



# Berlin Adlershof – City of science, technology and media

Conference „URBAN Learning“ 17.10.2017

## Adlershof 1909 and 2017

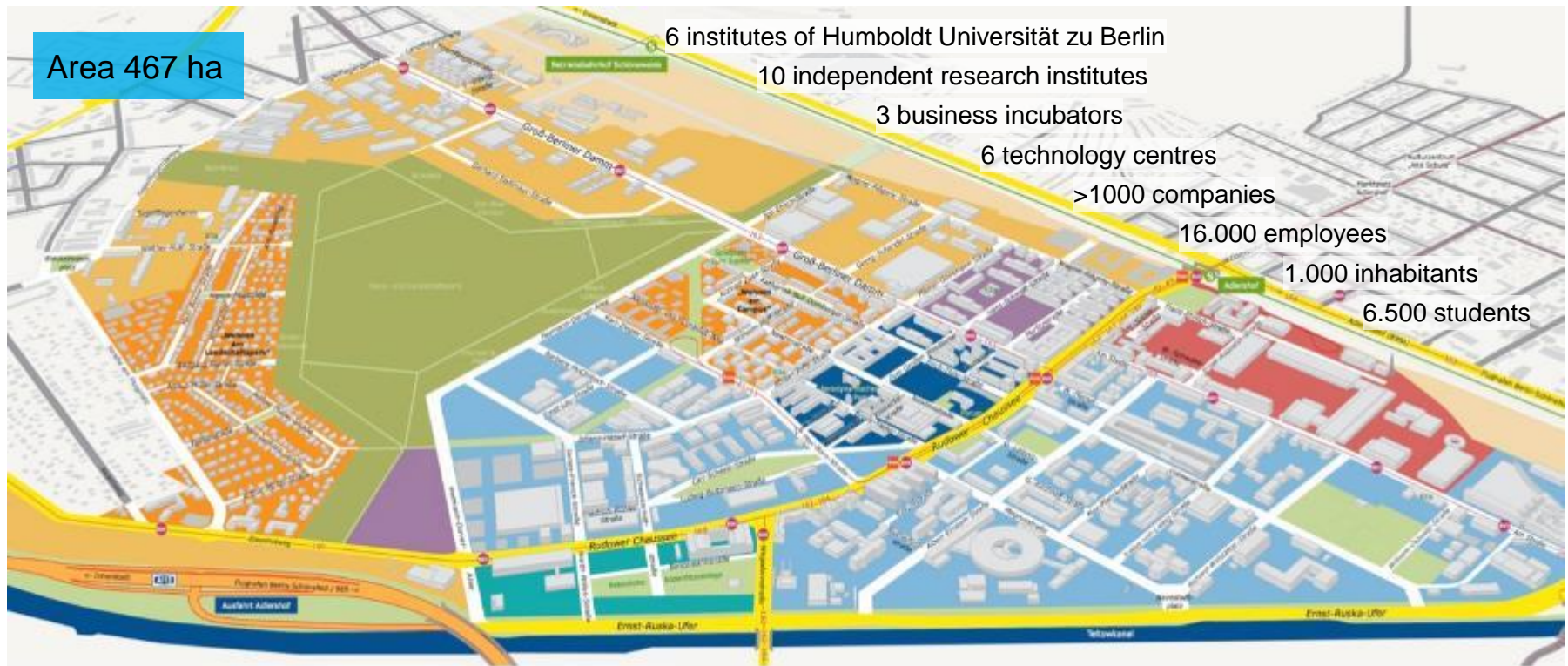


# Framework

1991	1994	1994	1997	2012	2013
Decision to build a STP in Adlershof.	Adlershof designated as development area.	Adlershof became Urban development zone.	First energy concept	Second energy concept	Start Realization of efficiency measures
Evaluation and establishment of non-university institutes.	Foundation of WISTA-MANAGEMENT GMBH	development plan	focus combined heat & power plant for site supply	focus scalable measures for energy efficiency.	cofinanced by BMWi
First start ups.		storm water management			
Decision to move the natural science institutes of Humboldt-Universität zu Berlin to Adlershof		green roof tops		Goal: -30% PE	
		PV Mobility (60/40)		cofinanced by BMWi	

# Adlershof

Germany`s most important site for science and technology











## Place of growth

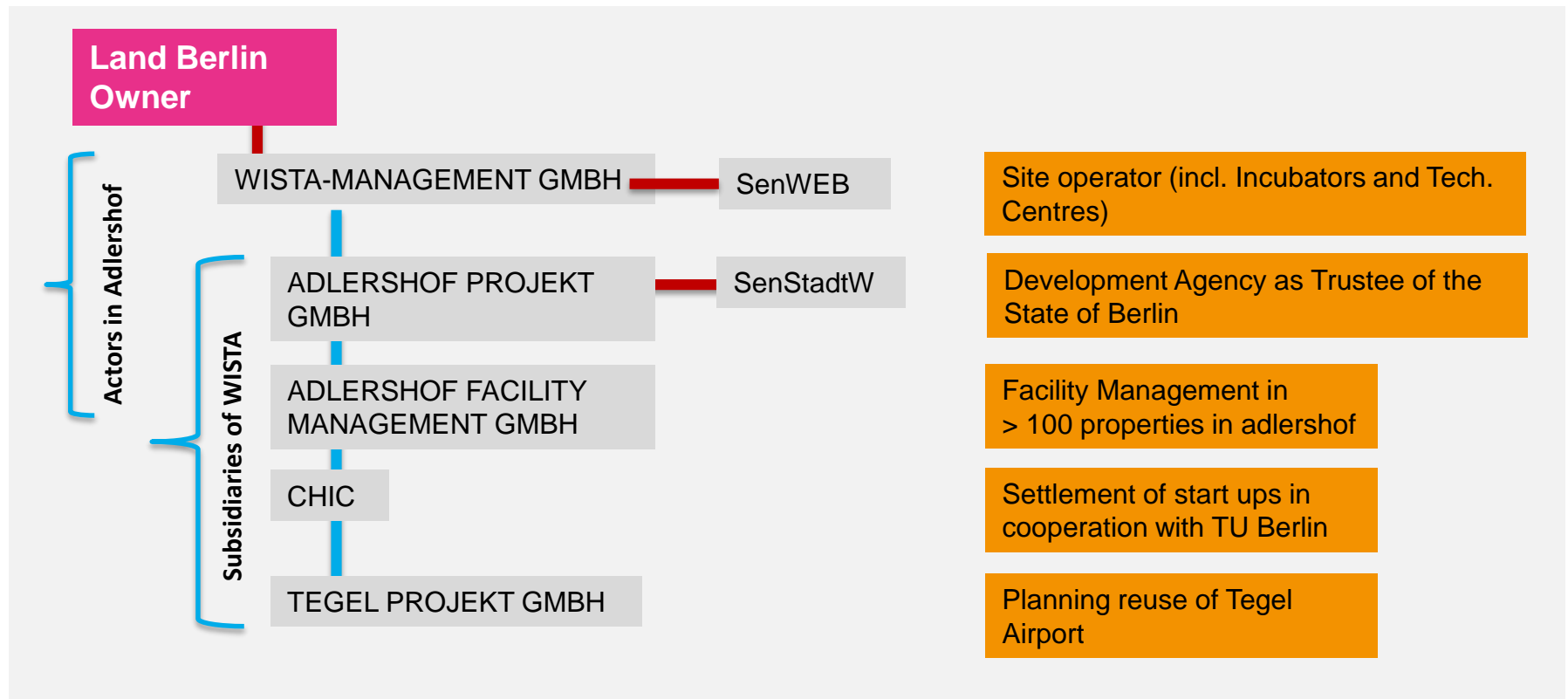
**Growth area** 132,6 ha

## Area division

- |  |                            |                           |
|--|----------------------------|---------------------------|
|    | Trust asset Berlin         | <b>55,4 ha</b>            |
|    | Short-term marketable      | <b>29,6 ha</b>            |
|    | WISTA-MANAGEMENT<br>GMBH   | <b>8,4 ha</b>             |
|    | Private area<br>Gleislinse | <b>68,8 ha</b><br>30,1 ha |
|  | Urban dvelopment area      |                           |
|  | Gleislinse                 |                           |



## Actors and roles



## Activities for efficiency

WISTA: coordination of activities, creating Showcases for energy efficiency, consulting, cooperation

AP: urban planning,  
infrastructural prerequisites  
for energy efficiency

AFM  
maintenance of properties  
in Adlershof, realization of  
EE-measures



# Sustainability I

<https://www.adlershof.de/wista-management-gmbh/strategische-projekte/energiestrategie/energieprojekte-adlershof/>

Supported by:



on the basis of a decision  
by the German Bundestag

## Energy projects Adlershof 2016



Lighting efficiency



D-A-CH-cooperation



Energy Manager



Low temperature heat grid  
„Wohnen am Campus“ BTB



Stakeholder communication



P2X@Adlershof



Preliminary infrastructure  
planning



Energy grid Berlin-Adlershof.  
TU, SAG, HTW



## Sustainability II

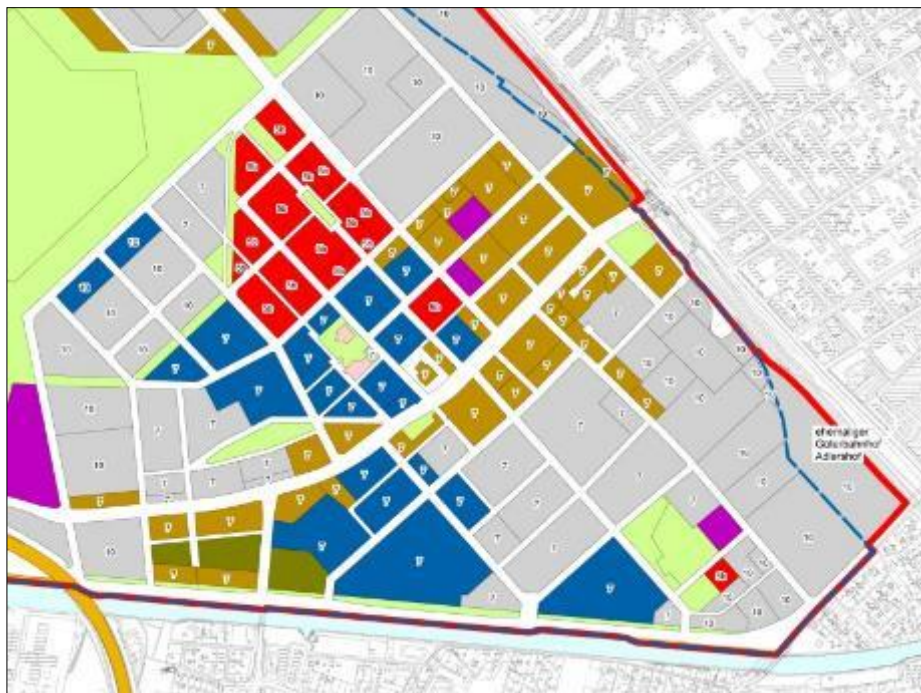
Residential project „Wohnen am Campus“.

- area currently 14 ha
- 17 different property Developers

Competence cluster  
„Energy Adlershof“  
approx. 60 companies  
and institutes



## Settlement typologies 2012



### Siedlungstypen

- 2 Einfamilienhäuser- und Doppelhäusersiedlung
- 5b Zeilenbebauung mit kleinen und größeren Mehrfamilienhäusern
- 7 Blockbebauung mittlerer Dichte
- 10 Produktionsgebäude mit Büro- und Sozialteil

### Nutzungsgruppen (mit Bezeichnung gemäß Bauwerkszuordnungskatalog)

-  Gewerbe
-  Forschung und Universität
-  Wohnen
-  Dienstleistungen, Büro und Handel
-  Soziale Infrastruktur
-  Anlagen technische Infrastruktur

## 2015: Pre-planning all media infrastructure

Estimation of necessary energy infrastructure (Gas, district heating, power)

- open for all technologies
- economic assessment of different variants
- Cooperation with suppliers and grid operators
- Goal: reduce planning & building expense, information instrument for supplier and investors



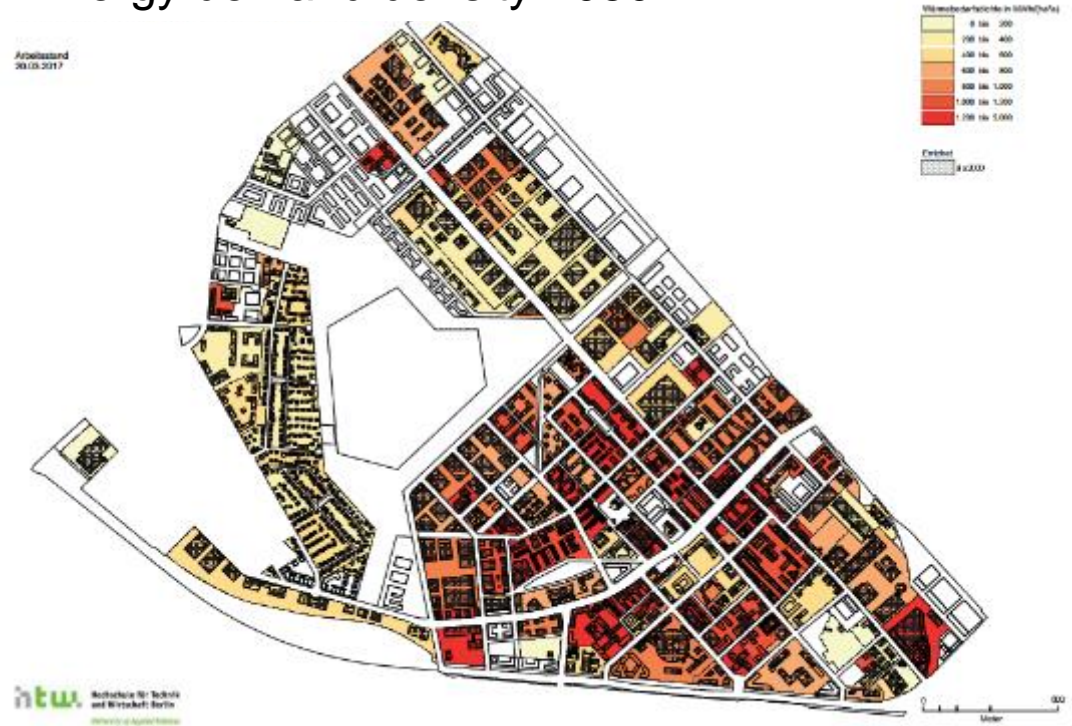


## 2016: energy zoning plans

plans of energy use and energy supply  
(& potentials)

- Goal: consultation & steering instrument for settlement of companies
- Different scenarios for site development
- Results: maps of heat demand density, power demand density ...

### Energy demand density 2030







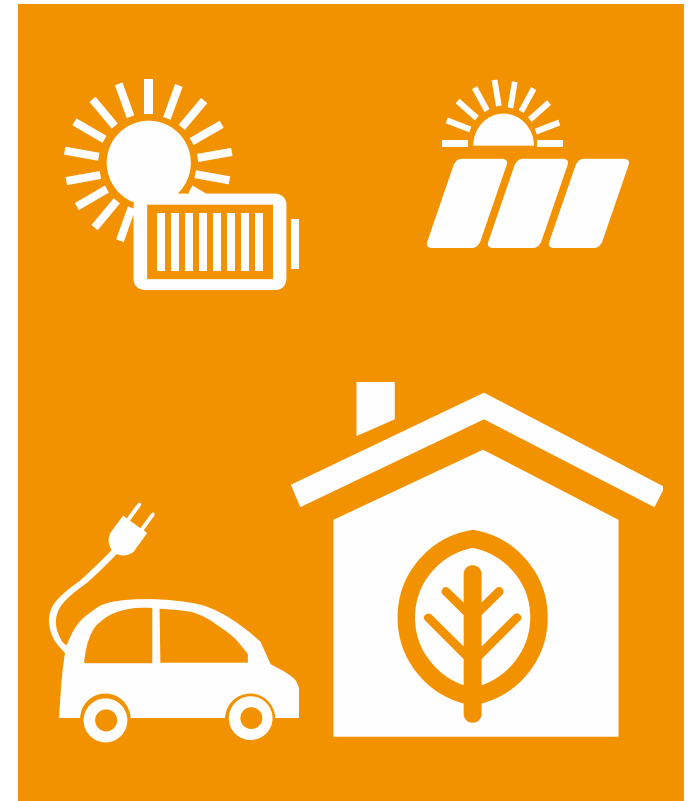
# Perspectives

## Projects

- 2017 Start „Heat optimization in technology buildings“ (WISTA)
- 2017 Start „Flexnet4Mobility“ (BTB)
- 2018 in preparation project „Combifuel“
- 2018 D-A-CH-Meeting „energy planning instruments“

## Area development

- Since 2016 Gleislinse
- Since 2016 Kohlebahnhof
- FUBIC



**Thank you!**

Dr. Beate Mekiffer & Simon Hamperl &  
Frank Lauterbach

WISTA-MANAGEMENT GMBH



# Street lighting

## digital, connected and multifunctional



- Every lamp is connected through the **M2M network** of Deutsche Telekom (BSI\*-certified).
- **Light control** via Browser and App
- **Local distribution** of selected media via WIFI for mobile devices
- **Location based information & services** (beacon functionality)
- **Anonymous detection of traffic flow** in real time with **local processing**



# Challenges

- Varying framework conditions
- Adjustment screws for efficiency in STP are diverse
- To collect reliable data is a challenge
- Rezoning of use in some parts of the site
- Conflict of interest: needs of acquisition of settlements vs. Goals of efficiency

## Needs for success

- Long-term strategy for site development
- Close steering by senate administrations
- Existence of a site operator
- Funding programs
- Direct access to properties & buildings (WISTA)
- Network of technology companies, energy supplier, institutes and site operator
- Coordination of activities for energy efficiency