



## Integrated concept for the urban quarter „Käfertal Centre“

Cascade Study Visit, 24<sup>th</sup> September 2013

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# Integrated concept for the urban quarter „Käfertal Centre“ Project Management by ...

## MVV Enamic REGIOPLAN GmbH

- ▶ Fields of activity:
  - Consulting and redevelopment
  - Urban planning and design engineering
  - Project development
  - Land development
- ▶ Municipal and private customers in the Metropolitan Area Rhine-Neckar
- ▶ Interdisciplinary team
- ▶ Quality management certified according to DIN ISO 9001 : 2008



# Integrated concept for the urban quarter „Käfertal Centre“

## Stakeholders

### ► Project partners:

**STADT MANNHEIM**<sup>2</sup>



### ► Further stakeholders:



GEWERBEVEREIN  
MANNHEIM  
KÄFERTAL e.V

**KFW**



# Formally designated redevelopment area since 2011

Vantage point for setting up an integrated concept in 2012



# Integrated concept for the urban quarter „Käfertal Centre“

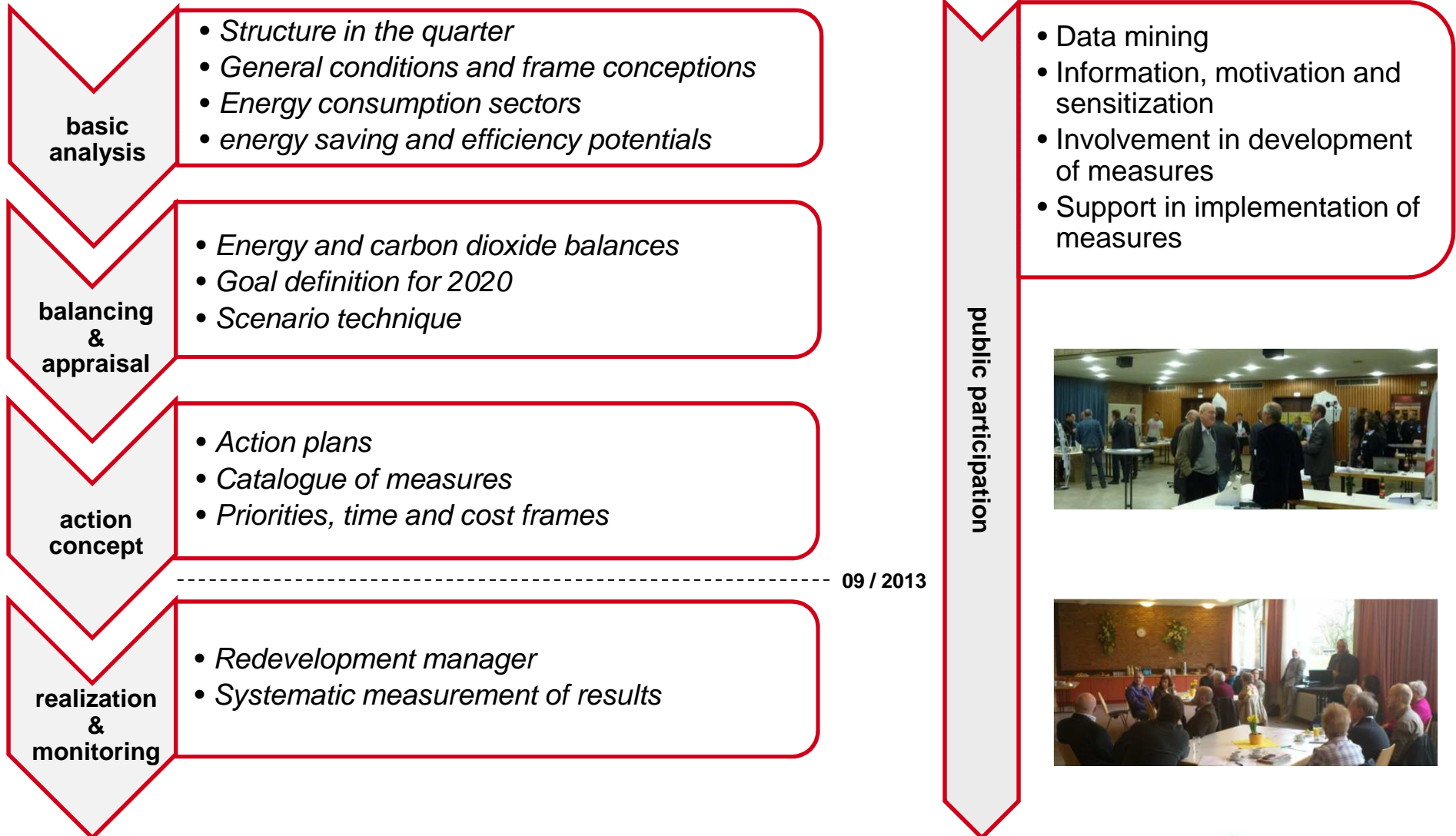
## Aims

- ▶ Augment energy efficiency
- ▶ Reduce fossil energy sources
- ▶ Increase supply from renewable energies and CHP
- ▶ Optimize mobility behaviour and offerings
- ▶ Reduce carbon dioxide emissions within the sectors electricity, heat & mobility
- ▶ Establish sustainable urban development
- ▶ Inform, motivate, advise and support stakeholders about implementation options



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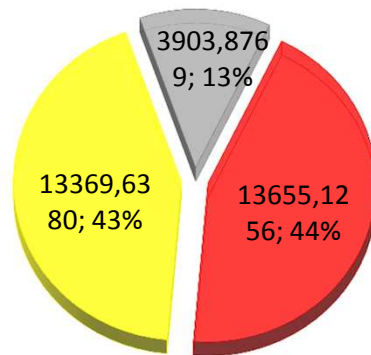
## Working steps



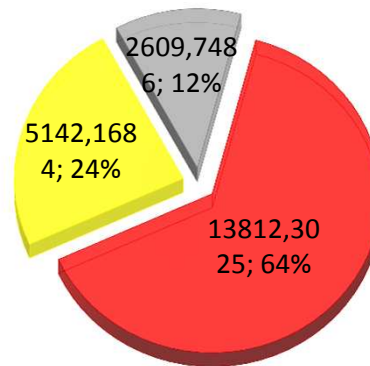
# Findings: Current state in 2010

## Quarter balances

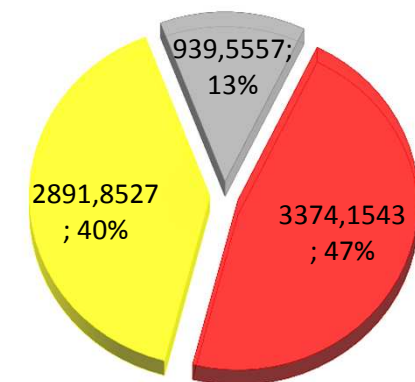
Primary energy  
(in MWh/a)



Final energy  
(in MWh/a)



Carbon dioxide footprint  
(in t CO<sub>2</sub>/a)

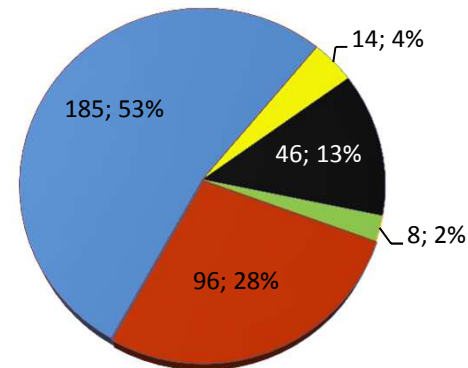
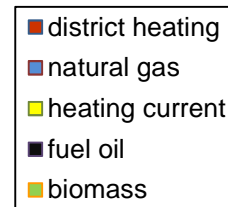
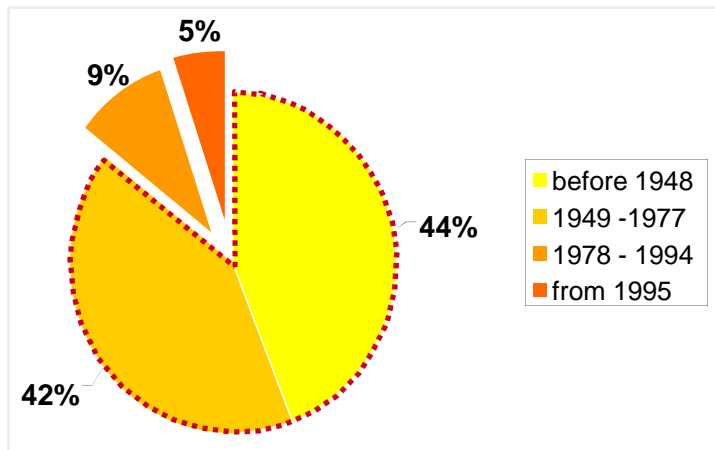
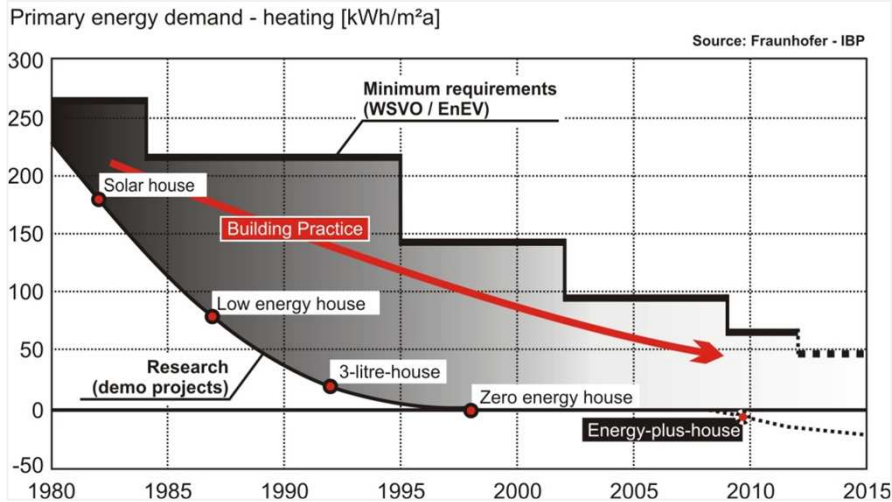


- heat
- electricity incl. street lighting
- mobility

The quarter's heat market offers major reduction potentials.

# Findings: Current state in 2010

## The quarter's heat market



**86 % of the building stock shows high potentials for energetic refurbishment**



# Quarter classification into heat demand



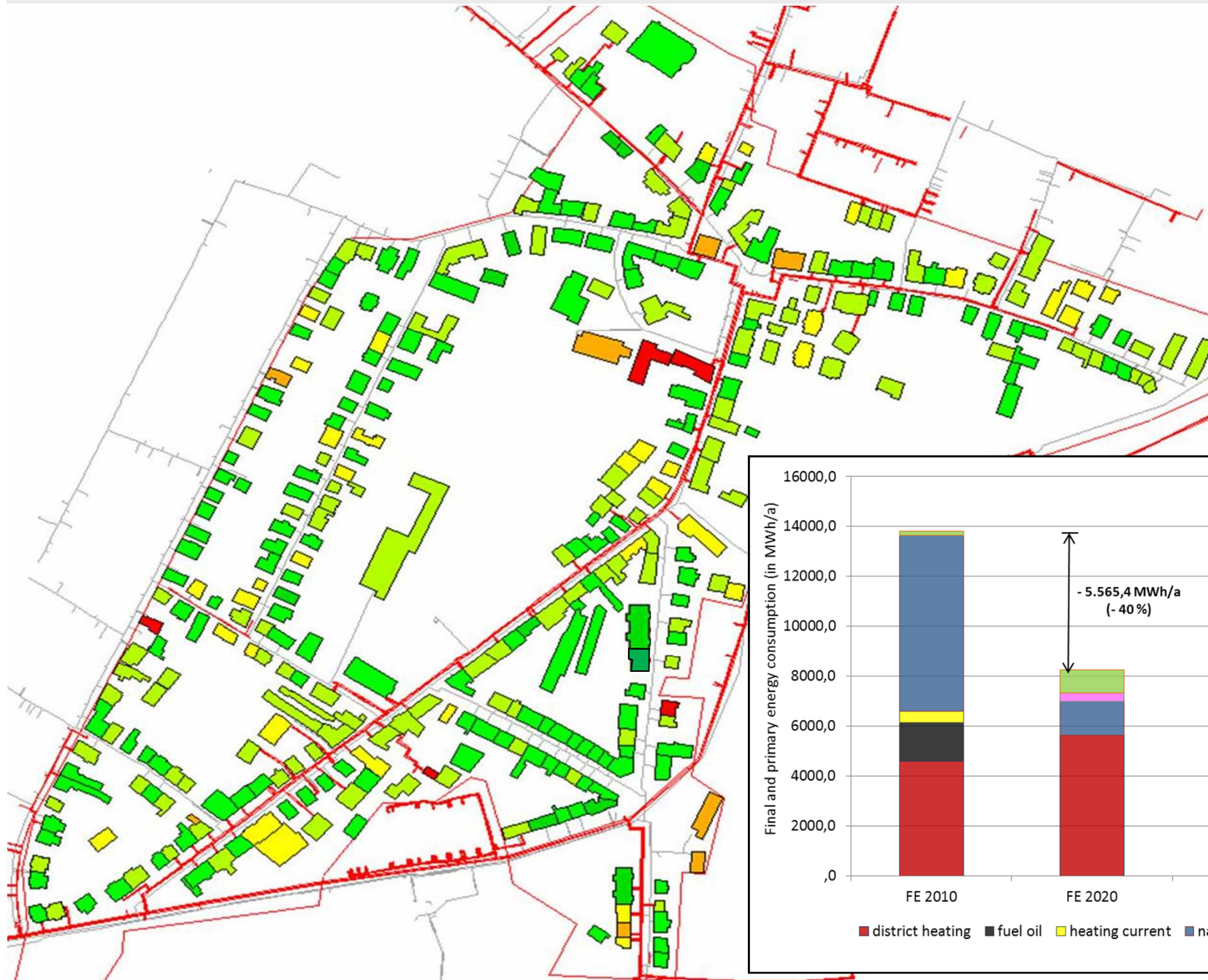
# Refurbishment scenario TREND 2020



# Refurbishment scenario GOV 2020

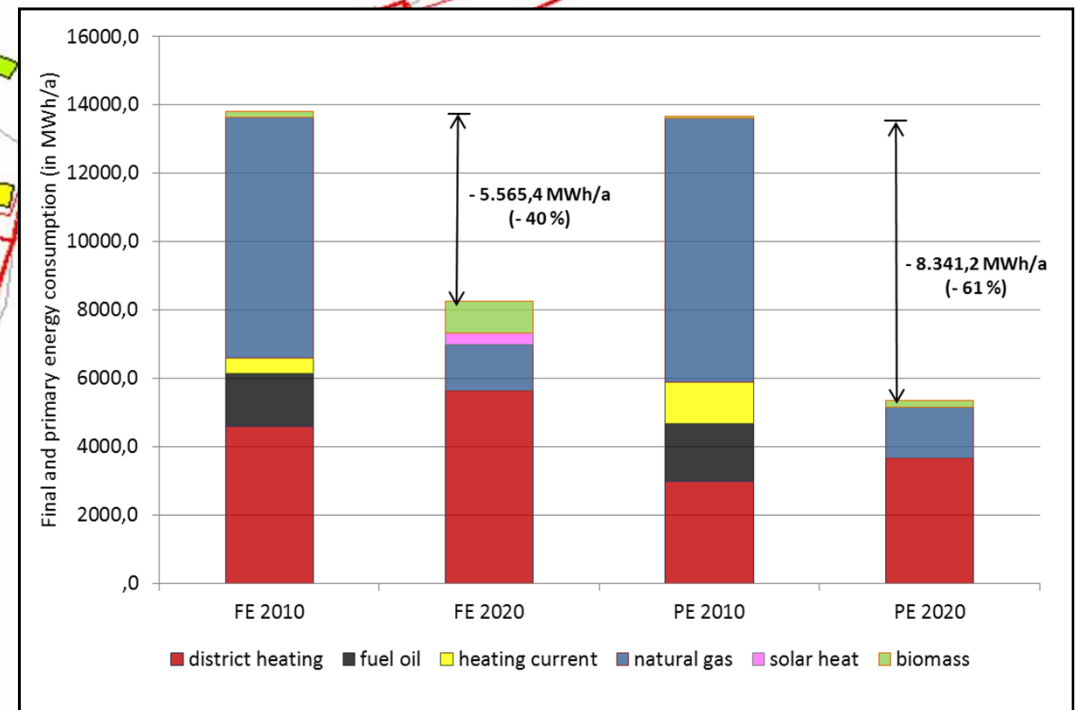


# Refurbishment scenario CLIMATE 2020



## Caption:

Spec. final energy consumption [kWh/m²a]



# Integrated concept for the urban quarter „Käfertal Centre“

## Measures to tap the full potential in the quarter's heat market

Paths to climate protection in the heat market lead to ...

... reducing the heat demand of buildings

- exemplary refurbishment of public edifices
- information, advisory and monitoring
- implementation of sustainable energy standards
- financial support of energetic refurbishment measures



... using renewable energies and more efficient heating systems

- installation of renewable energy systems like solar heat, heat pumps  
biomass or biogas heatings when possible and reasonable
- extension of the district heating network



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## Sectors of emission to tackle the climate protection aims

### Electricity

Emissions caused by electronic devices, room illumination and streetlights.



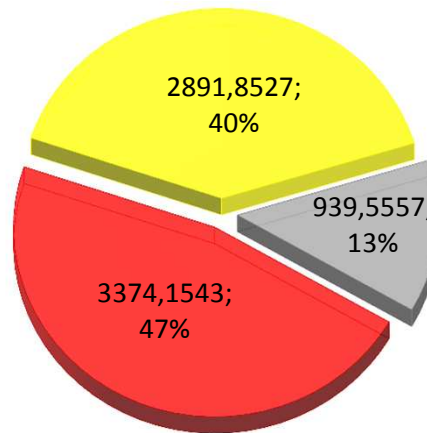
### Heat

Emissions which arise for comfortable living connected with space heating and hot water at home.



### Transport

Emissions which are produced „on the road“: motorised private transport and public transportation.



Carbon dioxide footprint  
(in t CO<sub>2</sub> / a)

### Consumption & nutrition

Emissions depend on the individual consumer behaviour and eating habits

→ difficult to survey and not included in the CO<sub>2</sub>-balance.



To tackle the different sectors a diversified catalogue has been developed.

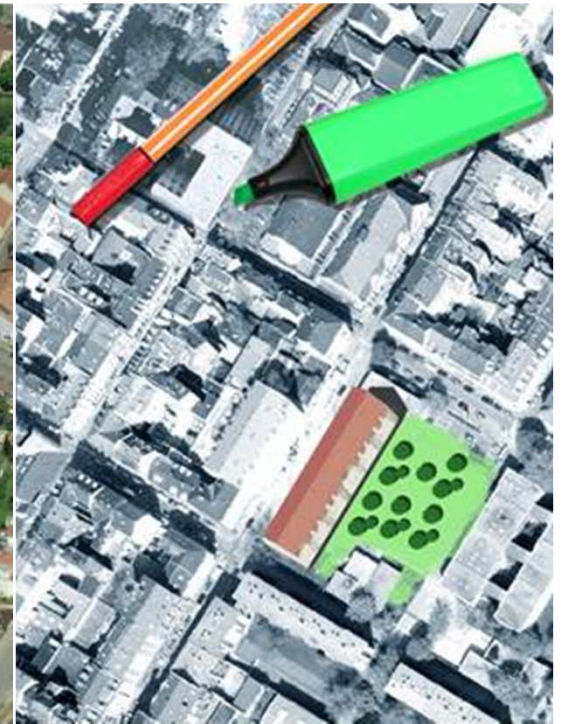


STADT MANNHEIM<sup>2</sup>

Energetische Stadtsanierung  
Integriertes Quartierskonzept Käfertal-Zentrum  
PN 432 – Programmteil A

MANNHEIM AUF  
KLIMAKURS<sup>2</sup>  
*Käfertal legt los!*

Abschlussbericht, September 2013



Thank you for your kind attention!

STADT MANNHEIM<sup>2</sup>



# Urban refurbishing „Käfertal Zentrum“

## Goals and measures

### ► Most important refurbishing goals

- maintain and strengthen of local supply and retail sector
- Strengthen of the residential function, modernise of the building structure and re-ordering of land properties
- Gentrify the green and free spaces just as the overall appearance of the townscape and streetscape as well
- Barrier-free expansion of circulation areas and remedy of current traffic problems

### ► Measures (range)

- Development of the „Stempelpark“-area and establishment of closest providers (bakeries, corner shops, etc.)
- Upgrade and reparation of streets, especially „Mannheimer Straße“
- Intersection B38
- Refurbishment of public and private housing stock





# Funding programme „Energetic Urban Refurbishment“ KfW-Bank (programme no. 432)

▶ Funding goal:

Development and implementation of one of the **intergrated concepts for the urban quarters** for the increase of buildings and infrastructure energy efficiency (especially heat supply)

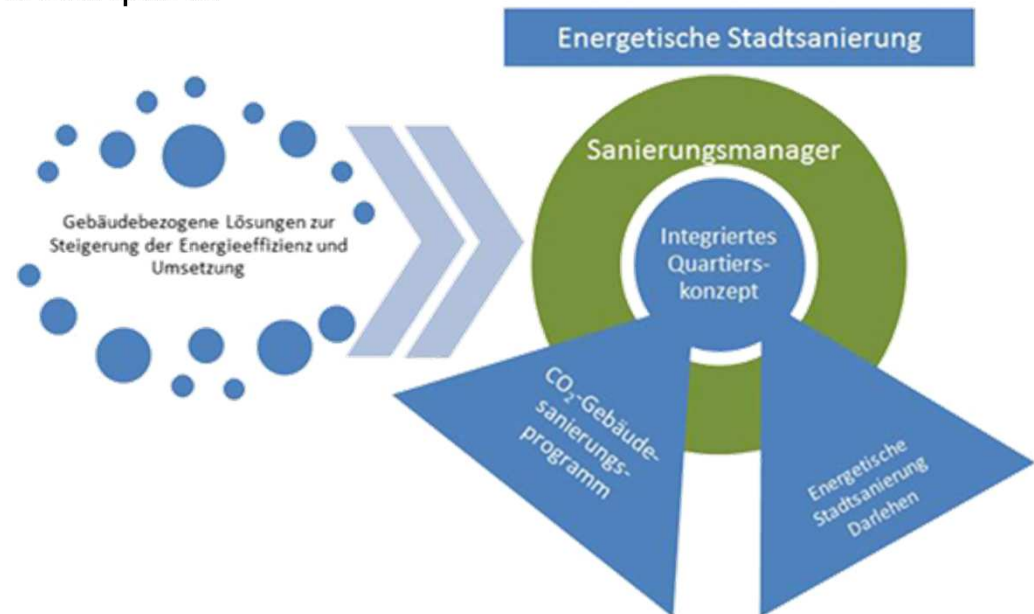
▶ Funding rate

the amount of grant is 65 % of eligible costs per urban quarter

▶ Conveyor modules:

module A:  
integrated concept for the urban quarter

module B:  
redevelopment manager



Förderkulisse Energetische Stadtsanierung (Quelle: BMVBS)