



# **SURE Impact Framework (Cluster 3)**

- ensuring the funding priority's impact beyond the projects
- as part of transdisciplinary research
- as a tool of reflection and self-reflection
- to observe progress of the SURE projects and the SURE funding priority towards impact



Cluster 2 Project analysis, synthesizer **Cluster 3**Impact framework

Cluster 4
Communication &
Events

Cluster 5
Project
nanagement

Cluster 6
Project
Transfer



# How to observe progress towards impact?

in the context of...





\*evaluation (independent review of the impact) can't be the answer

#### **IMPACT-ORIENTED MONITORING**

aims at...

constantly qualifying the interventions becoming aware of changes + analysing their causes initiating internal, ongoing reflection + learning processes strengthening intended + react to unexpected impacts

requires criteria (references) and a culture (reflection)

impact oriented monitoring makes the impact of the SURE projects + SURE funding priority visible

#### **REFERENCES**

highlight the actual references (self-set impact goals) of the SURE Projects

#### REFLECTION

reflecting on one's own actions and intervening (if necessary), best possible achievement of the references





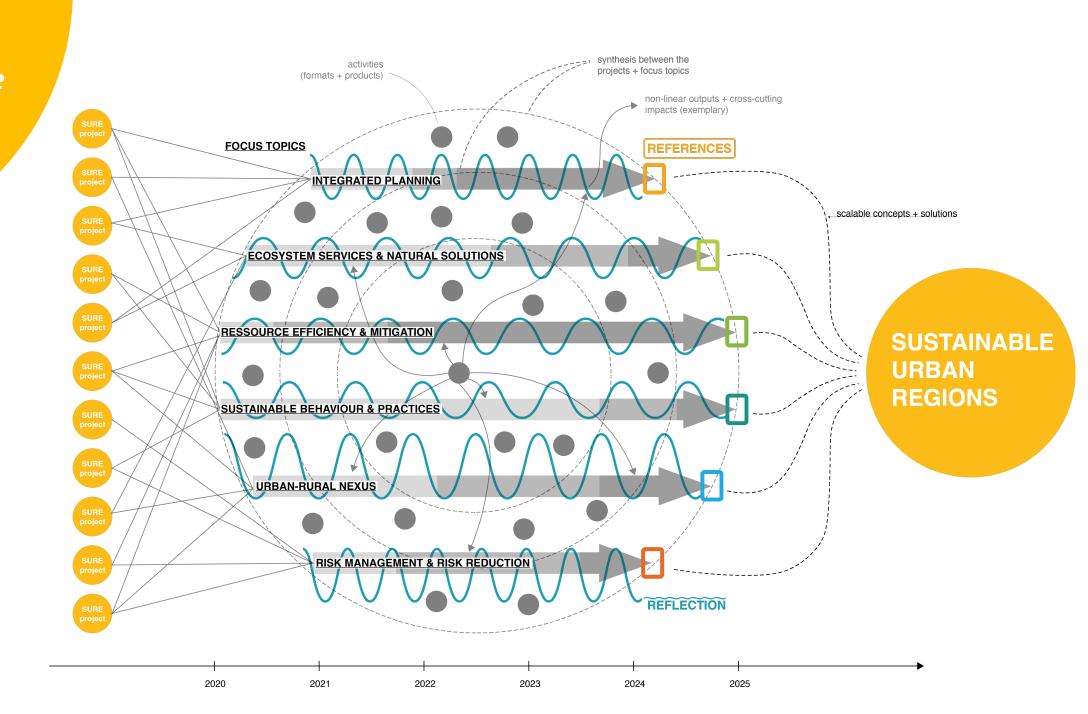
## Main Goals of the SURE Framework

Establish and sustain urban research as a learning system

- Integration of the learning system...
  - into the SURE funding priority (internal & overall)
  - into the SURE projects (internal & individual)
  - in future programs and projects, from the beginning (external)

How to integrate the leaning system?

internal & overall perspective



# SUF REFERENCE PICTURE overview



REFERENCE PICTURE













#### **REFERENCES**

urban

#### **INTEGRATED PLANNING & DEVELOPMENT** need-based

planning

resilience

sustainability & urban quality

of life

sustainable neighborhood development urban

transformation of informal settlements

harmonised urban-rural planning policies

participatory transformation

references & reflection

**ACHIEVEMENTS** 

#### urban resilience

strengthening the resilience of the city to climate change impacts

strengthening the resilience of the city to environmental changes

mitigation of climate change impacts & environmental changes

development of a vision, an urban strategy

development of recommendations & measures for climate change adaptation

development of impact assessments to assessing the impacts of land use change

greening the energy usage

integration of climate change concerns into the existing legislative and policy frameworks

creating a methods package (toolbox)

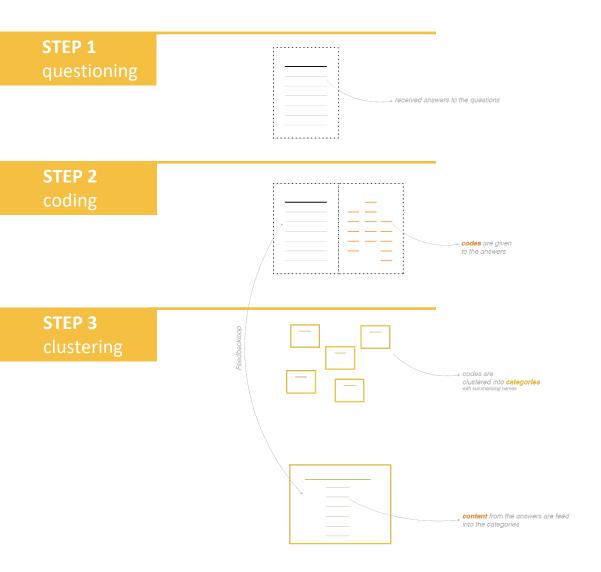
tools for the evaluation of possible future of urban developments (evaluation of land use changes)

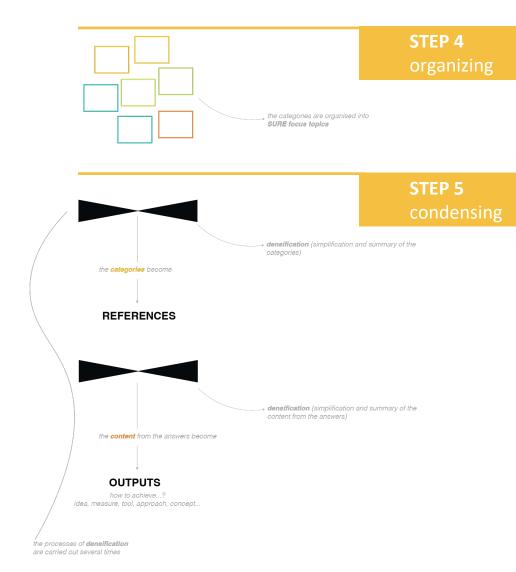
**PROGRAM** 

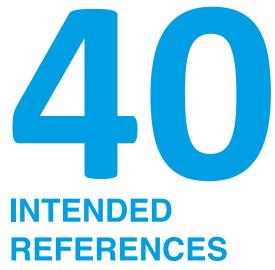
**INTENTION** 

**ACTION** 

# SUFF REFERENCE PICTURE development process







PROGRAMS

158

and

5+1
FOCUS TOPICS

with

111
INTENTIONS

and 125
ACTIONS



# **Key Findings**

**Plenty**: soft focus topics such as planning processes and sustainable behavior are the key reference areas

**Increasing**: over the project duration, topics in the area of risk increase

Few: in the already complex environment of urban regions, it is challenging to address issues of urban-rural nexus

**Fairly little**: although mobility is closely related to the topic of behavior change, this topic is not addressed by references, or only peripherally

URBAN-RURAL-NEXUS

INTEGRATED PLANNING & DEVELOPMENT

ECOSYSTEM
SERVICES &
NATURE-BASED
SOLUTIONS

SUSTAINABLE
BEHAVIOR &
PRACTICES

RESSOURCE EFFICIENCY & MITIGATION

RISK
MANAGEMENT &
RISK REDUCTION

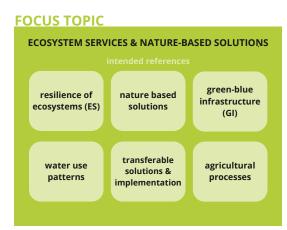
SURE'S INHERENT PHILOSOPHY

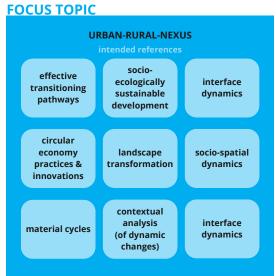


## **Intended References**

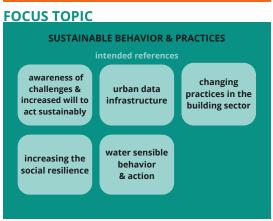


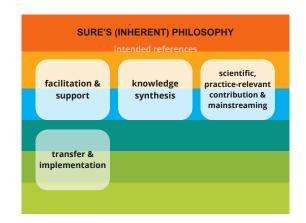














# THE SURE REFERENCE PICTURE IN DETAIL

#### **INTEGRATED PLANNING & DEVELOPMENT**

# urban resilience strengthening the resilience of the city to dinate change impacts strengthening the resilience of the city to environmental changes mitigation of climate change impacts & environmental changes development of a vision, an urban strategy development of a vision, an urban strategy development of recommendations & measures for climate change adaptation development of impact assessments to assessing the impacts of land use change greening the energy usage integration of climate change concerns into the existing legislative and policy frameworks creating a methods package (toolbox) tools for the evaluation of possible fears of urban developments (resiliation of possible fears of urban developments (resiliation of plant use changes)

# urban sustainability & urban quality of life strengthen & implement sustainability on site reframing urban development to being a means to mitigate climate change sustainable transformation management improved understanding of the need for integrated urban development approaches strengthening people-oriented approaches among local urban planning actors reframing cities as a carbon sink maintain greenhouse gas emissions stored in the building stock capacatly building & empowerment development of an integrated urban development citizing for sealing cities as the support of the

development of a curriculum for university courses













#### **ECOSYSTEM SERVICES & NATURE-BASED SOLUTIONS**

## resilience of ecosystems (ES) expansion & qualification of systems for climate change adaptation protection & improvement of protection, improvement & increase/ shancement of urban ES & their ES services tribution to the improvement of air quality improving the understanding for ecological identification of barriers & opportunities for potential hybrid & ES-based solutions recording & evaluation of individual ES preparation of impact assessments for the evaluation of heat adaption measures preparation of impact assessments for the evaluation of air quality development of ecosystem performance standards for urban subareas identification of synergies and trade-offs between single ES services

development of ES specific indicators

evaluation of ES & supplementation with innovative assessment and evaluation approaches

analysis of case studies at district and sub-district level

implementation of ecosystem service concepts in green infrastructure planning

integration of ecosystem-based approaches into flood risk management

GIS based approach for integrated & spatial ecosystem service assessment of land use options

development of a GIS based toolbox for spatially explicit assessment of multiple ES

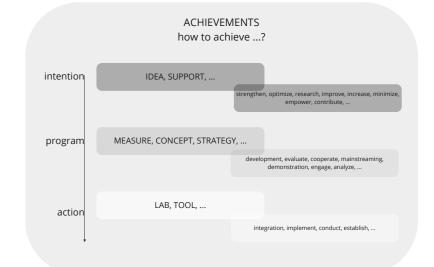
# Intended Reference nature based solutions strengthening resilience through nature-based solutions increased understanding of potential impacts of nature-based solutions air quality improvement adoption & implementation of measures & policy recommendations for the expansion of nature-based solutions development of nature-based solutions for climate adaption creation of scenarios of future urban developments establishment of labs as a place for information & exchange implementation of an exhibition with multimedia & digital elements implementation of events for the exchange of experience & knowledge elaboration of target group specific education & information materials

# understanding local capacities for the construction of infrastructures understanding the local context for example existing wetlands and - solutions evaluation of urban development dynamics analysis of water use patterns & water-related vulnerabilities identification of possible hybrid and nature-based solution development of tools for analysis conducting living labs development of a guideline for hybrid and nature-based solution

# transferable solutions & implementation fostering solutions for the preservation of resources ensuring the implementation of innovative, transferable solutions



# integration of circular economy, nature-based solutions & integrative planning development of approaches to circular economy pathways of nutritional & waste products development of scalable utilization concepts to enhance material & nutrient circulation development of guidelines for nature-based & multi-functional farming development of guidelines for scalable, feasible & environmentally sound agriculture practices



#### **RESSOURCE EFFICIENCY & MITIGATION**

#### INTENDED REFERENCE

# preservation & improvements of buildings

maintaining existing usages

preservation of traditional buildings

preservation of buildings by maintaining their uses

indoor comfort improvements

relieving vernacular houses of climatic pressure

relieving traditional houses of development pressure

limiting use of primary energy

bridging past & future in the process of

maintainance of heritage value in hot & humid climate

empowerment of academics

limiting of (monetary) cost

strategies for old, wooden, residential houses

integrated urban development strategy (thermal comfort improvements)

development & improvement of natural (building) materials

integrated urban development strategy for indoor comfort improvements

evaluation of hypothetical impacts of a set of recommender solutions to improve thermal comfort

design & implementation of integrated, economically sustainable solutions

establishment of a basic model for the evaluation of thermal & indoor comfort

#### INTENDED REFERENCE

# sustainability in the building sector (new construction)

construction of sustainable buildings

transdisciplinary co-production of knowledge

derstanding of prevailing niche and regime characteris

coalitions through front-runners from the building sector

development of a transition agenda

development of a transiton governance approach

development of guidelines and certificates for green building as contributions to political processes

identification of front runners

implementation of a sustainable building roadmap

solid cooperation with local stakeholders

 $\ \, \text{development of technical engineering criteria}$ 

conducting sustainable building arena

 $conducting \ sustainable \ building \ incubator$ 

#### INTENDED REFERENCE

## sustainable, water sensible urban transformation

polycentric approaches to urban water management

mitigation of hazards strengthened by climate change

systematic, water-sensible urban

management of urban water resources

polycentrical management

esolve environmental-economic conflicts (e.g

improvement of water-related services of public interest

reducing pressure on urban water resources

development of visions, urban mission statements & scenarios

rating of the relationship between water & urban development dynamics

analysis of water use patterns

analysis of water-related vulnerabilities

concepts for a water-sensitive & resilient urban development

development of new multi-stakeholder cooperation structures

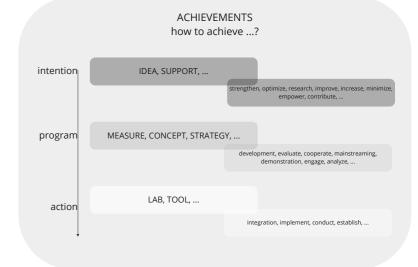
polycentrical management of urban water resources)

development of a new regulatory-political environment

tools & instruments for future-oriented strategic urban planning

implementation of strategic pilot projects

implementation of living labs



#### **SUSTAINABLE BEHAVIOR & PRACTICES**

# INTENDED REFERENCE awareness of challenges & increased will to act sustainably involvement of stakeholders on site establishing sustainability as a positive goal prioritize overarching goals over individual wishes understanding concept "quality of life" raised awareness lifestyles contribution to an evidences-based general understanding of risks contribution to an evidences-based general understanding of potentials towards a sustainable future generating learning and experimentation space bringing public transport in the urban contexts (e.g. shuttle service) on the agenda increased and systematized exploration of own actions in the context of sustainable urban development focus on new consumers involvement of residents in the process inclusion of students in the process conduct an exhibition "pioneers for sustainable lifestyles" dialogue-oriented / awareness campaign survey to understand better, factors influencing perceived quality of life establish positive, sustainable status symbols

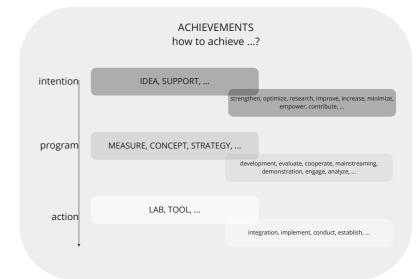
development of credible models



# increasing the social resilience qualification & extension of knowledge on climate change adaptation increased understanding of ecological challenges



sustainable & practice-oriented capacity





#### INTENDED REFERENCE

# effective transitioning pathways

development of locally specific integrative transformation scenarios

development of local innovation guidelines

development of guidelines for nature-based & multi-functional farming

#### **INTENDED REFERENC**

# circular economy practices & innovations

demonstration of economic potential

awareness of the innovation potential of local and regional enterprises

#### INTENDED REFERENCE

#### socio-spatial dynamics

analysis of relevant socio mobility patterns & exclusion risks

analysis of multi-scalar, actor-based sociospatial practices

#### INTENDED REFERENCE

# socio-ecologically sustainable development

strengthening academic learning partnership

development of regional guiding strategy

development of a conceptual framework for structuring inclusive transformation processes

#### INTENDED REFERENCE

#### landscape transformation

decoding of spatial typologies & scenarios

mapping spatial constellations & their transformative dynamics (atlas)

#### INTENDED REFERENCE

#### material cycles

approaches to circular economy pathways of nutritional & waste products

maps of transformation tendencies & risks of ecosystems

development of an integrative GIS tool

#### INTENDED REFERENCE

#### interface dynamics

evidences-based general understanding of urban-rural linkages

identification of sustainable risks & transformation potentials

demonstration of risks & opportunities related to social inclusion

demonstration of innovations, economic opportunities & risks emerging

capacitate local governments in integrated resilience building

fostering strategic, actor-oriented scenario & implementation planning

identification of sustainable risks & transformation potentials (Build Back Better)

development of a framework for structuring inclusive transformation processes

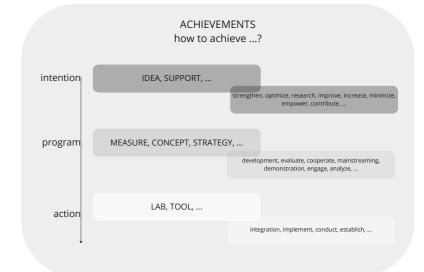
conducting an evidence- based analysis of ecological risks & potentials

#### INTENDED REFERENCE

# contextual analysis (of dynamic changes)

baseline studies

spatial mapping



#### **RISK MANAGEMENT & RISK REDUCTION**

#### INTENDED REFERENCE

# disaster prevention & mitigation

risk management through spatial planning

pointing out risks

linking risk governance & spatial planning

mainstreaming into disaster management regulations & practices

mainstreaming into planning processes

modeling risk trends

development & testing of disaster management approaches

addressing disaster risk through spatial planning for settlementhat are most affected and least equipped with the formal system of risk mitigation planning & governance mechanisms

echnology & knowledge transfer to learners and decision

supporting decision making on the level of pilot sites

supporting decision making on the level of policy making

implementation of living labs

implementation of a PhD program

implementation of training courses

#### INTENDED REFERENCE

# disaster preparedness & response

of the civil society

provision of knowledge

programmes for civil society

involvement of volunteers

analysis of the use of digital media & apps for disaster response & preparedness

conception of operational precautio

development of educational preparedness programmes

business-continuity-strategies

#### INTENDED REFERENCE

#### flood & disaster risk reduction & risk transfer

lentification of risk reduction, risk transfe adaption on demands & solutions

optimized strategies, plans & planning processes

development of a multi criteria evaluation catalogue

definition of an enabling environment fo risk transfer solutions

implementation of risk transfer solutions

utilization of a portfolio of potential risk reduction options, adaptation measures & risk transfer solutions

integration of recommendations into current & future strategies

conducting regional best-practice workshops

conducting workshops on risk transfer solutions

implementation of public & private insurance

conducting geodata analysis, earth observation, risk & vulnerability assessment

 $conducting\ risk\ preparedness\ workshops$ 

risk profiles

#### INTENDED REFERENCE

#### flood risk management

analysis & simulation of future flood risk

(infrastructure assets & natural systems)

urban planning & disaster risk management

develop cost-benefit rankings for different adaption measures

sensitising decision-makers for natural risks

student research projects on topics of flood risk management

development of guidelines

implementation of adaption measures into future development strategies & plans

integrated measures into legislative & policy frameworks

conducting regional best-practice workshops

tool for cost-benefit analysis of measures

risk preparedness workshops

water-risk-check-tool

#### INTENDED REFERENCE

#### build-back-better strategies

fostering lessons learned from past disasters (Covid-19)

identification of formal & informal networks

sustainable "build back better" strategies

concepts for implementation

#### INTENDED REFERENCE

#### flood risk information

cultivate long term partnerships

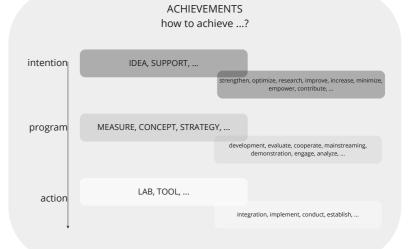
integration of climate change effects & anthropogenic changes

risk information system (tool)

tool to discuss planning & future scenarios

meta-database on risks

highlighting infrastructure assets & natural systems (i.e. ecosystems) most at risk





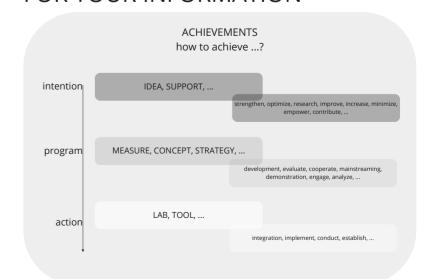
### **SURE'S (INHERENT) PHILOSOPHY**

# INTENDED REFERENCE facilitation & support support of partners & projects to increase the intended impacts capacity development, building & knowledge exchange highlight synergies between projects and facilitate collaboration support in identifying *Unknown Knowns* (the knowledge lying dormant in projects) + using them for the further development of the projects support in identifying *Known Unknowns* (the open questions and problems) + using them for the further development of the projects mainstreaming scientific knowledge into capacity building stakeholder cooperation education & capacity building measures creation of visibility through: homepage, newsletters, social media, SURExChange, SURE Solutions establishment of a collaboration platform initiating a community of practice INTENDED REFERENCE transfer & implementation improve the visibility of impact & results transfer of methods make impact of the results visible identification of transferable solutions highlight effective solutions, transfer in other contexts alignment & impact transfer between SURE & the international level analysis of transfer & implementation effects transfer of knowledge & methods into planning practice synthesis research & synergy development / identification analyse depth of implementation and sustainability of results carry out an impact analysis

add a further level to the reference & reflection framework

INTENDED REFERENCE knowledge synthesis contribution to scientific body of knowledge on urban sustainable research contribution to transdisciplinary knowledge create a contribution to urban research content comparison/analysis/synthesis overview of solutions & innovations dentification of future development trends or identification of innovation & development creating an overview of solutions & development of self-reflection tools establishing a virtual thinking space scientific publications, guidelines  $\&\ handbooks$ comprehensive publication (SURE Solutions) modeling of future challenges & arising topics decision making support tool "what to solve?"

INTENDED REFERENCE scientific, practice-relevant contribution & mainstreaming enabling a transfer into practice science diplomacy interculturality interdisciplinarity & transdisciplinarity elaboration of problems & questions (addressed in the future) enabling a dialogue between science & stribution to the debate on strategic, interdisciplinary, transdisciplinary & spatially integrated planning identification of the current state of research foster an atmosphere of mutual trust for joint collaborations ification of further research topics that are essential to be effective in this field conducting events for the exchange of experience & knowledge communication of scientific innovation outputs (scientific dissemination) informing urban decision making provide a scientific and practice-relevant providing input for scientific discussion measuring the transfer and implementation effects development of impact analysis monitor the ongoing research program elaboration of problems and questions to be addressed in the future bringing results to society clarify: research project with entation approach vs. development project establishment of a dialogue between science & the different actors from practice joint interventions that follow the approach of action research





the main task now is to sustain learning cycles through reflection using dedicated tools (short term)

# SUFE TOOLBOX overview



#### **PREVIEW: SURE Toolbox on Reflection**

#### **HOW TO READ THE TOOLBOX**



#### **KEY FEATURE**



#### **REQUIRED TIME**



### **DIFFICULTY OF USE**



#### **REQUIRED TEAM SIZE**





#### **WORKS WELL WITH**



#### TOOL IN A NUTSHELL











#### **After Action Review** Īst draft

An After Action Review (AAR) is an approach to routinely review events and actions to contribute to a culture of continuous learning and to identify recommendations for future actions. As part of the AAR, the project team is brought together in the optimal case immediately after the event to openly and honestly discuss an activity or event. The aim is to better understand what was originally intended, what actually happened, why it happened, and what and in which way it could be done better. Thus, an AAR is about learning while doing and capturing new actionable knowledge, because regardless of project impacts, there are always successes to document and lessons to learn (ARE, 2005, p. 4; Salem-Schatz et al., 2010, pp. 1-2, 4-5; Serrat, 2008, p. 1).

#### **USEFUL TO...**

#### promote internal reflection and motivation processes

...as teams reflect on their strengths and identify opportunities for improvement.

#### maximize learnings and insights

...as key lessons are identified to improve work quality.

#### enhance mutual learning and knowledge transfer

... as knowledge from actions is made available to related projects.

#### ... in the context of SURE

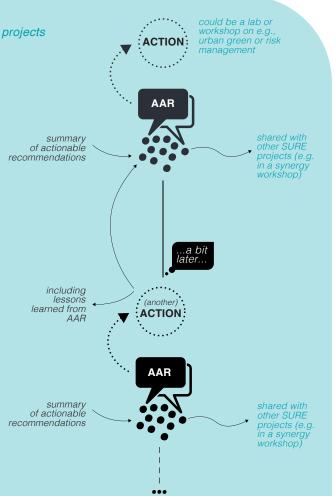
to be discussed with the projects

Many of the SURE projects follow action-oriented research approaches by working in labs or workshops on topics such as urban green or risk management.

In this context, however, research is not only theoretical, but follows rather a from research to action to implementation approach. For this reason, direct implementation of partial results is intended, and local stakeholders are encouraged to become key designers of these actions.

Since the SURE projects usually do not carry out a single lab (Reallabor) or single lab action-oriented workshop throughout their project trajectory, but rather initiate a variety of different formats, conducting an AAR is a good way to learn from action to action.

In addition, a summary of actionable recommendations can be useful to other SURE projects. e.g., shared in a Synergy Workshop, and thus foster a loop of reflection and learning from each other, maximizing the impact of actions and in the end, maximizing the impact of the project.



# After Action Review 1st draft

The entire process of an AAR should be made as simple and rememberable as possible, and should be carried out after significant milestones, events, or activities. Informal AAR can be conducted, for example, immediately after an intervention - when memories are fresh. They last about 15-20 minutes and are led by a member of the project team.

Formal AAR, however, are used for example to reflect on strategy development processes, last approx. 1-2 hours and are led by an external moderator.

All AAR focus on honest as well as professional discussions, focusing on the results of an activity. This discussion involves all the people who organized and carried out the action. It is particularly important to create an open framework in which honest observations are encouraged and actual findings (objective data, without judgments) are obtained.

At the end of an AAR, there is a clear summary of specific and actionable recommendations that will improve the next action in the short term and the project process in the long term (GEI; ODI, 2009; Salem-Schatz et al., 2010, pp. 1, 4-5, 7; Serrat, 2008, pp. 1, 3).

#### **Further Reading**

Salem-Schatz, Susanne; Ordin, Diana; Mittman, Brian (2010). Guide to the after action review. A simple but powerful method for rapid post-project assessment.

Serrat, Oliver (2008). Conducting After-Action Reviews and Retrospects.

ODI (Ed.) (2009). Knowledge Sharing and Learning: After Action Reviews and Retrospects.

# Guide to Reflection 1st draft

In any given AAR, the following three blocks of questions will be answered, discussed, and documented in the designated order:

#### A // What could be expected or what should happen? What actually happened?

Based on the questions, the intended deliverables are discussed by the project team and then compared with the actual achievements (non-judgmentally) (GEI; ODI, 2009; Salem-Schatz et al., 2010, pp. 1-2, 4-6; Serrat, 2008, pp. 1-2).

#### B // What has worked? What didn't work and why?

Through the questions, successes and obstacles in the course of the event or activity are being reflected upon and an understanding of the causes is being developed (GEI; ODI, 2009; Salem-Schatz et al., 2010, pp. 1-2, 6; Serrat, 2008, pp. 1-2).

## C // What should be done differently next time and

This question helps to identify concrete and implementable recommendations for action (GEI; ODI, 2009; Salem-Schatz et al., 2010, pp. 1-2, 6; Serrat, 2008, pp. 1-2).

#### Take care of / be aware

- It is purely a reflection of a particular action or event, not of the whole project or process
- It is therefore only a snapshot





# long term outlook



Highlight the scalable measures that SURE is exemplarily implementing in labs



Designing the transfer from SURE to sustainable urban regions as a learning system



Closing the learning cycle from action research to scalable action for sustainable regions