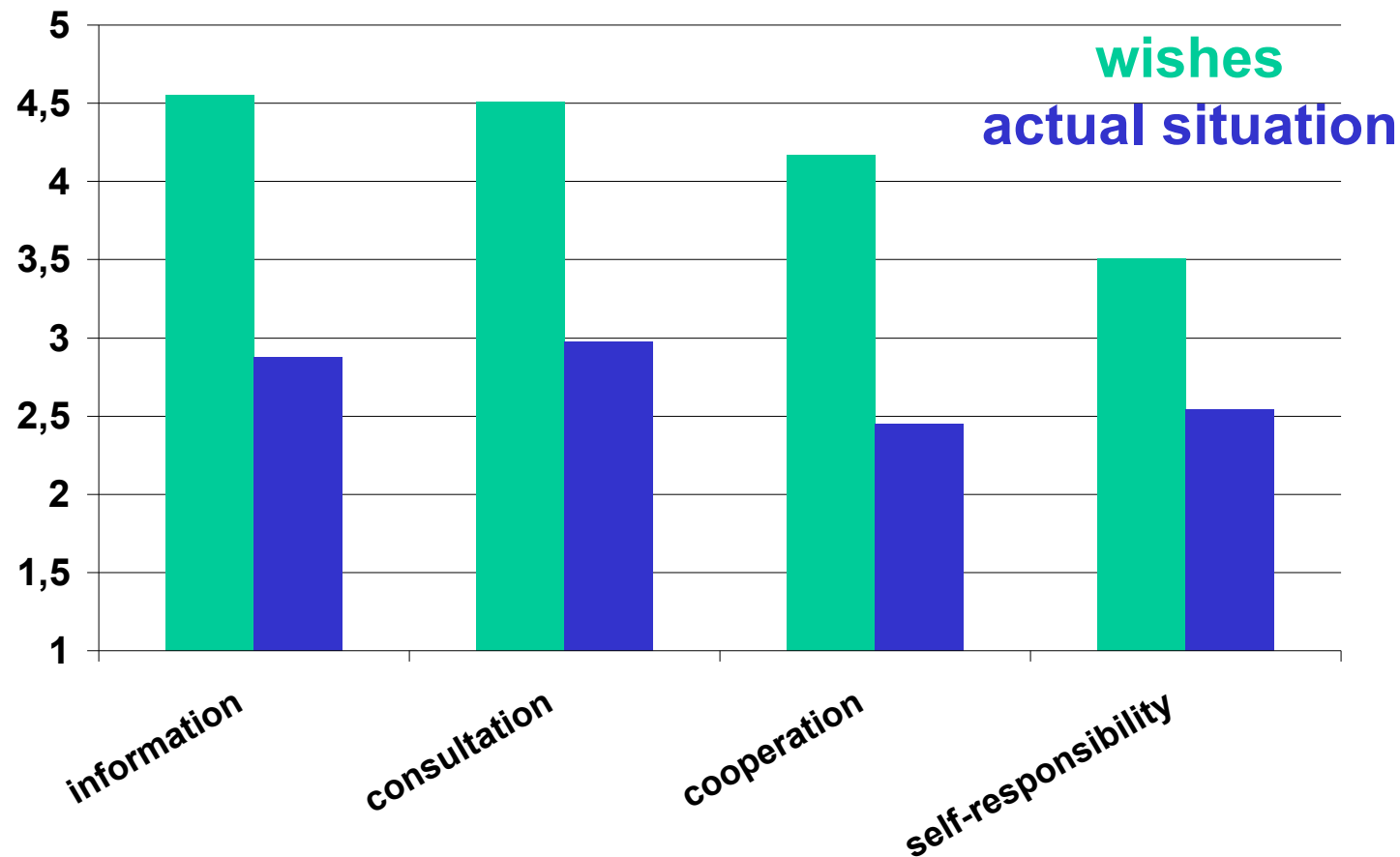
(2) „I would like to have an increased/mora a voice/say in planning processes in my proximity.“ N= 991

(3) „I am interested to take part actively in planning processes of RE in my proximity.“



# Participation: wishes vs. actual situation

1= is not true at all; 5= is completely true

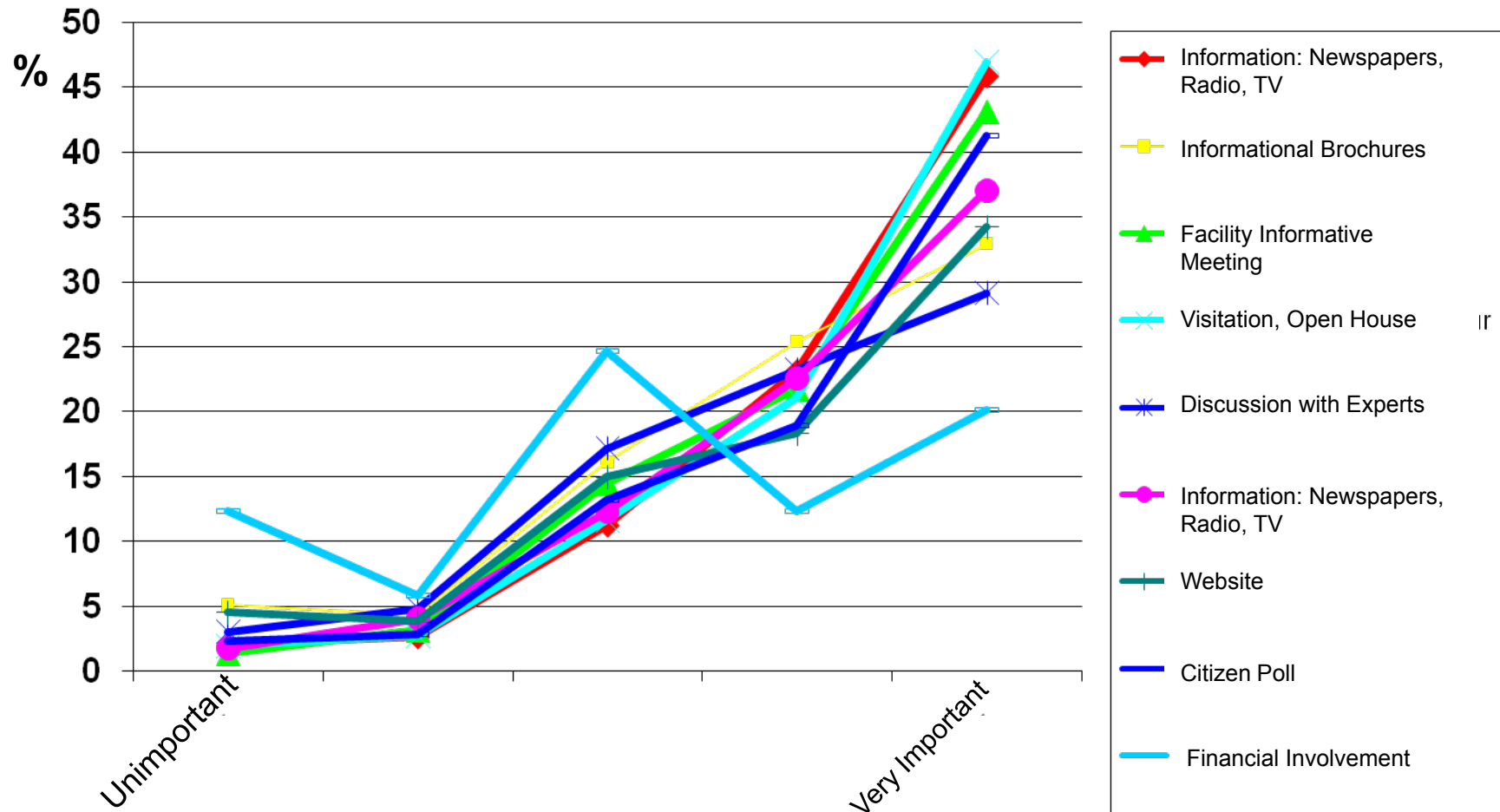


N = 859





# Importance Appraisal of Involvement Methods

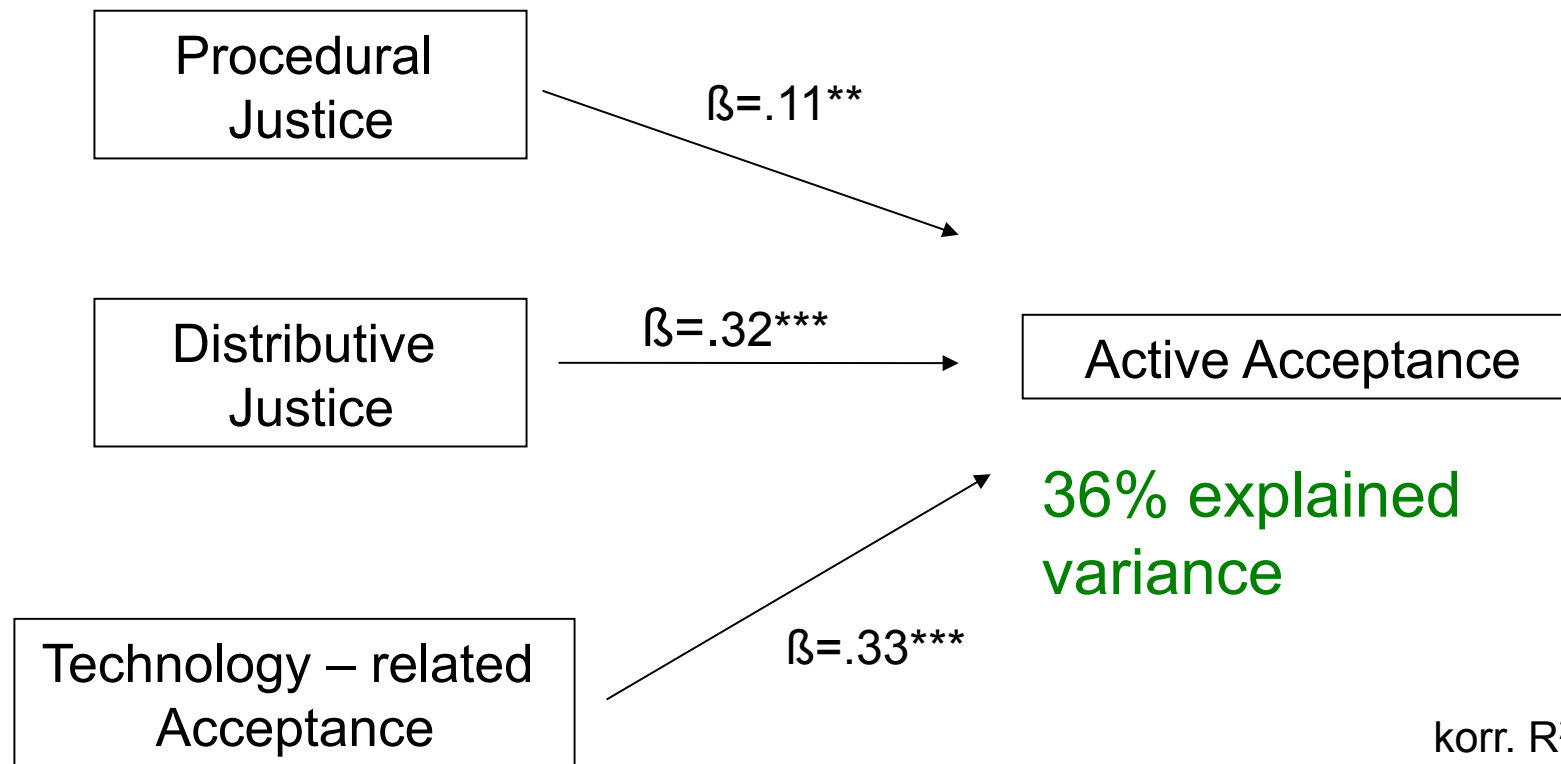


N = 859

Rau, Zoellner & Schweizer-Ries, 2011



# Impact of Justice on Active Acceptance



korr.  $R^2=.357$

$F=94,246$

sig.=,000

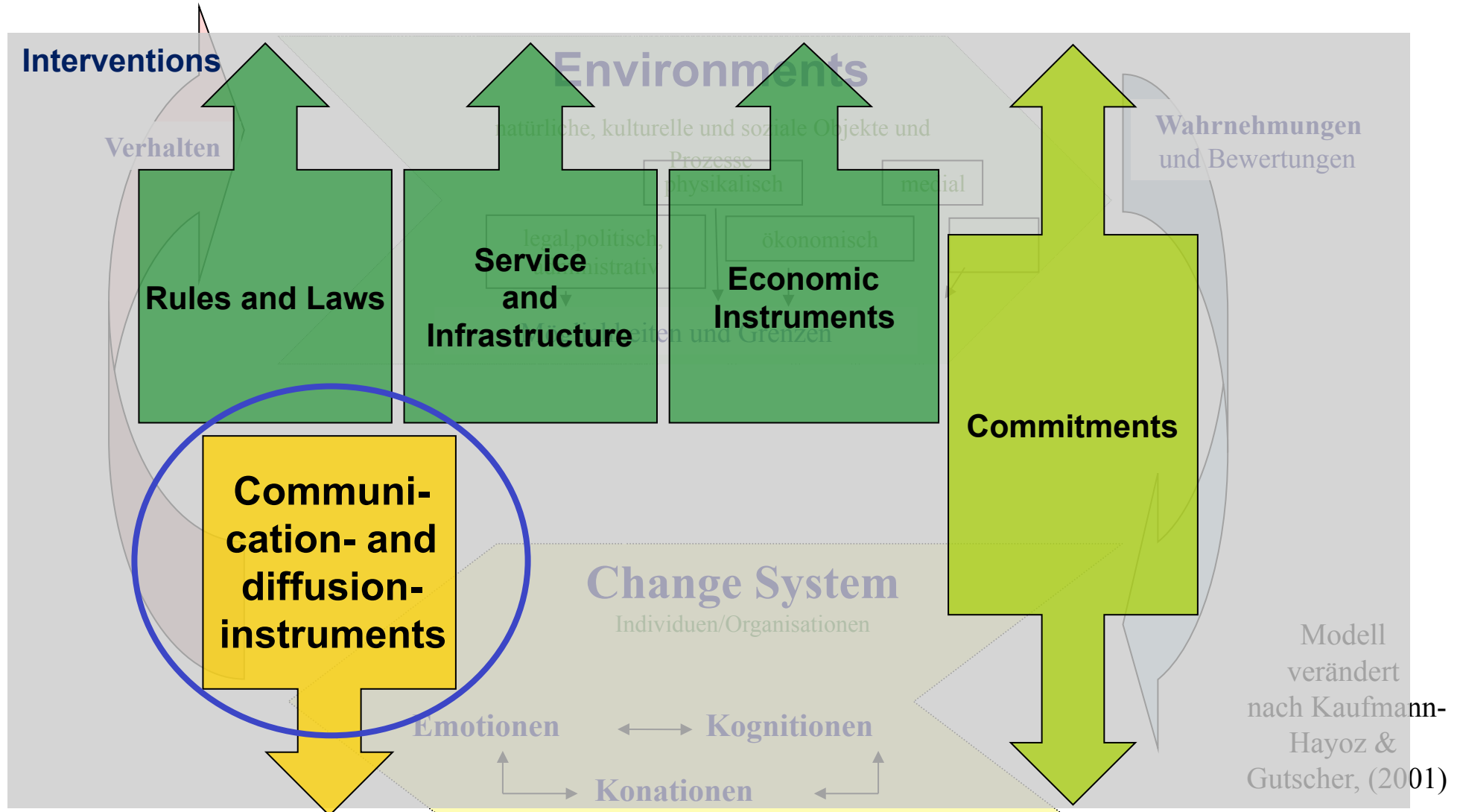
\*\* Sig.Niveau 1%

\*\*\* Sig.Niveau 0,1%



# Environmental Psychological Frame Model

## Simplified Model of Human Action





# Sustainability Communication

= all communication processes, that are concerned with contents and “facts” targeting towards building options for actions, develop interests and motivations to create visions and realisations of sustainable development.

A **sustacnable development** includes the preservation and recovery of natural resources and their fair distribution to fulfil the needs of current and future generations.



# Specialities about the sustainability communication („sustainability discourse“)

- Interlacement of cognitions and feelings
- Construction of realities through communications
- Dialogic nature
- Inclusion of actions

adapted according to Siebert, 2010



## Suggestions and Prospects (I)

- Be aware of communication processes and means
- create **transparency** and a foundation of trust => Justice, processes play a central role!
- Developments from within – **release existing potentials**; question of **affiliation** and identity boundaries (regional vs. local attachment)
- **Systematic embedding** in **regional** context, structures and processes => activation not only in relation to the project (facility), but initiation of broader movement (Agenda21, model development, local/regional energy concepts)



## Suggestions and Prospects (II)

- Create **more opportunities for involvement** on all levels → phase-specific behaviour
- Involvement as early as possible in the **process**
  
- **Realistic understanding of involvement:** creating participation opportunities is no guarantee for acceptance – consideration of other relevant factors is necessary





## Suggestions and Prospects (III)

- **professional monitoring** through a person/institution with mediating and activating function
- concretised **political visions** on all relevant levels
- **societal levels** must be closely **interconnected**
- **qualification systems**, for the successful creation of involvement processes → competence expansion
- Stronger networking, demonstration of success stories and regular **exchange** between regions and projects  
=> creation of visions and realisations





# Challenges for Further Research

## Active Acceptance

- Local Agenda 21
- Climate protection initiatives
- Climate protection municipalities
- 100 % Renewable Energy Regions
- Bio-energy regions
- National Solar League....





## Summary and Outlook

- principally **positive appraisal** of the use of renewables
- more dialog about **visions and actions** to be taken for the useful integration of renewables in our energy supply
- realisation of energy sustainable communities





Thank you very much for your attention!



Research Group Environmental Psychology (FG-UPSY):

[www.fg-umwelt.de](http://www.fg-umwelt.de)

Renewable Energy Acceptance Network:

[www.akzeptanz-erneuerbarer-energien.de](http://www.akzeptanz-erneuerbarer-energien.de)

**Direction**

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